THREE CASE STUDIES

84. In this section we look in more detail at three countries chosen specifically because they have all involved communities in health education in very different ways. Tanzania ran a radio campaign called **Man is health**, with up to one million people participating in study groups and related activities. Sri Lanka is involving young volunteers to be catalysts in their villages, linking the community to the health services. Both are poor countries with disease patterns typical of social and economic under-development. Cyprus, on the other hand, is a relatively well-off middle-income country which has concentrated most of its health education effort on a particular disease, thalassaemia, which affects a high proportion of Cypriots, to try to help the community control its own health. While it may not be possible to generalise from three case studies, these countries do demonstrate the range of strategies open to the health educators who want to connect with the community.

TANZANIA: THE RADIO CAMPAIGN

85. In 1964 the United Republic of Tanzania was formed by the merger of Tanganyika (mainland Tanzania) and the islands of Zanzibar and Pemba close to the East African coast. Most of the population of Tanzania is rural, and was relatively dispersed until the programme of villagisation was introduced after 1967 and accelerated in the early 1970s. The grouping of people into **ujamaa** villages was part of the implementation of the Arusha Declaration of 1967, when President Nyerere committed the country to "Socialism and self-reliance". **Ujamaa**, loosely translated, means socialism. A salient objective of the Arusha Declaration was to promote rural development, giving priority to agriculture, health services, adequate wholesome water, and education.

86. The level of political organisation in the country is extensive. Recent figures suggest that about 12 million people now live in over 7000 villages. Each village is divided into cells of about ten houses, each cell with an elected leader. At the head of the village is an elected committee, with a chairman, and these committees are organised into higher bodies, all of which make up the ruling party, CCM (Chama cha Mapinduzi). While the original rationale of villagisation was to develop communal production and facilitate the provision of improved services, it has also been useful in concentrating people in administratively and politically accessible units.

87. A poor country, Tanzania has achieved much against many odds. Education, for example, has expanded enormously since the late 1960s. By 1980 some 70 per cent of the age group were enrolled in primary schools, and adult literacy had risen to over 60 per cent (World Bank, 1981). Although there are over 120 different tribal groupings in Tanzania, mostly of Bantu origin, it is rare among African countries in having one language, Swahili, which is understood and spoken by most people.

Health profile

88. Tanzania's gnp per capita is about US$260 (World Bank, 1981), which puts it among the world's low income countries. Ninety per cent of its 17.5 million people live in rural areas. Although there has been a small decrease in the infant mortality rate since 1967, it is still high at about 150 per 1000 (Ministry of Health, 1979). Life expectancy at birth is about 50 years for males and 52.5 for females. General nutritional states are low and few have access to clean water.

89. Health services are provided free by the Government (unlicensed private practice was banned from 1980), and parastatal organisations, voluntary agencies (mostly missions) and traditional practitioners also provide services. The organised health service begins at village-level health posts, and moves to rural dispensaries at ward level, and through divisions and regions to consultant and teaching hospitals at national level. Tanzania has paid particular attention to the training of appropriate personnel for each level of the health service.

90. The Ministry of Health is divided into three divisions: manpower development, hospital services and preventive services, each division headed by a director. Each region and district of the country is headed by a regional or district medical officer, who has some autonomy from the centre. After the Arusha Declaration the objective of national health policy was to extend comprehensive basic health services equitably to all within the limited available resources. This has been done by establishing a rural network of health posts, dispensaries and health centres, staffed by different levels of health workers (Ministry of Health, 1979).

Health education

91. The health education unit comes under the preventive health services division in the Ministry of Health, although it is situated in its own building within the Muhimbili medical centre complex in Dar es Salaam, the capital. It does not have its own budget, and it is noteworthy that in 1978/79 only 11 per cent of total health expenditure went on preventive services, which include health education (Ministry of Health, 1979, appendices).

92. The health education unit is staffed largely with nurses and former public health inspectors, now called health officers. Three or four of the latter have advanced diplomas in health education (from one-year courses in Nigeria or Lebanon). The lack of people trained in health education methods is felt to be a disadvantage; many health officers working at the district level have responsibility for health education but have had no special training in it.

93. The activities of the unit are hampered by the usual constraints of difficulties of transport and lack of financial resources. However, the media section of the unit is well-equipped, with an air-conditioned recording studio for radio programmes and printing and reproduction equipment for posters and leaflets. Activities in this area are fairly orthodox: special talks by medical experts, drama with health messages, some material for schools on radio. The exception is the **Mtu ni afya** (Man is health) campaign which will be discussed later. A number of leaflets and posters are produced regularly.

94. Health education takes place at the beginning of out-patient clinics, given usually by nurses in attendance. Much of the unit's work is giving health workers such as nurses short health education courses, so providing a wide network of educators. Some health information is aimed at groups of teachers, of religious organisations, of women's associations. These are usually talks and depend very much on the availability of personnel to give them, and the expressed interest of

groups in having such talks. Health educators also become involved in specific projects - environmental sanitation programmes, for example - where the health education component is considered to be vital to the success of the project. Several crisis campaigns related to disease control, especially cholera, have been co-ordinated by the health education unit.

95. Several health education seminars are given annually. One held in Arusha, for example, had the objective of preparing a booklet for leaders in villages, to give them information on health education in their villages. The subjects covered were varied, from environmental sanitation and nutritional questions to issues in community organisation. Other seminars are held, at district or regional levels, for teachers at training colleges or for maternal and child health aides, among others. A group is now working on a health curriculum to introduce into primary schools; this will be piloted in two districts before being nationally implemented.

