

Report of the Fifth Commonwealth Medical Conference

New Zealand, 1977

Volume Two



Commonwealth Secretariat

Report of the Fifth Commonwealth Medical Conference

Wellington, New Zealand
15–25 November 1977

Volume Two

Commonwealth Secretariat
Marlborough House
London

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Published by
The Commonwealth Secretariat

May be purchased from
Commonwealth Secretariat Publications
Marlborough House
London SW1Y 5HX

ISBN 085092 144 9

Printed for the Commonwealth Secretariat by
Hobbs the Printers of Southampton

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FIFTH COMMONWEALTH MEDICAL CONFERENCE

New Zealand, November 1977

PROVISIONAL AGENDA

THEME COMMUNITY HEALTH

ITEM

- I REVIEW OF ACTION TAKEN FOLLOWING THE
FOURTH COMMONWEALTH MEDICAL CONFERENCE
- II COMMUNITY PARTICIPATION
- III FOOD AND NUTRITION
- IV THE ROLE OF HEALTH MINISTRIES
AND MEDICAL SCHOOLS
- V CHANGING HEALTH CARE DELIVERY SYSTEMS

ANNOTATIONS

Attached are annotations to the Provisional Agenda, the object of which is to indicate the proposed scope of the discussions under each item and to guide Governments in the preparation of their papers.

Commonwealth Secretariat
London

FIFTH COMMONWEALTH MEDICAL CONFERENCE

New Zealand, November 1977

ANNOTATIONS TO PROVISIONAL AGENDA

The theme and topics proposed for the Conference have been chosen as a result of consultations with Commonwealth Governments from 1975 onwards, both at the Pre-WHA Meetings in Geneva and at liaison meetings in London. The annotations given below incorporate views expressed during those consultations, as approved by the Preparatory Meeting in Geneva in May 1977.

The Commonwealth Secretariat will prepare papers on all the items of the Provisional Agenda. These papers will take into account regional discussions in which the Medical Adviser has taken part.

Commonwealth Governments have already been invited to contribute papers on Items II, III, IV and V; contributions on Item I will also be welcome.

THEME COMMUNITY HEALTH

There is no question about the increasing emphasis that is being placed in most countries on community orientation of their health programmes. The choice of Community Health as the theme of the Conference should focus attention on national resources for community health development including:

- (a) the community itself
- (b) food and nutrition policies
- (c) teaching and service institutions
- (d) the operational framework most appropriate for the effective implementation of national health policies.

AGENDA

I REVIEW OF ACTION TAKEN FOLLOWING THE FOURTH COMMONWEALTH MEDICAL CONFERENCE

Papers incorporating replies from member Governments to the questionnaire circulated by the Commonwealth Secretariat and reporting on action taken by the Secretariat itself will be submitted to the Conference. The reports of three studies by consultants — on brain drain, on drug procurement and quality control, and on the maintenance and repair of medical equipment — and a report on abortion law and practice in member countries will also be submitted.

This item could with advantage be taken in plenary, thus providing an opportunity for ministerial speeches at an early stage. Because of the addition of the consultants' reports the item is likely to give rise to more extensive debate than at previous Conferences, and the Conference may therefore decide to entrust a committee with a thorough examination of issues raised in the studies.

II COMMUNITY PARTICIPATION

It is recognised that a high level of community participation is essential for the effective delivery of health care. In planning for such participation, Governments and other health agencies need to consider a number of factors. Techniques for community education and motivation, the roles of special groups and national health policies are important examples.

(a) *Education and motivation*

What are the basic requirements for involving local people in the improvement of community health? What educational methods should be adopted and at what levels? What are the strategies for motivating communities towards sustained participation in the health field? What has been the experience with health education programmes involving the community? In what aspects of health development are local people most likely to be interested and in what aspects can they make a special contribution? Are there programmes for training health educators, school teachers and similar groups? How essential is the health education specialist to the programme of health education and what is his or her role?

(b) *Special groups*

How far is education and motivation being undertaken by local organisations? What is the particular contribution that can be made through special community groups – women's groups, youth clubs? Where there are private organisations, local or international, that are concerned with community service, to what extent have they been encouraged to take part in community health activities? In what aspects of health development are such groups likely to be most interested and in what aspects can they make their most useful contribution? Is there a positive policy for health education in schools? What steps are being taken to incorporate traditional medical workers into the national system of health care delivery?

(c) *National health programmes*

What are the roles planned for community participation in national health plans and programmes? How do Ministries of Health ensure that community participation is obtained? How far are government institutions used to promote community involvement? What is the national policy on family planning and related matters and what steps are taken to involve the community?

III

FOOD AND NUTRITION

The availability of food and its nutritional value are clearly important determinants of a community's health. A wide range of factors relate to them:

(a) *National policy*

Is there a well formulated government policy on nutrition? In what way is such a policy implemented? Is there a national organisation which supervises its implementation? What is the role of the Ministry of Health in this connection? What steps are being taken to encourage the production of more food, and of foods of high nutritional value?

(b) *Local conditions*

What is the state of nutrition in the country, particularly among children? What surveys have been made? What is the position with regard to breast feeding, weaning foods, school meals etc? What is the relationship between the types of food generally produced and consumed and their nutritional value?

(c) *Special considerations*

How far can the consumption of foods of high nutritional value be encouraged by education (and particularly health education) policies? What problems (e.g. communications, marketing) are encountered in the production of foods of good nutritional value and how can these be overcome? What assistance is needed and available for food and nutrition programmes?

IV

THE ROLE OF HEALTH MINISTRIES AND MEDICAL SCHOOLS

Ministries of Health and medical schools play a central role in national health programmes. It is surprising how slender are the links between them in many countries and how little co-ordination of their activities has been achieved in support of national health objectives. It is logical that there should be close collaboration between them.

How can this be achieved? Do medical schools function adequately as instruments of national health development, apart from the training of doctors? Are the training programmes for medical and other health professionals appropriate to meet the qualitative and quantitative needs of their communities? Do their graduates perform adequately in the national health system?

Is there recognised machinery for effective co-operation between the medical school and the Ministry? Do Health Ministries involve medical schools sufficiently in the planning and implementation of their health programmes? What provision is made to enable medical schools to participate directly in the national system of health care delivery? What measures would be appropriate to achieve these objectives?

V

CHANGING HEALTH CARE DELIVERY SYSTEMS

Complex systems of health care designed for the richer and more urbanised western countries cannot be expected to meet fully the health targets of the developing world, or targets for remote and needy areas in developed countries. These require new and innovative approaches and experimentation based on locally defined needs. Such approaches may include revising administrative procedures, ensuring that manpower training programmes are effective and related to national objectives, introducing innovations in the training and use of health personnel, strengthening health planning capacity and mobilising political and community support for agreed health programmes. A check-list of the main considerations to be taken into account would include the following:

(a) Health manpower training policies

Is there a health manpower training programme and does it provide for an appropriate mix of health professionals? Is their training relevant to national needs? Are their roles consistent with national objectives? What steps are taken to ensure national self-reliance in manpower training and health care delivery? Are there realistic attempts to identify new and non-traditional roles for health personnel?

(b) Planning and administration

How adequate are the national health planning and executive capacities? What measures need to be taken to strengthen them? Is there a national health plan with defined objectives? Are there effective means of monitoring progress towards these objectives? Is the national system of health administration the most appropriate for meeting the country's health targets? What revisions would be appropriate?

(c) National support

What is the position of health in the Government's overall development plans? How far has it been possible to secure political commitment at the highest level for national health programmes? What methods have been used to mobilise popular support for these policies and how effective have such methods proved?

The Conference may wish to consider what national, regional, inter-regional and Commonwealth-wide initiatives are possible for improving health care delivery systems, and how the Commonwealth Secretariate might contribute to these initiatives.

The use of traditional systems in health care delivery, the use of health workers other than doctors, and inter-regional co-operation in health manpower training might be taken into account in the context of this item.

Introduction to Background Papers prepared by the Government of Canada

In order to understand any analysis of health services in Canada, it is important to understand the constitutional arrangements and respective roles played by each level of government in the country.

2. Provinces have the responsibility for the provision of health care services for most of the civilian population, with the exception of Indians and Inuits and all residents of the Yukon and Northwest Territories. The responsibility for health sciences education and for the regulation of the health professions has also been acknowledged to lie with the provinces.

3. Nevertheless, through its financial arrangements with the provinces, the Federal Government has influenced the development of the health services in Canada. In 1948 the Federal Government initiated a series of grants which enabled it to assist the provinces in the fields of hospital construction, training of health professionals, public health research, general public health programmes, and programmes for the control of specific diseases. These grants paved the way for the introduction throughout Canada of basically uniform programmes of insurance against the costs of hospital and medical care. The Hospitals Insurance and Diagnostic Services Act (1957) and the Medical Care Act (1966) enabled the Federal Government to pay the provinces half the costs of insurance programmes on condition that they met the criteria of public administration, universality, comprehensiveness and portability from one province to another.

4. Recently a new financing arrangement was negotiated between the provinces and the Federal Government which will give the provinces greater flexibility to organise and finance their health services according to their own particular circumstances, being required to meet only the very general programme conditions outlined above.

5. This new financing arrangement, known as “Established Programs Financing”, became effective 1 April 1977. Under that arrangement there will continue to be a substantial per capita cash contribution made by the Federal Government. In addition, about one half of the federal contribution will be made as a tax transfer. These new financing arrangements also include a federal cash contribution specifically designed to enable provinces to develop alternative forms of health care such as home care and various types of residential care other than hospital care.

6. As well as providing financial assistance for these health insurance programmes, the Federal Government provides grants for research and demonstration projects and the development of training facilities, health promotion and fitness programmes, consultative services, and support for national voluntary health agencies.

7. Finally, the Federal Government plays a major role in health protection, with activities relating to food and drug standards, environmental health and non-medical use of drugs.

8. As noted earlier, the primary responsibility for planning, financing and delivering health services rests with the provinces. The structure varies greatly from province to province – from a single ministry of health to a number of separate commissions.

9. Provincial Governments usually delegate responsibility for specific health services to individual agencies (including municipalities) and health professionals. However, most provinces have retained direct responsibility for some services. Examples: psychiatric hospitals, public health laboratories, chest clinics. With virtually all financing for hospitals and medical care now flowing through provincial ministries, decision-making has become increasingly centralised. The powers of local government bodies tend to vary widely from one municipality to another. Their responsibilities are often limited to public health (i.e. mainly health protection and prevention).

October 1977

REVIEW OF ACTION TAKEN FOLLOWING THE FOURTH COMMONWEALTH MEDICAL CONFERENCE

Action by Governments

Paper prepared by the Commonwealth Secretariat from replies to the questionnaire sent to Governments in October 1975, supplemented by information given orally at the 1976 Pre-WHA Meeting in Geneva

DELIVERY OF HEALTH SERVICES IN RURAL AREAS

Planning the rural delivery system in the context of the national health plan, and providing sufficient centres and sub-centres to give national health coverage

Governments are devoting increasing attention to the expansion of basic health facilities in rural areas, and the majority of countries report further progress in this respect.

2. Rural health is being given top priority in *Nigeria*. Mobile clinics will bring doctors to serve the villages; at the next level will be the static clinic, then the health centre and then the rural hospital. The aim is to make health care available to 60 per cent of the population within 6 km. of their homes by 1980. The current development plan of *Sierra Leone* envisages a network of rural health centres with satellite health posts. A new type of health centre, with a strong maternal and child health care component, is being provided. Eight of these are to be completed, and 14 existing centres up-graded, by 1979; the work will subsequently be continued until all 147 chiefdoms are served.

3. In *Zambia* there are at present 608 health centres and it is planned to construct 500 more in the next decade. Under Zambia's decentralisation policy, the planning of health centres and sub-centres is the responsibility of the provincial administration, the central government providing qualified personnel, equipment and drugs. The aim of the *Tanzania* Government is to have one small 100-bed hospital for each district. This will supervise rural health centres, below which will be rural dispensaries and village health units. The target is 25 new health centres and 100 new rural dispensaries each year. It is hoped to have 1780 dispensaries, one for every 9,000 people, and a maternal and child health clinic in each dispensary. At village level, services are to be provided by local first-aid workers.

4. *Lesotho's* 88 rural health centres are being built or up-graded to make possible full delivery of both preventive and curative services. It is proposed to staff them with nurses who have been trained in extra skills as "nurse practitioners" or "physician extenders". Visits from district centres to rural centres are undertaken. In *Botswana* eight health centres, 50 clinics and 200 health posts have been constructed. The provision of sufficient centres and sub-centres in *Malawi* is proceeding in defined phases under the national plan, the standard of rural health services is being improved in each district, and mobile services are being increased. The plan provides for health posts serving 2,000 people, sub-centres serving 5,000, and health centres, with a doctor in charge, serving 15,000. A referral system is operated to hospitals above this level. Health projects have been included as components of four large agricultural development schemes in Malawi. In *Uganda* district hospitals serve administrative districts with a population of 100,000, and are being established where there were formerly only health centres. Particular emphasis is being placed on maternal and child health care services.

5. *Malaysia* is converting its present system of health care delivery to a two-tier system in which there will be a health centre and three or four rural clinics, under the administrative charge of one professional team, serving a population of 15,000–20,000. Fifty-three existing sub-centres are to be converted to health centres by 1980 and existing midwife clinics will be converted to rural

clinics, each providing services for 4,000–6,000 people. Until the remoter areas are adequately covered, they will be served by 50 mobile teams, each led by a medical officer. Team work is regarded an important element in *Ghana*, where basic health services, delivered through health posts and health centres, provide for the needs of 70 per cent of the population.

6. In some of the smaller island countries, such as *Malta*, rural health services do not present a particular problem, although planning takes into account relatively out-of-the-way areas. *Tonga* at present has seven rural dispensaries, four of them with small in-patient wards of 6–12 beds. The current development plan provides for five more dispensaries and four more in-patient wards by 1980. Each dispensary is to be staffed by a doctor or medical assistant and one nurse, and will be provided with transport. In the *Bahamas* a formal health plan has not been elaborated but almost all existing health centres and sub-centres are now fully staffed with doctors, community nurses and other public health staff. An additional health centre has recently been completed in *Barbados* and a further centre is planned. In *Fiji* a helicopter flying doctor service is being developed.

7. The dispensaries in rural areas of *Mauritius* are now fully integrated with the hospitals and manned by full-time staff attached to the hospitals. Visits by senior specialists and consultants to rural areas are combined with a day-bed service and relieve the pressure on hospitals. The object is to bring medicine to the people, rather than the people to medicine. The current five-year plan provides for 50 health centres which will offer comprehensive health care. Mobile dental units have been dispensed with: as 18 dentists are now employed, it has become practicable to establish static posts. In *Cyprus*, which faces special problems, two new health centres are to be opened in rural areas to serve the needs of displaced people, and a new type of health centre is to be introduced between the hospital and the primary centre. This will be manned by two doctors and a paediatrician and will make possible a 24-hour service for local people. Specialists visit rural centres, laboratory services are being improved, and a school medical service is planned, to improve health care facilities for children in rural areas.

8. Funds from the World Bank and the Inter-American Development Bank have been provided for the improvement of 38 health centres, the construction of four maternity units and the establishment of community health training schools in *Trinidad and Tobago*. The number of health centres in the rural areas will be adequate by 1978, and the facilities and the quality of care and service rendered by health teams are being improved. A 24-hour accident and emergency service is being provided at selected health centres and also at district hospitals, where the in-patient service is also being improved, and a community mental health programme has been developed to provide mental health care for all sections of the community. In *Jamaica*, another country where primary health care is receiving particular attention, a special task force has assessed the number of centres and sub-centres required to service the whole island, and full details of additional buildings and personnel required have been worked out.

9. Eighty per cent of *India's* large population live in villages, and community health is receiving the highest priority. The Government is evolving a new system based on people's minimum needs, and is providing integrated health care, both curative and preventive. The country has been divided into some 5,000 blocks, each with about 80,000 people. Each block is to have a primary health centre with a doctor, and 6–8 multi-purpose rural centres each serving 5,000–10,000 people. Above the primary level will be the rural hospital and then other hospitals. In *Bangladesh* each of the 356 rural thanas (sub-districts) is being provided with a small hospital with about 30 beds, and 152 rural health centres and 144 sub-centres have been completed. Some 12,000 people have been employed on malaria eradication and smallpox vaccination and a further 20,000 are engaged in family planning services. Their work is supervised by medical assistants, who receive two years' institutional training and one year's field training. In *Sri Lanka* maternity homes are being more fully utilised to provide treatment for women and children, and where space is available male patients are also being treated, without additional staff being involved.

10. Two new health centres have been built in rural areas of *New Zealand* since 1974. In *Britain*, where the national health service provides comprehensive health care coverage, a special medical service exists to cover the remote highlands and islands of Scotland. The Government of *Australia*

is advised on national health care priorities by a Hospitals and Health Services Commission, which places particular emphasis on the development of community-based service and the sponsoring of rural health services. Financial assistance to State Governments and the Northern Territory for the expansion of Aboriginal health programmes has been doubled since 1973/74. A shortage of trained manpower is reported, however, and a need for training to reorientate professional and managerial personnel towards a health care delivery system and social conditions vastly different from those in which they were originally trained.

Integrating the rural health delivery system into the overall rural development programme

11. Most countries are adopting a co-ordinated approach to the improvement of conditions in rural areas, with health care as an integral part of development programmes. In *Malaysia*, for example, activities of the Ministry of Health are co-ordinated with the ministries responsible for agriculture, education, information and youth, in connection with the applied nutrition programme, the school health programme, and environmental health. The improvement of rural health in *Cyprus* is promoted as part of the general development of rural areas. The plan to establish 50 rural health centres in *Mauritius* forms part of the rural development programme being implemented under the aegis of the Ministry of Economic Planning and Development.

12. *Sierra Leone* has established community development committees, both at ministerial and official level, on which all ministries concerned with rural development programmes are represented. At local level community development officers work in close association with the health team, local government bodies and the private sector. Both Government and Party in *Zambia* are at present engaged in rural reconstruction, in which health activities form an important part of development projects. Under *Botswana's* accelerated rural development programme, clinics, health posts, schools, roads, boreholes and staff housing are constructed as parts of an integrated scheme.

13. The inclusion of a health component in *Malawi's* national rural development plan is now established policy, particularly where agricultural projects are concerned, and the health inspectorate's programme of well protection and improved sanitation in villages is being further expanded. The malaria and smallpox eradication programmes in *Bangladesh* have been co-ordinated with the rural health delivery system and with other rural development projects. Where settlement schemes are undertaken in *Sri Lanka*, a dispensary is built as part of each complex.

14. In *Australia* regional health offices are being set up in some States as part of a wider programme of regionalisation which will assist the development of rural areas. The water and sewage authority in *Trinidad and Tobago* is represented on committees established within the Ministry of Health dealing with communicable diseases, environmental sanitation and pollution control, and inter-ministerial committees co-ordinate activities concerning nutrition and the care of pre-school children. Community health aides work in rural areas of *Jamaica* and dental nurses, with two years' training, are involved in the treatment of rural schoolchildren.

Standardising drugs and medical equipment used in rural health centres

15. In some member countries — *Bangladesh, Botswana, Grenada, Lesotho, Malawi* and *Malaysia* are examples — drugs and equipment used in rural health centres are already standardised. In others, such as *Sierra Leone*, the official standardised lists have become out-dated and need revision. UNICEF supplies to centres in Sierra Leone are based on a standard list, however, and this is to be used as the basis for a fresh official list. *Botswana* uses UNICEF equipment kits for clinics and health posts, and standardised equipment in most rural health units in *Malawi* is supplied by UNICEF. A standard list of drugs which may be prescribed by staff at health centres and sub-centres has been in use in Malawi for some years and a similar list for health posts has now been prepared. *Sri Lanka* has a standard list of drugs available for use by assistant medical practitioners. In *Malta* a hospital formulary and a single general practitioners' list ensure standardisation of drugs issued from government clinics, and standard equipment is being ordered in bulk for new health projects.

16. There remain a number of countries where standard lists for rural centres have yet to be introduced, but in most of them measures to bring about standardisation have already been initiated. The Ministry of Health of *Zambia* has a committee of experts for this purpose, whose purview also extends to hospitals. In *Trinidad and Tobago* the district medical formulary already in existence is being amended for use in all health centres. A national pharmacopeia for health centres has been prepared in *Jamaica* and is to be introduced shortly. In most countries some degree of standardisation is achieved through bulk purchase and distribution by the central medical store, which often makes up certain medicines and applications. Distribution of drugs to health centres in *Trinidad and Tobago*, at present done direct from the central medical store, is to be decentralised and four sub-stations to serve rural communities are planned.

17. In *Britain* registered medical practitioners are free to prescribe and use any drugs they consider necessary and standardisation is not considered possible. In *Australia* private medical practitioners working in rural health centres similarly determine their own drugs and equipment. Government health authorities in Australia develop their own standards of equipment and drugs, which are followed by the practitioners they employ. This approach is also followed in the delivery of health care to remote communities, particularly where the flying doctor services are involved. Standard kits are supplied to various groups and individuals who are in radio contact with these services.

Incentives to doctors to practise in rural areas, and to make rural practice more attractive to health personnel in general

18. Doctors in government service are posted to rural areas in some countries, such as *Zambia* and *Tonga*, in the normal course of duty, without any special incentives being offered. In the smaller countries, particularly in island countries, the problem often does not arise. Where special incentives are found necessary, these take a variety of forms. Special allowances are paid for service in rural areas in *Cyprus*; there are education allowances for children separated from their parents in *Sierra Leone*; free furnished accommodation and either a car or a mileage allowance for duty travel are provided in the outer islands of the *Bahamas*. A special rural allowance is proposed in *Lesotho* and living accommodation is being improved to bring it into line with urban standards. Such ways of overcoming rural isolation as bringing professional teaching to health centres, arranging visits to rural centres by senior departmental officers, academics and Ministers, and creating machinery to supply doctors in remote areas with a regular flow of up-to-date professional information, which were suggested at the Colombo Conference, were mentioned in few replies received, however.

19. In *Malaysia*, where quarters are provided for medical officers at health centres at a nominal rent, short-term rural postings for junior medical officers are generally regarded as part of the two-year compulsory service on first registration. These rural postings give medical officers priority when scholarships for postgraduate courses in public health at a local university or for MPH or MSc courses at universities abroad are awarded. Service in rural areas is also a qualification taken into consideration when a post of medical officer of health is being filled. Special allowances are paid to medical officers of health in respect of a postgraduate qualification in public health or of practical experience. Short courses and seminars are held for both professional and sub-professional staff, to encourage the right orientation and motivation.

20. In *Sri Lanka* rural service is given credit in the points system under which training appointments are given to medical officers and in the award of scholarships and fellowships. After their one-year internship, doctors in *Bangladesh* are sent to practise in rural areas for a minimum period of one year. Monetary incentives are being tried in *Jamaica*, but their effect is likely to be weakened by inflation. In *Trinidad and Tobago* it is hoped that the new well-equipped health centres and improved district hospitals will encourage service in rural areas. Those who choose this field are eligible for postgraduate scholarship awards in community medicine. More government quarters in rural areas are being constructed. Public health nurses are now eligible for government loans to purchase cars and for duty travelling allowances.

21. The Medical Association of *Malawi* has held weekend seminars, to which rural practitioners were specially invited, to discuss practice in rural areas, and in 1975 each district medical officer held a seminar for his auxiliary staff, with the purpose of fostering team spirit. The Malawi Minister of Health, accompanied by officials from his Ministry, has visited health centres to meet district doctors and health staff. Four senior medical officer posts for rural areas have been created and have been filled by promoting serving officers. Funds for better housing for staff at rural centres are being provided.

22. *New Zealand* has introduced a variety of incentives to encourage practice in rural areas. These include loans to local authorities who wish to provide doctors with housing and surgery accommodation, rural practice bonuses and higher-rate mileage allowances for doctors, assistance towards the employment of registered nursing staff, subsidy for the employment of a locum tenens, and grants to junior medical officers electing to take up rural practice. Rural service is counted as qualifying service for bursaries for postgraduate study, and postgraduate study leave (two weeks on full pay for each year of special area service) is given. Mileage allowances are paid for attending clinical meetings and study courses at base hospitals.

23. Similar incentives have been employed in *Australia* with varying degrees of success. Housing and surgery facilities have been made available at minimal cost, financial assistance is given for the education of children and for removal expenses, locum relief is paid, and taxation incentives are provided. Rural doctors are assisted to obtain higher qualifications and to attend postgraduate conferences and seminars and courses in Aboriginal languages. Subsidies are paid to supplement income and a minimum level of income is guaranteed. There are similar financial incentives for general practitioners to practise in certain areas of *Britain*, including sparsely-populated or otherwise unattractive rural areas. Payments are made from a rural practice fund to bring the remuneration of rural practitioners in line with that of other general medical practitioners, in view of the fact that the rural practitioner cannot take as many patients as his urban colleague.

Legal protection for health staff carrying out duties traditionally performed by doctors

24. No extension to health staff of legal protection against the consequences of malpractice is revealed in replies received, except perhaps in *Barbados* where the Para-medical Profession Act 1975 regulates the registration and practice of such personnel. In *Lesotho* the Dangerous Medicines Act already gives the Minister of Health power to allow certain categories of the health personnel to perform certain acts normally performed by qualified doctors. In *Zambia*, although no special legal protection is given, certain categories of staff are registered with the Zambia Medical Council. In *New Zealand* all staff automatically take out insurance to provide legal protection.

25. In practice, however, governments accept a measure of responsibility for the actions of their employees. A medical assistant in *Malawi* is authorised to perform a necessary operation as best he can when a doctor is not available, and he is protected against legal action so long as there is no proof of negligence. The Government of *Trinidad and Tobago* accepts liability for injury suffered by a patient while under treatment and *Jamaica* accepts a similar responsibility.

26. Under existing legislation in *Cyprus*, health staff cannot carry out duties traditionally performed by doctors, and in *Australia* there is no move towards the transfer of any such duties to staff who are not medically qualified. In *Britain*, however, the possibility of transferring to para-medical staff some work traditionally performed by doctors, and the consequent need for legal protection, are under consideration.

Training in health care management and administration

27. The only training courses in management and administration specially designed for senior professional staff which have been mounted in a developing member country so far appear to be the West African regional courses held in Ghana in 1975 and 1976, mentioned in the reply of Sierra Leone and referred to in more detail in the report on action by the Commonwealth

Secretariat. Apart from such general courses in management as those held at the University of the West Indies and at the Institute of Management at the University of Botswana, Lesotho and Swaziland, staff have had to be sent to developed countries for training in this field. This is a further indication of the need to develop health management training in the developing countries themselves.

28. *Malaysia* sent two senior professional staff on a one-year health management course in Australia in 1975, which was part of a postgraduate training programme sponsored by WHO, and a senior staff member went on a two-month course in health planning in Manila. Four medical officers from *Mauritius* received training in health care management in 1975 and another in 1976. Several senior medical assistants from *Zambia* are receiving six months' training overseas in hospital administration, and a course for records officers in *Jamaica*, attended by trainees from Barbados and elsewhere, included a management element. A number of countries have sent personnel to Britain and elsewhere for training in hospital administration. Management has been part of the postgraduate training received overseas by medical administrators from *Malta*.

29. Some countries have arranged in-service training in management for medical and health staff. *Bangladesh* has such arrangements, *Sri Lanka* has held national orientation courses for hospital administrators with WHO support, and *Trinidad and Tobago* has a central training unit which offers in-service short management courses which are attended by medical professionals and allied health staff. A two-month course for serving medical record officers has also been held in Trinidad and Tobago. Short courses have been held at *Malaysia's* Public Health Institute to develop administrative and technical skills of staff carrying out national health projects. *Barbados* is planning to hold short workshops on various aspects of health management.

30. Health services administration in *Australia* is developing as a separate career grouping, and an increasing number of degree courses, primarily based on general administrative theory and practice but with particular emphasis through elective units on health services, provide the academic basis. Australia's State health and education authorities also operate training schemes in management for various grades of health staff, both centrally and in the field. *New Zealand* has introduced two further postgraduate qualifications: a diploma in health services evaluation and a diploma in health administration. The holding of a diploma in public health is a prerequisite for both courses; places may be available for students from other countries.

31. In *Britain* training in health care management and administration is included in the professional training of doctors and para-medical personnel, and post-entry management training is available. Short courses in national health service management are commissioned by local health authorities and by the Department of Health and Social Security. Most courses, for managers from supervisory level upwards, are provided at colleges of technology, polytechnics or special units at universities. Courses based on Britain's national health service are not generally considered suitable for personnel from other Commonwealth countries with dissimilar systems, but several training establishments make special provision for students from overseas.

Participation of voluntary workers and the community at large in the planning and establishment of the rural health delivery system

32. Although community participation is in general welcomed and encouraged, the replies received do not point to any dramatic developments but rather to progress on a modest scale.

33. In some cases participation is through the medium of multi-purpose committees at various levels. In *Botswana* the community is involved through district and village development committees, and through the participation of church missions in the establishment of rural health facilities. District action committees in *Malaysia*, of which medical officers of health are members, provide opportunities for community involvement, and the use of assistant district officers to co-ordinate community development projects is increasing. Village development committees are actively involved in health projects and campaigns to promote environmental sanitation, improved nutrition, school health and malaria eradication. Interest and co-operation is sought in *Sierra Leone* through Revolutionary Councils or Committees which include officials, chiefs, elders and

members of the public. In *Zambia* voluntary workers and the community are involved in the planning and establishment of the rural health delivery system through the Party organisation. Local communities in *India*, and especially village heads and other leading persons, are involved with the rural health centres. Local communities in *Malawi* participate in the planning of each new health project and the needs of each area are assessed in consultation with those living and working there. A community request for a new health sub-centre or a mobile clinic is discussed by the district development committee before being passed through the district medical officer to the Ministry of Health where it is considered in the context of the national health plan.

34. In *Australia* a special seminar was held in 1975 by the Hospitals and Health Services Commission to define the problems of rural health services and suggest solutions. Interested people from local areas were among those who took part and over 300 submissions were received in response to an advertisement in the national press. A discussion paper was subsequently distributed and comments on this were considered before a final report was prepared. Australia reports increasing recognition of the need for greater involvement of Aboriginal communities, both in remote areas and in the towns. In some places Aboriginal communities are establishing health care facilities with the aid of voluntary contributors and support from the Government.

35. Local committees specifically concerned with health needs have been set up in some member countries. Health committees have been selected by communities in *Lesotho* to advise the Minister of Health on local needs, and they have been encouraged to appoint unpaid health motivators. In *Britain* community health councils have been established in all health districts (both rural and urban). Appointed mainly by local government and local voluntary organisations, their members are unpaid and their role is to represent the interests and views of the public. These councils must be consulted on all local health service developments.

36. The replies to the questionnaire give a number of examples of community activities to improve health services, and of how these activities are encouraged. In *Tonga* local people have built maternal and child health clinics and in-patient wards, and there has also been community participation in connection with village water supplies and home improvements. Rural communities in *Cyprus* have been encouraged, through their local authorities, to provide land for rural health centres and consulting rooms for visiting doctors. In *Trinidad and Tobago* the participation of voluntary workers is encouraged through local committees, community centres and village councils; the assistance of community groups in *Bangladesh* and *Grenada* is enlisted through health education; and in *Jamaica* voluntary activities have been developed in certain hospitals. An interesting contribution is provided by voluntary groups in the *Bahamas*, who augment equipment at peripheral health posts ranging from fluroscopes to haemoglobinometers, and an active sickle cell committee aims to screen for AS and SS groups, with treatment and genetic counselling in view.

37. The work of voluntary agencies is referred to in several replies. *Malawi* reports excellent co-operation from such agencies, which are encouraged to assist with the establishment of services within the framework of the national health plan. Voluntary agencies are also utilised in *Bangladesh*. In *New Zealand* a special consultative group which includes members of all the major voluntary agencies and representatives of statutory agencies in the health field, has been set up to study and make recommendations on how the activities of these agencies can be co-ordinated. Voluntary agencies play an important part in the welfare of patients in *Britain* by complementing the work of paid staff in providing comfort and amenities. The Government makes grants to the headquarters of some national voluntary organisations and area health authorities make grants to organisations providing a service locally.

Research on the contribution of indigenous systems of medicine

38. There is little reported in this connection. In *Botswana* the university is engaged in research into indigenous medicine in collaboration with an American institute, and in *Australia* there has been some private research, largely through the universities. Interest is being shown by the Australian authorities in using some aspects of indigenous medicine and in enlisting the co-operation of traditional healers for the provision of better health services for Aboriginal communities in isolated rural areas.

39. Traditional birth attendants are widely used in many countries. In *Sierra Leone*, where they are estimated to deal with three-quarters of total deliveries, regular training courses, with incentives to encourage attendance, are organised for them to promote safe practice. The high incidence of tetanus neonatorum is thought to be the result of indigenous methods practised, however, and a tetanus immunisation programme is being carried out over a two-year period which began in January 1976.

IMPACT OF URBANISATION, INDUSTRIALISATION, MECHANISATION AND POLLUTION ON HEALTH PROBLEMS

Provision of piped potable domestic water supplies and safe excreta disposal

40. All replies received report progress with the extension of domestic water supplies and arrangements for sewage disposal, in some cases through major projects which have required considerable capital investment, in others through more modest improvements in towns and villages.

41. An additional 1¼ million people in urban areas of *Malaysia* were supplied with treated piped water during the period 1971/75, bringing urban coverage up to 87 per cent. Rural access to safe water was increased to 36 per cent, nearly half a million people having been covered. Some 62 per cent of the population now have safe excreta disposal facilities. *Grenada's* reply mentions two projects: the Annadale water supply system and the Grand Anse/Morne Rouge sewerage feasibility project, and in the *Bahamas* negotiations for an international loan to improve water supplies and sewerage are reported to be in their final stages. *Barbados* reports a further extension of domestic supplies; water is chlorinated and regularly examined for bacterial contamination, and a sewerage system for the capital is planned. Seven existing and three new projects for treated water supply systems in *Sierra Leone* are expected to reach completion by 1979, and the Guma Valley Water Company is increasing its delivery by constructing a new reservoir, treatment works and pipes. Five village water supply schemes and 20 local provincial water supply projects, labour for which is largely provided by local people, are also to be undertaken. The *Sierra Leone* Government plans to establish a National Water Resources Agency to co-ordinate the development of water resources.

42. Piped water supplies are being extended in towns, villages and rural areas of most countries reporting, and the introduction of pour flush water sealed latrines is on the increase. *Tonga*, where 60 per cent of the people now have access to safe piped water supplies, hopes that all villages will be supplied by 1980 and that the sewage disposal programme will by then cover 50 per cent of the population. *Mauritius*, *Cyprus*, *Zambia* and *Lesotho* are further examples of countries where similar progress is being made. In *Botswana* research is being conducted, with the assistance of Canadian funds, into an inexpensive and culturally acceptable method of excreta disposal.

43. A programme for the sinking of tube-wells in *Bangladesh* with the help of UNICEF, aims at one well for 200 persons; a sanitation project for the construction of latrines is also being undertaken. Most of the rural population of *Malawi* use pit latrines and get their water supplies from wells, boreholes, rivers or the lake; only about 150,000 people have piped water. Almost all the towns now have piped water and water-borne sanitation, however. Nearly 100,000 more people in *Jamaica* have had their houses connected with piped water supplies since 1974, and some 20,000 more with standpipes, and the number of people served by public sewerage has increased by 37,000. The vast majority of dwellings in *Malta* are now connected with public sewers.

44. In *Trinidad and Tobago*, where potential demand for piped water is estimated at 80 million gallons a day, 65 million gallons are currently being supplied and improvements being carried out will supply a further 7 million gallons. The piped supply is supplemented by truck-borne water in rural areas. The main towns have sewerage systems and the septic tank and soakaway system is used where no sewerage exists. In *Singapore* 91 per cent of dwellings, including all public flats, now have piped water and the remainder are supplied from standpipes and wells. Water catch-

ments are strategically located and measures are taken to prevent pollution from domestic, industrial and farm wastes. About 72 per cent of Singapore's population is now served with modern sanitation, and sewerage is being extended to urban renewal projects, public housing and industrial estates.

45. *Sri Lanka* is preparing, with WHO assistance, a national plan for safe water supplies and sanitary excreta disposal, and has had a scheme in operation for some years to encourage the construction of latrines in rural areas by the payment of subsidies. The amounts paid were increased in 1975 and families with pre-school children can obtain a free issue of a squatting plate and syphon for water-seal latrines. The Water Supply and Drainage Board, established under the Sri Lanka Ministry of Local Government in 1975, provides local authorities and other agencies with financial assistance for piped water supplies, sewerage and drainage. It also carries out investigations, prepares designs, constructs, and in some cases operates and maintains, water supply schemes. Eighteen major water supply schemes, eight surface drainage schemes and ten UNICEF schemes are under construction in Sri Lanka, all of them maintained by the Board.

46. The more developed member countries also report progress. In *Britain*, where sanitation facilities have been installed since the mid-nineteenth century, improvements are being continued, and *Australia* is further extending piped water supplies to peri-urban areas and improving the quality of water supplied, in some areas by fluoridation. Australia is also giving attention to the quality of sewage discharged into the sea, and its National Health and Medical Research Council is developing guidelines for the safe disposal of human excrement from trains, caravans and other vehicles. *New Zealand* reports that 84 per cent of its 3 million people are now provided with water from public supplies and over 93 per cent of its 822,500 dwellings now have piped water. The number of people supplied with water of unsatisfactory quality (mostly small communities) has been halved in the past five years. At the beginning of the century the mortality rate from typhoid in New Zealand was 400 a year; morbidity is now down to 10–40 reported cases annually. This improvement has been assisted by government subsidies to local authorities for the provision of water supplies and sewerage. Over half the population are now supplied with fluoridated water. Over 80 per cent are served by sewerage systems and most of the remainder live in houses served by septic tanks, which are now being discouraged because of the danger of polluting subsoil water. There are water closets in 97 per cent of all dwellings in New Zealand.

Measures to deal with the health problems of shanty towns

47. Low-cost housing projects — countries providing examples include *Grenada*, *Barbados*, *Lesotho* and *Mauritius* — and the prevention of uncontrolled housing development (*Sierra Leone*, *Tonga*) are the main ways adopted to deal with the shanty town problem. In *Botswana* improved traditional housing constructed of local materials is now accepted in towns as a means of avoiding the growth of shanty towns. In *Zambia*, where shanty towns exist health conditions are being improved by the provision of potable water supplies and latrines. Health problems in refugee camps in *Cyprus* have been mitigated by the provision of water and waste disposal arrangements.

48. In *Jamaica* housing programmes are the responsibility of the Ministry of Health and Environmental Control. *New Zealand* has prevented the development of shanty towns by strict application of building and planning legislation. In *Malawi* the problem is tackled by strict local authority supervision, by demarcation of rentable plots with minimum building standards and by provision of basic facilities such as water supplies and roads. *Australia* concentrates on the provision of alternative accommodation, better environmental hygiene and personal health services. Similarly in *Trinidad and Tobago*: where shacks have been demolished low-cost housing has been constructed to accommodate those displaced. Slum clearance is also being undertaken in *Sri Lanka* and living conditions are being improved by the installation of sanitary facilities, standpipe water supplies and electricity. Besides providing low-cost housing, the Sri Lanka authorities are offering more facilities for house-building by people themselves and through co-operatives.

49. *Singapore* has for some years been engaged on a massive building programme, through its Housing and Development Board and Urban Redevelopment Board, to overcome the overcrowded and insanitary conditions resulting from previous unplanned development. Some 211,000 housing units (flats) have been constructed to house over a million people, 50 per cent of the population. By 1980 the total is expected to have risen to 370,000 units housing 70 per cent of the estimated population. The units are provided with electricity, piped water, modern sanitation and refuse disposal arrangements. Rentals are kept low to help the lower income groups, and if people wish to purchase their flats they can use their Central Provident Fund contributions for this purpose.

Safeguarding the environment against pollution

50. A number of countries have taken special action to safeguard the environment. *Malaysia* has established an Environmental Health and Engineering Unit with the assistance of a WHO consultant and the responsibilities of the Ministry of Housing and Environment include specific requirements under the Environment Quality Act 1974. The establishment of an Industrial Health Unit is being contemplated in *Sierra Leone*. In *Mauritius*, a section has been set up in the Ministry of Agriculture to deal with environmental matters, and industrial estates are planned with proper regard to infrastructure, including waste disposal, in consultation with UN agencies. New environmental health legislation is being drafted in the *Bahamas* and a working group is studying a chemical spill contingency plan. In *Cyprus* and *Barbados* advice on the prevention of pollution is obtained during the planning stage of development projects. The UN Environmental Programme has been consulted by *Zambia* on the environmental aspects of development projects, and it is involved in the Sashe copper/nickel mining complex in *Botswana*. Botswana has legislation to prevent air pollution and has appointed an air pollution officer. *Bangladesh* has an Environmental Pollution Control Board, which maintain liaison with national and international bodies. There is legislation in *Malta* for the control of air and marine pollution and pollution from refuse and sewage.

51. In *Trinidad and Tobago* a National Environmental Sanitation Committee and a Pollution Control Council have been formed. A seminar sponsored by the Council and the country's Management Development Centre was recently held on industry and the environment. Draft proposals for environmental protection legislation have been prepared, an oil spill contingency plan is being formulated, and solid waste management is being studied. An environmental control programme, to be directed by an executive authority, is being developed with the assistance of a consultant engineer secured through the Kaiser Foundation. In *Sri Lanka* a special committee appointed by the Government has recommended the establishment of a representative central authority for environmental management, under the Ministry of Planning and Economic Affairs, with statutory powers to deal with pollution of various kinds, and also with the cultivation of medicinal plants, the management of inland fisheries, hygienic methods of sewage disposal and the eradication of slum dwellings. The UN Environmental Programme has been consulted by Sri Lanka about environmental problems.

52. *Jamaica* has taken steps to safeguard rivers from pollution by factories, and protection of water catchments in *Singapore* by controlling the discharge of waste from houses, factories and farms into streams has been given much attention in recent years, during which rapid industrialisation and urbanisation have resulted in a steady rise in the demand for water. An industrial water treatment plant operated by the Singapore Sewerage Department has been established, the sewerage system is being improved, and a Water Pollution and Drainage Act was passed in 1975. Arrangements for the disposal of solid wastes are also being improved, and an incinerator capable of dealing with 1200 tonnes of refuse daily is expected to be in operation in 1978.

53. Comprehensive legislation to prevent pollution is in force in *New Zealand*. Discharges of sewage and industrial wastes are regulated and special measures have been adopted to protect lakes. Air pollution is strictly controlled and there is close co-operation between local authorities and the Ministry of Health in the licensing of the more complex discharges. There is also control of the disposal on land of substances likely to pollute natural waters, and the disposal of used containers of poisonous substances. The codifying of the control of noise is at present under study. New Zealand participates in UN Environmental Programme activities and has a Minister for the Environment, and a Commissioner who reports to him, to co-ordinate the activities of

government departments which may affect the environment. Environmental impact assessment procedures, which require the preparation of reports for public comment, are followed for major works.

54. The *Australian* Department of Health provides advice in the early stages of planning for urban, industrial and agricultural projects, and recent legislation requires “impact statements” on such projects – which have lately included a radiation laboratory, a uranium mine, and the atmospheric effects of high-flying supersonic aircraft. Working parties are examining various aspects of the monitoring and control of air pollution, including that from motor vehicle exhausts, and pollution from metals, pesticides, agricultural chemicals and radio-active wastes is also being studied. *Britain* has a Secretary of State for the Environment whose responsibilities include housing, local government, public building and works, and there are numerous schemes to monitor pollution, involving government departments and authorities, local government and universities. The Royal Commission on Environmental Pollution issues regular reports and recommendations. Britain has monitoring obligations under the UN Environmental Programme as a contribution to the global Earthwatch Programme.

Preparation of health education material demonstrating the connection between dirt and disease, and its inclusion in school curricula

55. Health education units have been established by Ministries of Health in a number of countries, including *Sierra Leone*, *Tonga* and *Grenada*. The unit in *Malaysia* has prepared pamphlets and posters dealing with dengue haemorrhagic fever and these are distributed to schools. *Malawi*’s health education service unit produces and distributes similar educational material. *Jamaica*’s bureau for health education participates in school programmes and demonstrations. *Botswana*’s health education unit produces visual teaching aids and the curriculum for certain target groups in schools is being revised to include health education.

56. Lessons in hygiene are included in primary and secondary school curricula in *Bangladesh* and posters and a leaflet on dirt and disease are used. *Zambia*, *Cyprus* and *Sri Lanka* are further examples of countries where health education is part of the normal curricula. In *Malta* it is imparted particularly through teaching on civics, social subjects and home economics. In *Trinidad and Tobago* great emphasis is placed on cleanliness in an effort to combat the spread of such diseases as gastro-enteritis and scabies, and a series of short films is being produced. Health education is included in the health science syllabus for primary school-teachers in *Mauritius*, and under human and social biology for teachers training in *Singapore*, where topics like “health and disease”, “cleanliness in home, school and public places” and “infection and disease” are included in the primary and secondary school syllabuses.

57. *Sri Lanka* has a Joint School Health Committee composed of officials of the Ministries of Health and Education, and teachers are specially trained in health education. The health education officer in *Barbados* works with teachers and youth groups, and there are regular education programmes for the general public. Medical officers and public health nurses in *New Zealand* pay regular visits to schools to help with health and hygiene teaching; teachers also receive support from health education officers of the Ministry of Health and are provided with a special handbook. In *Australia* health education is the responsibility of State and local authorities, and subjects dealt with in material prepared for use in schools include the prevention of micro-biological contamination of foods. The first national seminar on school health in Australia was held in 1975. In *Britain* the responsibility for health education is left to each school, but the Department of Health and Social Security produces educational material including short films.

58. Some countries have conducted special campaigns on particular health problems and in almost all there is health education through the media of mass communication. *Singapore* ran a national campaign in 1975 on food-borne diseases and nutrition and a second campaign in 1976, on communicable diseases including tuberculosis, malaria, leprosy, sexually-transmitted diseases and dengue haemorrhagic fever, included exhibitions, intensive mass media publicity, and the participation of schoolchildren in poster and essay competitions. In *Mauritius* talks are given on

radio and television, and also to village councils, with the object of heightening community consciousness of the relationship between dirt and disease, and posters on scabies and malaria, the control of flies and mosquitoes and the importance of clean domestic conditions are distributed. In *Cyprus* leaflets on basic hygiene and other health matters have been distributed in refugee camps.

Promotion of a co-ordinated approach to health problems

59. Interaction of the Ministry of Health with other ministries is referred to in most replies received. In *Mauritius* all long-term health projects are co-ordinated with other ministries through the Ministry of Economic Planning and Development, and a similar approach is adopted in *Zambia*, *Lesotho* and *Barbados*. Private organisations are also involved, as in *Lesotho* and *Cyprus*. *Sierra Leone* sees the need for permanent standing committees and a national board of health.

60. Examples of a co-ordinated approach to particular problems are provided by *Malaysia* where the Ministry of Health collaborates with the Public Works Department in maintaining the quality of potable water supplies and in fluoridation, and by *Sierra Leone* where ad hoc committees are formed to deal with specific topics and where the National Leprosy Board and the National Committee on Vital and Health Statistics include representation from both public and private sectors. The Ministry of Health of *Mauritius* works closely with the Ministry of Agriculture on pesticides and with the Ministry of Fisheries on health aspects of fish. In *Grenada* relevant ministries and agencies are represented on the National Child Nutrition Committee. A planning officer in *Botswana's* Ministry of Finance co-ordinates the planning of all ministries, including that of Health; there is also a National Council on Rural Development, with the Vice-President as Chairman, and the Ministries of Health and Local Government have a joint council on family planning and rural health. The co-ordinated approach to health improvement promoted by *Malaysia's* National Co-ordinating Committee in Community Development has included a food and nutrition project and an anti-dengue campaign. Also in *Malaysia*, the Joint School Health Committee sponsored a national school health conference in 1975 to review the school health programme initiated in 1967.

61. The Board of Health in *New Zealand*, established under the 1920 Health Act, makes recommendations to the Health Minister and a number of advisory committees operate under the same legislation. The Department of Health is represented on inter-departmental committees, statutory boards and councils, and its field staff participate in the activities of local pollution control authorities. A Health Council advises the Government of *Sri Lanka*, where the Health Ministry works in co-ordination with the Ministries of Education, Labour and Local Government. The Council of Health in *Malta*, which advises the Ministry of Health on all health matters, has recently been reconstituted and its functions revised. In *Britain*, where the national health service provides a comprehensive health service for all members of the community, government policy has been to develop an integrated response to community needs for health and social service care through the Department of Health and Social Security. Joint consultative committees, established in 1974, provide liaison between Area Health Authorities and local social service departments to encourage co-ordination of health and social services.

62. Other examples of co-ordination through inter-ministerial committees are provided by *Singapore*, where a joint committee on epidemiology comprises representatives of the Ministries of Health and the Environment and where the Health Ministry takes part with other ministries in the planning of urban development to ensure adequate health services; by *Jamaica*, where a nutrition committee, involving the Ministries of Education, Health and Agriculture, has prepared a nutrition policy to enable the country to be self-supporting in food; by *Trinidad and Tobago*, where a special committee has been formed to deal with such problem areas as nutrition and environmental health; and by *Bangladesh*. Co-ordination between various authorities in *Australia* is required by a recently-adopted code of general principles on occupational safety and health in government employment, for the health aspects of which the Director-General of Health is responsible.

Inclusion of environmental health in the training of engineers and other professionals

63. Training in public health engineering is becoming more widespread. Environmental health, including sanitary engineering, has been included in the training of civil engineers in *Sri Lanka* for many years, and the possibility of multi-disciplinary training programmes is being considered. In *Britain*, training in environmental health has long been an integral part of the education of civil engineers, surveyors and architects. It is included as part of the engineering course at the University of *Singapore*, and of the local courses for training engineers and architects in *Malta*. It is part of the training of health engineers and some scientists employed by government departments in *New Zealand*, where the Department of Health promotes the postgraduate training of civil engineers in public health engineering at Auckland University.

64. In *Australia*, the Queensland Institute of Technology offers a postgraduate diploma in environmental engineering, involving three years' part-time study for qualified engineers. It is expected that the projected recruitment of a public health engineer at the University of *Mauritius* will bring emphasis on environmental health in the training of engineers and other professionals, and it is proposed to start an environmental studies course at the University Pertanian (Agriculture), *Malaysia*, in 1976. At the sub-professional level, multi-disciplinary programmes have been introduced in para-medical schools in *Zambia*, and the Ministry of Health of *Grenada* assists with the training of waterworks technicians.

THE PLACE OF FAMILY PLANNING IN HEALTH PROGRAMMES

Making family planning services more freely available; personnel used, their training and supervision

65. Countries are increasingly adopting the approach of making family planning services an integral part of maternal and child health care services. Family planning training is also on the increase at all levels – for doctors, nurses, midwives and other staff – and the emphasis is on improved family health.

66. Family planning is now an integral part of maternal and child health services being offered at most health institutions in *Zambia*, *Lesotho*, *Botswana*, *Mauritius*, *Malaysia* and *Trinidad and Tobago*. There is often a significant input by voluntary bodies and by international agencies. In *Zambia*, the Family Planning and Welfare Association supplies pills, loops and motivational services, while the clinical service is provided by health institutions. Integration of the services in *Malaysia*, under a project agreed with IBRD and UNFPA in 1973, was completed in 1976. The National Family Planning Board provides services in government maternity hospitals, health centres and sub-centres; government medical officers and specialist obstetricians also work with the Family Planning Association on a voluntary basis and assist in running the family planning clinics of the Association. There is similar collaboration between the Ministry of Health and the Planned Parenthood Association in *Grenada*. The integrated approach has been adopted in *Mauritius* since 1972, and service points (including those in hospitals) have been increased to 125, plus a mobile unit; two voluntary family planning organisations also provide information, education and services. *Jamaica* claims to be the first country in the world to initiate the distribution of contraceptives commercially and without prescription through selected sellers who are given instruction and have a close relationship with health centres. Lay persons in *Barbados* also distribute the contraceptive pill, subject to prescribed conditions. In *Sierra Leone*, where the health aspects of family planning are integrated as part of maternal and child health programmes, a national fertility advisory service is proposed under the sponsorship of IPPF, and training for doctors and health staff involved will be provided both locally and overseas.

67. *Sri Lanka's* national family planning programme has been integrated into the general health services. Clinical facilities for terminal methods of fertility control are provided at all hospitals served by specialist medical staff and are extended to other hospitals by mobile clinical teams. Family planning advice is provided at all maternal and child health clinics, polyclinics and a network of family planning clinics. The service includes the provision of conventional

contraceptives and IUD insertion. Sales points for contraceptives have been set up in all medical institutions and in government departments, corporations, mercantile establishments and plantation centres. Public health midwives and nurses provide a domiciliary service. A number of ministries, as well as voluntary organisations, commercial concerns and trade unions, are involved in Sri Lanka's eleven UNFPA-sponsored family planning projects. The Ministry of Plan Implementation acts as the co-ordinating agency and there are divisional family health action committees.

68. *Singapore*, which has a Family Planning and Population Board, is another country which has adopted a positive approach. Contraceptives are available at MCH clinics (including mobile clinics), selected community centres, and through a home sales service. There is a vasectomy family planning clinic for men, for women there are post-partum and post-abortion contact services which include home visiting, and there is a telephone information service managed by six doctors and two nurses. Two male clinics have also been established in *Trinidad and Tobago*. In *Britain* a free comprehensive service at all family planning clinics, regardless of sex, marital status or age, began in 1974 and became available also from hospitals and general practitioners in 1975. In *New Zealand*, where family planning services are mainly provided by GPs, contraceptives are not normally supplied free, except where a patient cannot meet the cost. The New Zealand Family Planning Association now operates 33 clinics, some of them in hospitals, with financial assistance from the Government. The number of hospitals which have established family planning clinics is increasing and a clinic is also held in the Department of Health for the convenience of the public.

69. There has been a rapid expansion of family planning services in *Australia*, where they are provided through private practitioners, specialists in obstetrics and gynaecology, clinics run by voluntary organisations, some hospital out-patient departments, ante-natal and post-natal services, community and women's health centres, and venereal disease clinics. Only doctors can prescribe oral contraceptives and IUDs, and contraceptives can be distributed only by doctors, pharmacists and clinics. Natural ovulation methods are taught by specially trained lay teachers supervised by doctors under the Catholic Social Welfare Programme. Three women's health advisers work with the Royal Flying Doctor Service to provide women in remote and isolated areas with information and counselling on family planning and related health problems.

70. More staff working at primary health care level are being trained to deliver family planning services. In *Malaysia* these services are being extended to remote rural areas by government midwives. The number of auxiliary personnel trained for this purpose in 1975 was 1011, and 183 supervisory staff (medical officers and nurses) also received technical and administrative training in family planning. *Tonga* has held workshops and seminars for staff working in family planning, and nurses in *Lesotho* and *Sierra Leone* have received training locally and abroad. In *Mauritius*, where the number of persons employed in family planning services has increased, medical personnel are given 1–2 weeks on-the-job training and newly-recruited lay staff are given 12 weeks (2 weeks tutorial and 10 weeks on-the-job). *Botswana* trains family welfare educators as motivators. Community health aides play an important part in the delivery of family planning services in *Jamaica*. In *Trinidad and Tobago* nursing assistants have been trained as primary health care workers for this purpose, the Family Planning Association has taken its service to factories, and a family planning institute is to be constructed. *Singapore* has given training to community leaders, teachers, vigilante corps instructors and trade unionists, through seminars and courses with the assistance of the Family Planning and Population Board.

71. In *New Zealand* courses for general practitioners and nurses are held at the National Women's Hospital, similar courses at the Christchurch Women's Hospital are planned, and the further extension of family planning training to public health nurses and other nursing cadres is contemplated. The NZFPA has conducted a three-day training programme for social workers. The *Australian* Federation of Family Planning Associations has expanded its training programmes for medical and nursing personnel and community educators. Doctors, health visitors and nurses involved in *Britain's* family planning services are given basic specialised training, and appreciation courses are also available for social workers. Training in family health for health personnel in *Sri Lanka* includes maternal and child health care, immunisation, nutrition and sanitation, as well

as family planning. All doctors and para-medical staff working for the Ministry of Health receive in-service training in family health, medical students act as family health/family planning activators in community health project areas, and a curriculum for training practitioners of indigenous medicine is being introduced. Sri Lanka's Department of Rural Development conducts regular training programmes in family planning for rural development officers and needlework instructors to help them to act as motivators.

72. Reports received give evidence of a significant increase in general publicity for family planning. Radio and television programmes in *Mauritius* on family planning were increased in 1975 and there were more film shows and group discussions on the subject. Seminars involving trade unions, employers, co-operative unions and the Ministries of Health, Labour and Planning and Development were also available. In *New Zealand* staff of the Ministry of Health and the Family Planning Association conduct educational programmes for the public and for secondary schools. Family planning services are publicised in *Singapore* through radio, television, cinema, newspapers, exhibitions, and the distribution of posters, pamphlets, stickers and souvenir items. There is an advisory service for newly-weds, talks are given to school-leavers, and family planning information is incorporated into community and trade union educational programmes, and into training courses for national servicemen, the vigilante corps and the police.

73. Marriage preparation courses and clinics run by voluntary agencies are the main medium for guidance on planned parenthood in *Malta*. In *Australia* there is growing awareness of the need for nurses, teachers and social workers to play a more positive role in the dissemination of family planning information at community level, and family planning associations participate in educational programmes for teachers and schools. The need for family planning services was discussed at a conference on women's health held in 1975 as part of Australia's International Women's Year activities. The *Sri Lanka* Ministry of Information and Broadcasting has a family planning strategy project which includes radio talks and films, and family planning and population awareness is introduced into secondary school curricula and teacher training programmes by the Ministry of Education with the assistance of UNFPA funds.

THE ROLE OF HEALTH STATISTICS

Developments in the collection and appraisal of health statistics and in the training of health statisticians

74. WHO experts are assisting several countries to improve the organisation of health statistics and the training of staff: examples are *Sierra Leone*, *Mauritius*, *Bahamas* and *Lesotho*. A medical statistician has been provided for the Bahamas through the CFTC and a training fellowship for a records officer has been requested by *Grenada*. In-service training takes place in some countries, such as *Zambia* where statistician assistants are trained in the medical statistics unit of the Ministry of Health. Other countries send records officers on training courses overseas. The *Cyprus* Ministry of Health is strengthening its statistical services in collaboration with the Central Statistical Department and the introduction of a new medical records system is under consideration. In *Botswana*, where a medical statistics unit was established in 1973, the statistics collected are computerised. The statistics unit of the *Trinidad and Tobago* Ministry of Health was also set up in 1973 and prepares data on immunisation, hospital admissions, discharges and outpatient services, health centre attendances, and epidemiological surveillance of communicable diseases. Data on morbidity are also to be produced with a tabulating machine. The training of additional staff is proposed so that the data collection can be expanded to include manpower and expenditure statistics to assist health planning, and the introduction of a career structure which will attract well-qualified personnel is in view. Health statisticians and medical records officers are being trained with the assistance of PAHO/WHO. A shortage of statistical staff for training in health statistics is being experienced in *Malawi*, where a WHO statistician re-designed data collection forms and rationalised data collection procedures in 1974/75.

75. In *Britain*, where a wide-ranging set of morbidity information is produced from returns, a review of statistical returns is to take place shortly. Statisticians or statistical officers, mostly

graduates, are employed by nearly all Britain's regional health authorities. *Malta* has sought the assistance of the British Government towards setting up a health statistics unit, through providing a medical statistician and a hospital records officer. *Jamaica* has medical records personnel under training but has had little success so far with the recruitment and training of statisticians. *Sri Lanka* and *Bangladesh* are two more examples of countries with statistical units in their Ministries of Health for the compilation of data on morbidity which are used for epidemiological study and the planning and development of health services. The system of collecting, compiling and analysing statistics of hospital activity in *Singapore* has recently been reviewed by the research and statistics unit of the Ministry of Health and a new series has been introduced, geared to evaluating and measuring the effectiveness of hospital services. The system for hospital patient statistics has also been reviewed and revised. The unit, in which common-use statisticians work under the supervision of doctors, maintains a computerised register of all medical practitioners in *Singapore*, and similar registers of nurses and midwives and of dentists are planned.

76. A pilot study on health management data was recently completed in *New Zealand* and a more comprehensive nation-wide scheme is to be introduced in 1977. The *Australian Hospitals and Health Services Commission* issued a report in 1975 on a plan for health and related welfare statistics, and the *Australian Bureau of Statistics* held a conference on health statistics early in 1976. The Bureau publishes the results of surveys on such subjects as peri-natal deaths and chronic injuries and impairments, and reports on hospital facilities and services and patients receiving domiciliary care have been published by the central statistical unit of the *Australian Department of Health*. The *Hospitals and Health Services Commission* has prepared a report on *Australia's* health manpower and a handbook on health manpower has been published by the *Department of Health*. The *Royal Australian College of General Practitioners* has developed a standardised medical record system for morbidity data.

ORGANISATION AND MANAGEMENT FOR TRAINING RETENTION AND DEPLOYMENT OF HEALTH PERSONNEL

Advances in training health personnel on lines appropriate to national needs and with the right motivation

77. There is evidence of the expansion of local training at all levels. At the postgraduate level the *University of Malaysia* has started a one-year course in preventive and social medicine leading to the award of Master in Public Health. The Ministry of Health is providing ten scholarships for medical officers who will subsequently be eligible for appointment as medical officers of health. For undergraduates at *Malaysian* medical schools, special emphasis is placed on rural health in the curriculum, and the needs of rural communities are further underlined through postings to district hospitals and involvement in rural health surveys during their clinical years. In *India's* medical colleges, which number over 100, community medicine is becoming a feature of teaching at all levels. Medical education is being progressively reorientated in accordance with community needs and some of the teaching is to be carried out actually within the rural community. *Bangladesh* has acted on the advice of WHO experts in making changes in training curricula for doctors, and for tutors, to produce an orientation towards community health care. Countries such as *Botswana*, *Cyprus* and *Tonga*, without medical schools of their own, continue to rely on other countries for medical training.

78. The expansion of local training for health staff is a feature of a number of reports. Auxiliary personnel in *Zambia* are trained to suit *Zambian* needs. In *Tanzania*, the training of medical assistants to take charge of health centres and rural medical aids to operate dispensaries has been stepped up, and maternal and child health aids are being trained in all 20 regions of the country. Proposals under consideration in *Sierra Leone* envisage the training of medical assistants in the provinces, in the environment in which they will eventually work, whilst community health nurses, although trained in *Freetown*, will work in rural areas during their training period. Over 100 community nurses are now trained each year at the two rural health training schools in *Malaysia*, and three regional training schools are planned. Nurses, midwives and health inspectors in *Cyprus* are all trained locally. Courses for public health inspectors in *Mauritius* and *Malaysia*

lead to Royal Society of Health qualifications. A division of health sciences has been started at the Community College in *Barbados* for training health personnel, both local and from elsewhere in the Leeward and Windward Islands. Training programmes in *Botswana* for nurses, midwives, health assistants, dental therapists and family welfare educators are all tailored to local needs. *Jamaica*, faced with a shortage of doctors and nurses, is also trying to develop para-medical facilities.

79. There have been discussions between the *Trinidad and Tobago* Ministry of Health and the Faculty of Medicine of the University of the West Indies on the orientation of undergraduate medical training to produce medical officers motivated to serve in rural areas. The curriculum will be given a slight bias towards community medicine and students will be exposed to this aspect of health care at an early stage. The nurse training programme is being revised and the training of nurse practitioners, who will give follow-up care to patients with chronic diseases such as diabetes and hypertension, has been started. Nursing assistants are being trained in community health duties. A new community health training centre will be the nucleus of a regional college of allied health professions, and a programme for improving skills of hospital equipment servicemen is in operation. A dental auxiliary training school began its first course in 1976.

80. In *Singapore*, where undergraduate and postgraduate training is given at the University and ancillary staff undergo courses conducted by the School of Nursing, dental therapists are being trained to work with dental practitioners as a way of coping with the increased demand for dental treatment, and radiographers are being trained in radiotherapy. *Malawi's* new medical school at Lilongwe will train clinical officers, whose course will be designed to meet basic rural health needs. The capacity of the school, which will also train laboratory assistants and pharmaceutical assistants, will be 200.

81. Courses in physiotherapy, medical laboratory technology and radiography have been started locally in *Malta*. The curricula in *Sri Lanka* for the training of nurses, midwives, public health inspectors and other para-medical personnel have been specially designed to serve the country's health needs, curative and preventive services are being integrated, and medical and paramedical personnel engaged in the national family health programmes undergo reorientation training. In-service training is mentioned in several replies. Nurses in *Lesotho* are taught additional skills to enable them to function as nurse-practitioners in rural areas where doctors are not available. *Bangladesh* has started in-service motivation training, and its training of community health nurses is multi-directional. Public health inspectors in the *Bahamas* have attended a WHO/PAHO-assisted programme on environmental health, designed to deal with local problems, and a workshop on epidemiological surveillance of communicable diseases is planned for staff of the outer islands in 1976.

82. In 1974 the *New Zealand* Government approved a scheme for the training of hospital registrars in general practice. Aimed at attracting young doctors into general practice, the scheme is also intended to promote better integration of services provided by hospitals and general practice in the field of preventive health care. A report submitted to the *Australian* Government in 1975 by the Hospitals and Health Services Commission recommended the establishment of a standing committee to reconcile, in consultation with educational and State health authorities, facilities for training with health manpower needs, and to stimulate the best possible deployment of training facilities, health resources and personnel. In *Britain*, where the National Training Council is concerned with the general strategy, development and co-ordination of training for the national health service, four committees have recently been examining the recruitment, training and development of particular groups, including nurses, midwives and ancillary personnel.

Measures to reduce the emigration of skilled manpower

83. Under *Sri Lanka's* Compulsory Services Act, medical graduates are required to serve the country for a minimum period of years. When scholarships or fellowships are awarded, recipients are required to serve the country for a stipulated period on their return from study. Permission to emigrate is required in *Grenada*, and in *Tonga* officers in government service must remain for a

prescribed period of up to five years before their resignations can be accepted. Scholarships and bursaries are treated as loans in *Sierra Leone*, and students must serve for a period equal to the duration of the award or repay it in full with interest. Doctors going abroad on scholarships from *Malta* are bonded to serve for a stipulated number of years in Malta on their return, and a similar arrangement is in force for *Zambians* sponsored by their Government.

84. *Malta* has increased doctors' salaries and provided better conditions of work (including less night duty). Better conditions have also been provided in *Mauritius*, where the salary structure has recently been revised, opportunities for post-basic training have been offered to health staff, and refresher courses for medical staff have been held. *Trinidad and Tobago*, besides offering better remuneration and working conditions, has ensured more opportunities for participation in the planning of health services, and it is anticipated that the introduction of postgraduate medical education in 1976 will reduce emigration. A career ladder has been established in the public service and all public health medical officers are permitted private practice. *Singapore* has offered quick promotions, made scholarships and fellowships available for those wishing to advance themselves, provided deserving staff and their spouses with free air passages, and made housing and vehicle loans at low interest rates. In *Cyprus*, where some emigration of doctors and other skilled personnel followed the Turkish invasion, new graduate doctors and qualified nurses have been appointed and the staffing of the health services has not been seriously affected. (The subject of measures to reduce medical migration is treated in more detail in the brain drain study referred to in the report on action by the Commonwealth Secretariat).

DISASTER RELIEF

Plans which could be put into operation in the event of disasters

85. Some countries have plans to deal with hurricane disasters. The *Bahamas* has drawn up detailed instructions and precautions for use in the event of hurricanes, and these are suitable for adoption for other sorts of disaster. *Grenada* has a Hurricane Relief Committee and *Barbados* a multi-sectoral Hurricane Relief Organisation and also an Aircraft Disaster Plan. The National Emergency Relief Organisation (NERO) of *Trinidad and Tobago*, which co-ordinates disaster relief services, has a health committee with members from government medical services, private hospitals and voluntary agencies. The disaster plan, which is being up-dated and tested before the next hurricane season, provides for emergency medical services, screening and the transfer of serious casualties to central hospitals. Hurricane plans in *Jamaica* are re-issued each year, and there are also aircraft accident and other emergency procedures. In the case of a recent outbreak of food poisoning resulting from contamination of flour with parathion, a special department of the Ministry of Health was set up to deal with the problem.

86. *Botswana* has a disaster plan as yet untested. In *Malaysia*, where relief operations have been tested during floods, a National Disaster Relief Committee, on which key Federal departments are represented, has been established in the Prime Minister's Department and similar committees have been formed at state level. Each Federal department has a contingency plan for disasters, and relief operations are co-ordinated in the State operations room. *Lesotho*, *Sierra Leone* and *Zambia* have national disaster relief committees, and voluntary bodies such as the Red Cross and St. John's Ambulance are organised in a number of countries to provide clothing, food and medicines in the event of disasters arising. *Malawi* has a cholera control committee at national level, with area, district and village branches, and it is planned to develop this organisation to deal with other disasters. *Sri Lanka* has special programmes for health services developed at times of floods. In *Singapore*, where disaster relief plans are co-ordinated with the fire brigade, the police and other agencies, drills in conditions of simulated disaster are carried out. In *Bangladesh* reminders are sent out to ensure preparedness in the event of the disaster relief scheme having to be put into operation.

87. Regional health authorities in *Britain* are responsible for the provision of health services to deal with major accidents, and guidance is given on medical, nursing and ambulance requirements. Plans are regularly up-dated and exercises to test them are held. *Malta's* disaster relief plans are also revised and up-dated. *New Zealand's* permanent civil defence organisation has plans to cater for emergencies. In *Australia*, each State has a health plan for operation in the event of floods, bush fires or cyclones, and a Natural Disaster Organisation at Federal level, which maintains a 24-hour monitoring service, has contingency plans to help when State organisation proves inadequate. The health element is prominent in these plans, which provide for supplies of drugs, dressings and vaccines, surveys of available hospital accommodation, and arrangements for air transport.

8 August 1977

REVIEW OF ACTION TAKEN FOLLOWING THE FOURTH COMMONWEALTH MEDICAL CONFERENCE

Action by the Secretariat

Paper prepared by the Commonwealth Secretariat

Over recent years, and in accordance with the recommendations of meetings of Commonwealth Ministers of Health, the functions of the Commonwealth Secretariat in the health sector have been extended beyond servicing conferences, disseminating information and maintaining liaison. They now include in addition the provision of practical assistance towards the improvement of health services in developing member countries. This extension has been possible partly through the resources of the Commonwealth Fund for Technical Co-operation (CFTC) which is administered in the Secretariat.

2. Nevertheless, limitations of staff and finance have dictated a selective approach to the numerous recommendations of the Fourth Medical Conference for action by the Secretariat. Priorities for the Office of the Medical Adviser outlined in the 1976 review of Secretariat activities were: assistance for the delivery of health care to rural and other needy areas in developing countries; the promotion of national self-reliance and regional co-operation in the approach to health problems; the investigation, at the request of Governments, of specific problems in the health field, and follow-up action; and the provision of technical advice and assistance, particularly to the most needy. These priorities are in line with the recommendations of the Fourth Medical Conference and earlier conferences, and were confirmed by the meeting of Senior Officials in Canberra in 1976.

Special studies

3. In its work programme since the 1974 Medical Conference, the Secretariat has concentrated action on recommendations on which the Conference placed major emphasis, in areas of greatest need. Three special studies – on medical migration, on medicinal drug procurement and on the maintenance of medical equipment – have been undertaken and are the subject of more detailed comment in companion papers. In addition, a study on abortion law in member countries, which will also be dealt with in a separate paper, has been undertaken in collaboration with the International Planned Parenthood Federation. The co-operation of member Governments in connection with these studies, in making arrangements for visiting consultants and providing the information required, has been most valuable and much appreciated.

Health management training

4. The Colombo Conference called on the Secretariat to help in the development of training programmes to improve managerial skills in health service administration. Since 1974 the Secretariat has been able to assist the holding of four regional courses in Africa for senior doctors and other staff. Three of these have been in West Africa, where a most successful co-operative venture involving the West African Health Secretariat, the Ghana Ministry of Health and the Ghana Institute of Management and Public Administration, as well as the Commonwealth Secretariat, has been developed. The Secretariat was able to contribute a certain amount of initial co-ordination and has provided financial support of more than £20,000 for each course and consultants drawn from West Africa and Britain.

5. A workshop to prepare for similar training in East, Central and Southern Africa took place at Arusha, Tanzania, in 1976 and the first health management course in that region was held in mid-1977. This was another co-operative project, the Regional Health Secretariat, the East African Community Management Institute and the Commonwealth Secretariat, which provided assistance similar to that in West Africa, being jointly involved.

6. These training activities have included an inter-regional element, with several participants from eastern Africa attending the West African courses and key personnel from West Africa assisting with the workshop and course in Arusha. The contribution of Dr. Tom Hopwood of the Wellcome Trust, who has been closely involved throughout and has prepared training manuals for use in the courses, has been particularly valuable. The Health Section of the Caribbean Community Secretariat has been kept informed and Dr. Hopwood's attendance at a Caribbean training seminar in 1976 was financed through the CFTC.

REGIONAL CO-OPERATION

7. The value of close regional collaboration to secure maximum benefit from available resources in the health sector, has been emphasised at successive Commonwealth Medical Conferences, and the view that regional co-operation among developing countries should increasingly become a focal point of international strategy to promote their development on the basis of self-reliance was endorsed by Commonwealth Heads of Government at their 1977 meeting in London.

8. The Secretariat has continued to give support and advice to Commonwealth regional health agencies and to provide assistance for regional projects, particularly training projects. In fact, the main thrust of the work of the Medical Adviser's Office has been made through the machinery of regional co-operation. Regional meetings of Health Ministers, and also meetings of their chief officials, have been attended by the Medical Adviser and close contact with the regional agencies, as well as with individual Ministries of Health, has been maintained. In addition, through the CFTC, the Secretariat has been able to supply individual countries in all regions with a wide range of advisers and operational personnel in the health sector; and the Medical Adviser has himself served as a resource person in this connection, on request — as in the case of Barbados, where he has acted as consultant on proposals for a national health scheme.

Caribbean

9. In response to requests from the Caribbean Community Secretariat, financial support is being given for the post of Chief of its Health Section and that of an administrative officer who assists him. Regional projects supported include the preparation of an environmental health strategy, a survey of dental health, planning meetings on nursing education, and the harmonisation of health legislation. A regional workshop on medical education, which brought together representatives of Ministries of Health and training institutions and which the Medical Adviser attended, has also been assisted.

West Africa

10. When the West African Health Secretariat was established in Lagos, Nigeria, in 1972, the Commonwealth Secretariat agreed to finance the posts of Regional Secretary and his deputy for an initial period. It was agreed in 1976 with the Governments concerned that this contribution should be phased out and re-directed to regional programmes. West African projects assisted by the Secretariat have mainly been concerned with training. Besides the health management courses referred to above, they have included exchange visits by chief nursing officers and a meeting on the co-ordination of nursing training; a meeting of chief pharmacists and storekeepers on co-operation in medicinal drug procurement and distribution; the provision of fellowships for the training of medical and health personnel of various cadres at institutions in the region; and regional symposia on such topics as the care of the injured and onchocerciasis (river blindness).

East, Central and Southern Africa

11. The Commonwealth Secretariat continues to finance the two chief posts in the Regional Health Secretariat for East, Central and Southern Africa, established at Arusha, Tanzania, in 1974. The two officers are directly responsible to the Ministers of Health of their region, and it is envisaged that in due course the arrangement will be adjusted as in West Africa. Regional projects assisted by the Commonwealth Secretariat, in addition to the health management course mentioned above, include a workshop in Nairobi in 1976 on textbooks and teaching manuals for health personnel; and an investigation by three consultants drawn from the region into the need and facilities for training tutors for auxiliary health personnel. Other projects under discussion, Commonwealth Secretariat support for which is anticipated, are a proposed regional course in medical engineering at the Swaziland College of Technology and the use of visiting professors and consultants to promote continuing medical education.

Asia and the Pacific

12. An investigation of the feasibility of developing further machinery for regional health co-operation between member countries in Asia and the Pacific, called for by their representatives at the time of the Colombo Medical Conference, was undertaken in 1976 by an officer provided by the Government of Sri Lanka, whose visits to the countries concerned were arranged and financed by the Secretariat. The Secretariat also arranged and serviced two meetings in Geneva in May 1977 at which the officer's findings were discussed and has prepared a paper describing the development of regional co-operation elsewhere, to assist regional representatives at a further meeting, which is to be held in Wellington during the Fifth Commonwealth Medical Conference, to arrive at a decision on the form co-operation should take.

Inter-regional co-operation

13. A joint meeting of representatives of Commonwealth regional health agencies and the Commonwealth Secretariat was held in London early in 1977 to discuss ways of extending regional and inter-regional collaboration in health matters. The meeting reviewed progress with the promotion of health co-operation through the activities of the regional agencies; problems faced by the agencies were examined and ways of resolving them were considered. Ways in which the regional agencies and the Commonwealth Secretariat could most effectively contribute to changing health strategies and the future development of regional and inter-regional health co-operation were also discussed. It was agreed that annual meetings of regional and Secretariat officers should be held in future. (A report on the meeting was included with the record of the Preparatory Meeting in Geneva on 1 May 1977).

RELATIONS WITH WHO

14. Relations with WHO and other health agencies were also reviewed at the meeting with the regional officers, the object being not only to avoid duplication of effort but also to consider how effective collaboration could be achieved.

15. The Commonwealth Secretariat was accorded official observer status at the World Health Assembly in 1977, and the Medical Adviser has maintained close contact with the WHO headquarters in Geneva.

8 August 1977

BRAIN DRAIN

Paper prepared by the Commonwealth Secretariat

A study of medical migration was requested by the Fourth Commonwealth Medical Conference in 1974. The scope of the study was widened, following discussion of the brain drain by Heads of Government at their 1975 meeting in Jamaica, to include some other professions. The Secretariat commissioned Mr. Oscar Gish and Mr. Martin Godfrey, of the Institute of Development Studies, University of Sussex, Britain, to undertake the study, and arrangements were made for them to visit a number of countries. Information was also obtained by means of a questionnaire to Governments, prepared by the Secretariat in collaboration with the consultants.

2. The report of the consultants (Annex A), which was originally sent to Governments in April 1976 and was the subject of some discussion at the Pre-WHA Meeting in Geneva and at the Meeting of Senior Officials in Canberra, both in May 1976, is mainly concerned with the medical profession. The views it contains are those of the consultants and should not be taken to reflect those of the Secretariat.

3. There are two main aspects to the problem of medical migration. The first is the immigration policies of certain receiving countries, Commonwealth and non-Commonwealth. In the past, the admission policies of these countries seem to have been influenced by shortages of people with professional qualifications and specialised skills. As long as these shortages continue, so also will the tendency for such people to be attracted from the developing countries to the more developed. The solution to the problem, therefore, rests to some extent on the determination of the developed countries themselves to produce sufficient numbers of professionals to meet their own needs and on their willingness in the meantime to forego opportunities to make good their manpower shortages by recruiting professionals from developing countries where shortages are even more acute.

4. The second aspect of the problem is the policies of the developing countries from which professionals are emigrating. For reasons of national pride, established practice and professional opinion, it is unlikely that wide support would be found for the proposal that medical practitioners should be trained to levels below currently accepted international standards, so that their qualifications should not be internationally negotiable.

5. It is the conclusion of the consultants, in common with a number of other studies of the problem, that the solution with regard to measures that need to be taken rests mainly with the developing countries themselves. Studies have shown that migration is highest among graduates who have studied abroad. A list of nationals pursuing medical studies, or in medical employment, abroad might be maintained by countries suffering from shortages, and such nationals kept informed of local developments and vacancies. Young people are less likely to emigrate if they are trained in their own country or region, where they are likely to develop strong local ties. This consideration reinforces the case for the further development of medical training, including post-graduate training, on a national or regional basis. It also points to the need to review medical curricula and to ensure that the next generation of students are orientated towards the needs of their own countries. The importance in educational planning of taking into account the adverse effects of migration on resources of skilled manpower was stressed at the Seventh Commonwealth Education Conference, in Accra in March 1977.

Bonding

6. One approach open to developing countries involves the bonding of medical practitioners for local service after graduation. A number of member countries have regulations obliging practitioners to serve for a number of years after graduation before they can be allowed to emigrate.

Details of such regulations have been obtained by the Secretariat from the governments concerned and are analysed in the accompanying paper (Annex B) prepared by the Secretariat's Legal Division.

7. As the consultants point out in their report, bonding is unlikely to be a long-term answer to the problem of medical migration, however. In many cases it may mean no more than postponement, resulting in emigration of doctors with several years experience. Nevertheless, it would mean that the country would obtain at least those years of service from each trained person it produces.

8. Where bonding regulations are used, it is obviously necessary to provide the appropriate number of posts and satisfactory conditions of service for those bonded, who will be available in predictable numbers. After their period of bonding has elapsed, satisfaction with their service and local connections may mean that fewer will wish to leave. Again, a prescribed number of years of local service, which can include the bonding period, may be insisted on as a requirement for promotion or as a necessary qualification for an award for postgraduate training. Where there are postgraduate training institutions in the country or the region, awards can be made for further training in these, rather than elsewhere, and awards can carry with them a further period of bonding.

Incentives

9. Efforts to reduce medical migration at source are likely to be fully effective only within the context of a co-ordinated drive for economic and social development, involving a widespread sense of commitment, in which practitioners can achieve professional and personal satisfaction. Rigid or cumbersome administrative structures are sometimes a source of frustration to highly-trained personnel. There is a need to provide opportunities for promotion and for young professionals to participate as fully as possible in health management, a need to delegate responsibility, encourage initiative and innovation, and ensure that appointments and promotions are made solely on the basis of merit, so that the energetic and creative receive recognition.

10. Other measures to encourage medical personnel to remain in, or return to, their home countries include rent allowances, loans on favourable terms for the purchase of houses and cars, options for buying houses where housing is scarce, waivers of import duty on equipment and furniture bought abroad, and assistance for postgraduate training.

Health care delivery systems and manpower training

11. The fundamental solution to the problem of medical migration, however, may lie not so much in attempting to contain it by various restrictions and incentives, but rather by bringing about changes in the framework of national health care systems and in the training structures which serve them.

12. The consultants' report rightly emphasises the importance of relating health manpower planning and medical training; this has been included as a separate item on the Medical Conference Agenda. The extent to which this aspect of health planning has received insufficient attention in some countries is surprising; the economic consequences of this neglect must be considerable. Where the relationship between medical schools and Ministries of Health is minimal, the number of doctors produced and the content of their training often fail to take national health needs into account. In some cases, the result has been that more doctors have been trained than can be easily absorbed into the national health service, and that their training has not been closely enough directed to the main health needs of the community as a whole.

13. These needs have not always been defined with sufficient clarity. In many areas there is an internal brain drain: skilled personnel tend to concentrate in the more lucrative, urban areas, while the poorer, rural areas, where the mass of the people live, suffer from neglect. It seems essential that deficiencies should be identified and appropriate measures taken to remedy them. The

Director-General of the World Health Organisation has repeatedly stressed the importance of maintaining appropriate relationships between health goals and their social relevance and economic feasibility, of placing as much emphasis on the distribution of health resources as on their quality or quantity. Systems devised and located to meet recognised local community health needs, rather than to follow traditional European or American patterns, should lead to more appropriate and feasible health policies and services.

Recommendations

14. Ministers of Health may wish to consider recommending:

- (a) that Governments of receiving countries should refrain from making good their medical manpower shortages by recruiting members of the medical profession from the developing world, and particularly countries where shortages are even more acute;
- (b) that Governments of developing countries should establish, on a national or regional basis, machinery for the continuing study and review of measures to reduce medical migration;
- (c) that the work of the groups established for this purpose should also include consideration of health manpower planning and the most appropriate distribution of health resources;
- (d) that such groups should include representatives of medical teaching institutions and professional associations as well as Ministries of Health and Ministries of Development Planning;
- (e) that a co-ordinator, with wide knowledge of local conditions, should be appointed for each region;
- (f) that information on the work of the groups should be exchanged between regions with the aim of ensuring a common approach and the sharing of experience and personnel; and
- (g) that the Commonwealth Secretariat should, on request, provide short-term expert consultants to assist with the work of the groups, where possible on a regional basis.

6 September 1977

A Reappraisal of the Brain Drain– with Special Reference to the Medical Profession

by Oscar Gish and Martin Godfrey

Summary

On current trends some change in the direction of brain drain seems fairly certain and a fall in the numbers involved quite likely. This does not, however, signal the end of the problem which lies not so much in the numbers who migrate as in the distortion of training systems and economic structures that their mobility implies.

2. The ineffectiveness of policies so far implemented to deal with brain drain stems largely from the inadequacy of the standard neoclassical framework of analysis, which also misrepresents the effects of brain drain. The fundamental inadequacy of this analysis derives from the fact that it deals with the response of individuals to a number of variables without taking account of the *structure* within which individual decisions are made and of the relevant interdependencies and dynamic effects.

3. The most important aspect of this structure is the existence of an international market in professional skills into which the Third World educated elite is more or less integrated, to the benefit of their salary levels and, in a process of institutional determination of salaries, those of all who can plausibly claim 'comparability' with them. The condition of integration into this international market is the possession of *internationally negotiable qualifications* – and international negotiability implies, to a varying degree, *lack of relation to local needs*. In other words, Third World professionals acquire international mobility either by studying abroad or by attending a local institution with curricula and syllabi appropriate to the job context of the developed rather than the less developed countries.

4. In addition to this qualitative distortion of education and training systems, the tying of local professionals into the international rather than the local market, and the consequently higher anticipated private rate of return on their training open to them, *build in* an overproduction of inappropriate skills, as the state responds to the excess demand for training school places by building more training schools or by sending more students overseas. This is the point overlooked by economists who talk about overflow rather than drain. Their view that the brain drain is no problem because there is a surplus of educated manpower at home can be seen to be excessively static, to say the least.

5. In the particular case of the medical profession this means that the question of international migration is of interest not so much in itself, but because of what it reveals about the nature of particular health care systems and the socio-political structures in which they operate. If everything else were to stay much the same the reduction of medical emigration would probably make no difference at all to the welfare of most of the population of countries such as India or Jamaica. In the same vein, the solution to the problems raised by these international movements are not to be found within the movements themselves but in necessary changes within the framework of specific national health care systems and, of course, the social, political and class structures in which they exist.

6. As far as policy is concerned, the remedy implied by neoclassical analysis is that of change in monetary rewards and working conditions. The problem here is that the changes in monetary and non-monetary rewards necessary to stop the brain drain may be much larger than is practically conceivable as well as undesirable from the point of view of their effect on internal income distribution. Emigration controls and bonding schemes may be effective in the short run but retaining frustrated, demoralised and conservative professionals by these means may make long run reform more difficult.

7. The 'Bhagwati income tax' proposal, to judge from preliminary estimates of the relevant elasticities of response, may differ little in effect from straightforward government-to-government compensation. Pressure for such compensation must of course continue, but cannot be seen as a 'solution' to the problems involved.

8. The above are the policy recommendations arising from the standard framework of analysis. However, if alternatively, brain drain is regarded as a reflection of (undesirable) integration into an international market in professional skills, then the only way of achieving a substantial impact on the drain (and on the more serious internal distortions that it reflects) is *withdrawal from that market*.

9. For less developed country (LDC) Commonwealth governments, this would involve:

- (a) An end to the use of developed country (DC) qualifications in local training institutions
- (b) An end to the sitting of foreign professional examinations in LDCs and to advertisement and recruitment for posts in DCs.
- (c) Disaffiliation from DC dominated international professional associations and the exploration of the possibility of setting up associations of LDC professionals, committed to greater relevance.
- (d) The sending of students on more relevant and thus probably 'less negotiable' overseas courses, and preferably on relevant courses in other LDCs.
- (e) The development of local courses and qualifications which were both highly suitable to the needs of the indigenous economy and therefore probably less acceptable to DC employers and training institutions.
- (f) The development of new centres of higher education and training on a regional LDC
- (g) The use of a national language as the medium of instruction in courses and textbooks.
- (h) Changes on the demand side, i.e. in the structure of rewards and in job content.
- (i) The use of scholarships policy, foreign exchange and passport controls to discourage overseas study for the acquisition of negotiable qualifications.
- (j) Recognition of the wider implications of such a programme.
- (k) The restriction of the output of professionals by LDCs to the number that can be absorbed at home, even at the risk of some shortages in the short run*.

10. For DC Commonwealth governments the programme would imply:

- (a) Cooperation with LDC governments in the phasing out of the use of DC qualifications and in the withdrawal of DC examinations, recruiting teams and advertisements from LDCs.
- (b) *In consultation with LDC governments* the withholding of recognition by DC authorities of LDC qualifications and the control of LDC entrants to training courses in DCs.
- (c) A sympathetic attitude towards the reshaping of international professional associations.
- (d) A change of emphasis in the provision of technical assistance awards towards third country training.
- (e) Technical assistance for the redefinition of job content in LDC professions in line with social priorities, and for the development of the alternative curricula, syllabi and structures implied by this redefinition.
- (f) As a major part of the educational assistance programme, support for the development of the new regional centres of relevant higher education and training.
- (g) If requested, and if feasible, assistance for the development of courses and textbooks in 'non-international' languages.
- (h) Also, if requested, assistance with studies of the problems involved in bringing the structure of effective demand into line with the social priorities reflected in the redesign of job content, etc.
- (i) Continued progress towards self-sufficiency in the DCs' markets for professionals.

11. The implications of the above programme have been spelled out separately for LDC and DC governments but it goes without saying that, within the Commonwealth, the most effective mode

*The concept of a 'shortage' of manpower is extremely complex and encompasses many variables. The replacement of expatriate personnel is one such important variable.

of implementation would be through mutual consultation and agreement between governments of less developed *and* developed countries. Moreover, it is recognised that the implementability of a programme of withdrawal and the optimum strategy for such implementation will vary from country to country. As such, it would be useful to study under different circumstances the possibilities and potential effects of the implementation of the recommended strategy of withdrawal. Rather than continue with general 'brain drain studies', which would imply that too little is as yet known about the phenomenon even to be able to propose a strategy of action, research on particular professional groups should be conducted in specific countries with a view towards testing the applicability of the framework put forward in this report. In practice, the best way to give specific form to the general policy recommendations suggested in this report is to study and plan for their application in the case of a particular professional group (or groups) under specific national conditions. For many of the reasons indicated earlier, doctors constitute a particularly interesting group for study. Commonwealth governments should be asked to express potential interest in such studies. Appropriate funding is likely to be available from any one of a number of bilateral and multilateral sources.

Introduction

Statistics on the outflow of trained personnel from developing to developed countries are not only of poor quality,* but usually also considerably out of date. Thus the most recent year for which relevant data is available is 1973 or even, in the case of many important countries, 1972.† The picture shown by these statistics is one of some falling away in the early seventies from the highest levels of outflow of the sixties, but of still substantial numbers in aggregate, with the United States, the United Kingdom and Canada as the major recipient countries and with doctors, nurses, teachers, engineers and scientists as the predominant categories of manpower involved.

2. Since the end of 1973 there have been several new developments. The capitalist world economy has entered and is still suffering a serious recession. The rate of expansion in the demand not only for economic resource based professionals such as engineers, but also for school and university teachers and possibly even medical graduates has been considerably reduced. At the same time output from medical schools in Britain and North America has been significantly raised and is likely to increase further in the next decade.‡ On the other hand, the oil producing countries, particularly in the Middle East, have emerged as new areas of rising demand for high level manpower. And in the European Economic Community moves towards the liberalisation of professional licensure regulations, coinciding with Britain's entry, have increased the opportunities for movement between and therefore possibly into the EEC countries.

3. While a change in the direction of brain drain§ thus seems fairly certain, the prospects for the size of the outflow, although in any case likely to be below pre-1974 levels at least for some years, depend to some extent on the timing and pace of recovery from recession. In the case of professions other than doctors the reaction to recession in the developed countries has been to cut back on training provision, which in time may mean short term employment opportunities for qualified immigrants as economic activity picks up. Even in the case of the medical profession, with its very different institutional framework, the rate of increase in demand may in some instances outstrip that of supply. Moreover, to the extent that Third World professionals fill *specific* roles in developed countries, opportunities for them might persist even though the gap between *overall* demand and supply were closing.

4. Even if the numbers actually migrating were to fall drastically over the next few years this would not be the end of the brain drain and its related problems. As things now stand the training institutions of the Third World have the capacity to produce increasing numbers of internationally acceptable and potentially mobile professionals, to be added to the world's 'reserve army' of high-level manpower to be drawn on at will by the developed countries. As will emerge in what follows,

*See UN ECOSOC (1975) for a review of relevant statistical sources and gaps.

†See UN ECOSOC (1974) UNCTAD (1975), De Voretz and Maki (1975) Balacs (1975) for discussion of these series.

‡See below, para. 33 for further discussion.

§The term 'brain drain' refers to professionals who leave their country of origin either permanently or for extended time periods that are unrelated to sponsored training.

the problem is not so much the numbers who migrate as the distortion in training systems and economic structures that their mobility implies.

5. The persistence of the problem reflects the ineffectiveness of the policies so far implemented to reduce it. This ineffectiveness stems largely, it will be argued here, from the inadequacy of the standard framework of analysis, which also misrepresents the effects of the brain drain. In the following pages the assumptions underlying, and the policy prescriptions arising from the traditional approach are examined and an alternative framework is suggested – with alternative implications for policy.

Analysis

6. The standard framework of analysis of the *effects* of brain drain is that of neoclassical welfare economics. The typical neoclassical view is that those remaining behind suffer no loss in welfare as a result of the migration of an educated person from a poor to a rich country. Grubel and Scott (1966, p.270), for instance, maintain that “the emigrant removes both his contribution to national output and the income that gives him a claim to this share, so that other incomes remain unchanged”. Even in its own terms such analysis is fallacious. The proposition that brain drain will leave the income of those remaining behind unchanged holds only if a *marginal* loss of a single skilled worker is involved. But, as Sen remarks (1969, p.4), “who is really interested in a one-man brain drain?” It is easy enough to show that, given normal neoclassical assumptions about demand conditions, the loss of output resulting from substantial emigration will exceed the consequent fall in the wage bill. In other words the average income of those remaining behind will fall; in which case there is a situation in which some (the emigrants) gain and some (the non-emigrants) lose and whether the results are regarded as net gain or net loss will depend on how the income units of each group are translated into welfare units. It seems at least plausible to suggest that when, as is usually the case, the gainers already have considerably higher incomes than the losers there is a presumption in favour of net loss from brain drain.*

7. Moreover, so far the argument has accepted the underlying neoclassical assumption of perfect competition in the relevant markets. In the real world of market imperfections, however, the impact of a skilled worker on an economy is not completely reflected in the size of his income; there will be indirect or ‘external’ effects on the output and incomes of others (such as, e.g. a doctor’s effect on the health and physical productivity of the labour force, and an agronomist’s on farmers’ crop yields etc.). The usual neoclassical attitude to such externalities might be summed up as “because no-one has yet demonstrated that these externalities are significant, we can disregard them”. A more convincing recognition of the reality of the disintegrated and administered labour markets of the Third World would be to concede that not only are externalities important but that they are likely to be significantly more important for developing countries than for developed ones.

8. In fact it is interesting to note that the most careful attempt to measure the effects of brain drain within the neoclassical framework (UNCTAD, 1975) does concede this point, defining benefits lost to the developing country and benefits gained by the developed country in terms of losses and gains of lifetime income streams, *but adjusting for estimated externalities and for intra-marginal gains or losses in excess of those indicated by market wages and salaries*. On this basis, using the actual figures for the numbers of Third World immigrant engineers, physicians and social and natural scientists into the United States in 1970, the authors calculate that this immigration represented a transfer to the US of around \$3,700 million, compared with US development assistance to developing countries in the same year of \$3,100 million.

9. As might be expected neoclassical analysis of the *causes* of brain drain puts the emphasis heavily on economic motives. The standard hypothesis, the one that most empirical work on brain drain has set out to test, runs broadly as follows. The net inflow of educated persons from a poor to a rich country will be the greater, the greater the relevant salary differentials between the countries; the easier it is for an immigrant to get an appropriate and satisfying job in the rich

*The resort to more sophisticated ‘production-function’ models (e.g. Johnson 1967, Kenen 1971, Grubel 1975) does not alter the validity of this conclusion. See Sen (1969) and Bhagwati and Rodriguez (1975) for discussion of such models.

country; the more difficult it is for a potential emigrant to get such a job in the poor country; and the lower the cost of migration and relocation in the rich country.

10. There can be little quarrel with the view that economic considerations (thus broadly defined) predominate. Certainly this is what migrants tend to tell surveyors inquiring into their motives. The recent UNITAR survey (Glaser 1974), for instances, carried out in France, Canada, the US, Sri Lanka, Greece, Ghana, Brazil and Colombia, suggests adequacy of income, quality of jobs, number of jobs and the interests of children as the strongest influences on migration plans at all stages. Similarly an earlier UNITAR (1971) survey of Cameroon, Colombia, Lebanon, the Philippines and Trinidad and Tobago found the economic factor, including the employment situation, working conditions and salaries, to be the most important one.

11. However, this does not necessarily mean that rates of migration respond to *marginal changes* in these economic variables. The data are too poor to be confident about the results of regression analysis, but the hypothesis that the pattern of immigration is related to (i) the income difference between the country of origin and the US and (ii) cost of transportation involved in the movement does not come well out of an analysis by Sen (1971 and 1973) of immigration of less developed country engineers, doctors, dentists and natural and social scientists into the US in 1966 and 1967. Except for the case of doctors and dentists, where special institutional factors apply, the strongest explanation of the pattern seems to be in terms of the number of students doing graduate work in the US. These results are highly tentative, but in general they are consistent with the fundamental critique of the standard framework, to which the discussion will now turn.

12. The fundamental inadequacy of neoclassical analysis of brain drain derives from the fact that it deals with the response of individuals to a number of variables without taking account of the *structure* within which individual decisions are made and of the relevant interdependencies and dynamic effects.

13. The most important aspect of this structure is the existence of an international market in professional skills into which the educated elite of the Third World is more or less integrated, to the benefit of their salary levels and, in a process of institutional determination of salaries, those of all who can plausibly claim 'comparability' with them.* The condition of integration into this international market is the possession of *internationally negotiable qualifications* and international negotiability implies, to a varying degree, lack of relation to local needs. In other words Third World professionals acquire international mobility either by studying abroad or by attending a local institution with curricula and syllabi appropriate to the job context of the developed rather than the less developed countries.†

14. In addition to this qualitative distortion of education and training systems the tying of local professionals into the international rather than the local market, and the consequently higher anticipated private rate of return on their training open to them, *build in* an overproduction of inappropriate skills as the state responds to the excess demand for training school places by building more training schools or by sending more students overseas. This is the point overlooked by economists who talk about overflow rather than drain. Their view‡ that the brain drain is no problem because there is a surplus of educated manpower at home can be seen to be excessively static, to say the least.

15. All this fits in well with Sen's conclusion, already discussed (para. 11), that the most powerful explanation of the pattern of Third-World immigration into the US is provided by the number of nationals doing graduate work in the US. Some qualifications, clearly, are more negotiable than others and none more so than those of a receiving country's own graduate schools. In general one might predict that the less internationally acceptable are the qualifications obtained (whether at home or abroad) by a category of professionals the lower the incidence of brain drain. This general line of reasoning is supported by Myint (1968) for example, who observes that one of the

*See Godfrey (1970 and 1975) and Bhagwati and Hamada (1973) for further discussion.

†See Ozlak and Caputo (1973) for a discussion of these issues in relation to the Latin American medical profession.
‡e.g. Baldwin (1970): "The less developed countries are not being stripped of manpower they badly need; more often than not they are being relieved of manpower they cannot use".

reasons why “the actual brain drain of engineers from Asian countries has been much less than of doctors” is that “professional affiliations between the advanced and the underdeveloped countries seem to be weaker for engineers than for doctors, so that an engineer trained in Asia is less likely to obtain a professional appointment in the United States or Britain without further training in these countries” (p.241). It must be stressed that the point at issue is not so much this international negotiability and consequent mobility as such, but the effects these have upon the possibility of creating more relevant professional cadres within the Third World.

Doctor case study

16. The brain drain is made up of many kinds of professionals, and of movements between different types of countries. However, serious international public concern over the brain drain issue has been reserved primarily to the movement of professionals from the less to the more developed countries. This continues to be the situation despite the increasing volume of professional migration from poorer developing countries to, in particular, oil and other mineral rich parts of the Third World. In some countries movements of this latter type are even being encouraged as an alternative to emigration to industrialised countries, and also because they are not generally of a permanent character. Such movements are also sometimes supported/justified on the basis of their potential for creating feelings of political solidarity between Third World countries. In any event the volume of movement of professionals from, say, the Indian sub-continent to the Middle East is still far less than to the industrialised countries and although such movements are still on the increase they are characterised more by circulating than one way flows (although some migrants use a posting in the Middle East or Africa as the basis of a further move to Europe or North America). It remains the case that the movement of professionals from developing to developed countries remains at the heart of the brain drain issue as a matter of significant international public concern.

17. The out-migration of Third World professionals has been dominated by movements to the industrialised English-speaking countries; that is, the United States, the United Kingdom, Canada and Australia. There are also relatively important flows into the Federal Republic of Germany and France. Because such a substantial part of all professional education within the Commonwealth is in the English language, its graduates are especially at risk with regard to future emigration. Movements within the Commonwealth itself are also facilitated by similarities in higher education and professional institutional structures.

18. The professional composition of the migrants varies according to country and has changed over time in keeping with the needs (demands) particularly of industrialised countries. The groups that have dominated the migration statistics since 1967 (the year US professional immigration rose by over 60%) are scientists, engineers and doctors. In spite of the overall significance of these categories there are other, smaller groups that constitute areas of concern in particular countries, for example accountants in Sri Lanka and teachers in the Commonwealth Caribbean. Although there are conditions that are specific to the migration of each category of professional and to each country, there are also broader and more significant issues that apply more or less ‘across the board’. These issues are well illustrated in the case of the migration of health workers in general and doctors in particular.

19. Within the United Nations and most other international bodies concern over the brain drain extends to all categories of professional migrants. However, within both donor and recipient countries it is doctor migration that tends to generate the greatest volume of interest and feeling. It is also important to note that even in quantitative terms doctors migration has come to dominate international professional movements as the increased output of science and engineering graduates in the United States in particular, coupled with economic recession, has reduced the demand for immigrants with these skills.

20. Doctors and other health workers, then, constitute the most significant group of migrants from the point of view of both developing and developed countries. The flow of doctors from developing to developed countries is limited primarily to movements into the United States, the United Kingdom and Canada, with minor flows to a few other countries. It must not be imagined that the countries into which the doctors are migrating are receiving them with enthusiasm: in fact they are acceptable only because they are meeting an existing demand for a greater number

of doctors (or nurses etc.) than the recipient countries have been able (or willing) to meet from their own resources. The most important question that arises with regard to this migration is why the Third World continues to supply medical doctors and other health workers to meet the needs of a few western industrialised countries, thereby depriving themselves of significant numbers of their own scarce health workers.

21. Perhaps because the medical brain drain is most often discussed by members of the medical profession the stock 'solutions' offered for the problem appear to be directed primarily toward costly improvements in the training and working conditions of the potential migrants. It is the contention here that it is just such improvements that have created in the past, and are encouraging now, the basic conditions that have led in the first place to international medical migrations; that is, they widen further the gap between effective economic demand for medical skills and the cost of utilising these still more expensively trained and paid medical practitioners. In fact, the international migration of doctors is primarily the result — as well as a measure — of the maltraining and related malutilization of medical manpower, and graduates in particular. In the broader sense this is equally true in the case of the United Kingdom or India.

22. Medical migration is a reasonable response to national and international inequalities in the distribution of income. Like other workers, doctors sell their wares in the market place. In fact the present national and international distribution of the stock of doctors and the flows of additional medical graduates are closely correlated to the overall pattern of income distribution within and between countries. The distribution of doctors not only reflects income inequalities, but is in itself a part of that inequality. It is a stark truth that medical skills are not distributed in keeping with need — as shown by morbidity and mortality indices — but rather in accordance with the workings of the market place in a world of sharp income inequalities. The same conditions that encourage a concentration of medical skills in the metropolitan areas of Third World countries assure the international movements of these same skills.

23. Given the poverty of most of the population of developing countries, a health care system which is either part of or oriented to the private sector and those with money incomes will become virtually irrelevant (in any positive sense) to at least one of the 'two nations' which comprise each underdeveloped country. The permanent migration of high level medical manpower arises from the production of personnel to meet the health care requirements of both nations: the one which can pay for the services of medical doctors and the one which cannot. It has even been argued by those who accept the market place as the final arbiter of who shall or shall not enjoy the benefit of medical care that there is, in fact, no brain drain of professional manpower, but rather only an 'overflow' relative to effective economic demand.

24. The picture, then, is something as follows:

(a) Traditional medical education is based on the values and requirements ('standards') of those with sufficient income to purchase private medical care; at the same time the 'native practitioners', who are the only ones able to meet the effective economic demand of those with very small (or no) money income, are labelled as quacks and either barred from practice outright or forced to operate without benefit of state support either for facilities or training. On the same basis there is opposition, usually successful, to the production of medical assistants and other types of alternatives to the graduate medical practitioner.

(b) Based upon a desire to change existing national doctor-population ratios that are very different from those to be found in industrialised countries there is increasing pressure for the training of greater numbers of doctors; additional medical graduates then lead to the demand for postgraduate specialisations and large urban, especially teaching, hospitals as places of employment; these in turn lead to more graduates and specialists. There is then little left for basic rural primary care services or even for basic pharmaceutical products, especially at the 'periphery', as doctors' salaries and other related specialised requirements take up an ever-increasing proportion of very limited health sector resources. The privileged position won by the doctors encourages the entire process until there is an over-supply relative to the employment aspirations of the graduates and they emigrate, if they can. Meanwhile, the bulk of the population remains without benefit not only of doctors' services, but of any type of health worker at all.

(c) An important element in all of this is the growing demand for higher education for the children of an expanding middle class. At the same time these same middle classes provide the major markets for doctors' services. However, there cannot be doctor – (middle class) family ratios that are low enough to prevent oversupply relative to effective economic demand. The very expensive training costs of medical doctors (which are so high just because they are trained in keeping with private sector 'standards' and traditions) means that most of the population cannot possibly afford the expectations/requirements of the medical graduates. Therefore, there is an 'overflow' of these graduates to those parts of the world where demand is greater than the current supply of doctors, most notably North America. (The movement to Britain has been largely a replacement of those Britishers who have already emigrated.) The very possibility of lucrative overseas employment, in turn, encourages the output of still greater numbers of medical graduates having no prospect of employment in their home countries. Even now, in some countries at least, medical graduates are consciously being produced for the international market.

