



WHO/CVD INTENSIFIED PROGRAMME

ACTION TO PREVENT RHEUMATIC FEVER/RHEUMATIC HEART DISEASE (RF/RHD)

Report on Planning Meeting
Geneva, 4-5 April 1984

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1. INTRODUCTION

1.1 Opening

Dr Lu Rushan, ADG, on behalf of the Director-General, welcomed participants to the meeting and explained that the WHO/CVD intensified programme was launched following the WHA resolution¹ in 1983 which, among other things, "urged Member States to pay particular attention to the wide possibilities for prevention and control of cardiovascular diseases as an integral part of their national health plans." He emphasized that in operational terms this implied the development and implementation of community-based plans for the prevention and control of major cardiovascular diseases, such as coronary heart disease, hypertension and rheumatic fever/rheumatic heart disease, and that the present meeting had been convened to consider specifically the component of the CVD intensified programme, dealing with action to prevent rheumatic fever and rheumatic heart disease.

Dr Lu pointed out that the World Health Organization has always been very interested in promoting activities to prevent rheumatic heart disease and there had been no less than three Expert Committees on the subject. Furthermore, a WHO international cooperative study, which was completed in 1978, had shown that, even with limited resources, community programmes for the secondary prevention of rheumatic heart disease in developing countries is both feasible and cost-effective.

As yet, few developing countries have a defined policy and preventive programme with an effective coverage of the population at risk. The WHO, in collaboration with the International Society and Federation of Cardiology (ISFC), is committed to re-awaken global interest in rheumatic heart disease and stimulate national action for its prevention in countries where the disease is still a problem.

The focus of action should be on the implementation of realistic programmes integrated into the existing national health service structures. This would require effective coordination between primary health care, school health and maternal and child health, ministries of education services and hospital paediatric departments, and would involve training of personnel and health education of both children and the community at large.

Dr Lu urged the meeting to concentrate on strategies for establishing and maintaining the services required for the prevention of RF/RHD, within the context of primary health care and the existing national health care delivery system.

1.1.1 Election of officers

Dr Kamol Sindhvananda was elected Chairman and Dr Edward Kaplan was elected Rapporteur.

1.2 Overview

Dr Kaplan (International Society and Federation of Cardiology) presented an overview of the subject and pointed out that although the pathogenesis of rheumatic fever remains unknown, there are definite measures that can be taken for its prevention. Appropriate penicillin or antibiotic therapy of streptococcal sore throat can prevent the disease; RF control is known to work effectively. For example, from a published WHO study,² it was calculated that adequate care (including drugs) and education of patients would have saved over 6,500 hospital days of patients with rheumatic fever and rheumatic heart disease, based on an observation of over 5,000 patient-years. In another study carried out in Nigeria, Jaiyesimi³ found that the cost of treating one case of RHD could have prevented five or six cases of rheumatic heart disease.

¹ WHA 36.32 (1983)

² Bulletin of WHO (1981), 59(2), pp. 285-294.

³ Tropical Cardiology, 1982, 8(39), pp. 55-59.

An effective rheumatic fever control programme requires collaboration between clinical, laboratory and public health physicians and other health personnel, as well as the cooperation of all sectors of the community. Problems of national and domestic economics, and of culture and local customs need to be considered and the support of governments and local agencies is essential. Yet this factor of support by governmental agencies is difficult to obtain in many countries. This two-day meeting, bringing together participants from 8 countries and representatives of WHO and ISFC, is well placed to discuss approaches to the implementation of national rheumatic fever control programmes and to suggest ways in which international agencies, e.g. WHO, ISFC, UNICEF and UNESCO, might collaborate with countries in their efforts to prevent RF/RHD. Such initiatives are particularly important now; the ISFC has designated 1984/85 "Year of the rheumatic child" to emphasize these programmes.

2. SUMMARIES OF COUNTRY STATEMENTS*

2.1 Chile

In the Republic of Chile, a country of 750 000 square kilometres, and a population of approximately 11 million people, health priorities have been defined by the Ministry of Health and carried out by the national system of health services for the control of RF.

