WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR SOUTH EAST ASIA

EIGHTH ANNUAL REPORT
OF
THE REGIONAL DIRECTOR
TO THE
REGIONAL COMMITTEE FOR SOUTH EAST ASIA
July 1955 - July 1956
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INTRODUCTION

The general situation in the Region remains much the same as described in the Foreword to my Sixth Annual Report. The onward trends foreseen in that report have progressively materialized. The weaknesses of the public-health situation have also continued. Lack of supervision of public-health programmes and personnel at all levels is the most frightening of these weaknesses. It not only persists but grows larger as the public-health programmes expand. I would be lacking in my responsibility if I did not sound this note of warning.

For some of the countries in the Region, the past year has been one of financial stringency, resulting in a temporary set-back to the expansion of public-health services and even a certain degree of retrenchment. It is likely that this period of anxiety will continue for another two to three years before a general upward trend can be reestablished in these countries.

The financial situation of the Regional Office has not improved during the year. Our budget for field activities (Regular and Technical Assistance funds), which touched 2.7 million dollars in 1954 and 1955, dropped to 2.1 million dollars during 1956.

It is difficult to make any general comments on the health of the people of the Region, owing to the absence of adequate statistical data. For example, in three out of the seven countries it is not even possible to give birth and death rates. Speaking generally, however, it may be said that the past year has seen an upward trend in the birth rate and a downward trend in the death rate, while the infant mortality rate, which is a truer index of social improvement, has not shown much change. As regards sickness, there are hardly any data to go on. It is generally accepted that while mortality rates keep receding, morbidity continues almost unchanged. However, the large-scale malaria control programmes in the Region have certainly greatly reduced the load of sickness. Any further substantial reduction is not likely until programmes for environmental sanitation take hold, and this will still take many years.

During the past year, WHO has become more actively associated with the planning stages of national health programmes, particularly in Afghanistan, Burma and India. Our association in the development of the public-health aspects of the Indian Second Five-Year Plan has been a particularly stimulating experience.

In 1954 our emphasis in this Region shifted from individual communicable diseases towards improving basic needs such as sanitation and health education, and towards training programmes, particularly those for auxiliary personnel. In 1955 the training aspect was intensified, and an attempt was made to relate international assistance more and more to national community development programmes. In both these years the integration of specialized services into the general public-health programme was promoted. The method of assistance, however, was still the well-established pattern of demonstration projects. It is my belief that we should now make our next shift in
emphasis, away from our usual type of individual field project activity to a higher supervisory and advisory level. While the field continues to be the obvious area of operation, WHO experts should in future participate less directly in field operations and devote more time to planning, organization and supervision. The existing dangerous lack of supervision must be rectified. Individual field projects, whether in communicable-disease control or maternal and child health, are very costly for WHO, and, because of numerous local difficulties, national support at the field level is usually inadequate to take full advantage of WHO staff. WHO's methods must be changed to meet this local situation: we should leave the individual field projects to national workers (with vital imported equipment provided from international and bilateral sources). WHO staff can in future be more profitably placed at the country or state level, where they should remain for three to five years. They should not, however, be "armchair advisers" but active collaborators in planning, organizing and supervising national programmes. They must help to organize the realistic training of personnel, to mobilize equipment and supplies, to promote the necessary budgets and to advise on building plans, and in every way assist in the setting up of national health schemes of which individual field projects (run by national staff) will form only a part. And all the time they must strengthen supervisory services.

I trust that the Regional Committee will accept this new orientation in our activities. The new tasks will not be easy, and much will depend on the personality of the individual WHO expert. A small beginning in this direction is reflected in the programme for 1956-1957 and in my proposals for 1958, which provide for advisers at the state or country level in malaria, tuberculosis, nursing, maternal and child health, health education and health statistics.

* * *

I give below some of the salient points of our activities during the year, details of which will be found in Part I of this report:

The mass programme approach in communicable-disease control is gradually being diverted towards integration of these programmes into the general public services. Malaria-control programmes are being directed towards eradication. Tuberculosis control is moving in the direction of domiciliary chemotherapy; an important research project in this connection has been developed at Madras. Leprosy control continues to make slow progress. Plague control is likely to assume a different character as a result of the research carried out in the WHO-assisted project in the State of Uttar Pradesh in India. Programmes for trachoma control are at last getting under way. The two major campaigns against yaws, in Indonesia and Thailand, have made good progress. Programmes for the control of venereal diseases have not been very active.
Rural health programmes are at last moving forward: much preparatory work has been done for the promotion of rural health centres, from which all medical activities, whether curative or preventive, will emanate. Maternal and child health services have been expanded considerably, not as a speciality but as an integral part of the general services. WHO has continued to give substantial help in the field of nursing education and training. National school health programmes have been inclined to assume the form of a narrow speciality, but efforts have been made to integrate them into the general public-health service. There has been little progress in nutrition.

Except for the project in Ceylon, which is slowly progressing, programmes for environmental sanitation have not yet been fully organized, and the serious epidemic of infectious hepatitis in Delhi during the year was a violent reminder of the need for urgent attention to sanitation problems in this Region. Preliminary surveys of occupational health activities, and similar surveys in dental health education and for the improvement of mental health services, are being carried out. The reorganization of statistical services is at last making some progress: a number of important epidemiological and vital statistics tables are being presented to the Regional Committee (document SEA/RC9/S), as a new feature of our activities. Laboratory services have been slow in developing.

Training is a major function of WHO projects. A detailed statement of training activities is given in Annex 7. Apart from training counterpart teams and organizing a very large number of miscellaneous training courses during the year, WHO field staff has held 30 refresher courses for about 400 trainees; the trainees included medical officers, nurses, health assistants, health educators, health visitors and midwives. In addition, two seminars were held within the Region, one an inter-regional seminar on sewage disposal (with thirty-four participants from all over South East Asia and five from the Western Pacific) and the other a national seminar for State maternal and child health officers in India, with eleven participants. Sixty-eight fellowships were awarded. Under a special arrangement with the Harvard School of Public Health, a special type of group fellowship has been instituted to assist in training future professors of public health for medical schools. The first group of fellows of this kind has been selected from India, and, if this experiment proves a success, it is hoped to extend it to other countries.

The Regional Committee has recommended the establishment of regional training centres. A centre for training in physiotherapy is now functioning in Bombay, and a good centre for training in venereal-disease control is available at Madras; the All-India Institute of Hygiene and Public Health, Calcutta, functions as a regional training centre for maternal and child health; a centre for training mental health nurses is being developed at Bangalore. It was hoped to develop a regional centre for training in anaesthesiology in Colombo, but because of unforeseen local
circumstances this has not yet been possible. There is an acute need for regional training centres for laboratory technicians and x-ray technicians, and our efforts in that direction continue.

In medical education, national study groups have been active in India and Indonesia, and it is evident that the need for a thorough reorientation of undergraduate training is now well understood. Part I of the report includes an account of WHO's activities in medical education in the Region.

A potentially important centre of medical education has taken birth during the year, viz. the All-India Institute of Medical Sciences in New Delhi, which will comprise an undergraduate medical school, a postgraduate medical school, nursing school and dental school, and related hospital activities. A welcome feature has been the development of health demonstration areas attached to medical schools, to give the undergraduate real field experience.

Now medical schools are being opened by national authorities - some, unfortunately, without adequate staff or equipment. At present there is only one public health institute in South East Asia - the All-India Institute of Hygiene and Public Health at Calcutta. However, two more institutes of hygiene are gradually taking shape, one in Afghanistan and one in Ceylon.

Relations with other organizations, both international and bilateral, have continued to be good. There has been close collaboration with the representatives of the United Nations Technical Assistance Board. Our close partnership with UNICEF in numerous joint projects has been satisfactorily maintained on an ever-widening basis, which now includes rural health and community welfare development.

The work of the bilateral organizations in the Region is steadily increasing, with the recent addition of the USSR programmes. Bilateral assistance programmes of certain governments (the USA, British Commonwealth countries, Norway, the USSR, etc.) as well as assistance given by non-governmental organizations, such as the Rockefeller and Ford Foundations, are all moving into the type of field operations which had, until recently, been developed mainly with the help of WHO. While originally these programmes laid emphasis on direct supplies, they now concentrate, like those of WHO, on providing specialists and fellowships. This trend creates a twofold problem of shrinkage of sources of badly needed medical supplies and an ever-increasing number of experts whose efforts must be very closely co-ordinated in order to avoid overlapping and confusion. Even with the best of goodwill, this task of co-ordination is a delicate business. While frequent mutual consultations between assisting agencies can be extremely valuable, the final act of co-ordination must take place within the national public health administrations - administrations which are without exception heavily overburdened with an ever-increasing amount of work and are chronically short of staff.
The work of the Regional Office has increased tremendously during the past two years. Against 62 field projects in 1953, there have already been 96 during the current year. The number of field staff has risen from 114 in 1953 to 146 at present, and yet there are 76 vacant posts still to be filled before the end of 1956. Our total financial responsibility for programmes in the Region amounts to over four million dollars in the year, inclusive of "Other Extra-Budgetary Funds". This amount is no indication of the wide variety and extent of the work-load in the Regional Office. With governments, with international organizations, as well as with bilateral organizations, the extraordinary number of meetings that fall to the lot of the Regional Office staff causes a serious reduction of working time; yet most of these meetings are important to the work of the Organization. The number of reports that have to be prepared makes a heavy cut into the precious time required for programme planning. The tempo of activities in the Region is so fast that it is becoming increasingly difficult to keep pace with it. I mention these facts here only for the information of the Regional Committee. I am very conscious of the fact that, in spite of having a devoted band of workers in the Regional Office, we are unable to give adequate time and thought to the serious public-health problems in the solution of which WHO must play an important role.

On behalf of the Regional Office staff, I acknowledge with much gratitude the attitude of co-operation and forbearance of all governments of the Region which has been characteristic of South East Asia, and have the honour to present this, my Eighth Annual Report, to the Regional Committee.

C. Mani
Regional Director
PART I

GENERAL STATEMENT OF ACTIVITIES IN THE REGION

1. COMMUNICABLE DISEASES

Much of the health planning in South East Asia is still dictated by the need to overcome the burden of infective and parasitic diseases. The year under review has seen continued progress in the control of these diseases, and since the permanent health services as established in the countries of the Region are not yet able to cope with the high incidence of diseases such as yaws, malaria, tuberculosis, typhus, filariasis, plague and smallpox, or with periodic epidemic outbreaks, this mass approach in the planning of control measures must remain for some years. As mass control programmes continue, however, more thought is being given to integrating them into the permanent health services.

1.1 Malaria and Other Insect-Borne Diseases

The national campaign against malaria in each country of the Region continues to make good progress. A total of 125 million people - roughly representing about one half of the estimated population affected by malaria - have been protected.

The pattern of WHO assistance, as reported last year, has now shifted towards strengthening central malaria organizations and offering technical advice in formulating national programmes. A WHO malariologist continues to be in position in Burma, and an entomologist is working in Indonesia, where a malariologist is also being added. A short-term consultant visited Afghanistan during the year and has prepared a report outlining recommendations for an eradication programme. Malaria control demonstration teams continue to operate in Nepal and Indonesia.

The Regional Committee at its eighth session discussed the problems of malaria eradication as applicable to South East Asia and made certain recommendations to governments (SEA/RC9/R.15). These recommendations as well as other developments are discussed in a separate document (SEA/RC9/6).

Briefly, the position in the Region is that Ceylon and Thailand have made such progress with control programmes that they are much nearer the goal of eradication; their programmes will, however, continue to need effective surveillance. Plans for reaching eradication progressively are under active preparation in Afghanistan and Burma, and India also has accepted the principle, which likewise is to be attained in stages. As for Indonesia, the programme of malaria control has to be greatly intensified before similar plans can be made. The results of malaria control in Nepal have to be watched, and in due course, the programme there also should be re-orientated towards the ultimate goal.
Another development during the year was the participation of SEARO in an Inter-Regional Conference on Malaria, organized by the Western Pacific Regional Office and held at Phnom Penh (Cambodia) from 10 to 12 January 1956. WHO is also helping to prepare for a meeting of malaria workers from North Borneo and Indonesia, to stimulate the institution of control measures in Indonesian Borneo, which would consolidate similar measures already in operation in North Borneo.

The Regional Adviser on Malaria took up his position in May 1956.

As regards other insect-borne diseases, the typhus campaign carried out by the Government of Afghanistan was continued during the year. With the help of special equipment supplied to the Malaria Institute, Kabul, tests were carried out to determine and give early warning of any development of resistance in the vector. To date, no such resistance has been reported. In the campaign last winter, a few cases of typhus appeared during early December. It has been recommended that dusting of the susceptible population should commence early in November in future years.

With the arrival of the WHO epidemiologist in Burma it is planned to start investigations into the pattern of communicable diseases, including kala azar, in that country.

1.2 Tuberculosis

The "Review of Anti-Tuberculosis Measures in South East Asia" provided the opportunity for active and interesting technical discussions during the eighth session of the Regional Committee. In these discussions, in addition to the members of the Regional Committee, the Chief of the Tuberculosis Section at Headquarters and several senior WHO staff members on tuberculosis projects, as well as various national workers, participated. A number of valuable recommendations were made and issued to governments in the form of a document SEA/RC8/21 based on experience gained during the previous six years.

It was brought out that, in proportion to the amount of money and effort expended on tuberculosis demonstration and training centres, their effect in terms of trained workers of different categories, and of constructive effort by governments to provide country-wide tuberculosis control services, has been disappointing. The necessity for a redirection of the approach to tuberculosis control is admitted, and the recommendations constitute a broad summary of a redesigned plan for tuberculosis control adaptable to local conditions and possible to apply economically on a wide front.

The first two of the recommendations dealt with the necessity for carrying out tuberculosis epidemiological surveys on a national scale and specified the techniques to be employed. In this particular sphere, India, in 1955-56, has given a fine lead to other countries in taking over from Japan; the Japanese National Tuberculosis Survey
of 1953 showed that, when properly planned and prepared statistically, a survey by tuberculin test, photofluorography and bacteriological examination of a surprisingly small number of people will give figures for prevalence of tuberculous disease sufficiently valid to be used for designing the shape and size of future control services. The Indian survey has also been statistically planned, but, because of different conditions, methods differing from the Japanese ones are being employed. It is hoped that the first phase will be completed before the end of 1956.

There has been another interesting development in connection with the Indian survey. As it offered a real opportunity for personnel in the health services of other countries in the Region to learn survey planning and operating techniques, the Government of India was asked to co-operate in the work of a study group, consisting of senior WHO officers of tuberculosis projects and their national counterparts. This co-operation was enthusiastically given, and, financed by WHO, a group from Afghanistan, Burma and Indonesia attended lectures, participated in round-table discussions and observed field work during a four-week period, acquiring information which should be of great help in planning surveys in the countries from which they came.

Recommendation number 9 describes the functions of both a national and a provincial tuberculosis centre and says that such centres should be planned and equipped to permit of a complete range of services to fulfil these functions. The types of essential service are broadly specified. In some respects, the early WHO and UNICEF-assisted centres had over-lavish equipment; moreover, some of it was not of a type suitable for the prevailing climates and personnel conditions. During the year under review, progress made earlier in specifying and procuring cheaper, stronger and simpler equipment has been continued, as has the stream-lining of the actual techniques of diagnosis which aim at pointing out the infective case. This kind of stream-lining is based on instructional material such as a recent Manual of Laboratory Procedures issued by Headquarters and the Manual of Radiological Technique which is being prepared by a WHO x-ray technician in the field. These measures subserve economy by making it possible to use more medical auxiliary personnel and fewer qualified and/or specialist doctors in diagnostic and control procedures. It must, however, be realized that there is a hard core of capital and operational costs involved in the diagnosis and checking of tuberculous disease - costs which are unlikely, as far as our present knowledge goes, to be much further reduced. WHO's present trend of thought is that the use of a particular group of equipment, be it a main laboratory or a photofluorographic unit, could by rationalization be extended to cover more territory and more people.

A scheme involving several pilot projects in which procedures for servicing people in different areas will be used has been drawn up for the Government of Thailand, which wishes to plan and carry out an expansion of its tuberculosis service, starting with the Bangkok Centre, established in 1952 with WHO and UNICEF assistance, as a base.
Recommendation number 6 calls for an investigation on fully scientific lines to decide whether such drugs as INH can be used on a mass scale for tuberculosis control. Planning for this has proved difficult because of the many and complex issues involved, and only now, at the end of the twelve-month period since the last report was written, are the Bandung pilot chemotherapy project and the research project at Madras approaching the operational stage. In the latter project the British Medical Research Council is assisting WHO in co-operation with the Indian Council of Medical Research.

It is greatly to be hoped that domiciliary chemotherapy may become the key to tuberculosis control in our countries, which will remain short of institutional beds for the isolation and treatment of infectious persons and which lack doctors and nurses. INH, alone or in combination, administered for treatment or prophylaxis on a mass scale, may be the drug of choice, but more knowledge of this drug is needed before it can be used indiscriminately; hence the pilot and research schemes mentioned above.

An important document relating to BCG vaccination was published by Headquarters; it was "Data for the Assessment of Naturally Acquired Sensitivity in Seven Countries of Asia" and resulted from the work of the BCG assessment teams of the Western Pacific and South East Asia Regions.

There has been a delay in planning BCG consolidation schemes and getting them into operation because of the uncertainty as to how far it might be possible to use the auxiliary medical and nursing personnel of rural and urban health units in the different countries. It now seems to be generally agreed that it is not yet the moment to try to make use of such personnel for BCG vaccination, except as a pilot scheme in a few places. The earliest phase of consolidation should take the form of a second-round mass campaign, oriented particularly to specially exposed groups in urban areas and the most densely populated rural areas, plus, in each country, trials of integration with various kinds of health service units.

1.3 Venereal Diseases and Treponematoses

Venereal-disease control work in Afghanistan is at present being carried on in Kabul, Herat and Kandahar; in the latter two places the work is being continued by national specialists in venereal diseases who were trained abroad, and is making slow progress. The clinic at Kabul attached to the Faculty of Medicine is under the Ministry of Education and is used as a teaching centre for medical students working on venereal-disease control. Efforts are being made to increase the standard of training and to introduce modern techniques.

The control programme in Burma is progressing rather slowly, as it is felt that it would be wiser to expand only when adequately trained staff and equipment plus the necessary local administrative machinery and adequate accommodation are actually available. The main problem is one of controlling venereal diseases in the urban areas, and in Rangoon particularly, although the services of some of the other outlying towns also require strengthening. The maternal
and child health centres are carrying on examinations and treatment of ante-natal cases, and a moderately efficient follow-up on infants born of infected mothers is being maintained.

The venereal-disease control programme in Ceylon appears to be operating well under national leadership.

The Government of India's Second Five-Year Plan includes venereal-disease control on a country-wide basis. In planning such a programme many difficulties have been encountered, and because of the lack of personnel it may be some time before full-scale programmes can be developed. In this connection, the WHO/UNICEF reporting form for examination and treatment, which is being used in the national campaign, has been completely revised; as a result, a great deal of useful information is now being made available and, within a year to eighteen months should provide a sound base-line for attacking at least the urban venereal-disease problem.

There have recently been two major developments within India. The first is that it has been decided by the Government to make the cardiolipin antigen produced in its Calcutta plant available for use on a no-cost basis to all venereal-disease clinics in India which are carrying out the VDRL slide test for syphilis. This ruling applies to a three-year period from 1956 on, and should go far to stimulate more efficient diagnostic methods. The second is the fact that the Hindustan Antibiotics Plant at Pimpri, which was developed with assistance from WHO, UNICEF and UNTAA, is now in the production stage. The penicillin produced there (PAM) will be issued by the Government and steps are being taken to secure estimates of India's total requirements for venereal-disease cases. Attempts are also being made to encourage the use of PAM in the maternal and child health centres throughout the country for the treatment and prevention of congenital syphilis. Emphasis is being laid on contact investigation and treatment of sex partners, without which treatment venereal-disease control is merely palliative. The aid of voluntary social agencies is being enlisted; individuals belonging to such agencies can actually participate in clinic activities such as filling out records, and, after some training, can undertake contact investigation.

As for treponematoses control, there are at present three programmes being carried out in the Region - in India, Indonesia and Thailand.

The yaws programme in India is a joint one conducted by the States of Hyderabad, Andhra and Madhya Pradesh, which were joined in January by the State of Orissa. The programme is proceeding well, considering that the man-power per state is small, and that communications are extremely difficult. It is hoped that this group of states can ultimately eradicate yaws completely from this area. The State of Madras is also taking active steps to eradicate yaws from the only pocket of known magnitude in the area - in Coimbatore (population at risk - 26,000).

The programme in Indonesia continues to make steady progress, and the Indonesian workers hope to attain the original target date for eradication, namely 1965. In this programme the best use has
been made of the existing public-health services and of the simplified method of approach used in the treponematoses control programmes, to reduce the level of yaws to such an extent that further surveillance can be left in the hands of the local health service.

In Thailand considerable progress has been made in the last year towards fact-finding and a more specific delineation of the problem and of the actual facilities available for yaws eradication. A number of investigations and conferences have culminated in the signature of an addendum to the plan of operations for the WHO-assisted treponematoses control project in Thailand, embodying most of the outstanding points arising from the work during the past year. Here the situation is different from that of Indonesia in that Thailand is in the process of developing its public-health services, which at the present time and for some years to come, will not be in a position to take over the duties of yaws surveillance. Hence there is a great need for adequate personnel, who may have to come from the mass campaign force, to be placed in areas where the present coverage by the health service is not sufficient. Otherwise, after a mass campaign has been conducted in an area and the campaign personnel has left, a recrudescence of yaws, which will completely nullify the efforts and expense of the mass campaign, can be predicted.

In November 1955, an international Symposium on Yaws Control was held in Enugu, Nigeria, where workers throughout the world assembled for a thorough review of the present status of yaws control on a global basis. This was a most valuable meeting and was attended by four representatives from Indonesia, two from Thailand and a representative of the Regional Office. The whole subject was exhaustively discussed, and many papers were presented, culminating in the production of three documents ultimately to be made available, namely, "Resolutions of the Meeting", "International Nomenclature of Field Yaws Control" and "Scientific Nomenclature of Yaws". Headquarters also plans to issue some of the outstanding papers presented at the Conference in a composite document for distribution to those interested.

1.4 Other Communicable Diseases

(1) Filariasis

Work on filariasis is proceeding in India and Ceylon, with a view to establishing control programmes and possibilities of undertaking similar work are being studied in Indonesia and Thailand. During the period under review a Study-Group on Filariasis met in Kuala Lumpur, Malaya. At this meeting a paper on the problem in India was presented by the Indian representative. Interest in this problem throughout the Region is increasing, and the role played by chemotherapy is receiving particular attention.

(2) Leprosy

Expansion of the leprosy control programme in Burma requires further discussions with the Government and with UNICEF.
The project in Ceylon continues and was visited by an expert from Headquarters during the year. This programme is now beginning to produce factual data which will be of great value in delineating the ultimate size of the problem within the island. The ratio of new cases found to old cases verified is higher than before, indicating that transmission of the disease is still taking place. Emphasis has been placed on the treatment of actual registered cases and their immediate contacts, combined with a health education campaign for the public as a whole, with a view to stimulating a more sympathetic attitude towards leprosy patients. This method is preferred to that of giving institutional care to an increased numbers of patients.

Discussions have continued on the Indian leprosy control programme. No final plan for international assistance has as yet emerged, but it is hoped that this objective will shortly be attained.

A consultant on leprosy was assigned to Indonesia from July to September 1955 to make recommendations on the organization of future programmes. In view of the reported high standard of the work being carried out in the centre in Djakarta, it is now thought that this centre might be utilized as a regional training centre.

In Thailand a pilot project designed to demonstrate a consolidated leprosy control programme based on domiciliary treatment of cases and contacts was begun in Khon Kaen Province, with assistance from WHO and UNICEF.

(3) Plague

At this stage it is considered unwise to adopt a complacent attitude regarding the reduction of plague incidence as a side-effect of the residual insecticide spraying being carried out in malaria campaigns. With the interruption of spraying in these campaigns, plague may reappear with high incidence.

In the last year, consultants on plague were made available to two governments, India and Indonesia. A great deal of work on inter-epidemic transmission has been done in the WHO-assisted Indian plague programme, which was visited by the Director of Pasteur Institute, Tehran, during the year. The report of this work should soon be ready. He also visited Indonesia and drew up proposals for a research programme which should supply sufficient data for the basis of a two-year programme in plague control, to be assisted by WHO.

(4) Bilharziasis

In the last two months of 1955, a member of the Headquarters staff visited an area of India known to have a small bilharziasis focus. His report has since been published and has been made available to the governments of the Region.
At the present time, bilharziasis does not appear to be of immediate major importance, but it may develop into a problem of some magnitude in the future, with the intensive hydro-electric and irrigation development programmes which are being carried out throughout the Region. A word of caution is therefore sounded.

(5) Smallpox

In accordance with the recommendation made by the Regional Committee at its eighth session, preliminary steps have been taken with a view to studying further the problem of smallpox in the Region. The Regional Office has so far approached three of the Indian States, in each of which the standard of vaccination has been demonstrated to be reasonably efficient, but despite which smallpox continues to be a problem. Special attention needs to be directed towards local conditions, administrative problems and technical points such as vaccination techniques, preservation of vaccines, type of vaccine most suitable and the actual methodology of the work, including statistics. Upon receipt of replies from the States addressed, one government will be asked to carry out the necessary investigations with the assistance of WHO, so that a comprehensive picture of the smallpox problem in a well defined area may be obtained.

(6) Trachoma

After a survey had been made by a WHO consultant in 1955, a comprehensive plan was drawn up for the investigation and treatment of trachoma in India. This project, to be carried out with WHO assistance, will start in October 1956, and will expand as resources permit. The programme even in its initial stages has been enthusiastically received, and the Indian workers have been extremely co-operative.

A short-term consultant assigned to the Government of Indonesia surveyed the problem of trachoma in that country as well, with a view to developing a control programme.

(7) Virus Diseases

The virus group of diseases is attracting increasing attention in the Region. There is a need for further study to define them more clearly. In India, the virus research laboratory at Poona has conducted work on the encephalitis group. A major epidemic of infective hepatitis in Delhi in the autumn of 1955 brought to light interesting epidemiological factors connected with the spread of this disease through drinking water supplies. There were twenty thousand reported cases.

Poliomyelitis as a potential public health danger in South East Asia remains a subject of discussion. The WHO-supported poliomyelitis centres in Bombay and Singapore have increased the scope of their activities and are now taking part in the global
programme of isolation and identification of the poliomyelitis virus. For convenience, arrangements have been made for the Singapore Centre (in the Western Pacific Region) to service Thailand and Indonesia in this respect. An exchange of specimens has been stimulated. The Medical Research Institute in Ceylon is also expanding its functions to include research on the viruses.

During the year a WHO fellow from South East Asia was assigned to work on this subject with the Director of the Walter and Eliza Hall Institute of Medical Research in Melbourne, Australia.

(g) Gastro-Intestinal Diseases

Few specific programmes have been undertaken for the control of the important group of gastro-intestinal diseases. The key to the control of these diseases is, of course, improved environmental sanitation, which seems very slow in developing. To try to evaluate the success of the WHO-assisted environmental sanitation programme which started in March 1955, in Ceylon, the gastro-intestinal disease pattern has been studied to find the population base-line at the beginning of the campaign, and a similar study is being planned for future years, which should give an indication of the effect of improved environmental sanitation.

The enteric group, cholera, diarrhoeas, the dysenteries and helminthic infections still account for a high percentage of morbidity and mortality in South East Asia. It is essential for workers in environmental sanitation and health education to get together if only to bring about an awareness that safe water prevents disease and that boiling of drinking water is a simple and easily available method of prevention.

(g) Zoonoses

Although animal diseases which are of potential danger to man do constitute a public health problem in South East Asia, there is as yet not enough liaison between the veterinary and the medical services.

The year under review has seen the introduction of serum treatment of rabies.

