

The Contribution of Medical Schools to National Health Development

Report of a Commonwealth Workshop
Kandy, Sri Lanka, September 1982



Commonwealth Secretariat

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INTRODUCTION

The importance of close collaboration between medical schools and ministries of health, in order to meet the changing needs of the community and strengthen health care, has been repeatedly emphasised at meetings of Commonwealth Health Ministers in recent years. At their 1977 meeting in Wellington, New Zealand, Ministers recommended that medical schools should define their goals in relation to national health needs. In 1980, when they met in Arusha, Tanzania, Health Ministers further stressed the importance of orientating medical training towards community health issues and a team approach to primary health care, and considered that such orientation could be achieved only through appropriate revisions of curricula. They also called for greater involvement of medical schools in the study of national health problems and in the strengthening of health services.

In view of these recommendations, the Commonwealth Secretariat initiated discussions with the Association of Commonwealth Universities, The Commonwealth Foundation and the University of Peradeniya, Sri Lanka, with the object of arranging a jointly-sponsored workshop on the contribution of medical schools to national health development. This project was endorsed by Commonwealth Health Ministers at their one-day meeting in Geneva in May 1982, before the Thirty-fifth World Health Assembly, and financial support was secured from the Commonwealth Foundation and the Commonwealth Fund for Technical Co-operation. The arrangements for the workshop were made jointly by the Secretariat, the Association of Commonwealth Universities and the Medical Faculty of the University of Peradeniya.

The workshop was held in Kandy, Sri Lanka, from 20 to 24 September 1982. The participants were deans of medical schools and senior officials of ministries of health, mainly from developing Commonwealth countries but including in addition some representatives from the developed countries. The heads of the regional health secretariats in West Africa and in East, Central and Southern Africa also took part.

The discussions were led by Professor R G Panabokke, head of the Department of Pathology and formerly Dean of the Medical Faculty, University of Peradeniya; Professor Sir Kenneth Standard, head of the Department of Social and Preventive Medicine, University of the West Indies; and Professor N R E Fendall, until recently head of the Department of International Community Health at the Liverpool School of Tropical Medicine in Britain. Presentations were also made by representatives of the Ministries of Health of Fiji, Kenya and Malaysia .

The Chairman of the workshop was Professor M A Fernando, Dean of the Medical Faculty, University of Peradeniya. The Association of Commonwealth Universities was represented by its Secretary-General, Dr A Christodoulou, and the Commonwealth Secretariat by its Medical Adviser, Professor Sir Kenneth Stuart.

The aim of the workshop was to examine the roles that are currently played by medical schools in national, and also regional, health development, and ways in which these roles might be strengthened and extended. The workshop also considered how better collaboration between medical schools and health ministries and closer integration of their programmes might be realised.

The discussion was directed towards action and paid particular attention to the practical measures that might be taken by individual countries, by regional groups, by medical schools and by the Commonwealth Secretariat and other agencies to promote the achievement of these objectives. Although the agenda items were discussed separately, they were closely interrelated and, not surprisingly, there was some overlap in the discussion of related issues, which is reflected in the report.

The Commonwealth Secretariat and the Association of Commonwealth Universities wish to record their appreciation for the help and co-operation received from the University of Peradeniya in making the arrangements for the workshop, and for the financial support provided by the Commonwealth Foundation.

AGENDA

ITEM

- I RELATIONSHIPS OF MEDICAL SCHOOLS AND MINISTRIES OF HEALTH
- II MEDICAL SCHOOLS AND COMMUNITY HEALTH EDUCATION
- III MEDICAL SCHOOLS AND PRIMARY HEALTH CARE
- IV COMMONWEALTH POSTGRADUATE AND HIGHER EDUCATION NEEDS
- V OTHER RELEVANT MATTERS

INAUGURAL CEREMONY

At the inaugural ceremony, after the lighting of the traditional oil lamp, the participants were welcomed by Professor B L Panditharatne, Vice-Chancellor of the University of Peradeniya. There followed addresses by Dr A Christodoulou, Secretary-General of the Association of Commonwealth Universities, and Professor Sir Kenneth Stuart, Medical Adviser, Commonwealth Secretariat. The Hon. Victor Tennekoon, Chancellor of the University of Peradeniya, then addressed the meeting and declared the workshop open. The keynote address was given by Professor R G Panabokke, head of the Department of Pathology and former Dean of the Medical Faculty, University of Peradeniya. The ceremony ended with a vote of thanks proposed by Professor M A Fernando, the present Dean of the Medical Faculty and the Chairman of the workshop. The texts of addresses are given below.

ADDRESS BY DR A CHRISTODOULOU, SECRETARY-GENERAL, ASSOCIATION OF COMMONWEALTH UNIVERSITIES

It is my privilege and pleasure here today to be linked with the Commonwealth Secretariat in jointly organising an important and topical workshop of medical deans and ministry of health officials.

For the Association of Commonwealth Universities it is also the first joint enterprise involving academics and representatives of government ministries in the discussion of matters of mutual concern and of crucial importance to the development and well-being of the communities they serve. I hope it will be of forerunner of other such relevant workshops and conferences and of further joint enterprise with the Commonwealth Secretariat.

The ACU, a voluntary non-governmental association of its member universities, is now in its 70th year of successful endeavour. Just before I left London nearly a month ago, its total membership reached 250 universities drawn from 28 Commonwealth countries - the last to join, as it happened, being Sri Lanka's own new institution, Batticaloa University College.

The overall aim of the Association is to promote the maximum contact and co-operation between its members, and traditionally it has done this through scholarship schemes, academic fellowships (including medical fellowships), staff exchange schemes, travel bursaries, and meetings of vice-chancellors and presidents. It is gratifying to report that many Sri Lankans have been included in these activities.

In just the official Commonwealth Scholarship and Fellowship Plan, it has in the 20 years of that Plan brought nearly 4800 scholars from all over the Commonwealth to places in British universities, as well as over 400 Academic Staff Fellows, 680 Medical Fellows and over 160 Senior Medical Fellows.

In various other ways, it does everything it can within the cash resources at its disposal to promote the maximum movement of academic staff and students from one country to another.

In all such activity, I am proud to boast that the ACU has made a strong contribution in shaping and maintaining the strong links that bind together the modern Commonwealth; and its modest involvement in this week's workshop has enabled it to contribute to the bringing together of one of the major professions in our societies, with representatives from over 15 countries.

One of our member institutions, the University of Peradeniya has cheerfully and willingly borne the burdens of organising and staging the workshop, and to your

University and particularly to the Dean, Professor Fernando, and staff of the Faculty of Medicine, the remaining 249 members of the Association, as well as all the participants here, extend their most grateful thanks, and best wishes for continuing success in their endeavours.

**ADDRESS BY PROFESSOR SIR KENNETH STUART, MEDICAL ADVISER,
COMMONWEALTH SECRETARIAT**

It was approximately fifteen years ago, soon after my assumption of the post of Dean of the Medical Faculty of the University of the West Indies, that I first appreciated how great was the need for closer integration and harmonisation of the roles of medical schools and ministries of health. In spite of the collaboration that existed at the personal level, there were at that time relatively few formal links between health ministries of the Caribbean and the regional medical school, and there was little co-ordination of their roles in support of agreed national or regional health objectives.

Health manpower training is undoubtedly a crucial element in any health plan; and it is here that there is the greatest need for co-ordination between national health planners and medical schools. My perception of the urgency of this need has deepened during the past six years, since I have had opportunities to visit ministries of health and medical schools in countries of both the developed and the developing Commonwealth. The situation in most countries is not only that the training of doctors proceeds independently of national health needs but also that there is often wide divergence between academics and their training goals on the one hand and health service requirements on the other.

It was for these reasons that I was so gratified by the enthusiasm with which my suggestion for holding this workshop was received by my professional colleagues and other groups. I refer particularly to the Association of Commonwealth Universities who at the London end have assisted the Commonwealth Secretariat in making the arrangements for the meeting, and to the the Commonwealth Foundation who have made a substantial financial contribution in support of it. Even more gratifying, however, was the warm welcome given to the proposal by the Government of Sri Lanka who helped with the planning of the workshop and agreed to be its host. I know that all of you would wish to join me in saying a special word of thanks to them and also to my colleagues at the University of Peradeniya for the splendid arrangements they have made for it.

The ideas behind this workshop are not new. Commonwealth Health Ministers at a number of recent meetings have stressed the importance of closer collaboration between medical schools and ministries of health in meeting the changing priorities in community health and in national systems of health care delivery. The Wellington Meeting in 1977 recommended that medical schools should define their goals in relation to national health needs. The Arusha meeting in 1980 stressed the importance of orienting medical training towards community health issues and to expanding the concept of primary health care. It recommended that medical schools should revise their curricula in pursuit of these objectives and that they should be more involved in the study of national health problems and in the strengthening of national health services.

We hope, therefore, that this workshop will not spend too much time merely re-discussing these objectives. We would prefer it to focus more particularly on the practical requirements for achieving them.

Most medical schools in both developed and developing countries have concentrated mainly on educating professional personnel to provide care for individual patients in a hospital setting; and with that as their objective they have done well. The care of the acutely sick, however, is only one of the concerns of health ministries today. Health perceptions are changing throughout the world. Hospital medical care is an essential

part of the health system, but only a part. World-wide emphasis is now being placed on primary health care, on a wider and more equitable spread of health resources, on community participation and community health education.

Our medical schools would be irrelevant to our times if they did not perceive and develop practical and substantial roles in relation to these internationally accepted health goals. This would require a revision of the training emphasis for doctors and other members of the health team, a new balance of their priorities and a new balance of relationships between medical schools and national health planners. It is essential that this balance be reflected in the training and research programmes of medical schools.

The workshop will also examine the feasibility of establishing Commonwealth centres of higher medical education at appropriate locations in developing countries of the Commonwealth. If this could be achieved it would reduce the existing over-dependence of graduates from developing Commonwealth countries on centres of higher education in the developed countries - Britain, Canada, Australia, New Zealand. It would also facilitate wider student mobility and give greater impetus to and improve collaboration between Commonwealth member countries at all levels of development. Commonwealth Health Ministers have already endorsed this proposal and have recommended that appropriate action be taken for its implementation.

It is more than its physical beauty and the warmth of its hospitality which makes Sri Lanka such an ideal venue for this workshop. Sri Lanka has already done much to advance the issues with which the workshop will be concerned. A recent World Bank report quotes Sri Lanka as an example of the high level of health care that can be achieved with only modest national resources. Your Government's recently-published and far-sighted White Paper on the Reorganisation of the Ministry of Health lays down important guidelines for the future development of its health services. It also recognises that health can no longer be the responsibility of a single government department and stresses the need for skilled management and for wide consultation and collaboration between the many public and private sectors that impinge on it.

For those of you who have not had the opportunity of reading this White Paper I quote a paragraph which has relevance for the workshop:

"In simple terms, management is the national utilisation of available resources to maximum advantage in the achievement of an organisation's objectives. It is not a preserve of a profession but a discipline in itself, one that calls not for a particular academic or professional background but for specific types of knowledge, skills and attributes. The management of a national health system involves close collaboration at all levels with other government agencies, voluntary organisations and, most important, the community itself. The tasks of health system management have broadened to encompass not just combating disease and improving environmental conditions but the planning, formulation and implementing of strategy."

To chart for itself a role in the implementation of its national health strategy is the challenge that faces the medical school today in both the developed and the developing world. It is with the requirements for achieving it that this workshop will be largely concerned.

The Commonwealth Secretary-General, Mr Shridath Ramphal, has asked me to convey to you his greetings and best wishes for the workshop. He has asked me also to express to you his hope that the workshop will not be an isolated Commonwealth event but will be the beginning of the continuing dialogue between medical schools and ministries of health which will be essential for achieving its long-term objectives. On his behalf and on behalf of myself and my colleagues from the Secretariat, the Association of Commonwealth Universities and the Commonwealth Foundation, I would

like to say thanks again to the Government of Sri Lanka for hosting the workshop and for the warmth of the reception they have given us. Thanks also to my colleagues from the University of Peradeniya for their planning assistance, to all of you for your attendance at this ceremony and particularly to those of you who have come from long distances to participate in the workshop which the ceremony inaugurates.

ADDRESS BY THE HON VICTOR TENNEKOON, CHANCELLOR OF THE UNIVERSITY OF PERADENIYA

I am deeply conscious of the honour done me in inviting me as chief guest to inaugurate this workshop on the contribution of medical schools to national health development.

First of all I should like to welcome the participants, on my own behalf, on behalf of the University of Peradeniya and on behalf of the citizens of Kandy. As you are probably aware, I am myself not a member of the medical profession, but I do have a most direct interest as Chancellor of the Peradeniya University in the subject that you will be discussing in the workshop.

We are very familiar these days with the word "development", but less so when it is coupled with national health. The words "national health development" are not intended to refer to the health of the nation as a nation. That would perhaps be more appropriate to a gathering of economists, planners and sociologists. Such a gathering may well be concerned to discuss the bad state of the finances of the country, the high pressures generated in the economy of the nation by inflatory tendencies, the growth of a cancer of corruption in the body politic or an epidemic of bankruptcies among public and private corporations, and such similar subjects. These certainly are indices of ill-health in the nation. The workshop, however, will be more concerned with health in its literal sense, the health of the people, of the community and the place medical schools have taken and can take in the development of the health of the people.

In many developing countries respective governments have embarked on large development schemes which involve agricultural, industrial and allied sectors. These have been undertaken in an attempt to raise the economic standards and improve the quality of life of the people concerned.

International agencies like the World Health Organisation have themselves realised the importance of the need to improve the health status among the people of all nations. It has also been indicated that raising health status to high levels would necessarily be accompanied by an improvement in the quality of life, particularly in less developed countries. The World Health Organisation's target of "Health for all by the year 2000" is intended, partly at least, to motivate national agencies and planners to meet this challenge when devising development strategies.

Development effort in any country, whether in the agricultural, industrial or any other allied sector, must necessarily be linked with the need for attention to the health problems that would be generated by those very efforts.

Agricultural and industrial development are necessarily accompanied by change, modification or even total alteration of the environment and ecology in the areas where development is taking place.

Every country, at whatever stage or level of development it may be, has a series of integrated systems to monitor, evaluate and take care of the health of its peoples. The time appears right to take another look at the systems available for delivery of health care, in the context of vast changes that are occurring in the less developed countries. A system that was appropriate at a particular time in the history of a nation may be inappropriate at a time when the science of medicine and the technology which supports it have progressed beyond the boundaries originally conceived.

A fresh look at the different facets of the existing systems for the delivery of health care seems to be desirable. Medical schools seem to be well adapted for the study of these problems and for devising appropriate remedies.

Some areas in which such studies may be carried out are:

- Primary health care. How effective are the existing systems? Cannot community participation be harmonised and intensified?
- Maternal and child health or family health. Are measures now adopted for improving standards of maternal and child health achieving their targets and goals? Are additional measures and improvements necessary? Can these be identified?
- Nutrition. It is common knowledge that malnutrition is a major health problem in many developing countries. It has also been pointed out that unless appropriate action is instituted immediately, the situation will be worse at the end of the next two decades. Can measures to correct this be identified and implemented?
- Health education. Health education can contribute tremendously to the improvement of the health status of the people. Cannot efforts in this direction be strengthened and multiplied?
- Drugs. Large parts of national budgets of less developed countries are spent on the purchase of drugs. The never-ending escalation of the cost of drugs strains national budgets, particularly in less developed countries. Should not the choice of drugs be governed by maximum therapeutic effectiveness coupled with maximum cost-benefit to the country?

Today, so far as Sri Lanka is concerned, the larger function of medical schools is to contribute to the development of health manpower - that is, the production of medical graduates who may serve in the national health services. Many of them leave the country and take up employment abroad, tempted by the high emoluments which they can command and which we are unable to match here. Of course, a fair number remain who show at least some concern for the people of their own country, but I believe we are still short of the optimum numbers necessary to man the national health services.

Our medical schools do a considerable amount of research. But I believe that if medical schools and ministries and departments of health which run our national health services, both curative and preventive, could collaborate in this connection, the research could be channelled into areas where experience gained in the running of the national health services shows in what fields in-depth studies need to be undertaken and new and innovative systems of health care evolved.

I hope that this workshop will produce new ideas and make recommendations whereby the medical schools can consciously participate somewhat more directly than is at present the case in the provision of national health care and its development.

I have pleasure now in formally declaring this workshop on the contribution of medical schools to national health development open. May your deliberations be fruitful and successful.

KEYNOTE ADDRESS ON RELATIONSHIPS OF MEDICAL SCHOOLS AND MINISTRIES OF HEALTH BY PROFESSOR R G PANABOKKE

At the outset, I take this opportunity to thank the organisers of this workshop and in particular Sir Kenneth Stuart, Medical Adviser to the Commonwealth Secretariat, for

having invited me to give this address. I consider this invitation a signal honour, not only personally to me but also to my country, Sri Lanka, and to the Faculty of Medicine, University of Peradeniya.

In this address, I have no intention of making any categorical pronouncements about what would constitute an ideal relationship between medical schools and ministries of health. Instead, I hope to raise numerous questions relating to different factors which I think would influence this relationship. I do not intend giving you answers to all the questions I raise; but I hope that I will be able to rouse your curiosity, and through this stimulate discussion on the questions I have posed, as this workshop progresses. Much of what I will be telling you is drawn from the Sri Lankan situation, and the experience I have gained by working in my own country.

A study of the relationships of medical schools and ministries of health would necessarily warrant looking into the general objectives that these two institutions aim to achieve. It would further necessitate a study of the facets of activity each institution engages in for achieving its objectives, and it would require an examination of the ways in which such activities integrate with, complement and supplement each other.

More than ever before, today we are aware that the health status of man is affected by several factors. Among these we would include the following:

- the environment, with all the disease-producing agents it contains;
- hereditary factors;
- behavioural factors (customs, cultural influences etc);
- availability of medical care facilities.

As such, today we should talk of total health care, where all the above factors concerned with health status are considered. At present, however, great importance is given to medical care facilities, although this appears to be only a small but important facet among the things that influence health status.

Reflection on the objectives to be achieved by both the ministry of health and medical schools will make it apparent that these will have to be closely linked to national health objectives and to the national health policy laid down for the country. The formulation of national health objectives and a national health policy will necessarily require consideration of the four broad factors which influence health status referred to earlier, so that implementation of this policy will keep the health of the community within normal limits. In pursuance of this, it will be observed that general objectives of ministries of health would be based on community needs, whereas those of medical schools will have academic excellence as their goal. It is then clear that the relationship between medical schools and ministry of health should be such that the medical schools, whilst continuing to maintain academic excellence, will be able to contribute in the fullest measure to the implementation of a national health policy based on community needs.

For the formulation of proper objectives to be attained by the ministry of health and the medical schools, fundamental information relating to health problems in a particular country should be readily available. This would necessitate the establishment of "information units" in ministries of health, which are continually fed with data relating to:

- (a) the incidence and prevalence of disease;
- (b) the factors that may contribute to such incidence and prevalence;

- (c) the measures adopted to combat such diseases; and
- (d) the results of critical evaluation of the effectiveness of such measures.

Should not the medical schools be very closely knit and integrated with activities of such "information units" set up in the ministries of health? Would it not be appropriate for academics to be active members in the teams that operate these units? Will not the formulation of national health objectives and a national health policy on the basis of fundamental information produced jointly by the ministry of health and medical schools strengthen the bonds between them, and also provide a means to sensitise medical schools to evolve curricula so that the skills and competencies imparted by the schools equip the doctors to tackle health problems in the national context?

It is my belief that relationships standing on the basis of joint activities will be healthy and mutually beneficial to both ministry of health and medical schools. I am confident that this type of relationship will spark off an awareness of the need for imparting what I like to call "innovative skills", whereby doctors can tackle health problems in situations where the ministry of health cannot provide the ideal facilities and resources, as is often the case in developing countries. It is also opportune for me now to add that if medical schools work jointly with the ministry of health in the evaluation of the internship training, this could act as a catalyst and sensitise medical schools to adjust their curricula to be on the same wave-length as the functions that the newly-passed-out doctor will be called upon to perform. It will also enlighten medical schools on the actual facilities available to the doctor in the hospitals of the health ministry for the performance of these functions.

Planning strategy and the operational mechanics for achievement of objectives will be closely knit with funds available, and governed by the sources that provide funds for such activities. In Sri Lanka, nearly all activities relating to the attainment of national health objectives other than the production of doctors are funded through the ministry of health. The ministry of higher education is the source which provides the funds to the medical schools. In some other countries medical schools are funded by the ministry of health. What relationship should exist between the ministry of health and medical schools in a country like Sri Lanka where the major part of activities for the attainment of national health objectives are funded by the ministry of health, and where the instrument which produces a key facet of health manpower - the doctors - is funded from a different source? Is this system better than or less effective than one in which medical schools come under the ministry of health? Can we say that the dual system as seen in Sri Lanka is better? If so, what are the reasons? Is university autonomy protected more if medical schools come under the ministry of higher education and not the ministry of health? What measures can be adopted to achieve a close and co-ordinated relationship between ministry of health and medical schools where the dual system operates, so that funds provided from the two sources are used profitably for the mutual benefit of both? I do not intend to provide the answers to these questions now. I hope they will be considered in the discussions that follow.

I wish to emphasise that health manpower forms one of the key instruments in the hands of the ministry of health for the purpose of attaining its objectives. Manpower is as important as the provision of funds for carrying out effective programmes. Having funds without adequate manpower would be like having adequate fuel resources and being without machines. You are aware that medical schools in countries like Sri Lanka contribute only in a small measure to the production of this manpower, helping mainly in the production of doctors, the key facet of health manpower in any country. Recently, our medical schools have got involved in providing facilities for drawing up curricula, and monitoring courses offered, for training assistant medical practitioners. Nevertheless in Sri Lanka there appears to be little liaison and consultation between medical schools and ministry of health in health manpower planning and development. We also know that the ministry of health employs, in addition to its doctors and assistant medical practitioners, other categories of staff like nurses and a host of

paramedical workers (pharmacists, radiographers, midwives, laboratory technologists, public health inspectors, social workers, etc.). Should not an effort be made to have close consultation between the ministry of health and medical schools in the planning and training of this huge mass of health manpower, particularly in view of the fact that it forms the infrastructure on which the doctor works? I am convinced that the training, and through it the skills and competencies possessed by this infrastructure, must integrate with that of the doctor if the doctor is to be given an opportunity to bring out the fruits of his training in full measure.

Following on what I have just stated, I would like to add that motivation to apply the health care team approach for solving health problems can be stimulated through the existence of a close and healthy relationship between medical schools and ministry of health. As I have said earlier, generally, medical schools produce the leaders of the health care team, whereas the ministry is responsible for provision of the rest of the members of this team. It will be realised then that there has to be an integrated effort by all members of the team if the health care team approach to solving problems is to become a reality. As such, I wish to reiterate that in order to produce this collective effort the skills and competencies possessed by different members of the health care team must integrate, and I emphasise again that this can easily be achieved through the training programmes. Attention should be focused at this workshop on the type of relationship that should exist between medical schools and ministry of health, so that the health care team approach for delivery of health care can be promoted.

At this stage, I would like to digress a little and make reference to the training programmes for nurses as seen in Sri Lanka. All their training programmes are designed and conducted by the ministry of health, with little or no consultation with the medical schools. There are no courses in the medical schools whereby a nurse trained in the nursing schools of the ministry of health could read for a degree or diploma in nursing at undergraduate level or at postgraduate level in our universities. There is no mechanism by which a nurse trained in the nursing schools of the ministry could, after a period of service as a nurse, be fitted into a degree course in medicine with concessions afforded in recognition of the training in nursing already possessed. A close relationship between medical schools and ministry of health would stimulate positive steps being taken to close up gaps in the training programmes I have just referred to. I am confident that such relationships, with attendant consultation, could lead to the development of new vistas of training. It will also lead to the building up of confidence that certain skills performed at present by doctors only, like the administration of anaesthetics, could even be done by nurses in certain specific situations. Realisation of this may help to minimise shortages of trained manpower in developing countries like Sri Lanka.

The march of science has provided man with various technologies to solve the different problems he faces. Health problems are no exception to this. These technologies range from those which are very simple to those which are very complex and sophisticated. The cost of technology also varies, and is related to its degree of sophistication. Simple technologies do not require a highly-trained or highly-paid infrastructure of workers. Sophisticated technology, on the other hand, requires an infrastructure that is very costly and highly trained.