Since 1984 the Ministry of Health and declared rheumatic fever as a notifiable disease and a national rheumatic fever control programme has been created. Information dating from 1975 to the present indicates a steady decline in the number of cases, as determined by rates per 100 000 population throughout the country, including both urban and rural areas.

The programme implemented was specifically designed to reduce morbidity and mortality due to rheumatic fever, with concentration on the prevention of recurrent attacks (secondary prevention). Organization of the programme included a central level (represented by the Ministry of Health) to coordinate and supervise the programme, to evaluate activities at the local level and to suggest and coordinate operational research. In addition, 27 local branches (represented by the 27 local health services) were established throughout the country. The local structure was headed by a director with training in public health responsible for the programme and included cardiologists, general practitioners, nurses' aids and health educators.

All patients discharged from hospital with the diagnosis of RF were referred to the programme for continuing prophylaxis and follow-up. Health educational activities were included. The RF/RHD control programme is a part of a wide programme of primary health care in Chile, directed towards medical care of both adult and pediatric patients.

In the South-East health district a secondary prevention programme was begun in 1975 and included several applied research projects to evaluate the secondary prophylaxis, as well as prevalence studies of group A streptococci in the community and follow up of patients on and off secondary prophylaxis. This programme has been quite successful and has enjoyed full support by the Ministry of Health of Chile and by the local health authorities.

2.2 Egypt

Rheumatic fever continues to be a serious problem in Egypt. A survey conducted among schoolchildren in Alexandria revealed a prevalence in rheumatic heart disease of 4/1000. The highest incidence of rheumatic fever seems to occur in spring and winter in that country. The majority of cases occur in low-income families; and carditis is found in about 49-50% of cases (in Alexandria) during the initial attack.

In Alexandria there are limited programmes for both primary and secondary prevention of RF. Active RF control programmes are conducted in school health clinics and at the University Hospital.

* The full texts are available in CVD unit, WHO, Geneva.

Long-acting penicillin is used for secondary prophylaxis and new studies are evolving to determine the usefulness of alternative prophylactic schedules. A programme was developed five years ago to serve the students of the mid-zone of Alexandria (about 160 000 students) for primary prophylaxis. A bacteriological laboratory was established at the Shatby University Hospital to serve the clinics in this zone. Following the implementation of the programme to culture throats in children with pharyngitis, a decrease was observed in the percentage of hospital admissions with rheumatic fever in the area. No similar drop was observed in the control area adjacent to the study area. A number of problems were encountered during the implementation of the programme, including establishing and maintaining the bacteriology laboratory, training of personnel in the clinics and laboratory, publicity about the programme and financial support. Plans are now being made to enlarge this pilot programme in Alexandria. At present, there is no national rheumatic fever programme in Egypt.

2.3 India

RHD is the commonest form of cardiovascular problems encountered in hospitals throughout India. Studies by a number of groups in the country, including the Indian Council of Medical Research have documented this. Two RHD prevalence studies in India suggested a general population figure of 1.2 per 1 000 males and 2.0 per 1 000 females in a survey of over 33 000 people. School RF/RHD prevalence data, however, ranged from 6-11 per 1 000 schoolchildren. The highest prevalence appears to be in the lower socio-economic groups.

The Indian Government has evolved a national health policy which lays stress on preventive, public health and rehabilitation aspects of health care, as well as ensuring adequate nutrition, safe drinking water supply and improved sanitation.

The Indian Council of Medical Research has conducted studies at five centres in the country to collect information on RF and RHD in children and has promoted pilot control programmes. At present, however, there is no national RF/RHD control programme in India. Most studies have been centred among schoolchildren for both primary or secondary prevention. Several national meetings have been held to discuss the implementation of this programme and its integration with primary health care. The importance of laboratory services has been recognized and efforts are under way to develop streptococcal laboratory activities within the existing laboratory system for the diagnosis and control of streptococcal infections and their sequelae. RF control has also been included in the 5-year plan for health care for India.