2. PUBLIC HEALTH ADMINISTRATION

2.1 Strengthening of National Health Services

One of the primary functions of WHO as laid down by the World Health Assembly and confirmed by the eighth session of the Regional Committee is the strengthening of national health services. It has been generally agreed that policies of integration and consolidation of field activities cannot succeed and the problems at which they are aimed cannot be solved unless there are strong and well-balanced national health services to manage them effectively.
The strengthening of national health services may be done in a variety of ways and may take place at different levels of administration ranging from central to peripheral services.

Two of the Governments of the Region - Afghanistan and Burma - have been availing themselves of direct assistance to public health services at the central directorate level. In Afghanistan, a WHO public health adviser has, in collaboration with the relevant authorities, further developed plans for strengthening the health services throughout the country. Of particular interest have been the recent organization of the Council of Ministers and the decision to centralize public health training in an Institute of Public Health. A WHO short-term consultant visited Afghanistan from about mid-April to mid-May of 1956 in order to assist the Government in planning this institute, which it is intended will become a major arm of the health service.

In Burma, a WHO consultant in public health administration has helped in devising procedures and practices relating to the operation of the Directorate of Health Services and its co-ordination with other directorates and ministries concerned with health problems. He has further concentrated his work on the organization, at the peripheral levels, of urban, rural and district health services.

In other countries of the Region, the Area Representatives assigned to individual governments have continued to offer advisory services with regard to the organization and improvement of administrative services in public health.

For some years, WHO has been assisting with the development of maternal and child health services by providing teams working on certain specified projects of a more or less localized character. Over the last year, the team leaders in a number of such projects in India have had as their counterparts persons charged with the general supervision of maternal and child health for the state concerned viz. assistant directors for maternal and child health. In January and February 1956, a course for senior maternal and child health officers was conducted at Calcutta with the assistance of WHO and UNICEF.

Through the combined efforts of the WHO worker and his counterpart, it has thus been possible to strengthen the general structure of maternal and child health in a number of states and countries of South East Asia. This has lead to greater co-ordination of efforts and more uniformity of approach. Another means of strengthening maternal and child health services is by providing advisers at the country level, and during the year under review, plans of operations making provision for such officers in Indonesia and Thailand have recently been signed.

In nursing as well, the assistance offered by WHO has more and more tended to become a strengthening of the general organization of the services provided. In Burma, the WHO country nursing adviser left in June 1956, but her counterpart, who was abroad on a WHO fellowship in early 1955, is continuing as Chief Nurse in the Directorate of Health Services. A plan of operations providing for a nursing adviser in Ceylon at the directorate level has recently been
drawn up; in India such an adviser has recently been provided in Saurashtra and similar advisers are to be assigned to Madras and West Bengal. Finally, a WHO nurse is attached to the Division of Nursing in Thailand to help develop a programme of field supervision for rural public-health nurses and district midwives throughout the country.

With respect to communicable diseases, it is generally recognized that several health administrations in the Region, with the existing shortage of available staff, have great difficulties in carrying out the epidemiological investigations needed to ensure effective control measures. Therefore, during the year, an epidemiologist was provided to assist the Government of Ceylon in setting up a central epidemiological service. Similar plans are under discussion for Burma and Indonesia.

Many governments have also felt a need for improving their health and vital statistics as a badly needed tool for evaluation of their services. A WHO statistician started working in the health department of Afghanistan during the year under review; a WHO record analyst has been assisting the Burmese Government in the upgrading of the vital and health statistical unit in the Directorate of Health Services, and the WHO statistician assigned to Indonesia continued to assist the Indonesian Health Services. The Regional Adviser in Epidemiology and Health Statistics visited Burma, Ceylon and Thailand, to confer with the health authorities with respect to aid from WHO in strengthening their vital statistics and health statistics services.

A new field in which WHO has been requested to assist Health Directorates is in the preparation of their annual reports. The Regional Committee at its eighth session, recognizing that Member States in the Region have experienced exceptional difficulties in producing regular Annual Health Reports, took the view that the most constructive way of meeting the situation would be to assist countries to bring their national health reports up to date. This would at the same time both benefit the countries directly and enable them to meet their obligations under the WHO Constitution.

As a first step, it is proposed to prepare a Manual of Instructions to accompany the format which was adopted by the Regional Committee to ensure comparability for a world health report and to make it easier to assemble the required information. It is recognized that the amount of accessible information varies from country to country, so that many items may be missing, but a factual account of public-health activities is possible everywhere. Countries will be offered assistance in the preparation of reports for the years 1954 to 1956 adapted to their requirements. For those countries that need and desire it, this assistance may be in the form of the provision of a short-term consultant and some equipment.

Two countries have provisionally expressed their desire for this type of assistance.
Community Development

Throughout the Region, the community development approach in national planning is increasing in importance.

In India, during the First Five-Year Plan, the health aspects of rural development were given lower priority than general agricultural-economic development. Community development, however, has become increasingly important under the Second Five-Year Plan, at the end of which, in 1961, a network of 5,000 national extension service blocks is visualized. In 40% of these, integrated preventive and curative work is to be undertaken through rural health units. The guiding principle in this development has been the full and active participation of the people at all stages. This multi-purpose development in rural areas is demonstrating its effectiveness. WHO, with UNICEF, is assisting the Indian Government in developing a comprehensive five-year programme with a view to intensifying the training of health personnel at all levels. It is expected that the first year of operation of this project, for which UNICEF is providing considerable supplies, will have begun by January 1957. During the year under review, the Regional Office has taken part in the planning of this large-scale programme.

In Afghanistan, a Five-Year Community Development programme has been proposed by the Government as part of a Five-Year Plan. It is expected that 2,200 villages with about one million people will be covered at the end of the period. The already existing WHO-assisted project at Shewaki will help with the training of the required health personnel.

The development of the Payagyi Community Project in Burma, established in 1954, was discussed during the year at a national seminar organized by the Government to assess the results so far achieved and to make plans for the future. Along with representatives of the United Nations, FAO, etc., WHO experts on nutrition, preventive medicine and public-health education participated. The discussion was helpful in furthering the co-ordination of national and international efforts in the re-organization of this pilot project in order to make it applicable to wider areas. WHO staff assigned to other projects in Burma gives technical advice to this project when requested.

In Ceylon, in June 1956, WHO added a public health administrator to its staff assigned to the Kalutara project, which continues to provide a base for training rural health workers of all categories. This project is described elsewhere.

A community development programme is taking shape in Indonesia. Consultations are being held between the Government, the United Nations and the specialized agencies.

In Thailand, WHO is continuing to participate in the UNESCO Fundamental Education Project at Ubol, to which a United Nations Community Development expert has recently been assigned.
2.2 Maternal and Child Health

Governments in the Region are just starting to become aware that it is not only the expansion of maternal and child health services that is necessary (although it is already difficult enough to find the money to train additional personnel for this expansion); it is also the improvement of such services, based on an evaluation of those already existing. A start has been made in studying how maternal and child health services can best be integrated into urban and rural health services while at the same time remaining sufficiently distinct so that they may work efficiently. A proper balance is needed between the attention given to the care of mothers and that devoted to the care of children; child care is only slowly coming into its own. For this, improved training facilities for curative and preventive aspects of pediatrics are essential. It is gratifying that in India due attention was paid to pediatric training during the Conference on Medical Education which took place in New Delhi in December 1955, when important resolutions concerning pediatrics were approved.

There is a danger of continuing with routine procedures that are becoming obsolete. Especially at the peripheral level, work should be started on evaluating actual procedures. For example, improvements seem indicated in the distribution and use of drug and diet supplements; visits to maternal and child health centres should be regulated; routine home visiting often wastes the time of personnel and should be replaced by home visits only in selected cases. There is a lack of guidance and supervision and the need for research and evaluation leading to the concentration of efforts on activities from which important results can be expected. Everywhere insufficient attention is being paid to children of the 1-4 age-group, who in many countries contribute as much to the number of deaths as the 0-1 group and usually have a high morbidity rate.

There is also the problem of school health, which will need to be developed on different lines from those of the West. In school-health services, more attention needs to be paid to special examinations rather than to routine examinations, which achieve little. School-health activities should form a means of interesting parents and the community as a whole in health questions. Many of these functions can be accomplished by using existing health facilities and personnel: the interest of teachers in school health can be aroused, and, with proper in-service and undergraduate training, they can become valuable assistants in health appraisal and health education.

In Afghanistan the greatest problem in expanding maternal and child health services is still the lack of female health personnel. In Burma efforts are being made to integrate maternal and child health into a system of rural health services. Ceylon faces the problems of a transition period: a relatively low infant mortality rate (70), together with high morbidity among children. In Indonesia rapid progress has been made in creating new centres, but as in other countries the quality of work needs much improvement, and a WHO maternal and child health officer, to work at country level, is being recruited. In June, such an officer was also assigned to
Thailand, to work at the country level and to assist in evaluating and planning maternal and child health services. Since in Thailand, considerable progress has been made in studying the needs of general rural health services, it will be easier than in most countries to fit maternal and child health activities into the rural health scheme. Through such advisers WHO should get an evaluation of routine maternal and child health procedures that have been practised unchallenged for years.

WHO has a large programme in India, where five maternal and child health-nursing education projects are in operation, and four more are expected to be implemented in 1956. Many of these activities have an influence beyond the project area and aim at assisting state-wide developments. Community development projects form welcome opportunities for combining maternal and child health with health and development programmes in rural areas.

In all countries, the improvement of environmental sanitation, nutrition and health education continue to form the necessary basis for more special and individual maternal and child health services.

Progress has been slow, but the upward trend of interest and performance is very definite.

2.3 Nursing

To meet the expansion of health services there is need for a rapid increase in both the quality and quantity of nursing personnel.

The following four broad requirements will need to be fulfilled:

(1) A modification of training programmes

Curricula are being studied more critically; greater emphasis is being placed on ward teaching, on the preventive aspects of health and on observation and experience in public health and domiciliary midwifery, so that every nurse and midwife will be a health teacher and be able to work in the domiciliary field. Refresher courses have become indispensable means of helping graduate staff.

(2) Increased student enrolment

In most of the countries in the Region, the major hospitals have a wealth of clinical material which would permit doubling or even trebling the student enrolment. The main obstacles are the lack of hostel accommodation and lack of funds for the increased number of sanctioned posts for students. In one country six new nursing schools have recently been opened without provision of needed teaching staff, equipment, or accommodation and very little provision for practical experience. Thailand has enough students. Here, many of the existing schools have a student-patient ratio of 1:1 or even higher, with the result that there is often an insufficient practice field for the numbers of students enrolled.
Increased numbers of qualified nursing and midwifery tutors

In most countries steps are being taken to prepare teaching personnel by means of the establishment of post-graduate training programmes.

At an early stage, WHO's nursing activities in South East Asia were directed towards the assistance of a number of individual basic nursing and midwifery schools. In all countries of the Region with the exception of Afghanistan and Nepal this type of assistance is now gradually being decreased, and activities in nursing education are being concentrated more on helping to develop post-graduate training programmes to enable the countries to prepare their own teachers. India, Indonesia and Thailand each have WHO-assisted programmes which are helping to prepare nursing and midwifery tutors, and it is expected that a similar project will be started in Burma before the end of the year. Through WHO country and State advisers, assistance is also being given at the directorate level in upgrading and extending training programmes and in supervising field work.

The development of public health and health education as an integrated part of basic training is not easy, because the tutors have not themselves had this type of training; also, the community services have only limited facilities as teaching centres. In every country in the Region, assistance is being given in developing this aspect of training. In four countries, assistance is also being given in training public health nurses.

In January a one-year post-graduate course for the training of psychiatric nurses was established in India with the assistance of WHO. This was the first such course to be given in the Region, and it is hoped that it may serve other countries and become a regional training centre. Today there is an almost total absence of trained psychiatric nurses in the Region, and there is a great need for them.

Refresher courses are now recognized as an invaluable means of improving many aspects of nursing. Assistance has been given in the form of short-term courses for midwifery and nursing tutors, ward sisters, paediatric nurses, lady health visitors and domiciliary midwives.

The increasing emphasis on rural health services has brought about a need for greater consideration of the training of nursing personnel for rural areas. To this end, assistance has been given in strengthening the domiciliary aspects of midwifery and in modifying the training programmes for those personnel who will be employed in district hospitals and rural health units. Assistance is also being given in developing plans for the supervision of those working in isolated areas. Throughout the Region there is a certain resistance to employment in such areas. This resistance can be expected to persist until more attention is paid to the provision of adequate living and working facilities. Supervision is needed to give workers in the rural areas a feeling of security and job satisfaction. In countries having a high proportion of rural population this problem is particularly acute.
It is perhaps of interest to note that in the past seven years, 25 refresher courses in nursing have been sponsored by WHO in South East Asia: seven for sister tutors, six in paediatric nursing, five for lady health visitors, three for ward sisters, three also in tuberculosis nursing, and one for teaching auxiliary nurse-midwives. UNICEF or WHO has provided travel stipends and costs. Reports of all these courses were mimeographed in sufficient quantity for them to be distributed to all nursing personnel in the Region, and have been used extensively in planning new courses from year to year.

A sizeable amount of nursing teaching material also has been prepared by WHO nurses: a Paediatric Nursing Procedure Book compiled at Madras and printed by WHO (1953); three textbooks (on practical nursing, first-aid and food and nutrition) prepared in Afghanistan in English, translated into Parsi and printed by WHO (1955); and in Burma, a manual on Paediatric Nursing (in English, 1955), Midwifery Lecture Notes, translated into Burmese (1956), and Handbooks on Nutrition and on Health Education (1956). These were all prepared with the assistance of WHO nurses and are used as standard texts; most have been or are being printed.

In addition, lecture notes on nursing subjects are drawn up and circulated in many WHO-assisted projects; in the Mandalay School of Nursing in Burma, for example, they were translated into Burmese and mimeographed at WHO expense for use as textbooks.

(4) Strengthening of Administrative and Supervisory Machinery for Health Services

Sound administrative and supervisory machinery is essential to the successful functioning of any health service. The development of nursing education and nursing services is hampered by many administrative problems. Absence or poor maintenance of essential equipment, insufficient supply of drugs, shortage of linen, shortage of staff, inadequate hostel accommodation and lack of posts for nursing students are classic examples of such problems, about which the nurse herself can seldom do very much.

There is, however, a growing awareness that experienced nurses do have an important part to play in formulating sound administrative policies. Five countries in the Region have nurses at the Directorate level: three of them have had assistance at either the country or state level from WHO nursing advisers, and the other two will receive this type of assistance within the next year. In addition, in India, WHO is giving advice and assistance to the directorates of three States and will do so in three additional States in the next six months. These States also either have or will have national counterpart nurses at this level.

At present, 59 WHO nurses are working in 34 WHO-assisted projects in the Region. They are engaged in activities such as nursing and midwifery education at the basic and post-graduate level, maternal and child health, public-health, tuberculosis and BCG. Further nurses are under recruitment for 23 more posts. As the
trend in assistance moves from basic nursing education and maternal and child health towards post-graduate training and country and state advisory services, it is becoming more difficult to secure suitable international recruits. This applies particularly to advisory posts which require nurses with broad experience in the administrative aspects of nursing education and service, both curative and preventive, as well as some experience with nursing legislation.

2.4 Health Education of the Public

Although health education of the public is gradually becoming an important part of public-health plans, its impact on health services is still negligible owing to the shortage of trained personnel. During the past year emphasis has been placed on providing some training in health education for many categories of personnel, such as workers in public health, in education and in community development. This training is directed toward preparing them to make better use of teaching opportunities in their regular work with individuals or groups according to specific health needs and resources.

At the national level, bureaux or divisions of health education have been established within the Directorates (or Departments) of Health Services in a growing number of countries. These units will be able to give leadership, to assist with training programmes, suggest ways of working with people, and develop the necessary materials and tools for health education.

Although pilot centres, demonstrations and special studies with adult groups and schools in local communities have an important place in health education in South East Asia, this phase of the work has yet to be developed.

Training programmes are proceeding along two lines: (1) the inclusion of health education in some of the basic and post-graduate training courses given to public-health personnel, and (2) the provision of in-service training in health education by means of short courses, seminars, meetings, conferences, workshops and lectures.

The All-India Institute of Hygiene and Public Health at Calcutta, to which WHO has assigned personnel, including a visiting professor of health education, is providing a sizeable amount of training in health education: twenty-five hours are included in the course for the Diploma of Maternity and Child Welfare; forty hours in the course for the Certificate of Public Health Nursing; thirty-five hours for the Diploma of Nutrition; and ten hours for the Diploma of Dietetics, Diploma of Industrial Hygiene, and Master of Engineering (Public Health). Health education is likewise included in the various short courses offered at the Institute, in which, in addition to lectures and field observations, students participate in such activities as discussion groups and evaluation. During the year a working conference was organized and conducted for the staff of the Singur Health Centre, where students from the Institute are given supervised field experience in rural health
programmes, and where community development workers and school hygiene teachers take part in short courses featuring practical field experiences.

As from June 1956, the All-India Institute is offering the first three-month Certificate Course in Health Education, for experienced workers in public-health, education and allied fields. It is expected that two such courses will be provided during the academic year 1956-1957, with the enrolment limited to about twenty students in each course. Over 100 applications, coming from most of the States in India have been received for the first course. The Institute also has under consideration a proposal to establish a ten-month diploma course to train specialists in health education. At present no such training can be obtained in South East Asia.

In Burma, health education has been included in the courses arranged for public-health nurses, for assistant district health officers (physicians), public-health assistants, lady health visitors, medical students, teacher trainees at the Faculty of Education, paediatric nurses, and other personnel with opportunities to give health education. A one-month refresher course was arranged for the assistant health educators working on a district and state level and for other health educators on the staff of various departments located in Rangoon.

In Ceylon, an intensive programme of training different health workers, teachers, voluntary agency personnel and various community workers in health education has been under way during the past year. Here a special two-month course in health education was given to twenty-seven experienced public-health inspectors. Discussions related to the social sciences, health education, and modern concepts of public-health, and group-work techniques and practical field experiences played a large part.

Health education was also included in the programme for the three-month refresher course for medical officers held in Afghanistan (see part II).

At the national level, progress is being made in strengthening health education within the framework of national health administrations. In Burma, with the assistance of the WHO health educator, the staff of the Health Education Bureau in the Directorate of Health Services is conducting a study of the day-to-day activities of the Bureau and reviewing the long-range programme plans.

Significant developments in health education have taken place in Ceylon. A full-time national health education officer is now in charge of the Sub-Division of Health Education organized under the Deputy Director (Public Health Services) in the Directorate of Health Services, and in the Sub-Division, a Health Education Materials Production Unit has been established, where materials can be developed and used to supplement the health programme in achieving its objectives. Field work in health education has become an integral part of the health programmes and health education field staff are
now assigned to the areas of the 15 Superintendents of Health Services. The WHO health educator assigned to Ceylon has assisted the Government in planning these changes.

A Central Health Education Bureau has recently been established in the Directorate-General of Health Services in India, and the post of Deputy Assistant Director-General of Health Services, with responsibility for health education, was sanctioned early in the year. At its fourth meeting, in 1956, the Indian Central Council of Health took another step forward, in recommending the grant of an adequate subsidy for the establishment of health education bureaux in the State Directorates of Health Services. Such bureaux already exist in several States, such as Hyderabad, Mysore and Uttar Pradesh.

There has been increasing concern about the health education of the school child in all countries of the Region. In implementing the resolution passed at the eighth session of the Regional Committee, when it selected "Health Education" as the topic for the technical discussions to be held at its ninth session, the Regional Office convened a working party early in 1956 to start the preparatory work for these discussions. Because of the widespread interest in the well-being of the growing child, the working party proposed that a specific phase of health education be discussed, namely "Health Education in Schools".

An inter-regional Seminar on Nutrition Education and Health Education, jointly sponsored by FAO and WHO, was held in October 1955 in Baguio, Philippines, with seventeen participants from five countries in South East Asia joining with the participants from countries and territories in the Western Pacific. Altogether there were 79 participants and staff members, representing many different disciplines - medicine, public health, education, agriculture, home economics, social welfare and the social sciences. Among the topics included in the discussions were: learning situations and the principles of learning; educational methods in community programmes; social and cultural factors; how to develop health and nutrition education programmes; the selection and training of personnel and evaluation of programmes. A report of the Seminar has been prepared and should be available by mid-1956.

In order to provide for an exchange of ideas and to be informed on some of the rapidly developing health education activities in the Region, the Regional Office is now periodically preparing circular letters on health education, which are sent to WHO personnel, national workers and other persons in the Region who have special responsibility for health education.

### 2.5 Nutrition

In June 1953, FAO's Nutrition Committee for South and East Asia, holding its third meeting in Bandung, Indonesia, stressed the need for extensive programmes of education in nutrition to improve the nutrition of the populations of the countries in the Region,
and recommended that "a course of the seminar or workshop type on
education in nutrition and training methods should be organized in
the Region as soon as possible." (1) The Joint FAO/WHO Expert
Committee on Nutrition, meeting in Geneva in July 1955, gave special
attention to the need for education and training. It referred to
the resolution mentioned above, and recommended that FAO and WHO
should convene joint conferences "to consider ways and means of
organizing programmes for nutritional improvement at the village or
community level . . . . and which call for the participation of
workers belonging to a variety of disciplines." (2)

One such jointly sponsored seminar, convened last year in order
to explore how health education might best assist such nutrition
programmes, was the joint FAO/WHO Seminar on Nutrition Education and
Health Education for the Western Pacific and South East Asia Regions,
held in October 1955 in the Philippines (see also under Section 2.44). The report of this seminar will soon be published.

The Chief of the Nutrition Section at WHO Headquarters, visited
Burma, India, Indonesia and Thailand. In Burma he particularly studied
the situation with regard to beriberi. In his report he suggested
means of estimating the extent of the problem in that country and also
ways of dealing with it. Details of his recommendations are given in
Part II. These matters will be discussed at the forthcoming meeting
of the FAO Nutrition Committee for South and East Asia to be held in
Tokyo in September.

In Indonesia he assisted the Government in exploring measures
to be taken against the serious problem of protein malnutrition in
children, suggesting in his report, among other things, a study of
locally available foods which might help to prevent it,(see also
Part II).

When visiting India he attended the annual meeting of the
Indian Council of Medical Research in Nagpur, and took part in
discussions of problems such as those relating to the distribution
of milk obtained from UNICEF and other sources. In Thailand, he gave
special attention to beriberi and goitre.

Two short-term consultants were assigned to study problems of
nutrition during the year. One, in haematology, has recently under-
taken a short study of nutritional anaemia in India. The other went
to Thailand in November 1955, where he found beriberi and goitre to
be the main problems, with vesical calculus in the north-east of the
country. He recommended methods of carrying out control programmes
on a limited scale, stressed the need for nutrition surveys, and
suggested ways in which WHO could assist activities in Thailand.

This consultant also paid a short visit to Burma, where he
took up problems relating to beriberi with the WHO medical
nutritionist who is working in Rangoon. The WHO nutrition programme
in Burma is closely associated with the project which FAO is carrying
out in that country.

(1) FAO Nutrition Meetings - Report Series No.6
In its work on nutrition, WHO collaborates not only with FAO but with UNICEF, and during the year several meetings were held with the UNICEF consultant who visited India to explore possible UNICEF assistance to a large-scale programme to improve the nutrition of mothers and children, primarily in villages. At these meetings the points stressed by WHO were the importance of an adequate public health policy with respect to protein malnutrition, the necessity for an intensive development of the milk industry and the importance of protein-rich food.

To discuss the general role of international agencies in assisting the Government of India in its fight against malnutrition, a special meeting, in which representatives of FAO, UNICEF and WHO all took part, was held with the Government of India in January 1956.

2.6 Mental Health

In addition to the two principal obstacles to be overcome in developing mental health programmes in South East Asia - the world shortage of adequately trained personnel and the lack of understanding of the basic cause of mental ill health - there is a third difficulty in most of the countries of the Region: an almost complete lack of information with respect to the extent and seriousness of the problem. During the year, a short-term consultant in mental health was made available to the Government of Burma to develop a suitable mental health programme. He made a number of recommendations which are described in more detail in Part II.

Another short-term consultant was assigned to Ceylon, to study the existing services for mental defectives and to assess the needs of the country with regard to providing them with adequate institutional, educational and public health facilities. His conclusion was that, in view of the urgency of the basic problems of agriculture, housing, education and health, only limited priority should be given to any major scheme for the care and training of mental defectives in Ceylon at present. For further details of his recommendations, see Part II.

WHO assistance to the All-India Institute of Mental Health, Bangalore, and to the Mental Health Clinic in Phnom Penh (Thailand) continued.

2.7 Occupational Health

The Regional Committee, at its eighth session, requested the Regional Director to implement in 1957 a proposed inter-country programme consisting of a seminar on industrial and occupational health to be held in collaboration with the ILO. The purpose of this seminar is to study the existing situation in the Region and to give advice on future activities in industrial and occupational health.

To prepare for this seminar, a short-term consultant with experience of two previous seminars in occupational health was engaged.
He was in India from October to December 1955, during which time, he met industrial managers, industrial physicians, safety engineers and representatives for management and labour organizations in the States of Bombay and West Bengal, and held discussions with the representatives of the Ministries of Health and Labour, the ILO representative in New Delhi and the staff of the Regional Office. In India the health of the worker is a joint responsibility of the Labour and Health Ministries. There seems to be no or very little overlapping, but, instead, a gap between these two ministries with regard to activities on the national or state governmental level, relating to the health of the worker. The organization of industrial health services is not included in the Factory Act nor in the usual public health service. He suggested, therefore, that it would be of great value to have a small Advisory Board put up jointly by the Labour and Health Ministries, which would include representatives from state and private industries, management and labour unions, and also industrial physicians, to co-ordinate activities on the health of the worker. He further made recommendations, inter alia, for WHO's support of the training of industrial physicians, industrial hygiene engineers, industrial nurses (male and female), social workers and health visitors by providing visiting professors, lecturers and fellowships.

To allow further time for adequate preparation, it is planned that this seminar will take place only at the end of 1957.

2.8 Dental Health

In connection with the global study of dental health problems and the resources available for organizing adequate services, a WHO consultant in dental health visited Burma, India, Indonesia and Thailand towards the close of 1955.

At the request of the Government of India, the services of a dental health consultant have been secured for a period of about three months.

During the year an international fellowship was awarded to Indonesia and two fellowships to India.

3. ENVIRONMENTAL SANITATION

This year has seen the addition of WHO environmental sanitation staff to programmes in Afghanistan, Burma, Ceylon and Nepal. Acute shortage of qualified public health engineers and sanitarians has unfortunately stood in the way of WHO plans for India and Indonesia.

An important regional project in environmental sanitation which was organized by the Regional Office during the year was the Seminar on Sewage Disposal (Rural and Urban). The Government of Ceylon was host to this Seminar, which was held in Kandy from 15 to 27 August. There were 34 participants, as well as some observers, from six
countries of South East Asia and five of the Western Pacific. A short-term consultant helped with the planning. The aims were: (1) to disseminate specific instruction in the design, construction and operation of facilities for the sanitary disposal of sewage and human wastes; (2) to demonstrate the relationship between good sewage disposal and public health and welfare; (3) to provide for an exchange of information and experience and promote a better understanding among representatives of different areas and different professions having an interest in this problem, and (4) to elicit principles which could guide WHO in its regional programmes. The Seminar brought out clearly the necessity for close liaison between the public health engineer and the director of health services. Its report, which is divided into three parts, suggesting schemes for rural, sub-rural and urban areas, was issued at the beginning of 1956 and has been given wide circulation.

An important national conference of public health engineers from all states in India was held in September 1955 in New Delhi. A representative of WHO participated in this conference, to discuss general problems in connection with the Indian National Water Supply and Sanitation Programme. The meeting recommended, among other things, the creation of a committee to go into the question of establishing a national research laboratory for public health engineering problems.

Elsewhere in India, the post-graduate course in public health engineering in Madras, for which WHO provides a professor in public health engineering, has made progress. Emphasis will be given not only to the organization of a post-graduate course in public health engineering, but to short-term courses for engineers and other sanitary personnel employed in government services. A degree course for public health engineers is being held at the All-India Institute of Hygiene and Public Health in Calcutta, with assistance from ICA. WHO is now negotiating to hold a refresher course. Personnel are under recruitment for advice and assistance to the environmental sanitation programmes of two State Governments (Delhi State and Travancore-Cochin).