25. The market for doctors of the type currently being trained is extremely limited in the context of most Third World countries. Although a more equitable distribution of income would probably lead to a greater overall demand for the services of medical practitioners (including those of a non-graduate variety) it might also lead, in the short run anyway, to a decline in demand for those services being produced by highly specialised graduates and an increase in emigration of such people. In practice this would depend upon the rate at which income redistribution and the consequent demand for different types of medical practitioners was to proceed, the volume of output of graduates from the medical schools, adjustments in medical school curricula, government policies with regard to the control of intending emigrants, and the level of international demand for the potential emigrés. The precise balance of such factors could only be found in the context of specific countries. In any event, it is broadly the case that so long as doctors are trained in keeping with private sector traditions and the requirements of a very limited urban middle class, just so long will there be an 'overflow' from those countries with a small demand for such training to those with a greater (unmet) demand for such skills.

26. In Asia it is possible to see most of the distortions that arise from overproduction of the wrong type of medical practitioner. This overproduction has led to the massive migration of medical graduates from such countries as India, Pakistan, Sri Lanka and the Philippines. In response to this situation Sri Lanka has curtailed medical school output and India ended expansion of intake, but Pakistan and Bangladesh are in the process of doubling intake into medical schools, at least partly to make up for emigration. In some Indian states the glut of doctors demands that virtually all health planning be centred around the need to employ these high status professionals, thus further distorting the health delivery system. In the Philippines the output of doctors is very much related to the American market for the product. In almost all countries the relative or absolute over-supply of medical graduates having an almost totally hospital oriented training is adding to the pressures for the construction of still more urban hospitals rather than higher priority rural facilities.

27. In a number of countries extensive emigration is coupled with inflows from other countries. Thus Caribbean Commonwealth doctors emigrate to North America and Nigerian and Ghanaian medical graduates find employment in the United Kingdom, while their governments recruit replacements from countries such as India and Sri Lanka. There are also movements from smaller and poorer countries to larger and richer ones within given regions e.g. the Caribbean Commonwealth or West Africa.

28. The training of doctors, with respect to both numbers and curriculum 'standards', is based upon the assumption that health care delivery systems must be based upon the availability of professionals with up to 20 years of basic schooling and medical education, which then can become the basis for many more years of specialist training. These assumptions are held in spite of the well established and publicised fact that in all countries of the world the vast bulk of illness and mortality does not require the attention of highly trained practitioners of the medical sciences. Of course, this situation is particularly clear in countries characterised by levels of infant mortality of anywhere between 50 and 200 per 1,000 live births. The type of training under discussion also reinforces the desire for urban/hospital/private medical practice to the detriment of rural/health centre/public health work.

29. The number of highly trained medical practitioners (registered doctors) planned for production is generally based upon some sort of doctor-population ratio. Such ratios not only do not consider the basic disease pattern of a country, and thus the need for doctors, but also ignore the possibilities for medical graduates to fulfil their employment expectations and the consequent effects upon their distribution and functions. In fact, the planned output of doctors is generally not even related to the availability of other types of health workers. Thus the illogical situation arises of there being more doctors in employment in many countries than there are nurses or other categories of key paramedical and auxiliary staff. In some parts of the world there can be found doctors in rural clinics without either supporting staff or the possibility of doing immunisations or providing a drug, at least partly because health ministry budgets have been so badly distorted by the need to provide salaries for expensively trained doctors (and in some cases registered nurses).

30. Most international migration occurs when the economic demand for general or specialist doctors' services in a particular country has been saturated (although in certain instances the situation has been reached in which students are trained specifically with the intention of emigrating). At present urban demand is great enough to support about as many doctors in the capital city of many a developing country as can be found in a large European or American city. However, effective rural demand cannot support more than a handful of conventional doctors per million of the population. The only way to change that rural ratio is to change the level of demand and so make it possible for doctors (or non-graduate medical practitioners) to find employment in the rural areas or small towns of their own countries rather than abroad. (It must be added that effective economic demand need not be stimulated only through financial payments to doctors, in the form either of fees or salaries, but through the provision of a number of other employment incentives.)

31. On their arrival in North America or the United Kingdom doctors and nurses from the Third World mostly take up low status employment in the less desirable hospitals. In fact without the presence of tens of thousands of doctors from the less developed countries the hospital systems of the United States and United Kingdom could not continue to function. The dependence of these countries on foreign medical graduates is a reflection of deficiencies in their own training programmes, and/or systems for delivering health care.

32. The unmet demand for medical doctors has been most marked in the United States. This situation has arisen because, primarily as a result of pressure from the organised medical profession, intake and output from United States medical schools had been held more or less constant from the end of the Second World War to the late 1960's. In the interim United States demand for doctors had become so great that by 1973 there were over 12,000 *new* medical registrations in that country of foreign medical graduates (55% of the total of all new registrations*). In that same year, of almost 16,700 licentiates representing additions to *unrestricted* medical practice in the United States over 7,400 (44.5%) were graduates of foreign medical schools. Well over three-quarters of these graduates were from developing countries. One US study (Haug and Stevens 1973) found that of all foreign-educated doctors in the country in 1963 almost 84% were still there in 1971. Of those who had come to the United States nominally for temporary training 74% were still resident in the country at the end of the eight year period. Estimates for the United Kingdom indicate that in the years preceding 1973 and 1974 the gross annual inflow of doctors into the country came to about 3,000, with the net gain by the United Kingdom being about 1,000 per annum. In 1973 and 1974, the gross inflow is estimated to have been 2,000 and the net gain 1,300. The year 1975 may have seen a balance inflow and outflow of about 1,000 in each direction.

33. The policies of key industrial countries concerning the immigration of (especially) Third World doctors are being reshaped in keeping with very substantial increases in output from their medical schools. In the United States medical school intake has almost doubled over the past decade and will provide an output by 1980 of approximately 15,000 per annum. In Britain medical school intake has increased by about 50% over the past decade and will have almost doubled

*However a recent study (Stevens et al 1975) indicated that there has been consistent overestimation, based upon double counting, of the total number of medical immigrants into the US.

by 1980 to provide an output of over 4,000 graduates per annum. Canadian output had doubled by 1976 from its 1963 base of around 800. In Australia the 500 medical school graduates of 1962 will have increased to over 1200 by 1980, and in New Zealand output will have almost tripled from 110 to 320 during the years 1972–1981. Taken together, medical school output in the four wealthy Commonwealth countries will have increased by around 150% between the early 1960's and 1980.

34. Although it may be some years before it will become possible for medical employers in countries such as the United States or the United Kingdom to find citizen replacements for all the foreign-born doctors already in their countries not yet in protected types of employment (e.g. junior hospital doctors) current output from their medical schools should be sufficient to reduce rather quickly the intake of additional immigrant doctors. In fact, as a result of increases in output coupled with growing concern over many aspects of the medical brain drain, Britain, Canada and Australia have already taken major steps to limit medical immigration. Although similar new initiatives have not yet been undertaken in the case of the United States, based upon the current state of discussion in that country there is reason to anticipate the development of more restrictive medical immigration policies in the not too distant future. It is worth noting that the reduction or end of medical migration to Canada and Australia and possibly the United States will also mean a sharp reduction in British medical emigration and thus that country's dependence on doctors from abroad.

35. As a result of new immigration policies on the part of the industrialised countries it is likely that over the next five to ten years medical migration from the less developed to the industrialised countries will have been reduced very substantially, perhaps to a very few indeed. This fact seems not yet to be sufficiently appreciated and apparently in some countries at least there is discussion/planning for increased medical school output based upon the expectation of continued doctor migration. This discussion takes the form of acceptance of medical migration as a continuing fact of life and sometimes even proposes payments to donor countries by recipient countries for the 'lost' doctors who, presumably, then would be trained even more closely in keeping with the needs of the receiving industrialised countries. To expand medical schools on the basis of expected continued migration would be a grave error and could only perpetuate the continued production of an inappropriate type of graduate. The situation has gone so far, in some countries at least, that it almost appears as if migration has become a necessary fact of life to justify the continuing (over) production of inappropriately trained medical graduates. Actually much of the ambivalence of Third World countries over the brain drain issue is to be found here. On the one hand there is the desire to continue with the output of increasing numbers of 'internationally acceptable' medical graduates, and on the other the inability to either meet the expectations or be able to utilise very many such graduates.

36. In almost all developing countries medical education is said to be based on the dual principles of 'having medical education match the country's needs' and 'raising standards to keep up with the most modern developments'. Of course, these 'most modern developments' are determined by contemporary practice in London or New York, and consequently are mostly unrelated to the problems and possibilities of developing countries. Although the highest of *relevant* standards must always be aimed at, if it is the case that the standards by which medical education is actually measured are not relevant to, say, India or Ghana then it is highly unlikely that the 'raising' of those standards will increase the quality of medical care available to most Indians or Ghanaians. In the conflict between 'relevant' medical education and higher 'standards' it is invariably the relevance that loses out, to a significant degree because of the fears of medical professionals of being 'cut off' from the greater world of medicine as it is practised in the richer countries.

37. It is likely that an end to medical migration from poorer to richer countries is likely to occur more because of increasing production and proper utilisation of medical graduates by (particularly) the United States, Canada and the United Kingdom rather than from any other single factor. The question then will be whether or not Third World doctors will be willing to accept work in the smaller towns of their countries (if not the countryside itself) in the absence of international alternatives, or whether they will leave medical practice entirely. The basic problems connected with the brain drain of medical doctors are unlikely to be solved as long as countries continue to

(over) produce inappropriate types of medical graduates. If medical doctors continue to be trained by poor countries to fill non-existent teaching hospital/consultant type posts, it will be inevitable that at least some of them will (attempt to) emigrate to richer countries that have been unable to meet from their own resources the demand for those services. If we begin with a situation in which some parts of the world are rich enough to support a high level of economic demand for medical services while others cannot, and then allow free market forces to determine the allocation of scarce medical resources, inevitably doctors as presently trained and utilised will (attempt to) move in the direction of the richer regions of the world.

38. International medical movements are particularly harmful in the ways in which they help to distort the educational and health care systems of developing countries. Given the nature of these systems, the medical brain drain is not by itself a problem: either jobs do not exist for those who emigrate or else health workers will not take those that are available. It follows that the return home of the emigrants is not by itself a good thing. Data on returned doctors (Gish 1971) show that they do not work outside the urban areas, and many leave the public sector altogether in favour of private practice. Even the further emigration of those who have already been 'programmed' by their education to join the ranks of the migrants need not be considered a very serious problem. What does matter is that countries which are losing their graduates learn from their experience and act upon it. The international movements discussed here are the logical extension of the kinds of health care systems to be seen in most developing countries. So long as health care is primarily available within the traditions and context of the market place it is inevitable for any oversupply of doctors (relative to economic demand in any particular national context) to overflow into the world market, and the very existence of this world market will prevent the market mechanism from bringing the supply of doctors into line with demand. Even in the United Kingdom, where health care is largely free at point of delivery, the oversupply of specialists relative to specialist (consultant) demand as determined by the National Health Service, coupled with buoyant North American demand for specialist services, is making for continued medical emigration.

39. The question of international medical migration is of interest not so much in itself, but because of what it reveals about the nature of particular health care systems and the socio-political structures in which they operate. If everything else were to stay much the same the reduction of medical emigration would probably make no difference at all to the welfare of most of the population of countries such as India or Jamaica. In the same vein, the solution to the problems raised by these international movements are not to be found within the movements themselves but in necessary changes within the framework of specific national health care systems and, of course, the social, political and class structures in which they exist.

Policy recommendations

40. Most of the usual policy prescriptions on brain drain are derived from the neoclassical framework of analysis. Within this framework the archetypal prescription is that nothing should be done about it since the gains from brain drain on a world scale outweigh the losses, even though these are not equitably distributed between countries. It has been argued that such complacency is unjustified on the grounds both of the internal logic of the economic theory on which it is based and of its neglect of more fundamental issues.

41. If it is accepted that there is a problem but an orthodox view of its causes is still taken, then the solution implied by neoclassical analysis is that of change in monetary rewards and working conditions. A typical statement of this position is that of Baldwin (1970, p.370), summarising the recommendations of the 1970 Education and World Affairs (EWA) committee of which he was a member: "The EWA viewpoint amounts to saying that professional men the world over have much the same requirements for job satisfaction and, unless the traditional cultures and pay scales of many brain-losing countries (developed and less developed alike) can adapt to these requirements, then, in Kenneth Boulding's phrase, 'high-level manpower with get-up-and-go will get up and go' ". Similar recommendations, if less forthrightly expressed, can be found in countless national and international reports on brain drain, including for instance that of a committee of the Sri Lanka Cabinet (1974, pp.36–49) and the Colombo Plan Bureau (1972, p.4).

42. The problem with such recommendations, even in their own terms, is that the changes in monetary and non-monetary rewards necessary to stop the brain drain may be much larger than is practically conceivable.* A similar point might be made about changes in standards of working conditions. Moreover, to try to pay international transfer earnings to the internationally mobile (particularly since other groups of top salary earners would plausibly claim 'comparability' with them) would not only reduce the numbers that could be absorbed at home but would also make domestic income distribution even less equal.†

43. The difficulty of meeting international (i.e. rich country) wage and other employment standards may be one reason why policy prescribers and governments often resort to emigration controls and bonding schemes intended to control potential emigrants. Controls over passports and foreign exchange obviously can be an effective means of preventing people from leaving a country where the will and capacity to operate them efficiently exists. Bonding schemes may be less effective in this respect, only postponing the date on which people leave rather than preventing their leaving and inviting ingenuity in evading bonds on the part of those trained at home and bond breaking by those trained overseas.‡ Moreover a problem with both controls and bonding schemes is that those retained by these methods are likely to be frustrated, demoralised and conservative, forming a particular obstacle to programmes of reform such as those discussed below. However, it is also possible for such groups later to become radical dissenters from the 'system'.

44. Still within the neoclassical framework another policy prescription might be to reduce the salary gap and incentive to migrate by effectively lowering the rewards of migrant professionals at their destination rather than raising their rewards at home. This in effect is what the recent 'Bhagwati income tax' proposal amounts to (Bhagwati and Dellafar 1973). A tax, which could be progressive or proportional, would be collected from immigrant less developed country (LDC) professionals by the tax authorities of the host developed country (DC) over a limited period and eventually handed over under United Nations auspices to the government of the country of origin. The impact of such a scheme would obviously depend on the elasticity of response to the tax. If, as preliminary calculations§ suggest, tax rates would have to be unacceptably punitive for the tax to have more than a marginal effect on the number of migrants the scheme would be little different in effect from straight government-to-government compensation (as recommended, e.g., by UNCTAD 1975) or, for that matter, from the contracts actually signed for the 'export' of professional manpower from LDCs (e.g. Filipino nurses to Austria and South Korean nurses and aides to West Germany, Switzerland and Japan). Such schemes amount in effect to an acceptance of the debilitating structural consequences of integration into the international market for professional skills, already described above. This applies particularly strongly to the export contracts, which institutionalise a continuing distortion of training and education systems and salary structures in the country of origin. Vigorous pressure by Third World governments under UNCTAD auspices for compensation for brain drain must of course continue, but compensation cannot be seen as a 'solution' for the problems involved.

45. So far the discussion has been concerned with the policy implications arising from the standard neoclassical framework of analysis and has found such policy measures to be as unsatisfactory as the framework on which they are based. If on the other hand an alternative framework of analysis (already discussed, paras. 4–15) which regards brain drain as a reflection of integration into an international market in professional skills is adopted, then the only way of achieving a substantial impact on the drain (and on the more serious internal distortions that it reflects) is *withdrawal from that market*. This would involve substantial changes in educational policy aimed at training for internal needs rather than for external markets. As the authors of the United Nations ECOSOC report (1975, p.24) point out, a "policy to train personnel to be functional in the environment of developing countries will have the direct effect of making them dis-functional for

*e.g. See Sen (1973, p.403).

†See above, para. 13, and Godfrey (1975) for further discussion of this international-transmission-of-inequality effect.

‡See Senewiratne (1975) for examples of Sri Lanka's experience.

§e.g. see Psacharopoulos (1975) and De Voretz and Maki (1975).

the developed countries and thus reduce their migration". It would also have wider implications, as will emerge.

46. Questions of political feasibility are obviously raised by such a policy, but before confronting them it is important to be clear about the range of policy possibilities implied by a programme of withdrawal. The Commonwealth offers a unique forum for the discussion of mutually agreeable solutions to problems but it may be useful, to begin with, to distinguish between policy measures to be taken by LDC governments and those to be taken by DC governments.

47. *For LDC Commonwealth governments* a programme of withdrawal from the international market in professional skills would involve the following:

- (a) An end to the use of DC (usually British) qualifications in local training institutions, in the few cases where this practice continues.
- (b) An end to the sitting of foreign professional examinations in LDCs (particularly the US ECFMG) and to advertisement and recruitment for posts in DCs (in this respect the operation of DC based correspondence colleges might also be looked into).
- (c) Disaffiliation from DC dominated international professional associations, which usually see the establishment of a common standard and inter-recognition of national qualifications as one of their aims, and exploration of the possibility of setting up associations of LDC professionals committed to greater relevance: obviously this would involve a critical re-examination of the role of Commonwealth professional associations. As Johnson and Caygill (1972, especially Ch.11) show, most Commonwealth professional groupings are working towards the establishment of a common standard, with particularly tight systems of inter-recognition in the medical and architectural professions.
- (d) The sending of students on more relevant and thus probably 'less negotiable' overseas courses, in cases where the training was not currently available at home, and preferably on relevant courses in other LDCs.
- (e) The development of local courses and qualifications which were both highly suitable to the needs of the indigenous economy and therefore probably less acceptable to DC employers and training institutions. In the case of the medical profession the principles on which such redesigning would be based are fairly clear. In the case of production-based professions (e.g. engineering, accountancy) the task of changing the content and balance of training might be more difficult, but even a change in length of courses and title of qualifications would affect negotiability – and the process would be reinforced by the other policy measures. To gain support for this policy the cost to the nation of an individual's (inappropriate) higher education should be well advertised.
- (f) The development of new centres of higher education and training on a regional LDC basis as an alternative to DC training in cases where skills are too specialised and/or needed in too small quantities to justify providing training at home.
- (g) The use of a national language as the medium of instruction in courses and textbooks, an important aid to insulation as in the cases of Japan and China.
- (h) Changes on the demand side, i.e. in the structure of rewards and in job content. The opportunity, offered by withdrawal from the international market, would be taken to bring the structure of rewards (and associated private rates of return on different types of training) into line with social priorities, since there is little point in trying to reform education and training in the face of contrary pulls from the market. At the same time a redefinition in job content, again in line with social priorities, would be needed, parallel to the educational reforms already discussed.
- (i) The use of scholarships policy, foreign exchange and passport controls to discourage overseas study for the acquisition of negotiable qualifications. This might be reinforced by making local/relevant postgraduate training and experience pre-conditions for government employment.
- (j) Recognition of the wider implications of such a programme. For instance, in the case of production-based professions changes in job content would probably imply changes in tech-

nology, which may not be possible without changes in the nature of products, and these changes in turn may be dependent on changes in the structure of consumer demand and thus income distribution and social structure. Moreover, because multinational corporations bring the international market for managerial skills to the doorstep of many Third World countries, representing a second form of integration into the international market, they would have to be dealt with if the full benefits of withdrawal to the local wage and salary structure were to be obtained.* In other words, when all the interdependences are taken into account withdrawal begins to look somewhat comprehensive.

(k) The restriction of the output of professionals by LDCs to the number that can be absorbed at home, even at the risk of some shortages in the short run.† This would be an attempt to break the dynamic, circular interconnection between excess supply in LDCs and excess demand in DCs. The knowledge on the part of DC authorities that the supply of 'excess' Third World professionals is likely to dry up would be a powerful impetus towards DC self-sufficiency. And, as already emphasised, withdrawal from the international market in skills would itself reduce the pressure of demand for places in LDC training institutions, thus easing the task of reducing intake into and output from these institutions.

48. Of course it is one thing to set out the logical implications of the objective of ending brain drain and the internal distortions associated with it, and quite another to recommend these measures as an immediately implementable programme in all countries. Members of the affected professions in most cases would feel bound to oppose such a policy. Moreover, government decision takers themselves might well be unwilling to dismantle a structure which yields them substantial benefits of one kind or another. A prerequisite of implementation of a programme of withdrawal would be the existence of a government willing to transcend such narrow material interests and capable of either gaining the cooperation of the established professions or by-passing them. As far as short term strategy is concerned, in most countries it might well be better to avoid confrontation with the established professions, allowing their members to come and go freely without trying to force (or bribe) them to stay at home. The use of special incentives and controls to retain the internationally mobile may reduce net outflow in the short run, but could strengthen the opposition to a longer-term solution. Initial concentration on the more positive elements in the programme, such as the establishment of new training centres, might also be strategically advisable.

49. *For DC Commonwealth governments* a programme of withdrawal, or disintegration of the international market in professional skills, would imply the following:

- (a) Cooperation with LDC governments in the phasing out of the use of DC qualifications and in the withdrawal of DC examinations, recruiting teams and advertisements from LDCs.
- (b) *In consultation with LDC governments* the withholding of recognition by DC authorities of LDC qualifications and the control of LDC entrants to training courses in DCs. A decision such as that recently made by the UK General Medical Council to withhold recognition of Indian medical qualifications (if it were made in consultation and not unilaterally as was the case) would be welcomed by LDC governments, in the context of a programme of withdrawal, rather than deplored as an affront to national dignity.
- (c) A sympathetic attitude towards the reshaping of international professional associations, particularly those of the Commonwealth, along the lines suggested above.
- (d) A change of emphasis in the provision of technical assistance awards towards third country training, particularly for courses in other LDCs, but also allowing for the possibility of attending more relevant and less negotiable courses in other DCs. The aim would be for an accelerated reduction in the number of LDC trainees in developed countries, again in consultation with LDC governments.

*See Godfrey (1975) for further discussion of these issues.

†The concept of a 'shortage' of manpower is extremely complex and encompasses many variables. The replacement of expatriate personnel is one such important variable. With regard to health manpower, it is necessary to take into account the requirement for specialist staff, so as to end dependence on foreign personnel, within the context of overall and balanced manpower planning.

(e) Technical assistance for the redefinition of job content in LDC professions in line with social priorities, and for the development of the alternative curricula, syllabi and structures implied by this redefinition; also for assistance with manpower planning directed towards creating a closer match between the output of LDC professional manpower and absorption capacity.

(f) As a major part of the educational assistance programme, support for the development of the new regional centres of relevant higher education and training. This would include finance for the necessary feasibility studies and surveys of past experience in such cooperation, as well as for the current capital and recurrent costs of the institutions.

(g) If requested and if feasible, assistance for the development of courses and textbooks in 'non-international' languages.

(h) Also, if requested, assistance with studies of the problems involved in bringing the structure of effective demand into line with the social priorities reflected in the redesign of job content, etc.

(i) Continued progress towards self-sufficiency in the DCs' markets for professionals. The problem in the past has lain in the awareness by DC authorities of the advantages (in cost terms anyway) of importing professionals rather than training their own. It seems that professional associations in DCs are now beginning to become aware of the implications for their own material interests of this process and hence abandoning traditional policies of restricting their own numbers as well as pressing for a reduction in reliance on immigrants. DC authorities, in consultation with their LDC counterparts in the Commonwealth, should continue to accede to this pressure and resist the temptation to draw on the still large reserve army of Third World professionals. In keeping with this policy closer monitoring of the flow of LDC professionals into and out of DCs would be required.

50. The implications of the above programme have been spelled out separately for LDC and DC governments, but it goes without saying that, within the Commonwealth, the most effective mode of implementation would be through mutual consultation and agreement between the governments of the less *and* more developed countries. Moreover, it is recognised that the very implementability of a programme of withdrawal and the optimum strategy for such implementation will vary from country to country. As such, it would be useful to study under different circumstances the possibilities and potential effects of the implementation of the recommended strategy of withdrawal. Rather than continue with general 'brain drain studies', which would imply that too little is as yet known about the phenomenon even to be able to propose a strategy of action, research on particular professional groups should be conducted in specific countries with a view towards testing the applicability of the framework put forward in this report. In practice, the best way to give specific form to the general policy recommendations suggested in this report is to study and plan for their application in the case of a particular professional group (or groups) under specific national conditions. For many of the reasons indicated earlier, doctors constitute a particularly interesting group for study. Commonwealth governments should be asked to express potential interest in such studies. Appropriate funding is likely to be available from any one of a number of bilateral and multilateral sources.

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ACKNOWLEDGEMENTS

Helpful comments on a first draft were received from Christopher Colclough, Ronald Dore, Edmundo Fuenzalida, Lalitha Gunawardena, Ashok Mitra, Enrique Oteiza, Dudley Seers, Osvaldo Sunkel and Jose Villamil.

Thanks go also to Roger Jeffery and Michael N. Kendall for their contributions and to Josie Stannard, Nina Cullum and Maureen Dickson for typing various drafts and the final report.

A NOTE ON OVERSEAS NURSES IN BRITAIN*

One major difference between the overseas nurses in Britain and the doctors is that in the former case the great majority receive their basic training in this country, rather than enter already qualified. It is, however, very difficult to estimate the extent of immigration of already trained nurses into the UK. The Department of Health and Social Security, for example, does not publish statistics showing the numbers of nursing staff who are of overseas birth, unless they are in training as students, pupils or pupil midwives. The ordinary immigration statistics, such as those relating to entrants to Britain who were subject to the Commonwealth Immigration Acts, have serious limitations for our purpose. The General Nursing Council for England and Wales keeps statistics of overseas trained nurses who are accepted for its register; however, it has no way of knowing what proportion of the overseas trained who go on its register actually enter the UK, or how long they spend there. As far as midwives are concerned, the Central Midwives Board (CMB) does not permit direct enrolment of those with overseas training, who are required to spend a qualifying period in the UK. In 1975, less than 1½% of the three-and-a-half thousand midwives who were newly entered on the roll had qualified initially in other countries, and then complied with the CMB's conditions.

Turning now to the trainees, concerning whom figures are regularly available from the DHSS, the proportion of overseas born students, pupils and pupil midwives has been around 25% since the early 1960s. About half of these trainees have been recruited directly from addresses in their own country, rather than after taking up residence in the United Kingdom. In 1974, there were 16,108 overseas-born trainees (21% of all trainees): 11,934 were from the Commonwealth, 2,155 from the Republic of Ireland, and 2,019 from other foreign countries.

In 1974, 44% of the overseas-born trainees were recruited directly from addresses in the UK. There is, however, no way of telling how long they had been resident there. One likely interpretation of the figures is that nurse training has been drawing fairly heavily on the established immigrant population, as well as on those coming to Britain specifically to train. There is considerable variation in the proportion of overseas-born trainees from different countries who were recruited directly. In 1974, 82% of the Malaysians, 60% of the Mauritians, but only 21% of the Jamaicans were recruited from addresses in their country of birth.

Some changes in the picture since 1964 can be seen in Table 1. There has been a decline in recruitment from the Republic of Ireland, and an increase in that from other foreign (non-Commonwealth) countries, though even in 1974 this latter group only accounted for one-eighth of the total of overseas-born trainees, of whom more than half come from the Philippines.

Turning to the Commonwealth countries, there has been a reduction by half in the proportion of trainees coming from the Caribbean (from two-fifths to only one-fifth of the total), and a threefold increase (from 10% to over 30%) in the proportion coming from Commonwealth Asia. In 1974 a quarter of all the overseas-born trainees were from Malaysia.

In conclusion, Britain has clearly been relying on substantial numbers of overseas-born trainee nurses and midwives for the staffing of its health service. It is not easy to say for how long and to what extent such a situation is likely to continue, particularly with regard to those recruited directly from abroad. The consequences for the sending countries of this migratory flow are hard to assess, and may well differ considerably from one country to another.

*I would like to acknowledge the help given by the General Nursing Council, the Central Midwives Board, and in particular the Department of Health & Social Security (Statistics and Research Division), without necessarily associating them with what has been written.

We do not know what proportion of overseas-born trainees remain in the UK on obtaining their qualification, return to their country of origin, or go on a third country. If they return, how appropriate will their UK training have been to the situation in their home countries? If they fail to return, are the sending countries losing in any sense the 'best' entrants to the profession, compared with those who return or train at home? Questions of this kind cannot be answered without further research.

Michael N. Kendall

Countries of origin of overseas-born student and pupil nurses and pupil midwives in training, with numbers recruited in their country of birth.
All hospitals, England and Wales

	Total No. (a)	1964 %	Recr. in ctry. of birth (b)	(b) as % of (a)	Total No. (a)	1969 %	Recr. in ctry. of birth (b)	(b) as % of (a)	Total No. (a)	1974 %	Recr. in ctry. of birth (b)	(b) as % of (a)
Commonwealth												
I. Caribbean Region												
Barbados	1,352		644		902		296		285		95	
Guyana	879		334		739		295		300		113	
Jamaica	3,073		553		2,645		628		1,327		276	
Trinidad and Tobago	1,255		569		1,900		1,167		896		392	
Other Caribbean	667		184		956		443		437		146	
	7,226	39.0	2,284	31.6	7,142	36.8	2,829	39.6	3,245	20.2	1,022	31.5
II. Africa												
Ghana	397		203		560		281		527		319	
Mauritius	276		109		1,793		1,307		1,706		1,023	
Nigeria	1,173		303		552		97		386		133	
Other Africa	1,212		718		1,054		470		740		253	
	3,058	16.5	1,333	43.6	3,959	20.4	2,155	54.4	3,359	20.9	1,728	51.4
III. Asia												
Hong Kong	312		184		799		632		296		161	
Malaysia	810		545		1,881		1,447		3,925		3,207	
Sri Lanka	117		72		394		296		333		215	
Other Asia	539		225		634		303		424		128	
	1,778	9.6	1,026	57.7	3,708	19.1	2,708	73.0	4,978	30.9	3,711	74.6
IV. Other Commonwealth												
Australia, Canada, New Zealand	194		114		251		149		260		100	
All other Commonwealth	213		120		222		145		92		30	
	407	2.2	234	57.5	473	2.4	294	62.2	352	2.2	130	36.9
Total Commonwealth	12,469	67.3	4,877	39.1	15,282	78.7	7,986	52.3	11,934	74.1	6,591	55.2
Foreign												
Philippines	9		3		192		146		1,046		665	
Other foreign	667		604		1,230		431		973		218	
Total foreign	1,676	9.1	607	36.2	1,422	7.3	577	40.6	2,019	12.5	883	43.7
Republic of Ireland	4,378	23.6	2,859	65.3	2,705	13.9	1,715	63.4	2,155	13.4	1,468	68.1
GRAND TOTAL	18,523	100.0	8,343	45.0	19,409	100.0	10,278	52.6	16,108	100.0	8,942	55.5

Source: Dept. of Health and Social Security, Statistics and Research Division: Overseas-born student and pupil nurses and pupil midwives in training in National Health Service Hospitals in England and Wales, 31 December 1964, 1969, 1974

Educational Bonds and Related Agreements

by Hamish Tristram LL.M.

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Governments that wish to secure the services of people trained at their expense (or at the expense of an aid agency or another government) usually rely upon a bonding agreement. All Commonwealth governments who replied to the Secretariat's circular used such agreements¹ in one form or another. Some supplement these undertakings, in the case of breach, by interceding with the governments of countries where students are studying to secure their return, by moral persuasion, or by refusing professional registration.² At least one Commonwealth government has established a statutory agency which offers loans to students. Clearly such a scheme cannot directly ensure that a student returns, or remains, to serve in his own country. Nonetheless there may be some value, by way of contrast, in outlining this alternative to bonding and it is dealt with at the end of this paper.

Bonding

2. There is a core to such agreements, irrespective of jurisdiction, namely an undertaking by the government (or an associated aid agency) to pay all or part of the tuition fees, transport costs, maintenance and incidental expenses of the student or trainee for an undertaking to serve within the country concerned for a stipulated period, usually in the government service but occasionally for parastatal or private employers. Where a government employee is assisted, the payment of salary in whole or in part is usually provided for.

3. The interest (and hopefully value) of a survey of these agreements lies in two areas: the *means of securing a bond* in the case of breach, and the *clauses included to cover contingencies* such as marriage and ill-health.

Securing the bond

4. The object of a bonding agreement from the viewpoint of a government is to secure the service of a person on the completion of his study or training. As the courts in common law jurisdictions will not force a person to carry out any duties undertaken in a contract of employment, a government must rely on the sanction of damages to persuade a student to fulfil his obligations. While there will normally be no difficulty in showing that the student has received some substantial benefit in return for his commitment, recovery on a bond will be made easier if the amounts disbursed are clearly and precisely itemised. For this reason a well-drafted bond will include a detailed recital of the kinds of expenses met by the government. In some instances a sum (usually referred to as "the headsum") will be specified, which will represent either a computation of the amounts actually to be expended or a lesser fixed amount. The care with which these provisions are drawn up reflects the difficulties encountered in enforcing bonds in the courts. Indeed in some countries, for example New Zealand, a bond is not enforceable unless the sum to be recovered is stipulated in the bonding agreement. Unless the headsum, or the damages claimed on breach, can clearly be related to sums actually spent, there is a possibility that the courts may regard a claim as an attempt to enforce a penalty. In Fiji, under an agreement used until 1971, no headsum was stipulated; the trainee was merely obliged to repay "sums incurred by the government". However it proved difficult to establish in court what had been spent in this

1 The following governments supplied information: Antigua, Australia, The Bahamas, Bangladesh, Barbados, Botswana, Cyprus, Fiji, India, Jamaica, Kenya, Lesotho, Malawi, Malta, Mauritius, New Zealand, St. Christopher/Nevis/Anguilla, Singapore, Sri Lanka, Swaziland, Tonga, Western Samoa, Zambia.

2 In Fiji, until 1974, the graduates of the Fiji School of Medicine could not practise privately. They may now, after 6 years' practice in Fiji, apply to engage in private practice.

way, especially where payments had been made under an aid scheme administered by another government. In Tonga, however, the headsum has been deliberately omitted because it was felt that students were less likely to default if they could not be certain of the financial consequences.

5. An example of a detailed recital of sums to be expended is the following clause, taken from an agreement drawn up by the Government of Zambia:—

“NOW THEREFORE in consideration of the undertaking by the student herein contained the government grants to the student financial assistance by making payments for the following purposes:

- (i) fees in connection with the course;
- (ii) transport by an approved route to the place where the course is being held and returning to the place of employment with the Government;
- (iii) maintenance allowance;
- (iv) dependant's allowance;
- (v) settling-in allowance;
- (vi) textbook allowance;
- (vii) caution money;
- (viii) excess baggage allowance on return to Zambia;
- (ix) additional allowance;
- (x) salary while attending the said course of studies, while travelling to the Institution at the commencement of the course and while returning at the end of the course to the place of employment with the Government”.³

This clause is more detailed than most. Agreements with people who are other than government employees will not, of course, provide for the payment of salary. The same agreement goes on to stipulate that:—

“The parties are hereto deemed to have mutually agreed upon the said payments as genuine pre-estimates of the losses sustainable by the Government in the events referred to and have stipulated for these payments as liquidated damages and not by way of penalty.”

It should be noted that there is no provision on the agreement itself for actual sums expended to be entered. The practice common in other countries is for a further clause to state the sum which may be recovered as liquidated damages. Equivalent clauses in an agreement used by the Government of Malawi stipulate:—

“AND WHEREAS the Government has agreed with the student to allot such sums as will, in the opinion of the Government, be reasonably necessary to enable the said student to attend, pursue and complete the said course and provide for his upkeep during the period thereof. AND he has further agreed with the Government that in the event of his breach of this agreement he shall be bound for the payment to the Government of a sum of money as agreed liquidated damages for such breach, which sum to be calculated at K600 for every year or part of a year, of such required period of service remaining unfulfilled by him at the date of his said breach.”

A combination of an explicit recital of the headings under which expenses have been incurred and the inclusion of a headsum would seem advisable. Clauses framed in this manner should make it evident that the liquidated damages are fairly and properly calculated.

Sureties

6. Almost all bonds provide for one or two sureties who will be liable if the students breach the agreement. Some governments have indicated that the requirement for sureties might be a barrier to some students receiving grants. In St. Christopher/Nevis/Anguilla, for example, bonds may be as high as \$30,000 and sureties can accordingly be hard to come by. Bonds, it is evident, must be calculated not only in a way clearly related to the cost of training, but at the same time neither unrealistically high so as to frighten off sureties, nor so low as to encourage those so disposed to flout them. In most countries, parents act as sureties. In Tonga, for example, the bond is very

³ This agreement is set out in full in Appendix A. It is to be noted that no reliance in this instance is placed on sureties. An example of a shorter agreement, using sureties, is the Barbados Study Leave Bond which appears in Appendix B.

low but parental pressure is usually sufficient to secure its observance, especially as parents are conscious of the opportunities for their other children. Factors such as those are obviously more significant than any form of drafting.

7. Swaziland has recently enacted legislation which makes the obligation to take up Civil Service employment an *implied term* in any study loan or scholarship agreement. The purpose of this statutory provision would seem to be administrative convenience. It presupposes an agreement has been made and that any breach will be pursued in the courts in the ordinary manner. The Study Loan and Scholarship Agreement Order 1977 provides that:—

“3. Notwithstanding the express terms and conditions of any agreement, the following terms and conditions shall be deemed to form part of such agreement, whether or not such agreement has been entered into prior to or after the commencement of this Order, namely:—

(a) Any person to whom a grant or loan, as the case may be, has been made under the agreement shall be obliged on completion of the study course in respect of which such grant or loan has been made to return to Swaziland and undertake such employment in the Civil Service for not less than 5 years after the completion of such course

(b) In the event of any person not undertaking the employment allotted to him by the Minister as provided for in paragraph (a) or in the event of his not completing his study course or in the event of his leaving the employment allotted to him without the written consent of the Minister, such person shall be obliged to repay the full amount of such grant or loan, as the case may be, within such period of time as the Minister may determine together with such interest thereon as the Minister may determine.”

The Order also provides that the Government cannot contract out of this provision.⁴

Waiver or remission

8. All agreements require the bonded student or trainee to enter government service on the completion of his studies. The clauses outlining this and indicating when the agreement is deemed to have been breached are straightforward. There is however some variation of practice in regard to remission and waiver. Almost all governments either incorporate into an agreement, or provide in a schedule, for a reduction in the amount to be repaid, commensurate with the period already served. The bond period almost always reflects the length of study or training or its cost to the government, and any scheduled remission will vary accordingly. An example of a remission is that used by the Botswana Government:—

“2. If the candidate resigns or is dismissed from service of the Government within 12 months after completion of the course, he/she shall repay to the Government the sum of R being the total cost of the training period.

3. If the candidate resigns or is dismissed after 12 months following the completion of the course he/she shall be liable to repay to the Government an amount equivalent to a proportion of R calculated on the number of months due to be served by the candidate at the time of his resignation or dismissal.

4. The candidate agrees that the Government shall be entitled on termination of the candidate's service within 3 years from the conclusion of the course to appropriate any monies due by Government to the candidate, including salary, towards payment of the sum mentioned at sub-paragraph (2) or (3) whichever is applicable.”

Some governments, for example Western Samoa, only stipulate a maximum period of service and reserve the right to remit or refuse to remit, at their discretion, any part of the bonded period. The most common grounds for waiver as opposed to remission are either the unsuitability of a student for the course in question or medically established disability.

Conditions

9. The terms on which governments agree to assist students or their employees tend to be similarly phrased. The student normally undertakes to apply himself to his studies and to observe the regulations of the institution in which he is enrolled. If the scholarship is for overseas study, he agrees to return as soon as his studies are completed and work for the specified period or pay a

4 The Order-in-Council is set out in full in Appendix C

sum (specified or otherwise) in lieu of service. Some agreements are, however, more detailed than others and include clauses which obviously reflect the experience of the authorities concerned. Some governments include clauses which state that they are not obliged to employ students at the conclusion of their studies. Clause 10 in the grant document used by the Government of Zambia states:—

“Nothing contained in this agreement shall be construed as imposing any liability on the Government to provide the student with employment, or in the event of the Government seeing fit to provide the student with employment, to continue to employ the student for any particular period or in any particular capacity.”

Others specifically provide that the student must accept any position offered, at a salary within the government’s discretion. The Western Samoan grant agreement provides:—

“The student will offer himself for employment in the Western Samoa Public Service at such reasonable salary or wage as the Public Service Commission of Western Samoa considers to be commensurate with his ability and otherwise as the Commission may direct.”

In Tonga, however, the Government guarantees employment at a salary equal to that earned by others with similar qualifications.

10. In Botswana, students on post-secondary bursaries undertake that if they are appointed to the Public Service (and the government is under no obligation to make such appointments) they will make contributions from their salaries to the government for a period equivalent to that spent studying under the bursary. This undertaking is in addition to an agreement to repay the whole cost of the bursary (less contributions) if the bond is broken. The same agreement envisages the student being permitted to work for a private or parastatal employer:—

“On application by the student the Government in its entire discretion may agree that a student be employed in any parastatal or private organisation or be self-employed in Botswana subject to such terms and conditions as the Government may determine. Such consent shall not be taken as relieving the student of his obligations in terms of the other provisions of this agreement.”

Indeed:

“Where the student after the completion of his course of study obtains employment with a parastatal or private organisation, then the student agrees to sign a stop order on his employer for the monthly payment of such contribution from his salary. The amount of such contributions shall be determined by agreement between the student and the Government and shall be estimated on the basis of what the student would be likely to have earned if he had been employed by the Government.”

In addition to these provisions, contingencies such as marriage and ill-health are covered in many agreements.

Loans

11. Of the governments concerned, two, Jamaica and Barbados, provided information of assistance given to students by use of loans. Jamaica advances loans to students to whom training awards have been granted. The student undertakes to serve the Jamaica Government for a specified period and in return is lent the cost of his training. Repayment may be waived in whole or in part depending on the length of time the student spends in the government service after qualification. The practical effect of this, from the student’s viewpoint, is the same as if he had entered into a bond. As long as the sum lent is the actual cost of the course no problems should arise in suing for the full amount if the student fails to take up employment with the government or a lesser sum if the student has served part of the period he has committed himself to. Such undertakings avoid the difficulty of proving what has been expended; a sum sufficient to cover costs (and in the case of a government officer, salary) is advanced and this, or a lesser sum is what is claimed in the case of breach.

12. The system in operation in Barbados provides for the granting of loans by a statutory body on terms akin to those stipulated by financial institutions. A loan fund is set up under the Student Revolving Loan Fund Act 1976,⁵ to which contributions are made by way of grants

5 Appendix D

from the Government of Barbados, loans from banks and repayments. Those eligible are students studying at the University of the West Indies or any other approved institution. Repayments may be required over a period of eighteen years, commencing one year after the completion of the student's studies. Special provisions are made for recovery of sums owed by an action before a magistrate, even where the amount sued for exceeds his jurisdiction. This presumably provides an efficient and cheap means of recovering sums owed.

13. Barbados also makes loans to people undergoing training from a Training Fund set up under the Training Act 1972–75.⁶ These loans may subsequently be converted into grants if the trainee has completed a course of immediate value to the Public Service.⁷ It would appear that grants from this fund are normally made to people already in the Public Service. Parallel to these means of assisting education are a number of bonding arrangements.

Conclusion

14. If any general comment can be made on the experience of the governments which replied to the Secretariat's circular it is this: informal encouragement or pressure has been of more use in securing and retaining the services of graduates and trainees than have legal agreements. A case in point is Sri Lanka which has had since 1961 an Act providing for the compulsory public service of graduates.⁸ Even such a statutory obligation to serve would appear not to have been wholly successful. A Cabinet Committee investigating the continuing problem of professionally qualified people leaving Sri Lanka has recommended a policy in which incentives seem to play a greater part than compulsion.⁹ Bonding and similar arrangements can only provide a legal framework for more positive measures.

October 1977

6 Appendix E

7 The agreement used is set out in Appendix F

8 Compulsory Public Service Act, No. 70 of 1961, Appendix G

9 "Report of the Cabinet Committee inquiring into the problem of technologically, professionally and academically qualified personnel leaving Sri Lanka". Sessional Paper No. X–1974.

APPENDIX A

GOVERNMENT OF THE REPUBLIC OF ZAMBIA

GOVERNMENT GRANT TO STUDENT

An Agreement made and entered into by and between
in his capacity as Secretary, Bursaries Committee Director of Civil Service Training for and on behalf of THE
GOVERNMENT OF THE REPUBLIC OF ZAMBIA (hereinafter called 'the Government') of the first part; and
.....
(hereinafter called 'the student') of the second part:

WHEREAS the student wishes to pursue a course of studies at
(hereinafter called 'the Institution') for the purpose of acquiring the qualification of
.....

AND WHEREAS the student has applied to the Government for financial assistance to enable him/her to
attend the Institution for that purpose:

AND WHEREAS the Government has agreed to grant the student financial assistance:

1. NOW THEREFORE in consideration of the undertaking by the student herein contained the Government
grants to the student financial assistance by making payments for the following purposes*:

- (i) fees in connection with the course;
- (ii) transport by an approved route to the place where the course is being held and returning to the place of
employment with the Government;
- (iii) maintenance allowance;
- (iv) dependant's allowance;
- (v) settling-in allowance;
- (vi) textbook allowance;
- (vii) caution money;
- (viii) excess baggage allowance on return to Zambia;
- (ix) additional allowance;
- (x) salary while attending the said course of studies, while travelling to the Institution at the commencement of
the course and while returning at the end of the course to the place of employment with the Government.

2. For the purpose of the payment of fees and charges payable to the Institution the Government shall, in its
absolute discretion, have the right to pay the grant or any portion of the grant direct to the student or to the
Institution or to such other establishment or person as the Government may deem fit.

3. In consideration of the financial assistance to be afforded by the Government, the student undertakes—

- (a) to attend the Institution for a period of in a
boarding establishment attached to the Institution or such other house or hostel as may be approved by
the Government;
- (b) not to change his/her course of studies without the consent of the Government;
- (c) to exercise due diligence in his/her course of studies during the whole of the period specified in para-
graph (a) of this clause and to exercise his/her best endeavours to pass within that period the final
examination at the Institution entitling him/her to the award of a degree, diploma or certificate, as the case
may be, in respect of the profession or vocation for which the course of studies was undertaken (hereinafter
called 'the qualifying examination');
- (d) upon completion of his/her course of studies at the Institution to serve in or continue his/her service
in a department of the Government or to enter such employment as the Government may direct by notice
in writing and to remain in it for a continuous period of at least twenty-four months commencing not later
than six months after the writing of the qualifying examination, if called upon to do so during that period,
and on such terms and conditions of service as may from time to time be laid down.

4. The Government may cancel, alter or recover the whole or any part of the grant—

- (a) if the student fails or neglects to complete his/her course of studies at the Institution or fails to pass in
any year whilst attending the Institution any examination incidental to his/her course of studies or fails to
pass the qualifying examination;
- (b) if unsatisfactory reports are made by the authority of the Institution concerning the student's conduct
or progress;
- (c) if the student fails to comply with the undertakings specified in paragraphs (a), (b) and (c) of clause 3;
- (d) at the request of the student;
- (e) for any other reason which Government in its absolute discretion may consider good and sufficient.

*Delete those which do not apply to the student

5. If—

- (a) the grant to the student is cancelled, altered or recoverable by the Government as in clause 4 provided; or
- (b) the student fails to enter or return to the service of the Government as in paragraph (d) of clause 3 provided; or
- (c) within the period specified in paragraph (d) of clause 3 the student resigns or is dismissed from the service of the Government on grounds of misconduct or inefficiency;

all the amounts paid to or on behalf of the student in terms of this agreement or such proportion thereof as the Government may direct shall become immediately repayable on demand by the student who is deemed to have accepted the calculation of the moneys recoverable or repayable as genuine pre-estimates of the damages to which the Government is entitled in the event of the breach of this agreement leading to the right in the Government so to demand recovery, repayment, cancellation or alteration of the grant or any part thereof.

6. If—

- (a) the grant to the student is not cancelled, altered or recoverable by the Government as in clause 4 provided; and
- (b) the student enters the service of the Government as in paragraph (d) of clause 3 provided and does not resign and is not dismissed within the period specified in paragraph (d) of clause 3, or is not called upon to serve the Government as in paragraph (d) of clause 3 provided;

the student shall be relieved of all liability and obligation to repay the grant.

7. The Government may defer the repayment of any amount due from the student in terms of this agreement for such period or periods as it may deem necessary, and the granting of further time for repayment or of any other relief or indulgence by the Government shall not be construed as a waiver of its rights to enforce the provisions of this agreement.

8. All Zambian students to be considered for or are in receipt of Government scholarships, bursaries or grants who, at the time of taking up their respective courses of study, were not married but subsequently get married during the course of their studies will not receive any additional financial assistance from the Government based on that account alone.

9. All serving officers nominated by Government to attend residential training courses where board and accommodation are provided at Government expense will be required to contribute towards the cost of board and lodging in accordance with Establishment Circular No. B13 of 1969 or as amended by Government from time to time. Those serving officers who are nominated by Government to attend training courses abroad will contribute towards board and accommodation in accordance with the provisions of General Order No. 126 (b) (i) or as directed by Government in cases where the Permanent Secretary (Personnel) is satisfied that the provisions of General Order No. 126 (b) (i) would not be applied appropriately; provided always that the rates of contribution will be based on the understanding that 60 per cent of the monthly net salary of married officers is set aside for the maintenance of the officer's family and dependants for the duration of the officer's attendance on the course.

10. Nothing contained in this agreement shall be construed as imposing any liability on the Government to settle any debts incurred by the student or to provide the student with employment or, in the event of the Government seeing fit to provide the student with employment, to continue to employ the student for any particular period or in any particular capacity.

11. The parties hereto are hereby deemed to have mutually agreed upon the said payments as genuine pre-estimates of the losses sustainable by the Government in the events referred to and to have stipulated for these payments as liquidated damages and not by way of penalty.

IN WITNESS WHEREOF the parties have set their hands on the dates shown:

As Witness:

*for the Government of the Republic
of Zambia:*

1. at
in
2. this day of, 19...

As Witness:

by the student,

1. at
in
2. this day of, 19...

FIVE COPIES TO BE COMPLETED

Distribution: ORIGINAL to the student.

COPIES: Secretary, Bursaries Committee
Permanent Secretary
Head of Department
Permanent Secretary
(Personnel)

} On appointment to the Civil Service

APPENDIX B

STUDY LEAVE BOND

BARBADOS

BY THIS BOND WE of
..... in the parish of
and Island of Barbados, (hereinafter sometimes called "the Public Officer")
of in the parish of
and Island aforesaid, and of
in the parish of and Island aforesaid, (together hereinafter referred to as
"the obligors") acknowledge ourselves jointly and severally bound to THE CROWN in the sum of
..... dollars to be paid by us or some or one of us to The Crown:

SEALED with our seals this day of
One thousand nine hundred and

WHEREAS the Public Officer is employed in the Public Service of Barbados and has been granted study
leave to pursue a course
for a period of on the conditions and stipulations herein mentioned:

AND WHEREAS the expenditure by The Crown for salary other than that payable during vacation leave, the
contingencies paid to or on behalf of the Public Officer during the said study leave is estimated to amount to the
sum of dollars.

AND WHEREAS as a condition of the award of the said study leave, it was agreed to between the Public
Officer and The Crown that the Public Officer will upon the expiration of the said study leave immediately return
to Barbados and re-enter and remain in the Public Service of Barbados for a period of
consecutive from the date of his return to Barbados, provided however that:—

(a) If the Public Officer does not re-enter the Public Service of Barbados at the end of the said study leave,
or shall have re-entered the said Service but, by reason of dismissal, resignation or retirement, shall have
ceased to be employed in the said Service before serving for the minimum period set out in Column I to the
Schedule hereto, he will immediately repay to The Crown the sum of
..... dollars, or

(b) If the Public Officer shall have re-entered the Public Service at the end of the said study leave, but by
reason of dismissal, resignation or retirement, shall have ceased to be employed in the said Service before
completing consecutive service,
The Crown shall, if the Public Officer has served for any of the periods set out in Column I of the Schedule
hereto, waive payment of the amount calculated in accordance with Column II of the said Schedule in res-
pect of the actual period served and the Public Officer shall immediately repay to The Crown the balance
remaining due from the said sum of dollars after such waiver.

AND WHEREAS before and as one of the terms upon which the said study leave was granted the Public
Officer was required to obtain two sureties for the performance of the obligations hereunder and it was agreed
between the parties that and
as sureties for the Public Officer shall enter into the above written bond conditioned as herein mentioned.

NOW THE ABOVE WRITTEN BOND is conditioned to be void:—

1. In case the Public Officer shall well and faithfully observe and perform all the abovementioned conditions and
stipulations on his part undertaken to be observed and performed as aforesaid.
2. In case the Public Officer shall have failed to re-enter the Public Service and serve for the minimum period set
out in Column I to the Schedule hereto and the Public Officer and the obligors or any or one of them or their or
his personal representatives or any person acting for and on behalf of them or any or one of them shall pay to The
Crown the sum of dollars.
3. In case the Public Officer shall have re-entered the Service, but shall have ceased to be employed in the Public
Service before completing consecutive service, but
shall have served for any of the periods set out in Column I to the Schedule hereto and the Public Officer and the
obligors or any or one of them or their or his personal representatives or any person acting for and on behalf of
them or any or one of them shall pay to The Crown the balance due to the said sum of
dollars after deducting therefrom the amount waived by The Crown in accordance with Column II to the said
Schedule in respect of the actual period served by the Public Officer.

4. In case the said sum of dollars shall become payable on demand in any circumstances and shall be fully paid and satisfied.

Otherwise this Bond and the obligations of the Public Officer and the obligors and everyone of them hereunder shall remain in force.

THE SCHEDULE ABOVE REFERRED TO

COLUMN I <i>Period Served</i>	COLUMN II <i>Amount to be waived by Crown</i>
SIGNED SEALED AND DELIVERED by the said in the presence of:—	
SIGNED SEALED AND DELIVERED by the said in the presence of:—	
SIGNED SEALED AND DELIVERED by the said in the presence of:—	

APPENDIX C

THE STUDY LOAN AND SCHOLARSHIP AGREEMENT ORDER

Date of Commencement: 4th March, 1977

Date of Assent: 24th February, 1977

A King's Order-in-Council to provide for the inclusion of certain terms in loan and scholarship agreements.

Short title

1. This King's Order-in-Council may be cited as The Study Loan and Scholarship Agreement Order, 1977.

Interpretation

2. In this Order unless the context otherwise requires—

“Agreement” means a scholarship agreement or study loan agreement;

“Civil Service” includes service in a statutory or parastatal body;

“Minister” means the Prime Minister or any person or board or authority appointed under any law or delegated by him to act on his behalf;

“scholarship agreement” means any agreement between the Government of Swaziland or on its behalf and any person (whether he is a minor or not) to whom in terms of such Agreement a grant is made for the purpose of enabling or assisting such person to study in any country or at any institution specified in such agreement or any other institution to which he has been transferred with the approval of the Minister;

“study loan agreement” means any agreement between the Government of Swaziland or on its behalf and any person (whether he is a minor or not) to whom in terms of such Agreement a certain sum of money is advanced by way of loan by or on behalf of the Government to such person for the purpose of enabling him or assisting him to study at any institution or in any country specified in such Agreement, or any other institution or country to which he has been transferred with the approval of the Minister.

Deemed terms of any Agreement

3. Notwithstanding the express terms and conditions of any Agreement, the following terms and conditions shall be deemed to form part of such Agreement, whether or not such Agreement has been entered into prior to or after the commencement of this Order, namely—

(a) any person to whom a grant or loan, as the case may be, has been made under the Agreement shall be obliged on completion of the study course in respect of which such grant or loan has been made to return to Swaziland and undertake such employment in the Civil Service of Swaziland as the Minister may allot to him and shall remain in the service of the Civil Service for not less than five years after the completion of such course;

Provided that the Minister may at any time in writing consent to such person taking up employment elsewhere than in the Civil Service;

And provided further that the Minister shall not be obliged to allot any post to a student unless having regard to such student's qualifications, there is a suitable vacancy for him in the Civil Service;

(b) In the event of any person not undertaking the employment allotted to him by the Minister as provided for in paragraph (a) or in the event of his not completing his study course or in the event of his leaving the employment allotted to him without the written consent of the Minister, such person shall be obliged to repay the full amount of such grant or loan, as the case may be, within such period of time as the Minister may determine together with such interest thereon as the Minister may, in consultation with the Minister for Finance and Economic Planning, determine (not being less than 6 per cent per annum or more than 12 per cent per annum) calculated from the date when such loan or grant, as case may be, was made.

Cannot contract out of the Agreement

4. Any provision in any Agreement whereby the Government contracts out of the provisions of section 3 shall be deemed invalid.

APPENDIX D

STUDENT REVOLVING LOAN FUND ACT, 1976 – 20

I assent,
W. R. DOUGLAS
Acting Governor-General
12th November, 1976.

1976 – 20

An Act to provide for the establishment and administration of a Student Revolving Loan Fund and for related matters.

ENACTED by the Parliament of Barbados as follows—	(By Proclamation)	Commencement.
1. This Act may be cited as the Student Revolving Loan Fund Act, 1976.		Short title.
2. For the purposes of this Act—		Interpretation.
“Bank” means the bank designated by the Minister under section 5(1); “Committee” means the Student Revolving Loan Fund Management Committee established by section 4; “Fund” means the Student Revolving Loan Fund established by section 3; “Minister” means the Minister responsible for Education; “student” means a person who is enrolled or has been accepted for enrolment, in a prescribed course of study at any university; “University” means the University of the West Indies or any other institution for higher learning approved by the Minister.		
3. There is hereby established a fund to be known as the Student Revolving Loan Fund consisting of —		Establishment of Fund.
(a) moneys raised for the purpose by means of loans made by the Inter-American Development Bank to the Government of Barbados under an agreement; (b) moneys resulting from — (i) repayments made to the Fund in respect of sums previously advanced therefrom, (ii) sums becoming due to the Fund as a result of loans previously advanced therefrom, and (iii) interest accruing in respect of loans advanced out of the Fund; (c) moneys borrowed by the Committee for the purposes of the Fund; (d) income earned from investments made by the Committee pursuant to section 6(b); (e) any sum of money in any manner becoming payable to or vested in the Fund; and (f) moneys voted by Parliament for the purposes of the Fund.		
4. (1) There is hereby established a Committee to be known as the Student Revolving Loan Fund Management Committee and the Schedule has effect with respect to the constitution of the Committee and otherwise in relation thereto.		Establishment of Committee. Schedule.
(2) The Committee shall be a body corporate and section 21 of the Interpretation Act applies thereto.		Cap. 1
5. (1) The Minister responsible for Finance shall, by notice published in the <i>Official Gazette</i> , designate a bank to be the financial agent of the Fund.		Financial agent and depository.
(2) The Committee shall, after consultation with the Minister responsible for Finance and the Inter-American Development Bank, appoint the Central Bank of Barbados, or any other bank in Barbados into which public funds may lawfully be deposited, to be the depository for the Fund.		
6. The Committee may, subject to the directions of the Minister —		Functions of Committee.
(a) provide, through its financial agent, loans to students on such terms and conditions as the Committee determines;		

	(b) receive, disburse, invest through its financial agent and account for such sums are paid into the Fund; and (c) do all such things as are necessary or expedient for the administration and management of the Fund.
Loans subject to interest.	7. Loans advanced pursuant to section 6(a) are subject to the payment thereon of interest at a rate not exceeding the current rate of interest.
Exemption from income tax.	8. Notwithstanding any enactment to the contrary, the Committee is exempt from the payment of any form of tax.
Accounts, audit and report.	9. (1) The Committee shall keep proper accounts of its transactions and such accounts shall be audited annually by an auditor appointed by the Committee with the approval of the Minister. (2) The Auditor General shall, at the request of the Minister, carry out – (a) an investigation into the accounts of the Committee; or (b) a special audit of such accounts. (3) The Committee shall, on or before the 31st July, in each year, cause to be prepared a report containing – (a) an account of all transactions relating to the Fund throughout the preceding year; and (b) a statement of accounts relating to the Fund audited by the Auditor General or by an auditor appointed by the Minister after consultation with the Committee.
Minutes of Committee to be evidence.	10. A copy of the minutes of any meeting of the Committee, purported to be signed by the Chairman or Deputy Chairman, is evidence in all legal proceedings that – (a) the meeting in respect of which those minutes were taken was duly convened; (b) the signature affixed to such minutes is the true signature of the Chairman or the Deputy Chairman, as the case may be; and (c) the facts contained in such minutes are a correct record of what transpired at the meeting.
Offences.	11. (1) Any person who, by any false representation causes, induces or attempts to induce the Committee to grant a loan to him or to any other person is guilty of an offence and liable on summary conviction to a fine not exceeding \$500 or to imprisonment for a term not exceeding 6 months or both. (2) Nothing prevents the Committee from recovering, in the manner set out in section 16, a loan made to a person convicted under subsection (1).
Repayment of loans to Committee.	12. (1) Repayment to the Committee of loans obtained under this Act shall be commenced not later than 1 year after the date of the termination of the approved course of study but repayment of the entire loan shall be completed not later than 18 years after that date. (2) The Committee shall fix the minimum monthly, quarterly or half-yearly instalments for the repayment of loans.
Borrowing powers.	13. The Committee may, subject to the approval of the Minister responsible for Finance, borrow such sums of money as it requires to meet its obligations and carry out its functions under this Act.
Guarantee of borrowings by Minister with approval of Parliament.	14. (1) The Minister responsible for Finance may, with the approval of Parliament, guarantee in such manner and on such terms and conditions as he thinks fit the payment of the principal and interest of any authorised borrowings of the Committee. (2) Where the Minister responsible for Finance is satisfied that there has been default in the repayment of any amount guaranteed under subsection (1) he shall direct the repayment of that amount out of the Consolidated Fund and it shall be a charge on that Fund.
Repayment of and interest on amounts paid in fulfilment of guarantee.	15. The Committee shall make to the Accountant General, at such times and in such manner as the Minister responsible for Finance directs, payments of such amounts as are directed in or towards repayment of any authorised borrowings by the Committee in fulfilment of any guarantee given under section 14 and payment of interest on outstanding amounts in respect of such borrowings at a rate of interest not exceeding the current rate of interest.

16. Where —
- (a) the repayment of loan does not commence within the period specified in section 12(1); or
- (b) an instalment is overdue by 3 or more months,
- the Committee may recover that loan in civil proceedings before a magistrate for District 'A' notwithstanding that the amount of the loan exceeds the normal monetary limit of the jurisdiction of a magistrate.
17. The Minister responsible for Finance may, with the approval of Parliament and within 30 days or as soon as practicable thereafter of the receipt of a written request addressed to him by the Committee, cause to be paid into the Fund out of moneys voted by Parliament for the purpose —
- (a) all amounts overdue by 180 days or more from the date on which such amounts become due and payable;
- (b) all amounts necessary to compensate for losses incurred by fluctuations in the rate of exchange.
18. Where any profit or gain accrues to the Fund as a result of money paid under section 17(b) the Committee shall cause the amount of that profit or gain to be paid into a reserve account.
19. (1) Where the Minister responsible for Finance pays a sum of money to the Committee under section 17(a) and such sum is subsequently recovered in any legal proceedings brought by the Committee pursuant to section 16 or is paid voluntarily to the Committee, the Committee shall cause such sum to be paid to the Accountant General.
- (2) Where the Committee fails to comply with subsection (1) or section 15 the Minister may recover the amount as a debt due to the Crown in civil proceedings before a magistrate for District 'A' notwithstanding that the amount exceeds the normal monetary limit of the jurisdiction of a magistrate.
20. The Committee may, with the approval of the Minister, make regulations —
- (a) respecting the administration, management and investment of the resources of the Fund;
- (b) requiring students to whom loans are made under this Act to furnish such information as the Committee requires;
- (c) prescribing the rate of interest that may be charged on loans made from the Fund;
- (d) prescribing the terms and conditions on which loans may be granted;
- (e) prescribing the procedures to be followed by an applicant for a loan;
- (f) prescribing the courses of study in respect of which loans may be made under this Act;
- (g) designating Universities at which any of the prescribed courses of study may be pursued;
- (h) prescribing anything that is by this Act authorised or required to be prescribed; and
- (i) generally for the proper carrying into effect of this Act.
21. This Act shall come into operation on such day as the Governor-General may appoint by proclamation.

Recovery of loans.

Minister responsible for Finance to reimburse Committee.

Reserve account.

Committee to pay sum recovered to Accountant-General.

Regulations.

Commencement.

SCHEDULE

(Section 4)

Constitution of Student Revolving Loan Fund Management Committee

1. (1) The members of the Committee shall be appointed by the Minister by instrument in writing and shall consist of —
- (a) the Permanent Secretary, Ministry of Education who shall be the Chairman;
- (b) the Chief Education Officer who shall be the Deputy Chairman;

Constitution of Committee.

	(c) a representative of the Ministry of Finance and Planning nominated by the Director of Finance and Planning; (d) a representative of the Cave Hill Campus of the University of the West Indies nominated by the Pro-Vice Chancellor of that Campus; and (e) a representative of the Barbados Institute of Management and Productivity.
	(2) The Minister may – (a) in respect of each member of the Committee except the Chairman, appoint a person to act in the absence or inability of that member; (b) where he thinks it necessary or expedient so to do, increase the membership of the Committee.
Disqualification for membership of Committee and employment under Committee.	2. (1) A person who is employed by the Committee is not qualified to be a member of the Committee. (2) No member of the Committee may be appointed to any office or employment under the Committee. (3) No person is, within one year from the date on which he last held or acted in the office of member of the Committee, eligible for appointment to any office or employment under the Committee.
Duration of membership.	3. (1) Every member of the Committee shall hold office for such period, not exceeding 3 years, as the Minister determines and is eligible for re-appointment. (2) The Chairman may at any time resign his office by instrument in writing addressed to the Minister and his resignation shall take effect as from the date of receipt of the instrument by the Minister. (3) A member of the Committee other than the Chairman may, at any time resign his office by instrument in writing addressed to the Minister and transmitted through the Chairman and from the date of receipt by the Chairman of such instrument such member shall cease to be a member of the Committee.
Meetings.	4. (1) The Committee shall meet at such times as are necessary or expedient for the transaction of its business and such meetings shall be held at such places and times and on such days as the Committee determines. (2) The Chairman may, at any time, summon a meeting of the Committee and shall summon a meeting within 7 days – (a) of a request for that purpose addressed to him by at least 3 members of the Committee; or (b) of a direction to that effect addressed to him by the Minister. (3) The Chairman or in his absence the Deputy Chairman of the Committee shall preside at meetings of the Committee. (4) At any meeting of the Committee, in the absence or inability to act of both the Chairman and Deputy Chairman, the members of the Committee present shall elect one of their members to preside at that meeting.
Quorum.	5. The quorum of the Committee at any meeting is 3.
Decisions.	6. The decisions of the Committee shall be by a majority of the votes of the members present and constituting a quorum but where, in any case, the voting is equal the Chairman, Deputy Chairman or other person presiding at the meeting shall, in addition to an original vote, have a second or casting vote.
Minutes.	7. (1) Minutes in proper form of each meeting of the Committee shall be kept by the Secretary or such person as the Committee appoints for the purpose and shall be confirmed by the Chairman or Deputy Chairman, as the case may be, as soon as practicable thereafter at a subsequent meeting. (2) A copy of the minutes of each meeting as recorded by the Secretary of such other person as is referred to in sub-paragraph (1) shall be submitted to the Minister within 21 days of the meeting.
Leave of absence.	8. The Minister may grant leave of absence to the Chairman or any other member of the Committee.
Authentication of seal and documents.	9. (1) The seal of the Committee shall be authenticated by the signature of the Chairman or Deputy Chairman.

(2) All documents, other than those required by law to be under seal, made by, and all decisions of, the Committee may be signified under the hand of the Chairman, Deputy Chairman or any member of the Committee authorised to act in that behalf.

10. (1) The Committee may appoint sub-committees to examine and report on any matter arising out of or connected with any of the functions of the Committee. Sub-committees.

(2) The number of members of a sub-committee, appointed under this paragraph shall be fixed by the Committee.

(3) The Committee may reject the report of a sub-committee or adopt such report wholly or subject to such modifications the Committee thinks fit.

12. The membership of the Committee as at first constituted and any changes therein shall be notified in the *Official Gazette*. Notification of membership.

TRAINING ACT, 1972 — 25

I Assent
A. WINSTON SCOTT
Governor-General
8th November 1972

1972 — 25

An Act to make new provision for the improvement and efficiency of the public services of Barbados by means of training and for connected purposes.

Commencement	ENACTED by the Parliament of Barbados as follows:—	(By Proclamation)
Short title.	1. This Act may be cited as the Training Act, 1972.	
Interpretation.	2. For the purposes of this Act — “Fund” means the Training Fund established by section 3(1); “Loan Fund” means the Training Loan Fund established by section 4(1); “Minister” means the Minister responsible for training; “Officer of a statutory board” means a person holding a pensionable office within the meaning of section 2(1) of the Statutory Boards (Pensions) Act, 1969; “public employee” has the meaning assigned to it by section 2(1) of the Public Employees Pensions Act, 1961; “teacher” has the meaning assigned to it by section 2 of the Teachers (Secondary Schools) Pension Act, 1962, and includes any other person to whom that Act applies. “Training Scheme Fund” means the Training Scheme Fund established by the Training Scheme Fund Act, 1953.	
Act 1969—32		
Act 1961—47.		
Act 1953—6		
Training Fund.	3. (1) There is established under the control and management of the Minister a Training Fund into which shall be paid — (a) all moneys which at the commencement of this Act stand to the credit of the Training Scheme Fund; (b) all moneys which represent the repayment after the commencement of this Act of a loan including interest thereon repaid by any person to whom a loan was made out of the Training Scheme Fund or the proceeds of the forfeiture after such commencement of a bond securing any award made out of that Fund; and (c) all moneys provided by Parliament for payment into the Fund. (2) The Minister may, subject to such terms and conditions as may be prescribed, award free scholarships and training courses out of the Fund to — (a) public officers; (b) public employees; (c) teachers; (d) officers of statutory boards; or (e) such other persons as the Minister determines.	
Training Loan Fund.	4. (1) There is established under the control and management of the Minister a Training Loan Fund into which shall be paid — (a) all moneys provided by Parliament for payment into the Loan Fund; (b) all moneys which represent the repayment of a loan including interest thereon repaid by any person to whom a loan is made under sub-section (2). (2) The Minister may, subject to such terms and conditions as may be prescribed, make loans from the Loan Fund to any person mentioned in paragraphs (a) to (e) of section 3(2) for the purpose of assisting that person to pursue a course of study or training course approved by the Minister. (3) A loan made under subsection (2) shall not exceed \$5,000 and shall bear interest at the prescribed rate.	
Reports.	5. The Minister shall, not later than 4 months after the end of each financial year, cause to be laid before Parliament separate reports on the Fund and the Loan Fund showing — (a) in the case of the Fund, the number of the awards made and in force the amount of each award;	

- (b) in the case of the Loan Fund, the number of loans made and the amount of each loan; and
- (c) in each case, the state of that Fund.

6. The Minister may make regulations —

Regulations.

- (a) prescribing anything that is by this Act required to be prescribed; and
- (b) generally for carrying out the objects and purposes of this Act.

7. (1) Subject to subsection (2), the Training Scheme Fund Act, 1953 and all amendments thereto are replaced.

Repeal of Act
1953–6.

(2) An award made under section 4 of the Training Scheme Fund Act, 1953 and in force at the commencement of this Act shall, subject to the terms and conditions on which it was made, continue to have effect as if made under this Act.

8. This Act shall come into operation on such day as the Governor-General may appoint by proclamation.

Commencement.

APPENDIX F

CONVERSION OF LOAN INTO GRANT

BARBADOS

BY THIS BOND WE
of in the parish of
and Island of Barbados, (hereinafter sometimes called "the Officer"), ...
..... of
..... in the parish of and Island aforesaid and
..... of
..... in the parish of and Island aforesaid, (together
hereinafter referred to as "the obligors") acknowledge ourselves jointly and severally bound to THE CROWN in
the sum of dollars to be paid by us
or some or one of us to the Crown:

SEALED with our seals this day of
one thousand nine hundred and

WHEREAS the Officer was granted a loan from the Training Scheme Fund subject to certain terms and
conditions which are more particularly set out in the bond to the Crown entered into by the Officer, ...
..... and and dated the
day of one thousand nine hundred and as Security for the repay-
ment of the said loan;

AND WHEREAS the Officer, having satisfied the terms and conditions in the said bond, has agreed with the
Crown for the conversion of the said loan into a grant on the following terms and conditions, namely:—

- (a) The Officer will remain in the Public Service of Barbados for a period of
consecutive from the date hereof (hereinafter
sometimes called "the period of Bonded Service") provided however that if the Officer, by reason of dis-
missal, resignation or retirement, shall have ceased to be employed in the said Service before the expiration
of the period of bonded service, he will immediately repay to The Crown the sum of
..... being the said loan advanced by The Crown together with interest thereon, or,
if the Officer is entitled thereto, such reduced amount in accordance with the provisions of sub-paragraph (b)
hereof;
- (b) That the Officer shall be entitled to a reduction of the said sum of
.....
(i) by an amount equivalent to 10% of that part of his salary (including acting allowances) which exceeds
the maximum of the salary scale, or any review thereof, of his present substantive post of
..... if he shall during the period of bonded service serve in a higher post than his
present substantive post, and shall perform and observe his obligations hereunder, and
(ii) by each amount waived from time to time under Column II of the Schedule hereto in respect of the
actual period served if the officer has served for any of the periods forming part of the period of bonded
service set out in Column I of the said Schedule; and
- (c) that the officer will obtain two Sureties for the performance of his obligations hereunder,

AND WHEREAS it was agreed between the parties that
..... and as Sureties for the Officer
shall enter into the above written bond conditioned as herein mentioned.

NOW THE ABOVE WRITTEN BOND is conditioned to be void:—

1. In case the Officer shall well and faithfully observe and perform all the above-mentioned conditions and
stipulations on his part undertaken to be observed and performed as aforesaid PROVIDED ALWAYS and it is
hereby declared that the rights of The Crown hereunder shall not be prejudiced or affected by any alteration which
may be made by agreement between the Officer and The Crown in the terms of the said conversion of the loan
into a grant or the obligations to be performed hereunder or by any other indulgence or forbearance towards the
Officer in connection with the said conversion into a grant or the performance of the obligations hereunder which
but for this provision might release the obligors from liability under this bond.

2. In case the Officer shall have ceased to be employed in the said Service before the expiration of the period of
bonded service, and the Officer and the obligors or any one of them or their or his personal representatives or any
person acting for and on behalf of them or any or one of them shall pay to The Crown the whole sum of
..... dollars or, if the officer is entitled thereto, such reduced amount in accordance
with the provisions of sub-paragraph (b) above.

3. In case the said sum of dollars or such reduced amount as aforesaid mentioned shall become payable on demand in any circumstances and shall be fully paid and satisfied.

Otherwise this Bond and the obligations of the Officer and the obligors and every one of them hereunder shall remain in force.

THE SCHEDULE ABOVE REFERRED TO

COLUMN I	COLUMN II
<i>Parts of Period of Bonded Service actually served</i>	<i>Amount to be waived by Crown</i>

SIGNED SEALED AND DELIVERED by the said
..... }
in the presence of:— }

SIGNED SEALED AND DELIVERED by the said
..... }
in the presence of:— }

SIGNED SEALED AND DELIVERED by the said
..... }
in the presence of:— }

APPENDIX G

Compulsory Public Service Act, No. 70 of 1961

AN ACT TO MAKE PROVISION FOR ENABLING THE CALLING UP FOR COMPULSORY PUBLIC SERVICE OF PERSONS WHO ARE GRADUATES OF THE UNIVERSITY OF CEYLON, OR OF ANY UNIVERSITY OUTSIDE CEYLON AND WHO UNDERGO A COURSE OF TECHNICAL TRAINING IN THE UNIVERSITY OF CEYLON OR ANY OTHER SUCH UNIVERSITY, AND FOR MATTERS CONNECTED THEREWITH OR INCIDENTAL THERETO.

[Date of Assent: 29th December, 1961]

BE it enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Senate and the House of Representatives of Ceylon in this present Parliament assembled, and by the authority of the same, as follows:—

Short title.

1. This Act may be cited as the Compulsory Public Service Act, No. 70 of 1961.

Graduates to whom this Act applies.

2. The provisions of this Act shall apply to every person who, unless he is in employment or is a Member of Parliament or Senator, on or after the date of the commencement of this Act,—

- (a) becomes a graduate of the University of Ceylon, or any other University established in Ceylon to which a grant is made by the Government; or
- (b) becomes a graduate of any University outside Ceylon and thereafter undergoes a course of technical training provided by or in the University of Ceylon or any other University established in Ceylon; or
- (c) being a medical graduate of the University of Ceylon, or any other University established in Ceylon, thereafter becomes a medical practitioner within the meaning of the Medical Ordinance.

Every such person is in this Act referred to as a “graduate to whom this Act applies”.

Graduates to whom this Act applies subject to compulsory public service.

3. (1) Every graduate to whom this Act applies shall, as from the date on which he becomes such a graduate, be a person subject to compulsory public service.

(2) A graduate subject to compulsory public service shall, if he is not duly appointed to any appropriate office in the public service at any time before the expiry of the prescribed period after the date on which he became subject to such service, cease to be subject to such service. Different periods may be so prescribed in respect of different classes of graduates who are subject to compulsory public service.

Obligation imposed on graduates subject to compulsory public service to accept and continue employment in the public service.

4. (1) A graduate subject to compulsory public service who, while he is so subject, is duly appointed to any appropriate office in the public service shall be under an obligation —

- (a) to accept that appointment;
- (b) to commence to serve in that office on the date on which his appointment is due to take effect; and
- (c) subject to the provisions of section 12 and subsection (3) of this section, to continue to serve in that office, or in any other subsequent appropriate office in the public service to which he may be duly transferred or appointed, until the date on which his appointment or subsequent appointment to the service is due to expire (not being a date later than a period of five years after the date on which such person became subject to such service), or until the date on which his appointment to such service is duly terminated, whichever date is earlier.

(2) A graduate on whom an obligation is imposed by sub-section (1) of this section to accept any appointment to any appropriate office in the public service, and to commence to serve in that office, shall, if such graduate is unable to discharge that obligation by reason of his having been declared to be medically unfit to do so after a duly conducted medical examination, be deemed to be exempted from the liability to discharge that obligation.

(3) A graduate who, while he is discharging the obligation imposed on him by sub-section (1) of this section to continue to serve in any appropriate office in the public service, is granted permission to pursue a course of technical education in any institution outside Ceylon for any period, shall be under an obligation at the end of that period to recommence service in that office, or any other appropriate office in such service to which he may be duly transferred, and to continue to serve in that office or such other office for that period, and accordingly the date on which his appointment to such service

is due to expire shall be reckoned by reference to the period on which it would have expired but for the period during which he pursued such course increased by the period during which he pursued such course.

(4) A graduate on whom an obligation is imposed by sub-section (1) of this section to continue to serve in any appropriate office in the public service shall, if he does not continue in that office for any period during which he is pursuing a course of technical education in any institution outside Ceylon with the prior permission of the person or authority entitled to grant such permission, be deemed to be exempted from the liability to discharge such obligation during that period. The preceding provisions of this sub-section shall not be deemed or construed to affect or prejudice the operation of the provisions of sub-section (3) of this section.

(5) Any graduate who fails to discharge the obligation imposed on him by sub-section (1) or sub-section (3) of this section shall, unless he is a graduate deemed to be exempted from the liability to discharge that obligation, be guilty of an offence under this Act and shall be liable to a fine not exceeding one hundred and fifty rupees for every day during which such failure continues.

5. (1) The Head of the University of Ceylon, or any other prescribed University established in Ceylon to which a grant is made by the Government, shall be under an obligation to give the prescribed authority written notice of the fact that a person has become a graduate of that University within a period of fourteen days after the date on which such person became such a graduate.

Obligation imposed on the head of a Ceylon University to give information to the prescribed authority relating to persons who are subject to compulsory public service.

(2) The Head of any University who fails to discharge the obligation imposed on him by sub-section (1) of this section shall be guilty of an offence under this Act and shall be liable to a fine not exceeding fifty rupees for every day during which such failure continues.

6. (1) Every person shall be under an obligation not to employ, or continue in his employment, any graduate on whom an obligation is imposed by sub-section (1) or sub-section (3) of section 4 for so long and so long only as such graduate has not discharged that obligation unless such graduate is deemed to be exempted from the discharge of that obligation under this Act:

Obligation imposed on persons in regard to the employment of graduates subject to compulsory public service.

Provided, however, that it shall be a defence for any person charged with the offence of having failed to discharge the obligation imposed on him by the preceding provisions of this section (in this Proviso referred to as "the accused") in relation to any graduate to prove that the accused had no reason to believe that such graduate had not discharged the obligation imposed on him by sub-section (1) or sub-section (3) of section 4 and that, as soon as the accused became aware that there was a failure on his part to discharge the obligation imposed on him by the preceding provisions of this section, the accused took immediate steps to discharge that obligation.

(2) Every person who fails to discharge the obligation imposed on him by sub-section (1) of this section shall be guilty of an offence under this Act and shall be liable to a fine not exceeding one hundred and fifty rupees for every day during which such failure continues.

(3) No suit or prosecution shall lie against any person for any act which in good faith is done or purported to be done by him in order to discharge the obligation imposed on him by sub-section (1) of this section.

7. (1) The Minister may make Orders for or in respect of all matters required or authorised by this Act to be prescribed.

Orders.

(2) Any Order made by the Minister shall be published in the *Gazette*, and shall come into force on the date of such publication, or on such later date as may be specified in the Order.

(3) Any Order made by the Minister shall, on its coming into force as provided in sub-section (2) of this section, be as valid and effectual as if it were herein enacted.

8. All offences under this Act may be tried summarily by a Magistrate.

Offences under this act summarily triable.

9. Nothing in the provisions of this Act shall be deemed or construed to affect, prejudice, or curtail, in any way —

(a) the power of appointment, transfer, dismissal and disciplinary control of public officers vested in the Public Service Commission; or

(b) the power of appointment, transfer, dismissal and disciplinary control of judicial officers vested in the Judicial Service Commission,

Powers of appointment, etc., of the Public Service Commission or the Judicial Service Commission not to be affected or curtailed by this Act.

by the Ceylon (Constitution) Order in Council, 1946.

Offences under this Act committed by a body of persons.

10. Where an offence under this Act is committed by a body of persons (other than a University), then, —

(a) if that body of persons is a body corporate, every director or officer of that body corporate, and

(b) if that body of persons is a firm, every partner of that firm,

shall be guilty of that offence:

Provided, however, that a director or officer of such body corporate or a partner of such firm shall not be deemed to be guilty of such offence if he proves that such offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

Interpretation.

11. (1) In this Act, unless the context otherwise requires —

“appropriate office”, in relation to a graduate to whom this Act applies of any prescribed class or description, means any office of any such grade or class in the public service as may have been prescribed as being appropriate for the appointment of the category of graduates of that class or description;

“duly appointed”, in relation to any appropriate office in the public service, means appointed to that office, under and in accordance with the provisions of any written law for the time being applicable to such appointment, by the person or authority empowered to make such appointment by or under that law;

“duly conducted medical examination”, in relation to any appropriate office in the public service, means a medical examination conducted under and in accordance with the provisions for the time being applicable to members of the public service;

“duly terminated”, in relation to any appropriate office in the public service, means the termination of service in that office, under and in accordance with the provisions of any written law for the time being applicable to such termination, but does not include resignation from that office without the prior approval of the person or authority empowered to terminate such service;

“duly transferred”, in relation to any appropriate office in the public service, means a transfer to or from that office made or effected, under and in accordance with the provisions of any written law for the time being applicable to such transfer, by the person or authority empowered to do so by or under that law;

“graduate”, in relation to any University, means a person on whom a degree or diploma has been conferred by that University, or who is or will be entitled to the conferment of such degree or diploma by reason of his having completed a successful course of training or study in that University;

“Head”, in relation to any University, means the Vice-Chancellor for the time being of that University or, in the absence of a Vice-Chancellor, the person, by whatever name called, who for the time being occupies the position of Head of the management or administration of the affairs of that University;

“public service” means the service consisting of members who are the holders of paid offices as servants of the Crown in respect of the Government of the Island, but does not include the persons referred to in paragraphs (a), (b), (c), (d), (e), (f), (g), (h), (j) and (k) of the definition of the expression “public officer” occurring in Section 3 of the Ceylon (Constitution) Order in Council, 1946; and
“technical” means artistic, scientific, or professional.

(2) For the purposes of this Act —

(a) the appointment of a person to any appropriate office in the public service shall be deemed to be due to take effect on the date specified in the letter or other instrument by which such appointment is made, or on such later date to which it may have been postponed by the person or authority who made such appointment; and

(b) the appointment of a person to any appropriate office in the public service shall be deemed to be due to expire, if a date is specified in the letter or other instrument by which the appointment was made (not being a date expiring later than a period of five years from the date on which he became subject to compulsory public service), on that date or, if no date is so specified, at the end of such period of five years.

Modification of certain provisions of this Act in case of particular graduates.

12. The provisions of paragraph (c) of subsection (1) of section 4, and paragraph (b) of sub-section (2) of section 11, shall, in their application in the case of any graduate who is a person of the description referred to in paragraph (b) of section 2, have effect as if for the word “five” wherever it occurs in such provisions, there were substituted the word “three”.

REVIEW OF ACTION TAKEN FOLLOWING THE FOURTH COMMONWEALTH MEDICAL CONFERENCE

Maintenance of Medical Equipment

Paper prepared by the Commonwealth Secretariat

Concern was expressed at the Fourth Commonwealth Medical Conference about the difficulties experienced by many developing countries in maintaining and repairing medical equipment, particularly electrical equipment, and at the waste of resources resulting from expensive equipment lying idle for lack of maintenance and repair skills and spare parts. This was seen as a suitable area for Commonwealth co-operation and the Secretariat was requested to look into ways of improving the situation.

2. The Secretariat obtained the services of Dr. Clifford Riley, a British consultant pathologist/bio-medical engineer, experienced in the design, manufacture and maintenance of electro-medical equipment, who was asked to examine present arrangements for maintenance and repair and to recommend ways in which improvements might be made. In particular, he was asked to assess the potential for training on a regional basis and to make recommendations as to how existing facilities might be supplemented.

3. Dr. Riley visited selected member countries in South-East Asia; West Africa; East, Central and Southern Africa; and the Caribbean. At the conclusion of his visit to each region he submitted reports containing his findings and recommendations which were sent to each country and regional agency concerned. An interim general report was submitted to the 1976 Pre-WHA Meeting in Geneva. Dr. Riley's final general report and recommendations is attached in Annex A. (Dr. Riley's regional reports have not been included since their findings and recommendations are covered in his general report.)

4. Initially it had been thought that an investigation in the Pacific region would not be necessary since, following a WHO survey in 1973, a WHO inter-country regional training project based in New Zealand was planned to begin in 1977. It was learned in 1976, however, that this project had been shelved due to shortage of UNDP funds. It was therefore decided that the Secretariat should commission an investigation in this region also, and that it should be treated as an operation separate from those of Dr. Riley, for reasons of distance, time and economy. Mr. Robert Sutherland, of the Australian Hospitals and Charities Commission, an experienced hospital engineer, was accordingly asked to undertake it. He was requested to take into account the WHO survey and to assess the potential for training, particularly in the developing countries of the South Pacific.

5. At the conclusion of his visits, Mr Sutherland submitted the report in Annex B attached, which has been sent to the countries concerned.

6. In the case of both Dr. Riley's and Mr. Sutherland's reports, sections containing recommendations affecting individual countries only have been sent to those countries but not to others.

Findings

7. The widespread need for improvement in the maintenance and repair of medical equipment, and particularly electrical equipment, which is underlined by both consultants, is accepted by Governments and most of the problems involved, although they may vary in degree, are common to most developing countries. As the reports indicate, a satisfactory medical engineering service calls for appropriate administrative arrangements, adequately trained technical staff with

reasonable salaries and career prospects, a careful approach to the purchase of new equipment, sufficient stocks of spare parts, properly-equipped workshops, and a realisation that money spent to prevent neglect can in the long run be economical.

8. Both reports emphasise the need for training, and make recommendations for the establishment of courses on a regional basis. Action on these recommendations is already being taken in several regions.

West Africa

9. As a result of Dr. Riley's investigations in West Africa, the Secretariat was able to offer 15 CFTC fellowships to enable additional students from Commonwealth Africa to receive training at the WHO Inter-Country Manpower Development Project in Freetown, Sierra Leone, to the extent of doubling the 15-month hospital engineering course intake. Not all of the 15 places offered by WHO were filled, however, and the 15 additional places offered by the Secretariat were thus not taken up. It was reported that the reason for the poor response was the level of the pre-entry requirements demanded for the course, and perhaps also the lack of good career prospects in government service.

10. Although, when they considered the matter in October 1976, West African Health Ministers accepted the regional WHO view that the pre-entry requirements should not be lowered, dissatisfaction with the way the course was conceived, particularly the level of the selection test, expressed at the 1976 regional meeting in Kampala, later resulted in proposed reductions both in the length of the course – from 15 months to 8 months in Freetown and 3 months in the participants' respective countries – and in the pre-entry requirements. Commonwealth Secretariat assistance for the course is currently under consideration.

East, Central and Southern Africa

11. Health Ministers in East, Central and Southern Africa decided in November 1976, on the basis of Dr. Riley's report on that region, that a regional training course should be started at the Swaziland College of Technology during the second half of 1977. They considered that the course should pay particular attention to the need to standardise equipment in the region. With Commonwealth Secretariat assistance, the College Principal has visited the WHO training project in Freetown, a curriculum has been prepared and the Secretariat is providing fellowships for the course and assisting with the recruitment of a lecturer.

Caribbean

12. In the Caribbean the need has been accepted to develop a regional centre for the training of medical engineers and technicians, comparable with the existing PAHO centre in Caracas, Venezuela. Caribbean Health Ministers have asked the Government of Trinidad and Tobago to establish a training project for Caribbean personnel. The Commonwealth Secretariat may be able to assist a regional project with training fellowships, if requested.

Asia and Pacific

13. While member countries in Asia appear to have the requisite facilities and resources for the further development of training on a national basis, the needs of developing countries in the South Pacific have still to be met. Governments of member countries in this region may wish to consider Mr. Sutherland's report in the light of recent moves towards the revival of the WHO/UNDP training project, possibly in 1979, based on New Zealand. Joint regional discussion of the question may be desirable to assess how far the WHO/UNDP project will satisfy regional needs, and whether it could be usefully supplemented by Commonwealth regional co-operation, possibly with Commonwealth Secretariat assistance.

RECOMMENDATIONS

14. The value of the studies undertaken by the consultants can be measured only by the extent to which they result in practical action. Ministers of Health may wish to make recommendations for action at several levels, as Dr. Riley's report suggests. In particular, they may wish to consider recommending:

- (a) *at the national level*, that governments should take all possible steps to ensure that their countries have a properly planned and organised medical engineering service, and career structure, on the lines described in the consultants' reports;
- (b) *at the regional level*, that regional groupings should promote and expand the training of medical engineering technicians on a regional basis, at suitable institutions in the regions, where appropriate in collaboration with WHO regional organisations;
- (c) *at the inter-regional level*, that regional groupings should seek ways of sharing their experience, including the exchange of ideas, information and personnel, with the aim of bringing about an early substantial improvement in the standard of hospital engineering;
- (d) that the Commonwealth Secretariat should provide all possible assistance to these ends.

4 October 1977

Maintenance of medical equipment in certain Commonwealth countries

by Dr. Clifford Riley, MD, MSc, MRCPATH, AIHospE

During 1975 and 1976 the author was privileged to visit Malaysia and Singapore, most Commonwealth African countries and most Commonwealth countries in the Caribbean. These visits were made at the behest of the Commonwealth Secretariat with the purpose of investigating the state of maintenance of electro-medical equipment and suggesting ways in which it might be improved.

2. Although many Commonwealth countries have not been visited, the situations observed in those which were occurred so consistently that it is fair to assume that the problems encountered are near-universal in developing countries, although no doubt they vary in severity from country to country.

3. The problem of lack of maintenance of 'electro-medical' equipment has been discussed at Commonwealth Medical Conferences, and it is obvious that malfunction of this particular class of equipment is of the greatest concern to medical personnel. However, it became clear quite early in the course of this series of surveys that faulty electronic equipment was only a small part of a very much larger problem. In fact, all hospital equipment from beds to boilers was found to lack maintenance, often to a most serious degree. Any scheme aimed at improving the situation must therefore be a comprehensive one: the problem must be tackled as a whole, not piecemeal.

4. In almost all countries visited, facilities for repair and maintenance of hospital equipment were poor; sometimes they were non-existent. The main factors responsible for this inadequate service are identified in the following paragraphs.

Lack of administration arrangements

5. In most countries there is no properly structured engineering service. There is no officer of any seniority who can speak at Ministry of Health level and who is charged with the responsibility of overseeing and co-ordinating such services as do exist. There is in fact no-one whose job it is to see that the problem is dealt with.

6. In many countries, certain facilities for repair and maintenance are provided by non-medical government agencies such as works departments. Sometimes facilities are provided by more than one such department. This arrangement is never satisfactory, since a Ministry of Health is unable to set its own priorities and communication between users of this service and the administrators in charge of it is invariably poor. It is often impossible to convey to works departments that breakdowns of some items of medical equipment constitute acute emergencies. Moreover, employees of works departments do not identify themselves with the health authorities and often make their own decisions as to which equipment is their responsibility and which is not.

7. In some countries Ministries of Health have attempted to fill the gaps left by Ministries of Works by adding their own central repair workshops. Whilst the workshops themselves are more or less effective, depending on the skill and personality of the officers in charge, this service is hardly ever really effective outside the hospital where it is based. In addition, there are areas which are ignored by both services, there is liability to friction over finance, and any form of planning is extremely difficult. All these are the drawbacks of divided responsibility.

8. Where there was a discernible administrative structure, the senior officers were insufficiently senior to make their voices heard and managerial skills often appeared to be limited.

Lack of trained personnel

9. Hospitals in manufacturing countries rely heavily on manufacturers to provide service for equipment. This direct service is not available to developing countries, who must therefore find some way of providing their own maintenance staff. The facilities for training such staff are at present quite inadequate.

10. Hospital engineering is a complex subject. One cannot simply take someone with a general training in an engineering subject, place him in a hospital and expect him to deal with a mass of unfamiliar equipment, any more than one can expect a newly qualified doctor to practice neuro-surgery. A fairly prolonged period of additional specialised training is needed to create an effective hospital engineering technician. It follows that there are no short cuts to the creation of trained personnel. Crash courses are only likely to produce individuals capable of harming rather than maintaining valuable equipment.

11. There is a requirement for individuals trained to craftsman levels to care for general engineering equipment such as boilers, lifts and air-conditioning plant. There is also a need for persons trained to technician grade in engineering subjects, both for supervisory roles and for further training as specialists in the maintenance of medical equipment. Excellent technical colleges exist in most developing countries, but their students are almost invariably sponsored by industry and there is no surplus left for the hospital service.

12. There is no recognisable career structure for workers in hospital engineering. It is futile to attempt to attract scarce and valuable personnel into a service which gives no scope for ambition. However, salaries are so low in government service, compared with private industry, that they constitute a major deterrent.

Varied types of equipment

13. Any modern hospital contains a great diversity of equipment; this makes the task of the hospital engineer difficult. The diversity tends to be greater in developing countries than in highly industrialised countries. In manufacturing countries there is a tendency to purchase local products; in developing countries, where equipment has to be imported, the advantages of restricting purchases to a particular source of supply are less obvious.

14. A proportion of new equipment is donated and, not surprisingly, donor countries give equipment manufactured by themselves. Problems of maintenance of this equipment can be considerable: for example, maintenance handbooks may be written in languages not locally understood and spare parts may be difficult or impossible to obtain. These problems arise even with equipment donated by international agencies.

15. The purchase of new equipment is often the responsibility of officers who have had little or no technical training, and more often than not the choice is dictated solely by price. There is a lack of up-to-date information about the vast range of equipment available, and purchase is often made without adequate consultation with those who will have to use it or those who will have to maintain it.

16. Although the advantages of standardisation are fairly widely known, various pressures, both internal and external, have so far prevented its introduction except in a few isolated instances.

Lack of spare parts

17. It is exceptional for any spare parts to be acquired at the time new equipment is purchased. In addition, finance departments commonly refuse to provide funds for the establishment of a stock of spares before these are actually needed. There are thus great administrative delays whenever a spare part is needed to carry out a repair.

18. This problem is aggravated by distance from the source, currency restrictions and the high cost of air freight.

19. Defining a required spare part from an inadequately written service manual is impossible for individuals not specifically trained in this field.

20. The whole problem is particularly acute in the case of old equipment which is no longer manufactured.

Lack of funds

21. Such engineering services as do exist are invariably under-financed. In very few cases are workshops adequately equipped (in some there is virtually no equipment), and almost all of them are seriously under-staffed in relation to the tasks they have to perform.

22. Because of the limitations of funds, establishments include disproportionately large numbers of the lowest paid and therefore least skilful grade of worker. It should never be necessary to have more than one untrained helper for each craftsman or technician.

23. A modern hospital is very costly; lack of maintenance can destroy its usefulness very quickly. To restrict funds for the engineering service is therefore poor economy.

Repair or maintenance

24. The result of all the foregoing factors is that little attention is given to equipment as long as it will function to some degree. Only when it will no longer work is it repaired and what was originally a trivial fault may have worsened to the point where it has caused additional and perhaps irreparable damage. The advantages of planned preventive maintenance over repair by crisis are obvious and widely understood, but preventive maintenance cannot be carried out when an engineering service has to operate on totally inadequate finance.

25. Finance officers are generally resistant to the introduction of preventive maintenance schemes because in the short term these appear to be costly. In fact, such schemes can be economical.

Positive developments

26. On the positive side, a certain amount has been achieved. The World Health Organisation has set up a school of medical engineering in Freetown, Sierra Leone. This gives 15 months training in electronics and medical engineering (including X-ray maintenance) to 15 technically trained students drawn from the whole of English-speaking Africa. The Commonwealth Secretariat has offered to finance an additional 15 places. Unfortunately, however, the entrance requirements are considered too high by some countries.

27. Negotiations are taking place for the establishment of a technician training course in hospital engineering at the Swaziland College of Technology. The course is intended for students from the East, Central and Southern Africa region, but places may also be available for candidates from elsewhere. The Commonwealth Secretariat has offered to assist with scholarships where appropriate.

28. A PAHO plan exists for a regional programme in organisation and training in hospital engineering for the Commonwealth Caribbean countries. This would be based on the programme which is at present being implemented in Venezuela. The plan calls for the establishment of a regional training centre based on Trinidad and Tobago. Maintenance units would be set up where they do not already exist and existing units would be up-graded. For training purposes, use would be made of existing teaching institutions, particularly the John Donaldson Technical College in Trinidad. At present the scheme is hampered by the shortage of UNDP funds.

29. Barbados has established a well-organised and comprehensive engineering service entirely under the control of the Ministry of Health. The organisation provides all forms of maintenance, including repair of the fabric and services of hospitals, but at present does not include X-ray maintenance. Any inadequacies are solely due to limitation of funds.

RECOMMENDATIONS

30. A number of detailed recommendations for action by individual countries and by regional groupings have already been made in the reports submitted after the author's visits to each region. Conditions vary from country to country, but the following recommendations may be taken as more or less generally applicable.

31. A modern hospital of two hundred beds can represent an investment of perhaps £2 million and it can become almost useless in a remarkably short space of time due to lack of upkeep. The most expensive factor operating against hospitals and their equipment is neglect. It follows therefore that the ideal solution should be aimed at, as far as funds permit, and because anything spent in this way ultimately constitutes a saving, the maximum effort should be made to secure funds. Action can be taken at three levels: national, regional and inter-regional.

National

32. At national level, the action required is to organise a carefully planned engineering service. The basic plan should be sufficiently flexible to allow for a start to be made on a modest scale with progressive build-up over the years to a fully comprehensive service.

The engineering service

33. The hospital engineering service is best placed entirely under the control of the Ministry of Health and made responsible for the care of everything of an engineering nature that concerns the hospitals. This includes all medical equipment from electro-cardiographs to bed castors and should also include the fabric of the buildings, electricity, water, and sewage disposal.

34. The officer in charge should be a senior officer of the Ministry of Health. Ideally he should be trained in hospital engineering, but whatever his qualifications he should be sufficiently senior to argue the case for his own organisation.

35. The establishment of an adequate and efficient service calls for a variety of technically trained personnel. A lower level of crafts-trained individuals – such as plumbers, electricians, carpenters – will be required permanently on the staff of every hospital. An upper level of technician grade will be required for a variety of purposes. Technicians having a general training in mechanical or electrical engineering will exercise supervisory roles; technicians having special additional training will be needed for the maintenance of X-ray machines, medical electronics equipment and mechanical medical equipment. The aim must be to have sufficient numbers of staff to provide for preventive maintenance.

36. The disposition of specialist technicians will depend to some extent on local conditions. Where distances are great and travel difficult, hospitals will require resident hospital engineering technicians, and in these circumstances their specialised training should cover as wide a field as possible. Where communications are easy, it is more efficient to base the technicians on a central workshop and arrange for regular visits to outlying hospitals. In this case it is best to aim at a high degree of specialisation.

37. The small community has particular problems. The health budget is too small to support a comprehensive engineering service but the facilities are needed as much as anywhere else. The basic maintenance service must be based on resident workers trained to craft levels. For more complex specialist support at technician level, however, such communities must rely on a neighbouring country with suitable resources, under mutually agreed financial arrangements.

Purchase of new equipment

38. Specialist user advisory committees should be set up to guide purchasing officers in the selection of new equipment. The budget for new items of equipment should always include an allowance for spare parts sufficient to cover five years of use. The senior engineering officer should review all proposed new purchases to ensure that they are compatible with existing services and that he can provide satisfactory maintenance.

Spare parts

39. Valuable equipment may be out of action for a year or more because of delays in obtaining essential spares. Whilst it is never possible to cover all eventualities, engineering services should be encouraged to build up a stock of essential spares. Finance officers should be persuaded that this is a long term economy and that funds should be made readily available for this purpose.

Workshop equipment

40. Some existing hospital workshops are seriously under-equipped. This is a poor economy, leading as it does to a low output of work of poor quality. An adequate scale of tools and equipment should be laid down by an experienced engineer, and provision should be made for a considerable wastage of small tools.

Recruitment of technical personnel

41. Although excellent technical colleges exist in most developing countries, most of their students are committed to industry. In order to secure a supply of engineering technicians with general training, Ministries of Health will have to recruit suitable school leavers and sponsor them through technical college.

Salaries

42. It will be futile to attempt to recruit a team of highly trained technicians if salaries are unattractive. It is appreciated that a government service will always find it difficult to compete with private industry; but there is no excuse for paying skilled technicians less than junior bank clerks. Modest but regular increments of salary and increments after the acquisition of fresh skills help to keep employees satisfied.

43. The Commonwealth Secretariat may be able to assist individual countries with the provision of expert advice and with the recruitment of key personnel.

Regional

44. Whilst primary training of technical personnel can be carried out at most national technical colleges, the specialist training of hospital engineering technicians is best provided on a regional basis, in view of the small number of candidates coming forward in individual countries at any one time. The best training centre will be a large technical college; a quantity of specialised equipment and specially trained instructors will be required. Large regions may require two or more training centres.

45. The Commonwealth Secretariat may be able to help with bursaries for students, and may also be able to assist with advice on the setting-up of courses.

46. Three types of hospital engineering technicians are required:

- (a) *general hospital engineering technicians*, who should have training in mechanical or electrical engineering to City and Guilds technician level, followed by a specialist course of about 18 months in hospital engineering. Their general role may be supervisory and they will be responsible for maintenance of all engineering devices used in hospital, except electronic equipment and X-rays.
- (b) *hospital instrument engineering technicians*, who should have training to City and Guilds level in electrical engineering including electronics, and should have a specialist course in maintenance of medical instruments or, failing that, they should have field training in a hospital which provides such a service.
- (c) *X-ray maintenance technicians*, who should have a primary training in electrical engineering to City and Guilds technician level followed by 12–18 months attendance at the training courses provided by manufacturers of X-ray equipment. These technicians are needed in much smaller numbers than those trained in other branches.

47. Where economies are vital, the general technician can be given some additional training in the care of electronics equipment, but X-ray maintenance technicians should always be separately trained. The reasons for this are that the training is highly specialised and the numbers of X-ray maintenance technicians required are relatively few.

Training in maintenance of laboratory equipment

48. Medical laboratory technicians are trained to understand their own equipment and a significant proportion show aptitude for maintenance and repair. When training courses are being set up, facilities should also be provided to give six-month courses in maintenance of laboratory equipment to *selected* laboratory technicians.

Numbers to be trained

49. In training technicians allowance should be made for considerable wastage. It is inevitable that a proportion of trainees will be lost to industry but they will, of course, still be contributing economically to the community. It is suggested that at least twice as many students should be trained as there are hospital posts to fill.

Inter-regional

50. A number of individuals have been working nationally and internationally to improve the standard of hospital engineering. There has been little communication between them, however, so that inevitably opinions on the best course to follow are diverse and many good ideas are undisclosed. A seminar/workshop of such individuals, at which ideas and experience could be shared, would be a valuable aid to working out positive approaches to the problem. The Commonwealth Secretariat may be able to assist with the organisation of such a meeting, which should be held in a developing country.

51. Situations are bound to arise in which it is desirable to send technical personnel from one region to another for special experience and training. The Commonwealth Secretariat may be able to assist with such training visits.

52. Where the number of experienced hospital engineers is small, it may be possible to arrange for the secondment of suitable personnel from elsewhere for short periods to work in an advisory capacity. The Commonwealth Secretariat may be able to compile a list of such individuals and assist with their secondment.

CONCLUSION

53. It is clear that the problem is a complex one with no easy solution. However, the first step towards alleviation will have been taken when Ministries of Health take complete control of all hospital engineering services. The second essential step is to establish an engineering career structure and arrange for the training of hospital engineers.

54. The preparation and planning of a satisfactory engineering service will take time and full implementation will take several years. Early decisions are therefore imperative if a substantial improvement in the maintenance of medical equipment is to be achieved.

4 October 1977

Report on maintenance and repair of medical equipment in Commonwealth countries of the South Pacific

by R. D. Sutherland

During the period March–May 1977 I visited Fiji, Papua New Guinea, Tonga and Western Samoa at the request of the Commonwealth Secretariat to examine present arrangements for the maintenance and repair of electro-medical equipment and to recommend ways in which these might be improved. I was also asked to assess the potential for relevant training within the South Pacific region, particularly in the developing Commonwealth countries, and to recommend how existing facilities might be supplemented and training courses started. I also visited New Zealand for liaison and information purposes and had discussions with officials of the Australian Department of Health in Canberra.

