THE WORK OF WHO
1967

ANNUAL REPORT OF THE DIRECTOR-GENERAL
TO THE
WORLD HEALTH ASSEMBLY
AND TO THE
UNITED NATIONS

The Financial Report, 1 January—31 December 1967, which constitutes a supplement to this volume, is published separately as Official Records No. 167.

WORLD HEALTH ORGANIZATION

GENEVA

March 1968
The following abbreviations are used in the *Official Records of the World Health Organization*:

- **ACABQ** — Advisory Committee on Administrative and Budgetary Questions
- **ACC** — Administrative Committee on Co-ordination
- **CIOMS** — Council for International Organizations of Medical Sciences
- **ECA** — Economic Commission for Africa
- **ECAFE** — Economic Commission for Asia and the Far East
- **ECE** — Economic Commission for Europe
- **ECLA** — Economic Commission for Latin America
- **FAO** — Food and Agriculture Organization
- **IAEA** — International Atomic Energy Agency
- **ICAO** — International Civil Aviation Organization
- **ILO** — International Labour Organisation (Office)
- **IMCO** — Inter-Governmental Maritime Consultative Organization
- **ITU** — International Telecommunication Union
- **PAHO** — Pan American Health Organization
- **PASB** — Pan American Sanitary Bureau
- **UNCTAD** — United Nations Conference on Trade and Development
- **UNDP/SF** — United Nations Development Programme, Special Fund component
- **UNDP/TA** — United Nations Development Programme, Technical Assistance component
- **UNESCO** — United Nations Educational, Scientific and Cultural Organization
- **UNICEF** — United Nations Children’s Fund
- **UNRWA** — United Nations Relief and Works Agency for Palestine Refugees in the Near East
- **WFUNA** — World Federation of United Nations Associations
- **WMO** — World Meteorological Organization

© World Health Organization 1968

Publications of the World Health Organization enjoy copyright protection in accordance with the provisions of Protocol 2 of the Universal Copyright Convention. Nevertheless governmental agencies or learned and professional societies may reproduce data or excerpts or illustrations from them without requesting an authorization from the World Health Organization.

For rights of reproduction or translation of WHO publications *in toto*, application should be made to the Division of Editorial and Reference Services, World Health Organization, Geneva, Switzerland. The World Health Organization welcomes such applications.

PRINTED IN SWITZERLAND
# CONTENTS

Introduction ........................................................................................................ VII

## PART I—GENERAL REVIEW

### Chapter 1. Malaria Eradication
- Progress in Malaria Eradication ........................................ 3
- Training in Malaria Eradication ........................................... 4

### Chapter 2. Communicable Diseases
- Epidemiological Surveillance ............................................ 6
- International Quarantine .................................................. 6
- Smallpox Eradication ....................................................... 7
- Virus Diseases .................................................................. 8
- Parasitic Diseases .......................................................... 10
- Vector Biology and Control .............................................. 11
- Venereal Diseases and Treponematoses ......................... 13
- Tuberculosis .................................................................... 14
- Leprosy ........................................................................... 15
- Bacterial Diseases .......................................................... 16
- Veterinary Public Health and Zoonoses ......................... 18

### Chapter 3. Health Protection and Promotion
- Cancer ........................................................................... 21
- Cardiovascular Diseases ............................................... 22
- Dental Health .................................................................. 23
- Mental Health .................................................................. 23
- Nutrition ........................................................................ 24
- Radiation Health .......................................................... 24
- Occupational Health ...................................................... 25

### Chapter 4. Biomedical Sciences
- Biological Standardization ............................................. 26
- Human Genetics ............................................................ 26
- Human Reproduction .................................................... 27
- Immunology ................................................................. 28

### Chapter 5. Pharmacology and Toxicology
- Drug Dependence and Drug Abuse ......................... 29
- Drug Safety and Monitoring ........................................ 29
- Food Additives ............................................................. 29
- Pharmaceuticals .......................................................... 30

### Chapter 6. Public Health Services
- National Health Planning and Public Health Administration ........................................ 31
- Organization of Medical Care ................................... 31
- Health Laboratory Services ....................................... 32
- Nursing .......................................................................... 32
- Health Education ........................................................ 33
- Maternal and Child Health .......................................... 33

### Chapter 7. Environmental Health
- Community Water Supply ...................................... 35
- Environmental Pollution ........................................... 35
- Sanitation Services and Housing ............................. 36
- Wastes Disposal .......................................................... 37

### Chapter 8. Research
- Co-ordination of Medical Research .......................... 38
- Developments in Epidemiology and Communications Science ........................................ 38

### Chapter 9. Health Statistics ........................................................................ 39

### Chapter 10. Education and Training
- Travel Abroad for Studies and Scientific Exchanges ................................................................ 41
- Medical Education .......................................................... 41
- Training in Preventive Medicine and Public Health ........................................................................ 42
- Training of Auxiliary Personnel ........................................ 42
- Collaboration with the United Nations and the Specialized Agencies ........................................... 42
7. Regular Budget for 1967 ........................................ 180
8. Numbers and Distribution of the Staff ....................... 181
9. Composition of the Staff by Nationality .................... 183
10. Status of Malaria Eradication ................................ 184
11. Fellowships awarded, by Subject of Study and by Region, 1 December 1966 - 30 November 1967 185
12. WHO Collaborative Research: Contracts concluded with Institutions for Projects initiated in 1967 187
13. Research Grants for Training and Exchange in 1967, by Subject and Type of Grant .................. 188
14. WHO Reference Centres ........................................ 189
15. Publications issued by the World Health Organization in 1967 ........................................ 194
17. Structure of the World Health Organization ............. facing page 198

MAP

WHO Regional Offices and the Areas they serve .............. 54

The designations employed and the presentation of the material in the Official Records of the World Health Organization do not imply the expression of any opinion whatsoever on the part of the Director-General concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers.
INTRODUCTION

The twentieth anniversary of WHO in 1968 provides an opportunity to review the achievements and problems of recent years. For this purpose a special volume, The Second Ten Years of the World Health Organization, is being published, tracing the main developments in the Organization's work over the last decade, including those of 1967. This Annual Report is therefore shorter than usual and my comments here are directed only to a few outstanding aspects of the year's work.

It is axiomatic that any improvement in the health of a people depends on an integrated approach to preventive and curative services. As these services can best be effectively developed within the framework of a comprehensive health plan, WHO is substantially increasing its assistance to countries engaged in working out long-term plans for the building up of their national health services. In this connexion it is pleasing to record that in the Western Pacific Region nine of the countries and territories which have drawn up economic development plans included health as an integral part of the overall planning.

Despite certain advances, the development of the essential basic health services continues to be slow and difficult, mainly because of the financial obstacles encountered by many governments and the shortage of trained personnel.

WHO therefore continues to give the greatest possible emphasis to the development of health manpower. Studies on the revision of the medical curriculum have been concerned with practical instruction in the basic medical sciences and the use of single laboratories for multipurpose instruction, as well as the introduction of preventive and social medicine into the teaching of clinical subjects.

Difficulties in the recruitment of suitable personnel for teaching positions in developing countries continue, and the system, followed in certain South American countries, of using selected departments of medical schools for the training of teachers is therefore being studied. Collaboration between medical schools in fields of mutual benefit can be aided by associations of medical schools, both national and regional.

Manila was the venue of a conference of directors of schools of public health from the African, Eastern Mediterranean, South-East Asia and Western Pacific Regions. Topics examined included the current graduate programmes offered by schools of public health within those regions, research in public health practice, and future plans for co-operation amongst schools.

An expert committee discussed new trends, techniques and curricula for the education and training of sanitary engineers and others directly connected with solving environmental health problems.

Another expert committee and a travelling seminar in the Union of Soviet Socialist Republics on medical assistants have further explored ways and means for the best possible training and utilization
of health auxiliaries, whose functions, under adequate supervision, are steadily assuming greater significance in both developing and developed countries.

A number of surveys were undertaken during the year to determine the possibilities of establishing medical schools in various countries, and the assistance given by the Organization to schools for the health professions was examined against the relevant policies and principles established by the World Health Assembly, the Executive Board and the expert committee concerned with education and training. The experience gained since WHO's inception was assessed in its entirety by a group of medical educators who made recommendations for the future.

The lack of permanent basic health services has been the chief obstacle to the launching of pre-eradication activities against malaria, mainly in tropical Africa. While in the last two years some progress was made, the development of such services will be a long and slow process in most of the countries concerned. External aid has enabled countries in Central America to revise their campaigns, the progress of which was greatly hampered by technical and administrative difficulties. In a number of other countries, unfortunately, campaigns which were already yielding positive results have had to be interrupted for political or economic reasons. On the whole, however, the malaria eradication campaign can be considered a success. In the great majority of countries which have embarked upon eradication programmes, malaria has been either completely eliminated or greatly reduced. Future developments will be determined by our ability to solve the problems already mentioned, by the results of current research and by the outcome of the re-examination of the global strategy of malaria eradication requested by the Twentieth World Health Assembly.

The smallpox eradication programme is developing as a co-ordinated effort. By the end of 1967, eradication activities were under way in two-thirds of the endemic countries; during 1968, it is expected, virtually all endemic countries will be fully engaged in this undertaking.

There were no further advances in 1967 of the cholera pandemic and the disease appeared to be confined to its endemic areas in South-East Asia and the neighbouring areas in the Western Pacific. Cholera, however, is still a serious problem and the development of a potent vaccine was identified as one of the priority targets for international action by the inter-regional conference attended by ministers and high officials of countries from the Eastern Mediterranean and European Regions, who favoured international co-operation as a way of preventing the spread of cholera rather than measures restrictive to trade and traffic.

A number of outbreaks of plague occurred during the year in South America, Africa and South-East Asia. Concern over the possibility of its spread led to the holding in Manila of a seminar on international quarantine with special emphasis on plague control. Particular attention was given to the general problem of port and airport sanitation, including rodent and insect vector control. Measures in these areas are among the recommendations made by the Committee on International Quarantine, which met during the year to review the International Sanitary Regulations.

The year 1967 saw a sharp acceleration in the use of BCG vaccination, without prior tuberculin testing, often in association with smallpox vaccination, as a means of preventing tuberculosis. Diagnosis by direct microscopy and ambulatory chemotherapy also moved from the limited pilot phase into large-scale application in many developed countries. The "Achilles' heel" of the programme continues
to be treatment default, which is closely related to the degree and quality of integration of diagnosis and treatment in the basic health services. Thanks to effective, simple and standard tuberculosis control techniques, integration made great strides from discussion towards application in 1967. This process was facilitated by the regional and inter-regional training of managerial tuberculosis physicians concerned with programming, supervising and evaluating the work of multipurpose health workers.

The orientation of WHO, following extensive mass campaigns against yaws, has been gradually towards the integration of the continued local surveillance activities needed into the functions of the general health services. There are recognized limitations to the extent of such integration, until a proper infrastructure of health services has been created. In the meantime, sero-epidemiological surveys have shown in several countries that low-level transmission of yaws continues to take place in previous mass campaign areas and there have been sporadic focal outbreaks. In this context, the discovery, in certain monkeys in Africa, of a treponema similar to that of yaws has led to the investigation of a possible extra-human reservoir of the disease.

The rising incidence of syphilis during the last ten years has focused attention on the need for new control techniques, in addition to the still highly effective drugs available for individual case treatment. Research directed toward the development of an immunizing agent is being undertaken in several laboratories in the context of the WHO programme. High prevalence of gonococcal infections is also reported in several parts of the world. The control of both gonorrhea and syphilis is increasingly dependent upon human and other ecological factors little influenced by antibiotics, including changing anti-conceptional methods, altered ethical, moral and behavioural codes, travel and population movements, urbanization and industrialization.

A further step forward in extending and enlarging the collaboration between national laboratories and WHO virus reference centres was made through the realization of a meeting on joint activities of WHO virus reference centres and national virus laboratories organized by WHO in the WHO Regional Reference Centre at the National Communicable Disease Center, Atlanta, USA. This meeting also had two other purposes: to acquaint the participants with recently-developed laboratory methods and to review scientific advances in virology. The participants came from twelve countries in the Americas. The success and usefulness of this meeting led WHO to plan similar meetings for participants from Africa, the Eastern Mediterranean and Europe.

In the Federal Republic of Germany an outbreak of a serious disease, due to a transmissible but as yet unidentified agent, occurred among laboratory workers who were in contact with blood and tissues of Cercopithecus aethiops monkeys from Uganda. Two cases also occurred in Yugoslavia. Personnel handling the monkeys (but not having contact with their blood and tissues) in the place of origin, during transport, or at the receiving laboratories, were not affected. Materials from this epidemic are being studied in a number of laboratories, including the International Reference Centre for Arboviruses at Yale University, United States of America, and the Regional Reference Centres at Dakar, Senegal, and at Entebbe, Uganda.

* 

Advances in vector control continued to bring reinforcements to the struggle against the communicable diseases. In an experimental field study begun in January 1967 by the WHO filariasis
research unit in Rangoon, fenthion proved to be a highly effective larvicide against the main urban vector of filariasis, Culex pipiens fatigans, and an extremely high level of control has been obtained. Another promising aspect of the unit’s work is related to the control of that mosquito through genetic manipulation based upon cytoplasmic incompatibility.

Field trials in three widely separated countries have shown that a new carbamate insecticide, OMS-33, has a high efficiency in the control of anophelines for two to four or more months depending on the species of mosquito, and that the chemical can be used under operational conditions provided certain simple safety measures necessary to protect the health of the sprayers are observed.

* 

Four outbreaks of food poisoning occurred in the course of the year in Qatar and Saudi Arabia affecting more than 1200 people and causing twenty-six deaths. Investigations carried out by WHO confirmed that the incidents were caused by the contamination of flour by leakage from drums of an agricultural insecticide during shipment by sea. The Inter-Governmental Maritime Consultative Organization and WHO have accordingly called the attention of governments to the existing international maritime conventions concerning packing and stowing of dangerous goods on board ship.

Poisoning outbreaks also occurred in Colombia and Mexico, due to the contamination of flour and sugar by another insecticide during transport by land. The prevention of such accidents is being studied by WHO.

* 

With the assistance of the United Nations Development Programme, the Organization has been able to honour an increasing number of requests from Member States anxious to improve their environmental health conditions. During 1967, projects were approved for major water supply and sewerage improvements for Ibadan, Nigeria, for the Greater Kampala and Jinja areas in Uganda, for the southwest coastal area of Ceylon and for the coastal area of Morocco. These are in addition to other projects in the environmental health field already approved for Ghana (Accra-Tema), India (Calcutta), Senegal (Dakar), Turkey (Istanbul), Philippines (Manila), Malta and for river pollution control in Poland.

* 

The publication of the volume entitled Histological Typing of Lung Tumours, the first in the series of the International Histological Classification of Tumours, was well received. During 1967 work continued on the series and the classifications of breast, soft tissue and oropharyngeal tumours reached the final stage of preparation and will be published shortly.

Because of its increasing incidence, particularly among younger age groups, ischaemic heart disease has been singled out as the main subject of WHO’s interest in the field of cardiovascular disorders. A large-scale co-operative trial, aiming at the prevention of the occurrence of ischaemic heart disease
by lowering blood lipid levels in healthy subjects, is under way in Budapest, Edinburgh and Prague. Other studies of the disease in areas with infrequent atherosclerosis aim at clarifying the role of known etiological factors such as hypertension, as well as at identifying other factors yet unknown.

Emphasis is being laid on the improvement of training in mental health and psychiatry. The place of these topics in the undergraduate medical curriculum was the subject of a seminar in Peru attended by professors of psychiatry and deans of medical schools from Latin American and Caribbean countries. Other activities in 1967 included the third of the annual seminars on diagnosis, classification and statistics in psychiatry, devoted to mental disorders of childhood; the completion of the preparatory phases of the international pilot study of schizophrenia involving eight field research centres; and a meeting of a scientific group on neurophysiology which was the third in a series of meetings convened to consider collaborative research in specific aspects of biological psychiatry.

* 

The Organization participated in a study by the United Nations Advisory Committee on the Application of Science and Technology to Development concerned with increased production and improved utilization of protein resources in the world. The report, which was submitted to the forty-third session of the Economic and Social Council and to the twenty-second session of the General Assembly of the United Nations, seeks solution to the problem of protein-calorie malnutrition, one of the main health hazards in developing areas.

* 

The health aspects of population dynamics received increasing attention during 1967. In the Americas, the Regional Office established a special unit for this purpose and received several requests from governments leading to preliminary studies based on the assumption that programmes will develop as part of the maternal and child health activities of the health services.

Scientific groups reviewed the basic and clinical aspects of intra-uterine devices and hormonal steroids used in the regulation of fertility. Field studies of different population groups, to investigate various parameters of reproductive function as well as the health aspects of population changes, are being assisted and supported by WHO. Work has begun on the establishment of standards for clinical trials with fertility-regulating agents and guidelines for the collection and evaluation of relevant data. Special consideration has been given to the training of university teachers and professional staff in the general area of health aspects of population dynamics.

* 

During the year the Manual of the International Classification of Diseases (Eighth Revision) was prepared for publication in English, French, Russian and Spanish, and WHO is grateful to the classification centres for their assistance in this exacting task.
It is pleasing to report that in September the new building of the Regional Office for Africa was officially inaugurated in the presence of Mr Alphonse Massamba-Debat, President of the Republic of the Congo. This building, which incorporates the earlier one, is as attractive as it is functional and should surely enhance the work done there for the African Region.

It is also pleasing to record that during the year Barbados and Lesotho became Members of the World Health Organization. The total membership of the Organization thus stands at 129, including three Associate Members.

Director-General

M.G. Canadair
PART I

GENERAL REVIEW
CHAPTER 1

MALARIA ERADICATION

Progress in Malaria Eradication

Further advances towards eradication of malaria were made in a number of countries and three more countries embarked on malaria eradication during the year. In others, however, the programmes have shown little progress and in some instances setbacks have occurred, mainly because of disturbed local conditions, or failure to give sufficient priority and financial support to malaria programmes.

Of the 148 countries in which there are areas that were originally malarious, thirteen are now entered in the official register of those from which malaria has been eradicated; twelve of them have eradicated malaria from all such areas. Twenty-two more countries have claimed eradication for the whole country but have not yet been entered in the official register. The Organization is assisting forty-six countries with malaria eradication programmes (a further eight are carrying out similar programmes without direct assistance from WHO), and twenty-two are receiving assistance with other antimalaria programmes (see Annex 10).

Further information on the development of programmes in the regions is given in Part II of this volume. A detailed progress report on the malaria eradication programme was prepared for the Twenty-first World Health Assembly to be held in May 1968.1

UNICEF provided supplies for twenty-three eradication programmes, sixteen of them in the Americas, and gave assistance with the development of rural health services to further the implementation of integrated antimalaria operations. The United States Agency for International Development (AID) provided assistance to sixteen eradication programmes and to the international malaria eradication training centre in Manila; staff of the United States Public Health Service gave technical support to a number of these programmes in collaboration with WHO.

The World Food Programme continued to make food allocations for auxiliary staff of the national malaria eradication service in Turkey, and the arrangement was considered for extended use as an incentive to staff for other programmes.

Training in Malaria Eradication

A meeting was held at the international malaria eradication training centre in Lagos in April and May with the participation of staff from the United States Public Health Service and the University of Lagos, to study teaching methods and the production of teaching aids for malaria eradication training centres. The international malaria eradication training centres at Lomé, Manila and Maracay continued to hold regular courses for professional and technical staff for malaria eradication and pre-eradication programmes. The courses were attended by national personnel and personnel for programmes in other countries. Special courses were held for epidemiologists and for instructors of national training centres and public health advisers in rural health service development programmes.

The national training centres in Ethiopia, India, Iran, Mexico, Pakistan and Sudan continued their work in co-operation with the Organization; many of them accepted trainees from other countries. The new centre at Kuala Lumpur started to train personnel for the programme in West Malaysia, and training activities recommended at Tala, Philippines. The centres in Algeria and Brazil were transferred to more suitable locations. Under the scheme for the exchange of malaria workers four groups were given facilities for the study of programmes in other countries.

Research

During the first ten months of 1967, forty-six agreements were concluded between WHO and national research institutes for studies on parasitology, epidemiology, chemotherapy, immunology and entomology in relation to malaria.

Work continued with WHO assistance on the synthesis of new potential antimalarial compounds in Czechoslovakia, the Federal Republic of Germany, and Poland. During the initial screening of compounds carried out in these countries and in India, extensive use was made of rodent parasites. Studies on the cyclical transmission of these parasites started in Belgium, and trials were undertaken in France to provide a laboratory model using the exoerythrocytic

1 The corresponding report for 1966 has been published in Official Records No. 160, Annex 6.
forms. In the field, the search for new species of these parasites was in progress in the Congo (Brazzaville), India, the Ivory Coast and Sierra Leone. Studies began on the possibility of in vitro cultivation of rodent parasites in the United States of America and others, on primate parasites, continued in the United Kingdom. Studies on simian malaria in Brazil also continued. Work on the development of an automatic scanning device for detecting malaria parasites was carried out in Israel.

Drug trials using sulformetoxine alone and in combination with pyrimethamine started in Kenya, and studies of the response of Plasmodium falciparum to 4-aminoquinolines were carried out in the United Republic of Tanzania and also in Cameroon, where chloroquine is widely distributed to schoolchildren. Laboratory investigations into the development of chloroquine resistance continued in the United Kingdom.

Investigations on the development of immune response in rodent and simian malaria using irradiated Plasmodia started in France and Italy, and studies on the immunological characteristics of various stages of these parasites in both host and vector were undertaken in the United Kingdom along with trials of freeze-drying to preserve viability and immunological characteristics in sporozoites. Other studies were carried out in Italy on immunological mechanisms influencing the susceptibility of anopheline mosquitoes to Plasmodium infections.

Work continued for assessment of the longevity of malaria parasites and duration of immunity in semi-immune immigrants in France; of residual immunity in Romania, where malaria has been eradicated; and of the degree of immunity in populations in areas in West Africa where malaria is highly endemic. Other aspects of immunity to malaria in humans were undertaken in Nigeria in relation to pregnancy and to nutrition.

In the field of entomology, preliminary investigations on the practical possibility of biological control of Anopheles gambiae by introduction of sterile males cross-bred from other species of the complex were made in the United Kingdom, and the biological and cytogenic differentiation of members of this complex began in Italy. Other work was undertaken in East Malaysia (Sarawak), Greece and India on vectors of human malaria and in the United Kingdom on the host-parasite relationship in anopheline vectors of rodent malaria.

A field research trial for developing a method of interrupting transmission in savanna areas in Africa by the combined use of drugs and insecticides was in progress in Nigeria. In Guatemala a field trial was started, using the long-acting injectable drug cycloguanil embonate, and in Colombia studies continued in the use of various regimens for radical treatment.

Meetings and Publications

A scientific group on chemotherapy of malaria met in April and May. It reviewed results of laboratory research and field trials carried out in recent years on antimalarial drugs, the drugs available for the prevention and treatment of malaria and the practical problems involved in drug administration in malaria eradication programmes. The present position of drug resistance of human malaria parasites was surveyed and criteria were proposed for various levels of drug resistance. Recommendations were made on improving the procedure for assessing the response of malaria to treatment, on the measures to be taken in malaria eradication programmes when drug resistance had been encountered, and on further research in the chemotherapy of malaria.

A scientific group on immunology in malaria met in September (see page 28). The WHO Expert Committee on Malaria, which also met in September, reviewed a number of technical and operational aspects of the programme. The Committee, in accordance with the procedure recently adopted for certification of malaria eradication, examined the applications from Cyprus, Poland and Romania to be included in the WHO official register of areas from which malaria has been eradicated, and recommended their inclusion.

Resolution WHA20.14 of the Twentieth World Health Assembly requested the Director General to study how best to carry out a re-examination of the global strategy of malaria eradication and to report to the Twenty-first World Health Assembly. This study was started and the Director-General obtained the advice of an advisory group composed of economists, planners, public health administrators and malariologists which met in November 1967.

Other meetings sponsored by the Organization

included eleven inter-country co-ordination and border meetings in the Region of the Americas and the South-East Asia, Eastern Mediterranean and Western Pacific Regions.

Details of the epidemiological status of malaria throughout the world were reported in the *Weekly Epidemiological Record*,¹ together with information on the origin of imported cases, the official register of areas where malaria has been eradicated and a supplementary list of malaria-free areas. Articles on various aspects of malaria eradication and results of malaria research stimulated by the Organization appeared in the *Bulletin*.²


CHAPTER 2

COMMUNICABLE DISEASES

This chapter deals not only with assistance in the control of communicable diseases and with the promotion of research on those diseases, but also with some more general activities such as epidemiological surveillance and international quarantine.

Among noteworthy developments was the extension to many countries of efforts for the eradication of smallpox, in the first year of the intensified world programme. There was also wide activity in the programme for the surveillance of communicable diseases at national and world level, with the support of WHO serum reference banks and reference laboratories.

The Organization made provision for emergency teams to give immediate advice and assistance in investigating any serious outbreak of disease of bacterial or virus origin which might constitute a threat to international health. In addition to the assistance provided to several countries in connexion with cholera, mentioned under Bacterial Diseases below, teams were sent to the Ivory Coast and Liberia to investigate an outbreak of yellow fever and to Burundi to assist in controlling an epidemic of typhus.

Other activities have included the provision of facilities for training in epidemiology, in particular through the advanced courses, concentrating on tropical diseases, for medical officers from developing countries. The course which began in Prague in November 1966 continued with three months' training in New Delhi and was completed in July 1967. A further course was organized in August 1967 with trainees from the African, South-East Asia and Eastern Mediterranean Regions.

WHO co-operated with UNESCO in sponsoring the second International Conference on Global Impacts of Applied Microbiology, held in Addis Ababa in November. It served to demonstrate the important role of microbiology in communicable disease control and prevention and in relation to environmental health, nutrition, agriculture and genetics.

Epidemiological Surveillance

The development of national and international programmes of epidemiological surveillance has opened up further sources of data of practical or potential value in the control of communicable diseases, particularly haemorrhagic fever, salmonellosis and rabies. The increasing importance attached to the subject is reflected in the choice of "National and global surveillance of communicable diseases" as the theme for the technical discussions to be held at the Twenty-first World Health Assembly. Documents to provide background information for the discussions were prepared.

Following sero-epidemiological surveys in Afghanistan, Kenya and Mongolia, antibody determinations by age-groups were obtained from the Serum Reference Bank at the Institute of Epidemiology and Microbiology, Prague, as a basis for planning implementation of vaccination programmes in the two latter countries.

Information on the spread in recent years of mosquito-borne haemorrhagic fever and other infections due to dengue viruses, and on the distribution of their main vector, Aedes aegypti, was collected through a survey carried out in Burma, Ceylon, East Pakistan, India, Indonesia, Malaysia, the Philippines, Singapore and Thailand. Following that survey, a haemorrhagic fever surveillance programme is being planned, based on a network of notification posts and peripheral laboratories linked with reference laboratories in Ceylon, India and Thailand. Associated entomological, clinical, virological and epidemiological studies are being formulated to define haemorrhagic-fever receptive areas.

In Europe, Salmonella surveillance was instituted. The system is based on national reference centres which send to the Organization monthly reports on standard epidemiological forms. The International Salmonella Centre at the Pasteur Institute, Paris, assisted in the implementation of this programme.

International Quarantine

The Committee on International Quarantine, which met in December 1967, made a detailed review of the International Sanitary Regulations and proposed new international health regulations which will be submitted to the Twenty-first World Health Assembly in May 1968.

In view of the progress in medical sciences, changing epidemiological conditions and traffic developments,
the Committee recommended that only cholera, plague, smallpox and yellow fever continue to be subject to international regulations. It considered that control of malaria vectors in international traffic should be continued, and that typhus, relapsing fever, influenza and paralytic poliomyelitis should be subject to international surveillance. The Committee stressed the need for adequate medical services, efficient vector control and a high level of sanitation at all international ports and airports, and that land traffic and population movements should be subjected to appropriate health control measures. It considered that sanitary measures, particularly vector control, should also apply to container traffic, and recommended the study of health clearance procedures to deal with increases in traffic and in the use of large-capacity aircraft.

The Committee also studied a number of problems that had arisen in the application of the present Regulations, especially in connexion with cholera. Until August cholera was confined to Burma, Cambodia, India, Indonesia, East Pakistan, the Philippines, Thailand and Viet-Nam. Then, for the first time in two years, it was reported in West Pakistan, but did not spread further west.

Considerably more cases of smallpox were reported in 1967 than in 1966, owing principally to a marked increase in India and Pakistan. Two cases of imported smallpox occurred in the Federal Republic of Germany and one in Czechoslovakia among passengers by air from India. In each case they were residents of the countries concerned, and they carried valid smallpox vaccination certificates. India reported twenty-five cases of smallpox imported from Nepal. One case (a three-year-old girl) was brought from Pakistan into the United Kingdom, where her mother developed light modified smallpox. One case was imported into Kenya and nine into Trucial Oman from India. In Africa, importation of cases over land frontiers continued to be a major problem.

Jungle yellow fever was reported in the Americas (in Argentina, Brazil, Colombia and Peru), whereas only two cases were reported in Africa (in Liberia).

Plague was again reported in Asia, Africa and the Americas. The Republic of Viet-Nam notified over 5000 cases; Burma had over a hundred. A new outbreak was reported in Nepal. There were a few cases in areas in the Democratic Republic of the Congo, Kenya and Madagascar in which natural foci of plague persist. Cases were also reported in similar areas of Brazil, Ecuador, Peru and the United States of America.

Revisions of the WHO Epidemiological Cable Code (CODEPID) Map Supplement for the Democratic Republic of the Congo, Mali, the United Republic of Tanzania and West Malaysia were published in the Weekly Epidemiological Record.

Only minor difficulties were experienced with the new smallpox vaccination certificate, which became compulsory on 1 January 1967; in some instances old certificates were used for new vaccinations, which meant that the origin and batch number of the vaccine used were not recorded.

Co-operation with ICAO, IMCO and the International Air Transport Association continued on a day-to-day basis on matters of common interest concerning the International Sanitary Regulations.

Smallpox Eradication

In 1967, the first year of the intensified worldwide programme of smallpox eradication, programmes were initiated in thirty-six countries and plans were made to extend the eradication effort during 1968 to most of the remaining countries where smallpox is endemic.

Programme development was most marked in Africa. Nineteen countries in West and Central Africa initiated eradication programmes with technical aid, material and supplies provided through bilateral assistance, and with assistance from WHO. Over 20 million of the 125 million persons in these countries were vaccinated during 1967; jet injectors were widely used.

Although the geographic area in which smallpox is endemic was further reduced, the incidence of the disease increased to its highest level in four years. Extensive outbreaks in India and Pakistan were the principal factors accounting for the sharp increase in cases.

In addition to large quantities of vaccine supplied through bilateral assistance to Asian and African countries, donations of vaccine and equipment were offered by eighteen countries to the WHO Special Account for Smallpox Eradication. Through these donations, ample quantities of freeze-dried vaccine were for the first time available to the endemic countries. A vaccine depot was established in Geneva to provide emergency assistance to smallpox-free countries on the fringe of endemic areas, which suffered outbreaks of the disease through imported cases, and was drawn upon to provide vaccine to Kuwait and Trucial Oman.

A scientific group met in October to consider all technical and operational aspects of smallpox eradication. A handbook on the conduct of eradication

---

programmes was developed and made available to all countries in which the disease is endemic, and surveillance and progress reports were prepared for distribution. In December, a seminar on smallpox eradication was held in Bangkok for the Asian countries. Two laboratory training courses in diagnostic methodology were conducted in the Americas.

Close collaboration was maintained with other organizations providing assistance to the programme, including UNICEF—which, jointly with WHO, is assisting in the production of freeze-dried vaccine—the World Food Programme and the League of Red Cross Societies.

An additional regional reference centre was established and arrangements were made with one of the principal vaccine-producing institutions to provide assistance with advisory services, testing facilities and training to vaccine producers in the Americas.

Virus Diseases

A scientific group reviewed recent advances in respiratory viruses and advised on the future programme of WHO in influenza and other respiratory virus infections. The group considered that in order to prevent or combat future epidemics more information was needed on the epidemiology of influenza, particularly on the occurrence of infection between epidemics, with a careful analysis of the related climatic, social and immunological factors. The prevention of respiratory virus infections other than influenza was reviewed, with special reference to the difficulty of using vaccine owing to the large numbers of serotypes.

In July a meeting on joint activities of WHO virus reference centres and national virus laboratories was held in the Regional Reference Centre at the National Communicable Disease Center, Atlanta, Ga., USA, with participants from twelve countries in the Region of the Americas. The meeting had three main purposes: to acquaint participants with recently developed laboratory methods, to review recent scientific advances and to extend the collaboration between national laboratories and the WHO virus reference centres.

Four more laboratories—in Chile (Santiago), Norway (Oslo), Trinidad (Port of Spain) and the United States of America (Chicago)—joined the WHO scheme for the regular collection of information on virus infections and its dissemination in a quarterly report.¹


Virological and epidemiological information on arbovirus infections, both human and animal, continued to be obtained from the WHO arbovirus reference centres and collaborating laboratories.

The provision and testing of reagents was again a main activity of the WHO programme against virus diseases. Another series of enterovirus antisera prepared in monkeys at the Research Reagents Branch of the National Institute of Allergy and Infectious Diseases, Bethesda, Md., USA, was sent to WHO for consideration as international reference reagents. Studies have been set up in the reference centres and collaborating laboratories for the testing of respiratory virus antisera prepared in guinea-pigs in the Regional Reference Centre at the Ivanovsky Institute of Virology, Moscow; additional adenovirus and enterovirus antisera prepared in the Research Reagents Branch of the United States National Institute of Allergy and Infectious Diseases; and respiratory syncytial (RS) mumps and simian virus (SV5) antisera prepared in horses in the National Communicable Disease Center, Atlanta, Ga., USA.

The work on the characterization of rhinoviruses continued; forty more candidate strains are being studied.

The American Type Culture Collection was appointed WHO International Reference Centre for Cell Cultures, and it will distribute cell cultures to the WHO virus reference centres and study new cell cultures submitted by the centres.

As has been done annually for many years, a set of influenza reagents prepared at the International Influenza Centre for the Americas and tested at the World Influenza Centre, London, was distributed to national influenza centres.

Respiratory Viruses

The first phase of the collaborative programme to define the etiology of severe respiratory virus infections in children, particularly in tropical and semi-tropical areas, by serological studies was completed and a report prepared for publication in the Bulletin. The second phase, in which the isolation of viruses is being undertaken in addition to the serological examination, has begun in laboratories in Argentina, Chile, Hong Kong, Hungary, Senegal, Trinidad, United Arab Republic and Uruguay. These laboratories receive monkey kidney and human diploid cell lines twice monthly from London under an agreement between WHO and the British Medical Research Council.
**Poliovirus and other Enteroviruses**

Because of the continued use of poliovaccine in most countries in Europe and North America and in Australia and New Zealand, the incidence of poliomyelitis in those countries is very low. In Czechoslovakia, Sweden and the United Kingdom a WHO-assisted surveillance study of the level of immunity in different age-groups and of the circulation of virus in the community was set up as a check on the effectiveness of the vaccination programmes.

In tropical and semi-tropical areas poliomyelitis is an increasing problem. Because there is evidence of low sero-conversion rates after the use of poliovaccine in hot climates, a special WHO-assisted study has been organized in Nigeria for the examination of different vaccination schedules in order to find the most effective for use in such areas.

Collaborative studies on a strain of type 3 poliovirus which may be useful as a vaccine virus were established, and the setting-up of a scheme for characterizing new types of enteroviruses is under consideration.

**Measles**

The widespread use of measles vaccines in many countries with high death-rates from the disease is limited by two main difficulties—the high cost of the vaccines and the absence of sufficient health services to ensure the regular vaccination of children.

Research workers in the USSR received WHO assistance for a study of a mixed smallpox and measles vaccine, and in pilot studies in Israel measles vaccines from new strains are being compared with vaccines from established strains.

**Rubella**

The collaborative study to determine levels of antibody to rubella virus in different age-groups (especially among women of childbearing age) in various countries was completed and a report published. About eighty per cent. of the women of childbearing age were found to have antibodies against rubella in all countries studied except Jamaica, Trinidad, and a rural area in Japan, where the proportion was much lower. A new study, on similar lines, but covering both urban and rural areas in other parts of the world, was started with the participation of nine laboratories in Central and South America.

**Arboviruses**

Towards the end of 1966, outbreaks of a febrile disease accompanied by arthralgia and in some cases by rash were reported in the areas of Rufisque and Diakhao in Senegal. The Pasteur Institute, Dakar, WHO Regional Reference Centre for Arboviruses, investigated these outbreaks. Sixteen strains of chikungunya virus were isolated from the blood of patients in Diakhao and one from a lot of *Aedes aegypti* from the same area.

Other teams from the same institute carrying out epidemiological investigations of yellow fever in a mangrove forest near Saboya isolated chikungunya virus from two lots of *Aedes luteocephalus* collected in the forest. One of the group collecting mosquitoes became ill and chikungunya virus was isolated from his blood. High antibody titres for chikungunya virus were found in the sera of monkeys caught in the forest. It appears that in the Rufisque and Diakhao areas there was an "urban" cycle with *A. aegypti* as the vector, while in the Saboya forest a "rural" cycle was involved, with *A. luteocephalus* as the main vector. These findings point to a similarity in the epidemiology of chikungunya and yellow fever.

Studies carried out by the Regional Reference Centre for Arboviruses in Atlanta, Ga., USA, have shown that house sparrows and pigeons are important in the dissemination of St Louis encephalitis virus in epidemics occurring in cities. In one city, aerial spraying of concentrated malathion insecticide in very low volume was found effectively to reduce the adult mosquito vector population (*Culex quinquefasciatus*); the number of adult mosquitoes was reduced almost to nil for about a week, a period long enough to break the mosquito/bird infection cycle.

Two outbreaks of serious and sometimes fatal disease occurred simultaneously in laboratory workers handling tissues from Ugandan *Cercopithecus* monkeys in Frankfurt and Marburg, Federal Republic of Germany. A similar case occurred in Belgrade, Yugoslavia, with a secondary case in a person who attended the patient and took blood samples. Material from the patients was examined in the WHO arbovirus reference centres, where serological tests for arboviruses gave negative results. An agent has been isolated from the blood of patients, but has not yet been identified.

**Trachoma**

WHO continued to assist the International Reference Centre for Trachoma at the Francis I. Proctor Foundation for Research in Ophthalmology, University of California Medical Centre, San Francisco, USA, in developing its reference services and its programme of research. A study was started to investigate the possible occurrence and epidemiological importance of extraocular trachoma and inclusion conjunctivitis (TRIC) infections in an area where trachoma is endemic. Studies were continued to improve laboratory methods...
for testing new therapeutic substances and to develop
techniques for early detection of acquired resistance
to drugs currently in use. Because of the disappoint-
ingly slow progress in developing an effective
trachoma vaccine, WHO is supporting additional basic
research, particularly on the antigenic components of
TRIC agents.

WHO continued its assistance to twelve Member
States in developing their trachoma control pro-
grammes. An interim clinical evaluation of the WHO-
assisted project in China (Taiwan) showed that a
satisfactory rate of cure was being maintained despite
earlier fears of increasing resistance to the tetracycline
antibiotics that had been widely used throughout the
island for more than a decade.

Parasitic Diseases

WHO increased its participation in investigations
conducted in areas where economic development might
be hampered by the presence of parasitic diseases,
such as schistosomiasis or onchocerciasis, and in areas
where development schemes, such as those for irri-
gation and agricultural settlement, might themselves
contribute to the spread of these diseases.

In addition to technical aid for control projects,
assistance has been provided to countries in the
training of personnel. A course on methods and
techniques for parasitic disease surveys held in Kam-
pala, Uganda, provided practical training in the latest
techniques for parasitic disease surveys held in Kam-
pala, Uganda, provided practical training in the latest
development schemes, such as those for irri-
gation and agricultural settlement, might themselves
collaboration with FAO.

Countries made greater use of services provided by
WHO international reference centres and other
collaborating institutes to field and research workers
—for example, the services for identification and
distribution of reference strains of parasites and vec-
tors, and antigens and sera.

Publications and information bulletins continued
to be issued regularly. A brochure describing the
health implications of water-related parasitic diseases
in water development schemes was published in

Schistosomiasis

A WHO team which carried out an investigation
on Khong Island in south-western Laos discovered a
fairly extensive focus of Schistosoma japonicum in
humans. This finding is of significance for the large-
scale programme for the development of water re-
ources in the Mekong River Basin being undertaken
with the assistance of the Mekong Committee of
the Economic Commission for Asia and the Far
East. An investigation on the suspected occurrence
of S. mansoni continued in two northern provinces of
Argentina.

Other epidemiological findings reported from WHO-
supported studies are that S. intercalatum is common
in the Libreville area in Gabon, where twenty per cent.
of schoolchildren were found to be infected, and that
the disease affects from fifty to ninety per cent. of
inhabitants of certain communities in the Niari Valley
in the Congo (Brazzaville).

In Nigeria, the bilharziasis research team, which is
to develop methods and techniques required for epi-
demiological investigations and the control of schisto-
somiasis, began its study of the factors that are deter-
minant in maintaining endemicity. Quantitative pro-
cedures are being sought for the measurement of the
severity of schistosomal lesions, in particular for
 correlating egg-outputs with wormloads and patho-

Testing of molluscicides has been extended to a
new station in Iran. Two new compounds (a fluoro-
salan and a bromosalan) have been shown to be as
effective as niclosamide against Oncomelania nosophora.
One compound isolated from the plant Phytolacca
abyssinica which has proved to be active against snails
is being purified to determine the active ingredient.

In the clinical and field testing of promising drugs,
new trials at the Bilharziasis Chemotherapy Centre,
Tanga and in Dar-es-Salaam, United Republic of
Tanzania, showed that niridazole gave a high cure rate
with minor side-effects in children with S. haematobium.
Reports from other collaborating institutes indicate
that neuro-psychiatric side-effects of the drug are more
frequent in S. japonicum and S. mansoni cases with
advanced liver damage.
COMMUNICABLE DISEASES

The number of laboratories taking part in the studies supported by WHO on the sero-immunology of schistosomiasis increased. An evaluation was made in London of the relative sensitivity of several antigens against sera collected by collaborating laboratories from patients with active schistosomiasis.

A four-week inter-regional training course on malacology was held at the WHO Snail Identification Centre in the Danish Bilharziasis Laboratory, Copenhagen.

Filarial Infections

Two filariasis control projects, in Ceylon and Western Samoa, were assisted by WHO. A new WHO-sponsord study of blood parasites in Malaysian forest animals is being made by an institute in Kula Lumpur with the aim of finding an animal infected with bancrofti-like microfilariae for use in experimental studies, and in particular for the testing of drugs. A partially successful attempt to immunize monkeys against Brugia malayi was reported from a study carried out with WHO support at the same institute.

WHO assisted in the planning of an onchocerciasis control project in Guinea. Epidemiological research on transmission and morbidity was pursued in several field and laboratory studies supported by WHO. A useful laboratory model (Onchocerca gutturosa, transmitted to cattle by Simulium ornatum) has been developed in London, and techniques for the maintenance of microfilariae in vitro are being studied; a feeding method has been developed which will make maintenance of flies easier and facilitate experimental transmission studies. Experiments were conducted in Tübingen, Federal Republic of Germany, on the factors determining sexual attraction in Simulium flies. Research workers in Kingston, Ontario, Canada, found that, for studies on the flight range of Simulium, the technique of 32P tagging, recovery by sticky traps and detection by radio-autography was practical and effective.

The WHO epidemiological advisory team on onchocerciasis completed its assessment of existing data and of control measures to be used in the Volta River Basin pilot control project.

Other Helminthic Infections

An expert committee on the control of ascariasis met in Geneva in June. After assessing the importance of ascariasis in different parts of the world, it noted that the efficacy and freedom from toxicity of therapeutic drugs have made mass treatment safe, effective and feasible.

In view of the encouraging results achieved in China (Taiwan) in preliminary WHO-assisted trials of ascariasis control by mass chemotherapy, detailed recommendations were made for a national control programme.

Trypanosomiasis

Assistance was provided for the control of African trypanosomiasis in Botswana, and operational research, financed under the Special Fund component of the United Nations Development Programme, for which WHO is the executing agency, started in the Nyanza and Western Provinces of Kenya.

The main emphasis in research on African trypanosomiasis has been on the immunology of the disease. The WHO International Reference Centre for Immunoglobulins in Lausanne, Switzerland, received additional support for the preparation of large amounts of anti-immunoglobulin M (IgM) serum for screening surveys. Such a survey was started with WHO assistance in Rwanda at the end of the year. Workers in Edinburgh have been assisted in developing a coding system for antigenic types which should facilitate comparison of trypanosome strains from different areas of Africa. This is essential to an assessment of the practical possibility of vaccination against African trypanosomes. Two African research institutes received support for a study of the development and duration of immunity.

A scientific group on comparative studies of American and African trypanosomiasis, held in Washington, D.C., in December, drew attention to recent findings applicable from one to the other and offered suggestions on ways of achieving further progress.

Leishmaniasis

Clinical studies and investigations of possible vectors and reservoir hosts were assisted in Brazil, Ethiopia, France, Iraq and the United Arab Republic. WHO sponsored a travelling seminar on leishmaniasis in the USSR which was attended by seventeen participants from fifteen countries (for details, see page 165).

Vector Biology and Control

The most important advances made in vector biology and control during the year were the achievement of a high level of control of Culex fatigans in an experimental area in Rangoon, the successful use of cytoplasmic incompatibility in the control of C. fatigans in a village in Burma and the demonstration of the effectiveness of the carbamate compound OMS-33 in the control of anopheline mosquitos.