In Afghanistan, the WHO public health engineer has continued to give advice on sanitation programmes, and has also helped with the other WHO-assisted environmental sanitation projects. In addition a public health engineer is giving assistance to the Kabul Municipality; a sanitarian is helping the School for Sanitarians, and another sanitarian is working with the rural health unit in Shewaki.

In Burma, a sanitarian has been assigned to the environmental sanitation project in Aung San Myo; in Ceylon the WHO public health engineer is continuing to give assistance to the environmental sanitation project at Kurunegala, and a further sanitarian to advise the Government is under recruitment. A start has been made in securing personnel for the project in Indonesia, to which a sanitarian has already been posted.

The Regional Office has taken part in a global investigation into the question of international standards for drinking water quality and standard methods for examination, which is being sponsored by Headquarters. In this connection, the Regional Office for the Western Pacific convened a Water Quality Study Group in April 1956 in Manila, which was attended by participants from India, Indonesia and Thailand from South East Asia.
4. EDUCATION AND TRAINING

In the education and training programme of the Region, the teaching of preventive and social medicine in undergraduate medical courses is considered to be of the first importance. However, modern thinking in this field takes the definite line that preventive and social medicine is not merely a series of specified subjects of technical interest, but rather a philosophy to be introduced into the student's mind as early as possible. He is to be encouraged in the belief that the practice of medicine today has two features: both the prevention and the cure of disease; that these two features are in general closely interlocked, and in some conditions are one unity. At present, the study of preventive and social medicine is supported by textbooks dealing with this subject as if it were of a special technical nature, like a specialized branch of medicine or surgery. Thus, from the textbook angle, the integration of this philosophy into all branches of medicine and surgery receives no attention. It has therefore been suggested that when textbooks of general medicine and surgery are being prepared the preventive and social aspects of diseases and infirmity should be written into the text along with the familiar aspects - history, physical examination, etc. - of investigation, diagnosis, and treatment of various conditions. A textbook on pathology written in this manner has recently appeared, and enquiries are being made among persons who might be interested in applying this method to the field of general medicine.

In connection with undergraduate training in preventive and social medicine, WHO's projects for supplying professors of preventive and social medicine have met with serious difficulty because of the world-wide lack of suitable persons to accept these posts. In 1955, there were four such posts, but only two incumbents were placed. In 1956, four posts are again planned but there are as yet no available candidates. As an alternative, a fellowship plan has been put into operation, in India in the first instance, whereby selected fellows may be trained abroad over a period of two years to enable them to return to their own or other colleges as Heads of the Departments of Preventive and Social Medicine. A satisfactory course has been arranged with the Harvard School of Public Health, and to this school, during the year 1956, it is hoped to send four to six such candidates.

Although the granting of international fellowships is an important part of this WHO programme, regional fellowships will in many cases be even more useful, and continued emphasis is given to helping countries to develop their own training facilities. In Ceylon, a forward move in this respect has taken place in the Faculty of Medicine, through the organization of diploma courses in various medical specialities. This will remove the current necessity for young Ceylonese doctors to travel abroad for post-graduate diplomas in order to rank as specialists. WHO will, within its resources, aid the Faculty by providing teaching staff, fellowships for Faculty
members and a limited amount of essential equipment for the development of selected classes.

A consolidated statement of the training activities in the Region (training courses given in each country and category of personnel trained) is presented in Annex 7.

4.1 Fellowships

In the WHO fellowship programme in South East Asia emphasis has been given to basic health subjects. A larger number of fellowships in public health, environmental sanitation and health education have been awarded. A new trend in the programme has been the granting of fellowships to train teachers in preventive medicine in order to introduce more adequate teaching of this subject at the undergraduate level. The first group fellowships in preventive medicine will be organized for candidates from India during the present year.

In the period under review 22 regional fellowships were awarded. Where it was not possible to take fuller advantage of regional training facilities, attempts were made to include in the fellowship programme some orientation visits to countries comparable to the home country of the fellow. Because of the rules of Calcutta University regarding the non-recognition of degrees granted by medical colleges outside India, some difficulty was experienced with respect to admission to the post-graduate diploma courses conducted at the All-India Institute of Hygiene and Public Health. The matter is under consideration by the Government of India.

The training facilities offered in South East Asia have been used to an increased degree by fellows from countries in the neighbouring regions, especially those in the Western Pacific. Short programmes were arranged for twenty-two such candidates.

There has been a tightening up of admission criteria by the two countries which receive the bulk of WHO's fellows for training, viz., the United Kingdom and the United States of America. An excellent knowledge of English is now being insisted upon before admission. It has therefore been necessary to hold language examinations.

A statement showing the distribution of all fellowships awarded by subject of study and by country and the number of regional fellowships is presented in Annex 6. Of the 68 fellowships awarded, 10 were financed by Regular Funds, 3 by UNICEF, and 55 under Technical Assistance.

The following is a brief analysis of 106 reports so far received on the utilization of the services of former WHO fellows:

99 (95.4%) are employed in the subject of their fellowship studies.
47 (44.3%) have assumed greater responsibilities.
33 (31.1%) have begun new activities.
56 (52.8%) have imparted the knowledge gained to others by means of conferences and by articles in medical journals.

75 (70.8%) are engaged in training activities.

56 (52.8%) have been able to introduce new methods.

30 (28.3%) have established new services.

28 (26.4%) are engaged in some type of research.

22 (20.8%) have maintained some degree of contact with other fellows and officials whom they came to know during their studies.

2 (1.9%) have been on international assignments.

There have been, however, cases of frustration on the part of returning fellows due to the lack of opportunities to apply the new knowledge and experience. It is necessary that definite posts related to fellowship training be established before candidates proceed on fellowships.

This year, at the All-India Institute of Hygiene and Public Health, Calcutta, eleven non-Indian and twelve Indian nurse midwives, and one non-Indian and five Indian medical officers, all on UNICEF fellowships, are following the one-year Diploma Course in Public Health Nursing and the Diploma Course in Maternal and Child Health respectively. These fellowships are processed through the normal WHO fellowship procedures.

According to available information, the Colombo Plan is granting 7 fellowships to Burma, 31 to Ceylon, 16 to India, 6 to Indonesia, 16 to Nepal (12 for under-graduate studies in medicine for five and a half years in India) and 10 to Thailand in medical and allied subjects. The United States of America's International Co-operation Administration has given 12 fellowships to Afghanistan, 6 to India, 17 to Indonesia, 6 to Nepal and 64 to Thailand, excluding 54 fellowships for which it is understood that candidates have been selected and are expected to proceed for training during the year. The Rockefeller Foundation is granting 3 fellowships to Ceylon and 4 to India. Burma received 4 fellowships under the U.S.A.'s Educational Exchange Programme and 1 from the British Council, and Ceylon 3 fellowships under the Smith Mundt Scholarship, U.S.A.

As will be seen, the opportunities for fellowships are substantial. What needs much greater attention is the development of suitable training institutions within the countries themselves. Half-a-dozen well placed "international" teachers in national training institutions would be a better investment than a hundred fellowships. It is the conviction of those responsible for the WHO fellowship programme in this region that foreign fellowships should be restricted mainly to those engaged in teaching and training institutions.
4.2 Exchange of Technical Information

At the seventh session of the Regional Committee, consideration of a paper on medical education in South East Asia (SEA/RC7/5) resulted in a resolution which expressed the wishes of the Committee on this subject. Among other things, it requested the Regional Director to encourage the development of rational conferences or study groups on problems relating to the education of medical under-graduates, and to report to the ninth session on the results of such conferences (resolution SEA/RC7/R.9).

During the past year national medical conferences have been held in India and in Indonesia. In Thailand, one such conference is planned for September 1956, and in Afghanistan there is a coordinating committee of the Ministries of Health and Education which has functions similar to those of a national conference.

The Indian National Medical Education Conference organized by the Government of India, with the assistance of the Rockefeller Foundation and WHO, was held in Delhi in November 1955, with some 150 participants and observers. These included ten senior representatives of medical colleges in Afghanistan, Burma, Ceylon, Indonesia and Thailand, whose attendance was sponsored by the WHO Regional Office, and most of whom took part in a twelve-day tour of selected Indian medical schools immediately afterwards. The conference was eminently successful, thanks to thorough preparations during the two preceding years. The three major groups of subjects (a) entrance qualifications, (b) curricula, and (c) examinations, gave the participants an opportunity to explore almost every feature of medical education in India. It is hoped that the final report will be available shortly.

In Indonesia, a national conference of the three main Medical Faculties (at Djakarta, Surabaya and Jogjakarta) is held annually. At the last meeting in August 1955, a new curriculum was planned and introduced, into the Djakarta Medical School in the first instance. At the next meeting, to take place in September 1956, this curriculum will be reviewed with the idea of making wider use of it. There are also plans in Indonesia for a medical manpower commission to deal with the whole question of relating rational medical needs to the production of medical personnel and to the many important aspects of the best use of medical manpower. It is hoped that full reports covering the scope and the activities of this Commission will be made available for study in the Regional Office and in the other countries of the Region.

In Afghanistan the Co-ordinating Committee, composed of the medical education authorities of the University of Kabul and of the Ministry of Health, which is in effect a standing conference, has an added significance in that it covers a wider field than medical education alone. It is, in fact, a body which can plan the future of medical education, taking into account the practical needs of the country as represented by the Ministry of Health. This would seem to be a step forward in rationalizing the production of doctors and their training in accordance with national requirements.
The resolution of the Regional Committee mentioned above also refers to the possibility of holding a regional conference on medical education for the exchange of information resulting from the national conferences. It is felt that the time is not yet ripe for such a meeting. A special document on national medical education committees is presented as document SEA/RC9/12.

Immediately after the Indian National Medical Education Conference, a meeting was held in the Regional Office, attended by the ten observers sponsored by WHO and some senior medical educators from India. At this meeting, it was suggested that the expected trials of new procedures in medical education in the Region would be of considerable interest to medical colleges in all the countries. The Regional Office undertook to collect and distribute reports from such colleges as would collaborate in furnishing information, and in February 1956 sent a circular letter to all colleges, asking for co-operation. A bulletin containing summaries of the reports received will be issued as early as possible.

It was also suggested at this meeting that the Regional Director could be assisted in the promotion of medical education, first, by the establishment of small study groups with memberships which would include representatives of interested departments, and second, by visits of representative medical educators to medical colleges around the Region. A proposal was made that SEARO should produce an information booklet on training facilities in the Region, and such a booklet is now being prepared. WHO's interest in building up medical libraries was also noted. In this connection, attention was given to the use of microfilms and microcards, but later enquiries have shown that these, to be effective, need considerably more resources than are generally available at the moment. Microfilm services, however, will be kept in mind.

4.5 Assistance to Educational Institutions

In addition to its work on improving curricula, awarding fellowships and encouraging a wider exchange of scientific information, WHO provides more direct assistance to medical educational institutions by assigning professors to help organize specialized departments and train other personnel. Assistance in this respect was continued at the Kabul Faculty of Medicine in Afghanistan; the All-India Institute of Hygiene and Public Health in Calcutta; the All-India Institute of Mental Health in Bangalore; the Gadjah Mada University Medical School in Indonesia, and the Health Assistants' School in Nepal. Assignments at the Health Assistants' School in Burma, the Seth G.S. Medical College, Bombay, and the Physiotherapy School in the K.E.M. Hospital, Bombay, were completed during the year. New WHO projects of assistance were begun by assigning or recruiting professors to take up posts at the Rangoon Medical College in Burma, the Assam Medical College in Dibrugarh, India, the University of Madras, India, the Medical School in Surabaya, Indonesia, and the School of Medicine at Medan, Indonesia. Short-term consultants were sent to the Faculty of Medicine in Kabul and
to the School of Public Health in Bangkok, Thailand. In Kabul a valuable refresher course for medical officers was held in May. A special team, co-operating with the Faculty of Medicine and the hospitals in Colombo, continued its assistance in the teaching of anaesthesiology in Ceylon. It was hoped to extend the scope of this project and to use it as a regional training school, but the prospects so far are not bright.

Details of all of these projects will be found in Part II of the Report.

As has been pointed out before, WHO personnel in important teaching posts often find themselves without adequate counterparts. While local difficulties are appreciated, the fact remains that in such cases, the educational and training projects are a poor investment both for WHO and for the governments concerned.

5. EPIDEMIOLOGY AND HEALTH STATISTICS

The disease pattern in South East Asia is not yet properly defined, and there is urgent need for epidemiological field investigations. On the other hand, there are hardly any trained workers in this field.

The WHO-assisted plague project in India has brought to light new factors in the epidemiology of plague. In trachoma it has been found necessary in India and Indonesia to conduct preliminary epidemiological studies before trying to evolve control measures. The recent outbreaks of encephalitis-like diseases and the unfortunate epidemic of infective hepatitis in India have underlined the need for field investigations.

In the year under review, WHO has helped Ceylon to establish a specialized epidemiological unit, and plans are being developed for Burma and Indonesia.

The Director of the Regional Office for the Americas (Pan American Sanitary Bureau) paid a visit to the Region late in 1955, when he held discussions on yellow fever in Burma, Ceylon and India.

As for vital and health statistics, the past year has seen a growing awareness of the need for better statistics for the proper planning of health services. The principal target for WHO is therefore to assist the governments in this region to improve their collection and statistical treatment of basic health data.
The first WHO-assisted project of this type was implemented at the beginning of the reporting year, and three more such projects are now in operation; others are being planned for 1957 and 1958. If the information required for health programmes is to reach the desks of planning officers in a useful form, then the scope of the statistician's work is a wide one, covering as it does, field organization, design of documents and processing and tabulation of data. In three of the projects, advice and assistance are being given to governments at the national level; the fourth is a demonstration and training project in one city of India. In view of the many unsolved problems peculiar to the Region, there may be scope for more demonstration projects with an experimental approach. It is hoped that accumulating experience will show where WHO assistance can be most effective.

In the field of vital statistics, accurate death rates are essential for defining targets and assessing progress, and the importance of the infant mortality rate as a health indicator is well-recognized. The seemingly simple goal of a complete count of births and deaths actually presents a difficult problem for the solution of which there is need of active collaboration of medical and paramedical personnel in contact with the public, to reduce the percentage of under-registration. As the Health Department is often the responsible statistical agency for centralized computations, the improvement of the vital registration system at all levels remains an appropriate field for WHO assistance. This is the specific objective of the project in Burma in its present stage.

Complete and accurate reporting of causes of death can be attained only when medical services are provided for the entire population and diagnostic facilities are ample. Much can, however, be done to improve the quality and increase the usefulness of the information which can be obtained in existing circumstances. Though a continuous educational programme is required to obtain statistically usable medical certificates of causes of death, the use of the International Form is extending in the Region, and, at the same time, several countries have found that the International Detailed List can be used for coding all cause-of-death reports, whatever their source. Improvement of mortality data is an objective in all of the projects mentioned above. Since many of the same problems are encountered everywhere in the Region, an inter-country seminar has been proposed for 1958, when experience could be pooled and collective thinking directed towards a solution.

While immediate needs may sometimes dictate a preoccupation with vital statistics, health departments also require an integrated intelligence service covering all types of morbidity data and field service reports, so that health statistics in the wider sense may eventually take the larger share of WHO assistance. Improvement in the reporting of notifiable diseases is perhaps a first priority. As with causes of death, shortage of medical personnel and of diagnostic services impedes advance.
Though relating only to a small and selected population, hospital statistics are the main source of accurate mortality and morbidity information, and thus acquire an importance even greater than in more developed countries, where sources of data are less restricted. Projects are under discussion to assist selected hospitals, and through them, national hospital services, to redesign their systems of records and reports so as to produce the information required by hospital directors and the heads of medical and health services.

In reports from rural health centres, clinics, etc., there is often a waste of potential statistical material. Design of suitable documents and forms to improve the reporting system is therefore a first priority.

Medical statistics have not kept pace with conspicuous advances everywhere in the application of statistics to government planning in economics, agriculture, and other fields, even in this Region. In the WHO programme statisticians attached to projects have participated in educational and training courses of different types, and other educational programmes will be developed as rapidly as circumstances permit.

While first priority has been attached to laying the foundations of good statistics, a second function is the collection, evaluation, analysis, and dissemination of health information on a regional basis. Here there is little progress to report. Work in connection with Annual Reports from Member States and the reporting of quarantinable diseases is mentioned under section 2.1. A beginning has been made in the preparation for publication of statistical tables for the Region.

Requests for technical advice have been numerous. Among the topics dealt with in the past year was the Ramanagaram Health Survey, for which schedules have been drafted and instructions to investigators prepared. It is hoped that the methods developed will be of assistance to agencies planning to undertake similar surveys.

6. STRENGTHENING OF RESEARCH

6.1 Public Health Laboratories

The development of public health laboratories is essential before the disease pattern in the Region can be defined. In Afghanistan, Burma, Indonesia and Thailand, WHO has assisted in the conversion and expansion of specialized laboratories to cover the broader field of public health. In India a laboratory programme forms part of the Second Five-Year Plan, and discussions have taken place on the participation of WHO and UNICEF in this aspect of the plan. Laboratory programmes are to be organized on a systematic basis; a centrally controlled laboratory will supervise provincial
units, which in turn cater to medical services at the periphery. The closest liaison has to be maintained between the maternal and child health services, the venereal-disease control services, malaria services, hospital services and the public health laboratory.

In the new malaria eradication concept, the public health laboratory or its sub-units at the periphery will have an important part to play by offering a vigilance service and giving an early indication of any localized breakdowns in controlled areas.

6.2 Vaccines

It is important for the countries of South East Asia to be self-supporting in the production of vaccines and sera. It is equally important that these products should maintain high standards of purity and potency. Until some standardization laboratories can be developed in every country, the Government of India, through the Central Research Institute, Kasauli, is assisting in this regard, but very few samples have been sent for this purpose.

WHO has also stimulated the interchange of standardized products between laboratories in India and Thailand and laboratories in other parts of the world.

6.3 Assistance to Research Institutes

WHO is assisting with research in the Region in various ways. From time to time, through Headquarters, it continues to give grants to several research institutes for special projects, and several of the WHO visiting professors assigned to educational institutes have also assisted with research (see section 4.3). Many other WHO projects are primarily for research purposes, such as the pilot projects which are under way in some countries for applied research into problems presented by several of the communicable diseases. Details of these projects are to be found in part II.

A new activity to promote co-operation among scientific and professional groups conducting research in the health field is the fostering of the exchange of reports of the various research institutes in the Region. With the co-operation of the Indian Council of Medical Research and the Medical Research Council of Ceylon, the Regional Office has distributed to research institutes and medical colleges in the Region the latest Technical Report of the Scientific Advisory Board of the ICIMR (1964) and is now distributing a number of reprints of published articles by members of the Medical Research Council in Colombo. Research institutes were asked to send in copies of their reports and studies, if possible, in sufficient number to permit such a distribution. The response has been very encouraging.
7. CURATIVE SERVICES

At the eighth session of the Regional Committee in 1955, the Regional Director was asked to include in the programme some WHO assistance to selected curative fields, and also, in future reports, to attempt to bring together WHO's various activities in these fields.

It is difficult to draw a line between assistance in prevention and assistance in cure. However, in WHO's 1955-1956 programme for this region attention may be drawn to the projects in Afghanistan for assistance to public health laboratories (Afghanistan-25) and to vaccine production (Afghanistan-20), the strengthening of laboratory services in Burma (Burma-45), the project for training anaesthetists and operation-room nurses in Ceylon (Ceylon-27), the assistance to mental health institutes and hospitals in Burma, Ceylon, India and Thailand (Burma-37, Ceylon-37, India-71 and Thailand-17), and the inter-country project for assistance to tuberculosis laboratories (SEARO-2). In addition, a project for assistance to hospitals in Afghanistan, another to support the x-ray department of the University of Kabul, advisory services to Burma in hospital planning, are planned to be started before the end of the year. Special reference should also be made to the recent emphasis on chemotherapy in the approach to the problem of tuberculosis control and to the "curative" work which WHO is now starting in Madras (India-53 and 102). Assistance in tuberculosis chemotherapy is also being planned for other countries of the Region. Future projects such as advice on medical care services and production of vaccine and sera are also being planned.

Obviously WHO's work on many of the communicable diseases, particularly leprosy and trachoma (see Ceylon-26, Indonesia-9, Thailand-30, India-101 and Indonesia-31), may be termed curative to a very large degree, as may the assistance to yaws campaigns and, to some extent, that given in the very many projects in this region in nursing care, and maternal and child health in hospitals and clinics.

The details of all these projects may be found in Part II.

8. SOCIO-ECONOMIC ASPECTS
OF WHO'S PROGRAMME

At its eighth session the Regional Committee also requested the Regional Director, when planning health programmes, to "..... co-ordinate them with other aspects of socio-economic development .........", to "include investigation of socio-economic factors impinging on the development of public health programmes through, for example, special study-groups consisting of medical, social and economic experts", and to try to bring together in his reports the activities having a direct bearing on socio-economic aspects.
It is almost impossible to single out those programmes of WHO which have socio-economic aspects, as it is hoped that almost all WHO assistance being given in this region will have some impact on socio-economic development. A good example is WHO's assistance to community projects, described in section 2.1. Its work on rural health units and district health expansion in almost all the countries of the Region and its projects in health education and environmental sanitation are also examples of this type of work. The complete list of projects follows in Part II. In a number of these projects WHO is co-operating with other agencies whose interest lies primarily in fields such as agriculture, education or economic development.

Special attention is drawn to the plans which are being made to hold a rural health seminar and a seminar on industrial and occupational health services in 1957.
PART II

ACTIVITIES UNDERTAKEN BY GOVERNMENTS WITH THE HELP OF WHO

1. AFGHANISTAN

To make the best use of trained personnel, a co-ordinating health committee has been established in Afghanistan to discuss and plan the training and utilization of medical and para-medical manpower. It is expected that by 1957 about 32 doctors will be graduating from Kabul University every year.

Special emphasis has been placed on sanitation. It is proposed by the Ministry to attach one sanitarian, trained in the WHO-assisted School for Sanitarians, to each clinic throughout the country. A sum of 28 million Afghanis has been allocated for setting up a public-health institute for the purpose of centralizing the training of sanitarians, x-ray and laboratory technicians, male nurses and doctors in public-health.

There has been an increasing awareness of the importance of nurse-midwife aides, for whom a training class was started in Kandahar in 1955. In Kabul, the first three-month refresher course in public-health for medical officers was begun in May 1956.

An increasing amount of assistance is being given to Afghanistan from bilateral sources. A five-year plan for community development has now been formulated by the Government.

The list of specific projects in which WHO is assisting is given below:

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<th>Project</th>
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UNICEF

The short-term consultant assigned in May 1955, to advise the Afghan Government on the expansion and consolidation of the national malaria control campaign towards complete eradication, finished his work in August 1955 and submitted his recommendations.

The plan to send a short-term consultant in 1956 has been dropped and, as an alternative, it is now intended that a team consisting of a malarialogist and an entomologist, under the Malaria Eradication Special Account, should be assigned to Afghanistan for about three months in 1957.

Provision has been made in 1956 for an international fellowship for advanced training in malaria control.
At the beginning of 1956, the original project for a School for Male Nurses-Sanitarians, which was begun in July 1955, was divided into two separate projects, namely, a School for Male Nurses (Afghanistan-4), and a School for Sanitarians (Afghanistan-28).

In the School for Male Nurses, a syllabus was prepared, and the first class of nineteen students was enrolled in May. A national opposite number to the WHO male nurse tutor was appointed.

A group of five small buildings adjacent to the Aliabad Hospital was offered as a permanent location for the School, and plans for completing these buildings are under way. In the meantime, a temporary school building has been provided.

Lectures on first aid, nutrition and communicable diseases have been given weekly to village-level workers at the Community Development Project, Shewaki. Attention has also been paid to in-service training for the staff employed on the Aliabad Hospital wards.

WHO has provided transport and some teaching equipment and supplies.

In Afghanistan, there has been a considerable development of public-health activities, with most of which the WHO public-health adviser has been actively associated. He has maintained excellent working relationships with the Ministry of Public Health and with the other international and bilateral agencies working in the country; he has participated in discussions on the question of the reorganization of the Ministry and the setting up of a Health Council.

Surveys of the health services of Mazar-i-Sharif, Kateghan, Janoobi and Gardez Provinces and Herat City were conducted, and recommendations made.

The adviser took part in the various training programmes in public-health which are being given, and delivered a series of lectures on communicable diseases to the students of the Teacher's Training College at Shewaki. He assisted in drawing up the curriculum for the training of multi-purpose village workers in the rural development project in Shewaki, and in organizing the School for Sanitarians and the
School for Male Nurses. It also discussed plans for the Institute of Public Health which is to be constructed in Kabul.

The WHO administrative assistant started a course in office management and procedures for the benefit of the national staff, and reorganized the office of the public-health adviser.

An international fellowship in public-health administration was awarded in September 1955 under TA funds.

**Afghanistan-7 TA**  
**Strengthening of Vital and Health Statistics Organization (April 1956- )**

The purpose of this project, briefly, is to organize the statistical division in the health directorate on sound and efficient lines and to follow up the activities of the training course on vital and health statistics which was held in 1954. Owing to unavoidable delays in recruitment, this project did not begin until April 1956. The WHO statistician gave some lectures in statistics as part of the WHO-sponsored refresher course for medical officers conducted in Kabul (see Afghanistan-23). Some supplies were also provided.

**Afghanistan-9 TA**  
**Tuberculosis Control and Training Centre, Kabul (Nov. 1953- )**

The Centre was established in January 1954 after the arrival of the senior WHO officer, and has operated with all its departments since August 1954. The x-ray technician came early in November 1953 and the other members of the team joined in 1954.

Inadequate electricity supply was probably one factor in an alarming increase of contaminations of cultures in the laboratory early in the year under review. The rate of contaminations was greatly reduced after the WHO inter-country bacteriologist, who visited the project for four weeks, had completely reviewed the techniques.

The progress of the training courses was considerably impeded by the irregular provision of interpreter service for lectures.

WHO has given technical approval to UNICEF's supplying INH for the domiciliary chemotherapy scheme which was started with INH from other sources.
Transport, some chemicals and x-ray and laboratory equipment were provided by WHO. One international fellowship in radiology was awarded in September 1955.

Afghanistan-10
TA
UNICEF

Maternal and Child Health, Kabul

In Shararah Hospital, the number of beds increased from 35 to 60, all of which were occupied. The Midwifery School attached to the Hospital experienced difficulties in finding new students of a sufficiently high educational standard. In October 1955, eight midwives finished their postgraduate training. In January 1956, twelve students were admitted to the first class. There are four students in the second year and six in the third. The domiciliary midwifery service remains very popular, but for several reasons, including transport difficulties, it has recently been decided to limit the working area of this service and to restrict the number of bookings to 25 a month (as against 55 cases delivered in December 1955 and 35 in January 1956).

WHO personnel assisting this project consist of a maternal and child health officer and a public health nurse.

The activities of the maternal and child health centres have been hampered by difficulties of accommodation. Home visiting again was on a modest scale. Attendance of mothers and children remained satisfactory, however, more attention was paid by the national staff to health education.

The maternal and child health personnel from Kabul, national and international, continued to give assistance to the Rural Health Centre at Shewaki. Two midwives are available for domiciliary services, but only during the day. The response of the population has been very good, and neighbouring villages are requesting similar services.

The senior maternal and child health officer and the public-health nurse have continued to give assistance to the Mastoorat Training School for which a WHO nursing tutor had been previously attached for two years. There were five students in the third-year and eleven in the first; no second-year students, because for one year no admissions were made. The authorities have shown much interest in making a fresh effort to develop this school, which went through a difficult period some time ago. WHO has again been asked to provide a nursing tutor for 1957.
The national counterpart of the WHO maternal and child health officer resigned in November and has not been replaced. The counterpart of the WHO public-health nurse was appointed in April 1956.