It is planned that with the development of several pilot centres, the programme may slowly and deliberately be expanded to other parts of the country after careful planning and appropriation of funds.

In India, contact has been made with other governmental agencies (i.e. UNICEF and UNESCO) for attempts to collaborate with them in these programmes.

2.4 People's Republic of China

After 1979, a national cooperative group of epidemiologic surveys on prevention and control of RF/RHD was established in China and consisted of 23 units. The data collected (from 13 provinces and municipalities) were obtained from a survey population of over 700 000 people. The overall prevalence of RHD was approximately 2/1000 in adults and approximately 0.5 per 1 000 in children. It was found that RHD prevalence in adults is higher in southern China than in northern China.

The clinical characteristics indicated mitral valve disease as the most common form of rheumatic heart disease. Programmes for prevention and treatment of RF and RHD are not nationwide in China, but there are programmes in certain areas. For example, in Panyu Region, Guandong Province, monthly benzathine penicillin G injections were given during a 3-year follow up study; patients with better compliance exhibited better improvement in cardiac function, with fewer recurrences.

Plans are being made to enlarge these programmes in the People's Republic of China, especially among children and teenagers where the highest incidence of RF occurs. Consideration is being given for integration of the prevention of RF/RHD into programmes on the prevention and treatment of coronary heart disease and other cardiovascular diseases as a comprehensive nationwide programme for community prevention and control of CVD. There is planning for the development of centres for the prevention and treatment, including laboratories for both service and research in bacteriology, serology, immunology and other medical aspects related to this disease. Patient education, medical-profession education, and public education are also being discussed.

2.5 Portugal

Very few epidemiological data are currently available on the frequency of rheumatic fever and prevalence of rheumatic heart disease in Portugal. It is a general impression, however, in that country that these diseases are somewhat decreased at a national level. No single community control programme or national programme have been developed in Portugal, although isolated efforts have been made towards more effective prevention of RF/RHD.

In 1952, data collected in a survey of 500 primary schoolchildren showed a prevalence of 1.6% with rheumatic heart disease. In another survey carried out 20 years later 0.2% of 8082 children (10-19 years) had RF alone and 0.5% had RHD.

These data from Portugal indicate that in some communities and population subgroups, RF and RHD are still an important health problem deserving appropriate preventive measures. Available hospital and community data also show that adequate treatment of streptococcal upper respiratory tract infections, secondary prevention of RF/RHD, and prevention of bacterial endocarditis are not consistently carried out in the medical community. All of these aspects confirm the need for improved public health programmes and applied research, as well as the need for policy at a national level on cardiovascular disease prevention in Portugal.

2.6 Sri Lanka

Until recently, there has been no organized plan in Sri Lanka for the specific prevention and control of RF/RHD, although the Cardiology Unit at the General Hospital in Colombo took care of a large number of these patients. In 1984, the Cardiology Unit at that hospital was nominated by the Government of Sri Lanka as the national focal point for coronary heart disease and RF/RHD. At the present time, there are no comprehensive epidemiological data as to the extent of RF and RHD in Sri Lanka, although in a pilot programme being carried out in Kalutara, information is being gathered.

The clinical impression from a number of years is that there is a reduction in the fulminant type of RHD, but no reduction in the incidence of the disease. At the present time, there are no planned control programmes, although individual cardiology units carry out secondary prevention on their own. A group has now been set up to discuss a programme including cardiologists, epidemiologists, pediatricians, bacteriologists, and school medical officers. Preliminary plans are under way to assess the degree of the problem in the entire country.

In summary, although no present RF/RHD programme exists, planning for the implementation of such a programme is being considered.

2.7 Thailand

In Thailand, a rheumatic fever control programme has been under way for a number of years. In fact, RF and RHD have been priority items in the five-year health plan for that country. Five RF/RHD centres were established; approximately half of the registered patients come from the Bangkok area and about half from the provinces. A national RF committee has been established in Thailand.