Resistance to Insecticides

A worldwide survey of the resistance of Aedes aegypti and Xenopsylla cheopis was completed; A. aegypti has developed resistance to DDT and
dieldrin in the Caribbean area and to DDT in the South-East Asia Region; no resistance has yet been observed in West Africa. The survey on X. cheopis has indicated that new foci of resistance exist in Burma, Thailand and Viet-Nam. Collaborative studies on the ability of certain insect species to develop resistance to new insecticides were completed. Other studies have shown that A. aegypti has developed tolerance to the sterilizing effect of the chemosterilant apholate and that houseflies have developed considerable resistance to another chemosterilant, metepa.

A number of WHO collaborating laboratories carried out investigations on the genetics and biochemical basis of resistance. The inheritance of DDT-resistance was studied in A. aegypti and body lice, and the genetic association of DDT-resistance and dieldrin-resistance in Culex pipiens fatigans.

A major effort was made critically to appraise work on the resistance problem carried out during the past decade. An extensive review on advances made between 1961 and 1966 in the understanding of insecticide resistance in insects affecting human health was prepared. Special reviews were also prepared on the genetics of resistance, cross-resistance, the biochemical basis of resistance and countermeasures to resistance.

Evaluation of New Insecticides

Under the programme for the evaluation of new insecticides, 1249 compounds in all have been tested.1 In 1967, sixty-five new compounds were examined in Stage I and thirty-seven were sufficiently promising to carry forward to Stages II and III. Experimental hut trials at Stage IV were carried out with six compounds on adult anopheline mosquitos in East and West Africa and in Central Africa. The chemical investigations of the new insecticides being tested at Stages IV, V and VI have been intensified. In addition to testing by stages, analytical methods have been developed for three compounds tested during the year, and studies of the storage stability of two compounds under tropical conditions have been undertaken.

The terms of reference of the Insecticides Testing Unit were extended to include investigations of ecology and chemistry. The unit, renamed the Anopheles Control Research Unit, was transferred from Lagos to Kaduna, where greater opportunities for field work exist. Stage IV hut trials of two carbamate insecticides, OMS-708 and OMS-1064, and a Stage V village scale trial of OMS-597 (also a carbamate) were undertaken, as well as investigations of the indoor resting habits of Anopheles gambiae.

The research team for the advanced field evaluation of new insecticides was divided into two units. One was assigned to Borazjan, Iran, to carry out a Stage VI operational trial of the carbamate compound, OMS-33, which proved highly efficient for approximately four months in that area. The other unit was attached to the Anopheles Control Research Unit in Kaduna and carried out an operational trial of the same insecticide.

In El Salvador, the regional insecticide testing team carried out experimental hut trials with the carbamates OMS-716 and OMS-708. In a small Stage VI operational trial in the same area OMS-33 had an effective period of about three months, and its vapour had a toxic effect on mosquitos, extending for some distance from sprayed surface and lasting a few weeks after spraying.

Insecticides with strong residual properties were also tested in the field or the laboratory against bedbugs, cone-nosed bugs, rat fleas and cockroaches. A special effort was made to select those combining considerable persistence of effect and an extremely low mammalian toxicity for testing against body lice. Field trials of various insecticide formulations were carried out against houseflies, particularly in those areas where resistance to the commonly used insecticides was becoming a problem.

Specifications for Pesticides

A third edition of the pesticide specifications was published in 1967;1 it contains forty-eight specifications for various pesticides and nineteen test procedures used in applying the specifications. Interim specifications for the two experimental insecticides, OMS-33 and OMS-43 (an organophosphorus compound), were issued for guidance in procuring these compounds for large-scale trials.

There was co-ordination with the Collaborative International Pesticides Analytical Committee and FAO on the standardization of the analytical methods and specification requirements for pesticides of common interest.

Ecology and Biology

Subjects of research carried out on the dynamics of Aedes aegypti at the Aedes Research Unit established by WHO in Bangkok included the movement of

1 There are six stages of testing: Stage I — initial laboratory screening; Stage II — preliminary laboratory evaluation, toxicity and residual effectiveness; Stage III — advanced laboratory and preliminary field evaluation; Stage IV — advanced field evaluation (including formulation properties and experimental hut trials); Stage V — small-scale field trials (including protective measures and storage stability); and Stage VI — pilot field trials, which are designed to provide a large-scale evaluation of the insecticide so that the procedure and protocol for operational use may be obtained.

adult mosquitos, the biotic potential of the adult female and, through "life budget" studies, the natural mortality at the various stages in the life cycle of the species.

Research on control of *A. aegypti* involved a study of the compounds, formulations and methods which will enable governments to obtain effective, long-term control of the vector at acceptable costs; it also related to measures that might be undertaken to halt outbreaks of haemorrhagic fever. In connexion with the latter, a field trial was undertaken in areas of Bangkok on the ultra-low-volume application of insecticide concentrates by aircraft.

The WHO Research Unit for the Control of Mosquito Vectors of Filariasis undertook a controlled experiment in an area of two square miles in Rangoon, using a larvicide, fenthion, for the control of *Culex fatigans*, the vector of *Wuchereria bancrofti*. The density of adult mosquitos observed in the sprayed area represented no more than 4 to 7 per cent. of that recorded in the unsprayed area. Data on positive larval sites indicate a considerable reduction in breeding, the frequency of positive larval habitats in the sprayed area being only 1.9 per cent. of that recorded in the unsprayed area.

**Biological Control**

A most encouraging experiment on the genetic control of *Culex pipiens fatigans* by cytoplasmic incompatibility was completed in the village of Okpo, Rangoon. The experiment involved a considerable amount of work both in the laboratory and in the field, culminating in the daily release of 5000 males of the incompatible strain D1. After twelve weeks all egg rafts examined were inviable. These results show that the method can be applied in nature and that, with the release of an adequate number of incompatible males, *C. fatigans* populations can be eliminated in limited areas within a period of three months.

Investigations on the possible use of predator fish for the control of mosquitos were conducted in Burma and Thailand.

**Safe Use of Pesticides**

Clinical observations of the effects of OMS-33 were made in three different areas in association with operational field trials. They showed that OMS-33 can be used safely if the spraying operators take the normal precautions.

The Organization investigated a number of cases of mass insecticide poisoning. On four different occasions, in two countries flour destined for bread-making, imported in two different ships, became heavily contaminated with a highly toxic liquid agricultural insecticide which had been stowed in the same holds and in such a way that it came into direct contact with the flour. The insecticide had leaked from defective containers. WHO helped to identify the source and type of the poisoning and provided technical assistance to the governments concerned. The investigations established that the incidents could have been prevented by the application of the provisions of the International Maritime Dangerous Goods Code. All Member States were informed of the incidents by IMCO and WHO.

**Services to Research**

WHO resistance-test kits were distributed to workers in twenty-six countries during the year. Standardized strains of insects of public health importance were supplied to three laboratories in the United States of America. Pocket kits were distributed as part of the Organization’s programme on insect pathology. Samples of radioisotopically labelled and unlabelled insecticides were provided to laboratories in Canada, Czechoslovakia, Denmark, France, Japan, Nigeria, Union of Soviet Socialist Republics, United Arab Republic, United Republic of Tanzania, United States of America, and Upper Volta.

**Aircraft Disinsection**

Tests with the new method of aircraft disinsection (the dichlorvos vapour automatic "in-flight" disinsection system) have been completed and Member States have been informed of the effectiveness of this method. A number of airlines have started routine use of the dichlorvos system in some of their aircraft.

**Venereal Diseases and Treponematoses**

WHO assisted fifteen countries in the control of endemic treponematoses, especially yaws, and in the training of national personnel. Seven requests were received for assistance in the strengthening of venereal disease control services, including laboratory services. Continued support was given to co-operating institutions on basic and applied research—in particular on epidemiological and serological studies and evaluation of mass penicillin campaigns. Two of a number of papers on research carried out during the year were published in the *Bulletin* (one in the form of a supplement).1

incidence of active clinical lesions from those diseases, long-term studies continued on the epidemiology of the endemic treponematoses to evaluate the importance of latent infection, to assess continued transmission, to investigate the possibility of recrudescence and to advise on continued surveillance by health administrations. The inter-regional treponematoses epidemiological team completed a random sample survey in northern Nigeria, and a regional advisory team completed a similar survey in western and midwest Nigeria, comprising collection and examination of some 12,000 serum specimens, in co-operation with WHO reference centres and national laboratories in Denmark, France, Senegal and the United Kingdom. The findings indicate that low-level transmission of yaws continues in children several years after mass campaigns and that protracted surveillance is an essential feature of long-term planning of health administrations. Epidemiological evaluation studies on yaws were also prepared in Brazil, Haiti and Niger, and similar studies on endemic syphilis were prepared in Yugoslavia.

The evidence suggesting the existence of a zoonotic reservoir of yaws in sero-reactive cynocephal monkeys, chimpanzees and other non-human primates, is being investigated by French and American research workers. Treponema pertenue from the lymph glands of some of these primates has been isolated in the hamster. Studies on the epidemiological and immunological importance of this discovery have been undertaken by several laboratories co-operating in the WHO programme. Attention has also been focused on autoimmune aspects of treponemal disease and the likelihood that reagins represent antibody response to tissular antigens and lesional damage.

Venereal Infections

The upward trend of syphilis and gonorrhoea has continued in several countries. New ecological aspects in the spread of venereal infections, including changing behavioural patterns and the possible importance of large-scale use of anticonceptional methods in the epidemiology of genital infections, were among subjects reviewed at the Thirteenth International Congress for Dermatology and the Twenty-fifth General Assembly and technical conference of the International Union against Venereal Diseases and the Treponematoses, both of which were held in Munich with WHO participation. The latter organization requested that WHO continue its collaboration in the strengthening of teaching of clinical, epidemiological, public health and social aspects of the control of genital infections.

Surveillance of antibiotic sensitivity patterns of circulating gonococcal strains included countries in the South-East Asia and Western Pacific Regions. A high proportion of strains resistant to penicillin and some other antibiotics were found in certain countries in these regions after studies by the WHO International Reference Centre for Gonococci, Copenhagen.

Tuberculosis

Tuberculosis programmes in thirty-one countries received WHO assistance during the year. There was a marked trend towards large-scale application of control measures adapted to the local situation in accordance with the findings in pilot areas and following the methods recommended by the WHO Expert Committee on Tuberculosis 1.

One feature of these programmes was the increase in ambulatory chemotherapy; another was the widespread adoption of BCG vaccination without prior tuberculin testing, often in association with smallpox vaccination. Further studies on BCG vaccination without prior tuberculin testing have confirmed both the technical acceptability and the operational advantages of this method, which was tentatively recommended in 1964 by the Expert Committee 2 as a public health measure.

Twenty-six physicians from twenty-one countries attended the annual inter-regional courses on the epidemiology and control of tuberculosis, held in English in Prague and in French in Rome.

For helping public health administrations in solving problems of an epidemiological nature—e.g., the allocation of resources to control programmes, given the health infrastructure—WHO developed and operated computer models on a service basis.

The first report on the surveillance research programme jointly assisted by the International Union against Tuberculosis and WHO, which concerns infection and disease risks in countries with a small and declining tuberculosis problem, held out promises for the early construction of a reliable computer model for predictions of the dynamics of tuberculosis in these conditions.

Controlled studies were conducted in six projects to investigate whether jet injection of BCG gives acceptable results under average field conditions.

Through the WHO International Reference Centre for BCG Seed-lots and Control of BCG Products at the Statens Seruminstitut in Copenhagen, and in accordance with the "Requirements for Dried BCG

Vaccine”, 1 the systematic quality control of vaccines from many countries was intensified, with special emphasis on control of vaccines purchased for programmes assisted jointly by UNICEF and WHO. A guide on the statistical design of routine in vitro studies of BCG was issued. The establishment in various laboratories of well-defined BCG seed-lots was encouraged. Systematic studies of the in vivo behaviour of BCG strains (seed-lots) were continued, and clear evidence was obtained of virulence in hamsters and protective effect in guinea-pigs and bank voles; studies in white mice continued.

These efforts had a considerable effect on the quality and uniformity of BCG vaccines. The feasibility study for a BCG trial in India reached the point, with regard both to training of staff and to collection of epidemiological and other information, where a major trial could soon be started.

Regular publication of statistical information on national BCG vaccination programmes in accordance with the standard recording and reporting procedures recently introduced by WHO began in the Epidemiological and Vital Statistics Report.2

Efforts were continued to find a tuberculin more specific than existing PPD to provide a solution of the widespread problem of non-specific tuberculin sensitivity. Certain experimental preparations developed for tuberculosis serology under the WHO research programme were tested in man and gave promising results. Interesting preliminary results were also obtained with a serological gel diffusion precipitation technique as a method of distinguishing between infections caused by typical and atypical mycobacteria.

Two chemotherapy research projects were carried out in Czechoslovakia and Poland with the co-operation of the British Medical Research Council and WHO to provide information on the relative merits of institutional treatment and intermittent ambulatory chemotherapy in countries aiming at an average rate of cure between 95 and 100 per cent.

Two issues of the Bulletin entirely devoted to tuberculosis appeared during the year.3

Leprosy

WHO assisted thirty-eight leprosy control projects jointly with UNICEF. Case-finding proceeded satisfactorily in many of them, but difficulties in the follow-up and regular attendance of out-patients for treatment continued to be a main obstacle to leprosy control.

A leprosy course held in Bangkok in January was attended by thirteen doctors from six countries of the South-East Asia Region and six WHO fellows studying in Thailand. In the Americas, participants in a travelling seminar studied the progress of leprosy control in Argentina, Ecuador and Venezuela.

In the chemoprophylaxis trial with diaphenyl-sulphone (DDS) being carried out in India the incidence of new leprosy cases was 13 per cent. in the control group and 6 per cent. in the “prophylaxis” group after three and a half years’ observation. The difference in incidence was limited to the group of contacts up to ten years of age. The incidence of leprosy among contacts of bacteriologically negative cases was similar in the control group and in the group that received DDS, but not among the contacts of bacillary cases. Studies are being continued to elucidate these and other questions.

Beneficial results have been obtained with thalidomide against the acute leprosy reaction which may occur in lepromatous patients. “Double-blind” trials have been started in Africa, the Americas, South-East Asia and Europe to assess these results in more detail. Preparations were made for another trial to compare the effects of the usual dose of DDS and a lower dose. In one of the centres cooperating with WHO, in Venezuela, the usual dose of oral DDS was compared with monthly DDS injections; results were similar in both groups.

No progress has been made in the in vitro cultivation of Mycobacterium leprae. However, limited growth in macrophage cultures has been observed. Local multiplication of M. leprae in the footpads of mice has also been confirmed in Japan.

In a South American country, small numbers of acid-fast bacilli were found by the WHO leprosy epidemiological team in thirty-eight (0.9 per cent.) of a total of 4107 smears taken from persons without any clinical sign of leprosy living in close contact with patients. In attempts to follow up these bacteriologically positive contacts (in which the longest period of observation was fifteen months) signs of leprosy were found in one such contact. In school surveys in the same population, the team observed that the early cases were mainly of the indeterminate form of leprosy.

The WHO leprosy/BCG team making studies of the possible preventive effect of BCG vaccination against leprosy in Burma finished the examination of 45,150 inhabitants of Singu and extended its activities to the townships of Shwebo, Wetlet and Khin Oo along the
west bank of the Irrawaddy river. The prevalence rate of leprosy in the population examined was found to be 31.6 per thousand, the lepromatous rate 4.6 per thousand, giving a proportion of lepromatous cases of 14.6 per cent. Up to the end of October 1967, 18 131 children had been included in the trial—9074 in the BCG group and 9057 in the control group. Among them 106 cases were detected in the first, second and third annual re-examinations. The incidence rate was 6.1 per thousand in the first and 7.2 per thousand in the second re-examination. After two years of follow-up observation no significant difference in the BCG-vaccinated and the control group has been established.

Studies on the standardization of lepromin antigen for skin testing have continued. A comparative investigation with the “standard” lepromin and diluted antigen has shown a correlation between the bacillary concentration and the intensity of the early and late skin reactions.

WHO studies have also continued in serology and genetics. Indirect immunofluorescent techniques have shown cross-immunity reactions between M. leprae and M. leprae murium. This has allowed a quantitative estimation to be made of circulating antibodies in the sera of leprosy patients by the indirect fluorescent-antibody technique, using smears of M. leprae murium as antigen.

**Bacterial Diseases**

Acute bacterial diseases continued, to varying degrees, to be an important public health problem in all areas of the world. Cholera, plague and cerebrospinal meningitis affected, in particular, developing countries of Asia, South America and Africa.

**Cholera**

No further advance in the westward spread of cholera was reported. It remained subdued in some countries, particularly in India, but was a considerable problem in others (see page 7). The Organization continued to increase its assistance to countries affected or threatened by cholera, providing vaccines, diagnostic media, training facilities and the advisory services of inter-regional and regional cholera control teams. The research programme was expanded.

The WHO International Reference Centre for Vibrio Phage-Typing in Calcutta continued to examine strains isolated during epidemics, to distribute typing phages to national laboratories and to train workers from different countries in vibrio phage-typing.

Donations of vaccine were received from nine countries as contributions to the newly-established Special Account for the Cholera Programme. The vaccine was used to meet urgent requests from countries.

Continuing its efforts to prepare countries for action against possible cholera outbreaks, WHO prepared and distributed material on the epidemiology, bacteriology, treatment and control of the disease.

A meeting of cholera advisers was held in Geneva in January 1967 to review the difficulties which have arisen in recent years from the application of excessive and ineffective measures in the control of the international spread of cholera, and to discuss the measures that might be taken effectively to control cholera without interfering unnecessarily with international travel and trade. A WHO conference on international co-operation in the prevention of cholera held in Ankara in February and March was attended by ministers of health and other responsible health officers from countries in the Eastern Mediterranean and European Regions. The conference put forward recommendations regarding national preventive measures and control and the correct application of the International Sanitary Regulations.

An inter-regional course on cholera held in Calcutta in April was attended by participants from the South-East Asia, Eastern Mediterranean and Western Pacific Regions. Assistance was given to national courses in Bulgaria, India and Yugoslavia by the provision of advisers, documents and supplies.

The two inter-regional cholera teams continued to participate in cholera studies and control projects carried out in India with the co-operation of the Indian Council of Medical Research, and in the Philippines under the joint Philippines/Japan/WHO cholera study project. The team in the Philippines made progress in developing a regime for the treatment of cholera in children that has brought down significantly the fatality rate. Members of the inter-regional and regional cholera teams visited Afghanistan, Cambodia, China (Taiwan), Iran, Iraq, Jordan, Kuwait, Laos, Lebanon, Nepal, Pakistan, the Republic of Viet-Nam, Saudi Arabia, Syria and Thailand to give assistance and to advise on specific aspects such as the production of vaccine and rehydration fluid, and modern methods of diagnosis, treatment and prevention of cholera. Arrangements were made in the regions concerned to ensure that experts would be available at short notice in an emergency.

Surveillance of the population immunized during the controlled field trial of cholera El Tor vaccines in the Philippines in 1966 continued, and the preliminary results have shown that one dose of 16 000 million organisms, two doses of 8000 million, and a single dose of 8000 million confer protection of over fifty per cent. in an endemic area.
Further support was given to studies on animals in India, Japan and the United States of America to assess the antibacterial and antitoxic immune response to various new types of cholera vaccine, including those containing adjuvants. Studies of genetics of vibrios also continued to receive support. Avirulent mutants of potential use as live vaccines were developed in the laboratory. Collaborative laboratory studies of cholera vaccines were continued in France, Hungary, India, Japan and the United States of America in order to develop reliable laboratory tests of potency in experimental animals. Support was given to studies on the development of a toxoid type of cholera vaccine, and to experimental studies on immunity to cholera in non-human primates.

Serological studies which started in 1966 continued in Calcutta with the collaboration of testing laboratories in Japan and the United States of America. Epidemiological studies on carriers in India, the Philippines and Thailand revealed a high incidence of temporary carriers among contacts of cholera cases, as well as in communities without any apparent clinical case of cholera. An evaluation of antimicrobial drugs for the treatment of carriers has been supported as a part of the carrier studies.

Plague

The number of cases of human plague continued to increase in 1967, particularly in Viet-Nam. Outbreaks have also occurred in Burma and Nepal, and there have been cases in countries of Africa and the Americas (see also page 7).

A study was made of the natural foci of plague in the Americas and in South-East Asia, and assistance was given to countries in establishing national programmes for surveillance and control of plague and in training staff to direct the work. The Western Pacific regional seminar on international quarantine, held in Manila in March and April, devoted particular attention to plague in view of the possible spread of this disease in the Region.

The Organization continued to co-ordinate research on the determination of the location of natural foci, the mode of transmission, the ways in which plague is maintained in various parts of the world, and serological techniques for use in detecting plague in animal reservoirs.

Further assistance in training has been provided through the inter-regional travelling seminar on plague which was held in June in the Union of Soviet Socialist Republics.

Enteric Infections

Five WHO international reference centres for enterobacteriaceae (see Annex 14) continued to provide services to national centres in order to facilitate epidemiological studies and surveillance of these infections. In European countries, a system of salmonelloses surveillance was started, by which information is distributed regularly to those interested in the control and prevention of salmonelloses. This system will gradually be expanded.

An acetone-inactivated, dried typhoid vaccine developed in accordance with the international reference preparation was tested in a controlled field trial in Tonga and was found to give considerable protection. Oral killed typhoid vaccine was also made available for field studies. International collaborative laboratory studies of various typhoid and paratyphoid B vaccines were started with the aim of establishing reliable potency tests for the evaluation of these vaccines.

Further studies of the effectiveness of oral live dysentery vaccine in Yugoslavia received support.

Diphtheria, Pertussis and Tetanus

WHO continued to assist several countries in the South-East Asia and Western Pacific Regions in developing and improving their production of diphtheria, pertussis and tetanus vaccines and in developing mass campaigns for the immunization of children. A mass vaccination campaign using combined diphtheria/pertussis/tetanus vaccine continued in Mongolia.

A study of reactions to combined diphtheria/pertussis/tetanus/typhoid vaccine was initiated in Tonga to prepare the way for a possible mass campaign.

A survey of pertussis, with particular reference to severity and immunization levels, involving some 1400 physicians in about seventy countries, was started with WHO support. Symptoms of the disease and reactions to various vaccines and vaccination schedules are also being studied.

Meningococcal Meningitis

An outbreak of cerebrospinal meningitis occurred in Morocco (for details, see page 71), and in several other countries in the world an increase in incidence of cerebrospinal meningitis was observed. Sulphonamides from the depots established with UNICEF assistance in Niamey and Brazzaville continued to be made available to countries in the African Region to meet emergency needs during epidemics of cerebrospinal meningitis. Close collaboration was maintained by the WHO International Reference Centre for Meningococci in Marseilles and African national centres in the identification and distribution of strains and reference preparations, and in the study of resist-
ence to sulfonamides. An African regional seminar on cerebrospinal meningitis was organized in Bobo-Dioulasso in March.

A controlled field trial of the effectiveness of two types of cerebrospinal meningitis vaccine began in Upper Volta in January. Epidemiological studies on ecological factors and the role of carriers began in the same country later in the year.

Streptococcal and Staphylococcal Infections

The first meeting of the Expert Committee on Coccal Infections was held in November. The Expert Committee recommended further study of the influence of antibiotics on Staphylococcus aureus and the mechanism whereby resistant strains remain endemic in hospital patients. It also recommended that programmes for the prevention of streptococcal diseases should be based on integrated clinical and laboratory methods of diagnosis, as well as on adequate treatment facilities.

The directors of the International Reference Centres for Staphylococcal Phage-Typing and for Streptococcus Typing, who attended the meeting, reported on the survey of streptococcal and staphylococcal strains taking place in various countries.

Veterinary Public Health and Zoonoses

In collaboration with FAO, WHO continued, as part of the veterinary public health programme, to provide assistance and advice in the control of zoonoses and to sponsor research. Other activities concerned the hygiene of food of animal origin, and matters of hygiene coming under the Joint FAO/WHO Food Standards Programme. In the field of comparative medicine WHO continued to assist comparative studies on chronic diseases, including neoplastic, cardiovascular and cerebrovascular diseases (see pages 22 and 23). A regional symposium on the use of non-human primates in medical research was held in Lyons in association with the University of Lyons and the French National Institute of Health and Medical Research.

Brucellosis

Studies on the control of brucellosis by the application of Rev. 1 vaccine against Brucella melitensis infection in sheep and goats were continued with the assistance of FAO and WHO. Experiments on the length of immunity showed that protection against natural infection in goats lasts for at least four and a half years. Pregnant goats vaccinated with a reduced dose of Rev. 1 vaccine do not have the severe reaction ending in abortion which often occurs when the full dose is used. WHO is assisting in large-scale vaccine production and work on the problem of dissociation in the vaccine strain. A vaccine which contains inactivated Brucella and an oily adjuvant was investigated at the FAO/WHO Brucellosis Centre at Weybridge, United Kingdom. This vaccine protects ovines against contact infection and can be used when live vaccines are contra-indicated as, for example, in advanced pregnancy.

The WHO Brucellosis Centre in Moscow studied epidemiological data to assess the effects of vaccination of occupationally exposed persons with strain 19-BA vaccine. Twenty per cent. of non-vaccinated persons working on farms with infected animals developed brucellosis, whereas the morbidity rate in vaccinated persons was only 3.3 per cent. In a meat-packing plant the morbidity rate from brucellosis was 11.5 per cent. in unvaccinated workers, nil in those vaccinated. These observations indicate the advantages of vaccinating persons heavily exposed to risk of B. melitensis infection. The centre in Moscow also extended the diagnostic use of immunofluorescence to the detection of Brucella organisms in milk.

FAO and WHO sponsored a monograph published by WHO on laboratory techniques in brucellosis.1 It was prepared in consultation with twenty specialists in various countries.

Rabies

The seventh and eighth annual world surveys of rabies (for 1965 and 1966) were completed during the year and showed slow but steady spread of the infection, especially in wildlife in the principal endemic areas. The surveys indicated the measures being taken in dealing with the infection. Rabies was found in field rodents and bats in a country in southern Asia where the disease was known to be prevalent in dogs and other carnivores.

The National Communicable Disease Center, Atlanta, Ga., USA was designated Regional Reference Centre for Rabies in the Americas. The Wistar Institute in Philadelphia, Penn., USA, which was designated the third international reference centre for rabies, studied the structural and growth characteristics of rabies virus which have an important bearing on its classification, pathogenesis, infectivity and isolation in media, and on vaccine production.

In studies at the International Reference Centre for Rabies in Coonoor, India, no evidence was found in two large towns of active infection and excretion of virus in symptomless dogs. However, a single apparently healthy dog was found to excrete the virus in

its saliva for several months. This infection was detected after a boy bitten by the dog had died of rabies.

A joint meeting of the International Office of Epizootics, FAO and WHO on rabies, held in Paris at the end of January, discussed recent advances in epidemiology, control and laboratory procedures. Attention was focused on the need in European countries for epidemiological studies, particularly on wildlife populations, in view of the spread of rabies among wild animals.

**Leptospirosis**

The WHO Leptospirosis Reference Laboratory at the Gamaleya Institute of Epidemiology and Microbiology in Moscow studied the epidemiology of leptospirosis in various parts of the USSR and found evidence that strains considered to be non-parasitic may produce mild or symptomless, serologically detectable infection in man.

Studies continued at the Kemensky University, Bratislava, with WHO assistance and in collaboration with the National Communicable Disease Center, Atlanta, Ga., USA, to characterize antigenic factors of leptospires. The results are important in determining methods of separating serotypes. New serotypes were identified by the WHO/FAO leptospirosis reference laboratories, which also prepared and distributed serotype-specific sera and reference strains.

**Parasitic Zoonoses**

As part of studies supported by WHO, the Department of Zoology of the Australian National University in Canberra has developed a technique of in vitro cultivation of some parasites of the genus *Echinococcus* which may become useful in screening anthelmintic drugs. In other studies co-ordinated by WHO a series of antigenic components have been defined, and diluted antigens have been found to increase the specificity of the allergic skin test in man.

Collaborative assay of diagnostic tests in toxoplasmosis, carried out in four collaborating laboratories, have shown that the indirect haemagglutination test which employs an inactivated antigen is more sensitive than the dye test in which a living antigen is used. A collaborating laboratory in the United Kingdom reported the transmission of *Toxoplasma* from cats to mice through the eggs of the nematode *Toxocara cati*, which remained infective for two months.

**Comparative Virology**

The FAO/WHO programme for the characterization and classification of viruses isolated in non-primate animals was reviewed at a meeting attended by some fifty veterinary virologists from thirty countries during the Eighteenth World Veterinary Congress in Paris in July. Various collaborating laboratories have prepared and tested sera for identification of virus strains. Small groups of specialists were selected to examine the data on virus strains and to advise on the preparation of specific sera for identification purposes.

A collaborating laboratory in the United States of America has, with WHO assistance, collected non-human primate sera from various parts of the world to be examined for evidence of infection with human or related viruses.

Studies co-ordinated by WHO on animal influenzas and their relationship to human infection were reviewed at a meeting held in Budapest in April with participants from Hungary, Czechoslovakia, Romania, United Kingdom and USSR. Some avian strains similar to human influenza viruses, a strain A/Equi 2 in horses, and antibodies related to horse and duck strains in human sera were among the principal findings reported. Further studies were planned to investigate strains of animal origin and their relationship to human strains and infection. In a further review of the programme made later in the year, extended epidemiological studies in birds, swine and equines were recommended, together with certain modifications in technical procedures.

**Food Hygiene**

In order to extend veterinary public health work on the prevention of the transmission of diseases of animal origin, the WHO Expert Advisory Panel on Food Hygiene was set up, and the first meeting of the Expert Committee on Microbiological Aspects of Food Hygiene took place in Geneva in October with the participation of FAO. It dealt with food-borne diseases of microbial origin, their epidemiology, investigation, reporting and prevention. Special emphasis was laid on the importance of food microbiology laboratories in the food hygiene programme in both developed and developing countries.

An inter-regional seminar on food-borne diseases and intoxications and food hygiene practice took place in New Delhi in October, with participants from the South-East Asia, Eastern Mediterranean and Western Pacific Regions.
Under the Joint FAO/WHO Food Standards Programme, proposals on various food standards were examined with particular attention to the regulations by which food-borne diseases could be prevented. The fourth session of the Committee on Food Hygiene of the Joint FAO/WHO Codex Alimentarius Commission took place in Washington in June.

The fourth meeting of the FAO/WHO Expert Panel on Milk Quality was held in Rome in January. It examined a special report on the licensing of milk plants and retail shops and prepared guidelines on how to utilize milk from nomadic milk producers and in areas where conditions are unfavourable for the establishment of a milk plant.
CHAPTER 3

HEALTH PROTECTION AND PROMOTION

Cancer

The main areas of WHO’s work in cancer during the year have been in epidemiology, pathology and control. The year also saw further developments in the work of the International Agency for Research on Cancer, established in 1966, which has taken over responsibilities in cancer epidemiology and etiology, including environmental biology (cancerogenesis).

The epidemiological investigation of oropharyngeal tumours was terminated in India and a report will be published by WHO on the Mainpuri survey. This report indicates a strong association between the "quid" used in that area and the extent of such tumours. It will be important to determine which element of this "quid", composed of betel nut, tobacco and lime, might be responsible for the development of these tumours.

An investigation on the relationship between breast cancer and duration of lactation was continued in Athens, Boston, Cardiff, Ljubljana, São Paulo, Taipei and Tokyo. The study has shown so far that women with less children and with shorter breast-feeding periods have a greater risk of developing breast cancer. A survival study for further elucidation of the problem is being initiated.

The WHO project for the clarification of the histological aspects of the African lymphoma in children was revised and a new approach adopted. WHO has co-operated with a panel set up within the United States National Institutes of Health to study African lymphomas in collecting histological material comprising different types of lymphomas from some eighty African and non-African cases. In October an international group convened by WHO discussed the criteria for the differentiation of Burkitt’s tumour and other lymphomas, and a report was prepared on clinical manifestations, anatomical features and histological patterns of growth, and the cytology of component cells of such tumours.

The volume "Histological Typing of Lung Tumours", prepared by the WHO International Reference Centre for the Histopathology of Lung Tumours at the Institute for General and Experimental Pathology in Oslo, which is the first of a series of tumour classifications to be published by WHO, was distributed to medical schools and, through the International Council of Societies of Pathology, to national pathological societies. Suggestions were received and are under study for possible inclusion in further publications. The photomicrographs for the second in the series, dealing with the breast tumour classification, have already been taken and the text has been written at the International Reference Centre for the Histopathology of Mammary Tumours in London. The third, dealing with soft tissue tumour classifications, is under preparation, and will contain approximately 150 colour plates. The International Reference Centre for the Histopathology of Oropharyngeal Tumours in Agra, Uttar Pradesh, India, also completed its classification, and the selection of slides for the final sets to be circulated through the International Council of Societies of Pathology has begun.

Work on histopathological classification has continued at the international reference centres for ovarian tumours (in Leningrad), bone tumours (in Buenos Aires), leukaemias and other neoplastic conditions of the haematopoietic cells (in Paris), thyroid gland tumours (in Zurich), salivary gland tumours (in London), skin tumours (in Perth, Australia), and has been initiated at the centres for genito-urinary tract tumours (in Washington) and odontogenic tumours (in Copenhagen).

Meetings to review the classification of bone, odontogenic and ovarian tumours were held during the year, and guidance was also obtained on the histological definition and classification of oral precancerous conditions.

A meeting of pathologists, cytologists, epidemiologists and gynaecologists took place in November to elaborate a tentative histological classification to be used when the international reference centre for the histopathology of uterine and placental tumours is established.

A meeting of the directors of the international reference centres for the histopathological nomenclature and classification of tumours was convened in Decem-
ber to review the work and make suggestions for the future, in particular regarding the setting-up of a mechanism for the periodical revision of the WHO classification.

The Organization continued its collaboration with the International Union against Cancer, the International Council of Societies of Pathology and the International Federation of Gynecology and Obstetrics.

For work on cancer immunology, see page 28; for work in connexion with leukaemia, see below.

Comparative Oncology

The International Reference Centre for Comparative Oncology in Washington, D.C., and six collaborating centres made good progress in the collection, histological examination and preliminary classification of specimens.

A system of veterinary records which will provide information on the epidemiology of degenerative diseases of animals, especially cancer, has been developed by the United States National Institutes of Health and adopted recently by many veterinary schools in the United States of America. WHO has encouraged veterinary schools in other countries to adopt it, and has agreed to computerize their data. The system has been introduced successfully at schools in London and Brno, and is to be introduced in the near future in Munich, and in Sydney and Melbourne. Countries of South America and south-eastern Europe have also shown interest.

The third international symposium on comparative research on leukaemia was held in Paris in July 1967. WHO has been partly responsible for this series of meetings, which attracted considerable interest. The variations in the epidemiological characteristics of bovine leukaemia in different countries received particular attention. Three main epidemiological patterns have been observed: in the first group of countries there were dispersed, sporadic cases, often in young animals, but never several cases in one herd; in the second, certain herds were severely affected, but the cases were seldom in young animals; in the third, the disease did not appear until cattle were introduced from a country in the second group. The prevalence of leukaemia in cats was also found to vary greatly from one city another.

Information was obtained about the occurrence of carcinoma of the larynx and oesophagus in cattle in certain regions in Brazil. These tumours, which are virtually unknown in most countries, were found in areas where bovine bladder cancer occurs.

Experiments started with WHO support in the United Kingdom on the transplantation of spontaneous tumours of dogs and cats, with the object of studying immunity and of producing models for testing therapeutic procedures.

A further supplement was prepared for the bibliography of the epidemiology of cancer in animals and 800 copies were distributed to cancer research workers throughout the world.

Cardiovascular Diseases

The first advanced training course sponsored by WHO in the diagnosis, treatment and prevention of cardiovascular diseases for physicians from developing countries, which began in November 1966, finished in June 1967. The second course began in November 1967 with ten participants from as many countries.

Co-operative research studies continued on the assessment of physical activity; on the etiology of systemic arterial hypertension of unknown cause; on atherosclerosis, coronary heart disease, and cerebrovascular disease; on cardiomyopathies, and on the work of the WHO International Reference Centre for Cardiovascular Diseases (Research and Training) at Makerere College, University of East Africa, Kampala, Uganda.

At a meeting in September a group of investigators recommended standard exercise tests that would be acceptable for widespread use in assessing cardiovascular fitness and ways of assessing habitual physical activity.

Studies on blood-pressure levels in relation to altitude in Peru, and those on blood-pressure and cholesterol levels in relation to environment and different dietary habits in the Western Pacific Region continued with WHO assistance, as did also the longitudinal study of blood pressure in a community sample in Bergen, Norway.

Collection of material in the WHO autopsy study of atherosclerosis and coronary heart disease was completed. Post-mortem material was obtained from nearly all deceased subjects of ten or more years of age from five communities—20,000 subjects in all. Grading of the material will be completed early in 1968.

Cerebrovascular disease, like coronary heart disease, is often incorrectly diagnosed during life. In three areas studied, in Czechoslovakia, Japan and Sweden, mortality rates given by national statistics for cerebrovascular accident, taken as a whole and as a principal cause of death, are similar, but the ratio of cerebral haemorrhage to cerebral infarct is grossly exaggerated by national figures.

Three collaborating laboratories were engaged in a joint clinical and morphological study in which population samples in several areas are examined, then re-examined when they become ill and finally when they die. This study was designed to improve the
early diagnosis of coronary heart disease, to detect persons at risk, identify etiological factors and create a system in which preventive measures could be tested. In 1967 plans for including the study of cerebrovascular diseases in the same framework were developed, bearing in mind the possibility that studies of chronic bronchitis and emphysema will be added. A WHO-assisted study of the effect of using clofibrate to reduce serum cholesterol for the prevention of coronary heart disease in subjects with high blood cholesterol levels was extended from Edinburgh to Budapest and Prague.

Collaborating laboratories in Brazil, India, Nigeria, Uganda, Venezuela and the West Indies started recording cases of cardiomyopathy in a standard form. Samples of myocardium, serum and other body fluids are sent for enzyme analysis, histological and histochemical examination and electron microscopy to a laboratory in Israel, and exchange of material between laboratories has been arranged. A meeting was held in Kingston, Jamaica, to discuss the etiology and pathogenesis of idiopathic cardiomegaly, and proposals for further co-operative investigations were elaborated.

The WHO International Reference Centre for Cardiovascular Diseases (Research and Training) in Kampala, Uganda, continued to carry out studies both in the laboratory and in the area of Kampala and its environs. Its principal field of interest in the laboratory is the fundamental mechanisms of thrombosis and vascular disease, with particular reference to the relationship between atherosclerosis, nutritional factors and blood coagulation and lysis. Some of the studies are carried out in conjunction with the departments of obstetrics and gynaecology, pathology and preventive medicine of Makerere College. The Centre also admits medical students for research training both in the laboratory and in the field.

A WHO monograph on cardiovascular survey methods, summarizing the recent advances in cardiovascular epidemiology and methodology, was prepared for publication.

Comparative Studies on Cardiovascular and Cerebrovascular Diseases

A limited number of specimens of pigs old enough to have developed cerebrovascular disease were obtained from Czechoslovakia, Hungary, the United Kingdom and the United States of America for studies on arteries, brain and heart, and examined at the WHO Regional Reference Centre for Comparative Cardiovascular Studies at the University of Pennsylvania, Philadelphia, USA. The results of earlier studies on the arteries of swine were published in the Bulletin.1

Experiments designed to ascertain whether hard and soft drinking-water influence the development of atherosclerosis in animals were carried out in collaborating laboratories at Cambridge in England. Others using turkeys were completed and the results are being analysed. Plans were drawn up for testing the effects of hardness of drinking-water and of the amount of sugar in the diet of monkeys.

A review of the literature on cardiomyopathies in animals was published in the Bulletin.2

Dental Health

As part of its work for the standardization of methods in dental epidemiology,3 WHO proceeded with the development of a series of seven manuals on international dental epidemiological methods, with contributions from epidemiologists in various countries. Field trials of the survey method described in the third manual of the series continued in five research centres.

An inter-regional seminar on the training and utilization of dental personnel in developing countries was held in New Delhi in December; it discussed the priorities to be given to the training and utilization of the different types of dental personnel in relation to national needs. Participating in the discussions were dental administrators and educators from nineteen countries. The third in a series of inter-regional courses for training teachers of child dentistry was held in Copenhagen with participants from eleven countries.

Advice was given on the utilization of dental hygienists and on the possible establishment of a national school of dental hygiene in the Netherlands where, as in many other countries, greater use is to be made of dental auxiliaries in view of the shortage of professional dental personnel.

A second and more detailed edition of the World Directory of Dental Schools4 was published.

Collaboration continued with the International Dental Federation.

Mental Health

An expert committee on mental health which met in September considered the problems connected with mental retardation. These are becoming more acute owing, on the one hand, to increased life expectancy and, on the other hand, to the rapid urbanization and industrialization taking place in many parts of the world — which has made it more difficult to integrate

the mentally retarded into family and community life. The Committee made recommendations on the development of services for the mentally retarded, on education and training and on research. The results of recent investigations have increased the hope of preventing or curing mental retardation in certain cases.

A travelling seminar on the organization of mental health services in the Union of Soviet Socialist Republics was held in June and July for psychiatrists and public health officers from developing countries. Participants in another travelling seminar visited Warsaw and Bristol (England) to study developments in psychiatric hospital care. Assistance was given in training in psychiatry and psychiatric nursing as an important part of the development of mental health programmes in Burma, Ceylon, China (Taiwan), Iran, Jamaica, Malta, Philippines, Thailand and Venezuela.

At the third in the series of annual seminars on psychiatric diagnosis, classification and statistics, held in Paris, emphasis was placed on mental disorders of childhood. The conclusions reached will be used in the preparation of the next revision of the International Classification of Diseases, which at present contains no subdivision for this diagnostic category.

The preliminary stage of the international pilot study of schizophrenia was completed in the eight designated field research centres and two other collaborating centres. A meeting of the principal investigators finalized the research schedules for the collection of cohorts of patients and controls for follow-up study. Exchange visits were arranged to facilitate the standardization of the research methodology.

In September a scientific group on neurophysiological and behavioural research in psychiatry reviewed current research and outlined subjects requiring international co-ordination.

An international glossary of psychiatric terminology was drafted and reviewed during the year. A draft glossary of terms relating to epilepsy was reviewed by correspondence with a panel of experts with a view to publication.

Nutrition

Assistance was given to applied nutrition programmes and programmes for nutrition in public health, for the establishment of nutrition laboratories and for the development of relevant teaching facilities in countries or groups of countries in all the WHO regions. The health component of some applied nutrition programmes assisted by FAO and UNICEF has been developed.

Protein calorie malnutrition is still the main recognized deficiency disease in developing countries, and WHO assistance continued to be provided for programmes concerned with its diagnosis, treatment and prevention. WHO, in collaboration with FAO and UNICEF, continued to participate in the development and to encourage the production of new low-cost protein-rich food mixtures which can be used as supplementary or weaning foods in areas where animal protein — the supply of which is decreasing in relation to needs — is insufficient to maintain the nutritional status of the population at a satisfactory level. Several food mixtures were tested in Algeria, China (Taiwan), Ethiopia and India, and centres for testing were also selected in Chile and Guatemala.

WHO took part in the preparation of a first report reviewing the possible approaches towards increased production and improved utilization of protein resources for presentation to the Economic and Social Council by the United Nations Advisory Committee for the Application of Science and Technology to Development.

In March a meeting on iron deficiency and megaloblastic anaemias reviewed the work carried out by collaborating institutes in studies on nutritional anaemia, and plans were made for the continuation of studies.

At its meeting in February the UNICEF/WHO Joint Committee on Health Policy endorsed recommendations on the planning and evaluation of applied nutrition programmes, including those on the development by FAO, UNICEF and WHO of new programmes to meet nutritional problems in urban areas in addition to those already implemented or planned for rural areas. WHO studied ways of assessing nutritional problems in peri-urban areas — areas on the fringe of urban areas but not benefiting from urban services — to provide a basis for the implementation of further measures to deal with them.

A draft manual for field studies on trends in nutritional status in the world population, based on anthropometric measurements, was prepared and plans were made to test its application.

WHO continued to provide assistance in stimulating national programmes for the prevention of endemic goitre. Following several meetings held during past years another seminar on endemic goitre was organized in New Delhi in October.

Work on food additives is described on page 29.

Radiation Health

A joint IAEA/WHO expert committee on medical radiation physics met in December to consider the role of radiation physics in medical care and, in particular, the applications of ionizing radiation, including the use of radioisotopes. Consideration was also given to the relationship between medical radiation physics and
other applications of physical means in medical care; major emphasis was placed on the training of physicists in this field.

A meeting was held in Vienna in collaboration with FAO and IAEA to complete the preparation of a "Manual of Guidance on Emergency Planning" intended to assist national governments in planning in advance countermeasures to be taken in the event of radiation accidents by public health, agricultural and atomic energy authorities.

Assistance to countries in the field of radiation health included the development of radiation health protection services within the Ministry of Public Health, Thailand, and continued provision of advisory services and fellowships for the Radiation Medicine Centre in Bombay, India, where a WHO-assisted course on radiological physics took place.

WHO was represented at the seventeenth session of the United Nations Scientific Committee on the Effects of Atomic Radiation. The Scientific Committee discussed new data on radioactive contamination, the physical and biological basis for estimating radiation doses to man resulting from nuclear weapons tests, and the effects of ionizing radiation on the nervous system and the induction of chromosome anomalies in somatic cells.

