WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR SOUTH EAST ASIA

NINTH ANNUAL REPORT
OF
THE REGIONAL DIRECTOR
TO THE
REGIONAL COMMITTEE FOR SOUTH EAST ASIA
July 1956 — July 1957
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Progress towards an improved public-health service has continued to be slow but fairly steady. The chief reasons for the slow pace remain, as before, the shortage of trained personnel and of adequate funds. Most countries have experienced increasing difficulties in the procurement of the foreign exchange which is needed for development programmes, including those for public health.

Lack of supervision of public-health programmes is still apparent at all levels. The dangers arising from such a situation are realized by public health departments: for example, during the year the Indian Central Health Council resolved on the need for proper supervision and asked all State Governments to strengthen their health directorates in order to ensure that the funds made available were being fully and effectively utilized. However, any improvement in the existing unsatisfactory situation cannot be expected until a much larger number of trained personnel and the funds to employ them become available. Health administrations still need much strengthening at the country and state levels, particularly in the fields of rural health, maternal and child health, environmental sanitation and health education.

WHO's main role, therefore, continues to be to assist governments in training programmes not only for field workers but also for senior public health administrators who can supervise the constantly expanding public health services. In addition to training counterpart teams and organizing a very large number of regular training courses in different subjects, WHO staff has assisted this year in conducting 40 refresher courses for about 700 trainees, consisting of medical officers, nurses, technicians, sanitarians and other auxiliary workers. A detailed statement of training activities carried out with assistance from WHO staff is given in Annex 6. Two seminars were held - one a regional seminar for nursing leaders (with 31 participants) and the other an inter-regional meeting of tuberculosis workers, with 35 participants from the South East Asia and Western Pacific Regions. A total of 93 fellowships was awarded. In addition, under the special arrangements made with the Harvard School of Public Health last year, the experiment of training national teachers in a specially organized public-health teachers' course was continued.

Efforts at integration and unification of curative and preventive health services are being made in most countries, but progress is slow.

Although community development projects are very popular, every country in the Region is not ripe for such comprehensive activities on a nation-wide scale. These projects have continued to make progress especially in India, although the most substantial part of the Indian programme - the development of 300 new primary health centres - is just beginning to be tackled. While such comprehensive programmes are a natural and logical method of developing social services, they require much preliminary preparation and a great deal of readjustment of relationships between the
various ministries and departments. Local resources are also very limited in most countries in the Region, and this makes the implementation of large programmes a grave undertaking. Their integration into the routine work of a health department is essential, but this is necessarily slow, and much caution needs to be exercised in preventing too heavy a load on already overburdened departments.

In the Introduction to my Eighth Annual Report I had proposed that WHO experts should in future participate less directly in field operations and devote more time to assisting health administrations at the national and state levels. The Regional Committee, while accepting this view in principle, was of the opinion that considerable field participation by WHO was still very necessary in this region. These views of the Regional Committee have been kept in mind during the development of current programmes.

During the period under review, 131 projects have been assisted, as compared with 96 reported for the last period (1955-1956). The main fields of assistance were the control of communicable diseases, development of rural health services, strengthening of national health administrations and training of all categories of health workers. While details of these programmes will be found in the subsequent parts of this Report, I will mention here some of the trends of our programme during the past year.

In tuberculosis control we are moving away from demonstration and training projects and concentrating on chemotherapy and domiciliary service. Malaria control has been assisted to develop much more rapidly, and wherever feasible to become converted into an eradication programme. In leprosy control the emphasis has been on active case-finding and non-institutional treatment. Valuable results are expected from the pilot projects in trachoma in India and Indonesia. Promotion of maternal and child health centres, as such, is not being encouraged; integration of maternal and child health into the general public health services is being actively promoted, and more stress is laid on adequate child care and on training in paediatrics.

Much preliminary work has been done to assist Member States in the preparation of annual health reports; for this purpose a valuable "Manual of Instructions" has been prepared and sent to governments in South East Asia.

The promotion of full-time public-health departments in medical schools has been delayed by the inability to procure suitable WHO professors.

As pointed out at the ninth session of the Regional Committee, there is real need for keeping a watch over projects where direct WHO assistance has already been terminated. It is realized that a slackening of effort takes place in some cases, although there are many examples where work initiated with the help of WHO has been continued and even expanded, such as in the
venereal-disease control programme in Ceylon. As the staff in the Regional Office is already fully exploited, some of these "follow-up" duties will necessarily fall on the Area Representatives.

Relations with other organizations both bilateral and international have continued to be good. Close collaboration has been maintained with TARRs, UNICEF, the International Co-operation Administration of the USA, the Colombo Plan, the Rockefeller Foundation and the Ford Foundation. Valuable discussions have been held with numerous members of these organizations who have visited the Region. We have always sought such discussions in order to promote collaboration with all agencies working in the field of health in South East Asia.

As usual, co-operation on the part of national health administrations has been excellent. The difficulty with regard to counterparts, however, continues, and there have been instances, as in past years, where the lack of suitable counterparts, or of counterparts altogether, has limited very strictly the influence of WHO experts in the field.

Four countries held general elections during the year. In India the re-organization of the states resulted in the consolidation of the country into 14 major states and 6 Union Territories. This reorganization has also affected the work of some of the WHO teams.

On 31 July 1957 there were 126 professional staff members in the field. Recruitment remains a problem; it is difficult to find the right number of the right calibre of experts to fill all the vacant posts, and some very important posts in the Regional Office and in the field have remained vacant. The total financial responsibility for programmes in the Region, for which the Organization is a signatory in agreements and plans of operations, amounts to over 6.5 million dollars in the current year, inclusive of "Other Extra-Budgetary Funds".

The Regional Office has continued to work under very heavy pressure. In addition to larger field programme, there are growing responsibilities with respect to co-operating in programmes of the United Nations and other agencies - international, national and bilateral. WHO welcomes all opportunities to assist in co-ordinating health work; nevertheless, this has meant that the work-load of the Regional Office has increased and is still increasing, and it will soon be necessary to make certain additions to the staffing if it is expected to continue to provide a satisfactory level of service to governments, to field projects, to headquarters and to other organizations.

I very much regret to inform the Regional Committee of the sudden death of Dr. Veenbaas, who was our Area Representative in Burma. Dr. Veenbaas retired from the Organization on 4 June 1957. Unfortunately, he died suddenly during the return
journey to his home. He had been one of our oldest and most valuable colleagues, and I wish here to record our high appreciation of the services he rendered to the Organization.

* * *

On behalf of the Regional Office staff I acknowledge with gratitude the excellent co-operation we have received from all governments in this Region and have the honour to present my Ninth Annual Report to the Regional Committee.

C. Mani
Regional Director
PART I

GENERAL STATEMENT OF ACTIVITIES IN THE REGION

1. PUBLIC HEALTH ADMINISTRATION

1.1 Strengthening of National Health Services

During the discussions at the ninth session of the Regional Committee, stress was laid on the usefulness of placing WHO experts at State or provincial levels to assist in strengthening the national health services. While it was pointed out that no master blue-print on public health administration would be realistic and that each country would have to evolve an administrative pattern to suit its own conditions, there was general agreement with the Regional Director's warning that in all countries the need for increased supervision of public health programmes was becoming serious. WHO has therefore naturally continued to emphasize assistance to national health services at central and provincial levels.

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

In Afghanistan, the public health adviser who was assisting at the Central Directorate level left in September 1956. Since that time, however, a number of Regional Advisers have visited Kabul to assist the Ministry of Health in the formulation of the health aspects of the Government's Five-Year Development Plan. A WHO short-term consultant also went to Afghanistan in April/May 1956, and consolidated in one report the advice of the various advisers in the Regional Office. In Burma, the public health adviser continued his work in the Central Directorate and further assisted the Government in the preparation of an annual report as a regular function.

In other subjects as well, assistance has been given at the national or state level. The trend with regard to the strengthening of the general structure of maternal and child health in a number of States and countries of South East Asia Region, mentioned in the last report of the Regional Director, has continued. WHO has, for instance, supplied a State maternal and child health officer for Mysore State in India, and a country adviser in maternal and child health for Thailand.

With respect to nursing, a nursing adviser at the directorate level has recently started work in Ceylon. A plan of operations has also been drawn up for Afghanistan for the provision of a nursing adviser to serve at the country level, and a similar plan of operations for a country nursing adviser is under preparation for Indonesia. In India, nurses at the State advisory level have been assigned to West Bengal and Mysore, and others are being planned for two more states.
The WHO epidemiologist has continued his work of assisting the central directorate in Ceylon; other such epidemiologists are under recruitment for Burma and Indonesia. WHO assistance to Health Statistics Divisions of national directorates has also been considerably increased. Health statisticians have continued in Afghanistan and Burma; in Ceylon one has recently been appointed at the State level to assist in setting up a permanent statistical service, and it is expected that a further statistician will shortly take up his duties in Thailand.

Also in Thailand, following a survey made in 1955-1956, WHO has made a medical nutritionist available to the Government to advise and assist the Nutrition Division in carrying out the programme adopted.

A new type of WHO assistance for this region is being given in the preparation of medical and public health legislation, for which a short-term consultant was assigned to Afghanistan. Requests for similar assistance have been received from other countries.

The foregoing are all examples of the direct assistance being provided to Central or State governments. It should be kept in mind, however, that it is not easy to define exactly what constitutes the strengthening of national health services. It is obviously not merely the assistance given to central directorates; actually a large part of the other projects undertaken by WHO could come under this category. The large-scale tuberculosis programme being developed in India certainly entails a valuable strengthening of the Indian national health service, as does the upgrading of the district centres mentioned in the following section under "community development". Another valuable field should not be lost sight of: the refresher course. The refresher course for provincial public health officers which took place last year in Afghanistan and which has just recently been repeated, has proved a valuable means of contributing to the improvement of provincial and peripheral services.

1.2 Community Development

The concept of community development constitutes a basic element in the social philosophy of several of the countries in the South East Asia Region. Mainly in India but also in Afghanistan, Nepal, Indonesia and Thailand, plans for community development of which health is an integral part have been adopted. While at the moment the health services under these schemes are of a limited nature and do not necessarily cover all fields of public health, from a long-range point of view, they are the obvious nucleus for later all-embracing, integrated health services in the rural areas.

Realizing the tremendous impact which these programmes will necessarily have on the countries concerned, WHO, with the help of UNICEF, is more and more engaged in collaboration with the governments in work in this field. At the Regional Office a Regional Adviser in Community Development will concentrate on assisting in the development of community projects.
In Afghanistan and Nepal the Governments have prepared documents setting out the organisation of rural development programmes, in which the national health administrations are adequately represented. As its contribution to the programme in Afghanistan, WHO is supporting the development of a pilot project in Shewaki. Originally set up as a rural health unit, this project has been the nucleus for a much wider programme, which, with the assistance of several international agencies, including WHO, UNICEF and UNESCO, is becoming a community development project covering a large area. This unit is also a training centre for medical students and for sanitarians.

With the entering into force of the Second Five-Year Plan, India has started to emphasize the health aspects of its community development programme. The basic unit in the Indian system is the primary health centre, covering a population of approximately 65,000, distributed among about 100 villages. Normally this primary centre will supervise three sub-centres. Some supervision of the basic unit will take place from the district level, a district normally comprising a population varying from one to two million. At the level of the district, hospital and laboratory facilities will be available for referral purposes. It is the intention to organize, as soon as possible, one model district in each State. WHO and UNICEF are closely following the principles laid down in the Second Five-Year Plan; a master plan of operations has been worked out with the Government, and the drawing up of subsidiary State plans of operations is at the moment in progress.

A number of rural training areas are being developed in co-operation with the universities and medical schools, for giving field experience to physicians, nurses, midwives and sanitary inspectors, who will thus be better prepared for work in community development areas.

In Indonesia, the Government has decided to launch an extensive village community development project, proposed to start in 16 selected districts, each with a population of about 100,000. Pilot projects for community development in Thailand, with special emphasis on the health aspects, have been started in four areas with assistance from ICA.

1.3 Maternal and Child Health

During the last year there has been a crystallization of ideas on the best way to assist countries in the Region in their efforts to build up services for mothers and children.

It has come to be realized that in order to serve a community best in the field of maternal and child health, as it is traditionally understood (i.e. ante-natal, natal, post-natal care and health supervision of infants and children, for which separate clinics have hitherto been established), a community health programme is needed, in which these vulnerable groups of
society - the mother and child - are given special attention. It is now generally accepted that where malnutrition and infectious diseases are still widespread, it is not practicable to attempt to meet the needs through services in which curative and preventive care are separated, but that an integrated service is required. This concept is more and more gaining acceptance in the countries of the Region, as illustrated on a large scale in the present community development projects in India, into which WHO/UNICEF-assisted programmes, especially those in the field of maternal and child health, are increasingly being integrated.

The main difficulty is, and will be for some time to come, the scarcity of adequately trained personnel. In addition to the need for setting up more training schools, greater emphasis should be placed on in-service, refresher and orientation training of all categories of personnel. Even if this improved training leads to a certain amount of delay and an increase in cost, it will be justified in order to improve the quality of the service and also to prevent the introduction into the services of numerous categories of inadequately trained personnel.

The present position in child care in all countries of the Region is that there is a division between curative services, which are given by doctors in hospitals or out-patient clinics and are mostly limited to towns, and preventive services, which are mainly the domain of auxiliary personnel, occasionally supervised by medical staff. Even if more medical officers can be made available to work in maternal and child health, child welfare or rural health clinics, their past and present training does not prepare them adequately for this task.

In the future, in order to secure adequate and effective services for children, it will be essential to improve the teaching of paediatrics in the medical schools. It should be clearly understood that paediatrics must cover all aspects of child care, both curative and preventive. Obviously it is not possible to do this solely through an administrative decision to make paediatrics a major subject in the medical curriculum; a number of other steps will need to be taken.

For the staffing of the paediatric teaching departments, with a view to providing the medical student with an integrated course in child care, a number of special training centres will be needed. General post-graduate training abroad will not suffice, since the paediatric problems with which western countries are confronted are so different from those in the South East Asia Region.

In order to enable such training centres to function, adequate paediatric services, run on proper lines and related to local conditions and problems, must also be available.

The training centre will have three functions which cannot be separated: teaching, servicing and research. A programme has now been completed for a centre along these lines in Madras, and it is expected that one or two similar programmes may be started during the next year elsewhere in India, and another possibly in one other country of the Region.
Meanwhile, considerable progress has been made in the teaching of pediatrics in several medical colleges in India, specifically in connection with WHO-UNICEF-assisted maternal and child health projects.

At the Indian national medical education conference held in November 1955 in Delhi, the establishment of separate departments for pediatrics in all medical colleges and also the extension of the teaching course to three months were recommended. WHO has also tried to stimulate additional improvements, some of which have already been implemented. For example:

In Nagpur, during the year, an independent Department of Pediatrics was created, and teaching extended to three months. A child welfare clinic was set up on the medical college grounds to serve for teaching promotional and preventive child care, and a separate clinic for spastic children – the first in the Region – was also established.

In Hyderabad, two peripheral preventive – curative child health centres have been established in order to demonstrate to the students the unity of these two aspects of child care.

In Lucknow, two child welfare centres which had already been established in the town were adapted for use as a supplement to the academic courses in preventive pediatrics. On the suggestion of WHO personnel, the teaching of pediatrics in the first clinical year will consist of the growth, development and supervision of the normal child. Only after that will the students be taught the pathology of childhood.

In Visakhapatnam, a national professor of pediatrics has now been appointed as counterpart to the WHO pediatrician, and a child welfare clinic has been created as part of the services and teaching of the Pediatric Department. Following the advice of WHO consultants, the Medical Faculty has agreed to associate the professor of pediatrics with the professor of preventive and social medicine in teaching pre-clinical students the environmental aspects of community service.

In Patna, routine services in the in-patient departments were improved with the assistance of the WHO nurses, and a maternal and child health clinic in town has been adapted for use in undergraduate teaching.

1.4 Nursing

Nursing Education

In South East Asia the major need in nursing education continues to be for an increase in number and an improvement in quality of both nursing and auxiliary nursing personnel.
During the past few years progress has been made in improving and standardizing the curricula for the training of the various categories. More attention is now being given to correlating classroom teaching with the practical teaching on the wards. Attempts have been made to include public health as part of the training of every nurse and midwife, and nursing schools are thus being encouraged to employ public health nurses as part of their teaching staff. The fact that community health services are still limited, both quantitatively and qualitatively, makes it difficult to find suitable field experience in public health nursing. In some instances it has, however, been possible to upgrade the services in limited areas to serve as teaching fields. WHO has been assisting in the development of this aspect of nurse and midwife training in all the countries in the Region.

On the whole the schools are well supplied with classroom equipment except for textbooks in the local language. These are still scarce, but gradually the supply is being increased as governments are preparing texts, in some cases with WHO assistance. In most of the WHO-assisted nursing education projects, lecture notes are being translated and mimeographed for distribution to the students. In a few instances WHO has been able to have small texts printed in the local language.

The need for nursing and midwife tutors is gradually being met. Three countries in the Region are now training their own tutors, and a fourth will begin to do so within a month or two. The College of Nursing in New Delhi and the School of Nursing, Vellore, are being used to some extent as regional training centres.

Refresher courses, which are now being held in all the countries, while first used as a means of strengthening the background of nursing and midwifery personnel whose training had been of limited quality, are now being recognized as having a permanent place as a means of helping personnel to keep up to date and to show them how to take more responsibility for working out their own problems. During the past year WHO has assisted with refresher courses for ward sisters, nurse and midwife tutors, paediatric nurses and health visitors. The courses for ward sisters and for tutors have been particularly well received.

In most countries the major limiting factors in the expansion of the training programmes are the lack of hostel and classroom accommodation and the shortage of funds for student stipends. Until additional accommodation and stipends are provided it will not be possible to train the numbers of nurses and midwives who are needed to implement the plans of governments for the development of health services.

Nursing Administration

The establishment of a sound administrative machinery for the control of nursing services and nursing education is essential for the successful development of the health services of the countries. Nurses are gradually being given opportunities to participate in the formulation of administrative policy.
At the Directorate level, national nurses are working in four countries of the Region; two countries have also had WHO nursing assistance at that level, and plans are being made for the provision of WHO nurses to the Directorates of three other countries later in 1957. In India, in addition to the national nurses working in the central Directorate, six of the fourteen States have nurses in the State Directorates. WHO has also assigned nurses to help at the State level: one has finished her assignment in one State; two have recently been assigned to State Directorates, and one more will take up a similar post during the year. International fellowships are being granted for study in nursing administration and for advanced study in nursing education.

The Regional Nursing Seminar which took place in August 1956, in Delhi, provided the first opportunity for nurses in South East Asia to meet together to discuss mutual problems. This type of session can be proved very useful as a means of helping senior nurses to clarify their thinking and to plan objectively the ways in which they can function as leaders in their profession for the improvement of nursing services and nursing education.

During the Seminar, concern was expressed over the fact that there was confusion with regard to the functions of the various categories of nursing and midwifery personnel, particularly auxiliary personnel. As a result of this confusion, training is not closely enough related to the duties to be performed, and, also, personnel are not being utilized to the best advantage. Effective utilization of staff is particularly important in countries which are handicapped by a shortage of trained personnel. To follow up on the discussions at the Seminar, the national nursing associations in some of the countries are stimulating further study of this problem. The Trained Nurses Association of India has undertaken to collect data on the training and utilization of the auxiliary nurse midwife, and the material thus collected should be valuable for future studies on the subject to be carried out with the aid of WHO.

The report of the Nursing Seminar is being given wide distribution.

WHO Nursing Activities

Compared with 52 nurses a year ago, there are at present 47 WHO nurses working in 31 WHO-assisted projects in the Region. The decrease noted is a reflection of the changing pattern of WHO assistance in nursing.

During the earlier years of the Organization nursing assistance was given mainly in basic nursing and midwifery education and in maternal and child health. Now that most of the countries are better able to assume full responsibility for basic nursing education, the trend in WHO assistance is towards post-graduate training, especially of nursing and midwifery tutors, and towards strengthening the administrative and supervisory machinery for nursing in the Health Directorates. In Afghanistan and Nepal, however, direct assistance in basic training programmes will continue to be necessary for some years.
A further change is taking place in the pattern of assistance. In the past there has been a tendency to develop a separate project for each aspect of WHO's assistance in a country. Experience has shown that when the projects are separated it is difficult for either WHO or the government to correlate effectively the various aspects of the developments in nursing. To overcome this handicap an effort is now being made to combine within one project as many as possible of the WHO-assisted nursing activities planned for a country. An example of this is the nursing education project in Afghanistan, which includes the activities which were to have been undertaken by means of four separate projects. It is considered that by this method more effective assistance can be given in studying the needs for nursing service in the country and in co-ordinating the programmes which are being undertaken to meet these needs.

1.5 Health Education of the Public

The shortage of health educators for positions of leadership is a serious handicap to the development of national health education schemes in almost all of the countries in the Region. Trained personnel is needed to plan, develop and guide activities at national and state (or provincial) levels.

Although international fellowships for post-graduate training in health education are available (from WHO, the Colombo Plan, ICA and other agencies), these fellowships alone cannot meet the needs of the countries. WHO is assisting with a proposal for the All-India Institute of Hygiene and Public Health, Calcutta, to offer a ten-month certificate course for training medical and non-medical persons as health education specialists.

During the past year the All-India Institute offered two three-month in-service courses in which 50 students (including medical officers, nurses, teachers, sanitary inspectors, health visitors and health education personnel) were enrolled. The experience gained in these two courses has been valuable as a guide in making preparations for the proposed ten-month certificate course.

In the "Research-cum-Action" projects operating in three different parts of India, with the assistance of the Ford Foundation and other agencies, attention is being focussed on health education with particular reference to environmental sanitation in rural areas. Different approaches are being appraised with a view to utilizing on a wide basis the methods found most effective in bringing about improved rural sanitation. A WHO health educator is assisting the Research-cum-Action project at Singur.

In 1956, during the two-day technical discussion on "How Can School Health Education Programmes Be Made More Effective in South East Asia?", held in connection with the ninth session of the WHO Regional Committee, various aspects of the subject were considered: the training of personnel who contribute to
school health education; curricula for teacher training institutions; standards for sanitary facilities in schools, and procedures to bring about co-ordination of efforts for school-health education. At the request of the participants, the working document prepared for the discussion and the list of twenty recommendations arising out of it were assembled in a booklet entitled "School Health Education in South East Asia", and widely distributed.

During the past year, training in health education has been given to teachers in several countries. With the assistance of WHO, a two-week school-health seminar for classroom teachers and school principals was conducted in Indonesia, where special consideration was given to problems of nutrition, communicable diseases, environmental sanitation, child development and health teaching. In India at a conference of the principals of training colleges, plans were made to include health education as an important part of the revised degree syllabus. The Government of Ceylon, in co-operation with USOM, is also starting a project to strengthen health education in schools. In several countries, including Burma, Ceylon and India, committees are being formed with representatives from the Departments of Health, Departments of Education and other interested agencies for the purpose of co-ordinating and developing health education in schools. This is a welcome development in the Region.

In the five-year plan for Afghanistan, beginning in 1956 provision is being made for the development of a national scheme for health education. Bureaux, divisions or sub-divisions of health education have now been established in Health Departments on the national level in Burma, Ceylon, India, Indonesia and Thailand.

Much interest has been shown in the recently published Report of the FAO/WHO International Seminar on Education in Health and Nutrition held in Baguio (Philippines) in the fall of 1955. Follow-up activities with respect to this seminar continue in several countries. In Burma, available nutrition materials were evaluated and new ones developed, and a 91-page book on nutrition and health education, which was written for professional workers, with the collaboration of the WHO health educator and the FAO nutritionist and their counterparts, was printed with financial assistance from WHO.

The Indian Council of Medical Research has recommended the setting up of field units in different States to make country-wide surveys of the prevalence of protein malnutrition in infants and children, and later to carry out field trials with protein-rich foods in order to implement its recommendations. WHO assisted in the six-week training course given to officers to be assigned to these field units.

In preparation for the technical discussions on health education of the public, to be held in 1957 in connection with the tenth session of the WHO Regional Committee for South East Asia, Member Governments have summarized the activities relating to health education of the public in their respective countries.
The country papers include information on the scope of activities; the immediate and long-range objectives of health education schemes at different levels; the types of work being carried out; consideration of various economic, social and cultural factors in planning and developing it, and the administrative steps with respect to personnel, training and organization which have been taken to implement health education.

During the past year the Regional Office prepared four Technical Circulars on Health Education of the Public for national and international health educators working in the Region, and for other personnel in selected WHO-assisted projects. These circulars highlight information relating to developments in countries in the Region.

One of the scientific sessions of the inaugural meeting of the Indian Public Health Association, held in September 1956, was devoted to health education of the public. Among the recommendations arising out of the session was that a health education section be established for the purpose of bringing together all those who are concerned with planning, developing and carrying out health education activities.

1.6 Nutrition

It is generally realized that the nutritional problem, particularly that of protein malnutrition, is one of the most serious handicaps to the achievement of good health in the Region. It is a problem that is closely related to most of the projects with which WHO is concerned, and assistance in nutrition is therefore necessarily mainly of an indirect nature. Such assistance is, for instance, being given as part of the work of the WHO health educators, and in connection with projects of assistance to general child health, pediatrics and medical education, particularly in the field of social and preventive medicine. WHO has also been closely associated with FAO in projects like the study of beriberi in Burma, and with UNICEF in its milk feeding programmes.

More direct assistance to nutrition has been given by providing a grant to the Indian Council of Medical Research for the studies which it is conducting on protein malnutrition and on locally available non-milk protein-rich foods. Also, WHO assisted in a training course given at the All-India Institute of Hygiene and Public Health, Calcutta, which was part of a longer course given to State health officers at different institutions in India as a first step toward setting up field units in the different States to carry out surveys of the prevalence of protein malnutrition in infants and children.

During the year, preparations were completed for a goitre control project in India with the co-operation of WHO and UNICEF, and a WHO-assisted nutrition project was started in Thailand (for details see Part III).
17 Mental Health

In the field of mental health, WHO is concentrating its efforts in South East Asia on helping to develop the All-India Institute of Mental Health in Bangalore as a regional training centre. WHO has continued to assist this Institute with personnel, and it is being used by psychiatry and nursing students from several countries of the Region.

The WHO-assisted mental health project in Bangkok continued until March 1957. This project was largely concerned with the establishment of test patterns suitable for use in child guidance clinics in Thailand. More details are given in Part III.

1.8 Social and Occupational Health

The Seminar on Industrial and Occupational Health, which had been planned for 1957, is being postponed until the end of 1958, as it was not possible for the ILO, which is also assisting in organizing this seminar, to participate before that time.

The Regional Office has been represented at meetings of the Advisory Committee and Steering Committee of the UNESCO Research Centre on the Social Implications of Industrialization in Southern Asia, and has continued to take an interest in the UNTAA-assisted Rehabilitation Centre in Bombay, which provides training in physiotherapy and occupational therapy.

WHO is also co-operating with UNTAA in preparations for the Seminar on Rehabilitation to be held in Solo in Indonesia in August 1957.

1.9 Dental Health

The report of the inter-regional dental seminar held in the Western Pacific Region has been reproduced by the Dental Council of India and given wide circulation.

The Dental Health Officer of WHO Headquarters visited India and Ceylon during the year, mainly in regard to the preparation of a working conference on the epidemiology of periodontal diseases, to be held in 1957 in India and to be followed by further investigations on this subject with the assistance of WHO.

A WHO consultant in dental health also visited India for three months mainly to advise on dental education.

A professor of dentistry for Burma and a short-term consultant for Thailand are under recruitment.

WHO is giving fellowships in the public health aspects of dentistry, for which a special course is available at the Michigan School of Public Health, USA.
2. ENVIRONMENTAL SANITATION

While it is generally accepted that there is no more important problem in South East Asia than the improvement of environmental sanitation, so far the attempts to meet the needs in this field have met with limited success. One of the reasons is the shortage of qualified public health engineers and sanitarians, which is becoming more acute with the increasing demand for highly qualified experts to undertake supervisory and advisory activities at country and state levels. This shortage is also hampering WHO's recruitment efforts. In the period covered by this report, the field staff working on environmental sanitation in South East Asia has comprised one visiting professor in public health engineering, four public health engineers and seven sanitarians.

One hopeful sign in India has been the increased interest shown by the community development authorities in the promotion of environmental sanitation in the schools connected with community development projects. With the aim of assisting the Government to organize specific programmes in environmental sanitation in rural areas, a project has recently been initiated in the State of Kerala (India), and it is hoped that a second will follow shortly in Uttar Pradesh.

The initiative taken by WHO in 1953 in promoting an exchange of ideas on environmental sanitation by encouraging the holding of seminars of public health engineers has had good results in India. Following the first informal meeting of a group of public health engineers in New Delhi, held in connection with the regional seminar for water works operators organized by WHO and the Government of India in 1953, the Ministry of Health of the Government of India adopted the policy of calling annual conferences of state and other public health engineers to discuss various problems in their fields. The first such conference was convened in New Delhi in 1955, shortly after the second regional seminar (on sewage disposal) sponsored by WHO had been held in Ceylon in August 1955. The second Indian national conference was held in 1956, also in New Delhi, WHO representatives participating in the discussions. At such conferences the main problems in environmental sanitation confronted by India are discussed.

The post-graduate course for training public health engineers, organized in Madras with the help of WHO, is progressing satisfactorily. In addition to the regular post-graduate course, a short course for engineers and another for overseers have been started.