The secondary prophylaxis programme for the prevention of recurrent attacks (centering on pediatric populations) has been ongoing since 1959. Educational programmes including information on the relationship of sore throat and rheumatic fever and its prevention has

been presented to the public several times a year by mass media, including panel discussions on television. There has been collaboration with the Heart Foundation and Heart Association of Thailand. Health education for patients' parents and for schoolchildren themselves has been carried out in collaboration with the Division of School Health, Department of Communicable Diseases. Village health volunteers have been involved in educational programmes. Educational programmes have also been introduced for medical students, nursing students, paramedical personnel and there have been postgraduate training courses for physicians.

A national prevention and control of cardiovascular diseases advisory board was established three years ago. Members of this board include government officials, medical experts, as well as representatives of nongovernmental organizations. There is a specific subcommittee of the advisory board on rheumatic fever and rheumatic heart disease. The secretariat of this committee is situated in the Department of Medical Services. There has also been collaboration with the Ministries of Public Health, Interior, Education, Agriculture and with the Cooperative for Rural Development. Plans have been made for further expansion of RF control programmes to more areas of Thailand utilizing regional, provincial and district hospitals.

2.8 Zaire

Data collected by the Ministry of Public Health in Zaire indicate a large number of cases of RF and RHD being reported. This has led to epidemiological studies of streptococcal sore throats and studies of antistreptolysin O titers. Prevalence rates for streptococci in the upper respiratory tract have approached 10% in one study of approximately 3 000 children.

At the present time, no national control programme specifically directed towards RF/RHD exists in Zaire. Sore throats and post streptococcal sequelae are treated at the local level when they occur. Current health education is utilized in the general context of popular health education through mass media and the education of target groups including schoolchildren, and by maternal and child health programmes. A plan for RF control has been submitted to the Public Health Department for one area of Zaire and is to be coordinated with a programme for care of hypertension. Community health personnel have been trained in primary health care including rheumatic fever control.

Plans are also being made to set up a commission for control of RF/RHD in the Public Health Department. In addition, there is an effort to reorganize university training programmes, school health education and school medical programmes in this regard. A recently formed National Cardiological Association has been included in planning and implementing these campaigns.

3. SUPPORTING COMPONENTS OF A RF/RHD PREVENTION PROGRAMME

3.1 Epidemiology

Prior to developing rheumatic fever control programmes, an assessment of the epidemiology of the problems of group A streptococcal upper respiratory tract infection, rheumatic fever and rheumatic heart disease should be completed in a given geographical area. Methods for doing this include surveys and registries; other techniques can also be used to provide epidemiological data. Assistance is available both through the World Health Organization and through the Council on Prevention and Epidemiology of the ISFC working in collaboration with countries wishing to pursue this.

3.2 Laboratory

The use of microbiological techniques, e.g. culture, antibody determinations, is necessary for the correct diagnosis of group A streptococcal infections and for the confirmation of the diagnosis of rheumatic fever. Microbiological examinations are relatively simple and inexpensive and can be performed on a wide scale. However, there is a need to elaborate and introduce a direct and reliable method for identifying group A streptococcus in clinical specimens.

Ideally, there should be laboratories at the national, intermediate and peripheral levels with supporting arrangements for training the staff to man them. The WHO has established a collaborating centre for Reference and Research on Streptococci in Prague. This Centre has developed links with over 20 national streptococcus laboratories and is able to provide advice and assistance on technical matters and accept limited quantities of materials from national centres for quality assurance purposes. It can also accept personnel for training and assist in the development of local facilities and skills. WHO has also published a manual¹ which outlines the recommended laboratory technology and the role and responsibility of streptococcal laboratories.

During the last 30 years, the Pasteur Institute in Lyon has been collaborating with health institutions in some developing countries, e.g. Senegal, Morocco, Tunisia, Algeria, Ivory Coast, Zaïre and Vietnam. Training and service programmes for support of streptococcal laboratories have been initiated and supervised by the Institute which also offers training opportunities to professional and other laboratory personnel from the collaborating institutions.