96. While it may seem that the activities of the health education unit are quite limited, largely because of the scarce resources, this must be seen in the context of health policy as a whole. The overall purposes of health education are directed towards improving individuals' health and increasing self-reliance in maintaining it. Rather than promoting health education as the first step in self-reliance, government health policies instead have, for the most part, pursued the training of health workers for the practice of basic medicine in rural areas. The brief training being given to local health workers incorporates activities that would be recognised as health education, underlining the part people can play themselves. Also other institutions, such as the Tanzanian Food and Nutrition Centre, are involved in community education, although there may be much co-ordination at national level.

97. Health education, in other words, is integrated as far as possible into many facets of life; it does not remain the prerogative of the health education unit. One of the ways this has been achieved is through radio campaigns. Although only around 27 per cent of the population owned a radio in 1974, many more had access to a radio. In the last seven or so years radios have been produced in Tanzania, so this number is likely to have risen.

Mtu ni afya - Man is health

98. Stimulated by mass campaigns in such countries as Cuba and China, and by radio-listening forums in Canada, India, Ghana and other countries, Tanzania developed its own radio-listening groups in the mid-sixties (Hall, 1978). They started in a small way, largely from requests by villagers (school-leavers in particular) who wanted to continue learning but whose demands could not be met by the formal education system. Radio-listening groups were ideal in areas of illiteracy because they did not exclude those who could not read and write. Several useful lessons were learnt from the first campaigns - "The plan is to choose", "The choice is yours" and "Time for rejoicing" - but what was clear was that an impressive measure of success was achieved, with over 20,000 people in active groups. The enthusiasm among rural people in the wake of these programmes was evidence enough that the radio study group campaign as an approach to education warranted even greater efforts. Campaigns like these depended on forming small groups which would get together to listen to radio programmes. It was found that they needed some written material to support them, and a group leader to encourage discussion. Themes on relatively contained subjects were better than very broad programmes that tried to cover many themes.

99. The next theme to be chosen was community health, with an emphasis on prevention. The Ministry of Health underlined the fact that many of the common diseases people suffered from were susceptible to preventive measures. Also

health education could be closely linked with action, putting knowledge into practice. Furthermore, by the end of 1971 some 4,000 ujamaa villages existed (the **Man is health** campaign began in 1973) and the residents in these villages were already familiar with functional literacy classes and other adult education activities.

100. The three aims of the **Man is health** campaign were:

(a) to increase people's awareness of how they can make their lives healthier and to encourage both groups and individuals to take appropriate action;

(b) to provide clear and simple information about the symptoms of specific diseases and their prevention; and

(c) to encourage those who have participated in the national literacy campaign to maintain their skills by reading campaign materials designed especially for the newly literate.

The campaign thus depended on an immediate input from, and co-operation between, the Institute of Adult Education and the Ministries of Education, Health and Agriculture. Representatives from the party, CCM, and the Co-operative Union of Tanzania also participated in planning. This took a lengthy period - 16 months of intensive planning, production, distribution and training took place between the campaign initiation and the first radio broadcast in 1973.

101. First, materials such as textbooks had to be prepared and distributed. Health education posters, flipcharts, group leaders' manuals, study guides and "mock" radio programmes (cassettes) for use in group leader training were produced. These were all supporting materials for the actual radio programmes which were 12 in all - composed of 10 minutes "gathering-time" and 20 minutes study on a particular theme. A great deal of publicity was undertaken beforehand. It was seen as vital to inform government and political leaders about the campaign and the role they could play in it. A combination of political party support and active recruitment of adult education co-ordinators at the ward level was used to mobilise the general population. The slogan **Man is health** became part of the everyday vocabulary. Hall gives the example of one crowded bus, where friendly passengers were heard to shout "Open the windows! Mtu ni afya! we don't want to suffocate".

102. Radio spots and newspapers were used; and a unique publicity drive incorporated the design symbol of the campaign on the cloth traditionally worn by Tanzanian women. Five separate patterns were produced in the course of the campaign.

103. Previous experience had shown that a group leader plays a vital part in a successful group listening campaign. This **Man is health** campaign was thus built on the premises that local group leaders should be identified, and that they should receive some training beforehand. Since the target group was one million people, this meant that 75,000 study group leaders had to be trained. The aim was to have about one leader for a group of ten people. Each received a manual explaining his/her duties, methods of recruiting members and how to run meetings smoothly. Training occurred in three or four stages. Three-day seminars were held, and regional teams were trained to organise and conduct the next level of more local seminars. The seminars were run by tutors from the Institute of Adult Education and the health education unit, who supported those trained when they went into the field. The regional teams spread through Tanzania, and ran 70 district seminars.

104. The group leaders were chosen in a variety of ways. Some were chosen from among the prospective study group, but this was unusual since the groups

were not usually formed before a group leader had been trained; some were the ten-cell leaders - the political representatives in the villages. Others responded to publicity, and some - though not commonly - were selected by local adult education organisers.

105. The training seminars were the focus of several important campaign activities. Information about the campaign origins, aims and content was provided to motivate people to participate, and group leaders were trained through direct use of campaign materials. They were also taught how to use group learning methods and to differentiate between the formal didactic methods most had been accustomed to at school and the idea of a study group with equals working together. It was suggested in the study seminars that such groups leave behind a "monument" to the campaign, a physical structure or change that should stand in testimony to the group's participation in **Man is health.**

106. The actual campaign began on 14 May 1973. By the end of the sixteenth month of preparation, some 75,000 study groups had been trained, and were ready to lead the 12 weekly study meetings. The health campaign study groups were designed to progress logically from learning to action.