In the other countries of the Region as well, activities have progressed. The work of WHO in Afghanistan comprises three types of environmental sanitation activities, namely, a programme in rural areas (in the Shewaki project area), environmental sanitation work in urban areas (in the city of Kabul) and a school for sanitarians (also at Kabul). In Burma, the WHO sanitarian continues to give assistance in training sanitation
workers and in furthering a rural environmental sanitation programme in the area of Aung San Myo. The environmental sanitation project in Ceylon is continuing, with public health education and the training of sanitation workers forming an integral part of the programme of the WHO public health engineer. In Indonesia, the recently appointed WHO public health engineer has begun to assist in preliminary work on a rural environmental sanitation project, and a sanitarian with special experience in port health work has been added to the WHO team to advise the port and airport authorities.

As environmental sanitation work develops, the need to have adequately trained ancillary sanitation personnel is being felt more and more; this implies the study of the functions which should be assigned to these workers, and on this will depend the basic qualifications to be required of candidates, the curricula they must follow and the examinations they must undergo. The Regional Office is planning to organize a study group in India to deal with these questions.

On this question, the lack of textbooks in the national language has been a great handicap. A start to fill this gap has been made in Afghanistan, where a sanitation manual is under preparation with the help of the WHO public health engineer. This manual will be in Persian and will cover the principal aspects of environmental sanitation in relation to the needs in that country. It will also include some basic knowledge on parasitology and communicable diseases.

Some years ago a study on the subject of setting up international standards for drinking water was started by WHO Headquarters on a global basis. Following preliminary investigations, meetings of regional and international groups were called to study this question in its application to local practice and legislation. This study has culminated in the convening of an international study group which has now recommended standards to be adopted.

3. EDUCATION AND TRAINING

An important point brought out at the national medical education conferences which have been held in India (1955), Indonesia (1955-56) and Thailand (1956) has been the general dissatisfaction with many aspects of the system of medical education in current use. This has given rise to a search for possible improvements.

The value of holding national medical education conferences is in the opportunity they offer to teachers and administrators to discuss openly the views and general philosophy they have acquired through their practical experience with students in classrooms, laboratories, hospital wards and out-patient departments, and in field practice. This leads to an honest evaluation of their work and a periodical overhaul of subjects such as premedical entrance procedures, problems of preclinical training, general curricula content, teaching methodology, etc., and even sometimes to an evaluation of the finished product.
It has long been felt that there is a need in the South East Asia Region for a forum for the exchange of information on new ideas and developments in the medical schools. As a contribution towards filling this need, a bulletin on medical education has been started by the Regional Office, and is being issued periodically. To date, four numbers have been brought out. As this bulletin is becoming better known, more contributions are being received and a wider circulation is called for.

The Regional Office has also distributed a number of WHO documents to the medical schools in the Region, most of which have been invited to take advantage of the special discount on the price of all WHO publications and subscriptions to periodicals, which is described in Part II, Section 4.

In 1957, a team of two senior Canadian medical educationists under the Colombo Plan made surveys of three selected Indian Medical Colleges. Conferences between them and members of the Regional Office staff resulted in a useful exchange of information and opinions.

3.1 Direct Assistance to Educational Institutions

One of the main aims of WHO has continued to be the provision of suitable professors in preventive and social medicine to various medical schools in the Region. During the past year, one post in India, one in Burma and one in Afghanistan have been filled. There are still four posts vacant - three in India and one in Indonesia. Towards the end of 1956, five prospective professors of preventive and social medicine from India were sent on WHO fellowships for two years to take a special course organized by the Regional Office with the Harvard School of Public Health. Four more from India, one from Burma and one from Indonesia are now being selected to undertake a similar course.

Another important way in which WHO has been assisting medical schools has been by assigning teachers in the pre-clinical subjects. A number of professors in physiology, anatomy, pharmacology, pharmacy and pharmaceutical chemistry, preventive and social medicine and, in the clinical field, paediatrics, have been provided to Afghanistan, Burma, India and Indonesia. The teaching of paediatrics is mentioned elsewhere in the report (see section 2.3). As usual, provision has been made for fellowships in association with these projects for the further training of counterparts, who will take over on the departure of the WHO professors. Unfortunately, there are not always suitable persons available to take up these fellowships.

In Thailand WHO has no medical education programme, although it is giving assistance to the School of Public Health in Bangkok. Of interest is the recent announcement that a third medical school is to be established, at Chiangmai, and that the Government and the USOM will each contribute 32.5 million baht (approx. $155,000) to this project over six years. A nursing school, in addition, will be built with assistance from USOM.
3.2 Fellowships

The fellowship programme continues to expand, both in the numbers of fellows going out from the Region and of those from other WHO Regions coming to South East Asia for courses and study tours. The number of fellowships awarded during this period was 93 as compared with 68 in 1955-1956. Statements showing (1) the number of fellowships awarded by country, sources of funds and the breakdown between regional and international fellowships, and (2) the distribution of fellowships by subject of study and by country are given in the tables in Annex 5.

Awards continue to be concentrated on basic health subjects, such as maternal and child health and pediatrics, nursing education, health education, sanitary engineering, public health administration, tuberculosis control administration, public health dentistry, the training of professors of preventive and social medicine and the training of future professors in pre-clinical subjects.

Ten regional fellowships are being granted by WHO and 21 by UNICEF for study at the All-India Institute of Hygiene and Public Health at Calcutta, which has acted as a regional training centre in a number of fields, chiefly general public health, public health nursing, maternal and child health, health education, and occupational health. Fellows have come not only from South East Asia but from countries as far away as Japan and Nigeria. Under the UNICEF fellowship programme 10 non-Indian doctors and 11 non-Indian nurse-midwives are following the one-year Diploma Course in Maternity and Child Welfare and the Certificate Course in Public Health Nursing respectively. These UNICEF fellowships are processed through the normal WHO fellowship procedures. In addition, a number of UNICEF fellowships have been taken up by Indian students. The award of diplomas to post-graduates holding degrees from other medical schools not officially recognized by Calcutta University still remains a problem.

Fellowships in malaria and filariasis control also bring doctors and entomologists to the Malaria Institute, India, and its field operation areas. Among other regional training institutions which are being developed may be mentioned the All-India Institute for Mental Health in Bangalore, which now offers courses for psychiatry and psychiatric nursing.

Besides those who have taken up regional fellowships, nine fellows from outside the Region — from Australia, China, Mauritius, Papua New Guinea, Nigeria and the Philippines — have, in the period covered, come on study tours of various South East Asian countries for periods varying in length from one to four weeks.

The steadily expanding fellowship programme of WHO is filling an important need at this time, when medical education institutions are being built up in the Region.
Difficulties sometimes arise in regard to fellows' capacity to speak and understand the language of the country of study. Certain countries like the United States of America and the United Kingdom are now insisting on independent tests to show an adequate knowledge of the language.

Certain governments in the Region also impose basic conditions on their nationals who accept fellowships, whether governmental or from international or foreign agencies. Sureties are demanded, and penalties may be imposed where the fellow fails to complete his programme or does not take up government service for a specified time after his return. The WHO application form contains a letter of transmittal by which the Government undertakes that the fellow will not suffer in salary, status, or promotion prospects by reason of his WHO fellowship, but these statements are qualified by the governments' own conditions — conditions which, particularly where they relate to failure in a course of studies, may operate to the detriment of the fellow, and which, in some cases, may possibly make suitable candidates reluctant to accept fellowships.

After a WHO fellow has returned from his fellowship abroad and has been employed in his country of residence for two years, the Government concerned reports to WHO on the utilization of the services of this fellow. An analysis of the reports thus received is made in the Regional Office.

Out of reports on 135 fellows which have so far been received:

- 127 (94.1%) are employed in the subject of their fellowship studies;
- 58 (43.0%) have assumed greater responsibilities;
- 35 (25.9%) are employed in a new activity;
- 71 (52.6%) have imparted the knowledge gained by means of conferences and by articles in medical journals;
- 100 (74.1%) are engaged in training activities;
- 70 (51.9%) have been able to introduce new methods;
- 41 (30.4%) have established new services;
- 33 (24.4%) are engaged in some type of research;
- 22 (16.3%) have maintained some degree of contact with other fellows and officials whom they came to know during their studies;
- 2 (1.5%) have been on international assignments.

In the period covered by this report, the Colombo Plan is granting 7 fellowships to Burma, 27 to Ceylon, 20 to India, 4 to Indonesia, 28 to Nepal (20 for undergraduate studies in medicine for five and a half years in India) and 16 to Thailand in medical and allied subjects. ICA has given 13 to Afghanistan, 4 to Ceylon, 8 to India, 12 to Indonesia, 4 to Nepal and 33 to Thailand. The Rockefeller Foundation is granting 2 fellowships to Burma and 10 to India. Burma has also received 2 fellowships from the British Council; Ceylon has been given 1 under the Smith-Mundt Scholarship Fund, U.S.A.; India has been awarded 1 by the Nuffield Foundation, Indonesia 2 by FAO, and Thailand 1 by UNTAA.
4. COMMUNICABLE DISEASES

Diseases like malaria, tuberculosis, yaws, trachoma, smallpox, cholera, plague, leprosy and filariasis are still a major public health problem and have to be tackled in the countries of the Region by a mass approach through special campaigns. In some of the countries, however, the control measures for certain diseases like yaws, typhus, plague and smallpox can be and are being integrated into the general health services. There still remains a heavy load of preventible diseases due to insanitation, such diseases as cholera, enteric, the dysenteries, diarrhoeas (especially in children) and worm infestations, for which no large-scale programmes of environmental sanitation have yet been launched. While the need for such programmes is realized, the practical difficulties are still formidable on account of lack of initial capital expenditure, equipment and trained staff and grossly insufficient health education of the public.

4.1 Malaria and Other Insect-Borne Diseases

Not only does the national malaria control campaign in each country of the Region continue to make good progress, but there is also an increased awareness of the necessity for accepting malaria eradication as a goal to be achieved in stages. Out of a total of 285 million people living in malarious areas in South East Asia, about 160 million are now under protection.

The pattern of WHO assistance has, during the last two years, shifted towards strengthening national central malaria organizations and offering technical advice in formulating and evaluating national programmes. In one country - Indonesia - a decentralization of the malaria service has taken place, and WHO's assistance has been extended to the provincial level, with technical advice in the conduct of provincial programmes.

The Regional Committee at its ninth session discussed a paper submitted by the Regional Director containing a review of its earlier recommendations, statements of the present position regarding the epidemiology and control of malaria in the various countries of the Region and detailed suggestions for a phased programme of malaria eradication. The Regional Committee made certain recommendations, which, with other developments in malaria control, are briefly discussed below.

In Afghanistan, a programme of malaria eradication is already being undertaken by the Government in collaboration with WHO and UNICEF. From September to December 1956, a WHO

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malaria advisory team collected data in the northern and eastern provinces, and specific recommendations have now been made by the Regional Office for the establishment of surveillance in these two areas starting in 1957, for the intensification of spraying and for certain other relevant measures. The medical officers concerned were given WHO fellowships. About two million people are now under protection in Afghanistan.

In Burma, the Government has accepted the malaria eradication scheme worked out by the Regional Office, and has been implementing the recommendations since February 1957. During the year, about eight million people have been protected. WHO is supplying personnel and UNICEF is giving supplies and equipment.

In Ceylon recommendations were made for the reintroduction of spraying operations in certain areas and for an intensification of the surveillance procedures. A WHO malaria advisory team collected data from February through June 1957, and appropriate recommendations will be sent to the Government. Despite some recrudescence of malaria in Ceylon when spraying was withdrawn after more than ten years of efficient malaria control, the measures now contemplated by the Government may reasonably be expected to achieve the goal of eradication and make it possible to withdraw spraying after a few years. The population under protection is about five million.

In India, the original proposals made by the Regional Office for a programme of eradication have been considerably modified by the Government, in discussion with ICA and WHO representatives. Generous provision to meet the increased cost of eradication in so far as dollar costs are concerned is likely to be made, as before, by ICA; the Government will make an effort to find 75 million rupees from its own budget. At the instance of the Government of India, the Regional Office has assisted in assessing the progress of the national malaria control programme and has made recommendations for the maintenance phase in areas where control has reached a progressive stage in interrupting transmission. During 1956-57 about 125 million persons were under protection.

The problem of malaria in Indonesia continues to be a challenge. Indonesia is the only country in the Region where true physiological resistance has been met with in one vector species (A. sundaicus) in some areas and where the same species in certain other areas has manifested an alteration in its behaviour, making application of residual insecticides difficult. The change-over to dieldrin has had useful results where there is a problem of true physiological resistance, but present indications are that it may not be of value in the areas where the vector species has altered its behaviour. Secondly, there is an acute shortage of trained medical and para-medical personnel. The Government is trying to provide para-medical staff at the level of "controlleurs". Eleven "controlleurs" have already been trained both in the country and abroad, and thirteen more, after training locally, are now receiving further training in other countries of the Region. WHO has increased the scope of its
assistance, not only by having the senior officers take up advisory functions in the conduct of the provincial programmes but also by deputing eight WHO assistant malariologists to supplement the national controllers and to be placed in charge of malaria surveys and control at the level of Residencies in the three provinces of Java. Details of this plan are given in Part III. These modifications in the pattern of WHO assistance have been made on the basis of discussions between the Regional Office and national and ICA officials.

In Nepal, malaria control in the multi-purpose development project in the Rapti Valley has been undertaken by the Government in collaboration with WHO, which has assigned staff to this project. Here, about 25,000 people have been protected, and the epidemiology of malaria has been studied in detail. Training has been an important feature of the project. In addition, a national programme has been developed by the Government with the USOM, and during 1956, about 0.8 million people were under protection. Recently the Regional Office, after discussion with the national and USOM officials, made recommendations for a phased ten-year national eradication programme.

In Thailand, the good progress towards malaria eradication reported earlier has continued. More than ten million people are now under protection. Vigilance measures have been further strengthened by the appointment of a two-member team to visit each village once a year to discover fever cases, take blood slides, determine malaria diagnosis microscopically, and undertake treatment of the cases of malaria. This will provide further information regarding the number of cases in areas where withdrawal of spraying has been effected or is contemplated. It may be necessary to intensify surveillance procedures in the light of the data obtained. The question of setting up an appraisal committee, consisting of a national, an ICA and a WHO malariologist, to review the programme, is under consideration.

Other malaria activities in the Region have included a conference of the malariologists of Thailand and Burma, which was held in August 1956 in Thailand, the first meeting of the Anti-Malaria Co-ordination Board (in which Vietnam, Laos, Cambodia, Thailand and Burma were represented) in Saigon in November, and an inter-country meeting at Imphal (India) in January 1957. WHO was represented at all of these meetings, arising out of which recommendations have been made for collaboration between adjacent countries to facilitate malaria control in border areas.

Since the Malaria Eradication Special Account created by WHO has not yet received substantial contributions1, the programme and budget estimates included under this Account and presented to the Regional Committee at its ninth session2 cannot be considered.

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1This was the subject of a special resolution of the Tenth World Health Assembly, WHA10.32.
2Document SEA/RC9/6 Add.1
Until such time as this fund can be used, steps are being taken to meet as many of the requirements as possible from the Regular and Technical Assistance budgets and from UNICEF allocations, to supplement the much larger national allocations for the purpose. In India, Indonesia and Nepal, in the meantime, a large amount of funds for malaria eradication are being provided by ICA.

4.2 Tuberculosis

The year under review has been an important one in respect of anti-tuberculosis work. The completion of the first phase of the Indian National Tuberculosis Survey, to which reference was made in last year's report, made it possible for tentative findings to be published. This survey is being undertaken on a sampling basis and includes cities, small towns and villages in the north, east and south of India. The morbidity is said to vary from seven to thirty per 1,000 population in the different areas, and the rate of bacteriologically positive cases from one to eleven per 1,000.

It is of particular interest that there seems to be no marked variation as regards the prevalence of the disease in relation to the size of the population unit, i.e., village, town, city, etc. The morbidity rate shows a continuous increase with age, e.g., the prevalence in the age-group of 35 and over is considerably higher than in the age-group of 5 to 34. WHO will assist the future work of the survey by lending to the Government of India two specially designed transportable photofluorographic units to reach population groups hitherto inaccessible to the mobile units.

WHO has also assisted Ceylon in carrying out a tuberculosis prevalence survey on a random sampling basis. The field work of the survey was completed in the very short time of five months, and a gratifying feature was the high response rate - about 96% in the population units examined. Some of the preliminary findings of the Indian survey were duplicated in Ceylon, e.g., the continuous and significant increase of tuberculosis morbidity with age. The estimated rate for healed pathology is 5.5 and for unhealed 10 per 1,000 population.

In January 1957, two important tuberculosis conferences were held in New Delhi. One, organized by the International Union against Tuberculosis, was attended by distinguished workers from countries all over the world. Representatives from WHO Headquarters and the Regional Office participated in the discussions. The other conference was of WHO medical officers of tuberculosis projects and their national counterparts from three WHO regions. There were about 40 participants. This was a follow-up of the 1952 WHO conference at Alexandria, which resulted in a series of Headquarters documents recommending technical policies regarding such matters as standard diagnostic procedures in underdeveloped countries, case documentation and clinic organization.
With the availability to the tuberculosis worker, since 1952, of an increasing number of antibiotics and drugs, the strategy of attack on this disease is inevitably changing. The battleground is moving from the sanatorium to the patient's home, making it no longer essential to provide beds on a large scale, and through methodological advances in prevalence surveys it is now possible to ensure the establishment of population targets which will give a mass attack on tuberculosis the maximum impact. It is therefore not surprising that in both the conferences mentioned above the emphasis was mainly on how to evaluate the incidence of tuberculosis in underdeveloped countries, on problems of ambulatory chemotherapy, and on diagnostic and biological problems posed by the emergence of isoniazid-resistant tuberculosis bacilli.

The discussions at the WHO conference were all the more significant in that the Indian Government is at the moment developing a plan for a country-wide tuberculosis campaign, which includes a request for large-scale assistance by WHO and UNICEF. After the conference, WHO Headquarters and the Regional Office were able to assist the Government of India in the further development of this plan. The general strategy will be largely determined by the results of the national survey, and the tactics, in part, by the methods employed in the mass BCG campaign. The salient points are along the lines recommended by the Regional Committee at its eighth session, following its technical discussion on tuberculosis. The plan envisages a central training and research institution, state administrative and training centres and tuberculosis services at a district level, and the campaign is to be mainly based on domiciliary chemotherapy. The Indian developments will very likely be followed by similar ones in other countries.

The tuberculosis chemotherapy project at Madras, mentioned in last year's annual report, will be of increasing importance, not only for the Indian campaign but also for similar campaigns in the Region. From a scientific point of view, it is hoped to obtain answers to some of the problems of domiciliary chemotherapy. From the public health administration point of view, the main questions are, first, whether domiciliary chemotherapy is a feasible procedure at all in India, and if so, whether it is possible to control tuberculosis in the home by means of a single, cheap, self-administered drug, or whether recourse must be had to mixed regimes, which might include more costly substances, some of which are not wholly suitable for self-administration.

Pending the comprehensive results of the trials in progress at Madras, pilot schemes for using the isoniazid supplied by UNICEF in domiciliary chemotherapy are in progress in Afghanistan, Burma, India and Thailand.

BCG mass campaigns have continued during the year in several countries of the Region; in Burma, the Government is putting into effect a consolidation programme based on the gradually developing network of rural and urban health centres. The Government of Ceylon also has a programme of BCG consolidation under consideration.

1Document SEA/RC8/21
4.3 Venereal Diseases and Treponematoses

National workers formerly trained with the assistance of WHO have continued venereal-disease control work in Afghanistan and Burma. In Ceylon, a very active control programme, started some years ago in collaboration with WHO, has been developed. Plans are now under consideration for an expansion of the antenatal blood-testing service throughout the island, making use of the existing maternal and child health centres, to be undertaken in collaboration with WHO and UNICEF. The Government has also prepared a scheme for the eradication of yaws from the few still existing endemic pockets of the disease, for which international assistance is being negotiated.

The venereal-disease control work in the various Indian States that were originally assisted with UNICEF serologic equipment has been carried on by national teams who were trained some time ago at the WHO-assisted centre at Simla. There has been no large-scale expansion of work. The Government of India, however, has included in its Second Five-Year Plan a scheme for the control of venereal and other allied treponemal diseases, the cost of which will be approximately Rs.5.9 million to the Central Government. This scheme has also been included in the State Plans, with a provision of approximately Rs.8.4 million. It envisages a shift in emphasis, within the framework of the existing public health structure, from the individual curative aspect to an integrated programme of venereal-disease control which will combine both curative and preventive aspects. It is proposed to establish during the Plan period 75 properly equipped and staffed venereal-disease clinics in association with district hospitals, and 8 venereal-disease clinics at state headquarters, preferably attached to teaching hospitals. Yaws-control activities in Madhya Pradesh, Andhra, Hyderabad and Orissa States are going forward. UNICEF assistance to the programme continues.

The yaws-control programme in Indonesia is being satisfactorily run by the national workers. At a yaws symposium held in July 1956 in Lawang, East Java, it was recommended that the mass campaign previously planned to continue up to 1965 should be completed by 1961, and that the consolidation of the mass campaign should be effected by 1965. Between 1950, when the programme was started, and the end of 1956, a population of 23.3 million was examined, and 3.7 million yaws cases were detected and treated; during the same period, out of 31.34 million people examined in resurveys, 1.56 million cases were treated.

A WHO venereologist continues to assist with the yaws control programme in Thailand, which, despite certain handicaps, is also maintaining satisfactory progress. UNICEF is furnishing supplies. Since July 1956 the population coverage has shown an upward trend. From the beginning of the campaign in May 1950 till the end of January 1957, over 12 million people have been examined, and of this number, about 1.12 million have been treated in provincial treponematosis control clinics and treatment control areas.
4.4 Other Communicable Diseases

(1) Filariasis

Studies on filariasis are in progress in Indonesia, Thailand, Ceylon and India.

In India, 20 filariasis control units have been functioning during 1956-57 as part of the national filariasis control programme, which is protecting about six million people. A combination of hetrazone therapy and insecticide spraying three times a year is used in rural areas; hetrazone therapy and anti-larval measures reinforced by one round of spraying at the height of the mosquito season are used in urban areas. In addition, eighteen units are engaged in a filariasis survey in the rest of the country. So far, about 15 million people have been surveyed. In the entire area thus surveyed a filarial endemioity varying from about 2.5% to 40% has been found.

(2) Leprosy

The expansion of the leprosy control programme in Burma is now under discussion with the Government and UNICEF. In addition to the present provision for extending treatment facilities by the appointment of leprosy inspectors in each district, the programme now under discussion would include intensive case-finding and more adequate rural facilities for treatment, to be carried out in five pilot areas in the country on the same pattern as the Thailand leprosy control project.

The project in Ceylon was terminated towards the end of June 1957. An evaluation of the work carried out will be found in Part III.

Further discussions on the Indian leprosy control programme have taken place with UNICEF, and although no final plan for international assistance satisfactory to all concerned has as yet emerged, steps are being taken to evolve a suitable plan.

A WHO leprologist was assigned to Indonesia in October 1956. On the basis of preliminary data collected in the two proposed pilot areas, work has started with assistance from WHO and UNICEF.

In Thailand, the pilot project in Khon Kaen has proved popular and successful. Based upon this project, a plan has been formulated for a national leprosy control programme, intended to serve, during the next few years, the north-eastern provinces of the country, in which nearly 50% of the leprosy cases are located. This plan provides for assistance from WHO staff and supplies from UNICEF. The WHO staff attached to the project has also given advice on the formulation of a rehabilitation project. Various types of treatment schedules are being used in the Khon Kaen project, and detailed plans have been prepared for comparison of the results obtained. Special attention has been given to the training of national para-medical personnel.
(3) **Plague**

WHO has assisted in plague in India and Indonesia.

On the completion of the assignment of the WHO epidemiologist in April 1956, the national team in India has continued the work. The residual effect of insecticides has been studied, and it has been noticed that the plague vector could easily be controlled by the application of insecticides like DDT, dieldrin, aldrin, etc. Of the different methods of applying insecticides, "patch-dusting" has been found to be the most effective and economical. The team’s findings also point to dieldrin as being more effective than other insecticides.

The survey is to be continued in Saharanpur and the northwestern districts of Uttar Pradesh, especially in the foothills of Siwalik; with a view to detecting plague foci in areas where no human plague or rat mortality has been reported for a number of years.

An investigation of the epidemiology of plague in the affected areas in Indonesia has been started with assistance from a WHO consultant. It is hoped to draw up a long-term plague control programme.

(4) **Bilharziasis**

Following the visit of a member of the Headquarters staff to India at the end of 1955, a programme of research on bilharziasis has been drawn up. Research on the receptivity of the intermediate snail hosts to the Indian strains of schistosomes and the infection of Indian snails by foreign parasitic strains has been recommended by the Sub-Committee on Bilharziasis of the Indian Council of Medical Research.

(5) **Smallpox**

Smallpox is still one of the major acute communicable diseases in South East Asia, and as such is an important public health problem. No one questions the value of a successful vaccination system in controlling smallpox. The field investigation into the causes of the continuance of the disease proposed by the Regional Committee at its eighth session will therefore concern itself largely with the organizational and administrative aspects of setting up an efficient machinery for control. It will have to deal with the feasibility, from both an organizational and economic point of view, of programmes suggested for countrywide application.

A few States in India are willing to take part in the proposed investigation. As soon as preliminary enquiries have been completed, a short-term consultant will be assigned to visit several parts of India and Burma.

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1 Resolution SEA/RC8/R16
Countries in the Region have been informed of the results of the WHO-sponsored field and laboratory studies on freeze-dried smallpox vaccine, and detailed literature on this subject has been distributed. Assistance in the form of consultant-services to help governments in the production, where feasible, of suitable freeze-dried vaccine is under discussion.

(6) Trachoma

Trachoma is a major public health problem among the rural populations in most of the countries in South East Asia. The epidemiological study of the factors favouring transmission of the disease and the study of the minimum effective course of antibiotic treatment being carried on in connection with the trachoma pilot project in India are making satisfactory progress. A similar programme has been started in Indonesia. In the light of the experience gained in these pilot projects, it will be possible to develop an effective, practicable and economically feasible programme of mass control.

Special attention is being paid to the training of personnel in the clinical, laboratory and epidemiological aspects of the disease, with field demonstrations in the villages.

The WHO trachomatologist, apart from giving active and constant supervision to the field operations, is also studying the differences in the epidemiological and clinical aspects of trachoma in different parts of India. This study should be of assistance in preparing plans for setting up national control schemes.

During April 1957, the first phase of the trachoma pilot project in Indonesia was evaluated by a short-term consultant. The technical details for carrying out the second phase of the pilot project have since been worked out with the Government.

(7) Virus Diseases

The virus group of diseases is attracting increasing attention in the Region. Thailand, India and Indonesia have shown particular interest in the problem of poliomyelitis. In December 1956, the Director of the Regional Poliomyelitis Centre in Singapore paid a short visit to Thailand to conduct a survey of the extent of poliomyelitis infection in Thailand and to investigate the possibility of isolating and typing polio viruses locally. Until this can be organized in Thailand, the facilities of the centre in Singapore were placed at the disposal of the Government. As a result of this visit, the Government of Thailand requested two six-month fellowships to enable a doctor and a technician to study laboratory techniques at the Singapore Centre.
The WHO-sponsored Regional Poliomyelitis Centre in Bombay has carried out work on isolation, titration and identification of strains of intestinal viruses in tissue culture, preparation of type-specific antisera in monkeys and rabbits, and a study of neutralizing antibody content in sera. The Centre also undertook a study of the incidence of minor illnesses in the child population of a selected area in which poliomyelitis has been endemic and also a study of the incidence of intestinal viruses in the child population of the same area.

The WHO epidemiologist in Ceylon has stimulated the study of certain virus diseases in that country. A number of sera were sent to the Virus Laboratory in Poona and also to the National Institute of Health in Bethesda, Maryland (USA). As a result of these studies, the incidence of dengue fever in Ceylon has been established.

(8) Gastro-intestinal Diseases

Largely as a result of the inadequate environmental sanitation mentioned elsewhere in this report, the gastro-intestinal group of diseases continues to be responsible for high mortality and morbidity in the Region.

An effort to evaluate the results that may be expected from improved environmental sanitation is being undertaken in Ceylon, where pre-operational and post-operational health surveys are being carried out.

(9) Zoonoses

While for years some rabies control has been a feature of most of the health programmes of the countries of the Region, increased recognition needs to be given to other zoonoses. In Ceylon, a veterinary public health officer has been appointed as staff officer on the Health Directorate, to maintain liaison between the veterinary and medical services.

With respect to rabies, the Government of Ceylon is also planning to set up a nation-wide control programme in the near future. The present measures are therefore being studied, and new proposals are under consideration. Enquiries have also been received from numerous workers about the availability of hyperimmune serum for the treatment of rabies.

Much interest has been shown in the recent WHO publications on meat hygiene and on veterinary public health, for which numerous requests have been received.

\[^{1}\text{WHO Monograph Series No. 33}\]
\[^{2}\text{WHO Technical Report Series No. 111}\]
5. EPIDEMIOLOGY AND HEALTH STATISTICS

5.1 Epidemiology

For the health administrator to be able to plan his health strategy on a realistic basis, it is necessary that he should be in possession of reliable information on the amount of morbidity and mortality caused by the various diseases and such other factors as the mode of spread of these diseases and their behaviour in different settings. This information, however, is not available in respect of most of the diseases prevalent in South East Asia. There is insufficient knowledge of the disease pattern in most of the countries of the Region. The almost total lack of personnel adequately trained in epidemiology explains the absence of epidemiological services in these countries.

With a view to assisting the Governments of Ceylon, Burma and Indonesia to establish proper epidemiological services in their countries, WHO has planned to provide qualified epidemiologists. Because of difficulties in recruitment, however, only the project in Ceylon has materialized so far.

The setting up of an epidemiological service is intimately related to the need for improvements in the field of health and vital statistics.