2. In all the countries visited I received ready co-operation in my assignment and I am grateful to their Governments and to all the persons concerned for their assistance. My thanks are also due to the Commonwealth Secretariat for the opportunity to undertake the assignment and for the necessary funding from the Commonwealth Fund for Technical Co-operation; to the Hospitals and Charities Commission, Victoria, Australia, for permission to take up the assignment and their support in its fulfilment; and the Australian Department of Health for their excellent advice and encouragement.

3. A separate report on the situation in each of the four developing countries visited has been submitted. The report which follows contains my general findings and recommendations.

GENERAL FINDINGS

4. The desire for good and modern health care facilities, including efficient electro-medical equipment, is evident in all four developing countries visited, but there is a clear need for improved facilities for the maintenance and repair of medical equipment. Countries are precluded by economic considerations, however, from equipping hospitals to the levels they desire and from providing the necessary technical support.

5. There is also the desire that as much as possible of the maintenance and repair of medical equipment should be performed by local staff in the countries themselves, under the control of local health authorities.

6. Where advanced equipment-oriented training is concerned, there is a definite education gap at both secondary and tertiary levels.

7. There are variations in the present capacity to handle the overall problem in the developing countries visited, and some are already advanced in their organisation and planning. Existing arrangements are mostly inadequate, however, and the difficulties are likely to become progressively greater as further equipment, particularly sophisticated equipment, is installed in the future.

8. It is evident that none of the developing countries can, as things stand, be self-supporting in the provision of facilities and staff for the installation, maintenance and repair of their medical equipment.

9. There is a definite need for rationalisation of equipment purchases if a successful maintenance programme is to be achieved. The purchase rationalisation plan in Papua New Guinea, which will reduce the number of types of equipment and so facilitate maintenance and the ordering of spares, is an encouraging move in that direction, on their part.

10. A range of equipment and expertise is required to maintain and repair hospital equipment already installed. This is an expensive business and needs careful planning and organisation, and probably assistance from a country already experienced in this field of activity.
11. The desire for future self-sufficiency in connection with the maintenance and repair of medical equipment was expressed in all the developing countries visited. It is felt, however, that even with the best organised programmes for producing trained and experienced staff, it would be at least ten years (probably more) before suitably trained and experienced nationals could become available for responsible positions.
12. Papua New Guinea is the only one of the developing countries visited which has a suitable training scheme in general electronics and instrument technology, at its Posts and Telegraph Technical Training College. This scheme could not produce a trained *general* technician in under 4–5 years, however, and further training and subsequent experience in medical instrumentation would be essential before competence in this field could be assured.
13. A training course to produce medical engineering technicians may well be designed on a co-operative basis, with joint participation by developing countries in the region. This would be a long-term proposal, however, and would probably not be able to produce the first responsible technicians within ten years. Continuing outside support would be necessary to support this, and to provide bridging technology at a suitable level.
14. Any training programmes should be aimed at producing medical engineering *technicians*. To aim at a higher level would at this stage be unrealistic.

RECOMMENDATION

15. In view of these findings, it is recommended that the Governments of the developing countries of the South Pacific should approach the Government of an appropriate Commonwealth country with a view to providing in the short-term (say, approximately ten years) practical assistance to those countries. Such aid should include:
- (a) *an advisory bureau*, aimed at the rationalisation of purchasing equipment, and of the necessary maintenance programmes needed to support that equipment;
 - (b) *engineering and technical support* for existing equipment, installation of new equipment, maintenance programmes, the on-going medical engineering requirements, and training programmes; and
 - (c) *the organisation of training programmes* for nationals of the developing countries, so that the responsibility for both (a) and (b) above can be progressively taken over by those countries.

4 October 1977

REVIEW OF ACTION TAKEN FOLLOWING THE FOURTH COMMONWEALTH MEDICAL CONFERENCE

Procurement of Medicinal Drugs

Paper prepared by the Commonwealth Secretariat

With the object of ensuring that medicinal drugs and other consumable medical items are obtained at reasonable prices, the Fourth Commonwealth Medical Conference requested the Secretariat to examine the feasibility of bulk purchase. The consultant engaged for the purpose, Mr. E. Fawcitt, was asked not only to study ways of lowering the cost of imported drugs but also to consider the prospects for regional co-operation and local manufacture and arrangements for distribution, quality control and storage.

2. Mr. Fawcitt visited selected member countries in Africa, Asia, the Caribbean and the Pacific. At the conclusion of his visit to each region he submitted separate reports which were subsequently sent to governments and regional agencies. An interim general report was submitted to the 1976 Pre-WHA Meeting in Geneva. Mr. Fawcitt's final report containing his general findings and recommendations is attached as an Annex to this document.

Findings

3. The report points to the need for governments to review their present arrangements for the purchase, storage and distribution of medical supplies, and, where appropriate, to reorganise them so that an efficient and economical supply organisation is ensured. It underlines the benefits to be obtained through regional co-operation in the purchase, manufacture and quality control of medicinal drugs. It also emphasises the need for suitably-qualified staff. The consultant's main recommendations are conveniently summarised at the end of the report.

Regional action

4. Action in line with the recommendations has already begun in the regions.

5. In the *Caribbean*, a regional drug policy and purchasing project, already being developed, involves bulk purchase through a master contract system, with direct delivery to individual countries, prescription by generic name rather than commercial brand, and the preparation of national and regional formularies. The establishment of a regional drug-testing laboratory is also under consideration. Caribbean Health Ministers decided at their meeting in June 1977 that a list of essential drugs should be prepared and that assistance should be sought (from UNIDO and other sources) for the establishment of co-operative pharmaceutical production and technology centres to co-ordinate production, disseminate information and provide guidance on importation, production, training and marketing, the aim being to foster a common drug policy for the region.

6. In the *South Pacific*, a regional meeting to discuss collective purchasing of medical supplies was held in April 1977 with support from the Commonwealth Secretariat. The meeting, which was organised by the South Pacific Bureau for Economic Co-operation (SPEC), considered a report prepared by SPEC and agreed on various matters to facilitate regional co-operation in obtaining medical supplies and on the exchange of information on suppliers and their prices. In particular, it was agreed that certain items required by other island member countries should be included in the Papua New Guinea tendering scheme; Fiji offered to supply small quantities of certain items to the smaller countries from its own stocks. Moves to standardise medical stores catalogues were also approved.

7. In *East, Central and Southern Africa*, the consultant's recommendations were considered by Health Ministers in late 1976 and it was decided that a regional meeting of chief pharmacists should be convened to consider the matter in detail. A similar decision was made by Health Ministers in *West Africa*. Commonwealth Secretariat support for these meetings is being provided.

RECOMMENDATIONS

8. Ministers of Health may wish, having taken note of the discussions and decisions that have already taken place at the regional level, to consider the report along the following lines:

At national level

- (a) that governments should review their existing arrangements for the purchase, storage and distribution of medicinal drugs and other medical supplies, so that an efficient and economical supply organisation is ensured;
- (b) that staff dealing with medicines at various levels should be suitably trained, and that, where appropriate, use should be made of diploma pharmacists (pharmacy technicians);
- (c) that all possible steps should be taken to ensure that medicines are of satisfactory quality;

At regional level

- (d) that a regional multi-disciplinary body should be formed to consider and make recommendations to Health Ministers of the region on:
 - (i) the feasibility of regional contracting for medical supplies;
 - (ii) planning for the manufacture of medical supplies within the region;
 - (iii) the development of indigenous medical resources;
 - (iv) the introduction of a regional catalogue of medical supplies;
 - (v) the training of graduate and diploma pharmacists on a regional scale;
 - (vi) regional co-operation in the provision of pharmaceutical advice; especially to smaller countries lacking professional staff;
 - (vii) the introduction of regional pharmaceutical standards and laboratory testing;
 - (viii) regional harmonisation of medicines legislation;

At inter-regional level

- (e) that regional organisations should liaise with each other, and with relevant international organisations, on regional procurement and manufacture of medical supplies, and on the development of indigenous medical resources;
- (f) that regional testing laboratories should exchange technical information;
- (g) that there should be inter-regional co-operation in the training of pharmacists and, where appropriate, the exchange of staff;

Commonwealth Secretariat

- (h) that the Secretariat should provide support for these purposes.

17 October 1977

Annex to
CMC (77) I/A5

Procurement of Medicinal Drugs in Developing Commonwealth Countries

Report by E. Fawcitt ISO, FPS

Commonwealth Secretariat
London

June 1977

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Procurement of medicinal drugs in developing Commonwealth countries

The Fourth Commonwealth Medical Conference, in Colombo, 1974, recommended an investigation of the procurement of drugs and their distribution, particularly in rural areas. I was asked by the Commonwealth Secretariat to examine the current practices and report.

2. My terms of reference were to recommend ways in which procurement and quality control procedures could be improved, with special reference to the needs of developing Commonwealth countries, by

- (a) existing agents;
- (b) Commonwealth governments, individually or jointly; and
- (c) any other means.

3. Since November 1975 I have visited 20 Commonwealth countries. In each country I have been received with courtesy and sympathetic attention; everyone has been most helpful. I especially thank members of the Medical Division of the Commonwealth Secretariat for their assistance and for their interest in the compilation of this report. I am, of course, solely responsible for any errors of judgement, fact and style which may remain.

The present situation

4. During my visits I examined methods of purchase, storage and distribution of medical supplies and visited hospitals, health centres, laboratories and factories. I saw health auxiliaries treating patients under primitive conditions, but I also saw purpose-designed clinics and dispensaries built by rural communities themselves. These are often run by dedicated, well-trained health officers and staffed by resident nurses and members of the community.

5. Attitudes towards the development of rural health care are changing and the outlook is encouraging, but as far as medical supplies are concerned there are few signs of improvements in the old routines. This may be due partly to economic stringency, but some senior people are easily discouraged and content to let things continue in the old ways. The revision of buying methods must be accompanied by improvements throughout the supply system or much of the savings to be obtained will be lost and patients will be little better off.

6. Medicines are usually issued in bulk from the central store, dispensing facilities are often crude and patients provide their own, more or less clean, containers. Tablets are given to patients in screws of paper and this naturally leads to waste and poor treatment. This undesirable practice is also followed in some major hospitals, which should set standards for the rest of the country.

7. Several professions are involved in the purchase, supply and use of medicines and other medical supplies. The pharmacist has a detailed knowledge of the standards, composition and storage of medical supplies and is concerned at all stages to ensure that the patients get what is prescribed. The graduate pharmacist, as the technologist responsible for the proper provision of medicines, should not spend much time on routine day-to-day dispensing; he may handle difficult dispensing problems but his main duties are advisory and supervisory in health departments and the running of large units. Staff at all levels should be trained for the work undertaken. The greatest need is for diploma pharmacists (pharmacy technicians) whose job is to make sure that the correct medicine is handed to the patient.

8. In general, health departments recognise that the purchase, storage and distribution of medical supplies is wasteful and should be reorganised. Frequently medicines are imported at high prices and their costs use up a large proportion of the pharmaceutical budget, leaving little for the purchase of other medical supplies. Departments plead the lack of money for new buildings and equipment, too few qualified staff and low priority for medical supplies. I can only give broad guidelines and each region must study its own situation and work out which proposals are most likely to form the basis of an efficient and economical supply organisation.

The scope for regional co-operation

9. Provided that there are efficient distribution systems both regionally and nationally, there is scope for regional purchasing at competitive prices of the total quantities of medical supplies for both rural and urban services. Regional procurement can be based on regional contracting or regional purchasing or a combination of the two. Some medical supplies are common to all health services and might be subjects of global purchases.

10. A regional contract unit would arrange contracts with selected contractors and each participating country would order and pay for its own requirements. A regional purchasing unit or depot would purchase supplies on the best terms and supply countries on repayment. Whether supplies are bought directly or through a regional depot, each country will require its own stores organisation to prepare estimates, place orders and check invoices in addition to controlling domestic supplies. If a country orders directly from contractors it will have to hold buffer stocks to cover delays in delivery; if it draws supplies from a regional depot it will need to hold smaller stocks.

11. Medicines and other medical supplies should comply with minimum acceptable standards, but many countries have insufficient testing facilities. Regional procurement should be accompanied by a comprehensive laboratory, but at national level only a limited number of tests need be carried out.

12. While a complex pharmaceutical industry may be beyond the needs and resources of a group of small Commonwealth countries, it might be worthwhile to set up a regional commercial or government-controlled unit to make transfusion solutions. It might also be worthwhile to set up a unit to pack and label tablets in agreed quantities suitable for supply direct to patients.

13. The proposed reorganisation of the procurement of medical supplies requires the agreement of all countries in a region. This calls for regional and national consultative machinery, part of which will be temporary until the scheme is working and part will be permanent to monitor performance and recommend improvements.

REORGANISATION MACHINERY

14. The proposed modernisation can be brought about only by discussion and agreement. Each country and region should set up a multi-disciplinary committee to be concerned with the economic procurement of medical supplies used in the health services.

National committees

15. Each national committee might include:

- one accountant
- two administrative civil servants
- one dentist
- two doctors
- two nurses and
- two pharmacists.

It would deal with the following matters:

- (a) provision of pharmaceutical advice to government departments;
- (b) preparation of a list of essential medicines and a national medical formulary;
- (c) advice on the groups of people authorised to prescribe or administer expensive, scarce and special medicines;
- (d) liaison with manufacturers; and
- (e) liaison with the regional committee concerned with the procurement of medical supplies.

Regional committees

16. The regional committee would include national and industrial representatives and professional members. It would deal with:

- (f) organisation and running of the regional contracting or purchasing unit;
- (g) liaison with other regional committees and international organisations on matters of mutual concern;
- (h) the development of indigenous medically active resources; and
- (i) plans for a pharmaceutical industry.

A working party of experts should be formed to survey existing testing laboratories and advise on essential additional facilities in the region.

PROCUREMENT OF MEDICAL SUPPLIES

17. In the countries that I have visited there are only small variations in the purchasing processes on government account based mainly on what was done before independence. There are unlikely to be more than marginal improvements in the costs of medicines bought by individual countries, although Nigeria is examining its present system and Kenya has called in experts to advise on the whole field of government purchasing and stock control.

18. Manufactureres will always try to sell their standard packs of medicines, and for small orders they will adopt a “take it or leave it” attitude. Bargaining power increases with the size of the order and a purchasing unit can expect better terms and be able to stipulate firmer conditions on quality, packaging and delivery if it is ordering on behalf of a number of countries.

19. Medicines can be imported in several forms:

- (a) the finished pharmaceutical product in small containers ready for supply to patients;
- (b) the finished pharmaceutical product in bulk containers to be suitably packed and labelled for supply to patients;
- (c) as the active drug in bulk — this has to be processed to make the finished pharmaceutical product for supply to the patient after being suitably packed and labelled.

Each country uses a combination of these methods depending on its requirements, its expertise and its facilities for storage, packaging and manufacturing.

Public and private sectors

20. In countries with national health services there still exist private sectors encouraged by doctors seeking additional remuneration, by pharmacists dispensing expensive proprietary medicines and by patients who do not wish to associate with poorer members of the community or who are prepared to pay for additional privacy. Unless the facilities in government hospitals and clinics are very much improved — and this will be costly — there is probably no alternative to the continuation of private practice.

21. However, the government could buy some items, particularly proprietary products, on behalf of the private sector and seek better contract prices for larger quantities. The government would then charge a percentage on the contract price to cover its overheads and allow a percentage mark-up for retail sales. The number of formulations of a medicine and its price might be reduced by registering the latest product only on condition that its price is lower than its competitors.

Control over prices and reliability

22. Many countries have some form of control over the prices of medicines, and developing countries — either individually or regionally — should consider similar controls. Manufacturers

could reasonably be expected to charge importers not more than the price officially agreed in the country of origin plus freight charges. There is no reason why purchases on government account should be expected to subsidise the cost of advertising in other countries. The price in the country of origin should be known to purchasers when they adjudicate on competitive quotations. This price should be disclosed by the tenderer or obtained through official channels. Developing countries and regions should compare the prices that they are paying for medicines, but such comparisons should be made with due regard to rapid price changes in a competitive market, to delivery charges and to the terms of payment.

23. There are several methods of charging commission on purchases of medical supplies, some of which are of world-wide general application:

- (a) the local agent gets commission on all imports from his principals, whether or not he handles any of the paper-work or goods;
- (b) a manufacturer's regional branch collects a commission on all supplies entering a region, whether or not there is a local agent in a particular country;
- (c) the local agent receives a commission when supplies are arranged by the Crown Agents, who themselves charge for services.

The local agents and regional branches may or may not earn their commission, but the regional purchaser should at least know what services are being paid for and whether the payments are justified.

24. Countries might also exchange information on manufacturers' reliability, but on the basis of facts not opinions. Alternatively, they might consider exchanging such information through an official organisation such as the World Health Organisation or the Commonwealth Secretariat.

Regional contracting

25. The cheapest way of importing medical supplies into a region is through contracts for large quantities delivered to one point in the region. Against this must be set the cost of distribution to individual countries. Regional procurement of medical supplies can be organised through contract or purchasing units. A regional committee should examine existing purchasing schemes, including the Caribbean scheme and the proposals of the South Pacific Bureau for Economic Co-operation for collective purchasing, and should consider:

- (a) how far it should go towards a state buying service for medical supplies for both the public and private sectors;
- (b) how far imports and the local manufacturers of medicines should be restricted to products in the medical formulary;
- (c) its policy on the use of combinations of drugs, of proprietary and generic preparations and of expensive medicines;
- (d) its need for quality control and import control;
- (e) whether local manufacture should be protected in its early stages of development by tariffs or by preferential treatment when regional contracts are awarded — protection should be reviewed frequently and should not be used to hide inefficiency;
- (f) the planning of purchases for a number of years ahead — this applies particularly to instruments and equipment and should help to prevent more models than are necessary being used in a region;
- (g) the use of expert advice on modern methods of accounting and stock control;
- (h) the adoption of standard government conditions of tenders and contracts and special conditions for medicines — these conditions would take account of each country's responsibilities as a purchaser and of contractors' responsibilities on delivery and quality.

The committee should recommend an appropriate scheme, agree on guide-lines for running the unit and monitor its performance.

Regional medical supplies catalogue

26. A catalogue of all medical supplies is essential for any scheme of regional procurement. It will be of use in the design of tender, contract and requisition forms. It will simplify clerical work and store-keeping, adapt to use with computers, eliminate misunderstandings and serve as a price list. The catalogue could be based on existing catalogues or those used by international agencies. Whenever possible, it should use international non-proprietary names (INN) or national non-proprietary names for medicines and include a cross-referenced list of proprietary names.

National medical formulary

27. The Health Department should appoint a committee of experts to compile a national medical formulary and revise it when necessary. A formulary is primarily a list of medicines which are agreed to be of use nationally in patient care and are available from government stores. It will include the composition of these medicines and relevant pharmacological information; it might contain other information concerning the treatment of patients by doctors and nurses. It could also indicate which medicines can be prescribed by junior doctors without reference to their seniors and which can be supplied by health auxiliaries without reference to higher authority.

Essential list

28. The World Health Organisation, non-aligned countries and some Commonwealth countries are preparing lists of medicines to be used in rural areas. A regional list of essential medicines must reflect usage in the largest country in the region or it will be unacceptable. There is no typical rural area and it is not clear what value such lists will have. They can only illustrate each country's economic circumstances, the degree of sophistication of its health services and its disease pattern.

29. Doctors, nurses, pharmacists and other health workers should decide together what treatments can be carried out by health auxiliaries at health posts and what medicines can be supplied for use in the home. A national list of essential medicines and medical supplies must then be prepared and should be reviewed as necessary to replace older medicines with newer ones that have proven and appreciable advantages. The number of essential medicines required to meet the immediate health needs of a rural population is small but the total quantities used in a country can be very large.

30. Ideally these essential medicines should be packed in the medical store in suitable labelled containers holding agreed quantities. They should be issued to the health posts and supplied intact to the patients.

Regional medical supply contract unit

31. A contract unit would summarise the estimated quantities of medicines required by governments in a region and issue tender forms. Terms could be issued to all who ask for them or to selected contractors, manufacturers or reputable agencies such as UNICEF, ECHO, (the Joint Mission Hospital Equipment Board Limited), similar European concerns and the Crown Agents. A contracts board would adjudicate on the quotations received and award contracts when it was satisfied that the selected contractors had the financial and physical resources to meet the contract and the ability to supply satisfactory products.

32. Each participating country would order its requirements directly from the appropriate contractor and would be responsible for the settlement of its own accounts. Each country would be expected to take up an agreed minimum proportion of its own estimated quantities or arrange for another participant to assist. Some countries might be short of a particular currency to settle their accounts and access to a currency pool would be useful.

33. The unit could be staffed by member countries, by an international body such as WHO or UNICEF or by an ad hoc organisation. It would have access to specialist advisers – financial, legal, medical and pharmaceutical – it would use modern office facilities and be guided by representatives of the member countries. Its expenses could be met by fees for the supply of tender forms, by contributions from member countries and as aid from developed countries.

34. There is a parallel in England where most of the medicines used in National Health Service hospitals are bought by hospital authorities directly from contractors under regional contracts placed by Regional Health Authorities. A Regional Health Authority is responsible for the health needs of two to five million people.

Regional medical supply depot

35. A regional medical supply depot should hold a variety of items in sufficient quantities to meet the requirements of all participating countries. It should hold larger quantities than are required to meet one year's usage; this buffer stock will eliminate difficulties due to delays in deliveries and sudden demands to meet epidemics and catastrophes. Supplies would be purchased by the depot through contracts arranged by its own contract branch or an independent contract unit which would function on the lines of the alternative contract unit discussed earlier.

36. The depot should be sited with due regard to local resources, testing facilities and sea/air transport to member countries. A comprehensive laboratory is essential to examine tender samples and supplies from contractors and to investigate complaints. It should of course use existing laboratories rather than set up expensive duplicate equipment.

37. Each participating country would indent for supplies on agreed dates and supplies would be charged at the purchase price plus a percentage or fixed charge to cover the running cost of the depot.

Storage and distribution

38. Medicines are expensive and represent an appreciable proportion of the resources used in the health services. They are potent, they have been standardised and they are liable to deteriorate if they are not kept in the appropriate environment. Sub-standard medicines can be dangerous to patients because of the development of toxic degradation products or because they are too weak to produce the required effect. If patients are to have the proper benefit from their treatment and if doctors are to have confidence in the medicines which they prescribe, it is most important to have efficient storage, stock-control and distribution procedures to ensure that the quality of the medicine is maintained at all stages.

39. Government medical stores are frequently housed in old and dilapidated buildings which were erected for quite different purposes. The volume of medicines used in health services is increasing and in many countries modern storage is urgently required. Various medicines and medical supplies such as X-ray films and rubber must be protected against high temperature, excessive humidity and bright light. Extra security is essential for products liable to misappropriation in store and in transit, some because of their high value on the open market, others because of their addictive properties.

40. Stock control and distribution procedures should be brought up to date by the elimination of unnecessary and duplicate paper routines and by the institution of efficient stock-taking processes which concentrate on the most expensive medicines and those liable to misappropriation. Some developing countries have called in experts to advise on store techniques and it would be sensible for such advice to be made available to neighbouring countries.

41. Statistical concepts applied to stock control should lead to a more efficient use of the budget. The frequency and size of orders and the levels of buffer stocks should be determined when acceptable risks of running short of stocks have been agreed. A high turnover rate has the

advantages that lower stocks are carried, there is less capital investment, less storage space is required and deterioration in store is reduced. However, frequent orders raise the total cost of order preparation and increase the possibility of running out of stock. The cost of holding stock forms quite a high proportion of the total cost.

PHARMACISTS AND OTHER STAFF

42. Pharmacy is concerned with the preparation of medicines and the maintenance of quality to ensure that the patient is given what is prescribed. Economy in the use of medicines requires that they are properly stored, distributed and dispensed. These functions must be undertaken by trained subordinate staff and the lowest grade of pharmacist or technician compatible with an efficient service.

43. Graduate pharmacists should provide up-to-date expertise at advisory and supervisory levels in government departments, teaching hospitals, schools of pharmacy, regional contract and supply units, factories and control laboratories. In several countries few large hospitals have graduate pharmacists; consequently clinicians are not getting the best available advice on the properties of the medicines they wish to prescribe. The degree course lasts from three to four years and the emphasis is on the general principles of pharmaceutical sciences and the ability to apply these principles during the graduate's professional life. Schools of pharmacy in developing countries should also aim to produce graduate pharmacists oriented to the real health needs of the societies in which they will work and be able to contribute to the development of health technologies for primary health care. Graduates should be encouraged to take refresher courses and accept WHO or other international fellowships.

44. Diploma pharmacists, called pharmacy technicians in some countries, are very urgently needed for the day-to-day running of dispensaries in small hospitals and some health centres and in sections of manufacturing and supply units. They should perform clearly defined duties under the general supervision of graduate pharmacists at provincial levels, and in turn should guide and supervise health auxiliaries who handle medicines at health posts in rural areas. The diploma course lasts from one to three years, depending on entry standards, and concentrates on the practical aspects of pharmacy. The syllabus should also emphasise general participation in health activities and the special problems which exist in rural areas. The smaller countries should consider sending their students to existing training institutions in their respective regions rather than using resources to set up additional training units.

45. Health auxiliaries should be trained in the recognition, care and use of the essential medicines used in rural areas where it is more important to provide basic treatment for the majority than sophisticated treatment for a few. The main need in such situations is for sufficient numbers of diploma pharmacists to supervise the people who actually give medicines to patients.

46. As part of the modernisation of medical stores, storekeepers and ledger clerks should have initial training and refresher courses. These grades should be used in regional and national stores and in the larger hospitals which supply the district hospitals and health centres. When store accounts are adapted for use with computers some of them will require training in the use of computer terminals.

47. Very small countries cannot always justify the full-time employment of professional staff. There should be one or two peripatetic pharmacists based on one of the larger countries in a region. They should visit the smaller countries regularly to see that medicines are properly stored and controlled, to train auxiliary staff and advise as required.

48. I do not propose to describe or devise stores procedures or training manuals, but whatever form of regional supply machinery is adopted, there must be standardisation and uniformity both nationally and regionally. Standardisation of nomenclatures and coding and uniformity of procedures, forms and staff duties are essential. A handbook of clerical and administrative pro-

cedures and a manual for medical store staff should be used in each region. If store accounting for other government stores has been successfully mechanised, then medical store accounting should be brought into line. Senior clerical and stores staff both national and regional and in the principal hospitals should interchange occasionally so that they can appreciate each other's problems and the reasons for particular routines.

49. Additional professional people will be required for the implementation of legislation to control the registration of medicines and the inspection of pharmaceutical factories. Inspectors should be graduates in appropriate subjects with additional experience in industry or laboratories. They should study control procedures in other countries and adopt appropriate standards. They must have the respect of the pharmaceutical industry and be able to meet industrial experts on equal terms.

50. Each region should aim to form a small group of consultants to advise member countries on all aspects of medical supplies. They should be employed in the health service or the pharmaceutical industry and be available to advise as required. These consultants should preferably be recruited within the region, have basic professional qualifications and be sent abroad for experience and advanced training through WHO, other international or Commonwealth fellowships.

MANUFACTURE OF MEDICINES

51. National self-sufficiency in the production of medicines is a theoretical concept which may be hard to justify and will be very difficult to realise in developing countries, at least in the near future. Many Commonwealth developing countries have very small populations and the advisability of local manufacture depends not only on the immediate question of monetary cost but also on the direction of a country's socio-economic development strategy and the priority given within that strategy to self-reliance. Most available capital and expertise will be needed for the production of food, the improvement of social conditions and the creation of new employment in economic and social conditions are to improve rapidly.

52. The manufacture of a medicine consists, in general, of a series of chemical processes which result in the production of a chemically pure, medicinally active compound followed by a series of manipulations to make a suitable dosage form in a convenient container. The manipulations include formulating, filling, packaging and labelling. These processes and manipulations must be controlled by analytical and testing procedures and subjected to statutory restrictions on quality, environment and expertise.

53. The extent of any country's pharmaceutical industry depends upon its level of technical development and on the availability of other major and subsidiary industries, capital, power, raw materials and highly trained engineers, executives, scientists and technologists. India and Nigeria have some of each of these resources and are building up pharmaceutical manufacturing units capable of making some modern medicines, but each is in some degree dependent on expertise and materials from more highly developed countries. No one country has a monopoly in the manufacture of medicines; there is specialisation and continuous exchange of information on new products and processes. There is no point in a developing country starting a new pharmaceutical industry in isolation; all have a tremendous leeway to make up and should profit whenever possible from past and current developments elsewhere.

54. Any decision to develop a pharmaceutical industry should be preceded by:

- (a) estimates of consumption, both national and regional;
- (b) investigation of currently available sources of supply and prices of intermediate fine chemicals, active ingredients and formulations;
- (c) design and costing of buildings and equipment;
- (d) estimates of the availability of trained and trainable personnel.

Regional co-operation

55. In the long term, Commonwealth developing countries might wish to study the possibilities of encouraging or undertaking the manufacture of medicines on a co-operative or regional basis. It may be mutually advantageous to join with non-Commonwealth countries in a region; a larger total requirement will lead to economies of scale. They should be selective in the products that they wish to make, keeping in mind that some of the commoner medicines used in rural areas may have such a large world-wide demand that it is uneconomic to make the smaller quantities required in one region. In such cases the medicines could be imported in bulk and converted to the appropriate preparations. Developing countries should also decide which processes and manipulations can be carried out efficiently and which intermediates and finished medicines they should import. They will presumably seek advice from such international organisations as WHO, UNIDO and UNCTAD and take part in the activities of the proposed Regional Co-operative Pharmaceutical Production and Technology Centres (COPPTECS) – (NAC/CONF.5/S/RES.25 19 August 1976).

56. Any production units to be set up following COPPTEC deliberations will of course take time to plan and build. Meanwhile, each region should survey its usage of transfusion solutions and the cost of imports. Until a pharmaceutical industry is developed, the regional medical supply depot could include a production unit for transfusion solutions widely used in both rural and urban health services.

Packaging and labelling

57. Some authorities issue tablets to rural and hospital out-patients in scraps of unlabelled paper. This unhygienic practice may be cheap initially but does not ensure that the patient will get the correct medication and recover as quickly as he ought. Whenever possible, medicines should be pre-packed in agreed quantities in correctly labelled containers. These containers must close properly and stand up to extremes of humidity and temperature. Labels should take account of local languages and the high level of illiteracy that exists in many areas. Increased expenditure on both containers and labels is essential if medicines are to retain their efficacy. Whoever is appointed to run units to make transfusion solutions and pre-pack tablets should study in detail the processes, equipment and economies of small units, such as exist in regional depots in Britain.

Indigenous plants and traditional medicines

58. Traditional health practitioners have used indigenous plants for a very long time. Nowadays plants are sources of important raw materials and precursors for synthetic medicines and are likely to be required for the foreseeable future. Each country and region should investigate its indigenous plants and identify research fields appropriate to local health needs and international demands for raw materials. They should then specialise and study large-scale cultivation. The results should be shared with neighbouring countries and other regions.

QUALITY OF MEDICAL SUPPLIES

59. Recent advances in medical and pharmaceutical sciences have led to the introduction of more potent and selective medicines. Precision in their use has led to more precise medical treatment. As a direct result, incorrect use or incorrect quality can result in inadequate treatment or even danger that did not exist in earlier decades when the relatively impotent bottle of medicine had wide margins of efficiency and safety.

60. Countries with very restricted budgets for medical supplies sometimes take the view that some treatment is better than none at all and that they should buy the cheapest medicine with the minimum regard for quality. Such countries will benefit from regional contracts or regional purchasing of medicines of satisfactory quality at competitive prices. The quantity/quality conflict, where higher quality means fewer beneficiaries, must be considered when placing

contracts for the supply of medicines in developing countries. Current emphasis is on the cure or prevention of ill-health in rural areas, which have by far the larger proportion of the total population in most developing countries. We are not primarily concerned with the niceties of expensive formulations and the greatest good for a given cost will be got by buying generic products, but this does not mean buying the cheapest possible product without regard to quality. Nor does it mean that the medical schools and principal hospitals, which must be seen as centres of excellence, should be denied advanced medicines as long as they can justify their use instead of the generic products.

Manufacturers' practices

61. Some manufacturers make several formulations of a particular drug and market it under several proprietary names. Such formulations are often held out by them to be superior to the corresponding official or generic products and are sold at higher prices, sometimes much higher. There are discussions and arguments about the therapeutic values of the several formulations but few firm decisions have been made. Recently United States authorities, while admitting that current regulatory standards did not ensure drug bio-equivalence, concluded that for most commonly prescribed medicines the bio-equivalence of products from different manufacturers is sufficient for interchangeable use.

62. There are instances where a manufacturer makes one preparation some of which is packed and marketed under a proprietary name and some is offered under the generic name at a lower price. There are also instances where two companies, members of the same group, practice pseudo-competition: they market the same preparations for the same indications under different names without disclosing the relationship between the two companies and between the two products. A similar situation arises when two companies arrange to market the same drug under different proprietary names. The existence of such arrangements is rarely mentioned in relation to the drug. (D & T Bull. vol.14, no.14: 1976, p.53)

63. Sub-standard medicines may appear on the market for several reasons:

- (a) prolonged or unsuitable storage somewhere in the supply line can cause deterioration which is detectable only with difficulty;
- (b) the product may be approaching its expiry date and may be offered at a low price;
- (c) medicines which do not pass all tests during manufacture may be leaked to unsuspecting buyers;
- (d) medicines may be withdrawn because of adverse reactions but quantities in the supply line may be offered at low prices.

64. Non-standardised medicines may be produced for export only, because the disease concerned does not exist in the manufacturer's country. In such cases the manufacturer does not have to apply for registration of the product in the country of origin. The importing country will have to make sure that proper standards of manufacture are observed and that the product is efficacious.

65. If a government purchases at prices reduced for the above reasons it takes risks which should be made known to prescribers.

Pharmacopoeial standards

66. Standards of composition and purity and the appropriate tests are described in pharmacopoeias. There are national, international and supranational pharmacopoeias and they may describe different standards for the same product. These differences may reflect the use of different testing methods or may depend on the date of publication. However, they usually have little effect on the efficacy of the product concerned. These technical differences can usually be ignored so long as the particular pharmacopoeia is stated on contracts and labels.

67. Pharmacopoeial authorities try to produce reasonably acceptable standards but, because of national pride and the influence of the multi-national manufacturers, such standards for purity may be higher than necessary. Analytical apparatus undergoes improvement, or rather is made increasingly sensitive and capable of detecting smaller and smaller proportions of impurities. Purchasing authorities in developing countries should guard against this demand for greater and greater purity and consequent increased processing costs when there is no parallel increase in efficacy or decrease in toxicity of the medicine.

68. Countries should adopt standards relevant to their particular problems and needs but, as far as possible, standards should be decided regionally. Developing countries require methods of testing which use less sophisticated equipment but which avoid giving the impression that 'double' standards are being applied — one for richer, one for poorer. The 'better' standard is one that is capable of being applied in the given environment.

69. The World Health Organisation has proposed that "for well-established drugs in general health care, basic tests should be developed for use at the country level where properly equipped and staffed drug control facilities are not available. Such tests would be primarily designed to confirm the identity of pharmaceutical substances and to ensure that gross degradation has not occurred. The tests might be undertaken by government laboratories set up for different testing and investigation work if all that is required is a minimum of additional equipment and specialist staff. This recommendation is being followed up in the revision of drug quality specifications for publication in the new edition of the International Pharmacopoeia". (WHO Chronicle 30:282, 1976)

Standards for other medical supplies

70. In general, the discussion has centred on medicines with emphasis on quality and efficient purchasing, but the same principles apply to medical supplies as a whole. There are standards for some surgical dressings, instruments and equipment. If the necessary testing facilities are unavailable someone in the region may be able to advise from his own experience (the Papua New Guinea supply unit in Sydney employs such a person). Others who might assist are instrument curators and engineers employed to maintain and repair surgical equipment.

Existing facilities for testing

71. Adequate facilities for testing medicines exist in Australia, Britain, Canada, Cyprus, New Zealand (but certain tests are made at the Australian National Biological Laboratory) and Malaysia.

72. Facilities are inadequate in Malta and Mauritius and in Zambia where there are at present no facilities for testing sera and vaccines, though this will be put right when the new Food and Drug Laboratory in Lusaka is operating. In Singapore only chemical and not biological tests can be made; this handicap is being overcome. In Ghana the Government Chemical and Public Health Reference Laboratory is being extended and in Nigeria a National Drug Quality Control Laboratory will soon be in operation. In the Caribbean the establishment of a regional drug testing centre has been proposed. The facilities in Sri Lanka are being developed.

73. Negligible facilities exist in Botswana, Fiji, Lesotho, Malawi, Papua New Guinea (Australian laboratories are used), Sierra Leone, Swaziland and Tonga. Botswana is able to use facilities in adjacent territories.

Regional and national laboratories

74. Governments should be satisfied that medicines and other medical supplies comply with minimum acceptable standards of quality and performance. Testing by adequately trained and well-motivated staff is essential at both regional and national levels. The expenditure on this safeguard will be wasted unless control is exercised throughout the distribution and dispensing

systems. A working party of experts should be formed in each region to survey existing laboratories and advise on essential additional facilities.

75. A regional laboratory should provide a comprehensive testing and analytical service. It might share existing accommodation and expensive, infrequently-used equipment with other testing laboratories in the region. This regional laboratory should exchange information and collaborate with other regional laboratories and with international organisations.

76. A national laboratory should be equipped to test for identity and signs of degradation, investigate complaints and examine local environment problems. This laboratory might be an additional division of the Government Chemist's laboratory with special responsibility for the testing of medicines.

MEDICINES LEGISLATION

77. Much of the legislation in Commonwealth developing countries is based on out-of-date British legislation which was issued to control the custody of poisons and medicines and supply by retail, on prescription and in hospitals. The number of medicines has grown, toxicity and potency have increased, and there are many more possibilities of errors in manufacture and usage which can seriously harm patients.

78. The World Health Organisation and the European Economic Community have issued advice on the form and content of modern legislation on medicinal products. Control is exercised through statutory licensing of the importation, manufacture, marketing and registration of medicinal products. It applies to the manufacture of the bulk drug, formulation and assembly in suitable, properly labelled containers. It also applies to suitable accommodation, equipment and expert staff. These controls are already applied in most developed countries and in a few developing countries where some manufacturing or packaging is undertaken. Some African and Caribbean countries are revising their legislation and it is most important that other countries should revise theirs. Regional harmonisation should also be considered as a step towards regional contracting and the increase of intra-regional trading.

WHO certification scheme

79. It is unrealistic to expect importing countries to inspect all overseas manufacturers and WHO is organising a 'certification scheme on the quality of pharmaceutical products moving in international commerce'. The competent authority in the exporting country will issue a 'certificate of pharmaceutical products' in accordance with the requirements of the importing country. This certificate will confirm that the manufacturer observes 'good practices in the manufacture and quality control of drugs' and that the products have been authorised to be placed on the market. Similarly, batch certificates will be supplied for individual batches of products covered by a 'certificate of pharmaceutical products'.

80. When this scheme is in operation, the importing country will normally need to carry out confirmatory tests only. However, when medicinal products are bought from countries which cannot qualify to join the WHO scheme more comprehensive testing will be necessary.

REGIONAL REPORTS

81. I have already submitted separate reports on my visits to the various regions. The following paragraphs summarise my findings.

East, Central and Southern Africa

82. I visited Kenya, Malawi, Mauritius, Swaziland, Tanzania and Zambia. In general I have no reason to think that conditions and problems concerning the procurement of medicines in other Commonwealth countries in the region are very different from those I saw during my visits. The routines for placing contracts and store accounting have changed little since independence. Attempts at manufacturing medicines in medical stores are little more than old-fashioned dispensing on a slightly larger scale but with little attempt to check the accuracy of the process and the operatives. However, it was encouraging to see moves towards modernisation in Kenya, Zambia and Malawi and the revision of legislation in Tanzania, Zambia and Mauritius.

83. It is very difficult for a small country to find the resources to set up a sophisticated medicines control laboratory and there are several possibilities which should be examined. Where a Government Chemist's laboratory exists, it might be possible to add another division to the laboratory with special responsibility for the testing of medicines. The WHO certification scheme might be adopted or its requirements might be incorporated in general contract conditions. When the WHO basic tests for the identity and degradation of medicines are available, they might be used at regional or district levels as safeguards for patients against treatment with useless or inefficient medicines.

84. It is encouraging to see the increase in training facilities for para-medical technicians in various health disciplines. The demand for these grades will increase as health care becomes more widely available in rural areas. At the same time there will be an increased demand for professional supervision. The available schools of pharmacy should be encouraged to take students from neighbouring countries. Some standardisation of course content will lead to reciprocal acceptance by the various registration authorities.

85. When more pharmacists become available they should be appointed to the larger hospitals to provide a more efficient service of medicines and to supervise the pharmacy technicians and assistants in the satellite establishments. In this way patients will have more efficient treatment and more quickly become active members of the community.

86. As part of the modernisation of medical stores, store-keepers and ledger clerks should have some introductory training. These grades should also be used in regional stores and in the larger hospitals which supply stores to district hospitals and health centres. As store accounts and procedures are adapted to use on computers, some of the ledger clerks will require training in the use of computer terminals and appreciation of the information available from the computer.

87. The chief pharmacists in the six countries that I have visited have many similar problems concerning the procurement and quality of medicines and their supply to patients, particularly in rural areas. I am sure that it would be beneficial if the chief pharmacists in all the Commonwealth countries in the region could meet occasionally and exchange information on how they are solving common problems.

West Africa

88. While each government wishes to procure its medicines as economically as possible, it should understand that medicines are expensive and must be treated as valuable stores. If patients are to have the proper benefit from their treatment and if doctors are to have confidence in the medicines which they prescribe it is most important to have efficient storage and distribution procedures to ensure that the quality of medicines is maintained at all stages. Each country should review its organisation for the procurement, storage and distribution of medicines and, as quickly as possible, institute a system of pre-packing, particularly for medicine dispensed at health centres and district hospitals.

89. The Commonwealth countries in West Africa might discuss the feasibility of a joint purchasing project for the supply of medicines. Agencies such as UNICEF, ECHO, similar European bodies and the Crown Agents should be asked to tender for the supply of medicines as well as registered manufacturers.

90. The chief pharmacists should meet to summarise their inventories and storage capacities; to study ways of overcoming technical obstacles to achieving standard nomenclature for medicines, specifications and pack-sizes; to plan the fullest use of their joint production capacities; to prepare advice on the storage of medicines in rural areas; and to integrate their transport requirements with those for other supplies such as those that are required for immunization programmes.

91. Doctors, nurses, pharmacists and other health workers from each country should together determine the types of treatment appropriate for health posts and prepare lists of essential medicines. They should consider the possibility of producing a West African medicines formulary.

92. Governments should plan specialist and post-graduate training for pharmacists in collaboration with the Schools of Pharmacy and take advantage of courses such as those organised by WHO in Copenhagen on quality control. The countries will benefit through the increased knowledge of modern techniques, equipment and plant and the exchange of ideas and information.

Bangladesh, India and Sri Lanka

93. Each of these countries has a pharmaceutical industry which relies very much on a few multinational companies. Each country also has a number of small indigenous manufacturers. The former are accustomed to having a quality control system and to being subjected to enforcement machinery set up under modern legislation. The many small manufacturers have not previously worked under such controls and are in the main only interested in quick profits. Each country is revising or instituting legislation to control the quality of medicines and as yet has neither the experience nor expertise that is essential if its industry is to produce efficient products acceptable to countries which wish to import their requirements. Each country should review its inspectorate, should make sure that it has the appropriate disciplines and should see that its staff can meet inspectors from other countries and so bring its standards up to an appropriate level.

94. In the health services, expensively trained doctors are responsible for the procurement of medicines; for this they have not been appropriately trained. The excuse is given that this activity is a useful training in administration and personnel management. This may be so, but it certainly does not mean that medicines are procured, stored and distributed efficiently. It would be far more efficient in the long term to have properly trained and capable pharmacists and make them responsible for the supervision of medicines and staff distributing medicines throughout the health service.

Caribbean

95. In Third World countries there is increasing emphasis on preventive as well as curative health services and greater attention to health care in rural areas. It is important that each country should examine its usage of drugs, medicines and dressings; standardise nomenclature and pack sizes; and organise its purchasing programme to fit in with its various requirements. There is also considerable scope for collaboration and standardisation on a regional basis.

96. National formularies exist in various stages of preparation and it is important that they should be brought into use as soon as possible. The formulary should give guidance on what items are available from government stores, their composition and uses. It might be useful to indicate which items are prescribable and can be supplied without delay and which items could be used by para-medical staff, particularly in rural clinics or outposts with no medical officer at hand.

97. With a widely scattered population of five million people it is not feasible to centralise the manufacture of medicines at one point in the Caribbean region. Equipment and expertise should, however, be fully used and production should be planned on a regional basis. Manufacture should start with active ingredients imported in bulk from reputable pharmaceutical manufacturers. In this context manufacture should, in general, be restricted to formulation — the preparation of

tablets, injections, perfusion solutions, ointments, etc. — and packaging — the bottling or strip packing of tablets imported in bulk. All such manufacture should be carried out under statutory controls. Analytical facilities, both chemical and microbiological, are essential.

98. Much of the current legislation on medicines in Caribbean countries is restricted to the custody and distribution of medicines and poisons. The national legislations are being reviewed and brought up to date. It will be very helpful if provision can be made for the statutory control of pharmaceutical manufacture, as well as distribution, and for the registration of medicinal preparations. I hope that as far as possible this legislation will be harmonised within the region and will lead to a regional code of practice. At the same time bureaucratic machinery should be kept to the minimum.

Pacific

99. Apart from the four large developing countries (Fiji, Papua New Guinea, Tonga and Western Samoa) there is a population of about three and a half million in small units scattered over a very wide area. Each country is organising some form of rural health care within its available resources. There is room for much collaboration over the economic procurement of medical supplies of satisfactory quality.

100. Each country should review the organisation of its medical supply depots and the storage of medicines, particularly those sensitive to heat, humidity and light. Medicines, equipment and ordering procedures should be standardised and as far as possible be identical with those in neighbouring countries. This will help to facilitate ordering and reduce the duplication of products.

101. Large numbers of adequately trained staff are required to ensure that patients are efficiently treated. Training is expensive and the lowest grade of assistant capable of giving adequate service should be used at each level. Graduate pharmacists should be used in advisory and supervisory posts and assistants or diploma pharmacists should be responsible for the day-to-day running of hospital dispensaries and the supervision of auxiliaries who handle medicines.

102. In a region which includes so many small, widely-scattered units there is a good case for one or more peripatetic pharmacists to visit and advise islands which cannot afford or justify full-time appointments.

READING LIST

The following publications and references provide useful background reading.

Medical care in developing countries	King, M. ed., Nairobi Oxford University Press (1966)
Establishment of pharmaceutical industries in developing countries (Report and proceedings of expert working group, Budapest, May 1969)	UN sales no. E 70.II.B.13 (1969)
Health manpower and the medical auxiliary	Gish, O. ed., Intermediate Technology Development Group, London (1971)
International pharmaceutical industry and less developed countries with special reference to India	Lall, S., Oxford Bulletin of Economics and Statistics. 56 143 (1974)
Prospects for medicinal plants in Indian agriculture	Kempanna, C., World Crops 26 166 (1974)
Managing rural development	Chambers, R., Scandinavian Institute of African Studies (1974)

Markets for selected medicinal plants and their derivatives	UNCTAD/GATT, Geneva (1974)
Preliminary study of drug costs in the Commonwealth Caribbean	Chapman, R. A., and Boyd, G. A., Caribbean Community Secretariat, Georgetown, Guyana (1974)
Role of science in WHO	WHO Chronicle 28 47–52 (1974)
Health economics	Public Health Papers 64 WHO, p. 27–28 (1975)
National drug policies	WHO Chronicle 29 337–349 (1975)
WHO expert committee on specifications for pharmaceutical preparations	WHO Technical Report series No. 567 (1975)
Annex 1A – Good practices in the manufacture and quality control of drugs	
Annex 1B – Certification scheme on the quality of pharmaceutical products moving in international commerce	
Health by the people	Newell, K. W., ed. WHO (1975)
Meeting basic health needs in developing countries: alternative approaches	WHO Chronicle 29 168–187 (1975)
Meeting community health needs: the role of the medical assistant	Watson, E. J., WHO Chronicle 30 91–96 (1976)
The health situation in Africa, health care in rural areas	WHO Chronicle 30 11–17 (1976)
Cost-effectiveness and drug therapy	Speight, A. N. P., Tropical Doctor 5 89 (1975)
Pharmaceuticals in Africa	UN Economic and Social Council, E/CN.14/INR/217 (Aug. 1976)
Distinctions with little difference, pseudo-competition in the pharmaceutical industry	Drug and Therapeutic Bulletin, 14 53–54 (1976)
Monetarist approach to stock control	Rees, Judith A. and Collett, J. H., Pharm. J., 216, 454 (1976)
Guide to good pharmaceutical manufacturing practice	Department of Health and Social Security, London (1977)
Improving the cold chain for vaccines	John S. Lloyd, WHO Chronicle 31 13–18 (1977)
Appropriate tools for health care	Parker, Newell, Torfs and Israel, WHO Chronicle 31 131–137 (1977)

SUMMARY OF RECOMMENDATIONS

The recommendations contained in this report are summarised below, and action required at national, regional and inter-regional levels is indicated.

Reorganisation machinery

Existing machinery for the procurement of medical supplies should be reviewed and, where appropriate, reorganised.

National – A national multi-disciplinary committee should be set up in each country to deal with the procurement of medical supplies.

Regional – A regional committee should be set up to deal with regional contracting and other forms of regional co-operation, including planning for a pharmaceutical industry and the development of indigenous medicinal resources. A working party of experts should advise on testing laboratory facilities in the region.

Inter-regional – Regional committees should liaise with similar committees in other regions, and with international organisations.

Procurement of medical supplies

Economic procurement of medical supplies should be based on a combination of large scale purchases and an efficient distribution system.

National – Each country should have a medical formulary indicating the medicines available through the health service, the authorisations required for the prescription of specified medicines and the standardised nomenclature. Generic medicines should be preferred to the corresponding proprietary products. Medicines should be supplied to patients in standard quantities, pre-packed in suitable labelled containers. Medical supplies should be stored and transported in conditions which ensure their efficacy and security.

Regional – Where practicable, medical supplies should be bought on a regional scale. A catalogue of all medical supplies is essential for any scheme of regional procurement. Standardised nomenclature and a common system of packaging and labelling are also required.

Inter-regional – Exchange of information with other regions on regional procurement is desirable.

Pharmacists and other staff

Economy in the use of medicines requires that they are properly stored, distributed and dispensed by suitably-trained staff at various levels.

National – Clerical and store staff should be adequately trained. Health auxiliaries should be specially trained to use the medicines essential for primary health care posts. Diploma pharmacists (pharmacy technicians) are needed for dispensaries in small hospitals, some health centres, and manufacturing and supply units; they should also supervise the handling of medicines by health auxiliaries. Graduate pharmacists should provide expert knowledge, advice and supervision in central and provincial health departments, larger hospitals, pharmacy teaching institutions, and manufacturing and supply units. Periodic refresher courses are desirable.

Regional – The training of graduate and diploma pharmacists should be on a regional basis, rather than each country attempting to set up its own training units. Graduate pharmacists are required for regional contracting and supply units, and for the registration of medicines and the inspection of pharmaceutical establishments. A group of consultants, preferably recruited from within the region, should be formed to advise countries on all aspects of medical supplies. Arrangements should be made for peripatetic pharmacists from larger countries to visit small countries lacking professional staff, to provide advice and training.

Inter-regional – Co-operation between regions in the training of pharmacists and the exchange of staff would be beneficial.

Manufacture of medicines

National self-sufficiency in the production of medicines would be difficult to bring about, but there are benefits to be gained through regional co-operation.

National – Any decision to develop a pharmaceutical industry should be preceded by careful investigation, and be based on the required economic and technical resources.

Regional – Manufacture of selected pharmaceutical products on a regional scale should bring economies. Advice from appropriate international organisations (e.g. WHO, UNIDO) is desirable. The use of indigenous plants and traditional medicines in the region should be investigated.

Inter-regional – Liaison with other regions on the manufacture of medicines should be maintained. Information on traditional medicines should be shared.

Quality of medical supplies

Medical supplies should conform to minimum acceptable standards. With the introduction of potent and selective drugs the correct choice of formulation and the control of quality are essential.

National — National laboratories should be able to test for the identity and gross degradation of medicines.

Regional — As far as possible, sources of supply and standards of medical supplies should be agreed regionally. A regional laboratory providing a comprehensive testing and analytical service is essential. A working party in each region should survey existing laboratory facilities and advise on how regional testing might be developed.

Inter-regional — Regional testing laboratories should exchange information and collaborate with each other and with appropriate international organisations.

Medicines legislation

The increased number, toxicity and potency of medicines call for appropriate legislative safeguards.

National — The manufacture, importation, storage, distribution and quality of medical supplies in both the public and private sectors should be controlled through modern legislation and a medicines inspectorate.

Regional — The regional harmonisation of medicines legislation should be considered.

REVIEW OF ACTION TAKEN FOLLOWING THE FOURTH COMMONWEALTH MEDICAL CONFERENCE

Abortion Laws in the Commonwealth

Paper prepared by the Commonwealth Secretariat

The three studies on abortion laws and practice in Commonwealth countries, which are contained in the report referred to in this paper*, are submitted in response to the recommendation of the Fourth Commonwealth Medical Conference that the Secretariat should collate information on experience with the medical termination of pregnancy.

2. The first of the studies describes developments in medical technologies for fertility regulation and their legal implications. The second study takes the legal implications further and considers how legislation might be reformed to take account of the new techniques. The third study analyses information obtained from Commonwealth Governments on the current state of abortion law and practice, national evaluations already carried out and proposals for change.

3. The three studies are thus closely inter-related and there has been close collaboration between the authors themselves, between them and the Medical Adviser and the Legal Division of the Secretariat, and between the Secretariat's medical and legal staff. Because the subject is one in which the legal and medical disciplines are equally involved, it was decided that the studies should be presented to the Meeting of Law Ministers in Winnipeg in August 1977 as well as to the Medical Conference.

4. As the preface to the report points out, the views contained in the studies are those of their authors. It would not be appropriate for the Secretariat itself to formulate recommendations on a subject such as this on which attitudes of member countries vary. The Secretariat's object in presenting the report is to provide information which may be of practical assistance to those governments wishing to review their legislation and consider possible changes.

5. Ministers of Health may wish to commend the report to governments on this basis, for joint consideration by Health Ministries and Law Ministries.

8 September 1977

*The report, *Abortion Laws in the Commonwealth*, has been printed separately. It comprises three studies:
(i) 'Developments in medical technologies for fertility regulation and their implications for medical legislation' by Mostyn P. Embrey;
(ii) 'The law against family planning — a Commonwealth survey' by Victor Tunkel;
(iii) 'A survey of abortion laws in Commonwealth countries' by Rebecca J. Cook and Bernard M. Dickens.

A NOTE FROM THE COMMONWEALTH FOUNDATION

Prepared by the Commonwealth Foundation

Budgetary restrictions alone oblige the Commonwealth Foundation to decline observer status at the Fifth Commonwealth Medical Conference, despite its presence at earlier meetings in Kampala, Port Louis and Colombo. At the same time the Foundation's Trustees, now representing 36 Commonwealth governments, are happy to note that like status was granted at the preparatory meeting in Geneva in May 1977 to one of its principal grantees, the Commonwealth Nurses Federation, and that an eminent Commonwealth Foundation Lecturer, Professor S. R. A. Dodu of Ghana, has been invited to address the Conference as lead speaker.

THE FOUNDATION'S AIMS

2. Under its terms of reference as agreed by Commonwealth Heads of Government in 1965 the Foundation seeks to promote and strengthen professional co-operation within the Commonwealth. In its first eleven years its Trustees have sanctioned grants totalling close on £4 million, thus helping to create ten professional centres; encouraging the growth of pan-Commonwealth professional associations from two to eighteen; and, above all, making it possible for some 3,000 individuals to visit Commonwealth countries other than their own for purposes of study, applied research or attendance at conferences. The Foundation continues to liaise with the Medical Division of the Commonwealth Secretariat.

3. Medicine and the disciplines ancillary to it have always stood high in the Foundation's catalogue of activities. Thus, in making grants in this broad area Trustees are ever mindful of the importance of health care delivery and the team approach to solving health problems. Increasing attention is now paid to closer co-operation between para-medicals and the tackling of 'grass roots' problems as distinct from the higher flights of medicine. While its annual income has not yet topped the £1 million mark the Foundation has pioneered numerous ventures in the medical and para-medical fields. Such activities have to date accounted for some 18 per cent of its grant income.

ACHIEVEMENTS IN THE MEDICAL FIELD

4. A number of the Foundation's achievements to date in the broad medical interest are outlined in the paragraphs which follow.

Pan-Commonwealth activities

5. Continuing support has been provided for the Commonwealth Medical Association, the Commonwealth Nurses Federation and the Commonwealth Society for the Deaf.

Regional co-operation

6. Support has been provided in the *Caribbean* region for projects relating to nursing, mental health, paediatrics and health auxiliaries; in *Africa* to promote rotating meetings of surgeons and physicians in East and West Africa; and in *Australia* to finance a seven-year programme of short-term specialist medical visitations from Australia and New Zealand to other countries in the Pacific region.

Special projects

7. Special projects of the Foundation have included:

- (a) the creation of a deaf-teacher training school, of increasing regional significance, in Malawi, has been accompanied by yearly visits by a British ENT surgeon to Blantyre (and latterly to Seychelles);
- (b) 'up-country' weekend seminars held over a three-year period in Uganda, Malawi, Solomon Islands and Papua New Guinea for members of the health team in an effort to combat mental and professional isolation;
- (c) a seven-year project to enable senior nurses and health officers from the Caribbean to undertake the certificate course in Tropical Community Medicine and Health at the Liverpool School of Tropical Medicine;
- (d) a grant to the British Institute of Medical Laboratory Technologists to prepare a Commonwealth-wide survey of training and equipment needs in this field and to promote a series of co-operative regional seminars;
- (e) Commonwealth-wide or regional seminars on orthopaedics and orthopaedic technology;
- (f) attendance of numerous Commonwealth citizens at medical and para-medical conferences, symposia etc., throughout the Commonwealth;
- (g) support for a symposium at Leeds Castle, Kent, in May 1977 on postgraduate medical education.

8. As to (g) above, the increasing reliance of medical postgraduates overseas on the British MRCP examination led to a Foundation-sponsored working group at which the Royal College of Physicians in Britain and like institutions overseas involved in postgraduate medical training met for three days to analyse postgraduate medical education. While recognising the importance of maintaining links with the British tradition of medical education this significant meeting urged, inter alia, the development of a continuing system of postgraduate education more relevant to the health needs of the newer Commonwealth. It also recommended that current examination-oriented types of postgraduate education and of professional accreditation should be replaced by a more in-service type of education of 2–3 years duration.

Publications

9. A four-year award was made to launch the now well-established primary journal 'Tropical Doctor'.

10. The following Foundation 'Occasional Papers', based on previous awards, have been published:

No.	
II	Medical education in Papua New Guinea
VI	Speech and hearing problems in South-East Asia
X	Orthopaedic problems in the developing world
XXIII	Orthopaedic training in developing countries
XXV	Meeting the health needs of our developing countries (Professor S. R. A. Dodu)
XXXIV	Problems of deafness in the newer world
XL	Problems facing the medical laboratory profession within the Commonwealth
XLI	The disabled in developing countries

Commonwealth Foundation Lectureships

11. The following Foundation Lectureships have been awarded:

- (a) in orthopaedics, to Professor R. L. Huckstep, formerly Professor at Mulago Hospital, Kampala, to visit East and Central Africa, Mauritius, South and South-East Asia, the Pacific islands, Hong Kong and Australia;

- (b) in community health in West Africa, to Professor S. R. A. Dodu of Ghana;
- (c) in the training of ancillary health personnel, to Professor N. R. E. Fendall of the Liverpool School of Tropical Medicine, to visit Commonwealth countries in the Pacific, including New Zealand;
- (d) in paediatric surgery, to Mr. N. A. Myers of the Royal Children's Hospital, Melbourne, to lecture in India, Bangladesh and Sri Lanka.

Dentistry

12. In view of the relatively low priority given to dentists in governmental and international aid programmes the Foundation has particularly looked out for small projects of value in this field. Thus:

- (a) a Foundation Lectureship has recently been awarded for a visit to the Caribbean by Professor G. L. Slack of University of London Dental School, an acknowledged expert in the area of preventive dentistry;
- (b) Professor I. Curson, London University Dental School, has recently paid advisory visits to dental schools and colleges in India and Sri Lanka;
- (c) regional seminars to the benefit of dental associations in the Commonwealth Caribbean have been financed on problems of the training of dental auxiliaries;
- (d) a three-year programme of postgraduate teaching seminars, involving visitations to Hong Kong from Britain, Australia and New Zealand has been successfully completed;
- (e) a New Zealand dentist and dental technician have been successfully landed on and removed from Pitcairn Island (with a remarkable record of teeth hauled and dentures fixed);
- (f) a grant has recently been made, in conjunction with the International Dental Federation, for the launching of a basic Anglo-French journal of tropical preventive dentistry.

16 September 1977

REVIEW OF BRITISH HEALTH AID TO COMMONWEALTH COUNTRIES: 1974–76

Background paper prepared by the British Government

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REVIEW OF BRITISH HEALTH AID TO COMMONWEALTH COUNTRIES: 1974-76

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INTRODUCTION

Since the Fourth Commonwealth Medical Conference in 1974 Britain has continued to help the development of health services and medical expertise in Commonwealth countries by training medical personnel from the Commonwealth in Britain, supporting research in tropical medicine and responding to requests for assistance from governments. The department mainly concerned with these activities is the Ministry of Overseas Development.* There have been few changes in the principles on which these activities are supported or in the pattern of capital aid and technical co-operation programmes by which they are financed. More importance, however, is now attached to community health, preventive medicine and development in rural areas, and less to large hospitals and specialist curative services.

2. The British aid policy was re-defined in late 1975 with the publication of a White Paper "More Help for the Poorest". The fundamental message behind this new policy document was that British aid should be concentrated increasingly on the poorest countries and the poorest people within those countries.

3. Within the re-defined policy the community health approach implies greater emphasis on the social, economic and environmental determinants of health; on improving nutrition, child health and family planning and providing safe water and proper sanitation; and giving priority to simple systems of primary health care, manned by locally trained and suitable supervised staff, to provide a service accessible to the whole population rather than more sophisticated services which benefit only a minority. The future policy of Britain will be increasingly to concentrate on the furtherance of these objectives in programmes of capital aid and technical co-operation to governments which share them.

Health sector information

4. The information included in this review is fully representative although it is not fully comprehensive. This is because statistical and other relevant information is not maintained by the Ministry of Overseas Development on a sectoral basis. The figures quoted should therefore be read as an indication of magnitude rather than as a precise quantification. Information is presented by calendar year or by the Ministry's financial year which runs from 1 April to 31 March e.g. 1975/76.

GOVERNMENT-TO-GOVERNMENT ASSISTANCE

Supplementation schemes

5. In addition to wholly financing, under bilateral arrangements, staff appointed to posts overseas, the British Government has negotiated schemes to supplement the local salaries of certain posts in developing Commonwealth countries to the level required to attract British staff. As well as additions to the local salary the schemes provide for the payment of, or contributions to, other costs such as passages. The main schemes are the Overseas Service Aid Scheme (OSAS), the analogous Public Service Supplementation Schemes (PSSS) for Ghana and Sierra Leone and the

*Between 1970 and 1974 the Ministry was known as the Overseas Development Administration of the Foreign and Commonwealth Office: it was re-created as the Ministry of Overseas Development in June 1974.

British Expatriates Supplementation Scheme (BESS). Under bilateral OSAS agreements, Britain contributes to the cost of certain British staff employed by Commonwealth Governments. BESS extends this arrangement to employment in suitable non-governmental institutions in the public sector.

6. The original agreements ran until 1971. New agreements valid until 1976 were then negotiated with countries that wanted and needed them. Most of these agreements were then renewed, usually for a further five years but in some cases for shorter periods. Each country's manpower requirements are reviewed annually to ensure that the schemes are used to the country's best advantage.

7. The Commonwealth countries and institutions which Britain assists by supplementing the salaries of British medical staff are listed in Annex A. The list includes Associated States and Dependencies and the Anglo-French Condominium of the New Hebrides. At the end of 1976 there were 330 medical staff (excluding university staff) working in Commonwealth countries with British Government support. Of these, 33 were wholly-financed staff and 297 were covered by supplementation schemes. Details of British medical experts in posts overseas in 1974/76 are given in Annex B.

Technical co-operation and capital aid

8. British technical co-operation is largely provided under regional programmes. The most important in the Commonwealth context are Technical Co-operation in Africa (TCA) and the Colombo Plan. Technical co-operation under these programmes may include advisory or consultant visits, feasibility studies, and long-term appointments for specific development projects; the provision of education and training in Britain (normally for periods from three months to three years) where this is not available locally, and support for projects which contribute to the development of local services, including where necessary the provision of books or small capital grants for buildings or equipment. This assistance is provided under bilateral arrangements between Britain and the country concerned, and specific proposals are considered in accordance with established criteria on the basis of formal requests from governments.

9. Functional technical co-operation is also being provided on an increasing scale by the Ministry of Overseas Development to institutions in Britain like the Liverpool School of Tropical Medicine, the London School of Hygiene and Tropical Medicine and the Institute of Child Health to provide staff and facilities which enable training, research, consultancies and advisory functions to be undertaken for the benefit of developing countries. This type of funding is also used to support seminars, workshops and conferences in Britain and elsewhere by providing funds to meet the travel and living expenses of developing country representatives and in some cases to meet other conference costs.

10. Project (capital) aid for health development projects may be considered in the form of grants or loans within the framework of bilateral programmes of capital aid and in relation to the development priorities agreed with the countries concerned. The Ministry of Overseas Development is directly responsible for project (capital) aid and most technical co-operation. There are, however, some forms of technical co-operation where the Ministry works in association with other government departments or through government supported organisations. One such organisation is the British Council, which in 1972 assumed executive responsibility for technical co-operation training in Britain. A summary of health project (capital) aid and technical co-operation for Commonwealth countries in 1974/76 is given in Annex C. The summary includes, under technical co-operation, broad estimates of the costs of British medical experts (Annex B) and of Commonwealth students and trainees in Britain (Annex J).

Commonwealth education co-operation

11. As a result of the First Commonwealth Education Conference in 1959, the British Government allocated funds to promote co-operation in education between the countries of the

Commonwealth. This provision covers, among other things, the British contribution to Commonwealth scholarship and fellowship schemes administered by the Commonwealth Scholarship Commission (paras. 40 and 41) and some of the university co-operation schemes administered by the Inter-University Council (paras. 42–48).

Technical co-operation lectureships in medicine

12. The Inter-University Council supports a number of appointments in the London School of Hygiene and Tropical Medicine, the Liverpool School of Tropical Medicine and the Faculty of Medicine of the University of Edinburgh, so that Britain can retain doctors and medical scientists with specialist knowledge and experience of tropical medicine, who can be available for service in developing countries and who help to maintain the training capability in Britain for the benefit of developing countries (the current numbers of these posts are given in para. 45). The suitability of these specialists, most of whom are of senior lecturer/consultant status, is always considered when appropriate medical vacancies in associated universities overseas are notified to the Council. When lecturers accept an assignment in an associated university overseas, the same terms and conditions normally apply as to any other visitor or appointee.

Universities and medical training establishments

13. Inter-departmental or inter-faculty links are generally considered a very useful form of co-operation and much of the work of the Inter-University Council is directed to this end (para. 43).

14. Links have been developed between the Liverpool School of Tropical Medicine's Department of Community Health and the Banares Hindu University's Community Health Department: this involves exchanges of teaching staff and joint research into primary health care delivery systems. Another two-way link between the All India Institute of Medical Sciences and Department of Paediatric Surgery and the University of Sheffield's Department of Paediatric Surgery has led to research collaboration including surveys into congenital handicap.

Consultancies in health planning

15. In the past a number of Commonwealth governments, particularly in the Caribbean, have sought help from Britain in planning various aspects of their health services. This has been provided through firms of specialist consultants in Britain, and their fees and other expenses have been met from technical co-operation funds.

16. Within the health sector there has been a reduction in the number of requests over the past few years. One particularly successful activity, sponsored by the Commonwealth Secretariat and funded from the Commonwealth Fund for Technical Co-operation, has been the setting up in West and East Africa of management courses in health services and the development of training modules for such courses. This depended for much of its success on UK consultant contributions.

17. Britain has also made arrangements for consultancies relating to the provision of safe water and sanitation: in the Seychelles consultants were employed to advise on sewage disposal and in the Cayman Islands a study on water supplies and sewerage was carried out.

Family planning

18. Britain continues to give high priority to aid for population activities, including family planning, and to help meet the huge upsurge in demands for assistance has made substantial increases in the contributions to the following international organisations concerned with such activities:

	1974	1975	1976
	£	£	£
United Nations Fund for Population Activities	1,000,000	1,800,000	2,000,000
International Planned Parenthood Federation	700,000	1,200,000	1,500,000
OECD Development Centre (Population Programme)	12,500	15,000	—

(The Population Programme per se has now been discontinued and relevant work absorbed by the Development Centre)

WHO Expanded Programme of Research into Human Reproduction	—	—	100,000

During 1977/78 contributions are expected to amount to £4.64 million (£3 million to UNFPA, £1.5 million to IPPF and £140,000 to WHO).

19. Bilateral assistance provided in response to requests from Commonwealth governments has risen from around £302,000 in the three-year period April 1971 to March 1974 to around £738,000 in the period April 1974 to March 1977. Details are given in Annex D. In addition, expenditure on training, research and other activities based in Britain has totalled about £305,000 in 1974/77 and over the same period some £404,000 has been provided to Oxfam in support of their family health and welfare projects throughout the developing world. Among more recent bilateral agreements Britain is providing a grant of £3,000,000 to India to assist the Indian family planning programme.

20. The Population Bureau, which was established to provide an advisory service both within the Ministry of Overseas Development and by undertaking visits in response to requests from overseas governments, continues to play an active part in the development of ODM-supported population projects in many of the developing countries.

Disaster unit

21. In 1974 the Ministry of Overseas Development set up a Disaster Unit in the Ministry with responsibility for advance planning of supplies and specialised personnel for disaster situations. As part of its contingency planning, the Unit maintains a reserve of 25 reconditioned long-wheel-based Land Rovers, 25 reconditioned 4-ton four-wheel-drive Bedford lorries and a supply of tents, blankets and drugs. The Unit is in close contact with voluntary societies including the British Red Cross and international organisations, particularly the World Health Organisation (WHO) and the UN Disaster Relief Organisation, about health problems in disaster areas and the timely provision of relief. During the three-year period under review the British Government has responded to requests for immediate assistance in disaster situations in 13 Commonwealth countries. Details are given in Annex E.

22. Assistance has also been provided from the British Aid Programme for emergency relief programmes carried out by UN agencies and other bodies. Contributions to this work, which includes operations in Commonwealth countries, totalled around £2,400,000 in the year 1974/75, £3,800,000 in 1975/76 and £4,600,000 in 1976/77.

International co-operation

23. Reference has been made to Britain's contributions from the aid programme to multi-lateral activities in the field of population (para. 18) and in disaster situations (para. 22). These contributions are for the benefit of Commonwealth countries, amongst others, and a similar situation exists with other British contributions either indirect, e.g. to health projects funded by

Development Banks, or direct, e.g. to the Onchocerciasis Control Programme to which Britain has made the following contributions:

1973/74	£106,250
1974/75	£224,083
1975/76	£317,685
1976/77	£475,000

Support is also being given to extra-budgetary programmes of WHO, in addition to the annual British contribution as a member state:

Smallpox eradication campaign	1974/75	£ 75,000
	1975/76	£300,000
	1977/78	£ 50,000 (pledged)
Expanded programme on immunisation	1976/77	Vaccines supplied to the value of £ 48,000
	1977/78 and 1978/79	Vaccines to be supplied to the value of £100,000 each year
Special programme for research and training in tropical diseases (para. 30)	1976/77	£350,000
	1977/78	£400,000

Medical advisers

24. The Minister of Overseas Development is advised on all health matters by a team of Medical and Nursing Advisers and by the Population Bureau (para. 20). These advisers maintain contacts with academic, research and professional organisations and interests in Britain and throughout the world, including international organisations with an interest in health, to ensure that medical policies in the Ministry are related to actual and likely needs. The Chief Medical Adviser in the Ministry of Overseas Development is also the Head of the International Health Division of the Department of Health and Social Security (DHSS). This arrangement ensures that the overseas interests of the British Health authorities are co-ordinated with the priority needs of developing countries and with the activities of WHO and other international bodies in which Britain plays its part. The Ministry's Medical Advisers have continued to visit regions of the Commonwealth to study and discuss particular health problems and advise how they might best be tackled. The staff has been strengthened by the appointment of an Adviser in Nutrition, and it is proposed to increase the medical and nursing input in 1977.

Department of Health and Social Security – International Health Division

25. Britain continues to make a considerable contribution towards the continuing education of health professionals from overseas sponsored by the World Health Organisation and the Council of Europe. The programmes for the majority of fellowships in Britain are arranged and administered by a section of the International Health Division of the Department of Health and Social Security at the request of the European Regional Office of the World Health Organisation and the Council of Europe. Britain is the recipient of the largest number of WHO Fellows from member states of the Organisation who take up studies in the European region. In 1976 out of a total of some 2,200 Fellows studying in the member states of the European region nearly 40 per cent were in Britain.

26. Annex F shows the numbers, and range of medical and para-medical interests, of WHO-sponsored Fellows from Commonwealth countries who took up studies in Britain during 1974/76.

MEDICAL RESEARCH

Tropical medicine

27. Substantial financial support for overseas medical research is provided by the Ministry of Overseas Development and the British Medical Research Council. The Ministry is concerned with diseases and health problems which are particularly associated with developing countries, while the Council is concerned with diseases which have a world-wide impact or which are of particular concern to Britain. As diseases are not constrained by national frontiers, the Ministry and the Council have many common interests and the arrangements for assessing, co-ordinating and funding medical research into tropical diseases at home and overseas are designed to ensure close co-operation between them. This is achieved through the Tropical Medicine Research Board which advises both the Ministry and the Council on the research into tropical diseases which each of them funds. Many projects or research programmes, in particular in the larger establishments overseas, are of interest to both the Ministry and the Council and are jointly financed. Half the membership of the Board is nominated by the Ministry and it is also represented by assessors which include the Chief Medical Adviser. Financial support may be given for research projects in Britain, at Medical Research Council establishments, universities and hospitals, or in the developing countries themselves. Wherever the work is based, this support is directed to providing the research staff, equipment or other items essential to the project. Projects most acceptable to the Ministry are those likely to have a significant effect on the health of developing countries' communities in a foreseeable time scale.

28. Since 1971 there has been a growing awareness of the need to move away from the old style of support for research by expatriate units in independent overseas countries towards a system of close collaboration between British and Commonwealth universities and, where they exist, Commonwealth Medical Research Councils. One example of the new style of collaboration is in The Gambia, where an agreement exists between the British Medical Research Council and the Gambia Government on the running of the Council laboratories in The Gambia. These laboratories, staffed by expatriate and local staff, are financed jointly by the Council and the Ministry and the agreement allows for work both on problems of fundamental medical interest and those of special concern to The Gambia.

29. In recent years it has been realised that research into tropical medicine will be hampered unless career opportunities are improved for scientists wishing to work in the field of tropical medicine research both in the UK and in developing countries. The Tropical Medicine Research Board is, therefore, in the process of creating a small cadre of well-trained research scientists in the UK for deployment overseas on problems in the tropical medicine field.

30. The UNDP/WHO Special Programme for Research and Training in Tropical Diseases has been accepted as of great importance by the Council and the Ministry, and a UK Committee has been set up by the TMRB to advise on how it might best contribute to the Programme and to establish good liaison and communication between tropical medical research workers in the UK and members of the WHO Programme's Scientific Working Groups. Members of the Council's scientific staff have been seconded to WHO and it is hoped that this will continue in the future. The Programme recognises the socio-economic importance of the six major tropical diseases — malaria, schistosomiasis, filariasis (including onchocerciasis), trypanosomiasis, leishmaniasis and leprosy — and Britain, in addition to its scientific input, is making and intends to continue to make significant financial contributions from the aid programme. In 1977, the first year of effective activity, these contributions amount to £500,000, representing about 6 per cent of the expected total extra-budgetary contributions for that year.

31. Since 1974 the total expenditure on tropical medicine through the Council, i.e. schemes administered by the Council but partially funded by the Ministry, is £7,002,000. Of this, £2,103,000 came from the Ministry and £4,899,000 from the Council, broadly as follows:-

<i>1973/74</i>	<i>Council</i>	<i>Ministry *</i>
Tropical communicable diseases	1,161,610	330,270
Epidemiology of tropical diseases	151,800	71,950
Tropical nutrition	36,060	18,030
	1,349,470	420,250
 <i>1974/75</i>		
Tropical communicable diseases	1,344,090	363,055
Epidemiology of tropical diseases	147,630	69,580
Tropical nutrition	57,880	28,940
	1,549,600	461,575
 <i>1975/76</i>		
Tropical communicable diseases	1,610,800	413,720
Epidemiology of tropical diseases	242,510	112,300
Tropical nutrition	43,840	21,920
	1,897,150	547,940
 <i>1976/77</i>		
Tropical communicable diseases	1,824,880	504,180
Epidemiology of tropical diseases	323,240	140,175
Tropical nutrition	57,780	28,890
	2,205,900	673,245

*These figures represent part of the total expenditure by the Ministry on medical research projects which was:

1973/74	617,000
1974/75	658,000
1975/76	769,000
1976/77	997,000

32. Throughout this wide range of research, emphasis is laid on preventive measures and the development of cheap, simple methods of treatment with the objective of achieving the highest possible level of community health. A good example of research which is thus oriented is the development of simple, rugged scientific instruments which are capable of carrying out accurate laboratory tests without depending on external power supplies or regular maintenance. Such instruments are being developed at the Clinical Research Centre in the UK and are being tested under field conditions at the MRC Laboratories in The Gambia. Another important example of community-based research is the case finding studies being carried out in Kenya by the MRC Tuberculosis and Chest Diseases Unit. In collaboration with the East African Tuberculosis Investigation Centre, the Unit has been using African staff, with no special qualifications, to obtain from tribal elders the names of their subjects aged 6 years or more with established chest symptoms suggestive of tuberculosis, proceeding then to obtain sputum specimens from them for smear and culture examination. Applied work of this nature is, however, dependent upon basic laboratory studies which are mainly carried out in the UK, where studies of many tropical diseases such as malaria, schistosomiasis, onchocerciasis and leprosy are supported by the Council and the Ministry. Details of all the medical research projects carried out in Commonwealth countries and funded by the Ministry during 1974/75–1976/77, including those financed jointly with the Medical Research Council, are given in Annex G.

33. In assisting medical research the British Government seeks to increase the numbers of trained medical research workers in the developing countries themselves. Some overseas research projects contain a specific training element or are designed to be continued by local staff. Commonwealth Tropical Medicine Research Awards are offered to Commonwealth graduates to enable them to come to Britain for research training. The total cost of these awards in the period 1974/76 was £45,400.

34. The Ministry of Overseas Development also funds research into problems related to both human and animal trypanosomiasis. It is advised on research proposals by a group of specialists who form the Trypanosomiasis Panel, which works in liaison with the Tropical Medicine Research Board (para. 27).

Appropriate technology

35. Although in the past there has been virtually no aid programme expenditure on research projects aimed at studying applications of appropriate technology in the field of health, the Ministry of Overseas Development is ready to consider any proposals which might be made; for example, funds have recently been made available to assist in the development of problem-orientated flow charts designed to teach paramedical workers the simpler diagnostic skills in the context of village clinics. Another research project which is being funded is aimed at developing simple and more reliable technology in the refrigeration of vaccines, extending reliable cold chains.

Bureau of Hygiene and Tropical Diseases

36. The Bureau of Hygiene and Tropical Diseases was established in 1908 primarily to collect and publish information on sleeping sickness. The scope of its work has broadened considerably and for over 50 years the Bureau has been responsible for the monthly publication of the Tropical Diseases Bulletin and Abstracts on Hygiene. For most of this period Dominion and Colonial — and more recently Commonwealth — governments gave generous financial support to the Bureau. Difficult and changing conditions have led certain governments to withdraw their support and the grants from Commonwealth countries now amount to only 4 per cent of the Bureau's income. A grant from the British Government (£70,000 in 1976) comprises 52 per cent of its income and the remaining 44 per cent is derived from the worldwide sale of its publications.

37. Sales of the Tropical Diseases Bulletin dropped by 7 per cent and of Abstracts on Hygiene by 10 per cent between 1973 and 1976. At the end of 1977 there will be a further fall in sales of the Tropical Diseases Bulletin on completion of the special 3-year project financed by the Commonwealth Foundation to supply information through the medium of this publication to the more remote areas and institutions unable to meet the cost of an annual subscription. Because of these losses of revenue and the continuing large rises in production costs, the subscription for the Tropical Diseases Bulletin will be raised to £16 per year and for Abstracts on Hygiene to £24 per year from January 1978. It is hoped that Commonwealth governments may find it possible to encourage new subscriptions to these journals and to supply the means whereby they may again be available in health departments, universities, hospitals and research institutions to which they were formerly sent. Increases in the circulation of these useful publications as a result of such measures would help to keep price rises to a minimum.

PUBLICLY FINANCED BODIES

The British Council

38. The British Council was established to promote a wider knowledge of Britain and of the English language abroad, and to develop cultural relations between Britain and other countries. It operates a number of schemes which benefit the developing countries, some of which are funded by the Ministry of Overseas Development. The main schemes and services relevant to the health aid programme which the British Council administers are:

- British Council Scholarships and Bursaries
- University Interchange
- Visits to Britain
- Specialist Tours
- Specialist Courses
- Schemes administered for technical co-operation training
- Overseas Students' Fees Award Scheme and its successor the Fee Support Scheme
- Administrative services in Britain for overseas visitors and students
- Information services

39. Details of these schemes and services and statistics of British Council Visitors, Bursars, Scholars and Technical Co-operation Training Fellows arriving in Britain in 1974/75, 1975/76 and 1976/77 are given in Annexes H, I and J.

Commonwealth Scholarship Commission

40. Awards in medicine, surgery and dentistry under the Commonwealth Scholarship and Fellowship Plan are outlined below; details of arrivals in Britain under the Plan in the calendar years 1974, 1975 and 1976 are given in Annex K.

- (i) Commonwealth Medical Scholarships (averaging 50 at any one time), for one to three years, for medical or dental graduates of high intellectual promise, mostly with the aim of preparing for higher degrees or professional diplomas.
- (ii) Commonwealth Medical Fellowships (up to 60 a year), for 12 months, for clinical, medical, and dental teachers who have already obtained a postgraduate qualification but require an integrated course of study or training to increase their value to their own countries. Research workers, medically qualified teachers in basic medical sciences and medical administrators are also eligible.
- (iii) Commonwealth Senior Medical Fellowships (up to 15 a year) for periods of three months, for Deans, Principals and professional heads of department of suitable seniority to enable them to acquaint themselves with the facilities available in Britain for the intensive training of their junior staff who have obtained higher degrees or professional qualifications.

41. Commonwealth Visiting Professorships, for one academic year, are awarded to persons of established reputation and achievement, by invitation from the Commission. A total of up to five awards are normally available each year.

The Inter-University Council for Higher Education Overseas (IUC)

42. The Inter-University Council for Higher Education Overseas was established in 1946 by British universities, at the request of the British Government, to advance higher education in developing countries and encourage co-operation between universities in those countries and in Britain. In 1970 the IUC became a corporate independent body and entered into a formal agreement with the Ministry of Overseas Development which provides that all British help to universities with which the IUC is concerned should, as far as possible, be co-ordinated by the IUC. It is currently associated with 41 universities overseas, of which 19 have medical faculties already and several others are planning to establish them before long. The IUC is almost wholly funded by a grant-in-aid from the Ministry which seeks IUC advice and help on a range of financial and technical co-operation for the universities with which the IUC is associated.

43. The IUC's schemes of co-operation include the support of inter-departmental and inter-faculty links, the recruitment of staff, arrangements for short-term visits and the training of overseas staff both locally and in the UK; in recent years increasing emphasis has been placed on such staff development. Between 1974 and 1976, 17 medical links were in operation covering various pre-clinical and clinical subjects, dentistry or pharmacy. The links varied in size and also in the nature and degree of activity. Normally they involved a two-way interchange of personnel with emphasis on strengthening the teaching capability overseas and on staff development.

44. Staff for 45 medical posts were recruited over the period 1975/76. Various schemes were applied to facilitate such recruitment. For example, 4 medical personnel received special financial awards in view of their seniority and 6 grants were made to institutions in the UK to enable them to release staff on secondment. Other schemes were also used to help offset some of the difficulties experienced by expatriate staff in returning to appointments at home after service abroad. Four Resettlement Fellowships, for example, were awarded to medical faculty personnel during the period 1974/76 and others benefited from grants to enable them to return to the UK for interview.

45. Twenty-eight appointments have been supported under the Technical Co-operation Lecture-ship Scheme in Medicine (para. 12); 14 at the Liverpool School of Tropical Medicine, 13 at the London School of Hygiene and Tropical Medicine and 1 at the University of Edinburgh. Apart from the overseas work carried out by the Technical Co-operation Lecturers themselves, the Scheme enables other members of the staff of the Schools to be released for varying periods of time overseas and also allows a greater intake of overseas students into the Schools for post-graduate training.

46. Because of the difficulty of long-term recruitment more emphasis has been given in recent years to short-term overseas assignments of up to four months for teaching, clinical work or examining. Two hundred and nine short-term visits in medicine were arranged over the period 1975 to the early part of 1977.

47. Over the period 1974/76, 6 awards were made to medical faculty staff for further experience in the UK and 28 awards were made to technicians in medical schools for special job-related training, other than those arranged under link programmes.

48. The IUC has also helped to strengthen medical school libraries by gifts of back-runs of periodicals. Some grants of equipment have also been made, for example, to the University of Dar es Salaam for Pharmacy.

British Volunteer Programme

49. The British Volunteer Programme is operated in association with the Ministry of Overseas Development by the following voluntary societies: the Catholic Institute for International Relations, International Voluntary Service, the United Nations Association International Service and Voluntary Service Overseas. The Ministry contributes 80 per cent of the costs incurred by the societies in recruiting, training and sending qualified volunteers overseas in response to requests from developing countries throughout the world (90 per cent for language training exceeding 3 weeks). The balance is provided by the societies, with support from bodies such as OXFAM, Christian Aid and the Freedom from Hunger Campaign. The volunteers are thus not sponsored by the British Government but by the society that recruits and remains responsible for them. Commonwealth governments are normally expected to meet local costs for accommodation, board and pocket money. Approximately 80 medical volunteers are at present serving in Commonwealth countries. They are mainly nurses, physiotherapists and radiographers, but include some doctors and dentists. Details of recruitment for the period 1974/76 are given in Annex L.

50. Support is being given by the Ministry of Overseas Development to provide 50 per cent of the cost of rural health projects run by British voluntary agencies like OXFAM and Christian Aid. This support is provided under the '£ for £ scheme' whereby the Ministry agrees to match the funds provided by the voluntary agency. So far 18 health projects have been co-financed under this scheme at a total cost to the aid programme of over £½ million. The projects are concentrated mainly in Africa and Asia and many are based in Commonwealth countries.

EVALUATION

51. The majority of health sector projects are, on completion, evaluated by the team of Medical Advisers within the Ministry of Overseas Development (para. 24) together, in appropriate cases, with the Ministry's regional Development Division and any others concerned. The results of medical research projects are considered by the Medical Advisers and by the Tropical Medicine Research Board of the Medical Research Council (para. 27) which advises the Ministry on such projects. The provision of technical co-operation personnel and the provision of training in Britain are evaluated in the context of manpower reviews which are carried out by the Ministry.

25 October 1977

ANNEX A

AGREEMENT UNDER THE OVERSEAS SERVICE AID SCHEME (OSAS) THE PUBLIC SERVICE SUPPLEMENTATION SCHEMES (PSSS) AND THE BRITISH EXPATRIATES SUPPLEMENTATION SCHEME (BESS)

1. Britain has renewed OSAS agreements until March 1981 with the following countries:

Africa

Botswana
East African Community
The Gambia
Kenya

Lesotho
Malawi
Swaziland
Zambia

Caribbean and South Atlantic

Anguilla
Antigua
Barbados
Belize
British Virgin Islands
Cayman Islands
Dominica
Falkland Islands
Guyana

Grenada
Jamaica
Montserrat
St Helena
St Lucia
St Kitts
St Vincent
Turks and Caicos Islands

Indian Ocean and Mediterranean

Mauritius
Seychelles

Gibraltar

Pacific, South Asia and Far East

British Solomon Islands Protectorate
Gilberts
Fiji
New Hebrides (The Anglo-French condominium of)
Tonga
Tuvalu
Malaysia (Sabah and Sarawak)

2. The Public Service Supplementation Schemes (PSSS) for Ghana and Sierra Leone run to March 1981.

3. The Technical Co-operation arrangement with Nigeria runs to March 1978.

4. Britain has BESS agreements until March 1981 providing assistance for medical personnel with the following institutions:

Kenya Mission Hospitals
Sierra Leone Mission Hospitals

BESS agreements providing assistance for a range of categories, including medical, have been made until March 1981 for:

University of Dar es Salaam
University of Nairobi
Zambia University

ANNEX B

**BRITISH MEDICAL EXPERTS IN POST IN COMMONWEALTH COUNTRIES
ON 31 DECEMBER 1974, 75 AND 76**

Including those covered by Supplementation Schemes and other
Technical Co-operation arrangements

<i>Country</i>	<i>Year</i>	<i>Admin</i>	<i>Doctors and specialists</i>	<i>Auxiliaries</i>	<i>Nurses</i>	<i>Dental</i>	<i>Total</i>
Anguilla	1974	1	2	—	—	1	4
	1975	—	—	—	—	1	1
	1976	—	1	—	—	1	2
Bangladesh	1974	1	—	—	—	—	1
	1975	—	—	—	—	—	—
	1976	—	—	—	—	—	—
Barbados	1974	2	2	1	—	—	5
	1975	2	—	—	—	—	2
	1976	1	—	—	—	—	1
Belize	1974	2	7	—	—	—	9
	1975	2	3	—	—	—	5
	1976	2	5	—	—	—	7
Botswana	1974	—	6	1	—	1	8
	1975	—	9	1	—	1	11
	1976	—	7	1	—	1	9
British Virgin Islands	1974	2	—	—	—	1	3
	1975	1	2	—	—	1	4
	1976	—	1	—	—	1	2
Cayman Islands	1974	—	5	—	—	—	5
	1975	—	6	—	—	—	6
	1976	—	7	—	—	—	7
Dominica	1974	—	2	—	—	—	2
	1975	—	1	—	—	—	1
	1976	—	—	—	—	—	—
Falkland Islands	1974	1	2	—	4	1	8
	1975	—	3	—	3	1	7
	1976	—	3	—	3	1	7
Fiji	1974	1	10	5	—	—	16
	1975	1	5	2	—	—	8
	1976	1	2	2	—	—	5
The Gambia	1974	—	3	1	—	1	5
	1975	1	4	1	—	—	6
	1976	1	4	1	—	—	6
Ghana	1974	—	2	—	—	—	2
	1975	—	1	—	—	—	1
	1976	—	—	—	—	—	—
Gibraltar	1974	—	4	1	1	—	6
	1975	—	3	1	1	—	5
	1976	—	4	—	—	—	4
Gilbert & Ellice Islands (now Gilbert Islands and Tuvalu)	1974	—	4	1	—	—	5
	1975	—	3	1	—	—	4
	1976	—	4	1	1	—	6

<i>Country</i>	<i>Year</i>	<i>Admin</i>	<i>Doctors and specialists</i>	<i>Auxiliaries</i>	<i>Nurses</i>	<i>Dental</i>	<i>Total</i>
Grenada	1974	—	1	—	—	—	1
	1975	—	2	—	—	—	2
	1976	—	2	—	—	—	2
Guyana	1974	1	4	—	—	—	5
	1975	1	1	—	—	—	2
	1976	1	—	—	—	—	1
India	1974	—	—	2	—	—	2
	1975	—	—	—	—	—	—
	1976	—	—	—	—	—	—
Jamaica	1974	—	1	—	—	2	3
	1975	—	2	—	—	1	3
	1976	—	1	—	—	1	2
Kenya	1974	2	15	4	20	—	41
	1975	3	14	1	18	—	36
	1976	2	11	1	11	—	25
Lesotho	1974	—	4	—	—	1	5
	1975	—	2	—	—	1	3
	1976	—	3	—	—	—	3
Malawi	1974	2	9	4	4	1	20
	1975	2	4	2	4	—	12
	1976	5	7	2	1	—	15
Malaysia	1974	1	4	—	2	—	7
	1975	1	4	—	1	—	6
	1976	—	3	—	—	—	3
Mauritius	1974	1	2	—	—	—	3
	1975	1	2	—	—	—	3
	1976	1	2	—	—	—	3
Montserrat	1974	—	2	—	—	—	2
	1975	—	3	—	—	—	3
	1976	1	3	—	—	—	4
The New Hebrides (The Anglo- French Condominium of)	1974	1	6	1	11	—	19
	1975	—	9	2	13	—	24
	1976	—	7	1	9	—	17
Nigeria	1974	2	16	5	10	7	40
	1975	1	8	6	7	3	25
	1976	1	12	8	6	4	31
St. Helena	1974	—	4	—	4	1	9
	1975	—	2	—	4	1	7
	1976	—	3	—	4	1	8
St. Kitts	1974	1	1	—	—	1	3
	1975	1	2	—	—	1	4
	1976	1	3	—	—	1	5
St. Lucia	1974	—	6	—	—	—	6
	1975	—	4	—	—	—	4
	1976	1	3	—	—	1	5
St. Vincent	1974	—	—	2	—	—	2
	1975	1	—	1	—	—	2
	1976	1	—	—	—	—	1

<i>Country</i>	<i>Year</i>	<i>Admin</i>	<i>Doctors and specialists</i>	<i>Auxiliaries</i>	<i>Nurses</i>	<i>Dental</i>	<i>Total</i>
Seychelles	1974	1	12	—	—	2	15
	1975	1	14	—	—	1	16
	1976	2	15	—	—	—	17
Sierra Leone	1974	—	1	—	3	—	4
	1975	—	2	—	2	—	4
	1976	—	1	—	1	—	2
Solomon Islands	1974	2	9	3	15	1	30
	1975	2	15	3	15	1	36
	1976	1	15	2	13	1	32
Swaziland	1974	—	1	2	—	—	3
	1975	—	—	1	—	—	1
	1976	—	—	—	—	—	—
Tanzania	1974	—	—	—	—	—	—
	1975	—	—	—	—	—	—
	1976	—	2	—	—	—	2
Trinidad and Tobago	1974	—	—	—	—	—	—
	1975	—	1	—	—	—	1
	1976	—	1	—	—	—	1
Turks and Caicos	1974	—	4	—	—	—	4
	1975	—	3	—	—	—	3
	1976	—	2	—	—	—	2
Uganda	1974	—	—	2	1	—	3
	1975	—	—	—	1	—	1
	1976	—	—	—	—	—	—
Zambia	1974	8	25	55	7	—	95
	1975	4	32	40	8	2	86
	1976	6	33	37	14	3	93
GRAND TOTALS	1974	32	176	90	82	21	401
	1975	25	166	62	77	15	345
	1976	28	167	56	63	16	330

ANNEX C

**PROJECT (CAPITAL) AID AND TECHNICAL CO-OPERATION
FOR HEALTH PROJECTS FOR COMMONWEALTH COUNTRIES 1974/76 IN £'000**

	<i>Country</i>	<i>Year</i>	<i>Capital aid</i>	<i>Technical co-operation</i>	<i>Total</i>
AFRICA	Botswana	1974	32	33	65
		1975	17	50	67
		1976	2	51	53
	The Gambia	1974	5	17	22
		1975	50	32	82
		1976	57	38	95
	Ghana	1974	—	55	55
		1975	—	47	47
		1976	—	57	57
	Kenya	1974	—	192	192
		1975	—	164	164
		1976	187	232	419
	Lesotho	1974	216	19	235
		1975	292	52	344
		1976	292	26	318
	Malawi	1974	112	69	181
		1975	267	81	348
		1976	542	122	664
	Mauritius	1974	—	19	19
		1975	—	35	35
		1976	—	23	23
	Nigeria	1974	—	165	165
		1975	—	128	128
		1976	—	193	193
	Seychelles	1974	558	55	613
		1975	720	84	804
		1976	1,314	117	1,431
	Sierra Leone	1974	—	14	14
		1975	—	19	19
		1976	—	23	23
	Swaziland	1974	51	10	61
		1975	40	43	83
		1976	6	5	11
	Tanzania	1974	—	2	2
		1975	—	7	7
		1976	—	32	32
	Uganda	1974	—	21	21
		1975	—	9	9
		1976	—	3	3
	Zambia	1974	—	316	316
		1975	—	346	346
		1976	—	535	535
	TOTAL AFRICA	1974	974	987	1,961
		1975	1,386	1,097	2,483
		1976	2,400	1,457	3,857

Footnote: In addition a regional — mainly West Africa — £10,000 grant has been made available under Technical Co-operation for the 3 year period 1974/75 — 1976/77 for a modular training course in Management of Educational and Rural Health Services.

	<i>Country</i>	<i>Year</i>	<i>Capital aid</i>	<i>Technical co-operation</i>	<i>Total</i>
ASIA	Bangladesh	1974	—	75	75
		1975	—	49	49
		1976	—	176	176
	Hong Kong	1974	—	2	2
		1975	—	—	—
		1976	—	—	—
	India	1974	68	25	93
		1975	—	21	21
		1976	118	2	120
	Malaysia	1974	98	39	137
		1975	257	54	311
		1976	19	64	83
	Singapore	1974	—	3	3
		1975	—	3	3
		1976	—	12	12
	Sri Lanka	1974	173	15	188
		1975	81	14	95
		1976	40	26	66
	Asian Institute of Technology	1974	—	—	—
		1975	—	—	—
		1976	37	—	37
	TOTAL ASIA	1974	339	159	498
		1975	338	141	479
		1976	214	280	494
CARIBBEAN AND SOUTH ATLANTIC	Anguilla	1974	16	13	29
		1975	12	4	16
		1976	30	14	44
	Antigua	1974	18	1	19
		1975	125	3	128
		1976	11	45	56
	Barbados	1974	—	22	22
		1975	—	14	14
		1976	—	47	47
	Belize	1974	70	43	113
		1975	144	38	182
		1976	149	70	219
	British Virgin Islands	1974	5	10	15
		1975	—	17	17
		1976	2	11	13
	Cayman Islands	1974	—	17	68
		1975	—	26	26
		1976	—	40	40
	Dominica	1974	89	11	100
		1975	73	13	86
		1976	53	9	62
	Falkland Islands	1974	9	26	35
		1975	8	28	36
		1976	2	40	42

	<i>Country</i>	<i>Year</i>	<i>Capital aid</i>	<i>Technical co-operation</i>	<i>Total</i>
CARIBBEAN AND SOUTH ATLANTIC —continued	Grenada	1974	—	3	3
		1975	—	8	8
		1976	—	11	11
	Guyana	1974	—	22	22
		1975	—	13	13
		1976	—	8	8
	Jamaica	1974	—	25	25
		1975	—	20	20
		1976	—	17	17
	Montserrat	1974	32	7	39
		1975	428	12	440
		1976	191	23	214
	St Helena	1974	1	30	31
		1975	15	28	43
		1976	62	47	109
	St Kitts	1974	6	10	16
		1975	11	17	28
		1976	40	29	69
	St Lucia	1974	—	21	21
		1975	—	16	16
		1976	23	42	65
	St Vincent	1974	11	7	18
		1975	52	10	62
		1976	37	6	43
	Trinidad and Tobago	1974	—	4	4
		1975	—	44	44
		1976	—	8	8
	Turks and Caicos	1974	3	15	18
		1975	—	13	13
		1976	136	13	149
	Caribbean Regional	1974	—	—	—
		1975	—	—	—
		1976	—	8	8
	TOTAL CARIBBEAN	1974	311	287	598
		1975	868	324	1,192
		1976	736	488	1,224
MEDITER- RANEAN	Cyprus	1974	—	2	2
		1975	—	1	1
		1976	—	8	8
	Gibraltar	1974	8	20	28
		1975	—	22	22
		1976	116	34	150
	Malta	1974	—	1	1
		1975	—	—	—
		1976	—	—	—
	TOTAL MEDITERRANEAN	1974	8	23	31
		1975	—	23	23
		1976	116	42	158

	<i>Country</i>	<i>Year</i>	<i>Capital aid</i>	<i>Technical co-operation</i>	<i>Total</i>
PACIFIC	Fiji	1974	687	64	751
		1975	578	39	617
		1976	19	40	59
	Gilbert & Ellice Islands (now Gilbert Islands and Tuvalu)	1974	120	35	155
		1975	187	24	211
		1976	144	43	187
	The New Hebrides (the Anglo-French Condominium of)	1974	337	63	400
		1975	68	100	168
		1976	81	98	179
	Solomon Islands	1974	204	99	303
		1975	614	292	906
		1976	1,178	182	1,360
	Tonga	1974	—	—	—
		1975	—	—	—
		1976	49	5	54
	Western Samoa	1974	18	—	18
		1975	69	—	69
		1976	33	5	38
	TOTAL PACIFIC	1974	1,366	261	1,627
		1975	1,516	455	1,971
		1976	1,504	373	1,877
	GRAND TOTAL	1974	2,998	1,717	4,715
		1975	4,108	2,040	6,148
		1976	4,970	2,640	7,610

ANNEX D

BILATERAL ASSISTANCE FOR POPULATION AND FAMILY PLANNING ACTIVITIES –
1974/75 TO 1976/77

<i>Country</i>	<i>£</i> <i>1974/75</i>	<i>£</i> <i>1975/76</i>	<i>£</i> <i>1976/77</i>
Anguilla	—	—	2,800
Bangladesh	40,000	—	100,000
Botswana	6,000	6,000	—
Dominica	14,000	8,000	—
Fiji	11,000	7,000	11,000
Ghana	21,500	7,000	26,000
Gilbert & Ellice Islands (now Gilbert Islands and Tuvalu)	18,700	7,800	6,500
Jamaica	11,000	4,000	4,000
Kenya	1,500	1,000	35,000
Lesotho	—	31,500	—
Malawi	—	28,000	22,000
Mauritius	5,000	11,500	—
The New Hebrides (the Anglo-French Condominium of)	—	4,000	—
St. Lucia	—	—	12,000
St. Vincent	—	1,700	—
Seychelles	4,500	15,300	12,000
Solomon Islands	—	148,000	—
Sri Lanka	—	—	4,500
Swaziland	—	36,700	2,900
Tanzania	—	—	9,300
Tonga	—	—	4,300
Trinidad and Tobago	—	35,000	—
TOTAL	133,200	352,500	252,300

ANNEX E

IMMEDIATE RELIEF RESPONSES TO DISASTER SITUATIONS: 1974–76

		£
1. BANGLADESH		
(Floods)	August 1974	43,500
2. CYPRUS		
(Civil War)	August 1974	8,900
3. KENYA		
(Cholera epidemic)	December 1974	21,000
4. WESTERN SAMOA		
(Floods)	December 1974	200
5. FIJI		
(Hurricane)	February 1975	1,500
6. MAURITIUS		
(Cyclone)	February 1975	23,000
7. LESOTHO		
(Epidemic of plague and polio)	April 1975	3,900
8. SIERRA LEONE		
(Hurricane)	June 1975	200
9. BANGLADESH		
(Refugee camps)	June 1975	20,100
10. HONG KONG		
(Vietnamese refugees)	June 1975	16,500
11. INDIA		
(Floods)	September 1975	20,000
12. BANGLADESH		
(Refugee camps)	September 1975	16,000
13. THE GAMBIA		
(Floods)	August 1976	125

ANNEX F

WORLD HEALTH ORGANIZATION SPONSORED FELLOWS FROM COMMONWEALTH COUNTRIES
RECEIVED IN BRITAIN 1974–76

<i>Country</i>	<i>Year</i>	<i>Public health admin.</i>	<i>Environmental health</i>	<i>Nursing</i>	<i>Maternal and child health</i>	<i>Other health services</i>	<i>Communicable diseases</i>	<i>Clinical medicine</i>	<i>Basic sciences and education</i>	<i>Total</i>
Australia	1974	1	—	—	—	—	—	—	—	1
	1975	—	—	—	—	2	—	1	1	4
	1976	—	1	—	1	1	—	—	—	3
Barbados	1974	—	—	—	—	—	—	—	—	—
	1975	—	1	1	—	—	—	—	—	2
	1976	—	—	—	—	—	—	—	—	—
Botswana	1974	—	—	—	—	—	—	—	—	—
	1975	—	—	—	—	—	—	1	—	1
	1976	—	—	—	—	—	—	—	—	—
Canada	1974	3	—	3	—	1	—	1	—	8
	1975	—	—	2	—	6	—	1	—	9
	1976	—	—	2	3	—	—	—	1,	6
Cyprus	1974	1	1	2	—	2	—	1	—	7
	1975	1	2	6	—	1	—	2	—	12
	1976	—	—	6	—	7	—	1	—	14
Fiji	1974	—	—	—	—	—	—	1	—	1
	1975	—	1	—	—	—	—	—	—	1
	1976	—	—	—	—	—	—	—	—	—
The Gambia	1974	—	—	—	—	—	—	1	—	1
	1975	—	—	—	—	—	—	—	—	—
	1976	—	—	—	—	—	—	1	—	1
Ghana	1974	—	—	1	—	2	—	—	—	3
	1975	—	1	—	—	4	—	—	—	5
	1976	—	—	—	—	—	—	—	—	—
Guyana	1974	—	—	—	—	—	—	—	—	—
	1975	—	—	—	—	—	—	—	—	—
	1976	—	—	—	—	1	—	—	—	1

<i>Country</i>	<i>Year</i>	<i>Public health admin.</i>	<i>Environmental health</i>	<i>Nursing</i>	<i>Maternal and child health</i>	<i>Other health services</i>	<i>Communicable diseases</i>	<i>Clinical medicine</i>	<i>Basic sciences and education</i>	<i>Total</i>
Hong Kong	1974	—	—	2	1	—	—	—	—	3
	1975	—	—	2	—	—	—	—	—	2
	1976	—	—	1	1	—	—	1	—	3
India	1974	—	18	4	3	12	1	20	7	65
	1975	1	31	—	15	15	1	15	15	92
	1976	1	40	1	15	22	—	17	3	99
Jamaica	1974	—	—	—	—	—	—	—	—	—
	1975	—	—	—	—	—	—	—	—	—
	1976	—	—	—	—	1	—	—	—	1
Kenya	1974	—	—	—	—	—	—	1	—	1
	1975	—	—	1	—	2	—	—	—	3
	1976	—	—	—	—	—	—	1	—	1
Malawi	1974	—	—	1	—	—	—	—	—	1
	1975	—	—	—	—	1	—	—	—	1
	1976	—	—	1	—	—	—	—	—	1
Malaysia	1974	—	3	—	—	3	—	3	—	9
	1975	—	—	—	—	1	—	2	—	3
	1976	1	1	1	—	—	—	—	1	4
Malta	1974	—	2	—	—	—	—	1	—	3
	1975	—	3	2	—	2	—	2	—	9
	1976	—	—	—	—	—	—	—	1	1
New Zealand	1974	—	1	—	—	1	—	1	—	3
	1975	—	1	1	—	2	—	—	—	4
	1976	1	—	—	—	3	—	—	—	4
Nigeria	1974	—	—	—	—	—	—	1	1	2
	1975	2	1	—	—	3	—	—	—	6
	1976	—	—	1	—	1	—	—	—	2
Papua New Guinea	1974	—	—	—	—	1	—	1	—	2
	1975	—	—	—	—	1	—	1	—	2
	1976	—	—	—	—	1	—	—	—	1

<i>Country</i>	<i>Year</i>	<i>Public health admin.</i>	<i>Environmental health</i>	<i>Nursing</i>	<i>Maternal and child health</i>	<i>Other health services</i>	<i>Communicable diseases</i>	<i>Clinical medicine</i>	<i>Basic sciences and education</i>
Sierra Leone	1974	—	1	—	—	1	—	1	3
	1975	1	—	6	—	1	—	2	10
	1976	2	—	—	—	1	—	1	4
Singapore	1974	1	2	2	—	3	—	1	11
	1975	1	3	1	—	1	—	3	9
	1976	—	2	2	—	2	—	2	8
Sri Lanka	1974	14	6	—	—	8	—	2	36
	1975	3	2	—	—	18	—	2	27
	1976	6	3	2	1	19	—	2	36
Tanzania	1974	—	—	1	—	1	—	1	3
	1975	1	—	—	—	1	—	—	6
	1976	3	—	—	—	1	—	—	8
Tonga	1974	—	—	—	—	—	—	—	—
	1975	—	—	1	—	—	—	—	1
	1976	—	—	—	—	—	—	—	—
Trinidad and Tobago	1974	—	—	—	—	1	—	—	1
	1975	—	—	—	—	—	—	—	—
	1976	—	—	—	—	—	—	—	—
Uganda	1974	—	1	—	—	1	—	—	2
	1975	1	—	—	—	3	—	—	5
	1976	—	—	—	—	—	—	1	1
Zambia	1974	—	—	—	—	—	—	—	—
	1975	2	—	—	—	2	—	—	5
	1976	—	—	—	—	—	—	—	—
TOTALS	1974	20	35	16	4	37	1	37	166
	1975	13	46	23	15	66	—	32	219
	1976	14	47	17	21	60	—	27	199

ANNEX G

MEDICAL RESEARCH SCHEMES SUPPORTED BY THE MINISTRY OF
OVERSEAS DEVELOPMENT

	<i>Title</i>	<i>Expenditure 1974/75–1976/77</i>
AFRICA		
	Chemotherapy of human liver cancer and hepatocarcinogenesis, Kenya	17,851
	*Dunn Nutrition Unit, Fajara, The Gambia – 50%	80,546
	East African Tuberculosis Investigation Centre – six posts financed by the Ministry	143,885
	Epidemiology and treatment of Hydatid disease, Turkhana, Kenya	18,556
	*Filarial infections at the East African Coast – 50%	12,800
	Immunological studies in meningococcal and pneumococcal infections, Ahmadu Bello University, Nigeria	72,830
	Immunological studies in meningococcal infections, Ahmadu Bello University, Nigeria	27,421
	*Long term study of effect of irrigation schemes on virus infections, Kisumu, Kenya – 80%	227,262
	*MRC Laboratories, Fajara, The Gambia – 33%	302,745
	Studies of development of skin penetrating nematodes, University of Nssuka, Nigera	4,714
CARIBBEAN AND SOUTH ATLANTIC		
	*Biological inter-relationships in the Tristan da Cunha population, University of Newcastle upon Tyne – 50%	1,707
	Caribbean Epidemiology Centre (formerly Trinidad Regional Virus Laboratory) – research projects	83,110
	*Characterisation of factors involved in glutamine utilisation by kidney and intestine, Jamaica – 50%	3,230
	Commonwealth Caribbean Medical Research Council – block grant	8,519
	Effect of photocoagulation and diathermy on the course of sickle cell eye disease in Jamaica	3,932
	*Epidemiological study of Myocardial Ischaemia, high density lipoprotein, Trinidad – 50%	16,198
	*Epidemiology Research Unit, Jamaica – 40%	116,452
	Grant for equipment at the Caribbean Epidemiology Centre	51,817
	*Human filarias and their vectors in Trinidad – 50%	10,636
	Maintenance grant to the secretariat of the Commonwealth Caribbean Medical Research Council	6,479
	Schistosomiasis Control Unit, St. Lucia	68,415
	*Studies of streptococcal infections and their sequelae, Trinidad – 80%	18,306
	Study of arboviruses in bats, Caribbean Epidemiology Centre	8,114
	*Taxonomy, ecology and vector potential of the man biting simuliidae in Guyana – 50%	1,640
	*Tropical Metabolism Research Unit, Jamaica – 40%	262,787
ASIA		
	*Drug trials against leprosy at Sungei Buloh Research Unit, Malaysia – 40%	43,168
	Leprosy studies using metabolites with radio labels, India	7,555
	*Short course treatment of spinal tuberculosis in Hong Kong, Korea and India – 50%	38,173
UK		
	*Abnormal Haemoglobin Unit, Cambridge – 20%	12,093
	Action of organic arsenical drugs, University of Edinburgh	8,292
	*Arboviruses and other micro-organisms in arthropod and lower vertebrate cell cultures, London School of Hygiene and Tropical Medicine – 25%	2,503

<i>UK—continued</i>	<i>Title</i>	<i>Expenditure 1974/75–1976/77</i>
	Arboviruses epidemiology studies, London School of Hygiene and Tropical Medicine	108,750
	Biology and genetics of anopheline mosquitoes, London School of Hygiene and Tropical Medicine	18,882
	*Chemotherapy of filariasis, Liverpool School of Tropical Medicine — 30%	5,116
	*Chemotherapy of leprosy, St. George's Hospital, London — 50%	27,643
	*Comparison of white-pox viruses with variola and monkeypox, St. Mary's Hospital Medical School — 50%	1,665
	*Culture of malaria parasites, Guy's Hospital Medical School — 50%	3,284
	*Development of statistical methods and services in tropical epidemiology, London School of Hygiene and Tropical Medicine — 30%	5,242
	*Experimental mouse malaria, immunisation and immunological characterisation of chronic infections, University of Edinburgh — 50%	1,067
	HL—A antigens in Burkitt's Lymphoma and associated diseases, Glasgow Royal Infirmary	661
	Host parasite infections in filarial infections, London School of Hygiene and Tropical Medicine	58,835
	*Identification of arthropod blood meals of medical importance, Imperial College of Science and Technology, London — 50%	1,615
	Immuno-depressions associated with malarial infections in mice, University of Edinburgh	19,624
	Immunological aspects of pinform infection, Glasgow University	9,136
	*Investigation into mosquito behaviour, University of Sussex — 50%	67,567
	Long term investigation of infections caused by <i>Schistosoma Haematobium</i> , London School of Hygiene and Tropical Medicine	61,180
	*Monolayer and bilayer studies and their application to mosquito control, Southampton University — 50%	22,277
	Nature and significance of viruses within the small intestine of adults with tropical diarrhoea, London School of Hygiene and Tropical Medicine	13,025
	*Research on the distribution of malignant tumours, Southampton University — 50%	48,659
	<i>Schistosoma Mansoni</i> chemical stimulation in the development of the female reproductive system, University College Cardiff	4,910
	Serodiagnosis of schistosomiasis, London School of Hygiene and Tropical Medicine	15,782
	Serological identification of the sibling species of the <i>Anopheles Gambiae</i> complex, London School of Hygiene and Tropical Medicine	15,012
	*Study of enzyme immuno-assays for parasitic diseases, Nuffield Institute of Comparative Medicine — 50%	5,009
	Ultrastructure and metabolism of filarial larvae, London School of Hygiene and Tropical Medicine	9,702

Note: * Indicates a project financed jointly by the Ministry of Overseas Development and the Medical Research Council. The expenditure shown is the Ministry of Overseas Development contribution; the relation of this to the total expenditure is given by the percentage.