107. The campaign was not without its problems, of course. For some group leaders, a two or three days seminar was too short to grasp and understand all the material. Sometimes groups were much too large and discussion was stifled. Radio reception was occasionally poor. About half the time the groups had to do without the radio programme. Attendance in the districts with poor reception was lower than in other districts. In some districts there were not enough manuals, in others too many.

108. About 77 per cent of those who enrolled actually turned up, but there was a decline in attendance between the first and second weeks; the national average for the whole 12 weeks was 63 per cent. There was little difference in attendance between men and women. Many groups took up tasks suggested in the campaign materials; mosquito eradication practices, including clearing away bushes near houses, filling in stagnant pools or destroying containers with stagnant water, were common activities, as was building or repairing latrines. The response of groups varied from place to place, some displaying more imagination and initiative in their activities than others. The campaign organisers attempted to assess the success of the programme not only by looking at enrolment figures but also by testing how much knowledge was gained by study group participants and how many villagers adopted certain practices as a result of the campaign.

109. Four representative regions were selected, and questionnaires were administered at the beginning of the campaigns and at the end, to see if there was a growth in knowledge. An attempt was made to have control groups, but it was difficult to isolate communities who had not heard of the campaign. Of the people who participated in the study groups, it was clear that in nearly all cases there was a significant improvement in knowledge. In terms of health practices, the evaluation exercise was complex (it is difficult to measure a change in people's habits), and was applied in only eight chosen villages. All houses in the eight villages were checked for basic changes: vegetation having been cleared from the environs of the house, mosquito netting at the windows, the existence of a good standard latrine and other measures. The biggest changes were in elimination of vegetation and rubbish around the house, latrine usage and covers added to latrines. In all some 20 per cent of groups built latrines. A detailed discussion of the methodology and difficulties of evaluating the whole campaign is given in Hall.

Using radio campaigns and listening groups

110. There are several reasons why the **Man is health** campaign was successful in Tanzania. Villagisation meant that populations were concentrated and therefore accessible. The political organisation of the country greatly facilitated mobilisation and participation. The national language is understood by the majority of people. The radio network, although reception was poor in some areas, extended throughout the country. Essential institutional capacity existed to produce manuals and study guides, and an active adult education network with field staff also existed. Past experience helped the planners to avoid more obvious mistakes. The explicit ideological guidelines for the country's development made it clear that the campaign fitted in well with health policy and would receive strong political support. Finally, the campaign was well-supported with financial aid from overseas.

111. These conditions may or may not exist in other countries. How far this campaign could be replicated is not clear. However, one general conclusion that other countries must consider relates to the usefulness of expending enormous resources of time, personnel and finances on one programme. It can be claimed that **Man is health** was an expensive venture, especially for a one-off project. (However, other radio campaigns have taken place since - **Food is life** was one, on nutrition education, and another is planned on reforestation. The experience with the **Man is health** programme has benefited later campaigns.) After the twelfth radio programme, and the evaluation, the campaign was over. Given the time it took to plan, to produce materials and to train the study group leaders, however effective the campaign, it was costly.

112. One of the weaknesses, acknowledged at the time, was that too little thought was put into a continuing programme. The links between the campaign and the health services were not made strong enough. Campaign organisers accepted that a strong continuing impact of such a programme was possible only if permanent, active village health committees were linked to expanded primary health care services, with periodic mass campaigns on particular issues. The implication is that such campaigns have to be widely accepted by, and involve, all health workers and not only the members of the health education unit. While the initial campaign may need a large injection of resources, permanent connections with the organised health services should be built in, to ensure some continuity to health education activities.

Notes

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SRI LANKA: VOLUNTEERS LINK COMMUNITY AND PRIMARY HEALTH CARE

113. The Republic of Sri Lanka is situated in the Indian Ocean, a densely populated agricultural country with a population of nearly 15 million. The predominant ethnic group are Sinhalese, making up about 72 per cent of the population, and most are Buddhists. The Tamils make up about 20 per cent of the

population, and most are Hindus. Sinhala is the national language, but English is widely spoken, especially in urban areas.

114. Although Sri Lanka has a gnp per capita of about US$ 254 (Ministry of Health, 1980) which puts it amongst the poorest countries of the world, it has high life expectancy, low infant mortality and high literacy rates. These rates are considerably better than those of most low-income countries. It is generally agreed that these achievements are due to social policies initiated before independence but intensified and strengthened since then. Free education and health services, subsidised food, a reasonable communications network have all had their effects on the general well-being of Sri Lankans.

115. At the same time the country suffers from a hard core of poverty-related problems. Six per cent of Sri Lanka's pre-school children were estimated to be acutely malnourished in 1976. Increasing inflation, a worsening balance of payments, high unemployment are all taking their toll. The Government is now cutting expenditure on welfare policies like rice subsidies. It has also introduced several economic reforms, such as the liberalisation of import licensing and exchange controls, and making tax concessions to attract foreign private investments. The aim is to increase employment opportunities, stimulate domestic savings and investment and promote exports. The extent to which these ventures are being effective is not yet clear.

Health profile

116. The population of almost 15 million has features typical of many less developed countries. Population growth, however, is lower than in most developing countries, at 1.7 per cent per year, and life expectancy has increased markedly since the 1940s. Between 1946 and 1971 life expectancy of females rose from 41.5 to 66.9 years, of males from 43.8 to 64.0. Over the same period the overall death rate fell from 19.8 to 7.7 per 1000. Although there has been a dramatic fall in infant mortality rates, from 141 per 1000 live births in 1946 to 47 per 1000 in 1971 (and 37.1 in 1980), these are overall figures. Among certain groups the infant mortality rates are a good deal higher.