Generally, medical schools in developing countries attempt to train students to highly-sophisticated and highly-expensive technological levels, which would be in keeping with the resources of the richer and more developed countries. It will be apparent that, as a result of lack of financial and other resources, the use of these technologies does not move the country in the direction of self-reliance, and it even creates a sense of frustration among the technologists. I hope that as a result of the discussions that take place at this workshop, suggestions will be made as to how the relationship between medical schools and ministry of health should be designed so that the two institutions can jointly determine the appropriate technology to be taught in the medical schools and used by the ministry of health for the delivery of health care. This should be done

in such a manner that it gives the country a sense of self-reliance, removes frustration and falls within the financial resources of the country whilst producing the maximum cost benefit.

In certain countries of the world and particularly those geographically located in the South-East Asian region, several different systems of medicine are available for the delivery of health care. In Sri Lanka, two different systems of medicine are utilised by the ministry of health. They are the Western system on the one hand and the Ayurvedic system, perhaps including traditional medicine, on the other. It is important to realise that in countries like Sri Lanka a large segment of the population is rural and semi-urban, and many people from this sector utilise the facilities provided by the Ayurvedic system of medicine first, before seeking Western treatment. When university institutions available for teaching medicine are examined, it will be observed that there are four faculties of medicine in Sri Lanka's universities and now a private medical college affiliated to the University of Colombo, all of which train doctors to practice Western medicine. Recently, however, the Ayurvedic College of Medicine has become an institute affiliated to the University of Colombo.

Although the ministry of health employs the services of both the Ayurvedic system and the Western system of medicine for the delivery of health care, the medical schools of the universities do not have much information as to exactly how health care services delivered by institutions belonging to these two systems integrate with, complement and supplement each other. The general impression is that people seek Ayurvedic medicine when Western treatment fails, and vice versa. Further, very little is known by doctors trained in the Western system of the drugs and other therapeutic measures offered by Ayurvedic practitioners.

I point out with considerable concern that in my country no organised scientific mechanism is available, either in the ministry of health, the schools of Western medicine or schools of Ayurvedic medicine, to evaluate the relative results of treatment offered by these different systems. It is my view that this workshop should bear in mind what I have just said, and attempt to suggest the type of relationship that should exist between ministry of health and medical schools, which would sensitise medical schools teaching Western medicine to the need for evaluation of therapeutic agents and health care measures offered by the Ayurvedic and other systems of medicine, using scientific methodology without bringing about conflicts between medical councils and practitioners belonging to the different systems.

All of you are aware that teaching and research are two principal facets of activity engaged in by medical schools. We also know that in a country like Sri Lanka its ministry of health is involved in research activities to a considerable extent. This is evidenced by the fact that Sri Lanka's ministry of health has under it the medical research institute, primarily set up for the purpose of carrying out research in different fields of Western medicine. Not so long ago, however, an Ayurvedic research institute has also been established in Sri Lanka. Although in recent years Sri Lanka's ministry of health has attempted to set up some sort of national co-ordinating body for medical research, this venture is at present in its infancy and is in no way comparable to what is seen in developed countries like Britain. It is possible that the situation prevailing in Sri Lanka is what is seen in some of the other developing countries also.

At this point I would like to remind you that medical research is a many-faceted thread of activities which runs through medical schools and ministry of health, in a manner similar to the way in which delivery of health care does. Important components which make up this thread are a research policy, research priorities, the social relevance of research, funds for research, a research organisation, research technology and trained manpower for carrying out research.

It is hardly necessary for me to stress the need for close consultation and liaison between medical schools and ministry of health in the formulation of a national research policy and national research priorities, bearing in mind social relevance.

Medical schools and ministry of health form the key institutions which are involved in getting medical research done. Would not a meaningful relationship between these two bodies assist in the establishment of a research organisation whereby good co-ordination will be ensured? Would not such a relationship prevent duplication of research investigations and lead to maximal and optimal utilisation of funds and resources available for research? As I have indicated earlier, two important requirements for carrying out medical research are technology and trained manpower. What sort of relationship should be built up between ministry of health and medical schools so that it will be of mutual benefit when choosing and developing research technology and training manpower necessary for research? I leave these thoughts with you in the hope that you will give due consideration to the questions I have just raised.

I would now like to focus your attention on the teaching hospitals, because they are a meeting point for medical schools and ministry of health. In my country all teaching hospitals are established under the ministry of health, and are managed by it. However, as a pilot experiment the Sri Lanka ministry of health has made arrangements for the new teaching hospital at Peradeniya, opened in 1980, to be managed by a board which has so far not been given executive powers, but has heavy representation from the university on it.

A look at activities carried out in Sri Lanka's teaching hospitals will show that common interests are shared between the ministry of health and the faculties of medicine. In the teaching hospital, the ministry is involved mainly in service function and hospital administration. It plays some part in the teaching programmes, by providing its medical consultants as clinical teachers; it also participates marginally in research studies. Medical schools on the other hand, whilst playing a key role in teaching and research, are involved to a somewhat lesser extent in the service function and very minimally in administrative duties.

When interrelationships of this kind exist between medical schools and ministry of health at its teaching hospitals, should not medical schools work in close consultation with the ministry of health in the designing and management of these hospitals? Should not medical schools and ministry of health decide jointly on the provision of funds, manpower and other facilities, and also on matters relating to expansion and development of such hospitals? I hope that the participants at this workshop will take note of the remarks I have just made, and focus their minds to the nature of the relationship that should exist between ministry of health and medical schools, so that it will promote to the fullest measure the purposes for which teaching hospitals are established - namely patient care, teaching and research.

Before I conclude, I crave your indulgence to permit me to digress a little and tell you that my mind perceives the ideal relationship between medical schools and ministries of health as an exquisite fabric woven with threads of different colours, with each thread in the fabric representing one of the various activities based on the objectives of these two institutions. Proper interrelationships between medical schools and ministry of health should achieve good integration of these activities, and thereby produce a fabric which shows up fine texture and a beautiful design. Good integration will also bring the threads of activity close to each other, strengthening the fabric and intensifying the relationship.

Finally, I conclude this address with the hope that your deliberations in the next few days will bring forth ideas on which you will be able to recommend the nature of the relationships that should exist between medical schools and ministries of health, so that there will be strong bonds between these two institutions, which would direct their efforts for the mutual benefit of each other and the country as a whole.

REPORT OF THE WORKSHOP

RELATIONSHIPS OF MEDICAL SCHOOLS AND MINISTRIES OF HEALTH

Professor Panabokke (Sri Lanka), in his discussion of the relationship between medical schools and ministries of health (see text of his keynote speech, on preceding pages), identified five areas which needed particular attention, namely:

- (a) the collection of basic information on health conditions in the community;
- (b) the identification of problems, based on the data so obtained;
- (c) the formulation of objectives for the solution of these problems;
- (d) the establishment of operational mechanisms for their solution, and for the evaluation of the results applying these mechanisms;
- (e) the allocation and distribution of resources.

2. Dr Jagjit Singh (Malaysia), considering the relationship from a ministry of health point of view, suggested that the present organisational structures of ministries of health and medical schools did not allow sufficient co-ordination. He thought that closer co-ordination should be achieved in four areas:

- (a) administration;
- (b) training;
- (c) consultant/advisory functions;
- (d) research.

He illustrated these suggestions by describing the situation in Malaysia.

3. Professor Casselman (Canada) gave two Canadian examples of the type of relationship that could be established between medical schools and ministries of health:

- (a) the Outreach Program of the Health Sciences Faculty of the University of Western Ontario, designed to reach the remote areas of the Province of Ontario;
- (b) the development of teaching health units, analogous to teaching hospitals.

4. In the general discussion a number of participants described, and commented on, the relationships between medical schools and ministries of health in their respective countries. It was evident that a communication gap existed and it was felt necessary that this gap should be bridged.

5. A mechanism suggested as useful for bridging the gap was a national health development council or committee, with the required political commitment and with appropriate representation from the ministry of health, the ministry of education and the medical schools. It was further recommended that this council or committee should establish sub-committees with responsibility for particular areas, such as education, manpower planning, manpower production and research.

6. Some of the attempts at bridging the gap which had been made so far depended on informal, personal working relationships; but there was a need to reinforce these by making more formal arrangements.

7. Difficulties in obtaining adequate political support were recognised. So also were difficulties that arose as a result of decisions made on purely political grounds.
8. Concern was expressed at the insufficient co-ordination and co-operation between ministries of health and medical schools in their respective functions. This led to conflicts between political decisions as implemented by the ministries, on the one hand, and the academic autonomy of the medical schools on the other.
9. Another area of concern was the administration of ministry of health hospitals which were used by medical schools as teaching hospitals. It was considered that problems which arose might be solved if such teaching hospitals were managed by boards of management on which ministries of health, medical schools and the community were represented.
10. The types of doctors trained in medical schools for community health care delivery were also scrutinised by the workshop. It was agreed that for this purpose the "super-generalist" (i.e. general medical specialist) would fulfil a more useful function than the "super-specialist". But while the requirements of the community and ministries of health favoured the production of general medical specialists, the medical schools were oriented to the training of the "super-specialist".
11. It was suggested that co-ordination between ministries of health and medical schools should be promoted through joint representation at international meetings where matters concerning health care delivery were discussed. This would encourage joint decision-making, the desirability of which was repeatedly endorsed during the discussion. It would also constitute a recognition of the need for, and would make possible, the best use of scarce resources, which were a constraint common to the majority of Commonwealth countries.

Recommendations

12. The workshop made the following recommendations:
 - (a) Commonwealth ministers of health, deans of medical schools and representatives of the health professions should jointly establish effective means for discussions on, and the preparation of, agreed joint plans of action for national health development.
 - (b) Ministries of health, ministries of education and deans of medical schools should jointly strive to establish formal national health councils, or similar advisory organisations, which might incorporate the concept of the national health development network put forward by the World Health Organisation.
 - (c) The national health councils should include in these areas of concern national health policy formulation and implementation; multi-sectoral health planning, monitoring and evaluation; health manpower and development; and the development of health services. The councils should provide opportunities for the exchange of views on health matters of mutual concern, and should advance better mutual understanding, between the ministries and the medical schools/universities on specific issues and on their respective roles and objectives.
 - (d) The national health councils should establish medical and health education sub-committees with representation by appropriate personnel from medical schools, ministries of health, ministries of education and health professional associations.
 - (e) The medical and health education sub-committees should advise on the formulation, implementation and monitoring of national medical and health education policies appropriate to the needs of their countries and consistent with the general national health policies. The medical and health education policies

should be drawn up for each category of health professional, including medical undergraduates and postgraduates and all other categories of health workers.

- (f) National health councils should likewise establish other sub-committees for such important areas as health manpower planning, health services research and medical research.

MEDICAL SCHOOLS AND COMMUNITY HEALTH EDUCATION

13. Professor Sir Kenneth Standard (University of the West Indies) described as background to this item into the development of community medicine in the medical faculty of his university (see also his paper, included in the documents section of this report). Under this programme medical students had received some of their training while living and working in the community itself. They also gained experience in basic epidemiology through project work which exposed them to some of the socio-cultural determinants of health and disease. The medical faculty had also assisted with the training of health workers other than medical students, some of them in joint courses with medical students.

14. Experience with the community medicine programme had indicated that community participation might be improved as a result of including health education as an integral part of the training courses.

15. Professor Standard concluded his presentation by suggesting some guidelines for further action and certain proposals and recommendations for consideration by the workshop.

16. Dr Pathik (Fiji) presented a paper (included in the documents section) reflecting the views of his ministry of health on modifications of the medical curricula to make the training of medical students more appropriate for the purpose of meeting community needs, an approach much appreciated by ministries of health. He pointed out that medical schools could be considered a pivot for community health education. For community health education to be effective, however, close liaison between ministries of health, ministries of education and medical schools was essential. Voluntary organisations active in the community and professional associations should also be involved.

17. The workshop agreed that medical schools had an important responsibility in connection with community health education, and that health education was a vital component of community health development strategy. The problem, however, concerned the responsibility for transferring knowledge and imparting health education to the community. It was suggested that doctors themselves, besides other health personnel, should perform this role.

18. The workshop considered some of the constraints preventing the orientation of medical education and medical practice towards the development of community health. It was felt that the concept of a "doctor" should not be restricted to the technical aspects of medical practice, but should include the role of the doctor in health education and community health development. The orientation of their training was an important determinant of the attitudes of medical trainees. Indeed, the success of some recent community medicine programmes appeared to be the result of greater awareness of community needs.

19. It was agreed that, in order to encourage the participation of doctors and specialists in community health work, appropriate basic facilities, equipment and incentives should be provided.

20. The workshop urged greater participation in community health training and education activities by all departments of medical faculties, so that medical students

should be brought to appreciate the joint role of all in community health development.

21. Correspondingly, joint training of medical undergraduates, nurses, health inspectors, midwives and other paramedical personnel was urged. It was felt that the joint learning experience would serve as a basis for team work, since promotion of interdisciplinary collaboration was an essential foundation for successful community health development.

22. The need for collaboration between medical schools, ministries of education, ministries of health and international agencies was also endorsed, as close links between them would promote the necessary team approach.

23. The importance of community participation was emphasised, not only for imparting knowledge but also for awakening people's sense of responsibility for the maintenance of their own health and that of their families and community.

24. The desirability of expanding the role of medical schools to include participation in the training of other health personnel besides doctors, such as nurses and paramedical staff, was also stressed.

25. To achieve these objectives, the workshop considered that training in the techniques of mass communication, information transfer, and management skills should be an essential component in the training of health personnel. Medical schools should be resource centres, providing guidelines on health education for schoolteachers, including teachers of pre-school children, and for children themselves. They should also provide facilities for the continuing education of health workers at post-basic and postgraduate level.

26. Learning experience in practical situations in the field was as effective as formal training sessions, if not more so, since "involvement" was seen to be the crux of the desired change of attitudes towards more effective delivery of community health care.

27. An example of how better community health could be promoted was the establishment of "doctor in the clinic" or similar radio or television programmes, linking medical personnel with the community.

28. The workshop recommended that specialists in health education should be trained, in local settings, and made available to give direction and advice in health education services.

29. It was recommended that there should be a **clear policy statement** from the highest level regarding health education, including school health education, not only to give guidance for action but also to indicate the priority given to this important area of community health development.

30. It was also recommended that there should be a well-organised health education unit strategically placed within the administration of each ministry of health in order for it to function effectively.

Recommendations

31. Having accepted that the training of a doctor should include, and place appropriate stress on, his or her role in health education and community health development, as well as the technical aspects of medical practice, the workshop made the following recommendations.

(a) Medical schools can and should play a role in community health education by developing interdisciplinary programmes for health education. One way to do this would be to hold seminars, workshops or short courses for health professionals and

for medical students, student nurses and other health trainees - in recognition of the distinct advantages of having these different categories together for such activities.

- (b) There should be active encouragement of, and incentives for, health professionals to work in community health development.
- (c) Medical schools, ministries of education, ministries of health and international agencies should collaborate to promote the team approach which is a vital component of community health development.
- (d) The training of health personnel should include techniques of mass communication and information transfer to the community, and the imparting of management skills should be an essential component. Techniques used should emphasise field-based learning experience in practical situations in addition to formal classroom training sessions, since "involvement" effects faster changes of attitude.
- (e) Medical schools should be resource centres, providing guidelines on health education for the community, including teachers and also children.
- (f) Medical schools should provide facilities for the continuing education of health workers at post-basic and postgraduate levels.
- (g) In order to achieve the maximum impact in community health education programmes, appropriate use should be made by ministries of health and ministries of education, in conjunction with medical schools, of the public communication media: press, radio and television.
- (h) Specialists in the field of health education should be trained and made available to give direction and advice in the health services of each country.
- (i) Ministries of health and ministries of education should make a clear policy statement from the highest level regarding health education and school health education, where this has not already been done, not only to give guidance for action but also to indicate their commitment to total community health development.
- (j) All local development staff should be utilised as much as possible, under the guidance of district medical staff and specialist health education workers, in the implementation of community health education programmes at grass-roots level.

MEDICAL SCHOOLS AND PRIMARY HEALTH CARE

32. Professor Fendall (formerly of the Liverpool School of Tropical Medicine, Britain) introduced his paper (included in the documents section of this report) with a brief historical summary of the development of health services, medical schools and health manpower in general. He viewed primary health care as part of the overall socio-economic development process, existing at various levels. Although all countries wished eventually to have professionally-manned health services, most had to settle for a mixture of professional and para-professional personnel. The objective of primary health care was to bring health services into closer and more intimate contact with the family in its own setting, having regard at the same time to safe arrangements for referral.

33 In order to determine an appropriate delivery system and suitable educational courses within the resources of each country, Professor Fendall advised a systems analysis approach involving social, epidemiological and facility services, and task and job analysis. These aspects were portrayed in diagrams appended to his paper.

34. Development was a complex process; the role of the physician in this process had to be determined and the composition of the interdisciplinary health team defined.

Medical schools had a considerable role to play within primary health care in teaching, research and services. But the first requirement was that they should become informed about primary health care and that they should relate their activities to agreed national policy decisions.

35. The options open to medical schools ranged from no participation, a co-ordinating role in teaching and research, a consultant and advisory role, an active co-operative role assisting in teaching, research and evaluation, to a total activity in all aspects.

36. Expanding on these various options, he mentioned in particular the need for the design of specific curricula and lesson content, for the design of teacher training and management courses in primary health care, for the preparation of research protocols, and for evaluation studies. Special attention needed to be given to the curriculum of the medical student. Studies were required to determine circumstances in which referral was required, and to determine the input of various specialities into primary health care activities.

37. Professor Fendall considered that the medical school should be mindful of its role as an integral part of the university in ascertaining and affirming the aspirations of the society it served in respect of health care. He warned that primary health care was not a cheap option, providing simplified care, but was likely to result in an increasing demand for resources, facilities and manpower, and a considerable increase in the need for referral care. He saw virtue in medical schools expanding into faculties of health sciences, in order to give reality to the health team concept. He also referred to the potential of traditional practitioners for primary health care.

38. Dr J J Thuku (Kenya) introduced his paper (included in the documents section) by pointing out that, despite an internationally-agreed definition of the term "primary health care", the application of the concept varied in different parts of the world, to meet a variety of actual conditions and aspirations. Essentially, it implied a change in the pattern of resource allocation to give more attention to the needs of rural communities, at present disadvantaged. Its application was thus likely to arouse resistance from policy-makers who tended to be members of the more advantaged groups and reluctant to give up what they already had. It was consequently necessary to convince those at the highest political level, and also the professionals, of its desirability.

39. All countries were committed - at least, in theory - to provide health for all by the year 2000, based on the primary health care concept. Among the many things to be done an important one was to get medical schools to influence medical students, at both undergraduate and postgraduate levels, so that they would fully understand the concept and facilitate its implementation.

40. Medical schools could do this in a number of ways: for example, by modifying their criteria for the selection of medical students, by modifying curricula, and by bringing medical students into contact with other health workers at an early stage of their training. Kenya's faculty of medicine had been involving its students in rural realities since its inception. The periods during which they worked in rural settings might not be long enough, however. There were financial constraints and external assistance might be needed to overcome these.

41. In the workshop discussion of this item, basic issues which were considered included:

- (a) the definition and scope of primary health care;
- (b) the acceptance of primary health care by faculties of medicine and ministries of health as a vital part of the strategy for health for all by the year 2000;
- (c) ways of increasing the involvement of medical faculties in primary health care delivery.

42. It was agreed that primary health care was vital in community health development, but doubts were expressed as to whether its acceptance as such by faculties of medicine and ministries of health was universal. It was also agreed that primary health care should not be the isolated concern of the department of community health, but that it should permeate the entire spectrum of activities in the faculty. This necessitated the identification of areas relevant to each department or discipline: for example, what constituted primary surgical care, primary medical care, and so on.

43. The identification of community needs was considered important for the planning of primary health care delivery systems, and it was felt that generalists rather than specialists were required for community work. Primary health care delivery involved political, social and cultural factors outside the scope of medical schools; attitudes towards community health were determined not only by medical school curricula but also by the needs and demands of society.

44. The need to evaluate primary health care activities, and techniques for doing this, were also discussed. Areas suitable for attention were seen to include the content of care, acceptability to the community, and success in reaching targets.

45. It was accepted that the promotion of primary health care must vary from country to country, depending on such factors as population structure, health priorities of the community and differing roles of health personnel.

46. As regards training for primary health care work, participants were agreed on the importance of non-formal exposure of medical students to field conditions and of learning experience through involvement in field situations for sufficiently long periods.

47. The importance of various categories of staff needed for primary health care work was discussed. The essential role of paramedical staff was emphasised, and their existing contribution was given due recognition. A key factor for the success of primary health care was seen to be the selection of medical trainees for primary health care work. Should they be drawn from rural areas, in the expectation that they would return after training to serve such areas? - It was recognised that this expectation was seldom realised. The causes of this were discussed, and it was felt that poor rural conditions and the absence of incentives were contributory factors.

48. As for the cost of primary health care programmes, it was recognised that expensive inputs were required and that the optimum use of existing resources and facilities would have to be made.

49. It was thought desirable that the various categories of personnel should be complementary in their functions, rather than constituting a hierarchy of separate classes of low-tier and high-tier staff. This should be borne in mind in relation to their training (and their emoluments). For all categories of trainees, the conventional curricula were seen to be deficient in motivation towards primary health care and in generating the required attitudes to it.

50. One of the topics raised by Professor Fendall which was discussed at length was the extent to which medical schools, in relation to primary health care, should be involved in both training and delivery, in training undergraduates and para-professional staff (including non-medical staff from relevant government departments) and in postgraduate training. Although several participants suggested that medical schools were already overburdened and doubted the desirability of them becoming involved in primary health care, most thought that they should be so involved. On the question of whether training in primary health care should be given separately within the medical faculty or whether programmes involving all departments of the faculty should be devised, the consensus was in favour of multidisciplinary involvement; this was considered more useful than isolating primary health care activities in a single department. Another approach suggested was an extended internship to include primary health care.

51. There was general agreement on the need for a permanent body composed of both medical faculty and health ministry representatives to co-ordinate planning, for an active role by the medical faculty in relation to primary health care delivery, and for every health facility in the field to be used for teaching purposes.

Recommendations

52. It was agreed that each participant in the workshop should bring to the attention of his/her minister of health/medical faculty the recommendations of the workshop, and in particular the following.

- (a) Each minister of health should consider establishing within his/her ministry a special primary health care unit with additional funding to promote primary health care projects, if this has not already been established.
- (b) Deans of medical faculties should initiate discussions with every department of medical schools to determine their potential role in primary health care.
- (c) Deans of medical schools should, through appropriate channels, initiate and organise a series of meetings involving teachers in various health training institutions to discuss what they can do to promote primary health care.
- (d) Deans of medical schools should, where necessary, request their curricula development committees to review the structure and content of curricula with a view to strengthening involvement - including work assignments - in primary health care.
- (e) Ministries of health should initiate discussions at various levels - headquarters, provincial, district and sub-district - to define clearly the roles of individual personnel at each level in the implementation of primary health care.
- (f) All departments in medical schools should be urged to promote research into the health services aspects of primary health care in their respective disciplines, with encouragement and support including funding from the ministry of health and other agencies.

COMMONWEALTH POSTGRADUATE AND HIGHER EDUCATION NEEDS

53. Dr A Christodoulou (Association of Commonwealth Universities) drew the attention of participants to the Commonwealth Foundation Medical Electives Bursaries Scheme, which was administered by the Association of Commonwealth Universities (ACU). He explained the arrangements for the consideration of proposals for electives and for the eventual selection of candidates. He pointed out that the choice of areas of work and placements was the responsibility of applicants. In general, priority in the awards was given to students from the most needy countries for work in areas of the greatest need. (A copy of the relevant ACU letter to deans of medical schools, with the conditions of award, is included in the documents section.)

54. Turning to the question of student mobility, Dr Christodoulou reviewed the obstacles to the movement of students, and also junior staff, between Commonwealth countries for postgraduate training. The most significant of these was high student fees in the receiving countries for overseas students, but they also included visa charges, charges for medical services, high costs of living, travel and extra clothing costs, and difficulties in getting work permits.