**Occupational Health**

A WHO scientific group on health factors involved in working under conditions of physical stress, and particularly heat, met in Geneva in August. Methods for measuring the various parameters of the working environment, man's responses thereto and acceptable exposure limits were discussed. The group stressed the need for training in this subject, and for research—in particular to evaluate cardiovascular strain from heart-rate levels during work in hot environments, to determine the effect of different levels of increased body temperature on general health and performance of workers in certain industries and in populations in hot climates, and to assess the differences in energy cost and heat production in physical work under heat stress in ethnic groups varying in body-size and build.

Topics of joint interest to the Organization and the Human Adaptability section of the International Biological Programme (IBP) were also the subject of review. A WHO/PAHO/IBP meeting of investigators on population biology of altitude, held in Washington in November, dealt with problems of concern to the population groups, comprising more than 20 million people, who reside at altitudes above 3000 metres.

Opportunities were provided for senior personnel from developing countries to study certain aspects of occupational health. A course on ergonomics was given in Bombay and a seminar on occupational health was held in Manila.

The *International Medical Guide for Ships* (including the Ship's Medicine Chest and the Medical Section of the International Code of Signals), prepared in consultation with ILO and IMCO, was published.¹

Collaboration with ILO was continued in several fields, including the work of occupational health institutes, and liaison work was initiated with the recently established United Nations Industrial Development Organization.

Discussions were held with ILO and FAO concerning technical aspects of proposed model legislation on pesticides.

CHAPTER 4

BIOMEDICAL SCIENCES

Biological Standardization

There are at present 232 international standards, reference preparations and reference reagents in existence, but over fifty other substances are under consideration for establishment. Fifteen sets of requirements for biological substances have already been published.

The report of the Expert Committee on Biological Standardization which met in 1966 was published in the Technical Report Series.1 At the meeting of the Expert Committee in September 1967 the following decisions on international biological standards, reference preparations and reagents were made:

Established

Capreomycin
Rifamycin SV
Haemoglobin cyanide
Influenza virus haemagglutinin (type A)
Anti-canine-distemper serum
Anti-canine-hepatitis serum
Anti-Newcastle-disease serum
Anti-toxoplasma serum
Adenovirus antisera (types 12 and 18)
Newcastle-disease vaccine (live)

Replaced

Cardiolipin
Cholera agglutinating serum (Ogawa)
Anti-Brucella abortus serum

Discontinued

Cholera agglutinating serum (Inaba)

In addition, requirements for tuberculins and inactivated influenza vaccine were adopted. The Committee also considered the possible need for standards for a number of other substances, work on some of which had already been undertaken.

An inter-regional course on biological standardization was held in Zagreb, Yugoslavia, in October. The ten participants were given practical instruction in various aspects of biological assays and other procedures for the control of biological products used in prophylactic and therapeutic medicine.

At a meeting on requirements for the production and control of snake antivenins, held in March, recommendations were made for the development of a set of requirements which would be useful in ensuring a minimum level of efficacy and safety of snake antivenins. Recommendations for future research included studies for the establishment and characterization of reference venom pools for the assay of snake antivenins, and studies for the fractionation of venom and the characterization of venom fractions, which would enable more specific and efficacious antivenins to be produced.

Measures to promote closer liaison between WHO and national control laboratories for biological substances included the development of more rapid dissemination of information from WHO to national control laboratories, and the collection by WHO of information on problems encountered by those laboratories in the control of biological substances.

Human Genetics

Surveys of diagnostic and treatment facilities for the haemoglobinopathies which started in 1966 in fifteen African countries were continued; a plan, based on the findings, has been drawn up for determining by population surveys the frequencies of sickle-cell disease and other abnormal haemoglobins and carrying out controlled clinical trials for the treatment of these conditions.

Assistance was given in the establishment of a diagnostic service at Ouagadougou, Upper Volta, where the evidence available indicated a high frequency of abnormal haemoglobins in the population, with incidences of haemoglobin S and haemoglobin C traits of 6 and 20 per cent. respectively.

WHO also supported research in Dakar, Senegal, on other inherited conditions affecting the function of the red blood cells: the thalassaemias and glucose-6-phosphate dehydrogenase (G-6-PD) deficiencies. Research on favism, which is the most serious consequence of G-6-PD deficiency and may be fatal, was carried out with WHO support in Beirut, Lebanon.

The Department of Medicine—Medical Genetics, University of Washington, Seattle, USA, was

designated as the International Reference Centre for Glucose-6-Phosphate Dehydrogenase, and the Subdepartment of Haematology, University College Hospital, Ibadan, Nigeria, and the Department of Haematology, Tel-Hashomer Government Hospital, Jerusalem, Israel as regional reference centres for the identification and characterization of G-6-PD variants and the development of new screening methods. At the regional reference centre in Ibadan basic studies of the G-6-PD molecule, clinical studies of the effects of G-6-PD deficiency, and genetic linkage studies were carried out.

The report of a scientific group on the standardization of procedures for the study of G-6-PD was published during the year.¹

A similar programme to that for the haemoglobinopathies was started for thalassaemia; in addition to the research work in Dakar, mentioned above, population surveys have begun in India and Malaysia and research on the basic defect in haemoglobin synthesis in thalassaemia in Thailand was carried out with WHO support and in co-operation with a genetics unit in the United Kingdom.

WHO also supported a study in Surinam in which a large number of hereditary and acquired blood factors were examined in different ethnic groups, and work began on the analysis of the findings. Another WHO-assisted study, which covered many genetic markers, was carried out among Nubian races in the United Arab Republic with the aim of correlating genetic systems. The data collected is to be compared with those gathered in a population genetic study of the Mayas of Yucatan (Mexico) which also received support from the Organization. A meeting on the genetics of primitive groups, held in July, discussed studies of this kind in isolated populations, particularly in those with a simple ecology, and prepared a protocol for research on human population genetics.

A scientific group on inborn errors of metabolism which met in November reviewed screening techniques for certain conditions, such as phenylketonuria and galactosaemia, and considered methods for detecting carriers of X-linked disorders and screening procedures for genetically determined drug sensitivities. A scientific group on genetics of the immune response which met in October discussed present knowledge of genetic control and variation in the immune system, and defined critical areas for future study. WHO support was given to a study in Israel on the association between genetic markers and response to typhoid immunization.

Assistance, including time on the WHO computer, has been given to a study carried out at the University of Aberdeen to develop programmes for the automatic construction of pedigrees and "evolutionary trees" from genetic data and for elaborating models for the flow of genes in populations.

**Human Reproduction**

In order to prepare for the implementation of resolution WHA20.41 of the Twentieth World Health Assembly, which requested the Director-General "to assist on request in national research projects and in securing the training of university teachers and of professional staff" in the health aspects of population dynamics, in-service training was given to WHO staff in population dynamics, in the scientific aspects of fertility regulation and in family planning methods.

The Advisory Committee on Medical Research at its ninth session in June 1967 reviewed the reports of Scientific Groups on the Biology of Fertility Control by Periodic Abstinence ² and on Standardization of Procedures for Chromosome Studies in Abortion.³ Scientific groups on hormonal steroids in contraception and on basic and clinical aspects of intra-uterine devices met in October and December respectively to review progress and developments; they prepared guidelines for pre-clinical studies, clinical trials and epidemiological surveillance.

In addition to its assistance to laboratory research on epidemiological aspects of reproduction, the Organization supported comparative epidemiological field studies of population groups in Brazil, Peru and Senegal with the aim of collecting information on various indices of human reproductive function, including pregnancy, especially as these are affected by different environments.

Work has begun on the preparation of standard forms for studies of the results obtained with various fertility-regulating agents and of guidelines for the collection and evaluation of relevant data. In addition, advisory services were provided in answer to requests from Member States on many aspects of human reproduction, including fertility, sterility, contraception and family planning.

The Organization has participated in international and inter-agency meetings on technical problems connected with human reproduction, including the fourteenth session of the United Nations Population Commission, the inter-agency meeting on long-range programmes in the field of population, and the Eighth International Conference of the International Planned Parenthood Federation. The WHO Regional Office for the Americas/Pan American Sanitary Bureau held

---

a Third Conference on Population Dynamics in February.

Immunology

A WHO conference on the use of antimetabolites in disease associated with abnormal immune responses was held in June in Punta Ala, Italy, following the Fifth International Symposium on Immunopathology; an assessment was made of the potential usefulness in many disease states of these immunosuppressive agents, and different means of minimizing their toxicity were reviewed.

The Scientific Group on the Immunology of Malaria, which met in September, gave special consideration to aspects of research which may be helpful in leading to active immunization, to the development of better diagnostic tests, and to clarifying the immunopathology associated with malaria.

A memorandum on the suppression of Rh immunization by passively administered human immunoglobulin (IgG) anti-D (anti-Rh) was published in the Bulletin following a meeting of investigators on the prevention of haemolytic disease of the newborn.

An international reference centre for tumour-specific antigens was established in the Division of Immunology and Oncology, Gamaleja Institute of Epidemiology and Microbiology, Moscow.

Courses on techniques used in autoimmune serology and on detection of genetic factors of human immunoglobulins organized by the international reference centres in London and Bois-Guillaume (France), a summer school for immunology teachers organized by the British Society for Immunology and a course on research in germ-free animals in Prague, all received WHO support.

At the WHO Research and Training Centre for Immunology in São Paulo, Brazil, studies of Pemphigus foliaceus led to the discovery of high titres of auto-antibodies to skin in sera from patients with this disabling and often fatal disease. Studies continued on the pathogenesis of this disease, which has an epidemiological pattern suggestive of a vector-borne disease.

The Immunology Research and Training Centre organized in Lausanne will strengthen the WHO research and training centres in Ibadan (Nigeria) and São Paulo.

Among WHO-assisted immunological studies of particular interest were those carried out in Italy on the problem of the diverse types of immunoglobulins produced in different types of lymphoid cells during their differentiation, and those at the newly-designated international reference centre in Moscow on the cancer-specific antigen in the serum of patients suffering from primary hepatoma. This antigen, a foetal serum protein, was further characterized at the Pasteur Institute, Paris as alpha glycoprotein "fetuin", which is present in the serum during part of the period of embryonic life, and its presence in primary hepatoma is being investigated in a co-operative study in Dakar, supported by the International Agency for Research on Cancer.

---

CHAPTER 5

PHARMACOLOGY AND TOXICOLOGY

In continuing its work for the protection of the individual and the community against the avoidable risks presented by substances normally used for the maintenance or improvement of health conditions, the Organization has placed emphasis, in accordance with resolutions of the Twentieth World Health Assembly, on research into international monitoring of adverse reactions to drugs and on assistance to governments in the quality control of pharmaceutical preparations and in measures to control drug dependence and abuse—the latter in co-operation with the appropriate United Nations bodies.

Drug Dependence and Drug Abuse

Special attention was given, in collaboration with the United Nations Commission on Narcotic Drugs and the Permanent Central Narcotics Board, to the problems connected with the abusive consumption of CNS depressant, stimulant and hallucinogenic substances. In consultation with these bodies the possibilities of surveillance of these drugs within the framework of international conventions were studied, in accordance with resolutions WHA20.42 and WHA20.43 of the Twentieth World Health Assembly.

A review of the pharmacology of, and clinical experience with, substances of the codeine type was carried out during the year. The manufacture of codeine absorbs over nine-tenths of the legitimate production of opium, and the review is intended, like a previous one on morphine-type drugs, to guide the deliberations of the international narcotics control bodies in addition to giving therapeutic guidance to physicians.

A cartoon film entitled "False friends" was produced to be shown in areas where the use and abuse of opium is still widespread and where the danger exists of heroin replacing it.

Drug Safety and Monitoring

Following the publication of principles for pre-clinical testing of drug safety,1 and principles for the testing of drugs for teratogenicity,2 a scientific group met in November to elaborate further principles for the clinical evaluation of drugs. The two published reports were distributed through the International Union of Pharmacology to national societies of pharmacology.

The information service on decisions of governments to prohibit or limit the availability of drugs for reasons of safety continued to operate in compliance with resolution WHA16.36 of the Sixteenth World Health Assembly, and five notices of such decisions were issued.

In accordance with resolution WHA20.51 of the Twentieth World Health Assembly, work started on the establishment of universally acceptable procedures in the pilot research project for international drug monitoring under the agreement reached between the Organization and the Government of the United States of America, and drug monitoring systems in institutions and organizations in several countries have been analysed.

The part that might be taken by the Organization in the development of poison control centres has been studied in its relation to the subject of drug safety and monitoring.

Food Additives

The report of the Scientific Group on Procedures for Investigating Intentional and Unintentional Food Additives was published during the year.3 In reviewing the report, the Advisory Committee on Medical Research considered the health hazards that may result from the use of food additives as constituting one of the most important among present-day public health problems.

The Joint FAO/WHO Expert Committee on Food Additives at its meeting in August evaluated the safety of some flavouring substances and non-nutritive sweetening agents; it found one of them too toxic for further use as a food additive, and recommended further toxicological study of certain others.

The FAO Working Party and the WHO Expert Committee on Pesticide Residues, at their joint meeting

---

in December, evaluated a number of pesticides and recommended acceptable daily intakes as well as tolerances for their residues in specified foodstuffs. It was concluded that, if there is interaction between pesticide residues in the small amounts actually present in foodstuffs, it is not significant enough to justify alteration of the recommended tolerances.

Studies are in preparation to determine whether the effect of malnutrition may be to increase the toxicity of some pesticides commonly used in agriculture, so that, if necessary, alternative pesticides whose toxicity is not so affected may be recommended for use in areas where malnutrition is widespread.

Pharmaceuticals

The second edition of the International Pharmacopoeia, including 555 monographs with specifications for drugs and sixty-nine appendices describing general methods, has been published. Thirty-nine chemical reference substances (most of them steroids, cardiac glucosides and semi-synthetic penicillins), which are necessary for application of the specifications of the International Pharmacopoeia, have been prepared and made available by the WHO International Reference Centre for Chemical Reference Substances in Stockholm.

In compliance with resolution WHA20.34 of the Twentieth World Health Assembly, draft principles and requirements for good practices in the manufacture and quality control of drugs were prepared and sent for comment to various experts.

A seventeenth list of 143 proposed international non-proprietary names for new pharmaceutical substances was published in the WHO Chronicle. In April the Expert Committee on Non-Proprietary Names for Pharmaceutical Preparations drew up an eighteenth list of 109 proposed names which was also published in the WHO Chronicle. This list includes, for the first time, graphic chemical formulæ. A second cumulative list comprising the 2039 proposed international non-proprietary names, previously published in lists 1 to 17, has been published in a single volume. A seventh list of 267 recommended international non-proprietary names was published in the WHO Chronicle.

---

5 WHO Chronicle, 1967, 21, 538-549.
CHAPTER 6

PUBLIC HEALTH SERVICES

National Health Planning and Public Health Administration

The importance of national health plans as an integral part of national economic and social development plans is now generally recognized, and one of the tasks of the Organization has been to advise on the practical approaches to such planning. Assistance was given to the Government of Botswana in reorganizing its health services, to Kenya in planning and co-ordinating the health programme as a part of the national development plan, and to Sierra Leone in the implementation of the national health plan prepared by the Government with the technical assistance of the Organization and financial support of the United States Agency for International Development. In Libya, following the visit in 1966 of a WHO advisory team, assistance was given with the detailed health planning. Afghanistan and Algeria received assistance in the reorganization of their public health services and advice on national health planning.

In the Western Pacific Region, following preliminary studies on national health planning in 1966, further requests were received from the Governments of Laos, the Republic of Korea and the Republic of Viet-Nam for advice on the formulation of health plans. Most of the countries in Latin America are engaged in the preparation of health plans, using guidelines recommended by the Pan American Sanitary Bureau/WHO Regional Office for the Americas and health planning staff trained with the Organization's assistance.

The importance of training executive staff in national health planning was emphasized by the Expert Committee on National Health Planning in Developing Countries, in its report. The first pilot course in national health planning was organized for WHO staff; it comprised two parts—eight weeks' theoretical training at the University of the West Indies in Jamaica, and a further two weeks' field training in Trinidad.

Co-operation continued with the three regional planning institutes of the United Nations in Bangkok, Santiago (Chile) and Dakar.

Assistance to developing countries in building up adequate basic health services was increased during the year and special attention was given to the staffing and organization of rural health services and to the integration of mass campaigns against communicable diseases in the general health services. Projects of this nature assisted by WHO have been in progress in countries in all the WHO regions.

WHO collaboration in programmes assisted by the United Nations and its organs for economic and social development has continued. Advice on the public health aspects of economic development was given to the United Nations preparatory missions for research and training programmes in regional development that were carrying out surveys in selected areas in various countries, with a view to selecting six centres which would be suitable for training and research in regional development with assistance from the United Nations and the specialized agencies.

A paper on social questions relating to the extension of health services, prepared by WHO, was discussed at the session of the United Nations Commission for Social Development in March 1967. A WHO statement on the relationship between social welfare and health services was reviewed, together with statements from FAO, ILO and UNESCO, at a special meeting organized by the United Nations in August 1967 in preparation for the conference of ministers responsible for social welfare, to be held in 1968.

A paper on the provision of appropriate health protection to the community was submitted to the United Nations seminar on the realization of economic and social rights contained in the Universal Declaration of Human Rights, which was held in Warsaw in August.

Organization of Medical Care

Assistance in hospital planning and design, and in hospital administration, has been given to countries in all the WHO regions. Some of these countries, in Asia and the Eastern Mediterranean area, have been engaged in remodelling and modernizing old hospitals. In the training of hospital administrators the trend has been towards organizing national courses adapted
to the national pattern of hospital administration. The Organization has given assistance in some of such training.

A WHO expert committee on hospital administration which met in October examined the main patterns of hospital legislation and regulations and their relationship with public administration, and discussed methods of planning a co-ordinated hospital service, the management of individual hospitals and the training of hospital administrators. One of the background papers for the meeting was an international comparative study of hospital legislation, prepared from information received from fifty-four countries.

At a travelling seminar on medical care organization held in the USSR in April the twenty-seven participants studied the working of an integrated medical system at all levels, from feldsher posts in rural areas to teaching and research institutions.

Studies on the utilization of medical care facilities in Belgium and Yugoslavia were continued. Preliminary results from two districts in Yugoslavia are being analysed. A similar study started in Canada. The first phase of an international study in which WHO is collaborating with the Johns Hopkins University, on medical care utilization by households in well-defined population groups, was carried out in the United Kingdom, the United States of America and Yugoslavia. Another study, on utilization of in-patient hospital facilities by populations of representative areas with between one and two million inhabitants, was started by this international reference laboratory.

Studies on the organization and management of laboratory services or for the control of specific diseases.

During the year, assistance was provided to some seventy countries and territories in the development and integration of health laboratory services and in connexion with the laboratory aspects of programmes against specific diseases. Laboratory specialists participated in the work of advisory and evaluation teams on malaria, tuberculosis, venereal diseases and treponematoses, and other diseases.

Assistance was also provided to courses for the training of laboratory technicians and laboratory assistants in the Congo (Brazzaville), India, Jamaica, Lebanon, Libya, Malaysia, Morocco, Somalia and Yemen, and numerous fellowships were awarded (see Annex 11).

In July a WHO inter-regional seminar on the organization and management of laboratory services was held in London. The seventeen participants studied the system existing in the United Kingdom and discussed problems of organization and of integration with the other health services, and also the training of laboratory personnel.

In December, a seminar on health laboratory services was organized in Brazil by the Pan American Sanitary Bureau/WHO Regional Office for the Americas for directors of laboratory services of Latin American countries.

An inter-regional course on immunofluorescent techniques held at the Pasteur Institute, Paris, in July provided training in the basic aspects of fluorescent antibody techniques and in their application for diagnostic purposes in bacteriology, virology, parasitology and immunology. The nineteen participants were from countries in five WHO regions.

The international collaborative study on methodology for testing the sensitivity of bacteria to antibiotics was continued; a reference culture medium has been selected, work on the technique by liquid dilution has been completed and progress has been made with the selection of reference strains for the solid diffusion method by discs.

A six-month post-graduate course on organization and operation of blood transfusion services started in November in Budapest; it is to include three months of in-service training in regional blood-transfusion centres.

There are now national reference centres for blood grouping in thirty-two countries working in close collaboration with the WHO International Blood Group Reference Laboratory in London. As suggested by the International Society of Blood Transfusion, an international panel of donors of rare blood types was started by this international reference laboratory.

Health Laboratory Services

During the year, assistance was provided to some seventy countries and territories in the development and integration of health laboratory services and in connexion with the laboratory aspects of programmes against specific diseases. Laboratory specialists participated in the work of advisory and evaluation teams on malaria, tuberculosis, venereal diseases and treponematoses, and other diseases.

Assistance was also provided to courses for the training of laboratory technicians and laboratory assistants in the Congo (Brazzaville), India, Jamaica, Lebanon, Libya, Malaysia, Morocco, Somalia and Yemen, and numerous fellowships were awarded (see Annex 11).

In July a WHO inter-regional seminar on the organization and management of laboratory services was held in London. The seventeen participants studied the system existing in the United Kingdom and discussed problems of organization and of integration with the other health services, and also the training of laboratory personnel.

In December, a seminar on health laboratory services was organized in Brazil by the Pan American Sanitary Bureau/WHO Regional Office for the Americas for directors of laboratory services of Latin American countries.

An inter-regional course on immunofluorescent techniques held at the Pasteur Institute, Paris, in July provided training in the basic aspects of fluorescent antibody techniques and in their application for diagnostic purposes in bacteriology, virology, parasitology and immunology. The nineteen participants were from countries in five WHO regions.

The international collaborative study on methodology for testing the sensitivity of bacteria to antibiotics was continued; a reference culture medium has been selected, work on the technique by liquid dilution has been completed and progress has been made with the selection of reference strains for the solid diffusion method by discs.

A six-month post-graduate course on organization and operation of blood transfusion services started in November in Budapest; it is to include three months of in-service training in regional blood-transfusion centres.

There are now national reference centres for blood grouping in thirty-two countries working in close collaboration with the WHO International Blood Group Reference Laboratory in London. As suggested by the International Society of Blood Transfusion, an international panel of donors of rare blood types was started by this international reference laboratory.

Nursing

Some two hundred nurses provided by the Organization assisted a total of nearly seventy countries in planning, strengthening or extending national nursing and midwifery services, in developing training programmes and in establishing nursing units at national level. Such assistance was in many instances provided as part of programmes for the improvement of health services or for the control of specific diseases.

Advances in medical technology and the rapid development of medical specialties, together with the growing responsibility of nurses for health protection,
have made post-basic study essential for nursing staff. Plans were made for a two-year diploma programme in Dakar for French-speaking students, and a post-basic degree programme was started at the Pahlavi University in Shiraz, Iran. A course in nursing education and administration at the University of the West Indies in Kingston, Jamaica, progressed well in its first year of operation.

In addition to the numerous individual in-service education programmes being developed in hospitals and public health agencies in different regions, WHO has assisted three major activities in this field during 1967. First, a guide for in-service education of nursing personnel, containing a comprehensive bibliography of abstracts relating to that subject, was completed and distributed widely. Secondly, a conference on in-service education for nurses, held in Bangkok in August and September, investigated the possibilities of improving the standards of the nursing profession, and provided a series of guidelines for the initiation and development of sound programmes of staff education for all types of nursing personnel. The third such activity was the inter-regional course on planning and organization of in-service nursing education organized by WHO with assistance from the Danish Special Contribution to the Technical Assistance component of the United Nations Development Programme.

The training of nurses in midwifery and of auxiliary midwives continued to be a part of many programmes assisted by the Organization. In Mali, assistance in nursing education has been broadened to include midwifery training, and in Brazil plans have been developed for the establishment of a midwifery training centre for both nurses and midwives.

WHO is assisting Switzerland and Israel with studies of how the time of nursing personnel of all categories is divided among various nursing activities, in order to determine whether effective use is being made of existing resources and to provide information for the reorganization of the nursing services to achieve the optimum care of patients. In India a study of the utilization of nursing services was carried out in three hospitals with a view to the preparation of a guide for studies of this nature, and a study of the work of auxiliary midwives in three states of India was completed.

Health Education

During the year WHO extended to several more countries assistance in setting up, in national or provincial health administrations, technical health education services directed by professionally qualified personnel. Assistance was also given in planning and assessing national health education services in Ceylon, Lebanon, Libya, Nepal and Sierra Leone.

The need for more systematic planning and organization of such services as an integral part of various public health programmes was discussed at a meeting held in Alexandria in April, and at an inter-country working conference in New Delhi in November.

The planning and evaluation of health education services was the subject of an expert committee, composed of health administrators and health education specialists, which met in November. It gave particular consideration to the scope and function of health education services, to guiding principles for their planning and organization, and to studies and research for their improvement.

The UNICEF/WHO Joint Committee on Health Policy, which met in February, stressed the need to give high priority to health education aspects of training for all types of maternal and child health personnel.

Guides on the health education aspects of malaria eradication and smallpox eradication programmes were completed during the year.

WHO collected material for inclusion in a six-volume series of abstracts on studies and research related to health education practice published by the Society of Public Health Educators in the United States of America; the first volume appeared during the year. The abstracts deal with peoples' attitudes, beliefs, and health practices, psychosocial and cultural factors relating to health behaviour, communications methods and materials, education of the patient, planning and evaluation of health education, and school health education.

The Organization took part in discussions on health education in primary schools at the thirteenth session of the International Conference on Public Education organized by the International Bureau of Education and UNESCO, and in discussions on health education aspects of international conferences and technical activities sponsored by the International Union against the Venereal Diseases and the Treponematoses, the International Dental Federation and the International Union for Health Education. Collaboration in the health education aspects of the five-year development programme sponsored by the League of Red Cross Societies continued.

Maternal and Child Health

The Organization continued to provide assistance to several countries in the six WHO regions in strengthening maternal and child health services as part of the overall development of health and social services, and in training national personnel. "Maternal and
child health, with special reference to its integration into the general health services” was the subject of the technical discussions at the twentieth session of the Regional Committee for South-East Asia, held in Ulan Bator, Mongolia, in August 1967.

The appraisal by UNICEF and WHO of jointly assisted maternal and child health programmes for the years 1960-1964 was discussed by the UNICEF/WHO Joint Committee on Health Policy at its meeting in February and presented to the UNICEF Executive Board in June 1967.

Three courses in paediatrics and maternal and child health organized by UNICEF and WHO were held during the year. The first was the course for senior teachers of paediatrics from developing countries which began in January; it was organized in two parts—one, which took place at the Institute of Child Health, London, was similar to those held at the Institute from 1962 to 1965, and the other, given in Bombay, emphasized tropical paediatrics and field work. The second course, lasting ten weeks, was on the organization and administration of maternal and child health services, including social and preventive obstetrics and paediatrics; it began in Warsaw in September with eleven participants from as many developing countries. The third—an eleven-month inter-regional course in child health for five medical officers from developing countries—started in September in the Hacettepe Medical Centre, University of Ankara.

A worldwide study on paediatric research was carried out in preparation for a scientific group on paediatric research which met in November and December. The group reviewed trends and developments occurring especially in developing countries, and suggested ways of achieving further progress on co-ordinated research in problems of paediatrics and maternal and child health.

Co-operation with the International Children’s Centre in Paris continued; WHO was represented at two meetings of its Technical Advisory Committee, and took part in the course on social and medical aspects of maternity organized by the Centre in Algeria. The Organization co-operated with the International Paediatric Association in organizing a workshop on paediatric education to be held during the Association’s Twelfth International Congress in Mexico in 1968.
CHAPTER 7

ENVIRONMENTAL HEALTH

In its assistance to countries in their endeavours to ensure the basic necessities of a healthy environment, WHO's activities have been mainly directed to the development of community water supplies and waste disposal facilities, the promotion of measures for air and water pollution control and the training of sanitation personnel. Much of this work has again been carried out in collaboration with the United Nations and related agencies.

Community Water Supply

Over eighty countries received assistance from WHO in some aspect of the planning or development of community water supplies during the year.

Emphasis was placed, as in previous years, on the institution and strengthening of national and local organizations for the planning and management of water supplies, and on the training of professional and subprofessional staff to ensure their efficient operation.

Of the projects relating to water supplies in large cities, financed from the Special Fund component of the United Nations Development Programme (UNDP), one—the master plan for community water supplies in Calcutta—was completed. The master-plan phase of the Accra/Tema pre-investment survey in Ghana was also finished, and work proceeded on the second phase. This covers final engineering design and assistance to the newly formed Ghana Water Supply and Sewerage Corporation, which is already engaged in implementing the recommendations contained in the master plan. New pre-investment surveys started in Dakar, Senegal, in the islands of Malta and Gozo, in five high-priority areas in the south-western coastal area of Ceylon, and in the coastal zone of Morocco between Kenitra and Casablanca.

The Governing Council of the UNDP approved a request prepared with the assistance of WHO for the financial support of the Special Fund component of UNDP in connexion with water supply and sewerage plans for the towns of Kampala and Jinja, Uganda, and preparations were made to start work on the project. Assistance was given to other countries, including the Ivory Coast and Yugoslavia, in the preparation of similar requests.

Advice was given to Syria on the design of a comprehensive rural water supply system for 104 villages in the Euphrates Valley. Assistance was provided also in connexion with the planning, design and installation of water supplies for small communities, with pilot and demonstration projects and with projects for the training of rural water supply workers. Support in the form of imported materials such as pipes and pumps was given by UNICEF to many of these activities.

WHO collaborated with FAO on the health aspects of engineering works for water resources development in five countries. The Organization also took part in the work of the Sub-Committee on Water Resources Development of the Administrative Committee on Co-ordination.

Work continued on studies directed to the simplification and greater efficiency of water supply development and operation in developing countries. Studies on inexpensive methods of disinfection of water supplies, biological methods of water treatment, various methods of treating water for the removal of viruses, and the toxicity of plastics used in the manufacture of water pipes and fittings are examples of this type of research carried out during the year. In addition, more general studies were made on the relationship between water supplies and the socioeconomic status of the community, operational research techniques for improving the effectiveness of water supply systems, methods for analysis of data regarding community water supplies, and cholera control by the improvement of water supplies and waste disposal.

A review of water research projects in the USSR was carried out, and visits were made to institutions in the European, Eastern Mediterranean and South-East Asia Regions with a view to co-ordinating their research and development activities within the overall research programme.

Environmental Pollution

In order to assist countries which, because of rapid industrialization and urbanization, are faced with air pollution problems, WHO, in co-operation with the
Government of the USSR, organized an inter-regional seminar in Moscow and Volgograd. The seminar, which included demonstrations and field visits, considered both prevention and control.

Several countries have already enacted legislation specifying the maximum permissible concentration of certain pollutants in town air. However, the effects on human health of many air pollutants, in the concentration normally found in town air, are still the subject of controversy, and a regional symposium was held in Prague in November to study the matter, taking into account the information that has become available since the WHO symposium on the epidemiological effects of air pollution held in 1960.

The guide to the selection of methods for measuring air pollutants, mentioned in the Annual Report for 1966, was completed during the year. The conclusions of the first part of a study initiated by WHO on the relative health hazards of motor-vehicle exhausts were reported in an article on the diesel engine and atmospheric pollution, published in the WHO Chronicle. The article, which described the effects and health implications of incomplete combustion of motor-vehicle fuel and methods for the prevention of dangerous or dirty exhaust, has aroused wide interest.

Routine surveillance for radionuclides in air and water was the subject of a meeting organized by WHO and attended by representatives of the International Atomic Energy Agency, the United Nations Scientific Committee on the Effects of Atomic Radiation, the European Nuclear Energy Agency and the International Commission on Radiological Protection. A document was prepared and distributed to public health authorities as a guide in establishing routine surveillance of the environment.

An expert committee on water pollution control, which met in Geneva in December, discussed measures for dealing with pollution in arid and semi-arid regions and in those developing countries where wide seasonal variations in precipitation create special pollution problems. The Committee paid particular attention to problems of water re-use and to the effects on water quality of agricultural practices and industrial development in those areas.

An inter-regional seminar on water pollution control was held in New Delhi in November with fifteen participants from as many developing countries in all WHO regions, in some of which, particularly in those where water is scarce, water pollution is already a very serious problem. Participants discussed control measures with emphasis on the need for low-cost methods that could be implemented with limited manpower.

Methods for surveying water pollution and for water re-use in developing countries, especially in those with insufficient water resources, are being studied in several WHO regions with the Organization's assistance. India received technical advice on the organization of water pollution control and prevention. A preliminary survey was carried out to assess the major water pollution problems in Nigeria and recommendations were made on short-term and long-term solutions for their control. Assistance in control or prevention was also given to several Latin American countries. Support was given to laboratories in Liège, Belgium and Ferrara, Italy for research on methods of identification and measurement of toxic pollutants in river water, including heavy metals, pesticides and hydrocarbons.

The first phase of a study on coastal water pollution was completed; it comprised an extensive review of the categories of pathogenic and other organisms discharged with sewage into coastal waters, their survival and health significance.

A comparative study of legislation for water pollution control in thirteen countries was published.

Sanitation Services and Housing

WHO assistance in sanitary engineering education was increased during the year, especially in the Region of the Americas. A number of seminars and short intensive courses were organized, and visiting professors were provided to universities. The Expert Committee on the Education of Engineers in Environmental Health, at its meeting in Geneva in July, discussed new trends, techniques and curricula for the training of sanitary engineers, and of other engineers, architects, city planners and people of other professions whose activities are directly connected with environmental health problems and their solution.

The training of sanitarians forms part of many WHO-assisted projects for the development of health and sanitation services. In addition, five projects specifically for the training of sanitarians were in operation and an advanced course for this type of personnel started at a training centre in Damascus with participants from several countries.

A guide to ship sanitation was published, and a

---

guide to sanitation in tourist establishments was prepared for publication.

WHO took part in the twenty-eighth session of the Committee on Housing, Building and Planning of the Economic Commission for Europe and the fifth session of the similarly named committee of the Economic and Social Council. The ACC Working Group on Housing and Urbanization, at its eleventh session held in Rome in February, discussed how participation in and co-ordination of programmes of the United Nations bodies and specialized agencies concerned with housing and urbanization could be made more effective. WHO collaborated with the United Nations in organizing and conducting a seminar on rural housing and community facilities held in Maracay, Venezuela, in April.

The technical discussions held during the Twentieth World Health Assembly were devoted to "The challenge to public health of urbanization." Thirty-four Member States and Associate Members and nine non-governmental organizations transmitted reports in response to the Director-General's invitation, and there were 160 participants. The principal emphasis during the discussions was on planning for urbanization, and it was recognized among the conclusions of the joint session of the eight discussion groups that there should be a close interweaving of economic, social and physical elements to ensure realistic planning.

**Wastes Disposal**

In accordance with the recommendation of the Scientific Group on the Treatment and Disposal of Wastes,\(^1\) which met in December 1966, a programme for the collection and dissemination of information on research and development in this field was initiated, and further work was done on the formulation of methods for investigations aimed at adapting the knowledge now available in the field of sewerage and sewage disposal to the economic and manpower resources of the developing countries, and on the preparation of a guide on this subject.

The project for pre-investment and long-range plans for sewerage improvements in the Manila metropolitan area, financed from the Special Fund component of the United Nations Development Programme (UNDP), was started, and after technical preparatory work by WHO a similar project for Ibadan, Nigeria, which also includes disposal of solid wastes, was approved by the Governing Council of UNDP. Assistance in the development of other waste disposal projects was given to Burundi (Bujumbura), Chad (Fort Lamy), China (Taipei), Singapore and Sudan (Khartoum).

CHAPTER 8

RESEARCH

Co-ordination of Medical Research \(^1\)

Much of the research supported by WHO is research directed to the solution of problems in developing countries. Communicable diseases, vector control and nutrition are given high priority; however, research in cardiovascular diseases, cancer immunology, human genetics and human reproduction is assuming more importance, and, in view of the growing concern over the harmful effects of drugs, research in pharmacology and toxicology is also increasing.

The Advisory Committee on Medical Research held its ninth session in June. It reviewed in detail WHO's research programme in bacterial and parasitic diseases, and considered scientific group reports on human genetics, immunology, human reproduction, diffuse connective tissue diseases, virus diseases, wastes disposal, drug testing, food additives and psychopharmacology.

Fourteen meetings of scientific groups and several other research meetings were held during the year. Mention is made of these meetings in the relevant sections of this report and the scientific groups are listed in Annex 5.

Twenty-one international reference centres and seven regional reference centres were designated during the year, bringing the total number of WHO reference centres to 145, of which eighty-four are international and sixty-one regional. Several national laboratories were recognized as national reference centres or collaborating laboratories. The reference centres supported by WHO are listed in Annex 14.

The number of research contracts active in 1967 was 608; of these, 172 were for projects initiated during the year (see Annex 12).

Developments in Epidemiology and Communications Science

In recent years, very rapid ecological changes have occurred in the world. Economic and social development has profoundly and rapidly altered living habits. A multiplicity of environmental factors have increasingly influenced patterns and prevalence of disease and these factors, in contrast to the biological elements regarded for decades as being of main importance in disease causation, are now being recognized as being of primary importance. It thus became essential to develop in the WHO programme activities aiming at the better identification of those factors clearly associated with both favourable and unfavourable effects on health. This need was emphasized by several groups of experts convened by WHO between 1963 and 1965, which stressed the need for utilizing new techniques in sociology, operational research, statistics, applied mathematics and computer science in the fields of epidemiology and communications science in relation to health and biomedical problems.

The Eighteenth World Health Assembly (in resolution WHA18.43) and the Nineteenth World Health Assembly (in resolution WHA19.34) authorized an intensified WHO programme in epidemiological research and communications science and during 1967, initial steps have been taken to assemble a cohesive team of scientists in a wide variety of disciplines. A beginning has been made on the exploration of problems and the investigation of specifications concerning areas of importance which might be tackled most effectively within the resources likely to become available. At the same time, work is proceeding to integrate the activities into the overall programme of the Organization, in the realization that the new skills and knowledge are required in co-operation with other programmes, complementing work already in progress and not duplicating it. However, problems involving the ecology of human populations with a generation time of twenty years cannot be taken into the epidemiological laboratory and solved in the same way as those involving, for instance, micro-organisms with a generation time of twenty minutes, and, in view of the complex nature of the work and the need for preparatory studies, reportable results cannot be expected for some time.

\(^1\) Specific activities in the medical research programme of WHO are described elsewhere in this report under their respective subjects. This section summarizes the research programme as a whole.
CHAPTER 9

HEALTH STATISTICS

The development of national health planning, together with the growing attention given to the evaluation of health services, has increased the demand for statistical information at all levels of health administration, and the Organization has continued to examine ways of obtaining a greater variety of reliable statistical data. Hospital statistics are already used by health administrations in many countries; however, comparatively little use has so far been made of the data routinely recorded in other health institutions, including health centres. WHO has given assistance to several countries in order to improve the recording and reporting in such institutions so that the statistics will also be suitable for the needs of health administrations. A seminar on health statistics, in which particular attention was given to rural health records and reports, was held in New Delhi in October, with participants and observers from the Eastern Mediterranean, South-East Asia and Western Pacific Regions.

Methods of collecting morbidity statistics from various sources, and the standardization of procedures for the collection of data on infectious diseases, were discussed by the Expert Committee on Health Statistics at its meeting in November. The Expert Committee based its discussions on information collected since 1962 on conditions in various countries and the procedures they follow, which showed that national authorities face many problems in this field.

The exchange of information between countries through reports of national committees on vital and health statistics has been intensified and twenty-one such reports were circulated. These gave information on new statistical activities undertaken by Member States and on a number of other subjects, of which the most important were hospital records, hospital statistics and training of health statistical personnel.

An analysis of classifications of surgical operations used in various countries was also prepared and further work in this area is proceeding.

The World Health Statistics Annual published in 1967 included data on numbers of physicians and of hospitals in the administrative divisions of each country, in order to give health planners a picture of the availability of services to populations. It also contained data on hospital utilization.

The main data available in the national reports on demographic and health statistics were collected and published in the monthly Epidemiological and Vital Statistics Report. Regular publication of statistical information on national BCG vaccination programmes began in that series, and other statistics on various subjects of public health interest were published, including data on the ten leading causes of death in industrialized and non-industrialized countries, mortality from malignant neoplasms, mortality from cardiovascular diseases, congenital malformations, hospital morbidity and cancer morbidity.

Data for almost the whole of Volume I of the World Health Statistics Annual and for six numbers of the Epidemiological and Vital Statistics Report were processed by the computer at WHO headquarters.

In conformity with resolution WHA19.44 of the Nineteenth World Health Assembly, work continued on the preparation for publication of the new edition of the Manual of the International Classification of Diseases, Injuries, and Causes of Death, based on the Eighth Revision of the Classification, in use from the beginning of 1968. The first volume and short index were published in English, and French, Russian and Spanish versions were prepared for publication.

In accordance with resolution WHA19.45 of the Nineteenth World Health Assembly, revised nomenclature regulations were prepared and submitted to Member States for their comments. These regulations, further revised to take into account the comments received, were adopted by the Twentieth World Health Assembly in resolution WHA20.18, for entry into force on 1 January 1968. They replace the Nomenclature Regulations, 1948, and the Additional Regulations of 21 May 1956. The new regulations include a minimum of mandatory requirements, namely: use of the International Classification of Diseases for coding morbidity and mortality data; compliance, in so far as possible, with technical recommendations; a basic mortality tabulation; a broad specification for the medical certificate of cause of death; and provision of statistical information to WHO on request. They provide greater opportunities for experimentation in new ways of presenting morbidity and mortality statistics, for example, through multiple cause analysis.
One of the most significant developments in statistical methodology in recent years is the increased use of automatic data processing systems. WHO has extensively reorganized its statistical work of a methodological nature in order to make the best use of the computer at headquarters.

Assistance was given to countries with the statistical aspects of epidemiological surveys on communicable diseases—treponematoses in Nigeria and Togo, leprosy in Colombia and Burma, and trachoma in China (Taiwan). Assistance was also given in connexion with an epidemiological study of atherosclerosis in Czechoslovakia, Sweden and the USSR, a study of *Aedes aegypti* population in Bangkok, an analysis of susceptibility of disease vectors to insecticides, field and laboratory studies of BCG vaccines in Denmark, and the application of the linear programming technique to operational research in tuberculosis control.

WHO participated in the work of the Sub-Committee on Statistical Activities of the Administrative Committee on Co-ordination, which was set up during the year with a view to co-ordinating the activities of the United Nations and the specialized agencies. The Sub-Committee discussed the development of world standards in important inter-related fields of statistics, the training of statistical personnel and the elaboration of international statistical programmes. WHO also collaborated with ILO in preparatory work for the revision of the International Standard Classification of Occupations, in particular as regards the classification of medical, dental, veterinary, nursing and related occupations. Questionnaires for the collection from countries of information on cancer morbidity were revised in collaboration with the International Agency for Research on Cancer.
CHAPTER 10

EDUCATION AND TRAINING

As one of its main activities in education and training, WHO again provided teaching staff to institutions responsible for training professional and auxiliary health personnel. The following table shows the number of professors, lecturers, and other teaching staff assigned to training institutions in fifty-one countries of the six WHO regions in 1967. The table, unlike tables in previous Annual Reports, includes only WHO project staff whose duties have been entirely instructional, and does not include those who had also advisory functions.

For training professional personnel * (by subject)

<table>
<thead>
<tr>
<th>Field of activity</th>
<th>Number of Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic medical sciences</td>
<td>16</td>
</tr>
<tr>
<td>Paediatrics, maternal and child health</td>
<td>4</td>
</tr>
<tr>
<td>Clinical and related fields</td>
<td>25</td>
</tr>
<tr>
<td>Public health and preventive medicine</td>
<td>22</td>
</tr>
<tr>
<td>Nursing</td>
<td>82</td>
</tr>
<tr>
<td>Environmental health</td>
<td>9</td>
</tr>
<tr>
<td>Total number of months assigned: 1787</td>
<td></td>
</tr>
</tbody>
</table>

For training auxiliary personnel          49

Total number of months assigned: 1787

* Some instructors were engaged in the training of both professional and auxiliary personnel.

Travel Abroad for Studies and Scientific Exchanges

Eight African candidates with intermediate-level medical training were accepted by French medical schools for completion of the full professional course. At a future date, however, only candidates for the full regular course will be accepted by the French medical faculties. There are already many African students following the full undergraduate course, not only in France, but also in Algeria, Belgium, Israel, Italy, Morocco and Switzerland, under WHO fellowships.

From 1 December 1966 to 30 November 1967 WHO provided assistance to enable 3433 individuals to study abroad. The Organization awarded 2634 fellowships for study (as compared with 2576 for the same period ending 30 November 1966), and 799 for participation in meetings or other educational activities organized by WHO. The recipients of the fellowships came from 154 countries and studied in 100 countries.