117. Health services are provided by the Government and privately, both sectors including Western and Ayurvedic medicine. According to out-patient utilisation figures, Western medicine is only slightly more favoured than Ayurvedic (West, 1981). There are estimated to be about 16,000 Ayurvedic practitioners, 10,000 of whom are registered and thus officially recognised. This is three times the number of physcians trained in Western medicine. The delivery of health care is through a network of institutions and health workers organised separately for preventive and curative services.

118. Preventive services are provided through the public health service. It is divided into 19 superintendent of health (SHS) divisions, each of which is then divided into health areas. At the head of each area is a medical officer of health (MOH) supported by a team made up of public health inspectors, public health midwives and public health nurses. Public health midwives are being re-trained and called family health workers who have broader functions than midwifery, but at present they both exist in most areas. They are the front-line workers who have closest contact with the community. In some areas they are assisted by health volunteers. Most maternal and child health (MCH) activities occur in the MOH areas, and it is the basic responsibility of the public health midwife or family health worker to link MCH clinics with the community.

119. The curative services, on which is spent the greater percentage of the budget, provide all in-patient and private care. Out-patient care is provided by central dispensaries at the periphery, through a variety of different level

institutions to the top teaching hospitals with specialised services. Most people live within five kilometres of a government health facility, even those in rural areas.

120. However, many of the peripheral-level units are by-passed by people in favour of larger institutions. Thus, for example, many small maternity hospitals are under-utilised, while urban maternity beds are over-utilised. Up to 80 per cent of births take place in institutions. Many people consult private practitioners, who are paid a fee for their service. The estate sector, comprising workers on tea, rubber and coconut plantations, was nationalised in 1974. Up till then, health services within their areas were the responsibility of the estate managers. Health status is low on the estates, and until government plans to improve facilities on them are carried out, it is likely to remain low.

121. Although the health service is described as free, it is not entirely so. A token charge is made for the first visit to out-patient facilities (0.25 rupees) and while in-patient care is free in the public wards of government hospitals, these hospitals all also have fee-charging wards. People also frequently pay privately for both Western and Ayurvedic treatment.

Health education

122. The health education bureau (HEB) used to come under environmental health, in the public health service sector of the Ministry of Health. In 1977, however, it was given independent status and is now a separate bureau, under the public health service sector, with an assistant director as its head.

123. The HEB is thus fairly autonomous. It has its own budget, is headed by a physician with a postgraduate degree in public health, and has four doctors with higher degrees in health education, one dentist and four health educators, all of whom are university graduates. It is worth emphasising that it is unusual in low-income countries to have so many well-qualified staff in health education. In Sri Lanka this is undoubtedly the result of the importance given to health education, and also the fruit of a free, universal education system. The HEB runs its own training programmes, both for health workers and for other sector workers like adult education or rural development officers, and it also provides its own professional training. People who wish to become health educators have to be graduates, and must have worked in the health field as, for instance, public health nurses. They attend a course in the HEB for about three months, and then work under supervision in the field. Later, most are sent abroad for postgraduate training in health education. The HEB runs such training courses only occasionally. The aim is to have one health educator in each of the 103 MOH areas. At present there are about 47 health educators.

124. Until recently the work of the HEB has followed conventional lines. Recognising the value of having the majority of the age-group in primary schools, health education has long been integrated into the school curriculum. A few years ago, however, on the initiative of the HEB and as a result of meetings with the Ministry of Education, health education teaching was incorporated into other subjects at primary school level (grades 1-5), although it remains a separate, examinable subject in grades 6-10. Teacher training includes health education, but the HEB also runs seminars to teach teachers the main aspects of health education; this further step has been taken to help teachers to identify health problems among children.

125. The school section of the HEB has also made attempts to strengthen links between schools and the community. Results of this sort of involvement include classrooms built by parents on money they have raised, and soup prepared and provided daily to children at mid-day. In one or two schools the community -

often mothers - come into the school for meetings, social gatherings, and sometimes for particular courses. Children come early to school, on a rota system, to clean the building and surrounds. In one particular school in an underprivileged suburb of Colombo, the teachers, pupils and a voluntary organisation carried out a survey of the parents in the vicinity, which helped to highlight some of the health problems of the area. For example it was discovered, even in this suburb of Colombo, that only 48 per cent of the parents had their own latrines. The dental education section runs dental clinics in some schools, where children are examined and receive some education regarding their oral health.

126. Community health education thus starts early in Sri Lanka, at primary school, and in many cases the community around the school has strong links through health activities. It is by no means uniform, however, and the HEB's enthusiasm is not always matched by active participation. Much depends on individual teachers.

127. The other traditional areas of health education are utilisation of the media, and hospital programmes. There are regular slots on the radio for health education - taking the form of a question and answer panel and "medical forum", a talk by a doctor. Newspapers also carry fairly regular features on different aspects of health education - often on specific diseases. As a large number of people have radios (60-70 per cent), and newspapers also reach even quite remote villages (80 per cent of the Sri Lanka population are literate), use of the media would seem to have a large potential. There has been some control of anti-health advertising: for example, advertising cigarettes has been banned on radio and television; baby milks on radio, television and newspapers; and alcohol on radio. Other material - posters, pamphlets and journals - is also produced periodically by the media section.

