WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR THE WESTERN PACIFIC

SEVENTEENTH ANNUAL REPORT
(1 July 1966 - 30 June 1967)
OF
THE REGIONAL DIRECTOR
TO THE
REGIONAL COMMITTEE FOR THE WESTERN PACIFIC
EIGHTEENTH SESSION
THE WORK OF WHO
IN THE WESTERN PACIFIC REGION

SEVENTEENTH ANNUAL REPORT
OF THE
REGIONAL DIRECTOR
TO THE
REGIONAL COMMITTEE FOR THE WESTERN PACIFIC
Covering the Period, 1 July 1966 - 30 June 1967

World Health Organization
Regional Office for the Western Pacific
Manila, Philippines
July 1967
The following abbreviations are used in this report:

AFRO - WHO Regional Office for Africa

AMRO - WHO Regional Office for the Americas

ECAFE - Economic Commission for Asia and the Far East

EMRO - WHO Regional Office for the Eastern Mediterranean

EURO - WHO Regional Office for Europe

FAO - Food and Agriculture Organization of the United Nations

IAEA - International Atomic Energy Agency

ILO - International Labour Organisation

SEARO - WHO Regional for South-East Asia

UNDP - United Nations Development Programme

UNESCO - United Nations Educational, Scientific and Cultural Organization

UNICEF - United Nations Children's Fund

WFP - World Food Programme
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INTRODUCTION

It is interesting to note that the countries and territories comprising the Region can be divided into three groups according to morbidity and mortality patterns. The pattern observed in Australia, Japan and New Zealand is similar to that of the United States of America and most countries in Europe, with non-communicable and degenerative conditions such as heart disease, malignancy and vascular lesions affecting the central nervous system causing the highest mortality. In another group, which comprises the Philippines, Hong Kong, Malaysia and China (Taiwan), infectious and parasitic diseases continue to be leading causes of death but degenerative diseases and accidents are becoming important. The third group is composed of countries in which most of the illnesses and deaths can be ascribed to infectious and parasitic diseases. There is, therefore, no overall solution to the health problems confronting the Region.

* * *

Although some progress has been made in building up the health structure and providing a wider coverage of health services, more health problems are being uncovered than can be met adequately with existing financial and manpower resources. A perennial problem of most health administrations is the manner in which the economic planners and fiscal authorities should be approached in order to obtain adequate budgetary provisions to strengthen and expand existing health services. Most health administrations are now undertaking national health planning not only as a necessary step in highlighting the importance of health in overall social and economic development but also as an effective means of using available resources and evaluating at regular intervals the progress of each component of the health programme. To be fully effective, health planning should constitute an integral part of the country's economic development plan with definite allocations for health investments. In only a few countries in the Region is this actually the case. Economic development plans
have been prepared in some sixteen countries and territories and imple-
mented with varying degrees of success. Unfortunately, few of these
plans include health.

The Organization is now demonstrating the considerable importance
that it attaches to national health planning. During the past year,
assistance in national health planning has been given to three countries
in the Region. In one, a national health planning unit, headed by an
experienced health officer, has been established at ministerial level.
A training course for senior WHO staff selected from each region will
start in July. A regional training course in health planning and an
inter-country adviser, who will assist governments in health planning
and also organize health planning courses for senior health adminis-
trators, have been included in the 1969 programme and budget proposals.

* * *

Emphasis continues to be given by Member governments to problems
of the organization of medical care not only because of the increasingly
felt need for better medical services by the population at large, but
also because of the pressure from the continuing rapid population growth
in many countries. The cost of medical care, with hospitals in the
forefront, takes up a very large percentage of the health budget and
capital costs are tremendous. The planning and provision of better
medical care with particular reference to hospital administration and
design have become very important aspects of national health planning.
This has prompted the appointment of a full-time regional adviser in
the organization of medical care who will commence duty later this
year.

* * *

The period under review was marked by the recurrence of outbreaks
of certain communicable diseases, some of which are quarantinable.
While cholera remains endemic in the Philippines and Viet-Nam, there
was a fresh outbreak in Cambodia between April and May 1967. The
Region has been free from smallpox for some time but seven cases with
two deaths were reported in Sarawak. Extreme concern has been expressed by health authorities about the increasing incidence of plague in Viet-Nam and the possibility that it might spread to other countries in the Region. In some countries there was a high incidence of two arthropod-borne viral infections, namely Japanese encephalitis and haemorrhagic fever due to the dengue virus.

Increasing efforts are being exerted to counteract the above diseases. A seminar to familiarize key health personnel with the clinical, laboratory and epidemiological aspects of cholera was held in Manila in August 1966. Studies on the effectiveness of cholera vaccines, on the carrier state, and on the clinical features and treatment of the disease were continued. Support is being given to countries to enable them to produce freeze-dried smallpox vaccines. Cambodia, Japan and the Philippines are now producing this type of vaccine and it is expected that China (Taiwan) and Viet-Nam will soon start production. To minimize the possible export of plague from Viet-Nam, WHO is assisting the Government to strengthen its quarantine services and improve port sanitation. A seminar on international quarantine with emphasis on plague control was convened in Manila in March 1967. Notes on the epidemiology and control of plague have been completed and distributed to the various health administrations in the Region. Assistance has been provided to China (Taiwan) and the Republic of Korea in the planning of immunization and vector control programmes to combat Japanese encephalitis and in developing the essential laboratory support required for diagnosis and vaccine production. Arrangements were also made for consultants to visit the Philippines to advise the Government on the measures to be taken to control haemorrhagic fever.

The rapid response of Member governments to meet emergency requests for vaccines is to be commended. I am referring particularly to the cholera vaccine donated to Cambodia by the Governments of Singapore and of the United States of America and the smallpox vaccine which the Philippine Government sent to Sarawak.
Malaria is still a major problem in nineteen out of the thirty-five countries and territories belonging to the Region, its nature and extent varying according to the local environment. While progress has been made in certain programmes, operational and administrative problems continue to hamper others. In addition, chloroquine-resistant strains of *P. falciparum* have been detected in three countries and the areas affected appear to be spreading. Attention is again called to the need of an efficient basic rural health service to support the eradication programme.

The fight against tuberculosis continues to receive more attention and support from governments. The community approach to tuberculosis control is now generally accepted and there has been a wider coverage of BCG vaccination especially in the younger age groups. There is a growing acceptance of sputum examination as the primary case-finding method.

The high incidence of communicable diseases points to the need for planning, organizing and strengthening health laboratory services not only to provide the necessary laboratory support for epidemiological work and to improve medical care, but also for vaccine production. Consequently, a full-time post for a health laboratory services regional adviser has been included in the programme and budget proposals for 1969.

* * *

In some countries, the implementation of programmes in the field of nursing to meet quantitative demands has created a number of problems, since this usually involves the over-production of personnel who do not possess the educational background to advance to higher-level training. The costs involved in mounting these programmes impose a drain on limited resources which seriously limits the possibility of upgrading the quality of personnel training. In general, however, nursing administrators and health authorities are more aware of the need to study manpower requirements and resources, to determine how nursing personnel can best be used,
and to assess the adequacy and effectiveness of nursing education programmes and the place of nursing within the entire health structure. Many progressive steps are, in fact, being taken to try to solve the major problems facing nursing and there is an ever-growing interest in developing a more systematic approach to programmes in this field.

* * *

Nutritional problems in the developing countries continue to affect principally certain vulnerable groups - mothers and children, especially toddlers and infants over six months. The main problems are the inadequate use of foods rich in protein and vitamin A; delayed supplementary feeding of infants, with growth retardation (probably mental as well as physical); nutritional anaemias and goitre. These are very serious problems and failure to solve them impedes full development of national manpower resources.

Through health channels and, in particular, the maternal and child health services, exemplified by various WHO-assisted projects, increasing emphasis is being placed on selected protective foods which can be produced locally to improve nutrition. A significant development is the increasing interest of nearly all governments in applied nutrition programmes. In these, the health, education, agriculture and community development workers co-operate with local communities to identify and solve nutritional problems. To assist co-ordination among governmental agencies and the establishment of national food and nutrition development plans, stronger co-operation between FAO and WHO is being developed at the regional and country levels.

* * *

The economic importance of occupational health is in general well recognized and has always the sympathetic understanding of the economic planning bodies. The importance of inter-departmental co-operation, particularly between health and labour authorities, and co-ordination at all levels, needs no stressing to Member governments, particularly to those to whom increasing industrialization has
brought concomittant health and safety problems. During the year under review, special emphasis was laid on the co-operation of international agencies providing assistance in this field. Planning has proceeded for the second ILO/WHO joint regional seminar on occupational health which will be held later this year.

* * *

In the field of environmental health, emphasis has been laid on the need to establish units at the central level for purposes of planning, administration and supervision. Further attention has also been given to the development of water supplies, sewage and solid waste disposal systems in rural as well as in urban areas. Needs have, however, grown faster than the ability of governments to satisfy them and the limited financial resources available to meet requirements underline the importance of governments making plans for water supply and sewerage projects for which financing agencies may be willing to provide loans. It is hoped that the establishment of the Asian Development Bank will stimulate such activities. The Organization plans to include an inter-country adviser on its staff to assist governments to initiate properly prepared bankable projects for this purpose.

* * *

The education and training facilities in the Region cannot catch up with the high rate of population increase, the demands for more and better medical care and the loss of trained staff either to private practice or to other countries. The situation is further complicated by the inadequate basic educational system in many developing countries resulting in a lack of candidates to take full professional courses. The training of auxiliary health workers has therefore continued to receive high priority. The seminar held in November called the attention of governments to the various principles involved in the training and utilization of this category of health workers and the need to consider their preparation in national plans for economic and social development. Fellowships continue to constitute the major assistance
to education and training activities but this aspect of the regional programme is faced with a number of problems which can only be resolved with the assistance of governments. It is hoped that the discussion by the Regional Committee at its present session on the regional fellowships programme will be beneficial both to governments and to the Organization.

Among the educational meetings held this year, special mention should be made of the multiple seminar on paediatric education. This was an entirely new approach and permitted a greater number of people to benefit from the discussions than is possible in a single seminar to which a country can send only one or two participants. In view of the success of this new venture, it is planned to organize more seminars of this type in the future.

* * *

The Organization's interest in taking part in inter-agency programmes is reflected in the joint activities being carried out with the Committee for the Co-ordination of Investigations of the Lower Mekong Basin, which has realized that the study and implementation of multiple projects included in the development of the Lower Mekong Basin will require supplemental and concurrent development activities in public health, nutrition, education, etc. A health team is now carrying out a survey in the Mekong River Basin and a bilharziasis team recently completed a survey in Laos. These preliminary surveys will have to be followed up by more extensive studies. It is possible that WHO will also be involved in the urban renewal and development project (Special Fund) in Singapore and the WHO staff attached to a sewerage project in China (Taiwan) are working closely with another Special Fund project for the regional and urban development of metropolitan Taipei.

* * *

The desire of many governments to carry out programmes in specialized health fields such as malaria, tuberculosis, communicable
disease control in general, and family planning has far out-paced the development of their basic health service both quantitatively and qualitatively. Yet, the continuous success of all such special health programmes depends upon the quality and coverage of the general health services. Progress in most areas has been hampered by lack of financial and manpower resources, but in some countries the exodus or resignation of qualified professional personnel continues to be a serious problem. In many instances the proper use of trained personnel needs to be studied in depth. It would be useful if problems of public administration, particularly those that relate to personnel administration such as salary scales, work incentives and promotion systems, could be examined with government agencies with a view to establishing realistic criteria and guidelines for better job facilities. Good education and training programmes cannot contribute substantially towards the building up of a permanent core of government workers unless their services can be retained.

* * *

In the developing countries, national health planning, the establishment and strengthening of basic national health services, the intensification of control, surveillance and maintenance activities against the major communicable diseases and the integration of such campaigns into the national health services, pre-investment engineering studies with a view to obtaining long-term loans for the construction of waterworks and sewerage systems, the training and education of professional staff are areas to which attention will have to be given for some time to come. In the more developed countries, the trend is to replace long-term advisory services by consultancies to advise on particular problems. In all cases, the WHO programme is based on the capacity of each individual government to absorb and benefit from the assistance provided.

Regional Director
PART I. GENERAL STATEMENT OF ACTIVITIES IN THE REGION
1. MALARIA

1.1 Introduction

The Western Pacific Region presents one of the least homogeneous malaria pictures from the standpoint of distribution, intensity and the ecologic factors connected with its transmission. This is not surprising when one considers that the Region covers a vast area with varying topographical and climatological features and different cultural, social and economic settings. It is thus apparent that the strategy to eradicate this disease, or to contain it effectively until an eradication programme can be implemented, has to be based on a full understanding of its epidemiology under various environments, with a view to mobilizing or building up the elements that can guarantee a successful outcome.

Foremost among these elements is the existence or simultaneous development of a rural health structure which co-operates and participates in the eradication measures throughout the attack and consolidation phases and, later, takes full charge of the vigilance activities that can maintain the malaria-free status achieved. The experience gained since WHO launched this global programme eleven years ago has underscored this element as the only supporting foundation on which a successful malaria eradication programme can be built.

1.2 Malaria Problem in the Western Pacific Region and the Progress Made Towards its Eradication

Excluding Mainland China, North Korea and North Viet-Nam, on which little information is available, malaria constitutes a health problem in nineteen out of the thirty-five countries and territories belonging to the Western Pacific Region. The number of people living in the originally malarious areas is estimated to be 83 million out of an estimated population of 232 million.

From the malaria point of view, the countries where a malaria problem exists can be classified under four main areas:
Area 1 - Countries north of latitude 20°N
Area 2 - Countries east of the South China Sea
Area 3 - Countries west of the South China Sea
Area 4 - The South Pacific Ocean Islands

1.2.1 Area 1 - Countries north of latitude 20°N

This area includes China (Taiwan), the Republic of Korea and the Ryukyu Islands. The malaria vector in the former two countries is *A. sinensis*; in the latter, it is *A. minimus minimus*.

China (Taiwan) with an estimated population of 12,716,252 (1967) was entered by WHO in 1965 in the Official Register as having eradicated malaria. The Ryukyu Islands, with an estimated population of 1,003,982 (1967), has eradicated malaria from its southern group of islands and has now entered the maintenance phase.

The vigilance activities in the Ryukyu Islands during 1966 revealed no case of malaria, but in China (Taiwan) the Malaria Vigilance Unit detected, investigated and eliminated thirty malaria infections, fourteen of which were imported. No endemic situation has been detected, but it is apparent that vigilance activities will have to be strengthened in view of the many imported cases.

The Republic of Korea, having delimited its endemic malarious areas which are inhabited by eight million people, distributed in twenty-eight counties in four out of the eight provinces, is taking active steps to expand the rural health services and to develop a malaria eradication programme to eliminate the remaining pockets of malaria endemicity. A tentative plan of operation is under study and it is hoped that this programme will start in 1968. Technical problems in achieving eradication are not anticipated as only the *Plasmodium vivax* type of malaria is found, there is a short malaria transmission season of four months and the *Anopheles sinensis*, which is largely zoophilic, is a poor vector. The eradication campaign will be based mainly on intensified surveillance activities carried out by the rural health services and the national malaria eradication personnel.
MALARIA ERADICATED IN TAIWAN

Malaria eradication has been officially certified in China (Taiwan). The scourge of malaria was prevalent in the islands for centuries. The campaign started in 1949 and lasted for 16 years; WHO assisted from 1952. According to the standards adopted by WHO, malaria is considered eradicated in a country when a thorough search reveals that no new indigenous case has appeared over three consecutive years, during which time no extensive mosquito control and mass treatment have been practised.

At the Taiwan Malaria Research Institute (TAMRI) in Cheo-Chow, Southern Taiwan, Dr. C. H. Chuang (right), Director of TAMRI, with Dr. M. Farid (standing, centre), leader of the WHO certification team.

Case investigation by a TAMRI worker in township Chang-Chin. All cases are followed up for two years after the patients have been cured. Blood slide is being taken to check the absence of malaria parasites.
It is hoped that by 1971 all the three countries belonging to this area, together with Japan (where malaria disappeared without a specific antimalaria campaign), will form a block of malaria-free countries (143 156 376 population).

1.2.2 Area 2 - Countries east of the South China Sea

This area includes Brunei, East Malaysia (Sabah and Sarawak), the Philippines, Singapore and West Malaysia. The total population of these countries is estimated at 45 659 508, 16 million of whom are living at malaria risk.

Apart from Singapore, where malaria disappeared without a specific malaria eradication programme but as a result of the activities of the health services, the other five countries and states have now malaria eradication programmes. The recent decision of West Malaysia to implement an eradication programme by stages, starting in 1968, is an important event that will contribute to the progress of the regional malaria eradication programme and to the speed with which it reaches its goal.

In Brunei, the total population living at malaria risk (45 000) entered the consolidation phase in 1967. It is hoped that the implementation of the Government's plan for the development of rural health services will assure the successful completion of this programme by 1970.

A WHO independent assessment team visited Sabah (East Malaysia) between 12 February and 4 March 1967. The team was convinced of the importance and the contribution of this programme to the socio-economic development of the state as well as to the improvement of the rural health services. It advised that priority should be given to applying intensified eradication measures, strictly in accordance with eradication criteria, to the most densely populated districts where means of communication are easier and the development of basic rural health services is more advanced, so that these districts can enter the consolidation phase en toto. In other areas where the development of a health infrastructure and improved means of communications will take some time,
attack measures will have to be intensified to limit the ravages of the disease and to reduce the danger of its importation into areas in the consolidation phase. No technical problem exists and the local A. balabacensis vector is still susceptible to DDT. There are certain operational difficulties connected with the lack of adequately qualified sub-professional personnel to man the national malaria eradication and rural health services, the movements of the population, the difficult terrain, and lack of means of communication. An estimated 241 900 people are covered by the consolidation phase and 513 850 are living at malaria risk.

The malaria eradication programme in Sarawak (East Malaysia) will be assessed by a WHO independent assessment team later this year. This programme is given a high priority by the Government as an indispensable one in overall national socio-economic development. No technical problem exists and both vectors, A. leucosphyrus and A. sundalicus, are susceptible to DDT. The programme, however, has the same operational difficulties as Sabah with the addition of the large movement of population across its frontier with Kalimantan (Indonesia). Although there is total coverage of all malarious areas, with eradication measures (spraying and surveillance) being implemented among the 730 000 people living in the originally malarious areas, the flow of imported malaria cases from Kalimantan and the rapidly spreading economic development schemes (timber-loggine, mining and resettlement), which have resulted in the concentration of labour forces in several rural areas, have given rise to many scattered new malaria foci which could not be thoroughly investigated nor completely eliminated. The present operations have kept the average annual number of malaria cases reported at 1500 cases. Apart from the border area with Kalimantan (population: 114 116), which is under residual spraying (attack phase), the rest of the country is either in the consolidation (population: 324 692) or the maintenance phases (coastal areas and urban areas, population: 446 605).

In West Malaysia, the pre-eradication activities were completed by mid-1967 and epidemiological studies have shown the high endemicity
of malaria in the rural areas. Entomological studies have revealed that DDT spraying interrupts malaria transmission by the main vectors - *A. campestris*, *A. maculatus* and *A. sundaicus*. The new plan of operation for the malaria eradication programme covering the first stage of operations to be implemented during 1968 has been finalized. The necessary training of field personnel to carry out geographical reconnaissance and collect base-line data in the first stage area, involving an estimated population of 409 000 in Perlis state and in four districts of Kedah and Penang, has started. The Government has given a high priority to this programme in its national economic plan, and is taking steps to formulate the legislative action covering the establishment and future financing of the National Malaria Eradication Service. With WHO assistance a national malaria eradication training centre has been recently established in Kuala Lumpur. Co-ordination with the Thailand malaria eradication programme in connexion with the border areas is effected through the Thai-Malaysia border meetings which are convened annually.

The malaria eradication programme in the Philippines was reorganized during 1966, and a new plan of operation has been developed in which all the organizational and administrative requisites of an eradication campaign have been incorporated. The appointment of a public health administrator as director of the National Malaria Eradication Service, the division of the malarious areas of the country into thirty-six units, each with an adequate staff headed by a malariologist, and the establishment of six senior posts of area supervisors (senior malariologists), each in charge of six units, provide the programme with all the elements of good management. The implementation of the new plan of operation started early in 1967 and the spraying programme is planned to cover all the malarious areas (population: 8.1 million). It is too early to assess the progress of this programme, but the new organization has gradually gained momentum and will be soon capable of spotting any defect and remediying it immediately. A WHO independent assessment team has been requested by the Government in 1968.
In this area, the five countries and states are all engaged in malaria eradication programmes and there is an obvious need for inter-country and inter-regional co-ordination. The long border of East Malaysia with Kalimantan (Indonesia) necessitates active co-operation, and steps are being taken to arrange an inter-regional meeting later this year. Malarialogists from Brunei, East Malaysia, Indonesia and the Philippines are expected to participate.

There is also a realization by all countries of the role of the basic health services in implementing successful eradication schemes. The recent progress made in the development of basic health services in Brunei, Sabah and Sarawak reflects one of the advantages of launching a mass campaign such as malaria eradication. Both in the Philippines and West Malaysia, where basic health services are more advanced, the need is felt to promote their co-operation and participation in the implementation of the eradication measures.

1.2.3 Area 3 - Countries west of the South China Sea

This area includes Cambodia, Laos and Viet-Nam, all of which lie in the "Indo-China Hills" malaria zone. The total population in this area is estimated at 24 million. These countries are highly malarious and no less than 500 000 malaria cases are registered annually. *A. balabacensis* and *A. minimus minimus* are the most predominant malaria vectors. The exophilic and exophagic habits of *A. balabacensis* in the extensive forested areas may necessitate other antimalaria measures in addition to DDT-residual spraying to interrupt malaria transmission. Another disturbing factor is the detection of chloroquine-resistant strains of *P. falciparum* in the three countries, and this is apparently spreading.

The condition in this block of countries, whether related to war conditions, the paucity of the basic health services, or the inadequate number of medical and paramedical personnel cannot qualify them, at this stage, to implement malaria eradication programmes. Antimalaria measures confined to certain secure areas or areas under development schemes,
epidemiological studies and training of malaria personnel, are the main activities carried out. WHO staff are assisting the pre-eradication programme in Cambodia, while in Laos and Viet-Nam assistance is confined at this stage to fellowships.

Once peace prevails in Viet-Nam, the country with its wealth of experience in implementing an extensive antimalaria campaign, as well as its expanding basic health services and other development projects, will be qualified to start a malaria eradication programme. In Cambodia and Laos, steps are being taken to promote the development of rural health services, to intensify malaria training activities, and to expand the antimalaria operations so as to qualify them for future malaria eradication campaigns.

1.2.4 Area 4 - South Pacific Ocean Islands

This area comprises the British Solomon Islands Protectorate, Papua and the Trust Territory of New Guinea, the New Hebrides and Timor-Dili.