3.3 Health education

Public and professional education is extremely important to the success of developing effective national RF/RHD control programmes. These educational programmes can be coordinated with similar activities in primary health care in developing countries. Effective public education programmes utilize not only radio, television and film strips, but also simple wall charts and printed pamphlets directed at the specific population. This educational material must be aimed at increasing awareness in local communities of the need to recognize the importance of sore throats, to report cases and to publicize what should be done and to whom cases should be referred for treatment. The programmes should outline the links in the chain for case-findings and patient supervision. Professional education (medical, nursing, midwives, village health workers, etc.) is also important and can be coordinated between professional organizations and governmental agencies. Health education in schools is an essential aspect of any cardiovascular disease prevention programme and should include elements devoted to RF/RHD wherever the problem warrants it.

4. INTERNATIONAL COLLABORATION

4.1 Role of WHO

The WHO international cooperative project² for the study and prevention of RF/RHD was launched in a number of developing countries in 1972; later on, a similar programme coordinated by AMRO/PAHO was started in seven Latin American countries. These studies have demonstrated the feasibility and cost-effectiveness of community programmes for the secondary prevention of RF/RHD in developing countries.

After the completion of this research and demonstration study, the WHO regional offices continued to stimulate the interest of Member States to promote RF control in the community. In 1982, the Director-General discussed with the ISFC the need for a concerted global approach to the prevention of RF/RHD in developing countries and the ISFC took up the challenge to be carried out in collaboration with WHO.

Recently, the 36th World Health Assembly (1983), considering that appropriate technology now exists to prevent and control a growing number of cardiovascular diseases such as rheumatic heart disease in children, coronary heart disease and cerebrovascular accident resulting from hypertension, urged Member States to pay particular attention to the wide possibilities for the prevention and control of cardiovascular diseases as an integral part

1 WHO/BAC/80.1.

2 "The Community Control of RF/RHD: report of a WHO international cooperative project".
Bulletin of WHO, 59(2):285-294 (1981)

of their national health plans. The WHO/CVD intensified programme for action to prevent coronary heart disease and RF/RHD was established to give expression to this resolution (WHA36.32, 1983).

For both components of the intensified programme, the role of WHO would be to advocate action appropriate to the country concerned, assemble relevant technical information, marshal informed opinion on the state of the art and communicate the information to interested countries as and when required. In some circumstances, WHO can also provide direct consultative services for the planning of local programmes, preparation of health education materials and for the training of personnel to carry out activities relevant to local programme strategies. The Director-General has made limited funds available for this global coordinative role; however, at the national level, it is anticipated that countries themselves will provide the funds necessary to sustain their local programmes, making use of WHO's resources in the country if they so wish, and possibly calling on support from the regional office.

WHO will also seek external funding to assist with the procurement of equipment and supplies, e.g. penicillin and syringes. Initially, it is proposed to establish collaborative projects in 10-12 countries, depending on the availability of funds. WHO will act as the coordinating agency and will work closely with the ISFC, UNICEF and other relevant agencies, e.g. UNESCO.

4.2 Role of ISFC

The International Society and Federation of Cardiology (ISFC) has selected RF/RHD control in developing countries as its priority programme, and has named the years 1984/85 as the "Year of the Rheumatic Child". The ISFC is, in collaboration with WHO, receptive to specific requests from national governments for initiating and maintaining efforts in rheumatic fever and rheumatic heart disease control in developing countries. In addition, the ISFC is receptive to specific requests from national cardiac societies and heart foundations for assistance.

Through its scientific councils and standing committees, the ISFC can make available individuals with expertise and can also help to formulate educational materials directed at different levels of health personnel and at various groups, e.g. educators, schoolchildren, and the general public. This can be done with recognition of the need for specific ethnic/social content of the materials.

In addition, the ISFC is prepared to consider national or regional requests for workshops and training sessions related to the various aspects of rheumatic fever control. These can be either for the public, or for medical and paramedical professionals. The ISFC has limited funds for these purposes, but is attempting to raise additional funds from other sources to assist in this effort. Further information may be obtained from the ISFC Central Office in Geneva.