5.2 Health Statistics

During the reporting year, two new field projects in vital and health statistics have been added to the four already in operation, so that assistance is being given to six out of seven countries.

Although adequate health statistics for the Region depend on a number of extraneous factors, such as, for example, the ratio of doctors to population, nevertheless, technical improvements could accomplish much within the limitations of existing resources. Technical advance is slow chiefly because of the lack of health statisticians at the highest professional level, sufficiently experienced to adapt standard procedures to Asian conditions and to organize effectively all the practical details of their implementation. In some countries of the Region, good progress is being made in creating at least a nucleus of well-qualified health statisticians by means of an apprenticeship period with a WHO statistician, supplemented by further overseas training. As in this Region good health statistics are not being maintained, countries cannot speedily develop their own top-level personnel without outside assistance, since the essential practical apprenticeship is not to be had.

Statistical training at intermediate and elementary levels is equally needed. The training courses for statistical assistants in Indonesia have continued and have been much appreciated. A similar programme at Nagpur, India, is awaiting financial sanction.
Training courses of this type are popular, but there is a danger that they may outrun the effective demand. In a period of three to six months, personnel can be trained to be skilful executants, but they will not be able to design new documents or initiate new procedures. Unless better methods are being introduced at the same time, the training may be to some extent wasted. It is equally true that improved methods require trained assistants, but advances in both directions should keep in step.

The type of statistical assistant which is perhaps most needed is the trained medical coder. Whenever statements of any kind about disease or cause of death are handled, skilled coding is required. The work usually devolves on doctors or untrained clerks, with poor results in either case. All WHO project statisticians are training national coding staff, but much more needs to be done.

All medical and paramedical personnel need education in the value of good reporting, and here the first point of attack is to teach all medical students and practising doctors how to complete the International Medical Certificate. It is gratifying to note that, in addition to what is being done by WHO statisticians, WHO professors and their counterparts, this subject has been introduced into the medical curriculum at the B.J. Medical College in Poona. There is no reason why it should not be taught in every medical school in the Region. Students are easily interested in something which is in line with their clinical preoccupations, and the few simple rules are explained in a WHO brochure. If needed, a set of exercises can be obtained from the Regional Office.

Since it will take many years to train national staff capable of implementing rapid technical advances, WHO field statisticians must do more than give advice; they must themselves work out new methods, thus giving their national counterparts the best possible apprenticeship.

Among the highlights of technical progress during the year has been the development of a new vital statistics system in Burma. Agreement has been reached on all details within the Ministry of Health, but some aspects of collaboration with other Ministries remain to be worked out. It is hoped that the first stage of the new system will be in operation before the WHO expert leaves. Again in the field of vital statistics may be mentioned the set of notification forms for births, stillbirths, and deaths, in use on an experimental basis in Nagpur. These have been printed in English and Hindi and are intended to introduce the idea of an individual statistical report for each vital event in a form suitable for centralized processing.

Preliminary documents for the regional seminar to be held in 1958 have been circulated to the Regional Committee, and it is hoped to elicit the interest and co-operation of all delegates.

Improvements in hospital and dispensary statistics are being introduced in Nagpur and in Afghanistan. The family health survey now in progress at Ramanagaram is primarily a methodological study, and from it much has already been learnt which will result in improved
techniques for future surveys. Rural health surveys are being carried out in Indonesia on somewhat similar lines. The branch of health statistics in which assistance has most often been sought has been that of local health reporting, particularly for maternity and child health services. A Regional Office technical circular has been issued outlining the general principles underlying good maternal and child health records and reports. The laborious and difficult task of implementing these principles in the field has been undertaken as a first priority in the Ceylon project, and will also be an objective in Thailand and Bombay. There is every prospect of substantial advance in this field before long.

The programme of assistance to Member States in the preparation of their Annual Health Reports has been mentioned elsewhere. The Regional Office was fortunate in securing the services of the Chief of the Statistical Studies Section, WHO, Geneva, who, with the assistance of various members of the Regional Office staff, prepared a Manual of Instructions. Part I of this Manual has been mimeographed and distributed. With the completion of Part II, and with revisions based on experience in its use, the Manual promises to be an invaluable reference work for the Region.

6. ASSISTANCE TO RESEARCH INSTITUTES

Again this year, research institutes have been assisted by means of grants for special projects and through the training in research methods being given by WHO visiting professors who are assigned to educational institutes (see section 3.1). WHO has also given more direct assistance in the form of certain pilot projects, described in Part III of this report, as, for example, the plague project in India, which was terminated during the year, the plague project in Indonesia, at present in operation, and the trachoma pilot projects also being carried out in those two countries. One of the largest research projects being conducted with major WHO assistance is the Madras project in the control of tuberculosis by domiciliary chemotherapy.

Stimulation of research by the dissemination of scientific documents and material has also been proceeding. In the scheme mentioned in last year's annual report for fostering the exchange of reports of various research institutes, the Regional Office, with the co-operation of the Medical Research Institute in Colombo, obtained or duplicated a number of copies of reprints of various papers by members of this Institute and distributed them to over fifty medical schools and research bodies in the Region. As the response to this plan is good, it is planned to continue it on a systematic basis.

The Indian Council of Medical Research is investigating the possibilities of undertaking a project for the co-ordination of research, to be assisted by WHO.
Headquarters, in exercising its responsibility of coordinating research on a global basis, has established a network of research centres in a variety of subjects. The following centres in this Region are affiliated with WHO as part of this network: national salmonella and shigella centres in Bangkok and Colombo; influenza centres in Bombay and Coonoor (India); centres for biological standards in Bombay, Kasauli, Calcutta, Coonoor, Guindy (Madras), Lucknow and Mukteswar (India) and in Bandung, Djakarta, Colombo and two in Bangkok; a brucellosis centre in Mukteswar (India) and a yellow-fever vaccine-testing centre in Bombay.

7. PUBLIC HEALTH LABORATORIES AND VACCINE PRODUCTION

7.1 Public Health Laboratories

One of the great needs in most of the countries of the Region is for an improvement of diagnostic facilities. Without adequate laboratory facilities, much of the hard work of the health personnel is hampered, and the control of a number of communicable diseases made impossible.

In Afghanistan, the WHO laboratory assistant assigned to the Central Public Health Laboratory continued the training of laboratory assistants. In Burma the WHO microbiologist assisted the Government in the strengthening of laboratory services by training laboratory technicians and by helping to integrate specialized laboratories into public health laboratories.

In Ceylon, where there is a dearth of adequately trained laboratory technicians, steps are being taken to assist the Government in this respect. Here the public health laboratory facilities are concentrated in Colombo; the Medical Research Institute functions mainly as the central service laboratory, and there is only one bacteriologist at the Institute to deal with the large volume of work; the specimens arriving at the Institute are processed largely by technicians. It is hoped that in the very near future laboratories at Galle, Kandy and Jaffna will be manned by fully qualified bacteriologists. A virologist will also shortly be available after his return from a WHO fellowship in Australia.

In India, the Second Five-Year Plan makes provision for central government subsidies to schemes for developing the public health laboratory services. International assistance in establishing such services is under consideration by the Government, WHO and UNICEF.

7.2 Vaccines

Most of the countries in the Region are now producing the various types of vaccines and sera in common use. To assist governments in maintaining standards, arrangements were
made several years ago through the good offices of the Government of India for the testing of these biologicals at the Central Research Institute, Kasauli. The excellent facilities have not been made use of to an appreciable extent.

In Afghanistan a WHO bacteriologist continued to assist the Government in the production of vaccines. Burma and Indonesia are proposing to upgrade the production of biological preparations and to set up standardization methods with the help of a WHO consultant.

8. CURATIVE SERVICES

In the eighth annual report, at the request of the Regional Committee in 1955, a first effort was made to group together WHO's activities in selected curative fields. However, it is difficult to draw a line between assistance in prevention and assistance in cure.

Much of WHO assistance will be leading to better curative services only after some time—when institutions have been upgraded and medical education has been improved. Of more direct influence are the planned visits of WHO consultants to selected medical schools in India, and especially the award of a number of fellowships in such subjects as drug investigation, hospital planning and hospital statistics. A short-term consultant in medical care will shortly be provided to Ceylon.

In projects for the control of communicable diseases, most of which include many direct curative activities, increased attention has been paid to trachoma and leprosy. With modern chemotherapy, the treatment aspects of WHO-assisted tuberculosis projects are receiving more attention; India's tuberculosis plan, with which WHO and UNICEF are assisting, is, of course, concerned with treatment as well as prevention. Maternal and child health projects are also stressing the curative side of child care.

A short-term consultant has recently been provided to the Cancer Institute in Ceylon. Radiation treatment will benefit from planned projects for hospital physics, as will the expanding activities in the peaceful uses of atomic energy (isotopes).

Details of projects related to curative as well as preventive services may be found in Part III.

9. SOCIO-ECONOMIC ASPECTS OF WHO'S PROGRAMME

In a monograph published by the WHO on "The Cost of Sick-ness and the Price of Health" by the late Dr. C.E.A. Winslow, it is stated that "a public health programme adapted to the individual needs of each area offers the most economical method of breaking the chains of disease and poverty and initiating an upward cycle of social evolution".
The South East Asia Region is fortunate in the fact that in a number of the countries national development plans have been worked out based on analysis of the total situation. Thus India is already working on its Second Five-Year Plan; Burma is in the process of revising its Four-Year Plan; Afghanistan and Nepal have recently worked out Five-Year Plans, and Ceylon has a Six-Year Plan.

The assistance being given by WHO is, by means of discussions and deliberations with the national health authorities, being closely geared to these governmental plans, and therefore should form an important contribution to the socio-economic development of the countries concerned. This is as true for the regular as for the WHO Technical Assistance programme, where it is specifically stated that the assistance should contribute to economic development.

A good instance of work of socio-economic significance is the community development programmes discussed elsewhere in this report (section 2.2). These community development projects are the processes by which the efforts of the people themselves are united with those of governmental authorities to improve the economic, social and cultural conditions of communities. These programmes are receiving more and more attention from international organizations, and WHO is collaborating with governments in this field.

10. ATOMIC ENERGY IN RELATION TO HEALTH

WHO's programme with regard to the peaceful uses of atomic energy can be summarized as follows. The Organization will be prepared (1) to provide training; (2) to collect and distribute information on the medical problems of atomic energy and the medical uses of radio-isotopes; (3) to study the health problems involved in disposal of radio-active waste; (4) to work with other international agencies for the distribution of radiation standards, recommended codes of practice, and recommended pharmaceutical specifications for the preparation of radio-isotopes for medical use; and (5) to stimulate and co-ordinate research on the health aspects of radiation. The training programme will cater for three district categories of workers: specialists (normally either physicians or "health physicists") for protection work in atomic energy laboratories; public-health administrators and sanitary engineers who are particularly interested in such questions as the disposal of radio-active waste and the siting of reactors, and medical users of radio-isotopes. WHO Headquarters is co-operating closely with a number of important international bodies in this respect.

In South East Asia a regional course in health physics and a course in hospital physics with emphasis on radiation treatment and fellowships for the study of isotopes have been envisaged.

The interest of governments in the Region in these subjects is increasing, e.g., in India plans are now taking shape for a new centre to be set up near the Indian Cancer Research Centre in Bombay, to deal with the medical and biological aspects of atomic energy, and also with hospital physics.
PART II

1. REGIONAL COMMITTEE

The ninth session of the Regional Committee was held at the Regional Office in New Delhi from 24 to 29 September 1956. Representatives of all the Member States except France attended.

The Committee discussed the Eighth Annual Report of the Regional Director, a number of important points emerging from the discussion. After making a detailed scrutiny of the programme and budget estimates, the Committee approved the regular programme and budget for 1958 with some amendments and endorsed the Technical Assistance Programme. Two days of the session were devoted to the technical discussions on "How Can School Health Education Be Made More Effective in South-East Asia?", and recommendations were made on such questions as the personnel to be used in health education programmes in schools, training facilities, improvement in the sanitary environment of the schools, and the cooperation of government departments and voluntary agencies.

The Regional Director's tentative proposals for a phased programme to eradicate malaria in the Region were approved in principle, and he was requested to negotiate with individual governments on these proposals.

The Regional Committee considered that the present pattern of regionalization was working to the complete satisfaction of the governments of the Region and should be continued without any change.

With regard to the matter of permanent accommodation for the Regional Office, it was stated by the representative of India that the question of constructing a new building was under active consideration by the Government. In the meantime the Regional Office would remain undisturbed in its present location.

In the field of public information, the Regional Director's proposals for the issue of a tenth anniversary booklet on health progress in South-East Asia, the establishment of a "WHO Feature Service", and the encouragement of the production of short films on local health problems were accepted by the Committee.

2. ORGANIZATION AND ADMINISTRATION

2.1 Organizational Structure

The following changes in the pattern of the Regional Office took place during the year:

A post of Regional Adviser in Medical Education was re-established in January 1957 and filled by a short-term consultant.
The post of Accountant in the Finance, Budget and Accounts Unit was suppressed effective 1 February 1957 and in its place a new post of Administrative Assistant was created in the Office of Health Services.

The title "Regional Adviser in Rural Health", was changed to that of Regional Adviser in Public Health (Community Development) and that of the Regional Adviser on Venereal Diseases and Treponematoses to Regional Adviser in Communicable Diseases.

The Reports and Documents Unit was transferred from the Office of Administration and Finance to the Office of Health Services.

2.2 Personnel

The following table shows the number of professional and general service category posts established and actually filled during the period under review:

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<tr>
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<th>Established posts for 1957</th>
<th>Posts actually filled on 31 July 1957</th>
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<tbody>
<tr>
<td><strong>(1) Regional Office Staff</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td></td>
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<tr>
<td>Regional Office</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Regional Advisers</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Area Representatives</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>General Service</td>
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<tr>
<td>Regional Office</td>
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<tr>
<td>Clerical</td>
<td>69</td>
<td>67</td>
</tr>
<tr>
<td>Custodial</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Area Representatives</td>
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<tr>
<td>Clerical</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Custodial</td>
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<td>2</td>
</tr>
<tr>
<td><strong>(2) Project Staff</strong></td>
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<td></td>
</tr>
<tr>
<td>Professional</td>
<td>198</td>
<td>126</td>
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<tr>
<td>Professional staff on leave without pay*</td>
<td>-</td>
<td>6</td>
</tr>
<tr>
<td>General Services</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Auxiliary staff</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

In the year under review there was a still greater increase in the volume of work. On 31 July 1957 the number of professional staff members was 159 including 9 short-term consultants.

*including staff on special leave with insurance coverage.
A list of the professional staff attached to the Regional Office is given in Annex 1, "Organizational Chart", and the geographical distribution of professional staff as on 31 July 1957 in Annex 2.

It will be noticed that, as in the past, the majority of the staff members recruited are from the countries of the British Commonwealth. However, during the year further countries were represented on the staff by the addition of Bolivia, Iran and the Philippines.

In regard to recruitment for the Regional Office, the post of Public Health Administrator "A", which became vacant on the transfer of the incumbent to UNFNA, was filled towards the end of the year by the transfer of a project staff member. Public Health Administrator "B" was transferred to the post of Director, Office of Health Services, in an acting capacity. The post of Public Health Administrator "B" thus left vacant was filled by the transfer of Public Health Administrator "A", and for the latter post a replacement is expected to take up his duties in August.

The post of Regional Adviser in Communicable Diseases continues to remain unfilled, but a candidate has now been selected, who, it is hoped, will be available to take up his duties shortly. The new post of Regional Adviser in Public Health (Community Development) was filled in March 1957. The post of Public Health Officer (TA) was filled by the transfer of the Regional Adviser in Maternal and Child Health, who was replaced by the Maternal and Child Health Officer, whose post remains vacant.

The new post of Administrative Assistant in the Office of Health Services was filled by the transfer of a staff member previously working in the Eastern Mediterranean Regional Office.

At the end of July 1957 there were 126 WHO project personnel in the field (including 9 consultants) assigned to countries in the Region.

As in the past, there were difficulties in recruiting qualified candidates for field positions in certain specialized fields such as public health, environmental sanitation, medical education, epidemiology, health education and statistics. The finalizing of recruitment for some of the posts has also been slow, mainly because of delays in securing from governments their clearance of candidates and signatures to the plans of operations.

The possibility of employing retired government officials from the countries of the Region was further explored, and a number were recruited. Efforts in this direction were hampered, however, by the fact that few suitable experts are available in the Region for some of the same specialized fields as those mentioned above, as well as for maternal and child health.

A pathologist and an ophthalmologist were made available to Ceylon under the scheme of recruitment of doctors from neighbouring countries.
Some new project staff members assigned to India were able to participate in the Seminars arranged by the Foreign Technicians Orientation Centre of the University of Delhi to help them to adjust to their new environment.

2.3 Staff Welfare

As the result of a United Nations review, a revised system of salaries, allowances and benefits was approved by WHO and is being put into effect.

The salary scale applicable to General Service staff in Rangoon was reviewed during the year. A review of the New Delhi salary scale is now in progress, since there have been changes in the conditions of employment in the local area brought about partly by a sharp rise in the general cost of living, rental increases and serious housing difficulties.

The "SEARO NEWS & VIEWS" has continued to be published during the year. Many staff members have taken a keen interest in this publication.

The Staff Association and its Executive Committee have been very active. They are paying particular attention this year to the improvement of the services of the canteen, the sponsorship of language classes and the organization of lectures, discussion groups and film shows; they are investigating possibilities of bringing field staff into closer relationship with the staff of the Regional Office, and are making detailed studies of the housing conditions of staff members and the salary scales and opportunities for career service for the general services category staff.

2.4 Accommodation of Regional Office

At the nineteenth session of the WHO Executive Board held in Geneva in January 1957, the question of accommodation for all the Regional Offices of the Organization was discussed; reference was made at that time to the unsettled position of the Regional Office for South East Asia, and a resolution (EH19.R26) was passed, requesting the Director-General to pursue with the appropriate authorities of the Government of India, the matter of providing accommodation for the Regional Office at an early date.

In early May 1957, the Regional Director received a letter from the Government of India stating that:

(1) the Government of India would make permanent accommodation available at a "concessional" rent, and that

(2) pending arrangements for suitably adapting an existing building, it was hoped that it would be possible to allow the Regional Office to continue to remain in Patiala House.

Further negotiations are continuing.
2.5 Legal and Constitutional Matters

The position with regard to making new basic agreements, with Afghanistan, Burma, Ceylon, Indonesia and Thailand in accordance with the provisions in the WHO Manual, remains the same as reported in the eighth annual report. During the period under review, 36 supplementary agreements (including 10 exchanges of letters) were signed.

There is nothing further to report in respect of accessions to the Convention on Privileges and Immunities of the Specialized Agencies.

3. PROCUREMENT OF EQUIPMENT AND SUPPLIES

Procurement action was taken in this year for supplies and equipment valued at $310,000 and comprising 2,823 items, under Regular and Technical Assistance funds. The supply lists submitted to UNICEF with WHO's technical approval consisted of 2,136 items, amounting to $135,000.

Shipments of hospital equipment were received from the U.S.S.R., for Afghanistan, Ceylon and India, under rouble contribution. The value of the supplies so far received in these countries comes to approximately $180,000.

4. REPORTS AND DOCUMENTS

Public health workers, administrators, medical schools, research institutes in South East Asia - all are in urgent need of more technical information, more books and periodicals, the latest reports of international experts of every conceivable specialty and the most recent WHO documents.

The Regional Office has, with the help of its Advisers and Area Representatives, compiled lists of addresses for each subject of public health importance for the distribution of material in every country of the Region. On the basis of these lists, which are constantly being reviewed and revised, an attempt is made, whenever documents or publications of interest are issued, to see that they reach at least the key workers in the field, whether national or international. In cases where new publications cannot be given a wide free distribution, reviews are prepared and issued so that as many institutions and public health workers as possible may at least be aware of what is available.

Another method which has been adopted in an attempt to help meet the needs for technical information as well as increase the sales of WHO publications has been the scheme for granting to selected institutions, medical schools, medical associations, libraries, etc., in certain countries of the Region concessional rates (50% discount) for the purchase of WHO publications, and
special rates for subscriptions to periodicals. This plan was put into effect at the beginning of 1957. A large number of orders for and enquiries about WHO publications have been received in response to this scheme, and a more extensive coverage has certainly been achieved.

In addition, WHO is having to answer a constantly increasing number of special requests for technical material on a variety of subjects. The material requested includes Headquarters and Regional Office documents, final reports of field staff, Regional Office reports, etc. Documents which have been given particularly wide distribution during the last year are: (1) the Regional Director's Annual Report; (2) the new Bulletin on Medical Education, which is being periodically issued; (3) the brochure on School Health Education in South East Asia, and (4) the report of the Regional Seminar on Nursing. The Regional Office is also now compiling and issuing health and medical information in the form of "technical circulars" on various subjects. These and other publications and documents recently distributed have been well received, and it has sometimes been necessary to mimeograph hundreds of copies to meet the requests. It is thought that some time in the future it may become necessary to adopt a policy of printing certain publications and of selling them at a nominal price, to meet large orders from institutions and requests from individuals.

Work on the scheme for fostering an exchange of reports among research institutes and research departments of medical schools in the Region has been continued (see section 5, Part I).

There is also a need for ensuring adequate distribution of WHO material to field staff and their national counterparts. Efforts are being made to improve this distribution.

Closely allied to the work on distribution of documents are the preparation of these documents and the compiling and editing of reports. The revised instructions on the preparation of field reports have now been in effect over a year and have given good results. As a new part of these instructions, a general outline for final reports of field staff was drawn up and circulated to all projects as part of the new policy and procedures handbook. A very large number of such final reports have been edited and brought out, under the "SEA" documents series, and, when appropriate and useful, have also been fairly widely distributed after being cleared with the governments concerned.

Another advance during the year was the compilation of a handbook of the resolutions which have been approved during the various sessions of the Regional Committee, for ready reference. Other work which is being started is the compilation of a style manual for the use of Regional Office staff, and the training of certain members of the secretarial staff in précis writing.

The services of the Regional Office Library have been considerably improved. The Library News has been further enlarged by the addition of one section on WHO publications and another on reprints. The number of books contained in the Library has been
substantially increased in certain special fields. The books have been rearranged so that they may be more easily accessible, and completed volumes of WHO publications, as well as of some outside journals, have been bound.

Because it was found that periodicals from outside the Region were taking a very long time to reach the Regional Office, sometimes as much as several months, an arrangement was made with Headquarters for two weeklies, the Lancet and the Journal of the American Medical Association, to be received in Geneva and sent by pouch. This arrangement, which has been in effect since the beginning of the year, has resulted in a saving of four to six weeks in the reception of these two weeklies.

5. COLLABORATION WITH OTHER AGENCIES

5.1 United Nations

Good relationships with the United Nations and other specialized agencies have continued. The Regional Office and especially the WHO Area Representatives have maintained close contacts with the Resident Representatives of the Technical Assistance Board, with whom the co-ordination of work on the preparation and submission of country requests for health projects financed from Technical Assistance funds has continued.

The United Nations Technical Assistance Administration (UNTAA) in South East Asia is working in some fields allied to health, e.g., DDT and penicillin plants, rehabilitation, and recently, in India, community development, and the United Nations Social Welfare Division is now establishing branch offices in several countries, with the aim of expanding its activities in social welfare.

Almost half of WHO's programme in South East Asia is being carried on jointly with UNICEF, with which working relationships have continued to be excellent. This close partnership with UNICEF in many projects has been not only maintained but extended to other subjects, namely, rural health and community welfare development. As in the past, for some additional projects as well as those listed in Part III, for which UNICEF has been providing supplies, such as milk, emergency medical relief, etc., the Regional Office of WHO is giving advisory assistance.

WHO was represented at a number of meetings of SAFE held during the year (for detailed lists of the meetings in the Region to which WHO sent representatives, see Annexes 3 and 4).

5.2 Specialized Agencies

FAO

Co-operation has continued with FAO, particularly in the field of nutrition, milk and milk-products, and, this year, in the celebration of World Health Day (the theme of which was "Food and Health"). Joint assistance was given to the nutrition
project in Burma and to a new project started in Thailand. WHO was represented at FAO's third conference for Asia and the Far East held in Bandung.

UNESCO

The ninth session of the UNESCO General Conference was held in New Delhi in November 1956; WHO was represented at many of its meetings and at those of its various commissions. WHO has a special interest in the centre set up by UNESCO in Calcutta to study the effects of industrialization on both rural and urban population.

ILO

Close relations have been maintained with ILO, with which joint preparations are being made for the Seminar on Industrial and Occupational Health, to be held in 1958.

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WHO is collaborating with a number of agencies in the United Nations family in such programmes as the rural development project in Shewaki (Afghanistan).

5.3 Bilateral Agencies

Colombo Plan

Relationships with the Colombo Plan authorities have continued to be good. The Director of the Colombo Plan Bureau for Technical Co-operation, in Colombo, visited the Regional Office during August 1956 and discussed the possibility of increased co-operation with the United Nations specialized agencies. Experts from the Colombo Plan continued to make up some of the personnel working in WHO-assisted projects, and some supplies and equipment were also provided.

United States International Co-operation Administration (ICA)

Good collaboration with ICA has continued. ICA is giving aid of various kinds to almost all the countries in the Region; this includes some very substantial assistance to public health and, particularly, malaria control, and about a hundred fellowships a year. Every effort is being made to minimize overlapping by mutual consultations at both Regional Office and country levels.

Other Bilateral Agencies

Some assistance in the field of health, under bilateral agreements, is also being given by the Union of Soviet Socialist Republics and by Norway.
5.4 Non-Governmental Organizations

At present there are 43 international non-governmental organizations in official relationship with WHO, a number of which have branches or affiliated agencies active in the Region, with which WHO's working relations have been slight. Efforts are now being made to establish closer contacts with agencies such as the national associations in such fields as nursing, tuberculosis, social work, child welfare and health education, as well as organizations like national Red Cross societies, with which WHO has much in common.

5.5 Other Agencies

There has been close co-operation with the Rockefeller and Ford Foundations. Association with the Rockefeller Foundation has been mostly in the field of medical education. The Ford Foundation, with which WHO is collaborating in Singur (India) and in general, has been very active in India and is supporting various kinds of training, including that in public health, community development and rural health extension. WHO participated in a meeting of social scientists from different parts of India arranged during September 1956 by the Ford Foundation, at which the main theme for discussion was the reactions of village people to environmental sanitation problems and their concepts of the etiology of disease.

WHO representatives took part in a number of meetings during the year. Among them were the first annual meeting of the Indian Public Health Association, the second Conference of Indian Public Health Engineers, a meeting of the Anti-Malaria Co-ordination Board, various meetings of the Scientific Advisory Board and the Advisory Committee of the Indian Council of Medical Research, meetings of the committees of the Indian Standards Institution (at which specifications of insecticides were considered), the Indian Council of Social Work, the Indian Central Council of Health, the Fourteenth International Tuberculosis Conference held in New Delhi, the 44th Session of the Indian Science Congress Association, the 18th All-India Ophthalmological Conference, and the inter-country Malaria Co-ordination Meeting (see Annex 4).

6. PUBLIC INFORMATION

Public support for the work of the Organization continued to be strong in the Region during the past year. There is a growing appreciation, among professional as well as lay groups, of WHO's role as co-ordinating agency and catalyst. The Organization's actual and potential value to the Member Governments of the Region is more and more clearly understood, even by people not associated with public health work. On the other hand, the severe limitations that WHO faces in trying to fulfil the hopes placed in it are by no means fully appreciated.
The trend, noted in last year’s report, has continued to be towards relatively heavy emphasis upon those types of public-information work which aim at strengthening popular support for health programmes of the Member Governments themselves. This trend was especially evident throughout the Region in the observance of World Health Day. Everywhere, people seemed to realize this year that the real meaning of the celebration lay not in the mere fact of WHO’s (and FAO’s) sponsorship of the occasion but rather in the theme, "Food and Health", itself and its particular significance for the countries of South East Asia. The support forthcoming from the Member Governments was, as usual, excellent. But the most striking feature of the 1957 observance of World Health Day in the Region was the enthusiastic participation of a very large number of non-governmental and voluntary organizations (including Red Cross societies, social welfare agencies, various youth groups, etc.) at the community and village level. Arrangements involving relatively large numbers of people in both the planning and the carrying-out of World Health Day programmes were widespread in several countries. The total number of people reached in the year’s observance by local arrangements, which showed great imaginativeness and variety, appears to have been much larger than ever before. These developments emphasize the potential usefulness of World Health Day as a starting point for continuing community-wide activities in health education.

Another example of the increasing emphasis on the achievements of the Member Governments was the decision to film certain aspects of the training and use of health assistants in one of the countries of the Region. This filming was done as a part of the production of a larger documentary scheduled for world-wide release next year in connection with the Organization’s tenth anniversary. Based on actual field reports and interviews with dozens of national health workers, the theme of the "human interest" story which finally emerged as the South East Asia sequence of this film was the initiative and devotion to duty displayed by a youthful health assistant working in a remote village when his area was faced with the threat of a serious epidemic.

Further efforts have been made during the year to systematize the distribution of information materials so as to reach a maximum number of persons in "key" groups and, at the same time, avoid wasteful expenditure on mailing them to those of lesser strategic importance. For example, a highly-selective pattern has been devised for the issue of certain types of press releases only to special categories of newspapers and periodicals, the selection depending in each case upon the known interests or policies of the editors. Certain informational publications are now distributed, almost without exception, in response to specific requests only, which are systematically stimulated on the basis of a careful advance assessment of probable interest. At the same time, similar methods have been used to build up closer working relationships, for public-information purposes, with medical associations and colleges of medicine, nursing associations, civic bodies of various kinds, social welfare agencies and youth organizations. This policy has seemed to be successful.
PART III

ACTIVITIES UNDERTAKEN BY
GOVERNMENTS WITH THE HELP OF WHO

This part of the Report contains a list of the projects for which WHO has given assistance during the whole or part of the period under review, listed by country. Inter-country projects are given at the end. The "Aim of the project" states the purpose for which it was undertaken by the government concerned, and is not related to the form or extent of WHO's assistance.