The pre-eradication programme in the British Solomon Islands Protectorate is progressing. The expansion of antimalaria activities (DDT-spraying and distribution of antimalaria drugs) beyond the former pilot project in Guadalcanal to include all the islands is under way. The Malaria Service, which is headed by a malarialogist, has been strengthened by the recruitment of an entomologist and by the fellowships awarded to permit key personnel to attend courses at the Malaria Eradication Training Centre in Manila. Epidemiological studies and geographical reconnaissance activities to cover all the islands are proceeding according to plans. No technical difficulties exist and the main vector, A. farauti, is still susceptible to DDT. The development of the basic health services, regarded as a pre-requisite before a malaria eradication programme can be implemented, is progressing.

In Papua and the Trust Territory of New Guinea, malaria is recognized as one of the most important health problems impeding socio-economic development. A malaria service organization with 685 full-time staff (including 50 expatriates) is actively engaged in a malaria programme
aimed at eradication. In December 1966, about 36% of the population was in the attack phase (778,000 inhabitants out of a total of 2.1 million living at malaria risk). The local vectors, *A. farauti*, *A. koliensis* and *A. punctulatus* (all belonging to the punctulatus group), are still susceptible to DDT. The extension of the basic health services (aide posts) supervised by the health centres or sub-district hospitals, constitutes part of the five-year development plan. WHO assistance is confined to fellowships to permit key personnel to attend the courses at the Malaria Eradication Training Centre in Manila.

In the New Hebrides, malaria constitutes a health problem among the 73,000 inhabitants. WHO assistance is limited to fellowships for participation in courses at the Malaria Eradication Training Centre in Manila.

In Timor-Dili, the annual load of malaria is about 41,000 cases in a population of about 410,000 living at malaria risk (i.e., about 10% of the population is infected). Antimalaria activities are confined to the treatment of malaria patients attending clinics, as well as the distribution of some antimalaria drugs to the people living near swampy areas.

Most of the other islands in the South Pacific Ocean are free from malaria due to the absence of anopheline vectors. Already nineteen such islands (including Guam, situated north of the Equator) have been listed in the supplementary list of malaria-free areas (WHO Weekly Epidemiological Records). A danger which exists is the possible importation of malaria vectors as a result of increased air traffic between these islands and the malarious countries of the Region.

1.3 Inter-country Activities

The international malaria eradication training centre, which also receives assistance from the Philippine Government and the United States Public Health Service, continued to play an important role. Apart from meeting the training needs of countries within the Region, it has offered its services to many countries in other regions. It is also assisting in the development of national training centres in the Philippines and West Malaysia which will concentrate primarily on the training of
sub-professional personnel. A special course in malaria eradication for public health administrators, which started in 1965, has become a regular feature of the centre. During 1966 and up to July 1967, the centre had trained 221 people (87 professional staff, 106 sub-professional and 28 public health administrators).

2. COMMUNICABLE DISEASES

2.1 Epidemiological Services

The attention of governments has been drawn to the importance of establishing in the ministry of public health an epidemiological unit which will be responsible for studying local epidemiological patterns of prevailing causes of morbidity and mortality which can serve as a basis for the planning, organization and administration of disease control programmes.

In China (Taiwan), a communicable disease control bureau with the above functions is being established. A WHO epidemiologist is assisting in the development of epidemiological services in the bureau. WHO consultants have also assisted the Government to set up virus diagnostic and other essential laboratory services to support the epidemiological activities.

In Cambodia, a WHO epidemiologist/statistician is assisting the Government in the planning, organization and implementation of an epidemiological and statistical service under the Ministry of Public Health. A demonstration area will be selected so that a pilot project covering the reporting, collection and analysis of data on the incidence and causes of diseases and deaths and the number of births and deaths can be set up.

2.2 International Quarantine

In view of the concern shown in many countries within the Region about the existence of certain quarantinable diseases, particularly cholera and plague, and the fact that the quarantine procedures being
used vary considerably, the Regional Office organized its first seminar on international quarantine in April 1967. During the seminar, the importance not only of applying strict quarantine measures to prevent the entry of quarantinable diseases but also to prevent the exportation of disease from one country to another was emphasized. Port and airport sanitation, including rodent and insect vector control, and other environmental health problems were considered. The International Sanitary Regulations were discussed in some detail. Special attention was given to plague prevention and control.

WHO consultants were provided to the Republic of Korea and Viet-Nam to assist these governments to assess their quarantine services with the end in view of determining how best to improve them. A long-term programme of assistance is now being planned for Viet-Nam. Fellowships have been awarded to China (Taiwan), the Republic of Korea and Viet-Nam to enable quarantine officers to learn about quarantine practices in neighbouring countries.

2.3 Smallpox

Although the Region has been free from endemic smallpox for a number of years a small outbreak occurred between 26 September and 9 October 1966 in Sarawak (East Malaysia). Seven cases were reported, two of whom died. An intensive mass vaccination campaign was carried out immediately, WHO air-lifting 120 000 doses of freeze-dried vaccine donated by the Philippine Government. No further cases have been reported.

Maintenance and surveillance activities will have to be intensified in countries which have only recently become smallpox-free. Some countries, in order to maintain the vaccination status of the population, are vaccinating the newborn and revaccinating the older members of the population at intervals of three to seven years. Freeze-dried smallpox vaccine is recommended. WHO and UNICEF have assisted China (Taiwan) and the Philippines in its production.
2.4 Virus Diseases

2.4.1 Poliomyelitis

There has been a general decline in the incidence of poliomyelitis and in Australia and New Zealand the disease has almost disappeared. More countries are now embarking on immunization programmes. WHO consultants assisted China (Taiwan) to organize a virus diagnostic service which will provide the laboratory support to the mass poliomyelitis immunization programme which has recently been started. UNICEF is providing the equipment and supplies required. In the Philippines a mass campaign, covering 500,000 children and using oral poliomyelitis donated by the Government of Japan, will start later this year.

In Singapore, Sabin vaccine is administered whenever a child reports for initial and booster diphtheria immunization and then twice at primary I in school. Children therefore have the opportunity of receiving Sabin virus vaccine several times before they are seven years of age.

2.4.2 Arthropod-borne viruses

2.4.2.1 Japanese encephalitis

Japanese encephalitis continues to be reported from China (Taiwan), Japan, Republic of Korea and the Ryukyu Islands. A preliminary Japanese encephalitis vaccine field trial undertaken in China (Taiwan) is reported to have shown encouraging results. Later this year a WHO consultant will visit China (Taiwan) to assist the Government in its efforts to produce the vaccine for a large-scale immunization campaign. The Republic of Korea, with assistance from WHO, is planning to organize a control programme to include immunization and vector control; certain as yet unclear epidemiological features of the disease will also be studied.

2.4.2.2 Dengue-haemorrhagic fever viruses

There has been a very marked increase in haemorrhagic fever cases in the Philippines which reported 8,604 cases and 149 deaths in 1966 compared with 652 cases and 109 deaths in 1965. WHO was consulted in the overall planning for the control of this disease. Emphasis was placed on the control of Aedes aegypti and Aedes albopictus,
especially in and around the households of index cases. Studies on the isolation of the viruses are being conducted at the Bureau of Research and Laboratories of the Department of Health. A WHO headquarters consultant visited the Philippines, Singapore and West Malaysia to advise on the organization of a vector control programme with special reference to Aedes control.

2.4.3 Trachoma

The island-wide trachoma control project in China (Taiwan) was continued. During the 1965 and 1966 campaign, 2,438,667 children were examined and treated. About 9.4% were found to have active trachoma. This compares favourably with the rate of 17.6% observed during a similar campaign carried out in 1962 and 1963. A team of WHO consultants, consisting of an epidemiologist/statistician and an ophthalmologist, assessed the result of the campaign in the latter part of 1966 and found that activities were being satisfactorily carried out. Another assessment will be made later in 1967.

2.5 Parasitic Diseases

2.5.1 Bilharziasis

Formerly it was thought that the only places within the Region where human bilharziasis is endemic were the Philippines and Japan. China (Taiwan) was known to have animal bilharziasis only, indicating that its etiological agent is a strain different to that of human bilharziasis. A recent survey undertaken by a WHO team, consisting of a parasitologist and a malacologist, in Khong Island, Laos, revealed the presence of human bilharziasis (S. japonicum) among residents in the island. Examination by the direct smear method of stools collected from 547 persons living in five villages revealed an average positivity of 8.1% (from 0.7 to 26.5%) for ova of Schistosoma japonicum. No oncomelaniid snails have been found so far. Stools of buffaloes, cats, dogs and pigs living in the same area failed to show the presence of S. japonicum ova. Dissection of mice also failed to show its presence.
in the portal system. A more extensive survey to determine the distribution of the disease along the Lower Mekong Basin is therefore indicated. There is also need to study certain ecological features of the disease, in particular the identity of the intermediate host. The information so far collected will serve as the basis for the formulation of further studies and appropriate control measures.

2.5.2 Filariasis

The only filariasis control project in the Region receiving assistance from WHO is that in Western Samoa where attempts are being made to determine, by a pilot project, the best way of controlling filariasis. Between August 1965 and September 1966, diethylcarbamazine was administered on a mass basis to the population over two years of age in the two largest islands. The dose given was 5 mg/kg of body weight weekly for six weeks, then once a month for twelve months. A preliminary evaluation shows that a total of 411,371 doses have been issued to a population of 34,173 in 97 villages in Upolu; 93.9% of the population took one dose or more; 17.5% completed the full dosage (18 doses). The majority of the population has taken 10-14 doses. Blood surveys were carried out in thirty-four villages. A total of 11,011 persons were examined; 93 positive cases of microfilariae were found. After mass drug distribution, the microfilariae rate dropped from 20% to less than 1%. Dissection of Aedes polynesiensis showed that its infective rate dropped from 2.8% to 0.16% and its infection rate from 9.5% to 0.67%. A detailed analysis of the results is in progress.

A WHO consultant will be sent to French Polynesia later this year to assist the Government to determine the long-term achievements of mass treatment measures, the causes of persistent or renewed transmission, and the effect of the mass treatment campaign on the reduction in infection rates and on the clinical manifestations.

2.6 Endemic Treponematoses and Venereal Infections

2.6.1 Endemic treponematoses

Reports received indicate that the prevalence of clinical yaws in all areas in the Region remains low. Yaws control programmes are being
continued in Cambodia and Malaysia as vigilance activities with the work being integrated to the greatest extent possible into the rural health services. In Cambodia, the programme is now the responsibility of the Communicable Diseases Unit in the Ministry of Health; the number of mobile teams has been reduced to two and the remaining three teams have been assigned to the BCG campaign. In Malaysia, the four national yaws teams are also treating cases of elephantiasis, malaria, goitre and leprosy thus supplementing the work of the rural health service.

Plans are being made for the regional communicable diseases advisory team to assess the yaws situation in the formerly high endemic areas in the Region.

2.6.2 Venereal infections

Although reports on the incidence of the venereal diseases are incomplete, available information indicates high incidences of both infectious syphilis and gonorrhoea in several countries. A venereal disease control centre was established in Saigon in June 1966 with the assistance of a WHO medical officer. Activities include case-finding and treatment, special attention being given to pregnant women. A nurse adviser/health educator will soon join the project. Medical officers and nurses are being trained in the control of this infection. Serological tests, including the fluorescent antibody technique, and gonorrhoeal cultures are being performed at the serology laboratory of the Pasteur Institute with the assistance of a WHO serologist.

2.7 Tuberculosis

The community approach to the control of tuberculosis, as recommended by the Organization, is being followed in many national tuberculosis programmes. There is wide coverage with BCG vaccination at an early age in a great many countries and this has reached a very satisfactory level in some. Combined smallpox and BCG vaccination, originally given full-scale application in China (Taiwan), is being tried out in other countries not only in this region but in the African and South-East Asia Regions.
Sputum smear examination as a primary case-finding method is gaining acceptance almost everywhere, although some national experts still believe that X-ray is the more accurate diagnostic method. Trials on the toxicity of thiacetazone, which is a prospective companion drug to isoniazid for mass use on confirmed cases, have been carried out in several countries in the past two years. In general, the results have been very encouraging and a considerably wider trial is now being conducted in the Republic of Korea. The trial in the Philippines showed a higher incidence of severe skin reactions but this might have been due to the smaller size of patients admitted to the study. Another trial, using the standard daily dosage of 3 mg per kilogram of body-weight, has been set up in Cebu. The next most economical regimen is isoniazid plus streptomycin twice weekly and this is widely used in WHO/UNICEF-assisted tuberculosis treatment programmes in the Region.

Some countries with a larger land area, particularly those with many islands, are facing difficulties in field supervision. Very often this is the result of shortage of operational funds. A lot more could be done, even with existing resources, had the operational budget for these programmes been increased. In other countries, tuberculosis control activities are conducted as a completely independent and specialized service. It would be much more effective and economical if these activities were integrated and absorbed into the basic health services.

In order to ensure quality control and to maintain a uniform potency of vaccine, the BCG vaccine production laboratories in China (Taiwan), Philippines and the Republic of Korea have been provided since late 1966 with BCG seed-lots from the WHO international reference centre for BCG seed-lots and control of BCG products, which has been established at the Statens Serum Institut in Copenhagen.

Training of senior personnel has again formed part of WHO's direct assistance to countries and territories in the development of national programmes of tuberculosis control. Following the successful completion of the first regional tuberculosis training course held last year in
Singapore and China (Taiwan), it was decided that a WHO/Japan joint training course in epidemiology and control of tuberculosis would be organized each year in Tokyo. The first joint course is now in progress.

The project in Cambodia has developed satisfactorily in the past year. During the period December 1965 to February 1967, BCG vaccination campaigns were conducted in four provinces and the capital city, Phnom-Pen. Over 120,000 children were vaccinated; 11,000 without preliminary testing. The Sotheavong Centre in Phnom-Pen serves as a referral and training centre for the diagnosis and treatment of tuberculosis. It is planned to extend BCG activities to another eight provinces in the coming year and a tuberculosis prevalence survey is scheduled for the last quarter of 1967.

The mass application of combined BCG and smallpox vaccination in China (Taiwan) has proved a great success. With this technique, BCG vaccination is given directly to infants under twelve months of age, while smallpox vaccination is given at the same time on the opposite arm. In the spring campaign of 1967, 83.2% of the 160,653 eligible infants were vaccinated in this way (72.1% in the spring of 1966). In view of the high coverage, simplicity of operation and the believed high attack rate of tuberculosis in this age group, a considerable impact on the reduction of tuberculosis in the country can be expected if this practice is continued for a number of years. Extra funds have been made available by the Government to strengthen tuberculosis control activities at the peripheral health level. One hundred and eighty-one "health workers" were trained and assigned to assist in the case-finding and treatment activities of the health stations. During the six-month period, 1 October 1966 to 31 March 1967, 1088 new cases were discovered by these workers, simply through microscopic examination of sputum. Although the yield could be more productive, this experiment has at least shown the practicability and usefulness of such auxiliary workers in tuberculosis case-finding and treatment programmes. The number of infectious cases under treatment at the end of April 1967 was 15,672.
TUBERCULOSIS remains a public health problem of major importance in almost all countries and territories of the Region.

HONG KONG. The photo shows a TB visitor from the Wanchai Chest Clinic following up a case in temporary shanty town. Apart from the treatment of about 15,000 active cases, the Government Tuberculosis Service is putting emphasis on the vaccination of new-born infants. The BCG coverage of new-borns increased from 24% in 1956 to 92% in 1966.

NEW HEBRIDES. In July 1964, a WHO/UNICEF-assisted TB control project was launched in the New Hebrides. Up to the middle of 1966, about 38,000 people out of a total population of some 70,000 were already covered by the campaign. Photo shows schoolchildren in the Tanna Island of the New Hebrides widespread archipelago.
A third tuberculosis prevalence survey will be organized in the latter part of 1967.

A WHO consultant in statistics was assigned to the Medical and Health Department, Hong Kong, in February 1967 to review and evaluate the efficacy of various phases of the local tuberculosis services. The feasibility of setting up a central tuberculosis case register is also under study.

During the period under review the members of the regional tuberculosis advisory team visited China (Taiwan), Fiji, Japan, Gilbert and Ellice Islands, Republic of Korea, Malaysia, New Hebrides, Philippines, Tonga and Western Samoa. In June, the team was assigned to Laos. A BCG vaccination service integrated into the maternal and child health and school health services will be organized for the first time in four provinces of the Kingdom. Pilot tuberculosis control projects will also be set up in Vientiane and Paksé using the existing government hospitals as a base.

The release of the final report on the national tuberculosis prevalence survey in the Republic of Korea in October 1966 aroused considerable public and official notice. As a result, the Government's budget for tuberculosis control was increased from 63 million Won in 1966 to 203 million in 1967. During 1966, 1.34 million children were BCG-vaccinated, 41% of whom were under six years of age. All 189 health centres are equipped and staffed to perform sputum examinations and all provinces possess a tuberculosis culture laboratory. Bacteriologically confirmed and/or cavitary cases of tuberculosis are registered for domiciliary chemotherapy. At the end of January 1967, the number of cases under treatment was 72,800. The Government is to train over 1,300 auxiliary health workers who will be assigned at myun level and whose duties will include tuberculosis control. When these workers are posted, there is no doubt that the number of cases under treatment will rapidly increase.
The results of several epidemiological studies made at the National Tuberculosis Control Demonstration and Training Centre, Cebu, Philippines, which has been in operation for the past three years, were reviewed by the participants attending the first national tuberculosis seminar held in Cebu City during April 1967. Based on these results, an up-to-date policy on tuberculosis control was recommended to the Secretary of Health for nation-wide application. Similar seminars on a regional level will follow in the latter part of the year. During 1966, a total of 535,375 BCG vaccinations were performed. A trial, using sputum examination as the primary case-finding method, was set up in the Province of Cavite in April 1967. The number of tuberculosis patients, including X-ray suspects, under domiciliary treatment is approximately 50,000.

During 1966, 203,313 children in Viet-Nam were vaccinated with BCG; 33,601 without preliminary testing. The tuberculosis laboratory at Hong Bang is actively engaged in case-finding and follow-up work. Two tuberculosis dispensaries constructed in Saigon with Dutch assistance and another in Quang Ngai, constructed with Canadian assistance, were completed in April. The centres in Can-Tho and Hué are operating smoothly. The total number of patients under chemotherapy in these clinics is approximately 8,000.

The tuberculosis problem in the South Pacific area is characterized by a relatively low prevalence but a high fatality, which is probably the result of a low natural immunity to the infection. This was confirmed by a report from the New Hebrides of sixteen deaths in bacteriologically confirmed cases during 1966; a mortality rate of no less than 24 per 100,000 population. In view of this unique picture, BCG vaccination, regardless of age limit, is considered the most effective measure of control in this area. This is being practised almost everywhere in the area but more systematically in Fiji, the New Hebrides and Western Samoa. To facilitate this activity, tuberculin dilution, PPD RT 23, supplied by UNICEF, has been prepared and distributed by the Medical Department in Suva, Fiji, to the British Solomon Islands Protectorate, the Gilbert and
Ellice Islands, New Hebrides, Papua and the Trust Territory of New Guinea and Western Samoa.

In 1966 the Government of Fiji launched a tuberculosis campaign in which the whole population was to be tuberculin-tested. Depending on the result of testing, people were either to receive BCG vaccination or X-ray examination of the chest and, where necessary, chemotherapy. Up to January 1967, 166,000 persons had been tested and among the 127,000 who had their tests read, over 90,000 have been vaccinated with BCG. A total of 142 persons with shadows suggesting pulmonary tuberculosis were discovered among the 15,000 who reacted to tuberculin and who were examined by X-ray. They are now under chemotherapy.

In the Gilbert and Ellice Islands, 6,129 children were vaccinated with BCG in 1966.

The project in the New Hebrides commenced in 1964 when a WHO medical officer and a nurse were assigned to Port-Vila. Over 30,000 people, or two-thirds of the total population, have been vaccinated with BCG since then. The number of tuberculosis cases discovered, mainly through sputum smear examination, was 182 in 1964, 134 in 1965 and 85 in 1966. By mid-1967 the whole territory should have been covered by the campaign. Since the beginning of 1967, the follow-up team, apart from vaccinating those who were absent during the first campaign, finding new cases of tuberculosis and following up cases under treatment, started a DPT triple vaccination service on Efate. Following the completion of the tuberculosis campaign it is hoped that a communicable disease service can be organized and, eventually, a condominium public health service.

The second tuberculosis campaign in Western Samoa was launched on 27 June 1966 following the arrival of the regional tuberculosis advisory team. By the end of 21 March 1967, 51,657 people had been tuberculin-tested, 49,246 of whom had their tests read; 37,666 persons, or one-third of the total population, have received BCG vaccination. Out of the 11,486 tuberculin reactors who were examined by 70 mm. photofluorography, 591 were found to have shadows suggesting significant pulmonary
tuberculosis. Among these X-ray positive persons, 47 were proved bacteriologically. At the end of March 1967, 781 patients were receiving chemotherapy, 228 were under combined drug regimens (221 with streptomycin as the companion drug), while 553 were receiving INH alone.

2.8 Leprosy

Although the problem of leprosy remains more or less the same in the many countries afflicted with this disease, the present trend is to resettle the non-infectious and arrested cases in their old environment or a new settlement rather than to maintain huge leprosaria. Newly detected cases are being treated by the local health units.

UNICEF has continued to assist the project in the Philippines where ten travelling and four stationary skin clinics, eight regional leprosy consultants and thirty-five paramedical personnel are carrying out the control programme. Between 1961 and 1966, a total of 15,331 cases were detected and treated at local health centres or in the patients' homes.

In the Republic of Korea, similar types of mobile teams have been formed with assistance from UNICEF, the Order of Malta and the German Leprosy Relief Association. Paramedical personnel are used more widely in this programme. A WHO consultant spent three months in Korea during the last quarter of 1966 to assess the project and advise the Government on the future steps to be taken. Surgical rehabilitation of disabled leprosy patients is receiving attention in the Philippines and China (Taiwan). A WHO medical officer is training national workers and medical students in China (Taiwan) in this type of work.

2.9 Bacterial Diseases

2.9.1 Cholera

Cholera El Tor has been endemic in the Philippines since 1961 and in Viet-Nam since 1964. Both countries show a year-round occurrence of this infection, the highest incidence being found between June and October. Hong Kong reported a single case in November 1966 after an absence of infection for more than two years. No subsequent case or positive carrier was detected. Cambodia reported the occurrence of cholera El Tor with
twelve cases and four deaths between 6 April and 18 May 1967. A similar outbreak occurred between May and July 1966.