This list excludes several projects, the work on which was carried out in non-Commonwealth countries.

BRITISH COUNCIL SCHEMES AND SERVICES

Schemes

British Council Schemes with a medical content (including those administered by the Council for the Ministry of Overseas Development) are summarised below:

Scholarships and bursaries. Scholarships are given for postgraduate study in Britain, normally for one academic year; bursaries are given for two to six months, normally excluding fares. Applications are made to the British Council Representative in the candidate's own country.

University interchange. The interchange of university staff and research workers is facilitated by three schemes for which the Council acts as agent in Britain. Indo-British University Collaboration (IBUC) – for agreed long-term collaboration – and the Younger Scientists Exchange Scheme (YSES) – for short study visits – are limited to exchanges between Britain and India and cover travel and subsistence. The Commonwealth University Interchange Scheme (CUIS) offers travel grants to appropriately qualified applicants for study visits from one Commonwealth university to another.

Visits and tours. Professional visits in Britain are arranged for senior members of the medical profession who are invited as guests of the Council, or who are visiting Britain at their own expense. In the reverse direction the Council arranges advisory tours or working visits overseas for medical specialists from Britain.

Specialist courses. The British Council organises several courses annually on current British developments in specific areas of medicine, generally of two or three weeks' duration; details are available from British Council Representatives overseas or from the Council's headquarters.

Technical co-operation training. The Technical Co-operation Training Department (TCTD) administers the Technical Co-operation Training Programme (TCTP) on behalf of the Ministry of Overseas Development (ODM). This programme is a government-to-government scheme to offer less developed countries manpower training opportunities, mainly in Britain but occasionally in other countries (third country training), in the fields of economic and social development.

For each country the number of awards to be offered each year and the broad subjects in which they may be taken up are agreed between the overseas government and the British Embassy or High Commission on behalf of ODM. Thereafter the Council overseas handles the implementation of the programme with TCTD. Training which is available locally is not eligible for inclusion.

The TCTP trains some 7,000 study fellows each year from about 120 countries. For statistics of medical Fellows arriving in 1974/75, 1975/76 and 1976/77 see Annex J.

The Overseas Students Fees Award Scheme and the Fee Support Scheme. The Overseas Students Fees Award Scheme (OSFAS) was introduced in 1968 to offset fee increases for overseas students in Britain. These awards, which covered fees at universities and other institutions in Britain – but excluded maintenance, travel and other costs – were made mainly to advanced or postgraduate students in receipt of scholarships or grants from their own governments. This Scheme is now being phased out but has been replaced by a Fee Support Scheme (FSS) which has the purpose of assisting, on grounds of hardship, selected postgraduate students from developing countries otherwise supported solely from personal or family resources. The FSS, which was introduced with effect from the academic year 1977/78, provides fixed annual grants towards tuition fees at British universities, polytechnics and colleges of further education for up to 3 years starting in 1977 to those students engaged in studies of developmental value at the beginning of the academic year. Like OSFAS, the FSS is financed by the Ministry of Overseas Development and administered by the British Council.

Administrative services. Through its 25 regional offices throughout Britain, as well as its London headquarters, the Council offers reception, accommodation and other services and limited cultural and social facilities to overseas visitors and students visiting Britain under the schemes listed above.

Information services

The Council's Headquarters Medical Department can assist overseas governments and institutions with a wide range of advisory services. It has a Medical Information Service which compiles bibliographies and book lists and answers individual enquiries. It has a medical library which acquires most new British medical books and has runs of 350 periodicals. Medical Information Service also publishes *British Medicine*: a monthly guide to current literature and non-book material; *British Medical Periodicals* 5th edition 1977; *Community Health*: a select list of books, periodicals and non-book materials, 1977. These publications are available from booksellers or from British Council offices.

The Medical Department of the British Council also publishes *British Medical Bulletin*. Each issue of the Bulletin is a symposium of some 15 papers, dealing with an aspect of medical research to which British workers have made important contributions. It is available from booksellers throughout the world, or may be purchased from Headquarters.

The Council has executive responsibility for the Ministry of Overseas Development Low-priced Books scheme by which basic British textbooks are published for sale to students at greatly reduced prices. About 100 medical and related books are at present available through bookshops in most developing countries of the Commonwealth. The Council also operates the Books Presentation Programme by which the Ministry makes presentations of British books and periodicals to medical libraries and other institutions overseas. In countries where there are no suitable commercial arrangements the Council assists institutions to purchase books and periodicals against repayment in local currency.

ANNEX I

BRITISH COUNCIL VISITORS, BURSARS AND SCHOLARS FROM
COMMONWEALTH COUNTRIES STUDYING MEDICINE

	1974/75			1975/76			1976/77			
	<i>Vis</i>	<i>Burs</i>	<i>Schl</i>	<i>Vis</i>	<i>Burs</i>	<i>Schl</i>	<i>Vis</i>	<i>Burs</i>	<i>Schl</i>	<i>Total</i>
Developing Commonwealth										
AFRICA										
Ghana				1			2			3
Kenya	1			2						3
Lesotho	2			1						3
Malawi							1			1
Nigeria	5			1			2			8
Tanzania		1								1
Sierra Leone	3			1						4
Zambia	1									1
CARIBBEAN										
Barbados				1						1
MEDITERRANEAN										
Malta	1		2	1					1	5
SOUTH AND EAST ASIA										
Bangladesh							2			2
Hong Kong				1						1
India	8			10	1		8			27
Malaysia				3			5			8
Singapore	1			1						2
Sri Lanka	1			1			1			3
Developing Commonwealth Total	23	1	2	24	1		21		1	73
Other Commonwealth										
Australia	2			2			1			5
Canada	2	1		2			3			8
New Zealand	2			2			3			7
Other Commonwealth Total	6	1		6			7			20
GRAND TOTALS	29	2	2	30	1		28		1	93

KEY TO MEDICAL GROUPS IN TABLE OF TRAINING AWARDS (ANNEX J)

The principal items included in the various Medical Groups are as follows:

- A **MEDICAL**
Cardiology, chest diseases, dermatology, endocrinology, haematology, medicine, neurology, paediatrics, physical medicine, psychiatry, rehabilitation, tropical medicine, venereal diseases.
- B **SURGICAL**
Cardiac surgery, neurosurgery, obstetrics and gynaecology, ophthalmology, orthopaedics, otolaryngology (ENT), plastic surgery, thoracic surgery, urology, vascular surgery.
- C **ANAESTHESIA**
Anaesthesia.
- D **RADIOLOGY**
Health physics, medical physics, nuclear medicine, radiodiagnosis, radioisotopes (applied to medicine), radiotherapy.
- E **DENTAL**
Dentistry, orthodontics, peridontology.
- F **BASIC MEDICAL AND CLINICAL SCIENCES**
Anatomy, bacteriology (medical), biochemistry (medical), forensic medicine, genetics (medical), helminthology, histology, immuno-chemistry, immunology (medical statistics), mycology (medical), nutrition, pathology, pharmacology, physiology, virology (medical).
- G **MEDICAL AND HOSPITAL ADMINISTRATION**
Epidemiology, family planning, health education, hospital administration, medical education, occupational health, public health.
- H **NURSING**
Midwifery, nursing.
- J **LABORATORY TECHNOLOGY**
Medical laboratory technology.
- K **SUPPLEMENTARY PROFESSIONS**
Chiropody, medical social work, occupational therapy, physiotherapy, psychiatric social work, radiography, speech therapy.
- L **PHARMACY**
Pharmacy.

ANNEX J

MEDICAL TECHNICAL COOPERATION TRAINING AWARDS 1974/75

<i>Group</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>	<i>J</i>	<i>K</i>	<i>L</i>	<i>Total</i>
AFRICA												
Botswana								1				1
Ghana	3	2				3	1		2	2	3	16
Kenya	2	2		2		5	3	5	2	2		23
Lesotho	1											1
Malawi	1							1	1	1		4
Mauritius						1	1		2	1		5
Nigeria	2	3	1	1		1	7	8	15	2		40
Seychelles								1				1
Sierra Leone	1											1
Tanzania						1			1			2
Uganda					1	4	1		1	4	2	13
Zambia									3			3
Africa Total	10	7	1	3	1	15	13	16	27	12	5	110
CARIBBEAN												
Antigua							1					1
Barbados	1						1		3			5
Cayman Islands											1	1
Guyana						1		1				2
Jamaica							1					1
Montserrat								1				1
St. Lucia									1			1
Trinidad and Tobago						1	2	1				4
Turks and Caicos								1	1			2
Caribbean Total	1					2	5	4	5		1	18
SOUTH AND EAST ASIA												
Bangladesh				1								1
Hong Kong							2		1			3
India	7	8	2		2	3						22
Malaysia	1				1	4	1	1				8
Singapore				2			2					4
Sri Lanka	6	1	2	3	1		1	4				18
South and East Asia Total	14	9	4	6	4	7	6	5	1			56
MEDITERRANEAN												
Cyprus		1				1		1				3
Malta		1										1
Mediterranean Total		2				1		1				4
GRAND TOTALS	25	18	5	9	5	25	24	26	33	12	6	188

MEDICAL TECHNICAL COOPERATION TRAINING AWARDS 1975/76

<i>Group</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>	<i>J</i>	<i>K</i>	<i>L</i>	<i>Total</i>
AFRICA												
Gambia						1			2			3
Ghana		3	1	2	1		3					10
Kenya	6	1		1		2	3	1	1	2		17
Lesotho								1				1
Malawi	3				1		1					5
Mauritius	1						2		6	1		10
Nigeria	2	4			1	3	1	8	7		1	27
Seychelles	2	1						2				5
Sierra Leone							1	2				3
Swaziland										2		2
Tanzania					1	2	1			3		7
Uganda			1							1		2
Zambia								1	1			2
Africa Total	14	9	2	3	4	8	12	15	17	9	1	94
CARIBBEAN												
Barbados				1				1		1		3
Belize								1				1
British Virgin Islands		1										1
Cayman Islands								2				2
Guyana							1					1
Jamaica						1						1
St. Kitts							1					1
Trinidad and Tobago							1	4				5
Turks and Caicos								1				1
Caribbean Total		1		1		1	3	9		1		16
SOUTH AND EAST ASIA												
Bangladesh						1	5				2	8
India	5	5		2		5	1			2		20
Malaysia	5	1	1	2	5	1	3	4	2	1	1	26
Singapore	1		1								1	3
Sri Lanka	4					5	2	2				13
South and East Asia Total	15	6	2	4	5	12	11	6	2	3	4	70
MEDITERRANEAN												
Cyprus				1								1
Gibraltar								1		1		2
Mediterranean Total				1				1		1		3
GRAND TOTALS	29	16	4	9	9	21	26	31	19	14	5	183

MEDICAL TECHNICAL COOPERATION TRAINING AWARDS 1976/77

<i>Group</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>	<i>J</i>	<i>K</i>	<i>L</i>	<i>Total</i>
AFRICA												
Gambia									1	2		3
Ghana	6	3	1			2	3	2				17
Kenya	3	4		3		11	8	7		4	1	41
Lesotho	1					1		1	1			4
Malawi	2	1			1	2	1	4	1		1	13
Mauritius							3	2				5
Nigeria	4	2			2	2		1	3			14
Seychelles	1		1					3			2	7
Sierra Leone	1		2		1	1	1	2	2			10
Swaziland										2		2
Tanzania		1	1		1	2	4		1			10
Uganda	1					1			1			3
Zambia		1		1		1	1					4
Africa Total	19	12	5	4	5	23	21	22	10	8	4	133
CARIBBEAN												
Barbados			1	1		3	1	1				7
Belize					1							1
St. Helena					1							1
St. Lucia								1				1
Trinidad and Tobago							1	1				2
Turks and Caicos								1				1
Caribbean Total			1	1	2	3	2	4				13
SOUTH AND EAST ASIA												
Bangladesh	1	1		1		1	2				3	9
India	1			1								2
Malaysia	8	3	1	2	6	2	1	7				30
Singapore	2	4		2		2						10
Sri Lanka	4				2	6	4	1		1		18
South and East Asia Total	16	8	1	6	8	11	7	8		1	3	69
MEDITERRANEAN												
Cyprus	2	2		1		1		1				7
Gibraltar							2	1		1		4
Mediterranean Total	2	2		1		1	2	2		1		11
PACIFIC												
Gilbert Islands							1	1				2
The New Hebrides (the Anglo-French Condominium of)								1				1
Tonga	1											1
Western Samoa								2	2			4
Pacific Total	1						1	4	2			8
GRAND TOTALS	38	22	7	12	15	38	33	40	12	10	7	234

ANNEX K

COMMONWEALTH SCHOLARSHIP AND FELLOWSHIP PLAN

Commonwealth Medical Awards made by the
Commonwealth Scholarship Commission in Britain

<i>Calendar Years</i>	<i>1974</i>			<i>1975</i>			<i>1976</i>		
	<i>*CMS</i>	<i>CMF</i>	<i>CSMF</i>	<i>CMS</i>	<i>CMF</i>	<i>CSMF</i>	<i>CMS</i>	<i>CMF</i>	<i>CSMF</i>
Developing Commonwealth									
Bangladesh	3			2			3		
Barbados	1								1
Fiji	1								
Ghana	1	1		2	1				
Hong Kong	2	1					3	2	
India	6	46	9	2	33	10	1	32	2
Jamaica	1			1			1		
Kenya				1					
Malaysia	2			1			1		
Malta		1		2					
Nigeria	6	2		6			2		
St. Vincent	1			1			1		1
Singapore	3			2			3		
Sri Lanka			2	3	1	1	2		
Trinidad and Tobago							1		
Western Samoa	1								
Total Developing Commonwealth	28	51	11	23	35	11	18	34	4
Other Commonwealth									
Australia	1	5	1		6			3	
Canada	1						1		
New Zealand	1			1	2			3	
GRAND TOTALS	31	56	12	24	43	11	19	40	4

*CMS – Commonwealth Medical Scholar
CMF – Commonwealth Medical Fellow
CSMF – Commonwealth Senior Medical Fellow

ANNEX L

BRITISH VOLUNTEER PROGRAMME: MEDICAL PERSONNEL RECRUITED 1974–1976

<i>Country</i>	<i>Year</i>	<i>Admin</i>	<i>Doctors and specialists</i>	<i>Auxiliaries</i>	<i>Nurses</i>	<i>Dental</i>	<i>Total</i>
AFRICA							
Botswana	1974	—	—	2	—	—	2
	1975	—	—	2	1	—	3
	1976	—	—	1	1	—	2
The Gambia	1974	—	—	—	—	—	—
	1975	—	—	—	—	—	—
	1976	—	—	—	2	—	2
Ghana	1974	—	—	2	1	—	3
	1975	—	—	1	4	—	5
	1976	—	—	—	2	—	2
Kenya	1974	2	—	5	3	—	10
	1975	1	—	1	9	—	11
	1976	—	—	1	5	—	6
Lesotho	1974	—	1	—	—	—	1
	1975	—	1	—	—	—	1
	1976	1	—	—	—	—	1
Malawi	1974	—	—	—	3	—	3
	1975	—	—	—	3	—	3
	1976	—	2	—	2	—	4
Nigeria	1974	1	3	3	2	—	9
	1975	1	—	2	2	—	5
	1976	—	—	2	3	—	5
Seychelles	1974	—	—	—	1	—	1
	1975	—	—	—	—	—	—
	1976	—	—	—	—	—	—
Sierra Leone	1974	1	—	—	1	—	2
	1975	1	—	1	—	—	2
	1976	—	—	—	—	—	—
Swaziland	1974	—	—	—	—	—	—
	1975	—	—	1	—	—	1
	1976	1	—	—	—	—	1
Tanzania	1974	—	—	2	4	—	6
	1975	—	—	—	3	—	3
	1976	—	—	2	1	—	3
Zambia	1974	—	—	4	8	—	12
	1975	—	—	1	5	—	6
	1976	—	—	3	7	—	10
CARIBBEAN							
Jamaica	1974	—	—	1	—	—	1
	1975	—	—	1	—	—	1
	1976	—	—	—	—	—	—
Montserrat	1974	—	—	—	—	—	—
	1975	—	—	—	—	—	—
	1976	—	—	1	—	—	1
Virgin Islands	1974	1	—	—	—	—	1
	1975	—	—	—	—	—	—
	1976	—	—	—	—	—	—

<i>Country</i>	<i>Year</i>	<i>Admin</i>	<i>Doctors and specialists</i>	<i>Auxiliaries</i>	<i>Nurses</i>	<i>Dental</i>	<i>Total</i>
ASIA							
Bangladesh	1974	—	1	2	5	—	8
	1975	—	—	2	4	—	6
	1976	—	1	2	4	—	7
India	1974	—	—	2	1	—	3
	1975	—	—	—	1	—	1
	1976	—	—	1	—	—	1
Malaysia	1974	—	—	1	2	—	3
	1975	2	—	—	3	1	6
	1976	—	—	4	2	—	7
PACIFIC							
Papua New Guinea	1974	1	3	—	5	—	9
	1975	2	—	1	3	—	6
	1976	—	1	—	3	—	4

ACTION TAKEN SINCE THE LAST COMMONWEALTH MEDICAL CONFERENCE

Background paper prepared by the Government of Seychelles

ESTABLISHMENT OF A PUBLIC HEALTH TRAINING SCHOOL

The school runs a full time three year course involving both theoretical and practical (field) training and leading to a local certificate in public health. The curriculum is based on that of the Royal Society of Health with modifications to suit local conditions.

2. The minimum entry requirements are GCE 'O' levels in appropriate science subjects. To date four candidates have successfully completed the course. There are currently ten trainees at different stages of training, and three of these did not meet the minimum academic standard stipulated in that they were Form III candidates. They were accepted because of insufficient number of suitable applicants.

3. In February 1976 a medical officer, through British technical assistance, was assigned full-time to the public health section with the object of organising the expansion and improvement of rural health services, but especially maternal and child health services. Prior to this, these services were performed entirely by the public health nursing staff. The medical officer has also been entrusted with the task of integrating family planning into the government medical service; until March of this year the family planning service was provided solely by IPPF, which has been operating in the Seychelles for the last ten years.

VACCINATION PROGRAMME

4. We now have a comprehensive vaccination programme which includes measles. Vaccination against measles was first introduced in 1969 during an epidemic. We were unable to continue it as a regular on-going programme for lack of funds. Since the beginning of this year we have been able to achieve this with UNICEF aid. It is estimated that at present about 75 per cent of children attending the clinics receive full coverage. UNICEF is to supply us with a record system that will allow us to identify defaulters and hopefully achieve 100 per cent coverage. Deaths from tetanus still occur. There were three in 1976, including a case of neonatal tetanus, despite the ready availability of tetanus toxoid. Antenatal patients are now being immunised as a matter of routine and employers of farm workers and other at-risk groups are being made aware of the need to have their employees immunised.

WATER SUPPLY

5. All our rivers and streams have been shown to be faecally contaminated (survey 1971), so the ultimate aim from a health standpoint is to provide every household with treated water. In future any new scheme will incorporate some form of treatment works, and existing untreated supplies will be treated as and when funds become available. All treated supplies are being metered to avoid wastage and ensure a better sharing out of resources. Fluoridation of water supplies is not practised.

Water projects completed or under construction

6. The Cascade water scheme was completed in 1975 at a cost of £2,500,000. The project was financed by a United Kingdom loan from Commonwealth Development funds. Its present output is 7,000 m³ per day and provision has been made for the works to be extended in the future to double its present output.

7. The Anse Louis scheme, with an output of 10,000 gallons per day, was completed early this year and supplies a community of around 1,400 with treated water. It was funded by UNICEF.

8. The La Gogue scheme was begun in 1976 and is scheduled for completion in 1979. Financed by a British grant-in-aid, the project is estimated to cost in the region of £6 million. It is essentially a reservoir with a capacity of 220 million gallons which will allow storage of the overflow from an existing dam, the Rocham dam constructed in 1969 and having only a modest capacity of 11 million gallons.

9. The Anse Boileau scheme has been made possible under a second agreement between UNICEF and the Seychelles Government signed in July of this year. It is expected to start early in 1978 and be completed by the end of the year. It is intended to operate as a self-help scheme involving the local community. Past experience has taught that self-help schemes of this nature, though commendable in principle, do not always work satisfactorily in practice. The project will entail converting an existing untreated water supply to provide treated water to the inhabitants of Anse Boileau.

10. The La Digue scheme is nearing completion and is being financed jointly by British aid and a German national who owns a large estate on the island of La Digue. The water is pumped from a well, treated and stored in a 26,000 gallon storage tank. It will supply treated water at the rate of 100,000 gallons per day, sufficient to cater for the needs of the whole island which has a population of just over 2,000.

11. The Salazie scheme on Praslin, the second largest island of the Republic, is being financed in part by Canadian aid and in part by a private investor.

12. The number of water projects completed or under construction serves to underline our Government's determination to develop a comprehensive system of treated water supply to meet the needs of the local population as well as our expanding tourist industry.

SEWAGE DISPOSAL

13. The mains drainage installed in the capital town of Victoria in 1972 was initially designed to serve a population of 24,000 people in the town and surrounding area. However, it serves only a few offices and shops in the town centre and plans for its extension await availability of funds.

14. Below is a comparison of figures, expressed as percentages of the total population, drawn from the 1971 and 1977 censuses.

	Flush toilet %	Pit latrine %	Others %
1971 Census	18.7	67.4	13.9
1977 Census	32.8	62.3	4.9

All the main hotels have their own sewage treatment plant which must comply with the UK Royal Commission standard. However, the effluent is not at present bacteriologically monitored as this awaits the establishment of a public health laboratory.

OTHER ACTION

15. Good record keeping is an essential part of all medical practice and our present record system leaves a lot to be desired. With the help of WHO, a statistician and records consultant was recently assigned to the Medical Division to advise on ways of improving the system.

16. A major disaster plan and a cholera contingency plan have been drawn up.

COMMUNITY PARTICIPATION

Paper prepared by the Commonwealth Secretariat

The involvement of individual members of the community and of its special social and service groups is essential for the success of all national health programmes. Developed or developing, there is hardly a country in the world today where this is not now a major health goal. The level of attainment, however, has been variable and much remains to be done in most countries. Approaches differ both within and between countries and it is essential for each to seek its own solutions. In all of them many private and public services and functions need to be co-ordinated and new approaches to community education and motivation need to be worked out. A wide range of fresh problems have to be dealt with, requiring untraditional concepts and techniques.

2. It is against this background that member countries will need to take up the challenge; and it is here that self-reliance and self-help become of special significance. Health is a total community problem and coming to grips with it means taking a completely new look at the whole of the community. Individual members of the community need not only to participate in identifying their community's problems, but to play a role in reaching solutions. What is relevant in Tanzania may be irrelevant in Trinidad, and what holds in Fiji may not apply to Canada. There is little difference between countries, however, in the problems to be overcome. These will almost certainly include community education and motivation, the roles of special groups, national health policies and the level of popular and political support that can be mobilised in support of them.

3. Commonwealth member countries have already begun to grapple with the task of actively involving the community in the solution of local health problems. A few examples will suffice. In *Ghana* there is currently a joint Ghana/WHO project on research in community involvement in local health programmes. There are town or village development committees throughout the country actively promoting community health education and participation, and efforts are also being made to train and integrate special groups such as traditional birth attendants in the general public health service.

4. In *Botswana* district development committees have been formed with representatives from the Health Department, the local council, the Agriculture and Education Departments and related groups. Decisions have been taken or are being worked out on new health plans, the selection of village health workers, the site of new health facilities, the selection and roles of village health committees, health seminars, community education, village motivation projects and the development of family welfare educators. Similar community-based activities are also under way in *Malawi*.

5. In *New Zealand* a special Advisory Committee on Health Services Organisation is actively examining the complex system of communication that effective community participation in health requires. New Zealand also recognises the importance of up-to-date policies for health education in schools. A similar emphasis on education and motivation at an early age has been placed in *Cyprus*, where there is also active participation in community health programmes or special groups, including the St. John's Ambulance, the Family Planning Association, the Mental Health Association and local teacher's associations.

6. In *Swaziland* the curricular emphasis for the community health worker is appropriately on the preventive aspects of common diseases. The role to be played at the village level by health workers, school teachers and other local groups is also recognised. The village health committee which contributes so much to community participation in Swaziland is an example of a local organisation whose goal is to apply local resources to achieve locally defined and locally understood objectives.

7. Comparable approaches have been adopted in many other countries. However, in spite of the enthusiasm that has characterised these new initiatives, a real breakthrough has yet to be achieved. In most member countries there is still an uneven distribution and a lack of access to adequate health facilities and inadequate community participation in them. The future, however, is not entirely gloomy. What has been particularly encouraging is the catalytic effect on national health development that has been achieved in a number of countries by village committees, community health workers, teacher's associations and other special groups planning and working entirely at the local level. In *Tanzania*, for instance, national campaigns for the involvement of community members, youth, women and other special groups have achieved much, not only in health but in overall national development.

8. The basic principle, therefore, of involving health workers from the community itself in community health plans remains valid. The health plans, however, need to be both within the community's planning and executive capacities and also within its economic and personnel resources. All this has to be achieved in the context of societies many of which are geared towards consumerism, personal rather than group aspirations, escape from rural areas to the city, the career objectives of richer communities. The question of creating alternative goals and motivations and appropriate roles for individuals and community groups is probably one of the most important problems to be tackled by member governments in the general field of social and economic development and particularly in the health sector.

9. The particular questions which the Conference may wish to consider have already been set out in the annotation of this agenda item. It is suggested that they might be discussed under the following heads:

- (a) techniques for community health education and motivation;
- (b) the roles and potential contributions of special groups;
- (c) national policies and programmes for community participation in health planning and health care delivery.

14 October 1977

COMMUNITY HEALTH AND COMMUNITY PARTICIPATION

Background paper prepared by the Government of Australia

Australia is a federation of six States with power shared between the Australian Government and the six State governments. The country is large and sparsely populated. Eighty-five per cent of the population live in urban areas, sixty-eight per cent in the ten largest cities.

2. Health services are provided in a variable mix by private practitioners and organisations, by the six State governments and by the Australian Government. The usual primary source of health care is the local private general medical practitioner. The State governments are the main providers of governmental services.

3. In Australia it is becoming recognised that the improvement of community health is not a matter of providing more and bigger hospitals where high-cost sophisticated technology is used on a small number of people, but a matter of modifying the social environment and personal attitudes so that patterns of living assist in the preservation of health, and a matter of modifying the physical environment to reduce the risks of injury and disease. This cannot be accomplished by one type of worker alone. It requires group efforts, teams of workers with different specialities and common goals, and it requires the co-operation of the community.

4. The basic requirements for involving local people in improving community health are an acknowledgement that local communities are capable of assessing some of the problems confronting them, a willingness of health planners, administrators and providers to listen and to respond to requests from the community, and a willingness to allow local communities to be involved in the planning and management of services provided for them.

5. Since 1973, the Community Health Programme has been operating in Australia as an initiative by the Australian Government in co-operation with the State governments. This Programme has as its objective the provision of comprehensive, accessible services where they are needed. Key components of the Programme are primary care which stresses prevention and health education, early detection programmes, rehabilitation and assistance for the chronically disabled, as well as appropriate community-based diagnostic and therapeutic services.

6. From its inception, community participation was highlighted as an integral part of the Programme. Initial publicity was wide and involved the Federal Government in an advertising campaign, and involved State government officials in direct contacts with local community groups and non-governmental health services. Many projects were established after this as a direct result of community group action, while others were established in response to requests from health and hospital authorities, private medical practitioners or national charitable organisations.

7. Where local community groups have some measure of executive power over the planning and administration of the service in their area sustained participation by the community group has been seen. Groups which are advisory in function also have exhibited sustained activity where feedback of information to them is good, especially important in cases where advice has had to be disregarded. In one State, South Australia, legislation to establish a network of community consultative councils has been enacted, while in Victoria, community groups were involved in the planning of community health centres and now are involved in the management of the centres with the ability to hire and dismiss staff.

8. The largest single category of health facilities provided under the scheme are community health centres. These vary from comprehensive primary care centres to health support centres (without primary medical care) to small bases for community nurses.

9. Staffing of these services emphasises the team approach to the provision of care. Patients are viewed not just as individuals but as people who have come from a particular social, family and physical environment and whose disability has to be dealt with in those terms. Social workers, psychologists, community health nurses, doctors and other personnel combine in an approach to the patient as a social being.
10. Two new types of health workers have developed to work specifically within the community: the para-medical aide and the comprehensive community nurse. Both are trained under the programme and work within the community as part of a health care team. Community nurses particularly provide preliminary screening, health counselling and preventive health education.
11. Preventive medicine and health education are stressed with the team approach and health education officers work directly from many centres. Specific health education programmes and training schemes have been funded under the Programme. Of particular interest is the Social Biology Resources Centre in Victoria which provides a consultant service in health education and team communication skills for community health workers.
12. A feature of the Programme has been its emphasis upon community mental health services as an integral part of community health. Some centres which started as mental health centres have widened their focus and changed their image. Nevertheless, many services for the retarded, for the mentally ill and for those suffering from alcoholism and drug dependence, have continued to develop, particularly on the basis of regional resource centres.
13. One problem confronting the Community Health Programme has been the need to change the attitudes of those concerned with health care delivery (doctors, nurses and health administrators) away from an unrealistic reliance on technology and reparative techniques and towards prevention and rehabilitation as an essential ingredient for the improvement of the quality of life. Departments for the teaching of community health have been established at the medical schools to promote the concept of the delivery of health care outside the hospital environment, to stimulate a multi-disciplinary approach by doctors to problems and to stress the role of social factors in disease. Projects inspired and sometimes organised by the Australian Medical Students' Association which have similar aims have also been funded under the Programme. The Family Medicine Programme conducted by the Royal Australian College of General Practitioners provides vocational training in family medical practice for recently graduated doctors, and re-orientation courses for mature medical graduates (particularly women) who wish to enter family medical practice after an absence of some years.
14. So far over 700 projects of a wide ranging nature have been funded under the Community Health Programme. The list includes comprehensive health services, mental health services, women's health services and refuges, family planning, health education and occupational health services. While by no means all of the community health services in Australia are funded under this one Programme, it is one of the most important initiatives in Australian health in the last decade and it is the first major health programme to recognise the necessity of community involvement in the improvement of health.
15. From the beginning it was recognised that an agency directly engaged in the provision of health care should accept responsibility for the quality of that care. Evaluation is therefore an integral part of the operation of the Programme. Both process and outcome evaluations have been developed, and some 30 major evaluation programmes are under way, supported by funds from the Community Health Programme and by Health Services Research and Planning Grants.
16. Improved comprehensive primary health services are now accepted as both necessary and a right in Australia. The real challenge now to be faced is to build from the few projects adequately emphasising environmental and attitude change, prevention, self-help, and the use of health aides drawn from the local community, to a position of much greater concern for these matters. Australia hopes to learn from the greater experience of some of the developing nations with a view to modifying and improving its own Community Health Programme in the near future.

25 August 1977

COMMUNITY PARTICIPATION IN HEALTH EDUCATION WITH RESPECT TO DRUGS

Background paper prepared by the Government of Australia

As part of a total drug abuse prevention programme, the National Drug Education Programme, funded by the Australian Federal Government, was established in Australia in 1970/71. The aim of the Programme is to integrate and co-ordinate educational activities in the areas of drug abuse prevention.

Community motivation and health education programmes

2. Before the National Programme commenced, health (drug) education programmes in Australia were mainly conducted in the form of single lectures. While it is recognised that this approach still has a role, more comprehensive programmes involving discussion groups, seminars, workshops, etc., have been found to be more effective in eliciting greater community and individual involvement.

3. With regard to “producing the right motivation”, the following has been the experience of the National Programme.

4. With health (drug) education conferences of professional people, successful initiation and participation have been established through an authoritative professional organisation assuming the responsibility for the conduct of such a conference.

5. A further way of successfully involving the community has been through the use of key personnel, for example, hospital, community and school nurses; teachers; law enforcement agents; and staff of social welfare institutions. Prominent “lay” people in the community are also involved through their membership of such active organisations as Rotary International or certain women’s groups, etc. Training courses are made available to these key personnel.

6. In country areas, several of the Australian States have experienced considerable success with programmes which seek to involve key people in the community and which are conducted over several weeks. These multi-session programmes have been requested by community organisations operating in the country areas and, under their sponsorship and active enlistment of community interest and participation, have achieved a greater degree of interaction than has been experienced with programmes in city areas. This is attributed to the compact nature of small towns.

Community involvement in health education delivery

7. Health authorities in the various States and Territories of Australia are responsible for the conduct of health education programmes with respect to drugs at the local level. In order to make maximum use of resources in achieving an effective approach in health education, in this field Health Authorities are seeking to meet the growing demands of the community in this area by involving and training groups such as teachers, medical/para-medical professions, and police. In addition, in all Australian States, social welfare bodies and other areas of local government, such as those involved in industry, are being encouraged to take part in health education with respect to drugs and to offer related programmes.

8. In order to more adequately service communities, a “decentralisation” scheme of regionalisation has been and is being developed in some States. Where it is in operation, the scheme has enabled more immediate, widespread and effective contact with local communities.

Regionalisation involves the establishment of several health education centres within the State with the intention that they should tailor their services to the local needs.

9. Of particular interest in the fostering of successful community participation in health education is the establishment in a small town in the State of Victoria in 1974 of an association for alcohol and drug dependence. The association was formed by a group of townspeople who were concerned that local needs should be met by the community. With funds provided by both Federal and State Governments, a Centre set up by the association provides counselling, referral and advice for drug dependents and conducts an active drug abuse prevention campaign in the community. This is carried out with support from the Victorian Health Education Centre.

10. Although a National Drug Education Programme has been operating on a fully co-operative basis between the Federal and State authorities concerned since 1970/71, the escalation of the drug problem in Australia calls urgently for a reassessment of the value of the Programme in relation to current needs and as to the scale and scope of future activities to deal with the growing problems. The economic situation makes it difficult to achieve expansion of the Programme at the present time.

25 August 1977

COMMUNITY PARTICIPATION IN DELIVERY OF HEALTH CARE

Background paper prepared by the Government of Swaziland

The present distribution of health services has favoured concentration in the urban areas. Seventy-five per cent of Swaziland's population live in rural areas and are engaged in subsistence farming. It is clear, therefore, that to reach the majority of the people, the Ministry of Health must direct its future efforts to this target group.

2. In 1974 the recurrent preventive service in the rural areas accounted for 19 per cent of the total health recurrent budget, but their share is projected to increase to 27 per cent by 1979 and 33 per cent by 1984. The policy of the Ministry has therefore as its goal the improvement of the health status of the Swaziland population through the strategies that are directed at increasing the emphasis on rural preventive health services, and by the turn of the century every household should have access to health services.

3. Although the qualified nurse will remain the most important figure in the expanded health service, supplemented by the auxiliary, in order to obtain the widest possible coverage of the population with the given budget an increased use will be made of the community health worker (rural health visitor).

COMMUNITY HEALTH WORKERS

4. These are rural health visitors whose function is to educate the community on matters affecting health, to motivate the community to be responsible for disease surveillance, to give first-aid care, to collect information on births and deaths within the community, and to promote health generally.

5. Each community health worker is responsible for 40–50 homesteads (the rural population is scattered). To date 80 of these workers have been trained. The third group of 40 will qualify in December. Training output is to be 100 per year, with a final total of 800 workers to serve the whole country by 1985. Their training is for two months and the full curriculum is contained in the Annex to this paper.

6. These health workers are directly responsible to the area clinic, which serves as their referral point. The clinic is staffed by a doubly qualified state registered staff nurse. Supervision in the field is by the public health personnel, who deal mainly with preventive health and MCH family planning services.

Community involvement and the involvement of leaders

7. Although the Ministry of Health is greatly involved in the training of this cadre of health workers, the cadre is regarded as a community responsibility. As a behavioural change is implied in the programme, in order to establish its acceptability and to ensure its non-conflict with traditional and cultural values the area chief is involved from the outset of the programme.

Selection of candidates

8. The process of selecting trainees is one of community participation. The chief and his community select suitable candidates for training in his area. Using as a criterion one worker for

40–50 households, the total number is arrived at. It is usually between 40 and 50 candidates. The only prerequisite of the Ministry of Health is that the candidates be able to read and write Siswati (the local language) and have a strong sense of responsibility.

9. The rationale behind this involvement is to select someone who understands the community, its problems, needs, level of development and its socio-political organisation. Selection of candidates is therefore from *within* the country *by* the community.

Education methods and implementation

10. The Annex to this paper shows the curriculum of the community health worker. The group are taught within their own environment by senior personnel of the Public Health Unit and invited lecturers from other Ministries on relevant subjects; for example, “the home garden” in the nutrition section would involve the agricultural extension officer. Demonstration of such tasks as the erection of toilets is done by making a permanent structure at one of the houses. In the curriculum the emphasis is on the preventive aspects of the common diseases, bearing in mind that most of the diseases occurring in Swaziland are in fact preventable. All instruction is in Siswati.

STRATEGIES TO MOTIVATE COMMUNITIES

11. Strategies to motivate communities towards participation in health improvement involve health education through group talks and demonstrations and home visits as well as the formal training already referred to.

Health education: group talks and demonstrations

12. Health education is aimed at making the individual aware of his “at risk” role and his obligations to himself, his family and to society. It involves giving the individual or community the necessary information and knowledge to motivate him into arriving at a decision to take action.

13. Health education is one of the media through which the problem (from the community) and the health service are brought together into a system where communication, interchange of ideas and confidence can be established.

14. Interest is aroused when there is actual involvement of the community in demonstrations and seeing the benefits occurring – for example, the use of a garbage pit, eliminating the fly nuisance.

Home visits

15. Home visits are made to advise on problems encountered in the daily household routine which have a positive health impact. Preparation of food using actual existing facilities within the home and advice on ventilation and cleanliness and on personal hygienic habits are some of the matters dealt with. Illness detection and treatment, or referral to the nearest clinic, are some of the responsibilities of the rural health visitor. By these visits the community begins to feel that there is interest in their welfare – someone cares – and they begin to understand and co-operate and indeed to see the advantages. This maintains and sustains their participation. They begin to see the reasons for the programme and request certain services to meet their own needs and demands – as they see them.

Communicable diseases

16. The stress placed on communicable diseases and the knowledge imparted on their mode of transmission makes the community appreciate *why* they are requested to build pit latrines, dig garbage pits, immunise their children and protect water supplies.

The leaders

17. Motivation of the leaders in the community, discussions with them and their involvement in all community activities act as a stimulus to the members of the community. Failure to involve the chiefs and leaders can jeopardise any community programme.

School health

18. The school is an important vehicle for inculcating good hygienic habits and imparting education on health. With the realisation that the school-going child can bring a change of ideas and habits into the home, the school health programme has been scrutinised more critically with this and other factors in mind. There is need for greater co-operation between the health and education authorities and community leaders.

Evaluation of health education programmes

19. There has been enthusiastic response in the community. Indicators used to evaluate the health education programme are established in the light of what has been brought to the awareness of the community. These indicators can be divided into short and long term:

- Short term:
- (a) Use of health facilities
 - (b) Response to immunisation
 - (c) Number of toilets built and used
 - (d) Water protection

Long term: Improvement in the health of the community as reflected by improvement in the state of nutrition, reduction in water-borne diseases, and reduction in infant mortality.

20. An evaluation exercise has been undertaken in the Ntfonjeni community, where the first community health workers were introduced in late 1976. A brief comparison is given below of the first-six months of 1976 and 1977, before and after their introduction into the community.

	<i>Ante-natal care</i>	<i>Child welfare</i>	<i>Pre-school</i>	<i>Immunisation</i>
January–June 1976	321	1135	446	878
January–June 1977	561	1545	639	1048

The actual total attendances at the rural clinic in the area were 8,985 for January–June 1976 and 11,273 for January–June 1977. Pit latrine construction increased from almost zero to 160 within six months. Garbage pits have been dug and springs protected.

COMMUNITY INTERESTS AND CONTRIBUTIONS

21. In the majority of cases, the most frequent request of communities is for a rural clinic to be built in their area. If the Ministry feels there is a need, taking into account the population density and the distance from the nearest health facility, then the communities are requested to contribute towards some aspect of construction. This may involve labour in making bricks – for the construction of a causeway over a stream, for example – or a contribution towards the cost of a water supply for the clinic and community. This latter is seldom successful, however, and the Ministry has to pay the capital as well as recurrent costs. The major aspects of health development readily contributed to, perhaps because of less financial involvement, are the construction of pit latrines, protection of water and digging of garbage pits.

22. For any health programme or activity to be successful within a community, the local chief must be involved from the start. The contribution of the community here is participation in response to health education. This involvement of the chief stresses the relationship with tradition, the chief being the custodian of the people.

Training programmes

23. The health educators in the broadest sense are the community health workers (rural health visitors), who are formally taught as outlined above. However, as health education is not regarded as the prerogative of the Ministry of Health only, many other persons are involved, such as women's organisations, community development workers, agricultural extension officers, teachers and domestic science demonstrators – personnel who are available within the community. The health education personnel of the Ministry are frequently invited to participate in regional or national seminars organised by various Ministries, and it is here that the participants are exposed to health education.

Health education specialists

24. Health education is defined as being the application of behavioural science in the health field. It is intended to motivate the patient into making decisions, if ill, to seek early treatment, to return to a healthy state and, by virtue of his newly acquired knowledge, to take the necessary precautions to remain there. It is geared to prevent persons from becoming ill, and to encourage them to better life.

25. The art of delivering health education so as to have the effect that is intended is not an easy one. Success is not gauged by the size of the audience but by the positive *action* the individual takes as a result of health talks. It is quite clear, therefore, that the major role of specialists should be to train others in the skills of delivering the message, taking into account visual aids and demonstrations that may be necessary.

26. The health education specialist should be able to organise programmes to strengthen the education unit, to synchronise health education with the health programmes implemented, so that there is a clear understanding of the aims and objectives of the programmes. Most medical personnel are not trained in this discipline, and it is the duty of the health education specialist to increase their awareness of health education as a tool to supplement their professional competence.

27. The specialist therefore must be the identifier and co-ordinator of community resources which have potential to participate in health education activities. He must be responsible for the introduction of new accepted and proven techniques and procedures of health education as they apply to the situation within a given community. He is responsible for the development of information and education material and teaching for various target groups, and for the distribution of such material as part of the strategy to make proper use of health services. He must evaluate the programmes for feed-back and subsequent planning.

Special groups

28. While the health worker plays the major role in the community from the health point of view, other special groups are encouraged to contribute towards social and cultural well-being through an educational process which will improve the health of the individual and thus contribute to the development of the country.

29. Thus the group known as "Women in Development" has a role to play in the economic aspect of the community and family life. The "Programme for Better Living" is generally involved at family level and emphasises the spacing of families and nutrition of the family. This is an education and communications project, designed to focus attention on the needs of rural families. There is emphasis on strengthening and servicing existing programmes. These two groups are naturally encouraged to co-ordinate and supplement each other.

30. A national women's group called "Zenzele" (do it yourself) has launched a fight against malnutrition and towards environmental sanitation and health. Amongst its membership it has nutritionists and home economics personnel. Demonstrations and competitions (e.g. the house with the cleanest surroundings, the healthiest baby, etc.) are encouraged to sustain interest and participation.

31. The Red Cross is concerned as part of its activities with nutrition, particularly of the under fives, and with health education.

32. All these groups liaise with the personnel of the Ministry of Health in activities and programmes which have a health implication. It is these groups which the health education specialist should explore and exploit as health educators, especially as membership is drawn from within communities. Special community groups should amalgamate their efforts so that duplication is avoided, or should co-ordinate in such a way that each group is given a specific task. With such an approach, progress can be enhanced to stimulate the community to becoming better organised towards the goal of self-sufficiency.

33. The first step should be to identify the needs of the community. If it is known that there is a high incidence of bilharzia within a community, for example, efforts can be made with proper leadership, to erect ablution and laundry blocks. Because the winter months are the lean periods, in order to avoid malnourishment and hunger proper grain storage could be encouraged.

34. Sports facilities for the community during periods when people are not employed, or are on recreation (e.g. weekends), can go a long way to reduce the crime rate, mischievous loitering, excessive drinking and so forth. This is an area in which most local private concerns are interested. The usual contribution is a trophy for the best soccer team of the year.

35. The role of some private international organisations in community health has not been clearly identified. UNICEF contributes financial assistance to the training programme of community workers. A workshop on "Community Health Workers" was held in 1976, sponsored by WHO.

School health education policy

36. There is as yet no firm policy on health education in schools. However, a National School Health Committee is to be formed, and amongst its functions will be to make recommendations to the Education Authorities, which hopefully will lead to a health education policy. There is a need to review the present status of health education activities at primary and secondary schools and to determine the health education needs of school children.

Traditional medical workers

37. As yet no steps have been taken to incorporate traditional medicine into Western medicine.

National health programmes

38. As stated in a previous section, community participation in national programmes embraces the role of the health worker identified by the community for training. She is the first line of contact in the echelons of the health service.

39. The training is organised by the Ministry of Health with lecturers drawn from other Ministries such as Agriculture, Local Administration, etc. and their field staff within communities are called upon periodically, for talks and demonstrations. In each district several structures have been built by the Government for use by communities to hold meetings, demonstrations, etc.; but in addition, buildings belonging to other Ministries such as Farmer Training Centres (Ministry of Agriculture) and Rural Curriculum Centres (Ministry of Education) are made available on request for training or lectures.

Family planning

40. Swaziland has a family planning policy which states that growth rate is to be reduced from approximately 2.8 per cent to 2.3 per cent during the plan period 1973—1977. However, the policy of the Ministry of Health is directed towards family spacing in the interest of better family health and the reduction of infant mortality and wastage of life. Thus the approach is not primarily demographic but rather one of promoting the health of the population. The service is entirely the responsibility of the Ministry of Health, and the issue of family spacing devices and pills is conducted by health personnel in government and private practice.

25 August 1977

SWAZILAND GOVERNMENT
Ministry of Health: Division of Public Health
CURRICULUM FOR RURAL HEALTH VISITORS'
COURSE

Preface

The health and happiness of families living in rural areas depends greatly on the availability of health units within reasonable walking distances (5–10km) and their knowledge and practice of how to live a healthy life. The outlined syllabus is intended to train a cadre of workers to deliver these services to every homestead in the rural areas. The process of selecting trainees is one of community participation where the communities choose the people to be trained and assist when possible in their training.

To live a healthy life requires the knowledge of sectors other than health. As is stated in a report on an FAO/WHO workshop: "Integrated rural development is seen as a process of balanced social and economic development in a given community. Its components may include, among others, development of family health, education, agriculture, industry and co-operative enterprises, social welfare, socio-cultural and other aspects of community life. It represents a concerted effort by organisations serving them to solve their inter-related problems within the framework of the national development plan, making the best use of resources and personnel so that a better quality of life may be achieved". Hence training is inter-disciplinary and the trained product (rural health visitor) is a co-ordinator at grass-roots level.

"Because of the interdependence of the causes and consequences of development problems and issues, there is a need to focus on rural development through an integrated approach. In the past many development programmes failed because they focused primarily on social aspects without considering the economic aspect necessary to carry out social development programmes effectively". The syllabus will aid the worker in teaching the most effective methods of raising the standard of living of the rural people.

In the FAO/WHO workshop report, "an important principle of integrated rural development is that action must be generated among the population which is benefiting and not imposed from outside". The syllabus will therefore aid the worker in teaching the most effective methods of raising the standard of living of the rural people. It will aid the worker with knowledge to involve the people in discussions and decision-making situations on the subject of improving health by practising good hygienic methods, better nutrition, environment and adequate housing.

The rural health visitor requires support from higher officials of Ministries to effect and make meaningful her educational programme.

It is the Ministry of Health's belief that the syllabus and the cadre of workers it aims to create will enable the people to understand health in its entirety rather than the narrow meaning of alleviation of pain.

Objectives of the course

1. To produce rural health visitors who will educate the community on the importance of latrines and a protected water supply in the prevention of communicable diseases.
2. To produce rural health visitors who will educate the community on attending the ante-natal clinic.
3. To educate families on the importance of child welfare services.

4. To educate families on the importance of family planning services as a means for the maintenance of good health of both the mother and the baby.
5. To educate the community on good nutrition for prevention of nutritional diseases by having backyard gardens and fish ponds.
6. To educate families on improving their homes for the prevention of communicable infection by having dust pits and by the control of house pests.
7. To educate the community on the importance of participation in community activities for the improvement of health and the economic structure of the community.
8. To give immediate care (first aid) to families in cases of emergencies.
9. To create a cadre of personnel from amongst members of the community that will be responsible for disease surveillance and will refer to the nearest clinic any serious illness.
10. To provide rural communities with personnel that will supervise home treatment or chronic illness where applicable.
11. To provide rural communities with a co-ordinator (rural health visitor) between Ministries involved in rural development.

Philosophy of the rural health visitors course

We believe that effective teaching is achieved by communicating with the learner in a language that he understands. "Public health represents nothing other than the exploitation of all economic, educational, social, cultural and religious resources in order that each individual can find the possibility to lead his life to the full in relation to his aptitude and aspiration, in order that the whole social group may make progress."* Therefore, producing rural health visitors who understand the total community, its problems, needs, level of development and its socio-political organisation would be an answer in meeting the health needs of this country.

We believe that improvement of the economic, educational, social and cultural background of the community through an educational process would improve the health of individuals and thus aid in the development of this country. Rural health visitors are an answer.

UNIT I: COMMUNICABLE DISEASES hrs. 25

To identify communicable diseases.

To identify principles of control of communicable infection.

To apply principles of control of communicable infection.

1. Diphtheria, whooping cough, tetanus, polio, smallpox, measles, tuberculosis, typhoid, bilharzia, worms, gastro-enteritis, syphilis, gonorrhoea, malaria.
2. Immunisation.
3. Personal hygiene.
4. Environmental sanitation.
 - (a) water supply — rural
 - (b) latrines — rural
 - protection of food from contamination
 - (c) dust pits
 - (d) housing — control of house pests.

*Collier, Marie F., "The Functions of the Public Health Nurse", *International Nursing Review* Vol. 18, 1971 p. 8.

UNIT II: NUTRITION *hrs. 20*

To identify food groups.

To plan nutritious meals for the families.

To identify nutritional diseases.

1. The three food groups.
2. Diet during pregnancy. Food habits (e.g. pregnant mothers, infants). Food values, especially of locally available foods.
3. Diet during lactation.
4. Breast feeding.
5. Bottle feeding.
6. Weaning — weaning foods.
7. Nutritional diseases
 - (a) marasmus
 - (b) kwashiokor
 - (c) pellagra.

Demonstration practicals

Weaning foods

Bottles and bottle feeding

Milk formulas

UNIT III: MATERNAL CARE *hrs. 12*

To identify importance of ante-natal care.

To identify importance of hospital delivery.

To identify diseases of pregnancy including those that may be transmitted to the foetus.

1. Anatomy of female reproductive system.
2. Conception.
3. Signs and symptoms of pregnancy — pregnancy.
4. Ante-natal care — its importance.
5. Preparation of the home for delivery.
6. Labour and delivery.
7. Post-partum care (immediate).
8. Post-natal care.
9. Family planning — family size norms, problems of abortion, age at first marriage, status of woman.

UNIT IV: CHILD CARE *hrs. 12*

To identify the importance of child welfare services.

1. Care of the new-born.
2. Baby bath — layette.
3. Child welfare — its importance.
4. Pre-school child.

UNIT V: ELEMENTARY SOCIOLOGY *hrs. 5*

To identify social structure of a Swazi rural community.

1. Rural social organisation —
 - (a) roles of a chief, induna and umgijimi
 - (b) roles of community members.

2. The family – members, their roles and expectations.
3. Illness in a Swazi community.
4. Traditional medicine – Western medicine.

UNIT VI: COMMUNITY HEALTH *hrs. 18*

To identify activities of public health centres.

To apply principles of community health in state principles.

1. Activities of public health centres
 - (a) treatments available
 - (b) importance of early treatment
 - (c) dangers of lack of early treatment.
2. Community health work.
3. The health team and other community workers.
4. The big five –
 - (a) water
 - (b) housing
 - (c) nutrition
 - (d) refuse disposal and latrines.
5. Prevention is better than cure.
6. Home accidents.
7. The home visit.
8. Care of the aged in the home.
9. Health education.
10. Mental health – mental diseases.

UNIT VII: COMMUNITY DEVELOPMENT *hrs. 10*

To identify principles of community development.

To apply principles of community development.

1. Introduction –
 - (a) the functions of the department of community development in Swaziland
 - (b) what is community development?
2. Some principles of community development.
3. Methods of community development.
4. Working with formal groups.
5. The use of group discussions as a training method.
6. Developing leadership – the different kinds of leaders.
7. The community development worker's role in the community.
8. Communication and social change.
9. Human relations.

UNIT VIII: FIRST AID *hrs. 15*

To identify principles of first aid.

To apply principles of first aid.

1. Scope of first aid
 - (a) what is first aid
 - (b) the objectives of first aid
 - (c) the good first aider's task
 - (d) the equipment needed for first aid.

2. Asphyxia and resuscitation

- (a) smothering
- (b) choking
- (c) drowning
- (d) strangulation

Artificial respiration — mouth to mouth method.

3. Bleeding

- (a) from cuts
- (b) from inside the ear
- (c) from a tooth socket
- (d) from a wound
- (e) from the nose.

4. Bruising.

5. Shock.

- (a) signs and symptoms
- (b) treatment
- (c) prevention.

6. Fractures

- (a) of the leg
- (b) jaw
- (c) arm
- (d) pelvis
- (e) foot.

Signs and symptoms.

Rules of treatment.

Transportation to hospital.

7. Unconsciousness

- (a) fainting
- (b) fractured skull compression
- (c) convulsion in young children
- (d) epilepsy
- (e) hysteria.

8. Burns and scalds

- (a) treatment — burns or scalds
- (b) poisoning — corrosive plants and medicines.

9. Foreign bodies

- (a) eye
- (b) ear
- (c) nose.

10. Snake bite treatment.

11. Action in an emergency.

12. Sending messages (if medical help is needed the message must be clear and accurate).

13. The use of a triangular bandage and improvised slings.

UNIT IX: HOME ECONOMICS

To identify principles of home economics.

To apply principles of home economics in the community.

1. Food and nutrition

- (a) growing of fruit trees
- (b) home gardens for trees
- (c) production of legumes
- (d) fisheries and poultry keeping.

2. Good food preparation — methods, especially for children.
3. Home improvement
 - (a) environmental sanitation (latrines, garbage disposal)
 - (b) home cleaning (pests prevention).
4. Consumers education and budgeting.
5. Child care.

UNIT X: WOMEN'S ROLE IN DEVELOPMENT

To identify women's role in development.

1. Role of women in development
(structured in way of questions thus stimulating active participation in learners).
2. Home improvement or an ideal home
 - (a) traditional and modern homestead
 - (b) simple village technology — theory and demonstration.
3. Organisation of women's groups.

UNIT XI: AGRICULTURE

To identify activities of agriculture in the community.

To relate these activities in to the health of individuals.

1. Agricultural activities in the rural areas
 - (a) production of vegetables
 - (b) production of fruit trees
 - (c) poultry production.

UNIT XII: ADULT LITERACY

To identify activities of adult literacy in the rural areas.

To co-ordinate health activities.

1. Activities of Sebenta (adult literacy) programmes in the rural areas.
2. Integration of health in the Sebenta programme.
3. Distribution of Sebenta programme in Lubombo District.

EVALUATION

Evaluation is the process of determining what these changes are and of appraising them against the value represented in objectives to find out how far the objectives of education are being achieved.

Considering the educational level of the rural health visitors, the following methods of evaluation are considered ideal.

1. Questions and discussion on subjects covered.
2. Group presentation on covered materials.
3. Individual presentation on covered materials, followed by self evaluation and then group evaluation.
4. Mock teaching in the classroom on materials that have been covered.
5. Evaluation of actual home visit and health teaching in the home.

25 August 1977

COMMUNITY PARTICIPATION

Background paper prepared by the Government of Cyprus

It is generally recognised that community participation is essential for the effective delivery of health care. Participation by the community may take the form of collaboration with the local or national authorities in the planning and/or operation of health programmes or it may involve the actual delivery of health care by organised groups of the community. Participation may also be indirect, as in the case where clubs or organisations undertake the promotion of health education.

EDUCATION AND MOTIVATION

2. Education and motivation constitute the most effective means by which the community at large can be made conscious of the significance of health in the achievement of progress, well-being and happiness. Such an awareness will stimulate interest in health, will foster organised activity in health matters and will encourage the individual to take self-help measures in the home or in his work environment to protect his own health and the health of his co-workers as well as that of his family. Acquiring good healthy habits in such matters as nutrition and hygiene, and sufficient knowledge about disease and protective measures against the causes of disease, is very important and education in these matters should start at a very early age. This can be done through the introduction of appropriate teaching material in the upper classes of primary schools and in the curriculum of secondary schools.

3. In Cyprus, health education is included in the curriculum of primary and secondary schools and the experience acquired has shown that this policy has paid good dividends. The success of health education in schools depends mainly on the knowledge about health matters imparted to teachers in the course of their training or thereafter. It also depends to some extent on close and sustained contacts between the school and the parents. On the one hand this will provide the necessary feed-back to the teachers, and on the other hand it will afford ample opportunity to the teachers to impart to parents knowledge about health matters. In Cyprus, teachers come into contact with parents through the parents' associations; they also establish direct contacts with individual parents and this helps in promoting health education.

4. Health education in general is undertaken by the government health services (doctors, dentists, health visitors and health inspectors, as part of their other work). The school health services, which operate as an integral part of the public health services, are also engaged in health education activities at school and family level. A secondary objective of the health education activities of the government health services is to encourage community participation in health programmes, including the stimulation of activities in the field of health education on the part of local clubs and other associations, so that the mass of the local people can acquire such knowledge about health as will create motivation to participate in health promotion activities.

SPECIAL GROUPS

5. In Cyprus health care services are provided mainly by the public health services; the private sector provides almost exclusively curative services to those patients who can afford to pay the full cost. Local authorities have responsibilities for general sanitation in their localities and also for some other matters such as the control of slaughterhouses, meat markets and refuse disposal. There are, however, a number of special groups which participate in one way or another in the delivery of health care services. Some of the more significant of these groups are mentioned hereafter.

Cyprus Red Cross

6. The Cyprus Red Cross has established and has been operating a convalescent home for sick children. It also provides financial support for health programmes and contributes towards the cost of the treatment of needy persons.

Anti-Cancer Society

7. The Anti-Cancer Society has established and is operating a special institution for the accommodation and nursing of cancer patients who cannot be looked after adequately at home. This institution collaborates closely with the radiotherapy department of the Nicosia General Hospital.

Anti-Tuberculosis League

8. The Anti-Tuberculosis League's functions are mainly to provide financial assistance to needy tuberculosis patients and patients with chest diseases (silicosis, etc.) and their families.

Anti-Anaemia Association

9. The Anti-Anaemia Association has been formed in order to help the government health services in their plans to combat thalassaemia (Cooley's anaemia) which is a major medical and social problem in Cyprus. The activities of the Association include health education with regard to this disease, close collaboration with the health authorities in such matters as the practical implementation of the anti-anaemia programme and the procurement of the blood needed for transfusion to patients suffering from the disease. The Association also raises funds for the support of the programme.

St. John's Ambulance Association

10. The main activity of the St. John's Ambulance Association is to foster training in first aid. Many groups of first aiders are trained every year. The Association co-operates closely with government hospitals, the civil defence service, schools and associations which undertake the running of first aid courses.

Trade unions and employers

11. Trade unions and individual employers participate significantly in the delivery of health care to workers by establishing medical care schemes.

School for Parents and the Family Planning Association

12. The School for Parents provides health education on health matters which are of special interest to parents. The Family Planning Association offers advice and guidance in matters of family planning including sex education.

Mental Health Association

13. The Mental Health Association is interested in scientific matters relating to mental health and it offers advice to the government health services in the field of mental health. It is actively involved in health education activities and participates in the health activities of other associations such as the School for Parents, the Retarded Children Association, the Prison Board and the Family Planning Association.

Hospital welfare boards

14. For each government hospital there is a welfare board composed mainly of private persons. The function of the boards is to promote the welfare of patients by providing the means for recreation and by supporting the families of patients who face financial difficulties.

Blood donation movement

15. In view of the large number of persons suffering from thalassaemia (Cooley's anaemia), considerable quantities of blood are needed on a continuous basis for regular transfusion to these patients. In order to secure sufficient quantities of blood, a campaign has been undertaken on an island-wide basis. Many associations have joined the campaign and it is hoped that they will put into operation programmes for blood collection from among their members. The public at large will thus have the opportunity to participate in a direct and practical way in the delivery of health services to those in need of blood transfusion in general and particularly those who suffer from thalassaemia and need regular blood transfusion on a long-term basis.

Community participation in cleanliness campaigns

16. Every year cleanliness campaigns lasting for a week are organised throughout the island with special emphasis on the rural areas. There is mass participation of the communities in the campaigns. These campaigns have been very successful both from the point of view of practical results achieved and from the point of view of health education.

Miscellaneous groups

17. There are various small groups participating in health promotion activities. We can mention Rotary, the Lions Clubs, the Scouts movement, the associations which organise health-promotion excursions and campaigns for children, the Association for Disabled Persons, philanthropic societies, and parents' associations which, among other activities, participate in the running of the school feeding programmes.

Traditional health workers

18. The community practical nurse and midwife, the only traditional health workers that existed in Cyprus in the past, have disappeared and we now have properly trained nurses and midwives offering services in the communities as members of the local health team.

NATIONAL HEALTH PROGRAMMES

19. Health development in Cyprus is an integral part of the Government's general plans for economic and social development. Health care services are provided by and large by the government health services. In view of the fact that Cyprus is a small country with a population of about 650,000, planning for development is not a very difficult task. The problems which have to be faced and solved are well-known and the strategies to be followed in attaining objectives are not generally in controversy. The main question which has to be decided in the planning stage is that of the relative priority to be accorded to the various projects or schemes, having regard to the resources available within a particular period of time.

20. Views and suggestions about health development reach the Ministry of Health from various quarters, not necessarily at the time of the planning exercise, and these are taken into consideration. Various interested associations, and especially the Medical, Dental, Pharmacists' and Nurses' Associations, participate in one way or another in planning by making suggestions or by expressing views on particular areas of health. Very often the Ministry of Health solicits such views. It is intended to set up in the future an advisory body composed of officials and of representatives of

private associations the main function of which will be to advise the Ministry of Health on health matters including the planning for development. When this body has come into being, it will put the participation of the public in the planning process, and in the implementation of health programmes, on a more systematic, institutionalised basis.

5 September 1977

COMMUNITY PARTICIPATION

Background paper prepared by the Government of New Zealand

Until recently the planning and structure of New Zealand's health services was almost completely dominated by the professional groups delivering health care and by political expediency. However, there is growing emphasis on the need for community participation in the promotion of health and in the structure and delivery of health care, as well as increasing recognition of the relationship between health, education, welfare, housing and attendant social reactions. Change in one of these areas must reflect in changes in the others.

Education and motivation

2. It is recognised that education and motivation are necessary on two levels: (a) that of the individual and his personal health, and (b) that of the community and its needs. It is accepted that new approaches must be developed to cope with modern health problems of lifestyle and degenerative diseases. To a large extent, prevention must depend upon the individual's recognition of his responsibility and motivation to accept and fulfil that responsibility. Any blanket intervention from authority may be regarded as an infringement of personal liberty.
3. A basic requirement for involving local people in the improvement of community health is to obtain a consensus on the community needs. This can best be reached by the people constituting the community meeting to discuss and identify their needs and suggesting solutions for dealing with them, and by ensuring that the health system is so organised that it can and does take account of the people's assessments. In other words, there must be a sharing of power with the community.
4. Such a change cannot be achieved or implemented overnight and effective means of communication must be established or allowed to develop. A complex system of communication becomes suspect and, although spontaneity is desired, it requires a catalyst. These are among the problems being faced by the Special Advisory Committee on Health Services Organisation which is setting up a pilot scheme for a reorganised health service in New Zealand. This scheme proposes that the majority of the members of the proposed health board will be elected locally and machinery introduced whereby complaints and suggestions are given full consideration. This in itself does not give the community full access to and voice in the promotion and planning of its health service, but as the pilot scheme develops and is supplemented further community participation will be encouraged.
5. Other areas where this problem is being tackled include the Porirua Community Health Project, where the Department of Health, the Porirua City Council, the epidemiological unit of the Wellington Hospital and the people of Porirua have combined in a most successful effort to define the health needs of that community and the means of dealing with those needs.
6. Education must be more than a mere imparting of knowledge: it should include motivation for individuals and communities to work on their own behalf. It should show methods and means of accomplishment. It must be a continuing process with a wide range of direct and indirect approaches through television, radio, the press, discussion groups, meetings, schools and community leaders and community groups. Its aim must be not only to inform but to engender an involvement leading to changes in attitudes, behaviour and ultimately health status.
7. Efforts along these lines are already under way in New Zealand. Several involvement projects have been held and others are proposed, on national and local bases. A Special Committee on Health and Social Education reported to the Ministers of Education and Health in August this year on policy and programmes for health education in schools. Its terms of reference were to

identify the conditions under which healthy growth and development may be fostered in schools and to make recommendations on the studies and activities that should constitute school programmes, organisation and relationships.

Special groups

8. Attempts by local and volunteer organisations to foster education and motivation in health are encouraged but to date reaction has been rather spasmodic and success limited. Perhaps the most interest and action have been evinced by women's groups but here, too, participants have tended to concentrate more on sectional interests than on the total community needs. The transfer of public interest from established systems of health care to wider involvement is receiving help and encouragement.

National health programmes

9. At this stage no specific role has been planned for community participation in national health programmes. Efforts are being made to ensure this through representation on hospital boards and encouraging these boards to extend their interest and activities out into the community. It is recognised that involvement in preventive health and care outside the hospitals is necessary and desirable. Many voluntary organisations working in this field are subsidised by Government, most rely heavily on these subsidies, and this help will continue.

10. New Zealand does not have a population policy, although the Planning Council is working towards this. Family planning is accepted as a basic human right, as a public health measure and as an integral part of a modern health service. Community involvement in this is strong, in that the greater part of the service is provided by the New Zealand Family Planning Association (Inc.), a voluntary organisation which is subsidised by the Government. Further, fertility control is an important topic for women's organisations, and was a major theme in the recent Conference on Women and Health (March 1977).

28 September 1977

COMMUNITY PARTICIPATION

Background paper prepared by the Government of Ghana

The role of community participation in the solution of local health problems is fully recognised in Ghana and efforts are made to secure community involvement in all health programmes.

2. There is also currently a joint Ghana/WHO Project on research in community involvement in the solution of local health programmes. This Project is based in two districts (Wenchi and Nkoranza/Techiman) in the Brong-Ahafo Region. The project was implemented in 1974 and is expected to be completed in 1979.

Education and Motivation

3. The basic principles and techniques of community information and health education, as well as community organisation, are used to motivate and secure community participation in health programmes. Virtually every community in the country has a town or village development committee. A number of communities also have town or village health education committees. These and also other influential groups, such as religious groups, youth associations and other voluntary organisations, as well as individuals, are used.

4. The level of enthusiasm and degree of participation in health projects and programmes varies considerably from area to area as well as from project to project. In some areas communities undertake projects such as the construction of clinics, latrines, schools, feeder roads, etc., without any external influence. In some other areas, on the other hand, it is extremely difficult or virtually impossible to get communities organised to provide labour and services for the construction of health facilities even where there is a heavy demand for health services.

5. One may argue that community participation is easily secured where a project or activity is a felt need of the community. This may be true to some extent but it is certainly not the whole answer. Perhaps the truth is that we have not really recognised those factors that influence attitudes, behaviour and practices and also the acceptance, demand and utilisation of health services. This indeed will explain why health education has as yet to make a significant impact on certain unhealthy attitudes, practices and behaviour. For example, in an area where anthrax is a problem, the population appear to be receptive when there is an outbreak of the disease but surprisingly enough further outbreaks occur year after year. Similarly, when there is an outbreak of cholera, people are expected to be receptive to health education on the prevention of diarrhoeal and faeco-oral diseases. However, outbreaks reoccur in the same communities again and again. This is certainly where the medical sociologist and the health educator can and should play a significant role.

6. There are no training programmes for health education specialists in Ghana. Until recently the Ministry's health education specialists were trained in the USA, but with the establishment of a regional training centre at the University of Ibadan, candidates are now being sponsored for training in Nigeria.

7. Not only the health education specialist but also the medical sociologist has an important role to play in community motivation. The roles of these specialists are seen as follows:

- (a) basic and applied research — into factors influencing specific attitudes, behaviour patterns and practices as well as the acceptance, demand and utilisation of health services;
- (b) planning, organisation and evaluation of the health education components of health programmes and activities;

(c) training of health workers to provide each category and grade of worker with the appropriate knowledge and skills for the incorporation of health education into their day-to-day activities.

8. The actual health education and motivation should be done by the health worker who is in contact with the patient or the community.

Special groups

9. In those areas where the health education committees or the development committees are active, considerable motivation is undertaken at the local level. Where a health worker or an individual or group of persons with influence has interest in health and socio-economic development, there also tends to be considerable motivation at the local level. In this respect, special community groups like women's groups, youth associations and religious organisations tend to make a useful contribution with or without external influence and support. People generally tend to be more interested in clinics and curative services than projects aimed at health promotion and protection.

10. Health science is taught as a matter of policy in all schools. The subject is however currently under review by the Ministry of Health to see how best the Ministry of Health and the Education Service can collaborate more effectively in the field of health.

11. It is fully recognised that in spite of the harm that is caused by some procedures of traditional medicine, this system of medicine is the only form of medical care that is readily accessible to large segments of the population. In this connection, although it is not intended to integrate the traditional system of medicine into the Western system of medicine, steps have been initiated to introduce legislation and appropriate mechanisms for the regulation and control of traditional medicine. Research activities into traditional medicine are being actively promoted. The aim is, firstly, to identify useful, safe and effective medicaments that can be promoted and further developed; secondly, to identify and abolish dangerous and harmful practices and procedures; and thirdly, to develop, improve and retain traditional medicine as a national heritage.

12. Although it is not yet a policy to integrate traditional systems of medical care into the Western-style system of health care, it has been official policy for some time now to utilise the services of traditional birth attendants (TBAs) for the strengthening of maternal health services. This came about for a number of reasons. Firstly, at best only 25 per cent of pregnancies are attended by a trained health worker during pregnancy. Secondly, of the pregnancies seen at ante-natal clinics, at best only 25 per cent are attended to by at least a trained midwife during delivery. An analysis of the situation and the factors influencing it, reveals that, except for the major urban centres, it will take a very long time indeed to attain a satisfactory degree of coverage as far as maternal health services are concerned.

13. It was therefore concluded that if the TBAs are going to play a significant role in maternal health care for several years to come then the rational thing to do is to recognise them and improve their knowledge and skills. Steps have therefore been taken to improve the skills of TBAs and integrate them into the general public health service. The primary objectives are that on the completion of training the TBA should be able to:

- (a) recognise his/her limits of competence;
- (b) recognise danger signs which demand that a case should be referred to a higher level for management;
- (c) manage a pregnancy properly;
- (d) manage labour hygienically and safely;
- (e) accept further training as and when necessary;
- (f) accept supervision from trained health workers.

National health programmes

14. In Ghana, broad policies and guidelines for health services development are formulated at the central level. Planning of health programmes and projects within the broad policies and guidelines, taking special local problems into account, is done from the periphery. At the district level, for example, the local plans are co-ordinated to form an integrated component of a district socio-economic development plan. The district plans are co-ordinated at the regional level and subsequently the regional plans are co-ordinated at the central or national level. This system of planning from the periphery to the centre promotes the appropriate involvement of communities in national health planning, thus allowing community needs to be considered and satisfied as far as practicable within available resources and taking national as well as local priorities into consideration.

15. In the past, the tendency was for each Ministry or sector of the economy to formulate and implement plans and programmes without steps to promote or ensure collaboration and integration of programmes and projects. For some time now the integrated approach has been adopted for reasons that are obvious and therefore need not be dwelt on here. Thus in each district there is a district planning committee and in each region a planning committee. These committees are multidisciplinary and multi-sectoral. The roles of different sectors of the economy in the formulation and implementation of socio-economic development programmes are identified at meetings of the committees. It is then left up to each sector to formulate its own detailed strategies and approaches.

16. In the Ghana/WHO research project on community involvement in the solution of local health problems mentioned earlier, special attention is focused on the role and responsibilities of the different participating agencies (health, agriculture, education, social welfare and community development) in the promotion of community involvement in local socio-economic development. The project is now in its second operational year and the models and systems developed will be replicated in other parts of the country with or without modification to suit each local situation.

17. In Ghana the population has been observed to be growing at a rate which is higher than the economic growth rate. High infant mortality rates ranging from about 60 to 200 per 1,000 live births, with an average of about 133, have been observed. The maternal mortality rate is also high and ranges from about 4 to 6 or more per 1,000. Demographic data obtained from the 1960 and 1970 censuses, as well as data from special studies, reveal that the fertility rate is rather high. Family size also tends to be rather large. All these are recognised as serious health and social problems requiring priority attention. In particular, the high infant and maternal mortality from largely preventable causes is a matter of great concern.

18. High priority has therefore been given to the organisation of health services for women and children (MCH services). The main objectives are:

- (a) to strengthen maternal and child health services including family planning within the general health services;
- (b) to reduce maternal and infant mortality, especially from preventable causes, to as low a level as possible;
- (c) to promote the proper growth and development of infants and children.

19. Because of the health, social and economic implications of identified demographic factors, and more particularly because of the health implications of high fertility rates, large family size and short spacing of pregnancies, family planning is seen as a necessary and integral component of maternal and child health services. The policy now, therefore, is to provide family planning services at all levels of health care as part of the health services in general and MCH services in particular.

20. In Ghana, an inter-sectoral approach is used in the delivery of family planning services. Family planning services are delivered by the Ministry of Health and voluntary agencies, the principal ones of which are the Planned Parenthood Federation of Ghana (PPAG) and the

Christian Council of Ghana. The Ministry of Information has responsibility for the organisation of community education and information programmes while the Department of Social Welfare and Community Development has responsibility for motivation activities at the community level. All these activities are co-ordinated by a National Family Planning Secretariat which is under the Ministry of Economic Planning. This Ministry has primary responsibility for the co-ordination of technical co-operation and the planning and implementation of development programmes in the country. Family planning services being a multi-sectoral activity and part of population activities, it was considered rational to place the secretariat under the Ministry of Economic Planning.

21. Currently, communities have not been actually involved in the organisation and provision of services. It has however been suggested that communities can play a significant and useful role in matters relating to family planning. A proposal for a special study in collaboration with the PPAG and IPPF is, therefore, currently under consideration.

28 September 1977

COMMUNITY PARTICIPATION

Background paper prepared by the Government of Botswana

Community participation in Botswana is a traditional type of activity. Projects belonging to a particular community were done through community effort, either by men or women depending on the type of work involved.

2. Community participation in this paper will be dealt with under the following headings:

- Health care
- Education
- Village nutrition projects
- Family welfare educators

HEALTH CARE

3. The participation of the community in its health care is encouraged.

Decision-making

4. Decisions at community level are made about plans for the development of the district, including health care. Districts have development committees (DDCs) which meet periodically and make plans with representatives from the local council, health, agriculture, community development and education. At present the Government is encouraging DDCs to formulate plans in detail and to ensure that they are in line with the national development plans.

5. The siting of new health facilities is decided after consultation with the community which will be using the facility. Selection of a village health worker called the family welfare educator, about whom more will be written later, is made by the community.

6. The regional health team, consisting of a medical officer, a public health nurse and a health inspector, are the health staff who act as catalysts in formulating decisions about health care in the districts.

Buildings

7. Whenever the need to house a health activity has been recognised, the community have organised themselves to construct, either wholly or with support from Government, such a structure. As a result a number of health clinics, maternity wards and health posts have been either initiated or constructed completely through the collective effort of the community.

8. With the accelerated rural development construction of health facilities all projects have had a built-in component of community participation to the extent of 25 per cent. This has been in the form of making bricks, bringing stones to the construction site, providing grass for thatching, and fetching water where there has been no water laid on. When the construction was completed, in the case of mobile health stops village women in rotation cleaned the premises and fetched water for use by the health teams. This practice still holds in areas where a health post has no general duty assistant and no running water.

Health supporting activities

9. Villagers, usually women, give the following participation in health supporting activities:

- (a) *Assisting in the weighing of babies* in a small percentage of clinics. This was the rule especially before maternal and child health clinics were government-staffed and organisations like the Red Cross and voluntary women's organisations were running these centres. There is still some of this type of activity, especially where the clinic is very rural and the staff (usually one staff member) is overworked.
- (b) *Feeding of under-fives groups*. This is either at day care centres run by women's groups or at voluntary feeding centres where children below the age of five are given rations of World Food Programme supplies.
- (c) *Village health committees*. In the Kgatleng area the idea of a village health committee is being introduced. This is like a sub-committee of the district committee. Village members, in co-operation with the staff nurse of a clinic or family welfare educator, each have responsibility for one field of health care – e.g. immunisation, TB defaulters, toilets, births registration, etc. The village members are elected at a “Kgotle” meeting and work closely with the staff of the clinic. If the clinic staff feel that all is not going well in a particular field they seek the help of the responsible village health committee member. Together they can organise a village meeting to sort out the matter or visit the particular families to encourage them to attend the clinic.

Community leaders' health seminars

10. Over the last one and a half years seminars for community leaders have been organised in all the health regions. The objectives of the seminars are:

- (a) to inform community leaders about the country's health programmes – what they are, what they aim to achieve and how they aim to achieve it;
- (b) to discuss problems of implementation of health programmes with the leaders and to suggest ways of overcoming these problems.

So far each region has had one seminar and the seminars have been organised around the above objectives. Subjects that have been discussed are subjects of high priority in our health plans, i.e. our health care delivery system, tuberculosis, immunisation of children, maternal health and family planning, nutrition, environmental sanitation.

11. Participating community leaders (usually between 20 and 30 at each seminar) have been local administrators, headmen, teachers, women's group leaders, religious leaders, local traditional healers and youth group leaders. The seminars have resulted in better understanding of local beliefs and barriers to participation in health programmes. Suggestions made for improvement in organisation of health care delivery have included:

- (a) formation of village committees to help health staff;
- (b) encouragement of villagers to attend meetings arranged to discuss health programmes;
- (c) suggestions as to how the young health workers should discuss matters like family planning and sexually transmitted diseases without embarrassing elders of the community.

EDUCATION

12. The building of two of the country's oldest schools was entirely a community effort organised by the chiefs. These are a primary school (Isang School) in Mochudi and Moeng College in the Central District. At present for all primary schools the communities participate in the construction of the schools by way of providing bricks for building and helping so that labour costs are cut down. Parent-teacher associations have a major contribution in the management of the schools, especially in the organisation of fund-raising events.

13. All primary school children are given a midday meal. The staff preparing this meal are employed and paid by parents through the collection of contributions to cover their salaries. The pots, wood and water are provided by the village and the school provides only the food.

VILLAGE NUTRITION PROJECTS

14. Several villages are starting nutrition rehabilitation projects attached to the local clinics. Following on the pattern of one "Nutrition Village" which was constructed in Serowe in 1972, villagers in two villages (Tlokweneng and Gabane) have made a start towards the establishment of their own nutrition projects. This will involve raising funds for:

- (a) fencing of a piece of ground;
- (b) construction of a simple building for cooking; demonstration and storage of food.
- (c) employment of a gardener;
- (d) establishment of a garden, partly to supply vegetables for the children and partly for horticultural education of mothers.

The projects will be controlled by the villagers themselves with the help of the clinic health workers. Several villages are planning to have such projects besides the two which have made a start.

FAMILY WELFARE EDUCATORS

15. For the last seven years a cadre of health worker called the family welfare educator has been trained in Botswana. These are young people (minimum age 20 years) with at least seven years education. They are selected by the village through the village development committee, trained for 11 weeks at a Rural Training Centre, and return to their own village to work as health motivators. Family welfare educators are given short training in the basics of nutrition, child care, maternal care, tuberculosis, prevention of communicable diseases and family planning.

16. Back in their own village they work under the supervision of trained nurses who also give them constant in-service training. They spend at least half of their working time visiting homes, identifying health problems and encouraging families to utilise health facilities. Home visits are also to make contact with defaulters of continuous care, e.g. tuberculosis, immunisation etc. The family welfare educator (of whom there are just over 300 to date) is the first point of contact for most of the people in remote or small villages. Because they are members of the community they are well accepted and have proved invaluable in disseminating health education to families on a one-to-one basis and to groups of patients attending clinics.

28 September 1977

COMMUNITY PARTICIPATION IN DELIVERY OF HEALTH CARE

Background paper prepared by the Government of Tanzania

The Party and the Government in Tanzania put great emphasis on community participation in health and other programmes. The participation is not only at the implementation stage but also at the planning stage.

2. Thus, TANU guidelines of 1971 state: "The duty of our party is not to urge the people to implement plans which have been decided upon by a few experts and leaders. The duty of our party is to ensure that the leaders and experts implement the plans that have been agreed upon by the people themselves". A big advantage of community involvement at the planning stage is that community participate in projects and programmes that they have helped to plan.

3. One of the aims of the 1972 decentralisation of government was to allow for more community participation. At each administrative level — village, district, region and national headquarters — there are planning committees consisting of technocrats and elected representatives of the people. Most development projects in Tanzania include an element of participation in their implementation. Thus in the construction of a health centre, certain buildings such as kitchens and mortuaries are not usually provided for in the financial estimates: it is expected that they will be built through community effort. In this way the urge to help in nation-building is directed to the right areas.

4. As regards education and motivation in community participation, a campaign popularly known as "Mtu ni Afya" or "Man is Health", which was launched in 1973, was a great success. A total population of two million people took part, with some 75,000 study groups. Radio broadcasts, including two speeches by the Prime Minister, and the wide distribution of magazines, newspapers, booklets and posters were used to disseminate health information. This group approach of the campaign increased the participants' awareness and encouraged group action to bring about better health for the group. Discussions were held after the groups listened to a radio programme or read a relevant section in a magazine. The campaign was followed by another known as "Chakula ni Uhai" or "Food is Life", which was conducted on similar lines. The next one, on environmental sanitation, is in the planning stage.

Maternal and child health

5. "What is the national policy on family planning and related matters and what steps are taken to involve the community?" In Tanzania family planning is part and parcel of the MCH programme, which is a priority area. The MCH services themselves are integrated with the general health services. At the central level there is an MCH unit with the following responsibilities:

- (a) defining MCH policies;
- (b) conducting or participating in MCH training programmes;
- (c) conducting operational problem-solving research to develop and test methods of delivering services that are both effective and feasible.

6. At the primary level, the basic unit of MCH services is the MCH clinic. These clinics combine as far as possible on one day all the various services for mothers and children, including nutritional evaluation, immunisation, ante-natal care, family planning, malaria chemo-suppression, and treatment of minor diseases. This combination of services has several advantages:

- (a) It allows mothers who are currently coming to several different services to be taken care of on one day. This will save their time and also decrease the total clinic load.
- (b) Mothers who are coming only for the more popular, familiar services like curative treatment and ante-natal care will now also be exposed to newer programmes like family planning.

7. An important component of family planning and all the other health services is health education and general community involvement. Despite our effort in this direction, it must be admitted that a lot remains to be done. If one looks at health as an inalienable right it is obvious that it is the people and only the people themselves who can bring about good health for themselves. All that ministries of health and others can do is to help the people in carrying out this enormous task. We therefore must continue with our effort of finding better ways of making the community feel really responsible for their health.

7 October 1977

COMMUNITY PARTICIPATION

Background paper prepared by the Government of Sri Lanka

The need for community participation in health care becomes obvious when the pattern of utilisation of health services is observed. The over-use of existing facilities at some points, symptomatised by overcrowding of out-patient departments of general hospitals, congestion of wards for simple preventable conditions like diarrhoea and dehydration and long waiting lists for simple operations like hernias at sophisticated centres, expresses one end of the spectrum. On the other hand the under-use and by-pass of rural health institutions continues to be a phenomenon in health care utilisation. The entry into, and seeking of, health care is again characterised by inordinate delay. These features in the pattern of utilisation which is characteristic of developing and even developed countries is also true of Sri Lanka.

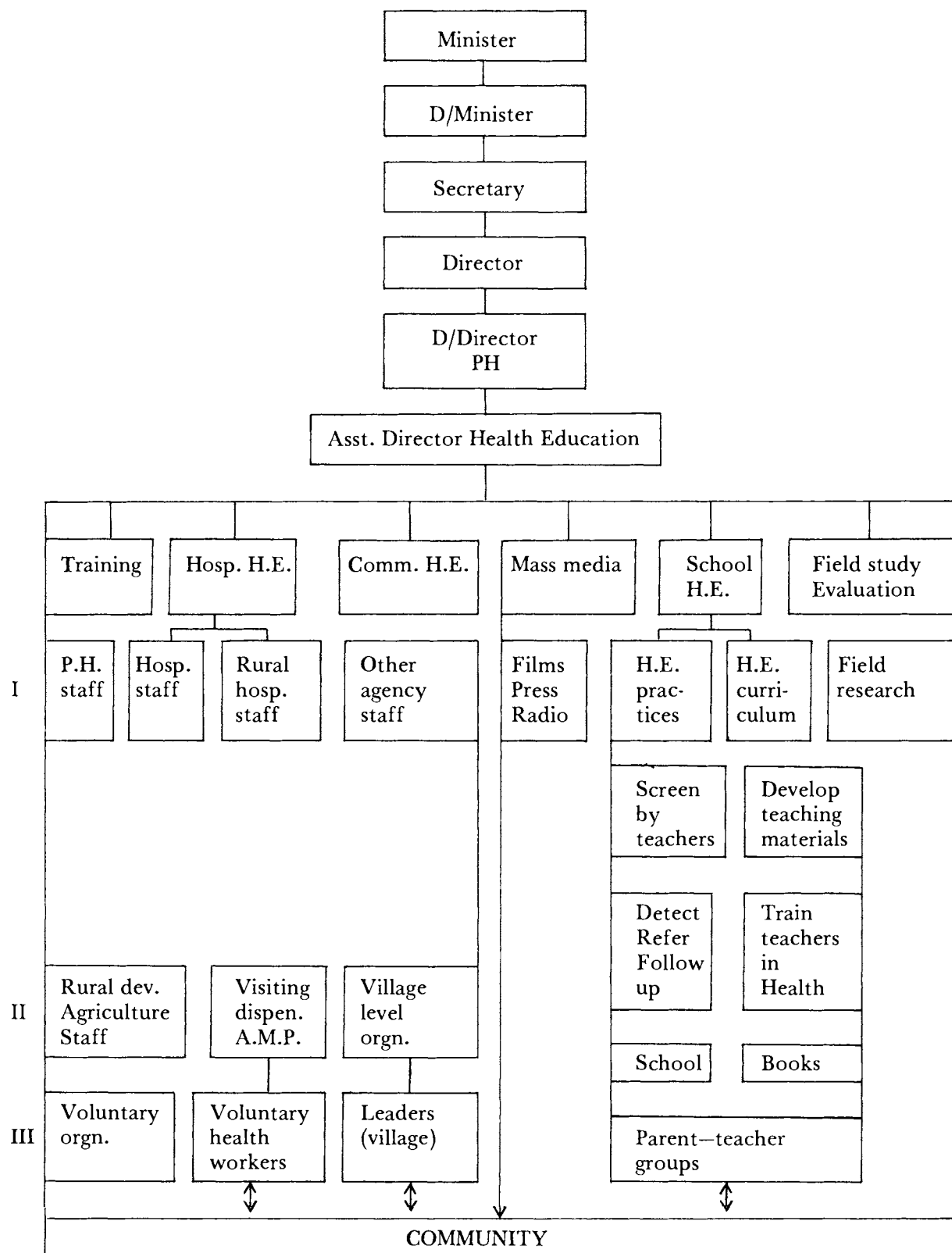
2. The demand for medical care is quite high in Sri Lanka. An average of 5.7 out-patient visits are made by a person annually. The in-patient admissions are 16 per 100 persons.

3. About 40 to 45 per cent of persons seeking such care in Sri Lanka suffer from some easily preventable condition. The consequent loss in national work output, as well as the cost of care of this sector of the population, is enormous. The health budget forms 7 per cent of the national budget, of which about 70 per cent is devoted to maintaining hospitals and similar curative institutions and about 21 per cent for the public health services. The financial commitment to established service institutions and the recurring expenditure of such institutions make it difficult to deploy resources to public health. However, the expenditures on public health have been increased in the last few years. Along with this growth has been the development of health education. The national agency, the Health Education Bureau, is primarily responsible for community-centred health programmes in Sri Lanka. The rapid development of the Health Education Bureau at the national and regional levels reflects the policy of the Government to stimulate people's participation in health. Postgraduate training in the behavioural sciences has been provided to doctors and other para-medical staff like public health inspectors and nurses to enable them to design and direct educational programmes in the community.

5. Community participation as a national goal and asset is being given greater emphasis in government policy, particularly in rural development, agriculture and health. At least two discrete models for community development are seen in Sri Lanka. One aspect of this is observed in the older established villages where specific health problems like malaria, filaria, epidemics of diarrhoea, etc., crystallise issues for action. The other pattern is noticed in the newer developmental regions where resettlement and colonisation of new lands have occurred where a more holistic and generalised approach seems to be occurring in which community organisation for health is part of a total package of development, particularly education, agriculture, small or cottage industries and transport. Between these two polarisations intermediate and mixed types exist, depending mainly on the style of the change agent and the roles and functions of the agencies operating in these areas. The need for a national health agency to promote such policies to improve and increase community participation is met to a great extent by the Health Education Bureau of the Ministry of Health.

6. The educational system in Sri Lanka reaches every village and hamlet. There are 3.1 million school children. The content and process of education to this group of children in Sri Lanka has been changing along with the dramatic social changes in the last decade. The emphasis in relating educational experiences to the environment and life styles of people, their needs and aspirations, has provided greater opportunities in bringing together the student body, the teachers and the parents to view health as an early, if not immediate, asset to be gained by modifying one's behaviour. Students working on health projects in the higher classes (Grade IX and X) attempt along with teachers and parents to solve some pertinent health problems of a selected area. The Health Education Bureau provides the expertise in training the health staff, Medical Officers of Health and School Medical Officers, as well as project teachers to conduct such projects.

MODEL FOR THE COMMUNITY EDUCATION PROGRAMME



Levels: I – Staff II – Village level orgn. III – Village level change agents, leaders & volunteers

7. The developmental areas, consequent to the opening up of new areas for irrigation and agriculture, have created new and highly productive communities. In this new environment people brought to colonise these areas have rapidly to adapt to their new environment and evolving social units. Therefore, community participation becomes an integral need for their development.

Education and motivation

8. To involve local people in the improvement of their health some of the pre-requisites are:

- (a) The recognition of the right of the individual/community to know his/their own or family status – “The right to know”.
- (b) The transference of a significant component of the responsibility for health care to individuals/communities – “Responsibility for self-care”.
- (c) To stimulate alternative patterns of local leadership for health instead of only reinforcing existing formal “networks” for health.

9. To achieve these to any significant and meaningful extent, the health professional needs to deliberately underplay his role and alter the dogmatic authoritarian model breeding dependence, to one stimulating greater participation by the client, so as to develop individual and group initiative towards preserving health. This new educational role and non-traditional outlook for health professionals is often disquieting. It requires early exposure of the trainee in basic training to field-oriented, community-based health education training programmes. This is being attempted in the health education training programmes for the basic health workers, the public health midwife, the public health inspector (sanitarian) and the nurse and to a lesser extent in the assistant medical practitioners’ training. The physicians are provided with health education courses in basic training, but more so during their post-graduate period in public health training as Medical Officer of Health. Not only does the content of training need to emphasise community participation, but more so the process of achieving community collaboration in village health projects. This would provide enduring practical experiences to the student, likely to change his feelings and attitudes.

10. The educational strategy is woven into the sociological fabric of leadership and the network of kinship, cultural ways and the underlying beliefs that give it meaning. The need for change and urgency with which this need is felt and translated into action is the basis of the Community Health Education Programme in Sri Lanka.

Family health education action programme

11. The ideological thrust for self-help is promoted through activating volunteers in villages. One volunteer serves as a point of stimulus of health care for a family cluster of about 10–15 families, so that a village of 100–200 families would have 10–15 “health volunteers”. These volunteers are linked to the public health staff, the midwife and public health inspector, who supervise and advise them in the solution of simple health problems, and the clients are referred for early care. The volunteers are also linked on the other hand to the formal and informal leadership of the village who provide them with the status and backing for their health role activities, so that the volunteers form a real bridge with the people themselves, in channelling health care services as well as developing the responsibility of the community for its own health needs.

12. About 5 per cent of the villages (500 hamlets) have such programmes, and the achievements in improved immunisation, environmental sanitation, control of communicable diseases (especially diarrhoeal diseases) have been remarkable. Besides these parameters of success, a core of change agents is being continuously generated at the grass-root level, educating and committing the larger community to a positive role towards health.

13. The manpower needs to initiate and sustain this programme are met by short-term training programmes for health educators, and in-service training programmes for public health inspectors, midwives and nurses, and medical officers in hospitals and health units. About 70 per cent of the Medical Officers of Health and 55 per cent of the medical officers in charge of institutions have

been provided with orientation courses to gain their support for this programme. School teachers who are teaching health have also been exposed to such village-level programmes.

14. The training and consultancy load for maintaining the initiative for such a national programme essentially falls on the Health Education Bureau of the Ministry of Health. These specialists provide the technical expertise in conducting model or demonstration projects and through the regional health educators sustain the activities initiated. The health education specialists have had extensive training in behavioural sciences and educational methodology and some of them have medical backgrounds, which is undoubtedly a great asset in gaining acceptance for the health education discipline into professional enclaves. This has enriched the particular discipline and brought in aspects of field-oriented practice in the teaching of community health.

Special groups

15. The voluntary organisations play a vital role in providing some of the volunteers for the Family Help programmes. In fact, volunteers with previous experience in voluntary organisations are given preference during the screening and selection process. Some of the more important organisations that are closely linked with the Ministry's volunteer health worker (VHW) programme are: the Sarvodaya (self-help movement), the YMCA Mahila and Kantha Samithies (Women's organisations), the Saukyadana (student medical corps), the Red Cross and the St. John's Ambulance Brigade. The Lions, Rotarians and Jaycees have indicated their support and are beginning to back these activities.

16. Some of these organisations, like the YMCA and Sarvodaya, assist in the training programmes. Organisations like the Saukyadana, St. John's Ambulance Brigade, the Sri Lanka Cancer Society and the Society for the Prevention of Tuberculosis are broadening their fields of activity to provide a more comprehensive family self-help service, which is the primary role of the Health Ministry's programme. The service and funding groups like the Lions and Jaycees are providing only the initial resources needed for take-off of the programmes in selected areas.

School health education

17. School health is the joint responsibility of the Ministry of Education and the Ministry of Health, and the health education policy for schools relates to:

- (a) the development of the health curriculum;
- (b) the training of teachers;
- (c) the use of teachers in medical screening, referral for care, and follow-up;
- (d) health education project activities undertaken by students.

Traditional medical practitioners

18. The Ayurvedic physicians form the major group of traditional practitioners, and training institutes provide such groups with current concepts in medicine. The Ayurvedic physicians play a significant role in the delivery of health care and more service points for Ayurvedic patient care are being opened up at government institutions.

National health programmes

19. Local health councils and committees determine the needs and priorities and assist health officials in hospitals and community settings. Through the political and administrative framework, needs are expressed and services and institutions are created to meet such needs.

20. At the national level advisory councils assist in policy formulation. National level voluntary organisations like the Cancer Society, the Family Planning Association, etc., also serve in this advisory as well as advocacy role. Governmental subsidies and grants are provided to such bodies.

4 November 1977

COMMUNITY PARTICIPATION

Background paper prepared by the Government of Canada

An introduction to background papers prepared by the Government of Canada is contained in document CMC (77) Gen/1.

EDUCATION AND MOTIVATION

2. The most important requirement for involving local people in the improvement of community health is the recognition by officials and professionals that the community's participation is essential to effective health care. In order to involve people appropriately, it is essential that sincere attention be paid to the opinions of the elected and natural leaders within a community. These individuals usually reflect the interests, concerns and priorities of the community at any given time, and it is they who will formulate the community's response to a particular problem. Theoretically, the individual participates in the decision-making process. In practice, he generally follows the advice provided by his leaders. On local issues, such leaders are capable of mobilising community opinion and directing priority attention to a planned course of action. It is therefore important that community leaders be well-informed and aware of options so that they can promote permanent changes through the dynamics of education and persuasion.

Methods and strategies

3. There is no single educational method or strategy which is appropriate to every community or for every purpose. Educational efforts in a community will be affected by numerous variables such as the cultural environment, the school system, the availability and nature of the mass media, activities of special interest groups, etc. The approach to be taken will also depend upon the type of problem to be resolved. For example, there is a considerable difference between a programme to educate people to accept and/or to seek immunisation and a programme to educate community members in the planning of complex health service systems.

4. Methodologies and strategies are only limited by the levels of comprehension of the target population and the creative genius of community leaders. But caution is necessary to ensure that communication occurs, that misinformation is avoided and that integrity is maintained. Deceptive tactics or poor communication skills have often left well-intentioned and well-motivated individuals labelled as intruders by a suspicious and resentful community. The community must have all of the facts of an issue without pressure; it must be given time to debate and to comprehend. If it balks at a prescribed course of action, out of ignorance or fear, then the educative processes might be accelerated. However, once the level of awareness has been raised within a community so that the problem is understood from various perspectives, and so that the adversary attitudes have been dissipated, then those delivering the service must be willing to debate optional solutions, to accept compromises imposed by the community, and to commit themselves to a partnership role with community leaders. Consensus is followed by commitment and results, and it should reflect the views of the health professionals or special interest groups, or such vested institutions as local volunteer groups, the church or the school. This is a basic principle of community participation, and where health programmes have involved the community from the planning stages to the implementation stages, the Canadian experience has been positive and encouraging.