Further information on fellowships awarded in relation to particular countries and projects may be found in Part III, and Annex 11 summarizes the number of fellowships by subject of study and by region. Some other aspects are analysed below:

Profession of fellows

<table>
<thead>
<tr>
<th>Profession</th>
<th>Number of Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians</td>
<td>1421 (54%)</td>
</tr>
<tr>
<td>Nurses</td>
<td>288 (11%)</td>
</tr>
<tr>
<td>Sanitarians</td>
<td>176 (7%)</td>
</tr>
<tr>
<td>Other</td>
<td>749 (28%)</td>
</tr>
</tbody>
</table>

Field of activity

<table>
<thead>
<tr>
<th>Field</th>
<th>Number of Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td>266 (10%)</td>
</tr>
<tr>
<td>Research</td>
<td>86 (3%)</td>
</tr>
<tr>
<td>Medical and health services</td>
<td>2028 (77%)</td>
</tr>
<tr>
<td>Undergraduate study</td>
<td>254 (10%)</td>
</tr>
</tbody>
</table>

Type of studies arranged

<table>
<thead>
<tr>
<th>Type of study</th>
<th>Number of Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO-sponsored courses</td>
<td>830 (32%)</td>
</tr>
<tr>
<td>Other courses</td>
<td>1086 (41%)</td>
</tr>
<tr>
<td>Individual studies</td>
<td>718 (27%)</td>
</tr>
</tbody>
</table>

Place of study

<table>
<thead>
<tr>
<th>Place</th>
<th>Number of Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the fellow's region</td>
<td>1446 (55%)</td>
</tr>
<tr>
<td>In another region</td>
<td>1188 (45%)</td>
</tr>
</tbody>
</table>

In the promotion of training and exchange of research personnel, thirty-eight training grants and thirty-eight grants for the exchange of research workers were awarded. Of the training grants, several were supported by the Swedish National Association against Heart and Chest Diseases and the Governments of Czechoslovakia and Israel (see Annex 13).

A total of 1250 participants assisted by WHO and other agencies attended fifty-one regional and inter-regional seminars, symposia and other educational meetings and short courses sponsored by WHO. These meetings were held in twenty-nine countries and territories; details are given in Part III.

Medical Education

Assistance in the teaching of basic medical sciences was given to medical schools in Afghanistan, Burma, the Democratic Republic of the Congo, Ethiopia, India, Indonesia, Iran, Morocco, Tunisia and the
United Republic of Tanzania. The undergraduate teaching of basic medical sciences was the subject of a meeting held in Copenhagen in April with participants from twelve countries in the European Region. A review of methods of practical instruction in these basic sciences, including the use of a single laboratory for instruction in different laboratory sciences, was undertaken by WHO on the basis of information collected from different regions.

With a view to promoting the interest of clinicians in community medicine, a study was made on the introduction of preventive and social aspects into the teaching of the clinical subjects in the medical curriculum.

Following the preparation of a report for the Twentieth World Health Assembly on the criteria for assessing the equivalence of medical degrees in different countries, attention continued to be paid, not only to primary medical qualifications and the legislation concerning licences to practise medicine, but also to post-graduate educational schemes leading to specialization. A survey of existing legislation on the equivalence of medical qualifications and the practice of medicine was published.1

In the series of directories of institutions for education in medicine and other health professions, the second edition of the World Directory of Dental Schools was published and the second edition of the World Directory of Veterinary Schools was in press at the end of the year.

Training in Preventive Medicine and Public Health

The inter-regional conference of directors of schools of public health, held in Geneva in 1966, expressed in its report the desirability of promoting a system of mutual recognition of such schools.2 A meeting was held in Manila in November for directors of schools of public health in the African, South-East Asia, Eastern Mediterranean and Western Pacific Regions to discuss standards and requirements for post-graduate public health courses and the establishment of a regional association of schools of public health. Similar associations are already in existence in North America, Latin America and Europe.

A meeting was held in November with a group of major publishers of medical textbooks to explore ways of promoting the integration of preventive and social aspects in these publications. Meetings on the teaching of specific subjects of importance in preventive medicine and public health, included one on the teaching of epidemiology, held in Brussels in November with participants from several European countries.

Training of Auxiliary Personnel

The Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel which met in September reviewed the need for medical assistants and similar personnel to whom physicians may delegate certain limited functions, including the diagnosis and treatment of common diseases and ailments. The Expert Committee examined examples of curricula from training schemes in operation in six countries, and made recommendations for the training of personnel in this category. A travelling seminar to study the training and utilization of medical assistants (feldshers) in the USSR was organized in September and October for fifteen participants from all the WHO regions.

Collaboration with the United Nations and the Specialized Agencies

WHO participated in the work of the Sub-Committee on Education and Training of the Administrative Committee on Co-ordination, and in the work of the Committee for Programme and Co-ordination of the Economic and Social Council in preparation for the United Nations Secretary-General’s report on development and utilization of human resources.

WHO also collaborated with UNESCO in preparations for the International Conference on Educational Planning to be held in Paris in 1968, and with the UNESCO-sponsored International Institute for Educational Planning; resident students of the Institute were briefed on WHO's various activities.

---

1 Int. Dig. Hlth. Leg., 1967, 18, 459.
CHAPTER 11

CO-OPERATION WITH OTHER ORGANIZATIONS

This chapter gives a brief survey of some of the main developments in WHO's co-operation with the United Nations and related agencies, together with a summary of the subjects of co-operation with those bodies and with intergovernmental and non-governmental organizations. More details on some of these items are given in the relevant chapters of the report, and in the Project List in Part III.

On the recommendation of the Executive Board, the Twentieth World Health Assembly in May decided that the next organizational study by the Board should be a review of the organizational study, carried out in 1962, on co-ordination with the United Nations and the specialized agencies. The Board will report on its review to the Twenty-first World Health Assembly in May 1968.

United Nations Development Programme

One of the most significant developments since the consolidation of the United Nations Special Fund and the Expanded Programme of Technical Assistance in the United Nations Development Programme (UNDP) was the decision taken by the Governing Council at its fourth session, held in June 1967, to discontinue biennial programming for the Technical Assistance component in favour of continuous programming with project budgeting. This procedure was approved by the Economic and Social Council at its forty-third session. Under the new procedure, which will come into force in 1969, requests for Technical Assistance projects are to be submitted by governments as and when the need arises. The Governing Council is called upon to establish annual country target figures and subsequently to review individual projects at each session, while delegating authority to the Administrator to approve urgent projects between sessions. A special feature is the provision for the re-programming of savings accruing through delays in project implementation.

The steady decrease in the funds under the Technical Assistance component of UNDP allocated to health projects, and the small number of health projects financed from the Special Fund component, were among the considerations underlying a resolution (WHA20.53) on health and economic development adopted by the Twentieth World Health Assembly, which expressed concern that health improvement was not progressing at the rate planned for the United Nations Development Decade, and called for an intensification of studies on the economic aspects of health activities. At the same time a wider recognition of the importance of health, and particularly those aspects which can be assisted through the United Nations Development Programme, has been apparent. At the fourth session of the Governing Council, held in June, the Administrator of UNDP called specifically for increased attention to health projects in the Special Fund component, and stressed the vastness of the needs in the health field.

Three new projects were approved by the Governing Council during the year. They concern operational research on human and animal trypanosomiasis eradication in Nyanza and Western Provinces, Kenya; a central sewerage system for Ibadan, Nigeria; and a master plan for water supply and sewerage for the Greater Kampala and Jinja areas, Uganda. Work on the first of these projects started in May. In addition, the Administrator approved a project for a pre-investment survey of the south-west coastal area water supply and sewerage needs in Ceylon under preliminary operational arrangements. By the end of the year WHO had been designated executing agency for nineteen full-scale Special Fund projects out of 778 projects approved. The portion of funds allocated to WHO-assisted projects remains under US $20 million—only 2.2 per cent. of the total Special Fund allocations.

Work continued on the development of projects in new fields which could benefit from Special Fund assistance, mainly for medical education, the establishment of public health institutes, and health planning. A request from the Government of Bulgaria for assistance in expanding the Central Institute of Public Health in Sofia was submitted to the Inter-Agency Consultative Board in October, as was a regional project for Latin America, entitled "Pan American Programme for Health Planning", in which a number of Latin American countries will participate.

Projects financed under the Special Fund and Technical Assistance components of the United
Nations Development Programme are shown in the Project List in Part III of the report, which also gives details of the assistance provided by WHO for a number of such projects executed by other agencies.

United Nations Children's Fund

The Executive Board of the United Nations Children's Fund (UNICEF), at its meeting in New York in June, approved programme allocations for a total of 251 projects, including twenty-six new projects. Allocations for health projects constituted over fifty per cent. of the total programme allocations.

The UNICEF Executive Board endorsed the recommendations of the UNICEF/WHO Joint Committee on Health Policy on the applied nutrition and maternal and child health programmes, water fluoridation, malaria eradication, measles vaccination, and health aspects of family planning. In respect of the last named, the Board was informed that WHO was concentrating its efforts on the health aspects of human reproduction, epidemiological research, advice to governments, on request, on all aspects of population dynamics relating to fertility, sterility and fertility control, and co-ordination of activities in this field with those of other organizations concerned with population dynamics.

World Food Programme

There has been a wider recognition of the public health aspect of the projects under the World Food Programme, and WHO has been asked to investigate the health implications of more than 130 projects.

Preliminary reports on the WHO-assisted malaria eradication project in Turkey which is receiving support from the World Food Programme are encouraging. Preparations were made for the launching of an environmental sanitation project with the joint assistance of the World Food Programme and WHO in China (Taiwan).

SUMMARY OF CO-OPERATION WITH OTHER ORGANIZATIONS

Listed below are the organizations with which WHO has mainly collaborated during the year, with an indication of the subjects of co-operation.

United Nations and Related Agencies

United Nations

Community development: participation in an inter-agency review of United Nations programmes; continued participation in jointly assisted programmes in the Andean region of Latin America and in the community development training centre in Mexico.

Economic development—public health aspects: assistance to the United Nations Institute for Training and Research in courses and in study of methods for evaluating programmes. (See also page 31.)

Housing and urban planning: participation in investigations, through the ACC, into the possibility of developing multidisciplinary pilot projects assisted by the United Nations and other agencies.

Human rights: steps taken to associate WHO with action planned under the International Year for Human Rights (1968). (See also page 31.)

Population dynamics: participation in inter-agency consultations (in accordance with resolutions of the World Health Assembly and the Economic and Social Council) and co-operation with the United Nations in specific projects.

United Nations Development Programme: see page 43.

United Nations Advisory Committee for the Application of Science and Technology to Development

Health problems of development: submission of ten reports to the Committee and participation in its discussion on the reports.

Nutrition: see page 24.


United Nations Children's Fund: see above.
United Nations Relief and Works Agency for Palestine Refugees in the Near East

Health services for refugees: extension of the agreement between the Agency and WHO, which continued to provide the Director of Health Services of the Agency, a medical officer and a public health nurse.

Permanent Central Narcotics Board and Drug Supervisory Body: see page 29.
Office of the United Nations High Commissioner for Refugees

Health services for refugees: liaison maintained regarding the provision of such services in Africa.

Economic and Social Council

Co-ordination: study submitted to the Council on co-ordination of governmental health activities, structure and co-ordination of activities of WHO and its regional offices and co-ordination of WHO assistance with that of other intergovernmental and governmental and non-governmental institutions.

Economic and social development: participation in the Council's discussions in July, including those on the United Nations Development Decade.

Housing, building and planning: see page 37.

Nutrition: submission to the Council of the report of a FAO/UNICEF/WHO ad hoc panel of experts on increasing the production and use of edible protein and international measures to avert the protein crisis; participation in the Council's discussions on the report.

Social questions relating to extension of health services: report to the Commission for Social Development (see below) considered by the Council.

Commission for Social Development

Social development: consultations, through the ACC, on co-operation with the Commission on the draft declaration on and review of technical assistance for social development.

Social questions relating to extension of health services: report presented to the Commission at its eighteenth session.

Population Commission: see page 27.

Economic Commission for Africa

Housing and sanitation programmes: full-time WHO sanitary engineer continued assignment to the headquarters of the Commission.

Vital and health statistics: see page 95.

Economic Commission for Asia and the Far East

Economic development and planning: continued assistance with courses provided to the Asian Institute for Economic Development and Planning. (See also pages 80, 159 and 161.)

Economic Commission for Europe

Housing, building and planning: see page 37.

Water pollution: participation in meetings organized by the Commission.

Economic Commission for Latin America

Housing, sanitation and water supply: advisers on these subjects provided to the Commission. (See also page 110.)

Commission on Narcotic Drugs: see page 29.

International Labour Organisation

Classification of occupations: participation in meeting for revision of the International Standard Classification of Occupations.

Health services for refugees: liaison maintained regarding the provision of such services in Africa.

Respiratory diseases: assistance to research on such diseases in textile workers.

Social security: participation in a meeting on co-ordination of social security organizations in Latin America; participation in a meeting on the organization of medical care within the framework of social security.

See also pages 97, 102 and 106 (community development), 106 (nutrition), 160 (occupational health), 99 (rehabilitation), and 25 (seafarers' health).

Food and Agriculture Organization

Food additives: Joint FAO/WHO Expert Committee on Food Additives (Specifications for Identity and Purity and Toxicological Evaluation of Some Flavouring Substances and Non-nutritive Sweeteners), held in Geneva in August.

Food hygiene: activities under the Joint FAO/WHO Food Standards Programme continued: fourth session of the Committee on Food Hygiene of the Joint FAO/WHO Codex Alimentarius Commission held in Washington, D.C., in June. (See also pages 19 and 20.)

Food production: discussions on the expanded role of the Protein Advisory Group. (See also page 24.)

Irrigation: studies on health implications of irrigation and land reclamation schemes carried out in connexion with large-scale projects financed under UNDP for which FAO is the executing agency.

Nutrition: assistance in the development of the health component in applied nutrition programmes; discussions on the role of joint FAO/WHO regional food and nutrition commissions. (See also pages 80 and 106.)

Pesticides: evaluation of the safety of some pesticides and recommendation of acceptable daily intakes, at a joint meeting of the FAO Working Party and the
WHO Expert Committee on Pesticide Residues, held in Rome in December.

Radiation accidents: participation in the preparation of a manual of guidance on emergency planning for countermeasures to be taken by public health, agricultural and atomic energy authorities.

Veterinary public health: joint assistance and sponsorship of research. (See also pages 18, 19 and 168.)

See also pages 97, 102 and 106 (community development) and 20 (milk quality).

United Nations Educational, Scientific and Cultural Organization

Communication of scientific information: WHO observer attended the first session of the ICSU/UNESCO Central Committee to study the Feasibility of a World Science Information System, held in Paris in December.

Education: participation in meetings on education planning; planning for association in the World Literacy Programme.


Population questions: participation in meetings organized by UNESCO.

Research: planning for closer association in research, and particularly in the International Biological Programme organized by UNESCO through the International Council of Scientific Unions. (See also page 25.)

See also pages 97, 102 and 106 (community development), and 6 (microbiology).

World Meteorological Organization

Participation in the WMO Working Group on Atmospheric Pollution and Atmospheric Chemistry.

International Civil Aviation Organization

General co-operation on quarantine matters.

Inter-Governmental Maritime Consultative Organization

General co-operation on quarantine matters.

Seafarers' health: see page 25.

International Atomic Energy Agency

Medical use of radioisotopes: study on requirements and opportunities for post-graduate training completed by WHO with the participation of IAEA.

Radiation health: participation in IAEA panels on radiation health subjects. (See also under Food and Agriculture Organization, above, and pages 24 and 134.)

Intergovernmental Organizations


International Office of Epizootics: see page 19.

Colombo Plan: see page 154.

Council of Europe

Participation in meetings organized by the Council on environmental pollution (including air and water pollution) and noise.

Inter-American Development Bank

Joint assistance to projects for community water supply and sewage disposal systems.

Organization of African Unity

Participation in the Joint FAO/WHO/OAU(STRC) Regional Food and Nutrition Commission, for which WHO assures the secretariat.

Organisation de Coordination et de Coopération pour la Lutte contre les Grandes Endémies: see page 95.

South Pacific Commission: see pages 80, 151 and 159.

Non-governmental Organizations

International Air Transport Association: see page 7.

International Council of Nurses: participation in meeting of Council.


International Council of Societies of Pathology: see page 21.

International Dental Federation: see page 33.

International Federation of Physical Medicine: admitted to official relations with WHO.

International League of Dermatological Societies: see page 14.

International Paediatric Association: see page 34.

International Planned Parenthood Federation: see page 27.

International Society of Biometeorology: admitted to official relations with WHO.

1 Organization of African Unity (Scientific, Technical and Research Commission.)
International Society of Radiographers: admitted to official relations with WHO.

International Union of Architects: participation in the Congress of the Union.

International Union for Health Education: see page 33.

International Union of Pharmacology: see page 29.

International Union of Pure and Applied Chemistry: WHO continued to follow in its publications the rules for chemical nomenclature of the Union.

International Union against Tuberculosis: see page 14.

International Union against the Venereal Diseases and the Treponematoses: see pages 14 and 33.

League of Red Cross Societies: continued collaboration in health education aspects of the five-year development programme sponsored by the League.

Smallpox eradication: see page 8.

Interim Commission of World Federation of Public Health Associations: participation in meeting of the Interim Commission.
CHAPTER 12

PUBLIC INFORMATION

The theme of World Health Day 1967, “Partners in Health”, provided opportunities of drawing attention to the worldwide shortage of health personnel and to the work and achievements of the health services. In many countries special efforts were made to mark the event. In Poland, the Government declared 7 April the “Day of the health service worker” and organized a public information programme through the press, radio and television. In Australia, the United Nations Association organized a seminar in Melbourne on the World Health Day theme with special reference to family health.

At WHO headquarters and in the regional offices contacts with the press were intensified. In addition to the releasing of written information and the holding of occasional ad hoc press conferences, there were for the first time regular weekly press briefings for the journalists accredited to the United Nations.

The photographic service was especially active in 1967 in obtaining coverage of health activities in different parts of the world. Photographs were taken to illustrate educational activities for the health professions in Guatemala and India; health services in action in Afghanistan, France, Kenya, Mongolia, Morocco, Sweden and Yugoslavia; the situation following malaria eradication in parts of Mexico and in Sardinia; other themes relating to communicable diseases in India and Nepal; mental health problems in Belgium, England, Ireland and the Netherlands; water supply development in India and Turkey; and road accidents in the Federal Republic of Germany. The total number of prints distributed from headquarters during the year was over 34,000.

A colour cartoon film on drug-taking entitled “False Friends” was completed, and a film on urbanization entitled “Little Man—Big City” was produced in co-operation with Hungarofilm, the Hungarian Government film agency. A Hindi version of the WHO film, “Smallpox, Merciless Traveller” was in production. Also in production was a film on research in cardiovascular diseases.

In the first ten months of the year, over two hundred sound recordings for radio were made at headquarters. These included a thirty-minute feature programme on the theme for World Health Day, which was distributed in seventy-eight copies in answer to requests from broadcasting organizations. The total number of copies of recordings distributed exceeded five hundred.

Ten issues of the magazine World Health were published. Most in demand were issues concerned with the rat problem and with drug dependence. On the occasion of the twenty-first anniversary of the establishment of UNICEF, the issue for December 1967 was devoted to the world’s children. To mark the twentieth anniversary of WHO, a small art calendar for 1968 was published as the November issue of the magazine. As from January 1967, a German edition of World Health has been published by the German Green Cross by agreement with WHO.

An eight-page brochure giving basic information about WHO was published in Arabic by the Regional Office for the Eastern Mediterranean, and Burmese and Mongolian editions were published with the support of the Regional Office for South-East Asia. The Regional Office for South-East Asia also sent out press releases in Hindi and Tamil for the first time.

During the year groups totalling more than 2000 people visited the headquarters building and were able to hear talks on the work of the Organization.

Close contact with the United Nations and with other agencies was maintained through the Consultative Committee for Public Information and through a meeting of editors of United Nations magazines, held at the invitation of ILO.
CHAPTER 13

CONSTITUTIONAL, FINANCIAL AND ADMINISTRATIVE DEVELOPMENTS

Constitutional and Legal

Barbados and Lesotho became Members of the World Health Organization on 25 April and 7 July 1967 respectively by depositing with the Secretary-General of the United Nations an instrument of acceptance of the Constitution. At the end of the year WHO had 126 Members and three Associate Members. A list of Members and Associate Members at 31 December 1967 is given in Annex 1.

The Twentieth World Health Assembly adopted a resolution amending Articles 24 and 25 of the Constitution in order to increase the number of Members entitled to designate a person to serve on the Executive Board from twenty-four to thirty.

By 31 December 1967, eleven Member States of WHO had deposited with the Secretary-General of the United Nations an instrument of acceptance of the amendments to those articles. These are (in chronological order) the Ivory Coast, Tunisia, Peru, Madagascar, Saudi Arabia, Denmark, Switzerland, the Republic of Korea, Finland, Barbados and New Zealand.

As concerns the amendment to Article 7 of the Constitution adopted by the Eighteenth World Health Assembly in resolution WHA18.48, six Member States have deposited an instrument of acceptance of the amendment since the end of 1966. These are (in chronological order) Morocco, Saudi Arabia, Costa Rica, Peru, Barbados and Cameroon. This has brought the total number of acceptances to thirty-four.

Three further Members acceded to the Convention on the Privileges and Immunities of the Specialized Agencies together with its Annex VII, which relates specifically to the World Health Organization: Czechoslovakia (with reservations), Hungary (with reservations) and Ireland.

The Financial Position

Budget for 1967

The Nineteenth World Health Assembly established an effective working budget for 1967 of US $51 515 000 —i.e., $7 033 200 over the corresponding total of $44 481 800 for 1966. The approved budget for 1967 was $54 717 890, the difference of $3 202 890 between the effective working budget and the approved budget being appropriated as an undistributed reserve, equal to the assessments on China and on the inactive Members (the Byelorussian SSR and the Ukrainian SSR). The Twentieth World Health Assembly, on the recommendation of the Executive Board, approved in resolution WHA20.12 supplementary budget estimates for 1967 totalling $805 750. Of this amount, $245 150 was appropriated to the Undistributed Reserve, increasing it to $3 448 040. Consequently, the 1967 effective working budget was increased by $560 600 to $52 075 600. The supplementary estimates were for the following purposes:

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer to the Headquarters Building Fund</td>
<td>$231 500</td>
</tr>
<tr>
<td>Purchase of South-East Asia Regional Office building</td>
<td>$350 100</td>
</tr>
<tr>
<td>Increase of the Undistributed Reserve</td>
<td>$245 150</td>
</tr>
<tr>
<td>Savings in Operating Programme and Administrative Services</td>
<td>(21 000)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>805 750</strong></td>
</tr>
</tbody>
</table>

The increase in the Undistributed Reserve resulted from the Assembly’s decision in resolution WHA20.8 to place in this appropriation section the 1967 contribution of the Republic of South Africa. That
Member had informed the Director-General of its intention not to pay. To compensate for the loss of revenue, i.e., $245,150 in 1967, the Assembly increased the use of available casual income for 1967 by the same amount.

The distribution of the approved budget among the appropriation sections is shown in Annex 7.

**United Nations Development Programme**

Under the Technical Assistance component of the United Nations Development Programme the amount available to WHO for 1967—the first year of the 1967-1968 biennium—was $9,017,970, or 14.4 per cent. of the total funds for the programme. This sum included $1,301,900 for administrative and operational service costs. Contingency allocations in 1967 for projects assisted by WHO amounted to $313,900. The total amount allocated to WHO in 1967 was thus $9,331,870, as compared with the figure of $9,441,358 allocated to the Organization in 1966.

Under the Special Fund component of the United Nations Development Programme, WHO was allocated an amount of $6,803,492 during 1967. This sum, together with an amount of $4,104,347 remaining undisbursed from previous years, resulted in a total of $10,907,839 available for disbursements over the duration of the approved projects.

**Voluntary Fund for Health Promotion**

Contributions in cash and in kind received in 1967 for the Voluntary Fund for Health Promotion amounted to $851,102, bringing the total value of contributions credited to the Fund from its inception to $30,876,461 as at 31 December 1967. These contributions related to the following sub-accounts:

<table>
<thead>
<tr>
<th>Sub-account</th>
<th>1.1.1967</th>
<th>31.12.1967</th>
<th>Total from inception</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Account for Undesignated Contributions</td>
<td>1,738</td>
<td>46,340</td>
<td></td>
</tr>
<tr>
<td>Malaria Eradication Special Account</td>
<td>37,050</td>
<td>20,909,405</td>
<td></td>
</tr>
<tr>
<td>Special Account for Smallpox Eradication</td>
<td>202,305</td>
<td>1,078,585</td>
<td></td>
</tr>
<tr>
<td>Special Account for Medical Research</td>
<td>357,169</td>
<td>6,447,926</td>
<td></td>
</tr>
<tr>
<td>Special Account for Community Water Supply</td>
<td>51,476</td>
<td>1,020,566</td>
<td></td>
</tr>
<tr>
<td>Special Account for Assistance to the Democratic Republic of the Congo</td>
<td>10,035</td>
<td>335,010</td>
<td></td>
</tr>
<tr>
<td>Special Account for Accelerated Assistance to Newly Independent and Emerging States</td>
<td>1,485</td>
<td>54,949</td>
<td></td>
</tr>
<tr>
<td>Special Account for the Leprosy Programme</td>
<td>29,027</td>
<td>151,909</td>
<td></td>
</tr>
<tr>
<td>Special Account for the Yaws Programme</td>
<td>7,830</td>
<td>29,700</td>
<td></td>
</tr>
<tr>
<td>Special Account for the Cholera Programme</td>
<td>27,271</td>
<td>27,271</td>
<td></td>
</tr>
<tr>
<td>Special Account for Miscellaneous Designated Contributions</td>
<td>125,716</td>
<td>774,800</td>
<td></td>
</tr>
</tbody>
</table>

**Collection of Contributions and Advances to the Working Capital Fund**


**Revolving Fund for Teaching and Laboratory Equipment for Medical Education and Training**

The status of this Fund is shown in the Financial Report published as a supplement to the Annual Report of the Director-General. During 1967, forty-nine requests, amounting to $270,612, were received.

**Administration**

**Structure and Staff**

Various organizational changes were made at headquarters during the year. A new Division of Research in Epidemiology and Communications Science was established, and the functions hitherto exercised by the Epidemiological Studies unit were transferred to it.

In the Division of Health Statistics, the Development of Health Statistical Services unit was divided into two separate units: International Classification of Diseases and Development of Health Statistical Services.

---

1 Includes adjustments of previous year's contributions.
of functions in the Division of Education and Training resulting in the formation of three units—Undergraduate Education, Post-graduate Education, and Training of Auxiliary Personnel—to replace the Education in Medicine and Allied Sciences unit and the Public Health Education and Training unit; Senior Staff Training was also transferred to this division and renamed Staff Training.

On 30 November 1967, the total staff numbered 3302\(^1\) (including WHO agents on duty in the Democratic Republic of the Congo), as compared with 3190 on 30 November 1966.

Details of the numbers and the composition of the staff by nationality at 30 November 1967 are given in Annexes 8 and 9. The latter annex shows that on 30 November 1967 the number of Members whose nationals were employed by the Organization was ninety-four, compared with ninety-three at the end of 1966.

Refresher briefing and training of WHO staff continued as in previous years, both in courses and on an individual basis. A new programme of group briefing at headquarters started early in 1967 and is developing according to plan. Two courses for senior technical and administrative staff, and three special courses for supervisors, were organized at headquarters. In addition, ten medical or other technical staff members followed post-graduate studies in the academic year ending in 1967, and short study tours were arranged for ten technical staff members.

A full-time social worker has been appointed at headquarters to give assistance to the staff in solving personal problems.

Office Accommodation at Headquarters

The Executive Board and, subsequently, the Twentieth World Health Assembly approved the construction of a fire-proof temporary building adjacent to the main headquarters building to meet the immediate need for additional office space, at a cost not to exceed US $400,000. The building was completed in December 1967, thus providing eighty-three additional offices.

The Assembly also requested the Director-General to study the estimated long-term needs for additional accommodation, taking into account the prospective increases in programme activities and number of staff, and to report to the Executive Board and the Twenty-first World Health Assembly.

Supply Services

During the period 1 October 1966 to 30 September 1967, supplies and equipment purchased by WHO amounted to 23,580 line items with a total value of US $3,438,000. This figure includes $586,000 for reimbursable purchases made for eleven countries, and for the United Nations, UNICEF, ILO, the League of Red Cross Societies and the International Union of Child Welfare. Purchases made out of the Revolving Fund for Teaching and Laboratory Equipment for Medical Education and Training totalled $67,000.

Emergency Assistance to Member States

The Organization provided one ton of DDT dusting powder, fifty blowers, 500 vials of typhus vaccine and 100,000 capsules of tetracycline to Burundi to assist in dealing with an outbreak of typhus. One and a half tons of DDT dusting powder was provided for a similar outbreak in Algeria. Cholera vaccine was donated to Cambodia, smallpox vaccine to Guinea, Kuwait and the Trucial State of Dubai; typhoid vaccine to Western Samoa; yellow fever vaccine to the Ivory Coast, Liberia and Sierra Leone. In addition, 100,000 doses of yellow fever vaccine were earmarked for use in Ethiopia. Sulformethoxine was sent to Chad to assist in combating an outbreak of cerebrospinal meningitis.

The following supplies were provided from the contributions made in kind or in cash to the Voluntary Fund for Health Promotion for the purpose: tetracycline to Iraq to assist in combating the cholera outbreak which started late in 1966; cholera vaccine to Cambodia and Malaysia; dried blood plasma to the United Arab Republic; and poliomyelitis vaccine to the Democratic Republic of the Congo and Ecuador.

---

\(^1\) Excluding staff of the Pan American Health Organization.
PART II

THE REGIONS
In WHO’s work in the Region, emphasis has again been placed on assistance in developing basic health services, which governments recognize to be the best support for communicable disease control. Steps were taken in some countries to combine the projects for the control of individual communicable diseases with those for the development of health laboratory services and statistical services to form broader programmes having as their objective the organization and development of epidemiological services.

In February, administrative and operational responsibility for the Organization’s programme in the Democratic Republic of the Congo, hitherto undertaken by headquarters, was transferred to the Regional Office.

Reference is made below to developments of particular interest; details of the activities assisted by WHO in the Region during the year are given in the Project List in Part III of this volume.

Malaria Eradication

Pre-eradication activities were assisted in twelve countries in 1967, but those in eastern Nigeria were suspended temporarily in July because of conditions in the country. Work continued on the development of basic health services in Togo, Cameroon and western Nigeria.

An assessment of the eradication programme in Zanzibar and Pemba carried out at the end of 1966 showed that progress had been made in Pemba but that transmission was continuing in Zanzibar. No indigenous cases of malaria have been reported in Mauritius since January 1965.

A course for senior malaria laboratory technicians, an orientation course in public health administration for senior government officials and a course for WHO trainees were held at the malaria eradication training centre in Lomé (Togo). A meeting on teaching (see also Chapter 1, page 3) was held at the malaria eradication training centre in Lagos (Nigeria).

Communicable Diseases

Smallpox eradication has assumed an important place in work against the communicable diseases. The campaign in the Democratic Republic of the Congo has been organized and launched with WHO assistance. The Organization is also assisting Zambia with a campaign started in 1965, and Burundi, Kenya and the United Republic of Tanzania in organizing their projects.

A mass vaccination campaign against yellow fever was carried out in Liberia, where three isolated cases of the disease had occurred, and in neighbouring parts of Guinea, the Ivory Coast and Sierra Leone. No epidemic developed.

WHO assisted with supplies of vaccine during an epidemic of poliomyelitis in Conakry, Guinea. The trachoma survey in the United Republic of Tanzania has been completed and a pilot area has been set up to try out mass treatment techniques.

The project for operational research on human and animal trypanosomiasis eradication in the western provinces of Kenya was accepted by the United Nations Development Programme (Special Fund component), with WHO as executing agency. The aim of the project, which is in its early stages of implementation, is to devise methods for effective and economical control of human and animal trypanosomiasis. Progress is being made in the other WHO-assisted trypanosomiasis control programme, in Botswana, where emphasis is being placed on the training of national field personnel.

Schistosomiasis control projects have been in operation during the year in Ghana and the United Republic of Tanzania, together with a research project in Nigeria. Epidemiological surveys to determine the prevalence of the disease were carried out in a representative sample population in north-western Ghana, and in the United Republic of Tanzania. Field surveys were started in April in a pilot area for the collection of data on potential transmission sites, water usage patterns and the distribution and taxonomy of snail hosts.

The first part of a four-phase inter-country project for the control of onchocerciasis in the Volta River Basin was completed early in the year by the WHO onchocerciasis advisory team and the report on it was submitted to the Governments of Ghana, Togo and Upper Volta, together with recommendations for
the implementation of the second phase, which has since commenced.

A six-week inter-regional course on methods and techniques for parasitic disease surveys, organized in collaboration with Makerere College, University of East Africa, was held in Kampala, Uganda in April and May, for fifteen English-speaking trainees from countries in three WHO regions.

The epidemiological/serological sampling surveys undertaken by the regional treponematoses advisory team in mid-west Nigeria were completed: sixteen surveys were carried out, during which 2991 persons were examined and 1356 blood samples taken for serological examination. Subsequently the team completed thirty-two of the planned thirty-six sampling surveys in western Nigeria.

Plans for the conduct of tuberculosis control projects are being adapted to the conditions of work in Africa, where the population is widely scattered and the level of the basic health services varies considerably. In countries where comprehensive diagnostic and treatment services cannot be set up for some time, the major effort has been in BCG vaccination. In others, such as Ghana and Kenya, combined curative and preventive campaigns have been started in pilot areas, and in some cases, as in Uganda, the methods tested in the pilot area have been applied in neighbouring districts.

Progress was made in the leprosy control project in mid-west Nigeria. A project in northern Nigeria was started and plans were made for a control programme in western Nigeria.

A seminar on cerebrospinal meningitis was held at Bobo Dioulasso, Upper Volta, in March, with twelve participants from as many countries of the Region.

Nutrition

In the nutrition project assisted by FAO, UNICEF and WHO in the United Republic of Tanzania, a demonstration area was set up in the Coast Region and plans for the use of mobile units with micro-laboratories were prepared. In the Congo (Brazzaville) nutrition work was carried out in a rural health demonstration and training area set up with assistance from UNICEF and WHO in Kinkala. WHO again co-operated in the work of the joint FAO/WHO/OAU (STRC) Regional Food and Nutrition Commission for Africa and undertook to assume the role of secretariat for the Commission.

The fifth bulletin of the Commission on nutrition work in Africa was published in English and French and plans were made to publish three bulletins and three technical papers every year in both languages.

Public Health Services

National health planning is well accepted as a prerequisite for the development of health services in the Region. During the year three further countries received assistance from the Organization in setting up national health planning units.

For the development of basic health services a number of countries in the Region have set up demonstration areas where the training of personnel and the reorientation of all categories of health workers is carried out in accordance with national priorities and where some operational research is undertaken. Emphasis is placed, in these areas, on the collection and registration of statistical data. Consideration has been given to using the demonstration area in the Democratic Republic of the Congo as a national centre for practical work for medical students.

Assistance was given to Niger in the establishment of a statistical unit within the Ministry of Health.

The main development in nursing in the Region has been the organization, with WHO assistance, of a school to train nurse educators in Kenya. The post-basic school of nursing in Ibadan (Nigeria) has moved to its new building, and in Freetown (Sierra Leone) construction of a school for training state-registered nurses has begun.

In several French-speaking countries, efforts are being made to raise the entry requirements for student nurses, and WHO has assisted in upgrading training programmes to state-diploma level. Emphasis continued to be placed on the integration of public health aspects into all curricula for nurses, midwives and social workers at professional and auxiliary levels.

Progress has been made in introducing health education, either directly or indirectly, into basic medical training, and co-operation between health services and those for health education has increased. The health education services are responsible for health education in schools and also for the health education aspects of adult literacy campaigns, which have an important place in UNESCO-assisted programmes in the developing countries.

In the various maternal and child health projects assisted by UNICEF and WHO, particular attention was paid to in-service training. The need for adequate training of both medical and paramedical personnel for maternal and child health work was one of the points emphasized during the technical discussions on "Health problems of pre-school age children in Africa and their management", held during the

---

1 Organization of African Unity (Scientific, Technical and Research Commission).
seventeenth session of the Regional Committee (see also page 58).

Environmental Health

Environmental health activities were again directed towards assisting Member States in training local personnel, developing environmental sanitation programmes and establishing or strengthening environmental health units in ministries of health. Some twenty projects for this type of assistance were in operation during the year. The two water supply and sewerage projects being carried out in Accra (Ghana) and Dakar (Senegal) under the United Nations Development Programme (Special Fund component), and the approval during the year by the UNDP Governing Council of projects for Ibadan (Nigeria) and Kampala (Uganda) have stimulated requests from the Governments of the Ivory Coast, Liberia, Madagascar, Niger, and Upper Volta for similar assistance.

Studies were completed on water supply for Lomé (Togo) and Porto Novo (Dahomey), sewerage and waste disposal for Bujumbura (Burundi) and Fort-Lamy (Chad), water supply and sewerage for a number of towns in Mali, and water pollution problems in Nigeria. WHO co-operated with FAO in the study of the environmental health aspects of a number of economic development projects, including those for the Niari Valley in the Congo (Brazzaville), Mubuku in Uganda and Yala Swamp in Kenya, and contributed to a training project assisted by FAO and UNESCO by providing a professor for sanitary engineering courses at the Faculty of Engineering, Nairobi University College.

Medical Education

A new medical school, for which technical advice was given over several years by WHO, was opened in Nairobi during the year. Advice was given to two other countries where preparations for opening new medical schools are being made. Five schools in the Region were assisted in the teaching of pre-clinical, clinical, preventive medicine and public health subjects, and fellowships were awarded for the training of teachers for the schools.

The Regional Committee

The seventeenth session of the Regional Committee for Africa, which was held in the conference hall of the newly inaugurated extension of the Regional Office in Brazzaville, from 25 September to 4 October 1967, was attended by representatives of twenty-six Member States in the Region and one Associate Member. Representatives of three European countries attended on behalf of certain territories in the Region. The United Nations Development Programme, the Economic Commission for Africa, UNICEF, FAO and the Office of the United Nations High Commissioner for Refugees were represented. The East African Common Services Organization and two non-governmental organizations sent observers. The Director-General attended the session.

Previously Mr Alphonse Massamba-Debat, President of the Republic of the Congo, was guest of honour at the ceremony for the inauguration of the new Regional Office extension, which took place on 23 September.

At its seventeenth session the Committee reviewed the Regional Director’s report on the work accomplished during the period 1 July 1966 to 30 June 1967 and approved the proposed programme and budget estimates for the Region for 1969, which included proposals for assistance to two hundred national health projects. It expressed satisfaction with the proposed activities and noted that the carrying-out of projects proposed for financing under the United Nations Development Programme would depend upon their inclusion by individual governments in their submissions for 1969 to the UNDP.

Gratification expressed at the progress of WHO-assisted projects was accompanied by concern about the comparatively little advance made towards attaining the overall public health goals and towards general socio-economic development.

The value of WHO assistance in education and training was emphasized, with particular regard to the training of auxiliary personnel, upon whom considerable reliance would have to be placed, in view of the shortage of qualified medical practitioners. The Committee recommended that an investigation be made of the possibilities of setting up pilot teacher-training centres, and of granting WHO subsidies to education and training centres in Member States to meet the costs of studies.

The Committee endorsed the new orientation being given to programmes ultimately aimed at the eradication of malaria, which would result in even greater emphasis being given to the development of the necessary basic health services. The Committee stressed the need for continuing research on problems such as vector and parasite resistance and for the purpose of obtaining long-acting antimalarial drugs.

New interest was shown in onchocerciasis as a regional problem. In general, satisfactory progress was reported in respect of smallpox eradication programmes already under way, but the need for close co-operation in country activities was stressed.

In compliance with resolution WHA20.38, the Regional Committee gave further consideration to the
implementation of resolution WHA19.31. The views expressed in that respect by the Regional Committee will be submitted to the Twenty-first World Health Assembly.

The celebration of the twentieth anniversary of WHO was discussed and the Committee decided that the heads of the delegations of Liberia and Madagascar to the Twenty-first World Health Assembly should speak on behalf of the African Region.

The Committee accepted the invitation of the Government of Kenya to hold its eighteenth session in Nairobi, and that of the Government of the Ivory Coast to hold its nineteenth session in Abidjan.

The subject of the technical discussions was “Health problems of pre-school age children in Africa and their management”. Stress was laid on the need to establish a network of basic health services to cover both urban and rural communities throughout each country, and for those services to include maternal and child health activities with the aim of reducing the high mortality among young children and of maintaining them in good health. The co-operation of all ministries involved in any way in maternal and child health activities was advocated and the co-ordination of both bilateral and international foreign aid was considered essential.

The subject chosen for the technical discussions in 1968 was “The place of public health in the economy of the African countries”.

Administrative and Organizational Developments in the Regional Office

The new Regional Office extension, including the conference hall, committee rooms, cafeteria and library, and the renovation of the old building, were completed in August. The 137 office units now available are adequate for present needs. Two additional apartment blocks, each containing six single housing units for staff, were completed during the year. The Organization now owns seventy-three housing units in Djoué and continues to lease twenty-one small villas from the Government.
CHAPTER 15

THE AMERICAS

This chapter describes work done in the Region of the Americas, where the Pan American Sanitary Bureau has a dual capacity as secretariat of the Pan American Health Organization and Regional Office of the World Health Organization.

Reference is made below to some developments of particular interest; details of the activities assisted by the Organization in the Region during the year are given in the Project List in Part III of this volume.

Malaria Eradication

Evaluations of the malaria eradication programmes in Brazil, Colombia, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Peru, and Surinam were made with the assistance of special teams provided by the Organization. The plans of operation for the programmes in Costa Rica, Nicaragua and Panama were revised.

In the Central American countries, following arrangements for increased financial support, attack operations were undertaken on a nearly adequate scale for the first time in several years. However, the eradication programmes in Ecuador and Paraguay were almost at a standstill because of lack of funds; and for the same reason it was not possible to effect the necessary intensification of operations in Mexico and Panama.

Investigations supported by the Organization on chloroquine-resistant strains of Plasmodium falciparum and their response to varying dosages of chloroquine and to treatment with long-acting sulfa drugs and pyrimethamine were carried out in Brazil. In the Valle Medio of the Magdalena River in Colombia a field trial of a three-day radical-cure treatment for P. vivax infection was continued. In Guatemala a field trial of treatment with injectable cycloguanil embonate was made in a population of 10,000, and in Panama a trial of a combination of primaquine and pyrimethamine for collective treatment was continued.

A symposium on drug resistance in human malaria was held during the sixth meeting of the PAHO Advisory Committee on Medical Research in June. At that symposium it was reported that certain strains of P. falciparum isolated in South America and South-East Asia (but, so far, not elsewhere) were resistant to 4-aminoquinolines, but that such occurrences had been too rare to enable any significant conclusion to be drawn. It was recommended that epidemiological studies should be made to provide a basis for comparison, that efforts should be made to develop models, based upon existing laboratory models, for detecting changes in drug-resistant strains in epidemiological studies, and that meanwhile solutions should be sought for logistic problems, such as those related to the preservation and transportation of blood samples from isolated communities.

Communicable Diseases

The Organization provided assistance with smallpox eradication in Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru and Uruguay, including planning, developing and evaluation of programmes, supplies and equipment, and fellowships for training in the production of vaccines. Advice was also provided to laboratories producing freeze-dried smallpox vaccine.

Two courses on the laboratory diagnosis of smallpox were held in Brazil with participants from eleven countries.

An evaluation of a pilot schistosomiasis control programme in Brazil was made and a system for recording biological, epidemiological and clinical data to be processed by computer was proposed. The system will permit objective measurement of progress. Assistance was also provided to Argentina to determine whether schistosomiasis occurs in the north-western provinces; no infection was discovered in the population, but potential snail vectors were found in the area.

In six countries where Chagas’ disease is endemic, the Organization assisted in reviewing programmes with a view to intensifying control measures and research on the disease. As part of the Organization’s programme for developing standard methods for the wider use of the complement-fixation test in the diagnosis of Chagas’ disease, nine antigens were tested for specificity against a large number of negative sera. Assistance was provided for a clinical study in Brazil to define the progression of Chagas’ disease.

Diagnostic antigens and drugs were provided to,
Ecuador for the study and treatment of endemic infections with *Paragonimus*.

The immunological aspects of parasitic infections were discussed at a special meeting of the PAHO Advisory Committee on Medical Research (see page 65).

The Organization continued its advice and assistance to *Aedes aegypti* eradication programmes in the Region. However, progress was made only in limited areas, and in several countries the situation became worse during the year.

In Chile, the venereal disease control programme was continued in Santiago and Valparaiso and started in Concepción and Rancagua; the Organization advised on serological screening techniques and provided some supplies. In Panama a study of the venereal disease problem was begun. An evaluation of the yaws programme was made in Brazil, and in Haiti a study on the prevalence of yaws was completed.

As regards tuberculosis, in some countries the measures carried out in pilot areas were extended to cover the whole country, and in others there was progress in that direction. At a national seminar on statistics and epidemiology of tuberculosis, held in Recreo, Province of Santa Fé, Argentina, with the Organization’s assistance, the adoption throughout the country of standard methods and techniques was recommended. The technical and organizational aspects of tuberculosis programmes were studied at the second meeting, sponsored by the Organization, of the Working Group on Tuberculosis Control in Central America and Panama, held in Guatemala.

A two-month course on the epidemiology of tuberculosis was given at the School of Public Health in Medellín, Colombia, and a course on tuberculosis in childhood sponsored by the International Children’s Centre, Paris, and the Organization was given in Panama to acquaint paediatricians with the latest developments in epidemiology, in the prevention and treatment of the disease in children and in the case-finding and organizational aspects of tuberculosis control programmes.

The Organization continued to assist the governments of nine countries in developing and improving leprosy control, in accordance with the recommendations made at the seminar held in Cuernavaca, Mexico, in 1963 and by the Organization’s expert committees. In some areas of Argentina, Ecuador and Venezuela, the control activities were included in the regular health services, which entailed operational research and reorganization of services. The experience so acquired will be the basis for a seminar on leprosy control to be held in 1968.