Despite an increase in the number of cases, mortality has been cut down to a very low level. Treatment of paediatric cholera cases with Lactated-Ringers solution has been carried out in the Philippines with great success. A second cholera vaccine control trial has been started in Bacolod, Negros Occidental, Philippines, with a view to studying further the effectiveness of cholera El Tor vaccine when the concentration of the vaccine or the number of doses is increased. A preliminary analysis of the results obtained indicates that when one injection of 16 000 million organisms per ml or two doses of 8000 million organisms per ml are given at an interval of two to three weeks, protection is increased to about 85% and lasts about six months. In contrast to this, inoculation with one dose of 8000 million organisms per ml gives only a 30-35% protection lasting one to six months. In view of the persistence of this infection in certain areas of the Region and the potential threat of its spread to other countries, a seminar on cholera control was organized in Manila in August and September 1966. The second meeting of the Expert Committee on Cholera was held immediately after the regional seminar.

The inter-regional cholera team, consisting of an epidemiologist, a clinician and a bacteriologist, is still stationed in the Philippines. Although engaged in research in co-operation with the Governments of Japan and the Philippines, its services can be made available to any country where there is an outbreak. A member of the team visited Laos at the request of the Government following the floods in the Mekong River valley in the last week of August and the first half of September 1966. Fortunately, no outbreak of cholera occurred. A WHO headquarters consultant was sent to China (Taiwan) to assist in the production of cholera vaccine. During the recent outbreak in Cambodia, the Government of Singapore donated 260 000 doses of vaccine. WHO provided 100 000 doses of vaccine, diagnostic sera and media.

2.9.2 Other enteric infections

Bacterial enteric diseases such as diarrhoea, dysenteries, acute gastro-enteritis and enteric fevers are still very common. Their
incidence and the number of deaths which occur are less accurately reported but certainly exceed those of cholera. Their public health importance should possibly be stressed more than hitherto. The WHO inter-country communicable diseases advisory team, consisting of an epidemiologist and a microbiologist, will endeavour to assist and stimulate countries where enteric diseases present a public health problem to promote a programme of enteric disease control.

The field trial carried out in Tonga to evaluate the effectiveness of a single dose, as against two doses of monovalent acetone-dried typhoid vaccine was completed. A close watch is now being kept on the cases reported in order to evaluate the effectiveness of the vaccine given.

2.9.3 Diphtheria, pertussis and tetanus

Diphtheria, pertussis and tetanus are health problems in a few countries only. Attempts are being made by the health administrations concerned both to improve the coverage of the immunization programme and the production of vaccines. One of the means of achieving better coverage is to combine DPT vaccination with other inoculation programmes, such as BCG and smallpox, in order to minimize the labour and cost of conducting repeated vaccination campaigns. In order to prevent tetanus neonatorum, trials, in which pregnant women are immunized with tetanus toxoid, are being carried out in some areas. So far the results are encouraging. WHO consultants will visit China (Taiwan), Philippines and Viet-Nam later this year to assist the Governments in the production of DPT vaccine.

2.10 Plague

Plague continued to occur in Viet-Nam. Available data indicate that during the past four years the disease has spread from two foci: Long Khank and Khank Hoa, to twenty-seven of the forty-four provinces. The annual reported cases were: 8 (1961), 32 (1962), 110 (1963), 242 (1964), 4503 (1965) and 2644 (January - June 1966). This represents a tremendous increase since 1961. Pneumonic plague has been frequently noted. Bacteriological and serological investigations have revealed plague infection among
rodents and fleas in Saigon, Nha-Trang, Da-Nang and Cam-ramh. In addition, there have recently been serious epidemics of human plague in the ports of Nha-Trang, Cam-ramh and Vung-Tau. These outbreaks led to the rapid mobilization of civilian and military resources. At Nha-Trang, extensive dusting with 2% diazinon appears to have been very successful. At Vung-Tau, almost the entire peninsula, including the city and adjoining hamlets, was dusted with diazinon, DDT and lindane. It is estimated that 70,000 immunizations were given. This will be followed by an extensive rat destruction programme.

Because of this situation, neighbouring countries have been alerted to the need to organize preventive measures and particularly to improve international quarantine measures. A "Note on Plague: Epidemiology and Control" was distributed to all health administrations in the Region. During the regional seminar on international quarantine, referred to in paragraph 2.2, special attention was given to plague control. The epidemiological, clinical and laboratory aspects were thoroughly considered using the situation in Viet-Nam as background. Information on the presence of "asymptomatic pharyngeal carriers" and the occurrence of gangrenous skin lesions in plague was presented for the first time. No report of a plague outbreak has been reported elsewhere in the Region.

2.11 Zoonoses

Rabies remains a zoonoses of public health importance in a few countries in the Region. In the Philippines, the WHO virologist assigned to the virology centre project was able to assist the Alabang laboratories in the production of a highly potent rabies vaccine and hyperimmune sera for human use. Later this year the Government plans to carry out an immunization campaign for dogs using avianized rabies vaccine.
3. HEALTH PROTECTION AND PROMOTION

3.1 Cancer

The marked research, treatment and control efforts in the more developed countries of the Region are beginning to be echoed in developing areas as the prevalence of cancer is being made clear by improved diagnostic facilities and reporting. The establishment of national tumour registers is being encouraged. Epidemiological studies are being stimulated by geographical distribution anomalies, such as the high incidence of oropharyngeal cancer in parts of South-East Asia and of stomach cancer in Japan. Genital carcinoma in females has been recognized as of great importance in developing countries, with public health control measures through cytological scanning a definite need. Consultant services in public health cancer control are in planning for the Philippines.

The establishment of the International Agency for Research on Cancer (IARC) will have an impact on the Region. The Director and the Chief of the education and fellowship programme of the IARC visited parts of the Region during the year.

3.2 Cardiovascular Diseases

The great efforts made by developed countries in the field of cardiovascular disease need not be underlined. There is considerable WHO Headquarters activity in research co-ordination, in nomenclature and in comparability of pathology and clinical findings. WHO regional activity in this field, however, is only beginning. The importance of cardiovascular disease, particularly myocardial infarction, is rising rapidly in developing countries with increased life expectancy and better diagnosis and reporting.

Rheumatic fever is now clearly recognized as a very important cause of cardiac morbidity and mortality in tropical countries. The implications, as this is preventable, are plain. Planning has commenced for a seminar on the prevention and control of cardiovascular diseases due to infection, particularly rheumatic heart disease, in 1968. Participants
from the Region attended the advanced training course on the diagnosis, treatment and prevention of major cardiovascular disease held in Copenhagen, Denmark.

3.3 Dental Health

The year under review was an active one in this field with emphasis on the epidemiological survey of dental disease and on public health dentistry.

Progress in the epidemiological survey in the South Pacific area has been very encouraging and results are now being analyzed. In the majority of the Region, however, progress has been slow and a consultant visited a number of countries to stimulate interest. In the Philippines an epidemiological survey of dental disease involving a sample of 30,000 inhabitants and using 47 dental teams is nearing completion. The results will serve as the basis for realistic planning.

Consultant services were provided to the Philippines and UNICEF assistance obtained for the programme. Considerable efforts to improve school dental health services, with UNICEF assistance, are being made in China (Taiwan). Brief consultant services assisted in the planning for this undertaking.

During the year under review, twelve dental health fellowships were awarded by WHO. Participants from the Region attended the course on child dental health in Copenhagen, Denmark. The training of dental auxiliaries continues to be an important activity. New Zealand and West Malaysia are notable examples of countries where this type of training has reached a high level.

It has been particularly pleasing to have seen right through the year the great interest of the dental profession in much of the Region in preventive programmes and to have noted the progress of dental associations, in particular, the Asian Pacific Dental Federation.

Efforts continue to encourage water fluoridation where practicable and the use of topical fluoride applications elsewhere. Dosage studies of water fluorine ion are regarded as very important in tropical areas.
with optimal concentration figures of 0.7 parts per million likely.

3.4 Mental Health

Considerable interest in mental health programmes exists in countries where initial development is more advanced and where priorities permit detailed attention in this field. There is a very great shortage of trained staff in all but the most developed parts of the Region. Psychiatrists, psychiatric nurses, psychologists and psychiatric social workers are few in number and their training is a prerequisite before expanded programmes can be undertaken.

The care of moderately ill mental patients is still, in many developing parts of the Region, carried out by the closely-knit family. With increasing urbanization and less family coherence, the pattern of the developed countries, where greater reliance is placed on governmental care facilities, will be repeated, but it should be balanced by the trend towards community health programmes with less reliance on institutions.

The mental health project in the Philippines shows steady, if unspectacular, progress with the encouragement of community mental health services and the progressive decentralization of mental patient care. A psychiatric nursing consultant commenced work during the last month of the period under review.

A psychiatric social worker was assigned to the project in China (Taiwan) during the year; satisfactory progress has been made. It is hoped that mental health services in the country will reach out more and more into the community with the active support of the Provincial Health Department.

Mental health consultant services are in planning for Japan this year and for Malaysia at a later date.

3.5 Nutrition

Several countries in the Region are about to launch nutrition projects, mostly of the applied nutrition type. An applied nutrition programme (ANP) is a comprehensive type of educational action aimed
NUTRITION AND HEALTH EDUCATION have to go hand in hand if health progress is to be achieved, particularly among the new generation. Health education of mothers, for instance, helps them to feed their children better. WHO is encouraging health education leadership and the establishment of applied nutrition programmes throughout the Region. Photo shows school feeding, closely integrated with health education, in the Bayambang project, Pangasinan Province, Philippines. This Philippine Government project is assisted by FAO, UNICEF and WHO, and is now in the expansion phase.

NURSING EDUCATION. In the Gilbert and Ellice Islands, the British Government, with assistance from WHO and UNICEF, is endeavouring to extend and improve present health services, particularly through the development of a training programme for nursing personnel. Photo shows young students entering their brand-new school of nursing.
at improvement of local food production and consumption, in which the
guiding principles are co-ordination among different agencies and
institutions and the active participation of the people to help themselves.

The main features of ANPs are:

(a) baseline and progress surveys, covering nutritional levels
    in the community and all aspects of ANP activities as
    indicated in (b), (c) and (d);

(b) food production and agricultural education to meet the
    nutritional needs as defined in (a);

(c) supplementary feeding programmes for vulnerable groups
    where necessary;

(d) applied nutrition education for village people, and
    applied nutrition training programmes for all government
    and voluntary personnel involved.

The Philippine ANP has been consolidated and expanded with technical
assistance from FAO in the period under review, and is expected to depend
entirely on local leadership in the coming years. An ANP handbook has
been finalized in mimeographed form for trial use in the field. The
normal school (teacher training college) in Bayambang continues to serve
as the national training centre for applied nutrition. Applied nutrition
activities have begun in the province of Cebu, in the centre of the
Philippine archipelago, and particularly in the Cebu Normal School. In
Cebu there is strong leadership from the regional medical nutritionist
stationed there. Expansion to Bukidnon, where there is another normal
school, in the southern island of Mindanao, and also to several munici-
palities in Pangasinan, adjacent to Bayambang, is planned for the next
twelve months.

The Governments of Cambodia and Malaysia are launching ANPs along
somewhat similar lines later in 1967, with the assistance of FAO, WHO
and UNICEF. The Republic of Korea is also launching an ANP later in
1967, with FAO/UNICEF assistance and technical advice from WHO. The
Government of Fiji, in co-operation with the same international agencies
and the South Pacific Commission, has initiated an applied nutrition education and training project which will cover all the South Pacific countries and territories. For Laos, a public health nutritionist will be recruited to assist in the nutrition component of the maternal and child health and nursing education projects, and it is anticipated that this may lead to an ANP. For Singapore, a medical nutritionist consultant will be recruited for a six-month assignment, to be followed by a public health nutritionist adviser.

Most of the developing countries of the Region, therefore, are now showing active interest in the ANP approach. It is recognized also that ANPs should be not only rural (as formerly) but also urban in their scope. Some related aspects such as food hygiene and food technology may merit more attention than in the past.

In Japan, national nutrition programmes are well established but malnutrition and growth retardation are still reported to occur. In China (Taiwan) the accent has been on nutrition research; the development, testing and promotion of protein-rich foods; and goitre control by salt iodization.

Probably an applied nutrition programme is required in all the developing countries.

Training of personnel in public health nutrition is essential, and needs to be oriented and applied to the type of nutritional problems which actually exist in the field in the various countries and territories. Training facilities in applied nutrition should be developed in several countries in the Region. These should be established on a longer-term basis than the international assistance given during the development of an ANP. Established nutrition training centres or institutes of different kinds could be developed in (a) one of the countries where French is spoken; (b) the Philippines; (c) Malaysia/Singapore; and (d) the South Pacific. The integration of applied nutrition techniques, as applied at the field level, into the basic training programmes for health and other government personnel, is an important long-term objective of an ANP.
This is why they are usually launched in close association with basic institutions of one or preferably several agencies and disciplines in the country concerned.

Particular aspects of nutrition which need further attention are:

(a) the development and promotion of protein-rich foods in various countries and territories: such as soy, peanut, coconut, fish and egg products;

(b) goitre control by salt iodization where feasible, as successfully demonstrated in China (Taiwan); or by injection of iodized oil, as pioneered in Papua and the Trust Territory of New Guinea.

The Regional Office has distributed documents and literature relating to applied nutrition, the assessment of nutritional status, and nutrition in maternal and child health. Efforts have been made to develop simplified criteria for the evaluation of nutritional status in ANPs and nutrition educational material suitable for medium-level rural workers. A comprehensive handbook on the health aspects of nutrition has been drafted by a WHO consultant and is to be finalized for printing in the coming year.

The overall trend of nutrition programmes in the region, therefore, is towards the establishment of ANPs in the developing countries. These projects will be linked with and followed by the development of more adequate facilities for intensive training in applied nutrition in each country or area.

Efforts are being made with the governments concerned to adapt all the nutrition projects and training very closely to the nutritional problems actually encountered in the particular country or area. A considerable amount of preliminary planning is needed by the governments, involving several agencies and a detailed study of the local situation in which it is proposed to launch an ANP and of the precise needs for FAO/WHO/UNICEF assistance. It will be important in the following years for governments to make adequate provision for the effective integration
of applied nutrition techniques as evolved in the field, into their regular teaching and training programmes for health and other personnel.

3.6 Radiation Health

The Organization has continued to stress the importance of the establishment of radiation health units in ministries or departments of health. Activities by other national agencies in the radiation field should be closely co-ordinated, in their health aspects, with the health authorities.

Increasing radiation hazards emphasize the need for adequate national legislation and standards. This is still incomplete in a number of countries in the Region.

The expanding use of radioisotopes is becoming of great importance in clinical medicine and is supplementing X-ray and other techniques in diagnosis and research. During the year, a WHO Headquarters consultant visited a number of countries in the Region with a view to assessing the developments taking place in the use of radioisotopes and the possible assistance that could be given.

Consultant services will be provided later this year to the Government of Singapore in connexion with the development of the new radiotherapy department at the General Hospital.

Three participants from the Region attended the international training course on radiological health inspections held in Rockville, Maryland, United States of America.

3.7 Occupational Health

Occupational health embraces the wide concept of the provision of an environment conducive to health and safety for all workers, be they in secondary industry, in agriculture or elsewhere. The importance of effective occupational health services and their co-ordination with national health services at all levels needs no stressing to Member countries, particularly to those in which rapidly growing industrialization has brought concomitant health and safety problems. The economic
importance of occupational health is clear and in general has the sympathetic understanding of the economic planning bodies. Productivity is clearly dependent upon a healthy worker in a healthy environment.

During the year under review, special emphasis was laid on the co-ordination of international assistance in occupational health and safety with ILO. Planning has proceeded for a joint seminar on occupational health which will be held in October 1967. Typical of a country activity in planning is the assistance to be given to China (Taiwan) where a long-term adviser will follow up the recommendations of a former WHO consultant. An occupational health project will commence shortly in Viet-Nam. Apart from the role of the occupational health physician, the role of the industrial hygienist and of the occupational health nurse is being emphasized. There is need in a number of areas to ensure full co-operation in occupational health and safety between departments or ministries of health and labour where one or both have occupational health responsibility. There is need also to find means to bring occupational health and safety services to the small industries which employ such a large proportion of workers in many developing countries.

The health of seafarers and provisions for their care have been a subject of considerable discussion in the past year. Preliminary enquiries have been made of a number of governments in the Region to seek their views on the setting up of pilot health centres for seafarers.

4. BIOMEDICAL SCIENCES

4.1 Genetics

The application of genetic techniques in public health programmes is still in its developing stage, but there is considerable interest, particularly in countries with more advanced facilities. Training in genetics with WHO assistance is planned to start in Singapore.

Congenital malformation surveys are in progress in a number of countries with particular interest shown in Japan.
The haemoglobinopathies are of considerable importance in parts of the Region and a WHO headquarters consultant visited Malaysia and Singapore during the year.

Three participants from the Region attended the advanced course on the use of computers in human genetics held in Ann Arbor, Michigan, United States of America.

4.2 Immunology

This rapidly expanding and important field with great potential in public health received stimulation during the year through a visit to the Region of a consultant and a headquarters staff member. The visit looked for means to encourage the setting up of national facilities for training and research. Singapore was chosen as the site of an immunology training and research centre. The centre will be developed by the Government with the aid of a WHO research grant and the assignment of an immunologist for a number of months by WHO Headquarters. The centre will serve Singapore and also, it is hoped, some of the rest of the Region.

5. PHARMACOLOGY AND TOXICOLOGY

The need for the control of pharmaceutical substances and the difficulties in doing so in the face of the ever-increasing variety of drugs in the market have come into focus during the year. A number of countries in the Region have established national control facilities and monitoring systems for toxicity and side-effects. Particular attention needs to be given to the quality control of drugs for export. These should be subject to strict control in the country of manufacture with a certificate to this effect being issued by the exporter and required by the importing country. Labelling, potency, sterility, stability and the manner of advertising are all matters of great concern. In view of the very large sums spent by governmental agencies and the public on pharmaceutical substances, their control and the maintenance of proper standards have great economic as well as health implications. It is
hoped that it will be possible to meet requests from governments for assistance in the establishment or improvement of national pharmaceutical control facilities and to consider the setting up of a regional reference centre. An inter-country seminar on the control of pharmaceutical substances has been proposed for 1969.

6. PUBLIC HEALTH SERVICES

6.1 Public Health Administration

Over the past year progress has been made by most countries and territories in the organization and administration of their public health services. Nearly all governments are aware of the fact that the strengthening of their public health structure in a network that covers all or most of the terrain is basic, not only to the provision of general health services but also to the attainment of the long-range objectives of special campaigns, such as those for communicable disease control or eradication, health programmes for specific age or occupational groups, family planning, etc. If a health programme is to reach all groups in all communities, it is necessary to integrate, as far as possible, all of its sectoral components into a working whole rather than as separate projects, each with its own staff and budget and without adequate co-ordination with the other components of the health programme.

It is perhaps this approach to the solution of health problems with the financial and manpower resources available that has prompted an increasing number of governments to show an interest in national health planning. During the year under review, the Organization has provided consultants to three governments (Laos, the Republic of Korea and Viet-Nam) with a duration varying from one to six months and with the objective of assisting these governments in outlining the extent of their health problems and the minimum machinery needed to undertake national health planning. Continued assistance will be provided to the Republic of Korea and Viet-Nam. There is an urgent need to provide training to
national health staff in this basic aspect of public health administration, either within the Region or in collaboration with other neighbouring regions.

Assistance provided by the Organization in the development of public health administration has centred on the establishment and/or strengthening of local or rural health services and training of personnel. The countries and territories to which assistance has been extended include the British Solomon Islands Protectorate, Cambodia, Laos, Malaysia and the Republic of Korea. A medical officer and a public health nurse are being recruited for a rural health assistance project which will start in Western Samoa in the latter part of 1967.

Progress has been made in all projects although the rate has not been as fast as it could be, largely because of financial stringency and shortage of trained manpower. In some countries and territories, manpower resources have been limited by the availability of candidates suitable for professional education and training, while in others the limitation is a result of inadequate remuneration, unattractive careers, or the loss of professionally qualified personnel to more developed countries. Despite this situation, however, many governments have managed to increase their health personnel and have consequently expanded their health services.

In the British Solomon Islands Protectorate, new health centres have been established. Indigenous personnel are being trained largely in hospital nursing and steps are being taken to introduce public health nursing into the training of those who will be sent to work in the rural areas.

In Cambodia, progress has been made in the staffing and curriculum of the demonstration and training centre outside of the capital city of Phnom-Penh. The ten-year assistance given to this project was consequently terminated at the end of December 1966. An appraisal of this project appears in Part V of this report.

The public health administration and rural health projects in Laos have both made steady progress despite serious budgetary and manpower
limitations. The rural health project has performed useful services in a limited geographic area but has not apparently had an impact on the development of public health in the entire country. It is hoped, however, that better co-ordination by the Government of the numerous sources of bilateral assistance, as recommended by the WHO public health administration adviser and the national health planning consultant, may result in a more effective use of resources for personnel training and the development of general health services for the population at large. The experience gained by the rural health services project could then be profitably applied to the entire country.

Malaysia's resources in developing its rural communities are reflected in the progress made in rural health development. Through medical education, staff training and meticulous planning, the Government is endeavouring to overcome its shortage of manpower.

The local health services project in a demonstration province in the Republic of Korea has reached a stage of development which can be duplicated in other provinces once the Government has solved such basic public administration problems as an adequate salary scale, job security and promotion, and a deceleration of the loss of its professional staff to developed countries. The Ministry of Health has established a national health planning unit.

The Government of Viet-Nam is also interested in planning its national health programme both for the present and for the immediate post-war period. It is hoped that the recommendations of the WHO consultant in national health planning to establish a machinery for such planning in a pilot province will be accepted. This will provide valuable experience and a centre for the training of staff in the collection and utilization of health data.

In addition to the assistance given in national health planning and the development of rural health services, the Organization is also interested in health planning in urban development. To stimulate the interest of Member governments in such planning, a WHO seminar will be held in Singapore in November-December 1967.
Concern about the health implications of the vast United Nations Mekong Basin project, involving Cambodia, Laos, Thailand and Viet-Nam, led the WHO Regional Offices for South-East Asia and the Western Pacific to send a survey team, consisting of a public health administrator and a sanitary engineer, to Thailand in January 1967. The survey in the four riparian countries is expected to take a period of ten months. The team's report will include recommendations as to the health measures to be undertaken and the health services to be provided by the governments concerned to safeguard the health of the original and the newly-migrant population of the Mekong Basin.

6.2 Organization of Medical Care

Emphasis continued to be given to problems of the organization of medical care and Member countries have maintained a high level of interest. An important reason is that the cost of the provision of adequate medical care represents a large proportion of the total health budget, and much of this is absorbed by the cost of running hospitals without counting the major capital expenditures needed. There is also a rising expectation in developed and developing areas; to meet these expectations, facilities improve, and this creates further demands and further expectations. This applies to hospital in-patient services, out-patient provisions and ambulatory care in general, to rehabilitation, specific disease care facilities and the care of mental patients.