55. In Britain, for example, the policy of charging fees at the full economic cost, introduced from October 1980, had resulted in a considerable fall in the numbers of overseas students - numbers in the higher education system as a whole falling from

84,000 in 1979-80 to 62,000 in 1981-82. This overall decrease concealed even sharper falls in the numbers of students from the poorer developing countries. Influential lobbies, including the Overseas Students Trust which had recently published the study "A policy for overseas students: analysis, options, proposals", were endeavouring to bring about a more favourable fees policy, with additional scholarships and technical awards through such existing schemes as the Commonwealth Scholarship and Fellowship Plan, administered by ACU, and through aid programmes.

56. The problem should not be looked at simply from the standpoint of Britain, however. Barriers to student mobility in general were seen as a major constraint on the efforts of developing countries to obtain the higher education and training necessary to sustain their development plans. They also weakened the links between Commonwealth countries.

57. There had since 1979 been various moves to develop a Commonwealth strategy to improve the situation, in which a leading role had been played by the ACU and the Commonwealth Secretariat. The matter had been discussed at the 1980 conference of Commonwealth Education Ministers and at the 1981 ACU conference of heads of Commonwealth universities. The Commonwealth Secretary-General had appointed a consultative committee on student mobility whose recommendations had been endorsed by the October 1981 meeting of Commonwealth Heads of Government. As a result, a Standing Committee on Student Mobility, of which Dr Christodoulou was himself a member, had recently been appointed by the Commonwealth Secretary-General to advise Commonwealth governments on all aspects of student mobility, including measures to assist the movement of students between member countries.

58. The strategy was to achieve a lowering of barriers to mobility by such means as:

- (a) charging fees on a marginal cost/no subsidy basis;
- (b) strengthening existing scholarship and bursary schemes;
- (c) providing special awards for students of high academic merit;
- (d) special consideration for countries with inadequate or no university facilities of their own;
- (e) special bilateral arrangements between developed countries and the poorest developing countries;
- (f) encouraging a more diverse flow between member countries of the Commonwealth.

The possibility of a coherent Commonwealth Higher Education Programme was also being considered.

59. These ideas were coupled with an explicit awareness that universities in Commonwealth developing countries were less dependent than formerly on those of the developed world. They were achieving their own maturity and were able to make a significant contribution to the development efforts of their own countries and regions. To do this more effectively, however, they needed help to develop further their strengths in postgraduate study and research - both to retain more of their own high-quality first-degree students (and give them experience closely relevant to their own socio-economic environment) and to offer opportunities to other students from countries in their geographical regions. This pointed to an important role for the Commonwealth Secretariat (including the Commonwealth Fund for Technical Co-operation), the Commonwealth Foundation, the Association of Commonwealth Universities and other agencies and associations.

60. The Standing Committee would be promoting the collection and analysis of information about the present pattern of student flow, and the identification of higher

education institutions with advanced study and research strengths which might be assisted to develop into regional resource centres. Although the emerging strategies were ambitious, the needs were real and the time was ripe for a major new phase of Commonwealth collaboration.

61. Sir Kenneth Stuart (Commonwealth Secretariat) considered the factors that would influence the setting-up of centres of higher medical education in Commonwealth regions. He stressed that Britain should no longer be regarded as the sole focus for higher medical education. He saw the need for more information about student flow and about the strengths of existing medical teaching institutions in the regions, and for political backing if regional centres were to be suitably developed. Existing institutions would have to be up-graded and new ones designed, current teaching and research programmes would have to be modified according to prevailing needs, and additional staff and facilities would have to be provided. Standards would need to be monitored by review boards. An international group of experts might be useful to advise on the implementation of these proposals.

62. Participants in the workshop agreed that these developments were desirable. The problem of the failure of students to return to their home countries after overseas training was referred to, and it was pointed out that the strengthening of centres in the less developed countries of the Commonwealth might reduce the attraction of the developed countries as sources of medical training. They might promote greater relevance of studies to local problems, and make possible more appropriate field work in the course of training. They might also help in the development of the "super-generalist" as an important agent for appropriate health care delivery in the less developed countries.

63. It was suggested that, in strengthening particular areas of training, some of the new programmes should be oriented towards middle-level rather than high-level courses - leading, for example, to diplomas rather than fellowships. This might also make it easier to overcome possible financial constraints.

64. The importance of flexibility in the content of training programmes in the projected centres was emphasised. Programmes might have to be re-designed from time to time to meet the needs of user countries.

65. The workshop agreed on the desirability of strengthening existing institutions rather than attempting to build new ones. Appropriate programmes of such institutions could be up-graded to meet agreed needs. Their standards and qualifying examinations could be certified by Commonwealth review groups, and appropriate safeguards could be introduced for sustaining them at the desired levels.

Recommendations

66. The workshop recommended that detailed guidance for initial measures to be adopted at national, regional and Commonwealth levels for the development of higher medical education centres might be given by recommendations of an **international advisory group of experts**. This group might consider such matters as:

- (a) the centres and disciplines to be strengthened;
- (b) their curricular, staffing and financial requirements;
- (c) their research and other targets and how these might be met;
- (d) their relationship with member governments at national, regional and Commonwealth levels;
- (e) the regulatory and administrative arrangements for ensuring the achievement and maintenance of the highest standards of excellence and relevance.

67. In addition, the advisory group of experts might examine the programmes of existing national and regional higher medical education institutions, including those of the British Postgraduate Medical Federation, the British Schools of Tropical Medicine, the World Health Organisation and the Wellcome Trust, so that the most appropriate Commonwealth sites and programmes could be arrived at. Representatives of such institutions might be included in the advisory group.

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DOCUMENTS

THE ROLE OF HEALTH MINISTRIES AND MEDICAL SCHOOLS

Extract from the Report of the Fifth Commonwealth Medical Conference, New Zealand, 1977. (paragraphs re-numbered)

The concept of community health development is intimately bound up with that of rural development, since 80 per cent of the developing world's community lives in rural areas. Both concepts imply movement towards a quality of life that is better for people than that which they experience at present. Thus community health is not so much about curing sickness as about enjoying good health.

2. In developing countries there are a number of factors which hinder community health development. They include:

- (a) Lack of a clear national manpower policy.
- (b) Lack of a sound health manpower policy.
- (c) Lack of an organisational concept in planning, managing and developing the system.
- (d) Lack of appropriate adaptation of standards and criteria relating to concepts developed elsewhere when these are transferred to new situations.
- (e) Lack of community participation.

Community health development, therefore, must aim at overcoming these obstacles.

NEW APPROACHES TO COMMUNITY HEALTH DEVELOPMENT

3. It is important that each country should integrate its community health development goals within a coherent national health development policy. 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, within national financial restraints, of the best attainable level of health care for all members of its 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.

Appropriate manpower training

4. When a policy for community health development is formulated to cover national needs, the demands upon manpower training loom large. The training and financial resources available in developing countries make it necessary to examine carefully what minimum training will adequately equip each worker for the tasks he is called upon to perform, either alone or as a member of a team. No country can afford to over-train its workers, or to leave trained personnel underutilised.

5. Each country therefore needs to produce clear and precise job specifications for the various categories of health workers which will be needed, after which it must assess what minimum training will enable each of these workers to do his work satisfactorily. Such a policy creates new cadres of health workers and maximises the effectiveness of national training resources.

6. The skills that must be taught cannot be limited to those of the traditional health professionals alone, but they must include those of all personnel who are concerned

with public health and social welfare. To these must be added skills of management and supervision, since community development will founder, and community health with it, unless it is implemented by people who can organise and manage the resources committed to it. There are signs that several Commonwealth countries are moving in this direction.

THE NEED FOR CO-ORDINATED ACTION

7. The annual budgets of health ministries and of university schools and their teaching hospitals together represent a substantial 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 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 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. Frequently there is difficulty in getting ministries and medical schools to work together and there can even be rivalries.

8. Government ministries, training institutions and agencies representing various community interests must feel a sense of commitment to the concept of community health development. They must be actively involved so that they contribute in a meaningful way to shaping the system. This calls for their representation on planning bodies.

HINDRANCES TO CLOSER LINKS

9. Several conditions can be identified which militate against the kind of co-ordination that is needed. These include the following.

Federal systems

10. Federal systems, such as those in India, Australia and Canada, pose problems to co-operation between ministries of health and medical schools since, in addition to the federal bodies and agencies, there are state departments of health whose activities have to be co-ordinated. As a result, it is sometimes difficult to ensure that national manpower production matches national manpower needs and it is easy to end up with manpower shortages or surpluses, particularly in those categories of health manpower which have long periods of training.

Long-established systems

11. Countries with long-established systems of health care and medical training are more bound by tradition than those with a shorter history, and therefore their medical schools, with their tradition of autonomy and academic independence, are sometimes reluctant to accept the constraints that co-operation may entail. The universities, moreover, are rightly jealous of what they see as their educational responsibility to pursue academic excellence and may resist calls to offer courses at lower levels or courses not of their choosing.

12. Conventional medical training over-emphasises the role of the doctor in healing the sick as against maintaining a healthy community and there is an understandable difficulty for institutions with a long tradition of conventional medicine to accept such major fundamental curricular changes as are implied by this change of emphasis.

13. Changes in the medical curriculum can result from strong external pressure either from the public or from health or education ministries. They can also result from internal pressure within medical schools arising from sound academic grounds. This points to the role ministries of health can play in catalysing research activity through financial grants and also by self-examination to ensure that departmental policy is in line with national needs.

Numbers of medical schools

14. Large countries and countries with a large number of universities may find it impossible for ministries of health to enjoy with the medical schools the informal and inter-personal relationship that exists in countries with only one or two universities. But even where the conditions are favourable for harmonious relations, the degree of co-operation is limited as the university usually insists on retaining its autonomy with regard to the curriculum. It is surprising how few medical faculties have defined their educational objectives in terms of community needs, or even defined objectives at all. This criticism also applies to some ministries of health. The kind of relationship that is wanted must be defined and the objectives of the relationship need to be agreed. If links are established at four or five levels, such as government, central agencies, regions, districts and institutions, there are reasonable grounds for supposing that the links will survive changes in personnel.

Departmental responsibility

15. The usual pattern is that the medical school is part of the tertiary education system and is responsible to the ministry of education. This relationship makes it less easy for ministries of health to liaise with the medical schools and can hinder co-operative action. The attention of governments was drawn to this problem, though the solution might vary in individual countries.

16. When medical schools are under health ministries, it is easier to ensure that their curriculum is adapted to community needs. It is also easier for health ministry personnel to take up lecturing positions in the medical schools and acquaint students with ministry aims.

Poor consultation between professional bodies

17. The fact that doctors' professional associations do not often have adequate machinery for consulting with nurses, physiotherapists, dentists or any of the other professional and para-professional bodies concerned with community health makes co-operation extremely difficult. It sometimes means that doctors are performing duties that could well be done by other medical workers at much less cost. The desire to produce doctors whose qualifications result in them being fully mobile internationally is an indication of the way in which professional associations tend to look outwards, instead of inwards to where the urgent needs are. It is also a factor in the brain drain.

WAYS OF ENCOURAGING CLOSER CO-OPERATION

18. Steps can be taken to overcome hindrances to co-operation. One of these is to prepare long-term national health strategies to which the medical schools can gear their teaching programmes. If this is done, the medical schools can devise curricula that are highly relevant to community needs. Some medical schools have taken on full responsibility for the health care of a community, so that their undergraduates can be trained in this environment as well as in the teaching hospitals.

19. Re-orientation of medical training towards community medicine is not achieved simply by providing a department of community medicine. Every department in the medical school must see its role in the plan and willingly give its support. One way of achieving a change of emphasis towards community health care is to give the medical school total responsibility for the health of the community so that the undergraduate students will receive part of their training within the community setting in addition to the traditional hospital setting.

20. Re-orientation is difficult to achieve without faculties re-defining their medical educational objectives. It requires time, continuous pressure and solid commitment by medical school authorities, supported by the appropriate department and the medical council. This last body in most Commonwealth countries is the arbiter of standards and, in general, of curriculum content, and so its support is a prerequisite for success.

21. If there is a long-term strategy for community health development many bodies can exert an influence. For example, medical councils can ensure that medical schools committed to community health do their work properly by refusing to recognise medical degrees unless the students have carried out part of their training in a community. Influence can also be exerted on the medical schools through involvement in such bodies as planning councils, special advisory committees on health services organisation, university grants committees and medical councils.

22. Another way is to devise machinery for facilitating interaction between ministries of health, ministries of education, medical schools and university commissions. Adequate machinery for this purpose is lacking in most countries, but it was the consensus of the meeting that it could be arranged, given a strong enough lead by ministries of health.

23. A third possibility is to establish health service research units to strengthen health planning. Such units should be in both ministries and medical schools. What is important is that they should involve the universities in analysing and interpreting the data collected, so that faculties of medicine can be kept fully aware of how resources are used, can be alerted at an early stage to situations that need changing, and can be encouraged not only to change their educational programme but to co-operate with the ministry to bring about such change within the country. Only by involving as much as possible of the community in planning and implementation can community health be converted from a pious thought to a blessed reality.

Recommendations

24. The Conference made the following recommendations for action.

National

- (a) Ministries of health should prepare long-term national health strategies.
- (b) Ministries of health should devise machinery for facilitating interaction between ministries of health, ministries of education, medical schools and university commissions, and this should include the part-time employment of some medical school teachers within health ministries and the use of appropriate health department staff in medical school teaching programmes, particularly in the areas of public health practice.
- (c) Ministries of health should promote and encourage the establishment of health service research units in universities to focus attention on the importance of curricular change in achieving national health goals, and should take action themselves to establish units within health ministries to evaluate the effectiveness of national health programmes.

- (d) Medical schools should define their goals on the basis of the changing needs of the community; this will be particularly easy in countries in which the government has developed a satisfactory national health strategy.
- (e) Medical schools should initiate and develop research units in the area of health delivery planning and education so as to provide a legitimate basis from which curricular change will flow. These units would also monitor health needs and the provision of health care as a guide to their course of work. The work of these units is relevant to health ministry planning and so it is important that, in this area, there should be direct collaboration between ministries and medical schools. The latter should also initiate special educational and research programmes in primary health care in the community.
- (f) Medical schools should review their curriculum regularly in the light of medical council and other health planning agencies' recommendations regarding national health needs.

Commonwealth Secretariat

- (g) The Secretariat should provide a consultancy service whose central function would be to assist individual countries and governments, at their 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, the consultancy service could ensure continuing exchanges of knowledge and views of relevant health issues among member states.

ANNOTATIONS TO PROVISIONAL AGENDA

The object of the workshop will be to examine the roles that are currently played by medical schools in national and regional health development programmes and how these roles might be strengthened and extended. The workshop will also consider how better collaboration between medical schools and health ministries and closer integration of their programmes might be achieved. It will be action-oriented and will pay particular attention to identifying the practical measures that might be taken by individual countries, by regional groups, by medical schools and by the Commonwealth Secretariat and other agencies to promote these objectives.

2. The agenda items are interrelated, but for convenience will be discussed separately. Some overlap of the related issues is to be expected.

ITEM I : RELATIONSHIPS OF MEDICAL SCHOOLS AND MINISTRIES OF HEALTH

3. In his keynote address and position paper, an abstract of which has been circulated, Professor Panabokke raises the key questions that relate to the roles and relationships of medical schools and ministries of health. Some of these questions were also discussed by Commonwealth Health Ministers at their Fifth Commonwealth Medical Conference, held in New Zealand in 1977. A relevant extract from the report of this Conference has also been circulated. Practical responses to the questions raised by the Wellington Conference and by Professor Panabokke are urgently needed.

ITEM II : MEDICAL SCHOOLS AND COMMUNITY HEALTH EDUCATION

4. There can be no question of the need for medical schools, while maintaining their customary role of training them to take care of the sick, to prepare students for a wider participatory role in national and community health programmes. The former role has been facilitated by the traditions of the teaching hospital, but there has been no comparable community institution to facilitate the latter role.

5. A paper on this subject has been prepared by Professor Sir Kenneth Standard. A copy of it was circulated to participants before the workshop.

6. Special questions raised in his paper, to which the workshop might give particular attention, include the following:

- (a) What are the requirements for a sharper focus by medical schools on national and community health? What are the constraints against achieving it and how best can these be overcome?
- (b) What would be the appropriate administrative and organisational framework for extending the medical school's involvement in community health affairs? What undergraduate curricular changes would be necessary? What would be the research needs? What new physical amenities would be required? What are the specific requirements for carrying out effective service programmes at the community level, and how would the medical school be most appropriately involved? How could the medical school participate most effectively in the process of community health education which, it is generally agreed, is the essential underpinning for effective community health programmes?
- (c) How best could the requisite political support be obtained? What effective arrangements can be made for the necessary multi-sectoral, inter-ministry and international collaborations?

- (d) What role can the medical school play in the training of community health aides and other community health personnel? What new categories of medical teaching staff are necessary and what are their training needs?

ITEM III : MEDICAL SCHOOLS AND PRIMARY HEALTH CARE

7. There is hardly a country, developed or developing, that is not actively planning the strengthening of its system of primary health care in an effort to improve availability and distribution of its health care capacities. Although the need for this has been recognised for many years, the WHO target of health for all by the year 2000 has given it a new urgency. Involving as it does techniques and approaches that have not been traditional in medical schools, it sets challenges that are both difficult and unfamiliar. The urgency of the challenge presented by primary health care is deepened with recognition of the fact that there is no other course to the target of health for all that can be followed with any expectation of success. Contemporary medical schools cannot ignore it.

8. Professor Fendall's and Dr Thuku's papers have been circulated. It is of interest how similar are the conclusions of a university professor of medicine and a deputy director of medical services. There is no conceptual gap between them to be bridged. They identify and stress similar needs and the urgency for action in relation to them:

- (a) for the medical school to play a role in education, research and the delivery of services in primary health care;
- (b) for its involvement in the design of curricula for all levels of health professionals, in research and in the finding of solutions;
- (c) for acceptance of its special role as a resource base for the ministries it serves;
- (d) for recognising its responsibility not only for medical student selection and the appropriate modification of their curricula but also for being a torch-bearer in implementing and expanding the concepts of primary health care.

9. Some of the questions which must be answered before these needs can be met include the following:

- (a) Apart from the training of physicians, what is the role and responsibility of the medical school in the training of other health personnel - auxiliaries, medical assistants, traditional practitioners, etc? What are the requirements by the medical school for implementing these roles and how can they be best met?
- (b) What are the special problems to be faced in the expansion of medical school training at the level of primary health care? What new facilities are required? What are the requisite management skills? How can these be obtained? What should be the role and responsibility of the medical school in the development of teacher training programmes in primary health care? What are the requisite measures for meeting them?
- (c) Is there an adequate health data base for the planning of primary health care? How can the medical school assist in the epidemiological, socio-economic and other studies necessary for the compilation of the requisite data? What institutional, budgetary and administrative arrangements are necessary for the success of primary health care programmes?

ITEM IV : COMMONWEALTH POSTGRADUATE AND HIGHER EDUCATION NEEDS

10. Many benefits would be derived from the achievement of a balanced flow of graduates between appropriately sited Commonwealth centres. It would facilitate wider Commonwealth collaboration; it would make it possible for graduates from developing countries to be trained in conditions that are more appropriate for their needs; and it would reduce the dependence of developing countries on expensive and sophisticated centres in the developed world.

11. It would be necessary, however, for these centres to meet a number of agreed conditions. They would need to be appropriately sited both in geographical terms and in terms of their ability to provide the requisite standard of training, to have the necessary government and inter-government support, and to attract the requisite levels of staff. The questions which would have to be answered before these objectives could be reached include:

- (a) How are the requisite centres and disciplines to be (i) identified and (ii) strengthened? What would be their curricular, staffing and financial requirements? What regulatory and administrative arrangements and what safeguards would be necessary for ensuring the achievement and maintenance of the highest levels of excellence and relevance?
- (b) What would be the specific roles and responsibilities of university medical schools, of regional national groupings, of the Commonwealth Secretariat and other supporting agencies? How would these roles be co-ordinated? What measures would be taken for dealing with the factors that are likely to influence student mobility - fee levels, housing, availability of scholarships, etc?

THE CONTRIBUTION OF MEDICAL SCHOOLS TO NATIONAL HEALTH DEVELOPMENT

Paper prepared by the Commonwealth Secretariat

The following quotation is from a speech delivered by the Honourable Dato' Musa Hitam, then Minister for Education, Malaysia, at the opening of an international workshop on "A re-look at Medical Education in the Eighties", held at the University Sains Malaysia, Penang in February 1981. It is an appropriate introductory statement for the workshop:

"It is an opportune moment for you as a group to reflect on the role of medical schools in particular and universities in general in aligning their efforts towards meeting the needs of the country. Those of you who have been associated with the development of medical institutions both at the teaching and service levels appreciate the vast resources that are needed to maintain the momentum of these projects. As the Minister of Education, I am naturally concerned that the medical schools in Malaysia must necessarily fulfil a role in keeping with the aspirations and expectations of our society. It is in recognition of this fact that I would like to take this opportunity to make this call to all medical schools within this country to reorientate their teaching so that the doctors that they produce will think in terms of preservation of health rather than essentially the curative aspects. Training should be focused and redirected towards the family and the community rather than the individual patient. The doctors who are trained must not only be inculcated with these values but also must be trained in a manner so that they will not work in isolation among themselves but would form part of a national health team which includes all other personnel in the field of health and medical education."

2. When most of the new universities in the developing world were established, the concept of the university that their founders had in mind was only in part that of a select community of academics in the mould of the established institutions of the developed world. More was expected of them. It was envisaged that they would play a dynamic role in the process of nation-building and in the promotion of development. It was this latter image of the university that led governments to provide increasingly larger funds for higher education. This is particularly true of medical schools. Even though health ministries throughout the developing world are committed to the concept of primary health care, to the need for rural health development and to the expansion of preventive health services, their governments continue to allocate an often disproportionately large amount of funds available for health care to the support of medical schools and their elaborate teaching hospitals.

3. In many of these countries the pressure for a reallocation of resources is already mounting and will continue to do so until medical schools show that they can adapt themselves to the changing health needs of their societies. What medical schools need to produce today is not further generations of professionals assured of preferred social and economic places in our societies, but a cadre of truly educated doctors whose horizons are the health and welfare of their societies and who share a commitment to promoting them.

4. Of the many areas in which the university medical schools might contribute to national health development, the workshop might focus special attention on three. Although discussed separately they are all related. They are: (i) more formal collaboration with governments and health ministries; (ii) participation in and sharing responsibility for national health priorities - e.g. community health and community health education; (iii) participation in primary health care programmes. The role of medical schools in the promotion of regional collaboration among the countries they

serve also merits discussion.

Relationships of medical schools and ministries of health

5. One of the most surprising features about medical education in most developing and many developed countries has been the absence of formal planning links between health ministries and medical schools and the lack of co-ordination of their clearly related roles. The training of health professionals often proceeds independently of the qualitative and quantitative health needs of communities and there is often wide divergence between academics and their training goals on the one hand and health service requirements on the other. There can hardly be a more crucial element in a country's national health plan than the training of its medical personnel; and it is clear that there should be close co-ordination of the training and research programmes of medical schools with the needs and responsibilities of ministries of health. The need for this was recognised by Commonwealth Health Ministers at their New Zealand Conference in 1977 and in recommendations made on methods for achieving it.

6. Several Commonwealth countries are already moving towards this co-ordination. It has probably been most completely achieved, however, in a non-Commonwealth country, between the medical school and the ministry of health of the Negev in Israel. It was achieved by combining and following two logical principles. Firstly, by making the posts of dean of the medical school and the minister of health a single joint appointment collaboration between the two institutions was virtually assured. Secondly, just as its medical students under supervision are responsible for learning about the care of the sick in teaching hospitals, similarly, and also under supervision, they were made responsible for identifying and helping to solve the other community health problems that lie outside the hospital. The distinctive concept of this school was the merging of medical education with health services within a single framework. Professor Moshe Prywes was the man behind this concept, which became a reality with the graduation of the first class in November 1981.

Medical school involvement in community health and community health education

7. Most universities in both the developed and the developing world have concentrated mainly on educating professional personnel to provide care for individual patients in a hospital setting; and with that objective they have done well. The care of the acutely sick, however, is only one of the concerns of health ministries today. Health perceptions are changing throughout the world. Hospital medical care is of course an essential part of the system, but only a part. International emphasis on primary health care, on a wider and more equitable spread of health resources, on community participation and community health education requires a revision of the training emphasis for doctors and other members of the health team and a new balance of their priorities. It is essential that this balance be reflected in the training and research programmes of medical schools.