In the first column (under "Project No., Source of Funds, Co-operating Agencies") "R" means the regular budget, "TA" means Technical Assistance funds, and "UNICEF" the United Nations Children's Fund. Names of other co-operating agencies, whether or not they have contributed funds, are given in parentheses.
## 1. AFGHANISTAN

<table>
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<tr>
<th>Project No.</th>
<th>Source of Funds</th>
<th>Title</th>
<th>Description</th>
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**Aim of the project.** To train male nurses, in a three-year course, for hospital and community health services.

**Assistance provided by WHO during the year.** Two nurse tutors.

**Work done.** In June 1956, with the assistance of one WHO male nurse tutor, the first class was started with nineteen students, seventeen of whom successfully completed their first year of training in May 1957, when a new class of ten was also enrolled.

A refresher course was given to graduate nurses, and a series of lectures on ward and hospital administration to head nurses. As part of a refresher course for teachers from the provinces which was held at the Teachers' College in Kabul, the WHO nurse tutor gave a short course of lectures on the School for Male Nurses, as well as some instruction on the recognition of communicable diseases, with special reference to school children. Instruction in anatomy, physiology and first aid was also given to the students at the School for Sanitarians.

Although the school was started over a year ago, the school building is still without water supply and sanitary facilities.

A second WHO nurse tutor joined the project in May 1957, but the second counterpart has not yet been appointed.

| Afghanistan 6 and 39 | R TA | Public-Health Administration, Kabul | (Nov. 1951 - ) |

**Aim of the project.** To improve public-health administration and services; to train medical and para-medical personnel; to co-ordinate national and internationally assisted health programmes.

**Assistance provided by WHO during the year.** A public-health adviser until September 1956, and an administrative assistant throughout the year; a consultant for four weeks.

*From the beginning of July 1957, this project was amalgamated with the Nursing Education Project - Afghanistan 35.*
Probable duration of assistance. Until the end of 1960 (?).

Work during the year. The public health adviser continued to advise the national health authorities on the planning and administration of health programmes until September 1956, when he left the project. Steps are being taken to find a replacement.

In connection with the formulation of the health part of a Five-Year Development Plan for Afghanistan, a short-term consultant in public health administration was assigned to assist the Government for four weeks (during November-December 1956). Some of the specialist advisers from the Regional Office also assisted by drafting parts of the Five-Year Plan relating to their respective fields. The consultant co-ordinated the advice given, in a single report.

The administrative assistant to the public health adviser continued his work, including the training of national staff in the Ministry of Public Health in office procedures.

Afghanistan 7

Strengthening of Health Statistics Organization, Kabul (April 1956 —)

Aim of the project. To follow up the work of the WHO-sponsored training course in vital and health statistics held in Kabul in 1954; to reorganize the Health Statistics Division of the Health Directorate.

Assistance provided by WHO during the year. (a) A health statistician; (b) supplies and equipment.

Probable duration of assistance. Until the end of 1958.

Work during the year. With the absence of mortality data in Afghanistan, hospital and dispensary statistics assume particular importance, and much of the time of the statistician has been spent in devising improved reporting methods. The existing form for monthly reports proved impracticable, and no use had been made of the information available. Pending a revision of the form, the project staff tabulated and summarized the returns for two years from all reporting hospitals, out-patient departments and polyclinics, and in spite of limitations and inaccuracies, a useful picture was obtained of the chief components in the out-patient morbidity load. A complete set of new statistical forms for reports from hospitals and polyclinics has now been prepared and is under consideration in the Ministry of Health. The individual statistical return for in-patients is already in use in Aliabad Hospital. As a result of the interest in statistics aroused by the WHO professor of preventive and social medicine, an Afghan doctor has been appointed to the post of medical statistician at that Hospital, and is receiving training in the statistical office.
Report cards for pregnant women and children attending polyclinics have been designed and approved by the Minister of Health. Work has continued on the reorganization and tabulation of administrative statistics in the Ministry.

A national counterpart has been working with the WHO statistician from the start of the project, and is expected to proceed overseas for further training shortly. Progress has been hampered by the shortage of ancillary personnel, including clerks and computers.

The WHO Statistician has assisted the Government in the preparation of a constitution and rules of procedure for a National Committee on Vital and Health Statistics. All the ministries concerned have expressed their interest, and it is hoped that such a committee will be established before long.

Afghanistan 9
UNICEF

Tuberculosis Control and Training Centre,
Kabul (Nov. 1953 - )

Aim of the project. To establish a model tuberculosis service with emphasis on prevention; to train national personnel in modern methods of diagnosis and control, including domiciliary chemotherapy; to carry out epidemiological survey work.

Assistance provided by WHO during the year. A senior officer, a public-health nurse and a laboratory technician.

Probable duration of assistance. Until the end of 1957.

Work during the year. The services of the Centre were developed to include a closer collaboration with the medical practitioners and institutions of Kabul.

In connection with the WHO-sponsored refresher course for district medical officers, a course of lectures and demonstrations on tuberculosis and its prevention was given. Courses were also given to community leaders and male sanitarians.

The domiciliary chemotherapy work developed slowly owing to personnel and transport difficulties.

The inter-country bacteriologist reviewed the work of the laboratory during the year. The laboratory technician completed her assignment at the end of 1956, and after her departure, arrangements were made for the continuation of supervision by the WHO technician attached to the Public Health Laboratory, Kabul (Afghanistan 25).

It was not possible to carry out any survey work.
Afghanistan 10  
Maternal and Child Health, Kabul  

Aim of the project. To expand and improve maternal and child health services and to increase training facilities.

Assistance provided by WHO during the year. A maternal and child health officer and a public-health nurse.

Work done. In 1951 there were established in Kabul the first two ante-natal and the first two well baby clinics in the history of Afghanistan. By the end of 1956 there were five of each.

The Shararah Maternity Hospital has been reorganized and converted into a post-graduate teaching institution. A domiciliary midwifery service - the first in the country - was established, and its popularity has become such that the Government has found it necessary to limit the activities for the time being, as it is not possible to meet the requirements in staff and transport.

A consultative child health clinic was established, and the paediatric department completely re-organized.

Eleven nurses graduated from the Mastoorat Hospital and 11 midwives completed their training at the Shararah Hospital in 1956. There are now 16 nurses and 18 midwives under training.

Although this project has been completed, WHO will continue to give nursing assistance to the training programmes at the two hospitals and also assistance in maternal and child health, as part of the new Nursing Education Project, Afghanistan 35.

Afghanistan 11  
Malaria Control (Aug. 1956 - )

Aim of the project. To consolidate malaria control campaigns (carried out under project Afghanistan 1 since 1949) in keeping with the new strategy of eradicating malaria; to assess results and plan future operations.

Assistance provided by WHO during the year. (a) A malaria advisory team, consisting of a malarialogist, an entomologist and two technicians for four months from September 1956 and a senior consultant for one month from mid-November to guide and review the work of the team; (b) one six-month international fellowship and four regional fellowships - two for three months and two for two months; (c) essential supplies.

Probable duration of assistance. Until about 1962.
Work during the year. In 1956 protection was offered to 1,586,187 persons and in 1957 to an additional 393,000 persons. Surveillance procedures were instituted in the northern and eastern provinces. Additional malaria inspectors were trained in the winter of 1956 and employed in the surveillance and supervision of spraying operations in 1957. The recommendations made by WHO, on the basis of the recommendations of the malaria advisory team and a senior short-term consultant with respect to intensifying spraying operations and instituting surveillance procedures in northern and eastern provinces have been accepted by the Government. The two medical officers of these provinces were given two-month fellowships in India. A senior malaria medical officer was awarded a six-month international fellowship to study malaria eradication procedures.

Afghanistan 12

Environmental Sanitation, Kabul


Aim of the project. To improve environmental sanitation by sanitary surveys, standard sanitary installations for urban and rural communities, design and construction of water-supply and sanitary installations for government institutions and public buildings, and lectures in sanitation at the Faculty of Medicine, Kabul University, and at other training institutions for health workers.

Assistance provided by WHO during the year. A sanitary engineer.

Work done. WHO-assistance was withdrawn in December 1956, after the sanitary engineer completed his assignment.

Some of the important items of work done during the course of this project were: (a) the survey and study of problems connected with the water supply of Kabul and Kandahar Cities, the installation of public baths, sanitation of lodging houses, school sanitation and assistance in the pilot project in environmental sanitation being carried out in connection with the Shewaki Rural Development Project; (b) the study and design of standard sanitary facilities; and (c) participation in the training given at the Shararah Midwifery School and the School for Male Nurses, to malaria inspectors, sanitarians, student-teachers and village level workers, and in the refresher courses for medical officers.

In assessing the results, it may be said that the need and importance of environmental sanitation and the necessity for having qualified personnel are now being recognized. Training facilities for health workers in sanitation have been developed and steps taken towards establishing permanent institutions for this work. The basis for activities in rural sanitation has been laid, and attention is being given to the organization of an adequate body which can undertake the work.
As mentioned by the sanitary engineer in his final report, there is a need for enlarging the field of work, for integrating environmental sanitation into the total public health programme, for training technical personnel and for extending sanitary education. Limitations were imposed on the development of activities, more especially during the earlier stages of the project, by lack of qualified personnel, funds, transport and other facilities.

**Afghanistan 13**

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

**Aim of the project.** To develop on sound lines the Departments of Anatomy, Physiology, Preventive Medicine, Internal Medicine and Paediatrics of the Faculty of Medicine, and to train national counterparts.

**Assistance provided by WHO during the year.** (a) A professor of anatomy, a professor of physiology, a professor of paediatrics and a professor of preventive and social medicine; (b) a twelve-month international fellowship; (c) equipment and medical literature.

**Probable duration of assistance.** Until the end of 1960 at least.

**Work during the year.** The professor of physiology completed his assignment in December 1956. From his final report it can be seen that the immediate objectives of this aspect of the project have been accomplished: (a) theoretical teaching has been complemented by laboratory training; (b) each year the number of students in the classes has increased; (c) teaching has been co-ordinated, and other courses also benefited from the improved teaching of this discipline; and (d) a trained national counterpart has now replaced the WHO professor. The progress made in this subject has been quite satisfactory, and the efforts have been successful.

In anatomy, the majority of the second-year students passed the annual examinations held in December 1956, and the national counterpart will return from his fellowship in September 1957.

In preventive and social medicine, WHO's assistance started in December 1956. Training in this group of subjects will initially be given to third, fourth and fifth year students, and a curriculum on modern lines has been accepted by the Medical Faculty. The professor of preventive and social medicine has taken an active part in the second refresher course for medical officers, and on the request of the Government is giving some instruction in health education at the College of Mullahs, near Kabul.

The work in paediatrics started only in April 1957.
Afghanistan 20
Vaccine Production, Kabul (Jan. 1955 - )

TA
UNICEF

Aim of the project. To reorganize, expand and improve facilities for vaccine production in order to provide adequate supplies of vaccine for the national health programmes; to train local personnel in the production of biological substances; to organize a suitable system of vaccine distribution and use.

Assistance provided by WHO during the year. A laboratory specialist.

Probable duration of assistance. Until 1959.

Work during the year. Satisfactory progress was made during the year. The Vaccine Institute buildings were renovated and certain extensions provided, including an animal house and stables for sheep and calves. The vaccines produced at the Institute were sent for potency and purity testing to the Central Research Institute, Kasauli (India). The reports were satisfactory. The Institute is now in full production and can meet the requirements of the country in respect of smallpox, cholera, TAB and anti-rabies vaccines. Production of high titre sera, along with dead emulsions and Kahn antigens, is now being undertaken at the centre.

The two fellows who were awarded six-month regional fellowships in March 1956, have now completed their training at the Pasteur Institute, Coonoor (India).

Afghanistan 21
Public Health Provincial Expansion and Nursing Education, Kandahar and Other Provincial Centres (Jan. 1955 - )

TA
UNICEF

Aim of the project. To organize and develop and to train personnel for provincial health services (starting in Kandahar).

Assistance provided by WHO during the year. (a) A public health officer, a public health nurse and a midwifery tutor; (b) supplies.

Probable duration of assistance. Until 1959.

Work during the year. Improvements were carried out in the work of the newly established female and children's wards.

A plan for the improvement of sanitation in the town was prepared and accepted by the authorities.

The training of nurse-midwife helpers also continued. Six students passed their final examination and were taken on the staff of the Female Hospital. Seven students were enrolled for
the second course, which started in September 1956. A domiciliary midwifery service has been successfully established on a small scale.

A lecture course on personal hygiene and first-aid was started in May 1957 for the teachers of the girls' school.

Aim of the project. To develop a sanitation section in the Kabul Municipality; to plan and carry out a sanitation programme including the design, operation and maintenance of sanitary installations; to train sanitation personnel.

Assistance provided by WHO during the year. (a) A sanitary engineer; (b) a twelve-month international fellowship.

Probable duration of assistance. Until the end of 1958.

Work during the year. The WHO sanitary engineer continued his efforts to establish and develop a sanitation section in the Kabul Municipality. Different designs and plans for sanitary works to improve the general sanitary conditions of the town were devised.

A pilot area in the City of Kabul has been selected for the improvement of sanitation after the necessary planning. The sanitary survey of this area started during the second quarter of 1957.

The sanitary engineer is also taking part in the training activities carried on in the School for Sanitarians, Kabul. A notable achievement was the successful completion of an in-service training course in basic sanitation for municipal directors of the City of Kabul, which was started during the third quarter of 1956. A sanitation manual, in English and Persian, based on lectures given in the above course, is under preparation.

A national counterpart has been provided, and it is expected that he will soon be awarded a fellowship for further training.

Aim of the project. To provide provincial medical officers with theoretical and practical training in modern methods of public-health practice.

Assistance provided by WHO during the year. (a) Assistance from the Regional Adviser in Medical Education and WHO project staff in Kabul; (b) secretarial assistance and teaching equipment; (c) half the cost of travel and maintenance expenses of six medical officers from outside Kabul.
Probable duration of assistance. To be repeated in 1958 and 1959.

Work done. The first course of three months which was given from May to August 1956, was described in last year’s report. The final report on this course was distributed.

The second three-month course started on 22 May 1957 with six provincial medical officers and three from the health services in Kabul. For this course a curriculum on the lines of the first course was adopted by the ad hoc faculty comprising national and WHO professors in Afghanistan. The course is in progress at present.

Afghanistan 25  Assistance to Public-Health Laboratory, Kabul
TA  (May 1956 - )
UNICEF

Aim of the project. To consolidate the work of the public-health laboratory at Kabul; to give further training to laboratory technicians.

Assistance provided by WHO during the year. A laboratory technician.

Probable duration of assistance. Until 1959.

Work during the year. A nine-month course for laboratory assistants was completed during the year, six out of the seven students being successful. A second course for laboratory technicians, to last for two years, was started in February 1957, with fourteen students.

The laboratory is fulfilling its role as a public-health laboratory. Antibiotic sensitivity tests were carried out on an experimental basis, and it is hoped that this work will be further developed as a routine. Photo-electric colorimeter methods have been introduced in the biochemistry and haematology departments of the laboratory. Complete reorganization of the culture media section was undertaken, and a few new culture media were introduced for the first time.

Afghanistan 26  Rural Health Unit, Chaurassia (Shewaki)
TA  (April 1956 - )
UNICEF

Aim of the project. To improve water supplies and excreta disposal in the rural areas of Chaurassia, Shewaki, Volayiti and Mosei; to devise simple, practical and economical sanitary works and test their applicability on a pilot scale; to extend similar sanitation programmes to other rural areas; to train sanitarians and other local staff.

Assistance provided by WHO during the year. (a) A sanitarian; (b) one twelve-month international fellowship and one ten-month regional fellowship.
Probable duration of assistance. Until the end of 1960.

Work during the year. Following the first survey made during the first quarter of 1956, work started in the pilot area of Shewaki with the construction of latrines and manure composting pits. The construction of wells was delayed due to late arrival of necessary equipment.

As further assistance in public health activities, including the development of health centres, was required in the programme of community development, it was decided to enlarge the area to cover not only Shewaki but other rural areas, with headquarters in Chaurassia, thereby increasing the number of villages to be covered from the initial eleven to sixty. The sanitarian has made a survey of this extended area. UNICEF is also helping in this new effort.

The proposals for a Five-Year Plan in Environmental Sanitation for Afghanistan, which were prepared by the Regional Adviser, and submitted to the Government, included plans for work in the extended area around Shewaki.

A national counterpart was appointed.

The sanitarian gave lectures to village level workers at Volayiti and to the students at the School for Sanitarians, Kabul. He left the project during the middle of June 1957, and it is expected that a replacement will be in position by September 1957.

Afghanistan 28
School for Sanitarians, Kabul (July 1955 - )

Aim of the project. To train sanitarians for community health services.

Assistance provided by WHO during the year. (a) A sanitarian; (b) teaching equipment and supplies.

Probable duration of assistance. Until the end of 1961.

Work during the year. The training of students at this School has proceeded satisfactorily. From the results of a progress examination held in October 1956 after six months of classes, it would seem that the training programme has been quite successful. Out of 16 students examined, six scored over 90% of the marks.

The students have also taken part in various practical activities - the survey of the expanded area of the Rural Development Project, the sanitation activities of the Kabul Municipality and the malaria control work.

A second group (28 students) has been enrolled and their training begun. The course is scheduled to last two and a half years.

The sanitarian has also continued his lectures to the female nurses at the Masoorat Hospital.
Afghanistan 29 Assistance to Jalalabad and Kandahar Hospitals
(Nov. 1956 - July 1957)

Aim of the project. To modernize the facilities for diagnosis, treatment and training at the provincial hospitals at Jalalabad and Kandahar.

Assistance provided by WHO during the year. Diagnostic, surgical and hospital equipment.

Work done. Under this project, WHO has agreed to provide (from rouble contribution), supplies and equipment to the value of US $75,000, including two motor cars and two ambulances for the two hospitals at Kandahar and Jalalabad. Some of the supplies and equipment were delivered during the year, and the rest are under procurement.

Afghanistan 30 Assistance to X-Ray Department, Faculty of Medicine, Kabul (Nov. 1956 - )

Aim of the project. To upgrade facilities and to improve the standard of teaching in the X-Ray Department of the Faculty of Medicine; to train x-ray technicians in the operation and maintenance of equipment; to improve diagnostic facilities at the Aliabad Hospital, and to give training to doctors.

Assistance provided by WHO during the year. X-ray equipment and films.

Probable duration of assistance. Until 1959.

Work done. Supplies and equipment comprising x-ray equipment and films have been procured and delivered, and an x-ray technician is under recruitment (rouble contribution).

Afghanistan 35 Nursing Education (June 1957 - )

Aim of the project. To develop the training of male and female nurses and midwives; to establish a training programme for auxiliary nurse-midwives; to make plans for meeting the over-all nursing needs in the country.

This project supersedes the project "School for Male Nurses" (Afghanistan 4), as well as that part of the projects "Maternal and Child Health" and "Public Health Provincial Expansion and Nursing Education" (Afghanistan 10 and 21) which provided for assistance to female nursing and midwifery activities in Kabul.
Assistance provided by WHO during the year. (a) Two nurse tutors and a public health nurse midwife; (b) supplies and equipment.

Probable duration of assistance. Until the end of 1961.

Work during the year. The public health nurse midwife took up her duties towards the end of June 1957 to assist with the training of midwives and the further development of maternal and child health centres in Kabul. The activities of the two male nurse tutors, who are attached to the "School for Male Nurses", are reported under Afghanistan 4.

Afghanistan 37 Fellowships

Physiology: A twelve-month international fellowship.
2. BURMA

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<tr>
<th>Project No.</th>
<th>Source of Funds</th>
<th>Title</th>
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<tbody>
<tr>
<td>Burma 10</td>
<td>TA (July 1955 - )</td>
<td>Tuberculosis Country Adviser and Lecturer</td>
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**Aim of the project.** To organize and expand the national tuberculosis service; to give lectures on tuberculosis to undergraduates and graduates at the Rangoon Medical College; to give further training to counterparts to carry out both the above functions.

**Assistance provided by WHO during the year.** (a) A tuberculosis adviser and lecturer; (b) a fifteen-month international fellowship.

**Probable duration of assistance.** Until the end of 1959.

**Work during the year.** Plans have been prepared for a tuberculosis prevalence survey and for the maintenance phase of the BCG campaign. The latter plan has been adopted and is being tried out in several urban and rural health areas.

An attempt to enlist the collaboration of general medical practitioners in Rangoon with the tuberculosis control programme met with a poor response.

Courses in tuberculosis control for medical students were continued throughout the year.

The Government's decision regarding the carrying out of a tuberculosis survey is awaited.


**Aim of the project.** To review the technical standards of tuberculin testing and BCG vaccination by national teams engaged in the BCG mass campaign.

**Assistance provided by WHO.** A BCG nurse for six weeks.

**Work done.** The BCG nurse visited ten teams in the field, reviewed techniques of tuberculin testing and vaccination and suggested changes where necessary.

This assignment ended in August 1956. Her report, which contained useful technical and organizational recommendations, was transmitted to the Government in January 1957.
Aim of the project. To establish a model tuberculosis service with emphasis on prevention; to train national personnel in modern methods of diagnosis and control, including domiciliary chemotherapy; to carry out epidemiological survey work.

Assistance provided by WHO during the year. (a) A medical officer, a laboratory technician, an x-ray technician and a public-health nurse; (b) equipment and supplies.

Probable duration of assistance. Until the end of 1958.

Work during the year. During the year the project was operated under difficulties caused by shortages of national personnel, of certain office requisites, of motor tires and of spare parts. Some of these deficiencies were eventually overcome.

The WHO x-ray technician completed his assignment in December 1956. He had trained sufficient staff to carry on the work of his department, but no other trainees were made available to him.

It was possible to expand the work of the domiciliary service by the use of three motor-scooters provided by WHO.

It has not been possible to undertake survey work up to the present, but the matter is under consideration.

Aim of the project. To strengthen the Health Education Bureau, Rangoon; to draw up a health education programme for the Teachers' Training Institute; to train all categories of health personnel in health education; to improve health education throughout the country.

Assistance provided by WHO during the year. (a) A health educator; (b) two three-month regional fellowships.

Probable duration of assistance. Until the end of 1960.

Work during the year. Because of the untimely death of the Chief Health Education Officer of the Government, the new health educator provided by WHO in January 1957 worked temporarily without a counterpart. She assisted the staff of the Bureau with organizational matters, such as a filing system and scheme for maintaining health materials, a card index of the books, films and filmstrips, a review of job descriptions of the staff, and a programme of work. A health
education newsletter, to be issued regularly, has been initiated; educational materials have been prepared, and training activities for various categories of personnel conducted, including a ten-day in-service training course for health education assistants working in the various districts and states.

In an evaluation of the report submitted in July 1956 by the previous WHO health educator, on completion of her one-year assignment, it was pointed out that although much had been accomplished, the task appeared heavy for one adviser, and that attention might be focussed on three of the main project objectives: the strengthening of the Health Education Bureau, the planning of an overall health education programme, and training. Assistance is now being directed along these lines.

**Burma 22** Vital and Health Statistics, Rangoon (Dec. 1955 - )

**Aim of the project.** To establish machinery for prompt notification of accurate statistical data; to improve the processing of information and to train staff in statistical methods.

**Assistance provided by WHO during the year.** A specialist in vital statistics.

**Probable duration of assistance.** Until the end of 1960 (?).

**Work during the year.** The specialist's recommendations for an improved system of vital registration and statistics were considered by the Directorate of Health Services, and complete agreement was reached on all points. The recommendations were then submitted to the Inter-departmental Committee on Vital and Health Statistics, where they have been discussed at several meetings. These discussions are continuing. The far-reaching changes envisaged under the new system necessitate lengthy deliberation to ensure that all local circumstances are taken into account and that the full cooperation of all the ministries concerned is forthcoming.

The period of service of the WHO specialist has been extended for the third year, and it is to be hoped that at least the first experimental stage of the new system will be implemented before his departure.

**Burma 25** Post-Graduate School of Nursing, Rangoon (Jan. - Nov. 1955; - )

**Aim of the project.** To give post-graduate training to nursing tutors, public-health nurses and midwife tutors, to meet the requirements of the integrated health services.

**Assistance provided by WHO during the year.** A twelve-month international fellowship to a staff member of the School.
Probable duration of assistance. Until the end of 1960.

Work done. WHO's assistance to this project began in 1952 (under Burma 6), with a course in public health nursing for graduate nurse-midwives, which has helped to supply public health nurses for a maternal and child health project in the country. The Government trained two further groups in public health nursing, and it is proposed to resume this type of training in the near future.

The public health nurse tutor provided by WHO left the project in November 1955. A general nurse-tutor is under recruitment and as soon as she arrives, it is planned to start a course for training nurse tutors. A midwife-tutors' course and a new public-health nursing course will be conducted later, after the recruitment of a midwife tutor.

Burma 26 Nutrition, Rangoon (Aug. 1954 - )
(FAO)
(Ford Foundation)

Aim of the project. To reorganize the nutrition services and carry out a nutrition programme; to establish a nutrition laboratory in Rangoon; to study and improve institutional diets; to survey dietary habits and the nutritional status of certain population groups; to establish community feeding centres.

Assistance provided by WHO during the year. A medical nutritionist and a biochemist.

Probable duration of assistance. Until the end of September 1957.

Work during the year. Activities under this project continued on the same lines as in the previous year and with the same staff, including a home-economist provided by FAO.

The national counterpart to the medical nutritionist returned from a WHO fellowship and resumed work in the project. A public-health nurse, also a returned WHO fellow, started the work of improving hospital diets.

Nutrition and dietary surveys were carried out in different parts of Burma and the results analysed. In a survey on the incidence of beriberi, of 1,500 nursing and pregnant mothers in Rangoon examined, the results showed that 40% of the primiparae and 50% of the multiparae had serious symptoms of beriberi. Infant mortality among children born out of these pregnancies was high. There was hardly any difference in the incidence of beriberi among middle class as compared with poorer class mothers.
Rice samples and samples of other domestic local foods were examined, and in July a pilot feeding programme was started, to investigate the effect of adding fish flour to the diet of 130 children in day nurseries. This programme was continued for nine months, and the results are now being analysed.

The examination of schoolchildren was completed: the somatometric data of over 30,000 schoolchildren have been analysed.

Lectures on nutrition were given to a number of medical officers of health and to medical undergraduates.

The information collected during the year will be valuable in planning a national nutrition programme under the guidance of a nutrition institute in which well trained staff and laboratory facilities will be available.

Burma 28 Assistance to Medical College, Rangoon University (Feb. 1955 - )

Aim of the project. To upgrade the departments of pharmacology, physiology and preventive medicine in the Medical College of Rangoon University, as part of a long-term programme for upgrading the Medical Faculty as a whole.

Assistance provided by WHO during the year. (a) A professor of physiology, a professor of preventive medicine and a professor of pharmacology; (b) a twelve-month and a four-month regional fellowship; (c) equipment and supplies.

Probable duration of assistance. Until the end of 1960 (?).

Work during the year. The professor of physiology continued his teaching programme and also the training of junior staff in research techniques. A course in physiology for graduates taking the M.Sc. degree was introduced, and assistance was given with the academic examinations at the Medical College at Mandalay. In view of the number of students who failed in physiology, special attention was given to holding tutorials and special practical classes, which led to satisfactory results at subsequent examinations. A suitable counterpart has not yet been provided.

The professor of preventive medicine completed his assignment in April 1957 and was replaced by another WHO professor in June. The University of Rangoon approved the establishment of a Department of Preventive and Social medicine in the Medical Faculty and a full-time Chair from June 1957, sanction being given by the Government for one professor, one lecturer, two demonstrators, one statistician, one public health nurse and one upper and one lower division clerk. The WHO professor completed the English draft of a textbook on preventive and social medicine, built up from the teaching during 1956, also taking an active part in the refresher courses for health assistants and in the first refresher course for medical officers.
The visiting professor of pharmacology completed his work in April 1957. His activities included tutorial teaching, the development of pharmacological research (in which field some ten papers were produced during 1956-57) and examination duties at the Mandalay Medical College. Regular staff meetings for a review of current pharmacological literature were inaugurated; the library was improved, and a more systematic use of the library was encouraged. In view of the adequate staff now available for the Pharmacology Department, there is no need for further WHO assistance.

**Burma 31**

**Strengthening of Malaria Division**

(May 1954 - )

**UNICEF**

**Aim of the project.** To strengthen the Malaria Division of the Central Government; to plan the extension of malaria control to the whole country and to train personnel.

**Assistance provided by WHO during the year.** (a) A malarialogist as adviser to the Government, a sanitarian and an entomologist; (b) a three-month regional fellowship.

**Probable duration of assistance.** Until the end of 1959.

**Work during the year.** The malaria eradication programme, covering the entire country, was started from the beginning of February 1957 by seven regional teams, each with a medical officer. Other staff includes three malaria assistants, an entomological assistant, a laboratory technician for each region, and for each of the 95 units in the country an inspector, five supervisors (all through the year), three foremen employed for four months from January through April and 32 spraymen employed for three months from February through April. Over 8.7 million persons have been protected during 1957, this total slightly exceeding the target of 8 million. In some areas the number protected is slightly less than the target due to conditions of insecurity. Appraisal surveys are being intensified.

Burma was represented at three international meetings during the year, the first in Chiengmai (Thailand and Burma), the second in Saigon (the first meeting of the Anti-Malaria Co-ordination Board consisting of Laos, Vietnam, Cambodia, Thailand and Burma), and the last in Imphal (India and Burma).