The planning of medical care is therefore a very important aspect of national health planning. A planned, co-ordinated national network of medical care facilities with a working referral system is required. As a basis for planning there is need for organization and utilization studies. These are being carried out in many parts of the Region and WHO Headquarters has conducted a study of hospital legislation with the aid of questionnaires to which countries in this region have contributed.
FILARIASIS. In co-operation with the Government of Western Samoa, WHO and UNICEF are taking part in a pilot project for the control of filariasis in this country. The project started in August 1965 and is expected to last for a number of years. Photo shows examination of elephantiasis in the legs.

REHABILITATION. Since 1963, WHO is helping with teaching at the physical and occupational therapy school in Japan. In-service training is given to a nucleus of senior therapists for teaching posts in other similar schools which will be established in the future. Photo shows physiotherapy at the School of Rehabilitation in Tokyo.
The importance of medical care in the Region is reflected in the appointment of a full-time regional adviser in the organization of medical care who will join the regional staff later in 1967.

Administrative and financial expertise and trained medical and non-medical hospital administration staff are required if countries are to utilize present resources to best advantage. The training of hospital administrators has been actively supported, both through the fellowship programme and through national training facilities. Malaysia and Viet-Nam are examples of countries where lay hospital administrator training has continued to receive WHO assistance. There is considerable need for formal training facilities suited to the needs of countries in the Region.

No country has ever enough money for its medical care plan, particularly for hospital development. Increasing thought is being given to health insurance schemes suited to national economy and politico-social circumstances. WHO, as well as ILO, is greatly interested in the problems posed.

Assistance to the hospital administration project in Malaysia terminated in December. A groundwork has been laid for future activities and a cadre of lay administrators trained. Further consultant services were provided to Viet-Nam where the training of lay administrators is continuing very satisfactorily. The revision of present administrative and hospital managerial practices has been proposed and a pilot hospital approach to new methods suggested.

A team of two consultants commenced hospital administration consultantships in the Philippines and work is proceeding on broad planning, licensure requirements and equipment needs.

The proposal that a seminar on hospital administration should be organized in 1969 has drawn an excellent response from Member States.

A travelling seminar on the organization of medical care in the Union of Soviet Socialist Republics in April 1967 was attended by two participants from this region.
In the field of medical rehabilitation WHO has always directed major emphasis to the prevention of disease and accidents which result in physical disability. This is done, for example, by the control of infections, such as poliomyelitis and leprosy, by the attempted elimination of occupational hazards and by general activities in the field of accident prevention including traffic accidents. The Organization has always stressed that medical rehabilitation must be an integral part of national health services. WHO has assisted in the training of physicians, physiotherapists, occupational therapists and other staff of the rehabilitation team either through the fellowship programme or through assistance in the establishment of training schools. During the year under review, the project in the Philippines, which assisted the Government to set up graduate courses for physiotherapists and occupational therapists, was able to close. Very satisfactory training of these health workers continues and fills a marked demand. Assistance to the school of rehabilitation in Japan has continued with WHO supplying two advisers, one in physiotherapy and the other in occupational therapy. The training of students is expanding and a number of schools are now operating in Japan. The Organization is assisting China (Taiwan) in the initial stages of setting up training courses for physiotherapists and occupational therapists and will also give assistance to a children's rehabilitation centre. Assistance will be given later this year to a rehabilitation centre in Laos in co-operation with the United Nations Bureau of Technical Assistance Operations and ILO. WHO is keenly aware of the need to follow up medical rehabilitation with vocational rehabilitation and social re-integration. To this end, collaboration with other agencies working in this field is essential.

6.3 Health Laboratory Services

Most health administrations in the developing countries are aware of the need to improve their health laboratory services. Several have requested WHO to advise on the technical aspects of the organization of such services, laboratory development and management, and the training
of laboratory technicians. UNICEF has been asked to provide the equip­
ment and supplies required. A WHO consultant visited China (Taiwan) to
advise on general laboratory development and management and two consultants
have assisted in the organization of virus laboratory services. A WHO
consultant also visited the Republic of Korea to assist in planning a
virus laboratory service.

In Viet-Nam, WHO and UNICEF continue to work with the central health
laboratory service which was established in 1964. Health laboratory
workers are being trained and regional and peripheral services organized.

There are now eight regional laboratories in the Philippines. Their
physical facilities need to be strengthened and a greater number of trained
technicians are required to run the services effectively. It is hoped
that the Bureau of Research and Laboratories will be able to organize
pre-service and in-service training programmes to improve the technical
aspects. During the past year, a WHO virologist has assisted the Bureau
to develop a virus diagnostic service, to produce freeze-dried smallpox
vaccine,狂犬病疫苗 and狂犬病免疫血清.

In Laos, the lack of adequate facilities and trained personnel has
handicapped the expansion of the central public health laboratory service
which was set up in 1961. The training of laboratory personnel continues
under the guidance of a WHO medical officer and laboratory services have
recently been organized in three provincial hospitals to which UNICEF
will give supplies and equipment.

In Malaysia, the Institute for Medical Research has completed a
comprehensive plan for the establishment of a centrally directed health
laboratory service. Plans have also been prepared for the training of
medical laboratory technicians. A WHO consultant assisted in the finali­
zation of these proposals. UNICEF is expected to provide the necessary
material assistance.

During the period under review, the Chief, Health Laboratory
Services, WHO Headquarters, visited laboratories in Cambodia, China
(Taiwan), Japan, Laos, Malaysia, Republic of Korea, Singapore and
Viet-Nam.
6.4 Nursing

The development of education programmes for nursing and midwifery personnel and improving the organization and administration of nursing services and the quantity and quality of nursing practice continue to be the primary objectives of the nursing programmes in the Region. The unmet demands for nursing as services expand, populations grow and the public demands increase while faced with the old problems of limited financial resources, shortage of personnel for positions of leadership and responsibility in education and service, the stranglehold of traditional patterns and systems of nursing education and service, and the lack of clear definitions of the role of the nurse in many countries create many impediments to progress.

The need for developing well-conceived plans for the rational development of nursing education programmes, with provision for preparing personnel at professional, technical and auxiliary level, is being given major emphasis in programme planning. The number of countries where resources and facilities are available to establish programmes to prepare personnel at the above levels within the country is increasing. In others, preparation at professional level must still be done through the award of fellowships for training outside of the country and this seriously limits the numbers of nurses available for administrative, teaching and supervisory positions. In still other countries, the preparation of nursing personnel for even the technical level has to be done outside the country. Positions at professional level are occupied by expatriates leaving a serious gap at the service delivery level.

Progress has been made in the development of courses for the preparation of nursing personnel for administration, teaching and clinical specialization. Consultant services play an important role in these endeavours. A consultant visited China (Taiwan) to advise
on the establishment of a course in public health nursing at master's level in the Institute of Public Health, National Taiwan University. A consultant is under recruitment for a similar assignment to the School of Public Health, Seoul National University. A second staff member was assigned to the University of Malaya in January 1967 to assist with planning and developing post-basic courses for nurse teachers. The need to develop courses in other fields such as administration, public health nursing and midwifery teaching, in this institution, are under discussion. Post-basic courses of varying lengths and in various fields under ministry of health sponsorship are in operation in a number of countries. Singapore is a notable example where hospital-centred post-basic courses are offered in ward administration and clinical teaching, paediatric nursing, psychiatric nursing, thoracic nursing, operating theatre nursing and midwifery. The possibility of integrating these courses in an educational institution is under consideration. A nursing consultant in psychiatric nursing/mental health is now working in the Philippines and one will visit China (Taiwan) later in 1967 to give further assistance in the development of programmes in this field.

Consultant assistance in developing a systematic study approach to problems in nursing education and services as a follow-up to the first regional nursing studies seminar held in 1965 will be provided to the Republic of Korea, China (Taiwan), the Philippines and Australia in 1967 and to other countries requesting assistance in 1968.

A national project for the evaluation of nursing education programmes as a first step to developing a national accreditation programme for schools and colleges of nursing in the Philippines will be implemented with the assistance of a WHO consultant during 1967.

As in the past, the provision of fellowships for study abroad continues to be an important part of the regional programme.
In countries where basic nursing programmes at professional level are well established, fellowship awards are reserved for the advanced preparation of nurses for leadership positions in educational institutions or services. Nursing service administration, including in-service education, nursing education administration and clinical specialization in paediatric nursing, psychiatric nursing, mental health, public health and maternal and child health nursing are areas of study which have received priority in the fellowship programme during the period under review.

Field projects are still the main channel through which the most substantial part of nursing assistance is being given. WHO nursing personnel are participating in or are under recruitment for twenty-seven projects in twelve countries and three inter-country projects. Assistance is being given in the development of general nursing education programmes at auxiliary or basic level in the British Solomon Islands Protectorate, the Gilbert and Ellice Islands, Laos, Cambodia and Malaysia and at post-basic level in Malaysia, Republic of Korea and Singapore. Projects to assist in strengthening public health services and personnel training separately or as part of a team are in operation in the British Solomon Islands Protectorate, Cambodia, Laos, Malaysia, and the Republic of Korea. Assistance in nursing administration at national level is being given in Cambodia, Malaysia, Republic of Korea and Singapore. In addition, nurses serve as members of the country and inter-country tuberculosis control and maternal and child health teams.

These projects are all moving towards the achievement of their objectives albeit at varying rates of progress according to the readiness and resources of the countries concerned.

In several programmes where national nurses are available and prepared to take responsibility for them, it has been possible
gradually to withdraw international staff. For example, international staff assistance was withdrawn from midwifery education in Singapore, from paediatric nursing in the Philippines, and in Cambodia, international staff assistance was transferred from single projects in nursing education and public health nursing to assistance at national level in nursing administration, nursing education, hospital nursing services and public health nursing.

The appointment of nurses in national health administrations by creating positions in bureaus or divisions, or developing national level divisions, bureaus or departments of nursing under the leadership of qualified and competent nursing administrators, is an important step in the development of national nursing services. This will facilitate the planning and development of nursing services and ensure the most equitable distribution and efficient utilization of nursing personnel. Nursing involvement at this level has now become established practice in all but a few countries in the Region. During the period under review, steps were taken to strengthen national nursing administration in several countries and territories in the South Pacific as an integral part of ongoing projects. In addition to the continuing projects in Malaysia, Singapore and Cambodia, a new project at this level will soon start in China (Taiwan).

With the increased attention that is being given to the development of leadership in nursing and to strengthening the organization and administration of nursing services, there is new impetus and interest in developing a more systematic and scientific approach to the study and evaluation of nursing education programmes. When this can be achieved, the objective of developing programmes geared to meet the unique and special needs of the countries concerned will be within the realm of possibility, and the primary goal of all those engaged in the healing arts of providing better health services for the population will be within closer reach.
6.5 Health Education

Technical support to Member governments continues to be focused on (1) the development of qualified health education leadership; (2) the establishment and strengthening of health education in government health services; (3) training medical and health workers in health education; and (4) developing health education in teacher training and in the curricula of the schools.

During the period under review, health educators provided by WHO continued to give assistance to Malaysia, the Republic of Korea, Singapore and the Philippines; short-term consultants were also assigned to China (Taiwan) and the Philippines.

During the technical discussions on health education organized in connexion with the sixteenth session of the Regional Committee it was suggested that more post-graduate health education fellowships should be provided, especially for health education instructors. As a result, there has been a sharp increase in government requests for fellowships from WHO and other agencies. Approximately one quarter of these requests have been for health education instructors at medical, health worker and teacher training institutions. Sixteen health education fellowships have been awarded by WHO during the period under review to candidates from eleven countries and territories. The Churchill Foundation, East-West Centre, Population Council and private sponsorship have supported additional fellows from Australia, Viet-Nam, Republic of Korea (two) and Papua and the Trust Territory of New Guinea (two).

WHO has completed a five-year health education advisory services project in Malaysia resulting in the establishment of a health education division in the Ministry of Health. Health education is being organized in training programmes for medical personnel, health workers, school personnel and community leaders.

The newly established health education service in the Ministry of Health, Viet-Nam, has made its first contribution by assisting in the cholera and plague control campaigns and in developing health education in the teacher training colleges.
The New South Wales Health Department in Australia has established a health education division.

A health education specialist has been appointed to the Department of Public Health in Guam.

The Korean Government has established a health education technical advisory committee to the Minister of Health and Social Affairs. A health education unit is being organized in the Ministry and the Government has requested the services of a WHO health education adviser at the national level.

Health education specialist training has progressed in Japan through the initiation of a programme to offer a diploma in public health with specialization in health education at the Institute of Public Health. A health sociology professorship has been established, and a health education specialist appointed to this post, at the new School of Health Sciences in the Faculty of Medicine, University of Tokyo. The incumbent will be responsible for graduate and undergraduate programmes in the field of health education.

The professor of health education in the School of Public Health, Seoul National University, Republic of Korea, returned from a WHO-sponsored fellowship and is reorganizing the School's health education curriculum. Preparations are also being made to offer courses for health education specialists. A second health education faculty member is on a Population Council-sponsored fellowship at the School of Public Health, University of California.

The New Zealand diploma in health education course given by the Department of Health and Victoria University in Wellington has expanded its facilities to accept male students.

In the Philippines, post-graduate courses for school health education instructors of teacher training colleges have been developed at the School of Education, University of the Philippines, and the Philippine Normal College.
A course was initiated at Port Moresby, Papua and the Trust Territory of New Guinea, in May 1967, to train staff from medical, nursing, health inspector, school teacher and community development worker groups in health education methods and techniques.

WHO has assisted Singapore to include health education in the teacher training college and courses for nurses and public health inspectors.

School health education

The scope of the WHO/UNICEF-assisted school health education project in the Philippines has been broadened to include private and vocational schools and colleges. A number of regional health education work conferences have been conducted. Major attention has been given at the national level to preparing health education teaching guides for elementary and secondary schools and colleges.

In New South Wales, Australia, a health education post has been established in the Department of Education with initial efforts concentrating on teacher training and the development of a curriculum.

In Singapore, the Ministry of Health is co-operating with the Ministry of Education in planning the health education aspects of the curriculum for the teacher training college, in preparing the health education content of textbooks and in organizing health education programmes for the government-sponsored television service.

In China (Taiwan), Fiji, Malaysia, New Zealand and Tonga, attention is also being given to the health education aspects of curricula for schools and for the training of teachers.

Increased attention is being given to studying the nature of the social, psychological and educational factors found in population groups being served by health programmes in order to provide a more scientific and reliable basis upon which to develop meaningful and effective educational activities in these programmes. Special studies undertaken during the past year in Australia, Papua and the Trust Territory of New Guinea, Philippines, and the Republic of Korea are providing invaluable guidelines for developing health education training and planning the educational aspects of health programmes.
Throughout the Region, extensive attention is being given to the development of health education as an integral and basic element of government health services. There has been an increasing tendency for health education personnel to work with health directors and staff on the development of effective educational approaches within the framework of major health programmes.

The New Zealand Government utilized the World Health Day theme "Partners in Health" to embark on a nation-wide campaign that brought about exceptionally rewarding participation, interest and offers of active support for the nation's health programmes from a large contingent of civic agencies.

6.6 Maternal and Child Health

An important achievement in the field of maternal and child health during the period under review was the multiple seminar on paediatric education, which was held in Manila, Kuala Lumpur, Saigon, Seoul and Taipei between February and April. Part V of the Report contains a detailed account of this project.

The regional maternal and child health programmes continue to be developed with the intention of integrating them as soon as possible into the general health services. There is almost everywhere a growing interest in family planning and although in a number of countries programmes in population control have been developed separately, the importance of incorporating them into the maternal and child health programme is being continuously stressed. In some countries family planning has helped to give a new impetus to maternal and child health, including larger financial resources. It is now, fortunately, almost generally accepted that no satisfactory results can be expected from an isolated family planning programme and that this should be closely connected with and followed up by maternal and child health services.

Since lack of trained staff continues to be one of the main obstacles to the implementation of maternal and child health programmes, training continues to be the most important activity of all maternal
and child health projects. Throughout the Region, therefore, WHO is assisting training programmes in maternal and child health for medical officers, public health nurses, paediatric nurses, midwives, auxiliary midwives and traditional birth attendants. More and more the midwife, fully-qualified as well as auxiliary, and sometimes even the traditional birth attendant, is becoming the focal point of the maternal and child health work provided she is properly supervised. Her easy access to the homes and the minds of the people qualify her to be the health educator "par excellence" and now that her training has been expanded to include child care, she is able to provide excellent protection for mother and child from the moment of conception until the time the child reaches its first birthday. Even during the toddler stage the midwife can still be a source of useful advice and guidance for the mother, although the implementation of the health measures suggested will have to be effected at the child-welfare clinics. The most recent activities in maternal and child health training are taking place in the South Pacific territories where a WHO/South Pacific Commission maternal and child health team continues to visit territories for periods of four to five months to conduct in-service and refresher training courses for the maternal and child health staff. As more trained staff become available, it is possible to improve and expand existing maternal and child health services, and this is what is happening in most countries of the Region. As a result, the health coverage of mothers and children is improving and maternal and infant mortality and morbidity are gradually being reduced.

Although there is more awareness of the needs of the pre-school child, it has proved to be rather difficult to reach this often-forgotten category. In China (Taiwan) the creation of day-care centres, to enable the wives of farmers to assist their husbands in the fields, has proved to be an excellent way of reaching this group. It has been decided that the staff of such centres should have adequate training in simple health matters, while the constant medical supervision of the children should be done by the medical staff of the nearest health station.
Interest in school health, as a natural continuation of maternal and child health programmes, continues to increase, and in most countries there are school health services, although in some these are still limited to the main cities. Sometimes school health comes administratively under the department of education, but fortunately in most of these cases there is an inter-departmental committee consisting of representatives of the departments of health and education to advise on school health matters.

There is a growing awareness of the need for social services for children, and since such services nearly always contain an important health factor, the assistance of WHO is often requested. In Viet-Nam, a WHO nurse was assigned as short-term consultant to assist the Government in upgrading health conditions in the orphanages in the country, particularly in the nurseries for orphans under one year of age. The day-care centres in China (Taiwan) are also a part of a social services project for children. More and more it becomes clear that the health of children and their mothers depends to a great extent on social conditions and, as a consequence, it can be expected that WHO assistance will be sought more and more in this field.

Nearly half of all maternal and child health work is concerned with nutrition and there is an increasing integration of maternal and child health and nutrition projects throughout the Region. The applied nutrition projects will make full use of existing services for mothers, infants, pre-school and schoolchildren. School teachers are also becoming more involved in maternal and child health activities and are preparing the community to accept the advice and services offered.

No report on maternal and child health activities would be complete without making mention of the invaluable assistance provided by UNICEF to almost all maternal and child health projects in the Region.
7. ENVIRONMENTAL HEALTH

The main objective of the programme has remained the strengthening of environmental sanitation services both as regards staffing and the systematic provision of sanitary installations. Action has taken different courses in the rural areas, where projects have been operated on a pilot basis as a start towards the development of country-wide sanitation programmes, and in the urban areas where assistance has been planned for large-scale municipal projects.

Consistent with the specific needs of the various countries, progress has continued in the strengthening or establishing of public health engineering units, training of environmental sanitation staff, construction of rural water supply projects and the development of general sanitation programmes. Where results could be assessed in terms of number of people connected to water supply systems, of sanitation workers trained or sanitary units built, accomplishments have been satisfactory. Assessment is not easy for other activities as, for instance, the benefits derived from the organization of a central structure for public health engineering would only become apparent in several years' time.

As a general consideration, it can be stated that needs have grown at a faster rate than the capacity of the countries to satisfy them, the chief cause being the high rate of increase in population, which affects especially the urban areas.

The scarcity of trained personnel; the inadequacy of the budget devoted to environmental health activities; the lack of co-ordination and co-operation among the several agencies having jurisdiction over environmental health problems; the lack of an integrated plan of action, are all factors which have tended to hamper the achievements of the programmes.

The establishment of public health engineering units has continued to have priority, since this represents the basic step towards the identification and solution of problems. The formulation of a programme
SAFE WATER FOR THE PEOPLE is part of WHO's programme of assistance in environmental health. Water supplies in urban and rural areas, islands and mainland, is Number One problem facing most countries in this part of the world. As in the past, and even more in the future, WHO is helping governments to prepare sound plans for the development of water supplies as an integral part of their economic and social progress. Photo shows cemented well and pump in Laos, as part of a rural health development project assisted by WHO and several other international agencies.

URBAN DEVELOPMENT is becoming more and more important nowadays as a result of the migration of rural population to the towns. Unfortunately, very often health problems are multiplied by the rapid development of huge urban areas. However, there are exceptions. Photo shows new low-cost buildings in the suburbs of Singapore. This is an example of "integrated" urbanization. The market place (in the middle) was built at the same time as the surrounding blocks of flats. Health centres and schools are also provided for the inhabitants of these mushrooming boomtowns. A WHO seminar on health planning in urban development is scheduled to take place in Singapore in November-December 1967.
and the availability of qualified personnel to carry it out are, in effect, the basis of all future action and should be supported by promotional and liaison activities and supervision and control functions, all originating from the same unit. This broad scope of work implies that the executive officers of the public health engineering unit should be at a very high level. This is not always possible to achieve within the ministry of health as the establishment of new posts is often subject to limiting conditions. It is also difficult to obtain the transfer or secondment of personnel from the ministry of public works to the ministry of health because there is some reluctance in leaving an established and recognized career for one which has a more doubtful future in comparison.

In the year under review, the attitude of governments has not undergone any specific changes with respect to environmental health programme planning. In countries where national planning and a corresponding health plan are being implemented or formulated, the tendency has been to use engineering advisory services in the broad sense and to train nationals to fill the proposed posts in the environmental health services scheme.

In countries with scattered populations in rural surroundings, engineering advice has been given to local and central governments in connexion with programmes for individual and public water supplies and excreta disposal.

In countries where environmental health services are already well-established, governments have requested assistance in some specific and more sophisticated facets of sanitary engineering, such as food sanitation and control of air and water pollution. They are also becoming aware of the need for phased programmes leading to the construction of the essential facilities for water supply, sewerage and solid waste disposal.

In Cambodia, a WHO sanitarian is assisting in a training programme for sanitation staff and in the development of sanitary installations in rural areas. A new project on public health engineering advisory services at the ministry level has been planned and is scheduled to start in 1968.
In China (Taiwan), the formulation of an environmental health plan is a difficult undertaking because of the number of agencies having jurisdiction over the conditions of the environment. The WHO engineer has continued to perform successfully his functions of liaison between the Public Works Department, the Taiwan Institute of Environmental Sanitation and other agencies concerned with environmental health. With this assistance, plans have been formulated for a water pollution control programme. The sanitary sewerage needs of the Taipei metropolitan area have been investigated by a consultant mission and, as a result, the Government has submitted a request to the United Nations Development Programme/Special Fund component for assistance in pre-investment studies. UNICEF assistance has led to the construction of many additional water supplies but in spite of the marked increase in new water connexions, improvements have not kept up with the increase in population during the same period.