UNICEF has provided some essential supplies and hospital equipment.

**Afghanistan-12**

**Environmental Sanitation**

(Dec. 1951-Nov. 1952; Jan. 1954–)

The WHO public-health engineer attached to this project has trained two groups of student-teachers in basic sanitation, in co-operation with UNESCO's courses in community development. A curriculum was prepared for the training of village-level workers, started in May 1956, and curricula were also drawn up for the sanitation part of the course in community leadership to be undertaken by UNESCO and for the WHO-assisted refresher course for medical officers (Afghanistan-23).

Advice on water supply projects was given to the Kandahar and Kabul Municipalities. Sanitary surveys of four hospitals were conducted, and assistance was given in the rural development project with respect to the construction of latrines and water supply.

Sanitary and workshop equipment was provided by UNICEF.

**Afghanistan-13**

**Assistance to Faculty of Medicine, University of Kabul** (Jan.-Aug. 1952; Sept. 1953–)

The WHO professors of anatomy and physiology continued their work at the Faculty of Medicine. The counterpart in physiology, at present abroad on a fellowship, is expected to return in September 1956. Both departments possess useful assistants, in addition to counterparts.

In the autumn of 1955 a WHO consultant in medical education spent six weeks in Kabul surveying the medical school. His report, under study by the Government, contains valuable recommendations, one of which — the creation of a co-ordinating committee between the Ministry of Education and Ministry of Health — has been implemented. His opinion was that within ten years the Faculty could be staffed entirely by nationals. Even with the best foreign teachers, teaching through the use of interpreters is time-consuming and unsatisfactory.
In spite of constant effort to fill them, the posts of professors of internal medicine and of public-health still remain vacant. Recruitment is continuing.

Some medical literature and teaching equipment have been supplied.

**Afghanistan-20**

**Vaccine Production (Jan. 1955- )**

This project has made satisfactory progress. The WHO bacteriologist, after undergoing a three-month refresher course at the Central Research Institute, Kasauli (India), resumed his duties, and a national counterpart was appointed, eventually to take over on the termination of WHO-assistance.

The building phase of the programme was started. New methods of producing calf lymph were introduced. Arrangements were made for obtaining laboratory animals.

The five Afghan trainees who went to the Central Research Institute, Kasauli, in 1955 on WHO fellowships finished their training and were posted to the vaccine production laboratory. Two more fellowships were awarded in 1956 for training at the Pasteur Institute, Coonoor (India).

**Afghanistan-21**

**Public Health Provincial Expansion and Nursing Education, Kandahar (Jan. 1955- )**

The first effort towards expanding health services into the provinces started in Kandahar in October 1953 with a venereal-disease clinic attached to a public-health laboratory. One WHO public-health nurse was made available and a maternal and child health clinic was started early 1954. A WHO midwife tutor then joined the public-health nurse; a female hospital was reconditioned, and the clinic was developed into a maternal and child health centre. Although the work went on very slowly - one can visualize the struggle of this small group of health workers doing pioneer work against heavy odds - backed by the continuous interest and support of the Governor of the Province and with tireless help from one of the Afghan doctors, the two WHO nurses have succeeded in starting a modest health service, thus slowly gaining the confidence of the somewhat reluctant population. The nurses are assisted by a group of keen, very young students, selected from a group of school girls. A WHO medical officer joined the team in January 1956.
At the maternal and child health clinic the number of antenatal cases is increasing slowly, and there is a large number of gynaecological cases. In April 1956 the 2000th child was registered. During the first year since the opening of this clinic, in June 1954, 513 mothers have brought their children regularly. This is history for Kandahar. The number of domiciliary cases is increasing slowly from two to seven a month.

Most of the cases admitted to the Female Hospital are again gynaecological ones. There have been a maximum of six deliveries a month. Husbands still discourage their wives from coming or seeking the advice of the midwives, and it will take time to get the hospital accepted by the population. There is now a midwife on duty during the night. Only very few children have been admitted in the new five-bedded children's ward.

Seven students started their regular training as midwife-helpers in September. The number of deliveries in hospital and domiciliary service has been inadequate for proper training, especially since it is difficult to retain the students for night duties. The lack of an interpreter has been another serious drawback.

**Afghanistan-22**

**Environmental Sanitation, Kabul Municipality**

(No,.-Dec. 1955; March 1956)

A short-term consultant visited Afghanistan in November 1955 and carried out a survey of the sanitation and water-supply in Kabul city. He has recommended the introduction of piped water supply; sewage treatment with activated sludge; night-soil conservancy system and use of latrines and enactment of public health laws. To assist the Government in carrying out these recommendations, a WHO public-health engineer was assigned in March 1956.

Plans have been made for the creation of a Sanitation Section in Kabul Municipality. Specifications of the latrines to be built in the city have been laid down, and the construction phase is proceeding.

**Afghanistan-23**

**Refresher Course for Medical Officers** (April-Aug. 1956)

This first three-month course, postponed from 1955, started on 20 May 1956. It was designed to provide intensive in-service training for provincial medical officers, with theoretical and practical instruction in modern methods of public-health practice.
A short-term consultant in public-health administration was assigned in April/May 1956 for seven weeks, to assist the Government in making the preliminary arrangements for the course, including the drawing up of a tentative curriculum. In addition, active assistance was given by the Director of Health Services of the Regional Office and the public-health adviser and other WHO project staff in Kabul. The malaria adviser of the Regional Office gave a few lectures in his speciality.

Half the cost of travel and maintenance expenses of the medical officers from outside Kabul attending the course was paid by WHO, and secretarial assistance and some requisite office supplies and equipment were also provided.

Six provincial medical officers and three from the staff of the Ministry of Health at Kabul, besides occasional observers from the general medical body, attended the course. The programme comprised a series of lecture-demonstrations in public-health administration, epidemiology, communicable diseases, vital and health statistics, environmental sanitation, health education, etc., and the presentation of papers on selected subjects by the participants. The course was greatly appreciated by all; the general complaint was that it was too short. It was the first time in the careers of most of the participants that they had received instruction in preventive and social medicine.

**Afghanistan-25**

**Assistance to Public-Health Laboratory, Kabul**

(May 1956- )

This project began with the arrival of a WHO laboratory technician in May 1956. The training of national laboratory technicians has since been intensified.

**Afghanistan-26**

**Rural Health Unit, Sherwak**

(April 1956- )

This project, in which the Government is being assisted by WHO and UNICEF, aims at (1) improving rural water supplies and excreta disposal within the eleven villages of the project; (2) devising simple, practical and economical sanitary works and testing their applicability on a pilot scale; (3) extending similar sanitation programmes to other rural areas; and (4) training sanitarians and other staff engaged in the project. WHO is providing the services of a sanitarian for a period of three years, an international fellowship in 1956 and a regional fellowship in 1957. UNICEF is providing supplies and equipment.
After the sanitarian was assigned in April 1956, a preliminary survey of the project site was made, and a site for a central mixing and casting plant selected.

**Afghanistan-28 School for Sanitarians (July 1955- )**

The project originally known as "School of Male Nurse-Sanitarians" (Afghanistan-4) was found administratively difficult to develop, and accordingly, in the beginning of 1956, it was divided into two parts, one of which is the "School for Sanitarians".

A WHO sanitarian is attached to this project. Since his arrival a syllabus has been prepared, and the first year's course started with sixteen students. The course is being given temporarily in the Library of the Ministry of Public Health, pending the selection of a permanent site for the school.

Lectures were given to village-level workers (trainees of the Rural Development Project in Shewaki) and to female nurses of the Mastoorat Hospital.

A national counterpart has been appointed.

WHO has provided transport and some teaching equipment and supplies.

**Afghanistan-31 Institute of Public-Health, Kabul (April-May 1956)**

A WHO specialist in public-health administration was made available to the Government for five weeks in April and May, to advise and assist the Government in developing a suitable plan for the proposed Institute of Public Health. His report will be forwarded to the Government at an early date.
2. BURMA

For the year 1955-56 the Burmese Government has budgeted an amount of 28.86 million kyats for expenditure in the medical and public-health fields, thereby showing a per capita expenditure for health of 2.14 kyats. The percentage of the national budget devoted to health has been maintained. The tempo of development has had to keep pace with the economic situation of the country.

In 1955, the Rangoon Medical College graduated 102 doctors, and in 1956 it is expected that the number will be 120. A short-term refresher course for lady health visitors was held in Rangoon towards the end of 1955, with 20 participants. Another course was held in April 1956. A three-month refresher course in paediatric nursing, with nine participants was completed in March 1956.

The national malaria programme has been expanded, and plans have been formulated for progress towards eradication.

Reorganization of the health administration structure continues.

The list of specific projects in which WHO is assisting is given below:

<table>
<thead>
<tr>
<th>Project Code</th>
<th>Project Description</th>
<th>Duration</th>
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<tbody>
<tr>
<td>Burma-2 TA</td>
<td>Malaria Training and Control, Lashio and Maymyo</td>
<td>April 1951-Dec. 1955</td>
</tr>
<tr>
<td></td>
<td>WHO's assistance to this project was concluded at the end of 1955, when the malarialogist, the entomologist and the sanitarian were withdrawn.</td>
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<tr>
<td></td>
<td>Training was given to sixty persons - malarialogists, malaria assistants, entomological assistants, malaria inspectors and laboratory technicians - belonging to the national malaria campaign. In addition, eighty-eight army personnel were trained in malaria control methods, and seventy-three general public health workers were given brief courses of training in malaria and its control.</td>
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<tr>
<td></td>
<td>One regional fellowship in entomology was awarded in November 1955, and some medical literature was also provided.</td>
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<tr>
<td>Burma-7 Regular</td>
<td>School of Nursing, Dufferin Hospital, Rangoon</td>
<td>March 1953-June 1955</td>
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<tr>
<td></td>
<td>This project was started in 1953 with one international midwifery tutor. A second one was appointed early in 1954.</td>
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During the year under review, the development of the teaching programme continued. The basic training programme has now been well established, and approximately two hundred midwives a year are going into the field better prepared for their professional activities. Supervision of such a large group of students will remain a problem until the graduate staff of the hospital can be increased.

The domiciliary field is now well developed and is being used for both student and graduate experience. There are approximately one hundred home deliveries a month; this provides adequate experience for student groups, but necessarily limits the number of graduate staff that can be accepted for training in this aspect of midwifery services. Each student now spends two months in domiciliary training: one month at the maternal and child health centres, and one month in the field.

The lady health visitor on the teaching staff has been replaced by a public-health nurse with training in nursing and midwifery. Medical literature, reference material, and a small amount of equipment were supplied for this project in 1956.

In two three-month refresher courses training was given to lady health visitors. The regular staff education programme in the hospital continues.

Midwifery notes have been brought up-to-date, and stencilled and bound copies are now available; they have been translated into Burmese and are being printed. Until the translation of some nursing textbooks can be completed, they will meet an urgent need and are in great demand by students and tutors.

The national staff took over the responsibility for the programme on the withdrawal of the WHO personnel in June 1956.

During the year, 435 students completed their training; 350 students are under training. This represents a steady increase in enrolment in this important midwifery school in Burma.

Tuberculosis Adviser and Lecturer (July 1955- )

The WHO adviser arrived in July 1955 and has since made a study of the facilities for tuberculosis control in Burma and possibilities for expansion of present activities. He has taken part in the teaching
of medical undergraduates, and has proposed plans for a country-wide tuberculosis survey, BCG consolidation and the participation of general practitioners in tuberculosis control programmes.

The inter-country bacteriologist reviewed the laboratory work in Rangoon and Mandalay during the year.

One international fellowship in tuberculosis control was awarded in May 1956, and some X-ray equipment and medical literature were supplied.


A WHO BCG nurse was assigned to Burma about the end of June 1956 for a period of six weeks to review the technical standards of tuberculin testing and BCG vaccination in use by the teams engaged in the BCG mass campaign, particularly as regards the reading of tuberculin tests and to advise the Government how best to correct any deficiencies. Her report is awaited.

**Adviser to the Division of Nursing, Health Directorate, Rangoon (Jan. 1955-Jan. 1956)**

This project was begun in January 1955 in order to assist the newly established Division of Nursing within the Directorate of Health Services. Assistance was given by the WHO nursing adviser in: (1) planning a programme for the development of nursing in the country; (2) the development of nursing administration within the Directorate of Health Services, and (3) developing programmes for the training of all categories of nurses and for the supervision of nursing services in institutions and in the field. Some medical literature was also supplied.

A series of documents was submitted to the Ministry and the Directorate of Health, many of them fundamental to the development of the Division of Nursing. They have been assembled as a Manual of Documentation for convenience of reference.

WHO's assistance to the project terminated in January 1956 when the national chief nurse took over full responsibility in the Division of Nursing.

The following are the main achievements of this project:

1. The Nursing Division has now undertaken
co-ordinating functions in respect of programme planning for the development of nursing services throughout the Union, a review and revision of nursing curricula and syllabi, the institution and expansion of nursing training programmes to meet nursing needs, and the compilation of registers of graduate staff of various categories. Many matters relating to nursing are now being channelled through the Division.

2. Curricula for basic training and detailed syllabi were prepared as required by the Central Midwives and Nurses Council, some subjects being added to meet the needs of the expanding health services and to conform with modern trends in nursing education. The Directorate of Health Services approved the syllabi, and a "working-guide" has been prepared for gradually introducing them and for assisting examiners. Curricula and syllabi for the training of midwives, public-health nurses, lady health visitors and sister tutors were also revised.

3. Justifications were drawn up for requirements in teaching staff (for the post-graduate school, the field training programme and the lady health visitors course) and for integrating public-health into the basic nursing curriculum. These have been accepted by the Directorate of Health. Other standard requirements were prepared, based on a survey of training schools.

4. Salary scales for the nursing profession throughout the Union were reviewed and revised, and the revised Nurses Act was cleared by the Central Midwives and Nurses Council and is at present with the Directorate of Health.

**Burma-18**

**Tuberculosis Control and Training Centre, Mandalay (July 1954-)**

This project was set up in July 1954, but because of various delays did not start to operate until March 1955. The WHO team has consisted of a medical officer, a laboratory technician, an x-ray technician and a public health nurse. The public health nurse left the project in June 1956.

The domiciliary service seems to have made the most progress; about 75% of the contacts of known infectious cases are said to be currently under observation. For a considerable period during the year, the lack of drugs such as INH prevented effective work in the homes. Unfortunately very few professional or technical trainees were made available because of financial reasons or because candidates of a suitable kind were not forthcoming.
One regional fellowship in tuberculosis control was awarded in December 1955, and transport and some essential equipment have been provided.

School for Health Assistants, Rangoon (Jan. 1954-Dec. 1955)

This project was set up to advise and assist the Director of the Health Assistants' School, which was started in October 1951, in further developing the programme of instruction for para-medical (auxiliary) personnel, and to advise the Ministry of Health on the employment of such personnel. The WHO expert was posted in January 1954. He worked for two years on the practical and theoretical training programme of the school, until the end of 1955, when the project was terminated.

Since the school began, 436 students have received instruction and 260 have graduated. The final report of the WHO expert contains certain recommendations specifically with regard to the adjustment of the work programme to prevailing conditions and the general upgrading of training facilities.

Five fellowships have been awarded, one of which, was completed in April 1956, and a small amount of medical literature and equipment were provided.

Strengthening of Health Education Bureau, Rangoon (Aug. 1955-)

The WHO health educator assigned to this project arrived in Rangoon in August 1955, on a one-year assignment.

Of special significance have been a series of orientation sessions in health education which have been arranged for the staff of the Bureau, and a study of the Bureau, its present activities and its long-range plans.

A one-month intensive course was arranged for the thirteen assistant health educators working in districts in Rangoon; they have studied health education in relation to specific problems, i.e. sanitation, nutrition, tuberculosis, leprosy, malaria, venereal diseases and smallpox, and have considered health education in relation to schools, to maternal and child health work and to mass education programmes, and the development of inexpensive visual aids, for use in educational programme on special health problems.
Emphasis has been placed on training various categories of personnel in health education techniques and methods. Short courses were given to the physicians to be posted as assistant district health officers, to public health nurses and other health personnel. Sessions were arranged for educators, community workers and other professional groups.

One international fellowship was awarded in December 1955 and another in May 1956.

**Vital and Health Statistics, Rangoon (Dec. 1955—)**

The immediate objective of this project under an amended plan of operations is to improve the vital statistics system. The WHO specialist took up his duties in December 1955. He and his national counterpart made a study of existing methods and of the recommendations of the inter-departmental committee on vital and health statistics, and established working relationships with the various agencies concerned with vital data. New regulations have been drafted and registration forms designed, incorporating the "draft entry" system for statistical purposes. A detailed programme has been worked out for developing in stages the committee's recommendation for the centralization of processing and tabulation. Implementation of the new system and training of personnel have been hampered by lack of clerical staff and office accommodation, but it is hoped that this will shortly be remedied.

WHO provided three calculating machines for this project and awarded a regional fellowship in vital and health statistics in September 1955.

**Post-Graduate School of Nursing, Rangoon (Jan. 1955—)**

This project is a continuation of a part of the WHO/UNICEF assisted maternal and child health project (Burma-6), which was completed in December 1954 and through which assistance was given in establishing a course in public-health nursing and in strengthening the course for lady health visitors. The public-health nurse educator assigned to this project in January 1955 was withdrawn in November 1955.

The new plan of operations, which was submitted to the Government in November 1954, provides for the two courses to be continued by national teaching personnel and for a course for general nursing tutors to be developed. Later, it is planned to establish a course for midwife tutors. This plan of operations has only recently been signed.
Pending the recruitment of new WHO staff, the project has been held in abeyance. No public-health nursing students have been enrolled since 1954, but the training of lady health visitors has been continued by the national staff. The proposed construction of a new building for hostel and classrooms for all groups in the Post-Graduate School of Nursing has been indefinitely postponed.

It is planned to enrol a new class of public-health nursing students and also to start a course for the training of nurse tutors, WHO will provide a nursing tutor late in 1956 and a midwife tutor in 1957. Some medical literature have been supplied.

**Nutrition, Rangoon (Aug. 1954- )**

In accordance with the aims of this project, to assist the Government in an assessment of the nutritional status of the population, the WHO medical nutritionist continued to carry out surveys and undertook an analysis of those already completed. Because of local conditions, surveys had to be confined to Rangoon city and its immediate surroundings. This has been particularly unfortunate in beriberi investigation.

A WHO biochemist was added to the project in October 1955, to help with the laboratory side of the project, for which the Ford Foundation is providing some supplies. WHO also furnished some supplies and medical literature.

During 1955, 15,169 children, largely from cities, were examined. Of these, 5.9% of the boys and 3.4% of the girls were found in poor nutritional status. It was clear from the findings that milk is needed by every schoolchild in Burma. Surveys of the nutritional value of the average diet were carried out in Insein and Bassein.

Early in 1956, nutrition surveys were made in some Rangoon schools, and an improved diet scheme was worked out. In the data collected on the height and weight of school children (ages 5-18), the figures, by age-groups, were found to be lower than for Asian children elsewhere. Registration of the beriberi cases reported by district health officers was started. An enquiry into the prevalence of beriberi, which was started, showed that of the 380 mothers and 119 babies so far examined, many had overt beriberi.

The Chief of the Nutrition Section at WHO Headquarters visited Burma towards the end of 1955 and
made a study of the problem of beriberi in the country. Among the proposals made in his report were a study of rice-milling, with special attention to vitamin B1 left in the grain. He also discussed possible assistance to the Government in formulating a policy on milling e.g. parboiling of rice or, as a last resort, rice-enrichment or addition of other diet supplements.

**Burma-28**

**Assistance to Medical College, Rangoon (Feb. 1955- )**

At this college, the WHO visiting professor of physiology has instituted studies in research methods among the staff. The large ratio of students to staff -- at times up to 32:1 -- does not make for efficient teaching, and the resignation of two trained staff members for more lucrative posts has affected progress. Steps were taken to integrate psychology into the physiology course and a laboratory manual was completed and is in use.

The WHO professor of preventive and social medicine prepared a detailed curriculum of undergraduate studies on this subject, combining them with other subjects of the medical course. The undergraduate course has continued as planned, with seminars, group teaching, visual aids and visits. Plans are in hand for refresher courses for medical officers. The University is considering the establishment of a professorial chair in preventive and social medicine.

The WHO professor of pharmacology, who was posted in January 1956, has an experienced counterpart (recently returned from advanced studies abroad), and is thus freer to devote his time to helping with the development of departmental research. Monthly meetings of the medical college staff have been established, and a committee was appointed to deal with library operations.

It is expected that the above group of professors will make a noteworthy contribution to the progress of medical undergraduate teaching and to the stimulation of enquiry and research.

The staffs of the Rangoon Medical College and General Hospital have been strengthened by the return of two of their members from fellowships, who have received higher degrees in clinical pathology and biochemistry, and in anatomy.

An international fellowship in microbiology was awarded by WHO in June 1956, and some essential supplies were provided.
Burma-30
TA

Strengthening of Environmental Sanitation Bureau, Rangoon (April 1956-
)

Efforts continue for the recruitment of a public-health engineer. A regional fellowship was awarded in April 1956.

Burma-31
TA

Strengthening of Malaria Division, Rangoon (May 1954-
)

A senior national malariologist is now in charge of the anti-malaria organization, and is also working as the counterpart of the WHO malariologist who has been assigned to this project since May 1954.

One regional fellowship was awarded in November 1955, and a WHO sanitarian added to the team early in 1956.

It is expected that before the end of the 1956 spraying season 4.25 million people will have been protected, as against the target of 6.2 million. WHO will provide one malariologist, two sanitarians and one entomologist to assist in advancing the country-wide malaria control programme to one of eradication.

A proposal for the setting up of a malaria institute is under consideration by the Government.

Burma-32
TA

UNICEF

Rural Health Unit (Dec. 1955-
)

This project aims at establishing a rural health unit near Mandalay, which, besides providing teaching and training programmes for rural health workers of all categories, will demonstrate an integrated programme of environmental sanitation, health education, nursing education, maternal and child health, etc. With the approval of the Government, it has been decided to postpone the implementation of this project until 1957. WHO will provide a public-health officer, a public-health nurse and a sanitarian, and UNICEF equipment and supplies.

One regional fellowship in public-health was awarded in December 1955, and two more - one in public-health and the other in nutrition - in 1956. All three fellows commenced their training in May this year.

Burma-34
TA

UNICEF

Environmental Sanitation (March 1956-
)

A start has been made, with the posting of a WHO sanitarian to Aung San Myo in March 1956.
The WHO consultant in public-health administration assigned to the Health Directorate in March 1955 completed the first phase of his work in October. He carried out a survey of the existing organization and administration of the central health services and studied the role of the Health Directorate with a view to maximum utilization of the available health personnel. He assisted in devising procedures and practices relating to the operation of the Directorate of Health Services and to the co-ordination of its work with that of other directorates and ministries concerned with health.

Special attention was paid to the organization of district health work, including rural health services, and the WHO consultant has prepared a report on this subject. He has emphasized the importance of having a unified direction of rural health work at the different levels of administration, and is helping to guide the work of the rural health training centre at Aung San Myo in Insein District.

The consultant has undertaken the planning of integrated maternity and child welfare work, with the expansion of the maternal and child health centres into urban health units. He has also studied problems relating to the integration of curative and preventive work and, for evaluation, has developed practices and procedures for the constant assessment, guidance and supervision of health activities.

A preliminary report on the re-organization of health services was prepared.

The consultant was re-assigned to the health Directorate in Rangoon in April 1956. As a result of discussions with the national health authorities, it was decided that for the rest of the period of his assignment, he would be mainly concerned with helping to implement the recommendations already made.

Towards the end of 1955 a WHO short-term consultant made a survey of mental health needs in Burma. On the basis of available facilities, he was able to estimate the requirements in mental hospital accommodation and to devise a programme for the provision of mental hospital beds. He also recommended, inter alia, that a psychiatrist should be appointed at the directorate level. He gave special attention to the problem of training physicians and nurses and drew up a minimum training programme.
A WHO specialist in medical stores management was made available to the Government of Burma in July 1956. He will make a study of the present system of purchasing, store-keeping and distribution of drugs and medical supplies and assist in the re-organization and management of the civil medical stores, with a view to assuring better distribution of medical supplies and drugs to hospitals and other medical institutions in Burma.

A short-term refresher course in pediatric nursing was held from 15 December 1955 to 15 March 1956 at the Nursing School attached to the Rangoon General Hospital. Nine students from various parts of the country attended this course, which was conducted with the assistance of the two WHO nurse tutors attached to the School of Nursing, Dufferin Hospital, Rangoon.

Until the end of 1954, this project was carried on as part of the WHO/UNICEF-assisted maternal and child health project (Burma-6). WHO has provided a general nurse tutor and a midwifery tutor since its inception. In July 1955 a WHO public-health nurse was added to the team for the domiciliary aspect of midwifery training and to assist in developing public-health as an integrated part of the basic general nursing curriculum.

The results to date have been disappointing. Until the last year, student enrolment has been very small, and the nursing staff and basic equipment have been inadequate. The hospital building, seriously damaged during the war, has been in a bad state of repair, and the hospital lacks many basic utilities.

During the past two years a certain amount of progress has been made, although plans for a nurses' hostel and school building have not materialized.

In the domiciliary field, in-service training in ante-natal and post-natal procedures has been given to the midwives participating in field training in the maternal and child health centre. It will not be possible to develop the ante-natal clinic or to establish a post-natal clinic at the hospital until a doctor and some graduate midwifery staff have been appointed. It is planned that all pupil-midwives will have two months of field experience.
Some essential equipment and supplies were provided, and this has made some improvements in ward practice possible, but the programme is still seriously hampered by the poor state of the building and the lack of sufficient graduate staff. Sanction has recently been granted for additional staff.

There are 78 nursing and 36 midwifery students in training. Two nurses and 32 midwives completed training during the year.

**District Health Expansion Programme (Jan. 1955- )**

This project, which aims at the co-ordination and integration of maternal and child health services and other health activities within the district health programmes, has been in abeyance since December 1955 when the WHO public-health nurse was withdrawn. During her assignment she undertook extensive fact-finding tours of the eight provincial centres mentioned in the plan of operations and held discussions with local health officials, mass education organizers and others attached to rural health units, maternal and child health centres and other specialised services.

Her survey showed that one of the first essentials for improving the health services in the districts was co-operation among all workers, with regular co-ordinating meetings of the local officials. With regard to the development of nursing facilities, senior public-health nursing personnel are needed to guide and supervise lady health visitors and midwives. A number of trained public-health nurses who received post-graduate in-service training in Burma are available for employment in the districts, provided a sufficient number of posts are sanctioned by the Government.

As a result of the survey, detailed recommendations for the organization of integrated district health services have been submitted to the Government.

One regional fellowship in public health was awarded in December 1955, and another in venereal-disease control, in March 1956.

**Communicable Diseases Control (Epidemiologist)**

This project will be implemented when a suitable expert can be recruited. Equipment is being provided.

**Strengthening of Laboratory Services (Jan. 1955- )**

With the assistance of the WHO expert, a training course for seven technicians was started in November 1955.
at the Pasteur Institute. Four sets of laboratory equipment for four general laboratories, at a cost of about $12,000, were procured by WHO. Various serological laboratories attached to venereal-disease clinics were visited with a view to assessing their suitability for upgrading as general laboratories.

From 1 November 1955 to 31 January 1956, a short-term refresher course for lady health visitors was held, with twenty students - seven from Rangoon, three from Mandalay, and ten from other districts of Burma. In giving their evaluation after completing the course, the students reported that they had found the part devoted to health education the most valuable aspect of the programme.

Another course was started in April 1956 for a further eighteen students.

WHO nurses in Rangoon took an active part in planning and conducting these courses, and UNICEF paid stipends and travel costs.
3. CEYLON

The Government of Ceylon during the year 1955-56 allotted a total of Rs. 105.3 million for expenditure on health. This is 11.06% of the total budget.

There is a great shortage of medical personnel, with 1,522 doctors in the island, which gives a ratio of about 5,600 people to one doctor. Plans are accordingly under way to establish a second medical college in Peradeniya. Nurses number 1,496, of whom 923 are fully trained and the others emergency nurses. The Rural Health Development Centre at Kalutara is giving public-health training to medical and paramedical personnel and may gradually develop into an Institute of Hygiene.