Participation in health education programmes

5. There are innumerable examples of community participation in programmes designed to improve community health in Canada. They tend to be piecemeal, or fragmented, by virtue of

our geographic mass, isolated population and constitutional division of powers. They are, nonetheless, significant indicators of a trend toward more community involvement in the health delivery system. Frequently, they are the results of initiatives developed spontaneously at the grass-roots level. In fact, government educational programmes which have met with relative success have often been spawned by requests from community leaders for guidance and assistance. The community's role then is critical in identifying the problem as well as in proposing or assisting to implement its resolution. For example, the lay dispenser and the community health representative programmes administered by the Federal Government for Indians and Inuit both resulted from community requests for assistance, followed by joint planning with health professionals. In numerous communities physical fitness programmes, health fairs, etc., have been initiated and largely carried out by members of the community, with apparent success in increasing community knowledge and interest in health matters.

The special contribution of local people

6. People are concerned about the real issues of unemployment, housing, inflation, recreation, family life, nutrition, education, and health. These issues are inter-related and have a direct bearing on the health of the individual. Consequently, a community is likely to be interested in any health programme so long as it has a direct relationship with the individuals' needs, as they perceive them.

7. The sanitation needs of Canadians are usually well met; communicable diseases are controlled; basic health services are generally available and accessible; Canadians are fairly knowledgeable about health care. Consequently, local interest and involvement in recent years has most frequently been related to the resolution of a specific local "problem" or situation – such as the desire of a community for a new hospital, opposition to proposed reductions in services, or a specific environmental hazard such as mercury pollution. Usually there is also particular interest in services which are often not provided by governments, such as transportation or recreation programmes for the handicapped.

8. There are a number of factors which complement or enhance the process of community participation. Political support at every level of government and the inter-sectoral coordination of various institutions and agencies focusing on the community are two such variables. Similarly, the powers controlling material and human resources, the relevant legislation or information exchange systems all can play a positive role in strengthening some manifestation of community participation.

9. The community may provide information or feedback on health-related issues, and although the information may be fragmented, it nonetheless will be factual and indicate conditions which might otherwise have been overlooked from the professional's perspective. In recent years, there has been notable improvement in the area of information and feedback reflected in the new emphasis on funding research activities. There is a concern amongst governments to involve the people at community levels and in defining problems and discussing the feasibility of different solutions, or options. Advanced technology in various media has enhanced the governments' ability to exchange information and to establish a dialogue within the parameters of a community. Witness the accelerated use of information centres, libraries, community cable television, local newsletters, radio talk shows and educational television.

10. Communities also contribute to a dialogue when they play the role of consultants to the experts. In this sense, the community participates in a planning activity in a structured way, so that the scope of popular participation and decision-making might be broadened. Mechanics for such procedures of consultation vary according to the problem and its magnitude, but they include such traditional processes as royal commissions and public hearings as well as specific task forces and white papers. All of these depend on community input for reliability and validity.

Training for health educators

11. In Canada, there are many institutions which offer a variety of training programmes for health educators. The health educator is basically a community developer, not unlike a school teacher or a leader of a co-op. There are some programmes designed specifically to produce a health educator professional. However, the health educator is a facilitator, skilled in communication techniques, and he does not have to be an expert in any specific aspect of health. He should be capable of promoting, on a developmental continuum, an active dialogue between the population in a community and those who speak for the various professions delivering services to the community. There are special training programmes in Canada developed with such purposes in mind.

12. Training programmes for school teachers include health education in their curricula, but several provincial reports have suggested that school teachers are inadequately prepared in this area.

13. The Department of National Health and Welfare teaches the principles of community participation in their ad hoc training programmes for community health representatives. Designed at the regional level, and tailored to meet the expressed needs of the people on Indian reserves, these programmes develop indigenous health educators to cooperate on a health team, including public health nurses and environmental health officers. The community health representative has a unique cultural qualification and consequently is capable of crossing the cultural barrier between the Indian and white, from professional to non-professional, from government to community dweller.

14. In addition, there are many commendable programmes which are not necessarily initiated by government, but which complement governmental activities. OUTREACH programmes, and university extension activities, as well as the community leadership programmes run by various unions and community associations, are just some of the health-related enterprises designed specifically to respond to community needs. A myriad of resources can be brought to bear on community problem-solving, but regardless of the input in manpower or finance, regardless of how imaginative a programme may be, in the final analysis success will depend directly on the extent to which community participation is enlisted.

The role of the health educator

15. The role of the professional health educator has not always been well-defined. Many of the papers presented at a recent International Congress on Health Education held in Canada reflected this dilemma. This is perhaps understandable when one considers the various points of entry into the health system (family doctor, public health nurse, hospital emergency department, health inspector, etc.) and the wide variety of subject areas (nutrition, lifestyles, dental hygiene, child care, etc.). Part of the confusion arises from the lack of clarity as to the roles played by other health professionals in health education and the support of community participation, and lack of agreement over the relative importance of individual education and mass education or participation.

16. Those who emphasize the importance of the health education specialist argue that the health educator not only knows various strategies and techniques for mobilizing community participation, but is charged with the responsibility of honestly reflecting the priorities and concerns of that community to other health professionals. In this way, he is a liaison between community interests and the various resources outside of the community. He should facilitate effective communication and establish and maintain credibility between the people served and those delivering the service. This is a catalytic role simplified only by the community's willingness to participate in a particular course of action.

SPECIAL GROUPS

17. It is difficult to determine to what extent education and motivation is undertaken by local organizations at the community level. This is primarily because the most effective use of human resources at the community level is directly related to initiatives emanating from individuals within the community. There are easily identified examples of initiatives encouraged through incentives proffered through government agencies. However, it is far more difficult to identify and evaluate those initiatives which develop spontaneously and raise a community's level of awareness or challenge it to mobilize its resources.

18. However, there is no question that there are numerous such groups undertaking some type of health education. Examples include: the Canadian Mothercraft Society (pre-natal and child care); Women's Institutes (nutrition); Red Cross and St. John Ambulance (first aid); Boy Scouts and Girl Guides (many aspects of health education); La Lèche League (breast feeding); YM-YWCA (drug education, physical fitness, nutrition). In addition, there are other large national organizations concerned with particular diseases (e.g. Heart Foundation, Cancer Society, Canadian Association for Mentally Retarded), as well as the many local groups mentioned previously who are involved in educating the public, promoting research and providing care.

Private organisations and voluntary agencies

19. Many "service clubs" in Canada are involved in community health activities. Optimist Clubs, Lions Clubs, Kiwanis Clubs, and the like, have been active in raising funds for hospitals, clinics, transportation services for the handicapped and numerous other health-related activities. At all levels of government in Canada, private organisations such as service clubs and voluntary health agencies are encouraged to participate in health efforts. The voluntary health agencies, in particular, receive "sustaining grants" from federal and provincial governments in order to assist them with their overhead costs. In addition, governments frequently contract with such organisations to provide services (including public education programmes).

20. Experience in Canada suggests that voluntary groups can and will become involved in almost any aspect of health development. Traditionally, groups such as service clubs have been most interested in "bricks and mortar" and in services for children. The specific disease-oriented agencies have, naturally, been primarily self-help groups for those afflicted by the disease or their relatives. Increasingly, however, we have seen shifts in emphasis to more involvement in health promotion ("lifestyle campaigns", etc.), to services for the elderly and to concerns about environmental hazards. Increasingly, too, these special groups have become somewhat less involved in direct services (as these have become more often provided by government) and more involved in "advocacy" in its various forms.

Schools

21. On the surface, the issue of health education in schools appears to be fairly critical. No one would question that it is an essential subject which affects a child's lifestyle and his contribution to and participation within the community. It is, however, difficult to agree on the prescribed policy for health education in schools, especially because of the constitutional issue over federal-provincial authority. All levels of government agree that health education is necessary; they do not agree on what methods or institutions should be utilized in delivering that education. Significantly, school boards which are closely related to the community welcome consultation with community leaders and attempt to adapt a curriculum which reflects regional characteristics and issues. Perhaps health education, *per se*, receives low priority within the elementary and secondary curriculum because its content is often inter-related with courses in family life education, religious training and a myriad of social psychology courses? Many citizens will claim that there are innumerable sources of health education besides those offered through the school system. Until the community expresses a need to change the school curriculum so that it incorporates health education more fully, it is doubtful that any permanent change will occur.

Traditional medical workers

22. It is generally argued that there are no “traditional medical workers” in Canada. Even among the Indians and Inuit (who constitute less than one per cent of the total population) only a very few have been identified. Nevertheless, it is recognized that there are people filling this function, particularly in our most remote areas. Furthermore, if one considers the “traditional community health system” to include the means by which the community has traditionally maintained its health or treated its minor illnesses, the question still has some relevance to Canada. Recently in this country there has been considerable discussion of the need to promote “personal responsibility for health”. This term embraces not only the concept of reducing personal risk of disease by improving one’s lifestyle, but also the concept of avoiding unnecessary use of health care services for minor ailments which the individual or his family should be capable of managing without professional assistance.

NATIONAL HEALTH PROGRAMMES

23. There have been few official Federal or Provincial Government statements in Canada on the conceptual basis for citizen participation in the health field. However, in recent years, virtually every major report at both levels of government has indirectly supported the concept by recommending the establishment of various kinds of consumer boards or councils for the planning and/or administration of health services. Furthermore, the Federal Government and Provincial Governments have published general policy statements advocating greater involvement of the public in a whole range of “government” programmes and activities.

24. One of the few specific statements on the role of the consumer in health care is found in *Health Security for British Columbians* (Foulkes Report) which noted that “to achieve the standard of health care required, the needs of the consumer must be pre-eminent in the planning and operation of the total system. In our view, the proposed system must place emphasis on defining and understanding the consumer’s needs, now and as they change in the future, so that the services provided are in accordance with these needs . . . We also recognise the role that public participation can play in achieving total objectives:

- the individual must become active in his own health, especially in the preventive field;
- new policies mean change and this requires that those most directly involved be consulted;
- national planning requires first-hand information of community needs;
- complaints must be heard and properly considered, thereby diminishing alienation;
- the public must realize that perfect health cannot be provided on a silver platter either by physicians or governments.

Consumers are now much more sophisticated and better informed than in any other era. Experience, involvement and educational programmes will make them even more so. This is an inter-active process.”

25. *A New Perspective on the Health of Canadians*, an important Federal Government document of 1973, while it did not refer specifically to “community participation”, contained a number of recommendations urging the involvement of community groups such as women’s organisations, sports clubs, and labour unions in the development of fitness and other health promotion programmes.

Promotion of community involvement

26. It may be said that the conceptual basis for community participation in the health field has rarely, if ever, been well articulated in official or semi-official government policy statements in Canada. Nevertheless, Canada does have a long history of such community participation in the health field, and its importance is being increasingly recognized. Traditionally this involvement of the community has been not only through its elected representatives, at all levels of govern-

ment, but particularly at the local level, but also through the myriad of voluntary health agencies and voluntary boards which have operated at the local, provincial and federal levels.

27. At the community level, hospitals in Canada have been mainly operated by voluntary, lay boards of directors. Despite the fact that the hospitals now receive virtually all their financial support from Provincial Governments (who in turn receive assistance from the Federal Government), hospitals continue to be operated by these community representatives. In most parts of Canada, public health services are also administered by voluntary, local boards. The voluntary health agencies, which operate at all levels, tend to represent the interests of people with particular health problems (e.g. diabetes, heart disease, mental illness, etc.). Increasingly, community groups are becoming involved in the administration of primary health care services and in health promotion programmes. Finally, there have been opportunities for community participation in numerous task force reports, royal commissions and public hearings on various aspects of health services in Canada.

28. In summary, community participation in Canada is tied to its commitment to the democratic form of government at all levels and the traditional beliefs and practices of Canadians which are reflected in their extensive voluntary involvement in the health sector.

29. As indicated, there is extensive community participation in the health sector in Canada, and the extent and range of means of participation are growing steadily. Nevertheless, while there is a serious commitment to this concept on the part of both governments and the public, there have been difficulties in its implementation and/or maintenance in some situations, particularly in the newly developing community planning bodies and in the administration of community health centres. There has sometimes been confusion and even debate and confrontation over both the purposes and methods of involving citizens in health care.

30. Some argue that involving citizens in these activities is simply an extension of the time-honoured tradition of hospital boards and boards of public health. The citizen's role is seen as one of bringing forth information about the needs of the community. Others see community involvement in planning bodies as an important mechanism for community change and reform. Finally, there are a few (mainly health professionals) who view the purpose of citizen boards as primarily one of community health education in its broadest sense.

31. When proponents of two or three of these different ideologies end up on the same planning body, confusion and controversy are inevitable. This is a common problem at present with social planning councils, health planning councils and voluntary agencies.

32. Those who view citizen participation as an extension of the hospital board concept now face the same dilemma as members of those hospital boards. Since government funding has removed the need for fund-raising activities and there is a profusion of government guidelines for the operation of services, what meaningful role remains for the community board? If it is reduced to a community liaison role, could that function be performed as well by an advisory committee or even by a patient/client ombudsman? Some argue that the consumer is only concerned with the responsiveness of the programme to his needs, not with the amount of authority he has.

33. Those who advocate citizen participation for community change and reform stress the need for board or council members to be truly representative of the community. But how is representation to be achieved? The traditional method is by election. Who should be allowed to vote — those who use services or those who live in a defined area? If only a small number cast votes, is the chosen board truly representative? Should providers be allowed to vote? Should they be allowed to stand for election? If the board or council is appointed, which interest groups must be represented, and will the final "mix" be an effective one?

34. Those who view a community board or council as primarily a tool for community health education do not face the identity crisis of the first group or the conflict situations of the second, but they may have to cope with a great deal of community apathy. If they succeed in mobilising community interest and avoiding domination of the board-staff relationship by health professionals, they may fill an extremely useful role.

35. Some of the suggestions which have been made for improving the effectiveness of community participation include:

- (a) continuation of the process of establishing community/regional health planning bodies;
- (b) clarification of expectations of citizen boards/councils (role definition, limits of authority, etc.);
- (c) improved training programmes for volunteers (including board and council members) so that they will have an adequate knowledge base from which to operate;
- (d) education (and re-education) of health professionals to understand and accept the consumer as a member of the health care team;
- (e) acceleration of the trend to appoint community representatives on accreditation and professional review bodies;
- (f) greater involvement of voluntary health agencies in health policy and programme development at all levels of government;
- (g) exploration of new approaches to community participation (e.g. patient ombudsman).

THE LAKESHORE AREA MULTI-SERVICES PROJECT (LAMP): AN EXAMPLE OF COMMUNITY RESPONSE TO COMMUNITY NEEDS

The LAMP story is a story of successful community “self-help”

What is LAMP?

2. LAMP means many things to many people in the community it serves. This project provides a wide spectrum of services, ranging from day care to foot care, health services and dental services, to name but a few. The ideas for this multi-service unit were developed by the residents of the community. Furthermore the translation of the ideas into a fully operational centre was the result of the determination and hard work of these residents.

Why was LAMP founded?

3. A sense of isolation felt by four small but established communities, with a combined population of 54,000 residents, provided the initial impetus for the development of this programme. When these communities became part of a larger borough with a population of 300,000, they replaced previous rivalries with a spirit of co-operation. They found that they possessed a common viewpoint, a wealth of talent and similar experiences. They were not surprised that their answers to the problems of delivering health and social services for their community were not the same as those more appropriate to the newer, wealthier communities in the same borough.

How was LAMP started?

4. The residents of these communities began by asking themselves some questions. Through discussion the community came to the realisation that what they wanted and what would serve them best would be a community programme. In this light the concept of LAMP was forged. The concept was formally proposed at a public meeting in 1971 and approval in principle was received. A committee was then established to explore more fully the possible goals and methods that would be undertaken.

5. The community underwent the agonising process of discussing the alternatives and hammering out specific objectives. Citizens and professionals from local agencies were brought together in these discussions. It was not until 1973 that the original concept became a concrete shape and the first LAMP Association was established.

The survey

6. A survey of residents and doctors was then conducted to determine the needs and potential target groups. It was discovered that senior citizens comprising close to 11 per cent of the population were represented at a higher level than the national average. The community also discovered that there was a large number of transients. A significant number of people in the area did not have family doctors. Improved delivery of medical services was clearly indicated as a major need. Once the target groups had been defined and the survey had discovered the needs, the community were ready to begin their response.

The first project

7. The first project was a monthly footcare service for the senior citizens. A hundred dollars for the purchase of supplies including an old barber's chair, the donation of time by volunteers to handle the administration, and to act as chauffeurs, plus the goodwill of a local podiatrist enabled the programme to begin. It is interesting to note that this “no charge” service now runs five days a month and is still staffed by volunteers and funded by local donations.

The next steps

8. The next tasks to be faced were the major problems of locating a permanent service building and funding for the project. By a fortunate coincidence, a former Town Hall, strategically located in the centre of the area became available. The citizen board won the confidence of the borough council which agreed to renovate the building and rent it to LAMP. At the same time, a group of directors arranged a contract with the municipality that would provide funding from the province to operate an innovative project in the delivery of social services.

Re-organization

9. A re-organization of directors led to the establishment of a management board, and a health services committee. Both of these are composed of unpaid citizen representatives elected at an annual general meeting. The LAMP Management Board ties the project together by planning and evaluating the participation of member agencies, and operating the committee structure. It is responsible for regularly reporting and listening to all members. It is also responsible for management of the finances. The LAMP Health Services Committee is charged with the task of providing quality health care.

Funding

10. The LAMP building is rented from the borough on a break-even basis, making the municipality an important partner in the enterprise. LAMP in turn rents space to participating agencies. Any profits made on these rentals are turned over to the municipality. The province funds the basic social service operation — i.e. salaries for the core staff, telephone costs and other expenses. The shortfall of this funding is made up by a small grant from the city and local donors.

11. The LAMP Health Services Committee is funded by the provincial Ministry of Health with a negotiated annual budget. The health programme funding is dependent on the provision of services to 1800 people by March 1978. Currently the programme is providing services to 1750 people and the numbers are climbing. The provincial Ministry will save financially through this response since there will be no increase in funding even if the target is exceeded.

The goals

12. The goals of LAMP include the coordinated delivery of services, elimination where possible of duplication of services and the provision of a wide range of services to the individual client. Target groups for special attention are identified but the goal serves the entire community.

Operations

13. In order to provide a wide range of coordinated service, the LAMP Management Board negotiates a contract with each participating agency not merely regarding rent for space occupied but also on the contribution which that particular agency will make within the community. A central intake system is maintained as well as an ongoing evaluation of the services. This is critical since there are twelve agencies involved.

14. There are two health agencies: LAMP Health Services and the municipal Public Health Department. The health service staff consists of two doctors (both family practitioners), one nurse and a receptionist-bookkeeper. There is a twenty-four hour phone service and the doctor will make house calls as needed.

15. The focus of the Health Service Committee is on health rather than sickness. The emphasis is on prevention. An example of this is the routine checking of all patients for hypertension. Education programmes are central to the concept of prevention. Education programmes offered so far include "Fitness" and "Stop Smoking" clinics. Stress and mental problems are dealt with

through psychiatric and counselling services as opposed to relying on drugs. LAMP's structure means that skilled professionals from the psychiatric hospital and the Addiction Research Foundation can be called upon when needed.

16. The municipal Public Health Department participation in the project also stresses education and prevention. Programmes offered include hearing tests, immunisation, family planning and pre-natal classes. The municipality also operates a dental programme that is part of LAMP. This consists of free fluoride treatment for all children one day per week, as well as free dental care for all qualifying residents one and a half days per month.

17. Other agencies often make referrals to these health services. Thus, some medical problems are now treated in the early stages. For example, the day care supervisor has detected children with health difficulties and after reporting the matter to their parents and obtaining the necessary permission has had the children treated by the doctors. Similarly some older citizens visiting the "seniors' foot care clinic" will have serious foot problems detected by the podiatrist. Appointments for necessary treatment and referrals to specialists can be made while the patient is still at the centre.

Conclusion

18. The strong community involvement in LAMP is adequately demonstrated by the contributions made by the volunteers. It must be recognized that without the volunteers, over a hundred of whom work on the project, this project would not have been successful. People visiting LAMP find a warm welcome extended to them by both the volunteers and staff. Involvement of the community in this program is an ongoing and two-way affair. Many will benefit from the services and programs provided. Many will also take some of their own time to contribute to the programme by volunteering to serve their neighbours.

19. The LAMP concept, it should be emphasised, treats the whole person and promotes the philosophy of prevention. The LAMP concept depends on community support for although funding comes from all levels of government the inspiration, the motivation and the sweat that make it all possible come from the local people. LAMP is building a stronger and healthier community in every sense of the word, and is looking forward to the future with confidence.

Current LAMP services

Day care: A new day care centre is here for children from 2 to 5 years. Operated by the YMCA, it is open to anyone in the community. Fee assistance is available for families that qualify. Well equipped indoor and outdoor facilities offer a healthy, stimulating setting for the pre-schooler.

Community health: Promoting better health for all citizens. Borough health staff offer clinics in family planning, immunization, hearing testing, counselling, pre-natal classes.

Alcohol and drug problems: Experienced staff of the Addiction Research Foundation are on hand to provide counselling, information, and self-help programs.

Seniors recreation: A friendly drop-in lounge for senior citizens, open seven days a week for coffee, tea, conversation, fellowship and recreational activities. Operated by Etobicoke's Parks and Recreation department.

Family counselling: Professional counselling for families and single parents, family life education, child management programs, help for families under stress, offered through the Family Service Association.

Volunteer services: "Care-Ring" provides volunteers to help with driving, home care, friendly visiting for shut-ins. Or it can help you be a volunteer yourself.

Seniors' foot care: Podiatrists and volunteers are available without charge several days a month to help older people with foot problems. Call for an appointment.

Help with problems: Legal Aid on Monday afternoons and evenings, credit counselling, youth programs, information and referral services, provided by Action Service Contact Centre.

Community room: LAMP has a large, newly-decorated meeting/event room which it can make available to public service groups looking for a place to hold a meeting or put on a program. Many community organizations would be eligible to use this facility free of charge.

Dental services: There is a fluoride treatment clinic for children, and a dentist is available to provide full dental services (excluding dentures) for qualifying residents of any age. Operated by the Borough of Etobicoke.

Mental health: Lakeshore Psychiatric Hospital provides individual counselling and group programs. Hospital staff are available to advise and assist clients and staff of LAMP when needed.

Children's aid: Services and programs to strengthen family life for single and two-parent families are offered by the Children's Aid Society and the Catholic Children's Aid Society. Help is provided for children under 16 to protect their physical, emotional and social well-being.

Health Services: Two full-time family doctors are available to serve anyone in the community. Preventive care is stressed. House calls and 24-hour coverage.

Social assistance: Metro Social Services administers financial assistance and related programmes, including wage supplementation to low income families. Referrals for hostel accommodation, applications for assisted day care, senior citizens apartments, homes for the aged, nursing homes.

COMMUNITY PARTICIPATION

Background paper prepared by the British Government

THE UNITED KINGDOM SITUATION

The National Health Service took over in 1948 all the hospitals previously administered by the elected local authorities and similarly, with minor exceptions, those administered by voluntary bodies. The new hospital authorities had no elected members but the lay members appointed by the Minister or the higher hospital authority included well-known people prominent in local affairs. All members were on these bodies as individuals, not delegates. The bodies set up in 1948, Executive Councils, to administer the contracts with the general practitioners (doctors, dentists, pharmacists and opticians) also had a lay membership partly composed of people appointed by the local authorities and partly people appointed by the Minister. The local authorities continued to be responsible for domiciliary health services such as midwifery and health visiting. These arrangements applied to England and there have been differences in administration in other parts of the United Kingdom.

2. Thus from 1948 in the management of health services there was a varying degree of community involvement through either elected representatives or other local lay people. Although the National Health Service was comprehensive, voluntary movements were not deprived of a place in the service. For example in hospitals there were Leagues of Friends who could look to amenities. A number of activities were still carried on by voluntary organisations. By the Health Services and Public Health Act 1968, both the Minister and the hospital authorities were empowered to make grants to voluntary organisations and the sums so made have been mounting steadily since until now some £5m per annum is devoted to voluntary organisations covering health and personal social services. Most goes on the latter but the provision of such services is very helpful in complementing health services and reducing the call that would be made upon them if the vulnerable groups like the elderly were not enabled to live in the community.

3. When the National Health Service was reorganised in 1974, the three separately administered parts of the service (by hospital authorities, executive councils and local authorities) were all brought together under the new Health Authorities. These match local authorities in area but are in no respect elected bodies. The lay members still represent a cross-section of well-known and prominent local people. However the need was seen to include a strong element of community participation and Community Health Councils were introduced. The nature of these is explained in paragraph 17 below. At the same time a Health Service Commissioner (popularly called the Ombudsman) was appointed to investigate complaints about the administration of health services.

4. The notes below are related to the three headings in the outline questions posed for this subject on the agenda. This is a wide subject on which only a sketch is therefore given.

Education and motivation

5. Community participation in health care can best be brought about by developing better public awareness of the nature of the health services available and the importance of self-care in health. In 1976 the United Kingdom Government launched a new initiative on preventive medicine with the publication of the consultative document (to stimulate comments and expression of views) 'Prevention and Health: Everybody's Business'. A major theme in the new emphasis on prevention is the contribution which the individual can make to his own and his family's health. Health education is a vital element in the preventive initiative – giving information and advice on how to minimise risks of illness and handicap, and emphasising the positive benefits of a healthy life-style.

The public debate is being continued by the issue of detailed follow-up papers on particular topics — the first, 'Reducing the Risk', is concerned with the health of mother and child in pregnancy and reducing the risk of handicap.

6. The Health Education Council was established in 1968 with responsibilities for the promotion of health education at national level in England, Wales and Northern Ireland. In Scotland the equivalent body is the Scottish Health Education Unit. The Council is financed by central government, with a budget for 1977–78 of £2.6m, but is not a government department. Its members are appointed by the Secretary of State for Social Services after wide consultations. The present chairman is Sir George Godber, former Chief Medical Officer of the Department of Health and Social Security (DHSS). The Council is concerned with producing health education materials (pamphlets, posters etc.), with the development of research and training in health education, and runs national campaigns on topics of wide interest, e.g. family planning, and the dangers of smoking and of alcohol abuse.

7. The main operational responsibility for health education within the National Health Service at local level rests with the Area Health Authorities. Health education officers have an important role in encouraging interest and involvement in health education — they have relatively little direct contact with the public themselves but are supportive and encouraging to those who do. They are responsible for organising local campaigns and for co-ordinating the activities of health professionals who have good opportunities in their day-to-day and face-to-face work with individual patients to communicate with those at greatest risk and influence their habits and life-styles. Health education officers also co-ordinate and encourage widespread involvement in health education through liaison with community health councils, local authorities, voluntary organisations, schools and self-help groups (for dieting or controlling smoking and alcohol abuse, for example).

8. Schools can influence the attitudes of children to the health services, and on such matters as nutrition, exercise, smoking, drugs and alcohol, the general approach to behaviour and more specifically by introducing elements in lessons on physical education, biology, religion, home economics etc. Schools are also increasingly providing specific courses on health education and social education. While responsibility for school curricula lies with the Local Education Authorities, and individual head teachers, Her Majesty's Inspectorate gives active encouragement to schools and teacher trainers to consider the adequacy of provision on health education. This is done, for example, through the provision of courses and the handbook for Her Majesty's Inspectors 'Health Education in Schools'.

9. Local health education services are geared towards increasing the effectiveness of health and other professionals in their health education activities with the public. It is felt that the one-to-one situation with the general practitioner, health visitor, dentist, etc., is particularly useful for health education. The Health Education Council and local health education units also run campaigns with posters, leaflets, and use of the media (paid or unpaid). The effectiveness of different methods is still a matter for debate — for example, it is difficult to compare the one-to-one situation described above with advertising on TV or radio, which is relatively expensive but reaches a wide audience. There is little doubt that in health education there is room for a wide variety of approaches. The Council sponsors and promotes research into the effectiveness of health education but there is still insufficient knowledge and expertise about methodologies in health education both in relation to mass audiences, particular target groups, and individuals, and evaluation techniques and activities are still in their infancy. More research is needed into both methodology and evaluation.

10. There are a variety of training schemes in health education. Many health education officers are not specifically trained in health education — they are trained teachers or health visitors, for example, who switch to a health education career with little or no additional training. However, the Health Departments and the Health Education Council encourage the specific training of health education officers and two diploma courses (1 year's full-time study) have been established to which serving officers can be seconded. The syllabus of the diploma courses covers a study of historical background and development of health education, the growth and development of individuals within society, the causes and prevention of disease and the principles and methods in

the practice of education. For those health education officers with appropriate qualifications a small number of full time postgraduate (MSc) degree courses are available at Liverpool, Manchester, Nottingham and Chelsea College, London. For the non-specialist, there are a number of part-time certificate courses for in-service training. These are available for teachers, health visitors, nurses, etc. and other professional groups who have opportunities to act as health educators in their day-to-day work.

Special groups

11. For many years the Department has recognised that a general purpose worker can make a valuable contribution in maternity and child health centres by freeing professional staff for duties requiring their skills and this has been mentioned in guidance to health authorities. Voluntary workers play an important role in this respect. Examples of ways in which volunteers assist in the running of maternity and child health centres are:

- (a) reception and record keeping duties;
- (b) sale and distribution of welfare foods;
- (c) interpreting — to assist immigrant families;
- (d) providing refreshments;
- (e) weighing babies;
- (f) generally assisting clinic nursing staff;
- (g) individual volunteers and members of voluntary organisations concerned with the young child in co-operation with the health visitor can be of great assistance in running small play-groups during clinic sessions and during health education sessions, and in conjunction with mother and toddler clubs.

Voluntary groups may also be able to advise health authorities on ways of ensuring that preventive health services reach vulnerable families who may not otherwise attend clinics, and ethnic leaders in the community can help by explaining the purpose of child health services to their people to encourage immigrant families to use them.

12. In general, the volunteers' contribution to health services is complementary to that of paid staff: for example, in hospitals they provide the additional comforts, amenities, companionship and contact with the 'outside world' which paid staff do not have time to provide. Some of the services provided by voluntary organisations could never be provided by health authorities whatever the financial situation. In some cases it is possible for volunteers to relieve skilled staff of routine, unskilled tasks, so leaving them more time to exercise the particular skills for which they have been trained, and organisations such as the British Red Cross Society and the St. John's Ambulance Association provide emergency and first aid services on a large scale. Local branches of voluntary organisations also arrange fund-raising activities, the proceeds of which are mainly used to provide extra comforts, amenities and facilities for both patients and staff. Leagues of Hospital Friends raise about £3m. each year to make gifts to their hospitals. They also help on a personal level to maintain contacts between long-stay hospital patients and their families, and help to provide companionship for the bereaved.

13. The following list illustrates some of the services given to health authorities by voluntary bodies both in the community and in hospitals.

Personal care of the patient: auxiliary nursing; escort duties outside hospital; reception and escorting of in-patients inside hospital; feeding individual patients.

Personal needs of the patient: shops, trolley shops and shopping errands; canteens (out-patients and visitors); telephone trolleys; care of relatives visiting dangerously ill patients, hospitality and general help including visiting relatives at home; care of children whose mothers are attending hospital for treatment or whose parents are visiting patients; visiting and befriending lonely patients; reading (especially arranging short-term attachment of regular readers to patients undergoing eye operation); writing letters; interpreter services for foreign patients; outings and holidays away from hospitals for the elderly; escorting children

to and from hospitals and out-patient clinics when it is impossible for mothers to do so; taking convalescent children for walks; visiting child long-term patients in hospitals some distance from their homes; collecting mother's milk for premature babies.

Recreation and occupations: libraries, including film and picture libraries; handicrafts of all kinds; appropriate hobbies; entertainments such as music, dramatics and youth organisation groups in long-term hospitals.

14. The national umbrella organisations (e.g. the British Red Cross Society) provide co-ordination in their particular fields. The Department has encouraged the appointment of voluntary help organisers whose main functions are to recruit, prepare and place volunteers; to establish good relationships between voluntary and paid workers; to develop contact with local authorities, local voluntary and other organisations and the public in general, and to look for ways of expanding the scope for voluntary effort. About 300 voluntary help organisers are now estimated to be employed in the health service and experience has shown their effectiveness in developing and co-ordinating voluntary work in hospitals, particularly long-stay hospitals where the needs are especially great and where about half of them are employed.

15. The Department's consultative document "Priorities in the Health and Personal Social Services in England", published in 1976, said (paragraph 1.23):

"In the coming years, the contributions – of time, ideas and money – that people in the community voluntarily make to the running of the services will be more than ever important. Health and local authorities should give every support to voluntary bodies in their work of harnessing community effort."

Guidance for health authorities has pointed to the opportunities created by National Health Service reorganisation for the more effective use of volunteers, for example in co-ordinating operations in the hospital and community fields.

16. Financial help is given to various voluntary organisations. Generally this is limited to funds for a limited period of years to start up and develop an activity which the organisation could not entirely finance itself through other grants, fund-raising and, where appropriate, charging for services. There is emphasis on partnerships to initiate innovating projects.

National health programmes

17. The reorganised National Health Service of 1974 required the introduction of new health authorities covering the whole range of services over a wide area. In addition Community Health Councils were set up to represent the public interest. Their role is advisory; they have no management responsibility. There is one for each health district so that in England there are some 200 councils each covering an area of about a quarter of a million people. The number of members varies between 18 and 36, according to the size of the district, and they are appointed one-half by the local authority, one-third by voluntary organisations and one-sixth by the regional health authority. None of the members is elected and they are not intended to act as delegates of the appointing bodies. The expenses of the Councils are met from public funds. They have paid staff employed by regional health authorities but chosen by and accountable to the Councils.

18. In the early days of the reorganised service, the new bodies had to establish their roles both in informing themselves about the services in their districts so that they could comment usefully upon them and also about planning for the future. Relationships between Community Health Councils and local health management are generally well-developed but links between the Councils and the general public are still being forged. Public meetings of Councils are very thinly attended and the public are generally not very well aware even of their existence. This is not greatly different from the public awareness of the consumer bodies set up for various nationalised industries such as electricity, gas, railways and the Post Office. If there is some burning local issue, such as the proposed closure of a hospital, this helps to make the local Council better known.

19. A second new feature of the service since the 1974 reorganisation is the appointment of a Health Service Commissioner (an 'ombudsman') who investigates complaints made to him, after the complaint has been made to the health authority without satisfaction. He can investigate

where a person claims to have suffered hardship or injustice through a failure in service, or failure to provide a service or maladministration. Some matters are outside his jurisdiction, the main ones being actions involving clinical judgment, where a person has legal redress and complains about the family practitioner services.

20. There has always been a procedure for investigation of complaints that a family practitioner has failed to comply with his terms of service — e.g. has failed to visit when he should have done. Trivial or frivolous complaints are cleared without a hearing and the remainder are given an informal private hearing. The purpose of the complaint is to determine whether the practitioner has complied with the terms under which he agreed to provide National Health services and the complainant is not able to benefit personally from the hearing other than knowing as a conscientious citizen that he is helping to maintain the standard of the service. Redress of grievances about the health service is an important factor in maintaining the public confidence in its standard.

21. Under this heading a question was raised about family planning. Since 1974 a free family planning service has been available from family planning clinics, domiciliary services and most general practitioners, and from hospitals since July 1975. The previous position was that the provision of a family planning service for other than medical reasons was at the discretion of local health authorities, leaving a considerable scope for voluntary bodies like the Family Planning Association and others to provide advice and help and private treatment from general practitioners. The Family Planning Association and other voluntary bodies combine to play a role in this field, in particular through a Family Planning Information Service provided jointly by the HEC and FPA and funded by the Government.

BRITISH AID POLICY AND THE DEVELOPING WORLD

22. In recent years there has been an increasing recognition of the fact that most of the disease in the developing world is due to poverty and ignorance and that prevention, based on public health measures, is more effective and less costly than curative medication, desirable though this always is.

23. This relatively new 'community health approach', directed chiefly at the poorest people, was officially introduced for the first time into British aid policy in late 1975 with the publication of the White Paper "More Help for the Poorest". The fundamental message behind this new policy document was that British aid should be concentrated increasingly on the poorest countries and on the poorest people within those countries.

24. One of the activities required to meet the demands of the new policy is an improvement in health facilities in the rural areas, where most of the poorest live. This entails a change in British health aid policy, which in the past was largely based on exporting the concept of a network of hospitals and doctors on the developed country model, to one which seeks to encourage community health and preventive measures. This community health approach means a concentration on the socio-economic and environmental elements of health care: improvement of nutrition and child health, provision of safe water and sanitation, control of communicable diseases, and encouragement of population programmes. All these elements, which feature in British health aid policy, are susceptible to improvement with the help of community participation programmes.

25. Experiences with community participation in health services around the world are few in comparison with the amount of interest which is now being shown in its possibilities, as a result of the growing realisation that conventional health systems often fail to bring adequate primary care to all the people. Because the experiences about which much is known are few, and because research into the features contributing to the success or failure of these experiences has barely begun, much of what can be said about the question must be a matter of surmise.

Why community participation?

26. The favour with which community participation is at present being viewed appears to be based on growing evidence that:

- (a) There is little or no loss in quality in the performance of simple health tasks when performed by persons with little formal education and only a short, task-oriented health training.
- (b) Often professional and semi-professional health workers have little motivation for serving the majority whose health needs are mainly conditioned by their general poverty and poor living standards. This is particularly so in relation to the people living in rural communities, because the health workers' educational and training have prepared them for urban life and for a higher level of health care: the training is inappropriate for rural work, and would be difficult to change because of expectations held. Therefore, the only group of persons with positive motivation for health work in rural communities are those within these communities and who expect to remain there.
- (c) There is often a wide social gulf between even the lower semi-professional health personnel and the majority of the population, which hinders communication and detracts from the value of preventive and promotional health work. The people living in urban slums and shanties, and the villagers, are the only people who know their problems in intimate detail, but such knowledge can be utilised properly only in the context of their active participation in the work.
- (d) There are, in most poor urban communities and villages, potential resources which can be tapped, as usually the people are willing to contribute in various ways to health measures which they see will be to their benefit.
- (e) One model of community participation, that of China, has achieved considerable success. The Chinese model of health organisation has to be seen in its wider social context, and is clearly not directly replicable in very different societies. But one element of the background is common to many countries, namely the aspiration for self-reliance together with the reaffirmation of the indigenous national culture including its medical tradition. There is interest in the Chinese policy of 'walking on two legs' or developing modern technology while also encouraging local self-reliant processes incorporating relevant traditional skills.

27. The significant diseases of the Third World are diseases of poverty more than they are diseases of tropical climate. Or, like malaria, they are diseases of the tropics whose ravages would be minimised with increased wealth and the necessary resources. Many of them (tuberculosis, malnutrition) tend to disappear with the changes in pattern of living which occur with increased income: changes in diet, housing, etc. Others can only be attacked when community or national resources grow large enough. With modern drugs, especially antibiotics, many of these diseases of poverty, or their complications, can be easily treated. But their recurrence is certain unless preventive measures are taken. In this sense promoting better living conditions through rising incomes is the best preventive health care, but specific 'public health' measures can, if pursued vigorously, have a considerable impact. Both should be sought together. Such preventive measures often involve interventions which are simple and low-cost in themselves but which require large-scale application of knowledge and organisation. *It is in these areas of prevention that community participation in health has the potential for making the greatest contribution.* It can achieve reductions in the diseases of poverty in advance of the pace of reduction in poverty itself, by mobilising preventive activities and fostering specific changes in patterns of living.

Which forms of community participation?

28. Community participation has many forms and is not always concerned with prevention. No realistic assessment of the place of community participation can treat it as if it were a single type of activity, like immunisation or family planning. It could be taken to exist in a minimal form even when no more is involved than the consultation of community authorities before health measures are taken; or local health advisory committees may be formed to provide a more permanent link between community and health service.

29. If a more active participation is under discussion here, the forms may still vary considerably within the currently argued 'package approach' to health problems. Such an approach, applied to community participation, would require the provision to be undertaken of information and education with respect to hygiene and nutrition, vaccination, mother and child care, as well as serving for the base point for the referral of cases from village clinic levels to higher links in the chain of the health services system.

30. Other forms of active participation may still vary considerably. There are those which involve little more than a material contribution from the community or its members; this may be for capital items required by the health service, such as a building and furniture, or it may be a form of financing the current expenditures themselves — the drugs and dressings, the remuneration of the health worker. This may be through fees for services administered and controlled by community authorities, through a local levy or tax, or through a health insurance scheme. But that means that a service which in most countries has been at least formally regarded as the responsibility of the state, and has normally been provided at its expense (at least to some part of the population), is to be paid for by recipients who are among the poorer inhabitants. If it does not imply an actual shift in burden from rich to poor, since it is a question of new services, it implies a shift in where the burden is to be expected to fall in the future. The conclusion to be drawn here is that *the tapping of community resources must not come to be regarded as replacing national budgetary commitments* and as an easy way out of the need to commit such national resources to the poorest population groups, *but as a means of complementing such national efforts.*

31. Community participation may also take forms which engage villagers directly in the health activities: from the use of voluntary assistants as health aides, to the training and employment of fully-fledged village health workers and from the use of communal labour in action to improve the healthiness of the environment, to efforts by the organised community to change the health-related behaviour of people in their homes.

32. A growing number of Ministries of Health in the Third World are taking an interest in community participation as a means to extend their coverage and effectiveness. Often they start programmes on an experimental or initial basis in one region. Interest has so far usually centred on the training of villagers in various aspects of health work: as village health workers, or in more narrowly delimited roles. Communities are often called upon to make a material contribution or even to pay entirely for this extension of health services. Here in particular the earlier mentioned possibility arises that community participation implies shifting on to the rural community a financial burden which would otherwise have fallen upon the state.

33. In the absence, or with poor coverage, of national health services especially in rural areas, agencies or groups which are not part of the national health service have mounted programmes or projects involving community participation. The agency is often a voluntary, non-governmental organisation, though in some countries (such as Iran) a separate official or semi-official institution has initiated such projects. Other bodies which do so include medical schools, and particularly their community health departments, whose aims combine training with experimentation. In some countries, where the production of doctors already exceeds the effective demand for their services, given established levels and modes of remuneration (e.g. parts of South India), there is an interest among doctors in starting projects of the community health insurance type, to generate additional demand for their own services.

34. Where conventional health services are lacking, there is a *prima facie* case that the interest of the poor community will be served by any type of effective community health scheme which can be established. However, *the benefits of schemes which involve little more than payments by villagers to outsiders for curative services are clearly minimal.* In contrast, community participation in local health activities guided by expert advice, but primarily relying on the work and other contributions (in kind) of local persons, and mainly directed to preventive measures, is likely to be of real benefit. Thus *the real potential of community participation lies in form of direct community involvement.* These are the ones which use the resources which are abundant in most poor and particularly rural environments: labour power, and in villages especially people's

willingness to use for community activities spare time, not needed for agricultural work. More important, perhaps, *these are the forms which make use of the direct knowledge that people have of their own life situation*. Before preventive work can be well directed, this local knowledge – e.g. of existing health-related practices and the reasons for them – needs to be brought together with the technical knowledge of health personnel concerning the causes of disease. If that can be done, then there is a prospect of overcoming the social gap between health personnel and villager, making health education much more effective.

35. As suggested above, the development of community health systems depends in large measure on what governments and local institutions decide, and are able to provide the resources to do. The discussions at this conference will be of considerable value to Britain (and perhaps to other developed countries of the Commonwealth) in indicating what the UK might be able to offer to facilitate such development. For example, clear indications are already appearing of implications for the type of training which should be provided – and indeed should not be provided.

Some factors which influence the chances of success

36. It is impossible to generalise about the type of person most likely to take on a village health role successfully. In some cases traditional healers (or birth attendants) have been incorporated with good results, but this has not been universally so. Also, age, sex and educational qualifications of those who, once chosen, do a particularly good job are by no means uniform. Sometimes young and relatively educated people – women or sometimes men – are recommended; elsewhere mature, respected persons have been preferred. Socio-cultural factors appear to be mainly responsible for the differences, which need to be investigated and taken into account.

37. As for the difficulty of bridging the social and educational gap between poor people and health workers, a problem lies in the existence among the former of patterns of thought and behaviour relating to health, many of which have developed through the generations. These may be difficult to change by conventional methods of health education which rely, essentially on verbal exposition of modern views. It is important to attack the incorrect or harmful beliefs, or insist on new practices which are found essential, at the household or neighbourhood level, in a face-to-face manner. The implication is that *community participation involves neither just one or two 'village health workers', nor merely 'the community at large'*. It needs *community members who become intermediaries between the health system and the people*, who help their kinsmen or neighbours to learn (and to unlearn) health related behaviour and can 'monitor' health problems and report them (or act upon them).

38. But also among health service personnel there are likely to be established views on health and health care which can be impediments to achieving community participation. Such views often reflect vested interests in their own roles and functions (not least their positions of authority) which may make it difficult to go far in training and sharing responsibilities with village health workers. Even so, this may still be easier to achieve than re-organising the training – and functions – of the health professionals themselves, in the face of opposition from professional bodies.

39. A different set of reasons why community participation may have disappointing results lies in the social environment in which it is promoted. Two of the factors involved here are the extent to which there are inequalities within the community itself, and the extent to which national policies favour the rich and powerful or are genuinely committed to promote the well-being of the poor and perhaps oppressed.

40. *Where great inequalities in status, power and wealth exist within communities*, where for example land is monopolised by a few large landlords, *the socio-economic reasons for bad health among the poor majority may be so overwhelming that little can be achieved by focusing on a 'health project'*. If children starve because parents have no land to grow food or do not earn enough to buy it, community enthusiasm for health care is likely to be short-lived. This will be especially so if, in terms of the second factor mentioned, the state effectively underwrites these inequalities, allowing income distribution to worsen and the locally powerful to exercise their

domination unchecked. In those circumstances it is *only when government shows determination to tackle the deeper causes of poverty that schemes of community participation* — also beyond the narrow confines of health care — *make sense*.

41. In this context it may be noted that in countries where forms of collective or co-operative organisation characterise the economy and social system as a whole, health services may make use of the organisations which mobilise collective effort (as in Cuba) or may at the village level operate entirely through them (as in China and Vietnam). Health campaigns have been a feature of the mobilisation process itself, in many cases. Interesting (and successful) was the 'Man is Health' campaign in Tanzania, in which village groups were organised nation-wide to listen to and discuss a series of radio broadcasts on specific health problems.

42. One of the greatest difficulties, however, stems from the *maladaptation of administrative organisations for the kinds of co-ordination required*. In a service which has been largely urban-oriented in the past there are likely to be shortages of transport or of supervisory personnel in rural areas, which can constitute bottlenecks in any rapid expansion of community participation. But this maladaptation more centrally concerns established categories of staff and their role and remuneration. Paradoxically, it may happen that although one of the advantages of using village labour power is that it is cheap, a Ministry is unable to pay even low rates, for instance for part-time work. It may be a reasonable fear that those taken on in any capacity will in future clamour successfully for regular employment at established rates. Other problems may lie in the attitudes of established staff toward minimally-trained people taking over what they may see as aspects of their job. Unless such staff are given a clearly defined role, for instance as supervisors and appropriate retraining for this role, they may legitimately fear that their status is threatened. The use of existing staff as supervisors or as promoters of community participation can bring its own problems because of their long-standing familiarity with a dogmatic and prescriptive approach to rural communities, an approach not helpful to the promotion of dialogue on health problems which incorporates both local and expert knowledge.

43. *The difficulties in restructuring health administration for community participation as a means of extending services, and of finding the necessary additional budgetary allocations for the recurrent expenditure required, may well be generally greater than the difficulties in assuring the co-operation of village communities* for at least some forms of participation in health work. Where villages have representative bodies or authorities in effective control of village affairs, it is likely that an initiative presented by a health administration would meet a positive response and that this would be sustained as long as the regular contact of interested health personnel as promoters and supervisors is sustained. But the initiative likely to be exercised by the average village community is limited, to some extent because of lack of knowledge of what needs to be done, and to some extent because village authorities may need to preserve the goodwill of the population, and cannot make demands which go beyond what is thought necessary.

44. It will be *easier to sustain forms of participation which do not make heavy demands* or make them only in one-off campaigns; it will be *easier if there is reinforcement of the message concerning the need*, for instance through the mass media; it will be *easier to sustain forms of participation which are, to the villager, more obviously needed*.

45. But, more generally, the earlier mentioned *link between health and wider socio-economic issues must not be forgotten here*. At the very least health must be explicitly related to socio-economic development, and to such changes as are needed to bring the benefits of that development to the mass of the population. This may be much facilitated if the national authorities conceive of development itself in terms of the generation by collective effort of improved living conditions, particularly in villages, and concentrate on the changes in (rural) social structure needed to give such an effort a chance of success.

COMMUNITY PARTICIPATION IN HEALTH CARE

Background paper prepared by the Government of Trinidad and Tobago

The emphasis in health care has shifted from curative to preventive. Community participation is absolutely essential for the success of any such programme, which relies on personal responsibility for its success, and therefore methods designed to encourage participation by the public should be an integral part in any national planning policy.

2. For the implementation of a health care programme the following basic requirements should be determined:

- (a) level of education of the community;
- (b) socio-economic status;
- (c) types of interest groups or organisations through which efforts can be channelled;
- (d) customs and religious beliefs;
- (e) level of health

HEALTH EDUCATION

3. Education is a crucial factor in stimulating and motivating the community to act, and the methods would vary according to the level of education of the target population. Teaching methods can be classified into three groups:

Mass methods

4. These are usually designed to create a general awareness and interest in new ideas among the people. They include such things as radio, TV, newspapers, circulars, posters, cartoons and cinema. These methods have been very successfully applied for promoting the immunization programme and the family planning programme. The public has responded by discussing the benefits of the programme in group meetings and in letters to the newspapers and even those not in favour of the programme have created a public awareness by their opposition.

Group methods

5. These are used to advance people from awareness and interest to the desire and trial stages of accepting a new practice. They include general meetings, group discussions and short courses of instruction. These can be held at schools, health centres, hospitals, and community centres. Members of the group would then have opportunity to ask questions, exchange ideas and stimulate each other to action.

6. Alcoholic Anonymous, with branches all over the world, is a very vibrant group in Trinidad and Tobago. Participation occurs in all strata of the society and the general support given to persons suffering from alcoholism by the group participation is well known.

Individual methods

7. Since learning is always an individual process, sometimes it may be necessary for the health educator to meet personally with the individual and obtain his confidence before he can convince him of the need to adopt certain health practices.

8. Sustained participation in the community in the health field is very difficult to obtain and one of the means used to encourage this is the requirement by law for all children of school entry age to be immunized against DPT, polio and smallpox.

Public involvement

9. Community participation in health care must be based on the development of incentives and rewards which would stimulate the people to involve themselves in the programmes as well as to maintain their interest. Because this is so, the population would most likely be interested in those aspects of health from which they may derive immediate personal benefits. These areas include:

- (a) environmental sanitation;
- (b) industrial pollution;
- (c) sexually transmitted diseases;
- (d) child health;
- (e) family planning;
- (f) nutrition.

Once members of the public become intimately involved in these problems as a group, they are quickly motivated to act as individuals for their own good and can therefore be utilised in the preventive health aspects of these special areas.

10. National health programmes should take this into consideration. A suggestion here would be to organize a national competition both at the school and community level in the areas of environmental sanitation and preventive health practices.

Department of Health Education

11. There is a Department of Health Education in the Health Ministry which undertakes the responsibility of educating the public in the basics of preventive health care. Education programmes in the following fields have started:

- (a) infectious diseases;
- (b) immunization;
- (c) sexually transmitted diseases;
- (d) environmental sanitation;
- (e) family planning.

Centres for these programmes have been schools, health centres, hospitals and factories.

12. There have also been in-service training courses for public health inspectors, district nurses and health visitors, emphasising the fact that every member of the health team is an educator.

13. The Health Education Department has a major role to play in community participation as it is its job to instill into the public a total awareness and interest in preventive health practices. It is from this awareness that the public is then stimulated to act.

SPECIAL GROUPS

14. Special groups also have a very important part to play in community participation. Voluntary organisations of international origin – e.g. Lions, Rotary, Red Cross, St. John's Ambulance Brigade and religious bodies – have already made significant contributions to health care and their continued contribution is essential. Groups of local origin can also be found at all socio-economic levels of society, from chambers of commerce to village councils and youth clubs. These organisations are capable of making a tremendous impact on the health scene and their true potential in the area has not yet been maximised.

15. The above groups are supplemental to the special groups at the political level. There is considerable participation in health programmes by local government councillors who are particularly interested in all aspects of environmental sanitation and represent the views of the community who have elected them to office. These same councillors also have an excellent role to play as community leaders in motivating general community interest in the programme.

16. Hospital and visiting committees are functioning in the district hospitals, and in addition to receiving complaints and making suggestions for the welfare of patients to hospital and administration they also liaise with government representatives in office, such as county councillors and parliamentarians.

17. In addition there are voluntary bodies comprising persons from all walks of life, who have formed an association because of a common interest in a particular sphere of health care delivery. Thus there are our Associations for Mental Health, a Diabetic Association, a Chest and Heart Association, a Cancer Society, etc. These societies help to educate the public about their specific area of interest, conducting active health education campaigns, assisting patients, and generally collaborating with Government in its efforts to deliver health care to particular sections of the community. Government, in turn, co-operates readily with these organizations and in many cases gives financial assistance by direct grants and/or remission of taxes on equipment and vehicles. Experience shows that this type of organisation is playing an increasingly important role in developing community participation in health programmes.

SELF-RELIANCE

18. People who develop themselves out of their own determination and with their own effort tend to build a spirit of self-reliance and self respect. "Hand-out" programmes will lead to dependency which stifles initiative. This should be borne in mind when national health programmes are being planned. Sustained community participation is therefore an absolute must for an effective health programme.

November, 1977

COMMUNITY PARTICIPATION IN HEALTH SERVICES

Background paper prepared by the Government of Malawi

This paper gives a brief outline of the ways in which the general public in Malawi are encouraged to take an active interest in developing health services in the area in which they live.

2. Malawi is a land-locked country in East Central Africa, which became an independent state on 6 July 1964. With a total area of 45,746 square miles (of which 9,432 square miles is the water of Lake Malawi) and an average population density of 138 persons per square mile of land area, Malawi is one of the smaller countries within the Commonwealth with a medium density of population. The country is long and narrow, being 530 miles in length, but never more than 100 miles in breadth. The present population is estimated to be about five and a half million, and 98 per cent of the people live in the rural areas, depending mainly on agriculture for their livelihood.

DISTRICT DEVELOPMENT

3. In November 1967 His Excellency the Life President of the Republic of Malawi, Ngwazi Dr. H. Kamuzu Banda set up a National Development Council under his personal chairmanship. This Council is the main planning and co-ordinating body of the Government in the development of the country. Under it, in each District there is a District Development Committee, the membership of which is comprised of the following:

- District Commissioner (Chairman)
- Local Members of Parliament
- District Chairman of the Malawi Congress Party
- Chairman of the District Council
- Chairman of the League of Malawi Youth
- Chairman of the League of Malawi Women
- Clerk to the District Council
- Agricultural Development Marketing Corporation Supervisor
- District Agricultural Officer
- Community Development Worker

In addition, the Chairman has power to co-opt the senior district representative of other Ministries or Departments, Chiefs, and other influential people in the community, and is directed to co-opt the District Medical Officer whenever health matters are discussed.

4. The terms of reference of these committees are:

- (a) to make the farmer aware of the possibility of improving the standard of living and assisting the national economy by the introduction of modern methods of farming;
- (b) to assist Government in achieving the goals established in the National Development Programme;
- (c) to advise Government on local needs;
- (d) to co-ordinate the activities of the Malawi Congress Party with those of government departments to ensure the rapid development of the economy throughout the country;
- (e) to co-ordinate major self-help projects which involve the collection of funds or require outside assistance.

5. In order to implement its work, each Committee sets up action groups at area and village levels. Each member of the Committee represents an organisation or constituency through which decisions can be implemented. For example, the District Chairman of the Malawi Congress Party can see to

it that information is disseminated down to village level through the Party machinery, and the District Commissioner effects decisions through the Chiefs and Headmen. The women and the young people in the community are also separately represented. Action groups are formed at village levels by local leaders and are used to enlist the latent enthusiasm of the villagers into productive work in support of the National Development Plan. These action groups can also bring to the attention of the District Development Committee, through the member representing them, the locally felt needs of the people.

6. A major function of the District Development Committee is to be responsible for the co-ordination at District level of self-help schemes and to approve all local development projects. Although the major work of these Committees is concerned with agriculture and education, they are also involved in all health proposals for the district, particularly as there is a continuing demand from the people for more health facilities.

MINISTRY OF HEALTH GUIDELINES FOR SELF-HELP

7. In February 1969 the Government issued a guide for District Development Committees which laid down the requirements for each Ministry.

8. The Ministry of Health, which provides free medical attention for all at its units, starts off its advice as follows:

“The most important point to be considered by the District Development Committee is that this Ministry is unable to assume additional financial responsibility on its present recurrent expenditure”.

It then goes on to detail the cost of running a rural hospital and a dispensary, and advises that the best return on money spent can be obtained from preventive medicine and health education. Detailed advice is given on practical ways the Committees can help, such as supporting the work of health assistants, persuading patients to continue taking their treatment for as long as necessary (particularly important for tuberculosis and leprosy), educating people that they must not expect an injection as well as tablets when they go for treatment, and building guardians' shelters where relatives who take the patients to hospital can stay the night. The ways in which these guidelines have been implemented are discussed in more detail below.

Village health committees

9. Village health committees arose as a logical extension of the action groups mentioned above. They are usually convened by the health assistant or the cholera assistant, and in some places by the medical assistant in charge of the local health sub-centre. They are more active in some areas than others, and this has arisen as a result of the cholera epidemic of 1973–75 which only affected certain districts. As a result of the advent of cholera, local villagers with very basic education were employed by the Ministry to teach people how to combat cholera by digging latrines and protecting water supplies, and going promptly for re-hydration treatment. They were taught “on-the-job” by the health staff in the field. They have proved so useful in improving rural sanitation and teaching hygiene that, although the cholera has subsided, they are still being employed. The village health committees are mainly involved in dissemination of health education, controlling leprosy and tuberculosis patients defaulting in treatment, and generally helping at the local clinics.

Guardians' shelters

10. It is traditional in Malawi that at least one relative should accompany the patient to hospital and, if he is admitted, to stay there until he is fit to go home, so that he can be visited and comforted, and perhaps brought some special food he fancies. As some people live far from the hospital, the relatives have to sleep nearby, and this is where the District Development Committee can help, by getting the local people to build and maintain a guardians' shelter near the hospital. All hospitals in Malawi are provided with guardians' shelters.

District council dispensaries and maternity units

11. All District Council dispensaries and maternity units have been built on a self-help basis by the local people, through the District Development Committee. There are at present 18 dispensaries, 65 maternity units and 4 health sub-centres (dispensary and maternity), run by District Councils in Malawi. Before they can be built, the Committee must obtain the agreement of the Ministry of Health, which must be satisfied that the health facility to be provided is in accordance with the National Health Plan of Malawi, which was adopted as a 15-year plan in 1973, having been drawn up by a team of experts from the World Health Organisation who visited Malawi in 1971. Briefly, it is stipulated in the National Health Plan that health sub-centres (maternity and dispensary) must be at least ten miles apart, and able to serve a population of 10,000 people. If these conditions are satisfied, the Ministry of Health will agree to the building of a new health sub-centre or maternity unit, but usually only on condition that the District Council guarantees to staff, run, and maintain it. In a few instances the Ministry have agreed to take over responsibility for staffing and running a unit, but only if the Ministry of Works and Supplies has inspected the building and agreed to maintain the structure thereafter.

A new district hospital: Ntcheu

12. The most ambitious self-help project to date has not yet come to fruition, but it is considered worth recording how the project was initiated, the problems that arose, and the solutions proposed, as these details may be of help and interest to other developing countries who wish to involve the community in taking an active part in their health services.

13. Ntcheu District is in a semi-mountainous region of Central Malawi bordering Mozambique to the West, and is one of the more populous areas with an estimated population of 217,700 in 1977. On 21 December 1976 there was a special District Development Committee meeting at Ntcheu Township. As well as being attended by all Committee members, the meeting was attended by all heads of government departments working in the District and all Chiefs and Headmen.

14. The meeting was asked what it regarded as a priority project for the District, and there was unanimous agreement that what all the people wanted was a replacement hospital on a new site. The old hospital, which was built in 1933, had had various additions over the years but was on a hilly site which impeded proper development, and the Ministry of Health had already decided that it needed complete replacement as many of the buildings had become dilapidated.

15. The District Development Committee meeting therefore decided that it would mobilise the people to build a new hospital of 120 beds, subject to Government approval, using their own money and labour. A follow-up meeting on 31 December 1976 decided on a site for the new hospital, and planning really began in earnest on 8 February 1977, when those concerned were informed that Government had approved in principle their plan to build a hospital on self-help basis.

16. The first step was the establishment of a Ntcheu District Hospital Construction Sub-committee, a Supervisory Buildings Sub-committee, and a Materials Sub-committee. All these got to work immediately, and extensive minutes from many meetings were produced. Among the decisions made were that the hospital would be built to modern standards, using the standard plan of the Ministry of Health for a District Hospital; that all people in the District should be asked to contribute cash; and that each Group Village Headman should arrange for his people to mould and bake not less than 80,000 bricks to the standard Ministry of Works design.

17. The method of assessing how much everybody should be asked to donate was most democratically arrived at. The main Committee called meetings with groups of people according to their occupation. First government employees, then the African Businessmen Association, the Asian Businessmen, the Teachers' Union, master farmers, corporations, church elders, and last but not least, Chiefs, Headmen and villagers. In each case a scale of contribution depending on their salaries or occupations was agreed for all. Meanwhile, both the Ministry of Health and the Ministry of Works and Supplies had been informed of the plans of the people of Ntcheu District, and it is

a fact that should be recorded, because this is a world-wide problem when employing experts, that the news was first received with a certain amount of scepticism by some officials. A recently-built replacement district hospital had cost K1 million (\$1,000,000), the Ministry of Health had no development funds of this order available to help the project, and previous experience of self-help projects had led them to believe that high standards could not be achieved. However, the enthusiasm of the people could not be ignored, and ways and means of helping to make the project a success were worked out.

18. At a meeting in July attended by senior officers of the Office of the President and Cabinet, the Ministry of Health, the Ministry of Works and Supplies, and the Ministry of Community Development and Social Welfare, it was proposed that:

- (a) the self-help participation from the people should be limited to the moulding of bricks, their financial contribution, and labour for bringing sand and stone;
- (b) the Ministry of Works would carry out the actual construction, using their own skilled labour and all material available locally;
- (c) the hospital should be built in phases, starting with the administration and out-patient block – the Ministry of Health would use development money that was available for this;
- (d) the Treasury should be asked to find funds for completing the hospital in 1980/81;
- (e) the Ministry of Community Development and Social Welfare would co-ordinate the self-help work of the local people.

These proposals were approved by Government in August and a suitable site was chosen, and site plans and building plans drawn up by the Ministry of Works were approved by the Ministry of Health. By early September, the District Development Committee reported that nearly K10,000 (\$11,000) had been collected and 44 brick kilns were in operation. On 10 September 1977 construction work on the new hospital started.

OTHER AREAS OF COMMUNITY PARTICIPATION IN HEALTH SERVICES

District councils, town and city councils

19. All local government bodies have Health Committees which have responsibility for environmental sanitation, and for a certain amount of preventive medicine.

Hospital Advisory Committees

20. Each hospital has a Hospital Advisory Committee which has on it members representing the District Council, and prominent local citizens nominated by the Minister of Health.

Ministry of Community Development and Social Welfare

21. The Ministry of Community Development and Social Welfare is the key Ministry where public participation in development is concerned. It always has a representative member on the District Development Committee, and its field workers have long experience in the customs and psychology of the people, so that they can arouse public enthusiasm for a project sufficiently to persuade people to give their time and effort to help, without any reward apart from the satisfaction of seeing a job well done. In the health field, the Ministry of Community Development and Social Welfare is responsible for many small piped water schemes for villages in addition to their involvement in self-help health projects.

Private Hospital Association of Malawi

22. Another area in which there is considerable public participation in health services concerns the many mission hospitals in Malawi which are organised under a certain administration known as the private Hospital Association of Malawi. The Association has an executive council which

co-ordinates the work of all mission hospitals with the Ministry of Health. Mission hospitals provide nearly 40 per cent of hospital beds available in the country, but unlike government hospitals, they charge patients for their services, and rely to a large extent for their upkeep on donations from the public at home as well as overseas. They also receive considerable assistance from voluntary workers and from workers who are willing to receive very small emoluments for serving their particular mission.

November 1977

COMMUNITY PARTICIPATION IN THE PROVISION OF HEALTH CARE IN WESTERN SAMOA

Background paper prepared by the Government of Western Samoa

The traditional pattern of life of Samoan communities depends to a large extent upon communal participation in activities and the provision of health services in Western Samoa proves no exception. In particular, the women's committee's in Western Samoa are extensively involved in promoting and providing health care at the village level. Women's committees have evolved to the point where they are now major forces in the construction and maintenance of district hospital, health centre and health sub-centre facilities, in the support of health personnel in the form of provision of food and housing, and in the organisation and facilitation of regular visits to the villages by nurses who hold ante-natal and child care clinics. Simple medical care is provided through trained primary health care workers and intra-natal care through trained traditional birth attendants, who receive remuneration in a traditional manner. The latter two categories of health workers have been trained only in recent years in an on-going programme, but there is no doubt that their contribution in the provision of health care is significant.

2. Women's committees, therefore, are involved with the areas of maternal and child health, including family planning, communicable disease control, health education, environmental sanitation, intra-natal care and simple medical care.

3. The development of specific health-related activities of the women's committees can be traced back to the 1920s. At that time, health authorities were worried about the prevalence of yaws (among many other conditions) affecting Samoans, as well as about the lack of facilities at the periphery. Women's committees were encouraged by health personnel to get involved in the provision of health care, a challenge which was taken up and developed into the complex of activities of today.

Social organisation

4. Western Samoan society is based on a chieftain system. Chiefs are selected by extended families to represent the family in the village council and to be responsible for the affairs of the family in general. The responsibility for the family is a great one, as the *matai* (chief) is considered totally responsible. Being a chief, however, confers upon him also the right to request contributions from better endowed members of the *aiga* (extended family), whose contribution will serve the greater good of the *aiga*. Obedience to the word of the *matai* is also implicit in the system, although irresponsibility in the execution of his task may cost the *matai* his title. The latter, however, occurs but rarely once a *matai* title is confirmed. *Matai* can be *ali'i* (chiefs) or *failauga* (orators). The orator represents his chief in the village council.

5. *Matai* of the extended families organise the work to be carried out for the good of the family, and communality of spirit in carrying out appointed tasks is a characteristic of village groups.

6. In the light of this historic attitude, the request of the health officials in the 1920s did not fall on deaf ears. Given a purpose, the women's committees acquitted themselves admirably in their tasks. Hierarchical form is adhered to and, although women are not usually title holders, the wives of the chiefs usually hold positions of rank in the women's committees. Traditionally the wives of chiefs formed a separate social category, as did the daughters of chiefs and the wives and daughters of untitled men. The usual functions of providing food and drink for visitors, the display of ceremonial hospitality and a multitude of other home-making tasks, such as the provision of foods for the local pastor and his family, were the tasks of the women's groups. The request for extension of these tasks into the realm of provision of health care was almost a natural one and therefore proved very successful.

7. The early women's health committees served as a mechanism for the identification of health problems and for mobilising group efforts towards solving these problems. The committees are active throughout Western Samoa and, with few exceptions, all families belong to them. Not being a member of a women's committee is tantamount to being a-social and incurs a certain disdain for the person concerned. Activities of the women's committees have extended to other areas of interest such as schools and farming; funds are raised for the building or extending of schools and several women's committees have milking cows, the dairy produce of which is sold, the latter serving the dual purpose of providing extra protein as well as money for the women's committees' other programmes.

Health care and the women's committees

8. Health care is provided under the auspices of the Department of Health, whose director is responsible to the Minister of Health. Health services are carried out under the direction of the chief of public health, assisted by district medical officers, district nurses, staff nurses and health inspectors. Dental officers carry out dental care, preventive as well as curative, under the supervision of a chief dental officer. Nursing services are supported by the Apia School of Nursing and supervised by the superintendent of nursing. The Apia-based National Hospital is headed by a medical superintendent.

9. District health and medical care are the responsibility of district medical officers, assisted by district nurses. The district medical officer's task is made easier by co-operation with the women's committees, with whom he maintains regular contact. It is necessary for the district medical officer to have knowledge of traditional custom in addressing chiefs and orators, as he needs to contact the village council not infrequently. As these customs may differ from district to district, the medical officer needs to learn these customs to be effective.

10. District nurses are the points of contact with women's committees. The co-operation of the women's committees makes their task infinitely lighter than in many other countries, as women's committees see to it that all members of their committees needing health care come to see the district nurse on her visit to the village. To facilitate the visit, a women's committee builds a women's committee *fale*, which is a meeting house clinic during the district nurse's visit. Traditional exchange of greetings, acknowledgment and gratitude for the visit and the partaking in the dinner provided for the district nurse all take a considerable period of time and here, once more, skill in the upholding of the traditions is an absolute *sine qua non*. In fact, it is widely acknowledged that much time must be set aside for the upholding of traditions (*faa Samoa*), which necessitates the recognition that attempting to keep to a time schedule is sometimes impossible.

11. Women's committees are organised on a district scale with representation to a district committee, which, among other things, decides on the division of work relating to maintenance of district hospital buildings (or health centres or sub-centres, as the case may be), the cleanliness of the grounds, and the provision of food to the health staff and to patients. As well as maintenance activities, women's committees have raised funds and directly contributed labour for the construction of hospitals and or other health facilities in their districts. This, in effect, means a significant monetary saving to the Government of Western Samoa, as a significant proportion of health costs are directly met by the community.

12. A significant development of the last few years has been the training of *faatoaaga* (traditional birth attendants). Slightly more than 50 per cent of all births in Western Samoa are attended by *faatosaga* and have been for many years. These traditional birth attendants (TBAs) are members of women's committees and, depending on its size, a committee, may include as many as three TBAs. In 1973–74 the decision was taken in principle to give existing TBAs training so as to increase their knowledge of the process of birth. A pilot project was completed and 32 TBAs were trained in late 1975 and early 1976 and the project was evaluated in early 1977.

13. Subsequent to this evaluation, the Government of Western Samoa accepted the policy of providing training courses for TBAs during 1977 and 1978 in the districts. The Government stresses the fact that it provides delivery facilities in the district hospitals and the National Hospital, but recognises that a significant proportion of Western Samoan women express a preference for the *faatosaga*. To facilitate safe delivery, therefore, the Government invites the TBAs to participate in the training courses, but stresses further that this is a voluntary participation which does not entitle the participant to government remuneration following completion of the course, other than the gift of a TBA midwifery kit provided to the Government of Western Samoa by the United Nations Fund for Population Activities.

14. A total of approximately 120 out of 300 TBAs had been trained by August 1977; the remainder should be trained before the end of 1978. A manual has been prepared which the TBAs keep for reference. They are trained by a nurse midwife under the overall supervision of a medical officer.

15. A more recent development is the training of primary health care workers (village health workers). Based on concepts developed by the World Health Organisation (encouraged by the success of the People's Republic of China's "barefoot doctors"), the primary health care workers in developing countries are seen as a link between (all-too-often) remote district health services and the population at large. While Western Samoa, with a fairly satisfactory road network and transportation system, is better off than many other countries in similar circumstances with respect to overall development, the social structure of Western Samoa is possibly unique in its capacity to adopt community-based concepts without great problems. Consequently, Western Samoan society is able to adapt these concepts to the needs of their own village communities.

16. Although the concept as such has as yet not been fully developed in Western Samoa and although an official government policy with respect to the development of primary health care workers has yet to be decided upon, several medical officers have taken the initiative in their districts of encouraging women's committees to nominate individuals to be trained as primary health care workers. Primary health care, in the present context, is seen as basic first aid and basic knowledge of hygiene and environmental sanitation — knowledge geared to the provision of assistance to the district nurse on her visits to the women's committee and possibly help for the TBA in the village. A recent national seminar on primary health care has generated greater interest in the subject and it is expected that further debates on primary health care by villagers will create further ideas. Here again, it has been stressed that any teaching is attended voluntarily and that no government remuneration can be expected. Early signs indicate a great degree of interest in the further development of these workers.

Conclusion

17. An overview has been given of the involvement of Western Samoa communities in the provision of health care. It is believed that, although improvements can be made, Western Samoa is in the unique position of being able to make optimal use of her existing social structure in the provision of health and medical care services as communal participation in all activities in daily life is an inborn reaction to the solving of problems.

November 1977

COMMUNITY PARTICIPATION

Background paper prepared by the Government of Seychelles

Seychelles is following the experience of other countries in recognising the importance of community participation and education and motivation in the effective promotion of community health. It must be admitted that the present level of participation leaves a lot to be desired and a great deal more could be done. The Government intends to give more attention to community involvement and education/motivation in its national health programme which it is in the process of formulating. What must be aimed at is sustained participation, as all too often public interest in a particular project falls off rapidly.

EDUCATION AND MOTIVATION

2. In educating and motivating the population use is made of the existing Government media, namely Radio Seychelles; The Nation, a government-owned newspaper; and the government film unit. Of these, the radio is probably the most important as virtually every household has one.
3. Not to be underestimated is the value of person-to-person communication, which in Seychelles is facilitated by having the population concentrated on the main island of Mahe and two other islands (Praslin and La Digue) not far removed from Mahe. Many regard the mass media as being anonymous and impersonal and are suspicious of information emanating from them as they believe such information is processed. Opportunities for personal contact occur at the hospital level between nurses, midwives, doctors and patients; at the level of the rural clinics between nurse and patient; and in schools between the schoolchildren and the public health nurses running the school health programme.
4. In its proposed national health plan, the Government will be strengthening its maternal child health and family planning services, which form an integral part of the public health sector. Unlike curative medicine, to which people are generally driven by the aches and pains of illness, any preventive activity such as is inherent in a maternal and child health service requires a concerted effort towards information and education to attract "clients" and ensure that they will apply in their own lives the knowledge they have gained. The success of any maternal and child health and family planning programme depends largely upon what people themselves do after they leave the clinic and not merely on what is done for them at the clinic itself. People must not only be motivated to come forward to the clinic in the first place but they must also be adequately informed and motivated to return to the clinic regularly for fresh supplies, for additional immunisation and to discuss with the nurse or doctor at the clinic any problems they may have, and to continue practising thereafter what they have learnt about such things as good feeding practices and personal hygiene. The initiative lies to a large extent with the people themselves, although the quality of service provided will certainly have an impact. Incentives like the provision of free food influence attendance. The nurses at those clinics are encouraged to build up personal relationships with patients and gain their confidence. A mother is more likely to confide in, and discuss her problems with, someone whom she has come to know well and to trust.
5. A family planning service is for the first time this year being offered by the Government through its existing maternal and child welfare clinics. Prior to this, family planning was provided exclusively by the International Planned Parenthood Federation which has been operating in the Seychelles for the last ten years. Complete integration of family planning into government services will be effected over the next few months.
6. An important component of a family planning programme is the introduction of population education — e.g. population dynamics, family life education and sex education — to certain groups like secondary schools, students of higher education, and teacher training institutions. In addition, community centres in rural areas will be utilised to carry out non-formal education activities.

7. The Ministry of Education and Culture will have a prominent part to play in this aspect of the programme and it is intended to set up within this ministry a population education unit which will work in close liaison with the staff of the Ministry of Health and Welfare in the development and implementation of the educational and motivational component of the programme. To this end expert consultant services will be made available with assistance from the UN Family Planning Association (UNFPA) to undertake the following:

- (a) investigation of problems concerning the health, family planning and family welfare of the community so that appropriate curricula and teaching techniques tailored to meet the needs of the community can be designed;
- (b) the development and preparation of teaching, training and campaign materials;
- (c) on-the-job training of local staff who are to be responsible for information and education activities – it is proposed to train two teacher/communication personnel and two technicians who will be in charge of the film unit and the operation of a mobile education and information van.

SPECIAL GROUPS AND ACTIVITIES

Action Familiale

8. This body provides couples with advice on contraception acceptable to Roman Catholics, namely the rhythm method. In addition it conducts training courses and organises discussion groups to motivate adults and youths to adopt a responsible approach to sex and family life.

The Seychelles Children Society

9. This voluntary organisation, which has now been in existence for seven years, is a very active one. Its areas of activity at present cover the following:

- (a) the society originally initiated the crèche programme which has now largely been taken over by the Ministry of Education and Culture, save for a day centre in the city which it still runs – it supplies equipment and teaching aids to the various crèches on the island of Mahe;
- (b) the society has had surveys conducted on those children who are handicapped, has financed the building of a handicapped school, and offers educational facilities to the deaf, the blind and the mentally retarded;
- (c) under a scheme funded by the Save The Children Fund in Britain, the society makes monthly grants to low-income families with poorly-nourished children.

The Seychelles Cheshire Home (Dr Hermitte House)

10. Sponsored by the Seychelles branch of the Cheshire Home Foundation this house will become operational by the end of the year. It is meant primarily for the rehabilitation of paraplegics but will also provide medium-term facilities for the rehabilitation of undernourished and at-risk children. The response from the community in setting up the home has been excellent; its success will depend on continued community participation.

Société Feminine

11. This organisation, which is affiliated to the Association of Country Women of the World, is with the aid of a grant from the ACWW in the process of setting up a nutrition extension service. This will be concerned with the after-care of malnourished children in their homes.

Blood donation

12. Seychelles does not have a national blood transfusion service and for the size of the population it would be impractical to set one up. The national hospital, however, does keep a small

bank capable of storing up to 40 units of blood. Until recently there was a general reluctance to donate blood based on misconceived ideas, superstition and prejudice. Through the mass media this is gradually being overcome and people are being motivated to donate blood on a voluntary and non-renumerated basis.

Housing

13. A number of housing projects involving the reconstruction of shacks in certain poor housing areas are being undertaken by volunteer workers under supervision provided by the Public Works Department.

National health and welfare plan

14. Prior to the change of Government on 5 June 1977, a plan was in existence called the "national family and welfare programme", drawn up jointly by the Government and UNFPA. The new Minister of Health and Welfare on taking office felt the programme had been written without sufficient consultation with the rank and file and accordingly appointed a committee to re-examine and re-design the programme so that it would be more suited to local needs and circumstances. The revised programme was circulated to all medical officers, the Nursing Association, the Welfare Division, other Ministries and all non-governmental organisations, and there were comments invited. The feedback from all these sources will be considered in the formulation of the national health and welfare programme which will form part of a comprehensive social security system.

November 1977

COMMUNITY PARTICIPATION IN HEALTH SERVICES

Background paper prepared by the Government of Kenya

Health needs and community understanding

Community health, the subject of the Fifth Commonwealth Medical Conference, implies understanding the totality of recognition of health needs of a community and the positive commitment of the authorities to satisfy these needs comprehensively, as they relate to the individual, the family, the community and the environment. Some of these health needs are easily recognised, as for example when an epidemic strikes or when individuals complain of illness, pain or injury. Some other health needs, particularly those relating to promotion and maintenance of good health, are not so obvious. Those who work in these fields, whose efforts towards the promotion of good health and a sound environment and the prevention of disease are non-dramatic, have still an uphill battle to convince individuals, officials and society of the necessity of increasing investment in the community health sector.

2. The benefit to overall national development to be derived from emphasis on the various aspects of community health services has been increasingly recognized by successive government development plans since Kenya's independence in 1963, with resultant rising financial allocations to these services, particularly among the rural population. In considering the various aspects of health services, great emphasis is now placed on the promotive and preventive aspects, since the general public is already well-motivated in regard to curative aspects and demands are high, while it is less conscious of the need for general public health services which have to be promoted by centrally-organized effort. These include health and hygiene teaching in general education, health education for the masses, nutrition education, provision of wholesome water supplies and sanitation, immunisation, control of communicable diseases, and rehabilitation of the incapacitated.

Government health services

3. In general, the Government is responsible for providing health services to the whole population. This role is particularly significant in community health and motivating the community to learn and understand the essence of good health so that they can participate in helping themselves in their homes, villages and farms. Of particular significance in reaching remote populations are the rural dispensaries, health centres and mobile health units. New rural health workers from the community itself are being trained to work in these rural units and in the villages, and these have been found useful as motivators of the villagers, particularly in fields such as nutrition, maternal and child health, family planning education, and in communicable disease control. All these rural units are guided, assisted and supervised from the districts and the provincial health service level.

Community participation in planning

4. At all stages of planning development of health services and their implementation, the Ministry of Health consults and cooperates with other ministries and departments of the central Government, local authorities, voluntary organizations and local community organizations. Choice of new developments in any area of the country is largely influenced by the local district planning committees, whose recommendations are considered by the provincial development committees before decisions are taken at the Ministry headquarters level. The district development committee consists of members from all government departments at the district level, elected members of Parliament, representatives of the local county councils and prominent leaders in the community. This approach ensures a measure of community participation in development planning and decision-making.

Non-governmental health agencies

5. Other non-governmental agencies continue to complement the government effort by providing aspects of health services among the community in many parts of the country. Such agencies are churches and other voluntary organizations which provide health services, industrial hospitals or medical clinics, private hospital organisations and general practitioners. Their medical facilities form part of the work within the community and ease the load of patients in the often over-crowded government establishments, and at times work in situations where government facilities are not immediately available. These non-governmental health agencies are controlled by government guidelines in their practices and are accepted as part of community participation in the health services.

6. Church hospitals have been particularly valuable, providing about 30 per cent of the hospital bed capacity of the country, and these facilities are often placed among the communities in remote parts of the country. The Flying Doctor Service in Kenya is run by a voluntary organisation with small grants from the Government. This provides another link to the communities in inaccessible parts of the country, and has been useful in the control of communicable diseases and the evacuation of acute emergency cases to better-equipped hospitals for treatment.

7. Other voluntary agencies performing a very valuable health role in the community are those concerned with the care and rehabilitation of the physically or mentally handicapped. There are numerous voluntary societies dealing with disabilities such as those of the physically disabled, the blind, the deaf and the mentally handicapped. Such organisations receive government grants which cannot be adequate to meet the necessary expenses; the bulk of their funds have to be obtained from other sources such as endowments, contributions from philanthropic associations, individuals, and voluntary fund-raising activities such as organised self-help walks and sports.

Community self-help (Harambee) health projects

8. Community participation in aspects of development in all sectors of social activities is traditional rather than novel in most communities in Kenya. This tradition has been employed to very good effect in the extension of developmental programmes in practically all sectors of the economy – education, health, agriculture, the cooperative movement and even in commerce – to beyond what can be made available from governmental financial resources. In the field of health, local self-help groups have come together and contributed in cash or kind, or have volunteered their labour, to build dispensaries, health centres and, in a few instances, hospitals in areas where these facilities were lacking. Similar self-help spirit has been used in the provision of child care nurseries, water supplies and access roads in many parts of the country, all of which facilitate the provision of other aspects of health services.

9. The Government participates in these self-help efforts of local communities by giving guidance in planning so that they are in line with the overall development, by contributing some grants for the projects, and eventually by taking over the running of the projects as part of the government service when financial provision can be made centrally for them. The rate and ramification of aspects of health and other services to even the remotest of villages generated by the self-help effort in Kenya, which is a corner stone of government policy, confirms the essential nature of community participation in the planning and provision of health services. Part of this participation may be in the form of self-help projects which can be managed with a minimal government contribution, and which the people themselves consider to be of benefit of their local community.

8 November 1977

COMMUNITY PARTICIPATION

Background paper prepared by the Government of India

Health education

In ancient India great importance was attached to education in cleanliness, appropriate diet, health and disease. Vagbhatta, an ancient physician, recommended that one should not sneeze, laugh or yawn without covering one's mouth. Nose and ears should not be picked with fingers. "The type of food, time of taking it, its quantity, combination, how it should be served, the material of the pots in which it was served were all given due consideration. Charaka and Susruta devote many chapters in describing the qualities and effects of different articles of food." The community was educated on different aspects of health in ancient India and people's participation was sought for preventive, curative and promotive aspects of health. People were educated regarding do's and don'ts to maintain fuller and happier life through "Dincharya" (routine activities for better health).

2. Our ancient physicians like Susruta and Vagbhatta laid great importance on people's active participation in prevention of disease and promotion of health resulting in increasing the longevity of life. According to Kautilya's *Arthashastra*, people were educated to keep their surroundings clean. It is worthwhile quoting from Kautilya's *Arthashastra*: "From each house a water course of sufficient slope at a distance of 3 *padas* (foot-length) or 1½ *aratnis* from the neighbouring site shall be so constructed that water shall either flow in a continuous line or fall from it into the drain".

3. Thus it is quite evident from the writings of ancient Indian physicians that the success of any health programme depends considerably upon the active participation of the community. This can be brought about by educating the people regarding various aspects of healthful living and creating situations in which people are directly involved in planning, implementation and evaluation of health activities at different levels.

4. Taking into consideration the modern trends in health, it is worthwhile mentioning that even the Bhore Committee which was appointed in 1943 found that "the low state of public health as reflected in the high mortality and morbidity (particularly among mothers and children) was preventable and was mainly due to the absence of environmental hygiene, adequate nutrition, adequate preventive and curative health services and intelligent co-operation from the people themselves". To seek co-operation from the people a Community Development Programme was launched in the year 1952 covering the rural population of the country. The principle behind the Community Development Programme was the active participation of the people for their growth and self-sufficiency, including better health.

5. The Bhore Committee also recommended that progressive improvement of public health depends largely on promotion of the hygienic mode of life among the people. In each village a health committee consisting of 5–7 individuals should be established for procuring the active participation of the people in the local health programme.

6. Based on the recommendations of the various health committees and experience gained during the process of planning and implementation of various health programmes, a network of health set-ups has been developed.

7. To provide medical and health services to our rural population, which is approximately 80 per cent of the total population, primary health centres have been established. For every 60,000 to 80,000 we have one primary health centre, and one sub-centre for approximately 10,000 population. The main functions of the primary health centres are to provide preventive, curative and

promotive health and medical services to our rural population. Besides these, one of the most important functions of primary health centre is to bring about a change in health behaviour of the people through community participation. A multi-pronged approach is being carried out to motivate people to accept various health programmes. According to the requirements of the situation, various methods of health education, such as mass meetings, group meetings and individual contacts, are used to gain better acceptance of the health services. Suitable media, such as radio, films, flash cards, film strips, handbills, posters, pamphlets and local drama parties, are being used for communication and motivation purposes. Special camps and campaigns are also organised to mobilise public opinion in favour of special programmes for eye camps, immunization, family welfare, malaria, smallpox, leprosy, etc. During the time of campaigns special efforts are made to mobilise the resources of governmental and voluntary organisations to make the programmes succeed.

8. So far as the sub-centres are concerned, they also carry out all the functions of primary health centres and are considered as mini primary health centres.

9. Besides the primary health centres and sub-centres at the grass-root level, we have the network of the health care delivery system provided through district and *taluka* sub-divisional hospitals. At the State level we have teaching hospitals and other big hospitals.

10. In all the big hospitals there are social service departments based on the principle of voluntary participation of the people for the welfare of the patients. Besides the welfare departments in each hospital, health education is also being integrated in the functioning of the teaching and district hospitals for:

- (a) better acceptance of the services;
- (b) making patients and their relatives understand the preventive measures to be taken to reduce the magnitude of preventable diseases;
- (c) reducing the tension of the patients and their relatives and making the hospital experience a pleasurable one as far as possible;
- (d) educating the patients and their relatives regarding causation, mode of spread, preventive and promotive aspects of the disease.

11. In the teaching hospitals, departments of preventive and social medicine are actively involved in the planning and implementation of training of interns in community medicine in rural areas. Thus, the whole of medical education is being reorganised so as to prepare doctors to cater for the needs of the rural population. In community medicine emphasis is given to helping people to help themselves through active participation in solving their health problems.

12. For better delivery of health services and better training of interns, each medical college has been assigned the responsibility of providing medical and health services to three primary health centres in neighbouring districts.

13. The success of any programme depends considerably upon the training of the various categories of personnel involved in the programme. To cater for the training needs of the health programmes, a training strategy has been developed so that all the categories of personnel are trained in shortest possible period of time. For this purpose a network of training institutes have been established. There are seven central training institutes and 46 regional health and family welfare training centres to train workers right from primary health centre and sub-centre levels to State level. Besides the in-service training programmes, which are followed with refresher and re-orientation courses, a one-year diploma course in health education is being organised by the three central institutes in collaboration with local universities. Increased emphasis on the health education component in basic training courses for medical, nursing and other para-medical staff is being given. Attention is also being given to the incorporation of health education in general education at various levels in schools and colleges.

14. All the health personnel working at the primary health centre levels are supposed to carry out health education activities so as to involve the community in active participation in the pro-

gramme. At the State and district levels we have health education specialists for the integration of health education in various programmes. The health education specialists plan and develop health-education strategy for better acceptance of the programme by the people. They are also involved in developing training strategies and evaluation plans for the successful implementation of health programmes. These specialists are also involved in developing educational aids — material, manuals and guides for health workers based upon research findings and their own experience of working with the community.

15. Recently the Ministry of Health and Family Welfare has formulated a new health policy which envisages the active participation of the people at all levels. The major emphasis is on people's participation in all the health programmes. Under the rural health services scheme, each village will select its own representative (on a population ratio basis of one per 1,000) who belongs to the community and enjoys its confidence, to provide on-the-spot primary medical care and at the same time to educate the community on the prevention of diseases and the promotive aspects of health. These representatives are known as community health workers.

16. The community health worker is a link between the community and the health agency. These workers are not government servants; they are voluntary workers responsible to the village council. Their training started from 2 October 1977 and the first batch of community health workers will start their work from January 1978.

17. These workers will be helped by the workers of primary health centres in carrying out preventive, curative and promotive aspects of health services through the involvement of community.

18. In short, it may be said that the network of the health care delivery system is being established in this country with emphasis on the implementation of health programmes through people's participation. Health education and community organisation are built in to all our health programmes for reducing the magnitude of our health problems, placing stress on the preventive and promotive aspects of health.

The Community Health Workers Scheme

19. A draft plan for health care services in rural areas was discussed in the Health Ministers and Health Secretaries Conference held on 28–29 April and 28–29 July 1977. As a result of the deliberations of this conference and with the approval of the Planning Commission and the Finance Ministry, a new rural health care scheme named the Community Health Workers Scheme (*Jan Swasthya Rakshak*) which is a part of the plan to involve the community in the delivery of primary health care, has been launched in the country with effect from 2 October 1977. It is open to all adult persons living in the areas of selected primary health centres to join the programme and serve the community in their spare time. The basic criteria for selection of a community health worker are: a permanent resident of the village, age preferably below 30 years, education or functional literacy, and a knack for social welfare service. The community will select one such worker per every thousand people.

20. In the first stage, starting from September 1977, the district health officers and medical officers of 777 primary health centres have undergone a training programme so as to equip them properly to undertake the training of community health workers. Four hundred and thirteen primary health centres in 28 districts of six States where the multi-purpose workers programme is being implemented have been covered under this programme, along with 364 other primary health centres (at the rate of one primary health centre from the rest of the 364 districts). Para-medical staff of the primary health centres have also been trained during September 1977.

21. The programme was inaugurated by the Prime Minister of India on 3 October 1977 in Haryana. It was also inaugurated simultaneously throughout the country by the respective State Chief Ministers or Health Ministers. The community have selected 20 workers for the first batch to undergo the training. During the training period the trainee will get a monthly stipend of Rs.200 for the entire duration of the training (i.e. 3 months). On completion of the training the

worker will receive a kit and packets of drugs as selected by the State Governments. The worker will continue to get an honorarium of Rs.50 per month and drugs worth another Rs.50. In addition, the services of the selected primary health centres will be further improved through the posting of an additional medical officer and the supply of drugs, stationery, etc. The scheme is 100 per cent centrally sponsored. A financial allocation of Rs.4.50 crores have been made during 1977-78 and 13.18 crores during 1978-79. The scheme will be reviewed in June 1978 so as to consider its extension to the remaining parts of the country.

22. A built-in evaluation system has also been included with the programme. The workers undergoing training will be evaluated initially during the course of training and finally while working among the community. A suitable pro forma for evaluation purposes is being designed by the National Institute of Health Administration and Family Welfare.

23. It is envisaged that the community health workers who are already undergoing training in the 700 primary health centres in the country will serve as a vital link between the community and the primary health centre. Each worker will function as a promotive and preventive health worker. He will also render first-aid in case of emergencies. He will be fit to provide elementary medical care. In addition to this work, he will be in a position to offer prompt advice and guidance to the people in the village who seek medical care. He will be able to notify the incidence or out-break of a communicable disease in the community and ensure that proper action is taken by the primary health centres staff to combat the infection. It is expected that the installation of a primary health worker and his or her proper functioning will awaken the community to take necessary measures for health promotion and prevention activities and serve as a vital link between the community and the health care delivery system.

24. The training programme is already in progress in the country. Manuals have been drawn up and are being supplied to the workers and suitable teaching aids and lesson plans have been prepared for their proper training. The States have indicated the drugs to be supplied to the community health workers and necessary action is being taken to meet the demand within this year. Excepting the States of Tamil Nadu and Karnataka, all the States have joined in this Programme.

COMMUNITY HEALTH WORKERS' PROGRAMME

Primary health centres selected for the Community Health Workers Scheme

<i>State/Union Territory</i>	<i>Districts</i>	<i>PHCs</i>	<i>PHCs selected for the programme</i>
1. Andhra Pradesh	21	416	101
2. Assam	10	146	10
3. Bihar	31	587	31
4. Gujarat	19	251	103
5. Haryana	11	89	25
6. Himachal Pradesh	12	77	12
7. Jammu & Kashmir	10	80	7
8. Karnataka	19	266	
9. Kerala	11	163	
10. Madhya Pradesh	45	457	45
11. Maharashtra	26	391	97
12. Manipur	6	17	13
13. Meghalaya	5	14	3
14. Nagaland	7	11	
15. Orissa	13	314	13
16. Punjab	12	128	25
17. Rajasthan	26	232	27
18. Sikkim	4	5	4

<i>State/Union Territory</i>	<i>Districts</i>	<i>PHCs</i>	<i>PHCs selected for the programme</i>
19. Tamil Nadu	15	382	
20. Tripura	3	27	3
21. Uttar Pradesh	56	875	182
22. West Bengal	16	315	15
23. A & N. Islands	2	2	1
24. Arunachal Pradesh	5	79	
25. Chandigarh	1	1	1
26. Dadra & Nagar Haveli	1	2	1
27. Delhi	2	8	
28. Goa, Daman & Diu	3	15	3
29. Lakshadweep	1	7	
30. Mizoram	3	4	3
31. Pondicherry	4	12	3
	400	5,373	

FOOD AND NUTRITION

Paper prepared by the Commonwealth Secretariat

A basic obligation for all countries is to ensure that people have adequate food of a nutritionally high standard. Population growth, unemployment, illiteracy and related factors, however, impede the discharge of this obligation in most countries. Malnutrition is probably the major public health problem in the world today. Apart from the high morbidity and mortality rates directly attributable to it, its contributory role in increasing susceptibility to infections of various kinds, and in aggravating the course of such infections after they have been acquired, gives it even greater significance. In many developing countries deaths of children under five years account for nearly 50 per cent of total deaths (compared with 2–4 per cent in more affluent countries) and malnutrition has been identified as a major direct or associated cause. Adequate strategies for dealing with it both nationally and internationally are among the most urgent needs of our decade.

2. Nutritional problems also exist in the more affluent countries. Pockets of urban poverty and malnutrition persist in all of them, but their major nutritional problems are those related to the excessive consumption of such food items as sugar and saturated fats. The resultant health problems such as obesity and degenerative heart disease carry high and still rising levels of morbidity and mortality.

3. A clear definition of the nature and magnitude of local nutritional problems is essential for the formulation of rational nutrition policies. Such policies must also recognise that adequate nutrition depends on the interaction of a wide range of factors many of which lie outside the conventional confines of Health Ministries. These include, for example, agricultural policies, education, industrial development programmes, urbanisation and many others. There is need for assessment and co-ordination of these factors in nutrition and food planning.

Practices and policies in certain Commonwealth countries

4. Practices and policies vary with local conditions and requirements. Some characteristic examples are given. In *Australia* special attention is being given to disadvantaged groups such as Aborigines and others of low socio-economic classification. There is a national policy on nutrition in *Cyprus*, and several Ministries are involved in its implementation. School feeding programmes are emphasised, particularly in the poorer rural communities throughout the school year. Home economics teachers play a special role in the operation of these programmes; the teaching of the principles of nutrition is an integral part of the country's home economics courses in both elementary and secondary schools. The Ministry of Agriculture also plays an important role in implementing the Government's nutritional policy.

5. There are also wide-ranging activities in this field in *Ghana*. In 1975, in recognition of the significance of nutrition in national development, the Government set up a multi-sectoral committee under the National Economic Planning Council to review the whole area of nutrition and its report is now being studied by the Government. The Ministry of Agriculture is vigorously pursuing measures aimed at the production of adequate quantities of food of high nutritional value at reasonable prices.

6. In order to reduce the trend towards the importation of weaning foods the Food Research Institute of the Ghana Council for Scientific and Industrial Research is currently conducting a

research project on the utilisation of local food materials for the preparation of weaning foods of adequate nutritional value. The socio-cultural factors underlying poor nutrition are being actively studied and information and education programmes to counter these are being pursued.

7. Special attention is being directed in *New Zealand*, through departments and research centres, to the maintenance and improvement of standards and efficiency of food production and processing. The need for raising the levels of education of nutritional health workers has also been recognised. In *Swaziland* also emphasis is being placed on nutritional education which is provided for all students from nursery school upwards.

Special objectives

8. Apart from the general need to improve national levels of nutrition, certain medical disorders may require to be specially catered for in national nutrition policies. Anaemia, goitre, vitamin deficiencies, nutritional blindness and rickets are examples.

9. Population groups with particularly high levels of risk may also require special programmes directed towards them. These include infants and pregnant women, school children, the elderly and the poor.

10. Adequate machinery for nutritional surveillance, monitoring and evaluation is also essential. It provides the essential and logical basis for appropriate changes and modifications in nutrition programmes.

11. An appropriate balance between food crop and cash crop production must also be a special target for agricultural development policies. Its importance for both health and general national development is self-evident. The choice of a suitable variety of food crops to ensure a balanced diet is also a crucial factor.

12. In nutrition, as in other areas of the health field, adequate arrangements for community education and participation are essential. Special groups, youth, women, private organisations, school teachers also play important roles. They can all supplement the efforts of trained manpower and make a real contribution to the success of national nutritional programmes.

Specific questions

13. In the light of these general and special requirements, the Conference might give special attention to such questions as:

- (a) What are the basic requirements for adequate national nutrition and food planning?
- (b) What is the role of the Ministry of Health in the plan and its relationship with the other national agencies and groups involved?
- (c) What are the practical steps that must be taken to promote the maximal use of locally available food resources?
- (d) Are there any socio-cultural conditions that require special attention in relation to the plan?
- (e) What are the special groups and programmes for which provision needs to be made?
- (f) What are the particular problems (e.g. communications, marketing) that may impede the production and distribution of foods of adequate nutritional value and how can these be overcome?

- (g) What practical steps could be taken in affluent countries to reduce the dangers to health which arise from excessive consumption of fats and sugar?
- (h) What role could be played by international agencies, and particularly by the Commonwealth Secretariat, in helping countries find answers to these questions?

14 October 1977

FOOD AND NUTRITION

Background paper prepared by the Government of Australia

The Government of Australia has a general policy of promoting health through the establishment of an integrated and comprehensive health care system based on a mixed economy, the rights of the States and Territories and the belief in the individual's freedom of choice. There has been no specifically enunciated policy on nutrition; the general ease of availability of high quality food to the normal working man has undoubtedly been a factor. Special attention is now being given to disadvantaged groups such as Aborigines and others of low socio-economic classification, and for the former, new broadly-based pilot programmes to lift the general social, cultural and economic levels are being formulated.

The Australian picture

2. Nutritional status of children and adults in Australia is not of great concern though poor food choice and overnutrition leading to obesity and allied medical disorders is becoming increasingly evident. Some children of the lower socio-economic groups, including Aborigines, may be very poorly nourished in terms of both total food energy and individual nutrients.

3. Surveys have not been extensive but the few small studies undertaken indicate that the elderly and teenage girls, especially when pregnant, and pre-school children in the lower socio-economic strata of the community are most likely to be poorly nourished — a few cases of marasmus and kwashiorkor have been identified in Aboriginal populations.

4. There is a very active quarter-million-strong Nursing Mothers Association of Australia. Statistics indicate a trend back to breast feeding for at least the first three months, but nevertheless the majority (70–75%) of Australian infants are bottle-fed from the first week or two of life.

5. The majority of mothers use cans of infant foods, and processed cereals packaged especially for infants with added iron, calcium and vitamins of the B group. The Nursing Mothers Association recommends the use of the same foods as the rest of the family with minor modifications of texture. In Australia there are plenty of suitable everyday foods that could be used as weaning foods and therefore special foods are not really necessary.

6. Australia does not have a subsidised school meal service. However, most schools have school canteens from which children may purchase food. The responsibility for these school canteens is usually vested in local Parent and Citizen Associations and the quality of the foods offered for sale varies considerably. The Federal and some State Departments of Health have published guidelines to aid these voluntary organisations, but these are not always followed.

7. Generally speaking, there is adequate nutritious food for the entire population. Considerable choice is available in the market place, but some individuals may not always choose the most wholesome combination of daily food.

Special considerations

8. The need for a nutrition component in health education is gradually being accepted by the community and education authorities. There have been no surveys to assess the influence of such programmes.

9. Although Australian food production and nutrition programmes would not necessarily be confined to young people, there are numerous voluntary youth leadership organisations such as Junior Farmers, YMCA, YWCA, Rotaract, etc., which could be encouraged to be more active in nutrition education programmes.
10. It is generally considered that nutrition education is most effective when directed to young mothers who influence the food patterns of their children, and to school children whilst they are still young enough to modify habits if necessary.
11. Australia has the necessary expertise to plan any food production and nutrition programmes required. The main nutrition personnel available to administer nutrition programmes are dietitians and nutritionists who are trained at university level in Australia.

25 August 1977

FOOD AND NUTRITION

Background paper prepared by the Government of Swaziland

NATIONAL POLICY

In Swaziland, while there is at present no well formulated government policy on nutrition, many people involved in both government and non-government organisations are aware that food and its nutritional value are important determinants of the health of the population. Some of the credit for fostering and developing this awareness can be given to the National Nutrition Council, an inter-ministerial body created by an Act in 1945.

2. This Council falls under the Minister for Health and therefore recognises the need for the Ministry of Health to take leadership on nutrition matters, but being multi-sectoral in nature it further recognises that fundamental actions to improve the situation lie outside the direct responsibilities of the health sector and co-ordinated government actions are required.

3. The Council is charged in the Act with the following function:

“to investigate and report to the Minister upon all matters relating directly or indirectly to the prevention of malnutrition, and improvement of the diet of the inhabitants of Swaziland, which in its opinion should be investigated or which the Minister may refer to it for investigation”.

4. Recently the need to strengthen the structure of the Council, in order to improve its effectiveness and enable it to meet the demands made on it, has become apparent. It is hoped that this objective will be met through the proposed revision of the Nutrition Council Act presently being undertaken.

5. It is intended that the revision should encompass the following:

(i) expand the membership of the Council. In the present Act permanent membership is drawn from the Ministries of Health, Education, Agriculture and Local Administration. Appropriate membership from two other Ministries — Finance and Economic Planning, and Industry Mines and Tourism — is to be included in proposed amended Act;

(ii) give the Council the following more specific functions:

(a) to monitor the food and nutritional situation of the population, identifying the factors responsible for the problems found,

(b) to analyse the nutritional implications of major governmental policies and programmes and of the development plans, making appropriate recommendations as required, and

(c) to recommend measures and programmes specifically orientated to improve the nutritional situation of the population;

(iii) provide funds for the Council to enable it to perform its functions satisfactorily. At present no funds are available to the Council; and

(iv) while the chairman would reside in the Ministry of Health, in the proposed Act the Council would report directly to Cabinet who would be able to take into consideration reports and recommendations of the Council in making decisions, in allocating resources and in the overall planning of governmental actions.

FOOD PRODUCTION

6. Swaziland, while a small country, contains a great diversity of altitude and vegetation. The chief physiographic features of Swaziland can be visualised as four regions running north to south across the country, descending from the highveld through the middleveld to the lowveld and

rising again steeply to the Lebombo plateau. The climate also varies from humid, near-temperate in the highveld to sub-humid, near-tropical in the lowveld. In all regions except the lowveld, Swaziland is a well watered country.

7. While what follows is presented in general terms for the country, in view of what has been said above it should be borne in mind that the situation varies from region to region and that there are areas of the country less suited than others to some of the agricultural pursuits discussed.

8. In Swaziland adequate food supplies are available for those with an adequate cash income. The majority of families do not, however, fall within this category as they reside in rural areas and depend on the foods they produce for the major part of their diet. The following programmes are currently being undertaken in an effort to improve and increase the foods available to these rural families.

Maize

9. White maize is the staple food of the Swazi diet. It provides more than 60 per cent of the energy as well as 65–70 per cent of the recommended allowances of total protein and iron. At the present time, apart from bad agricultural years, most rural families are self-sufficient in maize, but the country is still dependent on imported grain to supply the needs of the more urban families. In order that the country can become self-sufficient in maize the following steps are being taken: sowing of hybrid seeds, improving the availability of farm inputs and undertaking research into minimum inputs for maximum yields. National storage of grain to cover poor agricultural years has not yet been shown to be feasible, but a vigorous programme for the improvement of family maize storage is being carried out.

Fish

10. Traditionally Swazis are not fish eaters, but fish is now becoming more acceptable as evidenced by the popularity of fish and chip shops in urban areas and the availability of tinned fish throughout the country. The success of a recent programme to introduce family fish ponds is further evidence of its increasing acceptability. The motivation for this programme has been carried out by home economics agents with rural women and the response by rural women has been very enthusiastic.

Poultry

11. Poultry production is encouraged but, because of the high cost of inputs for improved poultry production and the need for returns to cover these inputs, marketing limitations have restricted the growth of poultry production in many areas.

Cattle

12. Cattle are prized for their wealth and status properties but the land is heavily overstocked. The main thrust of the Veterinary Department's programme is to improve the herds, reduce the number of cattle, prevent further erosion and improve pasture lands. While this will not affect family consumption directly, the preservation and improvement of land is an important aspect of the future production capacity of the country.

Fruit trees

13. Up until the last two years the planting of fruit trees was hindered by the difficulty and cost of importing trees. Now that a variety of trees are produced within the country and the planting of trees for family use is being actively encouraged and trees are being distributed by extension agents at a subsidised price, this project is starting to progress.

Vegetables

14. Vegetable production is being actively encouraged. On a homestead basis this programme meets with limited success due to irrigation difficulties during all but the rainy summer months as homesteads are often situated some distance from the water supply. The other major difficulty is the invasion of plots by goats, cattle and poultry.