8. The problem is that most medical schools do not prepare physicians to meet this responsibility. Systems of health care are inseparably linked to the education of health personnel and these systems cannot change without corresponding changes in education. Fundamentally, it is a matter of perceptions; how deeply those who work in the medical faculty see community health as a matter of responsibility for themselves. It is easy for the university to avoid the challenge and to take the easy option that the community's health is a matter for others, for governments, for health ministries. Little progress will be made, however, until university medical schools are prepared to offer their services, their ideas and certainly their involvement in areas of national concern.

9. The efforts of the universities that have tried to be so involved have been characterised by usually minor adaptations of the traditional approaches of more

affluent countries, but without the requisite fundamental changes in design. Few medical schools, for example, have adapted their undergraduate curricula to equip their students to undertake the supervisory and other roles which the extensive use of allied health professionals would entail. Many have thought that the introduction of a department of community medicine was all that was required to achieve this objective. What is involved, however, is the fundamental purpose of the medical school. This cannot be the responsibility of any single department, no matter how well run and how dedicated its leadership. The breadth and complexity of the subject - total health care - requires contributions from all departments. The concern of the entire institution must be clearly and continuously visible to students if they themselves are to develop a similar concern.

10. The introduction of the service element into teaching and research increases their relevance while the introduction of the academic element into the health care delivery system leads to better and more pertinent services. Medical schools need to find ways of engaging in national problems while retaining the academic autonomy needed to solve them. They must be involved in national affairs to the extent that they can fully appreciate the problems and study and teach about them.

11. This does not mean that the medical school should simply become a passive appendage of the health ministry. The real purpose of its involvement is to make it possible for the university to make its contributions through teaching and research and as a consultative resource to government. Medical schools would in this way be identified as integral parts of the total national 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.

12. In his book "Health in developing countries" John Bryant summarised the role for the university: "there are some who see an involvement of the university in questions of national health as a distraction from the mainstream of academic medicine They see in it a danger of over-extending academic resources that are already too thin. The rising challenge to universities, however, and indeed their future course, lies in resolving this dilemma, not by choosing one over the other but to couple the two in a philosophy of university action".

13. There is an understandable difficulty for medical schools with a long tradition of conventional teaching to accept the major fundamental curricular changes that are implied in this change of emphasis, but they cannot ignore it. Medical schools have always had a role to play in national health development; but they have tended to assume that this is a role solely for health ministries. National health development, however, cannot be a responsibility solely for health ministries. Health personnel training institutions, health professional associations and other groups must also be involved. Health ministries must, of course, share much of the blame for the gap that exists between medical schools and themselves; but there is no question that the medical schools themselves have been partly responsible for the lack of co-ordination of their roles with those of government. Although there are some areas in which the central aims and objectives of medical schools and ministries of health will coincide, there will be others in which they will be at variance. This is to be expected. Conflicts and confusion of responsibility, territorial jealousies and suspicions are bound to occur. They should not be allowed, however, to obscure the essential mutuality of the interests of the two institutions and the need for better co-ordination of their roles and relationships.

Medical schools and primary health care

14. The role of the medical school in the expansion of the concept of primary health care is also one which deserves special attention. Over the past decade assumptions of health policy have been scrutinised and new approaches to meeting health service needs have been advanced. The concept of primary health care has emerged as the leading strategy for meeting these needs in developing countries. The concept places emphasis on several related activities many of which are not necessarily centred around the doctor. It includes health education, preventive activities, and family health care (including family planning). It sees community participation as an essential element. It means making health care accessible not only at the sophisticated urban centre but also at the social and geographical periphery. It lays emphasis on the health approaches that are relevant and appropriate rather than what is sophisticated and fashionable. It presupposes the identification and training of community health workers. It is seen as part of a broad system of health care stretching from the most basic village resources to what the most sophisticated of the community's specialist centres might contain. It includes not only personal health services but also nutrition, sanitation, safe water supplies, immunisation, and control of endemic disease. It recognises the need for a team of health professionals at a wide range of levels.

15. These will be the central health issues for the developing world for the foreseeable future. They will be central planning agenda items for all health ministries for many years to come. They can no longer be swept under the carpet. Our medical schools would be irrelevant to our times if they did not perceive and develop a practical and substantial role in relation to these internationally accepted health priorities.

16. A further question to be answered is whether the medical school's educational role should be limited to its traditional medical undergraduate and postgraduate educational commitments. There are other training responsibilities. Although it is now agreed, for instance, that health care is a matter of team-work, too often the team members are not only trained but also work in total isolation. The medical school must certainly assume a responsibility for assisting in the co-ordination of both the training of the team and its work.

17. Special attention should also be given to the medical school's role in the education of community members themselves. The effectiveness of national systems of health care must in the final analysis depend on the health awareness, attitudes, perceptions and demands of individual community members. There can be no more paralysing assumption than the notion that the individual may shelve his responsibility for making decisions about his own health by passing it on to a doctor, a nurse or other health professionals armed with their special training and skills. A major challenge in health for a long time to come must be to inform people, to influence their behaviour and to prepare them as individuals to be more responsible custodians of their own health. Helping to meet this challenge can be an exciting and rewarding challenge for the medical school. Here again there is obvious room for better understanding and closer consultation and collaboration between medical schools and ministries of health. Wherever possible, community health education programmes should be run in partnership between the universities, the ministry and conventional community education agencies.

18. In the context of the education of community members the workshop might also examine the roles of the **public information media** - the press, radio and television. Their importance as community education resources has increased enormously in recent years. The techniques by which they bring information and news instantly to the world population have been greatly expanded in recent years. Newspapers, radio and television are now reaching more and more people; and the roles they play are correspondingly greater and will continue to increase. In the health field, the extension of primary health care services, the strengthening of community health systems and the growth of community participation will all depend in the final analysis on the strength

of public opinion and the reliability and effectiveness with which it has been informed. There is still too wide a gap between those who do scientific work and those who report their activities. An important reason for this is that few scientists accept the responsibility of presenting their findings in a form that can be grasped by the public as well as their scientific colleagues. Health ministries, universities, medical and other professional organisations should now recognise the reality of the power the media can wield in informing and guiding public opinion in the health field as in others and the need for planned collaboration with them. Health itself has always been a matter of great public interest; and the media face no great difficulty in generating and sustaining public concern about it. The medical world has been slow to enlist the powerful resources of the media in focusing on specific health problems requiring specific public understanding and response.

19. The assumptions that underlie the emerging importance of the roles of the media in the health field are simple. First, health is the result of a conscious attitude on the part of the individual and is a matter of personal responsibility. Second, since the major influences on health behaviour are the individual's health perceptions and his concept of his role based on such perceptions, major improvements in the health of communities can be achieved only by methods that can significantly modify these influences. The media have a central role to play in meeting this need; and they cannot meet it without the full collaboration of the university, the other national educational agencies, the health ministry and the medical and nursing professions.

Regional health collaboration

20. Another task for the workshop might be to examine the medical school's role in the promotion of regional health collaboration, and particularly in relation to small or specially disadvantaged countries. The Commonwealth Secretariat has recently focussed attention on the special health needs of isolated land-locked countries like Swaziland, Botswana and Lesotho in Southern Africa and small scattered island countries as in the Pacific and the Caribbean. By nature of their small size and limited resources these countries cannot hope to achieve unaided, however great their efforts, the potential of more fortunate countries. Their problems differ not only in quantity but also in quality from those of larger countries.

21. In the health field they are at risk in relation, for instance, to budgetary shortfalls, to needs that require highly trained personnel, to disease epidemics, to national disorders, to problems of brain drain, to illness of key staff, to the training and retention of adequate ranges of health professionals. Most of these problems are not exclusive to small states and are also shared by other developing countries. However, smallness, isolation add other special circumstances and particular dimensions and challenges.

22. For most of these countries the reality, both present and future, is that the quality of their health services will depend more on how effectively they can utilise existing national and regional resources than on any additions to them that they are likely to be able to make. This requires a shift in priorities in planning from more to the better use of existing resources. Certain critical questions arise for these countries: How can existing national and regional resources be best mobilised to achieve this end? What specific roles can be played by the regional institutions like medical schools? How can regional collaboration be strengthened and extended? Indeed, for many of these countries there is virtually no alternative to regional collaboration if reasonable standards of health care are to be achieved.

23. Regional Commonwealth Health Ministers in West Africa, East, Central and Southern Africa and in the Caribbean have set up special committees to examine the special health needs of the specially needy countries in their areas. Whether it is to meet the needs of The Gambia in West Africa, of Tonga or Tuvalu in the Pacific or of Montserrat or St Kitts in the Caribbean, a special responsibility falls on the regional

medical schools. The Commonwealth Secretariat has been encouraging the University of the West Indies and other regional medical schools to identify the roles that they might play in meeting the special health problems of the disadvantaged countries in their areas and the kinds of assistance that they would need for implementing these roles.

Conclusions

24. Health ministries and university medical schools throughout the developing world are making efforts to forge more effective links with each other than have existed in the past. How this is to be achieved will not always be clear or easy. What is certain, however, is that good university/health ministry links will depend not on separate government or university initiatives but on values and perceptions rooted in and shared by both organisations. In the absence of such common values there will be no real progress. It is with these shared values and objectives and how a harmonious course to them might be charted that this meeting will be largely concerned.

25. In its approaches to these objectives the role for the medical faculty lies at the centre of the community's health needs and not only within its teaching hospital and other centralised facilities. It is a role which cannot be met within the conventional concepts and resources of today's medical schools. It requires new approaches both from the medical school themselves and from the governments they serve. It requires new financial and administrative arrangements. It requires the establishment by health ministries of appropriate mechanisms for the involvement of their medical schools in their national health targets and programmes. It requires medical schools to recognise the importance of maintaining 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.

RELATIONSHIPS OF MEDICAL SCHOOLS AND MINISTRIES OF HEALTH

Summary prepared by Professor R G Panabokke* of the main questions referred to in his address to the workshop.

It would be apparent that no categorical pronouncement can be made as to what would constitute the ideal nature of the relationships that should exist between medical schools and ministries of health. Drawn from the Sri Lankan situation and from experience gained by working in Sri Lanka, the following questions are raised in the hope that they will arouse the interest of the participants and thereby stimulate discussion as this workshop progresses.

- (1) How should general objectives of ministries of health and medical schools be formulated so that they integrate with, complement and supplement each other, and bring about close-knit relationships between these institutions?
- (2) Should not medical schools be involved jointly with the ministry of health in the collection of fundamental information which would be the basis for formulation of the national health policy? How can this be achieved?
- (3) How could medical schools be sensitised to develop curricula so that the skills and competences imparted by them equip doctors to tackle health problems innovatively, and within the framework of the national health policy of the country which is largely determined by the ministry of health?
- (4) When medical schools are funded from sources other than the ministry of health, what measures can be adopted within medical schools and ministry of health, so that funds are utilised for the mutual benefit of each other?
- (5) What type of relationships between medical schools and the ministry of health would bring about motivation to apply the health care team concept solving health problems?
- (6) What should be the nature of the relationships between medical schools and the ministry of health, so that these two institutions will be able to determine jointly the appropriate technology to be taught in medical schools and used by the ministry of health for delivery of health care, so that the country moves in the direction of self-reliance whilst reaping the maximum cost benefit?
- (7) In countries where the ministry of health utilises other systems of medicine than the Western system (e.g. the Ayurvedic system), should not schools of Western medicine be sensitised to the fact that there is need for scientific evaluation of therapeutic agents and health care measures offered by these other systems? What kind of relationship between medical schools and the ministry of health would promote such activities without bringing about conflicts between practitioners of the two systems?
- (8) What type of relationships between medical schools and the ministry of health would promote close consultation in the formulation of a national research policy, bearing in mind national research priorities, cost, avoidance of duplication of research and the social relevance of research?

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- (9) How should teaching hospitals be managed? What relationships should exist between medical schools and ministries of health in the area of management of teaching hospitals so that the purposes for which teaching hospitals are established - viz: patient care, teaching and research - are exploited to the fullest measure?
- (10) In trying to formulate the nature of the relationships that should exist between medical schools and ministry of health, should not this be done in such a manner that the productive efforts of these institutions are directed for the mutual benefit of each other and the country as a whole?

RELATIONSHIPS OF MEDICAL SCHOOLS AND MINISTRIES OF HEALTH

Paper prepared by Dr Jagjit Singh*

The general structure of the administration and management of medical schools in most of the countries is about the same. They come under the ministry of education rather than the ministry of health. That being the case, the various problems that have been highlighted will persist unless we find ways and means to bring about closer co-operation and co-ordination between the three agencies involved: the ministry of health, the ministry of education and the medical schools.

2. Given the present organisational structure, I do not think that this closer co-operation and co-ordination will solve all our problems. However, I do feel that they will minimise the magnitude of these problems to some extent.

3. For a start, we could consider certain areas of co-ordination or linkages between the ministry of health and the medical schools. And if there is a genuine desire and commitment, particularly on the part of the politicians, these linkages could be further strengthened or expanded to cover other areas.

4. I would like to suggest four areas in which closer co-ordination could be brought about between the ministry of health and the medical schools. These are the areas of:

- administration
- training
- consultancy and advisory functions
- research

5. I will give a very brief account of the situation in Malaysia in these four areas. I must however, from the very start, mention that this by no means represents a solution to our problems, but nevertheless, as I have said earlier, it tends to minimise the magnitude of the problems.

6. Malaysia has a population of 13 million. It has three universities with medical faculties. The University of Malaya is the oldest university. It has its own teaching hospital. It takes about 160 medical students a year.

7. The second university is the National University. It has no teaching hospital of its own but uses the general hospital of the Ministry of Health in Kuala Lumpur. It takes in about 180 medical students a year.

8. The third medical faculty in the University of Sciences is relatively new and it took its first batch of about 60 medical students in 1981. At present it also does not have its own teaching hospital but uses the Ministry of Health facilities.

9. I will confine my brief discussion to the relationship of the Ministry of Health with the University of Malaya and the National University.

ADMINISTRATIVE RELATIONSHIP

10. The Ministry of Health is represented on the Council of the University of Malaya and the National University by the Director-General of Health or his representative.

* Director of Training and Manpower, Ministry of Health, Malaysia.

These councils are the higher policy-making bodies in the universities and are thus related to the faculties of medicine.

11. The Ministry of Health is also represented on the university hospital board of management. This board is the body concerned with the management of the university hospital of the University of Malaya where training of undergraduate medical students and postgraduate training of doctors is carried out.

TRAINING RELATIONSHIP

Undergraduate

12. The objective of the two universities is to train undergraduates and produce front-line doctors possessing the required skills to practice in rural areas, but without lowering their capabilities and skills to pursue further their education to specialist level in all fields.

13. In both the universities the curriculum is designed to reflect the service requirements, particularly of health care in the rural areas. Postings are arranged in the district hospitals. The students from both the universities are also required to conduct village health surveys as part of their training in community health or social and preventive medicine.

14. A "teaching health district" has been established in one of the health districts jointly by the Ministry of Health and the Faculty of Medicine of the University of Malaya. A joint committee from these agencies has been formed to look into this training programme. Undergraduates are trained using the health unit and the district hospital, while postgraduates conduct the practical exercise associated with a course in the MPH programme utilising the Ministry of Health facilities in the district. While in the district the undergraduates work with paramedical staff such as public health inspectors, public health nurses, public health overseers, and community nurses.

Pre-registration

15. Prior to full registration, the house doctors serve for one year in government hospitals which are recognised as "training" hospitals by the University of Malaya. What is now necessary is to review this training programme so as to bring the training more in line with the primary health care concept.

Postgraduate

16. Postgraduate training to fulfil the national requirements for postgraduate manpower is made available in the following disciplines: pathology, psychological medicine, public health, general surgery, orthopaedic surgery, ophthalmology and ENT.

17. In the developing countries postgraduate training is becoming more and more important. The medical schools in these countries no longer train only undergraduates; many of them are now providing facilities for postgraduate training. However, these facilities may be geared to satisfy the needs of the profession rather than the national needs of these countries. There is therefore an urgent need for closer co-ordination between the Ministry of Health and the medical schools on this postgraduate training.

Continuing education

18. The universities play an important role in assisting the Government in the development of the health care system by having the staff involved in conducting and

assisting continuing education activities conducted either by the Ministry of Health or the universities.

Nurse/midwifery tutors

19. The University of Malaya trains, for the Ministry of Health, tutors for the nursing and midwifery schools under the Ministry of Health.

CONSULTANCY AND ADVISORY

20. The university staff have been utilised by the Ministry of Health as consultants to assist their counterparts in the Ministry of Health in the planning of various programmes and activities. Some examples of this relationship are:

- (a) strengthening of the community health renewal movement and primary health care in the under-served areas of Malaysia;
- (b) study of the use of village aides in the provision of health care in the Entabai area of Sarawak;
- (c) development and construction of an audio-visual production centre for the needs of the health education programme of the Ministry of Health.

RESEARCH

21. Joint and collaborative research activities between the Ministry of Health staff and teaching staff of the universities are encouraged. It is expected that through such collaboration research activities will be directed more towards solving problems in the health services and at the same time eliminate any duplication.

MEDICAL SCHOOLS AND COMMUNITY HEALTH DEVELOPMENT

Paper prepared by Professor Sir Kenneth Standard*

Medical schools can play an important role in community health development through education of the health professions. Traditionally, the primary role of medical schools has been the training of medical practitioners to deliver service to ill persons either as individuals or in groups.

2. In recent years more and more attention has been given to health promotion, health education of the community and preventive measures in relation to health and disease. Over the past three decades many changes have occurred and useful advances have been made in the teaching of social and preventive/community medicine. More recent concepts indicate that significant improvement in community health programmes will result from an integration or at least a co-ordination of teaching programmes with the network of health services in the community.

FACULTY OF MEDICINE, UNIVERSITY OF THE WEST INDIES

3. The University of the West Indies started in 1948 as a College affiliated to the University of London, England. It became independent with its own charter in 1962. Before independence, the Faculty of Medicine, like other faculties, operated under the rules and regulations of the University of London. The curriculum and syllabus were similar to those of the London medical schools.

4. However, in 1954 the Dean of the Faculty of Medicine wrote to the Rockefeller Foundation seeking financial assistance for a programme in preventive medicine. He stated, *inter alia*: "After six years devoted almost entirely to initiating and establishing the medical school and hospital, it is felt that the time has come when the Faculty should widen its interest and prepare to take a leading place in the medical services of the West Indies in preventive medicine and public health, as a centre of medical education, both undergraduate and graduate; and of research Very little sound information is available with regard to the incidence and manifestation of the many varied diseases in the British Caribbean, and the influence of such factors as nutrition, climate etc. The Faculty has always felt the need for a 'baseline' on which it can build."

5. The Dean proposed a programme in preventive medicine, firstly, "to improve the facilities for undergraduate teaching to enable them (the undergraduates) to study patients in their homes and social environment, and to introduce students to the wider aspects of illness"; and secondly, "to collect fundamental medical data on the population, first in Jamaica, and later in other Caribbean territories ...".

6. The Rockefeller Foundation complied with the request in November 1955, and fully financed for five years a sub-department of social and preventive medicine which commenced its activities in April 1957.

The Department of Social and Preventive Medicine

7. The sub-department became a full department in January 1964, and departments of paediatrics and pharmacology were also established at the same time. For the first ten years of operation the teaching time allotted to social and preventive medicine was for some lectures to clinical students and a three-week rotational clerkship for small groups during the first clinical year while on a Department of Medicine clerkship.

* Head, Department of Social and Preventive Medicine, University of the West Indies, Jamaica.

8. This department has played a leading role within the Faculty of Medicine in promotion and orientation of community participation in the development of health services. Almost from its inception, the staff of the department have been working closely with the nearby village of Hermitage (population 1,700), organising and delivering a health service through community involvement. This community programme was extended in 1966 to include another nearby community, August Town. The residents were involved in the initial planning of the programme. Community leaders have worked on a voluntary basis in the clinic and also in establishing links between the clinic and the community.

9. From time to time, the department has collaborated with other departments and agencies in carrying out surveys and/or epidemiological studies focused on community health problems not only in Hermitage and August Town but also in other areas, including the hilly rural community of Lawrence Tavern 16-18 miles away from the University.

10. As early as 1963 health education was introduced as a specific subject in the teaching programme of medical students through the generosity of the Ministry of Health, Jamaica, and the co-operation of their health education officer. It was felt that medical personnel need to be prepared for carrying out responsibilities in community participation.

11. The Department of Social and Preventive Medicine has outlined as its overall aims the following:

- (a) to assist in the training of health personnel; to initiate and participate in research, especially operational research; to develop and assist in operating demonstration programmes, and to provide consultation so that relevant programmes may be planned to meet the health needs of our several communities;
- (b) in collaboration with ministries of health and other agencies in the Commonwealth Caribbean, to help to identify problems of public health importance, plan and propose ways of solving these, and evaluate the effectiveness of remedial programmes;
- (c) to plan, to develop and to evaluate programmes of health care, including environmental health;
- (d) to assess the needs of health manpower in the Commonwealth region, and to assist in organising and evaluating programmes to meet those needs;
- (e) to provide leadership in the development of action programmes and of evaluation in population dynamics, including family planning.

12. In 1966, the medical curriculum was revised and the Department of Social and Preventive Medicine extended its teaching programmes for medical students. This included teaching in the first of two pre-clinical years, and a five-week rotational clerkship in the second of three clinical years when one-tenth of the class of almost 100 students rotated through the department on a full-time basis every five weeks. This clerkship has been the highlight of our teaching programme. Students receive training and experience in community medicine, working through the community health centre of the department, the City Health Department and various institutions in the city and in the rural parishes.

13. An important aspect of the clerkship was, and still is, a two-week rural field experience introducing students into broader facets of community medicine.

TRAINING PROGRAMMES IN COMMUNITY MEDICINE

14. The philosophy of the department has always stressed consideration of man in his total environment with a view to providing health care at all levels of health promotion, prevention, primary health care, and rehabilitation. We strongly believe in the concept of the health team in tackling community health problems.

Medical students' clerkships

15. The objectives of the undergraduate clerkship in community medicine as outlined in 1967 were to help students:

- (a) to have a greater insight into urban and rural health problems;
- (b) to become acquainted with the socio-cultural and economic aspects of health and disease;
- (c) to be aware of the public attitude to health care and the extent of community participation; and
- (d) to appreciate the contribution which various members of the health team make to the health needs of the community.

16. In an attempt to achieve these objectives the students' training includes the following sections:

- (a) seminars on aspects of epidemiology, inter-disciplinary relations, health education, environmental health and family planning;
- (b) visits to various institutions related to health and welfare to get first-hand information;
- (c) experience in ambulant medical care;
- (d) epidemiological projects working in groups;
- (e) some aspects of health services in urban and rural areas where time is spent working with the health team.

17. The clinical clerkships in social and preventive medicine have been instrumental in establishing links with outlying communities not only in Jamaica, but also in other territories of the English-speaking Caribbean. These outpost teaching sites have provided an important nucleus around which an expanded programme in community medicine may be developed and improved as we try to train professionals and leaders to assist in organising communities in the health field.

18. Epidemiology work included such projects as gastroenteritis in young children, the immunisation status of children in Hermitage/August Town (i.e. the community served by our health centre), analysis of patient care in casualty (i.e. ambulatory primary care in the hospital setting), surveys of auditory and visual defects, and the incidence of tuberculosis in an urban community. Community health included experience in public health and hospital practice in urban and rural areas and working with doctors in general practice.

19. Students live and work in rural areas for two weeks (i.e. the third and fourth weeks) out of every five weeks on the rotational clerkship in the department during the second clinical year. The majority, 1,052, have been posted in Jamaica, while 63

have gone overseas to other parts of the Caribbean for their field experience. During the other three weeks of clerkship, students have also gone into the urban community for various activities.

20. The department believes strongly in the concept of the team approach to health and is conscious of its responsibility for training of personnel at various levels and in various disciplines.