The Regional malaria adviser visited the project in February and recommended an intensification of appraisal surveys.

**Burma 32**

**Rural Health Unit, Mandalay**

(Dec. 1955 - )

**UNICEF**

**Aim of the project.** To set up a rural health unit in order to demonstrate a health service combining preventive, curative and social work; to establish programmes for training in rural health
work, including communicable-disease control, vital and health statistics, health education, maternal and child health, nursing and environmental sanitation; to develop a country-wide programme of rural health services.

**Assistance provided by WHO during the year.** One ten-month regional fellowship.

**Probable duration of assistance.** Until the end of 1960.

**Work done.** The full implementation of this project has been delayed.

The three fellowships - one awarded in December 1955 and the other two in May 1956 - have been completed, and the fellows have returned to Burma. One more fellowship was awarded in June 1957.

Personnel will be provided in 1958.

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**Burma 34**

**Strengthening of Environmental Sanitation**

**(March 1956 - )**

UNICEF

**Aim of the project.** To establish in the Aung San Myo area a pilot demonstration area where rural water supplies and excreta disposal will be improved; to devise simple, practical and cheap schemes for rural water supply and latrine construction; to provide services and facilities in order to extend sanitation to all rural areas; to train sanitation personnel.

**Assistance provided by WHO during the year.** A sanitarian.

**Probable duration of assistance.** Until end of 1960.

**Work during the year.** The site of the project has been shifted from Mandalay to Aung San Myo in Rangoon. A revised plan of operations has been prepared and signed by WHO and UNICEF; the Government's signature is awaited.

The sanitarian assigned to this project has taken part in the training of health assistants in the Aung San Myo Health Centre, and has arranged refresher courses and short courses for health assistants and district health officers.

A programme in rural sanitation has been started in the area of the Health Centre; a sanitary survey of the area has been undertaken with the help of the trainees, and some work in latrine construction and well construction has been started. Progress is slow. Lack of an adequate sanitary engineering body, administrative difficulties, labour shortage, etc. are among the main reasons for the delays.

A helminthic survey carried out in the village of Sawmbwagyione in the above area showed high infestation rates.
Burma 36

Public-Health Administration, Rangoon
(March - Oct. 1955; April - Nov. 1956)

Aim of the project. To expand and co-ordinate health services; to train all categories of health personnel; to improve the operation of the Health Directorate and co-ordinate its work with that of other directorates and ministries concerned with health.

Assistance provided by WHO during the year. A consultant in public-health administration.

Work during the year. The consultant was reassigned to the Health Directorate in Rangoon from April to November 1956 to help the Government in implementing the recommendations made after his first assignment from March - October 1955. Further progress was made in administrative matters; the annual administrative report for 1955 was published; under the District Health programme the Aung San Myo Health Centre was reorganized on sound lines into a Health Unit and Training Centre; Insein township was chosen for a pilot programme in the development of district health units, and a guide was prepared for urban health centre practice.

The need for the early implementation of a number of other recommendations has been stressed.

Burma 39

Medical Stores Management, Rangoon
(July 1956 - )

Aim of the project. To study the system of purchasing, store-keeping and distributing drugs and medical supplies; to reorganize the central medical stores; to plan better distribution of medical supplies and drugs to hospitals and other medical institutions.

Assistance provided by WHO during the year. (a) A specialist in medical stores management; (b) some medical literature.

Probable duration of assistance. Until mid-1958.

Work during the year. Slow but steady progress was made in the different aspects of this project, such as purchasing, store-keeping and distribution of drugs and medical supplies. Progress was rather slow due to lack of staff and of office and storage space and a huge accumulation of old stores.

After the preparation of a preliminary report on staff and a building for the Central Medical Stores Depot, Rangoon, the national counterpart together with the WHO specialist succeeded in bringing about a number of improvements: changes were made in the Clerical Ledger Section; proposals for new purchase procedures were submitted, and new office space will soon become available. There was little progress in avoiding the delaying effects of customs procedures.
A new price vocabulary has been completed. Although much work remains to be done, the progress made so far is fairly promising. There is need, however, for well trained pharmaceutical staff and for more staff of senior store-keeper level.

**Burma 42**

**School of Nursing, Mandalay**

(March 1955 - Jan. 1957)

**Aim of the project.** To improve nursing and midwifery training at the General Hospital, Mandalay, correlating theoretical and practical teaching and including public-health nursing in the curriculum.

**Assistance provided by WHO during the year.** A midwife tutor, a general nurse tutor and a public-health nurse tutor.

**Work done.** During the course of the project, a general nursing preliminary training school (PTS) was established. It included theoretical and practical study in the classroom and demonstration room with gradual introduction to ward routines and duties. Public health was integrated into both nursing and midwife curricula. The midwifery PTS course was revised to ensure satisfactory coverage of all subjects. Demonstrations and tutorials were introduced to prepare student-midwives for domiciliary midwifery experience, and the period of domiciliary training was increased from four to six weeks.

With WHO equipment, four sections - the general isolation unit, maternity isolation unit, sick infant section and premature infant section - were set up within the hospital wards for use in demonstration teaching. All the wards have been equipped to meet the basic requirements of nursing procedures and treatment.

To upgrade the work in the public health field, in-service courses were given in ante-natal care, post-natal nursing care, and health education within the maternal and child health field, and on the use and maintenance of midwifery kits.

**Burma 44**

**Communicable-Disease Control (Epidemiology)**

Rangoon (Nov. 1956 - )

**Aim of the project.** To survey the epidemiological situation and to establish an epidemiological unit attached to the Health Directorate, to carry out long-term planning.

**Assistance provided by WHO during the year.** Transport vehicle.

**Probable duration of assistance.** Until the end of 1959.

**Work done.** Owing to difficulties in obtaining the services of an epidemiologist, only supplies have so far been provided to this project. However, action is being taken to recruit an expert, and it is hoped that the programme will start in the near future.
**Burma 45**

**Strengthening of Laboratory Services**

(Jan. 1955 - Dec. 1956; - )

_Aim of the project._ To set up public-health laboratories in Rangoon and Mandalay; to train technicians for the eight existing provincial laboratories and for other laboratories to be set up; to integrate the provincial laboratory services into the programme for expanding the district health services.

_Assistance provided by WHO during the year._ (a) A laboratory specialist (microbiologist) until December 1956; (b) a six-month regional fellowship; (c) surgical instruments.

_Probable duration of assistance._ Until 1959 (first phase).

_Work during the year._ The first phase of the project came to a close in December 1956, when the WHO laboratory specialist after training seven laboratory technicians, completed her assignment.

In her final report she has recommended that the laboratory technicians trained should attend a three-month refresher course at the Pasteur Institute, Rangoon, after three years of field service. She has also recommended that the training of future laboratory assistants be transferred from the Rangoon General Hospital to the Pasteur Institute, Rangoon.

Her report shows further that the establishment of clinical and bacteriological laboratories cannot be undertaken immediately for want of trained medical personnel to take charge of them. An intensive training course in bacteriology should therefore be given for a minimum of six months at the Pasteur Institute, Rangoon.

Because of this lack of trained personnel, both medical and auxiliary, four divisional laboratories which should have been established have not materialized, with the result that the four sets of laboratory equipment supplied by WHO at a cost of $12,000 have not been put to any use so far.

To undertake a survey of laboratory services in the country and to make recommendations for strengthening them, WHO proposes to provide the services of a short-term consultant for four months in 1957.

**Burma 46**

**Post-Graduate Courses in Public Health for District Medical Officers, Rangoon**


_Aim of the project._ To train district medical officers in public health practice, and to improve preventive services in district health centres.
Assistance provided by WHO during the year. (a) Assistance in teaching given by WHO staff in Rangoon; (b) half the cost of travel and maintenance of one provincial medical officer attending the course.

Probable duration of assistance. To be repeated in 1958 and 1959.

Work done. This first three-month course was started in the last quarter of 1956 with eleven participants and an ad hoc faculty including members of WHO staff in Rangoon. With one exception, the instruction was given to doctors in Rangoon, and though this training will improve their value to the health services, they were not the category (provincial medical officers) for whom the project was planned. The syllabus was comprehensive. Documents relating to the course have been received, but a report and evaluation are awaited.

In 1957 arrangements have been made by the Government for conducting a course without WHO's assistance.

Burma 54 Fellowships

Maternal and child health: Three regional fellowships - each of three months.

Mental Health: A two-year regional fellowship.
3. CEYLON

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Aim of the project. To carry out a comprehensive health-education programme, with emphasis on child health, nutrition and environmental sanitation; to establish a Division of Health Education in the Department of Health Services; to extend health-education services to rural and urban areas; to train various categories of public-health workers, educators, etc.; to establish a health education materials unit and film library.

Assistance provided by WHO during the year. (a) A health educator; (b) a twelve-month international fellowship.

Work done. WHO provided a health educator to the UNESCO/WHO Fundamental Education Project in Ceylon from March 1952 to April 1953, and in 1954 was replaced by the national counterpart, returning from a twelve-month WHO fellowship. In 1954, an adviser in health education was appointed to the Directorate of Health Services for two years.

During this time a Sub-Division of Health Education, including a Materials Production Unit, was set up in the Directorate to give effect to a national scheme for health education. Field staff (public health inspectors with two months of intensive training in health education) were attached to the 15 districts under the Superintendents of Health Services and also with the major specialized campaigns against malaria, tuberculosis and venereal diseases.

The health education staff work with professional and community groups on problems in environmental sanitation, nutrition, school health, etc., and devote much time to the in-service training of personnel in health departments and in other governmental and voluntary agencies.

In 1956, the national health education officer was awarded a WHO fellowship for post-graduate study; the other health educators, as well, have been awarded Colombo Plan fellowships, and it is hoped that in time all suitable field staff have an opportunity to study on fellowships from international sources.
From the final report submitted by the WHO health educator, it is seen that a great deal has been accomplished in developing and strengthening health education and in training staff to be responsible for extending it to the urban and rural population. Taking into account the progress made and the interest of the authorities, it may be expected that this work will be effectively carried out in the future. It is suggested, however, that well-planned studies for assessing the effectiveness of the work done, research on social and cultural factors influencing health, and periodic analyses of the attitudes of health staff and of the public are important to future progress.

Ceylon 4

Rural Health Development, Kalutara
(Sept. 1955 -)

Aim of the project. To upgrade the Children's Department of the Kalutara Health Unit Hospital; to integrate the preventive and curative sides of child care at the hospital and in the field; to improve public-health nursing and train various categories of health personnel in the Health Unit.

Assistance provided by WHO during the year. (a) A paediatrician and a public health nurse; a consultant in public health administration for six weeks; (b) a thirteen-month international and a three-month regional fellowship.

Probable duration of assistance. Until the end of 1959.

Work during the year. The team made a detailed survey of all existing maternal and child health activities in the country and suggested improvements.

The Children's Hospital was upgraded, and the diet kitchen and premature unit were improved. The attendance at the well-baby clinic has risen considerably.

A mass treatment campaign against worms and a diphtheria survey have been started.

Refresher courses, each of one month's duration, were given to five groups of midwives. Two groups of student midwives were given six months of domiciliary training, and 26 midwives a three-month course in supervision. Supervising midwives are being used successfully in areas where there are no public health nurses. One of the midwives of the first group has been appointed to the Health Unit to assist in practical teaching of pupil midwives.

The duration of the public health nursing course, in which 15 nurses are enrolled, has been extended from six months to nine months.

A nurse has been appointed to supervise the nursing and midwifery service in the Kalutara area. She has relieved the tutor of many of her responsibilities, enabling her to devote more time to the teaching programme.
Ceylon 8

Nurses' Training School, Colombo
(Oct. 1951 - Aug. 1956)

Aim of the project. To improve and expand the training programme of the School of Nursing at the Colombo General Hospital; to include in the basic curriculum training in public health and in pediatric nursing and obstetrics, in affiliation with outside institutions.

Assistance provided by WHO during the year. A public-health nurse tutor.

Work done. With the appointment of a nursing arts tutor in October 1951, the first phase of this project concentrated on the development of a course in nursing arts and the teaching of basic and advanced procedures. A procedure committee was set up to standardize nursing procedures, thus giving an opportunity for those responsible for the supervision of the students to discuss problems relating to procedures. This aspect of the programme was successfully completed and handed over to the national tutor. The WHO tutor was withdrawn in December 1954.

The second phase began with the appointment of a public-health nurse tutor in September 1954. Necessary adjustments to the curriculum were made so as to include appropriate preventive subjects; prevention and health teaching are now a part of all clinical teaching. A student health service has been established. The students are given training and experience in tuberculosis nursing at Welisara and Colombo; other public health services in Colombo are also being used for student observation and training.

This project was completed with the termination of the assignment of the public-health nurse tutor in August 1956. The national tutors are now carrying on the training programme.

Ceylon 15

Nurses' Training School, Kandy and Galle
(Jan. 1952 - Dec. 1956)

Aim of the project. To establish schools of nursing at Kandy and Galle with training programmes in curative and preventive nursing.

Assistance provided by WHO during the year. A nursing arts tutor and a public health nurse; (b) a twelve-month international fellowship.

Work done. During the course of this project, the new school of nursing at Kandy was firmly established. A curriculum based on the needs of the country was developed; public health was included as an integral part of the course, and a programme of field experience developed. Nursing procedures were revised and distributed to every ward, as well as to each student. They were later translated into Sinhalese.
A useful booklet on experience in procedures was developed, mainly by the senior national tutor, with the assistance of the WHO tutor, and was printed locally.

At the end of the three-year course, the first group of 26 students graduated from the Kandy School in 1955 and became State-registered nurses. Seventy-nine students are now on the rolls.

An in-service teaching programme was developed for all hospital nursing personnel, and national counterpart tutors were trained. In addition, in-service training was given to the tutors to be assigned to the four new schools of nursing to be opened in other parts of the country in the near future.

At the request of the Government, the senior WHO nurse assisted with the opening of the School at Galle in April 1956, with 59 students, and also advised on matters relating to equipment and staff necessary for a school to be opened in Kurunegala.

The final report on the project has been submitted to the Government.

Ceylon 25
TA
UNICEF

Tuberculosis Control and Training Centre,
Colombo [Weligama] (May 1953 - )

Aim of the project. To survey the extent of the tuberculosis problem; to establish a model tuberculosis service; to train medical and paramedical personnel in diagnosis and prevention.

Assistance provided by WHO during the year. A medical officer, an x-ray technician, a laboratory technician, a public health nurse and a statistician.

Probable duration of assistance. Until 1959.

Work during the year. The field work of the tuberculosis prevalence survey was completed early in the last quarter of 1956. Concurrently with the survey, a morbidity study was undertaken.

The public health nurse and the laboratory and x-ray technicians completed the clearing up of certain technical details by the end of 1956. The statistician finished the tabulation work by mid-1957.

A report of the survey has been sent to the Government. The results show that there was a public response of 96%. The overall sampling fraction was 1:375. The estimated rate for unhealed pathology was 0.97% and for healed pathology 0.55%. A high proportion of the cases with unhealed pathology are in the older age groups. Of the total number of estimated cases with unhealed pathology, 81% live under rural conditions, as do 83% of those with healed pathology. Therefore, in case-finding the elderly rural dwellers should be given priority.
All the staff except the statistician have now completed their assignments.

Ceylon 26  Leprosy Control (July 1954 - June 1957)

Aim of the project. To modernize the leprosy-control programme by improving the work of the present institutions and developing a system of case-finding, domiciliary treatment and contact surveillance.

Assistance provided by WHO during the year. (a) A leprologist and an occupational therapist; (b) some essential supplies.

Work done. During the course of this project, the WHO staff consisted of a leprologist and an occupational therapist, and supplies and equipment worth about $5,000 were supplied. In 1956, two medical men went on WHO fellowships for three months for training in leprosy, and one of them for ten months longer to qualify for the DPH.

The principle items of work done were (a) surveys (in this respect, a survey restricted to the examinations of contacts of registered cases and of persons from four or five neighbouring houses yielded the best results consistent with time and money spent and the number of new cases registered), (b) bringing the national register up-to-date, (c) health education, (d) recommendations for the improvement of institutional care, (e) domiciliary treatment (of 2,145 cases, 1,337 are now receiving domiciliary treatment), (f) the training of medical workers in leprosy, and (g) the improvement of laboratory facilities (the construction of a central laboratory has now been sanctioned and equipment has been provided). The Government has not, however, implemented many of the recommendations made with respect to occupational therapy.

On the whole, it may be said that most of the objectives of the project have been carried out. The rest depends largely on government initiative, and specific recommendations have been made for the continuance of the programme.

The occupational therapist was withdrawn in October 1956 and the leprologist in June 1957.

Ceylon 35  Environmental Sanitation, Kurunegala (March 1955 - )

Aim of the project. To set up two pilot projects in rural areas to improve water supplies and excreta disposal and to train personnel in environmental sanitation; to develop a health education programme to elicit the cooperation of the people and to prepare the community in advance for the sanitation programme; to apply the experience so gained in the future national programme.
Assistance provided by WHO during the year. A sanitary engineer; a short-term consultant for two months.

Probable duration of assistance. Until the end of 1961.

Work during the year. In this project the number of latrine pits lined and covered with a proper slab reached approximately 2,000. The digging of the pit and the construction of the superstructure are the responsibility of the householder and nearly 700 superstructures have been built with voluntary labour. Construction of latrines in public schools was also started.

A number of wells were completed, and others are under construction. Water from the first well was tested bacteriologically at the Medical Research Institute, Colombo, and was reported to have no lactose fermenters and no evidence of faecal pollution.

A special two-week training course in health education was given to all the project staff concerned. Short-term training (three months) of public health inspectors in environmental sanitation has been started with groups of eight to nine students, and three such groups have already been trained. A sanitarian to assist in this work has been selected and will be assigned in September.

The pre-operational health survey was completed in the second pair of Koraels.

The short-term consultant appointed in October 1956 to assist the Government in the preparation of a Sanitary Code for Ceylon has submitted a draft, which is expected to be finalized shortly.

The whole project has been reviewed by the Regional Adviser, and his suggestions for future action are under consideration.

Ceylon 38

Assistance in Epidemiology to Health Directorate (Feb. 1956 - )

Aim of the project. To establish an epidemiological unit at the Central Fever Hospital, Colombo; to make epidemiological surveys of the disease pattern in Ceylon; to train undergraduate and post-graduate students and a counterpart.

Assistance provided by WHO during the year. An epidemiologist.

Probable duration of assistance. Until 1959.

Work during the year. The epidemiologist initiated research work on a variety of subjects such as keratitis superficialis tropica, purulent conjunctivitis, rabies, influenza virus, etc. He also started a project in Panadura to study the incidence of typhoid and the serological diagnosis of the disease.
When, during the year, Ceylon had a serious epidemic of smallpox, he assisted the Government in the investigation of this outbreak. A number of sera were shipped to the Virus Research Centre, Poona, for testing against a wide range of virus.

As a result of studies made in Ceylon, the presence of dengue fever has been established, and it is probable that the presence of adeno viruses may be quite common. The diseases caused by such viruses remain to be identified.

A training programme for medical and para-medical personnel involved in the handling of infectious diseases is being arranged.

Progress in establishing an epidemiological unit at the Health Directorate, however, is slow. One of the handicaps was the lack of a national counterpart, who has been available only since July 1957.

**Ceylon 39**

**Assistance to Health Directorate, Colombo—Nursing Adviser (July 1957—)**

Aim of the project. To provide the Directorate of Health Services with advisory services in connection with nursing organization, education, administration and legislation and with the development of co-ordinated supervisory services to ensure uniformly high nursing standards within the national health programme.

Assistance provided by WHO during the year. A nursing adviser.

Probable duration of assistance. Until the end of 1960.

Work during the year. The nursing adviser assumed her duties only in July 1957.

**Ceylon 45**

**Health Statistics (April 1957—)**

Aim of the project. To revise the system of records and reports in the Health Services; to train national personnel in the design of documents, the conduct of surveys and other statistical techniques; to set up a permanent statistical service in the Ministry of Health.

Assistance provided by WHO during the year. (a) A health statistician; (b) supplies and equipment.

Probable duration of assistance. Until the end of 1960.

Work during the year. The statistician has been in position only since April 1957, and has started examining the records and reports of the Health Department. It is too early yet to attempt an appraisal of the work done.
Aim of the project. To survey the facilities for diagnosis, treatment and care of cancer cases; to advise on the development of an appropriate cancer treatment and research programme and on the establishment of a cancer registry at the Cancer Institute.

Assistance provided by WHO. A consultant for two weeks.

Work done. The consultant, during his short assignment, made a study of the work done by the Ceylon Cancer Society and submitted recommendations on the collection of data on cancer, on methods of spreading authoritative information on its prevention and cure and on the organization of the Cancer Institute and its research and treatment programme. His report has been sent to the Government.

It is expected that the consultant will soon pay a second visit to Ceylon for further assistance in the development of the Cancer Institute.

**Fellowships**

Pharmacology: A four-month international travel fellowship.

Public health administration: One ten-month and one twelve-month international fellowship.
4. INDIA

<table>
<thead>
<tr>
<th>Project No.</th>
<th>Source of Funds</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>India 2</td>
<td>UNICEF</td>
<td>Maternal and Child Health Department, All-India Institute of Hygiene and Public Health, Calcutta (June 1953 - )</td>
</tr>
</tbody>
</table>

**Aim of the project.** To develop the Maternal and Child Welfare Section of the All-India Institute of Hygiene and Public Health into a full Department of Maternal and Child Health, which will provide training for students from India and other Asian countries.

**Assistance provided by WHO during the year.** (a) A visiting professor of pediatrics, an administrative officer, a midwife tutor, a public-health nurse and a health educator; (b) one six-month and one twelve-month international fellowship. (Cost of personnel during 1956 reimbursed by UNICEF)

**Probable duration of assistance.** Until the end of 1957.

**Work done.** A notable achievement in this project has been the expansion and upgrading of the Maternal and Child Welfare Section.

The Children's Department of the Chitteranjan Seva Sadan Hospital, which was associated with the Institute, has also been upgraded and now forms part of a post-graduate college in obstetrics and paediatrics.

An urban health centre (Chetla) - the most elaborate in South East Asia - was established.

The following numbers of students have been trained in the various courses at the Institute:

<table>
<thead>
<tr>
<th>Indian</th>
<th>Non-Indian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma in Maternal and Child Welfare</td>
<td>31</td>
</tr>
<tr>
<td>Certificate in Maternal and Child Health</td>
<td>23</td>
</tr>
<tr>
<td>Certificate in Public Health Nursing</td>
<td>38</td>
</tr>
</tbody>
</table>

In addition, a Certificate Course in Health Education was established in 1956, from which 19 students have graduated.

The WHO nursing personnel has assisted in the organization of field experience, rotation in clinics, participation of all categories of staff and staff education programmes. The nursing
aspects of all courses at the Institute are now taught by the nursing staff, and the concept of the student's fitting into the existing services and participating in them, is far more generally accepted.

Since 1955 the teaching of health education has increased considerably, and a proposal to develop a ten-month certificate course in health education for training medical and non-medical health educators at the Institute is under consideration. The health education staff of the Institute has also continued to assist with health education in the Chetla Urban Health Centre and in the Singur Rural Health Centre.

The visiting professor of pediatrics, the administrative officer and the two nurses completed their assignments during the year, and only the health educator remains. This aspect of the programme will continue from 1958 under a separate project number, India 118.

India 19  
Nursing, Calcutta (June 1952 - Sept. 1956)

Aim of the project. To upgrade and expand the basic school of nursing at the Medical College Hospital, Calcutta, particularly as regards training in midwifery and public health nursing.

Assistance provided by WHO during the year. A midwife tutor.

Work done. This project was started in 1952 with the assignment of four international tutors - one each in general nursing, nursing arts, pediatrics and midwifery - to the Medical College Hospital, Calcutta.

All the courses recommended in the Indian Nursing Council syllabus were included in the programme developed with WHO's assistance. The continued over-crowding of the hospital wards and the shortage of graduate staff during the course of the project, contributed to difficulties in maintaining sound nursing techniques, and resulted in unsatisfactory practical instruction.

The midwife tutor was assigned primarily to strengthen the midwifery programme in the hospital and to develop facilities for domiciliary midwifery training.

The responsibility for the two-week domiciliary course for pupil-midwives, set up in conjunction with the Sir Anderson Health School, was taken over entirely by a public health nurse appointed by the hospital as a second counterpart to the WHO midwife tutor. Although deliveries are not as yet being carried out in the homes, these two weeks of training give the student a better understanding of the patient and also a knowledge of the work of other members of the health team.

With the withdrawal of the WHO midwife tutor from the project in September 1956, the national staff who had received training previously under WHO fellowships, assumed responsibility for the entire nursing training programme.
Plague Control, Dehra Dun, Uttar Pradesh
(Institut Pasteur, Teheran)
(July 1952 - Jan. 1957)

**Aim of the project.** To carry out research on the epidemiological factors causing recurrent outbreaks of plague in Northern India and to plan control measures.

**Assistance provided by WHO during the year.** (a) A medical consultant and a statistical assistant; (b) essential equipment and supplies.

**Work done.** This project was started in 1952 by the Government of India with assistance from WHO. During the first two years, fact-finding field work on the ecology of rodents and their relationship to plague outbreaks was undertaken. Intensive field research was carried out during 1954, 1955 and the early part of 1956, a field laboratory being established in the project area, and the Institut Pasteur in Teheran becoming actively associated with the project. Detailed studies were made of the species of wild rodents, flea parasites, etc.

The WHO consultant visited the project area in 1956 to review the work of the national team. He suggested that, besides investigating all plague outbreaks in the State of Uttar Pradesh, the national team should continue the survey work in the Northwestern districts with a view to detecting plague foci in areas where no human plague or rat mortality has been noticed for many years.

As a result of the work it is apparent that DDT-spraying for malaria control, when adequately applied in a mass campaign, will also control the plague vector to some extent. It was also noticed that the residual effect of insecticides administered as patch-dusting was superior to that obtained by spraying.

The personnel was withdrawn by January 1957, and the final report has been submitted to the Government.

Nursing, Ludhiana (June 1954 - June 1956; Jan. 1957 - )

**Aim of the project.** To survey the training facilities for nurses and midwives in Ludhiana and selected villages; to adapt and expand training programmes to meet the nursing needs of the community.

**Assistance provided by WHO during the year.** (a) A public health nurse educator; (b) a twelve-month international fellowship; (c) essential supplies.
Probable duration of assistance. Until the end of 1957.

Work during the year. The WHO public health nurse, who joined in June 1954, left the project in June 1956, and was replaced only in January 1957. During the interim period, the work established was continued by the national public health nurse.

The WHO public health nurse, in conjunction with the national health visitor from the health school, made preliminary visits to the villages and some of the houses in Ludhiana in order to familiarize herself with the activities already developed. She also assisted in carrying out a school inspection in a girls' school, where a vision test was done for the first time. Some time was spent in the out-patients' department of the Christian Medical College Hospital to assess the possibility of establishing follow-up service.

It is planned to organize a sub-centre and also a programme for training dais at Jamalpur village. School health services are being developed at the Ewing Christian School, where medical and nursing students will be given practical instruction.

India 40 Nursing, Bombay (Sept. 1953 - Dec. 1956)

Aim of the project. To extend the nursing training programme in the J.J. Group of Hospitals; to develop in these hospitals nursing techniques and procedures suited to local conditions; to correlate theoretical teaching with teaching in the wards, and to include public health nursing in the curriculum.

Assistance provided by WHO during the year. (a) A nurse educator, a public health nurse tutor and a midwife tutor; (b) some medical literature.

Work done. The project was started in September 1953 with the provision of three international tutors to assist in upgrading and expanding the training of nurses and midwives at the J.J. Hospital, Bombay. A fourth tutor was added in mid-1954.

Considerable progress was made in most phases of the programme, and by 1955 the national tutors had taken over most of the classroom teaching. The curriculum was revised to include all courses recommended by the Indian Nursing Council; ward procedures were drawn up, and a staff education programme was established. A ward-teaching programme was developed in six representative wards and was carried on by the national clinical tutor. A midwifery nursing service and domiciliary nursing service were introduced. Further, a public health nursing service was started within the hospital compound, where student nurses received experience in this branch of nursing.
By December 1956, all the international tutors had been withdrawn, and the national staff had taken over the entire responsibility of continuing the work begun with WHO assistance.

The report on this project has been submitted to the Government.

India 42
Tuberculosis Control and Training Centre,
Nagpur (Nov. 1955 - )

Aim of the project. To establish a model tuberculosis services with emphasis on prevention; to train national personnel in modern methods of diagnosis and control, including domiciliary chemotherapy; to carry out epidemiological survey work.

Assistance provided by WHO during the year. (a) A medical officer, a laboratory technician, an x-ray technician and a public-health nurse; (b) a twelve-month international fellowship; (c) radiological equipment and supplies.

Probable duration of assistance. Until the end of 1959.

Work during the year. Some supplies for this project were sent in 1955 and 1956, and the medical officer arrived in October 1956. After he had spent some time in preliminary preparations, the WHO team moved into position in January 1957. It has not been possible up to now for the Centre to operate fully because of delays in the delivery of radiological equipment (ordered in 1956 but the outstanding items of which have been delivered only recently) and in the issue of the State Government's sanction for carrying out certain additions to the X-Ray Department building. Nevertheless, the training of laboratory staff and home visitors is now being proceeded with.

India 43
Tuberculosis Control and Training Centre,
Hyderabad (Dec. 1956 - )

Aim of the project. (a) To train national personnel in diagnosis and control, with emphasis on prevention and including methods of domiciliary control, the personnel so trained to staff the district centres in the State; (b) to assist national personnel to put into practice special mass techniques of diagnosis and control evolved by the pilot mobile units established under the Indian national tuberculosis control plan.