128. In hospitals, health education is part of the out-patient care but depends a great deal on the enthusiasm and ability of the staff. In some hospitals the move has been away from addressing large groups of waiting patients to giving small groups - or even two or three mothers, for example - a short talk on a particular topic. There are also special health education campaigns carried out by the HEB within the vertical disease control programmes of malaria, tuberculosis, filariasis, leprosy and sexually transmitted diseases. A recent addition was a cancer prevention project, aimed at educating the public especially in relation to oral cancer, which has the highest prevalence of all cancers. The HEB relies heavily on funds from the vertical programmes to make an educational input, which means that they are dependent on others who may or may not be sympathetic or enthusiastic about health education.

129. In summary, although the HEB's approach has been along conventional lines it has not been static. Attempts have been made to involve the community, to get away from simple information giving, to education involving people in the solution of health problems. The most exciting new approach in health education had been the move towards integrating health education into the primary health care system, with the help of volunteers. In this new community programme Sri Lanka could be providing a stimulating example to other Commonwealth countries.

Volunteer workers in community health education

130. The MOH areas are the preventive areas within which primary health care takes place. A typical MOH area (Padukka) has 145,000 population over a 101 square mile radius. Serving this area under the MOH are 8 public health inspectors, 3 public health nurses and 22 family health workers (formerly public health midwives). Many of the family health workers work with volunteers.

131. The HEB started a volunteer action programme a few years ago, to try to encourage village communities to control their own health. The village health committees with the family health workers choose volunteers whose tasks are promotive and preventive. Most of the volunteers are young people (largely women) who have finished school after 10-12 years of schooling. They are thus well-educated and are often extremely enthusiastic about being health volunteers. They receive some training for this locally, and are supervised by the family health workers.

132. The volunteer health workers do a variety of tasks. They may help in clinics, taking notes, perhaps weighing babies; they remind families to have their children immunised, perhaps accompanying the family to the health clinic. They try to stimulate the community to enlarge the local clinic, or to build latrines. They sometimes talk about family planning methods. In all villages they start with a situation report, and this acts as their base-line data. Thus they can test their effectiveness in the community over time, seeing how many more people have latrines and how many more children are immunised. Each volunteer takes responsibility for 15-20 families.

133. In the tea-growing area of Badulla one particular volunteer scheme has been a model for others. The public health midwife, a woman of great energy, helped in the setting up of a health committee. The president of this particular health committee is a respected Ayurvedic practitioner. Other members (from four villages) are the chief clerk in local government, the school principal, the rural development officer, a teacher, 3-4 farmers, 4 traders and a religious leader. Of the four villages of 1002 people one is almost all Muslim, the others are Buddhist. The volunteers (there were 34 at the start of the programme in 1978) did a situational survey of the villages, counting the number of households, the number of children under six, the number of couples in the age range 15-44 years, education levels and place of employment. They also checked on immunisation, latrines, whether drinking water was boiled, whether families had compost heaps, whether they were using birth control methods, whether they were receiving supplementary food for babies. The survey was repeated in 1980 and 1981, so that the volunteers could assess their work. Certainly they demonstrated that many more children had been immunised and latrines built. They had also, in the two years, started seven pre-school groups, run by themselves. Their work also involves home visiting and helping in clinics.

134. Why does this volunteer scheme work? The HEB and the volunteers recognise that there are barriers to their work in the community. They name illiteracy, alcoholism and poverty as constraints. Women are sometimes suspicious of young unmarried girls telling them about family planning. In spite of these difficulties, however, the volunteers have achieved much. They are themselves eager to be useful in the community. Indeed many say that the volunteers are part of a long tradition in Sri Lanka that goes back many years, much of which is based on the teachings of Buddha. Clearly, however, motivation is not all altruistic. There are very few employment opportunities for the young, even with good school-leaving qualifications. For a number of complex reasons the age of marriage in Sri Lanka has risen to an average age of 25 years, so there is a long interval between school and marriage. Getting accepted for training in any profession is also very competitive (and political-prospective candidates have to be supported by their local member of Parliament).

135. Finally, being health volunteers may be attractive, especially to young women. Because they are supervised by the family health worker, and receive a short local training, they have a certain status in the community. They can also legitimately move around that community, visiting homes in neighbouring villages, experiencing freedom from the usually rather restricted rural woman's position. For all these reasons, there are usually plenty of volunteer health workers; they are usually women (80 per cent) and between 18 and 25 years of age. When they stop being volunteers, it is frequently to get married, or to go for training, or because they have found a paid job. However, the situation varies over the country. Often the status of the family welfare worker is crucial to the community's acceptance of the health volunteers. If she is not respected, the scheme is not usually a success.

136. In some areas, such as the big development project of the Mahaweli dam, volunteers are being trained more narrowly, to help to control major diseases like malaria. They often succeed in getting villagers to agree to have their houses sprayed where the technical staff have failed, largely by taking time to explain and discuss with the families what this could mean to them.

137. Volunteer health workers are not all attached to the HEB. It is worth mentioning that there are many schemes in Sri Lanka using voluntary workers, embodying similar principles of using people's own potential, expanding services more widely and involving communities in controlling their own development.

138. One of the organisations doing this sort of work is the Sarvodaya Shramadana movement, a Buddhist voluntary association. Shrama means "energy and labour" and dana "sharing", so basic to the movement is the idea of co-operation, of self-help and of volunteering. Since 1975 they have trained 180 health workers who do not have a service function but act as a link between the community and the health services. These people are paid a very small amount, and some of the health volunteers trained by the HEB have also undergone training (of a few weeks) at the Sarvodaya Moratura training school. In this way they may earn a small amount of money. Sarvodaya is widely spread throughout Sri Lanka. Some 3,600 Sri Lanka villages are involved in Sarvodaya projects, and there are sister communities in Thailand, Guyana, Belgium, Holland, Norway, Switzerland and West Germany (Taylor, 1981). It is not without its critics, and all its projects have not been successful, but community kitchens have been started, water tanks built, and roads, schools and clinics erected with villagers' and volunteers' gifts of labour or shramadana.