The national malaria control programme has developed to the stage at which interruption of residual spraying has been possible, and plans for the adoption of eradication measures are under way.

Since the inception of the BCG campaign, a total of 2,231,395 people have been tuberculin-tested. A well-organized tuberculosis service is gradually being established.

The list of specific projects in which WHO is assisting is given below:

Ceylon-2
TA
UNICEF

Health Education of the Public, Colombo and Kandy
(March 1952-April 1953; Sept. 1954-

In September 1954, the present WHO health educator began a two-year assignment to advise and assist the Government in planning and developing a health education programme. During the past year there has been much progress in implementing a national scheme for health education. The national health education officer appointed in October 1955 has increasingly assumed responsibility for the administration and programme of the Sub-Division of Health Education in the Directorate of Health Services. A Health Education Materials Production Unit, which includes reference and film libraries, has been established within the Division. This Unit also provides coordination in the production of materials for the use of other divisions in the Directorate and for that of the field staff. Health education field workers were assigned in October 1955 to each of the 15 Superintendents of Health Services and to specialized campaigns, including those for the control of venereal diseases, tuberculosis and malaria. These field workers were formerly public-health inspectors who were selected for an intensive two-month training course in health education. A one-week refresher course for health education field workers in the country was held in May 1956 in Kalutara, where regular training for all categories of health personnel continues.
Assistance has been given to the Education Department in setting up a new health education syllabus for teacher-training colleges. Courses in health education were given at the Faculty of Education and the Faculty of Medicine of the University of Ceylon.

A health education officer has been assigned to the Fundamental Education Project, Hingurakgoda. It is expected that this project will amalgamate its training with that of the Dalugama Rural Development Training Centre, which is to become a training centre for rural development officers.

The WHO health educator assisted with a scheme for the re-organization and expansion of the health education work of the Public-Health Department, Colombo Municipal Council. Assistance has also been given to the Kandy Municipality in re-orienting the health education programme of the Department of Health.

Rural Health Development, Kalutara (Sept. 1955- )

This project started in September 1955 with a WHO paediatrician and a national counterpart. A WHO public-health nurse joined the team in October, and her national counterpart started work in January 1956. A consultant in public-health administration was assigned by WHO recently.

Among the main objectives of the project are:

1. to assist in the development of maternal and child health services integrated into the general services of the Kalutara Health Unit area;

2. to assist in the development of the children's department at the Kalutara Hospital;

3. to establish co-ordination between hospital and field services; and

4. to assist in teaching and training personnel.

In the hospital, a 35-bed children's ward is available, and a new ward is planned. Medical and nursing care has been improved, and experiments are under way to educate mothers on the wards. Working procedures in the children's out-patient department at the hospital have been improved, and health education was started. A group of senior schoolgirls has taken an interest in the work of this children's department and visit it regularly.
The procedures of the well-baby clinics have been improved, and preliminary efforts were made to train apothecaries in keeping well-baby clinics. Home-visiting by public-health nurses was reviewed, more emphasis being placed on selected or special cases than on routine visiting.

The team gave lectures to seven student public-health nurses who started training in January; it also took part in training 46 pupil midwives.

A beginning has been made in establishing close liaison between curative and preventive child care services in the area.

In May 1956 an international fellowship in public-health administration was awarded.

Ceylon-8 Regular

Nurses' Training School, Colombo (Oct. 1951- )

This project was started in October 1951 for the purpose of:

(1) strengthening and upgrading the training of nurses;

(2) correlating the theoretical and practical aspects of the training programme;

(3) integrating public health in the basic curriculum.

In the beginning, emphasis was placed on the first two objectives, both of which have now been successfully achieved and are being maintained by national personnel. To attain the third, a WHO public-health nurse was appointed in September 1954. After a satisfactory start this aspect of the programme was unfortunately disrupted, as the national counterpart was transferred to Calle. There will be no continuity when the WHO nurse leaves in August.

Courses in the appropriate preventive subjects have been included in the curriculum, and prevention and health teaching are being taught as a part of all other subjects. A student health programme, including a stool survey and follow-up treatment, has been introduced. The practical application of health teaching to student health is being demonstrated, as a means of illustrating methods of giving health education to patients.
Students are being assigned in groups for four weeks to Welisara and Colombo for training and experience, including the institutional, clinic and home-visiting aspects of tuberculosis nursing. Other available community public-health services in Colombo are also being utilized for student observation and training.

There are now 276 students in training, including 20 emergency nurses. During the year 63 were graduated.

Some teaching equipment and medical literature have been supplied to this project.

Nurses' Training School, Kandy and Galle (Jan. 1952-)

WHO personnel attached to this project consists of a general nursing tutor (senior nurse) and a public-health nurse. Both of them will be withdrawn at the end of 1956, by which time it is expected that the national teaching staff will be capable of continuing the project. WHO has also supplied equipment and medical literature for this project.

At the request of the Government, the plan of operation was extended to include the new School of Nursing at Galle, and the senior WHO nurse transferred to Galle to assist in developing it.

In Kandy, in order further to strengthen the integration of public health into the basic nursing programme, the students are being assigned to the Health Unit at Kurunegala, to gain experience in public-health work by undertaking home visits with the public-health nurse, midwives and public-health inspectors. The students also attend well-baby, ante-natal, venereal-disease and tuberculosis clinics and participate in school health services. The national and international public-health nurse tutors are collaborating closely with those in Colombo in order to help establish a uniform pattern of public-health training suitable for all basic nursing schools in Ceylon.

The building of the school at Galle has been completed, and some equipment has been ordered and received. The curriculum was prepared and the first class of 59 students started in April. A course of lectures in home nursing was given.

Eighty students are in training at Kandy and fifty-nine at Galle. Twenty-seven students graduated from Kandy during the academic year 1955-56.

Both these WHO-assisted schools (Kandy and Galle) will now play a basic role in the teaching of nurses in Ceylon.
The WHO tuberculosis adviser to the Government of Ceylon was asked to take over the direction of the team attached to this project after its senior WHO officer left in March 1955. When the adviser himself left at the end of 1955, the national director of the tuberculosis campaign supervised the work of the WHO team and towards the end of 1955, it became possible for it to undertake properly organized training of technicians in both laboratory and x-ray work.

The new senior WHO officer, who came into position in May 1956 on a six-month appointment, will have as his chief task to help organize a national tuberculosis survey.

The WHO x-ray technician has prepared an instructional manual for the special use of national technicians working in tuberculosis centres and on survey work.

Leprosy survey work was undertaken in the Colombo Municipal area, the urban areas of Kalmunai and Pandura, Homagama in the western province, and some parts of the eastern, southern, northern, and central provinces. The WHO leprologist visited these places and gave practical training to medical officers, public-health inspectors, apothecaries and nurses engaged in survey work.

A microscope and other essential equipment and supplies and also some medical literature have been provided.

Plans have been made to start a pilot project for the rehabilitation of leprosy patients in Urugaha.

This project has two objectives: (a) the establishment of a post-graduate course in anaesthesiology, to prepare trained anaesthetists for the Colombo and provincial hospitals, and (b) the establishment of a post-graduate course in operating room techniques, to train nurses to assist in the Colombo and provincial hospitals as operating-room nurses.
With the assistance of a WHO anaesthetist, the course started in August 1955, and was given to five regular trainees over the next five months. A group of eleven medical officers also followed part of the training, eight of whom were given "emergency training" in order to enable them to carry on the work in provincial hospitals until fully trained anaesthetists became available.

As was hoped, the course has developed into a diploma course in anaesthesiology (D.A.) for which the University has taken full responsibility. It was intended to convert this project into a Regional Training Centre. Unfortunately the WHO teacher will not be associated with the diploma course, and the standards of training are now not likely to attract students from other countries.

As for the nursing aspects, the WHO nurse arrived in June 1955, and helped prepare a scheme for the training of operating-room nurses. This course suffered from the fact that no full time counterpart was provided. An added disadvantage has been that, following the transfer of responsibility for the anaesthesiology training from the Health Directorate to the University, the course has been an isolated activity within the Colombo General Hospital, as it is not attached to any post-graduate nursing centre.

Two classes of four nurses each were trained, and all the nurses suitably assigned. No students were recruited for the courses beginning in February and May 1956, with result that, since the completion of the assignment of the WHO nurse in May 1956, the course has been in abeyance.

WHO assistance terminated in July 1956.

ECG Vaccination (May 1954-March 1956)

The WHO nurse relinquished her duties at the end of the first quarter of 1956. In her final report she states that, in addition to training her opposite number, she had the responsibility for training:

(a) nurses, public-health inspectors and clerks attached to the mass campaign;

(b) public health nurses and public-health inspectors to carry out, subsequently, "residual vaccinations" in the areas of medical officers of health and of officers in charge of health offices;
(c) classes of health visitors who were being trained in the nine-month courses organized and supervised by the preventive section of the tuberculosis campaign;

(d) individual nurses who had been appointed to carry out BCG vaccination at chest clinics.

In all, 38 public-health inspectors, 18 public-health nurses, 13 tuberculosis health visitors and 2 chest-clinic nurses were trained in BCG techniques during the period 1 November 1954 to the end of March 1956.

Environmental Sanitation, Kurunegala (March 1955– )

The WHO public-health engineer continues and a Sanitarian is under recruitment.

Work on the construction of latrines and wells has been started. A pilot pre-operational health survey is being conducted in Tissaw Kamale, and a survey of a rural area was made with a view to providing it with piped water supply.

In February-March 1956, a member of the Environmental Sanitation Division at headquarters reviewed the operations, and action is now being taken to implement his recommendations. Early in the year a health assessment survey was made by a WHO statistician.

The public-health engineer has prepared a plan of action for the coming two years.

A short-term consultant to assist the Government in drawing up a sanitary code is being recruited.

One international fellowship in sanitary engineering was awarded in August 1955.

Tuberculosis Specialist, Colombo (May 1954–Dec. 1955)

The adviser who was assigned to this project in May 1954 requested repatriation at the end of 1955. According to his final report ".... the result of our activities has been .... an increasing interest for the preventive aspects of tuberculosis control from the side of the leading officers of the Health Department as well as from the side of medical
Something has been done to introduce better and cheaper methods for the diagnosis and treatment of the disease. A uniform recording and reporting system has been introduced.

With his final report the adviser also presented, as a separate document, a ten-year plan for tuberculosis control in Ceylon.

A WHO short-term consultant in mental health was assigned to Ceylon from November 1955 to January 1956. After making a study of the existing services for mental defectives and the needs of the country, he considered that, in view of the urgency of important basic problems of agriculture, housing and education, only limited priority should be given to any major scheme for the care and training of mental defectives. He made a number of recommendations for the upgrading of mental health facilities, especially with regard to the training and care of mental defectives. He especially recommended that the needs of the mentally subnormal child should be met as far as possible by improving and extending the existing child welfare, educational, health and social services to all children, and that the labour, health and social services should similarly provide for the needs of the handicapped adult. He has also stressed the importance of co-ordination of the various services available to the mentally defective through the creation of a mental deficiency section of the Mental Health Services in Ceylon.

His recommendations have been submitted to the Government.

The WHO epidemiologist was assigned in February 1956. He made preliminary visits to Kalutara, Galle, Kurunegala, Kandy, Anuradhapura and Trincomalle, to survey the pattern and assess the problems of infectious disease control. He held discussions with the officers connected with the national programmes on malaria, filariasis, tuberculosis, intestinal diseases and zoonoses and submitted a report on the care of infectious diseases in the Colombo Group of Hospitals and the Fever Hospital in Angoda. A start has been made in the formation of an epidemiology unit.

WHO has provided a calculating machine and some other essential supplies.
4. India

In India some of the main events in public health during the year under review were:

(1) The planning for the Second Five-Year Plan, which has forced a certain amount of assessment of the accomplishments during the First Five-Year Plan period;

(2) The emphasis in the Second Five-Year Plan on community development, including health development, with a provision for not less than 40 per cent of the national extension blocks (approximately 1,120 blocks) to be converted into community development blocks, and for 20 crores of rupees to be made available for health and rural sanitation;

(3) The increased attention focussed on the problems of medical and nursing education through the preparation and the holding of the National Medical Education Conference and the recommendations of the Nursing Advisory Committee;

(4) The stimulation of medical research through larger grants being made available to the Indian Council of Medical Research and the important policy recommendations that medical colleges should be given priority in assistance for research activities, and

(5) The establishment of the Central Health Service for Class I and Class II officers working under the Government of India.

India continued to be a centre for the absorption of large-scale assistance, namely, from the United States of America, the United Kingdom, Canada, New Zealand and recently the USSR.

In the assistance given in health work in India, bilateral agencies and also the Rockefeller Foundation are moving more and more into WHO fields of interest. The National Health Co-ordinating Committee is doing very useful work in preventing duplication of effort. However, this increase in international assistance from other agencies means that it will be necessary to direct WHO's assistance to those fields in which the Government has already provided funds and has made advance preparations for using it, for example, in community projects.

The budget provision for the Central Ministry of Health for the year 1956-1957 did not show any appreciable percentage increase. There was, however, a large increase in the actual amounts of funds available: from 7.98 lakhs in 1955-1956 to 10.5 lakhs in 1956-1957. It is difficult
to obtain a true picture of the financial resources available for health in India, since they are distributed through many agencies and the estimates differ so widely as between the various States.

The list of specific projects in which WHO is assisting is given below:

<table>
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<tr>
<th>Country</th>
<th>Project Description</th>
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<tbody>
<tr>
<td>India-2</td>
<td>Maternal and Child Health Department, All-India Institute of Hygiene and Public Health, Calcutta (June 1953- )</td>
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The number of trainees for the courses organized in connection with this project is gradually increasing. This year there were 14 students in the Diploma Course in Maternity and Child Welfare, 7 for the Certificate Course in Maternity and Child Welfare and 24 for the Certificate Course in Public Health Nursing, compared with 6, 7, and 3 respectively in the previous year. The interest outside India in the DMCW course is also growing, and many more candidates would apply if Calcutta University recognized the diplomas of medical colleges in other countries of the Region.

The Department also has provided lectures, has organized discussions and has given practical instruction for the following courses: Diploma in Public Health, Diploma in Industrial Hygiene, Diploma in Dietetics and Diploma in Nutrition.

Assistance was given with a refresher course in paediatric nursing. A four-week seminar for 11 State maternal and child health officers was very successful, and there is a growing tendency to make this a regular feature of the Institute.

The Chetlah Urban Health Centre at Calcutta and a hostel and two sub-centres at the Singur rural training field have been completed, and activities are in full swing.

The Chittaranjan Seva Sadan Hospital continues to cater for the paediatric aspects of the training courses. This hospital has been recognized by the University of Calcutta for training for the Diploma course in Child Health (DCH).

With respect to research activities, studies of methods of infant feeding in Calcutta and Singur were completed and studies on breast feeding in various socio-economic groups were carried out.

Twenty-three students in public-health nursing qualified in March. Thirty will join the next course.

The expansion of the rural centres, together with the increase in staff, has enabled practical field training to be upgraded.
With the assistance of the WHO visiting professor in health education, health education training programmes are being developed and are now included in all the courses at the Institute. The syllabus for a three-month course for a certificate in health education has been prepared, and the first course started in June 1956 with twenty students. The purpose of this short course is to provide health education training for personnel employed as health officers, nurses, teachers, health visitors, social workers, sanitary inspectors and community development workers. An in-service training workshop was organized for the staff of the Singur Health Centre. In the Chetla Urban Centre and in Singur some training and discussion groups were also arranged for groups of health workers recruited for community development programmes.

This project was started in 1952 with the provision of four international tutors, one each in general nursing, nursing arts, pediatrics and midwifery. National tutors for nursing arts, midwifery and pediatrics have all received WHO fellowships and have assumed full responsibility for their programmes. The WHO nursing arts tutor completed her assignment in December 1955, and the general tutor and the paediatric tutor left in March and May 1956, respectively. The midwife tutor will continue until the end of 1956. Considerable difficulty is still being encountered in establishing a domiciliary midwifery field. Ante-natal and post-natal home visiting have been started.

All courses recommended in the Indian Nursing Council Syllabus are now included in the programme. Field visits to the Rural Health Centre at Singur have been arranged, but the shortage of hospital staff and lack of transport have made this a difficult task.

A course in ward management and supervision was developed and attended by staff nurses from various hospitals in Calcutta. A course in paediatric nursing was held for 20 nurses from various parts of India.

The international tutors assisted the Textbook Committee of the West Bengal Nursing Council in compiling a Procedure Manual which will serve as a guide for the nursing schools of West Bengal.

In the course in general nursing 166 students were enrolled and in the course in midwifery, 44. During the year, 25 general nursing students and 35 midwifery students completed their training.

Ward equipment, classroom and laboratory equipment, midwifery kits, etc. have been provided by WHO.
Yaws Control, Madhya Pradesh, Hyderabad, Andhra and Orissa (Oct. 1952-Aug. 1953; Feb.-March 1954)

The three States of Andhra, Hyderabad and Madhya Pradesh in which this programme was originally started have now been joined by the State of Orissa. The delay on the part of Orissa led to infiltration into areas already completely swept by the other States, and this will now lead to extra work in resurveys and in going over terrain which is very difficult but which must be covered if yaws is to be stamped out along the borders.

In December 1955, a meeting of the workers in the yaws programme was held at Nagpur under the auspices of the Indian Council of Medical Research. A most valuable exchange of views took place among the various field workers, and plans for joint effort were discussed.

The Regional Office continues to help co-ordinate the programme and give technical guidance. This year has seen the introduction of much more simplified forms for field reporting.

During the period from August 1955 to March 1956, approximately 315,000 examinations (both primary and resurvey) were carried out, and 19,000 treatments completed in the States of Madhya Pradesh, Hyderabad and Andhra.

BCG Vaccination Mass Campaign (July 1951-Dec. 1955)

All WHO staff completed their work on this project and left at the end of 1955. Their final reports contain recommendations for strengthening the planning and supervisory staffs for this campaign.

Plague Control, Dehra Dun, Uttar Pradesh (July 1952- )

The WHO consultant who left the project in April 1955 returned in October 1955 to resume his work. A WHO zoologist was assigned for eight months to investigate the ecology of rodents and the part played by wild rodents in transmission. A WHO short-term consultant gave overall guidance. By the end of April 1956, the field work was completed, and the WHO epidemiologist left to do the final laboratory research work in the Pasteur Institute, Teheran, before compiling his final report.

A survey of rodents was made in connection with the spread of plague in the fields surrounding the infected villages in the Barabanki district, where
there was an outbreak of the disease. The residual effect on the rat-flea index of DDT sprayed for routine malaria control was studied and an investigation of the comparative resistance of different species of rodents to experimental plague infection was carried out in the Dehra Dun laboratory. These experiments were continued at the Pasteur Institute in Teheran.

This project has shown that wild rodents play a vital part as a plague reservoir during inter-epidemic periods.

**Nursing, Ludhiana (June 1954- )**

This project started in June 1954, with the appointment of one WHO public-health nurse. Some teaching equipment has also been supplied.

In 1956, a survey was made of the training provided for nurses and midwives and the facilities available at the Christian Medical College Hospital, Ludhiana, and in selected villages.

Modifications were made in the basic nursing and midwifery curriculum, of which public health and health education are being developed as an integral part.

Students now spend two to four weeks in the public-health field. There is also a well developed training programme for students in domiciliary midwifery.

During the disastrous flood in October, the WHO nurse assisted doctors and medical students in the camp which was organized to provide a medical relief in the rural area. When this operation was over, the camp was used as a training field for student-nurses to gain experience in public-health nursing, and this proved a most interesting and stimulating experience.

The curriculum for the auxiliary nurse and midwife training course is under preparation.

**Nursing, Bombay (Sept. 1953- )**

The WHO pediatric and clinical nursing tutors left in the last quarter of 1955, and the national tutors are now carrying on with these aspects of the training. The WHO public-health nursing tutor, the general tutor and the midwife tutor continue, but the national staff again is carrying the major responsibility for most of these aspects and will take over after the withdrawal of some of the WHO personnel towards the end of 1956.

The school library has been reorganized.
Organized clinical teaching has been established in six wards. The practical work of the student nurses is being hampered by the shortage of trained staff to supervise and guide their work and also by the shortage of linen.

In the paediatric nursing programme, the child welfare clinic has grown and needs much more space. A public-health nursing service has been started in two municipal schools.

Experience in the public-health field is now given to all the students in rotation, so that they may realize the importance of public-health and the various methods by which it is possible to give health teaching in the home and in the wards.

The midwifery section has been greatly strengthened both in the class-room teaching and in the establishment of sound ward techniques. A domiciliary service has been introduced in the hospital compound. The staff education programme has not been well attended.

There are 159 nursing and 26 midwifery students in training, and 44 nursing and 32 midwifery students completed training during the past year.

School of Physiotherapy, Bombay (Oct. 1952-Dec. 1955)

WHO's assistance to the Physiotherapy School attached to the King Edward Medical Hospital, Bombay, terminated at the end of 1955 with the departure of the WHO physiotherapist. As planned, the school has now been incorporated into the general rehabilitation project with which UNICEF is assisting.

The project was successful in that during its three years of operation, both the Department and the School of Physiotherapy were well-established and equipped and are now playing a useful role in the hospital activities. The department increased from one small room and 25 patients in 1952 to a large functioning department with 250-300 patients daily. Two counterpart physiotherapists were selected from those who graduated from the first course: one has since returned from a WHO fellowship and is in charge of physiotherapy practice; the other is still abroad completing his studies. Thirty-nine students were trained in three successive two-year courses. The school has worked in close co-operation with the Occupational Therapy Department in the King Edward Medical Hospital. Several hospitals in India are considering opening physiotherapy departments, as knowledge about the Bombay Department and School has spread.
The Government's signature to the plan of operation is awaited. Laboratory equipment and supplies, but not all the radiological equipment procured, have been delivered. Difficulty is being experienced in recruiting suitable WHO staff for this project.

The senior WHO maternal and child health officer and one of the midwife tutors left in January 1956; another midwife tutor was released in May 1956 for personal reasons. The five remaining nurses (including two provided under the Colombo Plan) will stay till the end of March 1957.

During the period under review, the maternal and child health officer of the Regional Office spent three months in Hyderabad to evaluate the achievements, and to study the possibilities for further development of the child care aspects. As a result, two preventive-curative peripheral child health units, staffed by the personnel of the Niloufer Hospital, have been established. This is the first effort of this kind in India.

The national counterpart to the senior WHO officer returned from a WHO fellowship.

Up to the end of 1955 most of the time and effort was spent in planning, organizing and implementing the many different training activities being carried out under this project. The expansion and upgrading of the maternal and child health services in Hyderabad City and in the State, and the expansion of the paediatric services in Hyderabad City and of the domiciliary services around three of the training schools were undertaken in 1956.

Dais were trained all over the State, and a refresher course on the training of dais was given to midwives. Plans to increase, decentralize and integrate facilities for child care in Hyderabad City were completed.

Regular meetings of the nursing personnel were maintained, to plan and establish standardized training programmes. Active participation by the national nursing staff has been steadily increasing. Assistance and guidance were given to additional nurse training programmes in provincial hospitals.
With the co-operation of the national staff, the basic training of nurse-midwives at the King Edward Memorial Hospital was re-organized and set up on the same lines as at the Osmania Hospital. Public health orientation is being integrated into the curriculum.

At the Osmania Hospital, 97 students are under training, 20 nurses and 7 nurse-midwives having graduated during the past year. Two three-week refresher courses for ward sisters were held. At the King Edward Memorial Hospital, 42 general nurse-midwife students and 12 "auxiliary nurses and midwives" are in training, 6 general nurse-midwives and 4 "auxiliary nurses and midwives" have graduated. At the Victoria Zenana Hospital, 32 "auxiliary nurses and midwives" have been enrolled, and 16 have graduated. The international nurses are now actively participating in the training.

Eight students completed the course for health visitors at the Niloufer Health Visitors' School, and thirty are continuing. The curriculum has been revised and the practical field work enlarged with greater emphasis on home visiting. A three-week refresher course for twelve rural health visitors was held in February 1956.

The recently established training of the "auxiliary nurse and midwife" at the Niloufer Hospital has been firmly established, with 19 students. The national tutor has now taken over the greater part of the classroom and ward teaching. A refresher course to prepare teaching staff of the "auxiliary nurse and midwife" schools was held from July to September.

A standardized programme of domiciliary midwifery training for pupil midwives from all hospitals in Hyderabad has now been established in three main centres.

**Pharmacology, Seth G.S. Medical College, Bombay**

(Feb. 1955-Dec. 1955)

The assignment of the visiting professor of pharmacology terminated at the end of 1955.

The scope of the project exceeded the original plan of undergraduate teaching, and the achievements are noteworthy in that they include the development of excellent co-operation between the pharmacology and other clinical departments as regards teaching, the training of a substantial number of post-graduates, in pharmacological research methodology and a significant contribution - some 35 original papers - to pharmacological research by the Pharmacology Department during...
the period of the project. A research unit functioning in conjunction with the Department has been established and is likely to be a permanent addition to the research resources of the college.

The WHO professor was succeeded by his national colleague who was appointed full professor and Head of Department. Also, in the recently created Department of Pharmacology at the Topiwala National Medical College, a national colleague of the group formed at the Seth G.S. Medical College will be appointed as head of department.

**Tuberculosis Chemotherapy Centre, Madras (Dec. 1955- )**

With the assistance of the British Medical Research Council, it is planned to investigate under Indian conditions problems attending the domiciliary and institutional use of various drugs which have already been shown (under conditions prevailing in western countries) to reduce or even to abolish, for at least a time, the infectiousness of cases of pulmonary tuberculosis. A number of Indian cities were visited during the year by a BMRC Group, and Madras was finally selected as the project site.

The senior WHO officer, public-health nurse, laboratory technician, x-ray technician and administrative officer have started work on this project, with some national counterparts, and the remaining four international members of the team are due shortly. A short-term medical consultant in chemotherapy has also been assigned.

One international fellowship in tuberculosis control was awarded in February 1956, and transport, laboratory equipment and essential chemicals and drugs are under procurement.

**Maternal and Child Health/Nursing, West Bengal (Nov. 1954-Jan. 1955)**

Following discussions with the West Bengal Government, it has been decided to revise the plan of operation of this project, redefining the objectives. Negotiations on the subject are in progress, and the project is expected to begin in April 1957.
The international team assigned to this project consists of a maternal and child health officer and seven nurses (including two provided under the Colombo Plan).

The nurses arrived ahead of the maternal and child health officer, and, as a result, most of the progress in the first period of the project was in nursing education. Since the arrival of the maternal and child health officer, however, plans are being developed to improve the working procedures for maternal and child health centres throughout the State.

In all the training programmes for nurses in Patna, the expansion of the subjects taught, the reorganization of the teaching programme and the development of fields for public-health experience have shown progress.

At the Gaya Hospital five auxiliary nurse-midwives graduated in October; fifty-two are still under training.

Help has been given by the international nurses and their counterparts in establishing similar programmes for the "auxiliary nurses and midwives" at Ranchi, and, still more recently, at Bettiah.

A domiciliary midwifery training field has been developed in Patna.

Four one-month refresher courses were held for trained dais working in Patna and thirty-three new dais were given instruction in domiciliary midwifery. Refresher courses have also been given to district midwives and health visitors.

Assistance is being given to the health visitors' training course in Patna. Twenty-six students are now attending the Lady Health Visitors' School.

This project was started early in 1955 with two nurses. They were joined in April 1956 by a WHO paediatrician, who will mainly be concerned with the development of a future children's hospital. A paediatric nurse will arrive shortly. The WHO paediatrician will also advise and assist the Assistant Director for Maternal and Child Health in the national programme.
The Senior WHO nurse attached to this project was assigned to the Maternal and Child Health Division in the Directorate of Health Services in January 1955, specifically to advise and assist in the development of midwifery training and services in the State. So far, the achievements in this field have been limited, mainly due to acute shortage of nursing and midwifery tutors.