Assistance provided by WHO during the year. (a) Laboratory equipment; (b) two international fellowships - one of twelve months and one of four months.
Probable duration of assistance. Until 1960.

Work done. A plan of operations has been prepared and sent to the Government of India for approval. The equipment received has been stored by the Government pending the setting up of centre.

India 49

Maternal and Child Health/Nursing,
Hyderabad (March 1954 - March 1957)

(Aim of the project.) To develop the maternal and child health services of the State, with special attention to the training of nursing personnel.

Assistance provided by WHO during the year. Three midwife tutors and a public health nurse (two nursing arts instructors were provided under the Colombo Plan).

Work done. Most of the work of this project has been on the training of nursing personnel, which has developed very satisfactorily. The training of indigenous dais and improvement of nursing practices and procedures in paediatric departments, especially that of the Niloufer Hospital for Women and Children, received considerable attention. On the assumption that for some time most of the deliveries in the rural areas will be conducted by dais, the WHO domiciliary midwifery tutor devoted a considerable amount of time to this subject. The result appears to be satisfactory.

While a very good urban training field was developed by the public health nurse, the rural training centre did not benefit, there being a local reluctance to make any changes.

The training of auxiliary nurse-midwives by the medium of English did not prove to be a success. It was also found that, in order to be able to function properly after graduation, the candidates are best trained in hospitals nearer their homes, in the districts where they will eventually be appointed.

The health school and maternal and child health centres in both city and State were upgraded. The Niloufer Hospital has developed into one of the foremost institutions in India.

All the international personnel were withdrawn by March 1957, and the activities are being carried out by the national staff.
India 53 and 102

Tuberculosis Chemotherapy Centre, Madras

(Dec. 1955 - )

Aim of the project. (a) To determine what proportion of infective cases living on crowded urban areas can be rendered non-infective by treatment with drugs suitable for self-administration at home; (b) to determine how long these patients can be kept non-infective; (c) to compare the results of drug treatment in domiciliary patients with those of treatment in hospital patients; (d) later to study the community effects of widespread chemotherapy on ambulant patients; (e) to provide facilities for training in research techniques.

Assistance provided by WHO during the year. (a) A senior medical officer, an assistant medical officer, a bacteriologist, an administrative officer, a laboratory technician, an x-ray technician, and two public-health nurses; a consultant for three weeks; (b) two international fellowships - one for twelve months and one for four months; (c) laboratory and x-ray equipment, supplies and transport vehicles.

Probable duration of assistance. Until 1961.

Work during the year. Three groups of patients are now being treated:

(a) those admitted in the early stages whilst procedures and methods were being evolved;

(b) those receiving treatment by one of several regimes which have been allocated at random (these patients fall into two groups - those receiving treatment at home and those cared for in a sanatorium);

(c) tuberculosis contacts of patients under category (b) (these are studied with reference to the location of the index case).

At the end of June 1957, 158 patients under (b) were being covered in the study of the PAS and isoniazid regimes which was started in September 1956. Contacts of these patients (c) were also under study. In this first phase, 83 patients have been studied for three months and 36 for six months. The second phase, which includes a study of the use of isoniazid alone in therapy, will be started shortly.

Some difficulties were caused by delays in completing structural alterations to the clinic and in constructing the animal house. It has not yet been possible to fill all the counterpart posts.
Two meetings of the Project Committee (on which the Government and other sponsors of the project are represented) were held during the year, one in February and the other in July.

India 55  
Maternal and Child Health/Nursing, West Bengal (Nov. 1954 - Jan. 1955; June 1957 - )

**Aim of the project.** To strengthen the public health services in the State and to assist with the training of nursing and midwifery personnel.

**Assistance provided by WHO during the year.** A public health nurse.

**Probable duration of assistance.** Until 1961.

**Work during the year.** As a result of discussions with the Central and State Governments it was decided to revise the plan of operations. A public health nurse was appointed in June 1957.

India 56  
Maternal and Child Health/Nursing, Bihar (Nov. 1954 - )

(Colombo Plan)

**Aim of the project.** To develop the maternal and child health services of the State; to train nursing personnel.

**Assistance provided by WHO during the year.** A maternal and child health officer, two public-health nurses and three midwife tutors. (Two nursing arts instructors were provided under the Colombo Plan).

**Probable duration of assistance.** Until the end of 1961.

**Work during the year.** Ten new maternal and child health centres were opened during the year. One child welfare clinic is now used in Patna for training of undergraduate medical students in promotional and preventive aspects of child care.

Most of the activities were in the field of nursing training. The domiciliary midwifery teaching field in Patna has been expanded, and the various nursing schools in the State have made considerable progress. Examinations were held at the Nursing
School, Patna, during October 1956. Of 29 first year students, 13 were successful. Thirty new nursing students commenced preliminary training early in November 1956.

The first group of eight auxiliary nurse-midwives in the State passed the final midwifery examination held in Gaya.

Seventeen student lady health visitors completed their nine-months' training in Ranchi.

With the assistance of the WHO nurses, a sterilization and treatment room was set up in the Paediatric Department of Patna Medical College. A committee made up of tutors and ward sisters (national and international), under the chairmanship of the Matron, has set up standard nursing procedures in the Medical College Hospital.

The public health nurse and the midwife tutor working in Gaya completed their activities. The auxiliary nurse midwifery course, including the domiciliary aspects of training, has been well established, and the national nurses have assumed full responsibility. The public health nurse has been transferred to the Medical College Hospital, Darbhanga, to set up a programme for the integration of public health into the basic nursing curriculum. The midwife tutor completed her assignment in April.

India 57
UNICEF
Maternal and Child Health/Nursing,
Uttar Pradesh (Feb. 1955 - )

Aim of the project. To develop the maternal and child health services of the State; to train nursing personnel; to establish a paediatric training hospital at the Medical College, Lucknow.

Assistance provided by WHO during the year. A paediatrician, two public health nurses and a paediatric nurse.

Probable duration of assistance. Until the end of 1961.

Work during the year. The paediatric hospital has been improved and teaching of undergraduates developed further.

Two child welfare centres were used for training undergraduate medical students in promotional and preventive child care.

The senior WHO public health nurse attached to this project was assigned to the Maternal and Child Health Division in the Directorate of Health Services in January 1955, to advise and assist in the development of midwifery training and services in the State. The second public-health 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 were opened, but, because of the shortage of tutors, there has been little progress. Both nurses were withdrawn towards the end of 1956 on completion of their assignments.

The paediatric nurse has begun to give lectures to the sisters and staff nurses. The student nurses are taught mainly by practical ward demonstration. Instruction and practice in the basic care of infants is being given to the mothers in the wards, and steady progress has been made towards improving ward hygiene.

**India 62**

**Maternal and Child Health/Nursing, Kerala**

(Feb. 1955 - )

UNICEF

(Colombo Plan)

**Aim of the project.** To develop the maternal and child health services of the State; to train nursing personnel; to establish a rural health teaching centre for the Medical College, Trivandrum.

**Assistance provided by WHO during the year.** A maternal and child health officer, a public-health nurse and a midwife tutor (a second public-health nurse was provided under the Colombo Plan).

**Probable duration of assistance.** Until the end of 1961.

**Work during the year.** The urban and rural maternal and child health services were expanded and strengthened.

The midwife tutors who were undergoing short-time training completed their course and were posted to midwifery training schools - three as senior tutors and four as assistants. A refresher course for fifty midwives at the S.A.T. Hospital, Trivandrum, and at the Medical College Health Unit was also completed.

A UNICEF-assisted refresher course for midwife tutors was held at the S.A.T. Hospital in June; it was attended by fifteen tutors.

A register of public health nurses, health visitors and midwives working in the Public Health Department of the State has been prepared.

**India 63**

**Post-Graduate Course for Midwife Tutors,**

College of Nursing, New Delhi (Feb. 1956 - )

**Aim of the project.** To develop a post-graduate course for midwife tutors.
Assistance provided by WHO during the year. (a) A midwife tutor; (b) equipment and medical literature.

Probable duration of assistance. Until the end of 1958.

Work during the year. Practical experience was arranged in the Girdhari Lal Hospital where, for periods of four weeks in rotation, the students attended the ante and post-natal examination rooms, the labour ward and the post-partum ward. A lecture programme was carried out by visiting doctors, the staff of the College and the midwife tutor. Special instruction on methods of demonstration and the use of the blackboard was also given. Practice in public speaking took a prominent place in the weekly programme.

The students completed their practical and teaching experience with six weeks in the Victoria Zenana Hospital (for domiciliary practice, ward experience and classes) and another six weeks doing domiciliary midwifery. The last two months of the course were spent on study and review.

India 71

Assistance to the All-India Institute of Mental Health, Bangalore (March 1955 - )

Aim of the project. To establish at the All-India Institute of Mental Health, Bangalore: (a) a post-graduate training programme in psychiatry and psychiatric nursing, and (b) a programme of research in psychiatry, neurology and neuro-surgery; to train national counterparts to take over from the WHO personnel.

Assistance provided by WHO during the year. Two psychiatric nurses, a professor of psychiatry for three months and a neurologist-electrophysiologist.

Probable duration of assistance. Until the end of 1959.

Work during the year. Many changes have been effected in the course of the year, e.g. the opening of a new academic wing in the Institute and of a fourth pavilion of the hospital; the centralization and reorganization of the Insulin Coma Treatment Unit; the reorganization of the outpatients department; further improvement of the nursing care of the patients; improved facilities for occupational and recreation therapy; and the modification of working schedules for nurses and ward attendants, leading to better integration of the work in the hospital and the Institute.

The courses for the Diploma in Psychological Medicine and the Diploma in Medical Psychology were continued, with 23 and 18 students respectively. At the end of December 1956, 13 out of 15 candidates, who were undergoing the first psychiatric
nursing course, satisfactorily passed the final examination, and in March 1957 a new course was started with 18 students. These courses have contributed much to increased recognition of the importance of psychiatric nursing.

The WHO psychiatric nurses also continued to assist in the lecture programme of a number of other hospitals in Mysore State.

At the end of June 1957, a neurologist-electrophysiologist replaced the one who left in June 1956, and recruitment of a neurologist to assist in the development of a Department of Neurology is proceeding. A professor of psychiatry was assigned to the Institute as a short-term consultant for three months (December 1956 - February 1957). According to his report, the Institute will soon be able to provide not only good clinical work and instruction to students, but also research activities through which the students can learn the elements of a scientific approach.

Progress made on this project has brought the Institute nearer to its target of becoming a first class national and regional training institute for mental health.

India 73

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

Aim of the project. To provide, in association with the Lady Hardinge Medical College Hospital, training in domiciliary nursing and midwifery services.

Assistance provided by WHO during the year. A domiciliary midwife tutor.

Probable duration of assistance. Until the end of 1959.

Work during the year. Soon after arriving and after visiting various special health centres and nursing schools, the midwife tutor proposed certain preliminary activities as essential for achieving the objectives in domiciliary nursing and midwifery. A committee was formed to study the technical aspects of implementing the project and made recommendations, which were agreed to by the Government of India. As a result, two staff midwives were assigned to the domiciliary department, and two nurse-midwife students and two health visitor students started their domiciliary training. A follow-up service for patients discharged from the maternity wards was started, and an area chosen to be used for the home delivery service.

Work was started on the preparation of a handbook in domiciliary midwifery, and a lecture programme in basic midwifery was initiated.
Maternal and Child Health/Nursing Education, Mysore (Oct. 1956 -)

Aim of the project. To improve the preventive and curative services, particularly maternal and child health services, of primary and secondary health units throughout the State; to provide training in maternal and child health in the cities of Bangalore and Mysore; to establish three district diagnostic laboratories; to train all categories of health personnel for work in rural areas at the health training centre at Ramanagaram; to expand health education programmes and training programmes for doctors, midwives, nurses and health inspectors.

Assistance provided by WHO during the year. (a) A maternal and child health officer and a public health nurse; (b) a twelve-month international fellowship.

Probable duration of assistance. Until the end of 1961.

Work during the year. A detailed survey of the maternal and child health services in the State was made with a view to effecting improvements. A rural health training unit for medical students was established, and a research project in the treatment of worms with papaya products has been initiated.

The WHO public-health nurse, who joined the project in November 1956, carried out a survey of the training of the nursing personnel in the State, and visited a number of districts. A comprehensive report on the results of this survey and her recommendations for strengthening the training programmes is under preparation and will soon be submitted to the Government.

Assistance was given by the public-health nurse in the re-organization of the Nursing School at the Victoria Hospital, Bangalore. She also undertook the drawing up of a syllabus for the training of auxiliary nurse-midwives.

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

Aim of the project. To establish a Department of Public-Health Engineering at the University of Madras and to organize postgraduate courses and field training in public-health engineering at the University; to train a national counterpart to take over from the WHO professor.

Assistance provided by WHO during the year. (a) A professor of public-health engineering; (b) a twelve-month international fellowship; (c) one transport vehicle and laboratory equipment.

Probable duration of assistance. Until the end of 1958.
Work during the year. The visiting professor is continuing his work on post-graduate courses in the College of Engineering.

The second post-graduate course, with nine students, was started during 1956, and the academic part was completed in April 1957. The national staff for the course has been increased, but there are still three vacancies.

Three-month courses for engineers and engineering subordinates have also been organized, one starting in February and another planned for July. For these courses, an additional professor and three lecturers have been provided.

Plans for plants to demonstrate water purification and sewage treatment have been prepared, and it is expected that construction will start shortly. A public health engineering laboratory is under construction, and the necessary equipment has been ordered; several items have already arrived.

India 78

Maternal and Child Health/Nursing, Nagpur

UNICEF

(May 1955 - )

Aim of the project. To develop integrated rural health services, particularly maternal and child health services; to improve the teaching of paediatrics at the Nagpur Medical College; to establish a rural health teaching unit for the College.

Assistance provided by WHO during the year. A maternal and child health officer, a public health nurse and a domiciliary midwifery tutor.

Probable duration of assistance. Until the end of 1961.

Work during the year. The maternal and child health officer completed his assignment in January 1957.

The Paediatric Section of the Medical College was developed into an independent Department. The curriculum in the teaching of paediatrics was revised, and now includes promotional and preventive child care. A separate clinic for spastic children (the first in India) was established, and a premature unit developed.

At the Health Visitors' School, the results of the improvements introduced into the students' practical training can now be seen. The attendance of expectant mothers has improved considerably since the introduction of an Appointments Book. All mothers are given definite appointments for the antenatal clinic, and all "defaulters" are followed up at home by the students. A similar improvement is seen in the attendance at the Child Welfare Clinic. These activities were handed over to the national nurses on the withdrawal of the WHO public health nurse in May 1957.
Domiciliary midwifery training has been well established at the Mayo Hospital. Attempts to develop a similar service in connection with the Medical College Hospital have not been so successful. Small maternal and child health centres have been set up in the Out-patients' Departments of these hospitals, providing good practical experience for the nurse and midwife students. Some assistance has been given in upgrading institutional midwifery training in the hospitals in Nagpur.

India 79

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

Aim of the project. To develop integrated rural health services, particularly maternal and child health services; to improve the teaching of paediatrics at the Poona Medical College; to establish a rural health training unit for the College.

Assistance provided by WHO during the year. (a) A maternal and child health officer and three public-health nurse educators; (b) two twelve-month international fellowships.

Probable duration of assistance. Until the end of 1959.

Work during the year. The total number of primary health units established under this project is 78. In addition, 50 maternal and child health centres were opened.

The Sirur Training Unit was further developed, and the following numbers of personnel received public health orientation:

<table>
<thead>
<tr>
<th>Category</th>
<th>Duration of Course</th>
<th>Number of Trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical officers</td>
<td>six weeks</td>
<td>89</td>
</tr>
<tr>
<td>Nurse-midwives</td>
<td>three months</td>
<td>189</td>
</tr>
<tr>
<td>Midwives</td>
<td>one month</td>
<td>121</td>
</tr>
<tr>
<td>Sanitary inspectors</td>
<td>three weeks</td>
<td>99</td>
</tr>
</tbody>
</table>

In addition, facilities available at the Poona Municipal Corporation and the Medical College are now used for better orientation in various aspects of obstetrics and paediatrics.

It is evident that the quality of the nurses completing the orientation programme is improving. They still need guidance, however, in establishing and developing services in their rural primary health units.

Reorganization of the duties of the public health nurses on the staff has made it possible to have more effective supervision of trainees and staff in the sub-centres of the health unit. One of the WHO public health nurses transferred from Sirur in February 1957, has developed a comprehensive training programme associated with the Sassoon Hospital and the maternal and child health centres in Poona.
As the basic training of the nurse-midwives deputed for orientation has not been adequate, particularly in paediatrics and midwifery, a six weeks' refresher course for all such students has been established in Poona.

India 82

Short-Term Refresher Courses for Nurses

(Hyderabad: 3 Sept. - 3 Nov. 1956;

Aim of the project. To plan and conduct two short-term refresher courses for ward sisters, incorporating theoretical and practical instruction adapted to local conditions.

Assistance provided by WHO and work done. Two courses were provided under this project.

The first, held in Hyderabad from 3 September to 3 November 1956, was attended by eighteen ward sisters from various parts of the country, and was directed by the WHO nursing personnel of the Maternal and Child Health/Nursing Project, Hyderabad (India 49).

In the second course, which was held from 6 November 1956 to 5 January 1957 at the Lady Hardinge Medical College Hospital, New Delhi, in conjunction with the Domiciliary Nursing and Midwifery Project (India 73), nineteen nurses from different states in India participated.

Both courses consisted of lectures, practical ward assignments, visits to institutions and group discussions. Emphasis was placed on the need for better ward administration and supervision.

The value of short-term refresher courses is now widely recognized, with the result that employing agencies are readily arranging leave to enable selected personnel to attend such courses, in spite of shortage of staff and heavy service demands. It is through this type of activity that great encouragement is given to the tutors and ward sisters who are responsible for the development of nursing in the countries of the Region.

India 87

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

Aim of the project. To extend public-health services in rural areas, particularly maternal and child health services, by means of primary and secondary health units; to improve and increase the services given by maternal and child health centres in urban areas; to improve the standard of training of nurses, midwives, auxiliary nurse-midwives and dais.
Assistance provided by WHO during the year. A maternal and child health officer and a public-health nurse.

Probable duration of assistance. Until April 1958.

Work during the year. Twenty-nine primary centres, with at least three sub-centres each, have been established, mostly with the active assistance of the people. A new children's hospital was built in Rajkot and now functions fully, and children's departments in Bhavnagar, Jamnagar and Junagadh have been upgraded.

Several districts were visited and advice and guidance given on the organization of the work of the nursing personnel in the health units. Two intensive orientation courses were given in Sorath and in Junagadh to fifteen auxiliary nurse-midwives prior to their posting to primary health units.

The West Hospital in Rajkot has moved to its new quarters. The WHO public health nurse was closely associated with its re-establishment, particularly with regard to the nursing school.

Two national nursing tutors have joined the project - one in Bhavnagar and one in Jamnagar. Three trained nurses have been sent to Indore for a combined ward administration and nurse tutors' course.

The first group of 60 days trained under the project have completed a six-month course; 35 are now under training in eight primary health centres.

Aim of the project. To establish a demonstration and training unit in an urban area, to serve as a model health statistical service; to train local personnel in health statistics.

Assistance provided by WHO during the year. (a) A health statistician; (b) supplies and equipment.

Probable duration of assistance. Until the end of 1959.

Work during the year. This project has been beset by a number of administrative difficulties from the start, owing to the national responsibility being vested in three different bodies, viz. the Nagpur Corporation, the State Government and the Central Government. The progress achieved in spite of these difficulties has been very encouraging. A national counterpart has been trained now for nearly a year. A number of lectures, both theoretical and practical, have been given to the medical profession. Some of the more important studies carried out include: (i) a sample study of deaths in Nagpur in 1955 and in 1956; (ii) a report on the diagnostic returns from hospitals and
dispensaries in Nagpur in 1955; (iii) a study of the original reports on cause of death received from chowkidars at burning ghats; and (iv) a preliminary report on the results of introducing a statistical report card in Nagpur dispensaries for the first quarter of 1957. Perhaps the most significant achievement has been the introduction, on an experimental basis, of forms for the notification of births, deaths, and foetal deaths. The initial results have been very promising. The notification of death form for use in hospitals incorporates the International Form of Medical Certificate of Cause of Death, and it is hoped that the Nagpur experiment may lead to a wider use of the international form when circumstances permit. The forms have been printed in both English and Hindi. Another major activity of the project has been preparations for a training course for statistical assistants drawn from all over the country. The syllabus has been drawn up and the Central Government is selecting the candidates. It is expected that the course will start as soon as sufficient candidates are forthcoming.

India 91

Professors in Preventive and Social Medicine (Feb. 1956 – )

Aim of the project. To develop the Departments of Preventive and Social Medicine in four selected medical colleges, integrating preventive medicine into the general curriculum and developing courses of instruction in preventive and social medicine for undergraduates; to establish centres for practical training; to give special training to selected students to prepare them for teaching and research; to train national counterparts to take over from the WHO professors.

Assistance provided by WHO during the year. (a) Two professors in preventive and social medicine — one for the Assam Medical College and one for the Nagpur Medical College; (b) Five two-year international fellowships and a travel fellowship for four and half month.

Probable duration of assistance. Until the end of 1959.

Work during the year. The visiting professor of preventive and social medicine at the Assam Medical College, Dibrugarh, completed his assignment in May 1957. A chair and a staff for a full department have been sanctioned, and a counterpart has been appointed. A rural field practice area is in operation. There is good co-operation between the Department of Preventive and Social Medicine and the local health service. The WHO professor’s final report is being forwarded to the Government.

The visiting professor of preventive and social medicine at the Medical College, Nagpur commenced his duties in December 1956. A counterpart has been provided, and the future head of the department is studying at Harvard, USA, under
a WHO fellowship (see below). A teaching syllabus covering a four-year period, starting in July 1957, has been accepted. Two public health research projects are in operation, in collaboration with the Departments of Medicine and Biochemistry. The WHO professor is also making a survey of the teaching of preventive and social medicine at the three Bombay medical schools, and will discuss the planning of this teaching with the relevant authorities.

This project is still hampered by the lack of suitable visiting professors. It is not proving possible to fill three posts which have been vacant for a long time.

As part of this project, five candidates are under training on WHO fellowships in the special two-year course at the Harvard School of Public Health, to fit them to become heads of departments of preventive and social medicine.

India 92
UNICEF

Public Health Nursing Education, Andhra
(Nov. 1956 - )

Aim of the project. To improve the existing public-health services, particularly maternal and child health services, in rural areas; to expand them throughout the State and co-ordinate them with community development projects and national extension schemes; to improve and increase training facilities for all categories of health personnel.

Assistance provided by WHO during the year. (cost reimbursed by UNICEF) A paediatrician, a paediatric nurse, a public-health nurse and a midwifery tutor.

Probable duration of assistance. Until the end of 1959.

Work during the year. The Children's Hospital has been upgraded, and a separate out-patients' clinic for children has been established. A child welfare clinic has also been developed for training undergraduate medical students. The curriculum of paediatric teaching has been revised.

The nursing personnel joined the project at the end of March. The paediatric nurse, together with the national nursing personnel, has reorganized the nursing procedures in the paediatric wards at the King George and the Victoria Hospitals.

A refresher course for midwives of the municipal centres was successfully completed. Training in domiciliary midwifery for all categories of midwives will be initiated as soon as the UNICEF equipment arrives.

Lectures providing an introduction to public health were given both to the nurse students in the Preliminary Training School and to those in their third year of training.

Assistance is being given in the reorganization of the maternal and child health centre at Chengalarampet.
AIM OF THE PROJECT:
To develop integrated rural health services, particularly maternal and child health services; to establish a rural health unit for training various categories of health personnel, such as sanitarians and nurses.

ASSISTANCE PROVIDED BY WHO DURING THE YEAR: (cost reimbursed by UNICEF) Two public-health nurses.

PROBABLE DURATION OF ASSISTANCE: Until the end of 1959.

WORK DURING THE YEAR: The two nurses assumed their duties at the Medical College Hospital, Dibrugarh, in October 1956, and immediately explored possibilities of integrating public health training into the nursing curriculum and of establishing domiciliary services, including those for ante-natal, post-natal and child care.

The first health centre has now been opened in the hospital compound, an area containing about 175 houses. A programme for home visiting has been started.

Regular lectures to student nurses have begun, and lectures in domiciliary midwifery are being given once a week. Practical experience will shortly be provided at the health centre.

Temporary buildings have been set up at the Chabua Rural Health Unit, where some staff are already in position. The student-sanitarians are undergoing training, and it is expected that the first group of nurse midwives for orientation in public health nursing will be in the field by September 1957.

AIM OF THE PROJECT: To assist with field programmes in health education procedures for public health and other personnel at the Singur Health Centre and at the All-India Institute of Hygiene and Public Health, Calcutta.

ASSISTANCE PROVIDED BY WHO DURING THE YEAR: (a) A health educator; (b) four twelve-month international fellowships.

PROBABLE DURATION OF ASSISTANCE: Until the end of 1958.

WORK DURING THE YEAR: The WHO health educator assumed his duties in December 1956. Two national health education staff members, the first to be assigned to the Singur area, are working with him, and plans are being made for initiating practical health education activities in the villages in the area.
Many students, who differ considerably in age, experience, background, educational level and length of stay, come to the Singur Centre for training. Teaching activities are arranged for different groups, such as health workers (in the Re-orientation Training Course) who are working in the Community Development Projects, students enrolled in the DPH, and other courses at the All-India Institute of Hygiene and Public Health, Calcutta, students in the three-month in-service course in health education at the Institute, students from the South Calcutta Girls College, public health inspectors from the extension training centre for village level workers, and students from the Calcutta School of Tropical Medicine.

The health education activities in the Singur Health Centre and of the research-cum-action project in environmental sanitation (assisted by the Ford Foundation) are being co-ordinated. In the research-cum-action project emphasis will be placed on problems of sanitation relating to latrines - acceptance, suitability of design, use and maintenance. Singur is one of the three research-cum-action areas in India.

India 95 Environmental Sanitation, Kerala (Nov. 1956 - )

Aim of the project. To set up a pilot project in a rural area for improving water supplies and excreta disposal; to plan and carry out a sanitation programme, including the design, operation and maintenance of simple, practical and cheap sanitary installations; to organize a programme of health education; to train technicians, sanitarians and other personnel.

Assistance provided by WHO during the year. (a) A sanitary engineer and a sanitarian; (b) four international fellowships - three of twelve months and one of six months.

Probable duration of assistance. Until the end of 1959.

Work during the year. Equipment was provided in 1956, and a sanitarian in January 1957. When the sanitary engineer joined the project in May 1957, the team was complete.

The area of operations selected for this project consists of nine villages, with a population of about 105,000. An Advisory and Co-ordinating Board has been set up, in which, besides the WHO personnel, the interested public health services are represented. A pre-operational sanitation survey was made in the schools and in 10% of the houses in the pilot area, for guidance and subsequent evaluation purposes. The mapping of the pilot area is also under way. Preparatory work is going ahead for the construction of latrines and water supplies. A school sanitation programme has been proposed to
the school authorities, and it is expected that further action will be taken shortly. Health education activities have been started in collaboration with the Maternal and Child Health and Nursing Project working in the same area, and the cooperation of other interested health agencies working in the same area has also been requested. A deputy counterpart has been assigned to work full-time at the project.

**India 96**

UNICEF

| Post-Graduate and Refresher Courses in Maternal and Child Health and Public-Health Nursing (June 1955 - March 1956; June 1956 - March 1957; —) |

**Aim of the project.** To prepare qualified personnel for leading positions in maternal and child health programmes by postgraduate training, and to prepare other selected personnel by suitable refresher training.

**Assistance provided by WHO during the year.** Participation by WHO personnel working in Calcutta. (Stipends and travel expenses for fellows participating in the courses paid by UNICEF.)

**Probable duration of assistance.** To be repeated in 1958.

**Work during the year.** A ten-month post-graduate course for the Diploma in Maternal and Child Welfare (DMCW) was started in June 1956 at the All-India Institute of Hygiene and Public Health, Calcutta, with nine medical officers who completed the course in March 1957. A similar course was started in June 1957 with 25 medical officers.

A ten-month Post-Graduate Certificate Course in Public Health Nursing (CPHN) was held at the Institute from June 1956 to March 1957. Out of 27 nurses enrolled for this course, 22 completed the training. Another course was started in June 1957, with 30 nurses.

A one-month refresher course in midwifery was held at the College of Nursing, New Delhi, from 3 October to 1 November 1956, in conjunction with the Post-Graduate Course for Midwife Tutors (India-63), with the participation of 20 nurses from different states in India.

A course in paediatric nursing was held at the Nilocufer Hospital, Hyderabad, from 12 November to 8 December 1956, for 20 nurses from different states India. This course was assisted and directed by the WHO nurses attached to Maternal and Child Health/Nursing Project, Hyderabad (India 49).
Aim of the project. To survey training facilities in dental education, with a view to further development.

Assistance provided by WHO during the year. (a) A consultant in dental health for about two months; (b) one twelve-month international fellowship awarded in December 1956.

Probable duration of assistance. Until 1959.

Work done. The consultant visited several dental institutions, as described last year. No report has been received.

India 101

Trachoma Pilot Project, Uttar Pradesh

(Feb. - May 1956; Oct. 1956 - )

(A Indian Council of Medical Research)

Aim of the project. To make a survey of trachoma in parts of Uttar Pradesh; (b) to establish a pilot project to study (1) the incidence and pattern of trachoma and the factors favouring transmission; (2) the minimum effective course of antibiotic treatment and the rate of relapse and reinfection, and (3) the effect of repeated treatment on the epidemiological aspect of associated conjunctivitis and on the clinical picture of trachoma; (c) to develop a mass control programme.