21. Teaching is given by the staff to social work students, social welfare students in community development, student nurses, student midwives and community health aides; and - at the West Indies School of Public Health, Ministry of Health, Jamaica - to public health nurses and public health inspectors. They thus help to train personnel who are actively involved in the community, working with citizens and helping them to identify their problems and to seek solutions within the constraints of available resources.

Overseas medical students

22. There has been an increasing number of requests for medical students from abroad to do electives in community medicine in the Department of Social and Preventive Medicine at the University of the West Indies. Students have come from medical schools in the United States of America, Canada and Britain. Our department is always anxious to encourage international exchange of students interested in community medicine as this has been mutually beneficial.

Research into local problems of the teaching exercise

23. The aims of the community health programme are that students see and participate in as many aspects as possible of the whole spectrum of health care, ranging from home visits, the village clinics through the health centres to the hospitals, as well as follow-up and rehabilitative care by various members of the health team. It is intended that they should learn various techniques in carrying out a diagnosis of community health problems and should seek ways to solve these problems. By involvement, it is hoped that they will become more sensitive to the needs of the community, as well as to problems facing the health staff - for example, manpower, drugs and other shortages.

24. Research into health problems of the community has always been an integral part of the activities of the Department of Social and Preventive Medicine. While on their clerkship, medical students have carried out small research projects in both urban and rural areas. For the rural small projects students usually worked in pairs and completed the exercise in two weeks, while the larger projects were tackled by the entire group of six to ten or twelve students and extended over five weeks.

Description of the rural programme

25. Continuous evaluation has been an integral part of the programme from its inception. Field preceptors played an active role in advising on various aspects for improvement of the programme. In the early years there were regular and frequent field preceptors' meetings at the Department of Social and Preventive Medicine, in which all could share experiences and assist in periodic evaluation and planning for future developments. In addition, staff of the department visited, and have continued to visit, students and preceptors in the field.

26. During the first day, or sometimes extending into the second day, of the five-week clerkship, the students are allowed to choose within the limits of certain

constraints, the parishes of districts in which they will be working. Before they depart to the rural area they are given some information on the parish which they will be visiting and are provided with written guidelines which contain blank spaces to fill in information obtained during their two weeks.

27. These guidelines cover four main areas of concern:

- (a) community health service;
- (b) environmental health;
- (c) industrial health;
- (d) a small investigative project.

28. Details of the programme vary from parish to parish, depending on the existing conditions and the interests of the preceptors. For example, if some cases of typhoid fever have been found at the time of the students' visit, this may be used to demonstrate the functions of various members of the health team and the action taken to control communicable disease.

29. During the final week of the five-week clerkship each pair of students report on their rural experience. The students are required to give an overall report on the health services of the parish using the guidelines mentioned above, and they also report on a "small investigative project". The reports on the parish health services and problems are used as the basis for student-led seminars which provide an opportunity for staff and students to explore various problems, using the stimulus of specific examples encountered in the field. For example, the students frequently find that some of the rural clinics are very crowded and that a doctor may have to see as many as 50 patients in an hour. This observation may lead to a wide-ranging discussion of the use in rural clinics of non-physician members of the health team, including auxiliaries.

COMMUNITY HEALTH AIDES

30. The need for innovations in the delivery of health services and in education and training of members of the health team has been recognised by the Department of Social and Preventive Medicine, University of the West Indies. In 1967, an experimental training programme for community health aides was started in Jamaica by the department, in a low-income suburban district in which there was no resident doctor. The aim was to train local residents to work as auxiliaries in a health team under the direction and supervision of established health professionals.

31. In 1970, the Ministry of Health, Jamaica, became interested in the results of this project and joined the Department of Social and Preventive Medicine, and Cornell Medical School, in establishing a second project, this time in the isolated rural community of Elderslie in the parish of St Elizabeth, over 100 miles from our university campus. The Ministry of Health included the salary of the few auxiliaries in their regular health budget.

32. The results of these two projects encouraged the Ministry of Health and Environmental Control, Jamaica, in 1972-73 to train and employ about 350 community health aides, who worked in two rural parishes in western Jamaica where child health problems were greatest. This was indicated not only by cases in hospital but by high infant mortality rates. There are now over 1,200 community health aides working throughout Jamaica, in every parish.

33. Other ministries of health in the Commonwealth Caribbean have expressed interest in training auxiliaries to augment their health force, and now have such personnel as an integral part of their health services.

Training programme and the use of the manual

34. The training course included lectures, seminars, practical work in clinics, field visits, projects, working with community groups, tutorials and demonstrations. The basic material used in the first training course was edited and compiled in the form of a manual. This manual has been used in the training of the community health aides in Jamaica.

Role of the university in providing training material

35. The community health aide training programme and the manual together have demonstrated the role a university may play in promotion and orientation of community participation at all levels for the development of health services. It clearly combines the functions of the university in training, research and service.

RESEARCH

36. Research projects undertaken by the University of the West Indies have contributed significantly to the improvement of health and the development of health services in our several communities. The findings of several research studies have been the basis for the definition of policy and the development of realistic programmes by several ministries of health within the region, e.g. immunisation schedules and the management of hypertension. Further, the various research programmes have provided training for health personnel in the epidemiological approach to community health problems and have developed an understanding of the various environmental factors, including attitudes which affect health and the delivery of health care.

37. One of the major research projects carried out by the Department of Social and Preventive Medicine has been the Inter-American Investigation of Child Mortality sponsored by PAHO/WHO. This was an interdisciplinary project, and the team of research workers included statisticians, nurses, social workers and physicians.

38. A critical problem in securing participation is that of reaching people with the information they need and in ways that will stimulate necessary action. Inaccessibility of people due to difficult terrain, poor roadways and low levels of literacy, makes it important to devise ways of reaching people through readily available resources. Today, the widespread use of battery-powered transistor radios has overcome the lack of electrical power in rural areas. Capitalising on this fact, a special study of the use of radio in communicating health information was undertaken by a staff member of the Department of Social and Preventive Medicine. A doctor in the clinic setting selects patients and focuses on problems which they present, using the patients' manner of communicating and treatment of their conditions. He assists them to acquire the information and understanding they need and to know what preventive measures are possible. This conversation is recorded on tape and broadcast over radio at a specific time each week. thus sharing with the community pertinent health information.

39. The villages of Hermitage and August Town have been used as the "laboratories" for developing community health studies. In collaboration with other clinical departments and with Medical Research Council (MRC) epidemiological research unit, studies have been done on clinical growth, nutrition and specific diseases. Medical students and young physicians, nursing students, social work students and social welfare students are all receiving some of their training in Hermitage and August Town communities.

HEALTH EDUCATION AND COMMUNITY PARTICIPATION

40. Socio-economic conditions in developing countries necessitate priority attention to those aspects of health care that reach large numbers and are of a preventive nature.

These basic health problems often arise from, or are aggravated by, social causes and they require the utilisation of a multidisciplinary and educational approach as an integral part of their solution.

41. Among the underlying purposes of the educational approach in health are the development of a sense of responsibility for one's own health and the health of the community and the ability to participate responsibly and constructively in programmes designed for the well-being of the community. Well-organised health education services and programmes are necessary if people are to be stimulated and prepared for participation in health programmes.

42. Health workers and workers in allied fields, such as social welfare, education and community development, need to understand the interrelationship of health and social problems and the importance of a co-ordinated approach to their solution. They all need training in the use of the educational approach in health.

THE ROLE OF GOVERNMENT

43. The responsibility of health care to the community in general rests with governments. However, it is the duty of medical schools to assist governments and health-related agencies to develop relevant health care services through appropriate training and research activities.

44. Governments should provide the amenities necessary for suitable clinical situations for teaching in community field training areas. This may mean the upgrading in the health services through improved clinical, laboratory and record facilities and the preparation of medical practitioners. Governments may be asked to provide accommodation, food and, as far as possible, transport for the students. There must be some definite financial commitment on the part of the government. The government in general and the ministry of health in particular must appreciate that they stand to gain if we are correct in the assumption that training of health practitioners in community settings - both urban and rural situations - will create the types of attitudes that will make students want to serve in similar situations on completion of their training course.

45. N M B Dean (1968)* reporting on medical education in India with special reference to community medicine, states that both medical students and pre-registration doctors need to get experience and training in community health centres in both urban and rural areas. Since the health centres are administered by government, it is important that there is some formal agreement between the teaching institution and the ministry of health in each country.

THE ROLE OF MEDICAL SCHOOLS

46. Project work of students should be of such a nature that the results could be utilised for planning and improvement of the health services of any particular district or community. Students should be community-based and should be actively involved in community activities. There should also be active community participation in the planning, implementation and evaluation of programmes.

47. There should be a joint committee of medical school and ministry of health for the purpose of relating the responsibility of training, research and service.

48. Assistance may be sought from various funding agencies or international bodies for the initiating and development of programmes. It may also be necessary to have

* Dean, N M B - Brit. J. Med. Edu. Dec 1968 Vol 2 No 4 pp 240-245

some special workshops and seminars so that persons who will be involved in this new approach may be properly orientated. In this, aid agencies may give support and guidance.

49. Lawrence Y C Lai (1978)** reports from the School of Community Medicine, University of New South Wales, Australia, on the workshop concept in the training of health personnel for community development. The most crucial outcome of workshops and seminars must ultimately be the improvement in the delivery of health care, and this depends on the quality of the graduates who in turn must have benefited from educators and teachers of medicine and other health personnel. He reports that the workshops under the auspices of the WHO Regional Teacher Training Centre (RTTC) were valuable and relevant and met some of the needs of the Western Pacific region.

SOME GUIDELINES

50. Out of various seminars and workshops making suggestions and proposals for better co-ordination of medical education and health care delivery the following guidelines have crystallised:

- (a) National health care systems should join with medical educational systems and a definite joint policy should be established so that there is a permanent mechanism for co-ordinating and integrating, where possible, the training and research activities into the regular health services of the community.
- (b) Medical students should receive practical experience in a variety of community and family settings, as well as in hospitals, and priority must be given to the development of training opportunities in **primary health care**.
- (c) Medical students should have joint learning experiences with other health professionals and community development students, so that there will be a better appreciation of social-cultural factors affecting health and all students be better prepared for teamwork.
- (d) Government agencies, educational institutions and professional organisations should work together to encourage innovations and experimentation in approaches to delivery of health care, and should be jointly involved in comprehensive continuing education programmes.
- (e) In recognition of differences between various countries, programmes will have to be developed according to needs, facilities and resources. To make the maximum use of available resources, there should be a joint committee with representatives of the medical school, the government and regional or international agencies which assist the specific country.

SOME PROPOSALS AND RECOMMENDATIONS

51. The following proposals and recommendations are put forward for consideration:

- (a) There must be a climate of co-operation and understanding between the medical schools and the respective ministries of health. This may be achieved through a formal joint committee which has the approval and recognition of the highest body in each organisation.
- (b) There must be clearly identified mechanisms for carrying out research. An ethical sub-committee should be established to screen research projects which

** Lai, Lawrence Y C - Med. Educ. J., sept 1978 Vol 12 No 5 pp 369-376

impinge directly on patient care and management, and the trial of biologicals. Research findings should be fed into the planning process, so that relevant programmes of action may be implemented.

- (c) Decentralisation of administrative responsibilities and management of certain aspects of the health services is necessary so as to promote opportunities for carrying out direct service programmes at the periphery, utilising the multidisciplinary approach and allowing for innovative methods and techniques.
- (d) Health education must be one of the main highways along which the frontiers of improved primary health care must advance. It is therefore necessary that specialists in this field should be trained and should be available to give direction and advice in health education services in each country. Facilities for training in the local settings should be established.
- (e) Needs may be identified, ideas may be developed for meeting such needs; but unless resources are available there is no progress. It is therefore essential that funding agencies should give the necessary support to medical schools and governments in order to facilitate training, research and service programmes, especially in the initial stages. Identifying potential leaders and giving them the necessary training is of paramount importance. In all of our projects more and more emphasis must be placed on people, and on providing the opportunities for them to develop their full potential in order to give back service to the community.
- (f) There should be clear policy statement from the highest levels regarding health education and school health education, not only to give guidance for action but to indicate the priority given to this important area in the total health and community development.
- (g) There should be well-organised health education units strategically placed within the administration of each ministry of health in order to function effectively.
- (h) Intersectoral co-operation is one of the main features for producing improved primary health care. Decentralisation facilitates intersectoral action at the periphery, where certain activities including planning, decision-making and some financial control may take place. For persons to contribute fully, they must be allowed to participate at all levels and should be involved from the outset.

CONCLUSION

52. In summary, medical schools must be involved practically with community health needs and must work closely with governments in establishing the necessary triangular linkages between the community, the government and the medical school. Efforts must be made for the transfer of health knowledge from technical and professional personnel to the lay public - individually and collectively.

53. As efforts are made to improve primary health care and extend coverage, manpower development becomes a critical issue. There may be the need to train additional health workers and new categories of workers. Financial support is another important factor. It must be remembered that the poorest communities with the greatest need for increased resources may be the least articulate and the least vocal. Their cause must be adequately represented.

54. Health education must be seen as an important and integral part of long-range community development planning. Medical schools in their expanded role can be extremely helpful in initiating and guiding the development of educational programmes for changing attitudes and imparting necessary and relevant skills to all categories of workers. Medical schools must accept the challenging responsibility to work with governments and the people in their region, helping them to define their problems and to find solutions, and to take the necessary action for implementation.

MEDICAL SCHOOLS AND COMMUNITY HEALTH EDUCATION

Paper prepared by Dr B Pathik*

The curricula structure of many university-based medical schools is such that it permits little interaction between the medical students and the community. The main objective of many such medical schools is to produce a doctor who needs to undertake postgraduate or vocational training in order to specialise rather than a graduate who is groomed to work in the community. Specialisation in most cases is towards tertiary-level care. In the last five years or so it is evident from the evolving curricula of certain universities that input of community medicine or social and preventive medicine is gaining prominence. Departments of community medicine are being established in most universities. Unfortunately, the medical faculties do not seem to be fully achieving the objectives of their departments of community medicine.

2. Unless the medical students are imbued with the concept of community service during the training years, it will be difficult for them, as doctors later, to appreciate the community health problems. Contact with the community should begin early enough. Unfortunately the curricula set up in most medical schools do not provide such an exposure. It is a well-known fact that diseases seen in the wards of teaching hospitals are in many ways unrepresentative of the real situation in the community. Many cases in the wards are of academic interest and useful only in form of good "clinical material".

3. It is usually the responsibility of the departments of community medicine (or preventive and social medicine) to co-ordinate health education teaching in medical schools. However, other departments, such as those of child health and clinical medicine, can contribute to an appreciable extent. A medical school could be considered a pivot for community health education. With its potential in terms of staff and facilities it could provide a centre for training workers in community health education - not only medical students, practising doctors or other health personnel needing formal instruction, but also other community health workers such as those in the teaching profession and voluntary organisations.

4. In order to promote community health education and help the workers in this field to convince their colleagues of the need for change in their behaviour, a lot of organisation and collaboration is required between the ministries of health, medical schools and ministries of education. For community health education to be effective closer liaison between ministries of health and ministries of education is mandatory.

5. One major thrust in promoting community health education is through primary and secondary schools and medical schools have a major role to play in this connection. The approach could be made in various ways.

- (a) A large-scale in-service education programme to prepare teachers. Health education materials are usually available with the ministries of health and the medical schools. Medical schools should be involved in the planning of the course in health education for schools.
- (b) An in-service education programme offered through the teacher education institutes, with a regular health course related to the school health education curriculum, and medical schools contributing to teaching.

(c) The medical schools could improve on the existing health courses in schools in order to make them more comprehensive. The content of what is at present being taught now should be reviewed, and supplemented to meet current community needs. The subject areas in which teaching units in health education are developed could fall into science, social science and physical education.

6 In order to meet the impact of the above proposals on the existing resources of medical schools and ministries of education, establishment of senior teachers responsible for health education be appointed in the departments of community medicine of medical schools. The ministries of health and education should conduct a national seminar for the policy level of both ministries of common concerns and responsibilities in the development and operation of school health programmes, including in particular school health education. It is also essential that similar seminars be held in other key areas of the country in order to establish communication and co-operative responsibility for the health and health education of the school child. A national forum, with representation from ministries of health, medical schools and ministries of education, should be established to share information, co-operate in the development of policy and programmes, address common problems and carry out tasks which are considered beneficial to the community.

7. A second thrust by the medical schools would be in running health education courses for doctors in strategic positions. The traditional medical course which many doctors have done provides them with a little scope or expertise in health education, although as practitioners they may spend as much as up to 50 per cent of their time educating patients or giving them information.

8. Therefore, in order to produce changes, doctors in strategic positions need to understand and promote health education. These include doctors on the staff of medical facilities and teaching hospitals, public health departments, maternal child health units, school doctors and those teaching at health personnel training institutions. A comprehensive course lasting for four to six weeks should aim to further the professional advancement of doctors and prepare them for leadership in health education activity. On completion of such training, the participants should be able to develop sufficient judgement to decide how far they could undertake the organisation and teaching of health education within their own areas. The medical schools should decide the content and nature of the course, in which behavioural sciences should be a major component. The participants should be confronted with, and asked to solve, practical problems. The topics should include the learning process, with its attendant emotional and motivational aspects, effective communication and group dynamics, cultural anthropology and mass communication. Practical experience in the process and media of communication should be included.

9. A third way in which the medical schools, in collaboration with the ministry of health, could promote community health education, is by mobilising the potential available in the voluntary agencies such as the Red Cross, church organisations, and teacher organisations. Consideration should be given to involving these in any national seminar on health education, using their services and making them aware of what is going on in the field. The medical schools should be able to provide necessary resource materials and information required by voluntary organisations.

10. Medical schools need to review the content of their undergraduate medical curriculum in relation to community health education. There are wide differences in the extent to which health education has been introduced in the undergraduate medical curriculum. The medical curriculum is already overloaded, as a result of new scientific knowledge being added year by year. However, medical educators should not be complacent about their responsibility for the teaching of health education. The teaching should be fully integrated with community medicine, clinical disciplines and behavioural sciences. Preferably, introductory elements of health education component should be included quite early in the undergraduate medical programme. The students should be given some understanding and appreciation of health education through constructive

learning experience in those activities which they will be required to carry out, promote or administer. Behavioural Sciences should deal with such aspects as motivation, anxiety as a barrier to health education, the influence of family structure, and an appreciation of the groups of populations at risk. Such an integrated programme would need close co-operation between doctors, psycho-social scientists and educationists.

11. The undergraduate medical curriculum, both old and the new, at the Fiji School of Medicine has been heavily orientated towards community medicine. Teaching of community medicine in the new programme commences in the first semester of the first year and includes the principles of health education. Community medicine (which includes various aspects of health education) is taught in four years of the five-year programme. Ample opportunity is provided for students to interact with the community, thus providing them with useful learning experience in health education. For instance, in the child health course, apart from the usual instruction in the wards and with outpatients, students spend one morning in five working in a rural area and providing health education to the community. Being a unit of the Ministry of Health and only affiliated to the University of the South Pacific, the Fiji School of Medicine receives adequate feedback on community health needs, and the curriculum is modified accordingly to reflect such needs. Health education training is also given to health inspectors, dental therapists, dentists, medical assistants, dietitians and public health nurses by Fiji School of Medicine.

12. Medical schools should take necessary steps to offer a diploma or degree course in health education. There is a need for trained health educators in every country, and medical schools are ideally placed to organise and run appropriate courses relevant to each country.

Summary

13. Medical schools have a special responsibility towards the community. With the explosion of scientific knowledge the teaching of medicine is confined mainly to the wards of teaching hospitals or classrooms. Community needs are submerged by the sophistication of modern medicine. Those medical schools which are under the ministry of education do not have any firm links with the ministry of health.

14. Medical schools should work closely with health ministries in promoting community health education. The directions in which the thrust towards community health education could be made by the medical schools are:

- (a) Health education in schools, both at primary and secondary education levels, teacher education institutions and special courses arranged by ministries of education and medical schools.
- (b) Health education courses for doctors in strategic positions: short courses of four to six weeks in health education, to include behavioural sciences and principles of health education and the use of the media in communication.
- (c) Greater emphasis should be given to health education in the undergraduate medical programme, with co-ordination by departments of community medicine. Aspects of health education should be included in every year of the programme, providing practical learning experience for medical students.
- (d) Mobilising the voluntary agencies such as the Red Cross, women organisations and social workers. The medical schools could be used as resource centres for health education materials and information.
- (e) Use of other health personnel such as medical assistants dentists, nurses, health inspectors, dietitians and dental therapists. Medical schools again, with their

resources of staff and facilities, could play an important role in preparing such health personnel in community health education.

- (f) Medical schools could organise and plan a formal training programme in health education. A basic diploma or degree programme in community health education could be conducted in collaboration with ministries of education and health.

MEDICAL SCHOOLS AND PRIMARY HEALTH CARE

Paper prepared by Professor N R E Fendall*

"The consequences of acquiring knowledge are always incalculable and seldom beneficial." Edward Hyams

The initiation of change consequent upon policy decisions in itself creates new problems - knowing **where** we want to go is one thing; knowing **how** to get there is an entirely different matter. Speaking to a Conference of Commonwealth Health Ministers in Sri Lanka in 1974, I challenged them that theirs was the prime responsibility of decision-making and pace-setting. That they have now done and the succeeding Commonwealth Medical Conferences (Fifth and Sixth), whose themes were Community Health and Family Health, indicate the progress that has been made. In the Fifth's report, the role of health ministries and medical schools was dealt with specifically, extensively and well. In the Sixth report, Family Health was discussed with considerable emphasis on the woman's role in health care.

2. This current meeting, it now seems to me, has as its main theme how to hasten implementation. This we may accomplish by identifying the obstacles inhibiting progress, creating a better understanding of our respective roles, and developing co-operative programmes. Part of the confusion in the past has been the concern of health care systems to extend their activities to as great a proportion of people as possible, whilst medical and nursing schools were concerned with ensuring the output of products of excellence. That is essentially the quality/quantity dilemma in the face of strictly limited resources and almost unlimited demand.

3. The divergent thrusts arose at almost the same time - post World War I, the early twenties. On the one hand World War I had brought a recognition of the need for colonial governments to extend their medical and health systems from protection of their labour forces to protection of the whole community of indigenous peoples, through outreach dispensaries and, later, health centres. This created an enormous demand for medical, nursing and health personnel, and with it the dawning recognition that "auxiliaries" were required in vast numbers.

4. At the same time (i.e. the 1920s), medical schools were being largely influenced by the surveys and reports of Abraham Flexner on the chaotic, uneven and abysmal state of medical education throughout America and Europe. Additionally in the then colonies the cry was being raised, vociferously, that "second best" would not do, and that medical schools should be modelled on London. The clamour arose from pundits in both the UK and the colonies. The concept of the sub-assistant surgeon, and the assistant medical officer was anathema and aroused passionate national ire and opposition. I wrote on this in respect of Nigeria and the history of the Yaba School of Medicine, which was the predecessor of that now very famous medical school at Ibadan. In fact, many medical schools arose out of the ashes of medical auxiliary training schools. In one instance, Madras, in the early days medical assistant students and medical students were trained together for the first three years.

5. So we had this period of a double thrust - high quality medical education in the face of exploding technology and medical scientific discoveries, and an enormous quantitative growth in outreach of health care delivery to those most in need.

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PRIMARY HEALTH CARE

6. *Pari passu* with these movements was the search to find a realistic instrument through which basic health care could be achieved. In many ways the scientific and technological discoveries of the twentieth century whilst improving medical care had also institutionalised it, and had also tended to divorce hospital care and domiciliary care (general practice). Health care did not really receive much attention until after World War II. At that point in time Lord Dawson of Penn's proposals for health centres were rediscovered and whilst being applied somewhat tardily in industrialised countries, were seized upon and applied avidly in many developing countries in varying patterns - India, Sri Lanka, Jamaica, Kenya, Guatemala, to name a few. South Africa was one of the first countries to demonstrate the suitability of health centres to rural peoples in Africa.

7. The health centre concept in essence was to enable the practice of preventive and curative medicine to be brought together into one organisation, and to bring people into a more intimate relationship with the delivery system, by siting health centres within smaller communities - rural villages and urban neighbourhoods. It was, however, seen more predominantly as a solution to rural care in developing countries. It was through the health centre that the two streams of "quality care" and quantitative outreach were seen to be achievable in developing countries, applying integrated health care and health team principles to poverty areas.