Plague has shown a marked decline in the endemic focus of South America, particularly in Brazil, Ecuador and Peru. In Brazil, ecological studies of the disease, including studies of natural infection in wild rodents and fleas, intra-domestic flea fauna, characteristics of strains of plague bacilli and methods of control, progressed well.

Through the Pan American Zoonoses Centre in Argentina, assistance was provided to Brazil, Colombia, Cuba, Mexico, Peru and Venezuela in the techniques of production of sucking-mouse-brain rabies vaccine for use in humans. This vaccine has been used throughout Latin America for more than 90,000 treatments without serious neuroparalytic accident.

In the intensive canine rabies control programme started towards the end of 1966 with assistance from the Organization in the border area of Mexico and the United States of America, 92,000 dogs (over 70 per cent. of the total dog population in four cities) had been vaccinated by October.

A regional seminar on rabies took place in Ramos Mejía, Buenos Aires, Argentina, in September, with fifty-seven participants from sixteen countries. It was preceded by a course on laboratory diagnosis of rabies (see also page 63). Another rabies course was given in co-operation with the School of Veterinary Medicine of the University of São Paulo, Brazil, for thirty-two professional laboratory staff members of the University and the state health services.

A seminar on zoonoses was organized in Havana in August by the Cuban Ministries of Health and Agriculture with the assistance of the Organization. The thirty-two physicians and veterinarians who attended reviewed the laboratory and epidemiological aspects of rabies, brucellosis and animal tuberculosis.

Assistance was provided to Argentina in planning a nation-wide bovine tuberculosis control programme, and a survey covering 12,000 animals was begun in eleven states. The programme will be combined with serological studies to determine the prevalence of other enzootic diseases.

In Brazil the Organization helped with a serological study of animal and human leptospirosis, and in Chile with studies of bovine leptospirosis prevalence. Assistance in brucellosis control was provided to Argentina, Chile, El Salvador and Panama.

At a seminar held in Lima, Peru, in March, twenty-four professors of preventive medicine and public health in schools of veterinary medicine in Latin America reviewed the schools’ programmes for teaching these two disciplines. Schools of veterinary medicine in Brazil, Chile, Colombia, Guatemala and Venezuela received assistance in various aspects of their teaching and research programmes.
Health Protection and Promotion

In view of the high death-rate from cancer of the larynx, lung and bladder in La Plata, Argentina, a case-control study of 2000 hospitalized patients was started in Buenos Aires, with funds made available to the Organization by the Anna Fuller Foundation.

A regional centre for standardization, quality control, teaching and research in dental materials has been established in the Central University of Venezuela with assistance from the Organization.

Advice on a number of subjects connected with dental education and research was provided to Argentina, Brazil, Chile, Colombia and Venezuela. In Venezuela the Organization helped to plan studies on dental health and related factors, human and material resources, and dental education and practices, and to train personnel to carry them out. Jamaica was assisted in establishing an experimental school for the training of dental nurses.

A study was carried out at the School of Dentistry of the University of Antioquia, Medellín, Colombia, for the purpose of determining the functions that can be delegated to dental auxiliary personnel. The University also received assistance for a research project to determine the effectiveness of fluoridated table-salt in the prevention of dental caries.

The programme on fluoridation jointly sponsored by the Kellogg Foundation and the Organization was started with an international course on fluoridation engineering techniques and economics, held at the Robert A. Taft Sanitary Engineering Center, Cincinnati, Ohio, for twenty-five engineers from national agencies, the United States Public Health Service, the United States Agency for International Development and the Pan American Sanitary Bureau.

In the national mental health programme assisted by the Organization in Argentina, emphasis was placed on the reorganization of hospital services, the planning of community mental health services, the training of personnel and the evaluation of the programme. Also in Argentina, the study on interaction between the members of the families of schizophrenics was carried out with funds made available to the Organization by the Foundations' Fund for Research in Psychiatry.

Assistance was provided to Colombia in establishing a department of mental health in the School of Public Health in Medellín; to Costa Rica in setting up a centre for mental health with emphasis on alcoholism; to El Salvador in planning a course for psychiatric nurses and in reorganizing the services in the remodelled wing of the psychiatric hospital; to Honduras in a study of needs and resources, in the collection of epidemiological data from a sample of hospital patients and in the planning of a national mental health programme; to Mexico in the organization of a new psychiatric hospital in Mexico City; and to Panama for a survey of needs and resources for the improvement of psychiatric services.

The Institute of Nutrition of Central America and Panama completed the series of national nutrition surveys carried out in its member countries with the assistance of the Office of International Research of the National Institutes of Health, United States of America. Long-range programmes are being established on the basis of the results of the surveys.

The Institute of Nutrition of Central America and Panama continued an active research programme comprising long-range growth and development studies in children, and studies of the effects of malnutrition on mental and psychomotor development, the relationship between nutritional status and physical capacity to work, and the improvement of the nutritive value of local crops and of animal fodder. Further development of Incaparina was also undertaken.

Applied nutrition programmes in seventeen countries continued, including further development of evaluation techniques for inter-agency co-ordination, both national and international.

An advisory group was convened to provide norms and guidelines for the inclusion of nutrition activities in local health services.

A study in depth of the organization and administration of "food for work" projects was made, with a view to promoting the extension of this type of programme in the western hemisphere.

Under the collaborative research programme on endemic goitre and nutritional anaemias further information on these two public health problems was collected. An evaluation of the results of the goitre prevention project in Ecuador, in which iodized oil, injected intramuscularly, has been used, indicated that the method is suitable for application in public health programmes.

Assistance was given to Argentina, Chile, Costa Rica, Ecuador, Guatemala, Guyana, Jamaica, Mexico, Nicaragua, Panama, Peru, Trinidad and Tobago, Uruguay and Venezuela for the organization of radiation protection services, the training of national staff in radiation protection, the operation of radioactive fall-out monitoring programmes, and the conduct of radiation protection surveys in hospitals and industries. Research supported by the Organization was continued in Brazil on high background radiation, in Chile on manganese toxicity, and in Jamaica on high 137 caesium content of milk.

In Chile a course for physicians on the clinical use of radioisotopes was given; it was the seventh of a series and lasted seven months.
A seminar on silicosis, the first on the subject in Latin America, was held in La Paz, Bolivia, in July with the participation of thirty-seven representatives and observers from governmental agencies and mining concerns in Bolivia, Chile and Peru.

Advisory services for industrial hygiene programmes were provided to Chile, Honduras, Peru and Venezuela.

The Institute of Occupational Health and Air Pollution Research in Santiago, Chile, which is financially assisted by the United Nations Development Programme, continued its services to government and industry in research and training of key personnel from several countries.

With the assistance of the Organization, air sampling stations were installed in eight countries.

Public Health Services

The importance of national health planning to economic and social development was specifically indicated by the Presidents of the American Republics and the Prime Minister of Trinidad and Tobago who met in Punta del Este in April 1967.

The United Nations Development Programme has approved in principle a request for assistance in the establishment of a Pan American centre for health planning, and eleven countries have indicated their willingness to contribute towards the cost of establishing and operating the centre.

In March 1967 a working group of senior health planners met in Washington, D.C., to examine the process of health planning in the Americas. Guidelines for the improvement of planning methods were proposed and suggestions were made concerning the future development of operational research.

Thirty students attended the fifteen-week international course on health planning given by the Organization and the Latin American Institute of Economic and Social Planning in Santiago, Chile, bringing the total of health planners trained in the last six years to 191, from twenty countries. National health planning courses were held in eight countries with assistance from the Organization.

Six countries have prepared a health plan and in eleven others the planning process reached various stages of development. The experience so far obtained indicates that the disciplines of planning, administration and management must go hand in hand to bring about better utilization of available resources.

The number of projects assisted by the Organization which have as their objective the development and strengthening of the general health services increased to thirty-eight during the year.

Governments became more aware of the need to make better use of available resources for health care. The co-ordination of the different institutions, particularly of the ministries of health and the social security agencies, to provide preventive and curative services was pursued in several countries. At the same time, with the assistance of the Organization, attention was focused on the administrative methods and practices of those services so as to modernize them and increase their efficiency. The education of graduates, as well as in-service training of auxiliaries, was another area of emphasis in the development of health institutions. The Organization continued to promote and collaborate in the gradual extension of basic health services to unprotected rural areas and to co-ordinate their activities with communicable disease campaigns.

Nation-wide studies of available and potential human resources for health were completed in Colombia by the Government with the assistance of the Milbank Memorial Fund and the Organization. The information collected is being used for the formulation of the national health plan; the methodology developed will be applied in Argentina and Venezuela.

In many instances the periodic evaluation of activities developed in projects assisted by the Organization became an accepted practice. More annual targets and standards for the carrying-out of activities were established than ever before, and, as a sequel, more data on actual achievements were collected and more technical and administrative assessments were made.

A seminar on training in health planning and administration was held in January at Port of Spain, Trinidad. Three seminars on the organization and administration of health services took place—one in Panama in June, for Central America and Panama; the second in Santiago, Chile, in October, for South America; and the third in Paramaribo, Surinam, in November, for the English- and Dutch-speaking territories in the Caribbean area. At all three a review was made of the administrative methods and practices of the health services in the area concerned. In addition, at each seminar a main subject was selected for review—supply management within the ministries of health at the seminar in Panama; programme budgeting and accounting at the seminar in Santiago; and management of physical facilities at the seminar in Paramaribo.

The Organization assisted the Governments of Chile and Jamaica in organizing international courses for intermediate administrative personnel of the health services. Courses in administration were organized at the national level in Peru. Moreover, training in administration was included in the courses held in the Region for malaria eradication and water supply personnel.
A Latin American Centre for Medical Administration has been established in Buenos Aires by the Government of Argentina and the National University of Buenos Aires, with the co-operation of the Organization, to provide health and medical care administration executives of Argentina and other Latin American countries with advanced training and continuing education in medical administration, and to carry out operational research into the collection, analysis and use of data for the improvement of health services.

A symposium on the teaching of medical care administration, organized in collaboration with the School of Public Health of the University of Antioquia, was held in Medellín, Colombia, in July. It was attended by twenty-eight hospital directors and professors of medical care and hospital administration from Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Mexico, Panama, Paraguay, Puerto Rico, Uruguay and Venezuela. A course in hospital equipment maintenance was held in Port of Spain, Trinidad, for twenty students from Barbados, Jamaica and Trinidad and Tobago.

Facilities for the production of vaccines, especially freeze-dried smallpox vaccine, were extended and improved in a number of countries. A course, organized with the assistance of the Organization at the Adolfo Lutz Institute in São Paulo, Brazil, in October, was attended by twenty-one trainees from Bolivia, Brazil, Chile, Colombia, Paraguay and Uruguay. Following this course, there were in Latin America eleven laboratories capable of undertaking the laboratory diagnosis of smallpox.

The Pan American Zoonoses Centre in Azul, Argentina, gave courses on the laboratory diagnosis of leptospirosis, brucellosis in sheep and goats, and rabies. The last, held in September, was attended by eight trainees from Argentina, Brazil, Chile, Costa Rica, Mexico, Peru, Uruguay and Venezuela.

A seminar on health laboratory services was held in Petropolis, Brazil, in December, for the purposes of promoting the co-ordinated development of hospital and laboratory services and of defining the needs of the participating countries in personnel, technical manuals and equipment.

In the nursing education projects assisted by the Organization in Argentina, Costa Rica, the Dominican Republic, Ecuador, Honduras and Peru, emphasis was placed on the development of university-level programmes, in view of the shortage of nurse educators and nurse administrators.

More than one hundred nurses from thirty-seven institutions attended one-week workshops held in Peru (for nurses from Bolivia, Ecuador and Peru) and Nicaragua (for nurses from El Salvador, Nicaragua and Panama) to provide training in solving problems of nursing and administration, and sixty nurses took part in another series of workshops held in British Honduras, Guatemala and Honduras. In the Dominican Republic, 207 nurses and nursing auxiliaries completed a three-month course offered in five hospitals and one health centre with the assistance of the Organization.

A study of programmes for the preparation and utilization of professional midwives and nurse/midwives in Latin America was completed. Short courses in public health nursing were given to midwives in Argentina and Uruguay, and in Brazil plans were made to set up a centre that will provide nurses with training in midwifery and midwives with training in the public health aspects of nursing. At a national seminar on maternity nursing held in Medellín, Colombia, emphasis was laid on the need for all nurses to be trained for attendance at normal deliveries.

In El Salvador the services in two newly constructed psychiatric pavilions were organized. All personnel working in these services—twenty-seven graduate nurses, sixty-six nursing auxiliaries and eighty ward assistants—received in-service training, the primary objective being to develop the team approach in caring for patients. Advice to improve psychiatric nursing was also provided to Argentina.

The University of the West Indies in Kingston, Jamaica, is gradually becoming the centre for nurses in the Caribbean area to pursue additional studies, since the social, cultural and economic conditions are similar throughout the area and the content of the courses can be patterned to meet the general needs in nursing education and administration.

A study of the availability and distribution of health education personnel in the Americas showed that there were 774 educators and 325 subsidiary health education personnel working in or for ministries or departments of health. It was also estimated that the countries required 1470 more health educators in order to meet the needs of the immediate future.

Assistance was provided to Bolivia and Peru in improving health education services and to the Department of Health Education of the School of Hygiene and Public Health of the University of São Paulo in developing a curriculum to meet the health education needs of Brazil.

The Organization collaborated in planning and running the VI Central American Congress of Health Education, held in Guatemala City in June, with forty-three participants from Costa Rica, El Salvador, Guatemala, Honduras and Panama. Recommendations were made to stimulate the strengthening of health education services in the countries of Central America and in Panama.
In the Caribbean area there was an increase in activities for making health education an integral part of all health programmes and the Organization gave assistance to the governments in the area in establishing health education units.

Three-month courses in social paediatrics assisted by the Organization were held in Medellin, Colombia, and Santiago, Chile, at the training centres set up with help from UNICEF and the Organization. For the course in Santiago, which was attended by forty-five paediatricians from fifteen countries, the curriculum was revised to give greater emphasis to the teaching of nutrition, communicable diseases and administration of children’s health services.

The School of Medicine in the University of Pernambuco, in Brazil, continued to improve the teaching of paediatrics at the post-graduate and undergraduate levels with assistance from the Josiah Macy Jr Foundation and the Organization.

In collaboration with the International Children’s Centre, a four-week course on tuberculosis in children was held in Panama for national personnel and twenty-one paediatricians from other countries of the Region.

In Chile, a new project, aimed at expanding specific teaching activities to prepare leaders in maternal and child health for the promotion and co-ordination of work in social medicine and operational research in that field was started at the School of Public Health.

A study on obstetric nursing education and human resources in Latin America and the Caribbean area was completed.

Costa Rica, El Salvador, Nicaragua and Trinidad and Tobago requested technical assistance for the formulation and implementation of plans for incorporating family planning activities into the maternal and child health programmes of governmental health services.

An inter-American investigation of mortality in childhood was started in two pilot areas in Brazil and one each in Colombia, Guatemala, and Jamaica. Deaths among children under five were studied in relation to cause, to nutritional and socio-economic status, and to history of medical care. Data on nutritional and socio-economic status of a control sample of children under five were also collected.

Work proceeded on two studies on abortions in the district of Sao Paulo, Brazil, and in three small communities adjacent to Lima, Peru.

Environmental Health

The Organization continued its assistance to countries of the Region in improving urban and rural water supplies. Up to the end of June 1967 construction funds totalling US $1180 million had been committed: the figure comprised $683 million from national and local sources and $496 million from international and bilateral loans (including $375 million from the Inter-American Development Bank). It is estimated that 55 million people will benefit from these developments.

An important project on water fluoridation was begun with assistance from the Kellogg Foundation (see also page 61).

Since 1964 increased attention has been given to the improvement of water supply and to sewerage management and administration, and this trend continued during the year. A team was provided to assist the Dominican Republic and Peru, and preliminary or follow-up visits were made to eight other countries.

In the wastes disposal field, US $171 million, including $50 million from the Inter-American Development Bank, has been earmarked for the construction and expansion of sewerage systems and sewage treatment facilities.

Nine research projects supported by the Organization began in schools of engineering in Argentina, Brazil, Chile, Mexico and Peru.

Seventy-five short courses, seminars or symposia on environmental health subjects had been conducted by the end of November. The participants totalled 1143. Although the subjects were more diversified than ever before, those concerning water supply were still predominant and included transportation and treatment of water, design of small water supply systems, development of ground-water, administration and financing of water utilities, and installation and operation of water treatment plants.

With the assistance of the Organization, air sampling stations were put into operation in Argentina (Buenos Aires), Brazil (Rio de Janeiro and Sao Paulo), Colombia (Bogotá), Jamaica (Kingston), Mexico (Mexico City), Peru (Lima), Uruguay (Montevideo) and Venezuela (Caracas).

Research

The sixth meeting of the PAHO Advisory Committee on Medical Research, held in June, dealt mainly with research problems in the control of infectious diseases of particular importance in the Region, and with the proposals submitted by the Director of PASB/WHO Regional Director for the Americas in response to a resolution of the XVII Pan American Sanitary Conference in 1966. These referred to ways of expanding the facilities in the Americas for training and research in the life sciences and medicine, in order to reduce the emigration of scientific personnel from Latin American countries. The Committee recommended that PAHO should concentrate on the strengthening of the existing biomedical centres for
advanced training and research, rather than on the establishment of new ones.

The immunological aspects of parasitic infections were the subject of a special meeting of the Committee, during which fifteen immunologists and parasitologists discussed outstanding problems in host-parasite relationships in these infections, the antigenic structure of the parasite and the response of the host.

A symposium on drug resistance in human malarial health was given at the School of Public Health in Washington, D.C., in September, with twenty-seven participants from nineteen Latin American countries. The participants also discussed the final report on the inter-American investigation of mortality, published under the title of Patterns of Urban Mortality, and new research projects.

A four-month course in population dynamics and health was given at the School of Public Health in Santiago, Chile, for twenty-two students from eight countries.

Advice was provided to most of the governments in the Region in the improvement of statistical systems in the national health services and in coordination with statistical services of other governmental agencies. A large number of courses for intermediate-level statisticians and statistical auxiliaries were organized.

Education and Training

An international conference on health manpower and medical education organized in collaboration with the Milbank Memorial Fund was held in Maracay, Venezuela, in June; the results of the study on health manpower and resources in Colombia were presented to the ninety-five participants, who came from twenty-two different countries.

The Organization assisted in the planning of seminars on medical education organized by the Association of Medical Schools of Brazil, Central America, Ecuador and Venezuela, and took part in the discussions.

The Advisory Committee on the Teaching of Preventive and Social Medicine in Latin America met in April to review the analysis made of the information collected on fifteen medical schools and to make final plans to carry out an investigation in the other medical schools in Latin America.

At the third travelling seminar on schools of public health, which took place in April, deans or representatives of nine universities of the United States of America and one of Canada visited the Schools of Public Health in Mexico City, and Rio de Janeiro and Sao Paulo, Brazil. After the seminar small groups of participants visited various schools of public health in South American countries. The Fifth Conference of Schools of Public Health of Latin America was held in Buenos Aires, Argentina, in November, to discuss the teaching of medical care. Deans and professors of medical care and public health administration from Argentina, Brazil, Chile, Colombia, Cuba, Mexico, Peru, Puerto Rico and Venezuela attended.

The Organization continued its plans for the development of a programme for supplying textbooks to Spanish- and Portuguese-speaking medical students. Up to October, agreements had been signed with forty-eight universities and six of the nine national associations of medical schools in thirteen Latin American countries.

The PAHO Regional Library of Medicine was formally established in the School of Medicine of the Federal University of Sao Paulo, Brazil. Funds were made available by the Ministries of Health and of Education and Culture of the Government of Brazil, the Commonwealth Fund of New York and the National Library of Medicine of the Department of Health, Education and Welfare of the United States of America.

Assistance in the organization of "laboratories of human relations and medical teaching" was continued. Since the programme began in 1962 more than 500 professors from thirty-three schools of medicine in twelve Latin American countries have participated in these "laboratories".

The Regional Committee

The XVII Meeting of the Directing Council of the Pan American Health Organization, which was also the nineteenth session of the WHO Regional Committee for the Americas, was held in Port of Spain (Trinidad and Tobago) from 2 to 12 October 1967, and was attended by representatives of all the Member governments in the Region except Bolivia. Barbados and Guyana, already Members of WHO, were admitted as Members of PAHO at the second plenary meeting. Representatives of the United Nations, UNICEF, FAO, the Organization of American States and the Inter-American Development Bank, and observers from seven non-governmental organizations were present, as well as the Deputy Director-General of WHO.

The appropriations for PAHO for the financial year 1968, amounting to US $10 190 000, were approved and the proposed regional programme and budget estimates of WHO for 1969 were approved for trans-
mission to the Director-General. The provisional
draft of the proposed programme and budget of PAHO
for 1969 was noted. The financial report for PAHO for
1966 and the corresponding report of the External
Auditor were approved.

With regard to malaria eradication programmes
in the Region, it was noted that, although progress
had been made and some technical problems had
been solved, serious administrative and financial
difficulties remained. In connexion with the resolu-
tion of the Twentieth World Health Assembly calling
for a re-examination of the global strategy of malaria
eradication, it was recommended that particular
attention should be given to work in problem areas,
operational research, financing, administration and
co-ordination of services, and training of personnel.

Attention was drawn to the need for governments
to give high priority to smallpox eradication and to
maintain constant vigilance against the introduction
of the disease. Further research on Chagas' disease
was recommended. The problem of poliomyelitis was
considered and governments were urged to conduct
systematic immunization programmes.

The recommendations of the Inter-American Com-
mittee on the Alliance for Progress and of the Inter-
American Economic and Social Council that PAHO
should continue to assume technical and adminis-
trative responsibility for the Pan American Foot-and-
Mouth Disease Centre and that it should be financed
from contributions from the members of the Organiz-
ation of American States were accepted.

It was noted that in the preceding five years the *Aedes
aegypti* eradication campaign had made progress only
in somewhat limited areas and suggestions were made
for measures to help to solve financial and technical
difficulties.

As regards nutrition, it was recommended that
emphasis be placed on the establishment of a data
collection and analysis system, on the formulation of
national nutrition policies and on the intensification
of research.

The need for priority to be given to water supply,
sewage disposal and water pollution control was
emphasized and it was recommended that research
in engineering should be increased.

The importance of international meetings of a
technical nature was reaffirmed and governments and
the Regional Director were requested to give support
to such meetings.

It was suggested that the Organization should
prepare a report on the relationship between health
and law and outline a plan for assistance in that field
to requesting governments.

The proposals for the extension of facilities for
advanced training and research in the health sciences
in the Region (see also page 64) were reviewed and
the Regional Director was requested to stimulate such
activities by all possible means.

Member countries were urged to undertake health
planning as part of their planning for economic and
social development and to secure the participation
of all agencies concerned with health, and particu-
larly the social security institutes.

The Declaration of the Presidents of the American
Republics and the action programme approved by
them at Punta del Este in April 1967 were considered
and satisfaction was expressed with the recognition
given to health in the Declaration. Thanks were
expressed to the Government of Argentina for the
invitation to hold at Buenos Aires a special meeting
of Ministers of Health of the Americas with a view to
drawing up a plan of operation for implementing the
decisions of the Presidents before the XVIII Meeting
of the Directing Council of PAHO/twentieth session
of the WHO Regional Committee for the Americas.

An amendment was proposed to Article 15-A of
the Constitution of PAHO that would increase to nine
the number of Member governments forming the
Executive Committee, and it was decided that the
item should be included in the draft agenda of the
XVIII Meeting of the Directing Council of PAHO.

Mr Lars Breie was appointed External Auditor of
PAHO, in replacement of Mr Uno Brunskog, who
had resigned from that post.

Technical discussions were held on “Methods for
increasing health service coverage in rural areas”.
The subject “Participation of the health sector in
population policy” was chosen for the technical
discussions in 1968.

It was decided that Chile and Jamaica should
designate a representative to speak on behalf of the
Region at the twentieth anniversary commemorative
meeting at the Twenty-first World Health Assembly.

The invitation of the Government of Argentina to
hold the XVIII Meeting of the PAHO Directing
Council/twentieth session of the WHO Regional
Committee in Buenos Aires in 1968 was accepted.
CHAPTER 16

SOUTH-EAST ASIA REGION

Education and training and the development of basic health services are still considered the priority needs of the Region, and this has influenced the direction given to the work during the year. Nearly two hundred projects were assisted by the Organization; details of these are given in Part III, while some of the more salient features of the regional programme are referred to below.

Malaria Eradication

WHO-assisted programmes were continued in all the malarious countries of the Region. In Burma the Organization made an assessment of the eradication programme. In India, where the programme covers a population of over 500 million, the epidemiological criteria for entry into the maintenance phase have been met in further areas, and maintenance-phase activities now cover three-fifths of the population of the originally malarious areas. Transmission has recurred in some areas previously cleared, where, owing to financial and supply difficulties and diversion of personnel to other duties, there had been delays in eliminating the original foci. This made it necessary to put back some areas into the attack phase. In Indonesia, where progress has been hampered for several years, some additional assistance was provided in order to conserve the gains already achieved. In the Maldives Islands, antimalaria activities were continued under the WHO-assisted public health programme.

Communicable Diseases

Training programmes in epidemiology were intensified with the collaboration of the Institute of Epidemiology and Microbiology, Prague, the National Institute of Communicable Diseases, Delhi, and the post-graduate School of Tropical Medicine of the University of Medical Sciences, Bangkok. The regional smallpox eradication and epidemiological advisory team and the regional cholera control team undertook epidemiological investigations and assisted in the training of personnel in the control of these diseases. In addition, assistance was given with the investigation of special problems, particularly those connected with cholera El Tor, dengue-haemorrhagic fever, plague and poliomyelitis. A number of courses on cholera were organized and help was given to several countries in improving their notification and diagnostic services and in the production of rehydration fluids.

Nearly fifty per cent. of the regional budget was devoted to the control of communicable diseases, compared with forty per cent. in 1966, the increase being mainly due to the increased expenditure on the global smallpox eradication programme. Special attention was given to detailed long-term planning of smallpox eradication work in Afghanistan, India, Indonesia and Nepal, in which countries difficulty is anticipated in ensuring routine vaccination of infants until the basic health services have been strengthened.

Tuberculosis control continued to receive the high priority warranted by the importance of the disease in the countries of the Region. The principle of BCG vaccination of infants and young children without prior tuberculin testing has been accepted as a routine measure in most countries. In Burma, Ceylon, India, Mongolia and Thailand, progress was made in integrating tuberculosis control activities into the work of the general health services, and such integration began in Afghanistan, on Male Atoll in the Maldives Islands, and in Nepal. The general health services in these countries have made efforts to detect bacteriologically positive cases among persons with symptoms and to render them non-infectious through adequate treatment, thus reducing the danger to the community.

WHO continued to assist Burma, India, Indonesia and Thailand in leprosy control, and the leprosy situation was assessed in Ceylon and Nepal.

Health Protection and Promotion

A study of the epidemiology of cardiovascular diseases was started in Mongolia with assistance from the Organization.

A seminar on goitre control was held in New Delhi at the end of October with fourteen participants from eight countries in the South-East Asia and Western Pacific Regions. WHO assisted the Indian Academy of Medical Sciences to organize a seminar on the teaching of nutrition in departments of paediatrics.
Courses for radiographers were organized with assistance from the Organization at the Institute of Post-graduate Medical Education and Research, Chandigarh (India) and at the School for Radiological Technology at the Siriraj Hospital, Bangkok (Thailand), as also courses for X-ray personnel employed in the tuberculosis control services in Rangoon (Burma). The Organization also helped with the radiological physics course at the Bhabha Atomic Research Centre, Trombay, Bombay, and the Radiation Medicine Centre, Bombay, received assistance for research in protein metabolism.

Environmental Health

The second phase of the scheme for improving the water supply resources of Greater Calcutta, which is assisted by the United Nations Development Programme (Special Fund component), with WHO as the executing agency, was completed in March. Implementation of the third phase, under which assistance will be provided to the Calcutta Metropolitan Water and Sanitation Authority, has been delayed owing to local conditions. Assistance to Ceylon in pre-investment studies on water supply and sewerage schemes began in August. UNICEF and WHO assistance to rural water supply programmes in Afghanistan, India, Mongolia and Nepal continued, and WHO gave technical advice in connexion with a UNICEF-assisted emergency programme in two Indian states affected by drought and famine. Advisory assistance was again provided to the Central Public Health Engineering Research Institute in Nagpur, India.

Public Health Services

An increased proportion of both national and WHO resources was devoted to building up permanent basic health services, staffed by health auxiliaries under professional supervision, capable of taking over responsibility for malaria surveillance and the control of other communicable diseases. Progress was made in integrating simplified schedules of treatment for tuberculosis, leprosy and trachoma, and BCG vaccination and other immunizations, into the functions of the general health services, but much remains to be done. The services need further strengthening and expanding, more health personnel of all categories need to be trained and the machinery for supervision needs to be improved. Operational studies have been started in an attempt to define the functions of some of the components of basic health services and to evaluate their performance.

In view of the growing demand in the Region for training in health planning and in the administration of national health services, a study was made of facilities for training that are or could be made available both in the Region and in other parts of the world. Arrangements have already been made for training in these fields for the first group of health administrators.

In Nepal a central health laboratory was set up with assistance from WHO and in Thailand sixteen out of forty-two venereal disease laboratories were converted into general-purpose provincial health laboratories. Two schools for laboratory technicians have been assisted in India. Assistance was also given to a number of countries in the production of bacterial and virus vaccines.

In nursing, assistance to post-basic nursing education programmes has been continued in nearly all countries of the Region, and in India it has been extended to specialized post-graduate programmes. Five short inter-country orientation courses for nursing personnel were given in different countries of the Region, as well as a national orientation and refresher course for nurses from various states of India. A conference on in-service education for nurses was held in Bangkok in August and September; it was attended by twenty-four nurses from six countries of the Region. In India, research into the functions and utilization of auxiliary nursing personnel was started with the help of the Organization.

WHO helped two countries to make studies of their health education services. In India studies of the integration of health education into the programme for training school-teachers was carried out. The first batch of students in the degree course in health education for teachers and teacher educators, given at the School of Public Health in Bangkok, graduated during the year.

The technical discussions on "Maternal and child health, with particular reference to integration into the general health services", that were held during the 1967 session of the Regional Committee, focused attention on the need for increasing the health services for mothers and children within the framework of the general health services. The WHO-assisted maternal and child health projects in Afghanistan, Mongolia and Nepal developed further along these lines.

India received assistance in connexion with research into human reproduction and with studies on the possibility of developing a biomedical division in the Central Family Planning Institute.

Health Statistics

A ten-month course for medical records officers was held in Rangoon with eight trainees from four countries of the Region. In order to support the development of rural health statistics, which has made pro-
gress in some countries, a seminar was held in New Delhi in October, with participants and observers from fourteen countries, to discuss and adopt simplified health centre records and reports.

Two Indian states introduced the use of the International Form of Medical Certificate of Cause of Death in all large hospitals.

Medical Education

The Indian Academy of Medical Sciences was assisted in conducting a seminar on evaluation methods in medical education and in organizing post-graduate examinations. In Ceylon, WHO assisted in a course for medical teachers and, in India and Thailand, in short seminars on curriculum construction.

The Organization assisted the Indian Registry of Pathology in setting up a centre for the production of gross pathology teaching material and in its eventual distribution to medical schools in the Region.

Seven WHO teams, each consisting of three or four medical educators in various disciplines, gave assistance for two-monthly periods to medical schools in Afghanistan, Ceylon, India and Thailand with the object of improving the quality of medical education. The results showed that much could be done in this respect, even though there were financial and administrative problems and the number of students was too large for the facilities available.

The Regional Committee

The Regional Committee held its twentieth session in Ulan Bator, Mongolia, from 1 to 8 August 1967. All nine Member countries of the Region were represented, as well as the United Nations, the United Nations Development Programme, UNICEF and the League of Red Cross Societies. The Director-General attended.

The session was inaugurated by Mr D. Maidar, Deputy Chairman of the Council of Ministers of Mongolia, and the Mongolian Minister of Public Health, Dr B. Demberel, also delivered an address at the opening meeting.

The Committee nominated Dr V. T. Herat Gunaratne, of Ceylon, for consideration by the Executive Board for the post of Regional Director, and recorded its appreciation of the outstanding services rendered by Dr C. Mani, Regional Director for the past twenty years.

The Committee discussed the annual report of the Regional Director for the period 1 August 1966 to 1 July 1967 and had also before it the draft of a volume giving a comprehensive review of WHO's experience in the Region during the past twenty years.

The Committee agreed that, while special action against communicable diseases was still necessary, disproportionate sums should not be spent on mass campaigns at the expense of the basic health services. It urged that basic health services should be developed to enable them to carry out routine immunization programmes against preventable diseases of infants and pre-school children, and that the epidemiological and health laboratory services in the Region should be further developed and local production of vaccine improved and increased. Special attention was devoted to the problems of malaria, tuberculosis, smallpox, cholera and poliomyelitis.

Other subjects considered were the WHO-sponsored research on filariasis and zoonoses, the operational studies on the functions and workload of various categories of nursing personnel, the shortage of nurses, deficiencies in nursing services and in the physical facilities in hospitals, and the need for training senior public health administrators.

The Committee also discussed the family planning programmes adopted by several governments and noted that advisory services were now available from WHO, provided that such programmes formed an integral part of maternal and child health and general health services. It welcomed the emphasis being placed on the training of health personnel.

The Committee approved for transmission to the Director-General the proposed programme and budget estimates for the Region for 1969.

Technical discussions were held on "Maternal and child health, with particular reference to integration into the general health services". It was decided that the technical discussions at the Committee's twenty-first session should take the form of a special seminar on national health planning.

After considering plans for the celebration of the twentieth anniversary of WHO, the Committee decided that the first day of its twenty-first session should be a commemorative day, and approved the plan for celebration at the regional level.
Indonesia were nominated as the countries whose delegates would speak on behalf of the Region at the commemorative meeting to be held during the Twenty-first World Health Assembly.

The Committee confirmed that its twenty-first session would be held in the Regional Office in New Delhi in September 1968 and accepted an invitation from the Government of Nepal to hold its twenty-second session in Kathmandu in September 1969.

**Administrative and Organizational Developments in the Regional Office**

Following the acceptance by the World Health Assembly of the offer of the Government of India for the sale of the regional office building, negotiations on the agreement for sale have been completed. Contributions to the building during the year included a carpet from the Government of Mongolia and fifty chairs for the Committee room from the Government of Ceylon.
CHAPTER 17

EUROPEAN REGION

In the Organization's assistance to countries of the Region during the year emphasis has been placed on public health methodology, backed by health statistics and epidemiological studies, an on education and training, environmental health and long-term development of health services.

Some 150 projects were in operation in the Region; about one-third were inter-country projects and a further thirty were projects consisting solely of fellowships.

Reference is made below to developments of particular interest; details of the activities assisted by WHO in the Region during the year given in the Project List in Part III of this volume.

Malaria Eradication

WHO continued its assistance to the malaria eradication programme in Turkey and to pre-eradication programmes in Algeria and Morocco. The whole continent of Europe remained free from endemic malaria during the year. In Turkey further areas were freed from the risk of the disease and less than a tenth of the population, mainly in the south-eastern part of the country, live in areas still in the attack phase. The rural health services in Algeria and Morocco have been strengthened in preparation for attack operations.

Communicable Diseases

During the year assistance was provided, through the WHO International Reference Centre for Meningococci in Marseilles and WHO field staff, in controlling an outbreak of cerebrospinal meningitis of unusual severity in Morocco. The outbreak began in the autumn of 1966 and continued into the winter of 1966-1967, and involved principally the cities of Fez and Meknès and the surrounding area. There had not been an outbreak of such magnitude in Africa north of the Sahara for decades, although cerebrospinal meningitis is a common epidemic disease, during the winter months, in African countries south of the Sahara and north of the Equator.

WHO provided assistance to Yugoslavia in investigations following an outbreak of a haemorrhagic-type fever which occurred in the Republic of Bosnia-Herzegovina during the winter of 1966-1967 and the spring of 1967 at the same time as a massive increase in field-mice in forest land and among garden crops and villages. The increase in rodents appeared to be associated with a mild winter and the partial elimination of foxes. It was not possible to determine the etiology of the haemorrhagic fever and recommendations were made for further study.

Health Protection and Promotion

A five-year plan for intensification of WHO's work in cardiovascular diseases was drawn up during the year. This plan, which was endorsed by the Regional Committee at its seventeenth session in September, places emphasis on the operational aspects of direct importance for the organization of specialized health services and on the collection of data for the planning and operation of such services. The plan provides a framework, not only for activities sponsored by the Organization, but also for those to be carried out on a national basis. The individual projects making up the plan include the establishment of a system for registration of patients with ischaemic heart disease, studies on the evaluation of coronary care, and on the effects of rehabilitation of patients, and training in rehabilitation.

A seminar on the rehabilitation of patients with cardiovascular diseases was held in Noordwijk, Netherlands, in October to review the situation, particularly with regard to ischaemic heart disease, and to discuss how it could be improved. There were twenty-three participants from twenty-two European countries. Proposals were made for studies to be undertaken in different institutions, using standard methods, in order to enable a comparison to be made of the results of various approaches to the rehabilitation of patients with different cardiovascular diseases, and consideration was given to a protocol on methods of evaluating the state of the patient (or the grade of the disease in the patient) at the time rehabilitation begins. Several European institutions have expressed interest in participating in such a co-operative study.
One of the most important problems facing psychiatrists is the introduction at the earliest possible moment of appropriate rehabilitative measures for the alleviation of handicaps resulting from mental illness. This was the subject of a travelling seminar held in September, which enabled the twenty-five participants to visit the rehabilitation facilities offered to patients in Poland and the United Kingdom. The participants discussed the concepts prevailing in the rehabilitation of patients and changing patterns of care and rehabilitation, including occupational therapy, considered the training in rehabilitation techniques of doctors and their teams, and drew attention to the need for adequate legislation.

A symposium on pneumoconiosis was held in Katowice (Poland), in June. There were nineteen participants from twelve countries, and ILO, the International Social Security Organization, the European Economic Community, the European Coal and Steel Community and the United States Public Health Service were represented. The symposium covered the entire field of pneumoconiosis from dust control to medical, vocational and social rehabilitation. Pneumoconiosis affects only a limited group of people but it has closely linked health, occupational, social and economic aspects. It is preventable; however, prevention may be costly and cannot remedy past damage, so that many mining communities are still facing the problem of the vocational and social rehabilitation of men whose lungs have been damaged by dust.

**Public Health Services**

During the year WHO organized two meetings within the general context of its assistance in rationalizing and improving the efficiency of national health services, and in dealing with problems of their relationship with economic and social planning. One was a symposium on methods of evaluation of public health programmes held in Kiel (Federal Republic of Germany) in November, with participants from ten countries. The report of the symposium dealt with the purposes for which evaluation is required, outlined the assistance that WHO could provide, and gave recommendations on detailed evaluation procedures, including the setting of measurable targets, and on the type of body to be entrusted with the evaluation. The other was a conference on health aspects of regional socio-economic development which was held in Montpellier (France), also in November, for the purposes of outlining the main features of a health policy for regional planning and of defining the place of health in regional development programmes. The conference was attended by health administrators, sanitary engineers, planners and economists from twenty-six countries of the Region and by representatives of the United Nations.

WHO continued to assist the Government of Algeria in the reorganization of public health services. In the east of the country a demonstration area, covering a population of about 150 000, is being set up in the Guelma-Sedrata region, to try out a model form of public health organization, train staff and establish norms for the malaria eradication programme.

Also in Algeria, a study on hospital reform was undertaken; recommendations were made concerning the regionalization of the hospital system, the closure of hospitals that are too small, and better utilization of existing beds, with the aim of effecting economies and thus releasing funds for the training of public health personnel in general and for malaria eradication.

Even in the developed countries of the Region, there is a shortage of well-trained nursing personnel, and consequently a need to make the best possible use of those available. The study of the functions of nursing personnel, with which WHO is assisting the Swiss Government, continued during the year. Twenty-four hospitals were selected in which, over a period of two months, 122 000 observations were made. With computer help, some 3000 tables were prepared in order to analyse the variables thought to influence the way in which nurses' time is distributed. The results of the study will be used to work out a national scheme for the rational and economic use of nursing personnel in Switzerland, and they may be of interest also to other Member States.

Assistance was provided to Algeria and Morocco in connexion with the establishment of post-basic schools of nursing, the revision of curricula and the reorganization of nursing services.

**Environmental Health**

The plan of operation for the project for wastes disposal and water supply in Malta, which is assisted by the United Nations Development Programme (Special Fund component) and for which WHO is the executing agency, was signed in September. WHO is the executing agency for two other projects assisted by the Special Fund in Europe — one in Poland for the protection of river waters against pollution and the other in Turkey for the preparation of a master plan for water supply and sewerage for the Istanbul region. The total funds earmarked for these projects by the Governing Council of the UNDP is in excess of five million dollars.

In view of the scarcity of sanitary engineers, who are more than ever needed because of the increasing complexity and specialized nature of the environ-
mental health problems in the Region, WHO has taken steps to promote the organization of courses in sanitary engineering in the French and Russian languages.

As a step towards a comprehensive programme for noise abatement, a review was made of the present status of studies on the effects of noise on health and of the measures taken by different countries in order to control it.

**Medical Education**

Medical education continues under review in a number of countries, particularly as regards organization of studies and the content and methods of teaching. In this context, WHO organized two meetings during the year — a technical meeting in Copenhagen in April, to discuss collaboration among departments of medical schools in the undergraduate teaching of the basic medical sciences, and a symposium in Brussels in November on the teaching of epidemiology in medicine and public health. Two issues of the medical education bulletin, which brings together articles of topical interest for the improvement of medical education, were distributed to governments and to medical schools and other training institutes.

Advice was given to the Government of Algeria on the planning and organization of schools for medical assistants, distinct from the Faculty of Medicine, University of Algiers, which provides full medical education.

**Co-operation with Other Organizations**

Collaboration continued with the United Nations and related agencies. With UNICEF there has been co-operation in a number of fields, including the weaning-food projects assisted by that organization in Algeria, Morocco, Turkey and Yugoslavia. Co-operation with the United Nations Development Programme in projects assisted by the Special Fund component is mentioned above (under Environmental Health); a number of courses have been organized in collaboration with the Danish Government with funds provided from Denmark’s special contribution to the Technical Assistance component of the Programme. In addition, co-operation with the United Nations and related agencies, the International Children’s Centre, the Council of Europe and a number of non-governmental organizations continued.

**The Regional Committee**

The seventeenth session of the Regional Committee for Europe was held in Dublin from 12 to 16 September 1967. The session was opened by Dr J. C. Joyce, the out-going Vice-Chairman, in the presence of the President of Ireland, Mr E. de Valera, and the committee was welcomed to Dublin by the Prime Minister of Ireland, Mr J. Lynch. Twenty-nine of the thirty-one active Member States in the Region were represented, as well as UNICEF and a number of intergovernmental and non-governmental organizations. The Director-General was represented by an Assistant Director-General.

In the discussion on the Regional Director’s annual report for the period 1 July 1966 to 30 June 1967 particular attention was given to the need for long-term planning of the Organization’s work in the Region, and the Committee requested the Regional Director to take the necessary steps for evaluating the Organization’s work in the Region in child mental health and cardiovascular diseases. In a resolution on cardiovascular diseases, the plan submitted by the Regional Director was endorsed and Member States were urged to give financial support to their national institutes co-operating in the implementation of the plan.

Special emphasis was placed on education and training; the need for vigilance against the threat of cholera was stressed, and a resolution was adopted on co-operation with the Economic Commission for Europe in environmental health.

In compliance with resolution WHA20.38, the Regional Committee gave further consideration to the implementation of resolution WHA19.31. The views expressed in that respect by the Regional Committee will be submitted to the Twenty-first World Health Assembly.

The Committee examined the programme and budget proposals for 1969 and endorsed them from the technical point of view, but for budgetary reasons found it necessary to limit the size of the intercountry programme.

The Committee requested the Regional Director to make the necessary arrangements to implement the proposals put forward by a working group for celebrating in the Region the twentieth anniversary of WHO in 1968, and to inform the Director-General of the Committee’s proposal that the Governments of France and the Union of Soviet Socialist Republics be asked to provide, from their delegations to the Twenty-first World Health Assembly, a speaker to
address the Assembly, on behalf of the Region, at the commemorative meeting.

The subject of the technical discussions was "The pattern of active immunization against communicable diseases in Europe". The Committee confirmed the selection of "Current trends in undergraduate medical education" as the subject of the technical discussions at its eighteenth session.

The Committee also confirmed that its eighteenth session would be held in Varna, Bulgaria, in 1968 and accepted the invitation of the Government of Hungary to hold the nineteenth session in that country in 1969.

Administrative and Organizational Developments in the Regional Office

Present plans provide for the new office premises to be completed towards the end of 1969 and the new conference facilities during 1970. The Government of Denmark is making arrangements for temporary office accommodation near the present office building to be used for offices during the building work.
EASTERN MEDITERRANEAN REGION

CHAPTER 18

Some two hundred projects assisted by WHO were in operation in the Region during the year (excluding projects consisting entirely of fellowships). the distribution by subject being roughly the same as in 1966. They included seventeen malaria projects, over thirty on other communicable diseases, over twenty on various aspects of environmental sanitation, including community water supplies, and over twenty on education and training. Details of the various projects are given in the Project List in Part III of this volume; the main developments of interest during the year are mentioned below.