In the Republic of Korea, a WHO sanitary engineer started his assignment as adviser at ministry level during the period under review while a sanitarian continued to give assistance in training and rural construction as a member of a local health services team. A reorganization of the environmental health section has taken place but has not led to the recommended upgrading of the section to the status of bureau. A reorganization of the training programmes for environmental health personnel is in progress. It is expected that a national environmental health programme can be formulated in the coming years to fit in with the national health plan under study.

In Laos, the WHO sanitarian attached to the project for rural health development has continued to assist in the training of sanitation personnel and in the development of simple sanitation works for rural communities.

In West Malaysia, advisory assistance given at the federal level has led to a concrete proposal for the establishment of a central division of public health engineering and of regional offices. In the rural health service project the WHO sanitarian has continued to train local staff
and to assist in the development of rural sanitation programmes. Similar functions have been performed by a WHO sanitary engineer in East Malaysia.

In the Philippines, a project on food sanitation was started and two projects - environmental sanitation training and advisory services - terminated, after many years of assistance. In the training project, a high percentage of sanitary inspectors in service were put through a ten-week programme of theoretical and practical instruction. The major accomplishment of the advisory services project was the decentralization of the public health engineering division with the creation of regional offices and the awareness it brought concerning the problems which need to be surmounted in the future. The establishment of a food sanitation unit within the Division of Environmental Health and the development of a phased programme of work have been the accomplishments of the recently started project on food sanitation.

In the pre-operational phase is the project of studies for a master plan for a sewerage system for the Manila metropolitan area to be conducted by the Government with the assistance of the Special Fund component of the United Nations Development Programme. WHO is the Executing Agency. A WHO project manager and a national project director have been appointed. The final text of the plan of operation has been prepared and the selection of the consulting engineering firm which is to perform the work is well under way.

Another project, advisory services in community water supply, scheduled to be implemented in 1967, has not started yet due to delays in recruitment.

In Tonga, WHO assistance came to a close in December 1966 after more than eight years. Within the scope of the plan of action, accomplishments were extremely good as the construction of public and individual water supplies and latrines was pursued throughout the life of the project. Also, the interest of the people was stimulated through village participation, health education and the physical impact of the facilities constructed.
In Viet-Nam, it has not yet been possible to develop a national or regional plan but a team, consisting of an engineer and a sanitarian, is assisting the Government in dealing with environmental health problems mainly at the municipal level. The sanitarian has devoted part of his activities to port sanitation. A specialist on rat control was added to the team on a short-term assignment. He studied the feasibility of checking the rat population in the City of Saigon on the basis of research work undertaken in a pilot area. Planning has been completed for the extension of WHO assistance by establishing two new engineering posts in Da Nang and Cantho to advise the Chiefs of Health Zones II and IV, respectively.

In the South Pacific area, the WHO inter-country team, based in Suva, was strengthened with the addition of a second sanitary engineer in January 1967. The project has continued to give assistance to the participating countries in the planning, technical appraisal and supervision of the construction of piped water supplies built with central and local government funds and UNICEF assistance. Operations continued in Western Samoa, Fiji and Tonga (where specific WHO assistance terminated in 1966). New plans of operation were prepared for Niue and the Gilbert and Ellice Islands.

In Singapore, requests for WHO assistance for the years 1967, 1968 and 1969 have been received in connexion with environmental sanitation planning and also for specialized fields such as solid waste disposal.

In Australia, Japan and New Zealand, problems in environmental health are also important but they are of a very different character to those discussed above. In these three countries, WHO assistance has been confined to occasional fellowships for specific purposes or attendance at seminars, and the exchange of information.

It is believed that substantial progress has been made in the field of environmental health in all countries of the Region. However, much is still to be done, particularly in the development and improvement of water supplies, waste disposal and food sanitation. UNICEF assistance
for rural water supplies and training programmes has been most useful in the South Pacific area and in all the other countries where rural health programmes are operational.

8. HEALTH STATISTICS

The provision of comprehensive vital and health statistical data which can provide a basis for the planning, operation and evaluation of new and existing health services is still a challenge faced by health administrations in the Region. During the period under review, there have been developments and significant changes in many respects, yet a tremendous amount of work still remains to be done if the goal of well-organized national health statistical services is to be achieved. Member governments have shown increased interest in receiving assistance designed to improve their vital and health statistical services but the various stages of development among the countries in the Region impose different priorities and a wide variety of approaches. Some countries are making use of the fellowship programme to obtain training for personnel in key positions, some are organizing national programmes with the assistance of WHO consultants, while others are interested in long-term programmes with WHO assisting in the overall organization of a statistical service.

One of the most important features in all programmes is the improvement of the quality of basic data and often this is achieved by stages, beginning with statistics at institutional level such as hospitals, health centres and dispensaries, followed by integrated systems, up to national level. The training of statisticians at all levels is therefore an important aspect of the assistance given if services are to be organized and achievements consolidated.

A WHO statistician and a professor in biostatistics have been assigned to the University Hospital, Faculty of Medicine, University of Malaya. Medical record forms have been prepared and revised, recording procedures established which will permit control of both medical care and the accuracy and completeness of the data at each stage during the
management of patients in the hospital, and an efficient record-keeping system developed that will facilitate the retrieval of records. Up-to-date systems of hospital statistics have been evolved, including indexing and coding procedures, and plans made for the use of mechanical data processing equipment. In-service and formal training courses in medical records are being conducted. The visiting professor has organized a preliminary course in statistical methodology for special students. Plans are being made for the formal courses which will start during the next academic year. Teaching of biostatistics will be introduced in the medical curriculum.

A WHO consultant has assisted the Ministry of Health, Viet-Nam, in the reorganization of vital and health statistical services in the Saigon-Cholon area. His participation was initially directed to the reorganization of hospital and health centre statistics and to advising on how better use could be made of the Central Office of Health Statistics. As in other places, trained personnel are difficult to find and in-service training of the staff of the Central Office formed part of his duties. It is considered that formal training at a higher level will be necessary and the award of fellowships to allow qualified personnel to study abroad is under consideration. The advisory assistance provided for the six-month period stimulated the Government to request an extension of the consultant's services for a further period of five months.

The Government of Singapore has requested the advanced implementation of a project originally planned for 1968. A consultant will assist in the organization of a statistical research centre in the Ministry of Health and advise on the collection of health statistics, including hospital statistics.

In Cambodia, an epidemiology and health statistics project is in progress. The lack of a counterpart, who was being trained in France on a WHO fellowship, retarded the early stages of this project. With his arrival in November 1966 and the support offered by the higher authorities of the Ministry of Health, it is hoped that the plans
drawn up for the reorganization of hospital, health centre and dispensary statistics and for the establishment of a central office will soon become a reality.

A WHO statistician is assisting the tuberculosis campaign in Hong Kong (see paragraph 2.7). Plans are now being made to meet requests from Laos and the Republic of Korea for assistance in establishing integrated health statistical services and from Tonga for assistance in a hospital medical records project.

A regional seminar on hospital medical records was held in Manila in November and December. The participants discussed the standards desirable for hospital medical and other records related to the quality of patient care; methods of compilation and comparability of hospital statistical data; the encouragement of the use of hospital statistics; the organization, administration and functions of medical records departments, and desirable standards for the training of their personnel. The evaluation made following the seminar showed that the participants had acquired experience and new knowledge in the organization, administration and operation of a medical records department.

9. EDUCATION AND TRAINING

A health manpower shortage applicable to most categories of health workers remains a constant problem in many countries of the Region. The shortage in several instances hinders the establishment of basic health services which have come to be recognized as a prerequisite to the successful implementation of any specialized health project.

In the more rapidly developing countries where socio-economic standards continue to rise there is a concomitant demand for improved health services, which situation calls not only for more personnel but also for different categories of personnel. Training institutions in such countries are heavily taxed in their endeavours to meet requirements.
The regional seminar on education and training on the subject, training of auxiliary health personnel, held in Manila from 24 to 31 October 1966, fully considered the health manpower situation. One of the principal conclusions reached was that bearing in mind the present widespread shortage of health manpower, particularly in the professional field, there was a great need for countries to include the training and proper utilization of auxiliary personnel in their national plans for health development.

A "brain drain" to some extent is being experienced by most countries in the Region. Unfortunately, the developing countries where salaries and working conditions are usually less favourable are more susceptible to the adverse effects of loss of personnel. The "brain drain" is by no means confined to the international sphere. In fact, in many countries the internal "brain drain" poses a most serious problem, caused by the attraction to the cities of the better trained personnel and leaving the health facilities in the poorer rural areas severely lacking in health manpower resources.

To meet the problem of shortage of health personnel, WHO has contained an element of training in practically all its activities. More specifically, the Organization's programme under the heading of Education and Training has included provision of consultants to survey training requirements, lecturers to assist in the development of teaching programmes in medical schools and public health institutes, sponsorship of numerous educational meetings and training courses for various categories of health personnel, as well as the awarding of a large number of fellowships to health workers for specialized study and observation outside their own countries.

9.1 Medical Education

Medical schools throughout the world continue to experience a shortage of teachers especially in basic medical sciences and preventive medicine. The shortage is being perpetuated by the availability of more teaching opportunities, particularly in new medical schools, as well as
the enticement of higher salaries being offered in the better developed countries.

Evidence of the teacher shortage is seen in Laos, where WHO has provision to assist in the development of the teaching programme in the Royal School of Medicine; efforts to recruit full-time lecturers in preventive and social medicine, physiology and pathology have so far been unsuccessful. The only possible alternative to full-time staff appears to be the recruitment of short-term consultants and there are hopeful signs that the three posts can be filled in this way.

In the new Faculty of Medicine, University of Malaya, Kuala Lumpur, construction of the large medical school teaching hospital complex is nearing completion. The first patients were admitted to the hospital in March 1967. The first group of students is expected to graduate from the school in 1969.

WHO assistance to the Faculty has been increased. Prior to the year under review, the services of two WHO staff members, a nurse educator and a tutor in laboratory technology were provided. Three more WHO staff have now been added - a second nurse educator, a medical records officer and a biostatistician. The nurse educators and the medical records officer are concerned with the organization and development of their respective programmes in the teaching hospital, while the tutor in laboratory technology assists in the running of a three-year course for laboratory technicians required for the hospital and the medical course. The first group of laboratory technicians will complete the course at the end of 1968. The biostatistician is involved in the teaching programme of the medical students. The development of the Faculty has been further assisted by the granting of WHO fellowships to staff in the fields of nutrition and psychological medicine.

A consultant for one month was provided to assist the Faculty of Medicine, Department of Social Medicine and Public Health of the University of Singapore, in the teaching of applied nutrition for the 1966-1967 Diploma of Public Health course and a consultant in cardiology
is now being recruited for assignment in the second half of 1967. The Organization also provided two six-month fellowships, one in public health administration and the other in industrial health.

Assistance to the Fiji School of Medicine continued during the year. A WHO fellow, who will take up a teaching post in biology at the School, entered his third year of training in New Zealand. At the Fiji School itself, eleven WHO fellows from surrounding territories are studying medicine.

With an offer of financial support from the Josiah Macy Jr. Foundation of New York, a move was initiated in Manila in March 1967 to establish an association of medical colleges. Such an association would make a valuable contribution to raising the standard of medical education in the Philippines and is being encouraged by WHO. Associations of this nature in countries with many medical schools are most desirable and can make a worthwhile contribution to the raising of standards of medical education.

9.2 Public Health Training

A WHO consultant studied the health manpower situation in Viet-Nam with particular reference to the availability of training facilities and courses for health personnel and recommended the establishment of a national institute of hygiene and public health to train various categories of health workers in the public health field. During the consultant's visit, satisfactory arrangements were made for groups of Vietnamese medical officers, working principally in public health, to visit China (Taiwan) to observe public health training programmes and activities in that country. Inter-country visits of this nature, arranged and sponsored by the countries concerned are to be encouraged as they offer excellent opportunities for the free exchange of ideas and information.

In China (Taiwan), the services of a WHO consultant in public health nursing education were provided to the Institute of Public Health, National Taiwan University. A comprehensive review and appraisal of
existing training programmes in the Institute was made and the consultant's report containing a number of recommendations to strengthen the teaching programme was presented to the Government.

A major reorganization of public health training took place during the year in the Republic of Korea. In February 1967, the name of the National Institute of Health was changed to the National Health Research Institute and simultaneously, the Government announced a new policy to modify its courses in the Institute. It is unfortunate that formal courses are to be replaced with shorter in-service programmes. Some shortened programmes will be continued in the Institute, while others, such as the public health course for medical officers, will in future be given at provincial level, in the form of two- to three-day seminars. The effect of these short seminars would be greater if the medical officers had received formal public health training. The twelve-week courses in public health nursing for health centre/school nurses will be curtailed. The need for these supplementary courses will decrease with the integration of public health nursing in the basic curriculum of schools and colleges of nursing, the introduction of a one-year Certificate in Public Health Nursing course in the School of Public Health, Seoul National University, and the establishment of supervisory services in public health nursing at national and provincial level. An expanded training programme for multi-purpose auxiliary level health workers is being developed through the Institute.

In the School of Public Health, Seoul National University, difficulties were encountered by WHO in recruiting a full-time public health administrator to assist in the development of the school's training programme. However, in late 1967, the services of two consultants, one in public health training and the other in public health nursing, are to be provided. Both consultants will review and make recommendations on the teaching programme in their respective fields.

Several discussions were held during the year between WHO staff members and the Malaysian health authorities on the proposed development
of training programmes in the Public Health Institute in Kuala Lumpur.
The principal function of the Institute will be to train health workers
for the country's extended rural health programme over the next ten years.
Until 1967, only two courses, one for public health nurses (health visitors)
and the other for public health inspectors, were given. However, with a
recent reorganization of the Institute and the establishment of six
Divisions (Community Health, Environmental Health, Public Health Practice,
Applied Nutrition, Epidemiology and Malaria Eradication Training), it is
planned to offer several additional courses, including basic training for
junior laboratory assistants, a public health overseer's basic course,
courses for malaria workers, orientation courses for physicians, refresher
courses for various categories of health workers, as well as the holding
of seminars and workshops. Existing rural health training centres will
be used for field training.

Staffing the Institute with teachers is likely to be a major
problem, requiring international assistance, and the possibility has
been raised with the Government of the project qualifying for United
Nations Development Programme (Special Fund) assistance.

The programme of awarding fellowships to senior faculty members of
schools of public health in the Region to visit countries sending students
to those schools was continued. A faculty member of the Department of
Preventive and Social Medicine of Otago University Medical School, New
Zealand, as well as a member of the Faculty of the Institute of Hygiene,
University of the Philippines, were awarded such fellowships.

In February 1967, the Cabinet Council in Laos announced its approval
in principle of the creation of a school of public health intended to
standardize training for all categories of paramedical personnel. The
school will come under the direction of the Ministry of Public Health
and will be incorporated in the Royal School of Medicine.

A plan of operation for assistance to the Institute of Hygiene,
University of the Philippines, was signed by the Government and WHO in
late 1966. The agreement calls for WHO to provide a number of experts
in various public health disciplines to assist in the teaching programme. A cultural anthropologist will be the first expert to be provided in 1968. The granting of fellowships to strengthen the faculty staff is expected to commence in 1967.

9.3 Other Education and Training Activities

The project in the Institute for Medical Research, Kuala Lumpur, to raise the standard of laboratory technician training concluded in December 1966. (See Part V for a description of this project.)

9.4 Fellowships

During the period under review, the number of individual regional fellowships awarded reached the figure of 252 representing an increase of about 7% over the past year. These do not include special awards processed for participation in inter-country and inter-regional educational meetings and courses which are listed under the next section on Educational Meetings and Courses.

The graph on the following page illustrates that the most common fields of study were malaria, public health administration, nursing, environmental health, maternal and child health and health education.

Some other aspects of the individual regional fellowships awarded are analyzed below:

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<tr>
<th>Profession of Fellows</th>
<th>Fields of Activity</th>
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<tbody>
<tr>
<td>Physician</td>
<td>Teaching</td>
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<tr>
<td>81</td>
<td>27</td>
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<tr>
<td>(32%)</td>
<td>(10.7%)</td>
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<tr>
<td>Nurse</td>
<td>Research</td>
</tr>
<tr>
<td>37</td>
<td>2</td>
</tr>
<tr>
<td>(15%)</td>
<td>(0.8%)</td>
</tr>
<tr>
<td>Sanitarian</td>
<td>Medical and health services</td>
</tr>
<tr>
<td>23</td>
<td>217</td>
</tr>
<tr>
<td>(9%)</td>
<td>(86.1%)</td>
</tr>
<tr>
<td>Others</td>
<td>Undergraduate study</td>
</tr>
<tr>
<td>111</td>
<td>6</td>
</tr>
<tr>
<td>(44%)</td>
<td>(2.4%)</td>
</tr>
<tr>
<td>I HEALTH ORGANIZATION AND SERVICES</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
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<tr>
<td>ORGANISATION DE LA SANTE ET SERVICES DE SANTE</td>
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<tr>
<td>Public health administration - Administration de la santé publique</td>
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<tr>
<td>Nursing - Soins infirmiers</td>
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<tr>
<td>Environmental health - Hygiène du milieu</td>
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<tr>
<td>Maternal and child health - Protection maternelle et infantile</td>
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<tr>
<td>Health education - Éducation sanitaire</td>
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<td>Dental health - Hygiène dentaire</td>
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<td>Mental health - Santé mentale</td>
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<td>Rehabilitation - Résadaptation</td>
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<td>Health statistics - Statistiques sanitaires</td>
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<td>Occupational health - Médecine du travail</td>
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<tr>
<td>Nutrition</td>
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<tr>
<td>Drug control - Controle des médicaments</td>
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<table>
<thead>
<tr>
<th>II COMMUNICABLE DISEASES</th>
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<tr>
<td>SERVICES DES MALADIES TRANSMISSIBLES</td>
</tr>
<tr>
<td>Malaria - Paludisme</td>
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<tr>
<td>Tuberculosis - Tuberculose</td>
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<tr>
<td>Laboratory - Laboratoire</td>
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<td>Leprosy - Lèpre</td>
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<td>Other communicable diseases - Autres maladies transmissibles</td>
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<table>
<thead>
<tr>
<th>III MEDICAL EDUCATION, CLINICAL AND BASIC SCIENCES</th>
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<tbody>
<tr>
<td>ENSEIGNEMENT MEDICAL, SCIENCES MEDECINALES CLINIQUES ET FONDAMENTALES</td>
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<tr>
<td>Radiology - Radiologie</td>
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<tr>
<td>Basic medical sciences - Sciences médicales fondamentales</td>
</tr>
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<td>Undergraduate medical assistant studies - Formation universitaire des assistants médicaux</td>
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<td>Clinical medicine - Médecine clinique</td>
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<td>Other medical and surgical specialties - Autres spécialités médicales et chirurgicales</td>
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</table>
Types of Studies Arranged

<table>
<thead>
<tr>
<th>Type of Study</th>
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</thead>
<tbody>
<tr>
<td>WHO-sponsored courses</td>
<td>42</td>
<td>16.7%</td>
</tr>
<tr>
<td>Other courses</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>Individual studies</td>
<td>209</td>
<td>82.9%</td>
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</table>

Place of Study

<table>
<thead>
<tr>
<th>Region</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>In WPR countries</td>
<td>102</td>
<td>40.5%</td>
</tr>
<tr>
<td>In other regions</td>
<td>118</td>
<td>46.8%</td>
</tr>
<tr>
<td>In WP and other regions</td>
<td>32</td>
<td>12.7%</td>
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</table>

A total of fifty fellows from other regions arrived in WPR countries during the period for long- and short-term study programmes. The breakdown by region of origin is as follows:

- **AFRO**: 6 (4)
- **AMRO**: 4 (9)
- **EMRO**: 16 (8)
- **EURO**: 2 (9)
- **SEARO**: 22 (8)

The figures in brackets refer to fellowships in malaria control undertaken at the Malaria Eradication Training Centre in Manila.

The World Health Organization gratefully acknowledges the ready co-operation and willingness of countries in the Region to receive fellows for academic courses as well as observation visits.

9.5 Educational Meetings and Courses

The inter-country educational meetings and courses held during the year are listed in Part VI. WHO financed the attendance of 171 participants at these meetings.

A total of thirty participants from the Region took part in fourteen inter-regional seminars and courses of less than a month's duration. These seminars and courses are listed below:

(a) Advanced Course on the Use of Computers in Human Genetics, Ann Arbor, Michigan, United States of America, 14-28 August 1966;
(b) Travelling Seminar on the Organization of Epidemiological Services and their Role in the Control of Communicable Diseases, Union of Soviet Socialist Republics, 18 August - 7 September 1966;
(c) Conference of Directors of Schools of Public Health, Geneva, 29 August - 2 September 1966;
(d) Travelling Seminar on Community Water Supply, Union of Soviet Socialist Republics, 8-30 September 1966;
(e) Travelling Seminar on the Preparation of Teachers for Medical Schools, Union of Soviet Socialist Republics, 15 September - 4 October 1966;
(f) Travelling Seminar on Nursing, Union of Soviet Socialist Republics, 6-28 October 1966;
(g) Seminar on Rodents and Rodent Ectoparasites, Geneva, 24-29 October 1966;
(h) Symposium on Developmental Work in Community Water Supply, Teheran, 24 October - 3 November 1966;
(i) Course on Cholera Control, Beirut, 2-15 November 1966;
(j) Course on Radiological Health Inspections, Rockville, Maryland, United States of America, 7-18 November 1966;
(k) Seminar on Prevention of Re-establishment of Malaria from Areas where the Disease has been Eradicated, Washington, D.C., and Atlanta, Georgia, 14-21 November 1966;
(l) Travelling Seminar on Organization of Medical Care, Union of Soviet Socialist Republics, 6-29 April 1967;
(m) Third Inter-regional Training Course on Cholera Control, Calcutta, 24 April - 13 May 1967;
Thirteen fellowships were also awarded to enable participants from the Region to attend the following long-term (more than one month's duration) inter-regional courses:

(a) Course on Nursing Service Administration, Hillerød and Copenhagen, 26 August - 8 October 1966;
(b) Advanced Training Course in Diagnosis, Treatment and Prevention of Major Cardiovascular Diseases, Copenhagen, 1 November 1966 - 30 June 1967;
(c) Anaesthesiology Training Course, Copenhagen, January - December 1967;
(d) International Course in the Epidemiology and Control of Tuberculosis, Rome, 15 February - 31 May 1967;
(e) Course on Child Dental Health, Copenhagen, 1 March - 27 May 1967;
(f) International Course in the Epidemiology and Control of Tuberculosis, Czechoslovakia, Denmark and India, 27 April - 16 September 1967.
PART II. PUBLIC INFORMATION
1. PRESS AND PUBLICATIONS

Since the stocks of the two regional public information booklets published in 1965 ("The Health of People in the Western Pacific Region," printing: 15,000 copies) and 1966 ("Fifteen Years of Health Activity in the Western Pacific Region," printing: 5,000 copies) had expired, a new twenty-page booklet entitled "Activities of the WHO in the Western Pacific Region" was published and 10,000 copies printed in May 1967. The booklet gives twelve pages of facts and figures about the present health situation in the Region. It is completed by a six-page feature on cholera and environmental health, two of the main subjects of concern in this part of the world. The United Nations Information Centre in Sydney has already requested 2,000 copies for distribution in Australia.