8. Primary health care evolved as a further step in this process - that of de-institutionalising medical and health care whilst maintaining qualitative care, and making it much more community-oriented. It is a movement toward an even more intimate "first contact", a further peripheral extension of health care. It is not a substitution of existing links in the chain; it is an addition, a further peripheral extension. It opens up a vast new reservoir of disease and ill-health as yet unreached and hence imposes great challenges. Primary health care was defined at the Alma Ata (1978) Conference as in Table 1, to which I have added the characteristics as in Table 2. Schematically the whole integrated and interlocked health care delivery system is represented as a wheel - Table 3.

THE MEDICAL SCHOOL

9. The medical school is, or should be, an integral part of the university campus, and should not in my opinion become a college within a separate medical university, subserving narrow interests. Development stems from a broad front of ecological activities - economic, educational, social, etc. Many years ago the place of the university in a developing society was stated to be to serve the aspirations of the society within which it is situated.* The aspirations of society are for socio-economic development (and primary health care is part of that), not merely economic; we should therefore be concerned with training the physician for development, not merely creating a competent practising physician. The injunction upon the physician should be as that placed upon the original health officers of Britain nearly a century and a half ago, namely, "to seek out and redress the wrongs" of the community. Health is a state of harmony between man and his environment - internal and external - and is susceptible to improvement. Disease is the outcome of man's inability to adapt harmoniously to the internal and external environment. Health sciences must be concerned with social pathology and the physician must be part social engineer.

* UNESCO, *The Development of Higher Education in Africa*, conclusions and recommendations, Tarananive, 1962 (page 12): "The mission of a university is to define and confirm the aspirations of the society which it is established to serve."

10. How then do I see the role of the medical school, believing that primary health care is an integral part of health, which in itself is an integral part of development? Let me respond under three headings - education, research and application.

EDUCATION

The physician

11. Primary health care exists at different levels in countries according to their stage of socio-economic development. In some cases primary health care will be delivered through physicians, in others by paramedical personnel, and in others by auxiliaries, and yet in other cases by traditional practitioners. Whatever the case, the physician will be involved as either practitioner, consultant, supervisor or manager. Either way he must be competent in primary health care.

12. Having said that, I am also aware that curricula have become so overloaded with scientific knowledge and technical skills that there is little time to consider the dilemmas of health care themselves. Thus, I leave the question of what should be incorporated in undergraduate and what is postgraduate learning, merely noting that the general practitioners and district medical officers require differing depths of skills in respect of primary health care.

13. Firstly, let me observe that, having accepted auxiliaries to discharge primary health care where professional personnel are short, the quality/quantity dilemmas no longer exist. Thus medical education should maintain its objective of excellence even at the risk of lengthening the education process. Primary health care cannot exist without a strong and expanded referral care supportive system, and that means quality. It is a shift in emphasis of medical education to strengthen competency that I advocate, not a dilution of quality.

14. Comparability with standards of medical education does not mean rigid conformity of curriculum content. Whilst remaining loyal to world standards, medical schools in developing countries must respond to the immediate and urgent needs of their societies' special demands.

Ambulant care

15. Firstly, I would shift the main learning from the ward to the out-patients; primary health care is virtually ambulant care. This would entail an expansion in facilities, the proper selection of case material; and the development of rapid diagnostic skills with minimal diagnostic aids. We are all conversant with the time factor. It is the common diseases in which the primary health care worker must be outstandingly proficient, not the esoteric. It is yesterday's knowledge applied today, not tomorrow's the day after.

Paediatrics and child development

16. Between one third and one half of the populations of developing countries are children under fifteen years, and the morbidity/mortality of the under-fives is grossly disproportionate to their percentage of the population. Whereas in the USA children under five are 10 per cent of the population, they contribute only 6 per cent to the mortality pattern. In developing countries the proportions are 17 per cent and up to 50 per cent, respectively. Thus, should not the teaching be based on the child rather than the adult? We recognise also that diagnosis and treatment of the child is more difficult than in the adult.

Maternal care

17. Maternal fertility and mortality are both high in developing countries with consequential high wastage rate in mother and foetus. Both are high priority medical risks. Students need to be knowledgeable about the social and epidemiological factors as well as obstetric causes, to be versed in referral and primary obstetric care, and especially skilled in primary obstetric care.

Emergency care

18. Many physicians in developing countries are responsible for referral care, as well as primary care service, being based on small isolated hospitals and health centres. It is essential that they be given the manual skills, as well as the knowledge, consistent with saving life and preventing disabilities. The extent to which these skills are taught is contingent upon the degree of inaccessibility of referral care. Be the emergency obstetric, surgical or medical, medical students must be taught what to do under the given circumstances, not what can be done in the teaching hospital.

Managerial medicine

19. Medicine is big business and needs organisation skills as much as modern corporate management in industry. Both the general practitioner and the district medical officer are managers, and the better they can manage the more efficient their business. With the constraints of money and manpower, a deprived setting, short of hospital beds and facilities, short of health centres and dispensaries, short of drugs, and with an immense work overload, the burden can be eased by skilled management. In these circumstances the physician needs to be able to analyse, plan, organise and manage the health care system, delegating to others as much as possible, so that his particular role as consultant (in primary health care) can be performed well.

Preventive health care

20. Patently the physician in primary health care must be able to analyse the pattern of disease and determine priorities of care, be they curative, personal health care or environmental care. For this he needs a far greater input in preventive medicine. Patterns of integrated health care grow out of the attempt to provide a family total care within the community; thus he must be aware of the social and economic support system and the structure of the community if he is to be effective. He must be aware of the interrelationship of population growth and health, of agriculture and health, of economics and health, of housing and health, of sanitation and health, of education and health, if he is to be effective either in practising or managing primary health care.

21. In effect, the teaching of primary health care requires the student to be exposed to the community rather than the institution. The student requires to be exposed not so much to family case studies but to community case studies. Students need to study the problems - population, environmental epidemiology, civic, economic, etc - of, say, a village community as a whole. Students should undertake their own village census, social surveys, environmental surveys, overcrowding, sickness prevalence, working out their own statistics and patterns of disease and indicators of health status; and study their own village progress over the whole gamut of five years. Primary health care begins and ends in the village and that is where it must be studied and learnt. By exposing the student to the community throughout his formative years, he might just learn to listen as well as pontificate.

The non-physician

22. There is a considerable role for the medical schools to become involved in the development of para-professional and auxiliary health manpower in primary health care programmes. Many such programmes exist, but many are unrelated to medical schools, being considered within the purview of ministries of health. It would seem logical if such health personnel are to work in harness - i.e. become a team - that there be a considerable degree of co-ordination in their preparation so that there can be a growth of understanding and mutual respect during student days.

23. Beyond co-ordination of effort, there is the opportunity of medical schools accepting direct responsibility for the education of all personnel in medical care; and let it be recognised that a great proportion of the demand for primary health care is effectively a demand for primary **medical** care. Such education programmes can be designed for selective primary health care needs or general purposes - e.g. nurse-paediatrician or a general certificate in primary health care for para-professionals (e.g. Certificate in Tropical Community Medicine and Health, Liverpool); North Eastern University, USA, two-year physician assistant programme; Boston University, School of Public Health and International Health Issues.

Teacher training in primary health care

24. A third role for medical schools is the development of teacher training programmes in primary health care. If the requisite expansion in health personnel is to take place rapidly, then there is an urgent need to increase the number of teachers for primary health care. This is an area in which medical schools, drawing on their experience and in co-operation with non-medical educators, could well play a significant role. Such a course was introduced by the Department of International Community Health at Liverpool some five years ago. To date, four three-month courses have been completed. The demand is there for many such courses. The content of the course covers primary health care, curriculum content and structure, teaching methods, evaluation, supervision and appropriate technology.

Management in primary health care

25. Informed management in primary health care is an area that demands priority, both for auxiliary primary health care personnel and for professional health managers. Such courses need to be established, especially for primary health care supervisors and managers. Supervision is an especially weak area in the delivery system. Another aspect relates to the initiation and promotion of change: a recent evaluation study indicates that former students are very lazy about how to effect change.

Model courses in primary health care

26. Over and above designing and executing primary health care courses there is a need to develop models, test these out in practice, and offer them for adoption - with or without adaptation - to other organisations and institutes. It is hardly rational for each of us to struggle with our own mistakes when we can profit from others.

27. The three new courses at Liverpool (Certificate in Tropical Community Medicine and Health; Teacher Training in Primary Health Care; Master of Community Health) have all been viewed, dissected and examined by numerous international colleagues. A specific point has been made of inviting colleagues from around the world to participate in the courses both for the contribution they could make and as a method of learning from the inside. In effect, we have been encouraging the concept of informal partnership in learning for both students and academic staff on an international basis which might in time lead to the concept of an Institute for International Health Sciences.

RESEARCH

Curriculum development

28. The urgency of the situation does not permit a prolonged gestation period for teaching programmes but requires us to develop health manpower, at all levels, for primary health care immediately. Currently most such courses are based on conventional knowledge and wisdom, derived from field experience. There is, however, a need to undertake operational field research to verify, rebut or modify current programmes. The basic teaching programme should be structured on the findings of a systematic analysis of field situations. (Table 5: Systems Analysis.)

Social survey

29. We need to know the extent of knowledge, attitudes, practices, expectations and aspirations of communities in respect of health care. Failure to measure these factors leads to the by-passing phenomenon, to defaulter rates, to customer dissatisfaction and ultimate under-utilisation of facilities provided. Social surveys to garner health information from the community are essential for successful health programmes.

Epidemiological surveys

30. Secondly, we need to know much more detail the epidemiological picture. Current "national" statistics are a mishmash of diagnoses of wildly varying validity; we need to know more of the diagnostic patterns at various levels of delivery - the dispensary, the health centre, the community hospital, the general practitioner's surgery. We need to know more of the patterns of presenting complaints in relation to specific diagnoses.

31. We need to know more about the quality of diagnosis and treatment by various categories of health workers. We need to know the degree to which mishaps occur and what are the areas where they are most frequent. We need to know the "outcome" of various measures of intervention. It is only then that we can begin to determine what falls into the category of primary health care, and what falls into "referral care" category.

Work situation and technical resources

32. The real information that we require in much more detail is in regard to the work situation. This falls into two distinct aspects. Firstly, we need to know the potential and actual workload in a given situation. Standards of care are obviously dictated by time available to deal with each intervention. Methods of care are partly determined by time available. It influences our choice, for example, of what investigations to perform.

33. Secondly, we need to know what tools are available to perform the task - what the selection and quantity of drugs is, for example, in relation to the findings of the epidemiological survey; what tools are provided to construct pit latrines, what the visiting midwives' kit contains, what condition it is in, what is used and what is not used.

Appropriate curricula and technology

34. It is on the basis of specific research data provided on community aspirations, patterns of disease, workloads and facilities analysis, taken together with a knowledge

of resources available, that we can begin to develop relevant curricula. It is only on this sort of information that we can decide what is the appropriate technology for which primary health workers should be provided with skills (Table 6). We need to define what is an acceptable standard of care in each specific circumstance and what is an acceptable degree of risk.

Traditional practitioners

35. The full potential of traditional practitioners has yet to be exploited. There is little doubt that in some cases the philosophical basis is in conflict with modern medicine, and in others the scientific basis is at issue. However, wherever traditional practitioners exist there is patently a void which modern medical care is not filling - for whatever reason.

36. We need to know more about their potential. How far, for example, do village practitioners meet the need of the community, and how effective are their interventions? How realistic is it to consider supplementary education to change both their attitude and knowledge of modern medicine and health care (and for that matter how well informed are modern practitioners about traditional medicine)?

37. We know something about the potential of Ayurvedic medicine, and something about the potential of acupuncture physicians, and something about traditional birth attendants, but not nearly enough to propose effective roles in primary health care. We need to know more about the reason for choice by members of the community. We need to know more about the "outcome" of their interventions. What is the potential of "witch doctors" in Africa, for example, in mental care? What is the potential of the fetishes in minor surgery?

38. In this connection it is of interest to note that traditional practitioners are all in the business of personal care - not public health. There are no traditional practitioners for improved water supplies, conservancy, etc. Which fact stresses my belief that all health personnel to be acceptable to the community must provide a personal service - which may be supplemented by a non-personal activity.

Selective primary health care

39. It is my impression that primary health care is routinely considered in medical schools as the responsibility of the department of community medicine, PSM, social medicine, etc. It is a prevailing view that other departments have little concern with primary health care. About the only departure from this attitude has been the development of departments of general practice, but that has tended to consolidate the prevailing outlook. That is to say, that hospital care and non-hospital care are tending to become more and more isolated from one another, with non-hospital care being considered the less prestigious occupation.

40. Yet there is a whole vast area within the specialities that is crying out for investigation. In essence what requires settling is where the division is between primary care and referral care in the various specialities. What constitutes primary care in obstetrics, surgery, ophthalmology, dermatology? What are the criteria for decision-making? In brief, one requires to know who should do what, with what facilities, under what circumstances, with what responsibilities, with what legal protection, with what skills, and to what level of competency. What guidelines should be provided to primary health care workers in deciding what to refer and what **not** to refer? What is justifiable emergency intervention? Under what circumstances? What degree of risk is justifiable? When does the risk of inactivity outweigh the risk of taking specific action?

41. Several years ago the Department of International Community Health at Liverpool initiated a series of symposia on various aspects of primary health care -

education, surgery and therapeutics. Such symposia could well be held regionally and nationally as a forum for the presentation and discussion of research papers. Primary surgical care was discussed at a symposium held at the XVII Annual Meeting of the International Federation of Surgical Colleges in Edinburgh, 1975. One conclusion was that surgeons needed to do a great deal more work on the subject.

APPLICATION

Administrative aspects

42. There always has been a wide gap between knowledge and its effective application to those most in need - the implementation gap. There is a need for models to be developed in primary health care, for example, using only traditional practitioners, using modern trained auxiliaries at different levels and in different patterns, and examining cost, efficiency, outcome and satisfaction, etc.

43. It has been fashionable in recent years for medical schools to demand autonomy over administrative areas on the premise that this is necessary for teaching and documentation purposes. I disagree. I believe that this leads invariably to a substantial increase in expenditure, facilities, and ever-rising standards that the government cannot afford for the community as a whole. It also leads to friction and jealousies. What teaching institutes do require is the right of entry to normal service institutes and facilities to ensure realistic teaching programmes.

Demonstration projects

44. Demonstration projects should be based on reality, otherwise they are exercises in futility. Furthermore, any expertise in planning, organisation and management that does exist is usually to be found in the ministry rather than the medical school. Joint schemes, however, whereby the medical school and ministry **together** set up schemes for demonstration and evaluation, or agree to study existing services together in the interests of both delivery and education, could be invaluable.

Evaluation

45. Evaluation itself is a delicate area that often tends to overshadow the actual purpose of the demonstration project itself. It tends to divide the evaluator from the purveyor of health care, as much evaluation results in adverse criticism rather than in constructive proposals based on reality. Hence, combined operations offer more scope for critical appraisal.

Statistics and information systems

46. Much time, effort and money is deployed gathering statistics for so-called national planning. I consider this totally unnecessary; by a system of "statistical sampling" and "sentinel posts" established to gather valid data a better result could be obtained for lesser costs. Here is a joint role for medical schools and ministries of health to explore. Such sentinel posts could be staffed jointly by ministry and medical school with a triple objective: service, epidemiological and managerial data, and teaching purposes. Whilst providing data for planning both delivery systems and educational programmes, it would also provide academic staff with an opportunity for field experience, and service staff with experience in research and teaching.

47. Information systems are generally directed to gathering statistics for (hopefully) professional purposes. However, systems are also required that provide a stream of

information to the community about their own health status. Such systems require, especially where illiterate communities are concerned, considerable imagination and reversal of current outlook. If the concept of "sentinel posts" for central purposes can be proven effective, then primary health care institutes could be designed for information dissemination. Patient-retained records is one possible method. Medical schools might well explore such avenues. Health education to the illiterate is not very effective today, and much more interest in this aspect is required.

Joint interests

48. Finally, I would argue that whilst the development of specific teaching health centres is invaluable for primary health care, I would like to see this reinforced by opening up a selection of **routine** service health centres, for the attachment of students, and granting of honorary lecturer status to the service physician in these units. This would encourage such staff to greater effort and provide a means of continuing education, and monitored field research.

49. Primary health care offers a wide and exciting prospect for both medical school and ministry to co-ordinate their programmes to mutual benefit and improved health care to the community. For example, it would be interesting to organise and evaluate primary health care institutions staffed by modern health care personnel, traditional practitioners and mixed teams. How would the pharmacy be organised in the circumstances of a mixed personnel? Medical schools should act as resource centres for other health training institutes in the community, in particular helping with operational research projects and curriculum design. Medical school staff should learn to teach primary health care to primary health care workers in those institutes.

CONCLUSIONS

50. The medical school has a role to play in education, research and delivery of services in primary health care. It needs to enlarge its horizon to teach others besides medical students in primary health care. It should be heavily involved in the design of curricula for primary health care workers themselves, as well as their supervisors and managers. It should undertake research within communities to elucidate the problems of community care, and demonstrate possible solutions within the realities of national resources. It should be a resource institute to other teaching institutes in the country involved in developing health manpower. It should, in particular, act as a resource base for the ministry, not in being involved in the daily problems of health care administration, but by undertaking problem solving for tomorrow's designs for primary health care.

51. The medical school should be mindful of its role as an integral part of the university to perform medical education to meet the total needs of its society for improved health care.

52. Finally, primary health care should not be regarded as a cheap solution to cries for improved health care. It is not, because if successful it will open up vast new reservoirs of disease and want that will not only tax primary health care systems and medical education. Its very demand will ensure both expansion and change throughout the whole system.

ACKNOWLEDGEMENTS

53. I am indebted to many colleagues around the world who responded to my letter asking for information on medical school activities in primary health care.

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PRIMARY HEALTH CARE

COMMUNITY SELF-RELIANCE

CO-ORDINATED MULTISECTORAL EFFORT

A REFLECTION OF SOCIO-CULTURAL AND POLITICAL FACTORS

AN ATTACK ON THE MAIN COMMUNITY HEALTH PROBLEMS

PROVISION OF CURATIVE, PREVENTIVE, PROMOTIVE AND REHABILITATION SERVICES

Including:

- Community health education
- Food supplies and nutrition
- Safe water
- Basic sanitation
- Maternal and child health and family planning
- Immunisation
- Endemic disease control and protection
- Appropriate treatment of common diseases
- Provision of essential drugs

IT REQUIRES: A SUPPORTIVE REFERRAL SYSTEM

A HEALTH TEAM APPROACH

Declaration of Alma-Ata
September 1978

N R E Fendall

CHARACTERISTICS OF PRIMARY HEALTH CARE

Primary and intimate contact with the community

An adequate range of services

Co-ordination of those services

A capacity for health assessment of both the individual and the community

A continuity of care

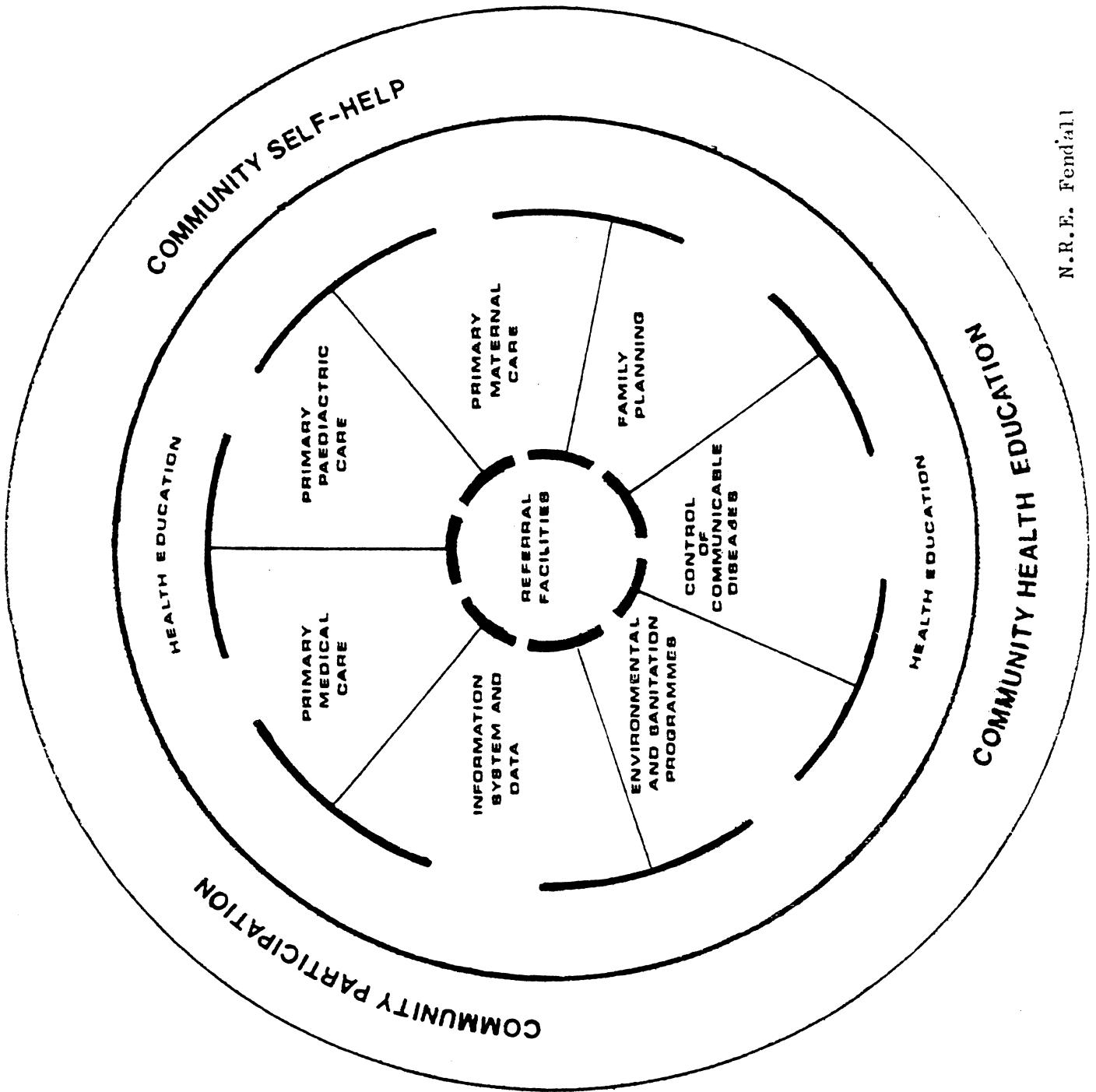
A progressive care support structure

A family orientation

A non-institutional outlook

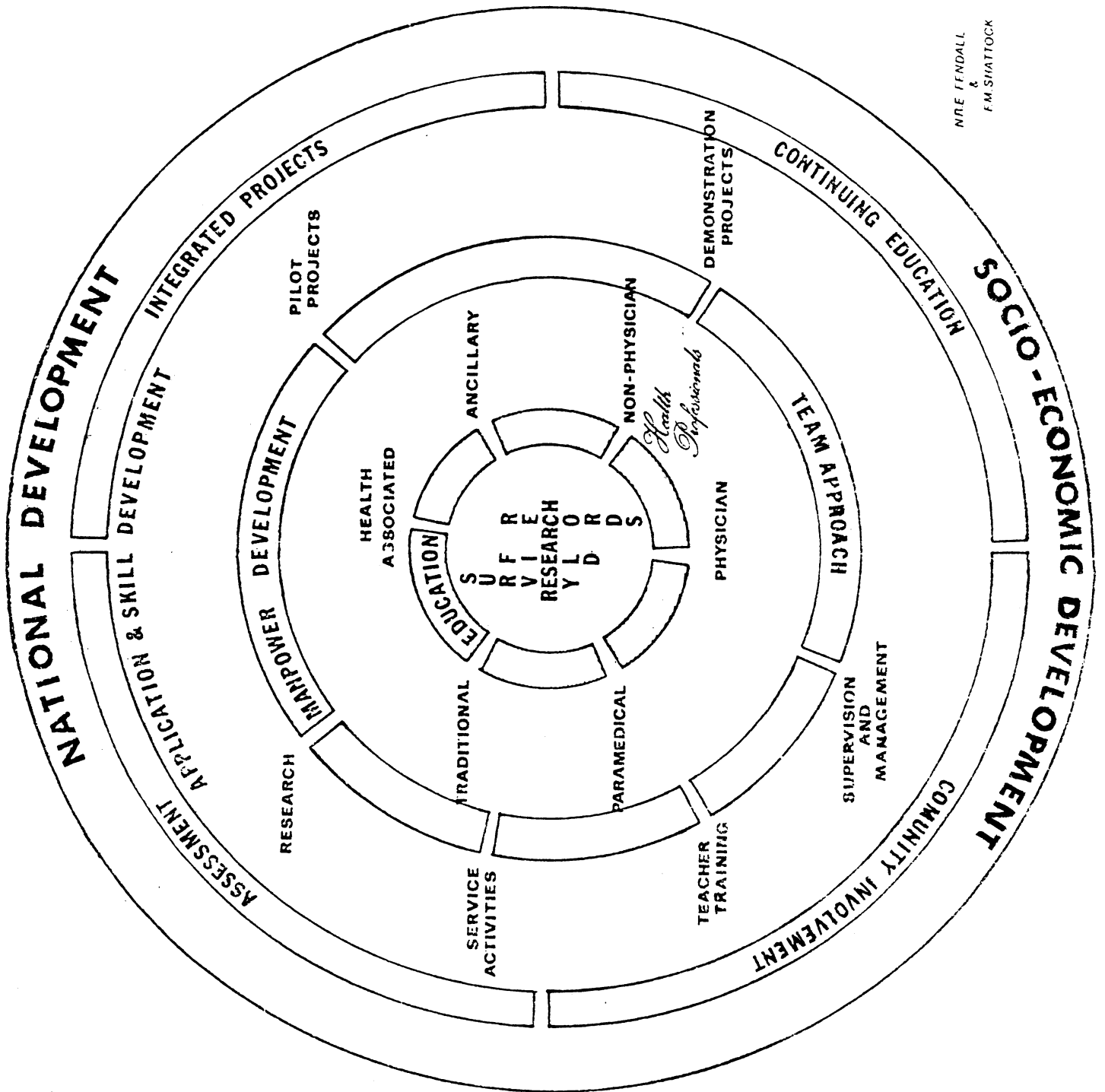
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TABLE 3