Assistance provided by WHO during the year. A trachomatologist; (b) equipment and supplies.

Probable duration of assistance. Until the end of 1959.

Work during the year. The trachoma pilot project was initiated in October 1956. Three medical officers and 22 auxiliary personnel were given intensive training before the programme was actually started. Field and laboratory investigations are now proceeding satisfactorily. By October 1957 the epidemiological studies and the first assessment of the effect of antibiotic treatment will have been completed. The WHO trachomatologist is actively participating in the activities of the project. He is also assisting in the study of the regional characteristics relating to the epidemiological and clinical aspects of trachoma in different parts of the country. He has visited Bombay, Rajasthan and Mysore in this connection and has reported on his findings in these areas.
India 103

Tuberculosis Control and Training Centre,
(Area undesignated) (Oct. 1956 - )

Aim of the project. (a) To train national personnel in diagnosis and control, with special emphasis on prevention, including the utilization of methods of domiciliary control, the personnel so trained to man the district centres in the State; (b) to put into practice special mass techniques of diagnosis and control methods evolved by the pilot mobile units established under the Indian national tuberculosis control plan.

Assistance provided by WHO during the year. (a) A twelve-month international fellowship; (b) laboratory equipment.

Probable duration of assistance. Until the end of 1960.

Work during the year. Intimation has been received from the Government that the buildings for the Centre are likely to be ready during the Indian fiscal year 1957-58. It is possible that the funds available for personnel may be used to provide some of the WHO staff of the national training centre. The laboratory equipment which was provided out of rouble contributions is being held in store for the project.

India 115

Fellowships

Nursing: A six-month international travel fellowship.

India 116

Fellowships

Leprosy: Two four-month international travel fellowships.

Health Education: Two twelve-month international fellowships.

Nursing: A six-month international fellowship.

Bacteriology: A ten-month international fellowship.

India 130

Visiting Paediatrician (Jan. - Feb. 1957)

Aim of the project. To survey and assess the paediatric education programme in India.

Assistance provided by WHO. A paediatrician for six weeks.
Work during the year. This short-term consultant (paediatrician) visited several medical colleges and maternal and child health centres, holding meetings with administrative medical officers, paediatricians and other staff members of medical colleges. Suggestions were made for improvements in undergraduate and post-graduate teaching in paediatrics.

His report is being submitted to the Government.

India 141

Central Drug Research Institute, Lucknow
(May - July 1957)

Aim of the project. To provide specialized assistance to the Central Drug Research Institute, Lucknow, in planning and carrying out research in pharmacology, especially in the field of indigenous drugs.

Assistance provided by WHO during the year. A short-term consultant in pharmacology.

Work done. A WHO visiting professor of pharmacology, between assignments, has been provided for a short time to collaborate with the research staff of the Central Drug Research Institute, Lucknow, working particularly on the pharmacology of indigenous materia medica. His report is expected at the end of July.

5. INDIA - FORMER FRENCH SETTLEMENTS

Nothing to report.
6. INDONESIA

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**Aim of the project.** To establish a yaws-control programme covering the whole country; to develop a venereal-disease control scheme, first in the Surabaya and Djakarta areas, and later throughout the country (1950-53); to expand the control activities; to establish a system designed to meet the local conditions with the intention of continuing such work after international assistance ceases; to integrate the control of yaws into the permanent public health services when the mass campaign stage has been consolidated.

**Assistance provided by WHO during the year.** (a) A three-month international fellowship; (b) some laboratory supplies (serum).

**Probable duration of assistance.** Until 1959.

**Work during the year.** The expanded yaws programme, since December 1955, has been run solely by the national workers. It is hoped that the mass campaign will be completed by 1961 and that consolidation will be effected by 1965. The project laboratory at Jogjakarta and the Venereal-Disease Research Institute at Surabaya continue to contribute towards the conduct of the campaign.

WHO is recruiting an epidemiological assistant to assist the national director in extracting the epidemiological information gathered during the campaign.

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| Indonesia 4 | Malaria Control Demonstration, Tjilatjap and Semarang (August 1951 - ) |

**Aim of the project.** To demonstrate malaria control (in three phases - survey, control operations, resurvey); to set up a research and demonstration centre; to train medical officers, entomologists and auxiliary personnel.

**Assistance provided by WHO during the year.** A malarialogist, an entomologist and a public health engineer.

**Probable duration of assistance.** Until the end of 1957.
Work during the year. The malaria control campaign in mid-Java was reorganized in accordance with the national plan, and protection offered to 1.8 million people (which may go up to 2.4 million) during the year 1956-57, against a target of 3.5 million. National staff was trained; studies on the behaviour of vectors were continued, and the malariometric data collected by national personnel were studied. In May 1957 the entomologist was transferred to another project (Burma 31). Five assistant malarialists have been appointed by the Government.

Indonesia 5

Institute of Nutrition, Djakarta
(Jan. 1952 - Jan. 1955; July 1957 - )

**Aim of the project.** To organize effective programmes in nutrition education and raise the scientific standard of teaching; to reintroduce school feeding programmes; to make nutrition surveys; to carry out chemical analyses of Indonesian foodstuffs and of biological material collected in order to assess the nutritional standards of the population (1952 - 1955).

To study the problems of protein malnutrition and to assist the Institute of Nutrition in developing a national nutrition programme (1957).

**Assistance provided by WHO during the year.** A short-term consultant and a specialist in nutrition for one month.

**Probable duration of assistance.** Until 1961.

Work during the year. A short-term consultant was assigned early in July, to study problems of protein malnutrition. He was accompanied by another WHO specialist, who will study in particular the effects of protein malnutrition and vitamin A deficiency on eye diseases.

Indonesia 8A

**BCG Vaccination** (Oct. 1952 - Dec. 1956)

**UNICEF**

Aim of the project. To expand a previous BCG pilot scheme (part of the original plan of operations) into a nation-wide mass campaign, with forty trained teams to be in operation by the end of 1956.

**Assistance provided by WHO.** Two BCG nurses.

**Work done.** The BCG campaign in Indonesia was started as a pilot project in October 1952. The mass campaign commenced in November 1953 and still continues with UNICEF assistance. WHO's participation terminated at the end of 1956, when the two nurses completed their assignment.
Between November 1953 and December 1956 the WHO team trained 62 mantris and 143 lay vaccinators, and six more mantris and 23 lay vaccinators were trained by Indonesian doctors, themselves trained by the team. Excluding the project staff, 19 doctors were given field and theoretical training and are now working as supervisors. It is intended to maintain the forty teams now in operation throughout 1957. Cumulative figures to the end of March 1957 were: tests completed - 11,700,000; vaccinations given - 3,185,000.

A consolidation plan envisaging the use at the regency level (approximately 1 to 1½ million people) of part-time teams, each consisting of one mantri and one vaccinator, is under consideration. Two pilot areas of this kind are being set up.

Indonesia 8P

Tuberculosis Control and Training, Bandung
(Sept. 1952 - July 1957)

**Aim of the project.** To survey the extent of the tuberculosis problem; to establish a model tuberculosis service; to train medical and para-medical personnel in diagnosis and prevention; (b) to establish a domiciliary chemotherapy scheme.

**Assistance provided by WHO during the year.** (a) A public health nurse and a laboratory technician; (b) some essential drugs.

**Work done.** In 1952, at the time the project was started, a high prevalence of tuberculosis, possibly 1 to 2% active cases, was believed to exist amongst the population in Bandung. There was a small clinic in operation, inadequately equipped and staffed.

In the period of almost five years of WHO assistance, a well-planned tuberculosis centre has been developed where modern diagnostic and control methods can be demonstrated and taught to the various categories of tuberculosis workers, and where a good service, including domiciliary chemotherapy and BCG vaccination, is available for the area of operations. A national team of doctors, home visitors and technicians has been trained, capable of taking charge of the centre and of training others. Little or no use has so far been made of the training facilities available, however, and it has not proved possible to develop either survey work or mobile case-finding and treatment in connection with the centre.

The laboratory technician left the project at the end of June and the public health nurse in the third week of July 1957 on completion of their assignment.
Indonesia 9

Leprosy Control (July - Sept. 1955; Sept. 1956 - )

UNICEF

Aim of the project. To survey the leprosy situation (1955); to plan and carry out a long-term control programme (1956 - 59).

Assistance provided by WHO during the year. (a) A leprologist; (b) supplies of drugs.

Probable duration of assistance. Until the end of 1959.

Work during the year. Preliminary survey, along with treatment after the case-finding programme, were undertaken in the Blora and Bekasi pilot areas. Transport and equipment have been provided by UNICEF on loan. There has also been advance procurement of drugs by UNICEF and additional supplies from WHO.

Indonesia 12

Plague Control (Jan. - April 1956; May 1957 - )

(Institut Pasteur, Teheran)

Aim of the project. To survey the plague situation; to carry out a programme of research to determine the conditions responsible for the persistence of plague; to develop a long-term control programme.

Assistance provided by WHO during the year. (a) A plague consultant; (b) equipment and supplies.

Probable duration of assistance. Until the end of 1959.

Work during the year. Arising out of the recommendations of the WHO consultant who visited the country early in 1956, action was taken to procure the supplies and equipment needed for the research phase of the programme. The services of a specialist have been made available for six months from May 1957. He is now engaged in the study of data on plague collected during the past six years, and is initiating research and investigation in order to define the conditions supporting the maintenance of plague, especially in the sub-mountainous regions of Indonesia.

Indonesia 13

Assistance to Faculty of Medicine, Gadjah Mada University, Jogjakarta and Semarang (Sept. 1953 - )

Aim of the project. To develop the Departments of Biochemistry, Pharmacy and Paediatrics on sound lines; to train national counterparts to take over from the professors provided by WHO.
Assistance provided by WHO during the year. (a) A professor of pharmacy and pharmaceutical chemistry; (b) medical literature.

Probable duration of assistance. Until the end of 1956.

Work during the year. The visiting professor of paediatrics completed his work in July 1956 and the visiting professor of pharmacy and pharmaceutical chemistry left the Organization in February 1957. A successor to the professor of pharmacy is being recruited.

During the course of the project, the teaching of paediatrics has been expanded and upgraded, with the construction of a special children's hospital in the medical faculty. It is hoped that this hospital will develop into a centre for post-graduate training in paediatrics.

At the final examinations in pharmacy held in August 1956 and in January 1957 six students received their diplomas. A course in drug control and analysis over six months was conducted by the WHO professor.

Indonesia 15
Post-Graduate School of Nursing, Bandung
(R (ICA) (Jan. 1954 - )

Aim of the project. To organize post-graduate courses in the teaching of midwifery and in public-health nursing at the Post-Graduate School of Nursing, Bandung, and at the Rantjabadak City Hospital.

Assistance provided by WHO during the year. Two public health nurses and a midwife tutor.

Probable duration of assistance. Until September 1957.

Work during the year. The third series of academic courses (1956-57) for 22 midwife teachers and 10 public health nursing students was started in September 1956. The nursing students received experience in teaching health education to patients at the Rantjabadak Hospital as well as in teaching home nursing, first aid and prevention of accidents. They were given practical experience in the clinics and homes, and experience in group-teaching. Groups of three students also assisted with the health examination of the students in one school, and visited Djakarta, Jogjakarta, Solo and Surabaya for field observations.

The midwife teachers were given experience in practice teaching in the domiciliary field in Djakarta and Tjeribon.

The Astana Anjar Maternity Centre in Bandung has now become available for practice teaching of assistant midwife pupils. Good progress has been made in the preparation of notes for midwife teachers.
The last term of the course has proved more satisfactory, as the schedule now allows time for consolidation, with the application in practice teaching of the knowledge gained in the first part of the course.

One of the public health nurses completed her assignment and left at the end of 1956.

**Indonesia 20**

**Environmental Sanitation, Djakarta**

(June 1956 -)

**Aim of the project.** To prepare a co-ordinated plan for environmental sanitation, particularly in rural areas; to devise and construct simple, practical and economical sanitary facilities; to organize a programme of health education on the nature and causes of diseases resulting from faulty environment; to train sanitation personnel.

**Assistance provided by WHO during the year.** (a) A sanitary engineer, a sanitarian and a port-health sanitarian; (b) equipment and supplies.

**Probable duration of assistance.** Until the end of 1961.

**Work during the year.** The sanitarian joined the project in June 1956, the sanitary engineer in December 1956 and the sanitarian in port health in January 1957. The WHO team is now complete.

In the beginning, the sanitarian helped to train health workers in Magelang and started some demonstration work in latrine construction in villages. After the arrival of the sanitary engineer, he was posted to Djakarta, and both are now working in close collaboration.

Inspection and orientation trips were made by the sanitary engineer to study the existing conditions in the country, and to select a suitable rural area for starting a pilot project.

The question of training ancillary health personnel is under review; the WHO team is helping to work out a syllabus for the training programme.

The sanitarian in port health made a study of the existing procedures, equipment, staff, etc. in port areas with a view to developing a demonstration and teaching unit for in-service training. The proposals which he submitted have been accepted, and in-service training of the staff of the Quarantine Department has begun.

A survey of the existing sanitary conditions at the Kemajoran Airport has been completed, and suggestions for improvement have been made.
Aim of the project. To expand the statistical organization in the Ministry of Health and train key members of the statistical staff; to develop a long-range statistical programme with a sound system of reporting for notifiable disease, hospital services, and general vital and health statistics; to develop an up-to-date service of vital and health statistics for planning and evaluating health programmes.

Assistance provided by WHO during the year. (a) A health statistician; (b) supplies and equipment.

Probable duration of assistance. Until the end of 1959.

Work during the year. Another training course for statistical assistants was held during the year, and the statistician has continued to assist with the teaching of health statistics to medical students in the University of Djakarta. A revised and improved translation of the International Classification of Diseases has been issued. The statistician trained medical coders and supervised the coding of the International Medical Certificates of Cause of Death received from hospitals. A number of visits have been paid to different parts of the country with a view to improving the completeness and accuracy of vital registration and extending the area of birth and death registration (triplicate forms).

Rural health surveys were carried out in several areas, and work has been done on improved schedules and instructions in "bahasa Indonesia". The processing of the results is awaiting the arrival of a punching machine. The project staff also assisted the Public Health and Public Works Departments of the City of Djakarta in a population survey of the city. The statistician has spent considerable time in advising the Venereal-Disease Research Institute, the Division of Malaria Control, the Institute of Nutrition and other government bodies on their statistical problems. Statistical material has been collected for the forthcoming WHO regional rural health conference and for the Director-General’s First World Health Report.

Aim of the project. To develop and expand the health education programme, including increased training in health education for all categories of health workers; to assist in the use and development of health education materials, including audio-visual aids.
Assistance provided by WHO during the year. (a) A consultant in health education for six months, and a health educator; (b) two regional fellowships - one for six months and one for three months.

Probable duration of assistance. Until the end of 1960.

Work during the year. A health education consultant, recruited for a period of six months, started work in late February. To succeed her, a health educator was appointed for a period of two years starting in July.

The consultant was assigned to the Sub-Division of Health Education in the Division of Rural Hygiene and Health Education of the Ministry of Health. She worked closely with her counterpart, the Director of Health Education, in assessing the needs before making recommendations on ways of developing health education and strengthening it nationally.

Library materials have been assembled in the central office for use in in-service training for the staff, and plans have been initiated for organizing and conducting a short training course in health education for leaders from different training institutions in the country.

Indonesia 29

**Strengthening of Health Services (Epidemiology)**

(March 1956 - Feb. 1957)

Aim of the project. To set up an epidemiological unit to define the prevailing disease pattern and to plan control measures; to advise all branches of the medical sciences on the use of the epidemiological method.

Assistance provided by WHO during the year. A four-and-a-half-month regional fellowship.

Probable duration of assistance. For three years after the assignment of the epidemiologist.

Work during the year. The programme could not start during the year because of the difficulties in obtaining the services of a suitable epidemiologist. Recruitment action is being pursued and the initiation of the programme will have to wait till the arrival of the epidemiologist.

Indonesia 31

**Trachoma Control**

(Nov. - Dec. 1954; Nov. 1955 - June 1956; April 1957)

Aim of the project. To make a study of trachoma and recommendations for control (1954); to demonstrate methods of treatment among schoolchildren, first in a selected area and later in four other areas; after treatment, to carry out three re-examinations to assess immediate results (1955).
To re-examine all schoolchildren in the project area in order to assess the long-term results of the treatment; to carry out a mass control programme (1956).

Assistance provided by WHO during the year. A trachomatologist.

Probable duration of assistance. Until the end of 1959.

Work during the year. The trachomatologist assigned to this project arrived in Djakarta in April 1957. He was accompanied by the WHO trachomatologist attached to project India 101. The latter spent three weeks in Indonesia and made an evaluation of the first pilot project which was carried out by the Government with supplies from UNICEF. Details for the second pilot project were worked out, and the project was started in May 1957.

A two-week training course was conducted for 25 participants, including medical and para-medical personnel.

Indonesia 32

Strengthening of Malaria Section, Ministry of Health, Djakarta (May 1955 - )

Aim of the project. To improve and intensify the national malaria programme, which is under the direction of the Malaria Section of the Ministry of Health; to extend the facilities of the Malaria Institute, Djakarta.

Assistance provided by WHO during the year. (a) A malarialogist and an entomologist; (b) a six-month regional fellowship awarded about the end of July 1956.

Probable duration of assistance. Until the end of 1959 (at least).

Work during the year. To give better help to the national plan undertaken with assistance provided by ICA the pattern of WHO assistance has been changed; and the WHO staff give advice to provincial authorities in the provincial campaign, and the malarialogist, in addition, co-ordinates the work of WHO staff in the country in so far as it bears on the national plan.

WHO staff has also assisted in training national personnel. Three assistant malarialogists were appointed by the Government in July.

Indonesia 34

Assistance to Medan Medical School
(Sept. 1956 - )

Aim of the project. To upgrade the Departments of Anatomy, Physiology and Pharmacology at the Medan Medical School and to develop curricula in these subjects; to improve the pre-clinical training programme; to train national counterparts.
Assistance provided by WHO during the year. (a) A professor of anatomy and a professor of physiology; (b) supplies and equipment.

Probable duration of assistance. Until the end of 1960.

Work during the year. The visiting professors of anatomy and physiology continued their teaching and departmental organizing duties. Some progress was made in spite of difficulties of accommodation, lack of laboratory facilities and delay in receiving equipment. Teaching in anatomy was started on seminar and group demonstration lines. Attendance at lectures is improving, but there is a lack of dissection material. In physiology some improvement is noticed in the students' understanding and interest in the subject.

Plans for the new buildings have made little progress because of financial restrictions.

Neither professor yet has a counterpart, but it is hoped that the efforts being made to fill this gap will be successful.

Indonesia 35
Paediatric Nursing, Gadjah Mada University, T.A
Jogjakarta (Oct. 1956 -)

Aim of the project. To improve nursing care of children by better training of students in paediatrics and paediatric nursing in Gadjah Mada University.

Assistance provided by WHO during the year. (a) A paediatric nurse tutor; (b) supplies and equipment.

Probable duration of assistance. Until mid-1958.

Work during the year. The Paediatric Ward and the Nursing School were surveyed in order to assess the teaching and training facilities. Lectures in paediatric nursing were given to medical students and graduate nurses. Nursing care outlines were prepared. Paediatric nursing lectures have been started for the fourth class nursing students and for outside graduates. Practical demonstrations and lectures on the ward have been arranged for seven auxiliaries.

Indonesia 36
Strengthening of Maternal and Child Health Services (Oct. 1956 -)

Aim of the project. To evaluate the maternal and child health services and training facilities in the country and to plan their extension.
Assistance provided by WHO during the year. Four international fellowships - one for twelve months, one for eight months and two for six months.

Probable duration of assistance. Until the end of 1959.

Work done. So far only fellowships have been awarded in connection with the project, as it has not yet been possible to recruit a suitable maternal and child health officer.

Indonesia 46

Drug Investigation (Oct. 1956 - )

Aim of the project. To assist the Institute of Pharmacology to exchange staff and information with other institutions, and to train staff for its pharmacological investigation programme.

Assistance provided by WHO during the year. Two six-month regional fellowships awarded to staff of the Institute for study at the Central Drug Research Institute, Lucknow.

Probable duration of assistance. Until the end of 1957.

Work during the year. Steps are being taken for the provision of a short-term consultant for three months towards the end of 1957. The fellows commenced their training in October 1956 and, after completing their studies, returned to Djakarta in May 1957.

Indonesia 49

Fellowships

Dental health: A twelve-month international fellowship.

Radiology and radio-isotopes: A twelve-month international fellowship.

Production of biologicals: A four-month international travel fellowship.

Indonesia 42

Fellowships

Dental health: A twelve-month international fellowship.

7. MALDIVE ISLANDS

Nothing to report.
8. NEPAL

Project No. Source of Funds Co-operating Agencies
Nepal 1 R Nepal
(ICA)

Aim of the project. To study the malaria situation and determine suitable control techniques; to carry out indoor spraying with DDT in areas not covered by the United States International Co-operation Administration (ICA); to train personnel in malaria prevention.

Assistance provided by WHO during the year. (a) A malariologist, an entomologist and three auxiliary personnel; (b) one twelve-month and two six-month regional fellowships.

Probable duration of assistance. Until the end of 1959.

Work during the year. A detailed malariometric survey has been carried out in the project area; about 25,000 persons have been protected by DDT spraying with very good results, judging from the absence of malaria-carrying anophelines for about a year after spraying. A post-spraying appraisal survey is in progress. After the Regional Malaria Adviser's visit to the project in April 1957, recommendations were made for a national malaria eradication programme over a ten-year period.

Nepal 2 TA Training of Nurses, Kathmandu (Nov. 1954 - )

Aim of the project. To train nurses and midwives for institutional, domiciliary and public-health work.

Assistance provided by WHO during the year. (a) Two nurse tutors and a public health nurse; (b) two regional fellowships — one for twelve months and one for twenty-four months.

Probable duration of assistance. Until the end of 1961.

Work during the year. Out of the fifteen students who started their training in June 1956, twelve completed their first year of training, and a new class is now under recruitment. The curriculum includes lectures on public health nursing, chiefly covering tuberculosis for the home-visiting programme, and child
care for assistance at the children's clinic to be opened in the near future. A home-visiting programme for patients suffering from tuberculosis was started in November 1956, but has not proved very satisfactory through lack of facilities for isolating the patients and for screening and examining the contacts.

A 40-hour lecture programme on nursing procedures and techniques was given to the students at the School for Health Assistants.

There is a considerable amount of work still to be done to evolve midwifery and public health fields for training purposes. Because of transport difficulties and insufficient messing allowances (which have, however, recently been increased), the students have so far been unable to spend more than four hours a day on the wards, thus learning only a limited amount of practical nursing.

Many other administrative and other problems which still exist are also hampering progress. For example, the necessary renovations to provide living quarters have not yet been started, and no furniture has been ordered for bedrooms for the second group of students. The section of the hostel to be occupied by the new group has no electricity or sanitary facilities, and is badly in need of repair.

Nepal 3  
Training of Health Assistants, Kathmandu  
(June 1955 - )

Aim of the project. To establish a school for health assistants in Kathmandu to give theoretical and practical training; to plan a programme of rural health services which will make the best use of the health assistants.

Assistance provided by WHO during the year. (a) A medical officer (public health specialist) and a sanitarian; (b) teaching material.

Probable duration of assistance. Until the end of 1960.

Work during the year. This project started in June 1955 with the arrival of the WHO senior officer. He prepared the ground for establishing the Health Assistants School, which started to function in February 1956 with 20 students. In March 1956 a WHO sanitarian joined the teaching staff.

Many difficulties originally had to be overcome, and the curriculum is demanding continuous strenuous effort on the part of the students. Therefore, the fact that only three out of twenty students abandoned the course during the first year and that all the remaining seventeen passed the examination for entry into the second year's class gives reason for satisfaction.
A new group of 20 students was enrolled in March 1957. Results so far have been satisfactory.

For the second-year students twelve days of field training were arranged in a village near Kathmandu. The students are also receiving regular clinical training in hospital and outpatients' departments. It has been difficult to find suitable sanitation services for demonstration purposes.

WHO nurses assigned to a nursing project in Kathmandu have taken part in the training in nursing procedures and techniques.

The senior officer left the project in December on transfer, WHO providing a short-term consultant as a temporary replacement. A successor to the senior officer will be appointed shortly. The national counterpart returned from a WHO fellowship during which he obtained the Diploma in Public Health from Calcutta University.

Taking the initial difficulties into account, this project, training a type of health worker new to the country, has made a promising start.

Nepal 5  Fellowship

Public health administration: A twelve-month regional fellowship.

9. PORTUGUESE INDIA

Portuguese India 5  Fellowship

Tuberculosis: A six-month regional fellowship (awarded in 1956 against 1955 allotment).
10. **THAILAND**

<table>
<thead>
<tr>
<th>Project No.</th>
<th>Source of Funds</th>
<th>Title</th>
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<tbody>
<tr>
<td>Thailand 2</td>
<td>TA</td>
<td>Treponematosis Control (May 1950 - )</td>
</tr>
<tr>
<td>UNICEF</td>
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</tr>
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</table>

**Aim of the project.** To carry out systematic control of yaws throughout the country; to reduce the reservoir of infection to a level at which the disease can be controlled by the rural health authorities; to train local personnel; to incorporate yaws control in the permanent public-health services.

**Assistance provided by WHO during the year.** A venereologist.

**Probable duration of assistance.** Until the end of 1959.

**Work during the year.** The progress made in the mass campaign was maintained. Since July 1956 the population coverage has shown an upward trend, and experimental integration is under study.

During the period from July 1956 to June 1957, systematic mass examination of 866,758 persons was made and 55,218 were given treatment. In the resurvey operations 1,299,298 persons were examined and 61,965 treated. Out of 12,267 persons who attended the clinics for diagnosis, 3,551 were given treatment.

<table>
<thead>
<tr>
<th>Thailand 13</th>
<th>Rural Health Unit, Chiangmai</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA</td>
<td>(Nov. 1951 - Dec. 1956)</td>
</tr>
<tr>
<td>UNICEF</td>
<td></td>
</tr>
</tbody>
</table>

**Aim of the project.** To establish a rural health service with emphasis on environmental sanitation, maternal and child health, and training of various categories of health personnel.

**Assistance provided by WHO during the year.** A public-health nurse and a sanitarian.

**Work done.** Since the inception of the project, twenty maternal and child health centres in the area have been upgraded, and public-health nurses have been appointed to five of them.
At the time that WHO staff was withdrawn, 50% of the deliveries in the area were being conducted by trained midwives.

The following personnel from all over Thailand received orientation training:

<table>
<thead>
<tr>
<th>Category</th>
<th>Duration</th>
<th>Number of Trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse-supervisors</td>
<td>3 weeks</td>
<td>43</td>
</tr>
<tr>
<td>Public health nurses</td>
<td>2-5 weeks</td>
<td>14</td>
</tr>
<tr>
<td>Midwives</td>
<td>6 weeks</td>
<td>199</td>
</tr>
<tr>
<td>Moh-tam-yaes</td>
<td>irregular</td>
<td>555</td>
</tr>
</tbody>
</table>

The final report on the project has been received and has been submitted to the Government.

Thailand 17
R
(UNESCO)

**Mental Health, Dhonburi and Bangkok**
(March 1955 - Feb. 1957)

**Aim of the project.** To develop the psychological aspects of psychiatry both as a specialty and as part of general medical practice; to introduce psychology into public-health courses for graduate physicians, medical students and auxiliary workers; to develop modern clinical facilities and practices; to train an understudy to continue the work after WHO assistance is withdrawn.

**Assistance provided by WHO during the year.** A psychologist.

**Work done.** This two-year project was started in March 1955 at the Mental Hospital in Dhonburi. No department of psychology existed at the University, and training in social work had just begun. WHO provided a psychologist in 1955. A team of three national workers had started a child guidance service in the new mental health clinic in 1953. Two of them proceeded on WHO fellowships within the first year of operation and were replaced by others, who, although not fully qualified, did a commendable job. On return the fellows will resume their duties at the clinic.

The project was completed at the end of February 1957, when the psychologist left after two years of service. Its main accomplishments were the further development of the Child Guidance Clinic as part of the Mental Health Clinic; the preparation of psychological tests suitable to Thai conditions; the outlining of a programme of further research for future years, and in-service training of the staff of the mental hospital. A six-month post-graduate course in psychiatry, attended by 24 students, was also conducted.

The experience gained in this project will be useful in carrying out similar programmes in the Region.
**Thailand 21**  
Post-Graduate School of Nursing, Bangkok  
(April 1954 - )

**Aim of the project.** To establish a post-graduate school for nurses; to organize post-graduate training in public-health nursing and nursing education.

**Assistance provided by WHO during the year.** A public-health nurse tutor and a general nurse tutor.

**Probable duration of assistance.** Until the end of 1961.

**Work during the year.** Twenty-two public health nursing students and 25 nurse tutors and midwife tutors graduated from the School in March 1957. One of the graduates from the 1955-56 class has been loaned to the School of Nursing and Midwifery Instructors as a second full-time staff member.

An advisory committee has been appointed for the School of Nursing and Midwifery Instructors with a view to establishing educational policies for the School and assisting in improving the curriculum. It has been decided to transfer the School from the administrative direction of the Division of Nursing to that of the Department of Medical Services, starting in 1958.

The employment of the graduates from the School is a pressing problem. Out of 48 nurses graduated so far, the Department of Public Health has employed only a few, as it is continuing to train its own personnel who have previously worked in health centres, paying their salary for the training time and promoting them to work as supervisors. The matter has been taken up with the Government.

The WHO general nurse tutor assisted with an intensive course in clinical teaching given to the head nurses and supervisors of the Women's Hospital. She also assisted with the arrangements and programme for the visit of a group of Cambodian nurses to Thailand to observe institutional and public-health nursing.