4.3 Role of UNICEF

The proposed RF/RHD prevention programme meets the criteria for UNICEF's cooperation with countries and the subject has been discussed at the joint WHO/UNICEF consultative meeting (February, 1983). It is hoped that UNICEF, in collaboration with WHO, will play an active part in sustaining national efforts to prevent RF/RHD.

5. PLANNING AND IMPLEMENTATION

The participants agreed unanimously that what is required now is action to transfer existing information and technology for rheumatic fever control selectively to countries where they are most needed, and to use national expertise to strengthen and extend local efforts to train personnel involved in providing services for children. Although a certain amount of operational research may be undertaken to improve the efficiency of programme procedures, the proposed action programmes should primarily be service-oriented activities integrated with primary health care programmes.

To develop an effective RF/RHD control programme, it is necessary to initially assess the incidence and prevalence of the disease, especially in the most vulnerable groups (e.g. schoolchildren). In addition, careful projection of the costs of the programme (including manpower and administrative costs) are necessary for realistic planning.

Some countries have already designated a focal point to coordinate the national RF control programme and identified a programme centre to execute programme activities. Additionally, the formation of a local or national advisory committee is also an essential requirement. Ideally, such a committee should be multidisciplinary in composition and have a broadly based representation, e.g. government ministries, professional societies and associations, heart foundations, teachers' organizations, etc. The role of the committee would be to advise on the planning and programming of activities with a view to extending them in stages to achieve national coverage.

5.1 Objective

The general purpose of a rheumatic fever/rheumatic heart disease control programme is to reduce morbidity and mortality due to RF/RHD in developing countries through primary health care, school health services, mother and child services and hospital cardiology and pediatric departments, and to integrate the the necessary preventive measures within the existing health care delivery system, supervised and coordinated by governmental agencies such as the Ministry of Health and, where appropriate, the Ministry of Education.

Accordingly, the following suggestions for implementing control programmes emphasize case finding and the prevention of recurrences of RF through the programmatic application of antistreptococcal prophylaxis in known cases of RF/RHD in a community - "secondary" prophylaxis.*

5.2 Approaches

The main approaches to programme development may be summarized as follows:

- Obtaining political and administrative support for a RF/RHD prevention programme.
- Training of health personnel to undertake the required tasks.
- Developing RF/RHD surveillance and prophylactic services as part of existing primary health care infrastructures.
- Promoting community participation and improving patient compliance through both professional and public education.
- Monitoring activities and evaluating the progress and effectiveness of the programme.

The details of the organizational design of the actual control programme will differ from place to place, but in general, the principles are similar and should be conserved in any given situation.

5.3 Main activities**

It is suggested that the local or national programme centres be designated in accordance with the operational organization appropriate to the country or community concerned. The activities to be accomplished include the following:

- Collect relevant local health statistics (if necessary by surveys) on RF/RHD to help national priority setting and planning.

* Activity schedules and related targets should be formulated by the local planning group.

** In some countries primary prophylaxis to prevent the occurrence of the first attack of RF through accurate diagnosis and adequate treatment of streptococcal sore throat infection in the population at risk may be feasible. However, primary prophylaxis as a public health measure is not practical in many developing countries and should not detract attention from the main efforts through secondary prevention.

- Prepare learning materials and hold regional and/or national workshops.
- Supervise the maintenance of up-to-date RF/RHD registers and the administration of antistreptococcal prophylaxis regularly to the patients.
- Promote health education of the public and of special groups, e.g. schoolchildren, mothers and pregnant women.
- Develop an information system that would monitor activities and permit evaluation of the progress and effectiveness of the programme.
- Encourage the development of relevant techniques by existing laboratories in support of the programme.

6. BASIC OPERATING PROTOCOL

The meeting examined the operating protocol used for the WHO cooperative study (attached as an Appendix) and agreed that it can readily be adapted from a research protocol to meet the needs of a service-oriented programme. Attention was also drawn to the AMRO/PAHO publication "Prevention and Control of Rheumatic Fever in the Community", which has recently been translated into English (WHO/CVD/83.4)* from the Spanish original.