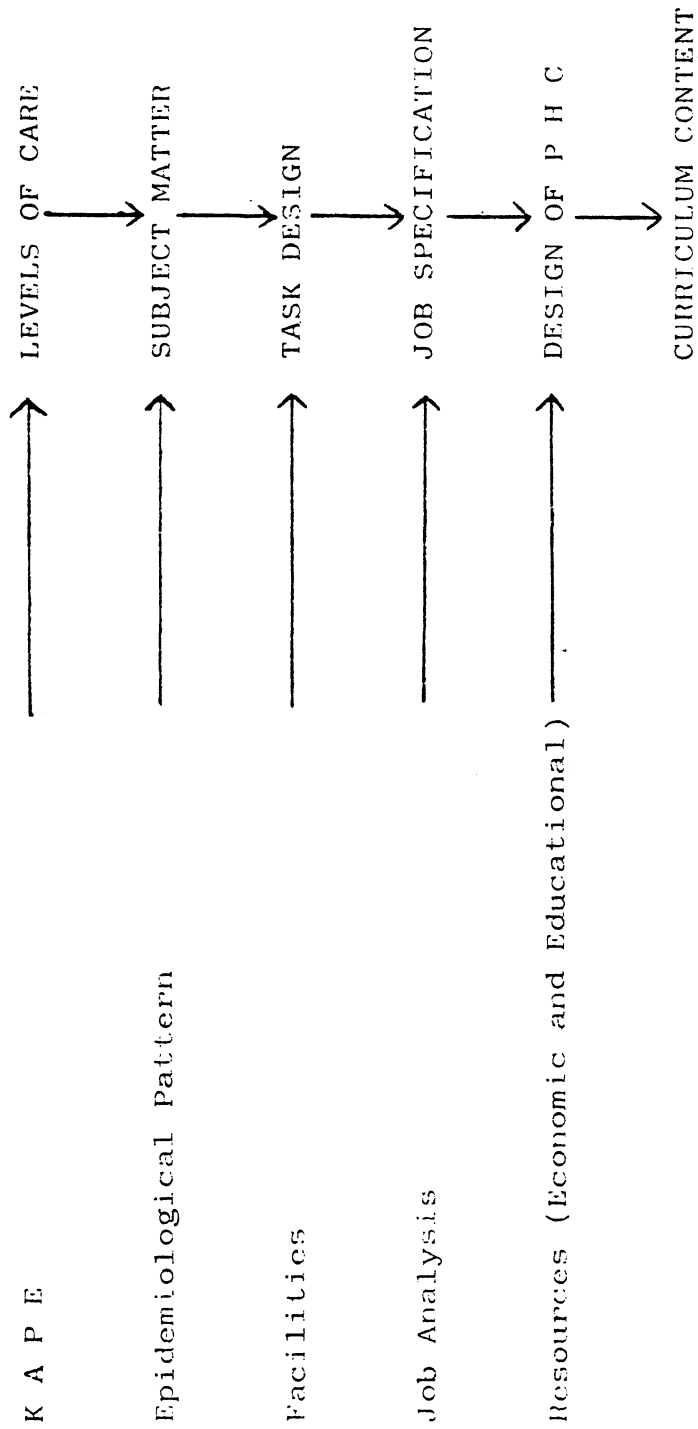
N.R.E. Fendial

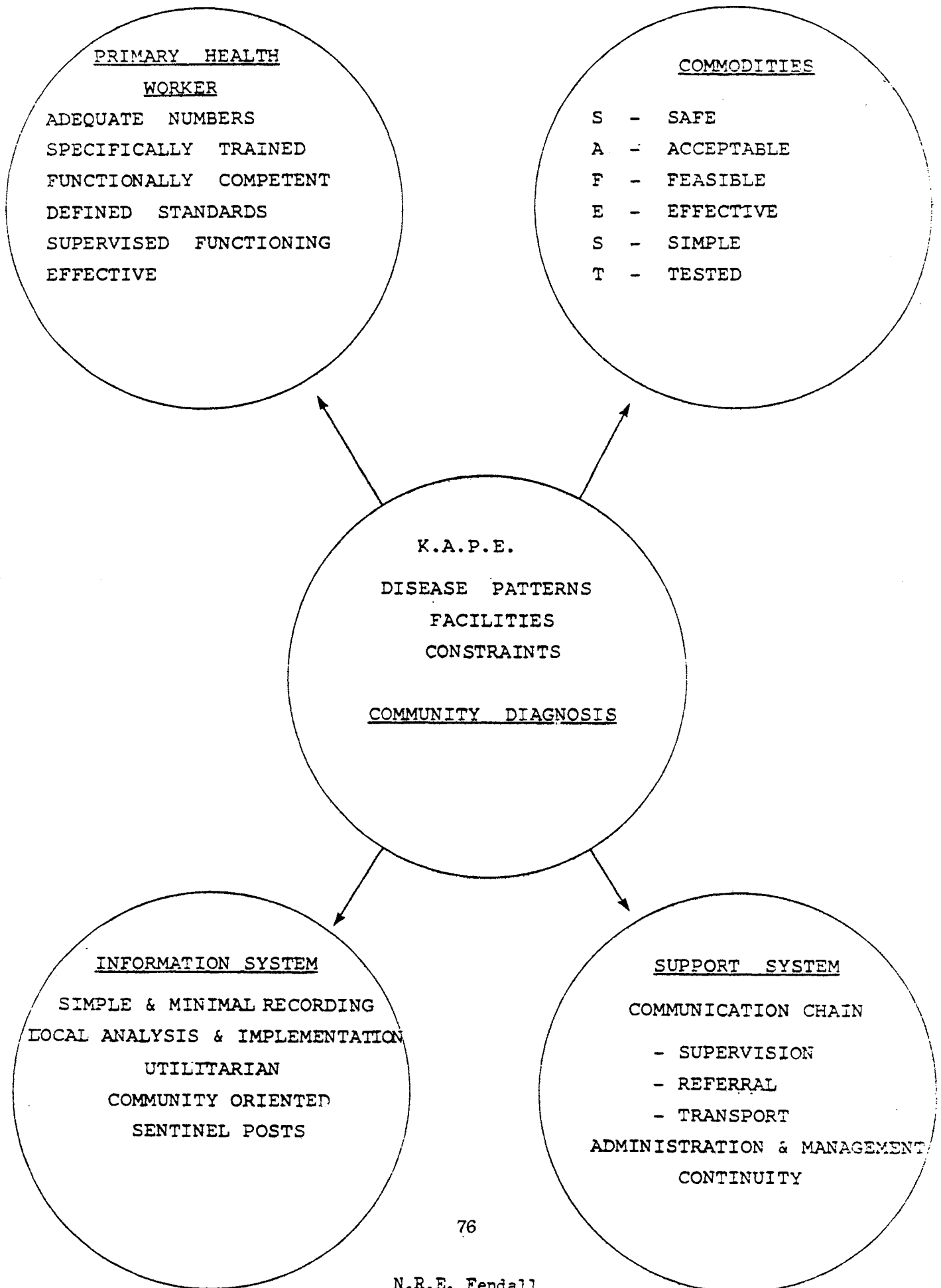
TABLE 4



NRE FENDALL
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F.M. SHATTOCK

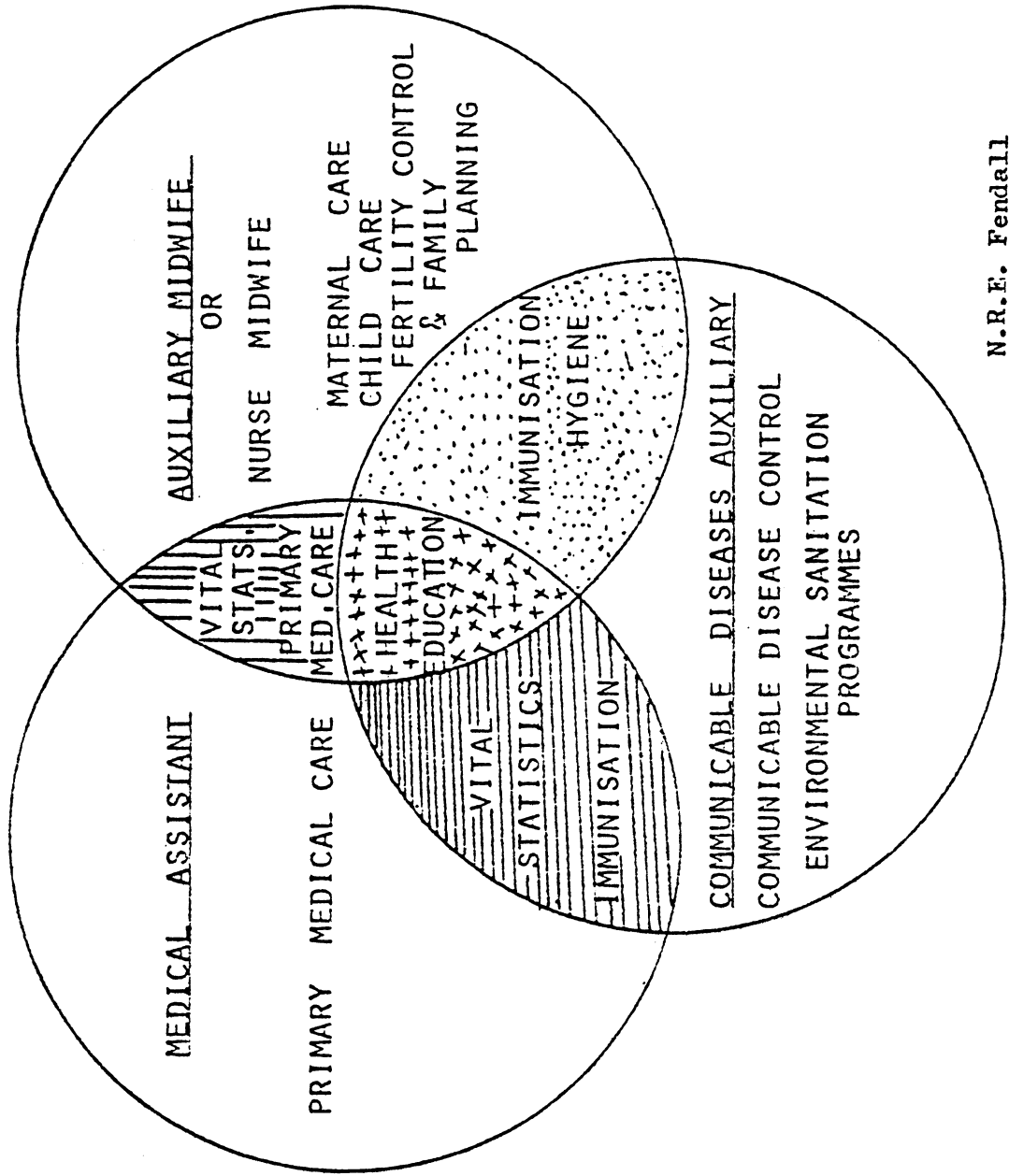
COMMUNITY DIAGNOSIS





THE PRIMARY HEALTH CARE TEAM AT THE HEALTH CENTRE

THE SHARED TASKS



N.R.E. Fendall

THE ROLE OF MEDICAL SCHOOLS IN PRIMARY HEALTH CARE

Paper prepared by Dr J J Thuku*

The primary health care approach in its comprehensive sense has been defined only in recent years. Countries of the world are in different stages in the process of implementation. A recent study by the UNICEF/WHO Joint Committee on Health Policy came to the conclusion that, despite an internationally agreed definition, the term primary health care is being applied around the world to a variety of realities and even of concepts. This is not surprising, international declarations being what they are -general in character to encompass the world situation. Countries have to adapt the general approach to their specific conditions.

2. Primary health care implies a change in the pattern of resource allocation which favours the presently disadvantaged groups more than those who already well provided for, at least in relative terms. Implementation therefore is likely to involve an interaction of social forces for and against it. The shift in resources to primary health care will require public reaffirmation at the highest political level. To get this support, politicians and the general public will have to be convinced that primary health care is not second-class medicine for the poor.

3. There are many among health administrators, health workers, the professionals and politicians who argue that the primary health care concept is an admission on the part of governments of their inability to provide the rural health services which are mainly hospital-based. This is a fact of life. This is what the people are used to. In nearly all health systems the emphasis on hospitals is dominant, for reasons well known to all of us.

4. The primary health care concept was adopted by all member states of the United Nations at the 1977 World Health Assembly in a resolution on health for all by the year 2000, based on the primary health care approach. To implement the concept most countries would have to make radical changes in the organisation of their health care systems and other sectors relevant to health.

5. One such sector which is crucial to the implementation of the primary health care concept is the medical school or medical college, whatever term one prefers to use. The medical school is crucial as it produces the doctors on whose acceptance, commitment and implementation of primary health care depends. This does not mean that the training colleges for other health workers are not important. They are important, but as long as the doctor continues to be the accepted leader of the health team, and in many cases plans or influences the planning of health systems, his acceptance and commitment to the primary health care approach are crucial.

6. You cannot expect the graduates of the present-day medical schools to be oriented towards primary health care. Typically all their training is in the medical schools and hospitals rather than the community. Curative medicine will have dominated the curriculum, leaving little room for preventive medicine or public health. Practical training will have concentrated almost exclusively on the clinical problems of individuals rather than the health problems of the community. There will have been little time or no time spent teaching the graduates about community organisation or working with non-professionals, or working in and with a team of other workers.

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7. A health system should be designed to meet the needs of the people and not the professionals who work in it. Health planners must also avoid the dangers of distorting their systems to meet the needs of the medical schools rather than the needs of sick people. We all know the pressures exerted by medical schools to purchase very expensive and sophisticated equipment that benefits only a few, sometimes at the expense of much-needed anti-malarial drugs. If we are to produce the type of doctor who knows and appreciates the aspirations of the majority of the people the medical school will have to play a major role.

8. At present most doctors lack any insight into primary health care because of the deficiencies in the training programmes in the medical schools. There is too little training in primary health care or in primary care field work, too much emphasis on traditional western academic and scientific subjects, too little attention to the disease pattern of the particular country and too little training in multidisciplinary teamwork.

9. Medical schools can help in changing and moulding the attitude of doctors to primary health care during the training of medical students - the future doctors, leaders of the health teams and planners of health delivery systems. They can do this in the following ways.

- (a) By influencing the selection of medical students. At present too much emphasis is placed on academic performance. No effort is made to select the student who wishes to do medicine because he genuinely believes in the service of his fellow men rather than monetary considerations. No attempt is made to select students who are more likely to serve in the rural areas without grumbling. Students from rural and poor families are more likely to go back and work in the rural areas on completion of their studies than students from urban and rich families. Fortunately this is not a major problem at present for us in Kenya as most of us are rural and poor.
- (b) By modifying medical school curricula in such a manner as to focus more firmly on primary health care and social conditions. The training programmes should be restructured in such a way as to provide the students with early and continuing exposure to practising primary health care. Ideally the students should spend as much time in the field as they do in clinical areas. Much of this field work should be in the rural areas.
- (c) Medical schools should make more use of provincial and district hospitals in the clinical training of medical students rather than on insisting on their training being conducted in the urban teaching hospitals. This will expose the students to medicine as it is practised in the rural areas without the help of sophisticated equipment to be found in the teaching hospitals. It will also help the students to know their countries and the health problems they are likely to encounter when they finish their studies and are posted to work in the rural areas.
- (d) Medical schools should make every effort to steer the medical students' curricula away from the traditional mono-discipline, department-oriented, individual patient approach towards a multidisciplinary, problem-oriented, community approach. Early and continuous exposure to the practical problems of health care is essential so that theory can be integrated with practice.
- (e) Medical schools should be the torch-bearers by decentralising the training and placing their services as close to the communities as possible. This way the students are more likely to come into contact with other health workers and others who also play a role in the implementation of the primary health care concept.
- (f) Postgraduate training of doctors should focus much more attention on primary health care, including courses on general practice, maternal and child health, family planning and public health. As far as possible it should be done in the students' own country.

The Kenya experience

10. Kenya's Faculty of Medicine of the University of Nairobi was started in 1967. It began with an initial intake of 35 students and this has gradually increased over the years to the present annual intake of 115 students per year. The clinical departments are physically located within the Kenyatta National Hospital in Nairobi but the basic sciences are accommodated along with other departments of the University of Nairobi about five kilometres from the hospital. The buildings belong to the Ministry of Health but the faculty falls under the Ministry of Higher Education. The medical school essentially trains Kenya doctors but we also offer places to students from other countries of Africa. We train both undergraduates and postgraduates in all fields of medicine, except pathology due to lack of a sufficient number of trainers.

11. Kenya participated in the unanimous adoption of the primary health care concept of the World Health Assembly in 1977. We also took part in the deliberations at Alma Ata that followed in 1978. The Kenya Government is committed to the idea of providing health services to all by the year 2000. The will is there but factors beyond our control may come in our way. We have started by establishing rural health units that would compare favourably to the catchment areas for hospitals discussed at Karachi on the Role of Hospitals in Primary Health Care.

12. As for our medical school, the idea of preparing our doctors for work with the community has always been there. Since the inception of the medical school, undergraduate and postgraduate students have had part of their training period in rural areas. Financial limitations have seriously affected the training of postgraduate students in the rural settings, but the undergraduate students programme continues.

13. In Kenya every medical student, before embarking on the second year at the medical school, spends at least two weeks at a health centre. This is either at Karuri Health Centre, which is about 20 kilometres from Nairobi, or in a health centre situated within Machakos district whose headquarters is about 60 kilometres from Nairobi. At the end of the second year, students are again required to spend a further period of two weeks at a health centre. During the fourth year the students are attached to the Department of Community Medicine for a whole term (3 months). During this period the students operate from Machakos town, where there are facilities for boarding and lodging. During this period the students work and stay at a health centre for a minimum period of two weeks. The health centres are at Masii, Mitaboni and Mwala. All of them are 30 kilometres from Machakos town and are rural in every sense of the word.

14. When the students are at these rural areas they cover epidemiology, public health, maternal and child health and family planning, medical sociology, statistics, health education and communicable disease control, etc. They have an opportunity of coming into contact with other field workers such as the National Youth Service, social workers, women's organisations, the Chiefs, and teachers, and they also visit and address schools. For those who were in the fourth year during the outbreak of cholera in 1974/75, they all took part in the national effort for the control of the disease. All students are in addition expected to spend a minimum period of two weeks at our leprosarium in Alupe, which is about 550 kilometres from Nairobi on the Kenya/Uganda border. After the fourth year, students spend their elective period in a hospital of their choice for a period of three months before joining the final year in the medical school. This can be done either at a government or a mission hospital.

15. Similar programmes exist for postgraduate students, and have been very effective in the departments of paediatrics, obstetrics/gynaecology and ophthalmology. The departments of medicine and surgery also had programmes but this seems to have died out mainly because of financial problems. We hope to revive these programmes.

16. The time spent in these rural areas is not enough. We would would like to see it extended. Financial limitations may however not allow this. It is, I believe, here that the richer nations of the Commonwealth and the international community could help.

PROGRAMME OF RE-ORIENTATION OF MEDICAL EDUCATION

Paper prepared by the Ministry of Health and Family Planning, India, and presented by Professor R Sharma*

The Ministry of Health and Family Planning appointed a top-level committee, the Group on Medical Education and Support Manpower, and the report of this Group was submitted to the Government in 1974. The recommendations of the Group were duly processed by a sub-committee of the Ministry and a concrete plan of action was drawn up which was adopted by the third joint meeting of the Central Council of Health and Family Planning in a resolution. They were later ratified by the Conference of Deans and Principals of Medical Colleges in India.

2. In order to start the implementation by the government of each State or Union Territory of the programme concretised in the plan of action, it is imperative that the following guidelines be kept in view by the State/Union Territory Government, in order to achieve the specified objectives envisaged in the plan, with scope for flexibility and modification to suit varying local conditions.

3. The government medical colleges in the States will accept total responsibility for promotive, preventive and curative health care in at least three community development blocks in the district where each medical college is situated, in the first instance. By adopting the programme, each medical college will extend total health care to the entire district in which the college is located, in a phased manner over a period of three to five years.

4. Each medical college will evolve - with the active involvement of district hospitals, taluk/tehsil hospitals, sub-divisional hospitals and primary health centres - a well-knit referral service complex. To achieve this, a working group will be set up at the medical colleges or civil hospitals under the chairmanship of the principal/deputy director of the region, involving personnel from these institutions.

5. For the success of such a referral system, a continuous dialogue will be maintained between the medical colleges, district hospitals, cottage hospitals, and the civil dispensaries and primary health centres. To start with, a programme will be worked out involving the centres which are near to the medical colleges.

6. The staff of the medical college will be required to attend the district, taluk/tehsil and sub-divisional hospitals by rotation for the purpose of improving the hospital services. The medical college will also extend co-operation by providing the peripheral units mainly with expertise and assistance in laboratory services, radiology services, clinical services, implementation of national programmes, control of communicable diseases, nutrition, maternal and child health services and family planning. With this aim in view, the resources of medical colleges and district, taluk/tehsil and sub-divisional hospitals, and primary health centres will be pooled together in respect of transportation, equipment, contingent grants, etc, to evolve a well-knit referral system.

7. For the proper training of undergraduate students in rural health care programmes, it is necessary for a balance to be struck between the training they receive in the medical college and in the hospitals and primary health centres. The programme will be implemented in phases so that the students have the opportunity to spend part of their training time in the district, taluk/tehsil and sub-divisional hospitals and primary health centres.

* Principal and Controller, SMS Medical College, Jaipur, India

8. The training of the undergraduate students will be re-cast within the integrated, comprehensive health services complex, making provision in the timetable for posting in rural areas where they will be actively involved in the services provided by primary health centres and sub-centres. During the undergraduate period of training, at least eight weeks annual posting in rural areas will be included in the timetable.

9. Each medical college will evolve a detailed training programme for the undergraduate students and interns, which they will carry out during their rural postings.

10. For the successful implementation of total health care and the improved training programme for undergraduate students, it is imperative that all faculty members - clinical, non-clinical and para-clinical - are involved in this programme. All staff members from the faculty will be posted at primary health centres and sub-centres in rotation for sufficiently long periods. They will be responsible there for guiding the training of the undergraduate students and interns, and will supervise the development and implementation of the entire health care delivery programmes. It will be necessary to organise a re-orientation programme for faculty members and health team personnel at each medical college.