The second WHO nurse has been assisting with the Health Visitors' School in Lucknow. The curriculum was expanded and improved, particular emphasis being placed on practical training. Two additional health visitors' schools have recently been opened, but again, because of shortage of tutors, there has been little progress so far.

The WHO maternal and child health officer joined this project about the end of August 1955; the three nurses (including one provided under the Colombo Plan) had arrived earlier.

Attention had been given to the medical college rural health unit, which serves as a practical training field for medical undergraduates and various categories of nursing personnel. WHO workers and their national counterparts have assisted in upgrading primary health units in various parts of the State.

Midwifery training has been given a state-wide scope, based on the model midwifery school of the S.A.T. Hospital. The tutors from the four district midwifery schools have been brought in to that Hospital for in-service training, and subsequently the WHO midwife tutor will visit the district training schools to give additional guidance and supervision.

Short refresher courses with special emphasis on health education have been given to nurses, midwives and health visitors. A programme of health education for schoolteachers has also been established.

This project, with one WHO midwife-tutor, was started in February 1956, to develop a post-graduate course for the training of midwife tutors. The
The first refresher course under this project, attended by 24 ward sisters, was held in Bombay in 1954. The second, which was held in July-September 1955 at Hyderabad, was attended by 17 auxiliary nurse-midwife tutors from different parts of India. It consisted of lectures, practical ward assignments and visits to various institutions in the city.

The value of short-term refresher courses is now widely recognized, with the result that employing agencies are readily arranging leave to enable suitable candidates to attend such courses, in spite of shortage of personnel and heavy service demands.

Assistance to the Institute is being given by a WHO neurologist-electrophysiologist and two WHO psychiatric nurses.

The WHO psychiatric nurse was assigned in March 1955 to upgrade the services in the hospital and to help establish a one-year post-graduate training programme in this subject. In April 1956 a second psychiatric nurse was appointed.

The first class for the Diploma Course in Psychiatric Nursing with twelve male and three female students from four different States, was enrolled in January 1956.

Progress in the nursing aspects has been slow for a number of reasons, e.g., poor laundry service, the absence of any dining room for patients, and the shortage of trained general nurses (17 graduate nurses for 450 patients).

Some improvement in basic care of the patients has been effected through in-service training of existing trained staff. A training scheme has been drawn up for ayahs and ward boys but has not yet been put into effect. A modest programme of occupational therapy has been initiated.
Requests have been received from the general hospitals in Bangalore for teaching in mental health. The WHO nurse has given courses of lectures to student-nurses and also to graduate nursing staff in these hospitals.

The neurologist-electrophysiologist, who arrived in May 1955, has been in charge of the clinical teaching on the female side of the hospital and has half the students under his supervision. His clinical work has been chiefly in the field of psychiatry, as the neurological division of the hospital has not yet been opened.

The Department of Electro-Encephalography in the Institute has now been well-established. It has been possible, however, to train only one recordist so far.

The first year of the two-year training course was completed in December 1955. Seven doctors entered for the Diploma Course in Psychological Medicine and six university graduates for the Diploma Course in Medical Psychology. The second group of students began training in January 1956, when 16 physicians, including an Indonesia physician on a WHO fellowship, entered the D.P.M. course and 12 university graduates, the D.M.P. course. The total enrolment is now 41. There is still need for more emphasis on clinical training.

Essential equipment and some medical literature have been provided.

**India-72**

Regular

**Short-term Refresher Courses for Nurses.**

*Bombay and Trivandrum* (Nov.-Dec. 1955)

This project provided for two refresher courses, one for ward sisters and the other for nursing tutors.

Both courses were held in November - December 1955, the one for ward sisters in Bombay, attended by twenty nurses from various States of India, and the one for nursing tutors at Trivandrum, with fourteen nurses from the different Indian States.

The courses consisted of lectures, practical ward assignments, visits to various institutions in Bombay and Trivandrum and group discussions. Each participant made an evaluation of the course.

**India-73**

TA

**Domiciliary Nursing and Midwifery, Lady Hardinge Medical College Hospital, New Delhi** (July 1956-)

This project provides for assistance in establishing a field for the domiciliary training
of midwives and for the development of a system of follow-up for home nursing after early discharge from hospital.

The WHO domiciliary midwife arrived in July, to begin on the first aspect of the project. Transport and some essential equipment have been supplied, and a public health nurse will be recruited in 1957 to assist with the development of home nursing.

India-76 TA UNICEF

Maternal and Child Health/Nursing, Mysore

Owing to delay in the signing of the plan of operation, this project will be implemented only in the second part of 1956.

India-77 TA

Public-Health Engineering, University of Madras
(Aug. 1955-)

In August 1955, a WHO professor of public-health engineering was posted to the Engineering College, University of Madras, to organize a post-graduate course in public-health engineering. This course has progressed satisfactorily, but with seven students only. The syllabus for the course and the regulations for the "Scheme of Examinations" were revised and modified. Preliminary designs were made to help with the plans for demonstration plants for water purification and sewage treatment.

The University of Madras and the State Government have reached an agreement on the establishment of the post-graduate course, and in addition it is planned to organize short-term courses for engineers and other sanitary personnel in government service. The Madras Government has approved the continuation of the project for three years from July 1956.

One international fellowship in environmental sanitation was awarded in 1956. Some equipment, reference books and journals have also been supplied.

India-78 Regular TA UNICEF

Maternal and Child Health/Nursing, Madhya Pradesh
(May 1955-)

In February 1956, the WHO paediatrician joined the team consisting of a domiciliary midwife tutor and a public health nurse, who had arrived in 1955. In the beginning he concentrated on the children's department of the medical college, which has since been radically re-oriented. Post-graduate, and later, undergraduate training in paediatrics for medical students, have been started.
The WHO paediatrician is now studying the maternal and child health activities in the State, and will in future devote more of his time to this aspect of the work.

The midwifery tutor developed domiciliary midwifery training at the Mayo Hospital, and established a maternal and child health centre at the Medical College Hospital, which has been very popular.

Maternal and Child Health/Nursing, Bombay
(Aug. 1955—)

A WHO maternal and child health officer and two public health nurses are assigned to this project, and one international fellowship in paediatrics was awarded in June 1956.

Bombay State has planned to establish 78 primary health units in Poona and Baroda districts and in 25 other districts, and personnel for this expansion are to be trained under this project.

Emphasis has been placed on developing the Sirur Training Centre for this purpose.

The first year's experience has led to the conclusions that (1) the services in the training area need to be improved; (2) more emphasis is needed on field experience; (3) the curriculum needs revision; and (4) the personnel posted to health units, after completing their orientation, are working well, but need supervision.

Work has started on improving the practical training facilities in school health work and on the training of dais. A staff education programme is under way.

Preparatory work has been carried out to establish an urban public-health training field at Poona for the use of the trainees at Sirur.

This is the first project in India where personnel required for the expansion of rural health services are trained and oriented in one central training unit. The results are promising, and the project has already had an influence on the total maternal and child health activities in India.

Environmental Sanitation, Najafgarh

The plan of operation for this project has been signed, and personnel are under recruitment.
Health Education of the Public, Madhya Pradesh

The assignment of a WHO health educator to this project is being held in abeyance, as the Ford Foundation will provide an international research-cum-action team to this project.

The supplies ordered have been diverted to Singur, near Calcutta, to be held until the WHO health educator intended for a similar project there is in position (see India-94).

Maternal and Child Health and Public Health Training, Saurashtra (March 1956–)

This project was started in March 1956 with a WHO maternal and child health officer, who made a survey of all maternal and child health centres. The public health nurse arrived in April.

The building programme of obstetric and paediatric departments is nearing completion. A training course for "auxiliary nurse and midwife" was started at Rajkot with 24 students. Efforts are being made to recruit nursing tutors from other states of India. The training of 58 dais has been started.

One international fellowship in public-health administration was awarded in June 1956.

Vital and Health Statistics, Nagpur (March 1956–)

This is a unique project in the sense that it is not concerned with general advice on improvement of national statistics, but restricted to the establishment of a demonstration and training unit in one city of India. It is hoped to develop improved methods in the collection of vital and health data, to demonstrate the usefulness of a statistical service to health authorities, and to train local personnel.

The WHO statistician took up his duties in March 1956. Opportunity was taken of his presence to train a WHO fellow from Burma in the coding of diseases, injuries and causes of death. A study of a 10% sample of the deaths that occurred in 1955 was begun.

Calculating machines, drawing equipment and some books and journals have been provided by WHO.
This project, which aimed at providing two visiting professors during 1955 and three during 1956, for the introduction and development of modern procedures in the teaching of preventive and social medicine and in the training of counterparts, has been only partially implemented. So far only one visiting professor has been posted (to the Assam Medical College), owing to difficulties in recruitment. A curriculum of studies was drawn up for Assam and accepted by the Faculty and a field training centre for undergraduate experience is being organized.

As a part of this programme, it had been planned to provide ten three-month fellowships for study at the All-India Institute of Hygiene and Public Health in Calcutta. This plan has now been replaced by one for the award of longer-term fellowships to enable up to six selected candidates to study abroad in order to qualify as professors of preventive and social medicine (see also under Part I, section 4).

Health Education of the Public, Singur (Calcutta)

This project was originally scheduled to start in 1955. The health educator is still under recruitment and is expected to be in position shortly.

Supplies for the project, including transport, are in the field awaiting the arrival of the health educator.

Environmental Sanitation, Trivandrum

The plan of operation for this project has been signed, and personnel are under recruitment.

Post-Graduate and Refresher Courses in Maternal and Child Health and Public-Health Nursing, Calcutta and Ludhiana (June 1955–)

Under this project, UNICEF provides fellowships for 20 medical officers and 24 public-health nursing students to attend courses for the Diploma in Maternity and Child Welfare and Certificate in Public-Health Nursing at the All-India Institute of Hygiene and Public Health, Calcutta, in 1955 and 1956. Five medical officers and nine nurses took up training under this project in 1955. An additional five medical officers and thirteen nurses were enrolled in June 1956.
UNICEF also provided stipends and travel for 40 nursing and midwifery students in 1955 and is to provide them for an equal number to attend a one-month refresher course in 1956.

A one-month refresher course in paediatric nursing, in which twenty nurses from all parts of India participated, was held at the Medical College Hospital, Calcutta. Another one-month course in domiciliary midwifery was conducted in Ludhiana at the Christian Medical College Hospital, for fourteen midwives from different States in India. Both these courses were held in November 1955 and proved to be very stimulating for both the teaching staff and the students.

Dental Health (July 1956– )

A WHO short-term consultant in dental health was assigned to India in July 1956 for about two months, to advise the Government on the present status and future development of dental education. He is undertaking a broad general survey of training facilities. He will visit leading dental colleges, hold informal discussions with appropriate governmental and university authorities and review the plans for upgrading both the already existing training facilities and those envisaged for dental colleges still to be developed. On the basis of his survey, he will advise the Regional Office on appropriate measures for assisting the Government in the development of its dental education programmes.

Trachoma Pilot Project, Uttar Pradesh (Feb.–May 1956)

A short-term consultant in trachoma made a survey of the existing situation and has submitted a report for implementing a trachoma pilot project, using the Gandhi Eye Hospital, Aligarh, as a base. It is expected that this project will begin in the latter half of 1956. Some essential equipment is being procured.

5. INDIA - FORMER FRENCH SETTLEMENTS

Fellowships

One twelve-month international fellowship in anaesthesiology was awarded in November 1955. The candidate is under training in Paris.
6. INDONESIA

The Indonesian Government continues its efforts to alleviate the acute shortage of medical personnel by increasing and improving the training of para-medical and auxiliary workers and by expanding the facilities of the present medical schools. Two additional medical schools are also planned, although there is extreme difficulty in finding teachers even for those already existing.

The malaria control scheme has been increased in scope, but a complete overhaul and replanning may be necessary. Important field studies in plague control have been started, and it is hoped to work out long-term economic plans for plague control for the country. The anti-yaws campaign continues to make excellent progress. The control of tuberculosis still needs much planning and organization.

The list of specific projects in which WHO is assisting is given below:

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Date</th>
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<tbody>
<tr>
<td>Treponematoses Control (May 1950-)</td>
<td></td>
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<tr>
<td>UNICEF</td>
<td></td>
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<tr>
<td>Indonesia-1</td>
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</tr>
<tr>
<td>Malaria-Control Demonstration, Tilatip and Semarang</td>
<td>Aug. 1951-</td>
</tr>
<tr>
<td>TA and UNICEF</td>
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This programme continues to show sound progress. It is steadily expanding, and the workers are optimistic that their ultimate target for the complete control of yaws in Indonesia by 1965 will be attained.

It is estimated that approximately 15.8 million examinations and re-examinations have been carried out and 1.3 million yaws cases treated during the period from August 1955 to July 1956.

It is to be hoped that at least the maternal and child health aspect of the venereal-disease problem in the larger urban areas will receive attention and stimulation, for if the section of the population concerned with that aspect is adequately dealt with, a most important contribution will have been made to the overall health situation in Indonesia.

The WHO laboratory specialist was withdrawn in December 1955 on completion of his contract. Some laboratory equipment and medical literature were provided, and one international fellowship in venereal disease control was awarded in April 1956.

The WHO team assisting with this project consists of a malariologist and entomologist and a public-health engineer.
The spraying operations continue. With the collaboration of a WHO short-term consultant, susceptibility tests on *A. sundaicus*, *A. melas*, *A. subpictus* and other anophelines were carried out.

In 68 villages in the Kedu and Tjilatjap areas, a malaricometric survey was conducted. Training courses were given to 29 mantris and four field assistants to be used in the Central Java malaria-control programme. A plan for expanding and accelerating this control programme for Central Java was prepared, to give protection to ten million people. In July 1956 the WHO team was shifted to Semarang, their new headquarters in Central Java.

**Indonesia-5**

**Institute of Nutrition, Djakarta**  
*TA (Jan. 1952-Jan. 1955; Dec. 1955)*

The WHO medical nutritionist assigned to the Institute of Nutrition, Djakarta, completed his assignment in January 1955. Towards the end of 1955, the Chief of the Nutrition Section at WHO Headquarters visited Indonesia. He devoted his attention to the problem of protein malnutrition in children. In his report he has suggested an investigation of the methods by which locally-produced, cheap, but protein-rich vegetables and animal foods could be used to the best advantage. He has also recommended further investigation into the causes of avitaminosis A and the severe toxaemic gastroenteritis found chiefly among breast-fed infants.

Further WHO assistance in the national nutrition programme is planned.

**Indonesia-8A**

**EGG Vaccination**  
*Regular UNICEF (Oct. 1952-)*

The EGG campaign in Indonesia was started in Bandung as a pilot project in October 1952. The mass campaign commenced in November 1953 and should continue until mid-1957, with the assistance of WHO personnel. The following is taken from the senior WHO officer's final report:

"According to the plan of operations and addenda, the targets to be reached by the end of 1955 were (a) to have 27 teams in operation, (b) to have tested five and a half million people and (c) to have vaccinated the negative reactors. The achievements were (a) the production of 28 fully trained teams with 3 under training, all in operation; (b) the performance of 5.1 million tests; 99.6% of the negative reactors were vaccinated."

In all, since November 1953, the WHO team has trained 62 mantris and 143 lay-vaccinators. Under the supervision of Indonesian doctors, themselves trained by
WHO, six more mantris and 23 lay-vaccinators were trained. Excluding the project staff, 19 doctors were given field and theoretical training and are now working as part-time trainees and supervisors. The final report states that a high standard of technique obtains amongst all the teams.

The senior WHO officer completed his assignment at the end of March 1956, but the two BCG nurses are continuing their work.

Here is a project where full advantage of WHO staff has been taken for training purposes.

**Indonesia-88**

**Tuberculosis Control and Training, Bandung (Sept. 1952- )**

This training centre was moved to new premises, which are commodious enough to allow of the separation of different categories of people, as laid down in the documents, issued by WHO Headquarters (Tub.Cent./53 series). The senior WHO officer left the project in June 1956, and a replacement is under recruitment. A public-health nurse and a laboratory technician are now assisting with this project.

The domiciliary chemotherapy pilot scheme, which is to be grafted on to this project and for which UNICEF will provide transport, equipment and supplies, is still in the planning stage.

It is unfortunate that, as mentioned in last year's report and in spite of further suggestions from WHO, virtually no use has been made of the Bandung Centre for training courses for other than health visitors.

Laboratory equipment and some x-ray films have been supplied by WHO, and one international fellowship in tuberculosis control was awarded in December 1955 and taken up in February 1956.

**Indonesia-9**

**Leprosy Control (July-Sept. 1955)**

In the third quarter of 1955, a WHO leprosy consultant, after carrying out a survey, recommended that (1) ambulatory treatment of the greatest possible number of patients be intensified and minimum use be made of expensive methods of segregation in leprosaria and agricultural colonies; (2) contact surveillance, especially among children under the age of 15, be increased; (3) mobile teams, where communication permitted, be set up to supplement the polyclinic activity; (4) two pilot areas -
one in Djakartaraja and the other in Centra Java - be established with national personnel; and (5) the postgraduate diploma course in leprosy at the "Lembaga Kusta" be re-instituted.

In order to implement some of these recommendations, a leprologist is being assigned for a two-year period.

Indonesia-12  Plague Control (Jan. 1956- )  Regular

During the period under review, a WHO consultant carried out a survey of the present situation as regards plague in Indonesia. He recommended (1) that a zoologist be sent to study the ecology of rodents involved in the spread of plague; (2) that an epidemiologist be assigned for a period of six months to carry out a research programme to determine the conditions supporting the maintenance of plague in the mountainous regions; and (3) that arising out of the results of the research project, a long-term control project be instituted.

These recommendations are being implemented.

Indonesia-13  Faculty of Medicine, Gadjah Mada University, Jogjakarta and Semarang (Sept. 1953- )  Regular

The WHO professor of biochemistry completed his assignment in July 1955, and his report has been submitted to the Government. At least one of the student teachers will adopt biochemistry as a career. Two research papers were produced, and the WHO professor gave a special course of lectures to the students in their final year in the Technical Faculty.

The professor of pharmacy and pharmaceutical chemistry has continued his programme. Selected students are being trained as counterparts, and two are preparing for studies abroad. The training of pharmacists has been strengthened in that the former Pharmacy Department of the Faculty of Medicine, Dentistry and Pharmacy has now become the Faculty of Pharmacy.

The paediatrics hospital of the Medical Faculty, which was opened in April 1955, has now been developed into a children's department of 50 beds. The WHO professor in paediatrics and his counterpart continued the lecture programme for medical students and started to give training in a new out-patient department.

Eleven advanced students have also benefited from emphasis on ward experience. In this training, which is intense (given for two months) and very practical, much attention is given to social factors in paediatrics.
There is close co-operation between the paediatricians in Jogjakarta and those in Semarang and Solo, leading to a valuable interchange of ideas, but collaboration with the maternal and child health services of Jogjakarta still needs attention. The addition of practical experience in child care in the maternal and child health services of Jogjakarta is another aspect which needs study.

Post-graduate training has not been taken up so far in this hospital, but the facilities of this promising academic paediatric centre should in future be availed of, especially in view of the great need for paediatricians in Indonesia.

**Post-Graduate School of Nursing, Bandung (Jan. 1954- )**

The Post-Graduate School of Nursing in Bandung is the training centre for nursing tutors, midwife tutors and public health nurses. WHO provides two public-health nurses for the public health nursing course, a midwife tutor for the midwife-tutors' course and teaching equipment. The International Cooperation Administration (U.S.A.) provided a general tutor for the nursing tutors' course until April 1956. This course is now being conducted by national staff.

During the year there has been considerable modification of the curricula of both courses in the light of early experience, and it has been possible to strengthen the facilities for practical experience.

The midwife tutor students are supervising pupil midwives in the clinic and in the labour, nursing and in lying-in wards. They have also started classes for pregnant women at Rentjabadak Hospital. The public health nursing students are receiving field experience in Bandung, Jogjakarta and Surabaya.

The first classes of twelve midwife tutors and ten public health nurses were graduated and the graduates assigned to suitable positions.

**Environmental Sanitation (June 1956- )**

This project is designed to assist the Government in the preparation of a coordinated national plan for improving environmental sanitation with special attention to rural sanitation and training of sanitary workers. It was started in June 1956, with the arrival of a WHO sanitarian. One public-health engineer and another
sanitarian will be added and a large amount of supplies and equipment will be provided.

An international fellowship in sanitary engineering was awarded in December 1955.

**Indonesia-25**

**Vital and Health Statistics (Aug. 1955-)**

The objectives of this project are two fold: first, to expand the statistical organization in the Ministry of Health, and to develop long-range statistical programmes for establishing a sound system of reporting of notifiable diseases, hospital services, and general vital and health statistics; second, to render advisory services at the provincial level. Since August 1955, a WHO statistician has been in position at the central level, and another is now under recruitment for the provincial level. A regional six-month fellowship in vital and health statistics was awarded in September 1955.

Before the project was started, the Government had already distributed an abbreviated Indonesian edition of the WHO "Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death" among all physicians in Indonesia. Simultaneously, a circular on the reporting of morbidity and mortality data was issued, and 50,000 copies of an Indonesian edition of the International Certificate of Death were sent to local health departments for distribution among hospitals and general practitioners.

The WHO statistician and his national counterpart are exploring the possibility of establishing an experimental registration area in Central Java. As part of this project, a three-month training course in public health statistics is offered to statistical clerks in provincial health departments and has so far been completed by seventeen persons. The WHO statistician has assisted in up-grading the teaching of medical and public health statistics to medical students in the University of Djakarta. He also spent a month as consultant to the Venereal-Disease Research Institute at Surabaya.

Calculating machines, drawing instruments, and some medical literature have been provided.

**Indonesia-27**

**Strengthening of Health Services (Health Educator)**

A health educator to assist in the development of the health education aspects of community health work and to train personnel is under recruitment.
In April 1956 a WHO short-term consultant in preventive and social medicine assisted the Medical School at Surabaya in planning curricula and teaching procedures in the public health department. The Government has now requested the assignment of professors of biochemistry and pharmacology.

Efforts to recruit an epidemiologist continue. One international fellowship for the study of the methods of training para-medical and auxiliary personnel and organization of rural health services was awarded in February 1956, and taken up at the end of March.

In May 1956 a WHO consultant gave advice on the extension of the trachoma programme which is being carried out by national workers with supplies from UNICEF.

One international fellowship in trachoma control was awarded in November 1955 and completed in March of this year.

The WHO entomologist carried out a survey of the Aedes index around the Djakarta airport. A comparative study was made of the behaviour of the DDT-resistant A. Sundaicus in Semarang city and of the non-resistant A. Sundaicus at Jepara.

Training syllabi and time-tables for "mantri" students and for a refresher course for "mantris" were prepared; a course in malaria control for sixteen "mantri" students was started, and four "mantris" of the Malaria Institute working in Semarang and Jepara were trained in entomological research techniques.

Some essential equipment has been provided, and a malariologist for this project is being recruited.
Assistance to Medan Medical School

Professors of anatomy and physiology are being assigned to this school and are expected to arrive shortly. Certain items of supply have already been provided for these departments.

Paediatric Nursing, Gadjah Mada University

Under this project, assistance will be given in 1956 in upgrading and developing paediatric nursing with the help of a paediatric nurse to be provided by WHO.

Strengthening of Maternal and Child Health Services, Djakarta

The national programme for the expansion of maternal and child health services and the training of personnel has continued, with equipment and supplies from UNICEF. A maternal and child health officer will be provided for two years to evaluate the current routine procedures in maternal and child health centres and to help plan future developments. He is expected to arrive in Indonesia during the last quarter of 1956.

7. MALDIVE ISLANDS

Nothing to report.
8. NEPAL

Nepal has a population of nine million. It has 26 hospitals and 18 dispensaries. There is an almost total lack of doctors and all other types of medical workers. The medical services outside the capital are mainly carried on by compounders and dressers.

In the health assistants' training project and the nurses' training project courses are being given with the assistance of WHO, and it is hoped that gradually a solid core of health workers will be developed. International assistance in health or closely related subjects is also being given by agencies like the ICA (U.S.A.), the United Nations (TA), FAO, UNESCO and the Colombo Plan - ICA having recently awarded six fellowships in public health and malaria control, and the Colombo Plan providing seventeen awards to Nepalese for basic medical training in India during the last year.

The list of specific projects in which WHO is assisting is given below:

<table>
<thead>
<tr>
<th>Nepal-1</th>
<th>Malaria Control, Rhanati Valley (June 1954–)</th>
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<tbody>
<tr>
<td>Regular (ICA)</td>
<td>A WHO malarialogist, an entomologist and three auxiliary personnel are in position. Since the beginning of 1956, the operations have increased in tempo. Entomological investigations to incriminate the vector species of anopheles have been intensified, and DDT spraying operations have been started. Because supplies and equipment have not been made available from other sources as expected, WHO arranged to procure some supplies and equipment, including DDT and transport vehicles. The project is now developing very well, and, if allowed to continue smoothly, will lay a sound foundation for malaria control in Nepal.</td>
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</tbody>
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<tr>
<th>Nepal-2</th>
<th>Training of Nurses, Kathmandu (Nov, 1954–)</th>
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</thead>
<tbody>
<tr>
<td>TA</td>
<td>This project started with the arrival of two international nursing tutors in November 1954, and a public-health nurse was added in July 1955. The main objective is to establish a training programme for nurses in such a way that they will be prepared to practise nursing and midwifery both in institutions and in the domiciliary field.</td>
</tr>
</tbody>
</table>
Progress has been very slow, and considerable difficulty has been experienced in securing government action on matters necessary for starting the training course.

Sixty-two applications for student-nurse training were received, and twenty of the candidates were finally selected and enrolled in June 1956. The curriculum was prepared and approved.

Appointments of matrons and senior staff have not yet been made, but a suitable counterpart to the senior WHO nurse and a warden for the hostel have been appointed.

The in-service training programme at the male and female hospitals has been continued, but has been hampered by an almost total lack of the basic equipment needed for nursing procedures. Equipment has recently been received from various sources, however (some equipment and a station wagon were provided by WHO), and better progress is expected.

**Training of Health Assistants, Kathmandu (June 1955- )**

The Health Assistants' School was opened on 20 February 1956, with twenty students. A number have shown keenness for study, and there is promise of more responding well when they acquire a better knowledge of English as a result of the present daily instruction in that language.

A WHO medical officer (public-health specialist) was assigned to this project in June 1955, and a sanitarian was added in March 1956 to assist in strengthening the training activities. Teaching equipment and a station wagon have also been provided. One regional fellowship in public health was awarded in December 1955 and taken up at the end of May 1956.

**9. PORTUGUESE INDIA**

**Fellowships**

Two regional fellowships in tuberculosis were provided in the 1955 programme. One, for an epidemiologist, was taken up in Dacca and completed; the other, for a bacteriologist, will be arranged in Ceylon. A further request for a twelve-month fellowship in tuberculosis is under consideration.
10. THAILAND

Since last year’s report there have been an upward trend in the birth rate and at the same time a slight decrease in the death rate in Thailand. The expenditure of the Ministry of Public Health in 1956 is 86.7 million bahts, i.e. 2% of the total Government expenditure.

There is still a scarcity of qualified doctors and auxiliary personnel in rural areas. Training of nurses, midwives and other personnel is being undertaken by the Government.

One notable development during the year was the creation of a Nursing Division in the Ministry to control all aspects of public-health nursing, i.e. school, nutrition, midwifery, rural health, etc.

In 1955 a total of seven million people were protected against malaria, and it is planned that over ten million will be covered in 1956 - the total estimated malaria-stricken population. Good progress has been made in the BCG campaign; the target figure of five million examinations was achieved by the end of 1955, six months ahead of schedule.

New activities undertaken by the Government with the aid either of bilateral agencies or of WHO, are in the control of parasitic diseases and leprosy, nutrition, environmental sanitation and maternal and child health.