The basic programme consists of: finding cases of RF/RHD in a defined population; registration of the cases; regular prophylaxis to prevent recurrences; surveillance and follow-up of registered cases; and, patient and professional education.

6.1 Prophylaxis to prevent recurrences

Whenever possible, benzathine penicillin should be given intramuscularly: 1 200 000 IU once a month to children, every three weeks to adults (i.e. persons more than 18 years old). If oral administration only is possible, 100-125 mg of phenoxymethyl penicillin should be given twice a day; erythromycin can be used for secondary prophylaxis for those allergic to penicillin (250 mg twice a day is suggested). It is suggested to continue prophylaxis without interruption at least up to the age of 18 years, or for a minimum period of five years following the last recognizable attack, whichever is longer. (See Appendix, page 6). Particular attention should be paid to patients with a history of repeated attacks of rheumatic fever and to those who already have valvular involvement.

6.2 Evaluation

Current evaluation of programme operation should be done, at least once a year. Targets, indicators and criteria for evaluation should be drawn up locally and should include the number of registrations, the number of prophylactic treatments given, the number of hospital admissions for RF/RHD and the level of compliance with secondary prophylaxis (see also Annex III page 21).

7. CONCLUSIONS AND RECOMMENDATIONS

- (1) Government commitment, politically and financially, is an necessary prerequisite to the successful development and implementation of a national RF/RHD prevention programme. It is recommended that governments indicate their commitment by appointing a national programme coordinator and making budgetary provision for the programme.
- (2) Programme planning and implementation requires the cooperation of many disciplines and community groups. Therefore a national advisory committee with a broadly based representation needs to be set up to assist the national programme coordinator.
- (3) The goal of the programme is to provide national coverage; however, it may be more realistic to approach this in a stepwise manner, starting in one or more defined areas. It is recommended that local or national programme centres be nominated to execute the programme in their respective areas and that their operations be planned from the start as part of a phased programme for ultimate national coverage.

* Copies may be obtained from CVD unit, WHO, Geneva.

(4) Sound knowledge and reliable technology already exist on which community action can be based to prevent RF/RHD. The programmes should therefore be primarily service oriented:-

(4.1) Emphasis should be on case finding in target groups (e.g. schools) registration, secondary prophylaxis, surveillance and follow-up and health education. The activities should be based on primary health care and integrated with the existing health services.

(4.2) Primary prophylaxis for prevention of initial attacks of rheumatic fever as a public health measure is difficult to achieve and may not be feasible in many developing countries. This approach may be studied, but should not detract from the immediate need for an active secondary prevention programme to prevent recurrences of RF.

(4.3) Laboratory support at peripheral, intermediate and national levels is essential for an effective programme. It is recommended that the relatively simple techniques required be incorporated into the existing laboratory services and the feasibility of establishing a local laboratory as a streptococcal centre at the national level should be considered.

(5) Evaluation is an important aspect of every programme and an appropriate information and records system should be developed and utilised from the very beginning to monitor activities and permit evaluation of the progress and effectiveness of the programme.

(6) WHO should explore possibilities for extrabudgetary funding to assist countries with the purchase of supplies and equipment, e.g. penicillin and syringes.

(7) In promoting the implementation of national RF/RHD prevention programmes, WHO should emphasize the cost-effectiveness of such programmes and distribute even more widely the results of the WHO study (WHO Bulletin, 1981, 59(2), pp. 285-294), which includes a consideration of this aspect of programme implementation.

ANNEX I

AGENDA

1. Opening.
2. Ongoing activities and proposed plans at country level.
3. Basic requirements and essential components of effective programmes for the community control of RF/RHD.
4. Strategies and approaches to international collaborative activities involving WHO/UNICEF/ISFC collaboration with countries.
5.
 - WHO (Regions and HQ)
 - UNICEF
 - ISFC
6. Next steps in programme development.
7. Conclusions and recommendations.

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