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**Thailand 24**  
Rural Health Programme (Nursing Supervision)  
(May 1954 - )

**Aim of the project.** To develop the nursing and midwifery aspects of rural health services; to provide adequate guidance and supervision of nursing and midwifery services.

**Assistance provided by WHO during the year.** A public health nurse-midwife.

**Probable duration of assistance.** Until the end of 1958.
Work during the year. Plans were completed for a country-wide scheme for training moh-tam-yas by drawing up a syllabus, preparing a manual giving a short course for the supervisors to be responsible for conducting the course. Help was given in conducting the courses at Korat, Buriram, Chaiyaphum and Lamphamaart.

The form for reporting the daily activities of nurses and midwives was revised, and a new form was prepared for reporting abnormalities of childbirth. The WHO nurse acted as an adviser to the sub-committee appointed by the First National Meeting of the Department of Health to deal with the organization of health centres, and gave a short talk on the "Purpose and Supervision in the Rural Health Centre". Thirteen provinces were visited in order to observe and assess the work being done.

Thailand 26  
Fundamental Education, Ubol (Dec. 1954 - )  
(UNESCO)

Aim of the project. To integrate health education into the fundamental education training programme.

Assistance provided by WHO during the year. A public-health nurse with experience in health education.

Probable duration of assistance. Until the end of 1957.

Work during the year. The first-year students were given classroom lectures and demonstrations on various subjects in public health. For practical experience two students were made responsible, in daily rotation, for the sanitation of the campus. In the village centres they were given practice in health education, environmental sanitation and maternal and child care, and also health education in schools. The second-year students received theoretical and practical training on subjects mostly concerning community health.

A family health chart was prepared for use by the students for follow-up, particularly in connection with the control of communicable diseases.

Every effort was made to keep the training practical and to give the students the general and specific knowledge they will need in order to deal with the health needs of the community when they return to work in their own areas.

Thailand 30  
Leprosy Control, Khon Kaen Province  
(Oct. 1955 - )  
(UNICEF)

Aim of the project. To organize a pilot project in Khon Kaen Province for demonstrating modern methods of leprosy control, with emphasis on case-finding, domiciliary treatment and surveillance of contacts; to train personnel; to extend the control programme to other parts of the country.
Assistance provided by WHO during the year. (a) A leprologist; (b) some medical literature.

Probable duration of assistance. At least until the end of 1959.

Work during the year. The pilot project in Khon Kaen province continued to make satisfactory progress.

In the pilot area, with a population of about 600,000, the number of registered leprosy patients is 4,689 (0.8%). Of these, 32% were found to be lepromatous, 43% tuberculoid and 25% indeterminate; there were six border-line cases. Out of the registered cases, 2,174 are under oral DDS treatment and 2,515 under injectable DDS treatment. The number of leprosy cases with reactional phase was only seven.

On his visit in November 1956 the Regional Adviser on Malaria discussed proposals for extension of the present pilot project to the north-eastern provinces, the programme to be spread over a period of six years from 1958. A plan covering WHO/UNICEF assistance initially for a period of two years (1958-59) is being completed. The period will be further extended if the leprosy control programme is accepted by the Government.

A programme for occupational therapy for patients in the leprosarium at Khon Kaen, where leprosy patients from other north-eastern provinces are registered and given regular treatment, is also under consideration.

Plans are underway to continue the second-year resurveys on a "spot-check" basis in the southern zone, to carry out comparison tests on methods of treatment, to establish three provincial emergency stationary centres in the flooded areas, to recruit and train new health workers, and to organize social and welfare work in the Ban Noi village.

A handbook on leprosy control for non-medical auxiliary leprosy personnel has been prepared.

Thailand 31 Schools of Nursing, Korat and Pitsanuloke
TA (July 1955 - )

Aim of the project. To plan and carry out nursing education programmes; to improve nursing services to meet local needs; to correlate theoretical teaching and teaching in hospital wards, and to give training in public-health nursing, at the schools of nursing in Korat and Pitsanuloke.

Assistance provided by WHO during the year. (a) Two nurse tutors; (b) some laboratory equipment.
Probable duration of assistance. Until the end of 1958.

Work during the year. In Korat three graduate nurses who had a year's study in the USA were added to the staff; one was appointed as a counterpart to one of the WHO nurses. Plans were made to introduce night duty for some groups of students so as to establish a 24-hour nursing service. This was a major step forward in the nursing care provided by the hospital. A new obstetric block was opened, and the number of monthly deliveries slightly increased. A central supply service was established. The third school year was completed in March 1957. This three-and-a-half-year course will continue up to September.

In Pitsanuloke the WHO nurses gave classes in ward administration and supervised head nurses and graduates. A home-visiting programme was initiated for students, and procedures were prepared and translated for use by the national staff. Chemistry notes for student nurses were completed and translated, and the first section of the laboratory manual was completed for translation. Of the 30 students who graduated in November, 1956, eight have been posted at the Pitsanuloke Provincial Hospital. The new school year started in May 1957 with 50 students.

**Thailand 34**

**Maternal and Child Health: Strengthening of Central Health Organization (June 1956 - )**

**Aim of the project.** To evaluate the maternal and child health and school health standards, as also facilities for training maternal and child health personnel; to develop techniques and procedures for maternal and child health work integrated into urban and rural health services.

**Assistance provided by WHO during the year.** A maternal and child health officer.

**Probable duration of assistance.** Until the end of 1959.

**Work during the year.** The maternal and child health officer made a detailed study of maternal and child health facilities and paediatric services.

Evaluation studies have been started and are being continued in respect of the Bangkok and Chiangmai projects previously assisted by WHO. The results so far available appear to be of great value in the planning of future services.

**Thailand 36**


**Aim of the project.** To survey the nutritional situation; to investigate the prevalence of endemic goitre and beriberi and to carry out a control programme.
Assistance provided by WHO during the year. A medical nutritionist.

Probable duration of assistance. Until the end of 1959.

Work during the year. The medical nutritionist, on his arrival, reviewed the work done so far on nutrition in the country and collected additional data on beriberi. He has been surveying several provinces with a view to finding the most suitable areas for setting up salt iodizing plants for the control of endemic goitre.

Thailand 38
School of Public Health, Bangkok
(Dec. 1955 - March 1956; Dec. 1956 - March 1957; - )

Aim of the project. To strengthen the School of Public Health, Bangkok, by advising on various aspects of public health and the teaching of certain subjects.

Assistance provided by WHO during the year. A specialist in public health for four months.

Probable duration of assistance. Until the end of 1960.

Work during the year. A specialist in public health was re-assigned to the project from December 1956 until the end of March 1957.

The most urgent need of the School is for the development of a practical training field for the use of students, mainly of the D.P.H. course. The specialist assisted in preparing plans for the early establishment of such a field. His report has been submitted to the Government.

Steps are being taken to recruit a short-term consultant in parasitology.

Thailand 40
Midwifery Training School, Chiangmai
(Jan. 1956 - Dec. 1956)

Aim of the project. To establish a training school for second-class midwives in Chiangmai.

Assistance provided by WHO during the year. A midwife tutor.

Work done. During the course of this project, the curriculum was developed and revised within the limitations laid down by the authorities in Bangkok, and recommendations were made for reducing the excessively high number of lectures. Administrative
and nursing techniques in all the departments were improved, and standard nursing techniques laid down. Ward routines were worked out and translated into Thai. Practical training in domiciliary midwifery was secured by using the maternal and child health centres in the province.

The WHO midwife tutor completed her assignment at the end of December 1956.

**Thailand 46 Fellowships**

- **Mental health**: A two-year international fellowship.
- **Virus diseases**: Two six-month regional fellowships.
- **Physiotherapy**: A twelve-month regional fellowship.

**Thailand 47 Fellowships**

- **Anaesthesiology**: A twelve-month international fellowship.
- **Public health administration**: A twelve-month international fellowship.
- **Hospital administration**: A fifteen-month international fellowship.
- **Production of biologicals**: An eleven-month regional fellowship.
- **Surgery**: Two six-month international fellowships.
- **Malaria**: A six-month regional fellowship.
11. INTER-COUNTRY

<table>
<thead>
<tr>
<th>Project No.</th>
<th>Source of Funds</th>
<th>Title</th>
<th>Co-operating Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEARO 2 TA</td>
<td>Assistance to Tuberculosis Laboratories</td>
<td>(Aug. 1955 - )</td>
<td></td>
</tr>
</tbody>
</table>

Aim of the project. To assist countries of the Region (Afghanistan, Burma, Ceylon, India, Indonesia and Thailand) in developing laboratory work in connection with the expansion of their tuberculosis services.

Assistance provided by WHO during the year. An inter-country bacteriologist.

Probable duration of assistance. Until 1959.

Work done. During the period of his assignment, from August 1955 to June 1957, the bacteriologist visited tuberculosis laboratories established with WHO's assistance in Afghanistan, India, Burma, Ceylon, Indonesia and Thailand, and reviewed and assessed the methods being followed, the equipment used and the technical standards maintained in these laboratories. He also gave advice on the organization and operation of courses of instruction for national laboratory technicians, and on the planning and organization of these laboratories.

At the request of the Indian Council of Medical Research, he made a tour of certain areas in India, in collaboration with a bacteriologist nominated by the Government, to study the bacteriological techniques and procedures being used in the national tuberculosis prevalence survey. A joint report on the findings of this study has been sent to the Indian Council of Medical Research.

In his summing up of the position with regard to WHO-assistance to tuberculosis laboratories in the Region, he has stated that the accomplishments of the laboratory diagnostic services in the various countries must be regarded as reasonably satisfactory, taking into consideration the comparatively short time in which the services have been functioning. It has not been possible in all the countries to train a satisfactory number of laboratory personnel up to now, but this is because posts for such personnel when trained are not immediately available. Plans are, however, being made for an expanded laboratory service, particularly in India, in connection with the tuberculosis control programme under the Second Five-Year Plan, and trained personnel will soon be much in demand.
The bacteriologist left the project at the end of June 1957 on completion of his contract. A replacement is under recruitment.

**SEA/RC10/2**

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**Regional Seminar for Nursing Leaders,**
Delhi, 6 - 25 August 1956 (April - August 1956)

**Aim of the project.** To give nursing leaders in the South East Asia Region an opportunity of discussing experiences, progress and developments in the various aspects of nursing, including nursing education.

**Assistance provided by WHO during the year.** (a) A consultant for six months; (b) cost of travel and per diem for 31 participants.

**Work done.** A three-week seminar for nursing leaders was held in Delhi in August 1956, with India as the host country. Burma, Ceylon, India, Indonesia and Thailand were represented. There were 31 participants, including the chief nurses of these countries and other nurses experienced in public health nursing, nursing administration and nursing education, and one representative from the Trained Nurses Association of India.

The Seminar was divided into four discussion groups, and in addition held general sessions at which visiting speakers presented various related subjects for discussion, and where group reports also were discussed.

The topics selected by the groups for detailed discussion were: the selection, preparation and functions of the ward sister, with emphasis on in-service education; the role of the ward sister in the development of teamwork in hospital nursing services; the categories and functions of auxiliary nursing personnel, as seen for the future, and the integration of public health aspects into the basic nursing curriculum.

The participants were also grouped according to country to discuss plans for follow-up after their return home.

The Seminar provided the first opportunity for nurses in South East Asia to meet together to discuss their mutual problems. It demonstrated to all who attended that this type of session can be very useful as a means of helping senior nurses to clarify their thinking and to plan objectively the ways in which they can function as leaders in their profession for the improvement of nursing services and nursing education. The report has recently been widely distributed.

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**Tuberculosis Workers' Meeting,** New Delhi, 1957
(14 - 18 Jan. 1957)

**Aim of the project.** To exchange views and experience concerning different approaches to tuberculosis control, methods and techniques used, difficulties encountered and success achieved in applying such approaches, methods and techniques.
Assistance provided by WHO. Cost of travel and maintenance expenses of sixteen participants from the South East Asia Region.

Work done. This meeting was held in New Delhi under the chairmanship of the Chief of the Tuberculosis Section at WHO Headquarters. It was attended by WHO tuberculosis field workers and their national counterparts from the South East Asia, Eastern Mediterranean and Western Pacific Regions. In all, 35 persons, including the Tuberculosis Advisers of the South East Asia and Western Pacific Regional Offices, participated, and all took part in the discussions. The number of participants from the South East Asia Region was sixteen. The meeting provided an excellent opportunity to discuss the philosophy of the approach and the technical methods to be employed in tuberculosis control programmes.

Preparation of Annual Public Health Reports

Aim of the project. To assist the health departments of certain countries in the Region in preparing their annual public health reports.

Assistance provided by WHO during the year. A consultant in public health administration.

Probable duration of assistance. Until mid-1958.

Work during the year. The consultant started his work in Burma in the third week of March 1957. He held discussions with the Director of Health Services on matters relating to the publication of the Annual Report for 1955 and the preparation of the Annual Report for 1956.

He is continuing the work on the preparation of annual reports which he had started during a previous assignment as public health adviser to the Directorate of Health Services.

Rural Health Conference, Ceylon, 1957

Aim of the project. To discuss the problems of organizing health services in rural areas.

Assistance provided by WHO during the year. Two short-term consultants.

Work done. After a preparatory meeting, held in December 1955, a short-term consultant was assigned to this project for two months from the last week of December 1956 to prepare the working papers for this conference, to be held in October 1957. A further consultant was appointed in the last week of July to continue with the arrangements for this conference.
ANNEXES
Geographical Distribution of International Staff Assigned
to South East Asia Region as of 31 July 1957

<table>
<thead>
<tr>
<th>Country</th>
<th>Regional Office</th>
<th>Advisers</th>
<th>Field</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td>Australia</td>
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<td>1</td>
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<td>Austria</td>
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|                  | 15              | 11        | 132   | 158   |
Conferences and Meetings Called by the United Nations and Specialized Agencies at which WHO Was Represented

(1 August 1956 to 31 July 1957)

1956

30 July - 6 August
ECAP: Working Party on Housing and Building Material
Bangkok

8 - 18 August
UN/UNESCO: Joint Seminar on Urbanization in the ECAP Region
Bangkok

4 - 20 October
UNESCO: Study Conference on Science Teaching
Bangkok

8 - 19 October
FAO: 3rd Regional Conference for Asia and the Far East
Bandung

31 October - 5 November
UNESCO: 45th Session of the Executive Board
New Delhi

5 November - 5 December
UNESCO: 9th Session of the General Conference
New Delhi

29 October - 1 November
UN: Regional Conference of Non-Governmental Organizations from Burma, Ceylon, India, Nepal and Pakistan
Colombo

9 November
UNESCO: Special Meeting of the Advisory Committee of the Research Centre on the Social Implications of Industrialization in Southern Asia
New Delhi

1957

7 - 15 March
ECAP: 9th Session of the Committee on Industry and Trade
Bangkok

18 - 28 March
ECAP: 13th Session of the Commission
Bangkok

1 - 2 April
TAB: Meeting of the TAB Representatives in the Far East
Bangkok

25 - 26 April
UNESCO: Meeting of the Steering Committee of the UNESCO Research Centre on the Social Implications of Industrialization in Southern Asia
Calcutta
Conferences and Meetings of Governmental, Non-Governmental and Other Organizations at which WHO Was Represented

(1 August 1956 – 31 July 1957)

**1956**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 – 9 August</td>
<td>Government of India: 2nd Conference of Public Health Engineers</td>
<td>New Delhi</td>
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<tr>
<td>27 – 29 August</td>
<td>Governments of Burma and Thailand: Anti-Malaria Co-ordination Conference on the Burma-Thailand Border</td>
<td>Chiangmai (Thailand)</td>
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<tr>
<td>25 – 29 September</td>
<td>Indian Public Health Association: Inaugural Meeting</td>
<td>Calcutta</td>
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<tr>
<td>22 – 26 October</td>
<td>Trained Nurses Association of India: Annual Conference</td>
<td>Calcutta</td>
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<tr>
<td>25 October</td>
<td>Government of India: Meeting of the Co-ordination Committee of International and Bilateral Health Agencies</td>
<td>New Delhi</td>
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<tr>
<td>14 – 22 November</td>
<td>Inter-Parliamentary Union: 45th Conference</td>
<td>Bangkok</td>
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<tr>
<td>15 – 27 November</td>
<td>Indian Council of Medical Research: Meetings of the Scientific Advisory Board and Advisory Committees</td>
<td>Mysore</td>
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<td>14 – 16 December</td>
<td>Government of India: 5th Meeting of the Central Council of Health</td>
<td>Ranchi (Bihar)</td>
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<tr>
<td>28 December – 1 January 1957</td>
<td>Indian Council of Social Work: 9th Session</td>
<td>Jaipur</td>
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**1957**

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<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>3 January</td>
<td>Government of India: Meeting of the Co-ordination Committee of International and Bilateral Health Agencies</td>
<td>New Delhi</td>
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<tr>
<td>7 – 11 January</td>
<td>International Union against Tuberculosis: 14th International Tuberculosis Conference</td>
<td>New Delhi</td>
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<td>14 – 20 January</td>
<td>Indian Science Congress Association: 44th Session</td>
<td>Calcutta</td>
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<td>Governments of India and Burma: Malaria Inter-Country Co-ordination Meeting</td>
<td>Imphal (Assam)</td>
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<tr>
<td>Date</td>
<td>Event</td>
<td>Location</td>
</tr>
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<td>25 January</td>
<td>Indian Council of Medical Research: Meeting of the Advisory Committee on Trachoma</td>
<td>Aligarh</td>
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<tr>
<td>21 - 23 February</td>
<td>All-India Ophthalmological Society: 18th All-India Ophthalmological Conference</td>
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<tr>
<td>24 June - 13 July</td>
<td>Associated Countrywomen of the World: 8th Triennial Conference and Seminar</td>
<td>Colombo</td>
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</table>
Fellowships Awarded by WHO

August 1956 - July 1957

Table I
Source of Funds and Type of Fellowship

<table>
<thead>
<tr>
<th>Country</th>
<th>Source of Funds</th>
<th>Total</th>
<th>International</th>
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### Table II

**Distribution by Subject of Study and by Country**

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<th>Ceylon</th>
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**Note:** Three fellowships are under negotiation for Portuguese India.
### Training Activities Carried Out by Governments
**With the Assistance of WHO Staff**
*(August 1956 - July 1957)*

<table>
<thead>
<tr>
<th>Subject</th>
<th>Category of Trainees</th>
<th>Type of Training</th>
<th>Duration</th>
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<tbody>
<tr>
<td><strong>AFGHANISTAN</strong></td>
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<td></td>
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<tr>
<td>Tuberculosis</td>
<td>Medical officers, x-ray technicians and sanitaritans.</td>
<td>Lectures and demonstrations, practical work in x-ray department, tuberculosis diagnosis, dark room work, field training.</td>
<td>1-8 weeks</td>
</tr>
<tr>
<td>(4 courses - 11 trainees)</td>
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<tr>
<td>Public Health Expansion and</td>
<td>Auxiliary sanitarians and nurse midwives.</td>
<td>Elementary course in basic sanitation and theoretical and practical nursing and midwifery.</td>
<td>(4 months (to 1 year)</td>
</tr>
<tr>
<td>Nursing Education</td>
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<tr>
<td>(2 courses - 15 trainees)</td>
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<tr>
<td>Health Statistics</td>
<td>Director and Deputy Director of statistical office, clerks and medical officers from provincial centres.</td>
<td>Instructions on medical statistics, supervision of office work and refresher course.</td>
<td>(3 months (to 2 years)</td>
</tr>
<tr>
<td>(2 courses - 15 trainees)</td>
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<td>Vaccine Production</td>
<td>Sanitarians, vaccinators and laboratory staff.</td>
<td>Lectures and demonstrations, general laboratory procedure on vaccine production.</td>
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<td>(3 courses - 46 trainees)</td>
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<td>Nursing</td>
<td>Student nurses</td>
<td>General nursing course.</td>
<td>3 years</td>
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<td>(1 course - 10 trainees)</td>
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<td>Laboratory Techniques</td>
<td>Laboratory technicians, laboratory assistants and sanitarians.</td>
<td>General laboratory techniques, practicals in bacteriology, haematology and parasitology.</td>
<td>(5 months (to 3 years)</td>
</tr>
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<td>(4 courses - 55 trainees)</td>
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<td>Office Procedures</td>
<td>Directors of various departments and clerks.</td>
<td>Lectures and demonstrations on office procedures and library methods.</td>
<td>(1 month (to 1 year)</td>
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<td>(2 courses - 26 trainees)</td>
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<tr>
<td>Environmental Sanitation</td>
<td>Student-teachers, municipal officials, and village level workers.</td>
<td>Academic and practical training in rural sanitation, basic sanitation and hygiene.</td>
<td>(3 months (to 2 years)</td>
</tr>
<tr>
<td>(3 courses - 107 trainees)</td>
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<td></td>
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<tr>
<td>Medical Education</td>
<td>Medical students.</td>
<td>Lectures and practicals in anatomy and preventive and social medicine.</td>
<td>2 years</td>
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<td>(5 courses - 203 trainees)</td>
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<tr>
<td>Refresher Course for Medical Officers</td>
<td>Medical officers.</td>
<td>Lectures and seminars</td>
<td>3 months each</td>
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<td>(2 courses - 18 trainees)</td>
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</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><strong>BURMA</strong></td>
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<tr>
<td>Malaria</td>
<td>Medical officers, malaria inspectors and malaria assistants.</td>
<td>Theory and practical work in malariology and entomology.</td>
<td>(2 weeks to 2 months)</td>
</tr>
<tr>
<td></td>
<td>Tuberculosis</td>
<td>Medical students, student-nurses and midwives and laboratory technicians.</td>
<td>Lectures on tuberculosis and clinic management field training, seminars.</td>
</tr>
<tr>
<td></td>
<td>Vital and Health Statistics</td>
<td>Graduate doctors.</td>
<td>Lectures</td>
</tr>
<tr>
<td></td>
<td>Nursing</td>
<td>Student nurses and midwives.</td>
<td>Courses in general nursing and midwifery.</td>
</tr>
<tr>
<td></td>
<td>Health Education</td>
<td>Lady health visitors, health assistants and health education officers.</td>
<td>Health teaching of individuals and groups, seminars.</td>
</tr>
<tr>
<td></td>
<td>Nutrition</td>
<td>Assistant surgeons, health assistants, health officers and medical students.</td>
<td>Theoretical and practical training in nutrition.</td>
</tr>
<tr>
<td></td>
<td>Environmental Sanitation</td>
<td>School students, health inspectors, health assistants.</td>
<td>Refresher course, academic and practical training.</td>
</tr>
<tr>
<td></td>
<td>Medical Education</td>
<td>Medical students, medical officers and health assistants.</td>
<td>Lectures, field work and seminars.</td>
</tr>
<tr>
<td><strong>CEYLON</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Health</td>
<td>Pupil midwives, and student public health nurses.</td>
<td>Lectures on child hygiene.</td>
<td>49 lectures</td>
</tr>
<tr>
<td></td>
<td>Supervisory midwives.</td>
<td>Clinical teaching in Kalutara Hospital.</td>
<td>1 month</td>
</tr>
<tr>
<td></td>
<td>Midwives</td>
<td>Refresher course.</td>
<td>6 lectures each</td>
</tr>
<tr>
<td></td>
<td>Health inspectors</td>
<td>Refresher course.</td>
<td></td>
</tr>
<tr>
<td><strong>INDIA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>Nursing students, student health visitors and public health midwives.</td>
<td>Lectures on tuberculosis, visits to clinics and laboratories, home-visiting and demonstrations.</td>
<td></td>
</tr>
</tbody>
</table>
### Subject

<table>
<thead>
<tr>
<th>Type of Training</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical, practical and clinical work in the epidemiology of trachoma, with particular reference to field work.</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Lectures and exercises in health statistics.</td>
<td>Continuous</td>
</tr>
<tr>
<td>Medical officers.</td>
<td></td>
</tr>
<tr>
<td>Medical officers and public health nurses.</td>
<td></td>
</tr>
<tr>
<td>Medical officers, investigators, health educators, laboratory technicians and male nurses.</td>
<td></td>
</tr>
<tr>
<td>Medical officers, medical students, public health nurses, health visitors, nurse-midwives, ward sisters and sanitary inspectors.</td>
<td></td>
</tr>
<tr>
<td>Refresher courses for ward sisters, midwives, lady health visitors, (2½ years) diploma course in midwifery, orientation in public health field, study of morbidity in children.</td>
<td>(1 month)</td>
</tr>
<tr>
<td>Re-orientation training in public health, (to certificate courses in health education and lectures to students of DPE, DIH and DTM courses.</td>
<td>(1 year)</td>
</tr>
<tr>
<td>Medical officers, sanitary inspectors, health educators, social workers, teachers and post-graduate students.</td>
<td></td>
</tr>
<tr>
<td>Medical graduates, M.A. students and nurses.</td>
<td></td>
</tr>
<tr>
<td>Medical students and sanitary inspectors.</td>
<td></td>
</tr>
<tr>
<td>Sanitary engineers and engineering subordinates</td>
<td>Lectures and practicals 3 months each</td>
</tr>
<tr>
<td>Classes in medical psychology, psychological medicine and psychiatric nursing.</td>
<td>1–2 years</td>
</tr>
<tr>
<td>Lectures, practicals and seminars, field visits and clinical teaching.</td>
<td>4½ to 12 months</td>
</tr>
</tbody>
</table>

### Category of Trainees

- **Trachoma**
  - (1 course - 25 trainees)
- **Vital and Health Statistics**
  - (1 course - 25 trainees)
- **Maternal and Child Health**
  - All-India Institute of Hygiene and Public Health, Calcutta (2 courses)
- **Maternal and Child Health/Nursing**
  - (About 70 courses - 2,920 trainees)
- **Health Education**
  - (9 courses - 699 trainees)
- **Environmental Sanitation, Post-graduate Course in Public Health Engineering**
  - (2 courses - 17 trainees)
- **Refresher courses**
  - (2 courses - 15 trainees)
- **Mental Health**
  - (3 courses - 39 trainees)
- **Preventive and Social Medicine**
  - (3 courses - 840 trainees)
<table>
<thead>
<tr>
<th>Subject</th>
<th>Category of Trainees</th>
<th>Type of Training</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INDONESIA</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Malaria</td>
<td>Medical students, malaria assistants, mantri teachers, and mantri students.</td>
<td>Lectures, refresher courses, field training, to organization of entomological units and field laboratories, supervision and administration of spraying campaign.</td>
<td>(1 week 1.5 years)</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>Medical officers, nurses and mantris.</td>
<td>Lectures, in-service training and laboratory work.</td>
<td>(1 week 3 years Continuous)</td>
</tr>
<tr>
<td>Leprosy</td>
<td>Medical officers and nurses.</td>
<td>Diagnosis and case-finding technique.</td>
<td></td>
</tr>
<tr>
<td>Trachoma</td>
<td>Ophthalmologists and mantris.</td>
<td>Lectures and practical training.</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Vital and Health</td>
<td>Medical undergraduates and statistical clerks.</td>
<td>Lectures, practical exercises and in-service training.</td>
<td>(2 weeks 6 months)</td>
</tr>
<tr>
<td>Statistics</td>
<td></td>
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</tr>
<tr>
<td>Nursing</td>
<td>Nurse tutors, midwife tutors and public health nurses.</td>
<td>Training in public health nursing and midwifery.</td>
<td>10 months</td>
</tr>
<tr>
<td>Paediatric Nursing</td>
<td>Graduate nurses, medical and nursing students.</td>
<td>Lectures, demonstrations and clinical teaching.</td>
<td>(7 days 5 months 6-10 days)</td>
</tr>
<tr>
<td>Health Education</td>
<td>Medical students and &quot;controleurs&quot;.</td>
<td>General orientation, lectures, seminars and group discussions.</td>
<td>2 years</td>
</tr>
<tr>
<td>Environmental</td>
<td>School students.</td>
<td>Academic, practical and field training.</td>
<td></td>
</tr>
<tr>
<td>Sanitation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Education</td>
<td>Medical students.</td>
<td>Lectures, demonstrations and practicals in anatomy and physiology.</td>
<td>Continuous</td>
</tr>
<tr>
<td>Nepal</td>
<td>Student nurses</td>
<td>General nursing, including midwifery and public health.</td>
<td>3 years</td>
</tr>
<tr>
<td>Medical Education</td>
<td>Health assistant trainees</td>
<td>Instruction in general, preventive and curative work.</td>
<td>2 years</td>
</tr>
<tr>
<td>Subject</td>
<td>Category of Trainees</td>
<td>Type of Training</td>
<td>Duration</td>
</tr>
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<tr>
<td>THAILAND</td>
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</tr>
<tr>
<td>Leprosy</td>
<td>Health workers</td>
<td>Field training</td>
<td>3 weeks to 6 months</td>
</tr>
<tr>
<td>(2 courses - 27 trainees)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing</td>
<td>Post-graduate nursing students.</td>
<td>Public health nursing.</td>
<td>2 years</td>
</tr>
<tr>
<td>(2 courses - 102 trainees)</td>
<td></td>
<td>Lectures and demonstration.</td>
<td></td>
</tr>
<tr>
<td>Maternal and Child Health</td>
<td>Medical officers, public health nurse and nurse supervisor.</td>
<td>In-service training.</td>
<td>One for 3 weeks and one for 4 weeks</td>
</tr>
<tr>
<td>(2 courses - 4 trainees)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Nutrition</td>
<td>Sanitary inspectors</td>
<td>Practical nutritional survey.</td>
<td>1 year</td>
</tr>
<tr>
<td>Health Education</td>
<td>Students of the Fundamental Education Programme.</td>
<td>Theoretical and practical training in rural health, with emphasis on health education.</td>
<td>2 years</td>
</tr>
</tbody>
</table>