Information Booklet No. 5, "Facts About Tuberculosis" (English and French) and No. 8, "Facts About Cholera" (English) have been reprinted for the third time: a total of 15,000 copies have now been printed.


In order to increase the free distribution of information material in the Region, arrangements have been made for the Division of Public Information, WHO Headquarters, to send to the Regional Office back issues of WORLD HEALTH devoted to specific subjects. Several thousands of copies have been received and distributed.

During the period under review, a total of forty-five press releases, nine special features and twenty-one press notes have been issued in both working languages. In some cases, press notes are now accompanied by photographs.

Requests for information material continue to grow. A large proportion of these come from Australia; New Zealand and Malaysia come next. Unfortunately, these requests cannot be complied with by airmail, because of WHO's limited financial possibilities. Nevertheless, a standard letter
is always sent by airmail, informing the addressee that the material is on its way by surface. In spite of this, the postal charges of the Public Information Office often equal and sometimes even exceed those of the Regional Office as a whole. This gives an idea of the bulk of information material distributed throughout the Region.

2. WORLD HEALTH DAY

The theme of World Health Day 1967 was "Partners in Health". This was particularly well received, since it could be related to one of the main preoccupations of Member States in the Region, namely, the education and training of medical and paramedical personnel. The theme gave an opportunity, both to the Regional Office and to governments, to review the problem of the lack of inadequacy of health manpower in their respective countries and territories. It was a topic of universal appeal, since it could be adapted to all national health situations, even in highly developed countries.

Requests for World Health Day material, particularly visual, far exceeded expectations, both of the Division of Public Information, WHO Headquarters, and the Regional Office. In addition to the material issued by WHO Headquarters, copies of the Regional Director's message, both recorded and printed, and a special article on education and training of medical and paramedical personnel, featuring the situation in the Region, were widely distributed. A display was prepared in the public information exhibit room and this will eventually be circulated throughout the Region.

World Health Day information material was widely publicized in the press and on the radios of many countries and territories. Reports of the observance of World Health Day were received from Australia, Brunei, China (Taiwan), Fiji, Hong Kong, Japan, Laos, Malaysia, New Zealand, Papua and the Trust Territory of New Guinea, Philippines, Republic of Korea, Singapore, Tonga and Viet-Nam.
3. AUDIO-VISUAL MEDIA

Apart from World Health Day, the main event of the year is usually United Nations Week. On the occasion of the last United Nations Week (October 1966) and, as a result of the intensive preparation arranged by the United Nations Information Centre in Manila, the Public Information Unit was faced with innumerable requests, mainly from universities, high-schools and colleges, for talks, hand-outs and exhibit material. Hundreds of photographs and pamphlets of all sorts were distributed. Forty dubbings of the Regional Director's recorded message were sent to all radio outlets in the Philippines. He also took part in a television programme on the same occasion.

Several interviews and round-table discussions have been recorded by local radio stations.

The circulation of films within the Region has been increased owing to the permanent loan of a small film library to the WHO Representative in Suva, Fiji. As a follow-up of the selected distribution of the WHO photograph catalogue, the distribution of photographs has also increased.

Exhibitions of up to thirty panels have been mounted and can now be circulated within the Region. Exhibit material has been despatched for display to Australia, Hong Kong, Malaysia and New Zealand.

4. MISCELLANEOUS

Talks and film shows have been arranged for the steady flow of visitors, amounting to several thousands a year, who visit the Regional Office. Literature is also distributed to them.

The WHO representatives and field staff are making an effort to inform the Public Information Office of the response given to WHO information materials in different countries and territories. Reports and press cuttings enable the unit to have a better idea of the WHO press and radio coverage in the Region.
A great deal of good work is being done by the United Nations associations in countries where these exist.
PART III.

CONSTITUTIONAL AND ADMINISTRATIVE DEVELOPMENTS
REGIONAL COMMITTEE. The 17th session of the WHO Regional Committee for the Western Pacific took place in Manila, Philippines, from 21 to 27 September 1966. The Chairman was Dr. Thor Peng Thong, Director General of Health, Ministry of Public Health, Cambodia. The Vice-Chairman was Dr. S. R. Sayampanathan, Senior Health Officer, Ministry of Health, Singapore.

EDUCATIONAL MEETINGS are a regular part of WHO’s programme of education and training. They enable health professionals from different countries and territories to discuss their problems. Such meetings were held in different places during the period under review. The subjects of discussions were: environmental health, cholera, the training of health auxiliaries, medical statistics, paediatric education and international quarantine.

Photo shows some of the twenty-three (23) participants from 15 countries and territories of the Region who took part in the Seminar on International Quarantine, with emphasis on plague, which was held in Manila from 27 March to 7 April 1967.
1. THE REGIONAL COMMITTEE

The seventeenth session of the Regional Committee for the Western Pacific was held in Manila from 21 to 27 September 1966. The meeting was attended by representatives of all Member States in the Region, and by representatives of France, Portugal, the United Kingdom of Great Britain and Northern Ireland, and the United States of America, attending on behalf of certain territories in the Region. Representatives of the United Nations and the United Nations Development Programme, UNICEF, the International Committee of Military Medicine and Pharmacy, the South Pacific Commission, and eleven non-governmental organizations in official relations with WHO were also present. The Director-General was represented by an Assistant Director-General.

The Committee examined the report of the Regional Director covering the period 1 July 1965 to 30 June 1966. During the discussion, considerable attention was given to the importance of education and training programmes, the departure of trained personnel from the developing countries to other parts of the world, and the measures taken by governments to intensify national communicable disease programmes and to extend mental health programmes. With regard to family planning, a resolution was adopted recommending that Member governments who were interested should consider requesting fellowships to observe operational programmes within the Region or for training in the health aspects of family planning.

The Committee discussed the proposed programme and budget estimates for the Western Pacific Region for 1968 and requested the Regional Director to transmit them to the Director-General.

A review was made of a report presented by the Regional Director containing proposals for a regional smallpox eradication programme and a suggested plan of action. Concern was expressed at reports that vaccination certificates were in some cases being issued to people who had not been vaccinated, and the Committee drew this question to the attention of Member governments.
The Committee noted the action taken in connexion with the resolution on cholera adopted at its previous session. Governments were urged to take advantage of the services of the inter-regional cholera team stationed in Manila.

At the request of the Government of Singapore, an item proposing the establishment of a regional registry on poisoning was discussed. The Committee noted that WHO did not have the resources to tackle this problem in any substantive manner but that the Organization would do its best to disseminate information or to assist any governments to set up their own poison control information services.

Two items proposed by the Government of Portugal were discussed - one on the epidemiology of filariasis, and the other on the epidemiology of endemic goitre in the Western Pacific Region. A resolution was adopted urging governments to continue to study the problem of filariasis and to find more effective ways of controlling the infection.

"The role of the health department in environmental health activities" was the subject of the technical discussions. "The integration of maternal and child health and family planning activities in the general health services" was selected as the subject for the technical discussions in 1967.

2. REGIONAL OFFICE

2.1 Organizational Structure

One change was made in the Regional Office's basic organizational structure. The posts of regional adviser in public health administration and regional public health administration officer were replaced by two new posts, one in community health services and the other in organization of medical care. These new posts have now been filled by reassignment from another region.

A number of staff changes occurred. Dr. Donald R. Thomson was appointed to the post of Director of Health Services by reassignment.
from another region in January 1967. The post of communicable diseases adviser was filled by promotion from within the Regional Office in December 1966 and that of environmental health adviser in September 1966 by the reassignment of a staff member from another region. The post of regional adviser in education and training was filled by the appointment of a new staff member in January 1967. This post had been vacant since August 1964.

In December 1966 the Regional Environmental Health Officer was appointed Project Manager of a new project: master plan for a sewerage system for the Manila metropolitan area. This is assisted by the Special Fund component of the United Nations Development Programme.

Early in 1967, at the request of the Regional Director, two officers from the Administrative Management Unit, WHO Headquarters, spent a period of two and a half months carrying out a survey of the Personnel, Translation, Budget and Finance, and Fellowship Units. As a result of this exercise, improvements are being made in the administrative procedures and management techniques in the units concerned. In addition, one of the management officers visited the WHO Representative's office in Taipei.

2.1.1 WHO Representatives

During the period under review the WHO Representatives in Kuala Lumpur and Seoul retired. Both posts were filled by transfer from the Regional Office. The Kuala Lumpur post was filled in September 1966 and the Seoul post in March 1967.

Some facilities in the offices in Taipei, Seoul and Kuala Lumpur were improved and some furniture and equipment replaced.

The WHO Representatives attended programme planning and country review meetings in Manila in November 1966 and again in April 1967, when advantage was taken to discuss administrative and other matters of concern to the Representatives and the Regional Office.

2.1.2 Project staff

The recruitment of suitable project staff proved to be the most pressing problem. Studies were carried out by the Regional Office
on ways and means to accelerate recruitment procedures within the frame-
work of the Organization's administrative requirements. A number of
improvements were made and these began to be implemented early in 1967.
It is expected that the full effect of this study will become apparent
in 1968.

A comparison between the situation in June 1966 and June 1967 shows
that the overall percentage of filled posts in the Region remains reason-
ably high - 78% in June 1966 and 76% in June 1967. On the same date the
percentage of selections for vacant posts was 7% in 1966 and 37% in 1967.
These percentages exclude Viet-Nam which, in its present special situa-
tion, cannot be considered relevant in assessing regional office recruit-
ment results. In June 1966 the number of Members whose nationals were
employed as project staff was thirty compared with thirty-one in June
1967; nine Members from the Region are represented.

2.2 Salaries and Allowances

2.2.1 Staff in the professional and director category

There was no change in the basic salary scale for staff in the
professional and director categories but there were increases in the
post adjustment in a number of countries within the Region.

2.2.2 Staff in the general service category

There was no change in the salary scale for general service staff
in Manila, but there were increases in those established for Laos,
Republic of Korea and Viet-Nam.

2.3 Regional Office Building

2.3.1 The Conference Hall

The Regional Office Conference Hall was used for nine meetings
of various types. These were either sponsored by WHO or met the criteria
of an international character. The seventeenth session of the Regional
Committee was held in the Conference Hall.
2.3.2 Repairs and maintenance

In addition to normal maintenance operations, a complete repainting of the exterior of the WHO building and Conference Hall was undertaken.

Two concrete water storage cisterns, with a total capacity of 20,000 gallons, were constructed in late 1966 to increase the regional office water supply reserve.

2.4 Regional Obligations

On pages 84 and 85 of this report will be found a graphic presentation and a financial table of obligation totals by fiscal year, for the Region from 1950 to 1966. For the regular budget a comparison of implementation in relation to funds budgeted for the fiscal years 1965 and 1966 shows an 87.6% implementation in 1965 and a 96.6% implementation in 1966. For the United Nations Development Programme, Technical Assistance sector only, the implementation percentage was 99.5% for the biennium 1965/1966. It will be noted from these figures that during the period under review the Region was able to absorb nearly all the funds allocated for its use.
Graph of Obligations Incurred by the World Health Organization Western Pacific Region
1950 - 1966

Millions of US Dollars

Legend:
- Regular Budget
- UNDP (TA & SF)
- Total Budget

Year

1/ Figures extracted from Official Records Nos. 34, 47, 54, 62, 70, 76, 85, 93, 107, 109, 117, 126, 134, 142, 150 and 159
  (Financial reports and reports of the External Auditor to the World Health Assembly).

2/ Includes Voluntary Fund for Health Promotion, Funds-in-trust and Reimbursable Funds.

3/ Includes in 1956 the Region's first UNDP/TF component obligation of $728.
## TABLE OF OBLIGATIONS INCURRED BY THE
WORLD HEALTH ORGANIZATION WESTERN PACIFIC REGION 1/
1950 - 1966
(Expressed in Millions of US Dollars)

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<th>Year</th>
<th>Obligations</th>
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<td>Regular 2/</td>
<td>UNDP (TA &amp; SF)</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>Budget</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>0.32</td>
<td>-</td>
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<tr>
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<td>1966</td>
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<td>1.06 3/</td>
<td>4.64</td>
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1/ Figures extracted from Official Records Nos. 34, 41, 47, 54, 62, 70, 78, 85, 93, 101, 109, 117, 126, 134, 142, 150 and 159 (Financial reports and reports of the External Auditor to the World Health Assembly).

2/ Includes Voluntary Fund for Health Promotion, Funds-in-trust and Reimbursable Funds.

3/ Includes the Region's first UNDP/SF component obligation of $1728.
PART IV.

CO-ORDINATION OF WORK WITH OTHER ORGANIZATIONS
1. CO-OPERATION WITH OTHER ORGANIZATIONS

1.1 United Nations and Other Inter-Agency Programmes

WHO continued to co-operate with individual organizations on matters of common interest. Some examples of joint activities are given below.

There has been close co-operation with the Committee for Co-ordination of Investigations of the Lower Mekong Basin. A public health advisory team is now surveying the health implications of the Mekong development programme with a view to recommending measures to prevent the spread of major diseases and to ensure that basic health services are available.

The surveys in Laos and Thailand have been completed and the one in Viet-Nam is now in progress. Another team, consisting of a parasitologist and a malacologist, completed a preliminary survey to determine whether human bilharziasis existed in Khong Island, Laos. Details of the findings of the team are contained in Part I, paragraph 2.5.1.

WHO continued its activities in connexion with the United Nations joint rural development project in Laos in which ILO, FAO and UNESCO are also participating. Assistance will be given later this year to the National Orthopaedic Centre in Laos. The United Nations Bureau of Technical Assistance Operations and ILO are also supporting the Centre.

In Viet-Nam, a WHO nursing consultant has worked closely with the United Nations Adviser in Family and Child Welfare in an attempt to improve health conditions in the orphanages. The WHO Representative in Taipei has maintained contact with the United Nations Adviser in Child Welfare assigned to the social services project. Such co-operation has proved particularly fruitful in the review of the health syllabus for child-care worker courses.

In Cambodia, the WHO Representative has given advisory services in connexion with the UNESCO teacher training programme. Summer courses have been organized for the school directors and teachers in which great importance is being given to health programmes.
United Nations Development Programme (UNDP)

Close relations have continued with the staff of the UNDP stationed in the different countries of the Region.

The project relating to the development of a master plan for the sewerage system for the Greater Manila area, Philippines, which is assisted by the Special Fund component, went into operation in December 1966. WHO assigned two consultants to assist the Government of China (Taiwan) in formulating a request to the UNDP (Special Fund component) for assistance in planning the design and construction of a sanitary sewerage system for the metropolitan area of Taipei.

Projects financed under the Special Fund and Technical Assistance components of the UNDP are shown in the list in Part VI.

United Nations Children's Fund (UNICEF)

As in previous years, there has been close co-operation and continuous consultation in the planning, implementation and evaluation of government projects with UNICEF, which is giving supplies and equipment to seventy-six WHO-assisted projects in the field. The assistance provided covers many fields, including maternal and child health, nursing, rural health, environmental health and communicable diseases.

As pointed out in various sections of this report, the material assistance provided by UNICEF has done much to stimulate government interest in the expansion of programmes. This is particularly noticeable in the South Pacific area where new requests in several fields are under consideration.

WHO has continued to provide guidance in connexion with the health aspects of a number of social welfare and education and vocational training projects to which UNICEF gives assistance.

World Food Programme (WFP)

Technical advice has been given on WFP projects in the Republic of Korea, China (Taiwan) and the Philippines. WHO is taking an active advisory role in relation to the evaluation of the health aspects of
two WFP projects, China 312 (Environmental Sanitation) and Philippines 182 (Development of Squatters' Resettlement at Sapang Palay).

1.2 Co-operation with Individual Organizations

International Labour Organization (ILO)

In view of the growing interest in occupational health programmes and health insurance schemes and the need to co-ordinate regional programmes in occupational health and aspects of rehabilitation and social security with ILO, a member of the regional office staff visited the ILO office in Bangkok. The ILO Regional Adviser in Occupational Health also visited the Regional Office. It was agreed that ILO and WHO should work in close co-operation in any rehabilitation efforts. It is considered that these visits were most useful and are likely to result in better regional programme co-ordination and in an increase in joint projects in the future. The seminar on occupational health, which will take place in October, is now a joint seminar with participation from ILO staff.

Food and Agriculture Organization (FAO)

During the period under review, joint field visits were made to Malaysia, Singapore and Cambodia by the Regional Nutrition Advisers of FAO and WHO. Effective co-operation and co-ordination have resulted in satisfactory agreements being reached and plans of operations finalized for joint nutrition programmes in Cambodia and the South Pacific. The plan of operation for a joint project in Malaysia is also in an advanced state of preparation. WHO has continued to give advisory services to the pilot project in applied nutrition in Bayambang, Pangasinan, Philippines, in which FAO and UNICEF are also co-operating. A full account of this programme is given in Part I, paragraph 3.5.

An FAO consultant spent six weeks in the Republic of Korea discussing with the Government possible FAO assistance for two nutrition projects. The WHO Representative in Seoul participated in a number of meetings, during which the health aspects of the programme were discussed.
International Atomic Energy Agency (IAEA)

Co-ordination with IAEA is not yet fully developed but full information on WHO-assisted projects and projects in planning in the field of radiation health has been given to IAEA through WHO Headquarters. Discussions were held with the hospital physics adviser of an IAEA project in the Philippines (radioisotope studies) to co-ordinate activities.

1.3 Meetings Attended

Representatives from the Regional Office attended the following meetings:

(a) FAO: Eighth Regional Conference for Asia and the Far East, Seoul, 15-24 September 1966;
(b) ECAFE: Seventh Regional Conference on Water Resources Development, Canberra, 19-26 September 1966;
(c) ECAFE: Seminar on Planning for Urban and Regional Development, including Metropolitan Areas, New Towns and Land Policies, Nagoya, Japan, 10-20 October 1966;
(d) United Nations: Inaugural Meeting of the Asian Development Bank, Tokyo, 23-26 November 1966;
(e) ILO: Thirteenth Session of the Asian Advisory Committee, Singapore, 28 November - 7 December 1966;
(f) FAO/WHO: Seminar on the Planning and Evaluation of Applied Nutrition Programmes in Asia and the Far East, New Delhi, 30 November - 10 December 1966;
(g) United Nations: Seminar on Measures Required for the Advancement of Women with Special Reference to the Establishment of a Long-Term Programme, Manila, 6-19 December 1966;
(h) United Nations: Asian Institute for Economic Development and Planning (Course on Human Resources Development and Manpower Planning), Manila, 23 January - 17 February 1967;
(i) ECAFE: Thirty-First Session (Plenary) of the Committee for Co-ordination of Investigations of the Lower Mekong Basin, Bangkok, 1-6 February 1967;

(j) ECAFE: Twenty-Third Session, Tokyo, 3-17 April 1967;


2. WITH OTHER ORGANIZATIONS

2.1 South Pacific Commission

WHO has maintained its close collaboration with the South Pacific Commission. WHO, FAO, UNICEF and the Commission are co-operating with the Government of Fiji in a nutrition education and training centre project for the South Pacific. The efforts which have been undertaken by these various agencies in the past in the field of nutrition are thus being co-ordinated and integrated. The training will be practical in nature, oriented and applied to the nutritional problems encountered in the field. The trainees will include medical officers and nurses.

The Commission's Executive Officer for Health attended the last session of the Regional Committee. The Secretary-General of the Commission has invited WHO to send a representative to the Seventh South Pacific Conference to be held in Noumea, 3-7 October 1967.

2.2 Other Joint Work

The South Pacific Health Service, through the Inspector-General, has been of considerable assistance in the recruitment of medical and nursing staff for projects within the area. It has also prepared health education material in the local languages for the territories which are members of the Service.

A number of projects in the Region have received assistance from the Colombo Plan, Asia Foundation and the United States Agency for International Development. The list of projects in Part VI contains information on the support given by other agencies.
Representatives of the Regional Office have attended the following meetings organized by non-governmental organizations in official relations with WHO:

(a) Fifteenth Assembly of Delegates of the World Federation of Organizations of the Teaching Profession, Seoul, 2-9 August 1966;

(b) International Union Against Tuberculosis: Fifth Meeting of the Eastern Regional Committee, Tokyo, 3-7 October 1966;

(c) World Medical Association: XXth World Medical Assembly, Manila, 6-13 November 1966;

(d) World Medical Association: Third World Conference on Medical Education, New Delhi, 20-25 November 1966;

(e) Confederation of Medical Associations in Asia and Oceania (affiliated with the World Medical Association): Third Asia and Oceania Congress of Endocrinology, Manila, 2-6 January 1967;


A staff member of the Regional Office was invited to speak on the subject "Non-Governmental Efforts in Public Health" in a panel discussion on "Efforts in Public Health" during the Philippine National Red Cross Nursing Service Institute held in Manila from 9 to 21 June 1967.
PART V. SUMMARIES OF SELECTED PROJECTS
A complete list of projects current during the year will be found in Part VI. The following selected projects are described in fuller detail.

<table>
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<th>Project number</th>
<th>Title</th>
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<td>Cambodia 0009</td>
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<td>Malaysia 0021</td>
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1. RURAL HEALTH TRAINING CENTRE, TAKHMAU

WHO assistance to this project was started in January 1957 with the following objectives:

1. To develop a pattern for an integrated rural health unit consistent with the country's facilities and resources.
2. To conduct practical training and orientation courses for different categories of health and related personnel, utilizing the project area as a demonstration centre.
3. To develop and test public health methods which would strengthen the administration of the country's local health services.

The Centre is located at Takhmau, twelve kilometres from the capital of the country, Phnom-Penh. The activities of the Centre and the Provincial Dispensary cover the entire srok (district) of Kandal Stung with a population of some 90,000 people.

WHO provided a medical officer, a public health nurse, a nurse/midwife, a sanitary and subsequently a sanitary engineer. UNICEF provided water pumps and other equipment and supplies.

A major activity of the project, which lasted for a period of ten years, was the training of national staff as well as the field training of public health nurses and midwives. Over the years, the services provided by the Training Centre have been gradually integrated into those of the Provincial Dispensary. There has also been a gradual acceptance of home-visiting as an essential public health service.