Malaria Eradication

Ethiopia and Tunisia started malaria eradication programmes during the year. In Ethiopia, where the programme is being carried out in stages, over four million people were protected by spraying operations. In Tunisia, preparatory phase activities, including training of personnel, were carried out. In Pakistan, where the eradication programme began in 1961, further progress was made; areas inhabited by three quarters of the population are in the consolidation phase or the attack phase.

Additional areas in Lebanon entered the maintenance phase and an evaluation was undertaken of the programme in Israel. In Iran, attack operations were extended to the southern part of the country and the programme in Syria has been reorganized.

The malaria situation in Qatar, the Trucial States and Yemen was evaluated.

WHO-assisted malaria eradication training centres in Ethiopia, East and West Pakistan and Sudan undertook the training of nearly 800 professional and technical staff.

Inter-country co-ordination meetings stimulated by the Organization have taken place between the national malaria eradication staff of Iran and Iraq, Afghanistan, Jordan, Lebanon, Syria and Turkey, Iraq, Syria and Turkey, and Burma, India and Pakistan.

As a result of the success of the eradication campaign in Cyprus, that country has been added to the list of those where malaria eradication has been achieved.

Communicable Diseases

Smallpox cases were reported from Ethiopia, Kuwait, Pakistan, Sudan and the Trucial State of Dubai. Staff and supplies of vaccine were dispatched to Kuwait and Dubai; in both countries the epidemic was promptly brought under control. Vaccine was also provided to Lebanon, Somalia and Sudan. Pakistan and Somalia received assistance in reviewing the smallpox situation and in planning future work.

In view of the large quantities of vaccine that will be needed for countries embarking on smallpox eradication programmes, a review was made of the facilities available for large-scale production of potent thermostable freeze-dried vaccine. All countries of the Region possessing adequate laboratory facilities and qualified personnel have been offered assistance for increasing the quantity and improving the quality of vaccine produced.

As a further step towards co-ordinated measures against cholera, an inter-regional conference was held in Ankara, Turkey, at the end of February. Twenty-five health officials, including six Ministers of Health, from eighteen countries of the Eastern Mediterranean and European Regions attended. The objectives of the conference were to promote co-operation among the countries threatened by cholera in the prevention and control of the disease, particularly as regards the application of the International Sanitary Regulations.

After the conference, some countries of the Region organized inter-country meetings in order to co-ordinate preventive measures against cholera. By the end of the year five meetings had taken place, in Iraq, Jordan, Lebanon, Saudi Arabia and Syria; all were attended by observers from WHO.

Health Protection and Promotion

WHO continued its assistance to Sudan in developing a cancer radiotherapy service at the Khartoum Hospital and advised the United Arab Republic on the organization and staffing of the research laboratories of the Cancer Institute in Cairo. The Organization contributed to a national seminar on the pathology of tumours of the thymus and parathyroid glands and the bone complications, held in Iran in September.
Assistance to the national course for X-ray technicians in Addis Ababa, Ethiopia, and to the regional course for X-ray technician tutors in Baghdad, Iraq, was continued. Advice was provided to Pakistan on the installation of radiation protection laboratories and an appraisal of the radiation protection services was made.

Public Health Services

Health planning, in which a number of countries in the Region are now engaged, is a continuous process. For instance, in Libya, where in 1966 a WHO team helped the Government to formulate a long-term health plan, further assistance was provided to the national planning committee that has been established to draw up the second five-year plan. The allocation requested for the health sector is nearly eight times that requested under the first plan.

A new nursing education project assisted by WHO was started in Libya with the object of establishing a second school for women nurses in Benghazi; assistance to the first school, in Tripoli, was continued.

The Organization helped to evaluate the health education services in Lebanon and Libya and advised on their development; health education is carried out mainly through the rural health services in Lebanon, and through the maternal and child health services in Libya. Health work received more attention in the field training given at the Arab States Training Centre for Education in Community Development in Sirs-el-Layyan, United Arab Republic, which receives assistance from UNESCO and WHO.

At a group meeting on health education held in Alexandria in April, health education work at national and provincial levels and the role of health education in the control of various diseases and the protection of the health of the community were considered.

Environmental Health

WHO provided assistance to Ethiopia, Pakistan, Qatar, Sudan and Tunisia for the development of central environmental health services.

The first of a series of nine-month advanced courses for sanitarians, given in Damascus, was completed in May; eleven of the fourteen students passed the final examination. Assistance to courses for sanitarians in Iraq, Syria and Tunisia was continued.

Assistance to Pakistan, Sudan and Syria in the development of community water supplies continued, and a new project began in Ethiopia. In Jordan a project for improving both community water supplies and wastes disposal facilities was completed.

Education and Training

WHO continued to assist the medical faculties in Ethiopia, Syria and Tunisia by the provision of visiting professors, teaching supplies and equipment, and fellowships for training counterpart staff.

During the year the fellowships for attendance at post-graduate courses leading to diplomas amounted to nearly 30 per cent. of the total number of fellowships awarded. This not only indicates a greater need for such training, but also reflects an increase in the number of candidates in the Region suitable for training at advanced level.

The Regional Committee

Sub-Committee A of the Regional Committee for the Eastern Mediterranean met in Teheran from 25 to 30 September, and Sub-Committee B met in Geneva on 9 and 10 October. Sub-Committee A was attended by representatives of Cyprus, Ethiopia, France, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Pakistan, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Republic, United Kingdom of Great Britain and Northern Ireland, and Yemen. Sub-Committee B was attended by representatives of Ethiopia, France, Israel and the United Kingdom of Great Britain and Northern Ireland. The United Nations, the United Nations Development Programme, UNICEF, and the United Nations Relief and Works Agency for Palestine Refugees in the Near East were represented at Sub-Committee A, and representatives of eleven international nongovernmental and intergovernmental organizations were present. At Sub-Committee B the United Nations, the United Nations Development Programme and the International Labour Organisation were represented, as well as seven international nongovernmental organizations. The Director-General attended the opening meeting of Sub-Committee B and was represented at Sub-Committee A and the subsequent meetings of Sub-Committee B by an Assistant Director-General.

In pursuance of resolution WHA7.33, both Sub-Committees A and B designated a representative to meet with the Regional Director to harmonize the decisions and prepare the final report on the session. Except in two cases, the resolutions adopted by the Sub-Committees on the agenda items were either identical or the same in substance.

The repercussions of recent events on the health situation in some countries of the Region were considered; Sub-Committee A and B each passed a resolution on this subject.

In the discussion in the Regional Director's annual report, emphasis was placed on the development of
national health plans as an integral part of national plans for socio-economic development and on the need for education and training activities, to which due priority should continue to be given. The need for training sanitary engineers and sanitarians was stressed, as was the importance of developing national vital and health statistics services.

Particular attention was paid to the mass poisoning that had occurred in some countries of the Region owing to contamination of wheat flour with endrine, and it was suggested that WHO should co-operate with other organizations concerned in the preparation of adequate and strict standards for the packaging and transportation of foodstuffs, particularly staple foods such as wheat flour and rice.

Other subjects considered included the principles and organization of the quality control of pharmaceutical preparations, the role of public health authorities in radiation protection, and the problems of rural water supply.

The proposed programme and budget estimates for the Region for 1969 were considered and endorsed, as presented, for transmission to the Director-General.

"Integration of mass campaigns into the national basic health services" was the subject of the technical discussions. "Health hazards due to contamination of foodstuffs with pesticides" was selected by both Sub-Committees A and B as the theme for the technical discussions in 1968, while "Review of the education and training of nurses to meet the needs of the Region", which had previously been chosen, was deferred until 1969.

The plans for celebrating the twentieth anniversary of the World Health Organization were considered, and Sub-Committee A nominated Iran and Iraq to speak on behalf of the Eastern Mediterranean Region at the commemorative meeting of the World Health Assembly in 1968. This decision was endorsed by Sub-Committee B.

Sub-Committee A accepted the invitation of Cyprus to meet in that country in 1968 and decided to hold its 1969 session in the Regional Office in Alexandria.

Administrative Developments in the Regional Office

Disturbed conditions in certain countries of the Region created special administrative problems concerning temporary movements of staff and dependents, purchases of supplies and equipment, suspension of some project activities, communications, etc. Recruitment for certain field posts was also affected.

The demand by governments for WHO assistance in the purchase of equipment and supplies continued to increase; the number of line items provided rose from some 6000 in 1966 to about 8000 in 1967.
CHAPTER 19

WESTERN PACIFIC REGION

Some 140 projects received assistance from WHO during the year. Of these, approximately thirty-five related to malaria or other communicable diseases, fifteen to environmental health, fifteen to nursing and ten to the development of health services. Nearly twenty-five consisted entirely of fellowships. Details are given in the Project List in Part III of this volume, developments of particular interest being referred to below.

Malaria Eradication

During the year the pre-eradication programme in West Malaysia was superseded by an eradication programme, to be implemented by stages. Independent assessments of the eradication programmes in East Malaysia (Sabah and Sarawak) and the pre-eradication programme in Cambodia were made by WHO teams. In the eradication programme in Brunei, all the originally malarious areas, which have a total population of 45,000, entered the consolidation phase. In all these programmes progress is hampered by the lack of a strong rural health service, but the governments concerned are taking steps to remedy this situation. In the Philippines, the implementation of a new plan of operation started early in the year; spraying operations are to cover all the malarious areas, which have a population of nine million.

Communicable Diseases

An inter-country communicable diseases advisory team was formed in August to assist countries in assessing the general communicable disease situation, in planning epidemiological and laboratory surveys of the most important diseases, in organizing preventive and control measures and in strengthening epidemiological and laboratory services. Ten countries have requested assistance from the team.

A regional seminar on international quarantine was held in Manila in March and April 1967 with twenty-three participants from fifteen countries. The application of the International Sanitary Regulations was discussed, together with port and airport sanitation, including rodent and mosquito control, and other environmental health problems. Particular attention was paid to the prevention and control of plague, and the situation in Viet-Nam, where the incidence of plague has again risen, was considered in detail.

Cholera El Tor is still endemic in the Philippines and in Viet-Nam. A small outbreak occurred in Cambodia in April and May and vaccines were donated by the Government of Singapore and WHO. A further study of cholera El Tor vaccine, to determine whether its effectiveness is improved by increasing the vaccine concentration or the number of doses, was started in Bacolod, Negros Occidental, Philippines.

The field laboratory established with WHO assistance in Tonga continued to collaborate in the study of enteric infections, in co-operation with the Australian national Salmonella centre in Adelaide. Vaccine was provided to Western Samoa during a recent large outbreak of typhoid fever, and advice was given on control measures.

Human schistosomiasis continued to be endemic in Japan and the Philippines. A survey undertaken by a WHO team in Khong Island, Laos, revealed the presence of Schistosoma japonicum in inhabitants of the island; no oncomelania snails were found and a more intensive survey was planned to determine the distribution of schistosomiasis along the Lower Mekong Basin.

In the countries of the Region where WHO-assisted antituberculosis programmes are in operation the community approach to tuberculosis control is gaining acceptance; BCG vaccination programmes, combined in some cases with smallpox vaccination, have been extended, and sputum smear examination has been used more extensively for case-finding.

With WHO assistance, an assessment was made of the leprosy control programmes in Cambodia, the Republic of Korea and the Republic of Viet-Nam. Attention has been given to establishing rehabilitation programmes for leprosy patients and there is a growing trend to resettle arrested and non-infectious cases in their former environment or in a new settlement, rather than to maintain large leprosaria.

The problem of Japanese encephalitis has continued to increase, and consideration has been given to the possibility of setting up a WHO research unit for the disease in the Republic of Korea, and a sub-unit in China (Taiwan).
Health Protection and Promotion

An applied nutrition programme, assisted by FAO, UNICEF and WHO, was started in Cambodia, and similar programmes have been planned for several other countries. Progress has been made in introducing nutrition work into other health programmes, particularly those concerned with the health of mothers and children and with the training of health personnel.

Planning for the production of cheap protein-rich foods has advanced considerably, and recommendations have been formulated regarding work on coconut, fish and yeast/mushroom products in the Philippines.

A joint ILO/WHO seminar on occupational health was held in Manila in October, with twenty-one participants from fourteen countries of the Region. They discussed the development of occupational health and safety services and their co-ordination with national health services. Special attention was paid to the health needs of small industries and the services that can be provided by trained industrial hygienists and occupational health nurses, and to the importance of collaboration between labour and health authorities.

Public Health Services

During the year governments have intensified their efforts to strengthen the structure of their public health services. It is realized that this is a prerequisite, not only for the successful development of these services, but also for the attainment of the long-term objectives of campaigns for the eradication or control of communicable diseases, and of health programmes for special groups. Increased interest has also been shown in national health planning, as a necessary part of planning for national socio-economic development and also to enable available resources to be used to the best advantage and progress to be evaluated.

The continuing high incidence of communicable diseases in some parts of the Region has emphasized the need for strong central public health laboratories and for the development of supporting laboratory services.

A ten-month study was made of the health implications of the United Nations Lower Mekong Basin Development Programme, which involves countries belonging to the South-East Asia and Western Pacific Regions. The Organization made recommendations on the health measures to be taken and the health services to be provided by the governments concerned in order to safeguard the health of the population.

Assistance with nursing education projects in six countries continued during the year. In the Philippines an evaluation of nursing education programmes was carried out as first step towards developing a national accreditation programme for schools and colleges of nursing.

In programmes, such as those in the Philippines and Singapore, where national nurses have been prepared to assume responsibility, it has been possible gradually to withdraw international staff. In Cambodia assistance has been extended to include public health nursing and midwifery administration and services.

Five projects concerned exclusively with health education were assisted in the Region during the year. In Fiji assistance was provided in drawing up a health education programme and in developing the health education aspects of training programmes. In the Philippines, post-graduate courses for school health education instructors of teacher-training colleges were organized at the College of Education, University of the Philippines, and the Philippine Normal College.

A regional multiple seminar on paediatric education was held in Manila, Kuala Lumpur, Saigon and Taipei between February and April, with thirty-three participants from eleven countries. Assessment of paediatric teaching methods were made in each city, and were followed by discussions on improvements that would be desirable.

Considerable interest has been shown in the Region in the interrelationship of population growth and health. The theme of the technical discussions at the 1967 session of the Regional Committee was "The integration of maternal and child health and family planning activities in the general health services".

Environmental Health

Assistance in the planning of large municipal projects that would qualify for financial support from the Special Fund component of the United Nations Development Programme is a new development in the Region. The first such project — for the preparation of a master plan for a sewerage system for the Manila metropolitan area — started in December 1966. Since then, several governments have requested advice on plans for the construction of waterworks and sewerage systems for which financing agencies might be willing to provide loans.

Education and Training

A conference of directors of schools of public health, with sixteen participants from four WHO regions, was held in Manila in November. They exchanged information on the organization and programme of schools of public health and studied the advisability of revising the Diploma of Public Health and Master of Public Health courses and other post-
graduate courses in public health. The main problems encountered by schools of public health were discussed and consideration was given to the possibility of establishing certain standards which could serve as criteria for mutual recognition of schools, if a system for that purpose could be introduced.

A report on an appraisal of the fellowships programme in the Region, made in order to strengthen that programme, was submitted to the Regional Committee.

In order to release professional health personnel for the increasingly complex and responsible tasks they are required to perform, considerable attention has been paid to the training of auxiliaries and to the supervision of their work.

Co-operation with Other Organizations

Co-operation with the United Nations and its organs continued. WHO co-operated with the United Nations in improving conditions in orphanages in the Republic of Viet-Nam, and in reviewing the health part of a course for child-care workers in China (Taiwan), with the ECAFE Committee for Co-ordination of the Investigations of the Lower Mekong Basin in a study of the health implications of the Lower Mekong Basin development programme, and with the Bureau of Technical Assistance Operations and the United Nations Department of Economic and Social Affairs in a rehabilitation project in Laos.

The Organization co-operated with UNESCO in Cambodia in the health aspects of summer courses organized for school directors and teachers, and with FAO in plans of operation for joint nutrition programmes in several countries.

Co-operation was maintained with the South Pacific Commission in maternal and child health work in the South Pacific and in planning for a nutrition education and training centre to be established in collaboration with the Government of Fiji with assistance from FAO, UNICEF, the Commission and WHO.

The Regional Committee

The eighteenth session of the Regional Committee for the Western Pacific was held in Taipei from 13 to 19 September 1967. The session was attended by representatives of all Member States in the Region, except Cambodia and Laos, and by representatives of the Member States responsible for territories in the Region, except France. Representatives of the United Nations, the United Nations Development Programme, UNICEF, the International Committee of Military Medicine and Pharmacy, the South Pacific Commission and eight non-governmental organizations in official relations with WHO were also present. The Director-General and an Assistant Director-General attended the session.

The Committee examined the report of the Regional Director for the period 1 July 1966 to 30 June 1967. During the discussion, considerable attention was given to integrated planning; the Committee considered that Member governments, in national health planning, should take into account the assistance that could be provided by private foundations, enterprises, and bilateral volunteer programmes. The extent to which the Organization and its country representatives should take the initiative in promoting co-ordination in integrated planning in Member countries was also discussed.

The Committee noted that, although activities in environmental health had expanded considerably, additional financial resources were required for the construction of waterworks and sewerage systems. Information was presented to the Committee on the different agencies which might be willing to invest money in such projects.

In the discussion of the section of the report on education and training, several references were made to the shortage of health manpower in the world. The view was expressed that Member governments should strengthen their national training institutions; WHO could provide assistance in improving the quality of training programmes.

The Committee discussed the proposed programme and budget estimates for the Region for 1969 and requested the Regional Director to transmit them to the Director-General.

The Committee considered the report submitted by the Regional Director on the arrangements proposed for celebrating the twentieth anniversary of the Organization. It decided that representatives of Australia and Japan should address the Twenty-first World Health Assembly on behalf of the Regional Committee at the commemorative meeting.

At the request of the Government of Malaysia, an item proposing the establishment of a WHO medical school in the Region was discussed.
In compliance with resolution WHA20.38, the Regional Committee gave further consideration to the implementation of resolution WHA19.31. The views expressed in that respect by the Regional Committee will be submitted to the Twenty-first World Health Assembly.

"The integration of maternal and child health and family planning activities in the general health services" was the subject of the technical discussions. "Health planning as an administrative tool" was selected as the theme for the technical discussions in 1968.

The Committee accepted an offer from the Government of the Philippines to act as host during its nineteenth session in Manila.
PART III

PROJECT LIST
This part of the report contains a list of the projects—country, inter-country and inter-regional—that were in operation during the whole or part of the period from 1 December 1966 to 30 November 1967. Continuing projects for which the only assistance given during the period was technical advice from headquarters or regional offices are not normally shown.

In country projects, the purpose for which the government or governments undertook the project is stated. Details of the assistance provided by the Organization and of the work done are given for completed projects and refer to the whole period over which the project was assisted by the Organization. Such details are not given for continuing projects.

As in former Annual Reports, an attempt has been made to summarize the immediate results of projects for which the Organization's assistance terminated in the period under review and, where the nature of the work has permitted, to assess or evaluate how far the project has succeeded in the purposes for which it was undertaken. It has not been possible to do this for all completed projects; there has not been time, for example, to assess those that ended late in the period covered.

The projects are grouped by region in the following order: Africa, the Americas, South-East Asia, Europe, Eastern Mediterranean and Western Pacific. In order to give a balanced account of the health programme in the Americas, the list for that region includes the projects assisted by PAHO in addition to those assisted by WHO. For each region, projects in individual countries are given in the alphabetical order of countries; the projects that concern more than one country follow, and are lettered AFRO, AMRO, SEARO, EURO, EMRO or WPRO. Inter-regional projects are given at the end of the list.

Under the heading "Fellowships" are shown those fellowships awarded during the period 1 December 1966 to 30 November 1967 that do not form part of assistance to a larger project. A table showing all the fellowships awarded during the same period, by subject of study, is given in Annex 11.

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, indicated in italics 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; MESA—Malaria Eradication Special Account; 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.
AFRICA

Botswana 0002 Trypanosomiasis Control (1955 - 1971) UNDP/TA
To study the trypanosomiasis problem and to advise on control measures.

Botswana 0014 National Health Planning (Sept. - Nov. 1967) R
WHO provided a consultant for three months to study health problems and health services in the country and to assist the Government in reorganizing and strengthening the services at central level and in establishing priorities of public health needs.

Burundi 0002 Public Health Advisory Services (June 1962 - 1968) UNDP/TA
To plan and organize a national health service and to train auxiliary health personnel.

To develop rural health services, with special emphasis on maternal and child health, and to train staff at all levels.

Following an emergency request by the Government, a regional adviser in communicable diseases and two consultants provided assistance in controlling an epidemic of typhus.

Burundi 0013 Smallpox Eradication (Nov. 1967 - 1971) R
To plan and implement a programme of smallpox eradication in the country.

Burundi 0200 Fellowships R: Nursing (two for twelve months), public health nursing (twelve months), undergraduate medical studies (twelve months).

Cameroon 0002 Malaria Pre-eradication Programme (Dec. 1962 - 1968) R UNDP/TA
To make an evaluation of the basic health services and plan for their development, and to train the necessary personnel; to carry out malaria surveys and epidemiological and geographical reconnaissance in the area used for training and to improve the facilities for the diagnosis and treatment of malaria.
As from 1968 this project will be incorporated in a project for the development of basic health services (Cameroon 0028).

Cameroon 0010 Health Services (1961 - 1970) UNDP/TA
To reorganize and strengthen the health services in West Cameroon.

Cameroon 0016 Nursing Advisory Services (1962 - 1970) UNDP/TA
To develop programmes for the education of midwifery and nursing personnel and to strengthen nursing services.

Cameroon 0019 Medical School, Yaoundé (July 1966 - 1970) R
To set up a medical school in Yaoundé.

Cameroon 0200 Fellowships R: Laboratory techniques (twelve months), pharmacy (twelve months).

Cameroon 0201 Fellowships UNDP/TA: Bacteriology, haematology and immunology (twelve months), nursing education (twelve months).

To establish an environmental health service, draw up a long-term sanitation programme, and train sanitation personnel.

To upgrade and develop the programme for basic nursing education at the School of Nursing in Bangui.

Chad 0003 Maternal and Child Health Services (Feb. 1965 - 1970) UNDP/TA UNICEF
To improve maternal and child health services and to train personnel.

Chad 0010 Environmental Sanitation (Jan. 1964 - 1970) UNDP/TA UNICEF
To set up a sanitation unit in the Ministry of Public Health and Social Affairs, to train personnel, and to carry out a long-term sanitation programme.

Chad 0014 Nursing Education (Jan. 1962 - 1971) R
To establish a basic school of nursing and to raise the standard of nursing education to the state-diploma level.

Chad 0023 Study of Sewerage and Sewage Disposal (April - Oct. 1967) R
WHO provided an engineering consultant for six months and an administrative consultant for two months for the study of sewerage and drainage in Fort-Lamy.

Chad 0200 Fellowships R: Microbiology and serology (twelve months), sanitary engineering (two for twelve months), sanitary inspection (five for twelve months).
Congo (Brazzaville) 0018 Rural Health Services (March 1965 - 1973) UNDP/TA UNICEF
To organize health services, with emphasis on maternal and child health, tuberculosis control, environmental health, health education and nutrition, and to train staff.

Congo (Brazzaville) 0021 Training of Laboratory Technicians (1965 - 1969) R
To organize a course for laboratory technicians at the Pasteur Institute, Brazzaville.

Congo (Brazzaville) 0023 Survey of the Water Resources of the Niari Valley (Feb. - April 1967) R UNDP/SF (FAO)
In connexion with a programme being undertaken with assistance from the United Nations Development Programme (Special Fund component) with FAO as the executing agency, two WHO consultants (an epidemiologist and a sanitary engineer) made a study in the Niari Valley. They reported on the health hazards in the area and on the presence of vectors of schistosomiasis and malaria and made recommendations on health services, and on water supplies, excreta disposal and housing.

Congo (Democratic Republic of) 0001 Public Health Administration Advisory Services (1960 - 1970) R UNDP/TA
To plan and develop the basic health services, with emphasis on general administration, maternal and child health, control of communicable diseases, environmental health and nutrition, and to train auxiliary health personnel of all categories. Under this project, which began as an emergency operation, WHO is providing advisory services to central and provincial levels and assisting with the training programme.

Congo (Democratic Republic of) 0005 Malaria Advisory Services (1960 - 1972) R
To formulate and implement measures for reducing malaria morbidity, to train personnel and to strengthen the rural health services.

Congo (Democratic Republic of) 0006 Public Health Administration: Operational Services (1960 - 1970) Funds-in-trust
To maintain the curative and preventive health services and to train personnel. Under this project WHO is assisting in the operation of the health services, and providing teaching personnel for the medical faculties of the Lovanium and Lubumbashi Universities.

Congo (Democratic Republic of) 0007 Training of Auxiliary Personnel (1960 - ) R
To train auxiliary health personnel.

Congo (Democratic Republic of) 0008 Smallpox Eradication (1967 - 1973) R
To plan and implement a smallpox eradication programme, investigating the operational aspects and the possibility of a combined programme of smallpox and BCG vaccination.

Congo (Democratic Republic of) 0200 Fellowships R: Hospital administration (two for twelve months), hospital administration and kinesitherapy (twelve months), paediatrics (one for two weeks, one for twelve months), pharmacy (twelve months), trypanosomiasis and public health (four and a half months).

Dahomey 0001 Malaria Pre-eradication Programme (Dec. 1963 - 1968) R
To make an evaluation of the basic health services and plan for their development, and to train the necessary personnel; to organize the malaria service and train staff, to carry out maliariometric surveys throughout the country and to improve the facilities for the diagnosis and treatment of malaria.
As from 1968, this project will be incorporated in a project for the development of basic health services (Dahomey 0022).

To organize sanitation services.

Dahomey 0018 Smallpox Eradication (1967 - ) R
To carry out a smallpox eradication programme.

Dahomey 0200 Fellowships R: Cardiology (twelve months), laboratory techniques (twelve months), nursing (twelve months), sanitary engineering (twelve months), undergraduate medical studies (two for twelve months).

Dahomey 0201 Fellowships UNDP/TA: Gastroenterology.

To develop the maternal and child health services and to train staff.

To set up a sanitation unit in the Ministry of Public Health and Population; to train sanitation personnel, and to develop a long-term sanitation programme.

Gabon 0008 Laboratory Services (April 1965 - 1970) UNDP/TA
To set up a national health laboratory and to train technical laboratory personnel.

Gabon 0016 Nursing Education (1961 - 1970) R
To organize basic programmes for the training of professional and auxiliary nurses.

Gabon 0200 Fellowships R: Undergraduate medical studies (eight for twelve months).

The aim was to organize basic programmes for the training of professional and auxiliary nurses. WHO provided a nurse educator for the duration of the project, a consultant in public
health nursing and midwifery for two months in 1965, and supplies and equipment.

A general nursing school was set up and public health nursing was included in the programme. The Director of the School and its midwifery instructor completed WHO fellowship studies and a member of the staff was awarded a fellowship in nursing education.

**Ghana 0001 Malaria Pre-eradication Programme**
*(Jan. 1963 - 1968) R UNDP/TA*

To plan the development of rural health services, particularly in the Volta region; to train personnel in malaria laboratory and field techniques, carry out epidemiological and entomological surveys and improve the facilities for the diagnosis and treatment of malaria.

As from 1968 this project, which supersedes the pilot project that was carried out from 1958 to 1962, will be incorporated in a project for the development of basic health services (Ghana 0032).

**Ghana 0003 Maternal and Child Health Services**

To develop the maternal and child health services and to train personnel.

**Ghana 0005 Schistosomiasis Control**
*(1957; May 1959 - 1972) UNDP/TA*

To carry out a schistosomiasis control programme, based on the results of previous studies on intermediate snail hosts and local epidemiology of the disease.

**Ghana 0011 Tuberculosis Control**
*(1962 - 1970) UNDP/TA UNICEF*

To reorganize the tuberculosis control programme, and to integrate it into the general programme for the development of the country’s health services.

**Ghana 0025 Training of Community Health Nurses**

The aim was to train community health nurses to supplement the work of the public health nurses in organizing domiciliary health services as part of an overall health plan. WHO provided four public health nurse educators and four fellowships.

Three centres were opened — in the Northern Region in 1960, in the Eastern Region in 1961, and in the Volta Region in 1965 — each providing a two-year course of training for community health nurses. By the time the project terminated, 208 such nurses had qualified and were in government service; 139 students were in training.

**Ghana 0027 Post-basic Nursing Education**
*(1963 - 1970) R*

To establish basic and post-basic nursing education programmes at the University of Ghana.

**Ghana 0029 Master Plan for Water Supply and Sewerage for the Accra-Tema Metropolitan Area**
*(Aug. 1963 - Aug. 1967) UNDP/SF*

The aim was to prepare a water supply and sewerage plan for the Accra-Tema metropolitan area; to draw up the detailed design for construction and development of the water supply and sewerage system, and to train personnel. WHO provided the services of two consulting engineering firms and one management firm.

The master plan was prepared and submitted to the Government in August 1967. One of the results of the project was the establishment of the Water Supply and Sewerage Corporation, which has taken over all activities in those fields. Another result was the construction of a pipeline from Kpong to Accra and the extension of the treatment plant at Kpong, which has enabled 30 million more gallons of water a day to be provided to the Accra metropolitan area.

Further assistance to the Ghana Water Supply and Sewerage Corporation is being provided under project Ghana 0031 (see below).

**Ghana 0031 Master Plan for Water Supply and Sewerage for the Accra-Tema Metropolitan Area**
*(Jan. 1967 - ) UNDP/SF*

To provide technical assistance to the Water Supply and Sewerage Corporation for the Accra-Tema water supply and sewerage scheme, and to train personnel for responsible positions in the Corporation. This is the second phase of a project which started as Ghana 0029 (see above).

**Ghana 0039 Health Education**
*(Nov. 1967 - 1970) UNDP/TA*

To reorganize the health education service, for which staff will be recruited at university level; to intensify the training of medical and paramedical staff in the health educational aspects of their work and to improve the training in health education given to undergraduate medical students.

**Ghana 0200 Fellowships R:** Psychological medicine (twelve months), public health—diploma course (twelve months).

**Guinea 0008 Environmental Sanitation**
*(1960 - 1970) UNDP/TA UNICEF*

To set up an environmental health unit in the Ministry of Public Health and Social Affairs, draw up a long-term sanitation programme, including a water supply programme, and train sanitation personnel.

**Guinea 0012 Onchocerciasis Control**
*(Nov. 1967 - 1971) R*

To carry out epidemiological and entomological studies of onchocerciasis and to draw up and implement a programme for the control, and if possible the eradication, of the disease.

**Guinea 0014 Malaria Pre-eradication Programme**
*(1965 - 1968) R*

To undertake a preliminary inventory of and to evaluate the existing basic health services; and to assess malaria as a public health problem, in order to estimate government commitments for the full implementation of a malaria pre-eradication programme.

As from 1968 this project will be incorporated in a project for the development of basic health services (Guinea 0027).

**Guinea 0024 Kindia Institute**
*(1967 - 1970) UNDP/TA*

To organize the production of freeze-dried smallpox vaccine.

**Guinea 0028 Poliomyelitis Outbreak**
*(June 1967 - ) R*

To control an outbreak of poliomyelitis in Conakry.

**Guinea 0201 Fellowships UNDP/TA:** Undergraduate medical studies (fourteen months).
Ivory Coast 0004 Maternal and Child Health Services (March 1964 - 1970) R UNICEF
To develop the maternal and child health services and to train personnel.

Ivory Coast 0012 Environmental Sanitation (Jan. 1963 - 1970) UNDP/TA UNICEF
To set up a sanitary engineering section in the Ministry of Public Health and Population; to train sanitation staff and develop a long-term sanitation programme.

Ivory Coast 0024 Nutrition Unit, Institute of Public Health, Abidjan (June 1967 - 1970) UNDP/TA
To establish a nutrition unit in the Institute of Public Health, Abidjan, and to carry out nutrition programmes as part of the public health services.

Ivory Coast 0200 Fellowships R: Sanitary engineering (twelve months).

Kenya 0002 Environmental Sanitation (Sept. 1960 - 1972) R UNICEF
To improve water supplies and excreta disposal systems; to train sanitation personnel; and to plan an environmental health unit in the Ministry of Health and Housing.

Kenya 0004 Tuberculosis Control (1957 - 1970) UNDP/TA UNICEF
To continue the country-wide BCG vaccination campaign and to study, in the Muranga pilot area, the possibility of integrating tuberculosis control measures into the health services.

To ascertain the main deficiency diseases in Kenya and to study their frequency, severity and distribution; to determine the place of malnutrition in relation to health and socio-economic conditions; to train local personnel for a national nutrition service and to organize a co-ordinated programme to combat malnutrition.

To strengthen and develop rural health services, with emphasis on maternal and child health, and to train auxiliary personnel.

Kenya 0032 Post-basic Nursing Education, Nairobi (1967 - 1975) R
To establish a school for training nurse educators.

Kenya 0034 Medical School, Nairobi (Nov. 1965 - 1970) R
To set up a medical school in Nairobi.

To plan and co-ordinate the health programme as part of the national development plan, with emphasis on the development of integrated health services, the training of medical personnel at all levels, and health education.

Kenya 0037 Faculty of Engineering, University College, Nairobi (1967 - 1972) Funds-in-trust
To set up a department of sanitary engineering, and a laboratory to carry out analysis of water, sewage and industrial waste waters, at the Faculty of Engineering, University College, Nairobi.

Kenya 0038 Surveys and Pilot Demonstration Schemes leading to the Reclamation of the Yala Swamp (March - April 1967) UNDP/SF (FAO)
Two WHO consultants made an assessment of the epidemiological and environmental health aspects of the project for reclamation of 35 000 acres of agricultural land in Yala swamp, which is receiving assistance from the United Nations Development Programme (Special Fund component) and for which FAO is the executing agency.

WHO provided a consultant laboratory technician to review the installation and maintenance of four general-purpose X-ray units in district hospitals.

Kenya 0040 Smallpox Eradication (1967 - 1972) R
To plan and carry out a smallpox eradication programme and to build up an epidemiological surveillance system.

Kenya 0041 Operational Research on Human and Animal Trypanosomiasis Eradication, Nyanza and Western Provinces (March 1967 - 1970) UNDP/SF
To devise methods for effective and economical control of human and animal trypanosomiasis in the Nyanza and Western Provinces.

WHO provided a consultant to review the equipment and organization of the smallpox vaccine production laboratory at the Medical Research Laboratories, Nairobi.

Kenya 0200 Fellowships R: Anaesthesiology (six months), epidemiology (nine months), nursing (twelve months), nutrition (eight months), obstetrics and gynaecology (twelve months), port health services (six months), public health—diploma course (twelve months), venereology and dermatology (twelve months).

Kenya 0201 Fellowships UNDP/TA: Health education and sanitation (eleven months).

Lesotho 0002 Tuberculosis Control (June 1962 - Dec. 1967) UNDP/TA UNICEF
The aim was to develop and implement the appropriate methods of tuberculosis control under local conditions, and to train the necessary personnel. WHO provided a medical officer, a statistician, two nurses, an X-ray technician and a laboratory technician (bacteriology).
Comparisons between various mass control measures such as BCG vaccination, mass screening, domiciliary treatment and chemoprophylaxis (depending on age and epidemiological groups) were made in a population of 35 000. This study necessitated extensive field research and the training of a large team of
field workers. It soon became clear that mass screening on a country-wide basis could not be applied within the resources allocated by the Government for tuberculosis control.

Therefore, a second phase of the project was launched in 1965, following an inventory of the national health services and facilities. Attention is now focused on patients with pulmonary symptoms seeking treatment on their own initiative; techniques have been standardized; the treatment and diagnostic facilities have been decentralized to non-specialized basic health units, under the guidance of a national reference centre serving all health units in the country. Prevention is taken care of by the implementation of a combined BCG/smallpox vaccination programme among pre-school and school-age children. In this way, it will be possible to integrate tuberculosis control activities in a general public health programme.

Liberia 0003 Communicable Disease Control (1952 - 1968) UNDP/TA UNICEF

To co-ordinate the work of existing communicable disease units and to set up an epidemiological service.

As from 1968 this project will form part of an epidemiological services project (Liberia 0035).


To set up a sanitary engineering unit in the National Public Health Service; to formulate a long-term sanitation programme, and to train personnel.

Liberia 0020 Malaria Pre-eradication Programme (Dec. 1962 - 1968) R

To complete an evaluation of the basic health services and to develop rural health services and train personnel in a demonstration area; to organize the malaria service, carry out epidemiological surveys and improve the facilities for the diagnosis and treatment of malaria.

As from 1968 this project, which supersedes a malaria eradication pilot project carried out between 1958 and 1961, will be incorporated in a project for the development of basic health services (Liberia 0033).

Liberia 0036 Yellow Fever Outbreak (July - Aug. 1967) R

WHO provided two temporary advisers, an epidemiologist and an entomologist, to make an epidemiological survey in the area affected by an outbreak of yellow fever. WHO also arranged for the supply of fifty thousand doses of yellow fever vaccine for vaccination of the population at risk.

Liberia 0200 Fellowships R: Laboratory techniques (nine months), public health—master’s degree (twelve months), undergraduate medical studies (twelve months).

Liberia 0201 Fellowships UNDP/TA: Laboratory techniques (four for six months).

Madagascar 0017 Nutrition

(April 1965 - 1968) UNDP/TA UNICEF (FAO)

To develop nutrition education work and train personnel in nutrition.

As from 1968 this project will be incorporated in a project for the development of health services (Madagascar 0023).


WHO provided a public health adviser and a maternal and child health adviser who assisted in organizing basic health services, with emphasis on maternal and child health services, in rural areas, and particularly in the demonstration area set up in Itaosy, near Tananarive. The WHO staff assigned to the environmental sanitation and nutrition projects in Madagascar helped with those aspects of the project.

Madagascar 0019 Environmental Sanitation (Jan. 1965 - 1968) UNDP/TA UNICEF

To train sanitation personnel; to carry out a nation-wide sanitation programme, and to establish a sanitary engineering unit in the Ministry of Health.

As from 1968 this project will be incorporated in a project for the development of health services (Madagascar 0023).

Malawi 0200 Fellowships R: Hospital administration (three for twelve months), statistics (four months), stomatology (twelve months).

Malawi 0201 Fellowships UNDP/TA: Pharmacology (twelve months), sanitary engineering (twelve months), venereology and dermatology (twelve months).


To carry out a programme for training assistant health inspectors; to set up an environmental health unit in the Ministry of Public Health and Social Affairs, and to plan and develop a national sanitation programme.

Mali 0014 Nursing Education (Nov. 1964 - 1970) R UNDP/TA

To organize nursing services and to improve nursing education.

Mali 0022 Smallpox Eradication (Feb. 1965 - 1969) UNDP/TA

To carry out a smallpox eradication programme.


In October 1966 a WHO consultant advised on the reorganization of the statistics unit in the Ministry of Public Health and Social Affairs, for which some equipment was provided. In December 1966 and January 1967 a second consultant made recommendations on the reorganization of the health services at national and local levels, particularly as regards control or eradication of communicable diseases, environmental health, maternal and child health and social medicine, and concerning the illegal practice of the medical and paramedical professions.
Mali 0030 Sewerage and Water Supply Systems  
(Jan. 1966 - April 1967) UNDP/SF  
A WHO team of consultants made a study of the Bamako sewerage system and the water supply systems of nine other towns and made recommendations for improvements and extension.

Mali 0031 Nutrition Advisory Services  
(Nov. 1966 - Nov. 1967) UNDP/TA  
WHO provided a nutrition adviser who made an appraisal of the nutrition situation and assisted in training medical and paramedical personnel in nutrition in the pilot area set up at Djoliba village.

Mali 0201 Fellowships UNDP/TA: Nursing education (twelve months), undergraduate medical studies (six for twelve months).

Mauritania 0003 Maternal and Child Health Services  
(Feb. 1963 - 1977) R UNICEF  
To organize maternal and child health services and to train staff.

Mauritania 0008 Nursing Education  
(Nov. 1963 - 1970) R UNICEF  
To organize nursing services and improve nursing education.

Mauritania 0009 Malaria Pre-eradication Programme  
(Oct. 1962 - 1968) R  
To evaluate the rural health services and plan for their development; to train personnel in order to improve the diagnosis and treatment of malaria, and to carry out malarometric and geographical surveys.  
As from 1968 this project will be incorporated in a project for the development of basic health services (Mauritania 0010).

Mauritania 0012 Smallpox Eradication (1967 - ) R  
To carry out a smallpox eradication programme.

Mauritius 0002 Tuberculosis Control  
To strengthen the tuberculosis services.

Mauritius 0007 Malaria Eradication Programme  
(1960 - 1968) R  
To continue the consolidation phase activities of the malaria eradication programme in the whole of the coastal area and maintenance phase operations in the central plateau; to take measures to prevent the re-establishment of malaria; and to carry out malarometric surveys in the neighbouring islands.

Mauritius 0015 National Environmental Sanitation Programme  
(March 1965 - 1970) UNDP/TA  
To organize a central division of environmental health, elaborate a training programme for sanitation personnel and set up demonstration areas. This project is linked with a project for a land and water survey, financed by the United Nations Development Programme (Special Fund component).

Mauritius 0021 Advisory Services in Public Health  
(March - Oct. 1967) R  
WHO provided a consultant to assist the Ministry of Health in reorganizing and reinforcing the central health services, taking into account the requirements of programmes for the eradication of certain communicable diseases.

Mauritius 0200 Fellowships R: Clinical instructors, course (two for eight months), district nursing and tuberculosis home visiting (two for four months), nursing education (four months), occupational health (three months), occupational therapy (twelve months), radiography (seven for twelve months), vaccination—Member of the Society of Radiographers (twelve months), tuberculosis home nursing (two for one month).

Niger 0005 Tuberculosis Control  
(1964 - 1970) UNDP/TA UNICEF  
To study the application of simplified and standardized tuberculosis control measures in a pilot area, and to set up a tuberculosis control programme to cover the whole country.

Niger 0018 Environmental Sanitation  
(March 1966 - 1972) R UNICEF  
To develop a comprehensive water supply programme; to conduct a general survey of environmental sanitation conditions, and to plan a long-term sanitation programme, including training of personnel.

Niger 0023 School of Nursing, Niamey  
(Aug. 1966 - 1977) UNDP/SF  
To reorganize and develop the School of Nursing, Niamey.

Niger 0026 Vital and Health Statistics  
(Nov. 1966 - Feb. 1967) UNDP/TA  
A consultant in medical statistics reviewed the vital and health statistical system and made recommendations for its improvement.

Niger 0201 Fellowships UNDP/TA: Massage and kinesitherapy (twelve months), nursing education (two for twelve months), public health (twelve months).

Nigeria 0001 Communicable Disease Control  
To improve the control of communicable diseases.  
As from 1968 this project will be incorporated in an epidemiological services project (Nigeria 0079).

Nigeria 0010 Rural Health Services, Eastern Nigeria  
(Nov. 1957 - 1968) UNDP/TA UNICEF  
To improve rural health services, particularly with regard to maternal and child health; and to train paramedical and auxiliary staff.  
As from 1968 this project will be incorporated in a project for the development of basic health services (Nigeria 0076).

Nigeria 0014 Tuberculosis Control, Western Nigeria  
(1957; 1958; 1961 - 1968) R UNICEF  
To extend the BCG vaccination campaign to rural areas and to reorganize the country-wide tuberculosis control programme.  
As from 1968 this project will be incorporated in an epidemiological services project (Nigeria 0080).
Nigeria 0021 Rural Health Services, Western Nigeria (1961 - 1968) UNDP/TA UNICEF
To establish a centre for the practical training of sanitation staff, to organize a unit of sanitary engineering in the Ministry of Health, and to plan a long-term sanitation programme.
As from 1968 this project will be incorporated in a project for the development of basic health services (Nigeria 0074).

To carry out environmental sanitation work, including the provision of rural public water supplies and the training of sanitation personnel, in the Igal and Idoma divisions.
As from 1968 this project will be incorporated in a project for the development of basic health services (Nigeria 0075).

Nigeria 0024 Health Laboratory Services (1966 - 1968) UNDP/TA
To organize an integrated health laboratory service to serve the needs of both clinical and preventive medicine.
As from 1968 this project will be incorporated in an epidemiological services project (Nigeria 0079).

Nigeria 0026 Malaria Pre-eradication Programme, Western Nigeria (Oct. 1964 - 1968) R
To make an evaluation of the basic health services and plan for their development; to train personnel for the rural health and malaria services; to carry out malarionetric surveys and to improve the facilities for the diagnosis and treatment of malaria.
As from 1968 this project will be incorporated in a project for the development of basic health services (Nigeria 0074).

Nigeria 0028 Health Education (1962 - 1970) UNDP/TA
To extend the federal health education services and to provide consultant facilities in health education to the regions.

Nigeria 0032 Malaria Pre-eradication Programme, Northern Nigeria (Nov. 1962 - 1968) R
To make an evaluation of the basic health services and plan for their development; to train personnel for the basic health and malaria services; to carry out antimalaria spraying operations in the Birnin Kebbi demonstration area and to make an epidemiological evaluation of the results, in order to demonstrate the feasibility of interrupting malaria transmission under savanna conditions.
As from 1968 this project which followed a malaria eradication pilot project carried out between 1954 and 1961, will be incorporated in a project for the development of basic health services (Nigeria 0075).