139. Other projects based on similar principles include a UNICEF one to train health wardens in some of the slums of Colombo known euphemistically as "The Gardens". Some 56 males and 42 females received an eight-week training to become health wardens acting as catalysts between improved sanitation amenities and healthier lives (Adamson, 1982). For more information, see paragraph 201.

140. Sri Lanka thus has a well-developed health education programme which has been moving away from the more conventional health information model (providing information through posters, pamphlets, radio) towards the dynamic health education model where the aim is to change behaviour by involving people, giving them opportunities for reaction and participation. The health volunteer scheme is beginning to do just that.

Notes

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CYPRUS: THE SPECIAL CASE OF THALASSAEMIA

141. Geographically, the island of Cyprus stands almost midway between Europe and the developing countries of the Third World. Socially, politically, economically and in health terms, Cyprus has throughout this century been moving closer to conditions in Europe. Cyprus has not however escaped the political turbulence which accompanies its strategic position in the Eastern Mediterranean. After the 1974 coup and the subsequent Turkish invasion, approximately one-third of the island's population of some 634,000 are displaced persons in an island effectively partitioned by force of arms, with all the attendant problems this implies.

142. The significance of Cyprus to the rest of the Commonwealth is greater than its relatively small population would suggest. A history of emigration to the English-speaking world means that Australia, Britain, and Canada (and also America and South Africa) now have substantial minorities of Cypriot origin. Together with their entrepreneurial drive and work ethic, these Commonwealth citizens have brought health needs quite specific to their Mediterrean origin, due mainly to their relatively high rates of thalassaemia and glucose-6-phosphate dehydrogenase deficiency (G-6PD). How the Cypriot health services are dealing with these particular diseases and how they are educating their public on the nature and implications of genetically inherited haemoglobinopathies is therefore of more than theoretical interest to other members of the Commonwealth.

Who are the communities health education must reach?

143. This is a question increasingly complicated by the changing social, economic and political patterns of Cyprus today. The population is made up of several ethnic and religious groups. Apart from the Greek majority there is the substantial Turkish minority, and also Armenians and Maronites, all functioning within and across recent military and political divisions, in a context of increasing urbanisation.

144. At the beginning of this century the picture was clearer. A largely homogeneous rural population was scattered in discrete, named villages throughout the island: some Greek villages, some Turkish and a very large number ethnically mixed. Members belonged for life to the village into which they were born and they felt a strong sense of identity with it. To some extent this is still true. However, the urban population has been growing rapidly, rising to 42 per cent of the population in 1973. With the 1974 Turkish army invasion, substantial numbers of the affected rural populations took refuge in and around the towns, where they have been resettled as displaced persons. Now, for the first time, the urban population outnumbers the rural, being 53 per cent of the total. So at the moment Cyprus is made up of established urban conglomerates, settlements of displaced persons, and discrete village communities. Traditional patterns of social organisation have been shattered in some parts of the island and remain relatively intact in others. With increasing urbanisation , and the spread of urban influences into the villages, has come greater economic and social diversification.

145. Yet in spite of all this, and in spite of the political stress put on ethnic differences, the population of Cyprus remains remarkably culturally homogeneous. One systematically worked out and carefully evaluated set of health education techniques would have wide validity throughout the island.

Health profile

146. The general standard of health in Cyprus compares favourably with that of other countries in the Western world. Diseases which constituted major health problems at the beginning of the century have been either virtually eliminated or are under tight control. As the standard of living and education and medical services have steadily improved, so have the health indices. There has been an overall decline in the fertility rate, a marked increase in life expectancy at birth from 58 years in 1940 to 73 years in 1980, and an impressive drop in infant mortality from some 63 per 1,000 live births in 1950 to 17 per 1,000 in 1980. A successful immunisation programme linked to MCH services now means that an estimated 90 per cent of children are actively immunised against the communicable diseases of childhood. Taking private and government health services together, Cyprus now has one doctor for every 912 persons, one dentist for every 2,805 persons, one qualified nurse per 270, and 67.6 hospital beds per 10,000. The major causes of death place Cyprus firmly in the "advanced world" since these are accidents (a significant number of which are road accidents), cardiovascular diseases, and cancers. Several factors stand out as being of key significance in the relative success of Cyprus in the prevention and control of environmentally-based and communicable diseases.

147. First, Cyprus is a small island with a small population. Effective control of seaports and airports can create a type of "cordon sanitaire" vis-a-vis the outside world, while relatively small distances and an adequate road system make for ease of communication and access to existing health facilities. Second, there is fairly stringent control legislation, especially as regards continuing anti-malarial work, the anti-echinocciasis campaign and sewage disposal. Some of the legislation has continued from colonial times; other controls, such as the prohibition of cigarette advertising on TV and radio, are quite recent. Finally, and perhaps most important, has been the overall socio-economic development, especially the spread of free education. Elementary education was made compulsory for all children from 1960, with secondary education now also free for the first three years for children of both sexes.

Health education

148. In various forms, health information and education of the public has a long, if patchy, history in Cyprus. Some activity, like that accompanying the malaria eradication campaign, was merely designed to inform the public about the reasons behind steps such as spraying and swamp drainage which were to be enforced anyway. Other activity had a broader function. One of the early success stories is the campaign against favism.