Progress has been made in the administrative organization of the Centre which offers the following services: maternal and child health, including a domiciliary midwifery service; school health, immunization (including BCG immunization conducted in conjunction with a WHO-assisted tuberculosis control project); dental services, etc. The records and filing system is the best developed in the country. In effect, it is believed that the project has stimulated the development
of health centres throughout the country although the standards of these other health centres are still far below those at Takhmau.

Less significant than the above achievements are those in the field of environmental sanitation. The accomplishments in this field were limited to the demonstration of well-boring and latrine construction as well as the field training of "agents sanitaires" in conjunction with another WHO-assisted project.

There were a number of activities which the project was unable to accomplish due presumably to the circumstances prevailing in the country. These included completing the health organization and services on a country-wide basis, the full integration of the preventive and curative services, the preparation of a health service manual, and the establishment of a regular public health training course for provincial health officers and orientation courses in preventive medicine for undergraduate medical students. The laboratory services did not develop as rapidly as had been expected.

The national staff consists at present of the Director of the Centre who is a fully qualified medical officer, two "officiers de santé", ten public health nurses and six midwives. There are also other staff attached to the sub-centres. It is believed that these staff members are qualified to take over the training as well as the service functions of the Centre. As health centres are being built through local initiative at a rate faster than trained staff can be made available to operate them, the Centre at Takhmau will continue to serve as a public health training and orientation base for the Ministry of Health.

The expectation that WHO assistance would interest the Government in undertaking a more extensive project has not been realized. There is a definite need to develop a plan for the systematic establishment and strengthening of a nation-wide network of local health services which is required, not only to improve the health prospects of the people, but to maintain the benefits derived from the communicable disease and other special campaigns in operation. It is hoped that the Government will undertake this more extensive project in the future.
The project's main objectives were to raise the standard of training and establish the Institute's training course in clinical laboratory on a proper footing. WHO assistance began in November 1960 with the appointment of a tutor in clinical pathology but was interrupted in 1961 due to his illness. The project was resumed with the provision of a new WHO instructor in 1962.

A revised three-year training course for laboratory technicians designed to provide comprehensive training in medical laboratory technology was introduced. The first two years are spent on bench apprenticeship in the various divisions of the Institute for Medical Research plus 160 hours of systematic instruction by lectures and demonstrations. In the third year the probationer is employed as a member of the technical staff in one of six approved laboratories.

The WHO instructor also participated in the training of laboratory assistants for the Medical School and Hospital, University of Malaya, during the latter part of 1963 and early 1964 and assisted the Public Health Institute, Kuala Lumpur, in the preparation of a training course for laboratory assistants.

It can be fairly stated that the WHO-assisted project has brought far more comprehensive instruction into the Institute's courses. There has been an eight-fold increase in the time spent on systematic instruction, i.e., 160 hours against 20 hours previously. There has also been a much greater utilization of the training resources of the Institute. No less than eighty-seven probationers underwent training during the operation of the project. A local counterpart, who will be responsible for the training programme, has been appointed.

It is suggested, however, that to be able to assess training needs the public health laboratory organization throughout the country should be reviewed. The scheme of service for laboratory technicians also needs
further study to make it commensurate with their training and responsibilities. It would be advantageous if a national laboratory technician tutor could be appointed in due course to assist the WHO counterpart.

3. FIRST REGIONAL SEMINAR ON EDUCATION AND TRAINING:
TRAINING OF AUXILIARY HEALTH PERSONNEL, MANILA

A regional seminar on education and training, which took place in Manila in October 1966, was devoted to the training of auxiliary health personnel. The twenty-one participants came from sixteen countries and territories in the Region, and UNICEF, the South Pacific Commission and the United States Agency for International Development were represented by observers. Three advisers provided by WHO were also present.

The group recognized the nature of the health problems of the Region, the efforts of governments to improve the health of the people, notably in rural areas, and the shortage of all categories of health workers. A review of training programmes for auxiliary health personnel in the Region, and of the various factors involved, led to conclusions on the future training, utilization, supervision and guidance of such personnel.

It was agreed that training and utilization of auxiliary health workers should be included in national plans for health development, and that relevant legislation should provide for the establishment of a body at highest national health administration level to be responsible for that training and utilization. Organized training - through permanent schools, "on-the-job" training, and refresher courses - was considered essential, and it was emphasized that the training should be given in an environment and under conditions as close as possible to those in which the auxiliary health personnel would have to work.

It was suggested that the planning of the curriculum for the training programme should be the responsibility of the teaching staff of the discipline concerned, and that the curriculum should be revised and evaluated periodically to ensure correspondence with the needs of
the services employing the trainees. The entrance requirements for auxiliary health workers should be related to the prevailing educational level of the country and should be lower than professional entrance requirements. Auxiliaries' activities should be limited to those functions for which they had been trained.

The group stressed the need for special consideration of the problem of securing teaching staff of the requisite quality, and considered that most of the teaching should be carried out by professionals possessing teaching qualifications in the relevant discipline. The principle was accepted that schools for professional health workers should have responsibility for training teaching staff to work in schools for auxiliary health workers. It was thought that a travelling seminar might be helpful, in view of the geographical, economic and social problems of scattered island territories.

4. SECOND REGIONAL SEMINAR ON MATERNAL AND CHILD HEALTH: PAEDIATRIC EDUCATION, MANILA, KUALA LUMPUR, SAIGON, SEOUL AND TAIPEI

For some time now, inadequate paediatric education, at the undergraduate as well as the post-graduate level, has appeared to be one of the main reasons why the maternal and child health services have not been completely effective in many countries. WHO decided that it would be useful to discuss this situation with paediatric teachers within the Region and between February and April 1967 it organized a multiple seminar on this subject. Three consultants provided by WHO conducted seminars in Manila, Kuala Lumpur, Saigon, Seoul and Taipei. The thirty-two participants came from China (Taiwan), Fiji, Hong Kong, Japan, Laos, Malaysia, Papua and the Trust Territory of New Guinea, Philippines, Republic of Korea, Singapore and Viet-Nam.

It was felt that there would be many advantages in holding the seminar in different places: a greater number of observers could participate; the consultants could visit local institutions connected with paediatric teaching and find out the possibilities which existed for such education; they could meet the paediatric teachers on their own ground.
In each place the seminar started with an assessment of the local methods of paediatric teaching. This revealed that paediatric education did not receive the attention, the time, nor the staff, to which it was entitled, particularly when one considers that it deals with almost half of the population and that every medical practitioner spends at least half of his time on the care of children. It also became clear that paediatric teaching was mainly oriented to the curative side, with major attention being given to the treatment of sick children and little or none to the preventive and social aspect of child health, and that most of the teaching methods used followed the patterns set by western countries and had not been adapted to the needs of the country itself.

In the sessions which followed, discussions centred on the ideal way of teaching paediatrics, taking the above factors into consideration, and on how far this ideal method could be applied in the countries concerned. Each seminar ended with the formulation and adoption of a series of recommendations. It was considered that each medical school should have an autonomous paediatric department, which should include child health; this department should, wherever possible, work in close co-operation with other departments of the medical school. It should also establish close liaison with the ministries of health and social welfare, of education, of agriculture, and with voluntary organizations working in the field of child welfare and social services. Paediatrics should be considered a major subject in undergraduate teaching and the minimum number of hours allotted to it should be 400, exclusive of the internship period; certain elements of child health, such as growth and development, nutrition and sociology, should be introduced early in the medical course; the final examination for undergraduates should include child health. For purposes of teaching, there should be one or more health centres administered by the medical school; the professor of paediatrics should be responsible for teaching child health in these centres. Post-graduate paediatric training leading to a diploma of specialist in paediatrics should be made uniform and preferably adjusted to international recommendations; its curriculum should include instruction on maternal and child health work, administration and planning, in close
relation with public health departments. Training of general practitioners in clinical and preventive paediatrics should be a continuous process and research in paediatrics should be encouraged and financially supported.

The seminars attracted a great number of observers, in addition to the participants who were teachers in paediatrics or administrators of maternal and child health programmes. The observers took a very active part in the discussions and contributed considerably to the recommendations.

Various reports and requests for assistance which have reached the Regional Office show that some of the participants are already revising the methods they formerly used. In 1969, two WHO consultants will visit the countries which sent participants to assess what further progress has been made and to advise on the steps which should be taken to strengthen paediatric education even further.
PROJECTS IN OPERATION

This part of the Report contains a list of the projects - country and inter-country - that were in operation during the whole or part of the period from 1 July 1966 to 30 June 1967. Continuing projects for which the only assistance given during the period was technical advice from the Regional Office are not shown.

In country projects, the purpose for which the government undertook the project is stated.

Under the heading "Fellowships" are shown those fellowships awarded during the same period that do not form part of assistance to a larger project.

The starting date of each project is shown, between brackets, after its title, the finishing date being also shown for completed projects and, where possible, for uncompleted projects. Names of co-operating agencies, whether or not they have contributed funds, are given, between brackets, after the source of funds.

The abbreviations used include the following: R - regular budget; UNDP/TA - Technical Assistance component of the United Nations Development Programme; UNDP/SF - Special Fund component of the United Nations Development Programme; AID - United States Agency for International Development. Other abbreviations are explained in the list on page ii.
Australia 0200 Fellowships R: Clinical pathology (twelve months), health education (twelve months), industrial and community noise (three months).

British Solomon Islands Protectorate 0002 Malaria Pre-eradication Programme (Jan. 1965 - 1970) R UNDP/TA (South Pacific Commission)

To develop the operational, technical and administrative facilities of the malaria and public health services, so that a country-wide malaria eradication programme can be implemented later.

This programme supersedes a malaria eradication pilot project carried out from 1961 to 1964.

British Solomon Islands Protectorate 0003 Nursing Education (Nov. 1959 - 1968) R UNICEF (South Pacific Commission)

To carry out a basic programme of general nursing for nurses and medical assistants, and a programme of midwifery and maternal and child health, combined with the nursing programme, for women nurses.

British Solomon Islands Protectorate 0007 Rural Health Services (Oct. 1965 - 1971) UNDP/TA UNICEF

To expand and strengthen the network of local health services and to train auxiliary health personnel.

Brunei 0003 Malaria Eradication Programme (Jan. 1966 - 1969) R

To eradicate malaria from the country. This follows the malaria pre-eradication programme started in 1962.

Cambodia 0001 Malaria Pre-eradication Programme (July 1962 - 1970) R UNDP/TA

To build up administrative and operational facilities to the level required for the implementation of a full malaria eradication programme; to complete an epidemiological survey of malaria; and to train national technical staff for the eradication programme.
The pre-eradication programme continues the antimalaria operations with which WHO has been assisting (under the same project number) since October 1950.

Cambodia 0003 Nursing Education, Phnom-Penh
To establish a school of nursing in Phnom-Penh; and to organize nursing and midwifery training.

Cambodia 0004 Maternal and Child Health Advisory Services
(Second phase; May 1962 - Aug. 1966) UNDP/TA UNICEF
To develop a national maternal and child health programme and to improve school health services.

Cambodia 0007 Tuberculosis Control
(May 1965 - 1970) R UNICEF
To set up the nucleus of a national tuberculosis control service with emphasis on preventive and public health work; and to carry out an effective control programme, so as to reduce, and finally to eliminate, the infection as a public health problem.

Cambodia 0009 Rural Health Training Centre, Takhmau
To plan and implement a comprehensive provincial health programme; to build up model public health services in Kandal Province; and to give field training to all categories of professional and auxiliary health personnel at the Takhmau centre. (See Part V for a full description of this project.)

Cambodia 0013 Nursing Education and Administration
(Nov. 1963 - 1970) R
To survey and evaluate training resources, and prepare short-term and long-term plans for meeting the nursing needs of the health services; to organize and improve nursing services and education programmes throughout the country; and to review nursing legislation, personnel policies, and terms of service.
Cambodia 0017 Epidemiology and Health Statistics
(March 1966 - 1970) R

To establish in the Ministry of Public Health an epidemiological and health statistical service which will be responsible for planning and guiding national disease control programmes; to study local epidemiological patterns of prevailing causes of morbidity and mortality as a basis for the formulation of such programmes; and to train personnel of the health services in epidemiology and health statistics.

Cambodia 0018 School Health

To expand and improve the school health programme; to undertake, through the rural health training centre in Takhmau, a study of school health in the rural areas, and to give training in school health and sanitation to school-teachers and students of teacher-training institutions.

Cambodia 0019 Environmental Sanitation Training
(April 1965 - 1968) UNDP/TA (Asia Foundation)

To train a cadre of sanitarians for environmental sanitation work in the villages and towns.

Cambodia 0020 Applied Nutrition
(June 1967 - 1970) R UNICEF

To improve nutritional levels in the community; to co-ordinate, under a national nutrition policy, all food and nutrition activities carried out by international and national governmental and non-governmental agencies; to conduct studies to determine the aetiology and epidemiology of nutritional diseases and deficiencies affecting the population; to train national staff for the implementation and evaluation of nutrition programmes; and to establish patterns for practical nutritional programmes which could be adopted or adapted to other parts of the country.

Cambodia 0026 Public Health Nursing Advisory Services
(Jan. 1967 - Dec. 1968) UNDP/TA

To develop and organize an effective system of public health nursing and midwifery administration and services designed to meet the changing health needs and resources of the country.
China 0020 Mental Health Programme, Taiwan
R (AID) (Asia Foundation)

The aims of the first phase of this project were to make a survey of mental health needs and facilities; to establish a mental health programme, with special emphasis on child guidance and community mental hospitals; to carry out research; and to train local professional and auxiliary personnel.

In the second phase, assistance is being given in the establishment of a post-basic training programme for psychiatric social workers as an integral part of the mental health programme; a consultant will also review the results and evaluate the progress of the psychiatric nursing programme and examine comprehensively the present nursing education programme in relation to the teaching and learning experiences in psychiatric nursing, at basic and post-basic levels.

China 0027 Institute of Public Health, Taiwan
(Aug. 1958 - 1969) R (China Medical Board)

To strengthen the training at the Institute of Public Health, particularly in epidemiology and public health practice.

A three-month consultant was provided from November 1966 to February 1967 to review the public health nursing curriculum in the Institute, with particular reference to course content and methods of instruction; to participate in the teaching programme; and to assist in the formulation of operational research in the field of public health nursing.

China 0034 Trachoma Control, Taiwan
(Jan. 1960 - 1968) R UNICEF

To carry out an island-wide study of the prevalence, distribution and relative gravity of trachoma, and of environmental and other factors influencing the transmission of the disease; to develop a comprehensive control programme based on existing health services with the objective of reducing trachoma to a level at which it will no longer be a major
public health problem, and of preventing disabling complications and sequelae.

China 0036 Community Water Supply and Sewerage, Taiwan
(Jan. 1963 - 1968) UNDP/TA UNICEF

To follow up the recommendations made in 1961 by a WHO team of water supply consultants in connexion with the improvement of community water supply and sewerage; to review and amend as necessary national and provincial legislation pertaining to community water supplies; to develop techniques for financing and administering water supply and sewerage programmes, so as to make the programmes self-supporting; to stimulate regional planning of water supply schemes; to initiate training programmes; and to co-ordinate activities relating to community water supply with other sectors of the nation's economy (industry, agriculture, etc.) which are directly concerned with the use and allocation of water resources.

China 0041 School Health Education, Taiwan

A WHO consultant was provided for one month from February to March to review the first phase of the project and to advise on a new proposal for the extension of activities for which UNICEF assistance was requested. Recommendations were made regarding the supplies and equipment required and the establishment of a school health co-ordinating committee suggested.

China 0045 Rehabilitation Programme for Disabled Leprosy Patients,
Taiwan (Nov. 1965 - 1969) R

To establish a training and demonstration pilot project for rehabilitation of leprosy patients, and to prepare a plan for a national programme.
China 0046  Communicable Disease Control Centre, Taiwan  
(July 1965 - 1970)  R

To set up in the Provincial Department of Health an epidemiological service that will include laboratory facilities; to study local epidemiological patterns of prevailing causes of morbidity and mortality, in order to establish a basis for planning specific disease control programmes; and to develop procedures, suited to local conditions, for the investigation, diagnosis, control and prevention of the most prevalent communicable diseases.

China 0048  Health Education Advisory Services, Taiwan  
(First phase: April - July 1966)  R

A WHO consultant was provided for three months from April 1966 to assist in strengthening the Division of Health Education of the Provincial Department of Health and to provide advisory services to the Institute of Public Health and on health education in schools. In May 1966 a further consultant was provided for two weeks to explore the feasibility of instituting a post-graduate health education training programme in two universities in co-operation with the Department of Health.

China 0049  Physical and Occupational Therapy, Taiwan  
(Dec. 1966 - 1971)  R

To organize at the National Taiwan University collegiate courses for training physical therapists and occupational therapists and to develop professional standards.

China 0051  Smallpox Vaccine Production, Taiwan  

Between June and July, the WHO consultant paid a second visit to make a review of the newly established freeze-dried smallpox vaccine production unit and to ensure that the vaccine produced met international standards.
China 0060  Taipei Sewerage Planning  
(Nov. - Dec. 1966) UNDP/TA

Two WHO consultants helped to prepare a request to the United Nations Development Programme (Special Fund component) for assistance in planning the design and construction of a sanitary sewerage system for the metropolitan area of Taipei.

China 0061  School Dental Health, Taiwan  
(Feb. 1967) R

WHO provided a consultant for one week to advise on the technical aspects of the proposed school dental health programme; to assist in drawing up a technically sound plan of operation; to examine the manpower needs; and to advise on the equipment and supplies requested from UNICEF.

China 0062  Public Health Engineering, Taiwan  
(19 - 28 Feb. 1967) R

WHO provided a senior consultant for ten days in the field of public health engineering to promote interest among government officials in national environmental health programmes with emphasis on short- and long-term sewerage planning.

China 0200  Fellowships  R:  Control of water pollution (nine months), DPT vaccine production (six months), drug control (one for four months, one for six months), environmental health - organization and administration of public health engineering services (twelve months), environmental health - waste disposal (two for six months), health education (two for twelve months), health laboratory administration (twelve months), nursing (four for twelve months), public health administration (four and a half months), public health engineering (twelve months), public health nursing (one for twelve months, one for sixteen months), public health nursing in tuberculosis (sixteen months), rehabilitation nursing (three months), tuberculosis control (four and a half months).
Cook Islands 0200 Fellowships R: Medicine (twelve months), nursing (twelve months).

Fiji 0002 Fiji School of Medicine, Suva
(Feb. 1955 - 1967) R (China Medical Board)

To train assistant medical officers for government service in Fiji and adjacent territories, and to strengthen the staff of the School of Medicine.

Fiji 0200 Fellowships R: Biochemistry in medical technology (twelve months), health education (twelve months), orthopaedic surgery (twelve months), public health administration (one for two months, one for twelve months).

Gilbert and Ellice Islands 0004 Nursing Education
(Feb. 1964 - 1968) UNDP/TA UNICEF

To develop training programmes for preparing nursing and midwifery personnel for the hospital and health services.

Gilbert and Ellice Islands 0200 Fellowships R: Maternal and child health (three months), tuberculosis control (twelve months).

Hong Kong 0016 Tuberculosis Advisory Services
(Feb. 1967 - 1968) R

To plan and establish a statistical section in the Tuberculosis Unit of the Medical and Health Department; to collect, process and provide statistical data for general and research purposes within the tuberculosis service; and to train local workers to operate the statistical section of the Tuberculosis Unit.

Hong Kong 0200 Fellowships R: Dental technology (one for six months, one for six months - extension of previous award), radiation and isotope hazards and public health (six months).
Japan 0023 Medical Rehabilitation

To raise the standard of teaching at the physical and occupational therapy school set up in 1963; to give in-service training to physical and occupational therapy personnel; to train a nucleus of senior physical and occupational therapists, in conformity with internationally accepted standards, for teaching posts in other similar schools to be established in the future; to modify procedures for the admission and classification of patients at rehabilitation centres to enable rehabilitation measures to be undertaken more quickly.

Japan 0200 Fellowships R: Dental health - epidemiological study on dental diseases (three months), drug control with emphasis on adverse drug reactions (two months), environmental health (three months), food control - meat and milk sanitation (three months), maternal and child health (three months), mental health - study on mental health in the domiciliary care of pre-school children (three months), organization and methods of after-care for narcotic addicts (six months), public health administration (three months), public health administration - organization and utilization of health laboratories (three months) - health planning for suburban communities (three months) - study on rehabilitation of the severely handicapped (three months), radiation health - environmental control of atomic energy plants (three months), social and occupational health (six months), tuberculosis control (two for three months), vital and health statistics (one for two and a half months, one for three months).

Korea 0004 Leprosy Control
(Nov. 1961 - ) UNDP/TA UNICEF (Order of Malta)
(Deutsches Aussätzigen Hilfswerk, Würzburg)

To expand the leprosy control programme.

Korea 0013 Malaria Pre-eradication Programme
(Jan. 1962 - ) R

To survey the malaria situation, organize a national malaria service and train staff, so as to enable an eradication programme
to be planned and implemented.

This programme follows the pre-eradication survey that began in June 1959.

Korea 0015 National Institute of Health, Seoul

To strengthen the Department of Training and Surveys of the National Institute of Health (formerly the National Institute for Public Health Training) which trains staff for the local health services.

Korea 0019 Tuberculosis Control
(March 1962 - Dec. 1966; April 1967 - ) UNDP/TA UNICEF

To develop an effective and comprehensive tuberculosis control programme, so as to reduce, and finally to eliminate, the infection as a public health problem.

The first phase of the project has been completed. A WHO consultant was provided for six months from April 1967 to advise on the further assistance required.

Korea 0025 Local Health Services, Chungchong Namdo
(March 1963 - 1969) R UNICEF

To strengthen the organization of the health services at various levels in the province of Chungchong Namdo, with the ultimate objective of strengthening the country's local health services.

Korea 0028 International Quarantine Advisory Services
(Sept. - Oct. 1966) R

A WHO consultant was provided for four weeks to review the national quarantine service and submit recommendations for its improvement.

Korea 0029 Environmental Health Advisory Services

To strengthen the sanitation section of the Public Health Bureau, and to improve sanitary services, including water supplies, excreta and refuse disposal, food hygiene, and control of vectors of disease, in urban and rural areas.
WHO provided a consultant to assist in the organization of the National Health Planning Unit in the Ministry of Health and in the formulation and development of a national health plan as part of the country's overall economic development plan.

Korea 0200 Fellowships R: Environmental sanitation (twelve months), health education (twelve months), public health administration - laboratory (twelve months).

Laos 0002 Central Public Health Laboratory, Vientiane
To establish a public health laboratory service and train laboratory personnel.