Nigeria 0037 Malaria Pre-eradication Programme, Eastern Nigeria (March 1963 - 1968) R
To make an evaluation of the basic health services in a demonstration area and to plan and train personnel for their development; to carry out epidemiological surveys of malaria, to continue the geographical survey of the first operational zone of the region, and to improve the facilities for the diagnosis and treatment of malaria.
As from 1968 this project will be incorporated in a project for the development of basic health services (Nigeria 0076).

Nigeria 0044 Leprosy Control, Mid-west Nigeria (1966 - 1968) UNDP/TA
To organize a leprosy control programme.
As from 1968 this project will be incorporated in an epidemiological services project (Nigeria 0081).

Nigeria 0048 Public Health Administration, Northern Nigeria (1965 - 1968) UNDP/TA
To plan health services, to improve health administration and to train professional and auxiliary health staff.
As from 1968 this project will be incorporated in a project for the development of basic health services (Nigeria 0075).

Nigeria 0056 Public Health Advisory Services, Mid-west Nigeria (Sept. 1965 - 1968) R
To plan health services, to improve health administration and to train medical personnel.
As from 1968 this project will be incorporated in a project for the development of basic health services (Nigeria 0077).

To set up leprosy control services, using staff from the public health establishments, and to train staff in control methods.
As from 1968 this project will be incorporated in an epidemiological services project (Nigeria 0082).

A WHO consultant made a survey of the hazards connected with the use of ionizing radiation and submitted recommendations on legislative and other measures for radiation protection.

In connexion with a project being undertaken with assistance from the United Nations Development Programme (Special Fund component), with FAO as the executing agency, a WHO consultant made a survey of health conditions and services in the Kainji Lake area in northern Nigeria and submitted recommendations on the extension of the health services and the personnel needed for their operation.

Nigeria 0072 Water Pollution (April - May 1967) R
WHO provided a consultant to survey the problem of water pollution in Nigeria, and to assist in establishing a water pollution control agency and in preparing the necessary legislation.

Nigeria 0200 Fellowships R: Amino acids and proteins (twelve months), child health (three months), gastroenterology and clinical epidemiology (twelve months), health education (two for twelve months), hospital administration (one for three months, three for eighteen months), laboratory services (two weeks), laboratory techniques (seven months), leprosy and laboratory techniques (five months), meat and food inspection (two for nine months), medical care and health services (two for six months), nursing education (two years), nutrition (three weeks), port health services (four months), public health—diploma course (nine months), tropical public health (one for nine months, three for twelve months), vital and health statistics (four months).

Nigeria 0201 Fellowships UNDP/TA: Nursing administration (six months), public health nursing (six months).

To evaluate the malaria situation and to demarcate the areas of continued transmission; to prepare a plan of operation for an eradication programme and to train personnel.
Réunion 0200 Fellowships R: Care of handicapped children (three months), mass vaccination campaigns (one month), mental hygiene (one month).

Rwanda 0001 Tuberculosis Control
(1965 - 1970) UNDP/TA UNICEF
To reinstate tuberculosis control services, with emphasis on BCG vaccination, and to train nursing and auxiliary staff in methods of diagnosis and treatment.

Rwanda 0003 Maternal and Child Health Services
(Feb. 1964 - 1970) R UNICEF
To expand the maternal and child health services and to train personnel.

Rwanda 0004 University of Butare
(May 1967) UNDP/TA
To develop the medical school of the University of Butare and promote the teaching of public health there and at the other institutions for training health personnel. The professor of public health assigned to the project will also assist with public health administration and health planning.

Senegal 0004 Environmental Sanitation
(1962 - 1969) UNDP/TA UNICEF
To improve environmental sanitation conditions in rural areas; to set up a sanitation unit in the Ministry of Health and Social Affairs, and to train sanitation personnel.

Senegal 0011 Vital and Health Statistics
(May 1965 - 1970) R
To organize a statistical unit in the Ministry of Health and Social Affairs, develop peripheral statistical services, and train statistical personnel.

Senegal 0012 Public Health Nursing
(May 1964 - 1971) R
To develop nursing and midwifery education programmes that will include the teaching of public health.

Senegal 0013 Malaria Pre-eradication Programme
(Jan. 1966 - 1968) R
To make an evaluation of the basic health services and plan for their development, and to train the necessary staff; to carry out malarious surveys and anti-malaria activities, and to improve the facilities for the diagnosis and treatment of malaria.
As from 1968 this project will be incorporated in a project for the development of basic health services (Senegal 0026).

Senegal 0016 Nutrition Education
(June 1964 - 1970) R
To develop the teaching of nutrition in the Faculty of Medicine, University of Dakar, and in the various institutes attached to it.

Senegal 0019 Tuberculosis Control
(Nov. 1966 - 1970) R UNICEF
To set up a pilot area in which, as part of the general health services, BCG vaccination will be carried out, personnel will be trained, and simplified and standardized tuberculosis case-finding and treatment measures will be tested, with the aim of extending them later to other areas.

Senegal 0022 Master Plan for Water Supply and Sewerage for Dakar and Surrounding Areas
(1966 - 1970) UNDP/SF
To make engineering studies and feasibility reports for the master plan for water supply and sewerage for Dakar and the surrounding areas; to carry out management studies on legislation and organization; and to train personnel in the planning, operation and financing of water supply and sewage disposal systems.

Senegal 0025 Medico-Social Development Programme, Pikine
(Oct. 1967 - June 1968) R
To study the medico-social problems of the urban population of Pikine, particularly those of mothers and children; to plan a medico-social service adapted to available resources, and to include instruction in practical medico-social work in medical and paramedical training.

Senegal 0020 Fellowships R: Bacteriology (twelve months), environmental sanitation (one week), immunology (four months), nursing education (twelve months), paediatrics (twelve months), smallpox vaccine production (one month).

Sierra Leone 0001 Communicable Disease Control
To consolidate the yaws control programme and plan a programme for the control of certain other communicable diseases.
As from 1968 this project will be incorporated into an epidemiological services project (Sierra Leone 0030).

Sierra Leone 0007 Nursing Education
(1961 - 1968) R
To train auxiliary nursing personnel.

Sierra Leone 0011 Public Health Laboratory Services
(1960 - 1968) R
To organize a national health laboratory service and to train personnel.
As from 1968 this project will be incorporated into an epidemiological services project (Sierra Leone 0030).

Sierra Leone 0014 Environmental Sanitation Training
(Nov. 1961 - 1970) R UNICEF
To train health inspectors; to establish an environmental health unit in the Ministry of Health, and to plan a nation-wide sanitation programme.

Sierra Leone 0019 Malaria Pre-eradication Programme
(Nov. 1963 - 1968) R
To develop the rural health services; to continue studies of malaria epidemiology and to improve the facilities for the diagnosis and treatment of malaria.
As from 1968 this project will be incorporated in a project for the development of basic health services (Sierra Leone 0029).

Sierra Leone 0026 Public Health Advisory Services
(June 1965 - 1968) R
To implement the national health plan and to prepare a programme for the forthcoming operational phases.
As from 1968 this project will be incorporated in a project for the development of basic health services (Sierra Leone 0029).

Southern Rhodesia 0201 Fellowships UNDP/TA: Undergraduate medical studies (six for twelve months).
Swaziland 0022 Tuberculosis Control  
(1962 - 1968) UNDP/TA UNICEF  
To reorganize the rural health services, starting from a pilot area comprising Mbabane and the surrounding areas, and to train health service staff in tuberculosis control work.

Swaziland 0200 Fellowships R: Nutrition (eight months), schistosomiasis control (one month), tuberculosis epidemiology and control (six months).

Tanzania 0004 Malaria Eradication Programme, Zanzibar  
(June 1957 - 1971) R UNDP/TA UNICEF  
To maintain total insecticide coverage, supported by full surveillance operations, in order to interrupt transmission of malaria and achieve its eradication from the islands of Zanzibar and Pemba.

Tanzania 0010 Communicable Eye Disease Control, Tanganyika  
(Sept. 1965 - 1971) R  
To make a survey of communicable eye diseases, find the best methods of prevention and treatment, and establish a control programme.

Tanzania 0012 Nursing/Midwifery Training, Zanzibar  
(May 1965 - 1970) UNDP/TA  
To evaluate the needs for midwives in rural areas and to organize a midwifery training programme with emphasis on domiciliary care.

Tanzania 0022 Medical School, Dar-es-Salaam, Tanganyika  
(Sept. 1965 - 1970) UNDP/TA  
To develop the medical school in Dar-es-Salaam.

Tanzania 0023 Nutrition Programme, Tanganyika  
To study the nutritional status of the population, in particular in the pilot area of Dodoma; to train staff in nutrition so as to launch a programme to control the main deficiency diseases.

Tanzania 0039 Schistosomiasis Control, Tanganyika  
(April 1967 - 1971) R  
To evaluate the extent of the schistosomiasis problem, starting in the Mwanza district, and to draw up, for that district, a control programme which could serve as a model for a future programme covering all endemic areas.

Tanzania 0043 Smallpox Eradication, Tanganyika  
(1967 - 1973) R  
To make a study of the smallpox situation and subsequently to carry out a smallpox eradication programme.

Tanzania 0200 Fellowships R: Corneo-plastics surgery (five weeks), dental technology (twelve months), environmental sanitation (eleven months), public health—diploma course (four months).

Tanzania 0201 Fellowships UNDP/TA: Surgery (twelve months).

Togo 0002 Tuberculosis Control  
(1962 - 1968) UNDP/TA  
To reorganize the rural health services, starting from a pilot area comprising Mbabane and the surrounding areas, and to train health service staff in tuberculosis control work.

Togo 0013 Nursing Services and Education  
(May 1963 - 1970) R  
To organize nursing and midwifery education.

Togo 0015 Environmental Sanitation  
(March 1962 - 1968) R UNICEF  
To train sanitation personnel; to set up a sanitation unit in the Ministry of Health and to plan a long-term environmental sanitation programme, starting with a pilot project.  
As from 1968 this project will be incorporated in a project for the development of basic health services (Togo 0029).

Togo 0017 Public Health Laboratory Services  
(1967 - 1968) UNDP/TA  
To organize, at the Ministry of Health, a unit that will be responsible for developing and co-ordinating health laboratory services integrated into the national health service, training personnel for the laboratory services, and providing health laboratory facilities for the control of the hygiene of food and beverages.  
As from 1968 this project will form part of an epidemiological services project (Togo 0030).

Togo 0024 Epidemiological Services (1962 - 1968) UNDP/TA  
To organize an epidemiological unit in the Ministry of Health with a view to co-ordinating activities for the control of communicable diseases.  
As from 1968 this project will be combined with a project for the development of public health laboratory services to form an epidemiological services project (Togo 0030) with a broader aim.

Togo 0028 Water Supply Study  
(Oct. 1966 - March 1967) UNDP/TA  
WHO provided a consultant to make a study of the water supply and distribution system of Lomé.

Togo 0200 Fellowships R: Audiovisual techniques (nine months), hospital administration (twelve months), morbid anatomy (nine months), pneumo-pneumothorax (six weeks), undergraduate medical studies (three for twelve months).

Uganda 0007 Maternal and Child Health  
The aim was to expand maternal and child health services and to train staff. WHO provided a medical officer from the beginning of 1964 and a non-medical nutritionist and a public health nurse from 1965. Maternal and child health work was integrated into the expanded rural health services. Ten children's wards were added to hospitals and eight health centres and twelve dispensaries were constructed. A system of regular visits by senior paediatricians and obstetricians from Makerere College, Kampala, to rural health units was instituted. A post of senior medical officer (maternal and child health) was created in the Ministry of Health; this officer co-ordinates all maternal and child health activities in the country.

Nutrition work formed a major part of the project; many mothers were instructed by African nutritionists in the preparation of food for children and a full-time school meals officer was appointed for schools in the Kampala district. A national immunization programme was started. In 1966 an antipoliomyelitis campaign was launched, and about 40 per cent. of the children were immunized. Poliomyelitis vaccination, as well as BCG, diphtheria/pertussis/tetanus and smallpox
vaccination, became part of the regular work of most of the health centres. A research unit financed by OXFAM was established.

**Uganda 0012 Malaria Pre-eradication Programme**
*(Nov. 1962 - 1968)* R
To evaluate and develop the rural health services; to carry out malariorientic surveys, to plan antimalaria operations in the former pilot operations area of Kigezi, and to improve the facilities for the diagnosis and treatment of malaria.
As from 1968 this project will be incorporated in a project for the development of basic health services (Uganda 0035).

**Uganda 0024 Health Education** *(Aug. 1965 - 1970)* UNDP/TA
To develop the health education unit in the Ministry of Health, extend the use of health education methods and expand health education training at the University of East Africa.

**Uganda 0030 Tuberculosis Control** *(Jan. 1965 - 1968)* UNDP/TA
To carry out, in a pilot area, a study of measures to improve the efficiency of the country-wide tuberculosis campaign.
As from 1968 this project will be incorporated in an epidemiological services project (Uganda 0036).

**Uganda 0032 Irrigation and Pilot Demonstration Project, Mubuku** *(Feb. - March 1967)* UNDP/ST (FAO)
Two WHO consultants made an epidemiological and environmental health assessment in the Mubuku area, in connexion with a pilot irrigation and agricultural settlement project, assisted by the United Nations Development Programme (Special Fund component) with FAO as the executing agency.

**Uganda 0200 Fellowships R:** Biochemical and clinical diagnostic methods (five months), national health services organization (nine weeks), tumour chemotherapy (two months), virology—diagnostic procedures (two months).

To carry out a smallpox eradication programme.

**Upper Volta 0008 Public Health Advisory Services** *(1961 - 1963; Sept. 1965 - 1968)* UNDP/TA
To prepare a health services development plan covering five to ten years and to train health personnel.
As from 1968 this project will be incorporated into a project for the development of basic health services (Upper Volta 0021).

**Zambia 0006 Leprosy Control Advisory Services** *(Sept. - Nov. 1967)* R
WHO provided a consultant to make an assessment of the leprosy control programme and recommendations for future work.

**Zambia 0008 Environmental Health Services** *(1966 - 1970)* R UNICEF
To set up an environmental health unit at the central level; to plan a long-term sanitation programme, and to train health inspectors.

To develop a public health nursing service and to establish education and training programmes to meet its needs.

**Zambia 0013 Smallpox Eradication** *(1967 - 1971)* R
To implement the attack phase of the smallpox eradication programme launched in 1965, and to build up an epidemiological surveillance system.

**Zambia 0200 Fellowships R:** Health education (fifteen months).

**AFRO 0048 Malaria Advisory Services** *(Aug. - Sept. 1967)* R
A WHO consultant visited the Ivory Coast, Nigeria and Sierra Leone, where he initiated surveys of the rodent populations for the presence of parasites of rodent malaria which could be used in research. These investigations are being continued by three centres in the countries concerned.

**AFRO 0053 Epidemiological Centre, Nairobi** *(June 1960 - )* R
To assist in technical planning and in the design and reporting of epidemiological investigations; and to process, evaluate, analyse and follow up the epidemiological and statistical material received from the projects concerned.

**AFRO 0087 Centre for Post-basic Nursing Education, University of Ibadan** *(April 1962 - 1972)* R UNICEF
To develop the Department of Nursing at the University of Ibadan as a centre for preparing nurses of a high educational level to provide professional guidance in the improvement and extension of nursing services.

**AFRO 0094 Schistosomiasis Advisory Team** *(Feb. 1967 - 1970)* R
To assist in assessing the schistosomiasis problem in various countries, in studying the epidemiological pattern of the disease and in evolving suitable control methods; also to carry out surveys on health problems resulting from the development of power or irrigation schemes.

**AFRO 0101 Cerebrospinal Meningitis Control** *(1960 - )* R
To assist in controlling epidemics of cerebrospinal meningitis in countries of the Region.

**AFRO 0105 Malaria Eradication Training Centre (English Language), Lagos** *(Oct. 1961 - 1972)* R
To teach professional and technical national personnel techniques and methods currently recommended for malaria pre-eradication and eradication programmes, with increased emphasis on the public health aspects of such programmes.

**AFRO 0125 Treponematoses Advisory Team** *(Sept. 1965 - 1970)* UNDP/TA
A mobile team to evaluate treponematoses control projects and advise governments on their further development.

**AFRO 0128 Malaria Eradication Training Centre (French Language), Lomé** *(1962 - 1972)* R
To teach professional and technical national personnel techniques and methods currently recommended for malaria pre-eradication and eradication programmes, with increased emphasis on the public health aspects of such programmes.

**AFRO 0131 Onchocerciasis Advisory Team** *(1966 - 1970)* UNDP/TA
To assist governments in assessing the problem of onchocerciasis and in drawing up control programmes.
AFRO 0134 Department of Paediatrics, University of Ibadan (1962 - 1966) R

An annual grant was provided from 1963 to 1966 to the University of Ibadan to enable a Chair of Paediatrics to be established.


The Commission jointly sponsored by FAO, WHO and the Scientific, Technical and Research Commission of the Organization of African Unity (which has taken over the responsibilities previously assumed by the Commission for Technical Cooperation in Africa) facilitates contacts between specialists interested in nutrition problems in Africa. The Commission is also responsible for the preparation and distribution in two languages of bulletins concerning all nutrition work in Africa.


To assist in planning and/or initiating smallpox control projects leading to full-scale eradication programmes.

AFRO 0146 Seminar on Cerebrospinal Meningitis, Bobo Dioulasso, Upper Volta (13 - 17 March 1967) R (OCCGE)

The purpose of the seminar was to enable medical officers in countries in the meningitis belt who are responsible for the control of cerebrospinal meningitis to discuss problems and familiarize themselves with recent studies undertaken by specialists in this field. It was organized in collaboration with the Government of Upper Volta and the Organisation de Coordination et de Coopération pour la Lutte contre les Grandes Endémies (OCCGE) and was held at the Centre Muraz in Bobo Dioulasso. There were twelve participants from Cameroon, Chad, Dahomey, Ghana, Guinea, Ivory Coast, Mali, Niger, Nigeria, Senegal, Togo and Upper Volta, and six observers. Epidemiological, clinical, bacteriological, therapeutic and preventive aspects of the disease were considered, and clinical and bacteriological demonstrations and an epidemiological field survey were organized. The discussions revealed a need for more accurate and thorough epidemiological studies of the disease.

WHO provided a consultant and the cost of attendance of the participants.

AFRO 0166 Department of Preventive Medicine, Makerere College, University of East Africa, Kampala (1966 - 1969) R

To assist the Department of Preventive Medicine of Makerere College.

AFRO 0167 Advisory Services in Nutrition (April 1965 - 1970) R

To assist and advise on the development of nutrition work in national public health services; to organize nutrition units, train local staff and develop nutrition education and nutritional rehabilitation programmes in health centres.


To assist with courses for training in vital and health statistics, held at the Centre international de Formation statistique, Yaoundé, established by the Economic Commission for Africa and the Government of Cameroon.

AFRO 0183 Public Health Advisory Services (Jan. 1966 - 1972) R

To assist governments in the Region in preparing plans for basic health services within the framework of national public health plans; and to assist in evaluating projects for the development of health services.

AFRO 0188 Teaching of Epidemiology (July 1967 - 1970) R

To promote the organization of undergraduate and post-graduate programmes in epidemiology and vital and health statistics for students from East African countries.

AFRO 0197 Centre for Post-basic Nursing Education, Dakar (1967 - 1972) R

To assist in establishing a centre which will provide facilities for post-basic education in all fields of nursing for nursing personnel from French-speaking African countries.

AFRO 0200 Fellowships R: Congo (Democratic Republic of) —public health nursing (twelve months); Ghana—nutrition—diploma course (twelve months).

AFRO 0203 Department of Obstetrics and Gynaecology, Makerere College, University of East Africa, Kampala (1966 - ) R UNICEF

To assist the Department of Obstetrics and Gynaecology of Makerere College in strengthening the teaching of paediatrics, obstetrics, gynaecology and midwifery for medical and paramedical staff and in extending research activities.

AFRO 0204 Regional Malaria Advisory Team (Oct. 1967 - 1972) R

To provide for the assessment of the malaria situation in the countries of the Region, and to assist in the planning, implementation and evaluation of antimalaria activities feasible under local conditions.
THE AMERICAS

Argentina 0200 Malaria Eradication Programme
(1951 - 1971) PAHO Special Malaria Fund UNICEF
To eradicate malaria from the country by stages.

Argentina 0300 Smallpox Eradication (1954 - ) R
To intensify smallpox vaccination programmes and increase the production of smallpox vaccine.

Argentina 0400 Tuberculosis Control
(March 1960 - 1969) R PAHO
To organize and develop, in the demonstration area of the Province of Santa Fé, a national tuberculosis control centre for obtaining epidemiological data, applying and evaluating tuberculosis control methods, and training personnel from Argentina and from other countries.

Argentina 0500 Leprosy Control (1960 - 1966) R
The aim was to organize and carry out a national leprosy control programme. The Organization provided advisory services from consultants assigned to inter-country leprosy control projects, and fellowships.

The programme covered the provinces of Buenos Aires, Córdoba, Entre Ríos, Formosa, Misiones, Salta, Santa Fé and Tucumán. It resulted in a considerable increase in case-finding, and by the end of September 1966 over 13 000 leprosy patients had been registered; some 6500 were hospitalized and the rest were given ambulatory treatment.

Towards the end of 1966 an analysis was made of the objectives, achievements and administrative structure of the programme, and of its cost, to serve as a basis for planning future work.

Argentina 0700 Pan American Zoonoses Centre
(1966 - 1971) UNDP/SF
To strengthen the Pan American Zoonoses Centre (see project AMRO 0700 below).

Argentina 2200 Water Supplies
(1961 - 1971) PAHO Community Water Supply Fund
To prepare and implement plans for the construction and expansion of water supply and sewerage systems.

Argentina 3100 National Health Services (1966 - 1970) R PAHO
To improve the health services. Under this project assistance is provided to the Ministry of Welfare and Public Health in health planning, the supervision and evaluation of programmes, training and research.

Argentina 3101 Fellowships R: Clinical and social paediatrics (four for three months), epidemiology (two for eleven and a half months), health education (two for twelve months), hospital administration (three weeks), maternal and child health (one for one month, two for ten months), medical care (two for four months), nursing education (one for seven months, two for ten months), nursing services (three for ten months), public health administration (ten months), sanitary engineering (two weeks), sanitary engineering education (twelve months), schistosomiasis (one for one month, one for two months), tuberculosis (one month); PAHO: Epidemiology (one for nine months, one for twelve months), nutrition (twelve months), public health administration (four months), public health nursing (ten and a half months), public health planning (three and a half months).

Argentina 3102 Health Services, North-western Provinces
(1957 - 1969) UNDP/TA
To organize regionally based health services to serve the provinces of Tucumán, Salta, Jujuy, Catamarca and Santiago del Estero.

Argentina 3104 Health Services, Cuyo Region
(1961 - ) PAHO
To organize regionally based health services to serve the provinces of San Juan, Mendoza, San Luis, and Neuquén.

Argentina 3500 Health Statistics (1960 - 1971) PAHO
To improve the collection and publication of health statistical information and to reorganize the central statistical unit in the Ministry of Welfare and Public Health.

Argentina 4102 Nursing and Midwifery (1965 - 1970) PAHO
To continue the development of short- and long-term programmes for training midwives in nursing and nurses in midwifery.

Argentina 4200 Nutrition (1966 - 1968) PAHO
To carry out a nutrition education campaign in the north-west of the country.

Argentina 4300 Mental Health (1966 - 1969) PAHO
To formulate a national mental health plan and to carry out epidemiological research on mental illness.

Argentina 4302 Research in Psychiatry
(1964 - Dec. 1967) Grant to PAHO: Foundations Fund for Research in Psychiatry
To conduct research on the interaction between family members of schizophrenics.

Argentina 4600 Industrial Hygiene (1966 - 1967) PAHO
The Organization provided consultant services to assist the Government in defining the industrial hygiene problems in greater Buenos Aires, in preparation for a control programme.

Argentina 4700 Food Control (1967 - 1968) UNDP/TA
To train personnel in various aspects of food inspection.
Argentina 4800  Medical Care Services  
(1958 - Dec. 1967) PAHO  
To make studies on medical care problems and resources and on the organization of medical care and health establishments and their integration into the general health services; and to train personnel in hospital organization and administration.

Argentina 4801  Rehabilitation  
(1966 - 1969) UNDP/TA PAHO  
To train technicians in prosthesis and in the production of orthopaedic devices.

Argentina 4803  Latin American Centre for Medical Administration  
(1967 - ) PAHO  
To establish and develop a centre that will study national problems in the provision and administration of medical care services and train personnel for technical and administrative posts in hospitals and other health institutions, and that will eventually serve as a Latin American centre for operational research in the management of medical services and for training in medical administration.

Argentina 6100  School of Public Health  
To strengthen the School of Public Health of the University of Buenos Aires, in order to enable it to prepare adequately professional and auxiliary health workers for the country's developing health programmes.

Argentina 6200  Medical Education  
(1958 - 1969) R  
To improve the medical education programmes of the schools of medicine by planning teaching and scientific research so as to meet the country's needs for physicians and research workers; and to improve the organization and administration of the schools.

Argentina 6300  Nursing Education  
(1957 - 1970) UNDP/TA PAHO  
To improve teaching in the schools of nursing of the Universities of Buenos Aires, Córdoba, Litoral and Tucumán, and the schools of nursing of the Army and of the Ministry of Welfare and Public Health,

Argentina 6301  Training of Nursing Personnel  
(1960 - 1969) PAHO  
To give courses for professional and auxiliary nursing personnel in order to improve the country's public health services.

Argentina 6400  Sanitary Engineering Education  
(1960 - 1970) PAHO  
To strengthen the teaching at the School of Sanitary Engineering of the University of Buenos Aires.

Argentina 6700  Training of Statistical Personnel  
(1965 - 1977) PAHO  
To strengthen the teaching of health statistics at the School of Public Health of the University of Buenos Aires, which provides courses in health statistics for personnel of various levels in the national and provincial health administrations, including a nine-month annual course for training intermediate-level statisticians and personnel responsible for statistics offices and departments of hospital statistics.

Barbados 2200  Water Supplies  
(1964 - ) UNDP/TA  
To prepare plans for water supply systems.

Barbados 4801  Hospital Administration  
(1965 - 1968) UNDP/TA  
To organize and operate the Queen Elizabeth Hospital as the central medical care institution of Barbados and as a teaching hospital for the University of the West Indies.

Barbados 6300  Nursing Education  
(1965 - 1969) PAHO  
To strengthen basic and post-basic nursing and midwifery education, in order to improve patient care.

Bolivia 0200  Malaria Eradication Programme  
(1957 - 1971) PAHO UNICEF (AID)  
To eradicate malaria from the country.

Bolivia 0300  Smallpox Eradication  
(1962 - 1968) R UNDP/TA  
To continue the smallpox vaccination programme, begun in 1957.

Bolivia 2200  Water Supplies  
(July - Aug. 1967) PAHO Community Water Supply Fund  
A consultant was provided to advise on the expansion of water supply systems.

Bolivia 3100  Health Services  
(1955 - 1969) R PAHO  
To improve the national health services at the central and local levels; and to train professional and auxiliary personnel.

Bolivia 3101  National Plan for Rural Development  
(1953 - ) UNDP/TA (UN) (FAO) (ILO) (UNESCO)  
To promote the economic, social and health development of the rural populations of the Andean Highlands, so as to facilitate their integration into the national community.

Bolivia 3102  Fellowships R: Clinical and social paediatrics (three months), hospital planning (two weeks), smallpox laboratory services (two weeks).

Bolivia 3104  Health Services, Cochabamba and Tarija  
(1967 - 1969) UNDP/TA  
To develop the health services in the Cochabamba-Tarija area.

Bolivia 6400  Sanitary Engineering Education  
(1964 - 1969) PAHO  
To increase the number of sanitary engineers and improve their training.

Bolivia 6500  Veterinary Medicine Education  
(1967 - ) PAHO  
To improve the teaching at the School of Veterinary Medicine of the University of Santa Cruz.

Brazil 0200  Malaria Eradication Programme  
(1958 - 1975) R PAHO Special Malaria Fund (AID)  
To eradicate malaria from the country by a phased programme. (São Paulo State is covered by project Brazil 0201 — see below).
Brazil 0201 Malaria Eradication Programme, São Paulo (1958 - 1968) PAHO Special Malaria Fund (AID)
To eradicate malaria from São Paulo state.

Brazil 0202 Training Centre for Malaria Eradication (1958 - 1969) PAHO PAHO Special Malaria Fund
To train professional and auxiliary personnel for the malaria eradication programmes of Brazil and other Latin American countries.

Brazil 0300 Smallpox Eradication (1956 - 1969) R PAHO (AID)
To implement a systematic smallpox eradication programme by reorganization of the previous campaign, and to set up laboratories to produce enough freeze-dried vaccine to meet the needs of the programme.

Brazil 0600 Yaws Eradication (Feb. - Nov. 1967) R
A consultant was provided to assist in the preparation of sero-epidemiological studies of yaws as a basis for further work in this field.

Brazil 0701 Rabies Control (1959 - 1969) R
To develop the national and state health services needed for producing antirabies vaccine and carrying out rabies control programmes.

Brazil 0900 Schistosomiasis (1961 - 1970) PAHO
To plan and carry out a pilot programme on schistosomiasis and to expand research work on the disease.

Brazil 0901 Plague Research (1965 - 1971) R
To plan and carry out a research programme that could serve as a basis for a reorientation of the control of plague in the country.

To improve the organization of the environmental sanitation services of the Ministry of Health, and to train professional and auxiliary engineering personnel.

Brazil 2101 Air and Water Pollution Control (1963 - 1969) UNDP/TA
To plan and carry out programmes for the control of air and surface water pollution in the state of São Paulo, its capital, and neighbouring municipalities.

Brazil 2200 Water Supplies (1962 - ) PAHO Community Water Supply Fund (AID) (Inter-American Development Bank)
To draw up plans for water supply systems.

Brazil 3101 Health Services, North-eastern States (1958 - 1970) R UNDP/TA PAHO UNICEF
To promote the development of general health services in certain areas of nine states in the north-eastern part of Brazil.

Brazil 3105 Fellowships R: Air pollution control (four months), biophysics (twelve months), cytology (one for ten weeks, one for six months), dental education (three months), medical education (two for two weeks), public health administration (five months), tuberculosis (one month); PAHO: Public health planning (two for three and a half months).

Brazil 3200 Nursing (1953 - ) PAHO
To develop basic research in nursing and the education of professional and auxiliary nursing and midwifery personnel, and to improve the organization of nursing services.

Brazil 3301 National Virus Laboratory Services (1959 - Dec. 1967) UNDP/TA
To expand laboratory facilities for the diagnosis of virus diseases, and to develop research programmes and the production of vaccine at the Oswaldo Cruz Institute.

Brazil 3302 Yellow Fever Laboratory (1950 - 1969) PAHO
To support the continent-wide campaign against yellow fever by providing laboratory diagnostic services and supplying yellow fever vaccine.

Brazil 3500 Health Statistics (1963 - 1972) R
To improve the vital and health statistics services, especially those related to the notification of communicable diseases; and to train personnel in vital and health statistics and in medical records and hospital statistics.

Brazil 3700 National Health Planning (1967 - 1972) PAHO
To formulate national and state health plans and to train health personnel.

Brazil 4200 Nutrition (1960 - 1969) R (FAO)
To improve the nutritional status of the population of the north-eastern part of Brazil through the maximum use of locally available foods, nutrition education and the organization of nutrition courses for professional and auxiliary personnel engaged in health work, education, and agriculture.

Brazil 4201 Nutrition Courses (1963 - 1970) PAHO
To establish courses for training physicians in public health nutrition at the Institute of Nutrition of the University of Pernambuco (formerly the University of Recife).

Brazil 4202 Nutrition, São Paulo (1964 - 1968) PAHO
To prepare, in co-operation with the School of Hygiene and Public Health of the University of São Paulo, nutrition personnel for the development of integrated health services.

Brazil 4203 Institute of Nutrition, Pernambuco (1964 - 1969) PAHO
To improve nutrition services in the north-east of Brazil, through applied research and training programmes to meet the needs of the area.

Brazil 4500 High Background Radiation Areas (1963 - 1967) PAHO
The aim was to carry out studies of the possible biological effects on the human population of abnormally high background radiation due to naturally high levels of radioactive elements in the ground. The Organization provided a consultant who
advised on and assisted in co-ordinating studies which were carried out by the Physics Department of the Catholic University of Rio de Janeiro and the Biophysics Department of the University of Brazil. Five fellowships in radiation physics, radiochemistry and cytogenetics were awarded to members of these departments.

In 1963 extensive physical measurements of radiation levels were begun in the monazite sand areas of Guarapari (Espírito Santo), on the Atlantic coast and in Meaipe (Minas Gerais). These indicated external levels of radiation higher than the normal background radiation. The human biological intake of the kind of heavy radionuclide present in the soil in Guarapari and Meaipe is minimal, probably because little food is locally grown; however, in the Araxá-Tapira area of Minas Gerais, where the produce grown for local consumption is greater, and where there are radioactive minerals in the farmland soil, it is possible to study the effects of high levels of radium in food.

Significantly more somatic chromosomal aberrations were found in inhabitants of Guarapari than in controls in Anchieta (Espírito Santo), where radiation levels are normal, but the type of chromosomal abnormalities, translocations and deletions appear to be characteristics of irradiation from internal emitters rather than from external sources.

As part of the environmental studies carried out in Minas Gerais, cataloguing of the flora and fauna in the Morro do Ferro area of Poços de Caldas was begun, as well as a special study to determine the radiation dose being received by burrowing rodents.

**Brazil 4800 Medical Care Services (1966 - 1969) PAHO**

To plan and organize medical care services, integrating as far as possible the services provided by the general health programmes, social security agencies and social welfare institutions, and to train personnel.

**Brazil 4801 Rehabilitation (1958 - ) UNDP/TA (ILO)**

To reorganize the Department of Occupational Therapy of the Institute of Rehabilitation, University of São Paulo; and to organize training courses and rehabilitation centres throughout the country.

**Brazil 4802 Training in Orthopaedic Brace-making (July - Aug. 1967) R**

A consultant was provided to assist with courses in the manufacture of prosthetic appliances and in their fitting and adjustment.

**Brazil 6100 School of Public Health, Rio de Janeiro (1956 - 1969) PAHO**

To improve the training given by the School of Public Health, by engaging full-time teaching staff, providing better practice areas and reorganizing the laboratory and library services.

**Brazil 6101 School of Public Health, São Paulo (1958 - 1969) R**

To strengthen the School of Hygiene and Public Health of the University of São Paulo, particularly to enable it to be used also as an international training centre.

**Brazil 6200 Medical Education (1965 - 1969) R PAHO**

To strengthen medical education in the country, particularly as regards the teaching of preventive and social medicine.

**Brazil 6202 Paediatric Education, Pernambuco (Oct. 1963 - 1969) PAHO UNICEF**

To improve the teaching of paediatrics in the School of Medicine of the University of Pernambuco (formerly the University of Recife), and to provide training in paediatrics, outside the regular medical courses, to professional and auxiliary personnel.

**Brazil 6203 Research Training (1965 - 1969) PAHO**

To develop a regional training centre for teachers and research workers in microbiology, using the facilities of the Institute of Microbiology in Rio de Janeiro.

**Brazil 6221 Library of Medicine (1967 - ) Grants to PAHO**

To establish a library of medicine, with a computer system for information storage and retrieval, that will serve as a source of medical information and as a demonstration and training centre for the Latin American countries. Support to the project is given by the Ministry of Education and Culture, the Ministry of Health and the Paulista School of Medicine, and by the United States National Library of Medicine and the Commonwealth Fund of New York.

**Brazil 6302 Training of Nursing Auxiliaries (1963 - 1969) PAHO**

To increase the number and improve the quality of the training of nursing auxiliaries.

**Brazil 6400 Institute of Sanitary Engineering, Rio de Janeiro (1964 - 1968) UNDP/IF**

To combine the sanitary engineering laboratory facilities of the Institute of Sanitary Engineering with those of the College of Engineering of the University of Guanabara; and to develop the combined laboratory facilities as a centre for sanitary engineering training, research, and service for all the training institutions in the Rio de Janeiro area.

**Brazil 6401 Sanitary Engineering Education (1965 - 1970) PAHO**

To organize short courses in connexion with water supply programmes in the Universities of Bahia, Paraiba, Paraná, Porto Alegre, Pernambuco (Recife), and São Paulo.

**Brazil 6500 Veterinary Medicine Education (1960 - 1969) PAHO**

To improve the teaching of public health and related subjects in the schools of veterinary medicine.

**Brazil 6700 Biostatistics Education and Population Dynamics (1965 - 1969) R**

To develop research and instruction in the interrelationship between health and population structure and movement, and their association with economic and social processes in Brazil.

**British Honduras 0200 Malaria Eradication Programme (1956 - 1969) PAHO Special Malaria Fund UNICEF**

To eradicate malaria from the country.
British Honduras 2200 Water Supplies (1964 - 1969) PAHO
To place the management of water supply and sewerage services under a central authority; to expand the water supply services of Belize and Stann Creek; and to develop a programme for the construction of rural waterworks.

British Honduras 3100 Health Services (1962 - 1969) R
To reorganize, expand, and improve the general health services, including environmental sanitation.

Canada 3101 Fellowships R: Maternal and child health (one for one week, one for two months, one for nine months), medical care administration (twelve months), nursing education (two months), public health nursing (twelve months), sanitary engineering (twelve months).

Chile 0300 Smallpox Eradication (1967 - ) R
To carry out smallpox vaccination so as to maintain the level of immunity in the population and to increase the production of smallpox vaccine for the purpose; also to extend the epidemiological surveillance service to cover the whole country.

Chile 0600 Venereal Disease Control (1965 - 1969) PAHO
To intensify the programme for the control of venereal diseases in the light of a rising incidence in recent years.

Chile 2200 Water Supplies (1960 - 1967) R PAHO
The Organization provided the services of the sanitary engineers assigned to the health services project (Chile 3100) and the zone sanitary engineering project (AMRO 2106), and of a consultant for one month in 1967 to assist in planning and implementing a national water supply programme which included the expansion of the Santiago water supply system.

Chile 3100 Health Services (1961 - 1969) R PAHO UNICEF
To strengthen the health services in the southern part of the country in order to meet the needs of the population of the area devastated by an earthquake in 1960 (34 per cent. of the total population); and to provide water supply and sewerage services to the 960,000 rural inhabitants of the area.

Chile 3101 Fellowships R: Dental public health (nine weeks), midwifery (six weeks), smallpox laboratory services (two weeks), surgery (four months), tuberculosis (one for one month, two for two months).

Chile 3200 Nursing (1960 - 1969) R
To improve the quality of the nursing care given by the health services, and to train professional and auxiliary personnel.

Chile 4300 Mental Health (1965 - 1969) PAHO
To conduct epidemiological studies on mental diseases and to develop methods and procedures for psychiatric care in the communities.

Chile 4601 Institute of Occupational Health and Air Pollution Research (1961 - 1968) UNDP/SF
To contribute to the solution of problems of industrial hygiene and occupational health. The Institute trains personnel, carries out research, advises the Government and private organizations on subjects within its competence, and assists in matters relating to labour legislation.

Chile 4800 Medical Care Services (1966 - ) PAHO
To organize and improve centres for intensive care and emergency treatment at university hospitals in Santiago.

Chile 4801 Rehabilitation (1960 - 1969) UNDP/TA
To plan a medical rehabilitation programme for the whole country, co-ordinating all available resources; to organize a rehabilitation centre in Santiago, with a prosthetics workshop and facilities for training personnel; and to establish rehabilitation services in certain provincial cities.

Chile 4802 Cancer (1965 - 1969) PAHO
To organize a department of cytology for screening and detection of cancer of the uterine cervix as a first step in a programme of control of this type of tumour.

Chile 6100 School of Public Health (1963 - 1969) R
To strengthen the teaching at the School of Public Health of the University of Chile, and to expand its facilities for training students from other countries of the Americas.

Chile 6200 Medical Education (1962 - 1969) PAHO
To provide courses in medical teaching methodology at the School of Medicine of the University of Chile, Santiago.

Chile 6201 Training in the Medical Use of Radioisotopes (1962 - 1969) PAHO (Kellogg Foundation)
To set up at Salvador Hospital, in connexion with the University of Chile, a Latin American centre for training physicians in the medical uses of radioisotopes.

Chile 6400 Sanitary Engineering Education (1964 - 1969) R
To strengthen the teaching of sanitary engineering in the School of Engineering of the University of Chile.

Chile 6500 Veterinary Medicine Education (1966 - 1971) PAHO
To improve and extend the training provided by the School of Veterinary Medicine of the University of Chile.

Chile 6600 Dental Education (1966 - ) R
To strengthen the department of preventive and social medicine, in order to add the teaching of preventive and social aspects of dentistry to the curriculum of the school of dentistry of the University of Concepcion.

Colombia 0200 Malaria Eradication Programme (1959 - 1971) PAHO PAHO Special Malaria Fund UNICEF
To eradicate malaria from the country.

Colombia 0300 Smallpox Eradication (1967 - ) R
To carry out a campaign aimed at vaccinating at least 80 per cent. of the population against smallpox.

THE WORK OF WHO, 1967
Colombia 2200  Water Supplies
(1960 - 1969) PAHO Community Water Supply Fund (AID)
(International Bank for Reconstruction and Development)
(Inter-American Development Bank)
To plan and carry out a national water supply programme,
and to make a study of the planning, design, financing, construction
and operation of municipal water supply services.

Colombia 2300  Aedes aegypti Eradication (1951 - 1969) PAHO
To eradicate Aedes aegypti.

Colombia 3100  Health Services
To prepare a national health plan; to strengthen the Ministry
of Public Health and the departmental and local services; to extend
integrated health services to the entire population; and to train professional and auxiliary personnel.

Colombia 3301  National Institute of Health (Carlos Finlay)
(1950 -  ) PAHO
To strengthen the services (research, laboratory diagnosis,
and vaccine preparation) which the yellow fever department of
the National Institute of Health provides to other countries in connexion with the yellow fever eradication campaign in the Americas.

Colombia 4200  Nutrition (1961 -  ) PAHO (FAO)
To improve the level of nutrition in the Departments of
Caldas, Cauca and Norte de Santander by means of a cooperative programme involving health, education and agricultural services at the local level.

Colombia 6100  School of Public Health (1959 - 1969) R
To develop and improve the organization of the School of
Public Health of the University of Antioquia.

Colombia 6200  Health Manpower Studies
(1964 - 1967) PAHO (Milbank Memorial Fund)
The aim was to carry out a study of health manpower requirements and resources, and to work out methods for increasing those services suitable for application also in other Latin American countries. The Organization provided eight consultants, a fellowship, and supplies and equipment.
A census was taken of almost eighty per cent. of the medical manpower (physicians and nurses) and plans were made for a sample study of their professional activities. A survey was made of the organization and teaching capacity of the medical and nursing schools. In August 1967 the first health survey to cover the whole country was begun.

Colombia 6201  Medical Education (1965 - 1972) R PAHO
To provide continuous training to physicians from rural areas.

Colombia 6400  Sanitary Engineering Education
(1964 - 1969) PAHO (UNESCO)
To improve the technical training of engineers working in sanitary engineering, and to promote the development of a sanitary engineering research centre in the National University of Colombia.

Colombia 6600  Dental and Medical Education
(1961 - 1969) PAHO (Kellogg Foundation)
To include preventive dentistry in the courses of the School of Dentistry of the University of Antioquia; and to establish a centre for research on dentistry, in which particular attention will be paid to the public health aspects.

Costa Rica 0200  Malaria Eradication Programme
(1956 - 1971) R PAHO Special Malaria Fund UNICEF (AID)
To eradicate malaria from the country.

Costa Rica 2200  Water Supplies (1960 - 1969) R
To draw up programmes for providing public water supply and sewerage systems to urban and rural communities; and to establish a national water supply and sewerage service.

Costa Rica 3100  Health Services (1959 - 1969) PAHO
To prepare and implement a national health plan as part of the national economic and social development plan; to expand and improve the administration of the health services, including the medical care services; to train professional and auxiliary personnel; and to carry out an extensive rural sanitation programme.

Costa Rica 3101  Fellowships R: Anaesthesiology (twelve
months), clinical and social paediatrics (three months), medical
education (three for two weeks), medical use of radioisotopes
eight months), sanitary engineering (five for eleven months),
tuberculosis (one month).

Costa Rica 3300  Laboratory Services (1967 -  ) PAHO
To extend the network of laboratories, improve and modernize laboratory techniques, and train personnel.

Costa Rica 6300  Advanced Nursing Education
(1959 - 1969) PAHO
To set up, at the school of nursing of Costa Rica, an advanced education centre to train nurses in teaching, in supervision, and in other specialties; and to evaluate the work of the school.

Costa Rica 6400  Sanitary Engineering Education
(1965 - 1969) PAHO
To improve the teaching of sanitary engineering at the University of Costa Rica.

Costa Rica 6700  Biostatistics Education (1967 -  ) R
To prepare a programme for the training of professional,
technical and auxiliary level personnel working in vital and
health statistics and hospital statistics services.

Cuba 0200  Malaria Eradication Programme (1959 - 1969) R
To eradicate malaria from the country and prevent the re-establishment of transmission.

Cuba 0300  Smallpox Eradication (July 1967) R
A consultant was provided to advise on production of vaccine for the smallpox eradication programme.
Cuba 2300 Aedes aegypti Eradication (1953 - 1969) PAHO
To eradicate Aedes aegypti.

Cuba 3100 Health Services (1959 - 1969) UNDP/TA
To improve the organization of health services at the central, intermediate, and local levels, and to set up a demonstration and training area.