The list of specific projects in which WHO is assisting is given below:

- Trachomatoso Control (May 1950 -

The past year in Thailand has seen a great deal of activity directed towards the assessment of the yaws problem as it exists at present, along with a complete appreciation of the resources now available and the best use to which they can be devoted. A WHO venereologist is assisting with this project. Numerous meetings, field trips and other investigations have been carried out in detail, and the mass of factual information so derived has served as a basis for an addendum to the present plan of operations, which places the programme in a much more realistic perspective than heretofore. Great efforts need to be expended to maintain the gains already achieved, and the danger of an insufficient surveillance organization must be continually kept in mind.

The cumulative totals of persons examined and treated in initial treatment surveys (from May 1950 up to mid-April 1956) and in re-surveys (since July 1952)
at yaws control clinics and treatment control areas are as follows: examined, 107,17,045; treated, 10,21,081.

School Health, Chachoengsao (Feb. 1954-March 1956)

This project, covering the school health aspects of UNESCO's Education and Teachers' Training Programme at Chachoengsao, started in February 1954 and was completed at the end of March 1956. WHO provided a school health physician, a school health nurse and some equipment; counterparts were made available by the Government.

The project has shown once more that school health cannot be developed in a vacuum; in Chachoengsao, general health services are very limited, and the school health services have therefore lacked the necessary support and backing of curative and preventive health services.

The project has also confirmed that school health services on western lines cannot be copied directly for use in this part of the world. Routine examinations, and detection and treatment of individual defects require too large a number of personnel for countries in South East Asia to be able to afford. The main objectives of a school health service as demonstrated by this project should be school sanitation and health education, including nutrition education backed up by a school feeding programme.

Besides developing health teaching in selected demonstration schools and developing training in health education methods in the teachers' training school, this project provided training in health education for eleven students taking the post-graduate course in public health in Bangkok, and training in public health for eighteen supervising public-health nurses. Seminars for teachers were also organized.

Rural Health Unit, Chiangmai (Nov. 1951-)

WHO's assistance to this project (a team of four) is being gradually reduced according to plan, and at the end of 1956 only the sanitarian will continue. The senior officer of the WHO team left in September 1955 and one of the two public-health nurses in January 1956. Besides the supplies furnished by UNICEF, some equipment has been provided by WHO.

Twenty maternal and child health centres have been in operation during the year. There is still a shortage of public-health nurses to supervise the work of the midwives. Home visiting has increased; Moh-Tam-Taes still do the larger part of the deliveries, but, since most of them
have been trained in the project and work under supervision, this can be considered a sound development, leaving more time for the midwife to concentrate on health education and child care. The regular work of the centres continues to be supplemented by school health and nutrition teams.

Training is one of the main functions of this project: six-week refresher courses for in-service midwives were continued throughout the year; supervising public-health nurses were given three-week courses, and training was also provided for student public-health nurses from the postgraduate course in Bangkok.

For the first time, the project area has recently been used for domiciliary midwifery courses, and 50 students were trained. Since 1953, 1,074 Moh-Tam-Yaes have been given twelve-week courses, and it can now be safely assumed that most practising Moh-Tam-Yaes have received that training. Health education has been introduced into the normal teaching activities of all staff members.

Progress has also been made in sanitation. In 17 pilot areas drives for water-sealed latrines, refuse incinerators made out of tar drums, school sanitation and safe drinking water have continued. Sanitary inspectors and the public have become more and more interested. It is expected that the example of the pilot areas will be repeated on a province-wide scale. It is hoped that this will also happen with the maternal and child health activities under this project, so that health services may be improved not only in the province of Chiangmai, but in the whole of Thailand.

Thailand 15

BCG Vaccination (May 1953–June 1956)

WHO personnel working with this project concluded their assignments in June 1956. By the end of March 1956 the second round of tests and vaccinations had been completed in several provinces, and the six operating teams were finishing the first round in those provinces where work had been seriously hampered during the rainy season.

The WHO senior BCG officer, in collaboration with her national counterpart, evolved a plan for the consolidation of the mass campaign, based on a biennial coverage of a primary target group (the 7-14 age group of the population) by six full-time teams of technicians directed from a central office in Bangkok. The staff of the central office will be composed of the present national Headquarters BCG staff. This campaign should cover both those entering and those leaving school. A system of priorities, on the basis of age-specific prevalence of reactors in the country's administrative units, is to be established. Each unit will concentrate on the urban and the most densely populated rural areas.
WHO has provided a psychologist for the development of a child guidance clinic at the mental health clinic in Bangkok. The study of patterns of normality and abnormality of children in Thailand has continued. Applied research on non-verbal and verbal psychological tests suitable for Thai children has been carried out, and training has been given, including the concentrated training of a group of twelve doctors from the mental hospital in Bangkok and other institutions.

One international fellowship in mental health was awarded in August 1955.

In April 1954 WHO provided a tutor for training public-health nursing supervisors. In July 1955 a second tutor was appointed to assist in developing a course for nursing tutors. Two international fellowships in nursing were awarded in August 1955.

A two-year public-health nursing course was established in the Faculty of Hygiene and Public Health; the one-year nursing tutors' course is in the Division of Nursing. It is hoped that in time these courses may be brought together in the Collegiate School of Nursing, which has just been established.

The curriculum of the public-health nursing course has been modified and strengthened. Because of pressure on the limited municipal services in Bangkok, field training has been arranged also at Chiangmai, Cholburi and Chachoengsao. Ten students graduated in April, and all are being appointed to public-health nursing posts. Twenty-one have begun their second year, and twenty new students have been enrolled.

For the tutors' course, the curriculum has been drawn up and practical teaching and supervisory experience have been arranged. Sixteen students graduated in March, and all were assigned to teaching or administrative posts. A new class of twenty was admitted in June.

The administrative problems with respect to the tutors' course are considerable due to the fact that it is not attached to any institution and the national budget is inadequate to cover basic needs.

WHO has provided some essential teaching equipment, books and journals.
A WHO public-health nurse-midwife was assigned to this project to assist in establishing supervisory services for nursing and midwifery personnel working in the districts and provinces. She has worked in close collaboration with the medical officer provided by the United States International Co-operation Administration.

With her national counterpart, she has paid visits to thirteen provinces, each of which has a public-health nursing supervisor. Emphasis has been placed on the importance of guiding staff in methods of reporting statistical data, the use and maintenance of equipment and supplies, and the planning of health centre activities. Special attention has been given to Donmaden second class health centre, which it is hoped will serve as a teaching and demonstration centre.

Among district and provincial health officers and their staffs there is a growing awareness of the importance of supervision and team work in developing a useful service.

Up to now, the WHO nurse's national counterpart has been a person who will eventually be assigned to a district. It is essential that a counterpart be appointed who will continue to function at the Directorate level, if there is to be a continuity of the programme which this project is helping to establish.

In 1953 at the Fundamental Education Centre at Ubol a two-year course for training rural education workers was started. In addition to UNESCO, several international organizations have assisted with this project. In December 1954, WHO provided the services of one staff member - a public-health nurse with health education experience - who continued until the end of March 1956, when she was transferred to the Post-Graduate School of Nursing, Bangkok. This staff member and the national counterparts were responsible for giving courses in rural health, with emphasis on health education, to all the students of the Fundamental Education Project. In addition, a small group of students were given intensive training for rural health work during their second year.

The graduates from the school (60 completed the first two-year course in March) will be assigned in teams of six to do village level work under the Department of Education. One member of each team is a health worker.
In 1953 a WHO short-term consultant made a survey of the leprosy situation in Thailand and, as a result of his findings, recommended *inter alia*, a long term programme of leprosy control for the whole country. To assist the Government in carrying out his recommendations, another leprologist was assigned in the last quarter of 1955 and is still continuing his work. Assisted by the national staff, he carried out a survey of the area of operations and conducted a programme for training auxiliary staff in population survey and treatment methods. Short courses were given to 35 health workers, 16 of whom were attached to the leprosy dispensaries which had already been established at each of the sixteen existing health centres. Training was also given to the personnel for mobile teams, with the help of which a house-to-house survey was carried out.

A central registry for the registration of patients at the project headquarters has been instituted.

One international travel fellowship in leprosy control was awarded in December 1955.

This project was started in July 1955 with one international tutor in nursing education. A second WHO nurse tutor was recruited in May 1956 to assist with the public health and domiciliary midwifery aspects and some essential supplies and medical literature have also been provided by WHO.

Two qualified national nursing tutors have been appointed, but the lack of a matron and the shortage of graduate nursing staff are hindering the development of practical teaching on the wards. The building for classrooms and hostel is not yet completed, and a temporary classroom has been set up.

A curriculum is being developed in Korat, based upon the one in use at the Women's Hospital, Bangkok, and a staff education programme has been initiated. The first group of 52 students enrolled in May 1955 have successfully completed the first year, and a second group of 49 entered in May 1956.

This project has been extended to include assistance to the School of Nursing at Pitsanuloke, which is being given by the two WHO nurses. There are 162 students now in training at Pitsanuloke, and 29 have graduated during the year.
Maternal and Child Health - Strengthening of Central Health Organization (June 1956-)

This project started in the second quarter of 1956 with the arrival of the WHO maternal and child health officer. The main objectives are to evaluate the existing services and training facilities for personnel. The planning of future developments will be based on this evaluation.

Nutrition (Nov. 1955-Jan. 1956)

A WHO consultant in nutrition was assigned to Thailand from November 1955 to January 1956 to undertake a nutrition survey of the country and advise the Government and the Regional Office on the planning of an adequate nutrition programme. Beriberi and goitre were found to be the main problems and vesical calculus a special problem limited to the north-eastern part of the country. Suggestions were made for control programmes and for WHO-assistance to further nutrition activities in Thailand.

The Chief of the Nutrition Section at WHO Headquarters, on a visit to Thailand towards the end of 1955, also discussed with the government authorities the problem of beriberi and goitre.

An agreement has been signed between the Government and Regional Office for the provision of further WHO-assistance in 1956 through 1958. A medical nutritionist is under recruitment.

Assistance to School of Public Health, Bangkok (Dec. 1955-March 1956)

Towards the end of 1955, a WHO specialist in public health was assigned for three months to the School of Public Health, Bangkok, as a visiting professor to assist in teaching students of public health, to help in the further development of the Department of Public Health, and also to advise on the organization and operation of the school.

His report will soon be submitted to the Government.

Midwifery Training School, Chiangmai (Jan. 1956-)

This project is intended to assist the Government to develop the training of second class midwives in selected district hospitals. In January 1956, one WHO midwife tutor was assigned to the new Midwifery School in Chiangmai, the
only one in Thailand - to have been established outside Bangkok so far. Two qualified national tutors have been appointed, but there is no matron, and the graduate staff is insufficient to provide good nursing care.

The curriculum has been drawn up, and ward procedures are being revised. Attendance at the ante-natal clinic has considerably increased. As there are not enough maternity cases at the Chiengmai hospital, students have been sent to the Vajira Hospital in Bangkok. All students receive domiciliary training and experience through the maternal and child health centres in Chiengmai.

The first group of 50 students has graduated, and a second group of 46 has been enrolled.
II. INTER-COUNTRY

SEARO-2
TA

Assistance to Tuberculosis Laboratories (Aug. 1955-)

A WHO inter-country bacteriologist has reviewed the work of the laboratories attached to the Tuberculosis Centres in Kabul, Colombo, Delhi, Patna, Rangoon, Mandalay, Bangkok and Bandung. His reports and recommendations, when completed, are being transmitted to the governments concerned. He has also visited Madras and Nagpur to advise the local authorities on the additions and alterations required to accommodate tuberculosis laboratories in the buildings intended to serve as tuberculosis centres.

He has also revised the standard equipment and supply list for tuberculosis laboratories.

SEARO-5
TA

Seminar for Nursing Leaders (April 1956-)

In accordance with the decision of the Regional Committee, a Regional Nursing Seminar is planned to be held in Delhi for three weeks, from 6 to 25 August 1956 with 30 participants.

The purpose of the seminar is to give nursing leaders in the South East Asia Region an opportunity of discussing the various aspects of nursing, including nursing education.

A short-term consultant was appointed in April for a period of six months to assist the Regional Office with preparations.

At the country level, considerable interest in the seminar has been shown. Meetings have been held to discuss nursing problems and to prepare material for discussion. Recommendations on topics for discussion were sent by the governments of the Region and have formed the basis of a tentative programme.

SEARO-6
Regular


At the seventh session of the Regional Committee, the importance of industrial and occupational health problems was stressed, and the Regional Director was requested to give special attention to the provision of assistance in this field. A short-term consultant was appointed in October 1955 to carry out a survey of occupational health activities in India, in collaboration with I.L.O., I.C.A. and other interested governmental and non-governmental organizations, in preparation for holding a regional seminar on industrial and occupational health. He visited Bombay and Calcutta, surveyed industrial areas, and held discussions with various government, SEARO and other international
officials on future activities. He completed his survey at the end of 1955 and submitted his report.

It is proposed to hold a two-week seminar in 1957 in collaboration with I.L.O., to be attended by responsible health and labour officials, in the various countries of the Region, to exchange experiences and formulate proposals for the advancement of industrial and occupational health.

Rural Health Conference (Preparatory Meeting, New Delhi) (5-7 Dec. 1955)

In order to discuss arrangements for holding an inter-regional rural health conference of public-health administrators and other health specialists, a preparatory meeting was held in the Regional Office from 5 to 7 December 1955. Two medical officers from Burma, one from Ceylon, six from India, one from Indonesia and two from Thailand participated. A member of the staff of the Western Pacific Regional Office was also present. At the meeting, the objectives of the proposed conference and methods of conducting it, as well as procedures for collecting basic information, were discussed. The committee recommended that national meetings should be held both before and after the conference and proposed a conference exhibition which would show by photographs and models the rural health activities in each country.

A WHO consultant in public health assisted the Regional Office for one month in making arrangements for this meeting.

The conference is planned for 1957.

12. INTER - REGIONAL

Seminar on Sewage Disposal, Rural and Urban Kandy, Ceylon (15-27 Aug. 1955)

This seminar, held in August 1955, provided an opportunity for medical officers, administrators, public-health educators and engineers from the South East Asia and Western Pacific Regions to exchange information and ideas on the sanitary disposal of sewage and human waste in urban and rural areas. The report has been widely circulated. More information on this seminar is given in Part I, Section 3.
PART III

GENERAL

1. REGIONAL COMMITTEE

The eighth session of the Regional Committee was held at Bandung, Indonesia, from 5-10 September 1955.

The Committee discussed the Seventh Annual Report of the Regional Director and also the regional programme for a specific period (1957-1960). It examined and approved, with some modifications, the proposed programme and budget for 1957.

As a result of the technical discussions on the "Review of Anti-Tuberculosis Measures in South-East Asia", sixteen very useful recommendations were made by the Committee and were later widely distributed.

Discussion also took place, and appropriate resolutions were passed, on the following technical matters of regional interest: malaria eradication, smallpox, rural health, environmental sanitation, the organization of statistical services at central and state levels, the training of para-medical personnel, and the use of short-term consultants after the withdrawal of the WHO staff. The gradual expansion of the public information activities in South East Asia was recommended.

The Committee also adopted a new set of Rules of Procedures.

2. ORGANIZATION AND ADMINISTRATION

2.1 Organizational Structure

The only change in the pattern of the Regional Office during the year was the addition of the post of Regional Adviser in Malaria, established in January 1956, and that of Public Health Officer in April 1956. The latter is one of several posts to be established during 1956 and 1957 in the various WHO regions, depending on their need to cope with the increase in activities under the Expanded Programme of Technical Assistance.

The current organizational structure of the Regional Office is given in Annex 1.

2.2 Personnel

The following table shows the number of posts established and actually filled during the period under review:
Established posts for 1956

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<tr>
<th>Established posts for 1956</th>
<th>Posts actually filled on 31 July 1956</th>
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### 1. Regional Office Staff

**Professional**

- Regional Office: 11
- Regional Advisers: 14
- Area Representatives: 5

**General Services**

**Regional Office**

- Clerical: 67
- Custodial: 19

**Area Representatives**

- Clerical: 5
- Custodial: 3

### 2. Project Staff

- Professional: 215
- Professional staff on leave without pay: 3
- General Services: 1
- Auxiliary staff: 3

The last two years have seen a great increase in the volume of work. While the staff in the field has also grown appreciably, much of the increase has been of an indirect, "promotional" type which is not reflected in individual projects. Against this increase there has been no appreciable increase within the Regional Office. On 31 July 1956 there were 168 professional staff members, including 9 short-term consultants, as compared with a total of 139 on 31 July 1954.

A list of the international staff attached to the Regional Office is given in Annex 1, "Organizational Chart", and the geographical distribution of international staff as on 31 July 1956 is shown in Annex 2. As in the previous year the staff members recruited were mostly from British Commonwealth countries. There was also an increase, however, in the number of staff recruited from Ireland, Israel, the Scandinavian countries, particularly Denmark and Sweden, and the USA, and it may be noted that in the period under review several additional countries have been added to those already represented - namely, Brazil, Ecuador, Spain and the USSR.
In regard to recruitment for the Regional Office, the post of Medical Supply Officer was filled during the latter part of 1955. A senior expert was recruited as Regional Adviser in Malaria in May 1956. The very important post of Regional Adviser in Environmental Sanitation, which has remained vacant for years due to dearth of suitable candidates, was at last filled in July by the transfer of a staff member serving in the European Region. Action to recruit a suitable candidate for the new post of Public Health Officer (R.) is now under way. On the departure of the Regional Adviser in Nursing in March 1956, this post was filled by the Nursing Officer, who was, in turn, replaced on 1 July. The Budget and Finance Officer, who left in June, was replaced by the Finance Officer, whose work was taken over by the Accountant. The post of Accountant remains vacant. On the transfer of the Regional Adviser in Venereal Diseases to the Regional Office for the Americas, this post was also left vacant.

In the field, at the end of July 1956 there were 142 WHO project personnel (including 9 consultants) assigned to countries in the Region, as against 127 in July 1955, showing an increase of 15.

In view of the paucity of suitable candidates with the requisite qualifications and experience, it was not possible to fill several field positions, particularly for environmental sanitation, medical education, epidemiology, health education and statistics. Another contributing factor which has sometimes caused the loss of potential candidates, has been the delay on the government side in giving clearance or in signing plans of operations.

In response to the enquiry that was made during the last session of the Regional Committee (document RCO/Min/2 Rev.1, p.3, para 1.4), serious consideration was given to the possible recruitment of retired government officers in the countries of the Region. Contact was made with a number of candidates, and several were employed. The main difficulty, however, in recruiting this category of candidates is that it is difficult to adjust experts in certain fields to international service, and for other fields, such as environmental sanitation, health education, medical education and maternal and child health, there are no suitable experts available.

WHO has continued to offer its services for the recruitment of medical specialists within the Region, in accordance with the recommendations of the Regional Committee at its sixth and eighth sessions. A pathologist and an ophthalmologist from India were made available to Ceylon during the year. SEARO's efforts to locate further suitable specialists in India for the Government of Ceylon are not likely to be successful owing to the salary being insufficiently attractive.

Efforts have continued to improve the quality of briefing and the general orientation of project staff. Greater attention has been paid to the "debriefing" of project staff when they leave
the Region on termination or on home leave, so as to review with
them the problems arising during the course of their assignment
and to evaluate the effectiveness of their original briefing.

Arrangements have been made for the participation of
available project staff assigned to India in the seminars of the
Foreign Technicians Orientation Centre, which are being conducted
at the University of Delhi. These two-week seminars provide a useful
introduction to India, covering the history, geography and culture of
the country and its economic, political and social development.
Field trips to villages and community development centres are also
arranged during the course of the seminar.

As a result of the Director-General's decision to implement
career service appointments for professional staff, recommendations
of eligible staff members based on performance, conduct, service,
medical history and age were made and five staff members from the
Regional Office were selected. The procedure for conversion to
career service permits the appointment of 20% of the Regional Office
staff on an annual quota basis until a maximum of 75% of the staff
hold such appointments. The new scheme came into effect on 1 July
1956. A scheme for project staff which parallels the career service
also came into effect from 1 July 1956. Under this scheme selected
field staff may now be given five-year contracts.

At the request of Headquarters, the entire system of salaries,
allowances and benefits was reviewed, and reports were submitted.
This is part of a review being made by the United Nations, with the
participation of the specialized agencies.

The revised salary scale for general service staff, which is
common to the offices of the United Nations and specialized agencies
in New Delhi, referred to in the last report, was implemented from
2 November 1955. During the year the local salary scales for Bangkok,
Colombo, Djakarta and Kabul were reviewed and adjusted, and a survey is
now being conducted to review the salary scale for Rangoon.

2.3 Staff Welfare

Attention has been paid to the health of Regional Office
and project staff through periodic check-ups and annual inoculations
and vaccinations.

Many project staff members are now taking lessons in the
local language of the country or district in which they are stationed,
the cost being reimbursed by WHO. This is very useful in establishing
effective working relationships with the people of the area.

The Staff Society has been active in many matters, including
the revision of WHO salaries and allowances, hours of work, a proposal
for a Staff Benevolent Fund, and relationships with the Federation of
International Civil Servants Association.
The publication of a monthly bulletin, "SEARO NEWS & VIEWS" was started in April 1956 to spread information about WHO and its staff members.

2.4 Accommodation of Regional Office

In application of resolution SEA/RC8/R19, approved by the Regional Committee at its eighth session, negotiations were started with the Government of India with regard to the permanent establishment of the Regional Office in New Delhi. There has been much delay in obtaining a decision, but the matter is now being actively pursued by the Government of India, and it is hoped that a satisfactory solution, similar to those reached in other Regional Offices of WHO, can be found during the course of this year. A progress report will be submitted to the Member Governments as soon as the Government of India reaches a decision on the proposals made by the Regional Director.

2.5 Legal and Constitutional Matters

The Regional Office has basic agreements with India and Nepal which are in accordance with the WHO Manual. In order to conform with the Manual provisions for other countries of the Region, it is intended to negotiate new basic agreements with Afghanistan, Burma, Ceylon, Indonesia and Thailand. Forty supplementary agreements (including eight exchange of letters) were signed during the period under review, a list of which is given in Annex 3.

The position with respect to the accession to the Convention on Privileges and Immunities as reported in the Seventh Annual Report of the Regional Director remains the same. The Member States in the Region which have so far acceded to this Convention are India and Nepal. There is no progress to report.

Information on progress made with respect to the constitutional requirement for Annual Reports from Member States is given in Section 2.1, p. 19.

3. PROCUREMENT OF EQUIPMENT AND SUPPLIES

During the period under review action has been taken to secure supplies comprising 3,000 items valued at approximately $275,000 for projects under Regular and Technical Assistance funds. Twenty-five supply lists (2000 items worth about $150,000) were submitted to UNICEF for UNICEF-assisted projects. Early this year, purchase orders for supplies worth approximately $60,000 were placed with the USSR, against rouble contribution, for two projects in Afghanistan. It is expected that these supplies will be shipped shortly.
Efforts have been made to reduce the time taken in procuring and shipping supplies, and as a result they are now reaching the projects quicker than before. However, on the arrival of shipments at the country of destination, the time taken in clearing them through customs and in transporting them internally to the site of the project, still remains a problem.

To help to make some of the supply lists more practical, the Medical Supply Officer will shortly visit some important projects in the Region.

Governments have been approached for suggestions on the possibility of training local personnel for operating complex x-ray and laboratory equipment.

A questionnaire is being circulated among the field staff to obtain information on climate, vehicles, availability of electricity, gas, etc., at the project site, so that WHO may be sure to buy the type of equipment suitable to local conditions. More care is also being taken to obtain only equipment for which servicing facilities are available in the project area.

4. REPORTS AND DOCUMENTS

The Regional Office has the responsibility of collecting and maintaining WHO publications, documents and other technical information, and, in co-operation with Headquarters, of distributing such information to governments of the Region, and to medical libraries, educational and research institutes, the medical press, United Nations agencies and other governmental and non-governmental organizations working in the field of health.

It has the related task of helping to promote sales of WHO publications. In addition, it must keep its own staff, including the members of the field staff scattered throughout the Region, informed of developments in WHO and in the medical and health field in general.

The responsibility for this work as well as that of editing all SEARO documents, preparing certain periodic reports, compiling material for other reports and documents and maintaining the Regional Office Library has been undertaken by the newly created Reports and Documents Unit since July 1955. An increasing number of requests are now being received for many of the reports of WHO expert committees, the Monograph Series, standard publications such as the International List of Diseases and Causes of Death and the Pharmacopoeia Internationalis, and technical periodicals such as the WHO Bulletin and Chronicle.

The problem of seeing that important technical information and publications are reaching the health workers and institutions where they will be of most use has been reviewed. Because of the real
difficulty experienced by many medical institutions in this region in meeting the price of purchasing WHO periodicals, a discount, both on single numbers and on subscriptions, is now to be allowed not only to governments but to certain recognized medical schools, medical associations, medical libraries and research institutes in some of the countries in South East Asia.

In addition to WHO publications issued at Headquarters, there is much regional technical material available which is now being circulated.

A notable achievement during the year was the review and revision of the procedure for the preparation and submission of field reports and the establishment of the reporting system of the Regional Office on a simpler basis. In addition, a large number of monthly, quarterly and other routine reports were compiled; a wider general distribution of documents was made, and the library and documents services were improved.

Finally, a beginning was made in the important task of fostering the exchange of reports of research institutes and research departments of medical schools within the Region. This is described more fully in section 6.5, p. r.

5. COLLABORATION WITH OTHER AGENCIES

5.1 United Nations

Co-operation with the United Nations and other specialized agencies continues.

Close contacts have been maintained with the United Nations Technical Assistance Resident Representatives (TARRs) by both the Regional Office and the WHO Area Representatives. The Regional Office was visited by the Chairman of the Technical Assistance Board in February 1956, and consultations have been held with a number of TARRs at the Regional Office. Of special importance in this respect is the co-ordination of work on the preparation and submission of country requests for health projects under the Technical Assistance funds.

SEARO participated in the deliberations of the United Nations Technical Assistance Administration (UNTA), in a review of the Afghan Government's Five-Year Community Development Programme. In India, discussions were also held with the representative of UNTA regarding possible WHO co-operation in the Bombay rehabilitation project. The Regional Office was represented at the United Nations Seminar on Population Problems in Asia and the Far East held in Bandung from 21 November to 3 December 1955.
In the period under review WHO was represented at five meetings organized by ECAPF, of which the twelfth session of ECAPF itself, held in Bangalore, was particularly important. Detailed lists of the meetings in the Region to which WHO has sent representatives are given in Annexes 4 and 5.

Excellent working relationships with UNICEF have continued, with a large number of joint programmes of assistance to governments. During an average year there are about fifty such field projects in this Region, involving over eighty WHO advisory staff members and about two and a half million dollars worth of supplies from UNICEF. For some additional projects as well, UNICEF is also providing supplies, such as milk, emergency medical relief, etc., in respect of which WHO is giving advisory assistance, but this assistance is not easily visible, as individual WHO field staff members are not devoting their full time to these projects; in these cases the Regional Office itself often gives technical guidance.

Collaboration with UNICEF covers a number of technical fields - malaria, tuberculosis (BCG), leprosy, trachoma, yaws, maternal and child health, the training of nurses and midwives, environmental sanitation, health education, and, lastly and most importantly, assistance for the development of rural health units, especially in association with community development project.

The question of reimbursement of WHO personnel costs for joint projects has now been settled, and relations with UNICEF are very good. A still further improvement could be achieved in respect of accepting more fully the technical judgment of WHO and of national health administrations. This matter was raised at the Ninth World Health Assembly.

5.2 Specialized Agencies

Co-operation with FAO in nutrition, particularly in the nutrition project in Burma and Thailand, continued. Assistance was given in organizing the joint inter-regional FAO/WHO Seminar in Nutrition Education and Health Education, which was held in Baguio in October 1955. WHO also took part in preliminary discussions with FAO, UNICEF and the Indian Government in regard to a joint WHO/FAO/UNICEF nutrition programme in India.