Laos 0006 Maternal and Child Health Services
(Colombo Plan) (Tom Dooley Foundation)
To ascertain the principal maternal and child health needs in Laos and set up training programmes; to expand and improve maternal and child health services as an integral part of the general health programme.

Laos 0009 Public Health Administration Advisory Services
(April 1961 - 1967) UNDP/TA
To survey health conditions and prepare a long-range national health plan; to develop a programme of work appropriate to local conditions, and to organize the operation of the national health administration at the central and local levels.

Laos 0010 Rural Health Development
(March 1961 - ) UNDP/TA UNICEF (UN) (FAO) (ILO)
(UNESCO) (Colombo Plan)
To provide practical training courses in nursing and midwifery and in sanitation; to promote and develop environmental sanitation; and to carry out maternal and child care, and nutrition and health education activities adapted to the local conditions.
Work carried out under this project is a part of the special programme, assisted by the United Nations, for rural development. It is planned to set up four centres in rural areas, with staff from the participating agencies.

**Laos 0012 Nursing Education**

To set up a school of nursing and midwifery for training personnel for the country's hospital and health services, which are to be extended and improved.

**Laos 0200 Fellowships R:** Obstetrics and gynaecology (twelve months - extension of previous award).

**Malaysia 0014 Hospital Administration, West Malaysia**
(May 1956 - Dec. 1966) UNDP/TA

To review the hospital administration system and to provide training for non-medical hospital administrators.

**Malaysia 0020 Malaria Pre-eradication Programme, West Malaysia**
(July 1964 - June 1967) R

To build up administrative and operational facilities to the level required for the implementation of a full malaria eradication programme; to complete an epidemiological survey of malaria; and to train national technical staff for the eradication programme.

The pre-eradication programme continues the antimalaria operations with which WHO has been assisting (under the same project number) since February 1960.

**Malaysia 0021 Training Institutions (Clinical Pathology), West Malaysia**
(Nov. 1960 - Dec. 1966) R

See Part V for a full description of this project.
Malaysia 0030 Health Education Advisory Services, West Malaysia (Jan. 1962 - 1969) R UNICEF

To survey the health education work at the national and state levels, in order to evaluate the effectiveness of present methods of health education and recommend improvements.

Malaysia 0032 Nursing Education (Aug. 1962 - 1968) UNDP/TA

To assess the education programmes for nurses and nursing needs and resources; to develop the programme and the associated clinical practice fields so as to meet the country's requirements in nursing personnel; and to improve the quality of nursing education by in-service training, refresher courses, special courses for local registered nurses and courses to prepare nursing personnel for administrative and teaching posts.

Malaysia 0034 Environmental Health Advisory Services (Nov. 1965 - ) UNDP/TA

To establish sanitary engineering services in the Ministry of Health, and advisory and supervisory services in the medical and health offices of the states of Malaysia; to carry out environmental health programmes in urban and rural areas; and to train personnel.


To strengthen the organization and administration of the rural health services and to expand facilities for training staff for them; and to plan a comprehensive environmental health programme.

Malaysia 0040 University of Malaya (Sept. 1965 - 1969) R

To strengthen the teaching staff of the Faculty of Medicine of the University of Malaya, particularly in the fields of preventive medicine, public health and medical records.
Malaysia 0041 Environmental Health Advisory Services, East Malaysia

To improve the general level of community sanitation and personal hygiene in the rural areas of East Malaysia; to develop sanitary facilities suitable for villages and small rural communities, including sanitary latrines and water supply systems; and to train village workers in sanitation techniques, with emphasis on rural water supplies, excreta disposal, vector control and food sanitation.

Malaysia 0042 Malaria Eradication Programme, East Malaysia (Sabah)
(July 1961 - 1972) R UNDP/TA UNICEF

To eradicate malaria from Sabah. The eradication programme follows antimalaria operations for which WHO has provided assistance since July 1955.

Malaysia 0043 Malaria Eradication Programme, East Malaysia (Sarawak)

To eradicate malaria from Sarawak. This follows the malaria pilot project started in 1952.

Malaysia 0074 Institute for Medical Research: Training of Medical Technicians, West Malaysia (Feb. - March 1967) R

WHO provided a consultant for one month from February to March to advise on the establishment of a school for the training of medical laboratory technicians; to develop a training course for tutors and refresher courses for advanced technicians; to advise on standards for different types of laboratories and to define the exact needs for laboratory technicians and assistants; and to assist in the preparation of a programme of training in relation to immediate and future needs of the health laboratory services.

Malaysia 0200 Fellowships R: Environmental health (twelve months), hospital administration (six months), nursing service and education in the field of psychiatric nursing (seven months), public health administration (two for six months).
New Hebrides 0004 Tuberculosis Control  
(June 1964 - 1968) UNDP/TA UNICEF

To expand and improve the tuberculosis control service; to carry out a systematic tuberculin testing and BCG vaccination campaign throughout the Condominium; to treat all cases, mainly at home under supervision; to take measures to protect the healthy; and to provide chemoprophylaxis for tuberculin reactors among family contacts under five years of age.

New Zealand 0200 Fellowships R: Hospital administration (four months), maternal and child health (four months), nursing education (four months).

Papua and the Trust Territory of New Guinea 0200 Fellowships R:
Bacterial diseases (three months), child health (three months), environmental health (one for three months, one for six months), maternal and child health (one for three months, one for four months), paediatric surgery (two for four months), public health administration (ten months), tuberculosis control (one for two months, one for six months).

Philippines 0004 Mental Health Advisory Services  

To develop a mental health programme for the whole country.

Philippines 0043 Environmental Health Advisory Services  

To reorganize the central and regional environmental sanitation services.

Philippines 0050 Virology Centre  
(Sept. 1965 - July 1967) UNDP/TA UNICEF

To build up a diagnostic laboratory and referral centre for the identification of viral agents of disease; to extend technical services
to the Disease Intelligence Centre and other units of the Department of Health in connexion with the epidemiological study and control of virus diseases; to train professional and non-professional workers in virology; and to strengthen the Alabang laboratory to enable it to function as a control laboratory for the production of virus vaccines.

Philippines 0051 Environmental Sanitation Training
(June 1958 - Dec. 1966) R UNICEF (AID)
To organize an advanced training programme for sanitary inspectors and to demonstrate environmental sanitation work in a selected area.

Philippines 0053 Malaria Eradication Programme
To implement the plan for eradicating malaria from the country.

Philippines 0059 Paediatric Nursing
(March 1962 - Aug. 1966) UNDP/TA UNICEF
To extend and improve the health services, particularly as regards the promotion of health and prevention of disease and the provision of adequate nursing care for children; to establish closer co-ordination and integration of the promotional, preventive and curative services at all levels.

Philippines 0069 Tuberculosis Control
To determine whether tuberculosis control plans based on the data already obtained are practical, productive and suitable for local conditions; to investigate, in controlled groups, specific developments in BCG vaccination, case-finding and chemotherapy, particularly as regards their economy and acceptability; to provide facilities for training various categories of health personnel; and to obtain data on which to base the integration of tuberculosis control work into the national public health programme.
Philippines 0071  Physical Therapy and Occupational Therapy, Manila  
(July 1961 - Dec. 1966) UNDP/TA UNICEF

To organize, at the University of the Philippines, collegiate courses for training physical therapists and occupational therapists and to develop professional standards; and to provide in-service training for sub-professional workers.

Philippines 0073  School Health Education  

To carry out a co-ordinated school health education programme; to train staff for the programme, and to promote closer co-operation among the various official and voluntary agencies concerned.

Philippines 0075  Social Paediatrics  

To strengthen the organization of maternal and child health services at national and regional levels.

Philippines 0087  Food Sanitation  
(March 1967 - 1969) R

To advise the Department of Health on food sanitation, including the establishment of standards and the improvement of food preparation, handling and dispensing.

Philippines 0092  National Hospital Programme  
(May - Sept. 1967) R

To advise the Department of Health on national, regional and local hospital planning, hospital legislation and finance, including health insurance and hospital licensing procedures; to conduct surveys of the national hospital system; and to assess training needs in hospital administration.
Philippines 0101 Dental Health Advisory Services  

WHO provided a consultant for one month from December 1966 to January 1967 to advise on the planning and development of a practical and co-ordinated programme in public health dentistry; to examine the resources in staff, equipment and supplies, including the need for UNICEF assistance, and to make recommendations as required; to advise on and promote the teaching of preventive dentistry at university undergraduate and post-graduate levels, and to examine the position of post-graduate courses in preventive and public health dentistry; to stimulate surveys and research where appropriate; and to give advice on the use of fluorides orally.

Philippines 0102 Public Health Engineering  
(12 - 19 Feb. 1967) R

WHO provided a senior consultant for one week in the field of public health engineering to promote interest among government officials in national environmental health programmes with emphasis on short- and long-term sewerage planning.

Philippines 0001/SF Master Plan for a Sewerage System for the Manila Metropolitan Area  
(Dec. 1966 - ) UNDP/SF

To study and prepare a master plan for a sewerage system for the Manila metropolitan area and a phased sewerage development programme to meet present and future requirements of the metropolitan population. Activities include the preparation of detailed financial and engineering studies for the first phase of development involving the construction of the most urgently needed works.

Philippines 0200 Fellowships R: Hospital administration (six months), paediatric nursing (twelve months).
Ryukyu Islands 0200 Fellowships R: Dental health with emphasis on school dental health (two for three months), environmental health (twelve months), health education (twelve months), hospital administration (twelve months), industrial health (three months), occupational health (two for three months), public health administration - laboratory (twelve months), public health administration with emphasis on epidemiology (twelve months), public health nursing (three for twelve months), radiation and isotopes (twelve months).

Singapore 0003 Nursing Education
(June 1952 - 1968) UNDP/TA
To improve the standards of nursing education and nursing service.

Singapore 0004 Nursing Administration and Practice
(Jan. 1956 - 1969) R UNICEF
To develop programmes to prepare nursing personnel for administrative posts in hospital and public health services and to improve the quality of nursing practice, patient care and clinical teaching.

Singapore 0006 Midwifery Education Programme
To study and improve the basic midwifery curriculum, particularly as regards the clinical, public health and health education aspects; to organize supplementary and refresher courses for practising midwives; to co-ordinate training programmes for midwifery students in district hospitals and to arrange facilities for their practical training; to revise the Midwives' Ordinance and the rules of the Midwives' Board; and to plan and organize midwifery services.

Singapore 0011 Assistance to the University of Singapore
A WHO consultant was provided for a month to review the nutrition teaching programme of the University of Singapore and help to plan its
future development; to explore the possibilities for establishing practical nutrition programmes in Singapore; and to study the need and possibilities for developing in the University an applied nutrition training centre to serve Singapore and other countries in the Region.

**Singapore 0012 Health Education Advisory Services**

To evaluate the health education programme, and to plan and carry out an expanded programme, particularly in schools, maternal and child health centres, teacher training centres and institutions, and centres for the training of health and medical workers.

**Singapore 0020 Waste Disposal**
(Nov. 1966 - Feb. 1967) UNDP/TA

Two WHO consultants were provided to make a general survey of the refuse disposal systems and submit recommendations for their improvement and on the cleansing and collection equipment required, and to advise on the selection and siting of refuse disposal plants.

**Singapore 0200 Fellowships**
- Hospital physics (six months), immunofluorescence (three weeks), public health administration (eight months), public health engineering (twelve months), radiography (twelve months), tuberculosis control (six months), tuberculosis laboratory methods - bacteriology (six months), vector control (twelve months), vital and health statistics (twelve months).

**Tonga 0001 Environmental Sanitation**
(March 1958 - Dec. 1966) UNDP/TA UNICEF

To strengthen environmental sanitation services; particularly to study the problems of rural and urban environmental sanitation and the social, economic and cultural factors affecting them; to plan, execute and evaluate a pilot environmental sanitation project and to train personnel.
Tonga 0008 Study and Control of Diarrhoeal and Enteric Diseases  

To study the aetiological agents of enteric and diarrhoeal diseases in the population, and especially in young children, and to assess their relative importance; to evaluate the effectiveness of a single dose, as against two doses, of monovalent acetone-dried typhoid vaccine.

Tonga 0200 Fellowships R: Administration and teaching in public health nursing (twelve months), assistant health inspectors' course (twelve months), assistant medical officers' course (twelve months), dental health - post-graduate studies in clinical dentistry (six months), environmental health - mechanical aspects of water supply installation (four months), general surgery (six months), public health administration - CPH course (seven months), public health dentistry (twelve months).

Trust Territory of the Pacific Islands 0200 Fellowships R: General dentistry (three months), health education (ten months).

Viet-Nam 0003 Maternal and Child Health Services  

A WHO consultant was provided for six months from December 1966 to assess the health situation in government orphanages throughout the country, particular attention being paid to those which had nurseries in which children are accommodated up to the age of one year. Plans and standards were drawn up for a regular health service for the nurseries and submitted to the Ministry of Health and Ministry of Social Affairs.

Viet-Nam 0007 Tuberculosis Control  

To set up the nucleus of a national tuberculosis control service, with emphasis on preventive and public health work; to complete a
national tuberculosis centre in Saigon and to integrate it in the existing facilities; to continue the UNICEF/WHO-assisted ECG vaccination project and integrate it in the national tuberculosis control service.

**Viet-Nam 0011 Vital and Health Statistics Advisory Services**  

To organize an efficient and up-to-date system of collecting and recording vital and health statistical data so as to produce vital and health statistics which will meet national and international needs; and to train national personnel in the administration and operation of a national health statistical service.

**Viet-Nam 0014 Epidemiological Services**  

To develop the epidemiological services at central and regional levels and to train health workers in this field.

In the first phase of this project, which started in 1960 and was completed in 1962, a preventive medicine service was set up in the Ministry of Health.

**Viet-Nam 0015 Hospital Administration**  

To develop a hospital system throughout the country; to prepare hospital legislation and regulations to standardize hospital records; and to implement a case registration system.

**Viet-Nam 0016 Malaria Pre-eradication Programme**  
(March 1959 - 1969) R (AID)

To train national staff and to make preparations for the implementation of a malaria eradication programme.
Viet-Nam 0018  Health Laboratory Services  

To establish a central health laboratory service and to train health laboratory workers; later, to organize regional and peripheral health laboratory services.

Viet-Nam 0026  Venereal Disease Control  
(June 1966 - 1970) R

To reduce the incidence of the venereal diseases; to demonstrate modern methods of venereal disease control and to strengthen and improve the syphilis serological work carried out in the laboratories.

Viet-Nam 0033  Environmental Health Advisory Services  

To strengthen the environmental sanitation service in the Ministry of Health and to introduce improvements in public water supply, human excreta disposal, refuse disposal, food hygiene and vector control in urban and rural areas.

Viet-Nam 0036  International Quarantine Advisory Services  
(Nov. - Dec. 1966) R

A WHO consultant reviewed the national quarantine service and submitted recommendations for its improvement.

Viet-Nam 0038  National Institute of Hygiene and Public Health  

WHO provided a consultant for three months from December 1966 to April 1967 to determine the expected health manpower requirements in the national health plan to be prepared with the assistance of WHO; to assess the facilities, faculty and training programmes of the various institutions engaged in the education and training of health personnel; to prepare a plan for the education and training of the health personnel required to meet current health manpower needs and,
in particular, to determine the feasibility and advisability of establishing a national institute of hygiene and public health which would, in addition to training, also provide services and conduct research.

Viet-Nam 0039  National Health Planning

WHO provided a consultant for four weeks from December 1966 to January 1967 to assess present health needs and the general resources which could be utilized for health planning under existing conditions; and to advise the Ministry of Health on the organizational and administrative aspects of the planning process.

Viet-Nam 0200 Fellowships  R:  Dental nursing (two for twelve months), health education (twelve months), leprosy control (six months), public health dentistry (two for twelve months).

Viet-Nam 0201 Fellowships  UNDP/TA:  Dental nursing (two for twelve months), public health dentistry (two for twelve months).

Western Samoa 0007  Filariasis Control
(July 1965 - 1969)  R  UNICEF

To determine, by a pilot project, the best way of controlling filariasis, mainly by drug treatment, in Western Samoa; to prepare a filariasis control programme for the whole country, based on the results of the pilot project; and to train staff in filariasis survey and control techniques.

Western Samoa 0200 Fellowships  R:  Assistant dental officers' course (two for twelve months - extensions of previous awards), assistant health inspectors' course (two for twelve months), assistant medical officers' course (two for twelve months, five for twelve months - extensions of previous awards), dentistry
(six months - extension of previous award), medicine (twelve months -
extension of previous award), nursing (three for twelve months, two
for twelve months - extensions of previous awards), ophthalmology
(six months), public health administration - CPH course (two for
seven months), public health administration - DPH course (twelve
months).

WPRO 0072 Malaria Eradication Training Centre, Manila
(April 1959 - June 1961; Sept. 1963 - ) R (AID)

To provide training in the theory and techniques of malaria
eradication for various categories of personnel needed by countries
of the Western Pacific Region and other regions.

WPRO 0075 Regional Tuberculosis Advisory Team
(July 1961 - ) R UNICEF

To assist countries of the Region in assessing their tuberculosis
programmes.

WPRO 0079 Advisory Services
(1961 - ) R

To meet requests from countries of the Region for advisory
services in connexion with the planning of long-term projects or with
specific problems. The following assistance was provided during the
period under review.

Laos - National Health Planning. A consultant for seven weeks from
November 1966 to January 1967 to review information on needs and
resources, advise the Ministry of Health on the organizational and
administrative aspects of the planning process, and assist in
preparing a draft health plan.

WPRO 0080 Mekong River Bilharziasis Survey
(Dec. 1966 - Feb. 1967) UNDP/ECARE Mekong Development
Committee

A WHO team, consisting of a parasitologist and a malacologist,
undertook a survey of the Khong Island in Laos from December 1966
to February 1967. The objectives of the survey were to discover whether bilharziasis occurs in man or other vertebrates of the area and whether a suitable snail host exists. A focus of fairly human bilharziasis was discovered. No oncomelanid snails were found and examination of the stools of animals in the area failed to show the presence of S. japonicum ova. A more extensive survey is planned.

WPRO 0083 Maternal and Child Health Advisory Services, South Pacific Area (April 1962 - Aug. 1963; Sept. 1965 - 1968) UNDP/TA (South Pacific Commission)

A maternal and child health team, based in Fiji, to undertake assignments as required in territories of the South Pacific area.


See Part V for a full description of this project.

WPRO 0115 Epidemiological Surveys of Dental Diseases (Oct. - Nov. 1966) R

A WHO consultant visited China (Taiwan), Hong Kong, West Malaysia, Philippines, Republic of Korea, Singapore, and Viet-Nam to follow up the plans made by the Governments to carry out epidemiological surveys of dental diseases.

WPRO 0123 Regional Seminar on International Quarantine, Manila (27 March - 7 April 1967) R

The seminar considered the different interpretation and practices of the International Sanitary Regulations, reviewed quarantine techniques, rat and flea control, and port sanitation. Measures to control plague were thoroughly discussed using the situation in Viet-Nam as background. Information on the presence of "asymptomatic pharyngeal carriers" and on the occurrence of gangrenous skin lesions in plague in Viet-Nam was presented for the first time. There were twenty-three
participants from Australia, Cambodia, China (Taiwan), Fiji, Guam, Hong Kong, Japan, Malaysia, Papua and the Trust Territory of New Guinea, Philippines, Republic of Korea, Ryukyu Islands, Singapore, Tonga and Viet-Nam. Five observers from AID and the United States Army in Viet-Nam also attended. WHO provided the cost of attendance of the participants and consultants.

WPRO 0125 Second Regional Tuberculosis Training Course, Tokyo  
(15 May - 15 Sept. 1967) R

The purpose of the course, which is jointly sponsored with the Government of Japan, is to provide assistance in training national workers in the application of modern methods of tuberculosis control. It is also designed to stimulate the provision of practical training and demonstration in national institutions. There are ten participants, two each from China (Taiwan) and the Republic of Korea, and one each from Hong Kong, India, Indonesia, East Malaysia (Sarawak), Philippines and Thailand. WHO, apart from financing six of these participants and providing certain reference material, provided five lecturers to introduce the subjects on statistics; tuberculin testing; tuberculosis chemotherapy; planning, organization and evaluation of national tuberculosis programmes; and the WHO policy on tuberculosis control.

WPRO 0130 Virus Laboratory Services, China (Taiwan) and Republic of Korea  
(Sept. - Dec. 1966) R

Two WHO consultants visited China (Taiwan) to assess the extent of the virus infection problem and the diagnostic facilities available, to assist in preparing plans for improving the services and to train personnel working in this field. They also assisted in organizing and carrying out laboratory studies and sample surveys in connexion with the Government's poliomyelitis control programme.

In December 1966 a consultant visited the Republic of Korea to advise on the expansion of national virus diagnostic facilities.

The purpose of the seminar was to study desirable standards for medical records, methods of compilation and comparability of statistical data, the organization, administration and functions of medical records departments and the training of personnel. The seminar was attended by twenty-two medical records officers from Australia, China (Taiwan), Cook Islands, Fiji, Japan, Malaysia, New Caledonia, Philippines, Ryukyu Islands, Singapore, Tonga, Trust Territory of the Pacific Islands, Viet-Nam, and Western Samoa, two observers from the Philippines and Thailand, and five WHO staff members.

WPRO 0135 Environmental Health Advisory Services, South Pacific Area (Oct. 1965 - 1970) UNDP/TA

To assist countries and territories in the South Pacific area to improve community water supplies and environmental sanitation in general.


See Part V for a full description of this project.

WPRO 0143 Malaria Eradication Assessment Team (Feb. 1967 - ) R

An assessment team to make an independent appraisal of the status of malaria eradication and of any special aspects of the malaria programmes in the Region.

WPRO 0153 Lower Mekong Basin Health Survey (Nov. 1966 - Sept. 1967) UNDP/ECAFE Mekong Development Committee

To carry out a health survey in the development area of the lower Mekong Basin in co-operation with the Mekong Development
Committee of the Economic Commission for Asia and the Far East. The countries covered by the survey are Cambodia, Laos, Viet-Nam and Thailand.

WPRO 0154 First Regional Seminar on Cholera Control, Manila
(29 Aug. - 9 Sept. 1966) UNDP/TA

This seminar offered refresher training in the control of cholera with emphasis on epidemiology, the clinical and laboratory aspects, practical methods to improve sanitation and the promotion of health education of the public. The participating governments were asked to send teams consisting of an epidemiologist/health officer, a clinician and a bacteriologist. There were twenty-six participants from China (Taiwan), Hong Kong, Japan, Laos, Malaysia, Papua and the Trust Territory of New Guinea, the Philippines, Republic of Korea and Viet-Nam. For the practical work, participants were divided into three groups: bacteriology, clinical and epidemiology. WHO provided the cost of attendance of the participants and temporary advisers. The staff attached to the WHO inter-regional cholera team also provided consultant services.