149. Broad beans (vicia fava), fresh and dried, are a popular food source in Cyprus as throughout the Mediterranean, and are commonly grown in back yards and fields. But the sex-linked G-6PD deficiency means that a small proportion of the population (an estimated 10-20 per cent are homozygotes), particularly children, will display a severe, sometimes fatal, haemolytic anemia after ingesting the fresh broad bean. Since a few females as well as being carriers are also affected, a blanket exercise was set up to advise the public not to feed their infants and young children broad beans. The assistant health directors of the time arranged for regular radio broadcasts on the subject, in Turkish and Greek, and there was a drive to back this up with health talks and poster campaigns in

the schools, as well as with informal education in the villages by government health inspectors. The net result is that today, although the complex reasons for favism are probably still little understood by the general public, it has become part of popular folk practice that "you do not feed broad beans to young children".

150. Although such an early campaign is impossible to evaluate precisely, it is the impression of the older generation of paediatricians that whereas they would see perhaps 30-40 cases of favism in a year when they started their careers, they might now see 3 or 4, and these are often accidental - an unsupervised child picking and eating the growing bean. However, though favism is no longer considered to be a medical problem in Cyprus, the "overkill" nature of the campaign, plus a tendency for the younger generation to classify the advice as "old wives tales", suggests that a new and more detailed educational "refresher course" for the public is due.

151. Though Cyprus has over the past decades been moving successfully away from colonial-type paternalistic health advice to the public towards more modern concepts of health information and education, the movement is by no means complete. Nor, in the opinion of its practitioners, does health education yet have the recognition and financial baking at the highest level that it needs.

152. Although there is not as yet a special health education unit, the Director of Medical and Public Health Services of the Ministry of Health has himself studied health education in America. The health educators are sensitive to the relative neglect of health education in Cyprus, and aware of the current trends stressing the importance of health education. But, as is often the case, in the competition for government funds and for skilled personnel (Cyprus has a thriving and wealthy private health industry) health education has adopted something of a backstage role. However, in recent years the nucleus of a health education unit has been set up in the form of a regular departmental committee headed by one doctor with public health training and one public inspector. £5,000 per annum has now been earmarked as a "health education budget" - mainly for the production and distribution of health films, leaflets and pamphlets, a regular health education magazine, co-ordination of an anti-smoking campaign and so on.

153. One of the department's successes is an annual competition for the cleanest village in Cyprus, with prizes and press publicity, and consequent spin-off in increased public awareness of the importance of environmental hygiene. Private and domestic standards of hygiene are high, but the notion of public responsibility for communal facilities still requires development.

154. Until and unless an adequately-funded health education unit develops to co-ordinate and direct health education efforts, these are likely to continue to operate in a diffused and decentralised manner, as they have to date in independent Cyprus. There has been a tremendous dependence on one-off campaigns; on good personal contacts between individual members of different ministries and departments with each other and with the media; and on the good work of a number of voluntary organistions. One example of co-operation is the excellent health work carried out by the new Cyprus Thalassaemia Centre in conjunction with voluntary associations and with the Ministry of Education, which has now incuded education on thalassaemia in the biology curriculum of primary and secondary schools.

155. Health education, then, reaches the Cypriot public through five main, sometimes co-ordinating, sometimes overlapping, routes. Where the overlap leads to reinforcement of the educational message this has been useful; where it leads to needless duplication it has been wasteful of scarce resources. These five main routes are as follows.

Ministry of health departments and personnel

156. All Ministry of Health personnel who have direct contact with the public see some measure of health education as one of their roles. This is especially true for health inspectors, school health visitors and community health visitors. However, these personnel are already overstretched in their routine tasks (there is one school health visitor for every 3,000 students and each community health visitor covers 10-12 villages) and health education may at times amount to little more than passing on pamphlets, arranging for posters to be pinned up, or telling pregnant women they should be tested for thalassaemia trait. School visitors do, however, arrange for health education talks and films in schools. Individual sections under the Ministry, such as the Thalassaemia Centre, arrange a lot of their own health education, in conjunction with associated voluntary groups. It is hoped that the embryo health education unit will be given the time, financial backing and personnel that it needs to generate and co-ordinate further health education efforts, especially in dealing with the more intractable diseases of civilisation: cardiovascular diseases, cancers and accidents.

Ministry of education and the schools

157. Although primary and secondary schools have no health education curriculum as such, the Ministry of Education is receptive to health education talks being organised in its schools on a wide range of issues. Specialised themes of particular interest to young Cypriots, such as thalassaemia, have now been included in the biology curriculum.

Other government ministries and departments

158. Health education is one small aspect of the work done by some other government departments. The Ministry of Agriculture has home economics aides working with village mothers, who include care and nutrition of children as part of their work. So far there has been little or no health education in factories and other workplaces. The Ministry of Labour employs one occupational health doctor.

Voluntary associations

159. At the present time a great deal of health education rests on the shoulders of a number of highly active, indigenous, voluntary associations. Usually based around a core of disease sufferers, their relatives and friends and those medical personnel responsible for their treatment, these groups have been highly successful in fund-raising activities, gaining media publicity for their cause, organising public talks and sponsored walks, printing leaflets and posters, and generally increasing public awareness. Groups like the entirely voluntary Co-ordinated Committee for Blood Transfusion have actually been able to introduce large-scale blood donation for the first time in Cyprus by organising talks and public events accompanied by follow-up mobile blood collection facilities. They have done this by inciting villages to compete against each other in blood donation, with certificates, prizes and accompanying publicity including the attendance of well-known national figures - and by offering incentives in the form of a guaranteed blood transfusion available for any donor in need. Some 50 per cent of the blood thus collected is earmarked for the routine treatment of thalassaemia patients; the rest is available for general use.