With UNESCO, WHO field staff worked in close collaboration in three projects in Thailand - the school health project in Chachoengsao, mental health project at Dhonburi, and the UNESCO fundamental education project, Ubol. In New Delhi, WHO was represented at the first two meetings of the Advisory Committee on the establishment of a Research Centre for Southern Asia on the Social Implications of Industrialization, under the auspices of UNESCO; in Djakarta, WHO took part in the UNESCO Conference of chiefs of Technical Assistance missions in South and South-East Asia, from
29 August to 2 September 1955, and in Ceylon a representative from WHO headquarters was present at the preparatory meeting of specialists in humid tropics research organized by UNESCO.

With ILO the possibility of organizing a joint Seminar on Industrial and Occupational Health Services is being explored.

In programmes such as the rural development project in Shekaki, to which the public health adviser assigned to Afghanistan has given assistance, WHO has co-operated with a number of agencies of the United Nations family.

5.3 Bilateral Agencies

Colombo Plan

Collaboration with Colombo Plan countries continues to yield good results. SEARO offers informal advice with regard to requests received by the donor countries (such collaboration is taking place at the country level through the Area Representatives), and there is an understanding that the Colombo Plan health experts are welcome to make use of any technical material available in the Regional Office and, wherever desired, be briefed on local conditions. In some cases, supplies and equipment have been secured from Colombo Plan sources to fit in with WHO-assisted projects. Five experts provided by the Colombo Plan are working with WHO projects. Receiving governments are also assisted in planning some requests for assistance in health which are considered to be of high priority, but which cannot be met by WHO.

United States International Co-operation Administration (ICA)

Collaboration has continued with ICA, which is giving a large amount of assistance in various fields, including public health, to all the countries in the Region except Burma.

Generally speaking, this bilateral programme is now moving away from furnishing direct supplies towards the provision of specialized personnel and fellowships. As this trend progresses, the programme will be more and more in the fields in which WHO has been operating and will, therefore, require careful co-ordination with the programmes of the governments which are being assisted by WHO. This co-ordination is important, since the amount of ICA assistance in public health in some countries may reach a figure of three to five million dollars. As far as possible, overlapping is being avoided by consultations between ICA personnel and WHO Area Representatives and Regional Office staff. With more frequent consultations the points of overlap should be few. Much depends on the personality of the local representatives of ICA and WHO in each country.

Through ICA, approximately 100 fellowships per year are granted to the countries of the Region; about half are for Thailand.
Other Bilateral Agencies

During the period under review the Norwegian-aided fisheries project in South India was visited by WHO staff.

The Union of Soviet Socialist Republics is also beginning to provide bilateral assistance in the Region, and the co-ordination of this assistance with WHO programmes will also be necessary.

5.4 Other Governmental and Non-Governmental Agencies

Close co-operation and mutual consultations continue with the Rockefeller Foundation and Ford Foundation, both of which are active in the Region in the training of personnel, the former mostly at University level and the latter at the field level. The Rockefeller Foundation assisted the Government of India in organizing its National Conference on Medical Education, to which WHO also gave some assistance; the Ford Foundation provides supplies for the laboratory side of the nutrition project in Burma, and, in India, continues with its assistance to projects of rural expansion.

A representative of the Regional Office participated in the Tenth Plenary Assembly of WFUNA and also in the Seminar on the Activities on the United Nations and Special Agencies in Asia which WFUNA organized.

Among many other meetings, the Regional Office participated in the 43rd Session of the Indian Science Congress, the Eighth Annual Session of the Indian Conference on Social Work, the First Conference of State Public Health Engineers in India, and the national conferences on Medical Education in both Burma and India. The number of invitations received for participation in various meetings of the inter-governmental, governmental and non-governmental agencies has considerably increased - so much so that the Regional Office, with its limited staff, is unable to send representation to each one of them. The complete list of meetings attended is given in Annexes 4 and 5.

6. PUBLIC INFORMATION

Public Information activities have been directed more and more towards strengthening popular support for the health programmes of the Member Governments rather than publicizing the work of WHO itself. Efforts are continuing to adapt public information materials to the needs and interests of specific groups among the population.

There has been a considerable increase in the number of press releases and feature-type articles (including several comprehensive "photo-features") which are prepared in such a way as to take into account the special interests of individual countries and even of limited areas within a given country. As compared with past years, more lectures as well as informal talks have been given this year before small groups of "key" persons in different countries of the Region.
National broadcasting services have been supplied with tape-recordings as well as with specially-written scripts for feature programmes; and talks on health problems of the Region have been prepared for broadcast over both medium-wave and short-wave facilities.

The preparation and distribution of an extensive photo-poster set (supplied by the WHO Headquarters) in national and local languages has been undertaken with the active co-operation of various Member Governments. The use of the travelling exhibit supplied by Headquarters last year was fully systematized; in the first stages of this scheme, the exhibit was seen by undergraduate medical students and faculty members in seven institutes in India. The plan is being expanded to cover similar groups in other countries.

An illustrated booklet which deals with the health problems of Burma and is entitled "New Burma Road" was issued. A new South-East Asian edition of the leaflet "WHO......What It Is......What It Does......How It Works", containing an enlarged section on the Organization's work in this Region, was published and is being distributed.

In connection with this year's observance of World Health Day, still greater emphasis was placed on local participation and the involvement of special groups such as community-development and extension-service workers, Red Cross Societies, Boy Scout and Girl Guide associations, and various other civic and social welfare bodies. At the same time the preparation in local languages of information materials having a direct bearing on local problems related to the World Health Day theme was encouraged, and such materials were distributed by governments on an extensive scale. The co-operation of the governmental authorities (national, provincial and local) has been excellent.

There appears to be a growing awareness within the Region that WHO's public information activities can provide support for the work of the national health services, while at the same time filling the recognized need for the Organization to make itself better known.
Geographical Distribution of International Staff Assigned to South East Asia Region as of 31 July 1956

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|             | 15            | 11         | 148   | 168   |
Supplementary agreements signed with the member governments during the period July 1955 to July 1956

Afghanistan

Nine supplementary agreements were signed during this period; one for the rural health unit, Shewaki (August 1955); one for a refresher course for medical officers (October 1955); and in 1956, one for maternal and child health (February); one for public health expansion and nursing education (February); for a school for Sanitarians (March); School for Male Nurses (May); and for assistance to hospitals, X-ray departments and to the institute of public health (all three in July).

Burma

Five agreements were signed. In 1955, one for mental health and one for the school of nursing in Mandalay (August); one for communicable disease control (November), and one for short-term refresher courses for nurses (December). In 1956, one for the post-graduate school of nursing (July).

Ceylon

There was only one agreement, for a programme in mental health (November 1955).

India

Fourteen agreements were signed during this period. In 1955 there were ten: two for refresher courses for nurses, one for school health in Delhi State, and one for the establishment of a demonstration and training unit in vital and health statistics (all in August); two for health education of the public and one for a post-graduate course for midwife tutors (October); and one for maternal and child health and public health training, Saurashtra; one for dental health and one for trachoma (December). In 1956, there have been four: one in domiciliary nursing and midwifery and one for the training of professors in social and preventive medicine (January); one for rural health and nursing education in Assam (May), and one in environmental sanitation (June).

Indonesia

For Indonesia, seven agreements were signed: in 1955, assistance to the Malaria section of the Health Directorate and to the Medan Medical School (both in August), assistance to Gadjah Mada University in paediatric nursing (September), and to the Maternal and Child Health Department of the Ministry of Health (October). In 1956, there have been agreements for assistance to medical education in Surabaya (April), to plague control (May) and to leprosy control (June).

Thailand

Four agreements were signed: in 1955, one for strengthening the Central Health Organization in maternal and child health and one for assistance to the School of Public Health, Bangkok (November). In 1956, there have been one for midwifery training (January) and one for nutrition (July).

* These agreements in some cases consisted merely of an exchange of letters.
**Conferences and Meetings of the United Nations and Specialized Agencies at which WHO Was Represented**

*(July 1955 to July 1956)*

**1955**

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<tr>
<th>Date(s)</th>
<th>Event Description</th>
<th>Location</th>
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<tr>
<td>29 August - 2 September</td>
<td>UNESCO: Conference of Chiefs of Technical Assistance Missions in South and South-East Asia</td>
<td>Djakarta</td>
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<tr>
<td>12 - 14 September</td>
<td>UNESCO: Meeting on the Setting Up of Research Centres on the Social Implications of Industralization</td>
<td>New Delhi</td>
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<tr>
<td>10 October - 3 November</td>
<td>FAO/WHO Seminar on Nutrition Education and Health Education</td>
<td>Baguio (Philippines)</td>
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<tr>
<td>21 November - 3 December</td>
<td>United Nations: Seminar on Population Problems in Asia and the Far East</td>
<td>Bandung (Indonesia)</td>
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<tr>
<td>19 - 22 December</td>
<td>ECAFE/ILO/UNESCO: Inter-Secretariat Working Party Meeting on Trained Personnel for Economic Development</td>
<td>Bangalore (India)</td>
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**1956**

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<tr>
<td>24 - 31 January</td>
<td>ECAFE: Committee on Industry and Trade, eighth session</td>
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<td>2 - 14 February</td>
<td>ECAFE: twelfth session</td>
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<td>22 - 24 March</td>
<td>UNESCO: Preparatory Meeting of Experts in Humid Tropic Research</td>
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<td>29 March - 7 April</td>
<td>ECAFE: Fourth Regional Conference of Statisticians</td>
<td>Bangkok</td>
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<td>17 - 18 July</td>
<td>UNESCO: Advisory Committee on Research Centre on the Social Implications of Industralization in Southern Asia</td>
<td>New Delhi</td>
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<tr>
<td>30 July - 6 August</td>
<td>ECAFE: Working Party on Housing and Building Materials</td>
<td>Bangkok</td>
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Conferences and Meetings of Governmental, Non-Governmental and Other Organizations at which WHO was Represented.

(July 1955 to July 1956)

1955

4 September
ICMR (Indian Council of Medical Research): Sub-Committee Meeting on Industrial Health
New Delhi

5 - 11 September
World Federation of United Nations Associations: Tenth Plenary Assembly
Bangkok

8 - 10 September
Government of India: First Conference of State Public Health Engineers
New Delhi

12 - 24 September
World Federation of United Nations Associations: Seminar on the Activities of the United Nations and Specialized Agencies in Asia
Bangkok

7 - 11 November
Annual Meeting of Trained Nurses Association of India
Patna (India)

19 - 22 November
Government of India: Conference on Medical Education
New Delhi

12 - 19 December
ICMR: Annual Meetings of the Advisory Committees of the Scientific Advisory Board
Nagpur (India)

15 December
Meeting of the Trained Nurses Association for Ceylon
Colombo

15 - 19 December
International Union for Child Welfare: Advisory Committee Meeting
New Delhi

17 - 18 December
ICMR: Sub-Committee Meeting on Venereal Diseases and Yaws Conference
Nagpur (India)

27 - 31 December
Indian Conference on Social Work: eighth session
Bangalore (India)

1956

2 - 8 January
Indian Science Congress: 43rd session
Agra (India)

5 - 8 January
Government of India: 13th Tuberculosis Workers' Conference
Trivandrum (India)

5 - 7 February
Government of India: Central Council of Health, fourth meeting
New Delhi
### 1956 (contd.)

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<td>20 - 21 February</td>
<td>Government of India: Meeting of the Family Planning Research and Programme Committee</td>
<td>New Delhi</td>
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<td>23 - 25 February</td>
<td>Seventh All-India Paediatric Conference</td>
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<td>Government of India: Meeting of the Committee on Co-ordination of Bilateral and International Health Agencies</td>
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<td>1 - 26 March</td>
<td>Government of India: Seminar on Tuberculosis Survey Methods</td>
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<td>Arogyavaram (India)</td>
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<td>Government of India: Meeting of the Co-ordination Committee of Bilateral and International Health Agencies</td>
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<td>9 May</td>
<td>Bombay Social Hygiene Council: Annual Meeting</td>
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<td>4 June</td>
<td>Indian Standards Institute: Insecticides Sub-Committee Meeting</td>
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<td>4 July</td>
<td>Colombo Plan: Special Co-ordination Meeting</td>
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<td>Government of India: Meeting of the Co-ordination Committee of Bilateral and International Health Agencies</td>
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### Distribution of Fellowships Awarded

**By Subject of Study and By Country**

**July 1955 - July 1956**

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<td>Plague Control</td>
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</tr>
<tr>
<td>Clinical, Medical Science and Education</td>
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<tr>
<td>Anaesthesiology</td>
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<td>1</td>
<td>-</td>
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</tr>
<tr>
<td>Radiology</td>
<td>1</td>
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</tr>
<tr>
<td>Anatomy</td>
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<td>1</td>
</tr>
<tr>
<td>Training of Health Assistants</td>
<td>*4</td>
<td>-</td>
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<td>4</td>
</tr>
<tr>
<td>Training of Medical Auxiliaries and</td>
<td>1</td>
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<td>-</td>
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<td>2</td>
</tr>
<tr>
<td>Para-Medical Personnel</td>
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</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>6</td>
<td>25</td>
<td>6</td>
<td>10</td>
<td>1</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>7</td>
<td>68</td>
</tr>
</tbody>
</table>

**Note:** The above table does not include the special UNICEF fellowships awarded for training in public-health nursing at the All-India Institute of Hygiene and Public Health, Calcutta, for which awards have been made as follows: Burma - 5; Indonesia - 3, and Thailand - 2.

* Regional fellowships
© 1 regional fellowship
<table>
<thead>
<tr>
<th>Subject</th>
<th>Category of Trainees</th>
<th>Type of Training</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB Control</td>
<td>Medical officers, radiographers and male nurses.</td>
<td>Tuberculosis-diagnosis and prevention, radiography</td>
<td>6 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and laboratory technique</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>General laboratory technique.</td>
<td>Continuos</td>
</tr>
<tr>
<td>Vaccine Production</td>
<td>Laboratory assistants.</td>
<td>Refresher course in all subjects relating to public</td>
<td>3 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>health</td>
<td></td>
</tr>
<tr>
<td>Public Health Administration</td>
<td>Medical officers.</td>
<td>Office procedures.</td>
<td>9 months</td>
</tr>
<tr>
<td>Nursing</td>
<td>Clerical staff of the Ministry of Health</td>
<td>Preliminary training in general nursing.</td>
<td>6 months</td>
</tr>
<tr>
<td>Maternal and Child Health</td>
<td>General nursing students, midwifery students and midwife helpers.</td>
<td>Basic nursing and midwifery.</td>
<td>1-3 years</td>
</tr>
<tr>
<td>Environmental Sanitation</td>
<td>Student teachers and village level workers.</td>
<td>Basic sanitation, elementary public health and field</td>
<td>1-4 weeks</td>
</tr>
<tr>
<td>Medical Education</td>
<td>First and second year medical students.</td>
<td>Anatomy and physiology.</td>
<td>2 years</td>
</tr>
<tr>
<td>Vital and Health Statistics</td>
<td>Medical officers.</td>
<td>Lectures in vital and health statistics.</td>
<td>20 lectur</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td>Malaria Control</td>
<td>Malaria assistants, entomologists, laboratory technicians and malaria supervisors.</td>
<td>Malaria control, entomology, field operation technique</td>
<td>10 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medical officers, x-ray and laboratory technicians, radiographers, dark-room</td>
<td>Tuberculosis-diagnosis and prevention, x-ray to</td>
<td>1 month</td>
</tr>
<tr>
<td></td>
<td></td>
<td>reading, epidemiology.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Undergraduate medical students (final year - 1955-56 and 1956-57 batches)</td>
<td>Medical laboratory technique.</td>
<td>2 years</td>
</tr>
<tr>
<td></td>
<td>VD and laboratory technicians.</td>
<td>Management of tuberculosis - clinical and preventive</td>
<td>8 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>aspects - patients - clinical and preventive aspects.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Serological and laboratory technique.</td>
<td>6 months</td>
</tr>
<tr>
<td>Nursing</td>
<td>Public health nurses, pupil midwives, post-graduate midwives and nurse-midwives.</td>
<td>Preliminary and basic courses in midwifery, domiciliary</td>
<td>2 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>midwifery, in-service training etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lady health visitors.</td>
<td>Refresher courses.</td>
<td>3 months</td>
</tr>
<tr>
<td></td>
<td>Midwives.</td>
<td>Refresher course in paediatric nursing.</td>
<td>3 months</td>
</tr>
<tr>
<td></td>
<td>Student nurses, basic trained and non-basic trained midwife students.</td>
<td>General nursing and midwifery.</td>
<td>6 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Training activities Carried Out by Governments with the assistance of WHO Staff**

(July 1955 - July 1956)
<table>
<thead>
<tr>
<th>Subject</th>
<th>Category of Trainees</th>
<th>Type of Training</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>Health assistants, public-health nurses, lady health visitors and medical students.</td>
<td>Practical nutrition, diet surveys, Burmese diet.</td>
<td>Lectures only</td>
</tr>
<tr>
<td>Health Education (1 course - 17 trainees)</td>
<td>Assistant health educators.</td>
<td>Refresher course.</td>
<td>1 month</td>
</tr>
<tr>
<td>Health Education (4 courses - 272 trainees)</td>
<td>Health assistants and public-health nurses.</td>
<td>Refresher courses.</td>
<td>Lectures only</td>
</tr>
<tr>
<td>Medical Education (Classes and lectures 668 students in all)</td>
<td>Medical students.</td>
<td>Lectures and practicals in physiology, pharmacology and preventive and social medicine.</td>
<td>4 years</td>
</tr>
<tr>
<td>Medical Education (1 course - 8 trainees)</td>
<td>Laboratory technicians.</td>
<td>Laboratory procedures.</td>
<td>3 months</td>
</tr>
<tr>
<td>Medical Education (1 course - 6 trainees)</td>
<td>Junior grade staff.</td>
<td>Teaching and research methods.</td>
<td>1 year</td>
</tr>
<tr>
<td>Medical Education (1 course - 25 trainees)</td>
<td>Health assistants.</td>
<td>Refresher course in preventive and social medicine.</td>
<td>1½ months</td>
</tr>
<tr>
<td>CEYLON</td>
<td>X-ray technicians, dark-room attendants and laboratory assistants.</td>
<td>Chest radiography, processing of x-ray films, tomography and laboratory procedures.</td>
<td>1-5 months</td>
</tr>
<tr>
<td>Tuberculosis Control (6 courses - 64 trainees)</td>
<td>Health visitors.</td>
<td>Public-health and social welfare, lectures and field work.</td>
<td>5 weeks</td>
</tr>
<tr>
<td>Leprosy (8 courses - 16 trainees)</td>
<td>Medical officers, apothecaries, laboratory assistants, public-health inspectors and public-health nurses</td>
<td>Leprosy survey, record-keeping, diagnosis, treatment, follow up, laboratory methods and occupational therapy.</td>
<td>1-12 months</td>
</tr>
<tr>
<td>Rural Health (67 trainees)</td>
<td>Medical officers, apothecaries, midwives, nurses.</td>
<td>Public health orientation and field training.</td>
<td>6 weeks</td>
</tr>
<tr>
<td>Rural Health (1 course - 16 trainees)</td>
<td>Midwives (with 10 years service).</td>
<td>Refresher course in public health.</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Rural Health (2 courses - 24 trainees)</td>
<td>Registered apothecaries.</td>
<td>Refresher courses.</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Nursing (469 trainees)</td>
<td>Pupil nurses.</td>
<td>General nursing.</td>
<td>3 years</td>
</tr>
<tr>
<td>Nursing (1 course - 20 trainees)</td>
<td>Emergency nurses.</td>
<td>Special course for qualifying as staff nurses.</td>
<td>1 year</td>
</tr>
<tr>
<td>Nursing (2 courses - 14 trainees)</td>
<td>Graduate nurses.</td>
<td>Ward sisters course (post-basic).</td>
<td>2 years</td>
</tr>
<tr>
<td>Health education (1 course - 20 trainees)</td>
<td>Health educators.</td>
<td>In-service refresher course (held after completion of 6 months' field work).</td>
<td>1 week</td>
</tr>
<tr>
<td>Health education (1 course - 28 trainees)</td>
<td>Public-health inspectors.</td>
<td>Pre-service training.</td>
<td>8 weeks</td>
</tr>
<tr>
<td>Health education (1 course)</td>
<td>Public-health nurses, midwives and apothecaries.</td>
<td>In-service training.</td>
<td>Lecture only</td>
</tr>
<tr>
<td>Subject</td>
<td>Category of Trainees</td>
<td>Type of Training</td>
<td>Duration</td>
</tr>
<tr>
<td>---------------------------------------------</td>
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</tr>
<tr>
<td>Environmental Sanitation</td>
<td>Public-health inspectors, supervisors, and sub-inspectors of works.</td>
<td>Rural sanitation and construction.</td>
<td>3 days</td>
</tr>
<tr>
<td>(1 course - 8 trainees)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Anesthesiology</td>
<td>Medical officers.</td>
<td>Diploma course in anesthesiology.</td>
<td>9 months</td>
</tr>
<tr>
<td>(1 course - 16 trainees) (2 courses - 8 trainees)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>INDIA</td>
<td>Staff nurses.</td>
<td>Training course for operating-room nurses.</td>
<td>6 months</td>
</tr>
<tr>
<td>Maternal and child health and nursing - All-India Institute of Hygiene and Public Health, Calcutta (18 courses - 240 trainees)</td>
<td>Medical officers, public-health nurses, science graduates and biochemists, maternal and child health officers, staff of rural and urban health centres.</td>
<td>Post-graduate courses in 1 to 10 months maternal and child health and public health nursing; diploma courses in public health, industrial hygiene, nutrition and dietetics; certificate courses in maternal and child health and public health nursing; seminar on maternal and child health; rural health orientation.</td>
<td></td>
</tr>
<tr>
<td>Other centres (About 90 courses - 2100 trainees)</td>
<td>Medical officers, general nursing and midwifery students, midwives, ward sisters, tutors of auxiliary nurse-midwives, dais, lady health visitors, staff nurses, school teachers, medical graduates and undergraduates.</td>
<td>Orientation in public health; general nursing to and midwifery classes; 3½ years domiciliary midwifery; public-health nursing and rural health orientation; refresher courses for ward sisters, midwives, tutors of auxiliary nurse-midwives and lady health visitors and diploma courses in midwifery; public-health hygiene; school health; health education; general and applied paediatrics; rural health.</td>
<td></td>
</tr>
<tr>
<td>Mental Health (6 courses - 56 trainees)</td>
<td>Doctors with hospital experience; holders of M.A. degree in psychology; nurses who have completed training in general nursing.</td>
<td>Theoretical and practical 1 to 2 training for the diploma years courses in psychological medicine, in medical psychology and in psychiatric nursing.</td>
<td></td>
</tr>
<tr>
<td>(3 courses - 36 trainees)</td>
<td>Staff nurses.</td>
<td>In-service training.</td>
<td>2½ - 7 months</td>
</tr>
<tr>
<td>Health Education (1 course - 20 trainees)</td>
<td>Health officers, sanitary inspectors, health visitors, teachers, social workers, etc.</td>
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</tr>
<tr>
<td>Environmental Sanitation (1 course - 7 trainees)</td>
<td>Civil engineering students (graduates).</td>
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</tr>
<tr>
<td>Medical Education (2 courses - 26 trainees)</td>
<td>Medical students and assistant professors.</td>
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</tr>
<tr>
<td>Vital and Health Statistics (1 course - 4 trainees)</td>
<td>Statistical assistants.</td>
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<tr>
<td></td>
<td></td>
<td>Post-graduate course in 1½ years public health engineering, including field work.</td>
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<tr>
<td></td>
<td></td>
<td>Preventive and social medicine.</td>
<td>5 to 6 months</td>
</tr>
<tr>
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<td>Course in cause-of-death coding.</td>
<td>1 month</td>
</tr>
<tr>
<td>Subject</td>
<td>Category of Trainees</td>
<td>Type of Training</td>
<td>Duration</td>
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<tr>
<td>---------------------------------</td>
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<tr>
<td>INDONESIA</td>
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<tr>
<td>Malaria Control</td>
<td>Junior and senior malaria assistants, mantri teachers, mantri students and senior mantris.</td>
<td>Malaria control - field and laboratory methods, entomology, filariasis survey and refresher course.</td>
<td>2 weeks, 18 months</td>
</tr>
<tr>
<td>(13 courses - 104 trainees)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Tuberculosis Control</td>
<td>Medical officer, nurses, mantris, home visitors, laboratory technicians.</td>
<td>In-service training</td>
<td>1 month to 3 years</td>
</tr>
<tr>
<td>(13 courses - 44 trainees)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>BCG Vaccination</td>
<td>Trained female and male nurses and lay vaccinators.</td>
<td>Theoretical and practical training in tuberculin testing, BCG vaccination, etc.</td>
<td>6 - 8 weeks</td>
</tr>
<tr>
<td>(59 trainees)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treponematoses</td>
<td>Acting supervisors of field teams, mantris and djurupatoks.</td>
<td>Theoretical and practical training in diagnosis and treatment of yaws and organization of yaws campaign.</td>
<td>2 - 12 weeks</td>
</tr>
<tr>
<td>Control</td>
<td>(26 courses - 464 trainees)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing</td>
<td>Nurse teachers, midwifery teachers and public-health nurse students.</td>
<td>Public health and midwifery.</td>
<td>1 year</td>
</tr>
<tr>
<td>(5 courses - 31 trainees)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Education</td>
<td>Medical students, &quot;doctorandi&quot;, maternal and child health nurses, pharmacy students, laboratory assistants, nursing and midwifery students.</td>
<td>Lectures and demonstrations in preventive and social medicine, in paediatrics and paediatric nursing and pharmaceutical chemistry, laboratory technique, etc.</td>
<td>1½ months, 2 years</td>
</tr>
<tr>
<td>(6 courses - 205 trainees)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Vital and Health Statistics</td>
<td>Statistical clerks from provincial health departments.</td>
<td>Public-health statistics.</td>
<td>3 months</td>
</tr>
<tr>
<td>(2 courses - 17 trainees)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>NEPAL</td>
<td></td>
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</tr>
<tr>
<td>Nursing</td>
<td>Nurse students.</td>
<td>General nursing, including midwifery and public health.</td>
<td>3 years</td>
</tr>
<tr>
<td>(1 course - 20 trainees)</td>
<td></td>
<td>Instructions in general preventive and curative work.</td>
<td>2 years</td>
</tr>
<tr>
<td>Medical Education</td>
<td>Health assistant trainees.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1 course - 20 trainees)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>THAILAND</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>BCG Vaccination</td>
<td>Doctors, public-health nurses, midwives, sanitary inspectors, school health nurses.</td>
<td>Organization of BCG vaccination campaign, theoretical and practical training in tuberculin testing, BCG vaccination and statistical recording.</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>(6 courses - 33 trainees)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treponematoses</td>
<td>Sanitary inspectors</td>
<td>Instructions and guidance for the integration phase of the yaws campaign.</td>
<td>4-11 days</td>
</tr>
<tr>
<td>Control</td>
<td>(8 courses - 68 trainees)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leprosy Control</td>
<td>Lay workers</td>
<td>Diagnosis and treatment of leprosy, laboratory work, preventive methods, etc.</td>
<td>6 weeks</td>
</tr>
<tr>
<td>(1 course - 20 trainees)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject</td>
<td>Category of Trainees</td>
<td>Type of Training</td>
<td>Duration</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------------------------------</td>
<td>-------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Nursing</td>
<td>Graduate nurses and student nurses</td>
<td>Post-basic training in nursing and general nursing, including midwifery and public-health.</td>
<td>2 to 3½ years</td>
</tr>
<tr>
<td>(6 courses - 304 trainees)</td>
<td></td>
<td>Midwifery</td>
<td>1½ years</td>
</tr>
<tr>
<td>Midwifery</td>
<td>Student midwives</td>
<td>Post-graduate course in psychiatry, including clinical psychology, psycho-diagnostic methods, problems of child development, juvenile court etc.</td>
<td>5 months (approx.)</td>
</tr>
<tr>
<td>Mental Health</td>
<td>Doctors, psychiatrists and paediatricians.</td>
<td>Health education (as part of the fundamental education programme).</td>
<td>2 years</td>
</tr>
<tr>
<td>(3 courses - 56 trainees)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Education</td>
<td>Nurses, sanitarians and schoolteachers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2 courses - 20 trainees)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>