15. Where special irrigation schemes have been developed this programme is more successful. In some areas of the country the available cultivars for vegetables were not suited to the climate, so recently special heat-resistant cultivars have been introduced.

16. During the wet summer months wild vegetables of the dark green leafy variety are available and widely consumed. In order to protect this valuable food habit which contributes important amounts of calcium, riboflavin and vitamin A (nutrients difficult to obtain in adequate amounts by many families from other food sources), the research station is experimenting with the cultivation of wild greens and their cultivars, and families are being encouraged to cultivate them. As this is a recent project, its success cannot be evaluated at this time.

Milk

17. Much of the milk consumed, especially as powdered milk, is presently being imported. The Dairy Board programme in the country is gradually reducing this dependence through improvement of herds, dairy husbandry, milk collection and milk distribution.

LOCAL CONDITIONS

18. In 1961–62 a comprehensive nutrition survey, covering food habits, food intake and clinical examination, was carried out in Swaziland by Sonya Jones of the University of Natal. The limitations of the survey are that it was carried out during a poor agricultural year, that it was not supported by biochemical data and that it was undertaken 15 years ago. Despite these limitations, this survey contains much valuable information, and a comparison of some of the findings to more recently available but less statistically controlled data suggests that the situation today may be similar in many parts of the country. Until a new survey is undertaken or indications of more recent changes in the situation are recognised, the information contained in the Jones report must continue to be regarded as providing the most reliable picture of the nutritional situation in the country.

19. In the Jones survey, the Swazi diet on a per head basis was found to be deficient in calories, calcium, vitamin A, riboflavin and niacin. Evidence suggested that the most poorly nourished population members were children from weaning to five years old and pregnant and lactating women. The height and weight curves based on means of Swazi school children were equivalent to the twenty-fifth percentile of the Boston Standards.

20. Physical examination of children up to the age of 18 years revealed that, apart from a few cases of kwashiorkor and pre-kwashiorkor, there were no gross lesions attributable to defective nutrition, but there were many small signs that could be due to sub-optimal nutrition and the interaction of other factors. Dental caries was also seen to be a problem. Swaziland was noted as being in a goitre area.

21. The infant mortality rate was reported as 147 per thousand for the country as a whole but was said to be higher in rural than in urban areas.

22. The diseases most frequently said to be encountered in clinical work at that time were tuberculosis, pneumonia, malnutrition and gastro-enteritis.

23. A comparison between the areas surveyed showed that those having the most difficulty obtaining recommended allowances of nutrients came from the lowveld and the peri-urban areas.

24. Of the more recent information, that arising from the school health survey of Grade I and II children is perhaps the most reliable. The high height and weight curves compiled from data on 1,035 male and 1,051 female children aged 5–10 years show no detectable difference from the data contained in the Jones report.

25. Health statistics from 1972 to 1975 show that tuberculosis, pneumonia, malnutrition and gastro-enteritis are still among the most frequently encountered diseases seen in the hospitals, and among diseases classified as malnutrition early childhood malnutrition is predominant. Recent demographic surveys show that infant mortality remains high. Dental caries is now a considerable problem among school children even in many rural areas. A preliminary survey of food patterns in school children around 11 years of age as determined by a 24-hour recall suggests that in many rural areas food patterns are still similar to those found 15 years ago.

26. It should be stressed that while no changes have been so far detected there may nevertheless be changes. During the past 15 years there have been more clinics established, more people now avail themselves of health care, and there is likely to be better detection of diseases — all of which could be masking actual changes.

27. Breast feeding is still the predominant milk supply for young babies in rural areas. However, bottles are available and in situations where the mother does not remain with the baby or the mother becomes pregnant again a bottle is resorted to. In more urbanised areas bottles are frequently used. The Ministry of Health strongly encourages breast feeding, and where other forms of milk are used and for other food supplements the cup and spoon is recommended and the use of the bottle discouraged. In spite of this the use of bottles is still a major contributing factor to gastro-enteritis in young children.

28. In the case of women working for the Government, six weeks maternity leave is granted, and if annual leave is taken concurrently the woman can remain with her baby and breast feed it for two and a half months.

29. When bottle feeding is used the risks are probably increased if an opaque-necked bottle, which is considerably cheaper than more satisfactorily designed bottles, is used. Unfortunately these bottles are widely available throughout the country.

30. A weaning supplement in the form of skimmed milk powder to be added to porridge is currently supplied by the World Food Programme and distributed through MCH clinics. Commercially prepared and packaged weaning foods with a cereal base are found in many stores throughout the country.

31. An alternative weaning food is being sought in preparation for the phasing out of the milk provided by the World Food Programme. Such a food should be available at a price considerably less than the presently available commercial products. A pre-feasibility study into the local production of a blend based on maize was carried out earlier this year and an acceptability trial of such a blend is now being planned.

32. With assistance from the Save the Children Fund, a school feeding scheme has been established in the country and provides a cooked meal at lunchtime. Schools join the scheme on a voluntary basis as do children within a school. A charge is made for the meal but this does not at present cover the full cost of the meal. Over the next ten years the price is to be gradually raised until an economic cost is charged. In addition, in each school, when funds are available, 5–10 per cent of the children from the poorer homes are offered a free meal. At present this scheme involves about half of the primary school children within the country.

33. Looking at the nutrient deficiencies as shown in the Jones report and at the foods available to supply them, the following observations can be made.

Calories

34. As was stated earlier, the Jones survey was undertaken in a poor agricultural year when maize production was down, so it is thought that the situation with respect to calories is usually more equitable. However, this is doubtless still a problem for some families, especially towards the end of the winter season even in a good agricultural year. Programmes aimed at better maize production techniques and storage are assisting many families to overcome this problem.

Fortunately foods of lesser nutritional value have not as yet replaced maize to any considerable extent and in most families the extraction rate of the maize consumed is high enough to preserve most of the nutrients.

35. Imported maize of lower extraction is available in towns although the most highly refined meal (Bakers Cones) is still not widely sold. Should this meal become more available, it could have serious nutritional implications, particularly for people in peri-urban areas.

36. Bread consumption has also risen in the country and, although this is more so in urban areas, bread is available throughout the countryside. At present brown bread is made from 90 per cent extraction flour and white from 80 per cent; thus both types of bread are nutritionally satisfactory. However, there is also available in stores 70 per cent extraction flour that is not enriched and while it does not form a significant part of the diet today, trends in its consumption will need to be monitored because increased consumption could affect nutrient intakes.

37. Swaziland is a sugar producing country where sugar is inexpensive and abundant. The problems caused by this can be seen in the carious teeth of school children. The effect of sugar consumption on nutrient intakes is probably still not important in most rural families but its affect on urban families could be more significant.

38. Alcohol consumption is a serious threat to the nutrient intake of a considerable number of people but more especially of men. The displacement of significant quantities of other food by alcohol beverages would appear to be a problem throughout the country. Certainly pellagra is seen to occur mainly in people who drink extensively.

Calcium, vitamin A, riboflavin and niacin

39. Increasing the production and availability of milk, which is a highly prized food item, will increase calcium and riboflavin intakes. The only other commonly eaten food which is an especially good source of these nutrients is the dark green leaves. At present these nutrients suffer some competition from cabbage, with its superior marketing qualities. Dark green leaves are also a good source of vitamin A so their continued use is a valuable asset. The increasing production and consumption of other fruits and vegetables such as pumpkin, carrots and pawpaw should also assist in increasing vitamin A consumption. With niacin being more widely distributed in foods than the other nutrients that have been discussed, an increased availability of a variety of foods alleviates the problem.

SPECIAL CONSIDERATIONS

40. It is very well appreciated that, even where the possibility exists for all people to be well fed, not everyone is. Eating well necessitates making wise choices, and for this education is a prerequisite. Nutrition education alone, however, is not enough. As under-nutrition is interwoven with problems of infection and poor environmental sanitation, improvement of these and other health aspects have an essential and beneficial impact on the nutrition situation. At least some aspects of health education should be combined with nutrition education.

41. In some recent case studies of 28 malnourished children the following points were derived. There was a need to assist families in retaining sufficient for their needs instead of selling too much, in knowing more about purchasing foods and general consumer education, in understanding

the importance of feeding young children with sufficient frequency, and in understanding the special needs of young children.

42. All of these needs have a very large educational implication. In only slightly less than half these families was the major difficulty seen to be the ability of the family to produce or purchase sufficient food. This perhaps illustrates the importance of health education in combating early childhood malnutrition – the most serious nutrition problem in Swaziland today.

43. Nutrition education and health education has an important role to play in promoting better nutrition at all levels, from officials in programmes with nutrition implications to producers and general consumers of all ages.

44. In Swaziland the awareness of the need for nutrition education is beginning to be put into action. In the new primary curriculum under development, the education of school children in sound food and health practices is to be incorporated from Grade I. At the agricultural college, plans are being made towards the introduction of human nutrition to all students. Home economists, nurses and health motivators teach nutrition to women. Agriculture students in high schools and nursery school teachers study nutrition.

45. There is still, of course, much to be done. While many institutionalized programmes are now being reached, other ways have to be found to reach more rural families, and especially the man. Urban programmes for families are also insufficient. Government planners need more information on nutrition.

46. Another important health aspect that has a bearing on nutrition and should be incorporated into nutrition education is the effect of inadequate child spacing on the nutritional state of both mother and child. In Swaziland this is seen as one of the factors contributing to the high infant mortality rate. From a different perspective, there is also a need for population education for government planners in order to ensure an adequate food supply for a growing population.

47. One of the major problems encountered in the production of food is inadequate marketing facilities within the agriculture sector. The constraints placed upon this sector by the lack of adequate marketing facilities are well recognised and it is hoped to alleviate the problems by strengthening and establishing economically viable co-operatives. At present the two best organised markets are for cotton and tobacco through co-operative efforts. Some improvement will also be seen through improving the transport system. The country has embarked on a programme of upgrading and extending the road network.

48. In the area of nutrition there is now a need for developing systems for the continuous monitoring and evaluation of nutrition programmes and for building in a system of nutrition surveillance. As much data is available within the country, the first step must be to analyse this further and determine its validity before going on to develop simple methods adapted to the resources of Swaziland in areas where insufficient information is currently available.

49. A pre-feasibility study has recently been carried out on conducting a nutrition survey towards this end. Depending on the outcome of this study, additional assistance may be necessary.

25 August 1977

FOOD AND NUTRITION

Background paper prepared by the Government of Cyprus

Cyprus does not face serious malnutrition problems as is the case in some other developing countries. This is mainly due to the remarkable improvement of nutritional standards and nutritional conditions in the last 15 years. However, cases of malnutrition still exist but they do not constitute a major health problem.

2. In some remote and poor villages there still is some undernourishment of the school population evidenced by retardation in physical development. Goitre of a moderate nature is common in some villages due to lack of iodine. Dental caries is also a common finding in some villages. There are also cases of overnutrition and obesity especially in women and persons in the middle age group.

3. Diets which are not properly balanced are partly responsible for such diseases as diabetes, hypertension, heart diseases and peptic ulcer, and these seem to be on the increase as has been the case with the developed countries.

4. The Cyprus Government, recognising the value of nutrition which is linked with the health and well-being of the community in general and our children and the future generation in particular, formulated a general policy on nutrition and several Ministries are involved in implementing this policy. The main activities undertaken in furthering this policy are as follows.

5. The Ministry of Education does everything in its power to contribute towards the dissemination of knowledge concerning nutrition, addressing itself to school children and parents alike. Local authorities, private associations and parents organisations have always co-operated with schools in nutritional education.

6. In 1969, following an agreement between the World Food Programme and the Government of Cyprus, the school feeding programmes were placed on a more sound basis and were expanded in such a way as to cater for the entire school population. This effort was concentrated particularly in the poorer rural communities throughout the school year. The parents associations and local authorities undertook to implement this programme by taking turns in the preparation and dishing out of the meals and cleaning the dining rooms, all on a voluntary basis.

7. Home economics teachers take an active part in the operation of the school feeding programmes, preparing the diet lists on the basis of caloric and palatable value. The teaching of the principles of nutrition is an integral part of the home economics courses which constitute part of the school curriculum in both the elementary and secondary schools.

8. The Ministry of Agriculture also plays an important role in implementing the nutritional policy of the Government. Available data on production and consumption show that before the Turkish invasion of the island in the summer of 1974 shortage of food as a whole had not been a problem and projection of production seemed very encouraging. The total production and the per capita consumption of most food items had increased considerably during the period 1960–1974 – that is, the period after Cyprus became an independent state in 1960 and until the Turkish invasion in 1974 – and compared favourably with other, advanced countries.

9. Cyprus had hoped to become almost self-sufficient in food production, but the Turkish invasion and the occupation of about 40 per cent of its most fertile territory frustrated this hope. Instead, Cyprus has since then been forced to increase its reliance on imported items of food, and the population, especially the 200,000 displaced persons, have had to contend with a lowering of their nutritional standards. The position has improved somewhat recently, due to improved

income from steady employment. A recent development which will help to improve nutrition further is the establishment of an Institute of Standards and Quality Control and of the Scientific Board of Foodstuffs whose main role is to see that all foodstuffs which are manufactured locally and which are intended for local consumption or for export are processed in accordance with standards of hygiene set by legislation.

10. The Ministry of Health is responsible for the implementation of improved food and nutrition programmes for the benefit of the people. Maternal and child health centres, which are spread all over the island, are engaged among other health activities in the prevention of malnutrition among the most vulnerable groups: infants, mothers and children. Information and advice are provided at the centres and in some cases milk and other foodstuffs for infants are given free of charge.

11. Health education for nutrition is the responsibility of government doctors, paediatricians, health visitors, midwives and health inspectors. The main objective in this field is to induce among the population good nutritional habits. Nutritional education is also undertaken by the home economics service of the Ministry of Agriculture which operates in close collaboration with the Ministry of Health in this respect.

12. As in all developed countries, mothers tend to abandon breast feeding particularly in the urban areas, while the opposite is true, but to a lesser degree, in the rural areas, where some mothers tend to keep the infant on the breast for two to three years under the false impression that this constitutes a contraceptive measure. Through the maternal and child health centres we strive to eradicate erroneous notions and to instil in the people a sound approach to infant feeding habits.

13. Food marketing has advanced considerably in recent years and no problem is faced in securing food items at local markets.

14. From a limited survey on nutrition carried out a few years ago and from data collected through other means, it can be said that nutrition is generally satisfactory and that apart from the lowering of standards of nutrition among the displaced persons no serious problems exist. Nevertheless, sustained efforts will continue to be made for increasing food production and for ensuring that nutritional standards are such as to help maintain the highest level of health.

5 September 1977

FOOD AND NUTRITION

Background paper prepared by the Government of New Zealand

The availability of food and its nutritional value are clearly important determinants of a community's health. A wide range of factors relate to them.

National policy

2. Because New Zealand is largely a food producing nation with an adequate supply and variation of wholesome foodstuffs readily available, there is no well-formulated government policy on nutrition in its narrow sense. In its broader aspects, however, continued efforts are made through departments and research centres to maintain and improve the standard and efficiency of food production and food processing. Other organisations, many with government support, endeavour to ensure regularity of supply and range of distribution.
3. The role of the Department of Health is to advise on nutritional matters and to ensure that all food offered for sale conforms to minimum standards laid down by the Food and Drug Act (1969) and the Food and Drug Regulations (1973). Through its Food and Nutrition Branch and in conjunction with the Department of Scientific and Industrial Research, the Health Department is involved in a continuing programme of food monitoring and research to determine that the quality of food is maintained at this high level.
4. The department's advisory functions include the promotion of balanced food intake, the preparation and distribution of dietary requirements and planning for institutions, for public well-being generally and for specific purposes, e.g. infant feeding, weight control and other matters of health interest.

Local conditions

5. There is a good supply of nutritious food in New Zealand and the problems that do arise are common to all countries: coronary disease, obesity, diabetes, and hypertension. However, the extent to which these problems are activity rather than dietary related is debatable.
6. Two major surveys of children have been undertaken in the last ten years, one of school children in 1969 and one of pre-school children in 1975. The findings of these two surveys are contained in the Department of Health Special Report Series Nos. 38 and 44. In brief, the conclusions reached were:
 - (a) Most New Zealand children are well nourished and there is nothing to suggest that malnutrition, in the sense of under-nutrition, is a significant health problem.
 - (b) There are no appreciable differences noted between children of Polynesian and of European parentage.
 - (c) There is reason to believe that the continued weight increases noted are indicative of an emerging problem of overweight for height at all ages so that obesity may become the main nutritional problem in New Zealand.
7. Breast feeding declined from 1940 onwards but this trend was reversed in the early 1970s. Although no figures are available for the whole country, from information coming forward it seems that the change back to breast feeding continues to gain momentum. Because cows' milk is cheap and in plentiful supply, weaning presents few problems.
8. New Zealand has no national school meals programme.

Special considerations

9. In comparison with most other countries, New Zealand has adequate supplies of good quality food available from the main nutritional groups (animal, fruit and vegetables, bread and cereals). A criticism heard from the health viewpoint is that the country concentrates too much land and government assistance on the animal group and too little on the other two, particularly in relation to cereals.

10. Therefore, if New Zealand is to follow present overseas thinking on nutrition, it would be necessary to increase the emphasis given to cereals, vegetables and fruit and to lower the intake of animal products. No doubt this could be done but it would be difficult to sustain such an argument in a country where the standard of nutrition is already relatively high and where the economy and agriculture are based largely on animal production.

11. The constantly changing views on what constitutes good nutrition suggest that the education of health workers in nutrition is important.

28 September 1977

FOOD AND NUTRITION

Background paper prepared by the Government of Ghana

There is in Ghana currently no national policy on food and nutrition as an integrated programme but there is a policy on local food production. In 1973 a conference was held in Accra on national food and nutrition policies and programmes. All the major disciplines and sectors of the economy whose activities are related to food and nutrition participated in the conference, at which the following needs were among those identified:

- (a) that the intervention of food and nutrition programmes required a multi-sectoral and multi-disciplinary approach;
- (b) that there was need for the formulation of national food and nutrition policies and programmes;
- (c) that there was a need for the establishment of a national multi-disciplinary secretariat under the Ministry of Economic Planning for the co-ordination of food and nutrition policies and programmes.

2. In 1975, in recognition of the significance of nutrition in national development, the Government set up a multi-sectoral committee under the National Economic Planning Council to review the whole area of nutrition, define the problem areas and make recommendations for improvement in the national nutritional status. As part of its assignment, the committee was expected to suggest guidelines for the formulation of a national food and nutrition policy. The report of the committee is being studied by the Government and it is envisaged that appropriate steps will be taken soon towards the formulation of national food and nutrition policies and programmes. Meanwhile, the Ministry of Agriculture is vigorously pursuing its own policies and measures aimed at the production of adequate quantities of foods of high nutritional value at reasonable prices.

LOCAL CONDITIONS

3. Nutritional diseases especially among pre-school children constitute a major public health problem in the country. Pregnant and lactating women and the labour force are also known to suffer from the effects of malnutrition. The full picture is not clear because of the inadequacy of reliable information.

4. In a survey carried out in 1962, 58 per cent of boys and 49 per cent of girls of the 1–4 years age group living in the forest and farming villages in southern Ghana were found to be under-weight. For the coastal fishing communities, 30 per cent of boys and 29 per cent of girls were found to be under-weight. In northern Ghana, 30 per cent of adult males and 50 per cent of adult females were found to be under-weight at all times. However, during the “hungry season” (February–June) when food is scarce, the figures increase to 45 per cent and 60 per cent for males and females respectively. From the same survey, 50 per cent more of pregnant women showed signs of malnutrition than non-pregnant women.

5. So far not much information has been derived from hospital or clinic data. This is largely because much of the data indicates mainly the primary causes of illness or death even though these may be related directly or indirectly to nutrition. In addition, most of the records indicate malnutrition without categorising the type of malnutrition. It has therefore not been possible to utilise these data to obtain a clear picture of the nutritional status of the population. However, from available information it is estimated that mortality associated with protein calorie malnutrition (PCM) accounts for about 10 per cent of deaths from all causes. It is also estimated that although the 0–5 years age-group constitutes 25 per cent of the total population, it accounts

for about 50 per cent of the total deaths in the country. A significant proportion of these deaths are attributable to the direct or indirect consequences of malnutrition.

6. Although the data are incomplete, there is no doubt that nutritional disorders constitute a major health problem, especially in the pre-school age-group segment of the population. The major nutritional problems may be summarised under the following major broad categories:

- (a) kwashiorkor (PCM)
- (b) marasmus
- (c) nutritional anaemia
- (d) endemic goitre in some parts of the country
- (e) vitamin A deficiency in northern Ghana

The following nutritional surveys have been carried out since 1961:

National nutrition survey 1961–62
Physical growth of school children in Accra by Prof. A. Ofosu-Armah, 1975
Physical growth of Peki school children by Dr. R. O. Asante, 1971
The social environment and the heights and weights of Ghanaian children, Dr. D. K. Fiawoo et al, 1969
Baafi, a case study, Dr. Dako et al, 1972
Baafi, a second study, Dr. Oracca-Tetteh, 1976
Kotobabi District malnutrition survey, Commey, 1970
Magnitude of the incidence of kwashiorkor in Ashanti Region, Baffour-Senkyire, 1963–68
Immunologic responses in malnourished children, Neumann et al, 1972–4
Endemic goitre survey in Krobo and Akrofuom villages (Techiman District), Commey et al, 1972

There are also a number of unpublished reports on various aspects of nutrition. Obviously, enough work has not been done in this field and this is fully recognised. A second national survey, which will embrace both food and nutrition, has been in the planning stage for some 4–5 years now and is expected to be implemented within the next 12 months or so. It is also proposed to implement a programme for the continuous surveillance and monitoring of food and nutritional status. It is planned to use the information not only for the formulation of policies but, more important still, for the organisation and evaluation of appropriate intervention programmes.

Infants

7. Breast-feeding is still by far the most popular method of infant feeding, but there is no doubt that artificial feeding is on the increase. There are two main reasons for this situation. The first is the effect of the motivating force of advertising; more and more mothers are feeding the infants with modified cow milk as a consequence of advertisements by the manufacturers and the status symbol created by bottle-feeding. There is also the influence of inflation and rising costs; with the rising cost of living, the number of working mothers is rising at an astronomical rate; since the duration of maternity leave of absence from work is limited, there has consequently been a rising trend in the artificial feeding of infants.

8. Weaning foods present a serious problem in the country and weaning is generally badly done. The lower socio-economic groups which include a large number of mothers tend to keep an infant on the breast for up to two years. The breast milk which is obviously inadequate for the infant is generally supplemented with predominantly carbohydrate foods as a result of a combination of ignorance about infant and child nutrition and feeding, high cost of high-protein foods and a variety of cultural factors. Improper weaning is thus a major contributory factor in the nutritional problems of infancy and early childhood. Although there are enough local foods available for the preparation of weaning foods at home, few people prepare proper weaning foods for their infants. The affluent and more enlightened segment of the population rely predominantly on imported weaning foods.

9. The problem has been recognised for some time now, and the Food Research Institute of the Ghana Council for Scientific and Industrial Research (CSIR) is currently conducting a research project on the utilisation of local food materials for the preparation of acceptable weaning foods of high nutritional value. The Ministry of Health is also interested in the problem and is sponsoring one nutrition officer for post-graduate studies in nutrition with emphasis on weaning foods. On the successful completion of his studies, the officer will be involved in studies on the development and evaluation of weaning foods.

Schoolchildren

10. Over 99 per cent of the primary (i.e. pre-secondary) schools in the country are day schools and meals are not provided. In many places, large numbers of children go home for lunch during the mid-day break. Those who do not go home for lunch are generally provided with money by the parents to buy food from food-vendors who generally sell their wares near the school compounds. The nutritional value of these foods is generally inadequate to satisfy the requirements of the children; they are predominantly carbohydrate. Food hygiene is also generally below standard and there are no price controls. In some places a lot has been done through the collaborative efforts of health workers, school teachers and community leaders to improve the quality of food and the standard of food hygiene. Several studies have been conducted in the past into the possibilities of developing suitable models and systems of school feeding programmes but these studies have as yet to lead to any positive policies and programmes on school feeding. The nutritional status of large numbers of school children leaves much to be desired and there is need to direct proper attention on the subject.

11. Today, a new type of school designated "International School" has appeared on the scene in the major urban centres. These are expensive primary schools and usually patronised by the élite and affluent segments of the population. They are all day schools and no meals are provided, but the children are required to take beverages and light snacks for their "elevenses". There is usually only one session and the children have their main meals at home.

12. Well over 99 per cent of the secondary schools are boarding schools and so the children are provided with all their meals during term time. Appropriate steps are taken to ensure that the meals provided are such as to satisfy the nutritional requirements of the children. The quality of the meals and the standard of food hygiene in a number of schools are satisfactory. In some schools problems arise from time to time as a result of a combination of factors including inadequacy of funds and improper management of the catering services.

Factors underlying poor nutrition

13. A wide variety of foods are produced locally and it is possible to prepare meals of high and adequate nutritional value from locally produced foods. However, the foods consumed by large sections of the population in both urban and rural areas tend to be of poor nutritional value in terms of what is required to satisfy the basic nutritional requirements. Hence the poor nutritional status of significant proportions of pre-school children, school children and pregnant and lactating women, as well as the labour force. The factors responsible for this situation are numerous and complex but may be summarised under the following broad categories:

- (a) prolonged exclusive breast feeding of infants;
- (b) weaning on predominantly carbohydrate foods;
- (c) failure of lactation;
- (d) seasonal food shortages, especially in the north;
- (e) traditional feeding practices in which the young toddler has to fend for himself at meals time in competition with older siblings;
- (f) Certain food taboos related to children and pregnant women, e.g. the avoidance of certain protein foods such as fish, meat or eggs;

- (g) poverty, as seen especially in the urban poor and to some extent in the rural poor — there is therefore a tendency to go in for large quantities of cheap carbohydrate foods because of the high cost of protein foods;
- (h) ignorance of the basic principles of dietetics and human nutrition.

SPECIAL CONSIDERATIONS

14. There is no doubt whatsoever that it should be possible to promote the consumption of foods of adequate nutritional value to satisfy the basic nutritional requirements through information and education programmes. Such programmes could increase community and individual awareness of nutritional problems and the importance of nutrition to health, and thus stimulate the necessary changes in dietary attitudes, practices and habits that would lead to improvement in nutritional status. The educational programmes could also lead to improvement in sanitation and adequate utilisation of health services to minimise the impact of the parasitic and infective diseases.

15. From experience, however, although it all sounds so easy, it is not so easy to change habits. The major problems and barriers to effective communication may be summarised under the following broad categories:

- (a) community acceptance of the need for change in dietary habits from the established traditional dietary habits;
- (b) securing acceptance of the necessary measures by community leaders and other opinion leaders, who would in turn influence other members of the community;
- (c) lack of effective geographical as well as population coverage due to inadequate resources for programme execution and evaluation;
- (d) high cost of certain foods, which are thus beyond the means of those most in need.

16. Deficiencies in the system of marketing, storage, transportation, distribution and price controls are contributory factors to the country's food and nutrition problems. With non-perishable foods like grain and beans, the building of buffer stocks could help to minimise the seasonal shortages. With perishable foods like meat and fish, improvement in cold storage facilities could go a long way towards ensuring the availability of fresh meat and fish to a substantial proportion of the population. Research and development of appropriate technology for the processing of the perishable foods like yams, plantains and vegetables should also make it possible to overcome seasonal shortages of these foods. Thus, during the season of abundance the surplus could be processed and used during the off-season period.

17. Assistance and technical co-operation are considered useful for:

- (a) training of selected professional and non-professional personnel in the fields of nutrition, agriculture and food and nutrition programmes;
- (b) provision of supplies and equipment for food and nutrition surveys;
- (c) provision of supplies and equipment for research projects such as the development of weaning foods and the development of appropriate technology for the preservation, storage and processing of certain foods, as well as crop improvement and agricultural methods;
- (d) development of teaching and training methods on food and nutrition programmes and also appropriate materials for public information and education programmes.

28 September 1977

FOOD AND NUTRITION

Background paper prepared by the Government of Uganda

Uganda has been one of the leading nations among developing countries in the field of nutrition science and research. The presence of the Medical Research Council's Nutrition Unit since the early fifties to the early seventies gave an added impetus to many nutrition activities in the country. Many papers by Uganda-based research workers have been published in international journals or presented at international conferences, some of which have taken place in this country. The interest taken by many international bodies such as the World Health Organisation, the Food and Agriculture Organisation, the United Nations Children's Fund, the World Food Programme, the Save the Children Fund, Oxfam and many others has also stimulated a lot of thinking about nutrition.

NATIONAL POLICY

2. The availability of adequate food of good nutritional value is obviously an important determinant of a nation's health. The absence of a clear-cut, well-formulated policy on food and nutrition, however, may hinder proper utilisation of foods and interfere with the nation's health, and consequently with its socio-economic well-being. Uganda's policy on food and nutrition has always been consistent with the slogan "good health for all". This policy is well-formulated in the different Five-Year Development Plans and now the Action Programme 1977/78 – 1980/81. The following activities constitute what may be considered a food and nutrition policy:

- (a) increased food and cash crops production, the latter aimed at raising foreign exchange to buy what foods we cannot produce;
- (b) the youth development schemes such as the Namutamba Project, the Youth Settlement Schemes and the Young Farmers of Uganda;
- (c) the inter-provincial home and environmental competitions;
- (d) various nutrition rehabilitation schemes such as the Mwanamugimu, originally sponsored by the Save the Children Fund and now fully run by the Ministry of Health, and the UNICEF-supported nutrition scouts pilot project at Kayunga, soon to become the basis of primary health care;
- (e) the maternal and child health activities of the Ministry of Health;
- (f) community development activities such as women's clubs and youth clubs; and
- (g) Ministry of Education activities such as school meals and health education in schools, and the teaching of agriculture.

3. Besides various conferences such as Country Health Programmes (1975) sponsored by the Ministry of Health, Primary Health Seminars (December, 1976), the Workshop on Integrated Rural Development and Family Health (June, 1977) and many other smaller seminars sponsored by the Ministry of Health jointly with other related Ministries nearly always have some nutrition component and contribute to this policy. The common feature of these activities is that they help to ensure that the nutritional level of the community, and especially of children and mothers, who are the most vulnerable groups, is well cared for. The Ministries of Agriculture, Animal Resources, Health, Culture and Community Development, and Planning and Economic Development are intimately involved. At present the formation of a National Food and Nutrition Planning Unit is being contemplated. It will be the culmination of many efforts by the Government, as the history of this unit, which has consisted of starts and stops, reveals.

4. Just more than two decades ago the colonial Government tried to initiate a national policy on food and nutrition by appointing an Advisory Committee on Human Nutrition in 1952. This

Committee was succeeded by another, the Scientific Committee on Human Nutrition (General Notice 242, Uganda Gazette 1958). The latter was short-lived as it was reconstituted a year later and given new terms of reference (General Notice 1008 of 1959, Uganda Gazette 1959). These were:

- (a) to direct the activities of the Government Nutrition Unit;
- (b) to assess the extent of malnutrition in Uganda, and to investigate its causes;
- (c) to correlate research and investigations on nutritional matters, and to facilitate exchange of information on this subject;
- (d) to examine and assess the results of scientific research and investigations, and to advise the Minister on any executive action which they may suggest;
- (e) to advise the Minister on nutritional problems in Uganda generally, and in particular to investigate and advise on specific problems of scientific or practical nature referred to the Committee by the Minister.

5. In the pre-independence years which followed, the Committee was very active. Not only was the Ministry of Health involved but also the Ministries of Agriculture, Animal Resources, Education, and Community Development. In addition, the World Health Organisation, the Food and Agriculture Organisation and United Nations Children's Fund were intimately involved in the nutrition activities of the country. But by the end of 1963 the Committee's activities had ceased. This was blamed on the lack of executive powers by the Committee (letter of the Chief Veterinary Research Officer, the Permanent Secretary, Ministry of Health 1963, Registry, Ministry of Health). Nutrition activities did not go into abeyance, however, although during the following six or seven years there was no committee to co-ordinate them. These activities were mainly based on the Medical Research Council Unit at Mulago (research, surveys), the Ministry of Health (surveys, health education), the University Departments of Paediatrics and Child Health and Preventive Medicine (research and surveys); University Departments of Agriculture and Rural Economy (surveys and research) and WHO, FAO, UNICEF, SCF and Oxfam for technical advice and occasionally financial support. These organisations contributed a lot to the nutrition information in the country.

6. A co-ordinating body in the form of the National Food and Nutrition Council appeared on the scene again around 1969/1970. The major aims were:

- (a) the co-ordination of nutritional activities of the Ministries concerned (namely: Health, Agriculture, Forestry and Co-operatives; Animal Industry, Game and Fisheries; Culture and Community Development; and Education; but also the MRC/Mwanamugimu complex; WHO, FAO, UNICEF, SCF, WFP and Oxfam also came in with technical advice);
- (b) stimulation of operational research into improved methodology for the complete eradication of malnutrition from the country;
- (c) to inform the general public of ways of improving the nutritional health of their children, using mass media and other appropriate methods;
- (d) to maintain surveillance on the food and nutrition situation in different parts of Uganda so that crises can be foreseen and averted.

A nutrition institute was proposed and even plans drawn, but once again because of lack of executive authority, the National Food and Nutrition Council collapsed after a few years. The proposed National Food and Nutrition Planning Unit in the Ministry of Planning and Economic Development is a revival of the work of the successive committees which have laid the ground work for this Unit. It is hoped that it will plan a proper nutrition policy for this country.

LOCAL CONDITIONS

State of nutrition

7. Although we live in a country of evergreen vegetation and fertile soil, Uganda is by no means a country of plenty, but there is a fairly wide variety of foods of good nutrition quality. The state

of nutrition is nevertheless dismally poor. This is particularly so among children of below four years. Malnutrition is also seen in other older age groups and indeed in adults, but to a lesser extent. It has been estimated, for example, that about two per cent of all children below four years have protein calorie malnutrition (World Food Programme Project UG 689 of 1970/71). This high incidence, however, is not uniform all over the country, but if the population of Uganda is now estimated at 12 million and over and the under-four population is about 25 per cent, then the magnitude of the problem can be understood. What is seen in hospitals and other medical units in the country is the top of the iceberg.

Surveys since the early 1950s

8. Surveys have been done since the early 1950s by successive workers in the Ministry of Health, the Medical Research Council Nutrition Unit, WHO, FAO and UNICEF. Individual workers, especially at Makerere Medical School, did many surveys also. Chief among these are those of Jelliffe, Professor and Head of Department of Paediatrics and Child Health, in the 1960s. Later the Medical Research Council continued the exercise in the early 1970s. Although none of these surveys was country-wide and many were based on selected populations such as sub-counties, hospitals and factory workers, there is complete agreement among all of them regarding the high prevalence of protein calorie malnutrition in Uganda, especially among the under-four-year-olds. It has also been found more common among non-grain-eating areas and around large concentrations of population such as over-populated areas and around towns. For instance, one survey in 1959 found overt protein calorie malnutrition in less than 0.3 per cent of rural populations of under four years living 300 miles away from Kampala, although earlier it had been found more common around Kampala, the capital and commercial centre.

9. Many of these surveys also revealed that the main reasons for the prevalence of malnutrition in the urban and peri-urban areas was the decline in breast feeding practice and the increased frequency of artificial feeding. On the other hand, surveys done in the rural areas revealed prolonged breast feeding up to the second year in over 80 per cent of the mothers and sometimes up to the third year of life, in addition to the supplementary feeds. One writer in one of his many writings compares urban and rural Acholi children and concludes that "urbanised Acholi children appear to have more evidence of protein calorie malnutrition as judged by a hypochromotrichia incidence of 22.8 per cent and a kwashiorkor rate of 9 per cent among 44 pre-school age children based in Kampala". There is therefore a definite correlation between urbanisation and increasing incidence of malnutrition. The reasons are not very far to see. Chief among these are the high level of advertising of artificial foods, poverty, overcrowding, separation from freely available foods, the high incidence of illegitimacy, and pseudo-westernisation resulting in improper methods of artificial feeding and weaning, and these in turn result in gastrointestinal infections and malnutrition.

10. There are at the moment not many locally-made artificial weaning foods. This would be a substitute for the village level weaning foods (multi-mixtures) popularised in the early sixties by many paediatricians. This type of food would serve many urban children who do not have easy access to fresh weaning foods. The World Food Programme Project UG 689 of 1970/71 recommended very strongly foods based on soya, maize and DSM. African Basic Foods Incorporated, a privately-owned company, is at present manufacturing soya flour and receives much encouragement from the Government.

School meals

11. With regard to school meals, the policy of the Government has all along been to provide all schools with school lunches since the early 1950s. This is easy in boarding schools, although the quality of the meals in some schools leaves much to be desired. It has become increasingly more difficult to do so for day schools, as records in the school meals section of the inspectorate of the Ministry of Education show. Earlier on, this was facilitated by the appointment of an officer to supervise this service in the Ministry. The organisation necessary for the success of this exercise, which includes adequate finance, transporting, cooking facilities and manpower to run the services, has been the main drawback to the success of this policy.

Nutritional value

12. The question as to whether the nutritional value of the foods being consumed, especially by the vulnerable groups, is adequate both in quantity and quality has been partly answered, in the negative. Although adequate foods are generally available in the country, proper use of them to get the maximum nutritional benefit is not always made. There are many factors that militate against this, such as various tribal customs and food taboos, lack of adequate knowledge about the value of various foods, lack of transport facilities to get the food where it should go, losses through bad storage facilities, and hence maldistribution of the available foods. This the Government is trying to tackle, as we shall see later.

SPECIAL CONSIDERATIONS

13. Consumption of foods of high nutritional value can be encouraged by health education. The Government has gone a long way to implement this. It is the policy of the Government to enlighten the community about nutrition, and different Ministries contribute their share of this education. The Ministry of Health, through its maternal and child health and its health education sections, encourages health education in general and nutrition education in particular at different medical units to individual groups of mothers or parents directly. Use of mass media such as radio and television, and to a lesser extent the press, plays a big role too. The Ministry of Education, through providing school meals, especially lunches, to day students, through giving instruction on nutrition in classes, and through practical courses in agriculture, plays its part in nutrition education. Many schools now have agriculture taught formally, both theoretically and practically. School farms have been established and many schools are self-sufficient in some food items, such as eggs and milk. The Ministry of Culture and Community Development, through its women's and youth clubs, encourages healthy habits including nutrition education, and through promoting improved farming methods contributes a great deal to nutrition education.

14. There are, however, many problems encountered in the production and distribution of foods of good nutritional value. The continuation of a subsistence economy with unsophisticated methods of farming does not stimulate production of foodstuffs adequate both in quantity and quality. The answer to this problem is the encouragement of more modern methods of farming, such as mechanisation and the use of fertilisers and insecticides to increase production. The Government, through the Ministries of Agriculture and Animal Resources, has been trying to encourage this trend, but more needs to be done.

15. Secondly, even the food produced by this subsistence farming cannot be got to the consumer easily. In this connection, transport, storage and marketing facilities need to be improved, so that not only losses due to poor methods of transport, storage and marketing are prevented but also maldistribution is avoided. Again the Government has recognised this and in its Action Programme 1977/78 – 1979/80 has increased foreign exchange allocations for buying more vehicles for transporting produce. Farmers, through their co-operative societies, can sell their produce more easily both to the Produce Marketing Board, which has increased storage facilities for some important foods such as grains, and on the open market. To allow easy transportation of foods, communications have not been forgotten. Re-grading, re-surfacing and the opening-up of new roads has been given high priority in the Action Programme so that transportation of produce can be done easily.

16. All this assistance given by the Government to help improve nutrition can receive a further boost, both technical and financial, from international organisations, particularly the United Nations agencies (WHO, FAO, UNICEF, WFP, IMF), and also from many friendly countries who are willing to help the Government fulfil its commitments. It is up to us to seek this aid and use it wisely, but without forgetting that local efforts must be the basis on which our nutrition can be greatly improved.

7 October 1977

FOOD AND NUTRITION

Background paper prepared by the Government of Tanzania

The Government recognises the urgent importance of nutrition. The national organisation which supervises all matters on food and nutrition is the Tanzania Food and Nutrition Centre, a para-statal body under the Ministry of Health whose Minister is the Chairman.

NATIONAL POLICY

2. The centre is currently working out a formal food and nutrition policy for Tanzania, in close co-operation with the regional authorities so as to evolve a policy workable under our decentralised system of government.
3. The centre advises the Government on all matters related to food and nutrition. It works in close co-operation with all Ministries. There are concrete programmes on nutrition planning (national and regional), agricultural production in relation to nutritional requirements, food storage, processing and industry including highly nutritious products, nutrition education, nutrition surveys and nutrition-related health problems.
4. Ministries such as Agriculture and Natural Resources and other public institutions have plans geared towards a national balanced diet. Emphasis has been put on the production of food crops, especially cereals and legumes, while better utilisation of animal products is being very much encouraged. Products such as meat, milk and fish are being promoted.

LOCAL CONDITIONS

State of nutrition among children

5. From surveys done in Coast, Dodoma, Kilimanjaro, Tabora and West Lake Regions, 20–30 per cent of the children suffer from varying degrees of protein energy deficiency, especially between 12 and 36 months of age. Of these 2–5 per cent are acute (severe) i.e. kwashiorkor and marasmus. Among cassava (Coast) and banana (West Lake and Kilimanjaro) zones, this may continue beyond the third year of life. On the whole it is estimated that 10,000 children die of malnutrition per year.
6. Breast feeding is not a problem, at least for the greater part of the country, since it is part of our tradition and its desirability is enhanced by socio-economic reasons. However in limited urban areas, especially Dar es Salaam, there is some erosion of our breast feeding custom by bottle feeding and baby weaning products, often imported and sold accompanied with high-pressure salesmanship, typical of multinational corporations. We are certainly trying to maintain breast feeding as a national policy.

Staples and their bearing on nutrition status

7. The average annual agricultural growth of 2.6 per cent is below that of population growth of 2.8 per cent; therefore there is an inadequate food supply which has to be made up through imports.
8. The majority of the staples are without adequate protein. These include cassava, bananas, milled rice, maize, sorghum and millet.

9. Seven of the 20 regions produce less than 2,000 Kcal/day/caput. The type of staple produced is closely related to the consumption pattern and eventually the nutritional status of the community, especially in the rural areas where there is limited food marketing.

SPECIAL CONSIDERATIONS

Educational policies and the consumption of foods of high nutritional value

10. One of the aims of the policy of education for self-reliance is to encourage school economic activities which will serve as a medium of instruction and as a means of producing food and income for offsetting part of schooling expenses. As a result of this policy, schools are engaged in agricultural production and the making of articles of crafts and arts. The food thus produced is partly used for school feeding and income from the other sources is also partly used for the same purpose.

11. It is very possible therefore to encourage sound eating habits through the feeding programmes, so that the theory of sound nutrition is integrated with the agricultural activities in the schools. In other words, the theory of nutrition can be taught through school gardening and the practice of nutrition through the feeding programmes.

12. The school curriculum, especially in primary schools, has a health and nutrition component in it. In this way students can learn the basics of good health and nutrition.

13. The policy of adult literacy for all, and especially functional literacy, serves as a medium for teaching sound dietary and health habits to farmers and workers.

Some pertinent problems

14. There are several problems after harvesting. About 30 per cent of all food produced is wasted during storage through biological spoilage, rodents and insects. Transportation is a big problem, especially during the rains, and this causes tremendous losses in perishable products such as animal foods, fruits and vegetables. This ties in with marketing: consumers cannot be reached readily, and there are resultant big fluctuations in prices, especially in urban centres. These problems are interwoven in the fabric of national development and they can be overcome by overall improvement in our development.

Assistance

15. Assistance is required in the field of intermediate post-harvest technology of food crops and related products, especially storage, handling and processing. Training fellowships are needed in agricultural statistics, food technology, nutrition education, medical nutrition food chemistry and laboratory techniques. Limited help is currently being provided by UN agencies and other aid organisations but we could do with more assistance.

7 October 1977

FOOD AND NUTRITION

Background paper prepared by the British Government

For the sake of brevity this report from the United Kingdom will not attempt to deal with all the points raised on Agenda Item III. Since this is a medical conference we are putting the main emphasis on the health aspects of the problem, rather than on questions of food supply and distribution. Secondly, we are concentrating in this report on matters which we think may be of general interest to Commonwealth countries, rather than on the specific situation in the UK.

2. For these reasons it has not been possible to follow the format of the Agenda exactly. The report is in three parts:

- General ideas on food and nutrition policy
- The contributions to work on nutrition and the responsibilities of three government departments: the Department of Health and Social Security (DHSS); the Ministry of Agriculture, Fisheries and Food (MAFF); and the Ministry of Overseas Development (ODM).
- A short note on the nutritional situation in the UK.

GENERAL CONSIDERATIONS ON A NATIONAL FOOD AND NUTRITION POLICY

3. A distinction has to be made between a food policy and a nutrition policy. In the UK responsibility for food policy lies with MAFF. The objective is to ensure that there is available to the people an adequate supply of food which is healthy, safe and satisfies their choice. Such a policy has to operate within certain constraints. First, in a free society there must be freedom of choice; secondly, the availability of any food to the consumer depends in part on its cost, and this in turn depends on a range of agricultural, economic, social and political factors. Finally, government has the responsibility for setting and maintaining standards of quality and safety. It is perhaps in this field that the collaboration is closest between the departments concerned with food and with health.

4. The objectives of a nutrition policy are different. They are to ensure an optimum nutritional state of the population. The definition of the objectives is clearly the primary responsibility of Health departments, but implementation of the policy is likely to fall on Ministries of Agriculture and Food, as happened in the UK in World War II.

5. There is much debate going on at present in the UK, both inside and outside government circles, on the extent to which it is desirable and feasible to combine these two objectives in a national food and nutrition policy. Any discussion of this question must take account of several different sets of problems.

6. We have to ensure that even in an era of rising food prices the basic components of a healthy diet are available in adequate amounts even to the poorest and most vulnerable sections of the community, such as the elderly, single parent families and the unemployed. Here there undoubtedly is an *ad hoc* policy, even though it may not be a fully developed food and nutrition policy. On the one hand, government recognizes its responsibility for maintaining surveillance of the nutritional state of the population (see below); on the other, a variety of methods are available, and are used, for ensuring that people are adequately fed, such as price controls, subsidies, school meals, welfare milk, etc. We do not, however, have any system for comprehensive review of the effectiveness of these measures.

7. Quite a different problem is presented by the so-called diseases of affluence. It seems that when people can afford it, they persist in eating diets which many scientists think are not very

good for them. There is not, however, a consensus of scientific opinion. For instance, in the UK there is quite active controversy about the role of dietary factors in the causation of cardiovascular disease. Even if there were a consensus, it is still doubtful how far it would be justified to use measures such as price control and taxation to limit the individual's freedom of choice in the interests of his health. At present the lines of action being pursued are to promote research on dietary causes of ill-health and the degree of risk, and to promote a balanced view on these matters by health education.

8. A third element is that our diet is certainly not as economical as it might be in terms of the use of resources. A diet, to be compatible with health, need not contain such large amounts of expensive animal protein and fats. However, any attempt to reduce the consumption of animal products would cause a major disruption of our agricultural industry. Moreover, the general feeling is that, except in time of war, it is not right to try to impose a different pattern of eating by government action. Any change must come about through the natural forces of supply, demand and price. As an example the food industry, rather than government, is taking the lead in trying to introduce new and cheaper protein products derived from vegetable sources. The DHSS has set up a special panel to monitor the quality of these products and to advise on the extent to which they should be used in feeding programmes supported by public funds, such as school lunches and hospital catering.

9. Although these remarks emphasize the constraints on planning, there is an increasing desire to co-ordinate policy of food and nutrition between departments of government and between government and industry.

THE ROLE AND RESPONSIBILITIES OF GOVERNMENT DEPARTMENTS

The Department of Health and Social Security

10. *Organisation.* The DHSS has a small nutrition section responsible for some direct survey work, for co-ordinating and promoting research commissioned by the Department, for advising the Minister and for servicing a number of committees and panels. The main advisory body is the Chief Medical Officer's Committee on Medical Aspects of Food Policy (COMA). This committee has established a number of sub-committees and panels concerned with subjects such as infant feeding, the nutrition of the elderly and nutritional surveillance. In addition, COMA has set up several *ad hoc* working groups and panels to advise and report on particular problems such as bread and flour, cardiovascular disease, obesity, novel proteins, the composition of infant foods, recommended dietary intakes and the possible fortification of foods with vitamin D (see paragraph 38, et seq., below). MAFF is represented on the majority of these committees.

11. A parallel committee to COMA is the Committee on Medical Aspects of Chemicals in Food and Environment. This committee also works through a number of working groups, for example, the Toxicity Sub-Committee.

12. These various committees contain a high proportion of the more senior people involved in nutrition in the UK, so that government can draw upon a wide range of specialist advice. This system also has advantages for the academic community: it brings them into contact with practical problems and encourages collaboration between disciplines.

13. *Activities.* Over the last decade or more the DHSS has been directly responsible for a number of surveys on particular groups of the population – school children, pre-school children, pregnant women and the elderly – involving weighed dietary intakes and medical assessments. These surveys have been cross-sectional, except for that on the elderly, which is being repeated every five years on the survivors of the original sample.

14. Information about the nutritional status of the population is also obtained from morbidity and mortality statistics provided by the Office of Population Censuses and Surveys, from the Hospital In-patient Enquiry and from blood transfusion statistics which show the number of potential donors rejected because of a low haemoglobin level.

15. In recent years, partly as a consequence of the Rothschild report on the organisation of government research, studies have been commissioned to be done by university departments and other institutions such as Medical Research Council (MRC) units. Examples of work commissioned in this way are longitudinal studies of the growth of school children and pre-school children, a study of the effect of supplementary milk in pregnancy on the birth weight and growth of infants, and biochemical measurements of vitamin status in the elderly.

16. The first three studies were set up as a direct consequence of a government decision in 1971 to reduce the subsidies on school meals and on the distribution of milk to infants, children and pregnant women. In making these changes the Minister undertook that the benefits would continue to be available free to poor and large families and that every effort would be made to monitor any adverse effects on other groups. An important development from this has been the realization that nutritional monitoring or surveillance, to have any meaning, must be a continuous process. Monitoring requires a baseline, and no baseline anthropometric information was available. Although the school medical service provides for medical examination of all pupils on entering and leaving school, heights and weights were less often measured over the years and have not been analysed centrally, except in Scotland.

17. The emphasis in the technical discussions of the 30th World Health Assembly on the need for nutritional surveillance in all countries has therefore found a ready response in the UK. However, although the principle is accepted, many practical problems, apart from the financial ones, remain to be overcome. Difficult decisions have to be made about sample sizes and methods of sampling. School children present no great problem, but it is difficult and expensive to obtain a sample of pre-school children, who form a key group in the UK, as in developing countries. Much thought is therefore being given on how to make better use of information obtained through existing services, such as child welfare clinics, and on how to improve the quality of that information.

18. The MRC works closely with the DHSS. The main interest of the MRC is naturally the support of nutritional research in the fields of physiology, biochemistry, clinical medicine and epidemiology. However, it was only after the publication in 1974 of a joint Agricultural Research Council/Medical Research Council Report on Food and Nutrition Research that the subject began, after a lapse of some 30 years, to have a relatively high priority in the UK. For more than 20 years the MRC has been very active in the support of nutritional research overseas, with units in Uganda and Jamaica, and more recently a group in The Gambia. More attention is now being given to training and career structure, since it is considered that one factor limiting progress is a shortage of good workers in nutrition.

The Ministry of Agriculture, Fisheries and Food

19. The nutrition section of MAFF provides advice to the Government on human nutrition as it relates to food. An important part of its work involves the nutritional interpretation of two sets of food supply statistics collected by MAFF, namely the total food available in the country (corresponding to the FAO Food Balance Sheets) and the unique National Food Survey, which continuously records the amounts of food bought by housewives. About 7,500 households participate each year, and the results are evaluated by season, region, degree of urbanisation, income and family composition. The findings are compared with the nutrient intakes recommended by DHSS, and one of the aims of the Survey is to provide an early warning of possible nutritional problems.

20. The section is also concerned with the nutritional value of basic foodstuffs and of the ever-increasing range of processed foods. It maintains its knowledge up to date in several ways, which include:

- (a) frequent contact with industry and agricultural advisers
- (b) a series of *ad hoc* analyses of nutrients in selected foods
- (c) a long-term collaboration with the MRC Dunn Nutritional Laboratory for the complete revision of standard tables of food composition.

Much of this work is published in scientific journals.

21. This knowledge is often a prerequisite for understanding medical problems, such as the role of different forms of dietary fibre in the aetiology of certain diseases, and the relationship between newer foods and dietary patterns and possible imbalances of trace elements and other 'minor' nutrients.

22. The section collaborates closely with DHSS nutritionists, with legislators within MAFF (for example by advising the Food Standards Committee), with several other government departments which have interests in food, and with the Agricultural Research Council and Food Research Associations where research contracts are increasingly being placed. It also provides advice to the public on nutritional matters, especially through its 'Manual of Nutrition'.

The Ministry of Overseas Development

23. The ODM is increasing its interest in nutrition and has appointed an adviser in the subject. It is accepted that the nutritional problems of third world countries cannot be tackled in isolation; they must be viewed not only as a health problem but in the wider context of social and economic under-development.

24. *Nutrition in technical co-operation programmes.* There are many examples of how, in the past, projects aimed at increasing productive capacity have had adverse effects on health and nutrition. As a consequence of our policy of aid to the poorest we believe that a nutritional element should, wherever possible, be built into technical co-operation schemes, particularly rural development projects. There is very little experience to guide us on how to do this. Since the responsibility for initiating schemes rests with the government which is requesting technical co-operation, the first step is that governments should be aware of the nutritional problems in their countries and of the part which improvement in nutrition plays in the development process. We hope that the discussions on nutrition at this conference, following closely on those at the 30th World Health Assembly, will help to increase this awareness.

25. Our first experiment in this direction is about to begin in Kenya, where the Government has requested the inclusion of a nutrition worker in the small team being set up by the ODM and the World Bank to study the implications for health and nutrition of the Tana River irrigation scheme, and to establish a programme of surveillance.

26. *Collaboration with UN agencies.* We are increasing our contacts with the UN agencies concerned with nutrition – WHO, FAO and UNICEF – and with other donor countries interested in nutrition projects. One way of doing this is by active participation in bilateral meetings of donor countries, in technical meetings on special problems such as Vitamin A deficiency and iron deficiency anaemia, and in discussions on institutional arrangements for improving the effectiveness of the UN agencies in the field of nutrition. The objective of this increased participation is to open up other ways of taking useful action.

27. *Food Aid.* The ODM has responsibility for advising on the nutritional aspects of the UK food aid programme, which includes aid direct and through the WFP and the EEC. It is accepted that in most cases food aid has to be regarded as a contribution to the development process, relieving some of the burden of imports for the recipient country. Nevertheless a significant proportion of the programme has as its objective the direct distribution of food to those who need it most, for example young children and nursing mothers.

28. Whilst we remain convinced that the most cost-effective medium for improving nutrition is cereals, the provision of dried skimmed milk (DSM) plays an important part in programmes of the second type mentioned above. There has been concern in the UK that the distribution of DSM might have harmful effects, discouraging breast-feeding and promoting gastro-enteric disorders. We therefore proposed certain measures and guidelines for the safer distribution of DSM, which have now been adopted by the EEC. We have also supported an EEC initiative to reinforce DSM food aid with vitamin A in all cases considered to be appropriate. In deciding such cases the advice of the WHO is often sought. In principle, arrangements should be made to monitor the extent to which these ill effects occur, if at all. Such monitoring is not easy, and we are in the

process of planning a pilot study to find the best way of doing it. In concert with our EEC partners we are also considering the need for and the cost-effectiveness of supplying, in certain circumstances, DSM in processed form, doing away with the need for it to be mixed with water (which could be polluted) and making it impossible to use as a substitute baby food.

29. *Research.* The MRC's Dunn Nutrition Unit has an extensive programme of research on the ecology of malnutrition in a rural area in The Gambia aimed at elucidating the interactions of nutrition and infection in producing growth failure.

30. The ODM provides substantial support for the Tropical Metabolism Research Unit at the University of the West Indies. This unit, in addition to basic work on malnutrition, is responsible for organising and teaching a Master's course in nutrition. Work is also being done on the interaction of nutritional and social factors, on the mental and behavioural development of children and on the effectiveness of intervention in the home.

31. It may be said that we are particularly interested in research on the functional effects of malnutrition, which include questions such as the influence of energy and iron deficiencies on the output of work. This is part of a general shift from looking at malnutrition as a medical problem to looking at it as a social problem, in its causes and in its effects.

32. *Nutrition policy and planning and nutritional surveillance.* In the last few years WHO and FAO have emphasized strongly the need for all countries to develop systems for nutritional planning and surveillance. These are subjects in which there are very few people with relevant experience. The ODM is supporting the establishment of a unit for nutrition policy and planning at the London School of Hygiene and Tropical Medicine. The tasks of this unit will be research and evaluation, teaching (largely through special workshops) and the provision of consultant services when requested. An active collaboration has already been established with the Nutrition Planning Unit of the Government of Sri Lanka.

33. *Training and manpower resources.* The ODM and the British Council provide a number of fellowships for students from overseas countries to receive training in nutrition or food science at various British universities. Many take the Master's course in human nutrition at the London School of Hygiene and Tropical Medicine, because this is oriented particularly to the problems of developing countries.

34. An important new development is third country training. The ODM has recently agreed to provide five fellowships annually for students from the poorer Latin American countries to take courses at the Institute of Nutrition of Central America and Panama, thus providing the necessary training without removal from the region of origin and divorce from the area of the problem, and possibly contributing to the brain drain.

35. Last November WHO convened a meeting of heads of university departments and institutes giving so-called 'higher level' training in nutrition, to establish the nature of the need and the extent to which that need is being met by existing courses. There was general agreement that, for the time being at least, there is still a need for higher level courses in the UK and other European countries until more regional and local institutions have been built up.

36. We attach great importance to maintaining and indeed increasing our resources of people with experience in nutrition for work in technical co-operation schemes, in the various UN agencies, etc. The MRC provides a small number of scholarships for UK students to take higher degrees in nutrition, particularly those who aim to work overseas.

37. There is always much difficulty in matching supply and demand. We have to look ahead if trained people are to be available when they are needed. We should be very much interested to hear the views of other delegations on the likely needs for people trained in nutrition.

THE NUTRITIONAL SITUATION IN THE UK

Nutritional status

38. The surveys which have been done (see paragraph 10 et seq., above) and the surveillance system which is being set up have as their main objective the detection of undernutrition in our population. In the main this has not been found. There are small differences in height in children related to social class and family size, but we cannot be sure that they have anything to do with nutrition. As has been said above, we believe that with rising prices of food in relation to incomes it is very necessary to extend this monitoring.

39. Two particular groups have problems which cause some concern. A proportion of elderly people show biochemical evidence of deficiency of riboflavin and ascorbic acid, when results are interpreted according to conventional standards of normality. Clinical evidence of deficiency has not been found, and to make any judgement about these changes it is necessary to establish normal ranges in this age-group.

40. The other problem is the re-emergence of rickets and osteomalacia, particularly in some of the immigrants from Asia. The exact incidence is unknown because of the great difficulty of diagnosing early or marginal vitamin D deficiency. This is a public health problem which has not so far been solved. Reports from hospitals, together with the results of some limited surveys, suggest that the condition is fairly common in the industrial cities of the midlands and the north. Consideration is being given to the pros and cons, as a public health measure, of fortifying either chapatti flour or milk with vitamin D, but a definite decision has not been reached. In the meantime our main weapon for dealing with this problem is by educational campaigns directed at the groups at risk. Where these have been carried out with enthusiasm, they have in some measure been successful. The cause and cure of rickets is known. The difficulty is to get the message across to the poorer, migratory Asian immigrants who in any case have a language problem and many of whom have other diseases such as tuberculosis and anaemia.

41. On the other side of the picture, in the UK, as in other countries, there is increasing concern about obesity and its possible relation to coronary heart disease. There has been no systematic study of the prevalence of obesity, but such surveys as have been made suggest that men, more than women, are fatter than they were 30–40 years ago and get fat at an earlier age. A longitudinal study by Professor J. N. Morris of 18,000 middle-aged men has shown that it is only the extreme of overweight (the top 10–15 per cent of the distribution) which carries an increased risk of coronary heart disease. However, the other effects of obesity, such as diabetes, osteoarthritis, increased surgical risk, etc., are not negligible, nor is their cost to the health service.

Food consumption

42. The National Food Survey (see paragraph 19) is showing a trend towards a decreased energy intake, at least in the home. This is paralleled by a fall in total food supplies and in the intakes of individuals, as measured in recent surveys. If it is a true trend, and if, as suggested above, it is associated with an increase in average body weight, it must indicate a fall in physical activity in our industrialized society.

43. Dietary surveys in different age groups show that in general the average intake of all nutrients except iron and vitamin D is equal to or greater than the recommended intake. This must mean, however, that many people must be getting less than the recommended intake without any clinical evidence of deficiency. The meaning and use of figures for recommended intakes of nutrients need to be re-examined, and a working party of the DHSS is considering these questions.

44. In the UK, as in the USA, many nutritionists consider that the national diet contains too much sugar, saturated fat and alcohol and too little fibre. Until we know more precisely what constitutes too much, and the relationship of intake to risk, it is difficult to see what positive action can be taken. This question has already been discussed in paragraphs 3–9 above.

45. In general, it seems that, with the exception of the problem of rickets in some immigrants, the population of the UK is fortunate in having a diet which is quantitatively and qualitatively adequate. We are not, however, complacently assuming that this situation will continue indefinitely, nor do we assume that there are no deficiencies which remain undetected. For example in the UK, and in many other countries, there is a great deal of interest in the possibility of trace element deficiency — a subject to which workers in New Zealand have made notable contributions.

25 October 1976

FOOD AND NUTRITION

Background paper prepared by the Government of Sri Lanka

National policy

The Government of Sri Lanka has recognised and accepted the need for a national food and nutrition policy, and in pursuance of this a high-level committee composed of the Secretaries of the following Ministries was set up in 1976:

- Planning and Economic Affairs
- Plan Implementation
- Agriculture and Lands
- Health
- Food and Co-operatives
- Fisheries
- Trade
- Education

The Secretary, Ministry of Planning and Economic Affairs, functions as the chairman of the committee, which comes directly under the purview of the Prime Minister.

2. An advisory unit to this committee, termed the Food and Nutrition Policy Planning Unit, has also been set up in the Planning Ministry. This unit is staffed with officers from the Ministries of Planning and Agriculture, who are on secondment from their substantive posts, and also has a call on consultants from the other key Ministries, including the Health Ministry. However, it awaits the appointment of a full-time, permanent Director and is not expected to be fully functional till then.
3. Two nutritionists of the Health Ministry have undergone specialised training in food and nutrition policy planning and act as consultants to the Food and Nutrition Policy Planning Unit.
4. The Ministry of Health has, with WHO and UNICEF assistance, committed itself to a National Nutritional Surveillance Programme where the nutritional status of pre-school children will be monitored once every six months on an island-wide basis. This will provide valuable information on changing trends for the nutrition policy planning process. The programme is due to commence in November 1977 and it is hoped, in due course, to have agricultural and meteorological data from the respective departments to supplement the health data.
5. In order to make the country self-sufficient in its staple cereal, rice, the Government has implemented a multi-million-dollar irrigation project with World Bank assistance. The largest river, the Mahaweli ganga, is being diverted towards the more arid north central regions of the country and the first stage of the project has already been completed. The entire project is scheduled to be completed during the next five years, and not 30 years as targeted earlier.
6. Some of the other measures to increase the cultivation of more food include the allocation of considerable sums of money for other irrigation projects, a 50 per cent subsidy on fertilisers, assurance of a guaranteed price for cereals and pulses, and liberal credit facilities.
7. Import of pulses into the country was stopped in 1973 to give an impetus to the local farmer. This has had a salutary effect in increasing the acreage of pulses from 1500 acres in 1973 to 50,000 acres in 1976. A special programme has been initiated to cultivate soya bean with the technical assistance of the University of Illinois. About 5,000 acres are under soya cultivation at present, though it is only a recently introduced food in the country.

Local conditions

8. The Nutrition Department of the Medical Research Institute has carried out regular diet and nutrition surveys in all parts of the island since 1930. All these surveys have repeatedly emphasised that a shortfall in energy (calories) is the main nutritional problem. The mean protein intakes appeared to be marginally adequate but this no doubt breaks down due to unequal distribution both within and between families. The vulnerable groups — women and children — suffer as a result. Intakes of iron, calcium, vitamin A and riboflavin were also generally inadequate, though adaptation seems to occur to the low calcium intake with resultant stunting or short stature.

9. An island-wide survey of the nutritional status of pre-school children was carried out by the Ministry of Health in association with the Centre for Disease Control, Atlanta, in 1975/76 — the nutritional status of pre-school children being a good index to the nutritional status of the population. It showed that 6.6 per cent of the rural children were acutely under-nourished or wasted (below 80 per cent of reference median weight for height) and 31.4 per cent were chronically under-nourished or stunted (below 90 per cent of reference median height for age). If concurrent acute and chronic (wasting and stunting) under-nutrition was considered, 3.4 per cent of Sri Lanka's approximately 2.1 million pre-school population were affected and therefore in urgent need of priority intervention.

10. The same Ministry of Health/CDC pre-school survey showed that vitamin A deficiency was not a major public health problem, and only in two of the fifteen health areas (Kegalle and Matara) did it exceed the 2 per cent prevalence levels above which the WHO considers it to be a public health problem. Even in these two areas it only marginally exceeded the 2 per cent prevalence level with prevalence rates of 2.3 per cent and 2.2 per cent respectively. The Ministry of Health has now launched a massive dosage vitamin A prophylactic programme in these two areas and a 200,000 IU capsule is given twice annually to all children since November 1976. The programme is to be evaluated shortly.

11. Anaemia is a problem of considerable magnitude and is mainly due to deficiency of iron, with deficiency of folates and vitamin B₁₂ contributing only to a much less extent. The predominantly plant sources of iron, with their poor bio-availability, and concurrent worm infestations no doubt aggravate the problem. Between 65–90 per cent of pregnant women have been shown to be affected. Women of child-bearing age and pre-school children (58 per cent) are also affected. Over 40 per cent of the adult males have been shown to be anaemic and this could seriously impair the work performance of the most productive group in the community. The Government has undertaken the distribution of haematinic tablets to the vulnerable groups through a network of health centres and estate clinics as an immediate measure to control the problem.

12. Endemic goitre is not a serious problem in that the severe manifestations of cretinism, deafmutism and gross goitres are not common. However, it is a public health problem in the South Western and Central Regions of the country where the heavy rainfall leaches the soil of its iodine content and leads to a dietary deficiency. As 70 per cent of the population reside in these areas, a large proportion of the population is at risk of endemic goitre. Therefore an iodine fortification programme is an urgent need and has been engaging the attention of the Government.

13. Particular emphasis is being placed on breast feeding in all nutrition education programmes. Where breast feeding is a problem due to the poor nutritional status of the mother a supplementary food, "Thripasha", is given to the mother in order to improve her nutritional status and the mother is advised to continue breast feeding.

14. There are no acceptable traditional weaning practices and infants tend to be weaned on to starchy gruels, and that too late in life — usually nearer or after one year of age. Since 1971 the Ministry of Health with the assistance of the CARE organisation, has made available a processed supplementary food under the name Thripasha. This was originally an entirely imported product — Wheat Soya Blend — but is gradually being replaced with locally produced cereals and legumes. At present approximately 400,000 beneficiaries receive three pounds of Thripasha monthly on

a selective basis — i.e. only those children in grade two or grade three malnutrition — through the various health centres in the island. This ration would supply 9g of protein and 180 calories to each child daily.

15. Children in the primary classes in schools that have been identified as having over 80 per cent of children in grades two and three malnutrition are given eight biscuits and a mid-day snack. This is a joint Ministry of Health/Ministry of Education/CARE programme. The ingredients of the biscuits are instant corn soya milk (ICSM) skimmed milk, sugar and oil and the ration provides approximately 7g protein and 176 calories per child daily. This is by no means a mid-day meal programme and is only meant to supplement the child's diet. At present 950,000 beneficiaries in 7,500 schools partake in the programme.

16. Cereals, particularly rice and to a lesser extent wheat (which is imported), are the main sources of both energy (calories) and protein in the average Sri Lankan diet. Cereals provide approximately 75 per cent of the calories and 70 per cent of the protein intakes of rural populations. Average protein intakes are around 47g per person daily and are only marginally adequate with animal proteins contributing only as little as 6–8g to this figure.

Special considerations

17. Health education, including nutrition education, is extensively carried out through the various health centres. However, the impact of these measures is slow and at times unrewarding. Unless combined with other strategies, the impact of education programmes, by themselves, could be minimal.

18. One of the main constraints in the delivery of health and nutrition services has been a logistic one, with shortage of transport facilities for both personnel and supplies. The present Government is taking steps to ease this problem by making available transport for medical personnel and supplies, as well as heavy transport for the movement of food supplies.

19. Various agencies have assisted the Government in its food and nutrition programmes. The World Bank, FAO, WHO, UNICEF and CARE have assisted in several of the programmes and have already been mentioned. The Food and Nutrition Policy Planning Unit is being supported by FAO and UNICEF and once the unit is effectively operational further assistance would necessarily be required from the same or other funding agencies, as all food and nutrition programmes will be co-ordinated by this unit. Assistance will be required for national nutritional surveillance as this is an extensive and continuing project and also requires considerable expansion to take in other data, such as agricultural and meteorological data, to be meaningfully interpreted. WHO and UNICEF are supporting a nation-wide immunisation project which has a indirect but real impact on the nutritional status and again this is a continuing programme requiring continued support. The World Food Programme continues to donate food commodities on a "Food for Work" basis to labour engaged in development projects.

20. Agencies such as USAID, SIDA and NORAD and others have also assisted with programmes of direct or indirect value in improving the nutritional status of vulnerable groups.

31 October 1977

FOOD AND NUTRITION

Background paper prepared by the Government of Seychelles

The Republic of Seychelles comprises of 92 islands scattered over almost 150,000 sq. miles (400,000 sq. km) of the Western Indian Ocean between latitudes 4° and 11° South. The islands have a total land area of 171 sq. miles and have a population of about 60,000, 90 per cent of whom live on the principal island of Mahé. The latter accounts for 22 per cent of the total land surface. Two other islands, Praslin and La Digue, account for the remainder.

2. Much of the terrain of the granite islands (32 out of the 92) is mountainous, eroded and boulder-strewn. Something like half of the total area is either unsuitable for cultivation or consists of forest land. Of the remainder, more than 90 per cent is under tree crops and shrubs, leaving only about 2,000 acres of arable land. Generally the soil is of low fertility and porous, with a low capacity for holding water. These facts have important implications with regard to food production and consequently the nutrition of the population.

Nutritional status

3. The nutritional status of our population may be said to lie somewhere between some of our developing African and Asian neighbours and the developed countries, as indeed does our level of health generally. There is little of the gross malnutrition (or more correctly under-nutrition) experienced by the countries of the African mainland and the Asian sub-continent. However, although the absolute numbers are small, malnutrition ranging from mild protein calorie deficiency to florid kwashiorkor and marasmus does exist.

Surveys

4. A number of surveys have been made but perhaps the most significant one was that made in 1974 by Dr. Fox of the Department of Human Nutrition in the London School of Hygiene and Tropical Medicine. Based on evidence from mortality rates, morbidity and anthropometric data, he concluded that the most vulnerable group was children in the post-neonatal (4 weeks to 1 year) and the 1 to 4 years age groups, and postulated that this corresponds to the time during which the infant is being taken off the breast and begins to take solid food. This certainly not the whole answer and there is no doubt that poor sanitation, parasitic infestations and socio-economic factors are important.

5. In a recent analysis of 2,000 children attending the maternal and child welfare clinics, 26 per cent fell below the 3 percentile (Harvard Scale). It was observed that the majority of the children with clinical under-nutrition were from families with one or more of the following characteristics: one parent families, low income families, large families, and problem families with either one or both parents being heavy drinkers. Many of those children showed other signs of poor hygiene and care such as parasitic infestations (often multiple), scabies and gastro-enteritis.

6. Our nation is essentially a young one, 30 per cent being below the age of 11 and 42 per cent being below the age of 15. Young children are the potential manpower resource for the country's future development, so that utilisation of resources in improving the health of this section of the community to allow it to achieve its full potential is a priority in health planning. It is in recognition of this that our Government has singled out children, particularly the pre-school age group, for special attention in its overall health programme.

Improvement in child health care services

7. Recently (February 1976) a medical officer, through the assistance of the British Government, has been assigned full-time to the Public Health Department with the express purpose of overseeing and advising on improvement in our maternal and child care services. Prior to this, these services were run entirely by the public health nurses.

8. There is regular follow-up at the clinics. Growth charts are now in common use. Routine deworming of all children attending the clinics is now done with Levamisole (a broad spectrum antihelminthic agent). A family planning service is now being offered to the mothers attending the clinics. Family planning is undoubtedly of paramount importance if we are to improve the nutritional status of the community, indeed its health generally. The clinics serve as distribution points for USAID food supplied through Catholic Relief Services. Child welfare workers are now integrated into the child welfare service, which has made possible early and rapid assessment of problem families.

Other measures

9. Alcoholism is a factor of some importance for it affects not only the individual concerned but the whole family, the children in particular. The new Government is taking firm measures to reduce the size of the problem. Strict licensing laws have been introduced and a new sense of discipline and responsibility is being instilled into the nation.

10. The low income families are being assisted in the following ways:

- (a) statutory measures to establish minimum wages for domestic workers, agricultural workers and labourers;
- (b) statutory price control on food and other basic commodities;
- (c) the Government's housing programme is being accorded top priority in the First National Year Plan, with preference being given to those whose needs are greatest – financial assistance in the form of soft loans is being received from the EEC countries;
- (d) The Seychelles Children Society runs a scheme funded by Save the Children Fund in Britain, whereby a monthly allowance is made to poor families, and the same society engages voluntary workers to teach the mothers basic home economics so that the money allocated is used to maximum advantage for the welfare of the children.

Increase in food production

11. As we have pointed out in the introductory paragraph, good agricultural land is scarce and a conflict exists between the preservation of land for agricultural purposes, on the one hand, and an expanding building programme on the other; the Government is taking every measure to ensure that the latter does not reduce significantly the amount of good agricultural land. Intensive farming is being practised to ensure maximum productivity from each acre of farm land.

12. The staple diet is fish and rice, the latter being wholly imported. The aim of the Ministry of Agriculture and Land Use is to reduce our reliance on imported food. The growing of carbohydrate substitutes like sweet potatoes, yams, cassava, etc., is being encouraged and the production of fruits and vegetables has increased in recent years, stimulated in part by the growing tourist industry. Over the last few years a number of commercial farms have become established and production of poultry, eggs and pig products from them has increased to such an extent that we are now almost self-sufficient. A determined effort is presently being made to both increase the production and improve the quality of beef and milk, mainly as a result of the introduction of a new feeding system based on sugar cane.

13. Because of the relative scarcity of good agricultural land and because we are surrounded by seas teeming with fish, it is only natural that we should look to the sea as a source of food supply. The Government is taking steps to develop a viable fishing industry that will ensure sufficient fish for the nation as well as allow for export. The availability of fish is at present subject to seasonal

fluctuation. The French Government has recently donated a cold store of 100-ton capacity with a blast freezer capable of freezing five tons of fish per day. During the good season any excess fish will be stored in the freezer to be put on the market in times of scarcity. This will ensure a more even supply of fish throughout the year as well as more stable prices.

The impact of tourism

14. The opening of an international airport in 1970 and the advent of a tourist industry have brought about certain important socio-economic changes. One such change has been in the role of women in society. As a result of the increased demand for domestic and hotel workers, an increasing number of women with families are being drawn into full-time employment. It has previously been customary for women to breast feed their babies for up to six months or sometimes longer. The pattern has changed, with more and more infants being bottle-fed from an early age because their mothers are having to return to work, and a large number of them are being left with child minders for most of the day. The risks of bottle feeding in less than ideal conditions are well-known.

15. The Seychelles Children Society runs a number of crèches where the mothers can park their children during the day whilst they go to work. Advice on feeding is given to all mothers attending the maternal and child health clinics. By and large mothers are encouraged to breast feed for as long as is practicable.

16. Breast feeding was used as a natural form of birth control as it is known that the risk of pregnancy during lactation is reduced. With the change in trend towards bottle feeding at an early stage, it has become imperative to advise mothers on contraception before they leave the hospital. With very few exceptions, all deliveries take place in hospital.

17. The expanding tourist industry and development generally in the Seychelles is bringing a degree of affluence akin to that enjoyed by the richer countries of the Western world to an increasingly larger section of our community. In time to come this trend may become reflected in a change in the pattern of disease. Thus coronary heart disease, which is at present uncommon amongst Seychellois, may become more prevalent. Education in nutrition should be directed not only at preventing under-nutrition but the other form of "malnutrition" as well, namely obesity.

The special problem of the outlying islands

18. The Republic of Seychelles comprises two distinct group of islands:

- (a) the granitic islands of which there are 32 and which form a compact group, with no island more than 35 miles from the main island of Mahé;
- (b) the corraline group (60 in all) which sprawl over a much wider area of ocean, the furthest of them being 700 miles from Mahé.

Until recently the outer islands had been neglected by and large. However, the Government is now proposing to develop these remote islands so that they will contribute to the overall economic progress of the country. One is confronted with two main problems: the delivery of adequate health care to these remote areas, and the nutrition of the communities living on these islands.

19. Where nutrition is concerned, the long-term goal is to make the outlying islands self-sufficient in food production where possible, but until this can be attained, the islanders must be assured of an adequate supply of vegetables and fresh fruit. There is a good deal of variation amongst the islands as to what can be grown, and a limited amount of vegetables and fruit do grow on some of them, particularly in the wet season. The problem is to ensure an all-the-year-round supply.

20. Communication between these islands and the main island is poor and, except for two which have an airstrip, access to the outer islands is by boat. Transport of vegetables to the islands would require a special boat fitted with refrigeration facilities and similar facilities would have to

be available on the islands for storage. The existing Outlying Islands (Essential Foodstuffs) Regulations require that the island owners make available to their employees only nine basic food items (non-perishable) which can be shipped from the main island. There is nothing in the regulations regarding the provision of fresh vegetables, which leaves the islanders open to serious risk of nutritional deficiency disease, particularly anaemia, scurvy and vitamin A deficiency. Children on these islands are particularly at risk.

21. The Ministry of Labour, Health and Welfare, recognising the potential risks inherent in the existing regulations, is presently studying ways of how best to tackle this very important problem. As part of their aid programme to the Seychelles, the French Government has already sent a team of experts to evaluate the situation of the outlying islands and advise the Government of Seychelles on the best way to effect their development.

31 October 1977

FOOD AND NUTRITION

Background paper prepared by the Government of Canada

An introduction to the background papers prepared by the Government of Canada is contained in document CMC(77) Gen/1.

NATIONAL POLICY

2. For many years various professional, commercial and voluntary agencies have pressed for the formulation of a comprehensive food and nutrition policy for Canada. Philosophical deliberation on this theme dates back to the 1936 resolution of the League of Nations which provided the initiative at that time for a Canadian Council on Nutrition as a unified body for interpretation of developing nutrition science into practical food and nutrition programmes. In more recent years, the recurrent urgings of the Food and Agriculture Organisation of the United Nations that all countries should develop a single and comprehensive national food and nutrition policy have served as a goal for further consideration of this proposal. However, in Canada the sharply delineated division of responsibilities between provincial governments and the Federal Government makes the establishment of a clearly formulated national policy difficult. Nonetheless, in the recent Speech from the Throne reference was made to calling a conference for the development of such a policy in consultation with the provinces.

The role of the Department of Health and other government agencies

3. Within the provincial jurisdictions, the Department of Health has responsibility for all aspects of provision of health care, for preventive programmes related to health, and for broad programmes of health education directed to the public. The Department of Education carries responsibility for school health, for operation of school cafeterias or other school lunch programmes, as well as the nutrition and health content in the curriculum. The Provincial Department of Agriculture carries the responsibility for factors influencing food production and food marketing, including local or regional programmes involving incentives or controls, and for nutrition education as a component of home economics extension standards.

4. The Federal Department of Health regulates standards for foodstuffs under Federal legislation (the Food and Drugs Act), including both product standards for staple foods and regulations covering, for instance, food additives, pesticides, contaminants and micro-biological hazards. Quality for certain agricultural products is set under the Canadian Agricultural Products Standards Act which meshes in with any provincial standards in the field. The Department of Consumer and Corporate Affairs regulates advertising claims which may be made for foods. The Department of Agriculture also regulates, by in-plant inspection, the production of meat under the best sanitary conditions and its quality where this commodity crosses provincial boundaries. Federal marketing boards and federal coordination of the activities of various provincial marketing boards (milk, eggs, meat, fruit and vegetables, etc.) also has a decided influence upon the economics of food choice, and thus indirectly on nutrition, through price stabilisation programmes, floor prices, subsidies, stock-piling, etc.

5. Finally, financial incentives and controls may be exerted through National Revenue and Trade and Commerce, in such fields as taxation, subsidies, tariffs for regulation of imports and through the impact of various international trade agreements but purely on an economic and not a health basis.

6. It has been estimated that at the Federal level alone a unified food and nutrition policy would involve cooperative action by not fewer than 20 departments or agencies. It is evident that in Canada a single, simple food policy may not be feasible.

7. In June 1977 a "green paper on Food Strategy for Canada" was released jointly by two government departments: Agriculture, and Consumer and Corporate Affairs. It represents a set of basic principles to guide the development of policies and programmes for the food sector but took little account of nutritional goals. For the consumers, the primary aim was to reassure them that not only is the food marketing system fair and efficient, but also that their interests are taken into account, along with those of producers, processors and others, in any government involvement in the food industry. At the same time it strives to maintain a strong and competitive agriculture in Canada. Interests of various components of the food industry do not always coincide. Compromises based on good relations and close cooperation among the agencies involved is suggested in the strategy. Nevertheless, this green paper is a beginning. It is hoped that it will stimulate debate and interest in a more comprehensive and more effective food and nutrition policy, which was adumbrated in the recent Speech from the Throne (see paragraph 2, above.)

LOCAL CONDITIONS

8. There exist in Canada adequate resources to fully meet the nutritional needs of the population. Our country enjoys an abundance of foods of high nutritional quality and imports many others not grown in this country through an efficient and effective food production, transportation and distribution system, so that this abundance should be readily available throughout most of the country, except inaccessible areas in the North, (see below). The only barriers to nutritional adequacy are personal (ignorance, indifference, cultural adaption) or economic.

9. As in so many other countries of the Western world, our economic problems of inflation and unemployment leave significant numbers of families at or below that financial margin where they may be effectively deprived of the benefits of our agricultural abundance. As the second largest country in the world in terms of land mass, the bulk of our population is concentrated within a belt 100 miles wide and 5,000 miles in length. For those resident outside this corridor, the costs of transportation of everyday foods may become prohibitive. Since many of those resident in these outlying areas are Indians and Eskimos, the economic conflict of low income and high cost is further compounded by the problems of aculturation.

10. A further nutritional hazard facing a country highly technologically developed must be highlighted. A highly sophisticated food processing industry favours fabrication of new foods or new forms of familiar foods, specifically engineered to stimulate appetites through taste, texture, seasonings and aroma. For the most part, contribution to daily nutrient balance is ignored. Massive saturation of commercial advertising over television and radio networks becomes, from a nutritional point of view, counter-educational. Too frequently the appeal is greatest for those who have the least basis for discernment and the least resources to waste on foods presenting high appeal and low nutritional value, such as children.

11. From this background, as expected, there is evidence that many Canadians are not properly nourished. The Nutrition Canada national survey carried out in 1970–72 showed that a large proportion of adults in Canada are overweight. This is attributed to two factors: excessive caloric intake and the sedentary life of Canadians. Inadequate dietary iron, low body iron reserves and anemia were indicated in large numbers of Canadians of all ages. Many women have an iron deficit during pregnancy and many children (0 to 4 years) have low iron stores. Many of the pregnant women do not consume the recommended amounts of protein and iron. Approximately one-sixth of the men and one-third of the women were found to have elevated serum cholesterols, which are commonly cited as a factor coinciding with high risk of cardiovascular disease. In this connection, the Health Protection Branch of the Department of National Health and Welfare in a Report on Diet and Cardiovascular Disease prepared by a national committee has indicated what nutrition policy should be from a health point of view on this matter. It corresponds to similar advice circulating in the United Kingdom, the Netherlands, Norway, Sweden and other countries faced with the same problem.

12. Shortage of calcium and vitamin D in the diets of many children, infants, adolescents and pregnant women is another nutrition problem. There is a moderate vitamin A deficit among pregnant Indians and Eskimos. Low serum levels of vitamin A were found in many infants and toddlers.

13. To reach a reasonable degree of health status requires not only an adequate food supply but also intelligent, nutritionally informed eating habits. The food must also be acceptable in terms of sufficient quality, variety, availability and affordability. Along with this, individuals must have the desire and skills to select appropriately and, more particularly, to eat moderately.

Breast-feeding and weaning foods

14. Despite the value of breast-feeding, the majority of mothers in Canada do not breast-feed their infants. Medical authorities are in favour of breast-feeding and efforts are made by nutritionists, nurses and special interest groups to encourage mothers to breast-feed, and educational materials stress this method; however, the way of life of Canadian families, with many women working outside the home, is not conducive to breast-feeding. There is not general acceptance of breast-feeding as parents tend to find bottle-feeding easier and prefer this method. This is so since the prepared foods and equipment are now easy to use in a sanitary fashion under most circumstances in Canada, bearing in mind the standard of living in this country.

15. There has been in Canada the tendency to start very young infants on solid foods, although this is now changing. Nutritionists, however, consider that most infants do not need solid foods until 4 to 6 months of age. Attention is given to their early need for iron and vitamins C and D. These nutrients can come from various sources, depending on the infant's type of milk feeding. Parents are urged to refrain from giving infants solid foods too early, since allergic problems often stem from such use. As well, giving foods in excess has been indicated as a possible factor in obesity in later life. Also formulas that are too sweet are not recommended. In the interest of good nutrition and formation of good eating habits, infant feeding should be adequate and moderate.

SPECIAL CONSIDERATIONS

16. There seems to be in Canada increased consumer awareness of nutrition, but this has been limited and has not resulted in any measureable change toward selection of appropriate diets, at least as measured by the Nutrition Canada in 1972–73. The population is confused by the contradictory advice regarding nutrition being given them by the media, in educational materials, in popular hearsay, and through commercial promotional efforts. However, the latter are controlled by federal regulations regarding advertising and labelling of foods. Often conflicting scientific evidence and statements made on inadequate information are used to proselytise one or another extreme point of view.

17. Canadian lifestyles, with excessive intake of food, imbalance in certain nutrient intakes, etc., are related to high incidence of ill-health (obesity, cardiovascular disease) and contribute to high health care costs. An urgent need is education in prevention.

18. Although nutrition education cannot cure or prevent all problems of poor nutrition, and indeed there are no good extensive evaluations of its effectiveness, nevertheless it is fair to say that a well-coordinated health education programme, based on a sound food and nutrition policy should be tried and could make a considerable impact on the health of Canadians. At all economic and educational levels, Canadians can be helped to understand the value of good nutrition, the essentials of a good diet, the ways to select wisely under their particular circumstances and to take more responsibility for their own health.

Promotion of foods of good nutritional value

19. At present there is inadequate communication among government, industrial, professional and social sectors although this may soon be remedied (see reference to Speech from Throne). The nutritional problem in Canada from a production viewpoint is not capacity to produce but the production of “junk” foods of superficial appeal but poor nutritional qualities. Attempts are being made to control this by the development of the advertising code for food packaging, labelling and merchandising insofar as nutrition claims and statement of nutritional content are concerned.

20. The major public thrust in nutrition policy, then, lies in public education, through the education systems, through public health services, through health care services, and through use of mass media of communication. The resources devoted to this in the past have been barely more than minimal. Evidence of the nutritional status of the population indicates that the increase in these resources must be reassessed. Possibly the most effective point of contact for nutrition education is at the person-to-person level within community services. Encouragement is being given to the training of the appropriate health care manpower to facilitate such development.

Encouragement of sound individual choice

21. We in Canada have not taken up the measures employed in other countries for food subsidisation at the consumer level, such as food stamp programmes or distribution of surplus foods to the economically needy. Neither have we placed an emphasis on subsidised school lunch programmes. While there is indeed encouragement of sound school cafeteria services and avoidance of poor food habits within the schools, the encouragement is more towards sound choice on individual responsibility. Administration of school cafeterias remains a key function of the local school board, usually with minimal interference from the provincial department, and no federal intervention beyond technical consultation and exchange of information. More favoured has been direct economic aid where needed, achieved through unemployment insurance, welfare programmes, guaranteed income supplements, family allowances, disability pension programmes, etc. These permit the individual to retain a greater degree of self-respect; recipients are not identifiable within the community. They permit freedom of choice in keeping with cultural background and personal tastes. Admittedly they permit freedom to make unwise choices as well as intelligent choice, placing even greater emphasis on the need for effective education.

October 1977

FOOD AND NUTRITION

Background paper prepared by the Government of Trinidad and Tobago

National policy

In Trinidad and Tobago there is a National Nutrition Council which is charged with the responsibility of drawing up a national food and nutrition policy for the country. This Council, which is an advisory body to the Ministry of Planning and Development, is comprised of representatives of various governmental ministries as well as non-governmental organisations concerned with food and nutrition. Work has been completed on the formation of a policy and a food and nutrition plan has been drawn up to cater for the needs of the country.

2. The implementation of this planned food and nutrition programme would require important shifts in policies and practices involving many sectors of the community, both economical and social. The Ministry of Planning and Development is at the present time considering all the implications with a view to the successful implementation of a viable food and nutrition policy.

3. The main targets of the food and nutrition policy for Trinidad and Tobago are as follows:

- (a) to eliminate malnutrition, beginning with identified vulnerable groups;
- (b) to ensure an adequate level of nutrition for every member of society;
- (c) to ensure that local resources are developed to achieve near self-sufficiency in food;
- (d) to set up on-going programmes for agricultural production and marketing, including the processing and storage of produce.

4. The effective implementation of this food and nutrition policy is largely dependent on the active involvement of the Ministries of Health, Agriculture and Education. The Ministry of Health can be expected to continue its emphasis on its integrated service in hospitals, health centres and clinics, providing among other things education in nutrition and child care, issuing food supplements and giving advice on family planning. The Ministry of Health, in pursuit of its emphasis on preventive medicine, has already intensified its community health programmes by focusing attention on a community nutrition programme.

5. The Ministry of Agriculture has been pursuing, and will continue to pursue, a policy of encouraging the production of food which will meet the nutritional needs of the population. Emphasis is placed on the production of milk, poultry and eggs, and the growing of vegetables and leguminous crops of a high protein content, particularly soya bean, is encouraged. Small stock production such as goats and sheep is also being encouraged. Very shortly it is intended to begin an experimental project in the growing of sesame, a protein-rich seed.

Local conditions

6. Data on the nutritional status of the people of Trinidad and Tobago is limited. However, sufficient information is available which indicates that the problem of malnutrition is quite serious. There are two major problem groups:

- (a) children suffering from gastro-enteritis, protein-calorie malnutrition and related diseases; and
- (b) adults with problems of diabetes, obesity, protein-energy deficiencies and vascular and coronary diseases.

7. A National Household Food Consumption Survey conducted in 1970 showed that of the households surveyed 30 per cent failed to meet adequate protein requirements, 34 per cent failed to meet adequate iron requirements, 32 per cent were deficient in calcium intake and 39 per cent suffered from calorie deficiency. Children were the main victims of protein intake deficit. The

survey also revealed that 38 per cent of all infant deaths in Trinidad and Tobago were due to malnutrition and that the incidence of malnutrition was greater among children in large households, whatever the income grouping, but particularly marked in the children of unskilled parents. Of the malnutrition cases, 70 per cent were under one year of age. It was further revealed that between 20 and 25 per cent of infants and toddlers had a moderate form of malnutrition.

8. A more recent study, an anthropometric study conducted in 1976, showed that there is a general problem of nutrition in the under-five age group. Among the adults, the 1970 survey revealed that some 2 per cent of the population were affected by diabetes, while some 24 per cent – mainly women – were affected by obesity. A more recent statistical exercise has not been undertaken, but attendances at clinics indicate that the problem has intensified.

9. Within the last year the importance of breast feeding has been emphasised through the mass media and particularly at ante-natal clinics, where mothers are instructed on breast care and encouraged to breast feed their babies. Indications are that there has been some increase in the population of breast fed babies.

10. Notwithstanding this, there is a large dependency on weaning foods. Recognising the need for a weaning food, a feasibility study on the local manufacture of a weaning food has been undertaken as a joint effort of the Caribbean Regional Research Institute and the Ministry of Health.

11. Two school feeding programmes are undertaken by the Government of Trinidad and Tobago through the Ministry of Education. One is a milk and food yeast biscuit distribution to children of the 5–9 age group and the other a free or subsidised school lunch available to children of all ages. Recipients of either of these two programmes are limited and are selected on the criteria of nutritional needs. Prior to 1971 there existed a third school programme, a milk feeding programme, administered by the Ministry of Health through aid from UNICEF. Assistance from UNICEF has since ceased, but the programme is being continued by the Government. Steps are being taken to expand the school feeding programmes towards upgrading the nutritional status of a greater number of children, as well as to include other vulnerable sectors such as adults with chronic diseases by establishing a Single Food Aid Agency, to be administered by the Ministry of Health. Proposals as to the role, structure and functioning of the Single Food Aid Agency are being studied.

12. Other projects relating to the nutritional status which are at present receiving attention are:

(a) the establishment of a day-care centre for needy pre-school children. This centre would provide for disadvantaged children while their parents were at work, would serve as a rehabilitation centre for children affected by malnutrition, as well as educate parents in mothercraft. A pilot project is expected to be in operation by 1978 to cater for 60 pre-school children;

(b) the manufacture of a local, nutritious soft drink. A plan of action for production is under consideration by the Caribbean Regional Research Institute.

13. An inherent cause of malnutrition is the low level of production and productivity of our agricultural sector. 70–75 per cent of the foods consumed are imported. The agricultural sector has been organised and oriented to produce for exports, to supply sugar, cocoa, coffee, citrus rather than to produce vegetables, pulses, meat, milk and fish for domestic use. Recognition of this failure was made in the 1964–1968 Agricultural Development Plan of the Ministry of Agriculture by the inclusion of a nutrition programme. The implementation of the Plan, however, did not successfully meet with its objective.

Special considerations

14. Education in nutrition is conducted by:

(a) the Ministry of Health where lecture/demonstration courses are given to the general public by the Nutrition Division. These courses provide simple nutrition information on the nutrients and proper preparation of foods with emphasis on local foods and low-cost meals;

(b) the Ministry of Education through an applied nutrition programme in which selected schools are equipped with a nutrition unit for practical work on food production and utilization including the establishing of a school garden. Nutrition education also forms part of the curriculum of schools;

(c) the Community Development Division where nutrition education is incorporated in its adult education classes.

All these programmes undoubtedly lead to a general consciousness about food and its nutrition value but efforts are thwarted by the seasonal unavailability of foods. Attention therefore needs to be focused on the development of local resources to meet as much as possible of the food needs.

15. Associated with the problem of food availability is the problem of food distribution. There is a need for an efficient marketing system to ensure that the food supply reaches the entire population. The existence of bottle-necks in our internal marketing system has acted as a disincentive to the increased production of domestic food items. The major factors which account for the inefficiency in the marketing system include:

- (a) difficulties in collection of products because of fragmented holdings in varying sizes;
- (b) an inadequate communication network;
- (c) a lack of uniformity in the quality of goods sold;
- (d) a lack of standardisation in varieties planted;
- (e) inadequate wholesale facilities for storage, warehousing, handling, transporting, grading and packing;
- (f) inadequate retail facilities.

16. Action is being taken to overcome some of these problems by:

- (a) the establishment of regional collection and distribution depots;
- (b) the undertaking of market research to determine demand in both fresh and processed markets and subsequently to advise farmers on market trends;
- (c) the establishment of scientific grading standards together with quality control to ensure that foods with acceptable nutritional contents are produced and distributed;
- (d) the investigation of suitable multi-purpose technology for processing rice, corn and soya bean.

17. Greater local food production is a priority to meet the demands of an increasing population, and the production of food is being directed in accordance with an agricultural policy in which the nation's nutritional needs may be met.

November 1977

FOOD AND NUTRITION

Background paper prepared by the Government of Western Samoa

Western Samoans traditionally eat the abundant starchy roots and fruits of the Pacific region as staple foods in their diet. These have a lower protein content than the rice, potatoes and cereals eaten as staples in other regions. However, combined with fish, chicken, cooked meat and other local foods, they produce a diet of excellent quality.

2. Unfortunately, heavy reliance on the starchy roots and fruits in the diet, early weaning and the traditional eating patterns in which adults eat before children result in undernutrition and to a lesser extent protein calorie malnutrition amongst some infants and children. The problem is not an overwhelming one and a recent survey shows that approximately 9.8 per cent of children aged between 0 and 6 years were under 80 per cent of the Harvard weight standard and 2.1 per cent were under 70 per cent of the standard.

3. Obesity is valued traditionally as a sign of high social standing in Polynesian countries, including Western Samoa; thus it is a common health problem amongst adults. This may be partially responsible for the high incidence of diabetes and hypertension which we experience.

4. Fertile soils, abundant sunshine and rain help us to produce a varied diet with adequate vitamins and minerals, thus primary vitamin and mineral deficiencies are rare. Anaemia is found to some extent. Dental caries is increasing in the urban area because more Western-style foods are being consumed.

5. Responsibility for carrying out government policy on nutrition lies with the Agriculture Department, the Education Department and the Health Department. The responsibilities of the Health Department for improvement of the nutritional status of people in Western Samoa are outlined in the third five-year plan of the Government. These are largely undertaken by the maternal and child health services at present.

6. In 1976 the Health Department began distributing free foods supplied by the World Food Programme in an effort to improve maternal and child health. Skim milk powder is given to all pre-school children over the age of nine months, to all ante-natal mothers six months prior to parturition and to nursing mothers until six months after parturition. Health Department officials are aided in distribution by members of women's groups throughout the country. School children up to 12 years of age receive whole-milk biscuits which are given out by schoolteachers. The nutritional status of beneficiaries is monitored by Health Department nutritionists. The programme is to last for three years, after which the Government will continue to pursue the basic purpose of the project.

7. A nutrition rehabilitation centre is proposed as part of the World Food Programme plan of operations. Rice, corned beef, vegetable oil and skim milk powder have been made available for the rehabilitation of malnourished children.

8. A baby weaning food has been manufactured by the Agriculture Department from taro, rice, skim milk powder, coconut cream, sugar and a vitamin and mineral additive. Although the project is still in its initial stages it has proved very successful in rehabilitating underweight and malnourished children and the possibility of commercial production is being discussed.

9. Extensive nutrition education is conducted by nutrition staff within the Health Department. Health personnel participate in education sessions and they in turn are responsible for educating the public. Nutrition staff also work directly with the public, using radio, newspapers, pamphlets, public discussions, lectures and demonstration.

10. Breastfeeding is still widespread in the rural villages of Western Samoa, but it is declining in the urban areas as in most other developing nations. Attempts are being made to reverse this trend. The Health Department realises the importance of breast-feeding and frequently holds lectures and discussions on the subject. Recently advertisements on the radio indicating that artificial feeding is a desirable and easy practice have been changed at the insistence of the Health Department. At present, a survey is being conducted to obtain concrete evidence on the incidence of breast-feeding and it is hoped that this will lead to legislation controlling artificial feeding.

11. Continued efforts to raise the nutritional status of the people of Western Samoa will be made by all Departments concerned with the Government's nutrition policy.

November 1977

FOOD AND NUTRITION IN THE THIRD DEVELOPMENT PLAN OF WESTERN SAMOA

AGRICULTURAL DEVELOPMENT STRATEGY AND PROGRAMMES

A central goal of the Third Plan is to increase agricultural production by means which minimize any clashes with traditional Samoan values. Conventional approaches to economic development commonly focus more on resource constraints and means of overcoming them than on identifying ends, which are often taken to be nearly synonymous with money income. Yet Samoans have been rather successful for centuries in employing available means for attainment of chosen ends.

2. Under these circumstances, much care must be given to the selection of implementation measures that will be found tolerable in relation to existing values, yet capable of producing significant results. In this paper, the stage for an examination of the agricultural development projects to be incorporated in the Plan is set first by considering the relation of production goals to the cultural framework, then by reviewing the structure of Western Samoa's agricultural sector, and finally by proposing major elements of a plausible development strategy. Thereafter, project proposals are presented by programme areas, grouped in such a manner as to permit meaningful preliminary assessments.

Production goals in the cultural framework

3. Samoan villages conform in considerable degree to a situation of tropical affluence where the production of goods and services, although variable, is limited more by aggregate private and community demand than by resource constraints of land, labour, or capital. A strengthening of linkages between subsistence producers and the market sector does not necessarily provide incentives leading to intensified economic activity. In particular, there is often a lack of interest in earning money through village agriculture, even when other opportunities are scarce.

4. Such a situation has often seemed perplexing to Western-minded observers. Some see it as a mark of conservatism which resists change; some see it as an indication of low aspirations; others conclude that it must be a consequence of an unsatisfactory land tenure system which places control over 80 per cent of the country's land resources in the hands of the *matai* (chiefs). But none of these are necessary or unavoidable conclusions. This becomes evident if one considers the ends which have long ranked high in Samoan culture.

5. The *matai's* position is indeed one of power and authority, particularly over the lands of his *aiga* (extended family), and it is an elite position to which many young Samoans aspire. But the important benefits of the position are not primarily material; they have more to do with the prestige and respect accruing to the individual, to his *aiga*, and perhaps to his village. But any accumulation of money or material savings, particularly for those continuing to take a full part in village life, also tends to raise the level of requests and expectations for gifts — a form of exchange which has developed as a strong element in Samoan culture.

6. A marked contrast of Samoan culture with those of more commercial societies is that many goods and services are transferred merely on request, without immediate and direct compensation. Those with material goods have been able to enhance their prestige by responding to requests, or simply to expressions of admiration for a particular item; at the same time, by obligating the recipient, they have been able to provide insurance against future hardship. To be sure, such a free sharing of any accumulated wealth has provided scant encouragement for individual initiative and productivity; instead, it has produced an egalitarian sharing of economic benefits and security. But institutions which favour equality and security at the expense of fostering individual initiative and productivity may not be entirely compatible with the goals of a society experiencing rising aspirations for the motor vehicles and other products of commercial economies, even while the pressure of population against an "affluent" but fixed resource base is also rising.

7. The Samoan village, its families, and its individual workers have shown no lack of initiative and productivity in responding to felt needs for projects of importance to the village way of life. The response to a recognized need for a church, a pastor's home, or another community structure is well known. Timber, labour and handicraft products required in erecting such structures have repeatedly been mobilized from village resources, and intensified agricultural production has frequently provided the cash funds needed for purchasing additional materials and services.

8. Efforts to raise agricultural output by accelerating the flow of inputs, other than those essential for production to serve strongly-felt ends, tend to be as frustrating as "pushing a string". Fertilizers, pesticides, improved planting materials, breeding stock, farm implements, and credit to acquire them — all pumped into a cultural medium characterized by abundant land and labour — are unlikely to be transformed with even modest efficiency into larger agricultural output unless such output services clearly-felt needs of both the responsible producer and his village, and perhaps also of his relatives and friends throughout the country. Only when the purpose of increased agricultural production is clearly felt at all levels is there likely to be the desired response to additional inputs, from indigenous or external sources. In other words, the forward end of the string must be discovered and pulled, instead of continuing fruitless efforts to push the rear. Whatever may be found at the forward end of the string, it is unlikely to be either the personal acquisitiveness of the individual agricultural producer, or a pure devotion to work for its own merit.

9. If there is a handle at the front end of the string, it may be formed by the seemingly widespread and strong desire to enhance the prestige and security of the village and the family. Awards for outstanding performance are one tangible means for accentuating local prestige. As one illustration, a number of villages might well respond to an invitation to participate in a competition for the highest per-acre harvest of coconuts, for example, over some span of time. This is merely a simple illustration of one alternative to approaches which have repeatedly met with no more than scant success. Another alternative might be to establish more active communications between the *fono* and appropriate departments of Government with respect to the identification and pursuit of village goals.

10. Given the cultural framework, it is obvious that land tenure insecurity is no more than a secondary factor in the reluctance of Samoan villagers to intensify their agricultural efforts. Land tenure security, in the conventional sense, implies not only a right to control land use and reap the harvest on a long-term basis, but also a freedom from interference in the personal enjoyment of the benefits. But as any accumulation of wealth is subject to sharing, under Samoan tradition, direct personal enjoyment of the benefits of land tenure security is by no means certain. For those who make production decisions, it is not tenure over the wealth represented by the harvest, which is traditionally subject to sharing. Perhaps an even stronger factor for lack of efforts to increase the physical output of land is the fact that intensified agricultural productive effort is not necessarily an effective means of achieving the more ultimate goal of prestige and security for the *aiga* and village.

11. Special attention will be given in implementing the Plan to seeking approaches for pulling the string instead of pushing it. One of the most important approaches is the village development programme.

The structure of Samoan agriculture

12. The Samoan economy and culture have been built upon a village agriculture of such productivity that it has been possible to devote much of the society's attention and resources to matters largely outside the realm of economics. Such activities still dominate village life today, although rapid population growth has placed increasing pressure on the land available for crop production. By the standards of modern technology, village agriculture can no longer be considered efficient in using land, labour, and other resources for crop production, while its animal production includes negligible quantities of milk, eggs, and beef animals, plus such numbers of pigs and chickens as can be supported from scavenging and consumed at feasts. Nevertheless, Western

Samoa must continue to rely heavily upon village agriculture and the lands held for village use under customary tenure, not only for a major portion of the country's food supply but also for the bulk of all exports.

Village agriculture

13. Western Samoa's 300 or more villages are mostly situated around the perimeters of Upolu and Savaii, but village lands commonly run far toward the peak elevations near the centres of the respective islands. Most of the cropping takes place at the lower elevations, where each *aiga* exercises control over one or more parcels held in trust by its *matai*.

14. Inasmuch as *matai* titles can be divided, the number of *matai* has been growing more or less in proportion to population growth. In a study of 10 villages reported in 1956, it was found that the number of *matai* ranged from 7 to 38, with an average of 17 per village. The number of plots per *matai* averaged five, comprising 32 acres in the aggregate. For 1970, the number of *matai* in Western Samoa has been estimated at 9,000 or about 30 per village. The number of persons in an *aiga* seems to average around 15 to 20, often including individuals of several nuclear families.