160. Coming as they do from the people, these voluntary associations have shown considerable success in organising the people towards fulfilling the associations' goals. Many have also been astute in gaining key public figures as their presidents or patrons. The patron of the PanCyprian Anti-Anaemia

(Thalassaemia) Association, for example, is the wife of the President of the Republic. The spin-off in education of the public regarding the causes and effects of various diseases is well appreciated, and the relevant health sections and personnel usually work closely with and through the voluntary associations as part of their own health education role.

The media

161. Cyprus is fortunate in having a high literacy rate and general socio-economic development. An estimated 90 per cent plus of families own a radio, 70 per cent a television set, and 70 per cent read a newspaper daily. In the early 1970s a substantial campaign about thalassaemia was backed up by TV and radio advertising and talks. The Thalassaemia Centre has mixed feelings regarding the (partially evaluated) success of the campaign and tends to regard such media exercises as simply back-up and reinforcement for the more important face-to-face communication with groups and individuals.

162. There are a considerable number of daily, weekly and monthly newspapers and magazines in Cyprus, independently owned and across the full political spectrum. These also allocate space to topical health and health education issues, again on a irregular basis. The voluntary associations, in particular, have been able to make considerable use of the medium of the press for publicising health issues, often through good personal or party political contacts. The press has played an important part in publicising and spurring on competition between villages in the areas of environmental hygiene and blood donation.

163. With a few such exceptions, and in spite of a literate population and good media coverage, there has as yet been little systematic or innovative use of the media in health education.

The special case of thalassaemia

164. Thalassaemia, or Cooleys anaemia, is one of the commonest genetic recessive conditions in the Mediterranean and the Middle and Far East. Heterozygote "carriers" are unaffected. Homozygote sufferers with beta thalassaemia major fail to thrive in infancy, develop abnormalities associated with severe anemia, and if untreated will usually die between the ages of one to six years. Up-to-date methods of treatment involve high blood transfusion rates, splenectomy, and regular infusion of an expensive drug to remove excess iron. When two carriers reproduce there is a one in four chance that their offspring will have thalassaemia major. One in seven Cypriots carries the recessive gene for thalassaemia. Cyprus currently has some 600 or so homozygote thalassaemia patients. In 1981 patients treated required 9,367 units of blood at a cost of some £65,569 and 255,500 vials of desferal representing in monetary terms 17.7 per cent of the drug budget of the Ministry of Health and 2.75 per cent of its overall budget for the year.

165. In view of the cost and of the human misery engendered by thalassaemia, current emphasis is on prevention. To date, though medical research holds hope for the future, this can only be achieved by dissuading thalassaemia trait carriers from marrying each other and reproducing, or by the abortion of affected foetuses.

166. Thalassaemia provides an interesting case of how the direction of education and guidance given to the public has shifted in response first to newly available medical techniques, and second to the willingness of the public to change traditional patterns of behaviour. Before the availability of ante-natal diagnosis, the emphasis in education, screening and genetic counselling was on young girls

approaching marriageable age, with the aim of preventing, voluntarily, marriage between heterozygotes. Not surprisingly, may resented the intrusive nature of this knowledge and its effect on their choice of partner, feeling that their social life and traditional marriage patterns were being threatened. Response to a campaign of public information was therefore very mixed, some pressing for legislation to screen the population and prevent marriage between carriers, others wishing away the information as an intrusion on their personal liberty.

167. By 1977, ante-natal diagnosis of affected foetuses was available abroad, and the Government provided financial aid to those willing to take advantage of it. In 1981 the test became available in Cyprus itself. The emphasis of the public information campaign changed towards one of preventing homozygote births. Offered the ability to take responsible decisions regarding their families, without interference with marriage choices and patterns, Cypriots responded quickly. Not only at-risk married couples came forward for testing but, increasingly, young engaged couples and unmarried individuals. In 1981 out of a potential 80 thalassaemia major births only 3 homozygotes were in fact born. Control of thalassaemia by prevention of homozygote births has nearly been realised in Cyprus.

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LESSONS LEARNED

168. What are the main lessons learned from these case studies in community health education?

169. First, the three countries addressed different problems. In Tanzania and Sri Lanka these were basic primary health care issues of environmental and personal hygiene. In Sri Lanka they also included immunisation and family planning. Cyprus, on the other hand, faced the problem of thalassaemia, one in seven Cypriots carrying the recessive gene, with possible serious consequences for future offspring. In all three countries, the focus was on whole communities, not special target groups. Community health education thus reflected specific concerns in the countries.

170. Second, the strategies were quite different. Tanzania, with its formerly dispersed population grouped into villages, tried to reach a large number of people through radio. Sri Lanka has taken advantage of its well-educated young people in the villages, to make them the link between primary health care services and the community. And Cyprus responded quickly to available technology as it has become possible to do something about thalassaemia through ante-natal testing.

171. Probably the country which has had most success in reaching its aims is Cyprus, but it seems that the technological breakthrough of ante-natal diagnosis made all the difference to community acceptance: the community was only partially responsive to genetic counselling, screening, and education campaigns until the new medical techniques were introduced. The extent to which behaviour

changed in relation to latrine usage, for example, in Tanzania is difficult to assess, although levels of knowledge have certainly improved. In Sri Lanka some of the villages claim to have avoided cholera outbreaks since they have introduced volunteers to encourage villagers to boil drinking water and use latrines.

172. What is notable is that each country has seen community health education differently, and has involved communities in action in different ways. The case studies thus present community health education as an adaptable and flexible concept.