11. The services of district health personnel and doctors working in district, 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 colleges commensurate with their qualifications and field experience.

12. The entire period of internship training will be spent in suitably upgraded district, taluk/tehsil and sub-divisional hospitals and primary health centres. Depending on the availability of facilities at the district hospitals, the number of interns posted at the medical college hospitals will be reduced.

13. The medical college staff will provide their services to the fullest extent in the training of paramedical and other ancillary health staff required in the development of the three-tier system of health care delivery.

14. It is essential to collect base-line data about the health status of the community concerned, so that in future the impact of the entry of the medical college into the health care delivery system can be periodically evaluated. Information will be collected in the following areas:

- (a) demographic data
- (b) family planning
- (c) maternal and child health
- (d) nutritional status
- (e) communicable diseases, especially tuberculosis, leprosy and venereal diseases
- (f) parasitic infestations
- (g) immunisation

15. Each medical college will evolve a scheme for a health care delivery system 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 district in future.

16. At present, the research being carried out in medical colleges is individual-based and of limited application to the needs of the community. Therefore, the medical colleges will formulate research schemes which will have practical application to the basic health needs of the community. The involvement of the medical colleges in the rural health care delivery system will be conducive to undertaking research projects which will be of significant value to the community. The help of research funding organisations such as the Indian Council of Medical Research and approved international agencies will be obtained as far as possible for carrying out these research projects.

17. In order to motivate students towards their whole-hearted participation in their rural postings, a scheme for periodical assessment of their studies will be built into the programme. At the the university level, examinations will be so structured that stress will be laid on assessment of and by the students during their rural postings.

18. To bring about far-reaching changes in the present system of medical education and health care delivery, effective administrative machinery will be evolved to facilitate co-ordinated efforts and the provision of official support for field programmes. At present, the technical supervision of the work of the primary health centres is done by the Directorate of Health Services, through Director - Joint Director - Deputy Director - District Health Officer. Under the new set-up it is envisaged that it will be done through the Directorate of Health Education and Research and the Director of Health Services, through the Dean of the medical college and the District Health Offices. Necessary administrative orders in this regard will have to be issued by the Government.

19. The following committees will also be constituted, with composition broadly on the following lines:

State-level co-ordination committee

Minister of Public Health and Rural Development	Chairman
Minister of State for Public Health	Vice-Chairman
Minister of State for Rural Development	Vice-Chairman
Secretary, Rural Development Department	Member
Secretary, Public Health Department	Member
Director of Health Services	Member
Director of Medical Education and Research	Member Secretary

The Director of Health Services shall be the Member Secretary where there is no separate post of Director of Medical Education and Research.

Medical college level : regional co-ordination committee

Chief Executive Officer, Z P	Chairman
Dean of the medical college	Member
District Health Officer	Member
Professor of Community Medicine	Member Secretary

20. There should also be an institutional committee constituted by the dean, with appropriate members. Advisably, this college-level committee should consist of all senior staff members whose involvement is necessary for the success of the programme. It may also invite relevant Health Department officials to attend its meetings. The institutional committee may also invite medical officers and other staff of the primary health centres to attend its meetings when required.

21. The regional co-ordinative committees and institutional committees should submit periodical reports at least one a month to the Director of Medical Education and Research, who will collate and submit them to the State-level co-ordination committee.

RELATIONSHIP OF MEDICAL SCHOOLS AND MINISTRIES OF HEALTH

Paper prepared by Professor W G Casselman*

We are concerned with relationships between medical schools and ministries of health. Sir Kenneth Standard emphasised that, while such relationships are often built in the first place on personal working relations, in due course they must become established as official policy. Two significant undertakings by the University of Western Ontario, in Canada, in the fields of community health education and primary health care, provide examples of the relationships that can be established as the result of a university initiative on the one hand and of a ministry initiative on the other.

2. By way of background: in Canada there are ten provinces and two territories. Health and Welfare Canada, the federal Ministry, provides co-ordination, sets standards and provides funding for the provincial programmes through transfer payments. Health, however, is primarily a provincial responsibility; and therefore the University is working with the provincial Ministry of Health.

3. The first example is a university initiative, namely the Outreach Programme of the health sciences faculties of the University of Western Ontario. This programme has been in operation for nearly two years and is now well established with the Ministry of Health of the Province of Ontario. It has been formally approved by the senior management of the Ministry and is fully funded by the Ministry. It is subject to annual programme and budget reviews as well as a major review after five years.

4. At the University of Western Ontario, the Health Sciences Centre includes all the health sciences faculties, and therefore all the health disciplines at the University: namely, dentistry, medicine, nursing, communicative disorders (speech therapy and audiology), occupational therapy and physical therapy. The Outreach Programme was established to enable them to extend beyond their traditional roles in the traditional urban setting of a university health centre. The overall programme has been planned in three phases: the first is directed towards the remote, isolated communities in Northern Ontario; the second, towards the Canadian far-north, and the third, as the need or opportunity arises, towards countries overseas.

5. As just stated, the first phase of the Outreach Programme is directed towards Northern Ontario. The Province of Ontario is the second largest in Canada. It has an area of nearly one million square miles and a population of approximately nine million persons of whom over 90 per cent reside in the south. Northern Ontario covers about 600,000 square miles, has a population of only 750,000 and is from about 300 to over 1200 miles from London, where the University is located. Many of the problems of Northern Ontario are similar to those of the "island communities" considered at previous Commonwealth meetings: very remote, widely separated, small communities, and limited or no health resources.

6. Briefly, the principal objectives of the the Outreach Programme are:

- (a) to contribute to the development of local health services;
- (b) to contribute to the development of local health manpower; and
- (c) to develop research programmes as required in support of the first two objectives.

* Director, Northern Outreach Programme, University of Western Ontario, Canada

Two overriding principles of the Outreach Programme are that it should promote local self-sufficiency and self-reliance through appropriate means, and that it should complement, and not be in competition with, the work of the other Health Sciences Centres.

7. The Outreach Programme is tripartite: the principal participants are the University health sciences faculties, the Ontario Ministry of Health and the local communities in Northern Ontario Ministry of Health and the local communities in Northern Ontario through their district health councils. The development of the programme has depended upon the development of effective working relationships between all the participants:

- (a) within the University, between the individual health sciences faculties, including the exchange of experiences with, and knowledge of, the areas, districts and communities;
- (b) with the Ministry of Health, at both the policy and planning levels as well as in the various health service areas, such as public health and mental health; and
- (c) with the districts and communities, primarily with the district health councils (whose membership includes representatives of health services providers, consumers, and local governments) and, to a lesser extent, directly with the communities and their health service organisations.

8. There are five district health councils in Northern Ontario. Each identifies certain priority areas in which the Outreach Programme is requested to participate. The major areas include:

- (a) in the Faculty of Medicine, family medicine/general practice, mental health/psychiatry, and to a lesser extent, other specialities;
- (b) in nursing, in-service training and up-grading of nurses in hospitals and in public health;
- (c) in physical therapy and in occupational therapy, and also in speech therapy and audiology, both services and professional development.

There are also increasing numbers of requests relating to epidemiology, and to planning and evaluation.

9. All the projects that have been undertaken by the Outreach Programme are in response to such requests from the communities through their district health council or, occasionally, through the Ministry of Health. The development of the projects must be consistent with the missions, objectives and policies of the health sciences faculties as well as with the objectives and policies of the Ministry of Health. To the extent possible, the programme is striving not to undertake projects that it cannot reasonably expect to fulfill.

10. The projects that have been undertaken so far are already contributing to the development of health services and to health manpower development in the districts concerned. In addition, the projects are contributing to the educational programme of some of the faculties, particularly through providing opportunities for field experience in remote, isolated areas. The students are thus able to live and work in communities other than those around the University of Western Ontario. Hopefully, some will choose to return and live in Northern Ontario where, at present, there is a shortage of health professionals. With the Ministry of Health we are studying various means of meeting the needs for professionals in under-served areas, while at the same time taking into consideration the usual turnover of health professionals in such areas.

11. In connection with the second phase of the programme, in the Canadian far-north, we are considering a request from the Government of the Northwest Territories. The third phase, as some of you are aware, is already under way with the joint project for continuing education of physiotherapists in the Commonwealth Caribbean in which the School of Physical Therapy, Kingston, Jamaica, and the Programme in Physical Therapy at the University of Western Ontario are participating, and which is being supported by a grant from the Commonwealth Foundation.

12. The second example of a university-ministry working relationship is a Ministry of Health initiative: a recent proposal to establish teaching health units. These would be analogous to teaching hospitals and would be developed from present public health units. In Ontario, the public health units serve to some extent as community health centres, with emphasis on prevention. Their responsibilities include areas such as maternal and child health, school health, immunisation and communicable disease control, nutrition, health care of the elderly, home care programmes, sanitation and inspection services. It is expected that there will be cross-appointments between the units and the health sciences faculties. Again, this is a tripartite undertaking, involving in our case the University of Western Ontario, the Ontario Ministry of Health, and the three nearby public health units of London-Middlesex, Oxford and Perth counties.

13. At present we are working on the identification of mutual goals, the establishment of appropriate role models, the development of extended health care teams (including disciplines such as physical and occupational therapy), the identification of new educational, research, and service opportunities, and the assessment of the impact on present curricula. The proposed development of a teaching health unit has not yet progressed so far as the development of the Outreach Programme. Nevertheless, we are convinced that it will prove to be a valuable undertaking which will provide new opportunities, both traditional and innovative, for both the health sciences faculties and the public health units.

14. The Outreach Programme of the health sciences faculties of the University of Western Ontario and the concept of teaching health units developed by the Ministry of Health of the Province of Ontario have been presented today as two examples of the dynamic working relationships that can be formally established between a university health sciences centre, or medical school, and a ministry of health. In such undertakings it is important to recognise from the outset that the missions of the medical school and of the ministry of health are significantly different: the medical school to train students to meet specific professional qualifications for physicians, the ministry to ensure the provision of health services for all the people of the country. Nevertheless, the two are closely interrelated. Effective collaboration and co-operation depend upon continued dialogue and the development of mutual understanding such as are being considered by this workshop.

15. In his address to the Thirty-Fifth World Health Assembly, the Director-General of the World Health Organisation, Dr Halfdan Mahler, observed that the "relationships between ministries of health on the one hand and universities, medical schools, and schools of health sciences on the other hand, are a constraint that can and must be converted into an opportunity". We believe that this is being achieved by the University of Western Ontario and the Ministry of health of the Province of Ontario.

16. Dr Mahler went on to observe that the "dialogue between ministries of health and medical schools will not be easy" and that to bring them together will require an "unusual" effort and a no less "unusual" appeal. This workshop surely demonstrates that such a dialogue can take place, thanks to the "unusual" contributions of the Commonwealth Secretariat, the Association of Commonwealth Universities, the Commonwealth Foundation, and the University of Peradeniya.

COMMONWEALTH POSTGRADUATE AND HIGHER EDUCATION CENTRES

Paper prepared by the Commonwealth Secretariat

Background

At their Melbourne meeting in October 1981 Commonwealth Heads of Government recognised the need for achieving wider mobility for Commonwealth students and recommended the setting-up of an appropriate committee to study and report on it. In response to this recommendation a Standing Committee on Student Mobility was set up by the Commonwealth Secretary-General and its first meeting was held at Marlborough House in July 1982. Most of the issues that are likely to have a bearing on the movement of students between member countries, including the availability of Commonwealth centres of higher education, were examined. The recommendations of that meeting are as relevant for health as for other educational disciplines.

2. It identified two important determinants for the successful setting-up of Commonwealth centres of higher education and for the achievement of a national and multi-directional movement of students between them:

- (i) the political determination with which the development of such centres is supported; and
- (ii) the availability of the Commonwealth-wide information system which would be essential for their successful development and operation.

3. In the field of health, as in others, the achievement of a balanced flow of graduates between appropriately sited Commonwealth centres would also require information and decisions on a number of other factors:

- (i) the existing national or regional institutions that have the potential for becoming Commonwealth centres of higher education;
- (ii) the courses and programmes currently provided by such centres and the present movement of Commonwealth graduates between them;
- (iii) the factors that influence or are likely to influence such movement - fee levels, availability of scholarships or other forms of support, government policies, cultural differences, etc;
- (iv) the requirements for strengthening such centres to enable them to play this wider Commonwealth role;
- (v) the support that local governments, the Commonwealth Secretariat and other agencies, universities and governments of developed countries in the region might make to such centres and how such assistance could be mobilised and co-ordinated.

4. Commonwealth Health Ministers considered Commonwealth postgraduate and higher education needs and the related question of medical postgraduate student mobility at their Pre-WHA Meeting held in Geneva on 2 May 1982. They recognised the present and past educational contributions to the Commonwealth made by British postgraduate institutions such as the Royal Postgraduate Medical School, the institutes of the British Postgraduate Medical Federation and the London and Liverpool Schools of Tropical Medicine. Many of the programmes of these institutions, however, are not fully geared to the needs of countries outside Britain; and many of their training functions might be more appropriately carried out in other Commonwealth centres.

5. However necessary they might have been before, visits to Britain by overseas graduates, often of long duration and frequently to study the medical disorders of their own countries, can hardly be justified today. In any case, travel to Britain for these purposes is uneconomical both financially and in terms of personnel. It deprives developing countries of the skills of their own graduates during an important period of in-service training. In addition, Britain has indicated by its increase in fees for Commonwealth citizens that it can no longer offer this expensive facility at economic rates to Commonwealth member countries. The Health Ministers, therefore, saw the need for the development of postgraduate and higher medical educational facilities in more appropriately located Commonwealth centres.

6. They appreciated that this would entail the dispersal to Commonwealth centres of many of the functions currently undertaken by the British institutions. It would in no way deny, however, the importance of the contributions that these institutions might continue to make to the promotion of health throughout the Commonwealth. They would still be a valuable resource for the developing world, providing not only their already established skills, many of which it might be uneconomic to duplicate elsewhere, but also a common bond and a basis for wider Commonwealth collaboration and consultation.

7. They considered that Commonwealth regional groups might act jointly to establish such centres and contribute to their financing. Support for them could also be sought from the Commonwealth Fund for Technical Co-operation and from other aid agencies. They also considered that such centres could be located and developed in suitable locations in the Commonwealth - not necessarily as new institutions but more likely through the strengthening of existing ones to enable them to undertake these additional roles.

Proposed developments

8. It is envisaged that some of the current programmes of existing institutions could be upgraded or new ones designed to meet the defined needs of member countries. The requisite additional staff and facilities could be brought together to enable such courses to be given in appropriately located centres, which would be available to graduates from both developed and developing Commonwealth countries. Their standards and their qualifying examinations could be certified by Commonwealth review groups and appropriate safeguards introduced for sustaining them at the desired levels.

Implementation

9. It is envisaged that there would be a phased implementation of these proposals. Details of the initial measures to be adopted at national, regional and Commonwealth levels might be guided by the recommendations of an **international advisory group of experts**. This group might consider such matters as:

- (a) the centres and disciplines to be strengthened;
- (b) their curricular, staffing and financial requirements;
- (c) their research and other targets and how these might be met;
- (d) their relationships with member governments at national, regional and Commonwealth levels;
- (e) the regulatory and administrative arrangements for ensuring the achievement and maintenance of the highest levels of excellence and relevance.

10. In addition, they might examine the programmes of existing national and regional higher education agencies including those of the British Postgraduate Medical Federation, the British Schools of Tropical Medicine, WHO and the Wellcome Trust, so that the most appropriate Commonwealth sites and programmes could be achieved. Representatives of these institutions might also be included in the advisory committee.

11. In the development of these initiatives there are roles for **individual governments**, for **regional groupings** and for the **Commonwealth Secretariat** and other supporting agencies.

Individual governments

12. Governments of those countries in which the development of a regional or Commonwealth centre has been agreed would need to give the highest developmental priority to its planning, staffing, financing and administration.

13. Agreements would need to be worked out with other governments in the region for the sharing of personnel and other scarce resources, financial commitments, etc.

14. Special arrangements might need to be made for obtaining CFTC and other agency support for the development of these centres. Where appropriate, additional national contributions might need to be made to CFTC to enable it to meet the substantial additional commitments that might be entailed.

Regional groupings

15. Regional governments would need to recognise the importance of the role of such institutions, to provide the requisite support for their development and to ensure that an appropriate administrative and operational framework is worked out to enable such centres to meet the role which they are intended to play.

Commonwealth Secretariat and other supporting agencies

16. The CFTC might provide assistance for the initial meetings of the standing advisory committee. Its traditional role of providing technical assistance and support for education and training would be of value both for promoting institutional development and also for facilitating student mobility.

17. By the commissioning of experts and by supporting special studies and workshops it could assist during the developmental stages of such centres. Such studies and workshops could, for example, assist with the collection, analysis and dissemination of essential information. They might also help to identify:

- (a) the institutions which might be developed into regional or Commonwealth centres;
- (b) the forms of assistance necessary to enable them to assume this extended role; and
- (c) the sources of such assistance including private, bilateral and multilateral aid.

THE ASSOCIATION OF COMMONWEALTH UNIVERSITIES

John Foster House 36 Gordon Square London WC1H 0PF
Cables: ACUMEN LONDON WC1 Tel: 01-387 8572

In reply please quote- B/

29 September 1982

Dear Medical Dean,

COMMONWEALTH FOUNDATION MEDICAL ELECTIVES BURSARIES

At the request of the Commonwealth Foundation I write to let you know that the Foundation is offering about 20 Bursaries, each of the order of £500 and with tenure at any time between 1 June 1983 and 31 May 1984, to senior medical students of approved medical schools in the Commonwealth to assist them to spend their elective period in a Commonwealth country other than their own. Such students would usually be those in the final years of study for a bachelor's degree in medicine and surgery but in Canada the appropriate group would be working for an MD.

The Bursaries are funded by the Commonwealth Foundation, the administration of the scheme being undertaken by the Association of Commonwealth Universities on the Foundation's behalf.

Details of the conditions under which these Commonwealth Foundation Bursaries are offered are contained in the attached announcement. I shall be very grateful if you will bring the announcement to the attention of senior medical students in your faculty who, as part of their course, are required to spend an elective period on an attachment in a hospital or some other medical institution at home or abroad; and are interested in gaining practical experience, during that elective period, in a Commonwealth country other than their own. Please fix a suitable local closing date for receipt by you of applications, bearing in mind the date given below by which the application(s) you recommend should reach London.

As in previous years, you are asked to select, from the applications submitted by your students, **not more than two** that you consider are the best, and forward the selected application(s) to:

Project Administrator,
Commonwealth Foundation Medical Electives
Bursaries,
Association of Commonwealth Universities,
John Foster House, 36 Gordon Square,
London, England WC1H 0PF.

The Commonwealth Foundation would be grateful if the selection process could take particularly into account:

- (i) the feasibility of the proposal and its usefulness both to the student and to the receiving institution;

- (ii) the educational record of the student;
- (iii) the motivation of the student. If a student has a clear intention of working in a Commonwealth Third World country after qualifying this should be stated.

Your one or two recommended applications should be sent so as to reach the ACU office in London not later than 18 February 1983.

As is explained in the attached announcement, applications cannot be considered unless they cover **all** of the eight points on which information is requested and it is therefore **very important** that **all these points are covered** in any application that you recommend

The Commonwealth Foundation would greatly appreciate whatever comments you may be able to offer in support of the selected applicants(s) and of the elective attachment(s) proposed; and, if two candidates are recommended, an indication of the order of preference that you yourself consider appropriate would be most helpful.

It would also be of assistance to us in monitoring the progress of this scheme if your covering letter could mention how many applications in all you received.

I should be grateful if, **on receipt of this letter**, you would complete and return (by airmail) the attached acknowledgement slip.

Any comments on the scheme, or questions, will be welcome.

Yours sincerely,

A. CHRISTODOULOU
Secretary General

THE COMMONWEALTH FOUNDATION

COMMONWEALTH FOUNDATION MEDICAL ELECTIVES BURSARIES Conditions of Award

The Commonwealth Foundation invites applications for medical electives bursaries from senior medical students of approved medical schools in the Commonwealth, to assist them to spend their elective period in a Commonwealth country other than their own at any time between 1 June 1983 and 31 May 1984.

Place of tenure

The purpose of the Commonwealth Foundation's bursary scheme is to enable medical students, during their elective period, to gain practical experience in Commonwealth countries other than their own, preferably in those of the Third World; and by so doing help understaffed hospitals in those countries. The bursaries are **not** intended simply to assist students to continue, during their elective period, clinical training analogous to that provided by their own medical schools.

The bursaries are **not** available for movement between any two of Australia, Britain, Canada and New Zealand. Nor can students who are at present studying in a country other than their own hold a bursary in their own country.

Number and value

About 20 Commonwealth Foundation bursaries, each of the order of £500, are offered with tenure at any time between 1 June 1983 and 31 May 1984. They are intended to cover part of the travel, subsistence and local costs of the student. Payment will be made direct from London to the successful applicants.

Priorities

Preference will be given to short-term attachments (4 - 10 weeks' duration) in Commonwealth Third World countries, particularly countries that are least developed, specially disadvantaged or small island states (Antigua and Barbuda, Bangladesh, Botswana, Dominica, The Gambia, Grenada, Kiribati, Lesotho, Malawi, the Maldives, Papua New Guinea, Solomon Islands, St. Lucia, St. Vincent and the Grenadines, Swaziland, Tanzania, Tonga, Tuvalu, Uganda, Vanuatu, Western Samoa). In exceptional cases, awards may be made for the attachment of medical students from Commonwealth Third World countries in hospitals and medical institutions in Commonwealth developed countries.

Priority medical areas include community health care, obstetrics, orthopaedics and paediatrics.

Method of application

Applications must be submitted, in the first instance, to the dean of the candidate's medical school and **not** to the Commonwealth Foundation or to the Association of Commonwealth Universities (ACU). After considering the applications each dean may recommend not more than two candidates (through the ACU office in London, England).

Content of application

Each application must contain all the following information and cannot be considered without it:

- (1) a curriculum vitae of not more than 200 words;
- (2) the name and full address of the hospital or other medical institution where the elective period will be spent;
- (3) the time of year (with dates if possible) at which the attachment will be undertaken;
- (4) a written statement from the hospital/institution of tenure that it is willing to accept the student for the attachment proposed;
- (5) the area of medical specialisation in which the attachment will be undertaken;
- (6) a note of not more than 200 words on the benefits the student expects to gain by the attachment. If the student intends on qualification to work in a developing country this should be stated;
- (7) an estimate of the overall cost to the student of the attachment, giving any other sources of funding including the contribution which he/she plans to make towards the overall costs;
- (8) the full postal address for correspondence.

Closing date

The dean of your medical school will announce the last date by which he can receive applications for this competition.

Planning of attachment

All arrangements for attachments must be made by the students on the advice of the authorities of their medical schools. Neither the Commonwealth Foundation nor the ACU can recommend hospitals to students or make arrangements on their behalf.

Report

On their return from the elective period abroad, bursary holders must submit a brief report through the ACU office.

1984 Competition

The Commonwealth Foundation expects to announce a similar competition, at about this time next year, for bursaries that will be tenable during 1984-85.

Please return by airmail from Outside UK

To: Project Administrator, Medical Electives Bursaries,
ACU, John Foster House, 36 Gordon Square,
London, England WC1H 0PF.

From
(insert name and title)

.....
(insert name of college or university)

COMMONWEALTH FOUNDATION MEDICAL ELECTIVES BURSARIES

I acknowledge receipt of your letter of 29 September and attached conditions of award.
This faculty/school of medicine -

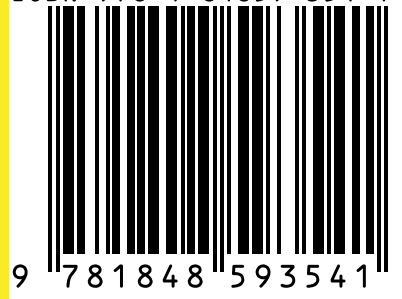
*will be organising a competition for these BURSARIES with a view to sending the best
two applications so as to reach you in London by 18 February 1983.

*will not be participating in this competition.

Date

*Please delete whichever is not relevant.

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