15. Occupied village lands include house lots with limited production of food crops; plantation lots which usually contain coconut palm, sometimes interplanted with cocoa, bananas, taro, ta'amu, breadfruit, and other crops; and family reserve lots, where taro and other crops are grown in a bush-fallow rotation. Villages often claim additional lands farther inland, where there is potential opportunity for any *aiga* of the village to clear and use additional lands, but usually only after approval by the village council.

16. Although there is no wholly satisfactory basis for determining the area of current use of occupied village lands, it appears that their total extent probably falls within the range between 125,000 and 150,000 acres, much of which is planted to coconuts, singly or with other crops. Some evidence suggests that much of the acreage of other crops would be found on land planted to coconuts; other evidence suggests that possibly as many as 35,000 or more additional acres are occupied by cocoa, bananas, taro, and other crops or crop mixtures not interplanted with coconuts. Other occupied village lands are in bush fallow, grass, and residential use. Mechanical cultivation is virtually non-existent, and would be difficult to introduce because of the rockiness of the soil and the small average size of plots.

17. There are varying degrees of complementarity and competition among the several crops commonly found in interplanted combinations. In general, the complementarity represented by the shade needs of crops like cocoa and the need for suppressing weed growth under coconuts seems to be at least as important as the competition among various species for plant nutrients. Hence, on parcels where the populations of individual species approaches full-stand levels (48 to 55 for coconuts; around 300 for cocoa and bananas; 7,000 to 10,000 for taro), yields can be calculated on a planted-acre basis, even if this involves some double-counting of land, rather than on a sole-crop equivalent basis.

18. Even for acreages containing a relatively full stand of plants, it does not appear that yields exceed an average of 1,800 coconuts, 15,000 lbs. for bananas, and 3 to 5 cwt. for cocoa. Plantings of taro and taamu commonly take the form of very small, irregularly shaped plots.

19. A major problem of Samoan agriculture is clearly the extremely low yield levels for coconuts and cocoa, and the only slightly more acceptable yields realized from other crops. Even if the supply of land is regarded as relatively plentiful, the low levels of yield per acre and per tree set sharp limits on the productivity of human labour.

Other agriculture

20. While acknowledging the substantial importance of village agriculture, it would be a mistake to neglect the significance of the Western Samoa Trust Estates Corporation (WSTEC) and its control over some 20,000 acres of prime land, or the existence of certain additional public and private

farm units which do not correspond to either village agriculture or the WSTEC plantation pattern. These include government livestock units at Togitogiga, Lemafa, Vaea, and Avele as well as private units on freehold or other land. The latter group includes eight or ten beef herds, a mission-operated dairy, two or three poultry units devoted mainly to egg production, at least one swine unit with upwards of 60 breeding females, and ten or more enterprises with from 10 to 80 acres of bananas each. Certain cocoa and coconut units also correspond to the commercial pattern. In the aggregate, then, a considerable start has been made toward the development of commercial agriculture in the private sector.

Long-range objectives

21. Western Samoan diets are not high in products of animal origin, and about half the total supply is imported. The opportunity for import substitution is considerable, as has already been noted with respect to long-term expansion of beef and milk output. For the near term, the poultry and swine enterprises represent alternative animal product sources capable of more rapid expansion than the cattle enterprise. Expanded local production of feed crops could reduce present outlays for imported feed as well as for imported animal products, and could conceivably reduce production costs for poultry and pigs sufficiently to encourage somewhat higher per capita consumption. Local supplies of by-product feedstuffs may also become available if a brewery and a coconut oil mill are installed. Accordingly, there have been proposals for rapid expansion of the poultry and swine enterprises, as well as of cattle, possibly supported by establishment of a 6,000-ton feedmill, a hatchery, and a poultry dressing plant.

22. Even with considerable progress in the production of local feedstuffs, it seems doubtful that the cost of mixed feed for poultry and swine can be reduced much below present relative levels, or that the consumer price of pork and poultry meat can be appreciably reduced by expansion of local production heavily dependent on high-cost feed. Accordingly, the potential market can be approximated by taking account of possibilities for import substitution, population growth, changes in demand reflecting such factors as more ready availability.

23. For the period of the Third Plan, the net gain in population is expected to be very modest (perhaps only two per cent in four years, unless the net migration rate changes substantially). The introduction of improved technology in village production of swine and poultry might encourage additional village consumption of pork, chicken and eggs, but the local commercial market could easily be over-supplied with these products, leading to sharp price declines such as have been experienced when imports of eggs, for example, have been abundant. At current price levels, moreover, any export possibilities are likely to be sharply limited. Hence the primary objective for the period of the Third Plan should be to increase production of pork, chicken and eggs to replace imports, and in the process to emphasize the adoption of technology which will minimize production costs. If costs can be reduced substantially, a base will have been laid for marketing larger quantities in future periods. Fortunately, the country remains free of Newcastle and other devastating poultry diseases; eliminating imports of poultry meat would reduce one possible source for the introduction of Newcastle. Meanwhile, the most recent available annual data on imports give some indication of the limited possibilities for import substitution.

24. In 1973, imports of fresh eggs, including any in frozen form, were reported at 56,000 dozen – more than double the 1971–72 average of 24,000 dozen. With production at the modest level of only 14 dozen per layer, an additional 4,000 layers could have produced the 56,000 dozen. Since 1973, the national flock may already have increased this much.

25. Imports of ham and bacon averaged only about 35,000 lbs annually from 1971 through 1973, and other imports of pork, although not reported separately in the import statistics, do not appear to have been much larger. A single breeding unit of 50 sows producing 700 or more market hogs could probably produce about as much pork as is presently imported. The situation for poultry meat is similar; imports are not separately reported, but they appear to be so small that they could be replaced by production of 100,000 or so commercial broilers.

26. Total meat imports in the years from 1971 through 1973 were 4.7, 5.3, and 3.7 million lbs respectively, or about 25 to 37 lbs per capita. Judging by evidence from the Household Survey and other sources, these imports consisted mainly of mutton flaps, canned corn beef, and fresh or frozen beef. Replacing even ten per cent of the beef and mutton by pork or poultry would provide a market for the output of an additional 100,000 or so commercial broilers or another 50-sow breeding unit.

27. If broilerfeed of high energy content and nutritive value could be blended in Western Samoa at 9 sene or less per lb and if suitable broiler chicks could be obtained at 25 sene each, the total cost of producing live broilers should not exceed \$1.10 per head, for a bird of 3 to 3.5 lbs, live-weight, assuming an 8 lb per bird feed intake and a feed conversion ratio between 2.3 and 2.7 (although a ratio of 2.0 is attainable under highly favourable conditions, actual results locally are unlikely to reach this goal for some time to come). Adding the costs of dressing and marketing would obviously make it difficult to offer a 2 to 2.5 lb dressed broiler at much less than 60 to 75 sene per lb — a price range at which per capita consumption may not expand rapidly.

28. With annual egg production of 14 to 15 dozen per layer, it should be possible to produce a dozen eggs with about 6 lb of feed, excluding the amount used in growing replacements. If a dependable supply of high quality layer ration can be made available at 7.5 sene per lb, the feed cost of producing eggs would be 45 sene per dozen. Other egg production costs, including charges for buildings and equipment, net replacement expense, and miscellaneous charges, should be considerably less than the feed cost; these assumptions suggest that it should be possible to market local eggs at no more than about ten times the price of a pound of high quality layer ration. This should be a sufficient reduction from present relative levels to encourage some increase in local egg consumption and a market for additional production — perhaps at least a 50 per cent increase from present commercial output. It should also go far to obviate the problem of unacceptable competition from imported eggs, alleviating any need for import controls. If such are deemed necessary, however, they could take the form of excluding imports at any time when the local price of eggs was not more than ten times the local price of a high quality layer ration.

29. Reasonable targets for additional annual production by the end of the Third Plan period would include 100,000 to 150,000 commercial broilers, the pork output attainable from 50 to 75 brood sows, and the egg output of a few thousand layers. This would add 1,000 to 1,200 tons to annual feed consumption, of which at least a third would still need to be imported in the form of concentrate supplements. To support economical performance in poultry production, local carbohydrate feedstuffs to be incorporated must contribute to a balanced ration relatively high in energy and low in fibre. Somewhat more flexibility can be permitted in incorporating such fibrous by-products as spent brewers' grains and coconut oilmeal in swine rations, but maize, gain sorghum, and cassava meal are the kind of low-fibre ingredients which fit somewhat more readily into the formulation of effective rations for poultry and swine. The total milling and mixing task will be of a scale easily handled with a small hammermill and batch mixer for some time to come; it is unlikely that a full-scale commercial feedmill will be required until well after the period of the Third Plan.

30. Development of local sources of feedstuffs appears important if Western Samoa is to gear for relatively low-cost production of eggs, pork, and poultry meat in the long run. Hence, production possibilities for various feed crops need further testing, and tests will also be needed in the utilization of the feed crops in combination with such by-product feedstuffs as may become available locally.

31. The more promising alternatives may not be established until late in the planning period or thereafter, but by that time, the country should be substantially self-sufficient in poultry and swine production, if not in the supply of feedstuffs. Moreover, a good start should have been made in demonstrating possibilities for producing cassava, selected fruits, or other raw materials for an enlarged food processing industry, and in diversifying the production of fruits and vegetables for enriching local diets.

Health Department responsibilities

32. In the field of nutrition, two separate initiatives will be implemented. First, the current nutrition education programme will be expanded to include regular courses for women at the family welfare clinic, as well as regular training and support for district nurses in organizing nutrition courses in rural areas. To complement this effort, a new programme to treat malnourished children in the vulnerable four months to three years age group has also been formulated. This programme will depend upon the district nurses for initial identification of the target population, the Department of Agriculture's food processing laboratory for the production of a suitable weaning food, in the Division of Public Health for the food's distribution to the district hospital, and again upon the district nurses for final food distribution and follow-up. Foreign technical and financial assistance to the project, channelled through the food processing laboratory, are available from the University of Hawaii and from the World Food Programme. Second, a programme to establish full dietetic services for Apia General Hospital by the end of the plan period has been laid out, and will involve the addition of three Samoan dieticians to the hospital staff, on their return from overseas training.

33. It is expected that the maternal and child health and family planning programmes can be funded largely under the Health Department's current maintenance budget during the Third Plan, supplemented by minor development expenditure for new support staff, and by possible material and technical assistance (yet to be arranged) from UNFPA and other organizations. Development expenditure will be required for the nutrition programmes and, in fact, an appropriation of \$5,155 (for the salary of a nutritionist and for kitchen and food storage equipment), and another of \$1,055 (for the salary of a dietitian assistant and a clerk typist) were made in 1975's development estimates. In all, development costs for the three programmes are likely to total \$25,000, representing largely salaries and wages of professional and support personnel to be hired during the Plan period and \$10,800 in transportation costs to be incurred in the new programme to treat malnourished children. Thus, only a small portion of the total, about \$3,600, will represent foreign exchange costs.

34. Over the long term, the Family Welfare Section's programmes in family planning and mother and child health will unquestionably contribute to a strong national standard of health in Western Samoa, and so warrant steady support during the Third Plan. Nutrition programmes also deserve the same long-run perspective, and — although the need to expand efforts in those fields at this moment will be reviewed against alternative resources uses — a certain minimum commitment to expansion has already been made by engaging a departmental nutritionist in 1975 and by enrolling candidates in overseas dietitian training in the Second Plan period.

FOOD AND NUTRITION

Background paper prepared by the Government of Kenya

Food and water resources

Kenya is a country of 582,647 sq. km. in area and has a population of 14.3 million which is increasing fast at the rate of 3.5 per cent. The land area is 569,252 sq. km., the rest being water stretches. One-third of the total land area is considered arable and can support food crops, cash crops and livestock. The rest of the county is marginal and arid land, and this is where nomadic pastoralists roam from place to place in search of pastures for their cattle and camels. Considerable effort and resources are being put into the conservation of available water resources so that through irrigation schemes in some of these dry areas, production of food and animal feed can be increased and made predictable. Further, considerable research is being carried out as an urgent matter on the development of agriculture in the marginal and semi-arid areas. Although these researches are the direct responsibility of the Ministry of Agriculture and the Ministry of Water Development, the Ministry of Health is also participating, not only because of the health effects of the change of ecology but also because of our preoccupation with nutrition.

2. The one-third of the country which is arable is able to produce adequate supplies of food and animal products to feed the Kenya population, partly from well-organised large farm holdings but mainly from the small holdings of peasant farmers. These farmers are being assisted by the Ministry of Agriculture to adopt improved and productive methods of farming and to advance from the old traditional subsistence farming which produced little food and impoverished the soil. Gradual improvement in food production is being noted even among the peasant farmers and famine is only experienced in the drier areas of the country following drought. During these periods, food is brought from the productive areas and distributed to these communities by the Government as well as by voluntary agencies.

Nutrition health education

3. The Ministry of Health's preoccupation with matters concerning food production is justifiable, considering that good nutrition starts with the availability of adequate amounts of food of appropriate varieties. Malnutrition is still alarmingly evident, despite the fact that most families in both rural and urban areas have sufficient food, and there are many cases of marasmus and kwashiorkor among children. The reasons for this in many cases must be due to lack of knowledge about the values of various foods available, and about the body requirements for various types of foods at various ages and in various conditions of sickness and health. The danger is greatest and most damaging among infants and young children and expectant and lactating mothers. The Ministry of Health has put great emphasis in its programme towards maternal and child health services and in the development of basic health services. Nutrition education of the masses, particularly in the rural areas, features prominently in these programmes.

4. There is a nutrition section, situated centrally at the Ministry, which supervises the training of field nutritionists and their posting and work in the provinces, districts and health centres. These nutritionists, most of whom have had nursing training and experience, are re-trained for six months on food and nutrition science and are then posted to the field to form part of the health team. Their work is to inform mothers on the basic values of available foods, basic food economics, and food requirements for various ages and conditions, and to coach them by demonstrations of proper food preparation so as to retain food values. The Ministry of Agriculture and the Ministry of Social Services are also active in similar programmes, while the extending coverage of the population with increased general education under the Ministry of Education has contributed immeasurably to the notable improvement of the nutrition state of pre-school and school children.

The school feeding programme

5. The school feeding programme, which has been going on for some years in some primary and secondary schools, has proved very successful and popular and the practice is being extended to more and more schools. In this programme, children, some of whom come from long distances to school, are given a balanced lunch during the mid-day break at low subsidised cost, or in some cases children get nutritious food supplements at school either free or at a small fee. A similar feeding programme has been extended to pre-school children, an exercise which is greatly facilitated by the increasing numbers of organized nursery schools even in the rural areas.

Food research

6. Food research is being expanded to chart the values of numerous local foods and, with the help of FAO and WHO, research is being intensified on food contaminants and on carcinogenic substances in food. The Public Health Act and the Food, Drugs and Chemical Substances Act are statutes which ensure wholesomeness of food for human consumption and control of the quality of manufactured food. Further, a National Bureau of Standards has been promulgated; and will have among its responsibilities the charting of the specifications of the standards of processed foods, and it will also have a monitoring role to ensure that these are maintained, for both locally-processed and imported foods.

8 November 1977.

FOOD AND NUTRITION

Background paper prepared by the Government of India

The current food and nutrition scene in India, after more than twenty-five years since the country became independent is a complex one with multi-factorial facets. The situation is complicated by the ever-increasing population load, agricultural production limping with ups and downs, low purchasing power in large segments of population, distortions in income and food distribution systems, and finally an inadequate health care complex for large sections of population. It is needless to emphasise that the food and nutrition scene is inextricably related to overall national economic development. In the recent past, there have been indeed silver linings in every one of the above facets, raising hopes for a better future.

National policy

2. The improvement of the food and nutrition situation in the country has now been taken up on an integrated basis and a war footing by scientists, technologists, and administrators. Scientific research in the agriculture, nutrition and health sectors has made significant contributions in the last decade towards formulating practical approaches for combating many problems. Some of these approaches have already been applied on a national scale with encouraging results.

3. The Planning Commission at the national level has realised the need for a nutrition-oriented strategy to be incorporated into the various sectors such as agriculture, health and industry. The Commission has recommended greater allotments for agricultural production, nutritional improvement projects and allied programmes. The National Committee on Science and Technology has set up a Task Force on Nutrition, for exploring and exploiting all possible means of improvement in the food and nutrition situation at the national and regional levels. The National Commission on Agriculture has been assigned the task of drawing up a master plan for increased food production and better storage, marketing and distribution systems. The National Agricultural Prices Commission has been at work in formulating pricing policies for agricultural produce, to meet appropriate requirements of primary producers and consumers at large.

4. A comprehensive national policy on food and nutrition, understanding the specific role of improvement of the nutritional condition of the people as an objective of socio-economic planning for national development, is essential. Up to the Third Plan period, the emphasis was mainly on increased production of food, especially cereals. Though assuring adequacy of food availability is one of the responsibilities of a national policy, it does not necessarily solve the problem of malnutrition for the removal of deep-rooted causes of malnutrition is not attempted simultaneously.

5. In the pre-independence era, we produced annually hardly 50 million tons of food grains, with 160 million hectares under cultivation and 40 per cent of the total area of the country under the plough. The food grain production in 1951 was 55 million tons and in a decade it rose to 82 million tons in 1961. It touched an all-time high level of 108 million tons in 1970–71, and is estimated to have reached about 120 million tons in 1975–76. The net import of food during the last 25 years (1950–51 to 1973–74) has been of the order of 2 to 10 per cent of national production. The net per capita availability of food grains has been steadily improving from a low level of 134 kg a year in 1950–51 to 167 kg a year in 1973–74. This has been the trend despite the increase in population from 363 million in 1950–51 to 589 million in 1973–74. This situation, it must be recognised, is no mean achievement in the face of such odds as recurring floods and droughts and at least three wars, in 1962, 1965 and 1971. The other factors which have perhaps also contributed towards reducing the potential have been the recent power shortage, inflation and the fertilizer crisis. The trends in production of food grains are shown in Annex I.

6. The diet of the Indian population is cereal-based. The people are particularly unduly dependent on a single staple, with a meagre intake of protective foods. The intake of animal foods is low. Most of the requirements of calories and proteins are derived from staples. Annually about 180 kg of staples per capita are consumed directly for sustenance. In contrast, the annual per capita intake of cereals in developed countries is of the order of one ton (1000 kg) and only one-fifth of this is consumed directly, the rest being consumed indirectly by converting it into animal foods. The Indian Council of Medical Research drew up in 1968 the recommended allowance and on this basis the existing dietaries have been analysed. Computations of food requirements have shown that there is a qualitative food gap and a relatively less extent of quantitative gap. The dimension of the gap in terms of foods is of greater order in pulses, oilseeds, vegetables and animal foods.

Local conditions

7. Poor nutritional status is directly or indirectly responsible for the high rate of infant and pre-school morbidity and mortality (I.M.R. 1971 was 120 and child mortality 1–4 years was 20 per cent – N.S.S.). Mortality rates are very high in children with respiratory and gastro intestinal infections when they suffer from concomitant malnutrition.

8. Nutritional demands of pregnancy and nursing make women in these conditions also highly vulnerable. Nutritional anaemia in pregnant and lactating mothers is considerable. Maternal mortality due to anaemia is 69.8 per 100,000 live births. (V.S.I. 1971)

9. Thus it is apparent that health services, particularly for the most vulnerable mother and child, should plan for the inclusion of various nutritionally-oriented, protective, preventive, curative and rehabilitative services.

10. The State nutrition divisions and the regional units of the National Nutrition Monitoring Bureau established in various States under the Indian Council of Medical Research together conduct systematic surveys on food consumption and nutritional status of comparable population groups. These are compiled by the National Institute of Nutrition, Hyderabad, and the Directorate General of Health Services, New Delhi, which supply information on the nutritional status of the population, which is fairly adequate.

11. In India, 18 States and 2 Union Territories have already established State nutrition divisions under the State health directorates. The roles of these divisions are to monitor the nutritional status of the population and co-ordinate the health aspects of all nutrition programmes. The nutrition cell at the Directorate General of Health Services co-ordinates the activities of all State nutrition divisions. The State nutrition divisions have been conducting food consumption and nutrition surveys in selected groups of population from time to time. The reports of these surveys are being compiled by the nutrition cell of the Directorate General of Health Services.

12. The existing nutrition services under health services are the following:

- (a) prevention of specific nutritional deficiencies like vitamin A deficiency, nutritional anaemia and goitre;
- (b) nutrition education and monitoring services through the State nutrition divisions;
- (c) the health component of various nutrition programmes undertaken by other departments, namely, integrated child development services, applied nutrition programme, special nutrition programme, etc.

13. Breast feeding has been a way of life and there has not been any significant change in the breast feeding practices, especially in the rural areas. There has been some trend of change in these feeding habits, especially in the urban population, but it has not yet made a significant impact to warrant any urgent measure. Breast feeding is encouraged at all levels by the health workers. Inadequacy of breast milk after six months and insufficient supplements and a high susceptibility to infection account for the fact that the highest number of deaths in which the nutritional status is a direct or associated cause occurs in children in their first two years of life.

14. Weaning foods as a routine are seldom observed, especially in the poorer socio-economic groups which tend to put the child to a share of the adult food round the age of one year in the majority of the cases.

Special Considerations

15. Various attempts are being made, particularly in nutrition education, to encourage the consumption of foods of high nutritional value. Nutrition education is attempted through the health infra-structure, mainly by the primary health centres and the auxiliary nurse midwives, and also as part of the various nutrition programmes in operation. The production and consumption of protective foods is the principal objective under the applied nutrition programme in which the rural folk, and especially the vulnerable groups of population, are encouraged in the consumption of protective foods. Nutrition education as a part of health education is in many situations inadequate because the peripheral workers are not adequately oriented and lack the minimum facilities to impart nutrition education as a component of health education. Recently there has been greater emphasis on nutrition education in the training curricula of medical and para-medical personnel in the country.

16. There have been various supplementary nutrition programmes for the pre-school child, implemented by various Departments (Annex II). Effective co-ordination, proper selection of most needy areas and beneficiaries, proper monitoring and evaluation, and good nutrition education are factors which require more consideration for better success of these supplementary nutrition programmes.

17. Mid-day meals for primary school children are attempted in most of the States. The Mid-day meal scheme is run with the assistance received from international agencies like CARE and WFP. The coverage under the mid-day meal scheme during 1976 has been around ten million children.

18. The main problems encountered in the improvement of nutritional status are:

- (a) the population profile of India — namely, children under 14 years constituting about 42 per cent and those under 5 years about 15 per cent of the population;
- (b) the cultural diversity of the population;
- (c) the low literacy rate;
- (d) the poor purchasing capacity of the Indian population, which is apparent as the per capita annual income is estimated to be only about US \$100;
- (e) the subsistence farming system that is widely prevalent in rural areas;
- (f) production of foods of good nutritional value especially in the rural areas is often hampered by the limited holdings of the farmers.

19. In India, even with the available food, considerable wastage, maldistribution and wrong practices result in considerable loss of nutrients. This is further aggravated by poor environment and hygiene, with resultant infection and infestations, and large family size limiting the available food. Thus it is apparent that, besides availability of food, nutrition education, immunisation, environmental sanitation, improved personal hygiene and proper spacing of children and maternal and child health care are all closely linked with the improvement of nutritional status. Hence a multi-sectoral approach, through the promotion of the national food and nutrition policy, aimed more at removing the causes of malnutrition than treating their consequences, is felt necessary.

ANNEX I

TRENDS IN PRODUCTION OF FOODGRAINS

	<i>1950–51</i>	<i>1955–56</i>	<i>1960–61</i>	<i>1970–71</i>	<i>1971–22</i>	<i>1975–76</i> <i>(Target)</i>
Total cereals (Million tons)	42.4	55.8	69.3	62.4	93.6	120
Pulses (Million tons)	8.4	11.0	12.7	9.9	11.1	16
Total foodgrains (Million tons)	50.8	66.8	82.0	72.3	104.7	136
Per caput net availability per day (g.)						
Total Cereals	334	360	398	355	449	529
Pulses	61	70	69	47	53	71

**NUMBER OF CHILDREN COVERED UNDER THE
NUTRITION PROGRAMMES**

<i>Programme</i>	<i>Department</i>	<i>1974–75</i>	<i>1975–76</i>
Mid-day meals programme	Department of Education	N.A.	10 million
Special nutrition programme	Department of Social Welfare	3.8 million	N.A.
Balwadi feeding programme	Department of Social Welfare	0.22 million	0.23 million
Vitamin A prophylaxis programme	Dept. of Family Welfare, Ministry of Health and Family Welfare	1.60 million	8.75 million
Anaemia prophylaxis programme	Dept. of Family Welfare, Ministry of Health and Family Welfare	2.46 million	20 million
Applied nutrition programme	Department of Rural Development	1275 blocks	1375 blocks
Integrated child development Services	Department of Family Welfare/Dept of Social Welfare	—	33 blocks

THE ROLE OF HEALTH MINISTRIES AND MEDICAL SCHOOLS

Paper prepared by the Commonwealth Secretariat

The annual budgets of health ministries and of university medical schools and their teaching hospitals together represent a significant proportion of their countries' annual national expenditure, particularly in the developing world. In view of this and of the importance of these institutions for the implementation of the health programmes of the communities they serve, it is surprising how slender are the links between health ministries and medical schools in most countries and how relatively little co-ordination of their activities has been achieved in support of national health objectives. The training of health professionals often proceeds independently of the qualitative and quantitative health needs of communities and there is sometimes wide divergence between academics and their training goals on the one hand and health service requirements on the other.

2. Health manpower production is undoubtedly a crucial element in any national health plan. It is in this area that there is the greatest need for social relevance and national self-reliance. In this connection the Director General of the World Health Organisation, Dr Mahler, has recently warned that "if developing countries continue to base their health manpower development on the professional medical and nursing training patterns of the affluent world, no amount of social planning will avail. The social revolution in public health will remain a paper revolution".

3. There is no question, however, about the increasing emphasis that is being placed in most developing countries on the importance of community orientation of their medical programmes. This emphasis is reflected in the increased hours allocated to community health in medical curricula, in the recognition of the need for an appropriate balance between institutional and ambulatory medical care, in the acceptance of the health team concept and in the commitment to train a balanced mix of health professionals. It is difficult, however, to introduce durable changes against a background of established tradition; and, until traditional medical attitudes and expectations have been basically altered, these well-intentioned approaches will continue to fall short of their objectives.

4. National health objectives will naturally vary from country to country in accordance with social and economic development policies; but the health objective of overriding importance in most countries is undoubtedly the provision of an optimal level of health care for all members of society. It is with respect to this objective, therefore, that there is an urgent need for a reappraisal of the traditional roles, functions and responsibilities of health ministries, medical schools and related agencies and for co-ordination of their activities.

Some characteristic approaches to community health development

5. In most countries there has been a marked increase in recent years in efforts to reorganise and rearrange medical education programmes and systems of health care. The current health programmes of Nigeria, The Gambia, Sierra Leone, Ghana and Liberia in West Africa, of Kenya, Uganda, Tanzania, Botswana, Malawi, Zambia, Lesotho, Swaziland, Mauritius and Seychelles in the East, Central and Southern African region, of the Commonwealth Caribbean and of Commonwealth countries in Asia and the Pacific, all provide adequate testimony to the widespread emphasis that is being placed on these new health perspectives in the developing world. Fulop (1976) has also commented on the revolution that is taking place in medical attitudes and objectives and on the enthusiasm that is now being shown by government ministers, civil servants and university academics in many parts of the world for speeding-up improvements in their countries' health programmes.

6. The importance of adapting educational programmes to local conditions and community health needs is everywhere agreed; and in almost every country there is a core of highly motivated

and experienced experts enthusiastically promoting new developments and innovations in their countries' health programmes. In spite of this shift of emphasis, however, a real breakthrough has yet to be achieved in most countries. There is still a lack of access to an adequate health service for the majority of the population in most developing countries, and there are deficiencies in the quantity and quality of health care available.

7. A brief examination of the health programmes in countries such as China and Cuba in which a more uniform spread of health care has been achieved, might be of value. In China there has been emphasis on the training and utilisation of para-medical personnel. This is the keystone on which its system of health care has been built. In order to cover the whole population, the Chinese introduced a cadre of personnel less highly qualified than professional doctors, less costly to produce and maintain, and more relevantly trained for the specific tasks they were required to perform. They were not afraid to sacrifice excellence for comprehensiveness. Their success has been largely due to this, to the sheer massiveness of their effort, to the political determination with which it was supported, and to an appropriate ordering of their priorities in relation to their social and economic circumstances (Djukanovic and Mach, 1975).

8. They were able to devise a system of health care delivery which brought the whole population within its reach. Central to this system has been the co-ordination of personnel training programmes and health care systems with community needs. It is appreciated that this system could not be readily taken over in its entirety by other countries. For any modification to be successful, however, it would need to have at least comparable levels of political support and national commitment.

9. The Cuban health services are based on the following principles (Macias 1974):

- (a) that the health of the population is a government responsibility;
- (b) that adequate health facilities should be available to the entire population;
- (c) that the community as a whole should participate actively in health work;
- (d) and that preventive and curative health services should be integrated.

Before 1959 most of the available health resources were concentrated in urban areas, particularly in Havana. The redistribution to the rural areas has since been considerable. Whereas 65 per cent of physicians and 55 per cent of hospital beds were located in Havana prior to 1959, only 42 per cent of physicians and 40 per cent of hospital beds are now located in that city (Benitez, 1976). Simultaneously, there has been a more equitable distribution of ambulatory and hospital facilities throughout the country. The comprehensiveness of health care has been further increased by the wide use of para-professional personnel.

10. A striking feature of the Cuban health model has been the level of community participation that has been achieved. This was due mainly to the co-ordinated efforts of a number of mass organisations which actively encouraged community collaboration with health programmes, and helped to raise the level of health awareness of the population as a whole through planned health education campaigns.

Health perspectives in developing Commonwealth countries

11. Although there is a wide social, economic and cultural diversity throughout the Commonwealth, member countries share a common origin of their systems in health education and administration. For this reason, they tend to have similar strengths and weaknesses, although there are obvious differences between countries and between regions. The methods of reappraisal to be recommended and the solutions that might emerge are therefore likely to have much in common for many Commonwealth countries.

12. Efforts to achieve improvements in community health in most developing countries have been characterised by minor or major adaptations of the traditional health patterns of the more affluent countries, but without any fundamental changes in their operational framework. In the absence of such changes, efforts to achieve widespread improvements in community health, however dedicated, are unlikely to be successful. Allied health personnel are being trained in increas-

ing numbers in many countries, but often without provision of the posts, the career structure or the legislative changes that would be required to make them effective. Few medical schools have adapted their undergraduate curricula to equip their students to undertake the supervisory functions which the extensive use of para-medical and allied health personnel would entail. Community health centres are being opened up in increasing numbers in many areas as “up-to-date” medical developments, but they are commonly left to struggle along in the old framework of traditional emphasis on hospital and specialist care, and with the relatively inadequate provision for ambulatory and preventive health services.

13. Techniques for influencing public opinion on a mass scale remain unexplored or undeveloped in many countries. What are the basic requirements for involving local people in the improvement of community health? In what ways can community participation be encouraged and at what levels? What is the experience of other countries in bringing about participation in health promotion? In what aspects of health care are local people likely to be interested and in what aspects can they make a useful contribution? What is the experience locally with medical education programmes involving the community and what steps can be taken to produce adequate motivation? Answers to these questions would be of critical importance in any country for effective health planning. It is clearly appropriate they should be of prime concern to medical schools and training institutions, to health ministries and their advisers and to all involved in designing national health programmes.

14. The Chinese model of health care delivery, utilising large numbers of allied health personnel, was not a new development. A similar approach has been used for many years in eastern Africa. In Tanzania, for instance, medical care has been provided by personnel with less than full professional training for generations. There is extensive reliance on medical assistants, rural medical aids and village health aids, and more than 80 per cent of the health care available is currently provided by such personnel (Stirling, 1976). The pattern is essentially similar in Uganda, Kenya and Zambia and also in Malawi, Botswana and Swaziland. In Lesotho, nurse practitioners perform the functions undertaken by medical assistants in other areas. Like medical assistants elsewhere, their role in the country's health care services is a major one. Although not so fully developed, utilisation of para-medical personnel is also being rapidly expanded in West Africa and the Commonwealth Caribbean.

15. There are nevertheless few of these countries in which an adequate level of health care is available for more than a small proportion of the population. Among the more important reasons for this are:

- (a) the overall low priority which tends to be given to health in national development programmes;
- (b) inadequacies in health planning and executive capacities;
- (c) inadequate numbers of trained personnel at all levels;
- (d) an overall lack of standards and criteria adapted to local conditions.

16. It is a matter of concern, for instance, that with increasing affluence large new hospitals still continue to spring up in some developing countries and to be regarded almost as national status symbols. This commonly entails the draining-off of both material and personal resources from community centres and rural programmes, retarding their development. It also leads to the production of graduates who have a disproportionate bias towards institutionalised medical care.

17. Medical schools themselves also need to re-examine their roles. Besides providing for the local training of medical graduates to meet national health manpower needs, an important expectation from the founding of Third World medical faculties must have been that they would contribute significantly to national and regional health development. Too often, however, they lay greater emphasis on excellence as defined by the more developed countries than on appropriateness in the context of their own.

18. In order to avoid these pitfalls, university medical schools in the developing world need to keep the objectives for which they were formed closely in sight. They need to recognise the importance of maintaining a continuing awareness of the health priorities of their countries, of

ensuring the effectiveness of their teaching and research programmes in the context of these priorities, of being adaptable and flexible in their capacity to respond to them, and of being innovative and imaginative in the leads they give.

19. In all this they would interact with the activities of a wide range of individuals and institutions: practitioners, other university departments, health ministries, ministries of education, departments of agriculture, nurses and other allied health personnel. Their activities and concerns would take them far beyond university centres into the most remote communities, wherever there are health problems to be tackled.

20. This could be achieved only by the closest possible integration of the programmes of medical schools with the targets of the health ministries in their regions, the medical schools strengthening and extending the functions of the ministries and providing, amongst other things, an academic dimension to the ministries' activities. They would be identified as integral parts of the total system for the delivery of health care and not simply as institutions for teaching, research and scholarship. There are not many medical schools that have defined their objectives in these terms; and there are few governments that have made appropriate provision to enable medical schools to function in these roles.

Current attitudes to community medicine

21. The response by most universities to the acknowledged need for improved community health services has been to increase the curricular emphasis on formal training in community medicine, and many have opened new departments for teaching and research in this subject.

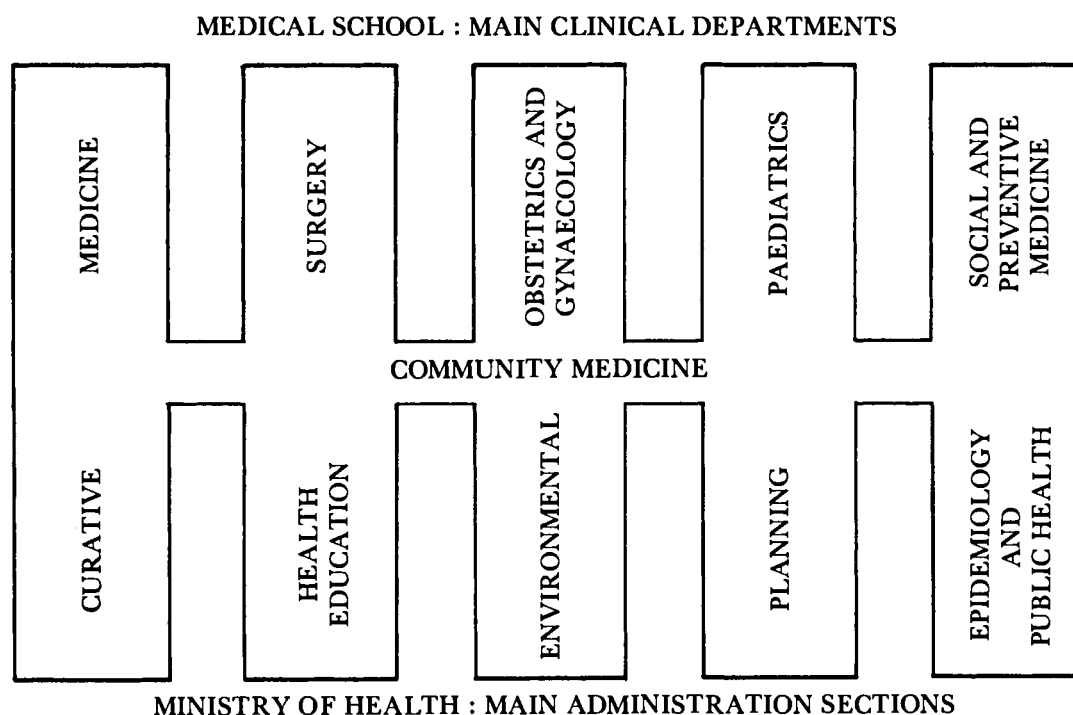
22. The earliest of such departments were established in universities in the more developed countries and the pattern is now being duly followed by universities in the developing world. The new departments have unquestionably given impetus to this new trend in medicine and have attained varying levels of success. The overall extent, however, to which they have achieved their objectives needs to be re-examined.

23. New university departments are frequently off-shoots created to deal with subjects that have increased sufficiently in complexity and importance to be recognised as specialities in their own right and to require a specialised staff for teaching and research. Special courses are subsequently offered; then comes the granting of their own diplomas, etc. The development of departments of community medicine in most universities has been along similar lines. It is possible, however, that the importance of this line of development for promoting community health and for motivating students towards it has been over-emphasised. It may even have a contrary effect. Far from opening up new horizons, there has been a tendency for many of these new departments to follow the old-style pattern of university academic development and to become oases of excellence shut off from the immediate world of pragmatic imperatives.

24. The new department also runs the risk of distracting attention from the need for more radical and basic medical reforms. It sometimes comes to be regarded as adequate testimony to the fact that the faculty is keeping up with modern trends and that its academic priorities are now both relevant and appropriate – even though the greater proportion of the funds available to the faculty continues to be expended uneconomically or on low-level priorities. A small share of these funds having now been diverted to the new department, agitation for change ceases. The emphases, however, of university teaching on the one hand and the pattern of expenditure on health and the organisation and administration of community health care systems on the other continue essentially unchanged.

25. Community health cannot be improved simply by adding a new department of community medicine to existing university departments, or a new section for this subject to the sections normally found in ministries of health. Community medicine is more appropriately conceived as the basis for each and a unifying concept for all of the departments and sections of both institutions (see illustration below). It is a concept, a definition of medical emphasis, a statement of intent. It cannot be administered from one university unit. The responsibility for it cannot be that of a single department, or even of the medical faculty as a whole. This responsibility can be vested only in the overall national system of health, the system in which medicine is both taught and practised.

*Schematic concept of the relationship of "community medicine"
to medical schools and ministries of health*



26. If responsibility is to be assigned to a single body, then, insofar as community health in the final analysis is a matter of national policy, the responsible body must be the government of the country. A lesser level of commitment or responsibility would not be appropriate and would be unlikely to achieve the required results.

Conclusions

27. Models of health care and professional training programmes that are designed to meet defined local health needs can be expected to achieve a higher proportionate return in terms of community health improvement than adaptations from abroad.

28. Effective national health programmes require the highest level of political support and commitment.

29. Ministries of health and university medical schools must be key pieces for any appropriate model of health care; and in the complex calculus of integrating and co-ordinating the functions and responsibilities of these two institutions essential first steps must surely be:

- (i) a reassessment of the role of the modern medical school as an instrument of national development in health and of the adequacy of its programmes to achieve this;
- (ii) a simultaneous re-evaluation of the health care systems which health ministries operate and their appropriateness to meet community needs;
- (iii) an examination of the interface of the related roles, functions, and responsibilities shared by university medical schools and ministries of health, with a view to providing a revised operational framework in which each institution could make its optimal contribution towards the country's health objectives.

30. It is precisely at this interface, of course, that conflicts and confusion of responsibility will arise. Territorial jealousies and suspicions are bound to occur. Yet articulation and integration of their efforts and resources is essential and logical. The role of each institution would sometimes be that of a prime mover, sometimes that of a co-equal partner, sometimes that of a resource upon which the other draws. It is on the basis that the necessary sequence of national meetings, discussions and studies should be initiated; and it is to this commitment that national cabinets would need to give support.

Recommendations

31. International and inter-regional Commonwealth collaboration in pursuing these objectives is recommended.
32. The initial studies would be too complex and too time-consuming to be undertaken as part-time commitments by the already heavily-committed staff of universities or ministries of health. They would need to be carried out on a full-time basis by individuals specifically commissioned for this purpose.
33. They would also need to be action-orientated with a view to arriving at a sequence of practical recommendations to be followed by universities, health ministries and governments, and not merely aim at achieving yet another analysis of community health problems.
34. Definitive future recommendations for each region would need to await the findings of the proposed studies. The suggestions given below are, therefore, only preliminary and merely propose the framework in which the initial studies might be undertaken.
35. Studies might be carried out by a team of Commonwealth consultants composed of:
 - (a) a full-time convenor for each region, preferably someone from within the region, who would collate all relevant information, convene appropriate committees, initiate workshops, study groups and discussions, and prepare a local report and recommendations;
 - (b) an overall co-ordinator and chairman who would be appointed in consultation with all the regions and who would:
 - (i) ensure uniformity of approach within and between regions;
 - (ii) co-ordinate the work of the regional convenors and collaborate with them in the preparation of final reports and recommendations; and
 - (iii) suggest a time-frame and operational sequence for the implementation of recommendations.
36. The terms of reference for these consultants might be:
 - (a) a reassessment of the role of the modern medical school as an instrument of national development in health and the adequacy of its programmes to achieve this;
 - (b) a simultaneous re-evaluation of the health care delivery systems which health ministries operate and their appropriateness to meet community needs;
 - (c) an examination of the interface of related roles, functions and responsibilities shared by university medical schools and ministries of health with a view to providing a revised operational framework in which each institution could make its optimal contribution towards the country's health objectives.
37. To ensure continuity in their implementation, the recommendations of the team, once accepted by Health Ministers in Commonwealth regions, could be followed up at the regular annual meetings of the Ministers and those of their advisers, at which it is anticipated that there would be adequate university representation for this purpose.
38. It is envisaged that the chairman might require 9–12 months for his work, the work of each regional co-ordinator being some 3–4 months, and the total overall period of the study by the team being approximately 12 months.

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THE ROLE OF HEALTH MINISTRIES AND MEDICAL SCHOOLS

Background paper prepared by the Government of New Zealand

Two universities in New Zealand have founded full medical schools: Otago since 1876 and Auckland since 1968. The majority of New Zealand doctors graduated from the Otago School, but since November 1974 graduates have been emerging from the Auckland Medical School. Otago, in order to cope with the clinical teaching of an expanded number of students, established two clinical schools, one in Christchurch and one in Wellington, the latter taking fourth-year students for the first time in 1977. These two clinical schools have considerable autonomy, but their resources are derived from the Otago University budget; the degree given is from the University of Otago.

2. Each of the four clinical schools (assuming that in Otago and Auckland the clinical component of the medical course is the equivalent of a clinical school) is associated with hospitals run by hospital boards, responsible to the Minister of Health. None of the hospitals are strictly university hospitals, and indeed the association between the hospitals and the university is established in each centre in a slightly different way, but under a section of the Health Act which provides for Joint Relations Committees. Otago has a special relationship based on membership of the hospital board itself.

3. The result of this is that there needs to be strong co-operation between the universities on the academic side and the hospitals on the clinical side, to achieve the overall requirement of training of doctors, and with it the training of a number of health related professionals.

The Health Ministry and medical schools

4. The Minister of Health has overall responsibility for the Health Department, and the Health Department in its Hospitals Division has a major interface with the universities as indicated above. The Clinical Services Division of the Health Department also has a close relationship with the general practitioner programme and thus with training in general practice being established at present under a separate Council of Postgraduate Medical Education.

5. The Health Ministry, through the Minister and its advisers, of necessity maintains a close relationship with the financial policy concerned with the universities, set by the University Grants Committee. The chairman of the University Grants Committee has an independent source of finance derived from Vote Education, and this is disbursed through the universities in the form of block grants towards maintenance and salaries for all university personnel, and this includes medical schools. The University Grants Committee also provides building funds for medical schools. As a result, there needs to be a close association between the permanent head of the Health Ministry (i.e. the Director-General of Health) and the Chairman of the University Grants Committee in the overall co-ordination of the activities of the two bodies. The University Grants Committee has no separate sub-committee dealing with medical matters, and so in fact the deans of the schools through their vice-chancellors are advisers to the University Grants Committee in a similar way that hospital boards and superintendents advise through the Division of Hospitals Director to the Director-General of Health.

6. The Medical Council of New Zealand is the registering body for medical practitioners and in its Act it has a clear responsibility for the level and standards of medical education. For this reason it contains a number of medical practitioners, but also ex-officio the Director-General of Health and the two deans of Otago and Auckland Universities. This council therefore has the responsibility of looking at educational standards of the universities and relating them to the

requirements of the country in terms of the medical practitioner's role. To do this, a statutory sub-committee of the Medical Council was established in the 1968 Act, known as the Medical Education Committee Act, and this also includes the two clinical deans who are not on the council and a number of other appointees representing both the universities and also the colleges concerned with specialist and general practitioner postgraduate training and diplomas. This committee has the statutory right of supervising the immediate postgraduation conditional registration year, and to do this has established a system of supervisors in the approved training hospitals, and maintains the approval by a series of hospital visitations. The Medical Education Committee, through its college members and indirectly through the Medical Council itself and the Specialist Register, can also influence the standard of postgraduate training and specialist practice in the country.

7. The Medical Council is at present looking closely at the whole question of medical registration and the postgraduate training of the medical practitioner, and is giving some consideration to limiting the style of practice of individual specialist members of the profession, for instance looking at the possibility of limited registration, or licensure, within only one branch of medicine. The Medical Schools by virtue of their involvement in these committees can feed in opinion from the academic institutions where the original standards are established. The Health Ministry therefore has alongside it an independent statutory body with strong associations across into the Medical Schools, concerned with education. Further co-operation between the Health Ministry and the medical schools is established by the involvement of academic staff members in various committees. For instance professors of medicine may sit on the Pharmaceutical Advisory Committees or on the Obstetrical and Gynaecological Service Advisory Committees and from time to time are appointed as official consultants to the Health Department.

8. At the level of the hospital boards in the four major regional areas concerned, there are Joint Relations Committees for particular bodies, on which both the hospitals and the universities are represented by both senior administrators and practising clinicians and superintendents. At a lower level still, there are many hospital committees which include university members, for instance the Appointments Committee at a hospital very frequently includes senior academic members, and likewise when appointments are made in the academic departments, hospital members are involved. It should be made clear, however, that academic heads of departments are not automatically heads of the service departments in the respective hospitals. In some instances they are, by agreement; in others they are head of their own section within an overall division, e.g. the Division of Surgery. The influence that academic members may have will vary considerably, but in general they do not, as of right, have responsibility for overall service commitments in the hospital.

Manpower considerations

9. A major overall health responsibility is the proper training of the medical practitioner and ensuring adequate numbers of medical practitioners in the country. The universities have a special responsibility:

- (a) in the graduation of an appropriate number of local graduates, and
- (b) in the supervision of overseas graduates, either in supplementary training or in post-graduate training.

The Health Services Research Unit of the Department of Health has a close relationship with a specific sub-committee of the statutory Medical Council, known as the Medical Practitioner Data Committee, on which the medical schools are also represented. The Medical Council itself is able to collect very accurate data through an annual computerised return from each doctor in the country and, on the basis of this data, information is made available to the medical schools and to the Health Department. An annual meeting of medical manpower is held in which all bodies are represented, and it was such a meeting in 1976 that predicted that the present output of doctors would be sufficient for ten years.

10. At the present time, both medical schools (incorporating their clinical schools) are increasing the output of doctors, and by 1980 Otago will be graduating approximately 190–200 doctors,

and Auckland by 1982 will be graduating 120–130 doctors. The overall output is thus expected to be round 310 and this is expected to bring a doctor-to-population ratio of 1:630 by 1986 (the 1975 figures are 1:800). The standard of the New Zealand graduate is determined by the faculties of medicine in the respective universities, and this in itself is subject to annual discussions between the two universities and of course to decisions in the final instance by the boards of examiners. Major changes in the structure of the medical courses and of the subjects taught are subject to discussions between the two universities, and because of the relative ease of communication in New Zealand unofficial discussions do occur with the authorities in the Health Department. Nevertheless, the Health Department has no direct influence on the courses designed by the universities, but can influence these indirectly, for instance by promoting general practitioner support for teaching health centres. The Department of Health also has to approve new developments within hospitals, for instance radiotherapy etc., and in doing so takes into account the academic potential of the associated school, and very often academic members are advisers to the Health Department on individual matters of this nature. A good example is the recent appointment of a two-man sub-committee, the convener being the Professor of Radiology at the Auckland Medical School, to advise the department on which model of C.T. scanner would be best for New Zealand's needs.

11. The universities and their associated medical schools have not been strongly involved in the training of other health professionals in this country. Otago has a school of pharmacy and Auckland and Otago have some indirect association with physiotherapy schools run by the technical institutes. Similar arrangements are being made in the dietetic field. The basic education for registered nurses is in the process of being transferred from hospitals to the technical institute system. There are no immediate plans for such basic education within the university system but nursing studies for nurses already registered have been incorporated within the degree/diploma structures of both Victoria and Massey Universities. Social workers are largely trained in other departments in the university but at the local level there are relatively close relationships. There is support for the concept of grouped health sciences education on technical institute campuses.

Other roles for the medical schools

12. Inevitably the medical schools in the four main centres, and their various associations with other hospitals and community health activities, establish standards and foster research that might not exist in the absence of an academic institution. Medical research in particular is under the overall support of a Medical Research Council funded through Vote Health. In addition to this there are many funding agencies derived from voluntary associations like the Child Health Foundation or the Heart Foundation. The universities take the view that because of the major funding to the Medical Research Council and the assessment by the Research Council of grant applications etc. they will not normally put much money into the specific funding of either posts or equipment in medical research, but only establish the departments and the basic equipment necessary for that research. This has worked reasonably well in the past, but there are difficulties at the present time with the clinical schools being built and expanded, and equipped, at a time of national financial deficiencies. The Medical Research Council again has both the Director-General of Health and the two deans on it, and so co-operation at this level is obtained between the Health Ministry and the schools, and of course the bodies who nominate to the Medical Research Council. It is the job of an independent lay chairman of the Medical Research Council to negotiate with Vote Health for the funding for the Medical Research Council.

13. Medical schools can be of considerable help to the Health Ministry in taking over areas of research in a form of contract research, although this has not been widely used as yet. The Medical Research Council is moving to establish close relationships with the Health Services Unit in the Health Department. It may be asked whether the medical schools are sufficiently aware of advanced Health Department planning and able to adapt to the changed circumstances that may result. The available talent for any new development almost always involves advisory members of committees coming from the medical schools, who themselves are in fairly close co-operation through an annual meeting, and also through individual meetings in inter-disciplinary associations. An example of this has been the whole development of health centres and the training for general practice where a major lead has come from the associate-deans in Auckland and Otago, who have

been heavily involved in postgraduate training and are both members of the Postgraduate Council. The Health Centres Advisory Committee includes academic members and so it is unlikely that any major development in the health services would occur without the universities involved in membership of the appropriate committees.

General comments

14. The foregoing explanatory notes may indicate that the situation in New Zealand is very satisfactory. Indeed, in some areas because of the size and the relatively spread-out nature of the country, a committee structure exists which is serving a number of purposes, including the inevitable exchange of information between the universities and the Health Department. Some of this is fortuitous, and some, for instance in the Allocation of House Surgeons Committee, is deliberate because it is the university that knows the number and quality of the house surgeons who are coming forward for the hospital service. At higher policy levels like the Medical Council, good co-operation can be obtained and leads to decisions which seem to be in advance of those which can be obtained in a country such as Australia with Federal and State organisation. There are one or two very important committees being established at the policy level and the Minister's Special Advisory Committee on the Health Service contains at least two academic members, and it would be most unusual for such matters not to reach the ears of the university authorities.

15. One of the fairly considerable difficulties is at the level of the hospital boards who run the medical schools. The Joint Relationship Committees on the whole work well, but in times of financial stringency different financial mechanisms within the Health Department on one hand and the universities on the other, the latter having more independence, make for considerable problems in the proper allocation of responsibility. This would be the area of most difficulty and stems from the fact that the structure of the hospital boards in New Zealand is an attempt to give some local control at the same time as maintaining financial accountability in the central Health Department. The University Grants Committee, on the other hand, de-centralises large blocks of money to the universities who are given a great deal of independence. The question of university nomination to hospital boards is under trial in Otago and seems to work reasonably well, but in larger centres such as Auckland and Christchurch, no great enthusiasm has been shown by the universities for representation on the hospital boards.

Summarising

16. The population size of New Zealand makes planning relatively easy by a mixture of central committees and de-centralized responsibility. The Health Department must depend a lot either directly or indirectly on medical school members for advice and this ensures good exchange of information. The site of greatest weakness is lower down at the hospital and community health service level where co-operation is often excellent but action becomes difficult because of different financial systems and problems of allocating fiscal responsibility. It is fortuitous but not unhelpful that the Director-General of Health and the two deans of medicine from Otago and Auckland are friends from the same graduating medical class in Otago in 1948.

28 September 1977

THE ROLE OF HEALTH MINISTRIES AND MEDICAL SCHOOLS

Background paper prepared by the Government of Ghana

The roles of the Ministry of Health and medical schools in national health are fully recognised in Ghana. There are therefore informal consultations between the Ministry and the medical school authorities. Indeed, these consultations have been found to be so useful that there are now plans to formalise and institutionalise these linkages.

2. Medical schools can certainly play a useful function in national health development apart from the training of doctors, but because of the lack of formal linkages with the Ministry of Health they have yet to fulfil the relevant functions in the development of appropriate health care delivery systems in general and health manpower development in particular.

3. It is recognised, for example, that medical schools can make a substantially reliable and meaningful contribution to health services development through the promotion of biomedical and health services research activities directed at priority or specific health problems, for the purpose of finding appropriate solutions and developing appropriate tools for low-cost but effective and efficient health care delivery systems or disease control programmes.

4. The University of Ghana Medical School, which formerly produced only doctors, is now involved in the training of health laboratory technologists in collaboration with the Ministry of Health. Although some individuals have expressed doubts about the capabilities of the products to meet the basic health needs of communities, particularly with regard to the surveillance and control of endemic diseases and the organisation of activities for health promotion and protection, there have not been any efforts in the past to evaluate the tasks that they are trained to perform as against the tasks that they should be able to perform in terms of the community health problems and needs. Insofar as the performance of tasks related to diagnostic and curative services (i.e. clinical duties in hospitals) are concerned, however, there are no doubts whatever about the performance of products of the University of Ghana Medical School.

5. With regard to the School of Medical Sciences of the University of Science and Technology, this institution is in only its third year and so it is not possible to draw any valid conclusions about the quality of performance of the products. Unlike the first medical school, it intends to train not only doctors but also other health professionals such as parasitologists, medical entomologists, biochemists and microbiologists.

6. Perhaps it is worth mentioning without boasting that so far the products of the University of Ghana Medical School have been found by the external examiners from Britain to be of very high quality, comparable with students from any institution in the developed countries. The few who have done postgraduate medical education and training in Britain have highly impressed their supervisors and passed their examinations at the first attempt. This is obviously credit to the system of education and training.

7. As was mentioned earlier, there is currently an effective system of co-operation between the Ministry and the medical school on an informal basis but more formalised and institutionalised linkages are now being considered. Until recently, the only medical school in the country has been involved in the planning and implementation of health programmes on an informal and person-to-person basis; the results have been so encouraging that the need for co-operation and collaboration on a more formal basis is now recognised. In the Ghana experience, the informal approach has been found to be effective but obviously formalising and institutionalising of linkages with clearly defined objectives, functions and responsibilities is not only desirable but essential. Thus there could be joint committees to consider such matters as:

- (a) the education and training of health personnel;
- (b) the evaluation of education and training programmes and also the performance of field workers;
- (c) formulation of health manpower policies and health manpower development programmes; and
- (d) biomedical and health services research activities.

28 September 1977

THE ROLE OF HEALTH MINISTRIES AND MEDICAL SCHOOLS

Background paper prepared by the Government of Tanzania

Ministeries of health and medical schools play an important role in national health programmes and in particular their joint efforts are required in health manpower development. However, it is a true observation that in many countries there is little co-ordination of their activities and the links of communication between them are slender. Such a situation should not be allowed to continue.

2. We know that no health service can run satisfactorily without there being adequate numbers of suitably trained staff. In Tanzania the training of the required health manpower is undertaken by the Faculty of Medicine of the University of Dar es Salaam and the Ministry of Health and also by voluntary agencies under the guidance of the Ministry of Health. The Faculty of Medicine has so far concentrated on undergraduate and postgraduate training for doctors and the training of pharmacists, while the Ministry of Health has concentrated on the training of medical auxiliaries and para-medical staff. One therefore identifies two groups of medical educationists: those in the University Faculty of Medicine and those in the Ministry of Health.

Training objectives

3. The objectives in our training programmes are as follows. Firstly, health staff should be trained to well-defined tasks and employment opportunities with special attention to their future responsibilities in Tanzania's health services. Secondly, training should provide Tanzania with suitably qualified medical personnel in sufficient numbers for the country and capable of providing the various skills required to improve the health status of Tanzanians and mitigate prevalent health problems. Thirdly, training should be localised; that is, as far as possible all medical training programmes should be in Tanzania. This will ensure that the trained personnel will be conversant with the local needs and resources. It is essential that both the Faculty of Medicine and the Ministry of Health should be mutually committed to these stated objectives and the achievement of these objectives will require close collaboration between the two. That the medical graduates are trained mainly for the Ministry of Health is enough reason for the Faculty of Medicine educationists and those of the Ministry to work together.

4. The basic problem is that while medical educationists directly under the Ministry of Health receive policy directives from the Ministry, which also finances its training programmes, the Faculty of Medicine is under the jurisdiction or guidance of the Ministry of National Education. This means that the two groups of educationists are answerable to different authorities. This divergence of answerability has contributed in no small measure to the unsatisfactory state of co-ordination and co-operation between the Ministry of Health and the University Faculty of Medicine. Not only that, the pathway involved in the desires of the Ministry of Health reaching the Faculty of Medicine is tortuous and indirect.

Present means of co-ordination

5. Although it must be admitted that co-ordination of their activities and collaboration of effort between the Faculty of Medicine and the Ministry of Health is not as much as one would wish, there are already forums for common discussion and implementation of national health programmes. The Faculty of Medicine is a state institution and therefore gets guidance for its activities from the Government. As such, its activities cannot be at variance from those expected by the Ministry of Health. As an institution the Faculty of Medicine has three major functions: the teaching of undergraduate and postgraduate student doctors and pharmacy undergraduates; the day-to-day

service of Muhimbili Medical Centre, which is the largest consultant hospital in the country; and research. All these functions have a direct bearing on the national health programmes.

6. There are several boards and committees where representatives from the Ministry of Health and the Faculty of Medicine work together. The Ministry of Health is represented on the Faculty Board, a decision-making body for the activities of the Faculty of Medicine. There is a Joint Postgraduate Selection Committee responsible for postgraduate training. There is also a joint committee for the allocation of locally trained specialist doctors for employment in the medical school and the Ministry of Health. Medical students utilise health service units run by the Ministry of Health as practice areas. There is a great shortage of teachers and teaching skill. Qualified or competent teachers are required for the growing numbers of our auxiliary and para-medical schools. Many of the few teachers we have are in the medical school. This has led to the free use of educationists belonging to the Faculty of Medicine and those belonging to the Ministry of Health for teaching assignments in the schools run by the Ministry of Health and the medical school.

7. There is therefore already established quite a substantial area of co-operation between the Ministry of Health and the Faculty of Medicine. All this however falls short of the creation of a joint policy-making body, which would be a logical way to achieve concrete co-operation and collaboration between the Ministry of Health and the Faculty of Medicine.

Machinery for health manpower planning

8. We need to have a National Health Planning Committee which would be charged with the responsibility of planning national health programmes and preparing guide-lines for the implementation of all national health programmes. Such a body would merge into a composite whole the interests of the Ministry of Health and the Faculty of Medicine, since in essence both are working towards one common goal of providing enough health manpower of the right categories of staff required for running national health programmes. This body would be the one to develop health manpower plans. Such plans should define not only the numbers and categories of health personnel to be trained, but also indicate the knowledge, skills, attitudes and the area and level of competence needed to carry out the tasks and functions to be performed by each of them. The Ministry of Health would provide the job descriptions and employment opportunities for the different categories of workers required. From the job descriptions medical educationists would draw up relevant curricula and training schemes and then train the staff adequately for the particular tasks they are destined to perform.

9. Finally, the Ministry of Health and the Faculty of Medicine should have machinery for evaluating the performance and effectiveness of health personnel trained in relation to the health care required to the satisfaction of consumers. They should ensure that there are no divergencies between academic and training goals, on the one hand, and service requirements, consumers' expectations and life style and (most important) the general socio-economic situation, on the other.

7 October 1977

THE ROLE OF HEALTH MINISTRIES AND MEDICAL SCHOOLS

Background paper prepared by the Government of Sri Lanka

In Sri Lanka the medical schools come under the Ministry of Education. Such a separation without the involvement of both the Ministries of Education and Health is undesirable. Medical graduates are required to serve a mandatory period of internship of one year duration prior to registration. They may select for internship six months in either medicine or paediatrics and six months in either surgery or obstetrics and gynaecology. This internship pattern is in line with the requirements for registration in the UK. Till 1972 once a medical graduate fulfilled these requirements, he was eligible to be registered with the General Medical Council of Great Britain.

2. The intake of medical students of both the medical schools is 250 annually. Some 225 medical graduates pass out annually and the annual loss to the country due to retirements and emigration is almost 150, leaving 75 medical graduates to meet the needs of the expanding health services in the country, which is quite inadequate. Proposals for expanding the existing medical schools so as to accommodate an increased intake of medical undergraduates are under ministerial consideration.

3. The population of Sri Lanka is 14.01 million, of which 80 per cent live in the rural areas. In such a situation the essential need is for community physicians thoroughly conversant with the health needs and disease patterns prevailing in rural areas. Medical education should meet the specific needs and demands of the community. The objective of undergraduate medical teaching as stated by a WHO Expert Committee (1967) is that "in educating the physicians one must aim to develop the knowledge, skills and attitudes necessary for the care of people in sickness and in health. Such care includes prevention, treatment and after care and rehabilitation of all illnesses in the community as well as in the hospital". Medical training should not only be given in the teaching hospitals but also in the smaller hospitals and in the community. This will be a vital and forward step in a developing country as the doctors will be mostly working in those areas to serve the large number of rural population.

4. The training in medical schools had unfortunately not been geared to meet the needs of the community. The curriculum for medical undergraduates had hitherto been academically inclined and tailored to disease patterns prevalent in the developed countries. This no doubt stemmed from the fact that postgraduate and specialist qualifications were and still are entirely obtained in the UK.

5. An effort is now being made in the two medical schools to modify the curriculum in keeping with the needs of the community. Emphasis is being placed on preventive and social medicine. During the third and fourth years of their training, students are assigned families in two project areas, one in Peradeniya and the other in Colombo, and they are responsible for their welfare and total health care. They are concerned with family health, which embraces maternity, child health, immunisation, nutrition, environmental sanitation and family planning. Such an exposure makes the student aware of the problems in the country. It is of significance that 40 to 45 per cent of all indoor and outdoor morbidity in this country is due to preventable diseases and this being the position one realises the importance of developing a medical graduate who is community oriented. It is essential that subjects like behavioural sciences, human ecology, sociology, psychology and more of psychiatry are included in the teaching. There should be increased emphasis in the field of community medicine, emergency medicine and ambulatory medicine. The present-day doctor should not be trained as a "global doctor" but trained primarily in the scientific methods and to deal with the health problems of our people using the resources and facilities available to us. It is because of this failure that very often the doctor who qualifies now does not get job satisfaction

and looks out for openings abroad. In addition the graduates who pass out from the medical schools are mostly clinically oriented and desire to specialise in a clinical speciality.

6. In order to solve this problem, it is very desirable that there should be very close liaison between the Ministry of Health and the Ministry of Education and a joint committee should be set up which should include officials of both the Ministries, who should lay down guidelines for undergraduate training which would meet the health needs of the country. Action is presently being pursued on these lines.

7. Even with regard to internship, there should be a different approach. Instead of following the pattern of developed countries with the purpose of recognition being given to our medical graduates, we should change the pattern of internship to enable the intern to come closer to the community once he has graduated. An internship training in community medicine, as is happening in India, will be very useful and beneficial. Every medical graduate should do an appointment of at least three to six months in community medicine and should be positioned in a rural community during this period. This will expose him to the real health situation in the major part of the country. We are expecting to effect this change in the near future. In the past the health services had been dichotomised into specific preventive and curative services. Integration of services has now been effected whereby both the prevention and therapy of disease are the specific functions of all medical officers. The teaching in medical schools has been similarly integrated.

8. The medical schools in this country, besides undertaking the training of doctors, also train a category of personnel referred to as assistant medical practitioners. Their training course is of two and a half years duration followed by six months internship. During this period they receive basic training in the disciplines of medicine. This category of personnel is specifically trained for appointment to rural areas to afford first contact medication in view of the dearth of fully qualified medical officers. The capacity of the two medical schools to train this category of personnel is limited to 70 per year though the requirements of the country are greater.

9. At present we have eight schools of nursing and they undertake the training of nurses, which is a three-year course leading to a general certificate in nursing. There is also a post-basic school of nursing which prepares nursing personnel to function at higher levels in teaching, administration and specialisation. It also has a department of continuing education which caters to the service needs of the health services. The faculty members of the two medical schools also function as lecturers in schools of nursing in Kandy and Colombo and also in the post-basic school of nursing in Colombo. The Medical Education Unit of the Peradeniya Faculty has given a refresher training to all tutors of nursing in educational technology, thus strengthening the teaching/learning process and curriculum development. Besides this the medical schools propose to undertake the training of nurses leading to a degree in nursing. A committee has been set up for this purpose by the University to work in close collaboration with representatives from the Health Ministry.

10. The Health Ministry is the major employer of medical practitioners and assistant medical practitioners who pass out from the medical schools. It is vital that the Ministry of Health should involve medical schools in the planning and implementation of health programmes. There should be a constant dialogue between them so that the qualified medical practitioners will be able to actively participate in formulated health programmes.

25 October 1977

THE ROLE OF HEALTH MINISTRIES AND MEDICAL SCHOOLS (HEALTH MANPOWER POLICIES)

Background paper prepared by the Government of Canada

An introduction to background papers prepared by the Government of Canada is contained in document CMC(77) Gen/1.

Medical schools and national health care needs

2. It appears that the medical schools and other health science training programmes have been attempting, at least in recent years, to design their programmes as well as possible to meet the needs of the health care system. (The “development” needs to which they would be relating are generally provincial rather than national in scope.) There have been several examples of new programmes developed to meet identified needs such as expanded training programmes for family physicians and for specialists in rehabilitation. At present, there are proposals to develop training programmes in geriatrics.

3. Both health and education are provincial responsibilities. It is, therefore, difficult to reach national agreements with regard to the numbers and types of workers to be trained for the country as a whole, but some good efforts have been made in most provinces to co-ordinate the efforts of Ministries of Health and of training programmes.

The appropriateness of training programmes

4. With respect to the total supply of health workers, the Canadian health care system is impressive, the population/physician ratio for the total country being 581:1 in 1976, with the provincial ratios ranging from 550:1 in Ontario to 1,182:1 in the Northwest Territories. Approximately 50 per cent of Canadian physicians are general practitioners. Canada is also well supplied with nurses — to the point where there is an unemployment problem for nurses in some provinces. The supply of dentists is about one for every 2,500 Canadians. There is a lack of medical specialists in geriatrics and occupational health, as well as of chiropodists, dental nurses and speech therapists. There is also a problem with distribution, especially of physicians, with the major population and economic centres being relatively over-supplied and the poorer, rural areas being under-served. Various incentive programmes have been partially successful in overcoming these distribution problems.

5. There is some question as to whether our students acquire the appropriate knowledge, skills and — most important — attitudes, to allow them to respond adequately to the changing needs of their communities. There is even greater doubt about whether they are equipped or motivated to promote desirable changes in the existing health care system.

Machinery for co-operation

6. Several provinces have developed advisory committees involving Ministry personnel and officials of health science programmes to plan for appropriate training programmes. These committees make recommendations concerning such matters as the total number of places for various types of health science students at both graduate and undergraduate levels and the distribution of these places among the various training institutions in the province.

Graduate performance

7. The graduates of our training programmes appear to be generally well prepared to perform better than adequately within our health care system. At the present time there is some concern over the need to ensure that they maintain their competence through greater participation in continuing education programmes and possibly through compulsory periodic re-examination for licensure.

8. Another recent development in the effort to ensure high quality training and co-ordination of training of various types of professionals is the proposal to establish a single Council on Accreditation for all health science training programmes.

National self-reliance in health manpower training

9. In recent years there has been considerable expansion of training programmes and facilities, partly as a result of the federal contributions to the development of such resources through the "Health Resources Development Fund" which was established in 1966 and intended to continue until 1980. There have also been professional training grants available from the Federal Government and most Provincial Governments for postgraduate training in the health field.

10. Canada has been self-sufficient with respect to most types of health manpower training for several years, with the few exceptions noted earlier. There are now initiatives being taken to correct the remaining deficiencies. Immigration policies with respect to physicians have also been modified to reflect this situation of self-reliance in the training of doctors.

October 1977

THE ROLE OF HEALTH MINISTRIES AND MEDICAL SCHOOLS

Background paper prepared by the Government of Trinidad and Tobago

A general dissatisfaction with the type of medical practitioner produced by medical schools on the one hand, and the systems of health care available to developed and developing countries on the other, has led Health Ministers to question and medical schools to consider their needs critically. The following are some of the sorry facts they found.

2. They found that the cost of providing health care to a nation was phenomenal, and rising, in spite of all reasonable checks applied, whether the system was nationally subsidised as existed in the United Kingdom, or whether the system was based on free enterprise and supported through an insurance carrier intermediary.
3. In spite of the cost, both systems suffered serious imperfections. In the case of the nationalised service, governmental control of professionals bred inefficiency, long waiting lists, and a real inability to restrict the patient to his true needs. In the case of the system epitomised by the United States of America, urbanisation of doctors created over-doctoring in the cities with hardships in rural areas, long waiting lists, and the prospect of relative inaccessibility of even primary health care to the indigent and the infirm in the densely populated inner city (Karmody 1974).
4. Whereas it had been the sole prerogative of the medical schools to produce a curriculum to shape the physician or surgeon prior to the 1960s, four considerations altered this in the 1970s:
 - (i) The increasing cost of health to the national budget and the escalating costs of the university forced health planners and university boards to critically enquire if they were getting value for money spent.
 - (ii) The realisation that health care was fundamentally a political issue and that the group who paid the piper might justifiably call the tune without strict erosion of the university's autonomy.
 - (iii) The realisation that some change in the curriculum was necessary to improve the motivation of young men and women to serve the needs of the community and not only seek the plums offered in some urban areas.
 - (iv) The acceptance of the concept that universities to be meaningful had a joint role to play with governments to attempt to meet the challenges and needs of their community.
5. When attempts were made to define the gray areas in the developing countries, these appeared to be uniformly:
 - (a) a great exodus of professionals and para-medicals to the developed countries with the accompanying loss financially and more seriously of expertise we could ill afford to lose;
 - (b) a significant hard core of malnutrition in infancy;
 - (c) gastroenteritis involving children mainly under five years;
 - (d) diabetes mellitus;
 - (e) hypertension;
 - (f) problems with water and environmental sanitation;
 - (g) a scarcity of dentists;
 - (h) maintenance of laboratory and hospital equipment.
6. Trinidad and Tobago, one of the most stable of the Caribbean nations financially and politically, with a population of 1.1 million in approximately 200 square miles, shared all these problems with

the rest of the Caribbean, even though its doctor/patient ratio of 1:2200 tended to identify it more with the developed countries than with the developing.

7. Even before the revolutionary appeal of the Director-General of World Health Organisation, Dr. Mahler, to all the nations of the world in May 1977, for adequate health care for all citizens of the world by the end of the century, health authorities the world over, and certainly in the Caribbean as outlined in their Conferences of Health Ministers since 1966, had begun to question the system in which large groups of citizens were being excluded from health care, and national health objectives were being redefined to set greater emphasis on preventive medicine, oriented towards improved community health, rather than increased curative medicine centered around larger hospitals.

8. Trinidad and Tobago's Health Minister, in an address to the First International Medical Conference held in Tobago in 1975, observed:

"There is a glaring disparity between the health services available to citizens living in towns and those in rural areas. There is a need to shift the emphasis from curative to preventive and community medicine".

And again, as Minister of Health, he said:

"My policy has been devoted towards dealing with these problems not as distinct entities, but as a coordinated and integrated whole. Our policy is designed to provide the people of Trinidad and Tobago with the type of health care best suited to their needs and within the budget allocation as agreed by Parliament. I have therefore decided to accelerate the attack on communicable disease, improve rural health service and training and innovate utilization of health resources as key areas of the health policy".

9. Philip Boyd in his monumental paper "The Medical Profession and the Health of the People of the Caribbean", delivered to the same International Convention in September 1975, enquired:

"What is health in the Caribbean context? It is certainly not just absence of disease, it is much more. It means that working people are fit and productive and able to acquire and use needed skills, that school children are fit and able to benefit from their education, and that their physical and mental development has not been permanently impaired by malnutrition in infancy.

It means dynamic management of health services. It means that people are suitably well adjusted, that individual families are free from the addictions of tobacco and alcohol. It means that people have determined for themselves the most important community health problems, and are playing their part in solving them.

Health is a basic human right. This being so, society has to work out a system under which all receive health care irrespective of their ability to pay at the time of receiving attention. The medical profession is in duty bound at least to cooperate in working out such a system, and again the Medical Faculty (of our University) should be made more intimately involved in our work and in our councils so that medical education shall in future prepare a doctor able to give community health care in the broadest sense, and thus be better suited to the needs of the people of the Caribbean".

10. It was in this context that the medical schools of the University of the West Indies did what other medical schools in Canada, the USA, the UK and throughout Africa and China had been forced to do: set up a programme more meaningful to the people they served. A decision was taken by the University of the West Indies to pursue the matter. At the Belize Meeting of Chief Medical Officers in May 1977, a decision was taken by the University of the West Indies to send representatives to the Meeting. It was soon made abundantly clear that the University of the West Indies wanted to remain meaningful in matters pertaining to health care in the community. It was proposed to change the curriculum in order to do this.

11. Of course, it is one thing to talk of producing a Caribbean-oriented doctor who will be motivated towards Caribbean expectations and details, by the shortening or lengthening of the curriculum to produce the type of doctor best suited for community medicine. This could be wishful thinking without joint planning on the part of both Ministry of Health and the University, because for success in community medicine one obviously needs in addition to well-motivated medical and nursing staff, a strong and diverse infrastructure comprising:

health visitors	psychiatric social workers
mental health officers	public health inspectors
child welfare officers	nutritionists

For these, provision must necessarily be made by the University in association with their medical schools. To fail to appreciate this is as remiss as expecting a secretary to function without stationery, although it is not uncommon to find a health team sent out again and again to the community without supportive staff and equipment.

12. The position in the Caribbean in general, and in Trinidad and Tobago in particular, is rendered all the more urgent because a decision has been already taken to set up in Trinidad and Tobago an additional medical school of the University of the West Indies. Now that the joint work of Health Ministries and Medical Schools has been recognised, meaningful plans can be elaborated for the general improvement of health care not only for the nation but hopefully for the region. The lessons learned in Trinidad and Tobago which may be regarded as having a foot in both camps, of developing and developed countries, may be of real value to the world as they set about meeting the challenges of the times.

November 1977

THE ROLE OF HEALTH MINISTRIES AND MEDICAL SCHOOLS

Background paper prepared by the Government of Western Samoa

Through the years, health has been regarded mainly as a physical condition of the individual and health care a private affair between the patient and the physician. Recently we have witnessed a welcome shift in perspective. Health is now viewed from the standpoint of the individual's total well-being to include not only the state of his body but also of his environment. The concept of the environment itself broad, for it covers both the physical environment and the social environment. This new perspective necessarily brings about a broader concept of health care. The individual is no longer isolated from the community to which he belongs, the concept is thus concerned with his community as well. In addition, the Government of Western Samoa has recently placed a great deal of emphasis on health care delivery to the rural areas. This is in line with the effort of the Government to give increasing attention to the welfare of those who constitute the bulk of the population.

2. The concern for health cannot be separated from our effort towards national development. Health may be seen as an end in itself and as a means to an end. In the context of national development, health is to be considered an essential investment in human capital. A healthy individual represents a potentially productive economic unit that can help propel our economic programmes.

3. An important aspect of our health care programme is health manpower development. Traditionally this task was reserved for the medical schools. The schools produce medical professionals by way of a long and rigid process. Normally it takes eight to nine years to produce a competent physician who may not even care to practise medicine in the rural areas. It is for this reason that attempts were made to channel doctors and nurses to the rural areas by making rural practice a requirement for conferment of professional status. In addition, the Health Department is proposing training programmes for paramedical personnel (medical assistants, primary health care workers etc.), designed to produce a level of competence suitable to the health needs in the rural setting.

4. The Department, aware as it is of the need for health manpower development for the rural areas, has responded in its own way to plan and will implement training locally of primary health care workers and medical assistants to produce a broad range of competence to meet the manpower need for rural health service. The fully-fledged doctors of medicine training overseas will act as consultants and overall supervisors of rural health service as well as working in the National Hospital which acts as a major referral medical centre for the rest of the country. Western Samoa does not have a medical school and relies mostly on overseas medical institutions in Fiji, New Zealand, Australia and Papua New Guinea for the training of fully-fledged doctors.

5. It is common sense to say that a training programme is only as good as the curriculum it prescribes. An irrelevant curriculum would most likely produce equally irrelevant competence. There is therefore a need to create a structure whereby the needs of a community are effectively monitored to the schools and to agencies concerned with the health manpower development, and more broadly to institutions whose main function is the delivery of health care services.

6. The community is not a static system. It is a dynamic system responding to a multiplicity of forces. The schools, including public or private agencies, must be sensitive to the changes occurring within the community. Training programmes, and more specifically the curriculum must be sensitive to the socio-economic and political realities in the community which in the final analysis, is the end user of the competence being fashioned by the programmes. Without this sensitivity training programmes would most likely float about in vacuum. Scarce resources would be wasted in the development of irrelevant health manpower.

7. Moreover, a thorough knowledge of the various forces operating with and in the community, including the specific responses of the community to the intervention of health care delivery programmes and personnel, would go a long way towards mobilising the resources of the community itself for the purpose of improving its quality of life.

8. The delivery of health care is not a matter of transferring goods from the producer to the consumer. Health is not, in fact, a kind of product or commodity. The input of the individual, or the community is very much a part of the entire scheme of health care delivery. This is the reason why the community is to be regarded as an essential variable whose nature must be fully disclosed to programme designers and implementors.

November 1977

THE ROLE OF HEALTH MINISTRIES AND MEDICAL SCHOOLS IN COMMUNITY HEALTH

Background paper prepared by the Government of Kenya

Medical school: to be or not to be

The establishment of a university faculty of medicine is considered to be a very expensive affair. This assertion has been used to delay or stop altogether the development of such institutions in many developing countries, apparently because of the cost in monetary terms. However, considering that human life in a healthy body is invaluable, the establishment of a university medical school should be argued on humanitarian grounds in the first instance, rather than on monetary. Clearly, excellence in the study and practice of medicine is of paramount importance to everyone. The basic approach to medical science may be similar in all countries, but the basic health problems of different regions of the world at any particular point in time do differ, making it important that these should be studied and researched in the environment of service. A good medical school keeps abreast of the rapidly-advancing health sciences and stimulates similar advances in medical practice.

The Nairobi faculty of medicine:

2. The Faculty of Medicine of the University of Nairobi is now only ten years old, having admitted its first students in 1967. In the previous two years by arrangement with the then University of East Africa in Kampala, Kenyatta National Hospital in Nairobi had had the opportunity to organise and undertake clinical tuition of medical students from Makerere, ranging from the third year to the fifth and final year, for periods of up to one academic year of their undergraduate studies. As there was no Faculty of Medicine in the University College, Nairobi, at that time, this exercise was undertaken by the Ministry of Health, without the academic attainment of the students being adversely affected. The establishment of the new medical school resulted more from the initiative of the Ministry of Health than from that of any other department.

3. When the Faculty of Medicine eventually came into existence, the University planners were well-motivated in their formulation of curricula and programmes of training, and took into account requirements specifically aimed at health services in a tropical African developing country like ours. Study of some of these subjects of peculiarly local importance, although not emphasised in metropolitan countries can be undertaken to the same academic pitch as is required for any subject in the universities of the world. Of particular significance in this context, the medical course was to be of more practical nature, with students starting to apply the theoretical knowledge learned at an early stage in their five-year course. Pre-clinical sciences and clinical subjects are studied together for longer periods, overlapping during the middle years of the course. Another significant innovation was the three month assignment of students to a 'training district' in the rural areas, where they participate in health centres' activities and also undertake applied research on selected health problems in a rural setting. This is part of the training in the Department of Community Health of the Faculty, which also increased the content of the behavioural sciences in the course programme.

4. Students are admitted into the medical course on successfully passing their East African Advanced Certificate of Education (EAACE) which is the equivalent of the GCE Advanced level, and the undergraduate course lasts five years. Starting with a first-year class of 27 students in 1967, admission rose to 105 new students per year by 1972. It is proposed to raise this first year intake to 125. Some of the first graduates of this medical school (in 1972) have already gone through their postgraduate degrees and early indications of evaluation of their work are tending to support the efficiency of this training.

5. Meanwhile, during the last three years, in close consultation with the Ministry of Health, the University of Nairobi has started degree courses for dental surgeons (BDS) and pharmacists (B.Pharm.) within the Faculty of Medicine. At present the annual intake to each of these courses is 30 students. There is also training for BSc Anatomy.

6. Postgraduate courses have been instituted for the degree of Master of Medicine (MMed) in general medicine, surgery, obstetrics and gynaecology, paediatrics and child health, and radiology (1977). Postgraduate training is carried out locally in pathology, dermatology and anaestheology, but candidates obtain their degrees abroad. There are postgraduate programmes also for the degrees of Master of Science (MSc), Doctor of Philosophy (PhD) and Doctor of Medicine (MD).

7. These developments have taken place in close collaboration with the Ministry of Health, and the courses done locally are important since they retain the talent of these postgraduate students within the service.

8. The Faculty of Medicine, with assistance from WHO, has undertaken the course for the Diploma in Advanced Nursing. It has also assisted in curriculum development and final examinations for laboratory technology.

Health services and the development of medical sciences

9. A developing country like Kenya can ill afford the luxury of rigid compartmentalisation of the use of meagre resources, from the same Treasury, in a field like health. Both the Ministry of Health and the University Faculty of Medicine are at one in giving the required health service to the people. The slight difference in the role of each is in the loading of the delivery of health services, utilising available personnel and current knowledge, on the Ministry, and loading the training of doctors and research for new innovative knowledge and means to the betterment of health delivery on the University. There is no dichotomy in the service role to society of both institutions. This need not occur in a discipline like health because the study of medicine is at the hospital bedside and among the suffering community, and not merely in the lecture theatres and the library. In the teaching hospitals both the government consultants and the university professors have clinical as well as teaching responsibilities.

10. It is natural and beneficial that university professors should participate in planning and decision-making forums of the Ministry of Health, and this is a much valued practice in Kenya. Similarly, it is a service requirement for doctors in the Ministry of Health to undertake teaching of their junior staff and students, while it is also desirable that they should also carry out research on health subjects of their choice. In fact, the revitalised Kenya Institute of Medical Research is utilising expertise from both sectors.

11. The education and training of para-medical and auxiliary medical personnel is principally a responsibility of the Ministry of Health but, apart from the Advanced Nurse Training Department which is within the Faculty, only a few individuals in the Faculty show a fringe interest in this. Realising the essential value of these non-university-trained cadres of health staff, allied to medicine and the medical auxiliaries, to the wider coverage of the delivery of the health services, one would wish to see an increased interest on the part of the Medical Faculty in these para-medical courses.

8 November 1977

THE ROLE OF HEALTH MINISTRIES AND MEDICAL SCHOOLS

Background paper prepared by the Government of India

The Ministry of Health, Central or State, is the ultimate authority responsible for all the health services operating within its jurisdiction and has to lay down and enforce minimum standards of health administration.

2. The Union Ministry of Health gives advice on health and allied matters, co-ordinates health programmes and policies, supplies technical information and equipment, and provides financial and other assistance towards health measures. Thus it mainly guides, assists and co-ordinates, while State Health Ministries, Corporations etc., implement the relevant programmes and policies. The Ministry of Health formulates national policies on health with the assistance of expert committees etc.

3. Policies for the maintenance, expansion and improvement of medical education are laid down in the context of the need for trained medical manpower, and in that context the capacity has been built up since independence, when there were 25 medical colleges, to 106 medical colleges today with an annual admission of over 12,500 students. The undergraduate medical curriculum has been restructured from time to time as a result of recommendations of various conferences of experts held to deal with the problems of medical education in the context of the needs of the country and various development programmes. The Medical Council of India is a statutory body under the Central Ministry of Health and Family Welfare (Department of Health) which lays down recommendations on curriculum, standards of education, examination, teachers, etc., for medical education both at under-graduate and post-graduate level, and ensures its maintenance through periodical inspections. The Council also maintains a register of qualified medical practitioners. The Central Health Ministry is guided by the advice of the Medical Council of India in according recognition (or de-recognition) of qualifications awarded by various medical colleges in the country, and also of equivalent foreign qualifications.

4. The involvement of medical colleges in the delivery of health care was formerly limited in scope, confined mainly during the 12-month period of compulsory rotating internship of which a specified period was required to be spent in rural areas.

5. As a result of recommendations made by the Shrivastava Committee in its Report (1975), on which a plan of action was drawn by the Central Ministry of Health and which was approved at the third joint meeting of the Central Council of Health and the Central Council of Family Welfare in April 1976, the scope of involvement of medical colleges in the delivery of health care has been widened. Implementation of the programme is to be carried out by State and Union Territories administering the colleges, and for this purpose the central Ministry of Health has laid down guidelines which are briefly enumerated below:

(a) The government medical colleges in the State will accept total responsibility for promotive, preventive and curative health care of at least three community development blocks in the district where the medical college is situated, in the first instance, and will extend total health care to the entire district in which the medical college is located, in a phased manner over a period of 3–5 years.

(b) Each medical college will evolve, with the active involvement of district hospitals, *taluk* hospitals, sub-divisional hospitals and primary health centres, a well-knit referral service complex.

(c) For the proper training of the undergraduate students in the rural health care programme, a phased programme will be drawn up so that the students get the opportunity to spend part

of their training time in district and *taluk/tehsil* sub-divisional hospitals and primary health centres.

(d) The training of undergraduate medical students will be re-cast within the integrated comprehensive health services complex, making provision in the time-table for posting in the rural areas where they will be actively involved in the services provided by the primary health centres and sub-centres. During the undergraduate period of training at least eight weeks annual posting in rural areas will be provided in the time-table. Each medical college will evolve a detailed training programme for the undergraduate medical students as well as the interns, which they will carry out during their rural postings.

(e) For the successful implementation of the total health care and improved training programme for the undergraduate students, the staff members for the entire faculty will be posted at primary health centres and sub-centres by rotation for sufficiently long periods. There they will be responsible for guiding the training of undergraduate students as well as interns, and will supervise the development and implementation of the entire health care delivery programme. It will also be necessary to organise a re-orientation programme for faculty members and health team personnel at each medical college.

(f) The services of district health personnel, doctors working in district hospitals, *taluk/tehsil* sub-divisional hospitals, civil dispensaries and primary health centres will be utilised for organising the undergraduate training programme. They will be given appropriate teaching status in the medical college concerned commensurate with their qualifications and field experience.

(g) The entire period of internship training will be spent in suitably up-graded district hospitals, *taluk/tehsil* sub-divisional hospitals and primary health centres. Depending upon the availability of facilities at the district hospitals, the number of interns posted to the medical college hospitals will be reduced.

(h) The medical college staff will extend their services to the fullest extent in the training of para-medical and other ancillary health staff required in the development of the delivery of health care.

(i) It is essential to collect the base-line data about the health status of the community concerned so that the impact of the entry of the medical colleges in the health care delivery system can be evaluated periodically. The information will be collected in demographic data, family planning, maternal and child health, nutritional status, communicable diseases (especially tuberculosis, leprosy and venereal diseases), parasitic infestation and immunisation.

(j) Each medical college will evolve a scheme for health care delivery systems in depth for a population of about 30,000. The experience gained from these experimental models will be utilised in extending in-depth services for the rest of the area in future.

(h) In order to motivate the students to their whole-hearted participation in the rural posting, a scheme of periodical assessment of the studies will be built into the programme. At the university level, the examinations will be so structured that stress will be laid on the assessment of knowledge gained by the students during the rural posting.

(l) To bring about the far-reaching changes in the present system of medical education and the health care delivery system, administrative machinery will be evolved for co-ordinated efforts and for providing official support for the field programmes by constituting co-ordination committees at State level.

6. Since the involvement of medical colleges in the delivery of health care is to be implemented in a phased manner, during the first phase in 1977–78, 25 medical colleges have been selected for the purpose. The Government of India Ministry of Health will provide to each medical college covered under the programme financial assistance in the nature of a non-recurring grant-in-aid not exceeding Rs.5 lakhs per medical college for meeting part of the non-recurring expenditure. All recurring and non-recurring expenditure in excess of Rs. 5 lakhs will be the liability of the concerned State Government or Union Territories administration.

7. There are 106 medical colleges in the country. Strictly speaking, only one medical college is under the administrative control of the Central Ministry of Health (Jipmer, Pondicherry). The All India Institute of Medical Sciences, New Delhi, is a statutory body established under an Act of Parliament and is wholly financed by the Central Health Ministry. The Postgraduate Institute, Chandigarh, is also financed by the Ministry of Health. The Lady Hardinge Medical College and Hospital for Women, New Delhi, is an autonomous institution administered through a duly-constituted board of administration, and is also wholly financed by the Central Ministry of Health. The Armed Forces Medical College, Poona, is wholly administered and financed by the Ministry of Defence at the centre. Ten medical colleges are under private bodies. All the remaining medical colleges are under the direct control of State Government, Union Territories, universities or local bodies.

8. Health *per se* — and so also undergraduate medical education — is a subject in the State sector. Maintenance of a uniform standard of medical education is ensured by the Medical Council of India which is a statutory body under the Central Ministry of Health.

CHANGING HEALTH CARE DELIVERY SYSTEMS

Paper prepared by the Commonwealth Secretariat

There is no question about the increasing emphasis that is being placed in most countries on providing health care facilities for all members of society. This new emphasis is reflected in the wide recognition of the need for an appropriate balance between institutional and ambulatory medical care, in the importance placed on prevention rather than treatment, in the acceptance of the health team concept as the basis for effective health care delivery, in the commitment by most Health Ministries to train a balanced mix of health professionals for redefined roles in redesigned health programmes, and in the acceptance of the need for radical reforms in systems of health planning and administration.

2. In the prevalent models of health care the facilities for treating the sick and the professional services with which they are associated are commonly located in urban areas where the minority of the population live. These same areas attract the graduates of medical and nursing schools, because their professional training has been geared to this level of medical care. It is also true that large numbers of people in urban centres may be inadequately served for reasons such as poverty, ignorance, inadequate motivation, lack of opportunities for community participation, and the fact that advances in medical technology often tend to make medical facilities more, rather than less, accessible to the majority of the population. The Colombo Medical Conference, with its emphasis on the health of rural communities, made a significant contribution to the plans of Commonwealth countries for broadening the basis of their health programmes. It is hoped that the Wellington Conference will provide added momentum in this direction.

3. The papers from member countries to this Conference lay stress on the need for a wider community orientation of medical services. This need was also strongly emphasised by the Minister of Health of the host country at the opening of the Conference of Women and Health held in Wellington in February 1977. "The New Zealand Government", he said, "is endeavouring to change the direction of the health juggernaut which, having spent its money well providing a public and private hospital service, must move out into the community where use can be made of everybody who can contribute. Doctors, nurses, physiotherapists, health assistants and other paramedical people must move out into the community. It is essential that our services be reorientated and that the money available for health services is wisely spent".

4. Factors of importance for effecting change in national health care delivery systems include:

- (a) health manpower training policies;
- (b) local planning, administrative and executive capacities in the health field; and
- (c) the level of popular and political support that can be mobilised for the promotion of national health plans.

Health manpower development

5. Health manpower production is undoubtedly a crucial element in national health programmes. The training of health professionals can no longer be allowed, as is often the case, to proceed independently of the quantitative and qualitative needs of communities. The requirements for closing the gaps between training goals on the one hand and health service requirements on the other will vary from country to country. The problems that are common to the majority, however, are:

- (a) the low priority which is so often given to health in national development programmes;
- (b) insufficient numbers of appropriately trained personnel at all levels, but particularly at the intermediate level; and
- (c) a general lack of training standards and of criteria based on local needs.

6. There is still too commonly the assumption that improved health care means more doctors and more nurses, trained along traditional lines to carry out traditional roles in systems of health care designed elsewhere. Another factor that contributes to the quantitative problems is the migration of qualified health manpower, which is itself also a subject for discussion at the Conference.

Health planning and administration

7. Improvements in the health of communities will be largely determined by the adequacy of the local planning and executive capacities. Health plans must not only be kept within the country's technical and economic capabilities but must also be relevant to its needs. It is here that the concept of self-reliance assumes particular importance. Models copied from elsewhere do not necessarily provide the right solutions for local health problems.

8. The responsibility for instituting the appropriate changes clearly lies with individual Governments. The difficulties that will be encountered by them in the initial stages are likely to be attitudinal and psychological rather than practical. New approaches, rather than new knowledge or more resources, are needed. The approaches involve, for example, the assumption of fresh attitudes to planning, rather than just new plans, and greater flexibility, adaptability, innovation and independence of thought than have been customary in the past. In addition, it happens all too often that Ministries of Health and other government planning agencies are so busy with the immediate task of carrying on the administration of present health service programmes that they cannot find the time required for the successful prosecution of new approaches and initiatives.

Popular and political support

9. Insofar as community health is a matter of national policy, the responsibility for it must rest with the government of the country. Before appropriate programmes can be launched, many basic changes need to be introduced in existing health systems in most countries. In this connection the Secretary-General of the World Health Organisation has pointed out that "in the final analysis, political decisions will have to be taken in many countries if they wish to institute the extensive reforms required to define sound goals for health, to formulate pertinent health policies and to translate these policies into programmes and services", and experience has shown that it is only by the positive involvement of individuals and communities themselves in such programmes and services that they can be effectively implemented.

10. Relevant questions, therefore, are:

- (a) How best can political decision-making in health be influenced in member countries?
- (b) What are the requirements for the effective involvement of individuals in community health programmes?

Practical measures

11. The Governments represented at the Commonwealth Medical Conference will be all too familiar with the arguments in favour of improving the health of communities, and further repetition is hardly needed. What need examination are the practical measures that can be taken to achieve these objectives. How precisely can the community itself be brought to share the responsibilities for promoting the health of the individuals that comprise it? What modifications of its food and nutrition policies are needed? How can the activities of medical schools and other health education agencies be more precisely channelled towards national health goals? What is the design of the national health plan? Is it economically and technically feasible? What are the actual steps that need to be taken to mobilise the national resources necessary for its implementation? What changes are required in the administrative arrangements for health care delivery? These are some of the pragmatic questions with which most countries must now be concerned.

A Commonwealth Secretariat contribution

12. It is towards practical initiatives that the resources of the Commonwealth Secretariat may be best directed. A useful initial Secretariat contribution might be the provision of a consultant whose central function would be to assist individual countries and Governments, on request, in setting up, co-ordinating and monitoring the progress of national health manpower production and health administration programmes, especially at the intermediate management level. In addition, he could ensure continuing exchanges of knowledge and views of relevant health issues among member states.

13. The consultant's terms of reference might fall under three main heads: national, regional and inter-regional.

(a) *National* – He would visit Commonwealth countries on request and:

- (i) assist Ministries of Health, medical schools and other manpower training agencies to ensure that their health manpower training and health administration programmes are as effective as possible and closely related to local needs;
- (ii) advise on the appropriate committee structure and methods for providing continuity of planning and action with respect to any decisions that are reached; and
- (iii) make follow-up visits and devise appropriate evaluation procedures for the methods adopted.

(b) *Regional* – In order to help the promotion of maximum economy and mutual assistance in the use of health personnel within regions, he would:

- (i) assist Health Ministries, local universities and health agencies to identify individuals in the region whose skills could be used on a regional basis;
- (ii) advise on and help to establish appropriate regional training programmes; and
- (iii) seek to identify opportunities for promoting continuity of action, methods of evaluation and other relevant functions at the regional level.

(c) *Inter-regional* – His role here would be to:

- (i) advise on the co-ordination of health training and administration programmes between regions; and
- (ii) identify areas for inter-regional collaboration and initiatives.

13. In all this he would emphasise the practical measures that might be adopted by Health Ministries, universities and other health agencies in planning new approaches to health care delivery.

5 October 1977

CHANGING HEALTH CARE DELIVERY SYSTEMS

Background paper prepared by the Government of Australia

This paper sets out briefly some of the reasons why Australia in its current stage of development has the health care delivery system it actually does; discusses the problems associated with changing such a system to make it more responsive and appropriate to the health care needs of the population; and traverses some aspects which may be considered relevant in planning for, and administering, appropriate health care delivery services in countries which do not have an entrenched health care delivery system.

History

2. Historically, formal health care as we know it in Australia today originated in the religious hospices in Europe and the Middle East where members of religious orders gave succour to pilgrims and other travellers. Over time these hospices expanded their work to care for the “needy poor”. As knowledge of disease processes increased, the hospices became centres of learning and research. Consequently, hospitals assumed an increasingly important role and status in the community and eventually replaced religious institutions as places of special importance. Likewise, as medical practitioners succeeded in conquering major killers such as infectious diseases, they also achieved an elevated status and mystique — indeed often supplanting religious leaders who had been pre-eminent in society until the twentieth century.

Australia today

3. Australia has inherited a hospital-oriented health care delivery system dominated by medical practitioners and focused on curative medicine. This mode of health care delivery has grown largely unrestrained, with the consequence that several aspects of the nation’s health and well-being have received inadequate attention. For example, work aimed at avoiding the use of costly curative medicine resources by, say, improving community-based support services, preventive and health education programmes, has consisted mostly of unco-ordinated studies and ad hoc “trial” projects which have met with limited success.

4. The need for improvement has been recognised particularly in the mental health area where, in Australia, there is now a significant trend towards prevention rather than cure. In this area, active community-based support services are being developed to enable people to return to full participation in our society at the earliest opportunity, rather than the more traditional approach of residence in a mental hospital.

5. In recent years, cost of health care delivery has risen astronomically. The proportion of Australia’s gross national product has risen from 4 per cent to almost 8 per cent in the last 15 years, and Australians are spending on “health” some 20 per cent more in real terms than they were ten years ago. Yet the health status of Australians, as measured by average life expectancy, is marginally worse than a few years ago. This, together with other factors, has led to an increasing pressure to evaluate effectiveness, efficiency and quality in our health care delivery systems. It is obviously essential to ensure that such pressures do not increase health care delivery costs with little or no improvement in system quality or effectiveness as, for example, has been alleged about the PSRO systems in the USA.

6. To counteract this, it will be necessary to rethink some of the basic premises and assumptions on which our health care delivery systems have been based. There will be a consequent need to develop imaginative alternatives to many aspects of our present systems. This process will be a slow one because of the enormous investment in health care delivery resources already committed (e.g. facilities and manpower, as well as consumer expectations).

7. Despite the large problems in an entrenched health care delivery system, effective planning and management of a nation's health resources must be introduced because the health of its people is any nation's most valuable resource.

The innovation problem

8. As in most countries, and perhaps fortuitously, there are always constraints on innovative action. They at least ensure that action taken is less likely to be precipitate and more likely to meet the unfolding practical needs of the situation. A logical long-term plan able to be adjusted to unexpected factors would seem the desirable goal.

9. Australia is a federation of six States and has two major Territories, and its constitution, agreed to by each of the State Governments and enacted through the Parliament in Westminster, has transferred certain prescribed functions to the Federal Government. In health care delivery this has resulted in State and local authorities autonomously operating most health care delivery services. The Federal Government is primarily involved in contributing to the funding of these services through the general revenue sharing and loan arrangements and, in addition, it contributes through specific programmes to support special areas such as the construction of hospitals and the development of community health services in the States. Its responsibility as regards the direct provision of health services embraces health services for the Territories and certain specialised services such as the Commonwealth Pathology Laboratories, and reference services such as Australian Radiation Laboratories, Australian Dental Standards Laboratories and the National Biological Standards Laboratory. In addition, the Federal Government directly provides health services in connection with certain welfare programmes, and for members and ex-members of the armed services, utilising generally the health services in the community, except for Veterans' hospitals.

10. Because of the federal nature of the political system, and the resultant pattern of responsibility for health care as outlined, national plans concerning health care are general in nature and expressed in political terms, and as such are subject to revision against the evolving political scene. A similar situation exists to a varying extent in each of the six autonomous States, but the practical requirement for each State to have effective on-going health services means that practical expression in terms of health care resources is given to the generalised statements on health care.

11. A further constraint to innovation stems from legislation which, over the years, has entrenched the tasks and roles of existing occupational groups, together with the concomitant expectation of patients and clients that members of certain occupational groups provide certain types of services. For example, medical practitioners are traditionally, and legally, regarded as those responsible for diagnosing health problems and prescribing treatment. The community seems gradually to be coming to the view that the role of the ancillary and helping professions can well be expanded to more closely affiliate with that of the medical practitioner in a co-ordinated "health care" team. This is probably especially so in mental health problem solving.

12. There is also the significant constraint against innovation existing in the traditional public accounting systems. The inbuilt checks and balances of these systems do guarantee against dishonesty or failure to utilise funds as directed by Parliament, but they carry the collateral factor or rigidity in application. An element in this traditional system of accounting is the appropriation of funds on an annual basis and funds remaining unspent at the end of the fiscal year are returned to consolidated revenue. Private industry in some respects can afford to allow flexibility where it wishes to accept the risks involved.

13. The Federal Government has allocated funds for the purpose of making Health Programme Grants to assist in the development and evaluation of alternative forms of health care delivery and of procedures to foster cost containment.

14. We are hopeful that new stratagems for funding health care operations, particularly the large scale hospitals, may be developed which, while falling within the broader parameters of statutory fiscal accounting requirements, will more effectively contribute to better management of resources. In particular, we hope that arrangements will be developed to foster flexibility in the allocation of funds within the institutions and acceptance of responsibility in the utilisation of

such funds by those in charge of discrete areas — e.g. areas of medical specialisation — and provide incentives in the form of reallocation of portions of savings to projects nominated by the areas effecting such savings.

15. In a broader perspective, longer-term changes in the health care sector of the community will obviously respond in terms of policy evolution to the social, technological and legal requirements reflecting community aspirations and mores.

Implementing innovative change

16. The difficulties of implementing change in the health industry do not differ basically from those in any other industry; they just vary in magnitude. The key to change is people — people who have spent many years consolidating particular behaviour patterns in the delivery of health care.

17. Lasting change in the delivery of health care in Australia, as elsewhere, can only be achieved if the changes become part of the *normal* behaviour of health care providers. If this change in behaviour does not happen, and the innovation does not become part of their work life-style, then its effects will remain only as long as the innovator keeps up the pressure. Once the innovator leaves the organisation or loses interest, then the changes produced will disappear.

18. Often, the people affected by such “temporary” changes become disillusioned with innovation, resistant to future attempts at innovation, and consequently the organisation (and its patients) are worse off than they were before the attempted innovation. For these reasons change in behaviour is unlikely to succeed if it is imposed from outside the health care delivery system — as it would be in the case of legislation being used to impose a particular form or practice of health care delivery.

19. If change is to succeed it is axiomatic that providers in the health care delivery system perceive that there is a benefit to them in any proposed change. This does not necessarily mean that money itself will be an incentive for such behaviour change. Incentives may include such things as providers having “a greater say in their own destiny and way of providing health care”, or “almost complete autonomy within an organisation and being able, say, to retain savings made on agreed budgets in order to provide a higher quality service”.

20. Similarly, consumers of “health care” will probably need incentives, and education in new or alternative forms of health support or delivery. Also they may need reassurance that their health will be safeguarded in such changed systems.

Planning for, and administration of, change

21. The crucial role of all levels and types of health authority, in making changes for the improvement of health care delivery systems, is that of a catalyst. This can be achieved by the authorities seeking legislative changes which assure an environment which encourages improvement and innovation, and which provide incentives for, and recognition of, innovative change. These changes would, of course, seek active participation of providers (and consumers) in identifying problems and areas of unmet need, in developing and evaluating alternative strategies and policies, and in implementing changes to health care delivery systems identified in this process. Also embedded in this process would be the development and promulgation of effective “national” health plans and policies, which in a federal system involves a need for a high degree of co-operation and consensus.

22. Thus planning for change to existing health care delivery systems (or design of new systems) needs to have these factors as a central theme. This is so that systems are in fact responsive to evolutionary change as future needs appear, and also so that these plans can be managed in a way which facilitates rather than prohibits or regulates.

23. This involves a revolution in thinking about health and health care delivery systems. Such a revolution in thought will be vital if our health care delivery systems are to evolve in a responsive way, rather than automatically remain in entrenched traditional practices which do not necessarily reflect present demands or perceived future needs.

CHANGING HEALTH CARE DELIVERY SYSTEMS

Background paper prepared by the Government of Cyprus

It is true to say that even in the case of the more advanced countries the health care delivery systems are the result of continuous evolution and that in many of these systems we can discern the more recent changes in the system which have been superimposed on the older infrastructure.

2. In the case of Cyprus, the system has evolved gradually, hand-in-hand with the changes in the economic and social system and the political changes, especially those that have taken place since Cyprus's emergence as an independent state in 1960.

The existing system: a brief description

3. The present health care delivery system is a two-pronged one. We have on the one hand the public health services providing a full range of medical services and applying on a long-term and sustained basis various measures in the field of public health (sanitation, etc.). On the other hand, we have the private medical services, which have a complementary role and are utilised mainly by the more well-to-do section of the population. It is estimated that the health care needs of about 75 per cent of the entire population of Cyprus are met by the public health services.

4. Health care services are admittedly very costly and sometimes the cost is prohibitive even for the richer members of the community. It is therefore absolutely essential to apply the principles of social justice with regard to the sharing of the cost involved. The system in force in Cyprus takes into account these principles. Thus, persons with a low family income (lower and middle classes), persons displaced from their homes (about 200,000, or 40 per cent of the population), civil servants, policemen and publicly-assisted persons enjoy medical care services at government hospitals and medical institutions either entirely free of charge or at nominal charges. Other persons who can afford to pay and who make use of the public services are charged fees at rates which are generally lower than those in the private sector. The organisation of the system is broadly as follows.

5. At community or regional level, primary health services are provided by general practitioners, dentists, pharmacists, midwives, nurses and health visitors based on rural health centres established in population centres and covering the communities of the area. The team is also responsible for providing preventive school health services. There is also a public health inspector in the area responsible for sanitation work and other public health activities which are a joint responsibility of the central Government and of the local authorities. Patients needing further investigation or hospitalisation are referred to district hospitals or to the Nicosia General Hospital.

6. In each district there is a government general hospital which offers health services in all basic specialities. At the apex of the public system, there is the Nicosia General Hospital which is both a district hospital and a referral hospital for certain specialised services, such as haemodialysis, radiotherapy and neurosurgery, which are not provided by other district hospitals or the private sector.

7. The private sector of medicine operates mainly in the urban areas. There are private clinics for both in-patient and out-patient services and also a number of family doctors and dentists.

8. Responsibility for the operation and development of the system rests with the Ministry of Health which also exercises supervision over, and provides guidance and help to, the non-governmental part of the system.

Objectives and main strategies

9. Health development ranks very high in the overall five-year development plans of Cyprus and has full support at all national levels. Health development receives full support from all political quarters since it is recognised that the attainment and maintenance of a very high standard of health is not only a means to attaining further economic progress but also an end in itself — a condition which ensures personal happiness for the individual and the community.

10. The long-term objectives as set by the Cyprus development plans in the field of health are to attain a high standard of health services so as to be able to offer the best possible medical care and attention to all citizens and to continue to implement an effective programme of preventive medicine and hygiene so as to minimise the incidence of disease. These two objectives have been pursued consistently through the implementation of appropriate measures and projects which may be summarised under three main headings:

- (a) expansion and improvement of hospital buildings and equipment;
- (b) quantitative and qualitative improvement of health personnel;
- (c) institutional and organisational changes which were considered to be essential for attaining long-term objectives and specific targets.

11. It is with deep regret that it must be mentioned here that the Turkish invasion of Cyprus which took place in July–August 1974, the tragic consequences of which are very well known, disrupted the economic and social conditions of Cyprus and halted the progress of the Cypriot people towards a higher standard of living and welfare. Ever since the invasion, the Cyprus Government has been implementing emergency programmes in an effort to revive the economy and to ensure the survival of about 200,000 Cypriots who were forcibly displaced from their homes and work-places by the forces of invasion. In the field of health, the services concerned have been fully mobilised and redeployed in order to meet emergency problems such as the threat of epidemics and the delivery of health care to the displaced and needy persons who had to be accommodated in temporary camps under living conditions which would shock the conscience of any reasonable human being living in the second half of this century. The rapid readaptation of the public health system in response to the new demands posed by the emergency conditions created by the Turkish invasion has made it possible to afford adequate health care services to about 70–80 per cent of the population (as against 40–50 per cent in the pre-invasion period) and to prevent the outbreak of epidemics and the occurrence of serious diseases.

12. In so far as the improvement of hospital facilities is concerned, over the past ten years there has been a gradual increase in hospital bed capacity and an increase in hospital and medical equipment of all kinds, and this has strengthened the armamentarium at the disposal of the government health services. The demands have not, however, been fully met and plans have been prepared for a phased development in this field.

13. With regard to health personnel, the number of doctors and dentists in Cyprus is sufficient and will increase in future. The present proportion is one doctor to one thousand of the population and one dentist to three thousand. Cyprus has no medical or dental schools; Cypriots are studying medicine and dentistry in other countries. Nurses, midwives, health visitors and health inspectors are trained locally and the intake is based on anticipated needs. Other para-medical personnel can be easily recruited since many Cypriots receive training overseas in various fields, including laboratory technology, radiography and physiotherapy.

14. Staff development is pursued through five-year training programmes drawn up on the basis of requirements in the various fields. The training envisaged is usually postgraduate or postbasic, and efforts are being made to finance it under scholarships made available within the framework of bilateral or multilateral technical assistance programmes. The Government of Cyprus has decided to go ahead with the establishment of a university in Cyprus which will include a faculty of medicine. When this project materialises, Cyprus will become self-reliant in basic health manpower.

15. Concerning institutional and organisational changes, there are three main areas in which reform is planned.

16. The first is the reorganisation of the central services of the Ministry of Health so as to ensure better planning, more effective follow-up of development and routine activities of operational units and, generally, an improvement in the quality of administration.

17. The second is the strengthening of the rural health services which provide primary health care. New rural health centres and community health clinics are being planned, and existing ones are being strengthened by posting additional staff and increasing the range of basic equipment. A cottage hospital will be established soon in a mountainous area as part of an integrated development plan for this area. The significance of these programmes lies in the fact that primary health care will be provided as far as possible nearer to the home of the patients and that health services in the rural areas will be provided on a more rational and integrated basis. Other developments are the recent introduction of a school health service and the establishment of geriatric homes in the near future.

18. Thirdly, as a means of achieving the long-term objective of providing the best possible health care to all the citizens and in conformity with the principles of social justice, the Cyprus Government is studying the question of introducing a general state-controlled scheme for the delivery of medical care, which will replace the existing schemes of the public and private sector. The introduction of such a scheme will lead to quantitative improvements in the services to be provided, it will have a broader coverage with regard to persons eligible for health services, it will enable the maximum possible utilisation of all available resources, public and private, and it will provide for a more equitable sharing of the costs which medical care involves. Such a scheme will inevitably entail organisational and institutional changes which will arise mainly from the linking of the private sector of medicine with the public health services which will operate the scheme. It is envisaged that at some stage of the studies already undertaken, experts from overseas will be needed in order to make available to the local study-group advice and guidance.

5 September 1977

CHANGING HEALTH CARE DELIVERY SYSTEMS

Background paper prepared by the Government of New Zealand

In the past there has been little co-ordinated health manpower planning in New Zealand. Training policies were left largely to the various health professions and organisations who operated independently, often without adequate information and without necessarily taking account of the needs of the total health service. This situation still exists in several areas and it is difficult to change deeply entrenched customs and practices where it is imagined that jealously guarded autonomy may be threatened.

Health manpower training policies

2. In these circumstances changes of attitude are slow, but steps are being taken to remedy this by introducing integrated manpower planning. There is increasing involvement of public agencies in professional training, which should eventually enable training policies to be more closely aligned to health service requirements and community health needs.

3. A small manpower planning section was set up within the Management Services and Research Unit of the Department of Health. Its functions are to develop and maintain a data base (using annual questionnaires) covering all professional and technical staff involved in health care, to forecast manpower requirements to meet defined planning objectives, to suggest measures to ensure that existing manpower resources are used effectively, and to liaise with groups involved in the recruitment, training and deployment of health manpower.

4. A workshop on medical manpower was held in 1976 to examine the existing situation, to develop an integrated plan and to advise on the information systems and studies needed for such planning. The workshop prompted interest in the broader aspects of health manpower planning and subsequently there were similar exercises on nursing and community medicine.

5. The output of most health worker training programmes has increased in recent years so that New Zealand's problems are shifting to distribution (geographical and in certain health specialties) rather than to numbers. Also the "brain drain" which was previously a serious problem shows signs of lessening with the increasing availability of postgraduate medical education and apparently greater numbers of health service personnel throughout the world. In looking at the potential roles for health personnel, emphasis is now on encouraging team work and on the use of allied health professionals in the community.

Planning and administration

6. In the absence of formal planning systems, in the past health has been subject to cyclical political initiative and professional and public pressures. However, although the need for a philosophical approach and for the definition of both long and short term objectives are recognised, it has become clear that, without an organisational structure which ensures that planning, setting of objectives and the evaluation of progress can be carried out, the problems of New Zealand's health system will continue to be tackled from the fire-fighting perspective.

7. To these ends, a Special Advisory Committee on Health Services Organisation has been established to consider and advise on total health services. Very broadly, it is hoped to develop a service with options acceptable to both major political parties and sufficiently flexible to allow desirable innovation and change. It is proposed that there be a decentralisation of authority with the retention of strong central guidance, that popular support be mobilised by ensuring greater community knowledge of and participation in health planning, that health administrators be recruited and trained and be given scope to exercise their expertise.

8. A pilot scheme for a reorganised and decentralised health service is already under way. This involves the establishment of a health board, with elected and appointed members, responsible for ensuring the provision of public-funded health services to (and defined by) the area concerned but also working within national guidelines. The management of the public sector services will be provided by a small group using group decision-making (where appropriate) and involved in the actual health care delivery. Each main type of health care service will have a service development group, chosen from the providers of that service, to plan its development taking into account its public, voluntary and private components. Means of ensuring wider community participation in the scheme are being investigated. The area health board itself will study plans and recommendations, taking account of national guidelines, and will allocate its own priorities.

National support

9. In 1976 the Task Force on Economic and Social Planning reported on the need for planning, trends and influences to be considered and mechanisms to be used on a nationwide scale. This report led to the establishment of the New Zealand Planning Council, with steering committees on economic efficiency and flexibility, regional planning and development and social and cultural development (which includes health). In general terms it is the council's function to initiate a process of widespread consultation in order to formulate plans for the economic, social, cultural and environmental development of New Zealand. Its major aim is to help co-ordinate planning in the government, local authority and private sectors and to advise on medium-term and policy options. The findings of other advisory, planning and development committees at government and other levels affect health planning to a greater or lesser extent and these are necessarily considered in reaching decisions on health planning and development.

10. Health planning and administration is particularly susceptible to movements inherent in a cyclical political system and to variations in the economy. The structure of and emphasis on health services in New Zealand has been closely studied under both the major political parties and the structure presently evolving is based on the results of these studies and the aim for wider community involvement.

28 September 1977

CHANGING HEALTH CARE DELIVERY SYSTEMS

Background paper prepared by the Government of Ghana

That the system of health care delivery inherited from colonial powers and those currently used in the richer and developed countries are not appropriate to local conditions is well recognised in Ghana. There are therefore projects centred at Danfa Health Centre near Accra, being conducted by the University of Ghana Medical School in collaboration with the University of California, Los Angeles, and in the Nkoranza/Techiman and Wenchi Districts, being undertaken by the Ministry of Health in collaboration with the World Health Organisation, to develop low-cost primary health care delivery systems most appropriate to local conditions in Ghana. Both projects are focused on the development of rural health care delivery systems that ensure maximum population coverage in general and community participation in the solution of local health problems in particular.

Health manpower training policies

2. There is at present nothing that one could describe as a national health manpower policy or health manpower development programme. However, in the light of the unmet current health needs of the population and the need for the development of alternative approaches to the strengthening of health services, a task force has been established to study the health manpower problems and to submit its findings together with appropriate recommendations for the formulation of health manpower policies and a health manpower development programme. It is envisaged that the task force will complete its assignment by the end of November 1977.
3. In this regard, it is perhaps worth mentioning that the Institute of Development Studies at the University of Sussex has recently concluded some studies in primary health care in Ghana in collaboration with the Ministry of Health and the Institute of Statistical, Social and Economic Research of the University of Ghana. It is envisaged that the findings of the studies will have some influence on future health manpower policies, particularly in the field of primary health care.
4. The need for self-reliance in health manpower development is fully recognised. The Ministry is consequently pursuing policies and measures that will promote the achievement of this objective. Training programmes are therefore being developed locally and expanded to promote the training of adequate numbers of the right type of personnel required for the effective and efficient delivery of health services. All categories of nurses, including nurse educators, are now trained in the country. Specialised post-basic nursing training programmes (e.g. for theatre nurses, ophthalmic nursing, nursing administration) are also being developed locally. In order to get these training programmes properly organised, key personnel are selected and sent to train outside Ghana as trainers.
5. The School of Medical Sciences of the University of Science and Technology, Kumasi, plans to train not only doctors but other health professionals like microbiologists, biochemists and medical entomologists as well. There is also a programme for the training of public health engineers in the same university; this programme is receiving WHO support.
6. For doctors, the University of Ghana Medical School has initiated post-graduate medical education and training programmes in collaboration with the Ministry of Health. Currently, the programme is restricted to the fields of general surgery, general medicine, paediatrics, and obstetrics and gynaecology. The first part of the programme is done in Ghana and then the students proceed to Britain to complete their training. It is however planned to run the whole programme locally in due course, and to start training in community health and other disciplines

soon. A programme in dental surgery has also been started. Currently the students go to Nigeria and Britain for the rest of their studies after completing their pre-clinical studies locally. Here too, it is proposed to run the entire course in stages in Ghana as resources improve.

7. As part of the policy of self-reliance, technical co-operation with the English-speaking West African countries is being vigorously pursued. Thus training facilities are made available to persons from countries where facilities are lacking or inadequate.

8. In the search for alternative approaches for the strengthening of the health services particularly in the rural areas, serious consideration is being given to the training and utilisation of non-health personnel and also to the identification of new roles for health personnel. Thus a start has been made to use the traditional birth attendants for maternal health services. Health aides are being used on an experimental basis in one district. The roles of teachers, agricultural extension officers, community development staff and other field workers for primary health care are also being explored in one district. Whatever models and systems are developed and found appropriate will be replicated in other parts of the country.

Planning and administration

9. With the help of USAID, a National Health Planning Unit is in the process of development and it is proposed that as early as possible, similar units will be established in the regions of Ghana. From the experience and the lessons learnt from the establishment of the unit, it has become clear that a unit of the type being developed can succeed only if maximum emphasis is placed on the training of nationals in various aspects of planning and health services development, and also if maximum use is made of the services of local as well as external consultants with the requisite expertise. The need to establish the unit arose from a recognition of weaknesses in policy formulation, decision making, planning, implementation and evaluation of health programmes within the system.

10. Promotion of the strengthening of the capacities of the health services for the planning and management of programmes at all levels is therefore ranked very high in priority in the Five-Year Health Services Development Plan which is currently being implemented. This plan forms an integral component of a National Five-Year Development Plan due to be completed in 1980.

11. As part of the activities for strengthening the capacities of the health services for planning and management, short courses in administration for senior health personnel have been initiated in collaboration with the Ghana Institute of Management and Public Administration (GIMPA) and the West African Health Secretariat. In order to be able to properly evaluate the impact of these policies and measures, a system for monitoring progress towards these objectives is being developed.

12. The organisational structure and functions of the health services are also currently under review with a view to the development of health services administrative system most appropriate to local conditions.

National support

13. The Government fully realises the importance and inter-relationships between health and socio-economic development and therefore accords high priority to the health sector in the overall development plans. This has been achieved largely through the support of Commissioners (Ministers) of Health and the Ministry of Economic Planning. Support has been won largely through formal and informal discussions, meetings, consultations and exchange of views on various issues of national and international importance.

14. There is still however one thorny problem or obstacle to be overcome and that is the shifting of emphasis from curative and hospital-oriented services to health promotive and protective services, thereby arriving at a true and proper balance between curative, preventive and rehabilitative services. From the progress so far made, there is considerable encouragement that it will not be long before this problem is overcome.

28 September 1977

HEALTH MANPOWER PLANNING IN BOTSWANA

Background paper prepared by the Government of Botswana

Over the past decade since independence, health manpower has been receiving special attention in Botswana. It has been realised that planning to meet manpower needs must be done early. Hospitals can be built in months; it takes a decade to train a doctor. Throughout the world hundreds of unstaffed hospitals, unmanned sanitary posts and deteriorating water supply systems stand as monuments to dismally inadequate manpower planning. What is unique about professional medical manpower is that it is essential under all conditions for the protection of society's investment in all other human skills. Let a good engineer, a physicist, a wife, teacher or even a mother of small children fall ill or die and the nation has suffered a loss in its real wealth. In developing countries many deaths can usually be traced to the lack of a physician or one of the allied medical personnel. Thus the final answer to our questions is that medical manpower has a unique role in preserving society's investment in its future.

2. In the early years following independence, Botswana followed the past colonial practice of ad hoc training of staff. The training of nurses had been established in the country and was continued. Medical aides continued to be trained on the job. Doctors and other professionals were sent abroad, as in the past, for training.

3. Long before independence a cadre of health workers in Botswana called medical aides or dispensers were in use in the country. Documentary evidence states that the earliest were four African orderlies in 1925, before the advent of nurses. They performed nursing duties, dispensing and consulting patients. They operated in the small and remote villages. These medical aides largely acted as substitute for the doctor in some areas in Botswana. The available records show that from 1926 to the present time the doctor/population ratio has varied between 1:30,000 and 1:13,000, as shown in the following table:

Doctor/population ratio in Botswana: 1926–1976

Year	Population	No. of doctors	Doctor/ population ratio
1926	150,185	6	1:30,030
1936	262,756	12	1:21,896
1946	296,310	11	1:26,936
1956	454,098	15	1:30,273
1963	528,000	24	1:22,000
1964	546,000	26	1:21,000
1965	559,000	23	1:24,310
1966	580,000	21	1:27,619
1970	648,000	27	1:24,000
1976	725,500	54	1:13,435

Source: Figures extracted from Botswana Annual Reports and WHO Statistics Annual

4. In 1970 the Botswana Government set itself a target of one doctor per 14,000 of population by 1975. From the foregoing it is obvious that we do not have a sufficient number of doctors to perform the duties they are supposed to perform at present. The question we are faced with is: is it possible to arrange for some other member of the health team to take over this responsibility?

5. This contention is further strengthened by the fact that a closer look at our out-patient department attendances shows that on average the bulk of them are for minor attendances which could easily be handled by auxiliaries or health assistants. This would mean that the doctor would see only those cases which he would deal with effectively and where his skill could be suitably used, the rest having been screened off and dealt with by a medical auxiliary able to refer back to the doctor when necessary.

6. In accepting such a principle we have the idealised structure of our manpower likened to a pyramid in which a relatively small number of highly trained professionals are supported by a large number of middle-level health workers, who in turn rest on a larger base of trained auxiliaries and other personnel.

7. In doing this we appreciate that the volume and quality of health services produced depend on the efficiency with which doctors work rather than on the total numbers, and that the focus in our planning must be on what is done rather than who does it. The question to be asked is not "How many doctors are necessary to meet the nation's health needs?" but "How many nurses, technicians and auxiliaries are necessary to make the nation's doctors optimally effective?"

8. This principle is being carried into the nursing field as well. Accelerated Rural Development of 1972 saw the expansion of health services into the rural areas. Targets were set to erect 180 health posts and 90 clinics by 1978. Staff development and training had to keep pace with this expansion.

9. In addition to the already-established training programmes for registered nurses, midwifery training, enrolled nurse training, health assistants, dental therapists, and nurse anaesthetists, Botswana is planning to embark on the following new courses of training in the future.

Public health nurse training

10. This programme commenced in 1970 and to date 17 public health nurses have been trained in Botswana. This, however, is far short of the target of 120 public health nurses required to man our clinics, health centres and hospitals; at this rate it will take a long time to reach our targets. The Government therefore feels that the only way to obtain the required number of public health nurses is to train them locally in conjunction with the University.

Nurse tutor training programme

11. This programme was commenced in 1969, but it has proceeded at a snail's pace for the following reasons. At first there were no nursing candidates with a Cambridge background who could enter universities for nurse tutor training. Lately, although there are now a good number of nurses with Cambridge qualifications to enable them to undertake this training, it has proved extremely difficult to procure places for these candidates in neighbouring countries as these also require tutors of their own. We have been sending one nurse a year to the University of Nairobi since 1969. All told we have four tutors who have qualified from Nairobi, two are at present studying in Nairobi and four more are studying in the United States.

12. The demand for tutors in Botswana has increased. The National Institute and the four enrolled nursing schools are being extended because of the large number of nurses required by the country. At present we have 16 established posts for tutors on the N3 scale, but only three are held by Botswana. We have forecast a need for 25 tutors by 1981. This target could never be reached at the rate of one a year sent to the University of Nairobi. The Ministry has had discussions with University authorities and Ministry of Education to admit nurses to the School of Education as from 1974. These girls will follow a B.Ed(Nursing) course lasting three years. The annual intake will be ten.

Family nurse practitioners

13. In development of the sentiment expressed earlier — what is important now is not the post but who can be trained to do the work — plans are afoot in Botswana to commence a course for family nursing practitioners. The course will prepare nurse graduates to evaluate the patients' health needs, diagnose health problems, seek solutions to health problems, plan health care, implement the care through treatment and evaluate the success and or failure of the care given. Successful candidates will be posted to clinics, health centres and out-patients departments of hospitals. This, we hope, will give nurses added skills in diagnosing and treating patients. This decision was taken following the realisation that our nurses are already running most of the clinics and health centres in the country and are assisted by periodic visits of doctors. They are therefore taking on the tasks of doctors.

Dental nurse tutors

14. An agreement will shortly be signed between our Government and USAID involving the training of dental nurse tutors. These tutors will be used to train dental therapists in sufficient numbers for the country's needs. A small number of dental therapists (at present two) are currently being trained every year. The dental therapists are currently employed mainly in preventive work in children. They provide preventive and promotive health care, diagnose dental problems early and initiate treatment.

Health administration and planning

15. At present the bulk of administrative work in Botswana hospitals is handled by matrons and medical officers in charge. They are assisted by clerical or executive officers who are experienced in medical administration, but no formal training plans have reached an advanced stage for training in hospital administration. Initially, this training will now be carried out in conjunction with the Institute of Development Management and will prepare candidates for a diploma, the course lasting a year. The candidates will be chosen from our present cadres of higher executive officers and school leavers with the Cambridge certificate. It is hoped that candidates will also come from Swaziland and Lesotho.

Family welfare educators

16. This cadre of worker has been experimented with in Botswana since 1970 and their function has been mainly educative. The Botswana Government Paper on Rural Development in Botswana states: "By the increased use of such auxiliary personnel resident in the villages, it will be possible to establish community-based health care, with a continuing relationship between the providers of health care and their clients". These family welfare educators are chosen by the villagers themselves, so that the women who come for training are known and respected by the people of their home villages, to which they return after a 12-week training course. The applicants must have had primary school education and must be mature.

17. Initially the training received by family welfare educators consisted of short four to five-day courses on the following topics:

- (a) family welfare (social and welfare aspects) — housing, home economics, community relationships, nutrition, baby care and the family as a unit;
- (b) principles of community development work — skills, personal relationships, co-ordination of efforts, and the community development officer as planner, supervisor, teacher and co-ordinator;
- (c) family planning and national development.

This was supplemented by a monthly course on:

- (d) the family and its welfare — home, children, immunisation, education;

- (e) the family and nutrition – balanced feeding, good cooking, breast feeding;
- (f) human reproduction and family planning – anatomy and physiology, gestation, family planning.

18. The purpose of this training is to achieve some of the objectives outlined. The general ignorance of the majority of the people about sound health practices causes much unnecessary hardship and many avoidable illnesses, and seriously restricts their capacity for work. In particular, there is a great need for education in sanitation, family planning, ante-natal care, child care and nutrition. It is considered an educational and motivational training exercise, to create a better understanding of health, and also of the soundness of family planning, demonstrating its relationship with various aspects of living (social, health, economic).

19. Family welfare educators, as their name implies, educate people on family welfare in general. Thus they are instructed on a wide variety of topics. They are taught nutrition, health education, communicable diseases, homecraft, first aid, public health, gardening and poultry keeping, community development and development studies.

20. After completing their training the family welfare educators are posted to villages where they operate from health posts. Here they make home visits for malnourished children, tuberculosis cases and family planning clients. Some give cooking demonstrations during home visits and give general advice. Some also visit schools, hospitals and women's groups.

21. Two in-service courses are held each year for all family welfare educators. Initially these were conducted at the central training centre, Denham, but in recent years they have been arranged regionally.

22. The yearly intake for training of welfare educators has been increased from 60 to 90. There are 300 family welfare educators in the country at present.

23. Family welfare educators have been accepted by all health workers in Botswana. Initially, however, there was some resistance on the part of some professionals who were sceptical of their value and also a feeling of resentment that this new cadre would perform some of the tasks that were traditionally performed by professionals. This has happily changed and the public are clamouring for the training of increased numbers of family welfare educators. With the advent of the concept of primary health care another look is focused on family welfare educators with a view to broadening their scope.

28 September 1977

CHANGING HEALTH CARE DELIVERY SYSTEMS

Background paper prepared by the British Government

Effective delivery of health care requires a framework within which communication and collaboration between the health professions and the necessary supporting services can be achieved. The nature of the framework may vary from a wholly government-managed organisation to one which is wholly in the private sector. This note reflects the arrangements which exist in the United Kingdom where, despite the existence of some private provision, facilities generally are provided by the National Health Service (NHS).

2. When the NHS was established in 1948 it inherited not only a very mixed stock of hospitals but also traditional principles of organisation and practice formed over generations. Some of the old hospitals have since been replaced, many are still in use. Some of the traditions still stand, others have been questioned, modified or even overturned. One underlying principle which has not been affected, and which is not peculiar to the UK, is the tradition of clinical freedom, the principle that a doctor's duty is to secure for his patient the treatment which his clinical judgement determines will best serve the patient's needs. Another is a well established view of the role and function of each profession, and of each category of supporting staff, working in the health service. Systems of management and of planning must be sensitive enough to cope with the task of reconciling deployment of resources, which are never equal to all the demands upon them, with the expectations of the public and of the professions.

3. While the NHS is a national service, health care needs are not uniform throughout the country. Systems of management, of planning and of resource allocation need to take account of local conditions and local interests. From 1948 until 1974 the NHS had three constituent parts – hospital services managed by Regional Hospital Boards and local Hospital Management Committees, community health services provided by local authorities, and general practitioner services, medical, dental, pharmaceutical and ophthalmic, provided by members of the health professions in an independent contractual relationship with local Executive Councils. Reorganisation of the NHS in 1974 was designed to integrate its three parts, so as to improve communication between them and make possible more comprehensive planning of the use of resources and to establish a structure which would facilitate co-operation with related services provided by local government (which was reorganised at the same time in England and Wales).

4. These considerations led to the establishment of a system of management by regional and area health authorities, including members of local authorities, served by teams of officers drawn from the main health service disciplines who, at official level, manage by consensus, and supported by an extensive web of professional and staff advisory committees and by community health councils representing the patients' viewpoint. Family practitioners remain in an independent contractual relationship with Family Practitioner Committees established by area health authorities.

5. The system of planning within the NHS needs to involve a wide range of interests at local and regional level and to provide a means by which national policies and priorities can influence regional and local planning decisions while local and regional views of what is desirable and practicable can in turn influence national policies. The central department accordingly issues annual planning guidelines setting national policies and priorities within stated resource assumptions. The regional authorities give guidance similarly to their area authorities who review and bring up to date at least once every four years strategic plans and prepare annually rolling three-year operational plans. Regional authorities in turn submit regional strategic plans to the centre and each year prepare a planning report reviewing progress towards their strategic goals. The central department discusses these plans and planning reports with the regional authorities, monitoring both response to national policy guidance and progress towards objectives. It also takes the regional strategic submissions and planning reports into account in reviewing its planning guidance.

6. Expenditure on the health services is planned in the Government's annual review of the total public expenditure programme over a five-year period and allocations are confirmed annually. In recent years almost 11 per cent of public expenditure — just under 6 per cent of GDP at factor cost — has been for this purpose. Nearly one quarter of this allocation is taken up by contractual expenditure on family practitioner services, the running costs of special hospitals and other centrally financed services. The remainder is allocated to regions and areas for hospital and community health services on an objective assessment of relative need which takes account of population structure weighted by national rates of use of particular services by each age and sex group modified by standardised mortality ratios. History has left a very uneven distribution of health provision which the Government is committed to repairing as quickly as is possible without damage to important existing services. Planning is accordingly directed at rationalisation and geographical redeployment of services, as well as at redeployment of resources, to meet changing needs as the age structure of the population and the pattern of morbidity changes and as new developments take place in techniques of prevention or treatment.

7. Redeployment and rationalisation of services, particularly where they require closures of health facilities, affect both the careers of staff and the convenience of patients. This is recognised in the very full procedures for consultation with staff and local interests which are laid down for strategic plans generally and for proposed closures in particular.

8. A Royal Commission on the National Health Service, appointed in 1976, is studying the best use and management of the financial and manpower resources of the Service.

9. Standards and content of medical and nursing education are determined by the professions through the General Medical and General Nursing Councils. The scale of provision of training is determined in the light of forecast needs and resources, including the need to provide training and experience for doctors and nurses from other countries and the need also to reduce the dependence of the NHS on staff from overseas. Administrative and clerical staff numbers have in recent years expanded in considerable measure to relieve medical and nursing staff of duties for which their skills are not required. New roles are developing particularly for nursing staff, for example in primary care and family planning.

10. The Government, despite the financial constraints of recent years, has continued to increase in real terms the funds allotted to the NHS and is well aware of its special needs. Ministers have encouraged the Service for its part to seek out every possible way of securing better value for money in the use of the funds allotted.

25 October 1977

CHANGING HEALTH CARE DELIVERY SYSTEMS

Background paper prepared by the Government of Canada

An introduction to background papers prepared by the Government of Canada is contained in document CMC (77) Gen/1.

HEALTH MANPOWER TRAINING POLICIES

2. Canada's health manpower training policies are described in the background paper prepared for Agenda Item IV: The role of Health Ministries and medical schools, issued as document CMC (77) IV/B5.

PLANNING AND ADMINISTRATION

3. It is important to keep in mind that most aspects of health care in Canada are within provincial, rather than federal, jurisdiction. A "national" health plan is, therefore, a somewhat inappropriate concept in this country, since a true "national plan" would have to be a composite of ten provincial plans, with the addition of federal objectives.

4. Nevertheless, the Royal Commission on Health Services in Canada (1964) provided a conceptual basis for health services in Canada which probably represents fairly well the objectives of most provinces.

Health Charter for Canadians

5. Part of the report was its "Health Charter for Canadians":

"The achievement of the highest possible health standards for all our people must become a primary objective of national policy and a cohesive factor contributing to national unity, involving individual and community responsibilities and actions. This objective can best be achieved through a comprehensive, universal Health Services Programme for the Canadian people,

IMPLEMENTED in accordance with Canada's evolving constitutional arrangements;

BASED upon freedom of choice, and upon free and self-governing professions and institutions;

FINANCED through prepayment arrangements;

ACCOMPLISHED through the full co-operation of the general public, the health professions, voluntary agencies, all political parties, and governments, federal, provincial and municipal;

DIRECTED towards the most effective use of the nation's health resources to attain the highest possible levels of physical and mental well-being.

- (1) "Comprehensive" includes all health services, preventive, diagnostic, curative and rehabilitative, that modern medical and other sciences can provide.
- (2) "Universal" means that adequate health services shall be available to all Canadians wherever they reside and whatever their financial resources may be, within the limitations imposed by geographic factors.
- (3) "Health Services Programme" consists of legislative enactments and administrative arrangements to organise comprehensive universal health care including prepayment arrangements for financing personal health services introduced in stages. Such a programme will provide complete health care with due regard to human factors and the spiritual, social, economic and regional forces intrinsic in the Canadian way of life.
- (4) "Canada's evolving constitutional arrangements" take into account the primary jurisdiction of provincial governments with respect to health matters including staging, scope and administration of health services, as well as the necessity for federal financial assistance to enable each of the provinces to implement a comprehensive, universal Health Services Programme.

- (5) "Freedom of choice" means the right of a patient to select his physician or dentist and the right of the practitioner to accept or not to accept a patient except in emergency or on humanitarian grounds.
- (6) "Free and self-governing professions" means the right of members of health professions to practise within the law, to free choice of location and type of practice, and to professional self-government. With respect to "institutions" it means academic freedom for medical, dental and other professional schools, and for hospitals, freedom from political control or domination and encouragement of administration at the local level.
- (7) "Prepayment arrangements" means
 - (a) financing within a province by means of premiums, subsidised premiums, sales or other taxes, supplements from provincial general revenues; and
 - (b) by federal grants taking into account provincial fiscal need.
- (8) "Full co-operation" means
 - (a) the responsibility of the individual to observe good health practices and to use available health services prudently;
 - (b) the responsibility of the individual to allocate a reasonable share of his income (by way of taxes or premiums or both) for health purposes;
 - (c) the methods of remuneration of health personnel — fee-for-service, salary or other arrangements — and the rates thereof should be as agreed upon by the professional associations and the administrative agencies and not by arbitrary decision, with an appeal procedure in the event of inability to agree;
 - (d) the maintenance of the close relationship between those who provide and those who receive health services, safeguarding the confidential nature of that relationship;
 - (e) the provision of educational facilities of the highest standards and the removal of financial barriers to education and training to enable all those capable and desirous of so doing to pursue health service careers;
 - (f) the adequate support of health research and its application;
 - (g) the necessity of retaining and developing further the indispensable work of voluntary agencies in the health care field;
 - (h) the efforts to improve the quality and availability of health services must be supplemented by a wide range of other measures concerned with such matters as housing, nutrition, cigarette smoking, water and air pollution, motor vehicle and other accidents, alcoholism and drug addiction;
 - (i) the development of representative health planning agencies at all levels of government, federal, provincial, regional and municipal, and integration of health planning."

A new perspective

6. A decade later another important Federal Government statement on health care policy, "A New Perspective on the Health of Canadians" (1974), reflected the advances which had been made in achieving the goals embodied in the "Health Charter for Canadians" and also a new perspective on the relative merits of various approaches to further improving the health of Canadians. That working document noted:

"The evidence uncovered by the analysis of underlying causes of sickness and death now indicates that improvement in the environment and an abatement in the level of risks imposed upon themselves by individuals, taken together, constitute the most promising ways by which further advances can be made.

Accordingly, it is the intention of the Government of Canada, first, to maintain at a high level the services and support provided through its present activities in health protection, research and the financing of personal health care. To these will be added measures directed at specific national health problems, chosen in consultation with provinces, consumers, professions and associations according to their gravity and incidence, and aimed at removing or reducing the factors underlying sickness and death.

Some of these measures in time will no doubt be directed at environmental factors, others will be directed at lifestyle risks, still others will expand the horizons of health research, and yet others will encourage more personal care services to neglected parts of the Canadian population. In every case the measures will be based upon the expressed interest and concern of all those who contribute to the health of Canadians, including in particular the people themselves.

Since direct health care is already consuming some seven per cent of the wealth that Canadians produce annually, it is evident that the rate at which the Government of Canada can expand its activities in the field of health is severely limited by financial considerations. It is also true that measures directed at the prevention of illness will take some time before they are translated into savings in the costs of providing curative health services.

These two factors make it imperative that the measures developed in consultation with provinces, professions and associations be chosen with great care, and with due regard for the costs and benefits that

can be anticipated. In choosing the measures, consideration will be given to a number of factors, among which will be:

- (1) the gravity of the health problem;
- (2) the priorities of those who share in decision-making;
- (3) the availability of effective solutions, results of which are measurable;
- (4) the costs involved; and
- (5) the multiplier effect of federal initiatives in marshalling and accelerating support from all those who make vital contributions to raising the level of health or who have a key role in controlling the cost of health services."

7. In addition to these federal reports, most provinces have produced one or more "policy papers", "plans" or "task force" reports which essentially constitute a "health plan" for the province, and generally these documents are conceptually in harmony with the objectives described here.

Regionalisation of health service planning

8. As noted in the introductory paper, the responsibility for health planning in Canada lies mainly with the provinces. Perhaps the most controversial current "trend" in health services planning is that of regionalisation of planning and/or management of services.

9. Most health policy-makers in Canada agree that crucial decisions about health care delivery should be made at the regional or community level, with the emphasis on meeting the needs of a geographic area (usually one containing at least 100,000 people). In theory this approach would result in:

- (a) better co-ordination — since the possibilities for melding the various components should be greater when carried out at the community level than when attempted by provincial ministry head offices hundreds of miles away;
- (b) better identification of specific local needs;
- (c) more appropriate health promotion and prevention programmes — since needs vary greatly (e.g. highly industrialised communities versus rural areas);
- (d) better rationalisation of system — local people better able to judge appropriate priorities when economic constraints are necessary;
- (e) greater acceptability of decisions to community.

10. Despite all of these conceptual advantages, regionalisation of planning has been difficult to achieve. Wherever it has been tried it has so far failed to meet expectations. There have been great difficulties in determining *how* to organise a regional body: the appropriate "catchment area" is often difficult to determine, since it may cross municipal and even provincial political boundaries; the question of how such bodies should be chosen has been difficult — with both appointment and election processes apparently being fraught with problems; the question of how the bodies should be staffed has not been resolved; and it has proven difficult for provincial ministries to actually decentralise *decision-making*, so that regional planning bodies continue to be *advisory* bodies only. The momentum of the existing system is so great that it is very difficult for *any* group to influence it — much less one with no financial authority.

11. It appears that if existing regional planning bodies are to become more effective and the process is to be extended, they must be more adequately staffed and must be provided with an adequate information base for long-term planning and resource allocation.

Review of health services administration

12. The most detailed review of the administration of health services in Canada was undertaken in 1969. This review was commissioned by the Conference of Health Ministers of Canada and its report was entitled "Task Force Report on the Cost of Health Services in Canada". Despite its title, the report dealt with many administrative issues beyond simply the costs of care and many of its 337 recommendations for improvements in the administration of services were directed to efficiency, effectiveness and responsiveness of the services to patients' needs.

13. That extensive review and others which have been undertaken, both nationally and provincially, have described so many deficiencies that it would be impossible to enumerate them all. Fortunately, most of them are relatively minor, and there are concerted efforts everywhere to improve the efficiency of the administration of services. The more significant deficiencies which have been identified include:

- (a) while 300 beds is generally considered to be the minimum size for efficient hospital operation, 62 per cent of general hospitals have less than 100 beds. Moreover, the smallest hospitals often have very low occupancy rates (this problem is extremely difficult to resolve where small hospitals are serving rural communities);
- (b) over-utilisation of general hospitals (resulting, in part, from over-supply);
- (c) insufficient centralisation of services such as laundry, meals services, laboratories;
- (d) unnecessary utilisation of diagnostic tests;
- (e) inadequate supply of well-qualified managers for health care programmes;
- (f) information systems which are inadequate for planning and management purposes;
- (g) less than one-half of communal water supply systems are fluoridated.

14. Revisions considered appropriate include:

- (a) positive incentives (mainly financial) to communities to substitute more appropriate types of services for acute hospital care;
- (b) continued constraints on hospital construction and limitation of highly specialised programmes and diagnostic equipment to tertiary hospitals;
- (c) incentives in hospital budgets designed to increase productivity;
- (d) education of physicians *and public* to make more appropriate use of diagnostic tests;
- (e) mandatory fluoridation of community water supplies;
- (f) expansion of occupational health services.

15. Clearly these strategies are only a small selection from the many which might be employed to improve the organisation and administration of Canadian health services. These strategies have been implemented to a greater or lesser degree in various provinces, have proven to be at least partially effective, and are politically and economically feasible in most, if not all, provinces. Taken together, along with the recommended improvements in health manpower policies, they would, over time, lead to substantial improvements in our health services.

NATIONAL SUPPORT

16. Canadians spend approximately seven per cent of their GNP on health care. Clearly it rates as one of their highest political priorities at both federal and provincial levels. The extensive health insurance programmes and the large supply and broad range of services available are indicators of the high level of support for health programmes. Recent opinion surveys have also indicated a high degree of public satisfaction with their health services.

October 1977

CHANGING HEALTH CARE DELIVERY SYSTEMS

Background paper prepared by the Government of Sri Lanka

In Sri Lanka the state assumes the responsibility of providing health care to the people and has adopted a very liberal policy with regard to the development and expansion of the health services throughout the country.

2. The responsibility of providing health care to the people lies with the Ministry of Health, through its two departments:
 - (a) the Department of Health Services — providing services based on the Western system of medicine;
 - (b) the Department of Ayurveda — providing services based on the indigenous traditional system of medicine.

Department of Health Services

3. The Department of Health Services, headed by the Director of Health Services, functions through three fairly independent sub-systems under three deputy directors:

- (a) the medical services;
- (b) the public health services; and
- (c) the laboratory services.

Additional deputy directors are charged with the functions of general administration and planning. Several technical and non-technical assistant directors assist the deputy directors at central level.

4. Since 1954 the administration of this department has been decentralised with a view to securing the maximum efficiency at a minimum cost, and bringing the administration closer to the officers at the periphery. Accordingly, sixteen health divisions in the charge of superintendents of health services have been established. The superintendents of health services are responsible for the co-ordination of the curative and preventive services in their divisions.

5. Through the years, the curative and the preventive services have developed as two separate and distinct divisions, supported by the laboratory and other ancilliary services, with integration at various levels.

6. The medical services, representing the largest part of the government Western sector, meet the demands of the population for medical care through a network of medical care institutions ranging from provincial hospitals, base hospitals and district hospitals to peripheral units, rural hospitals, maternity homes, central dispensaries, branch dispensaries and visiting stations.

7. The delivery of public health services to the community is through a network of 102 health units in charge of medical officers of health. These units are further divided into 770 ranges of public health inspectors (PHII), averaging eight PHII per health unit, and 2277 public health midwives (PHMM) areas, averaging 23 PHMM per health unit. Thus the basic working units in public health are: the PHMM areas for family health and the PHII ranges for environmental sanitation and the control of communicable diseases. The peripheral organisational unit of the public health services is the office of the medical officer of health.

Department of Ayurveda

8. The Department of Ayurveda, directed by the Commissioner of Ayurveda, is supplementing the existing allopathic system. The Government of Sri Lanka gives encouragement to the development and expansion of the indigenous or ayurveda medical system. In addition to the paid services given by over 8,000 registered ayurvedic practitioners in the private sector, free indoor and outdoor treatment is provided at the ayurveda teaching hospital, Colombo, and five other ayurvedic hospitals situated in various parts of the island. Outdoor treatment only is provided at four government ayurvedic dispensaries and at 252 ayurvedic dispensaries managed by the local authorities with grants received from the central Government. An ayurveda research institute functions at Nawinna to undertake clinical, pharmacological and literary research. The ayurveda system is being further developed on three main fronts, medical treatment, medical education and medical research. The college for ayurveda training has been recently raised to university status. The siddha system of medicine, which is one branch of ayurveda system, will be taught at the siddha college in Jaffna, and the other sub-system, unani, in Batticaloa, which are the main areas for practice of these sub-systems.

9. The ayurveda manpower is being developed further on a systematic training programme basis, and action is being taken to register the unregistered ayurveda practitioners who would be eligible for registration. There are about 6,000 unregistered ayurvedic practitioners in Sri Lanka.

Planning and administration

10. The national five-year plan for socio-economic development includes a section declaring the intentions of the Government to improve the delivery of health services of the government sector. This forms the basis of the national health plan which provides for well-defined objectives and targets.

11. The function of planning is the responsibility of the planning and programming division of the Ministry of Health. From recent times the annual programming of the health services has been carried out according to the planning, programming and budgeting system (PPBS), which is believed to be a step towards rational health planning. Monitoring of progress towards defined objectives is effected by monthly and quarterly evaluation of programmes in terms of input/output analysis. There is, however, a need for identifying programmes and projects on a more rational basis than on the basis of the present administrative structure of the Ministry of Health.

Priority health problems

12. It has been determined that the priority health problems in Sri Lanka require an easy access of the population to the following basic health services:

- (a) family health services, including basic family planning techniques, ante-natal, natal and post-natal care of mothers, care of infants and pre-school children, including immunization and nutrition;
- (b) control of leading diseases, many of which are largely dependent on environmental factors;
- (c) basic medical care services which provide for referral of patients, where necessary, to better equipped hospitals.

13. None of the health care units in the existing health care system, based on independent systems providing curative and preventive services, provides services related to all three problem areas — family health, disease control and delivery of medical care; a great majority of peripheral medical care units (peripheral units, rural hospitals, central dispensaries etc.) are not concerned with the control of communicable diseases and few deal with family health problems; larger hospitals only offer treatment services for communicable diseases and are not concerned with primary prevention; no medical care is provided through the public health services; and ayurvedic practitioners do not participate in preventive health activities. In addition the selective utilisation of different health care units is prevented due to lack of an established referral system; as a result some of the larger institutions are over-utilised and smaller ones under-utilised.

14. The growth of the health delivery system in its present form, with lack of integration of the curative and preventive functions and the utilisation of personnel in inappropriate roles is unlikely to improve the provision of health services as it requires more resources than the country can afford. Several alternative measures have been suggested in order to adapt the present health care system to the requirements of the present and future priority concerns. These include:

- (a) the establishment of integrated health care units which will carry out basic health functions, both curative and preventive, under the guidance of qualified doctors working in integrated district hospitals and peripheral units — this would entail the training of doctors to undertake a new role with a public health bias;
- (b) the development of integrated central dispensaries functioning under the leadership of an assistant medical practitioner (a medical auxiliary) — these officers presently undertake only curative duties;
- (c) the utilisation of the public health midwife, who is the most peripheral worker in the present system, to perform all three basic functions at a level corresponding to her training, assisted by doctors and other health personnel working in integrated hospitals and peripheral units; and
- (d) the utilisation of traditional ayurvedic practitioners to carry out some of the basic health functions, particularly those related to family health and disease control.

15. Some of the changes envisaged above in utilising the most appropriate personnel for the development of an integrated approach to the delivery of health care are already being effected. In this context assistant medical practitioners who performed only curative functions are now provided with training in public health with an emphasis on family health and disease control; the public health midwife, trained to provide domiciliary maternal and child care services, is providing a variety of services under the Family Health Programme; traditional ayurvedic practitioners are being utilised more and more in non-traditional roles and are trained to provide basic family health services and assist in disease control.

Manpower training

16. For the effective delivery of health care Government has provided programmes of training for all important categories of health workers. Except in the field of postgraduate training of doctors, there is a great degree of national self-reliance in the training of these personnel.

17. The Ministry of Education and the Ministry of Health are jointly responsible for training health personnel. The Ministry of Education is responsible for training medical graduates and dental surgeons at the two medical faculties of the University of Sri Lanka, which also assist in training assistant medical practitioners and pharmacists. The Department of Health undertakes the training of all other health personnel at the schools for nursing, medical laboratory technologists, radiographers, physiotherapists and school dental nurses training of other supportive personnel is undertaken at the large provincial hospitals.

18. Training of public health personnel is carried out at the Institute of Hygiene, where public health inspectors, public health nurses and midwives are trained. Doctors undertaking public health practice are also offered a short orientation course at this institute.

19. In the past, training of personnel has been strongly biased towards hospital-oriented medical care based on the British pattern. This was particularly so in the training of doctors where undergraduate training was of little relevance to the needs of the country, and postgraduate training provided abroad, mainly in the United Kingdom, in highly specialised skills and techniques was often not appropriate for our needs. This has resulted in the reluctance of doctors to work in rural areas where little opportunity is provided for the practice of skills in which they were trained, and in the emigration of doctors to the more affluent countries where their skills could be more usefully applied.

20. One of the acute problems facing Sri Lanka is the exodus of trained manpower. The problem is particularly pronounced in respect of doctors, and less so in respect of certain categories of para-medical personnel. Government health institutions today function with a shortage of about 500 doctors, despite the fact that the two medical faculties have an annual output of around 225 doctors. During the past seven years about 800 doctors have emigrated, and nearly 150 doctors continue to leave the country every year. It would seem that the annual output of doctors from the medical faculties would be inadequate to keep pace with the country's requirements if the present health delivery system is to continue without change. With a view to remedying this situation changes have been made in the curricula of the medical faculties with the aim of producing doctors to meet local needs. More and more emphasis is now given to community health practice rather than to hospital based medicine; and students are exposed to rural health practice and family health work in selected field practice areas. The ability to work within limited resources and as members of a local health teams are some of the objectives of community health training.

21. Steps have also been taken to establish an Institute of Postgraduate Medicine to undertake training in all major specialities. In addition to retaining the services of trainees during their period of training, it was expected that this institute would produce the type of specialist who would be appropriately trained for local needs. Unfortunately little progress has been made in commencing training courses, as the Boards of Study, comprising specialists trained abroad, have expressed reluctance to commence training, presumably due to lack of adequate facilities for training.

22. As mentioned earlier, it is increasingly recognised that the category of worker known as the assistant medical practitioner, who is accepted by the community, is competent to deliver basic health care and could be entrusted with the provision of such care, especially in the rural areas. These officers now work under the supervision of doctors in some of the larger hospitals but work quite independently in some peripheral units, rural hospitals and central dispensaries. Training of this category of worker, which lasted one and a half years, was discontinued in 1967 with the expectation that with the increased output of officers from the two medical faculties these officers could be replaced by doctors. For reasons mentioned already, this expectation was not realised, and the training course has now been revived with modifications to meet present needs. The curriculum now includes training in relevant aspects of community health work and lasts for a period of two and a half years followed by six months internship.

23. With the recognition of the possible role of ayurvedic practitioners in the delivery of basic health services, the Ayurvedic Medical College, which undertakes the training of personnel, has now incorporated some basic Western medical disciplines, as well as certain aspects of public health, in the curriculum of training. Most ayurvedic practitioners are, however, traditional practitioners without formal training and steps have now been initiated to provide basic training particularly in the fields of family health and the control of communicable diseases.

24. Some experience has recently been gained in the utilisation of rural volunteers in the implementation of the Family Health Programme. This activity was initiated mainly to complement the activities of public health midwives in their roles as basic public health workers. The response has been extremely encouraging and steps are being taken to expand this activity which will entrust voluntary workers living in the community to assist in the delivery of basic health care. The Government also proposes to recruit about 1500 community health aides, whose functions would be somewhat similar to the volunteer health workers. It is envisaged that this type of worker would work very closely with the community to give basic advice and health care. It is expected that they would acquire adequate competence to deliver primary health care after a short course of training lasting for three months in: the control of communicable diseases; health education; maintenance of simple vital statistics; family health; school health work; environmental sanitation; nutrition; elementary medical care; accident prevention; first-aid and rehabilitation.

National support

25. Health occupies an important position in the Government's overall development plan. The development and expansion of the health care services has resulted in a substantial increase in the government expenditure on health from Rs.108 million in 1955 to Rs.397 million in 1976; the per capita expenditure on health has increased from Rs.12.37 to Rs. 23.76 during the same period. The present public expenditure on health represents about two per cent of the GNP and about seven per cent of the total government expenditure. The emphasis, however, has been for the provision of the more expensive curative services; the proportion of health expenditure allocated for the medical services is about 70 per cent whilst that for the public health services is only 21 per cent. Though it has been shown that much of the morbidity and mortality can be prevented by strengthening the public health services, thereby reducing the need for increasing expenditure on the curative services, the emphasis on strengthening the curative services has continued through the years due to public demand for such services.

26. Taking into consideration the priority health needs of the country, the present Government has declared its intention of improving the standards of health care and disease prevention, particularly in the rural areas where 80 per cent of the population live, by utilising both Western and ayurvedic systems of medicine. To achieve this objective it proposes to adopt the following course of action:

- (a) improve the medical care services in the rural areas by making available qualified medical personnel, and modernising and improving existing medical care facilities to make available prompt and efficient medical attention;
- (b) place greater emphasis on the development of preventive health services;
- (c) enhance family health services including family planning services;
- (d) establish an auxiliary service of semi-skilled community health aides to offset the deficiencies in the present health care delivery system;
- (e) give greater recognition to the ayurvedic system of medicine by improving the existing ayurvedic hospitals and establishing ayurvedic hospitals in every district, establishing medical herbaria to produce medical herbs for the manufacture of ayurvedic drugs, and recognising the importance of the role of registered ayurvedic practitioners in the delivery of health care services in the country.

4 November 1977

CHANGING HEALTH CARE DELIVERY SYSTEMS

Background paper prepared by the Government of Trinidad and Tobago

The health care delivery system in Trinidad and Tobago has as its objective the achievement of the maximum level of health by the population in the shortest possible time. Health programmes are therefore designed with this objective in view, but taking cognisance of the limitations of personnel, finance and hospital facilities. The system is dynamic and therefore subject to review, change and upgrading in all areas to provide a more efficient service to the population.

The present system: a brief description

2. The present health care delivery system consists of government health services, including general and specialised hospitals and health centres, supplemented by the private sector which provides mainly ambulatory care. The services provided by the Government are available practically free to the population. Private services are on a fee-paying basis.

3. There are four types of hospitals — general, county, district and specialist — which provide health services throughout the country. The largest general hospitals, besides providing specialist referral services, are also used as teaching hospitals of the University of the West Indies. The county hospitals provide short-term care, surgery, and medical and obstetric care. The district hospitals provide follow-up care treatment and geriatric care, and handle minor emergencies. In addition to the county and district hospitals, there are over 100 health centres located throughout the county. These health centres provide primary health care, delivered by either a physician or a registered nurse/midwife. Programmes executed in health centres include maternal and child health, family planning and immunisation, infectious diseases and general consultation.

4. At present the aim of the Ministry is to reduce the demand on the two general hospitals. This calls for the improvement and expansion of health facilities and manpower. The Ministry, in co-operation with the Inter-American Development Bank, has embarked on the construction of some 31 health centres and the World Bank is assisting in the construction of a new 100-bed maternity hospital. Seven new health centres, four with delivery units, have been completed and are in use in rural areas. A community health training centre has also been completed and is in use, and a new training school for professional nurses is also under construction.

Introducing change in health care delivery

5. The Ministry is aware that change is a function of the health system. It has therefore prepared itself to meet the challenges that emanate from changing health needs. In the light of this, the Ministry has placed emphasis on the extension of health care, with consideration being given to the economic and physical ease of attaining health care services, and the social accessibility of the services offered. Legislation has been enacted to allow the informal admission of mentally ill patients to psychiatric hospital and to facilitate the detention of acutely disturbed patients — yet preserving and ensuring the preservation of human rights and dignity. The upgrading of county and district hospitals is part of this philosophy of change. The upgrading and expansion of health care implies also the upgrading and expansion of manpower.

Health manpower training policies

6. Training of health personnel in the emerging para-medical fields, such as dental nurses, nurse practitioners and nursing assistants, is being carried out in addition to the traditional courses for nurses, public health inspectors and health visitors. A Medical and Dental Faculty is proposed for Trinidad and Tobago as part of the University of the West Indies, which will greatly expand our

perspectives, not only for training medical, dental and other categories of health professionals. The Government is also considering the establishment of a College of Health Sciences which will not only supply para-medicals for Trinidad and Tobago, but also for other West Indian islands.

Planning and administration

7. In Trinidad and Tobago there is a Central Planning Unit which co-ordinates the plans of the various parts of the public sector. The planning unit in the Ministry of Health is responsible for the formulation, supervision and implementation of projects. It serves as the secretariat to the ministerial committee which produces the national health plan. It is also responsible for the preparation and supervision of the current development programme of the Ministry.

National support

8. Health is an integral part of the national development plans. The Government has committed itself to the Ministry's health programme. The Ministry has received approximately seven per cent of the national budget for 1977. Popular support is mobilised for national health by using the resources of the media — e.g. newspapers, radio, television.

November 1977

CHANGING HEALTH CARE DELIVERY SYSTEMS

Background paper prepared by the Government of Western Samoa

Western Samoa's health care delivery system was commenced under the German administration of the country, continued under the New Zealand administration since 1914 and was taken over by the Western Samoan Government on the independence of Western Samoa in 1962. In essence the health care delivery system is a socialised system, in which the patient pays a small fee for service and medicines and in which the cost of the system is otherwise fully paid for by the Government through taxation.

2. The Department of Health is headed by a Director, responsible to the Minister of Health, and supported by a Deputy Director and chiefs of the divisions of public health, nursing services, national hospital, dental services, administrative and pharmaceutical services. Health care is delivered to the population through a system of district health services, headed by a district medical officer who is responsible to the Chief of Public Health and who is supported by district (public health) nurses, (hospital) staff nurses, a health inspector and nurse aides. Patients are seen in district hospitals as in-patients and out-patients; maternal and child health and family planning services are delivered through the district nurses, supported by district hospital services. Special disease conditions (tuberculosis, leprosy and filariasis) are dealt with through specialist units responsible to the Chief of Public Health and field follow-up work is carried out by district nurses under the district medical officer.

3. Western Samoa's medical officers are trained abroad; the majority of present graduates have attended the Fiji School of Medicine and only a few have graduated from New Zealand universities. There is a possibility of specialisation in certain fields under the New Zealand bilateral aid programme, and some of the Western Samoa medical officers have gained a higher degree through examinations under the said scheme, as well as through fellowship awards from the World Health Organisation.

4. Nursing training is provided through the Western Samoa School of Nursing, a section of the Division of Nursing Services of the Department of Health. Most nurses in Western Samoa have graduated in the country; a few have received their training in New Zealand under the New Zealand bilateral aid programme. On their return these nurses are in line for supervisory positions. Nurse aid training is mostly on-the-job training that is frequently followed by persons who failed their nursing examinations.

5. Dental officers have received training in Fiji and specialty training in other countries (New Zealand, Malaysia and England).

6. Assistant health inspectors have been trained in Western Samoa itself, with the aid of WHO personnel. From this cadre, promising individuals are sent to Singapore for full health inspector training, leading to a health inspector's diploma.

7. Other paramedical (radiology, health laboratory) staff receive their training abroad although in-country on-the-job training is provided.

DEVELOPMENT OF HEALTH SERVICES

8. The relevance of the present services can be considered in the light of the demand expressed by the community; of the need as considered by the community; and of the need, as considered by the Department of Health.

Demand for health services expressed by the community

9. In essence the demand for health services was expressed by the community in Western Samoa through the building of district hospitals and doctors' and nurses' residences near the hospitals through community initiative and funds. The community, through their parliamentary representation, remain quite vocal about their desire to have a medical officer available in the district at all times. The demand for services continues through the building of sub-centres in the districts, which the community expect to be staffed with registered nurses.

10. A dichotomy exists in the minds of the community, who, although they have built the district hospitals, are reluctant to be in-patients in these hospitals (for a variety of reasons) and prefer to come to the National Hospital in Apia.

11. The demand for preventive services is not expressed, although women's committees have adopted the district nurses' work as their special area of cooperation and carry this out most effectively.

The need for health services expressed by the community

12. Naturally, the need for health services is expressed in the demand for health services as described above. The level of sophistication of the community has not yet gone beyond the demand for immediate satisfaction of righting health matters gone wrong. The demand for more sophisticated services – cosmetic, services for the blind, services for invalids, speech and hearing therapy and others – awaits awakening through health education.

The need for health services as expressed by the Department of Health

13. The Third Five Year Development Plan (1975-1979) for Western Samoa provides for action in the Health Sector to:

- (a) improve the quality of all preventive and curative health services in Western Samoa;
- (b) strengthen the national structure of health services delivery, to render access to preventive and curative health care on a more equal basis to both the rural and the urban populations;
- (c) increase the awareness and the participation of the Samoan people in health promotion activities;
- (d) enhance the productivity of local, and aid, resources applied to health sector development.

14. Western Samoa's health planners recognise, however, that serious constraints will exist through the planning period, and impede efforts towards Third Plan goals. These constraints include a continuing shortage of trained health manpower in all categories, as well as a lack of sufficient material and financial resources to move forward at a level of effort fully commensurate with health care needs. Moreover, the steadily increasing costs of major health care inputs – imported medical equipment and materials and training for high-level health manpower – coupled with the steadily growing demand for health services, make these constraints more critical every year.

15. Conscious of this situation, the Department is aware that to achieve real gains in the health sector its more efficient longterm strategy will be to:

- (a) emphasise development of low-cost primary level health care, utilising less trained staff and less elaborate facilities to bear the major burden of health service delivery;
- (b) develop more costly specialised secondary-level health care, including inpatient treatment and personal attention by physicians, but only in proportion to the growth in volume of health care problems that are identified at the primary level and are too complex to be dealt with at that level.

16. However, insofar as the Third Plan is concerned, it is clear that the on-going Western Samoa National Hospital development programme (the re-building of the old Apia General Hospital with

aid from New Zealand) must be the major immediate health sector development activity. Nevertheless, in view of the Department's long-term strategy, this heavy investment in sophisticated health infrastructure will at the same time be tempered by an effort to at least maintain present development momentum in other programme areas (rural health etc.) during the Third Plan, as well as to build a foundation for accelerated progress in the years beyond.

Discussion

17. Although stated in 1975, in essence these aims still stand in September 1977. The Department of Health is aware that strengthening of peripheral health services is urgently needed. The constraints, however, remain the same as mentioned above. Strengthening of services at the primary level, however, is taking place and primary health care workers, both for basic medical care and for childbirth services (TBA's), are being trained. The latter programme is in a further advanced state than the former, although the former has received a strong stimulus during a recent national primary health care seminar which has opened up avenues for nationwide debate in village councils and women's committees. It is clear that the concept of primary health care is very attractive to the Samoan community and there is no doubt that the programme will find substantial support from the community at large. Although definitive policy on primary health care workers has as yet not been decided upon by the Government, the pattern of training village workers, chosen by the community, remunerated by the community and supplied by the Government, is slowly emerging.

18. A further sign of recognition of the need for change has been the Government's decision to hold a country health programming exercise for Western Samoa, in which it is assisted by the World Health Organisation. The first phase of the exercise, situational analysis, was carried out during November/December 1976, and a revised report was handed to the Government in August 1977. During June/July 1977, the second phase, formulation of the plan, was carried out and the draft working document, containing the basic recommendations for changes in the departmental structure and services, was handed to the Government in August 1977 also. The Government is now studying both documents, and discussions on departmental and (in the future) cabinet level should result in a comprehensive plan for the health services in Western Samoa. It is envisaged that this plan will fulfil the requirements laid down in the Third Development Plan 1975-1979.

November 1977

CHANGING HEALTH CARE DELIVERY SYSTEMS IN UGANDA

Background paper prepared by the Government of Uganda

Uganda, like many other former colonial parts of Africa was unfortunate in that when the first health care infra-structures were established in the country (mainly during the first quarter of the 20th century) they were hospitals and dispensaries catering mainly for curative or clinical disciplines. This became even more manifest when the first medical school was opened at the then Makerere College (now Makerere University) in 1923. Whereas all the major clinical and basic sciences disciplines were established right at the beginning, it was not until 30 years later (i.e. 1953) that the department of preventive medicine first came into existence. This then was the order of the day: treatment of individuals as they reported to medical centres.

2. With the establishment of the department of preventive medicine, a new horizon dawned on the health services of this country. Ugandans were sent to Britain for postgraduate training in public health, and at independence time there were several Ugandans with such qualifications to man the key administrative posts in the Ministry of Health headquarters and some of the administrative regions. Their impact on a re-orientation towards preventive services was however minimal. Even the first national five-year development plan lacked many crucial elements on prevention in the health sector. There was a considerable improvement on the second five year development plan with the erection of 23 new 100-bed hospitals and a commitment to the creation of one health centre per *gombolola* (sub-county), serving 6,000 – 20,000 population. This target still remains to date, but may not be realised soon owing to several constraints.

3. The introduction of a model comprehensive mobile national and child health service in Ankole District for the protection of the pre-school child was introduced with excellent results.

Third five-year development plan

4. The introduction of the third five-year development plan (1971/76) was even more encouraging, as greater emphasis was for the first time laid on preventive services than on curative services. The plan had as its main theme the prevention of diseases, better health care facilities and health promotion. The following services were listed as those on which considerable efforts and expenditure would be placed during the period: health education, maternal and child health, environmental sanitation, occupational health, communicable diseases control, medical care, and rehabilitation.

5. Meanwhile an important statutory step was taken with respect to vital statistics: the introduction of compulsory birth, death and marriage registrations, with the hope of obtaining more reliable data for health planning – a subject so much fraught with giving misleading results in most developing countries. Also, a commitment was made to provide medical records officers in all the country's major hospitals. Family planning became officially accepted by the Government.

6. The third plan also saw a new trend of looking at nutrition as a special subject warranting special consideration. Thus new nutritional rehabilitation centres were established in the country, to perform functions which had always been a prerogative of the main centre in Kampala (Mwanamugimu as it is known locally). Since nutritional diseases contributed to a high proportion of the 1–4 years age specific death rate (currently 40 per 1,000 population), the introduction of nutritional scouts at Kayunga (near Kampala) and Ibanda (in Western Uganda) during this period is evidence of a growing awareness that new approaches of tackling diseases at their root causes were necessary. The nutritional scouts mentioned are nothing but primary school-leavers who have been trained in their home villages in elementary principles of nutrition,

causes and simple signs of malnutrition, its prevention, and other common diseases usually associated with poor nutrition.

7. Meanwhile Kasangati Health Centre (Makerere University), established in 1959 for the teaching of community medicine, continued to provide useful health data as well as acting as a model health centre. It is remarkable that within its defined area infant mortality rate fell from 150–180 per 1000 live births to less than 30 (in 1976) over the years – an achievement indeed! Yet no replica of Kasangati health centre has ever been made in this country. It was erected and staffed with personnel which Uganda can ill-afford. Most of the demonstrations, and the number of staff, are what the young doctors or other medical personnel under training would never encounter during their future practice. The establishment for the Health Centre still stands as follows:

medical officer (resident)	1	midwives	6
administrative secretary	1	assistant health visitors	4
health visitor	1	nutrition assistant	1
nursing sister	1	record clerk	1
medical assistant	1	demographic scout	1
health educator	1	nursing aids	4
health inspector	1	laboratory assistants	2
health assistants	2	drivers	2
		others	6

8. Later a sister health centre at Wakiso, also near Kampala (the capital), was started in 1971 with aid from the USA (the chief coordinator, and hence most of the guiding principles having come from there), but with family health as the theme and special emphasis on family planning (which at that time was not recognised by the Government). The project was well staffed and equipped, with some of the vehicles being rare types and hence extremely difficult to repair owing to lack of spare parts. The following was the staffing position:

coordinator	administrative assistant
medical officer	field assistant
statistician	drivers (3)
sociologist	demographic assistants (4)
health visitors (3)	ancillary staff (4)
nursing sisters (3)	secretaries (2)

9. The project was based at the Institute of Public Health at Kampala. This necessitated commuting the 17 km. daily. The sponsors unilaterally withdrew from the country in 1973 following a new political change. Practically no financial resources were left to allow for a smooth transition during which the national Government could have absorbed the project within the existing financial resources. Inevitably the project faced collapse. Currently it is in a process of being revived.

Primary health care

10. With infrastructures of this nature – bulky, expensive and difficult to sustain or replicate elsewhere in the country – new avenues were sought for simpler but effective health units or systems which could cater for the majority population who live in rural areas (90 per cent of the population). To this effect a seminar on primary health care was organised in December 1976 by the Ministry of Health with the assistance of the WHO and UNICEF. The seminar was attended by health inspectors, health educators, health visitors, nursing officers from all regions of the country, administrators and representatives from the Faculty of Medicine (the Institute of Public Health and the Department of Paediatrics and Child Health). At least in Uganda, these are the persons and organisations facing real problems of the rural areas. Finally, the seminar recommended that the major public health problems of the country could be tackled more effectively only by simpler types of health personnel in the form of primary health workers who should come from amongst the people and also live with them. Their main health care function should be preventive in nature.

11. The selection, scope of training and conditions of service for primary health care workers were summarised as follows:

Selection

- (i) Selection should be done by the members of the community concerned.
- (ii) The primary health care worker should be selected from the same community.
- (iii) The educational standard should be from P. 7 to S. 2, so as to enable the workers to benefit from training and to be able to keep records and write short reports.
- (iv) The primary health care worker could be either male or female.
- (v) Age should be from 18 years upwards.

Training

- (i) Training should be done near the working area (i.e., health centre, school, district farm institute, community development centre etc.)
- (ii) It should be mostly practical and geared to the problems the worker will deal with.
- (iii) Initial training should last about 6–10 weeks.
- (iv) Periodical in-service courses should be organised to keep the workers up to date.
- (v) The training should be done by medical assistants, health visitors, health inspectors, etc., who will be supervising the work of the primary health worker.

Content of training

Primary health care workers should be taught elementary personal and community health, sanitation, control of diseases common in the area, health education, family health, simple diagnosis and treatment, first aid treatment, referral system, record keeping and report writing.

Duties and responsibilities

- (i) Health education; nutrition education.
- (ii) Home visiting; assisting in immunization programme.
- (iii) Follow-up.
- (iv) Giving simple first aid treatment.
- (v) Referring people for medical treatment.
- (vi) Improvement of sanitation.
- (vii) Giving advice on growing food.
- (viii) Promoting community development.
- (ix) Keeping records.
- (x) Writing reports.

Allocation in working areas

There should be from 1–4 primary health care workers per parish in a district. Both sexes should be assigned to a community.

Selection of working area

- (i) Selection should be based on the incidence of diseases in the area, human behaviour (superstitions, beliefs etc.), and the lack of medical and health services.
- (ii) Pilot project in a selected parish with a health centre in order to make supervision easy and referral possible.

Equipment

Primary health workers should be provided with:

- (i) bicycle, raincoat, gum boots.
- (ii) first aid box with dressings, tablets (aspirin, chloroquine), record books, etc.
- (iii) teaching aids, posters, etc.

Supervisors (medical assistant/health visitor/health inspector) should be given a motor cycle.

Place of work

- (i) Under a shady tree.
- (ii) Homes
- (iii) Community development hall
- (iv) Village hall
- (v) Medical units.

Salary

Shs1313/- per month. This was agreed on because primary health care workers will be expected to travel a lot in the community and will be expected to be available for consultation 24 hours a day.

Integrated rural development

12. Following the seminar the Government realised that the primary health workers, being multi-functional personnel at the periphery, needed high inter-ministerial coordination both horizontally and vertically if they were to be effective. Another seminar was therefore organised in May 1977 by the Ministry of Health in coordination with the Ministry of Planning and Economic Development on integrated rural development. The Ministries of Education, Health, Agriculture, Animal Husbandry, Community Development, Provincial Administration and Land and Water Resources were all represented. Major constraints to rural development such as lack of planning, participation by the community, and transport and communication were thoroughly considered, while projects already instituted in the country by various agencies with a view to augmenting the concept of integrated rural development were highlighted. They included the following:

Namutamba pilot project on integration of education in rural development (UNESCO) — intended to make school leavers employable and absorbable in rural areas.

Home and environmental improvement programme (Ministry of Health) — intended to improve all aspects of the quality of rural life by motivating the communities on competitive basis.

Nutrition scouts pilot project (Ministry of Health/UNICEF) — under this programme primary school leavers are recruited and trained in health education, nutrition, child care and prevention of communicable diseases.

Community development programmes (Ministry of Culture)

- (a) National youth development schemes
- (b) Youth agricultural settlements
- (c) Refugee settlements
- (d) Rehabilitation centres
- (e) Community development clubs and leadership training, self-help schemes, vocational training and adult education.

Applied nutritional and rural youth programmes (UNICEF and Ministry of Agriculture) — intended to motivate rural families in the improvement of production and marketing of nutritive food crops.

Programme for better family living (UNFPA) — intended to be a fully integrated inter-departmental programme to ensure that rural efforts in education, health promotion, community development, agriculture, marketing, social welfare and other rural services reinforce one another.

Food and Nutrition Policy

13. The seminar on integrated rural development was soon followed by a meeting arranged by the Ministry of Planning to establish guidelines on future food and nutrition policy for the country along the lines suggested by a WHO consultant. All the relevant ministries and organisations attended the meeting. In summary it was agreed in principle to:

- (a) establish a national food and nutrition planning unit;
- (b) establish a national nutrition surveillance system;
- (c) integrate applied nutrition programmes into primary health care.

A 'mini' training course for primary health workers

14. Meanwhile the WHO consultant who had been in contact with the Kayunga nutrition scouts pilot project hurriedly organised a brief course for the scouts on primary health care techniques with the aim of converting them into fully fledged primary health workers. A draft manual was also prepared at the end of the course for future use. Incomplete as the manual might be owing to the time factor, the ball has been set to roll. With careful amendments, particularly by local health personnel having relevant experience and expertise, the document could become very useful for future training.

Another approach to primary health care

15. Disenchantment with some of the health care units and experimental services, mainly based on ideas very often imported wholesale from countries whose health requirements, cultural backgrounds, geographical features, disease distribution and financial resources are entirely different from those of Uganda, necessitated a new approach to what type of primary health care could best suit our environment and limited resources. The Public Health Department of the Kampala City Council together with the Institute of Public Health (Makerere University) jointly embarked on a health care service in a slum area of the city (Makerere-Kivulu) aimed at the high-risk groups of a population totalling a little over 2,000 with a well-defined area. The exercise, which started in late 1975, encompassed a mobile maternal and child health service conducted in the shade of trees. The population structure warranted a family health approach (with emphasis on MCH) as 50 per cent were aged 15 years or less and 18 per cent were women in their reproductive age.

16. Our move was one of great caution: to fully mobilise the population, to actively try to involve them in every activity being undertaken and yet to avoid any notion which would lead them to expect from the Government what it cannot afford — in other words, a self-help project or people's own project. The community have now erected a shelter for the mobile health team, and all their activities are carried out by a representative committee from the community itself.

17. This is the first project of its kind in a slum area in this country. With the well known background of slum dwellers — high mobility, heterogeneity and lack of common identity — there are bound to be many problems and if the project succeeds, the experience gathered could help other slum areas in developing countries.

18. UNICEF has indicated its willingness to provide some limited assistance which will enable the community to train primary health workers suitable for such an area, and more so to combat delinquency which is so rampant in the area. Other collaborators will be the university departments of paediatrics and child health, and social work and social administration. Arrangements are also under way to extend such experimental services to other notorious slum areas where crime rates and delinquency are high.

Health planning in Uganda

19. If there is any infrastructure lacking at the Ministry of Health headquarters and which merits priority for establishment, it is a separate planning unit. This function previously was undertaken by the principal medical officer responsible for administration besides his other routine duties. The Ministry has now given priority to set up such a unit and has asked for assistance from the WHO for a consultant. We must admit health planners are rare birds, particularly those who are well acquainted with problems of the developing world, which differ from country

to country. Meanwhile most of the current planning work is carried out in various meetings of the Ministry, at various levels, and in seminars (e.g. country priorities and programming meetings).

Administrative structure

20. Following independence, the Ministry of Health was headed by a Chief Medical Officer (now Director of Medical Services) who also held the post of Permanent Secretary. He had a deputy and principal medical officers who headed divisions dealing with planning and administration, public health, maternal and child health, training and communicable diseases control. There were then four provinces (which became regions at independence) in the country in each of which the Ministry was represented by a senior medical officer supported by district medical officers. There were then only 17 districts, and each district medical officer was a medical officer of health for his district's metropolis. His main function was to run the district health services, which consisted mainly of health centres, dispensaries, sub-dispensaries and aid posts. He was mainly responsible to the district local administration to whom he was seconded by the central Government. He had no control over the district hospital which was directly under the Ministry's headquarters and locally administered by a medical superintendent.

21. Other members of the district team were the district health inspector and the district nursing officer (who could be a health visitor or merely a state registered midwife).

22. During the third five-year development plan and following a major general administrative overhaul of the whole country (involving the creation of ten provinces containing 38 districts, with each province being headed by a governor) a province became medically under the administration of a commissioner. Together with commissioners of other ministries, today they form what is known as the provincial team headed by the governor. The provincial commissioner of health is assisted by the provincial health inspector and the provincial nursing officer. With the new reorganisation, all responsibilities for setting up and administering health centres and all other rural medical units were transferred from the local authorities to the Ministry of Health. This was done to increase efficiency and to bring about a uniform system of administration.

The training of medical manpower

23. The Government of Uganda, in trying to produce increased numbers of medical personnel to man the different disciplines, has always insisted on maintaining a high quality of training. In this the strategy has changed from the old technique of teaching by intuition to that of clearly written out objectives based on the national health policy, local needs, demands and the tasks to be performed. A good example is provided by the institutional objectives of Makerere University Medical School.

Institutional objectives

24. The undergraduate training programme at Makerere University Medical School aims at producing a scientific multi-purpose doctor who will be capable of delivering effective medical and health care to individuals and whole communities in the rural and urban settings of East Africa.

25. More specifically, at the end of his undergraduate and internship training, the medical graduate should be:

- (a) able to diagnose the common or important diseases/conditions, with special reference to East Africa – i.e. to:
 - (i) take a history adequate to contribute to diagnostic possibilities,
 - (ii) conduct a proper general and an appropriate local physical examination,
 - (iii) carry out or request appropriate routine and special investigations,
 - (iv) consult, if necessary, other reference sources (e.g. colleagues or books),
 - (v) reach a diagnosis on the basis of the information collected.

- (b) able to develop a care plan, not only appropriate to the diagnosis, but also one that taps, economically, the available resources — i.e. to:
 - (i) perform a number of medical and surgical procedures that will contribute to the proper management of his patients,
 - (ii) initiate and perform most of the emergency life-saving treatments,
 - (iii) follow up his patients, if necessary, for evaluation of the initiated care plan;
- (c) able to develop and use a referral system — i.e. to:
 - (i) recognize his personal inadequacies and the possible limitations of his physical facilities,
 - (ii) consult with appropriate colleagues or decide which patients to refer, the urgency of the referral, and what interim measures to take until the patient is transferred to the appropriate medical facility,
 - (iii) summarize and clearly communicate information (verbally or in writing) to colleagues;
- (d) able to follow a philosophy of consideration for disease in relation to the whole patient, his family, the community, and the total environment;
- (e) able to maintain a good doctor-patient relationship — i.e. to:
 - (i) preserve the patient's dignity,
 - (ii) maintain a humane relationship with the patient and his family;
- (f) able to follow a philosophy which integrates prevention with cure and rehabilitation, and to organize measures for promoting health and preventing communicable and other preventable diseases;
- (g) able to organize and carry out simple scientific investigations of local clinical and community health problems;
- (h) able to undertake some medical and public health administration — i.e. to organize, work with, and supervise efficiently a variety of auxiliaries in his health team, including organizing their in-service training;
- (i) able to exhibit duty-consciousness and adaptability to the unscheduled events of illness such as those that will demand his services outside the official duty hours;
- (j) motivated enough to pursue his own professional continuing education — i.e. to remedy deficiencies, keep up to date, or, in conformity with his country's need for specialist medical scientists, acquire higher qualifications;
- (k) able to exhibit a high ethical and administrative integrity.

Departmental goals

26. Since the theme of this conference is Community Health, it is appropriate that the departmental goals of the Institute of Public Health — responsible for the teaching of community medicine in the university should be reproduced.

27. With emphasis on relevance for Uganda, East Africa and the African region as a whole, the Institute of Public Health aims at producing a doctor who can do the following:

- (a) make a community diagnosis using epidemiological data, and apply this in the practice of community health appropriate for the setting in which he will work;
- (b) plan, deliver or modify existing health services to suit the needs of the community;
- (c) integrate knowledge and skills of preventive medicine in clinical practice;
- (d) conduct research into community health problems as much as funds, personnel and time permit;
- (e) identify situations in which it is necessary to consult medical experts and others — e.g. sociologists, demographers, epidemiologists;
- (f) utilize services of relevant voluntary agents available — e.g. Red Cross, IPPF, Salvation Army, child care agencies, youth organizations;

- (g) be motivated enough to pursue his own professional continuing education in preventive medicine;
- (h) maintain a good doctor–community relationship — e.g. by being involved in medical and non-medical community activities;
- (i) organize, work with and supervise efficiently a variety of medical and para-medical personnel in his health team, including organizing in-service training.

28. These are further detailed under objectives, course content, learning experiences (e.g. problem solving sessions, lectures, seminars, discussions) and practical activities which include laboratory work and active participation in community health surveys (to establish community diagnosis) by the students.

29. Other training institutions are following and adapting the same methodology. Our training is still concentrated mainly in the following cadres who provide the bulk of the services for both hospital and peripheral units (curative and preventive):

medical assistants	laboratory technicians
nurses (state registered and enrolled)	laboratory attendants
midwives (state registered and enrolled)	entomologists
assistant health visitors	physiotherapists
health inspectors	orthopaedic assistants
health assistants	nurse tutors
public health dental assistants	midwifery tutors
	health visitors (course started in January 1976).

30. Because of current increased emphasis on prevention of communicable diseases — the leading ones causing death and morbidity being respiratory infections, malaria, intestinal parasitosis, enteric infections, respiratory tuberculosis, measles, tetanus, schistosomiasis (intestinal) and meningococcal infections — the role of health visitors, hitherto trained overseas, became crucial. A school for the training of fully-fledged health visitors by the Ministry of Health (under the aegis of the Institute of Public Health) was opened early in 1976 and the second group of trainees should complete their course in 1977.

31. Moves are afoot to create a single Institute for Health Studies which will be responsible for the training of tutors for various para-medical staff.

Conclusions

32. Certain measures undertaken by the government, either directly through the health care infrastructures, the community and certain agencies or through training institutions, over the years indicated a major shift in the health care delivery system. From the traditional approach of investigating and treating the individual patient, there is enhancement of a holistic approach of looking at a patient and his total environment, including the community where he lives. This is what makes up community health and community medicine. And perhaps a few institutions in the Commonwealth will refer to it as community care, just to indicate that its implementation is not the responsibility of the physician alone but requires team-work in which sociologists, health educators, health visitors, public health engineers, and administrators all play an important role. One university in particular in a Commonwealth country has taken the lead to emphasise the importance of community health by the establishment of a Faculty of Community Medicine.

33. The following points indicate that the health care delivery system has not remained static but rather is continuously changing, in search of what is best for the country.

- (a) The establishment of a department of preventive medicine which has now grown into an Institute of Public Health and is very highly involved in the training of cadres of personnel serving various sectors of the health care delivery system.

- (b) The third five-year development plan was a great improvement over its predecessor in that greater emphasis was laid on preventive services.
- (c) Experimental health care infrastructures such as the Kasangati Health Centre and the mobile MCH service (aimed at the pre-school child) have yielded good results but, being unrealistic because of limited financial resources, have remained irreplicable elsewhere. Hence a continued search for better approaches and strategies.
- (d) A lesson on external aid is that, where the technology of the programme is wholly imported and directed by alien people who have no consideration for the practicability of certain measures, success becomes remote. Projects funded from outside should be organised in such a way that if, at any time and for any reason, sponsorship is suddenly withdrawn, the national government or local authorities should be able to contain the situation with very little fiscal discomfort.
- (e) Primary health care — a new concept of extending health services to the most peripheral areas in a simple but effective manner which the country can afford, with the primary health workers themselves coming from and living with the community in which they work.
- (f) Food and nutrition policy has assumed greater significance, warranting a special unit in view of the role nutrition plays in health promotion and the rampant nutritional diseases in a developing country like Uganda.
- (g) The re-demarcation of large administrative units into smaller ones was meant to bring closer contact with the people and hence more efficient attention to their social and health problems.
- (h) The training policy for the different cadres of personnel has changed from the traditional to one based on objectives depending on the tasks to be performed. Professionals hitherto trained overseas in alien environments are now trained locally in the same ecological set-up in which they will work on completion of their training.

34. Currently the Government has embarked on an Action Programme involving all ministries. The main aim is rehabilitation and in the health sector this follows a massive departure of non-citizens in 1973, together with recurrent brain drain of the local personnel. During this period the Government will scrutinise conditions and terms of service which hitherto tended to favour curative personnel, thus leading to a gross imbalance. There will be an intensification of preventive measures against communicable diseases (more particularly parasitic diseases) and malnutrition in a package deal involving all the basic health services. At the community level much more emphasis will be placed on the vulnerable groups of under-fives and mothers through health promotion.

35. There is a recruitment drive in other countries to recruit mainly doctors to fill certain gaps. The Government has in this respect also stepped up the annual intake into the medical school to 120.

36. The Ugandan example could well serve as a case study for a developing country striving continuously to establish a health care system which is cheap, effective and best suited to the particular environment.

November 1977

CHANGING HEALTH CARE DELIVERY SYSTEMS

Background paper prepared by the Government of Kenya

Emphasis on development

A developing country — a descriptive term which implies the non-availability of acknowledged optimum standards of modern services in all sectors of the economy and social amenities — remains in a constant state of struggle to improve existing services and to introduce new ones. In a developing country change need not be viewed in the manner of the demolition of an old building so as to construct a new and better one. Rather such change, as in the case of health services, is in the form of continuation of construction of an uncompleted structure upon the already laid down foundation. In this context, we are thus dealing with the important subject of 'development' of health care delivery systems, rather than merely 'change' of what is at an early stage of evolution. The situation may be somehow different in the case of a developed country where optimum services and means exist, and what is needed is re-orientation of areas of emphasis and methods of health care delivery.

2. This emphasis on development, in the case of a developing country, applies to every aspect of health services: manpower development; programmes of training and curricula; management and administration; health information systems and planning; and research on health problems and new ways of maximum utilisation of meagre resources to deliver health care to the overwhelmingly rural population.

Delivery of health care

3. The Ministry of Health has the overall responsibility for the health services of the country. Prior to 1970, all local authorities had big health roles to play in relation to public health services, maternity wards, communicable diseases control, health centres and dispensaries, and ambulance services. The rural county councils did not have adequate resources, even with government grants, to carry out health responsibilities uniformly well throughout the country, and the Government had to take over the running of these services, excepting those of the larger municipalities.

4. Church hospitals offer valuable services complementary to those provided by Government in many areas of the country. The workers in those institutions are well-motivated for both curative work and health education, and they are often located among communities in remoter parts of the country. Industrial hospitals and clinics, private hospitals and individual practitioners offer clinical services to patients who can afford the fees, but often these facilities are in the city and the larger towns. The Government, through its National Hospital Insurance Fund, assists contributors, to some extent, in paying the fees for hospitalisation in approved privately-run hospitals.

5. Government health services are given practically free to citizens — including hospitalisation, operations and clinical tests in government hospitals. In the field, health care delivery is organised through the district health services, health centres in the divisions, dispensaries in the locations and villages, and mobile health units where static health units are not feasible. This system is extendable to the smallest of villages and to all parts of the country. Admittedly, the curative service given at the dispensary level is very basic and the personnel there are trained to deal with common minor ailments, but there is a line of referral of difficult matters from the dispensary to health centre, district hospital, provincial hospital and, for rare cases, to the national hospitals. This approach to organisation is also used in regard to the delivery and supervision of public health services, health education, nutrition education, family health services and even medical supplies.

Manpower development

6. Training of local personnel for the health services, at all levels of skills, has been given high priority in all the development plans since independence. This is one area where changes, and continuing improvements, had to be made to the curricula and programmes of training for all cadres employed in the health services, to make their training more relevant to the solution of health problems of tropical Africa. This does not in any way imply the lowering of standards of training below those of similar courses abroad, but rather to make those trained more oriented for better service in our environment.

7. The university training of medical doctors has been dealt with under the item headed 'The Role of Health Ministries and Medical Schools'. Although there are well over 1,700 doctors on Kenya's Medical Register, only about 580 of these are in government service, of whom around 100 are specialists in one discipline or another. Arrangements are being worked out to see how one or two provincial hospitals could be utilised in clinical training of undergraduates, with the aim of increasing the student intake at the Faculty of Medicine in Nairobi.

8. Considerable expansion has been found necessary in the training of nurses and other para-medical personnel, and also of medical auxiliaries. Whereas there were 812 students in training in 1964, this total had risen to 3,551 in 1977. The higher courses, such as those of registered nurses, public health officers, laboratory technologists, radiographers, pharmaceutical technicians, physiotherapists, registered midwives and public health nurses, are run at the Medical Training Centre and Kenyatta National Hospital in Nairobi, with parts of the training period being spent in a field setting. Junior or auxiliary cadres are trained mainly in the provincial and district setting. These auxiliary cadres of staff are the ones to be found in dispensaries and health centres all over the country, working under rather remote supervision from the district hospitals. Medical assistants, or clinical officers as they are known in Kenya, are trained at para-medical level in one of the provincial hospitals with field practical work in rural health centres. Delivery of tolerable health services throughout the country is made possible only through the utilisation of these trained para-medical and auxiliary medical personnel.

9. Training has been commenced for health educators, organised as a one-year in-service course for those already qualified as nurses, health officers and clinical officers (medical assistants). One area which remains to be developed is that of a well-organised institute for the training of tutors for all these cadres of personnel. We are aware that the Commonwealth Secretariat has taken an interest in the training of tutors on a regional basis and this is viewed as a very welcome move.

10. Two new cadres of staff illustrate a new approach to training for the more effective delivery of health services. These are the auxiliary cadre of field nutritionist and the village-based worker named the family health field educator. The field nutritionists are mainly already-qualified enrolled nurses who receive six months in-service training in nutrition and are later posted to district health services and health centres as part of the health team, their time being fully occupied on nutrition health education and demonstrations to mothers. The family health field educators are mature women selected from the village level where they live, and are given short-term training courses on basic aspects of maternal and child health and family planning. Their role is mainly motivational, to educate other villagers out of misconceptions and to give information on the available government services in relation to family health. They also work with MCH teams during team visits to the villages.

8 November 1977

CHANGING HEALTH CARE DELIVERY SYSTEMS

Background paper prepared by the Government of India

A comprehensive programme for the expansion of medical and health facilities was provided in the First Five Year Plan of the country, and this followed broadly the recommendations of the Bhore Committee (1946). During the Second Five Year Plan, the emphasis shifted from curative to preventive measures. Before the commencement of the Third Plan, the Government of India appointed another committee, the Health Survey and Planning Committee (Mudaliar Committee, 1961), which set out certain goals to be achieved, viz:

- (a) hospital beds 1 : 1000 population
- (b) doctors 1 : 3500 population
- (c) nurses 1 : 5000 population

2. The Fourth Five Year Plan assigned a priority to family planning (now known as family welfare) and this has also received high consideration during the current Fifth Five Year Plan.
3. The achievements and patterns of development during these Plan periods are shown in Annex I.

Doctor/population ratio

4. While in 1946 there were about 48,000 doctors, which gave a doctor/population ratio of 1 : 6,300, the number of doctors has increased to 154,000 in 1975–76, which gives a doctor/population ratio of 1 : 3,900. This overall ratio, however, conceals marked regional and rural-urban disparities. For instance, while the doctor/population ratio in 1974 in the States of Assam, Maharashtra and Punjab was 1 : 3,000, in Tamil Nadu and West Bengal 1 : 2,000, in Delhi 1 : 1,350 and in Chandigarh 1 : 600, in the States of Madhya Pradesh and Rajasthan it was approximately 1 : 10,000. It is also well-known that the majority of doctors concentrate in the urban areas.

Women Doctors

5. The percentage of women doctors has increased relatively much faster than the total number of doctors, being 7.5 per cent in 1956, 11 per cent in 1964 and about 19 per cent in 1970, due to increased enrolment of women in the medical colleges. The exact numbers are not available; and, due to marriage and other factors, many women who qualify as doctors do not actively practice the profession and account for a 'loss' in the overall manpower.

"Doctors" in other systems of medicine

6. In considering the manpower available, it is worthwhile mentioning that, apart from the modern systems of medicine, Indian systems of medicine — Ayurvedic, Unani, Siddha — and of homoeopathy, of naturopathy and of Yoga have received significant encouragement and support. This will be evident from following:

Practitioners of modern systems of medicine	154,000 (approx. 1 : 3,900 population)
Homoeopaths registered and enlisted	141,780 (approx. 1 : 4,000 population)
Indian systems of medicine	181,580 (approx. 1 : 3,000 population)

Utilisation of Doctors

7. It has been estimated that about 50 per cent of doctors are in private practice, about 45 per cent in public sector employment and the remaining 5 per cent in private sector employment. Of those in the public sector, 70 per cent are employed by State Governments as against 30 per cent by others (Central Government, quasi-government organisations and local bodies).

8. In India health is a State subject — that is, overall health manpower planning and health policies are under the direct control of the Government of the States comprising the Republic of India. The Government of India, however, provides substantial financial assistance to State Governments in carrying out several health programmes, such as smallpox eradication, malaria control, leprosy control, control of blindness, tuberculosis, school health, family planning and welfare. The quantum of central assistance can be judged from the financial inputs for the Fifth Five Year Plan, as follows:

Purely central schemes	Rs. 676.6 million
Centrally-sponsored schemes	Rs. 2,681.7 million
States/Union Territories	Rs. 3,483.3 million (excluding expenditure on malaria eradication)

General policies and goals to be achieved

9. The general policies relating to health care in India have been to increase curative facilities and to increase preventive care services. The goal is to take these to the grass-root level. Towards this goal, the Government has aimed to set up primary health centres, hospitals at district level, and sophisticated medical services at regional level. Apart from providing doctors, the Government aims at making available nurses, health visitors, auxiliary nurse-midwives and multi-purpose workers.

Growth of rural and public health services

10. The need to provide medical relief and preventive and promotive health care to over 80 per cent of people living in rural India is as great as the need to provide for the urban population.

11. The concept of primary health centre, as a new approach to meet the health and medical needs of the rural population, was first developed by the Health Survey and Development Committee, popularly known as Bhore Committee, in 1946.

12. It was felt that the most effective way in which health and family planning services reach out to the rural area is through the primary health centres and sub-centres. From these centres health education services and amenities radiate to the rural areas. They have come to form an integral part of the community development programme since 1952. Each primary health centre with about eight sub-centres covers a population of about 100,000. It provides a package of integrated health care, both preventive and curative, family welfare planning, maternity and child health, school health and nutrition education. It is also responsible for health education and the collection of basic statistics.

13. It was also envisaged that each primary health centre should serve as a local point from which integrated health care services, both preventive and curative, would radiate into the entire population served by a community development block.

14. At present there are 5,373 primary health centres with about 37,931 sub-centres functioning in the country. As envisaged, the functions of a primary health centre are medical relief, control of communicable diseases, maintenance of environmental sanitation, recording of births and deaths, health education, school health, nutrition, maternity and child health and family planning (welfare).

15. Experience gained during the last two decades in the provision and development of health services has revealed that para-medical workers should be so trained and oriented as to be fully useful in carrying out a diversity of health programmes. The earlier concept of deploying uni-purpose workers has therefore been replaced by one of multi-purpose workers more suitable for delivering the package of health services to the community.

16. The medical curriculum has been constantly under review to meet the changing needs of society and to provide adequately for future requirements of the rural areas. Recently, the Government has accepted recommendations of a group on 'Medical education and support manpower' which include the creation of a cadre of para-professional or semi-professional health workers from within the local community itself to provide simple preventive, curative and promotive health services to the people. The group also suggested the creation of a new cadre of health assistants to act as the link between the doctors at the primary health centres and the multi-purpose workers in the field. A chart showing proposed organisations set up of the primary health centre complex is at Annex II.

17. Nursing education has not lagged behind. There are now 264 schools of nursing, 25 health visitors' schools, 336 schools for auxiliary nurse midwives, eight colleges of nursing and two post-graduate colleges of nursing in the country. The annual turnover is 5,700 nurses, 600 health visitors and 5,400 auxiliary nurse-midwives.

18. Besides this, there is a steady improvement as regards the posting of doctors in the primary health centres. The main reasons for this improvement are various types of incentives which are given by the State Governments in order to attract young medical graduates to work in rural areas. The package of incentives and assistance that is being recommended includes rural allowance and rent-free accommodation, forming a single cadre of doctors in rural and urban areas, and giving stipends to medical students to undertake to serve in villages for certain number of years.

19. The Government of India has launched the new scheme for strengthening health care services in the rural areas from 2 October (Mahatma Gandhi's birthday) 1977. The purpose behind the scheme is to provide adequate medical care to the rural people and at the same time to educate them in the matters of preventive and promotive health. Although there are 5,375 primary health centres and about 37,931 sub-centres providing medical services in the villages, this vast network has not actively involved the people in the villages. One of the principal reasons behind the new scheme is to encourage people's participation in the health care programme, and generate the necessary enthusiasm.

20. Under the new scheme, every village with a population of 1,000 will be expected to select its own representative who belongs to the community, enjoys its confidence and has the sincerity and competence to serve it in the area of health. This representative will be given suitable training in tackling simple and basic health problems. The people to be selected will be preferably below the age of 30 years and will have some formal education, at least up to the sixth standard. The training will be given for a period of three months in batches of 20 in the primary health centres and sub-centres. The curriculum includes the fundamentals of the health scheme, measures for maintaining good health, hygiene, treatment of common infectious diseases, maternity and child care, treatment of common ailments and first aid. Traditional systems of medicine and yogic methods of maintaining physical fitness will receive due importance in the training programme. At the end of it the village representatives will be given a test and awarded a certificate. They will also receive a kit consisting of common remedies from the modern and traditional systems of medicines and a simple manual. They will then be expected to return to their villages and work there.

21. These workers will be called community health workers. They will be free to attend their normal vocations — agriculture, teaching, craftsmanship, etc. They will render health services to the community in their spare time for two to three hours every day. It is expected that over a period of about three years from the launching of the scheme there will be 5.8 lakhs community health workers in the villages.

22. The infant mortality rate in India is quite high — in 1971 it was 120 per thousand. Deliveries take place mostly in village homes under the care of unqualified and untrained midwives (*dais*). This is a very unhappy situation. For a long time to come it will not be possible to provide adequate arrangements under which all or even most deliveries may take place in hospitals and health centres. The new scheme, however, envisages the training of one *dai* in every village — the total number will come to 5.8 lakhs over a period of two to three years. The training period will last a month and during it every *dai* will be given a stipend. She will also be provided with a kit containing simple safe delivery apparatus. This kit will be replaced free as and when needed. The *dais* who undergo training under the scheme will, like the community health workers, be selected by the village community. They will belong to the village in which they will have to work. In fact, they are already working there and have professional experience, though no qualification. The training will improve their knowledge and expertise and it will be given in the primary health centres. They will include elements of pre- and post-natal care for women. The *dais* will also be expected to propagate the small family norm amongst women.

23. Springing as they do from the soil of the land, we expect that the community health workers and the trained *dais* will in course of time narrow the big gap that today exists between the science of medicine and the rural community. At the professional level these workers and *dais* will have the guidance and support of multi-purpose workers — two (one male and one female) for a population of 500, to be achieved by the end of sixth Plan. A large number of these workers are already under training. They will constitute a core of the integrated health and family welfare service and will look after the basic health programme, including family welfare, in the villages. They will give special attention to preventive and promotive health and maternal and child care. At a slightly higher level the multi-purpose health workers will be supervised by health assistants whose training has already been started and then by the medical officer of the primary health centre.

24. A chart showing the referral services from the village and hamlet to the regional hospital attached to a medical college is at Annex III.

ANNEX I

ACHIEVEMENTS OF INDIA'S FIVE YEAR PLAN

<i>Categories/units</i>	<i>1st Plan end 1958</i>	<i>2nd Plan end 1961</i>	<i>3rd Plan end 1966</i>	<i>Latest position available</i>
1. Hospitals and dispensaries	10,000	12,600	14,600	15,731
2. Hospital beds	125,000	185,600	255,700	295,016 (1975-76)
3. Primary health centres	725	2,800	4,930	5,373 (1976)
4. Family planning centres	—	1,649	5,057	6,669 (1970)
5. Education				
<i>Medical education</i>				
Medical colleges	41	62	89	106 (1976)
Annual admissions	3,958	6,846	10,520	12,500 (1976)
Annual output	2,732	3,900	5,387	11,600
<i>Dental education</i>				
Dental colleges	6	11	13	15 (1975)
Annual admissions	178	369	508	551 (1975)
Annual output	71	141	283	481 (1975)
<i>Nursing education</i>				
<i>General Nurses</i>				
Nursing institutions	221	235	253	266 (1976)
Enrolment	7,333	10,290	17,401	20,666
Annual output	1,962	2,562	4,322	4,963
<i>Auxiliary nurse-midwives</i>				
Training institutions	47	201	299	330 (1976)
Enrolment	1,046	5,053	9,795	11,088
Annual output	42	1,828	3,943	4,473
<i>Health visitors</i>				
Training institutions	11	21	19	23 (1976)
Enrolment	715	1,163	1,186	1,426 (1968)
Annual output	103	412	440	584
<i>Pharmacists education</i>				
Pharmacists institutions	11	21	43	51 (1975)
Annual admissions	233	723	1,818	2,722
Annual output	193	367	749	—
6. Manpower stock				
Doctors (estimated)	65,000	72,000	87,000	154,000 (1975-76)
Nurses (estimated)	18,500	31,000	45,000	98,000 (1975-76)
Auxiliary nurses-midwives	392	6,452	21,683	39,000 (1970)
Health visitors	800	1,500	3,800	7,800 (1970)
Dentists	—	—	8,175	9,000 (1970)
Pharmacists	—	42,000	48,000	51,000 (1969)

PROPOSED ORGANISATION CHART OF THE PRIMARY HEALTH CENTRE COMPLEX

Primary Health Centre
Pharmacist
Medical Officer
Laboratory Technician
Health Assistant
Computer
Storekeeper-cum-Clerk

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ANNEX III

REFERRAL – SERVICES

Teaching of undergraduate postgraduate & other health personnel					Regional hospital attached to a medical college 750 to 1,000 beds		All specialities including neurology, cardiology neuro surgery, cardiac surgery, gastro enterology, urology etc. Cancer diagnosis and treatment	
All the sophisticated investigation facilities					District hospital 150 to 350 beds		Medicine, surgery, obstetrics/ gynaecology, anaesthesia, E.N.T., eye, psychiatry, dermatology, V.D., X-ray, dental etc.	
Indoor wards O.P.D. public health laboratory family planning								
Existing staff of the PHC including 2 medical officers					Upgraded 30 bedded rural hospital/ 30 to 35 bedded Taluk hospital		Specially trained and graded surgeon, physician/pediatrician, obstetrician/gynaecologist, and anaesthetist, X-ray & laboratory facilities, ambulance	
Coordination with Panchayats Block Samities Voluntary Organisation					Primary health centre		Integrated health care (preventive & curative) & family planning & nutrition	
Sub centre	Sub centre	Sub centre	Sub centre	Sub centre	Sub centre	Sub centre	Health assistants Multipurpose health workers	
Village & hamlets	Village & hamlets	Village & hamlets	Village & hamlets	Village & hamlets			Local Dai (traditional birth attendants) Community health workers	

STRENGTHENING COLLABORATION AMONG MEMBER COUNTRIES IN HEALTH MATTERS

Prepared by the Commonwealth Secretariat

The occasion of the Fifth Commonwealth Medical Conference might be an appropriate time to attempt to review how best to extend and maximise the contributions made by Commonwealth health conferences (the three-yearly Ministers conferences and the annual Pre-WHA meetings in Geneva) and by the work of the Commonwealth Secretariat to the development of the health policies and programmes of member countries.

2. Meetings of Commonwealth Health Ministers were initiated on the recommendation of Heads of Government at their 1964 meeting. It was considered that such conferences "would enable member countries to discuss mutual assistance in medical education, including links between institutions, the provision of ancillary staff, the development and planning of health services and the supply of medical equipment and facilities for research". The four conferences held so far have been held in Britain (1965), Uganda (1968), Mauritius (1971) and Sri Lanka (1974). These meetings, in addition to providing opportunities for beneficial contacts for bilateral and multi-lateral assistance, have resulted in agreements and recommendations on a wide range of topics, all having as their central objective improvement in the national health programmes of member countries.

3. Besides the three-yearly ministerial conferences, each of which is organised and serviced by the Secretariat in collaboration with the host government, annual one-day Commonwealth meetings at ministerial level have been held in Geneva in May immediately before the World Health Assembly. The Geneva meetings review action on conference recommendations, discuss health topics of general interest and consider the agenda and arrangements for the next conference.

THE ROLE OF THE CONFERENCE

4. Although difficult to quantify, the opportunities provided by these conferences for discussion and for sharing health information among member countries, the encouragement and assistance they give to national health planners, the impetus towards better standards, the associated Commonwealth esprit de corps they foster, have all been recognised as contributing considerably to the improvement of health programmes in member countries. There is, however, much that can still be done to improve the benefits that flow from these conferences. In spite, for instance, of the success of the regional secretariats in promoting regional health co-operation, and although a beginning has been made in inter-regional collaboration, there have been only modest achievements so far in the way of sustained interaction in health planning, in continuity of collaboration in the intervals between meetings, in the sharing of resources and personnel on a Commonwealth-wide basis.

5. The above state of affairs may be attributable to the following reasons:

- (i) the annual half-day Pre-WHA meetings in Geneva are not adequately utilised for in-depth follow-up of conference proposals and for monitoring or co-ordinating on a Commonwealth-wide basis action on the major recommendations of the conference; and
- (ii) the staff at present available to the Secretariat can only play a limited role in this respect.

THE SECRETARIAT'S ROLE

6. So far the Secretariat initiates and helps to sustain action between meetings on a limited number of conference recommendations; it collates and distributes important health information to member countries; ensures that training opportunities, specialised conferences, research projects, are brought to their attention; convenes annual meetings of regional secretaries. It is represented at regional meetings of Health Ministers and professional groups; it organises and services the annual and three-yearly conferences of Health Ministers and it consults with and advises individual health ministries on a wide range of health topics; it commissions special studies at the request of governments; and it maintains close contact with WHO headquarters in Geneva and its regional offices and with other international health agencies.

7. The areas of emphasis in the Secretariat's work to which successive conference recommendations have contributed include:

- (a) support for the delivery of health care in rural and other needy areas in developing countries;
- (b) the promotion of national self-reliance and regional co-operation in the approach to health problems;
- (c) the investigation, at the request of governments, of specific problems in the health field and follow-up action;
- (d) the provision of technical advice and assistance, particularly to the most needy; and
- (e) assistance with health administration and planning and with health manpower development programmes.

RECOMMENDATIONS FOR IMPROVING THE EXISTING CONTRIBUTIONS OF CONFERENCES AND THE SECRETARIAT

The role of conferences

8. The broad policy-formulating role of the conferences and the importance of sustained follow-up of their recommendations in the intervals should be re-emphasised.

9. The structure, organisation and duration of the triennial ministerial conferences should be reviewed. As part of this review the possibility of beginning with a meeting of officials might be considered. Such a meeting might review activities since the previous Conference. It might also prepare specific recommendations on conference agenda items for consideration by Ministers.

10. The annual meetings in Geneva might provide more opportunities:

- (a) to follow-up conference recommendations in greater depth than has been customary in the past,
- (b) to discuss such substantive health matters of Commonwealth interest that might be identified from time to time in the intervals between conferences, and
- (c) to exchange information and views on the major topics to be considered at the ensuing World Health Assembly meeting.

The role of the Secretariat

11. The Commonwealth Secretariat would continue to organise and service these meetings as it has done in the past.

12. It might attempt to maintain even closer surveillance on the progress of the recommendations made at them.

13. This would require closer and more frequent consultation with member governments and the regional secretariats than has been possible in the past.

14. The Secretariat might play a more effective role in identifying outside expertise, in the form of either individual experts or panels of experts, to assist with the problems encountered and referred to it by Commonwealth governments in the planning and execution of national health programmes.

15. The proposals outlined above reinforce the need already recognised by previous conferences – Mauritius (1971) and Sri Lanka (1974) – for additional resources to enable the Secretariat more effectively to implement conference decisions. This Conference might therefore request the Secretary-General to take urgent action to seek from governments such additional resources as may be required for implementing the new proposals. The resources should include an appropriate increase in the staff of the Medical Division of the Commonwealth Secretariat, and an increase in the funds provided by governments for supporting activities in the health field. In this context the Conference might note with appreciation the important contribution made through the Commonwealth Fund for Technical Co-operation to the health programmes of Commonwealth countries.