Cuba 4200 Nutrition (1965 - 1969) UNDP/TA
To improve the nutritional status of the population.

Cuba 6100 School of Public Health (1967 - 1969) R
To develop the School of Public Health.

Dominican Republic 0200 Malaria Eradication Programme (1957 - 1969) PAHO Special Malaria Fund UNICEF
To eradicate malaria from the country.

Dominican Republic 2200 Water Supplies (1961 - 1969) PAHO (AID)
To organize a central water supply and sewerage authority; to design water supply and sewerage systems and to obtain loans for constructing them from international credit agencies.

Dominican Republic 3100 Health Services (1953 - 1969) R UNDP/TA PAHO
To improve the organization of health services at the central, intermediate and local levels; and to expand the local services in order to provide integrated services to the whole country.

Dominican Republic 4200 Nutrition (1965 - 1969) R
To develop a programme of nutrition education.

Dominican Republic 4800 Medical Care Services (1966 - 1967) PAHO
Two consultants were provided in 1966 and one in 1967 to advise on the administration of the resources available for medical care services.

Dominican Republic 6300 Nursing Education (1958 - 1969) R
To strengthen the National School of Nursing by preparing nurses for the faculty, improving physical facilities and areas for field practice, and expanding the curriculum to include public health nursing and courses in teaching and supervision.

Ecuador 0200 Malaria Eradication Programme (1956 - 1977) PAHO Special Malaria Fund (AID)
To eradicate malaria from the country.

Ecuador 0400 Tuberculosis Control (1966 - 1967) PAHO
The Organization provided a consultant and the services of personnel assigned to the inter-zone and Zone IV tuberculosis control projects to assist in planning a programme of tuberculosis control, integrated into the general health services, in the Province of Manabi.

Ecuador 0900 Plague Control (1965 - 1978) R
To develop an effective plague control programme in the endemic areas.

Ecuador 2200 Water Supplies (1961 - ) R
To expand the Quito water supply system and to plan for the construction of water supply systems for other cities.

Ecuador 3100 Health Services (1953 - 1969) R UNDP/TA PAHO UNICEF
To develop integrated public health services at the national and local levels, and especially in the Province of Manabi.

Ecuador 3101 Fellowships PAHO: Dental public health (six weeks), hospital construction (two weeks), pharmacology (three months), public health administration (five months), public health planning (three and a half months), sanitary engineering (eight and three quarter months).

Ecuador 3102 Rural Medical Services (1956 - 1970) PAHO UNICEF (UN) (FAO) (ILO) (UNESCO)
To promote the economic, social and health development of the rural populations of the Andean Highlands, in order to facilitate their integration into the national community.

Ecuador 3301 National Institute of Health (1952 - ) PAHO
To promote the development of various sections of the National Institute of Health.

Ecuador 4203 Nutrition, Portoviejo (1956 - 1968) Grant to PAHO: Williams-Waterman Fund
To conduct a study on the prevalence of protein-calorie malnutrition in Portoviejo, Province of Manabi, and to set up a nutrition rehabilitation centre.

Ecuador 6300 Nursing Education (1957 - 1969) R PAHO
To improve the organization and teaching at the school of nursing of the School of Medical Sciences of the University of Guayas, in Guayaquil, by preparing instructors, broadening the curriculum to include public health nursing and principles of teaching and supervision, and improving the physical facilities.

El Salvador 0200 Malaria Eradication Programme (1955 - 1971) R PAHO Special Malaria Fund UNICEF (AID)
To eradicate malaria from the country.

To organize and administer a central water supply and sewage disposal service and to extend the country's water supply systems.

El Salvador 3100 Health Services (1963 - 1969) UNDP/TA PAHO
To plan and carry out integrated health programmes as part of a national health plan.

El Salvador 3101 Fellowships R: Dental education — pharmacology (three months), hospital administration (fifteen months), internal medicine — organization of teaching (six months), medical education (two for two weeks, one for six weeks), medical records (five months), midwifery (ten and a half months), nursing education (four for ten months), prematurity (one month), zoonoses bacteriology (six months); PAHO: Medical education — pharmacology (ten weeks).
French Antilles and Guiana 0200 Malaria Eradication Programme (1963 - 1969) PAHO Special Malaria Fund
To eradicate malaria from the departments.

French Antilles and Guiana 3300 Virus Laboratory (1967 - 1971) PAHO
To develop the virus research laboratory being set up by the Pasteur Institute in Cayenne. The first stage of the work comprises the organization of the laboratory, training of personnel, establishment of a catching station, collection of mosquitoes and rodents, isolation of viruses and preparation of antigens. The second stage provides for a study of the population.

Guatemala 0200 Malaria Eradication Programme (1955 - 1971) MESA PAHO Special Malaria Fund UNICEF (AID)
To eradicate malaria from the country.

Guatemala 2101 Rural Sanitation (1965 - 1967) UNDP/TA
The aim was to provide water supply and sewage disposal systems for half the rural population. The Organization provided a sanitary engineer and advisory services by personnel attached to the zone water supplies project (AMRO 2203).

The construction of six rural water supply systems, begun in 1965, was completed, and work was started on fourteen more systems. These twenty systems will serve 23,000 people. An international loan was obtained for the construction of ninety small water supply installations to serve 90,000 people. More than 203,000 sanitary inspections were carried out throughout the country. The first special course for health inspectors was started in the third quarter of 1966 with sixteen students.

Guatemala 2200 Water Supplies (1961 - ) PAHO
To develop and improve water supply and sewage disposal systems.

Guatemala 3100 Health Services (1954 - 1971) R PAHO UNICEF
To formulate and carry out a national health plan which will include the extension of health services to cover the whole population; and to train professional and auxiliary personnel.

To study and evaluate the services provided by the central and local public health laboratories; to plan programmes for the Biological Institute and for all laboratories functioning at other levels; to set up local laboratories where necessary; and to train personnel.

Guatemala 6500 Veterinary Medicine Education (1962 - 1969) PAHO
To strengthen the School of Veterinary Medicine of the University of San Carlos, especially as regards the teaching of public health and preventive medicine.

Guyana 0200 Malaria Eradication Programme (1961 - 1969) PAHO Special Malaria Fund UNICEF
To eradicate malaria from the country.

Guyana 3100 Health Services (1963 - 1969) R
To reorganize, expand, and integrate the health and environmental sanitation services in the heavily populated coastal area and in isolated communities in the interior.

Guyana 3200 Nursing Services (1960 - 1970) UNDP/TA PAHO
To develop the nursing services and provide nurses with further training in nursing administration.

Haiti 0200 Malaria Eradication Programme (1961 - 1971) PAHO Special Malaria Fund UNICEF (AID)
To eradicate malaria from the country.

Haiti 2200 Water Supplies (1960 - 1969) PAHO
To plan, design, and finance an extension of the water supply system of Port-au-Prince and, later, to plan systems for the rest of the country.

Haiti 3100 Health Services (1957 - 1969) UNDP/TA PAHO
To develop integrated public health services at the central, intermediate and local levels, to develop the services in a demonstration area set up in the Western Department, and to train personnel.

Haiti 3300 Laboratory Services (1953 - 1969) PAHO
To strengthen the organization of the public health laboratory; to set up subsidiary laboratories in three local areas; and to improve the organization of hospital laboratories and dispensaries in the region damaged by the hurricane Flora.

Haiti 4200 Nutrition Programme (1961 - 1969) PAHO Grant to PAHO: Williams-Waterman Fund (FAO)
To carry out a nutrition programme; and to establish an agency to co-ordinate the nutrition work of the Ministries of Health, of Education, and of Agriculture.

Haiti 4204 Nutrition and Maternal and Child Health (1965 - 1968) Grants to PAHO: Foundation for International Child Health; Unitarian Universalist Committee; Williams-Waterman Fund
To strengthen the nutrition education work carried out by the Mother and Child Health Centre of the Port-au-Prince General Hospital.

Honduras 0200 Malaria Eradication Programme (1956 - 1971) R PAHO Special Malaria Fund UNICEF (AID)
To eradicate malaria from the country.

Honduras 2200 Water Supplies (1960 - 1969) PAHO Community Water Supply Fund
To plan and carry out national programmes for the construction of water supply systems and for the improvement of existing services.

Honduras 3100 Health Services (1955 - 1970) UNDP/TA
To organize integrated public health services at the central and local levels; to improve environmental health services; and to train professional and auxiliary personnel.
Honduras 3102 Fellowships R: Bromatology (six months), medical education (two weeks), midwifery (ten and a half months), nursing services (twelve for three weeks, one for ten months), paediatric nursing (one for three months, one for twelve months), preventive medicine teaching (ten months), public health administration (ten and a half months), public health nursing (two for ten months), sanitary engineering (two for eleven months); PAHO: Nursing education (two for twelve months), public health administration (five months), public health planning (three and a half months).

Honduras 4800 Medical Care Services (1965 - 1969) PAHO
To improve the medical care services of the social security institutions.

Honduras 6300 Nursing Education (1966 - 1970) PAHO
To develop the School of Nursing of the National University.

Honduras 6400 Sanitary Engineering Education (1965 - 1970) PAHO
To organize short courses on problems related to the water supply programme.

Jamaica 2200 Water Supplies (1963 - 1968) UNDP/TA
To improve water supply systems and construct new ones in rural areas.

To make an assessment of health problems, needs and resources and the cost of public health services; and to prepare and implement a national health plan as part of the plan for social and economic development of the country.

Jamaica 4300 Mental Health (1964 - 1969) PAHO
To prepare a national mental health programme, integrated into the general health services, that will include curative and preventive services and training of personnel.

Jamaica 6100 Public Health Training Centre (1967 - ) PAHO
To improve the training of health inspectors and nurses specializing in public health which is provided by the West Indies School of Public Health (formerly the Public Health Training Centre).

Jamaica 6201 Department of Preventive Medicine, University of the West Indies (1963 - 1969) R
To improve the courses given by the Department of Preventive Medicine of the University of the West Indies, and to expand the teaching of medicine in the Caribbean area.

Jamaica 6301 Advanced Nursing Education, University of the West Indies (1965 - 1969) R
To strengthen basic nursing education in the Caribbean area by training nursing instructors at the University of the West Indies.

Mexico 0201 Malaria Eradication Programme (1956 - 1977) UNDP/TA PAHO Special Malaria Fund
To eradicate malaria from the country.

Mexico 2200 Water Supplies (1961 - 1969) R PAHO
To plan a national water supply programme.

Mexico 3101 State Health Services (1954 - ) R
To improve the organization and co-ordination of health services at the central, regional, and local levels.

Mexico 3102 Fellowships R: Epidemiology (one month), paediatrics (seven weeks).

Mexico 3300 Public Health Laboratory Services (1958 - ) PAHO
To plan new public health laboratories, develop the production of biologicals and train personnel; and to expand the food control services of the National Health Laboratory and the epidemiological studies carried out by the National Institute of Virology.

To carry out a nutrition programme covering the whole country, using the resources of the National Institute of Nutrition. The programme includes nutrition surveys in various regions and training of professional and auxiliary personnel.

Mexico 4600 Industrial Hygiene (1966 - ) UNDP/TA
To organize studies to determine the health risks to the community arising from industrial development and to plan preventive measures.

Mexico 4801 Medical Services in Rural Areas (1967 - ) UNDP/TA
To co-ordinate and improve the medical care services in rural areas.
Mexico 6100 School of Public Health (1954 - 1969) R
To strengthen and expand the teaching programme of the School of Public Health of the University of Mexico.

Mexico 6200 Medical Education (1958 - 1969) R
To improve medical education, especially by providing teaching staff with training in the preventive and social aspects of medical practice.

Mexico 6300 Nursing Education (1958 - 1969) PAHO
To improve basic nursing education; and to prepare graduate nurses to serve as instructors, and professional nurses for the training of auxiliary nursing personnel.

Mexico 6400 Sanitary Engineering Education
(1961 - 1969) R PAHO
To organize, in the School of Sanitary Engineering of the University of Mexico and in the School of Engineering of the University of Nuevo León, courses in sanitary engineering and in public health for graduate engineers.

Netherlands Antilles 3101 Fellowships R: Public health nursing (ten months).

Nicaragua 0200 Malaria Eradication Programme
(1957 - 1972) R PAHO Special Malaria Fund UNICEF (AID)
To eradicate malaria from the country.

Nicaragua 3100 Health Services
To prepare and implement a national health plan for organizing, improving and extending health services and to train professional and auxiliary staff.

Nicaragua 3300 Public Health Laboratories (1967 - ) R PAHO
To strengthen and improve the national public health laboratory, establish regional and local laboratories in the three health regions, reorganize hospital laboratory services and train personnel.

Nicaragua 6200 Medical Education (1965 - 1969) PAHO
To strengthen medical education by improving the training of teachers of basic medical sciences and of preventive and social medicine.

Nicaragua 6400 Sanitary Engineering Education
(1965 - 1969) PAHO
To organize short courses on subjects relating to the water supply programme.

Panama 0200 Malaria Eradication Programme
(1956 - 1971) MESA PAHO Special Malaria Fund UNICEF
To eradicate malaria from the country.

Panama 3100 Health Services (1952 - 1970) UNDP/TA
To prepare and implement a national health plan providing for reorganization, extension and improvement of the health services and to train the necessary professional and auxiliary personnel.

Panama 3101 Fellowships R: Food microbiology (three months), hospital administration (six months), medical education (two for two weeks), sanitary engineering (eleven months), water pollution control (two weeks); PAHO: Nursing education (twelve months).

Panama 6200 Medical Education (1967 - ) PAHO
To extend the Faculty of Medicine of the University of Panama and revise the curriculum.

Panama 6400 Sanitary Engineering Education
(1965 - 1969) PAHO
To organize short courses on subjects relating to water supply programmes.

Paraguay 0200 Malaria Eradication Programme
(1957 - 1973) PAHO Special Malaria Fund
To eradicate malaria from the country. The programme has been delayed in the preparatory phase since 1961; a new eradication plan was developed in 1965, but renewed attack phase operations have not yet been fully instituted.

Paraguay 0300 Smallpox Eradication (1967 - ) R
To carry out a programme for the eradication of smallpox which, after being eliminated in 1961, was reintroduced into the country in 1964.

Paraguay 3100 Health Services
(1955 - 1970) UNDP/TA PAHO UNICEF
To develop integrated health services throughout the country, and to train professional and auxiliary health personnel, in accordance with the ten-year health plan which forms part of the national plan for social and economic development.

Paraguay 3101 Fellowships R: Clinical and social paediatrics (three months), health statistics (nine months), nursing education (ten months), obstetrics (two for six weeks), public health administration (ten and a half months), rural water supplies (two weeks), tuberculosis (two months); PAHO: Public health administration (one for four months, one for five months, one for twelve months), smallpox laboratory services (two weeks).

Paraguay 6600 Dental Education (1966 - 1967) R
Two consultants and the PAHO/WHO country representative assisted in drawing up a programme of instruction including the preventive and public health aspects of dentistry at the School of Dentistry and gave lectures on dental epidemiology. Some supplies and equipment were provided to the school.

Peru 0200 Malaria Eradication Programme
(1956 - 1971) PAHO Special Malaria Fund UNICEF
To eradicate malaria from the country by stages.

Peru 0300 Smallpox Eradication (1967 - ) R
To carry out a programme for the eradication of smallpox, which has been reintroduced into the country after being eliminated in 1955.
Peru 0700 Veterinary Public Health (1966 - March 1967) R

The aim was to intensify and expand the national rabies control programme, particularly in Lima, by applying modern techniques for the large-scale vaccination of dogs and for the control of animal vectors. The Organization provided a consultant from January to March 1967 and advisory services by staff members.

The National Commission for the Control of Zoonoses and the Veterinary Public Health Section of the Lima Health Area prepared plans for the control of rabies in Lima and for a national control programme. Measures to control the canine population were started in November 1966. The rabies adviser of the Pan American Zoonoses Centre (project AMRO 0700) assisted the National Institute of Health in reorganizing its rabies vaccine production section.

Peru 0900 Plague Control (1963 - 1969) R PAHO
To plan and carry out an epidemiological study of plague, and to implement a control programme.

Peru 2200 Water Supplies
(1960 - 1968) UNDP/TA PAHO (Inter-American Development Bank)
To plan and implement a national programme for the construction of new water supply and sewerage services, and the extension of existing systems.

Peru 3100 Health Services
(1956 - 1969) UNDP/TA PAHO UNICEF
To improve health services at the central, regional and local levels; and to organize health areas, beginning with one in the Department of Junín.

Peru 3101 Fellowships R: Clinical and social paediatrics (three months), food and drug control (nine weeks), health statistics (ten months), laboratory services (one for three weeks, one for one month), occupational health (ten months), physiology (eleven months), preventive medicine teaching (eleven months), sanitary engineering (one for thirteen weeks, one for twelve months), sanitary engineering education (two weeks), veterinary public health (eleven months), water pollution control (two weeks); PAHO: Medical records (six weeks), public health administration (two for four months), public health nutrition teaching (six and a half months), public health planning (two for three and a half months), rabies laboratory diagnostic methods (eleven weeks), tuberculosis epidemiology (two months), water supply systems (ten weeks).

Peru 3102 Andean Region Development Programme
To promote the economic, social and health development of the indigenous populations of the Andean Highlands, so as to facilitate their integration into the national community.

Peru 3104 National Institute of Health (1965 - ) PAHO
To expand the work of the National Institute of Health.

Peru 3600 Administrative Methods and Practices in Public Health (1966) PAHO
The administrative methods adviser attached to project AMRO 3604 assisted the Ministry of Public Health and Welfare in revising administrative methods and practices in the health services and in giving, for administrative personnel of the Ministry, two one-month courses, for which the Organization provided financial support.

Peru 4200 Nutrition
(1965 - 1968) UNDP/TA PAHO (FAO) (ILO)
To improve the nutritional status of the population in the departments of Junín, Pasco, and Puno.

Peru 6100 School of Public Health (1963 - 1969) PAHO
To develop the School of Public Health (formerly the Personnel Training Centre of the Ministry of Public Health) which trains professional, technical and auxiliary personnel for the public health services.

Peru 6200 Medical Education (1964 - 1969) PAHO
To improve the medical education programmes of the country's medical schools.

Peru 6300 Nursing Education (1959 - 1969) R PAHO
To organize and strengthen basic nursing education in the nursing schools of the University of San Marcos and other universities.

Peru 6400 Sanitary Engineering Education (1964 - 1969) PAHO
To revise the curriculum of the School of Sanitary Engineering of the National University of Engineering, and to organize courses on subjects bearing on water supply and sewerage.

Peru 6500 Veterinary Medicine Education (1965 - 1969) R
To strengthen the School of Veterinary Medicine of the University of San Marcos, especially as regards the teaching of public health and preventive medicine.

Surinam 0200 Malaria Eradication Programme
(1957 - 1971) PAHO Special Malaria Fund UNICEF
To eradicate malaria from the country.

Surinam 2300 Aedes aegypti Eradication
(1952 - 1969) UNDP/TA
To eradicate Aedes aegypti.

Surinam 3100 Health Services (1965 - 1969) PAHO
To strengthen and integrate the health services and to extend them to rural areas.

Trinidad and Tobago 3103 Fellowships R: Hospital administration (twelve months), nursing administration (four months), public health administration (four for eleven weeks).

Trinidad and Tobago 3200 Nursing Services (1959 - 1969) PAHO
To strengthen and improve the nursing services.

Trinidad and Tobago 4800 Hospital Administration and Medical Records
(1965 - 1969) UNDP/TA
To organize medical records departments in the hospitals, clinics, and health centres of the Ministry of Health and Housing; and to train personnel in medical record keeping.
United States 3100 Consultants in Specialized Fields  
(March 1958 - ) R
To provide consultant services on specialized problems in public health.

United States 3102 Medical and Public Health Training  
(1963 - ) PAHO
To enable officers of the Division of International Health of the federal Public Health Service to obtain first-hand knowledge of health conditions and problems in the countries which send fellows to study in the United States of America.

United States 3103 Fellowships R: Dental education (one month), dental insurance schemes (two months), health education (one for six weeks, two for two months), maternal and child health (two months), medical care administration (one for six weeks, one for seven weeks), medico-social work (three months), nursing education (two for two months), nursing education and services (three months), parasitology (two months), venereal diseases (six weeks); PAHO: Dental public health (five weeks), maternal and child health (two months), medical care administration (two months), public health nursing education (two months).

Uruguay 0300 Smallpox Eradication (1967 - ) R
To carry out a programme of vaccination against smallpox in order to maintain the level of immunity in the population.

Uruguay 0701 Rabies Control (1966) PAHO
The aim was to plan and carry out a rabies control programme and to develop the services for the diagnosis of rabies and the production of vaccine. The Organization provided a consultant, advisory services of staff of the Pan American Zoonoses Centre (AMRO 0700) and supplies and equipment.
Control operations were started in the Departments of Montevideo, Canelones and Colonia and during the first six months over 362,000 dogs were vaccinated. Notified cases of animal rabies fell to fifty-six in 1966, as compared with 220 in 1965. The consultant advised the laboratories of the Ministry of Public Health on techniques for the production and control of rabies vaccine. With assistance from the Pan American Zoonoses Centre, the Institute of Hygiene and the Ministry held a course on rabies diagnostic techniques for twenty-three professional and technical staff members of government laboratories, and a professor from the School of Veterinary Medicine was given training at the Pan American Zoonoses Centre in the use of fluorescent antibody techniques for rabies diagnosis.

Uruguay 0900 Chagas' Disease (1966) PAHO
Three consultants, including two attached to the zone project for the control of Chagas' disease, assisted in carrying out a study to ascertain the extent of the Chagas' disease problem and made recommendations for future work. The study showed that the infection occurs in at least two-thirds of the country and that prevalence reaches 16 per cent. in some areas.

Uruguay 2200 Water Supplies (1960 - 1969) R
To plan and carry out national water supply programmes.

Uruguay 3100 National Health Services  
(1955 - 1970) UNDP/TA PAHO
To organize integrated health services in five departments, and later to extend such services to the whole country.

Uruguay 3101 Fellowships R: Environmental sanitation (three for two weeks, one for six weeks), epidemiology (one for three months, one for six months), hospital administration (fifteen months), hospital administration and medical care (two months), paediatric nursing (two for ten months), sanitary engineering (three for two weeks), water supply systems (one for two weeks, one for ten weeks); PAHO: Public health administration (four months), public health planning (three and a half months).

Uruguay 4800 Medical Care and Hospital Administration  
(1963 - 1969) UNDP/TA PAHO
To improve the organization and administration of the medical care services of the Ministry of Public Health.

Uruguay 4801 Chronic Diseases (Feb.-June 1967) PAHO
A consultant was provided to advise on methods of obtaining adequate information on the prevalence of chronic diseases.

Uruguay 6100 Training of Health Personnel (1960 - 1969) PAHO
To strengthen the Dr Carlos Nery School of Nursing, and to train auxiliary personnel for the health services.

Uruguay 6200 Medical Education (1964 - 1969) R PAHO
To strengthen the School of Medicine of the University of the Republic, and to improve the teaching, especially as regards preventive medicine and basic medical sciences.

Uruguay 6400 Sanitary Engineering Education  
(1965 - 1970) PAHO
To improve the teaching of sanitary engineering in the regular engineering curriculum and to organize intensive short courses for sanitary engineers.

Uruguay 6500 Veterinary Medicine Education (1966 - 1969) R
To strengthen the teaching at the School of Veterinary Medicine of the University of the Republic.

Venezuela 2200 Water Supplies  
To prepare long-term plans for urban water supply programmes; to establish water rates for financing the extension and construction of water supply systems; and to reorganize the water supply service of Caracas.

Venezuela 2300 Aedes aegypti Eradication (1958 - ) PAHO
To eradicate Aedes aegypti.

Venezuela 2400 Housing and Urbanization  
(1963 - 1969) R PAHO
To plan rural housing and community development and to train personnel.

Venezuela 3102 Fellowships R: Biochemistry (twelve months), clinical and social paediatrics (two for three months), dental public health (eleven months), pharmacology (three months), psychiatric social work (seven and a half months), rabies vaccine and sera preparation (two for one month, one for two months), radiological health (twelve months), sanitary engineering (five for twelve months), veterinary microbiology (one month);
PAHO: Dental health statistics (two weeks), public health administration (one for four months, one for five months), public health planning (three for three and a half months), rabies—laboratory diagnosis (three weeks), rabies vaccine and sera preparation (six weeks).

To strengthen and extend the network of public health laboratories and to integrate them into the public health services.

Venezuela 3301 National Institute of Hygiene (1964 - 1969) PAHO
To develop virological studies and the preparation of freeze-dried vaccines at the National Institute of Hygiene.

Venezuela 4200 Nutrition (1965 - 1969) PAHO
To carry out a nutrition programme on a national scale and to train personnel.

Venezuela 4300 Mental Health (1954 - 1969) R PAHO
To assess mental health problems and to plan a national mental health programme, integrated into the national health plan, and providing for care and rehabilitation of patients, training of personnel, research, and prevention of mental disorders.

Venezuela 4600 Industrial Hygiene (1962 - 1969) PAHO
To strengthen the industrial hygiene and occupational health services of the Ministry of Health and Welfare.

Venezuela 4800 Medical Care Services (1966 - 1971) R PAHO
To prepare plans for the operation of hospitals and health centres, with a view to achieving the best possible co-ordination and utilization of the resources available; and to train personnel of various categories.

Venezuela 4801 Rehabilitation (1963 - 1969) R
To raise the standards of the departments of physical medicine and to train physical and occupational therapists for the rehabilitation services.

Venezuela 6100 School of Public Health (1961 - 1969) R
To broaden the scope of the School of Public Health of the Central University, Caracas, and improve the teaching.

Venezuela 6200 Medical Education (1958 - 1969) PAHO (Rockefeller Foundation)
To improve medical education in Venezuela, in particular as regards preventive medicine and the teaching of basic sciences.

Venezuela 6300 Nursing Education (1959 - 1969) PAHO
To establish, at the School of Public Health, advanced courses in nursing education and in administration of nursing services.

To strengthen the sanitary engineering courses within the regular civil engineering curriculum in four universities; to organize a course of post-graduate studies at the Central University of Venezuela; and to establish laboratories for research and teaching.

To develop and improve dental education at university level, especially in preventive and social dentistry, and to train auxiliary dental personnel.

West Indies 2200 Water Supplies (1962 - 1969) PAHO Community Water Supply Fund
To plan water supply systems for several islands in the Caribbean.

West Indies 3102 Fellowships: Antigua—venereal disease control (three months); Bahamas—cytology (six months), laboratory services (six months); Bermuda—bacteriology—laboratory methods (six months); British Virgin Islands—haematology (six months), nursing services (two weeks); Dominica—laboratory services (eleven and a half months); Grenada—rabies laboratory services (six months); Guyana—biochemistry (twelve months); St Kitts—laboratory services (twelve months); Tortola—medical technology (six months); PAHO: Bahamas—public health administration (twelve months); Montserrat—sanitary inspection (eleven months); St Lucia—microbiology (twelve months).

   Fellowships for courses R: Food control (two of three and a half months to trainees from Netherlands Antilles), nursing administration and supervision (six of four months to trainees from Barbados and St Lucia), public health administration (six of eleven weeks to trainees from Antigua, Barbados, Dominica, Montserrat and St Lucia).

West Indies 3104 Health Services, Montserrat (1965 - 1969) UNDP/TA
To develop a general health programme based on the strengthening and expansion of existing services.

West Indies 3200 Nursing Services (1959 - 1969) R
To develop nursing services in the islands of the eastern Caribbean.

West Indies 3300 Laboratory Techniques (1967) PAHO
Two six-month fellowships in laboratory techniques were awarded to candidates from Nassau.

West Indies 4802 Training in Hospital Administration (1967 - 1969) UNDP/TA
To train staff in hospital administration for the hospitals in the Caribbean area.

AMRO 0101 Epidemiology, Zone I (1965 - ) PAHO
AMRO 0102 Epidemiology, Zone II (1965 - ) PAHO
AMRO 0103 Epidemiology, Zone III (1961 - ) PAHO
AMRO 0104 Epidemiology, Zone IV (1966 - ) PAHO
AMRO 0106 Epidemiology, Zone VI (1958 - ) PAHO
To stimulate the development and co-ordination of programmes for the eradication or control of communicable diseases in the countries of the zone; to advise the governments on new methods and techniques of control and on problems related to the application of the International Sanitary Regulations; and to promote better reporting of notifiable diseases.
AMRO 0107 Parasitic Diseases (1966 - ) PAHO
To assist countries in carrying out surveys and epidemiological studies of parasitic diseases and in developing control programmes.

AMRO 0200 Malaria Technical Advisory Services, Inter-zone (1955 - 1969) MESA PAHO Special Malaria Fund
To provide technical advisory services and local training in certain aspects of country programmes for which long-term appointments of advisers are not necessary.

AMRO 0203 Malaria Technical Advisory Services, Zone III (1958 - 1969) MESA
AMRO 0204 Malaria Technical Advisory Services, Zone IV (1958 - 1971) PAHO
To provide technical advice to the countries of the zone and to co-ordinate their malaria eradication programmes; and to co-ordinate the research and training activities of these programmes with those of the continent-wide malaria eradication programme.

AMRO 0209 Insecticide Testing Team (1960 - Dec. 1967) MESA
To test insecticides and larvicides and evaluate their potentialities.

AMRO 0210 Malaria Eradication Epidemiology Teams (1960 - 1969) MESA
To determine the causes of the persistence of malaria transmission in areas regularly sprayed with residual insecticides, and to recommend remedial measures.

AMRO 0214 Advanced Courses in Malaria Epidemiology, Venezuela (1965 - 1969) PAHO Special Malaria Fund
To train epidemiologists of national malaria eradication programmes in methods of solving the difficulties encountered in problem areas.

AMRO 0216 Research in Epidemiology of Malaria Eradication in Problem Areas (1966 - 1969) PAHO Special Malaria Fund
To test various methods for expediting the eradication of malaria from areas where routine methods have not secured the interruption of transmission; and to study the epidemiology of malaria cases due to Plasmodium falciparum resistant to chloroquine.

AMRO 0217 Field Investigations of Mass Drug Treatment (1966 - 1969) PAHO Special Malaria Fund
To carry out, in pilot areas, field investigations of mass treatment with various combinations of drugs other than chloroquine-primaquine, as a means of eradicating malaria.

AMRO 0218 General Health Services and Malaria Eradication (1967 - ) PAHO Special Malaria Fund
To encourage greater participation by the general health services in surveillance and other activities of the malaria eradication services and to assist the general health services in providing the coverage in rural areas that will enable them to assume responsibility for maintaining freedom from malaria when eradication has been achieved.

AMRO 0300 Smallpox Eradication, Inter-zone (1951 - 1969) R PAHO
To co-operate with governments of the Region in the production of smallpox vaccine and advise them on the organization, conduct, and evaluation of national smallpox eradication programmes.

AMRO 0400 Tuberculosis Control, Inter-zone (1957 - 1969) R (Government of Venezuela)
To stimulate the expansion of tuberculosis control programmes in the Region by assisting governments in their planning and execution and promoting the convening of technical meetings on tuberculosis.

AMRO 0403 Tuberculosis Control, Zone III (1963 - 1969) PAHO
AMRO 0404 Tuberculosis Control, Zone IV (1962 - 1969) R
To assist countries of the Zone in studying, organizing, carrying out and evaluating tuberculosis control programmes; in training professional and auxiliary personnel in modern techniques of tuberculosis control; and in integrating tuberculosis control work into the work of the general health services.

AMRO 0504 Leprosy Control, Zone IV (1960 - 1969) R
AMRO 0506 Leprosy Control, Zone VI (1962 - 1969) R
To assist the countries of the zone in planning, organizing, carrying out and evaluating leprosy control programmes; in training professional and auxiliary personnel in leprosy control; and in integrating leprosy control work into the general health services.

The chiefs and deputy chiefs of the leprosy control programmes in Argentina, Ecuador and Venezuela visited the programmes in these three countries and exchanged views, in particular as regards the application of the methodology of administration recommended by the Seminar on Leprosy Control held in Cuernavaca, Mexico, in 1963.

The Organization provided the cost of attendance of the participants.

AMRO 0600 Venereal Disease Control, Inter-zone (1961 - ) R
To assist the countries of the Region in venereal disease control and in training staff.

AMRO 0700 Pan American Zoonoses Centre, Azul, Argentina (1956 - ) R PAHO (Government of Argentina) (US Public Health Service)
To advise countries of the Region on the establishment and improvement of veterinary public health services and control programmes; to carry out research on the most prevalent zoonoses; and to train technical personnel for zoonoses control work.

AMRO 0701 Rabies Control, Zone I (1965 - 1967) R
The aim was to assist the countries of Zone I in rabies control work, including the training of personnel and the establishment of diagnostic services. The Organization provided two consultants and some supplies and equipment.

Assistance was provided to Grenada in continuing and evaluating its programme for the control of rabies in the mongoose, and to Trinidad and Tobago in connexion with an epidemiological survey of rabies in the mongoose and a programme for vaccinating dogs against rabies.
With the help of the Communicable Disease Center of the United States Public Health Service and the Pan American Zoonoses Centre, a course on the use of fluorescent antibody techniques in the diagnosis of rabies was held in the Veterinary Research Centre, Maracay, Venezuela, in June 1966 for staff of the Venezuelan Ministries of Health and Welfare and of Agriculture and of university centres.

**AMRO 0703** Veterinary Public Health, Zone III (Sept. 1957 - ) R

To assist the countries of Zone III in developing veterinary public health services and activities, especially the study and control of zoonoses and the application of protective measures in food control; to promote the teaching of veterinary public health; and to collaborate in the evaluation of veterinary public health and related programmes.

**AMRO 0708** Rabies Control, Inter-zone (1954 - ) PAHO

To assist countries in carrying out ecological studies of rabies in wild animals, in developing and testing new vaccines and other methods of control, and in training laboratory personnel in up-to-date techniques.

**AMRO 0709** International Seminar on Rabies for the Americas, Ramos Mejía, Argentina (24 - 29 Sept. 1967) R

The seminar, which was organized by the Pan American Zoonoses Centre (see project AMRO 0700), discussed the situation of rabies in the Americas, rabies diagnosis, epidemiological, ecological and pathogenic aspects of the disease, and immunizing agents. There were fifty-seven participants, from Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Mexico, Nicaragua, Paraguay, Peru, Trinidad and Tobago, Uruguay and Venezuela, and observers from Argentina, Brazil, Canada and France and from FAO.

The Organization provided a consultant, and the cost of attendance of participants. A staff member from WHO headquarters presented a paper on the world rabies situation.

**AMRO 0710** Rabies Control, Mexico/United States Border (1966 - 1971) PAHO Grant to PAHO: US Public Health Service

To assist the Governments of Mexico and the United States of America in eliminating rabies in dogs and other animals along the border between the two countries.

**AMRO 0800** Pan American Foot-and-Mouth Disease Centre, Rio de Janeiro (1951 - ) PAHO/Organization of American States (AID) (Government of Brazil)

To provide countries of the Americas with technical advisory services for the control of foot-and-mouth disease, for laboratory diagnosis of the disease, and for the training of professional and auxiliary personnel; and to carry out research on the preparation of modified live-virus vaccine.

**AMRO 0900** Plague Control, Inter-zone (1966 - ) R

To assist countries in developing or reorganizing their plague control programmes and in carrying out epidemiological studies on plague.

**AMRO 0901** Schistosomiasis (1960 - ) PAHO

To help countries to appraise their schistosomiasis problem, plan and develop control programmes, and plan research projects.

**AMRO 2010** Sanitary Engineering, Zone I (1960 - ) PAHO

**AMRO 2012** Sanitary Engineering, Zone II (1960 - ) R PAHO

**AMRO 2013** Sanitary Engineering, Zone III (1960 - ) R PAHO

**AMRO 2014** Sanitary Engineering, Zone IV (1960 - ) PAHO

**AMRO 2016** Sanitary Engineering, Zone VI (1960 - ) PAHO

To assist the governments of countries in the zone in improving the organization of the environmental sanitation services of the Ministry of Health; to advise the agencies responsible for water supply and sewerage services; and to co-operate with universities and other institutions in training professional and auxiliary personnel for sanitation work.

**AMRO 2017** Environmental Sanitation, Caribbean Area (May 1956 - ) UNDP/TA PAHO Community Water Supply Fund UNICEF

To investigate and evaluate environmental conditions and provide technical advice during the development of extensive sanitation programmes in the countries and territories of the Caribbean area.

**AMRO 2200** Water Supplies, Inter-zone (1959 - ) PAHO PAHO Community Water Supply Fund

To advise countries of the Region on the planning, financing and carrying out of national water supply programmes and on the organization and administration of central and local water supply and sewerage authorities.

**AMRO 2203** Water Supplies, Zone III (1964 - ) PAHO Community Water Supply Fund (Community Development Foundation)

To assist the countries of the zone with their water supply and sewage disposal problems.

**AMRO 2208** Water Fluoridation (1961 - 1967) PAHO

Under this project advice on methods of water fluoridation has been provided to various countries of the Region.

In 1966 the Organization provided two consultants to assist in preparing for a programme to be carried out with assistance from the Kellogg Foundation, for training sanitary engineers in the fluoridation of water supplies (see project AMRO 4409 below).

**AMRO 2213** Studies and Investigations of Water Resources (1964 - 1969) UNDP/TA (ECLA)

To collaborate with the Economic Commission for Latin America (ECLA) in a study of Latin America’s water resources, particularly with a view to the provision of adequate water supplies.

**AMRO 2214** Symposium on Administration of Water Supply Services, San Salvador (28 Nov. - 3 Dec. 1966) R

The symposium was attended by 104 persons connected with the technical or administrative management of water supply and sewerage services from Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela and the West Indies, and by representatives of the Inter-American Development Bank, the International Bank for Reconstruction and Development and the United States Agency for International
Development. Discussions covered various aspects of the planning, organization, administration and financing of water supply and sewerage services, as well as community participation.

The Organization provided seven lecturers and the cost of attendance of thirty-five participants, and personnel of the Regional and Zone Offices and of projects assisted by the Organization in El Salvador took part in the symposium.

**AMRO 2300 Aedes aegypti Eradication, Inter-zone (1954 - ) PAHO**

To stimulate, co-ordinate, and evaluate Aedes aegypti eradication programmes in the countries and territories of the Region that are still infested with the mosquito.

**AMRO 2301 Aedes aegypti Eradication, Caribbean Area (1950 - ) UNDP/TA**

To advise Jamaica, Trinidad and Tobago, and the British, French and Netherlands territories in the Caribbean on Aedes aegypti eradication.

**AMRO 2303 Aedes aegypti Eradication, Zone III (1966 - ) PAHO**

To advise the countries of the zone on Aedes aegypti eradication and on surveillance to prevent reinfection.

**AMRO 2400 Public Health Aspects of Housing and Urbanization (1962 - ) PAHO**

To foster the participation of health authorities in housing and city planning programmes; and to advise countries of the Region on the establishment of health standards for houses and urban areas.

**AMRO 3107 Public Health Administration, Caribbean Area (1963 - 1969) R**

To help countries and territories of the area to analyse their health problems, assess resources, and prepare plans for obtaining the maximum results with the human and material resources available; and to co-operate in implementing and evaluating public health programmes within the national socio-economic development plans.

**AMRO 3110 Co-ordination of International Research (1962 - ) PAHO**

To stimulate the development of biomedical research and training of specialized personnel; and to provide for an annual meeting of the PAHO Advisory Committee on Medical Research to analyse and make recommendations on suggested projects and on those in operation.

**AMRO 3120 Promotion of Rural Health Services (1966 - ) PAHO**

To promote the extension of health services to rural areas as part of integrated programmes for the social and economic development of those areas, using the resources of specialized programmes such as the malaria eradication programmes.

**AMRO 3201 Nursing, Zone I (1959 - ) PAHO**

To assist countries of the zone in planning and organizing nursing services, in developing educational programmes for professional and auxiliary nursing and midwifery personnel, and in promoting research in nursing.

**AMRO 3207 Courses on Nursing Administration and Supervision, Zone I (1965 - 1969) PAHO**

To strengthen nursing services in the Queen Elizabeth Hospital, Barbados, by holding courses in nursing administration and supervision and establishing a permanent in-service education programme.

**AMRO 3210 Hospital Nursing Services (1966 - 1969) PAHO**

To assist countries of Zone III and Zone IV in improving nursing care.

**AMRO 3300 Laboratory Services, Inter-zone (Feb. 1955 - ) R**

To assist governments of the Region in the improvement and extension of public health laboratory services; in the production and control of biological products; and the setting-up or expansion of animal colonies.

**AMRO 3301 Laboratory Services, Caribbean Area (1964 - 1969) PAHO**

To assist in improving laboratory services in the islands of the eastern Caribbean and to support the training of laboratory technicians for the area at the University of the West Indies, Kingston, Jamaica.

**AMRO 3303 Laboratory Services, Zone III (1965 - ) PAHO**

To assist in improving public health laboratories in the countries of the zone. The long-term aim of the project is to establish, in each country, a network of laboratories to provide extended services in rural areas.

**AMRO 3304 Laboratory Services, Zone IV (1967 - ) PAHO**

To assist in improving laboratory services in the countries of the zone.

**AMRO 3307 Vaccine Production and Testing (July 1954 - ) R**

To provide vaccine-testing services to laboratories preparing vaccines in the Americas.

**AMRO 3401 Health Education, Caribbean Area (1963 - ) UNDP/TA**

To help the countries and territories of the area in developing health education work and training personnel.


To co-operate in the training of students at the Community Development Training Centre for Latin America.

**AMRO 3501 Health Statistics, Zone I (1964 - ) PAHO**

To assist the countries of the zone in improving their vital and health statistics systems; and to advise them on the use of statistical data in national health planning and on the statistical aspects of projects.
The aim was to obtain, through special investigations, accurate and comparable data on causes of death in adults in selected cities of the Americas. The Organization provided an epidemiologist, two statistical assistants, five consultants and supplies and equipment.

Information was obtained by means of questionnaires on over 43,000 adult deaths. These were reviewed in 1965, and in 1966 the processing of the data and the main analytic tabulations were completed. The final report on the studies is to be published in English and Spanish. An analysis of multiple causes of death, using material from the studies, was started in collaboration with the United States Public Health Service.

AMRO 3600 Administrative Methods and Practices in Public Health, Inter-zone (1959 - ) PAHO
To help countries of the Region to improve the administrative practices of national health services at all levels.

AMRO 3603 Administrative Methods and Practices in Public Health, Zone III (1967 - ) PAHO
AMRO 3604 Administrative Methods and Practices in Public Health, Zone IV (1963 - ) PAHO
AMRO 3606 Administrative Methods and Practices in Public Health, Zone VI (1963 - ) PAHO
To help the countries of the zone to improve the administrative methods and practices of their health services.

AMRO 3700 Health Planning, Inter-zone (1961 - ) PAHO (Latin American Institute of Economic and Social Planning)
To assist governments in formulating national health plans and in training personnel for the purpose.

AMRO 3701 Health Planning and Organization, Zone I (1965 - ) R PAHO
AMRO 3703 Health Planning and Organization, Zone III (1966 - ) PAHO
AMRO 3704 Health Planning and Organization, Zone IV (1963 - ) PAHO
AMRO 3706 Health Planning and Organization, Zone VI (1963 - ) PAHO
To assist governments of the countries of the zone in formulating national health plans and in training personnel for the purpose.

AMRO 4100 Maternal and Child Health (1964 - 1969) PAHO
To prepare guides on the establishment of priorities and standards of service in connexion with the planning of maternal and child health programmes and on the techniques of carrying out surveys and conducting seminars.

AMRO 4108 Clinical and Social Paediatrics Courses (1961 - ) R UNICEF
To assist in organizing courses on social paediatrics for physicians engaged in paediatrics, paediatricians with teaching responsibilities or those in charge of maternal and child health services in Latin America who wish to enlarge their experience.

AMRO 4109 Nursing and Midwifery (1962 - 1969) PAHO
To provide countries of the Region with advisory services for improving their maternity care services and their institutions for the training of midwives.

AMRO 4200 Nutrition Advisory Services, Inter-zone (1958 - ) PAHO Grant to PAHO: US National Institutes of Health
To provide advisory services in nutrition to meet specific needs of governments.

AMRO 4201 Nutrition Advisory Services, Zone I (1961 - ) R PAHO
To collaborate with the countries and territories of Zone I in the study and evaluation of nutrition problems and needs; in planning, in close co-operation with national and international agencies, nutrition education programmes and programmes to foster the production of protein-rich foods; and in integrating nutrition programmes into health services at all levels.

AMRO 4203 Institute of Nutrition of Central America and Panama, Guatemala City (1949 - ) PAHO UNICEF (INCAP Member Governments) (AID) (Battelle Memorial Institute) (Instituto Interamericano de Ciencias Agrícolas) (Kellogg Foundation) (Lederle Laboratories) (Massachusetts Institute of Technology) (Nutrition Foundation) (US Army) (US National Institutes of Health) (Williams-Waterman Fund)
To co-operate in developing the Institute of Nutrition of Central America and Panama (INCAP), which trains professional and auxiliary personnel from its member countries and other countries in the Americas and carries out nutrition research for solving the urgent problems created by the inadequate nutritional status of a large part of the population of the Americas.

AMRO 4204 Nutrition Advisory Services, Zone IV (1956 - ) R
To advise the countries of the zone on the development of nutrition programmes, especially at the level of the local health services; on applied research related to nutrition programmes; and on the training of personnel.

AMRO 4207 Nutrition, Caribbean Area (1963 - 1969) PAHO (FAO)
To co-ordinate nutrition work in the Caribbean area, in order to develop a programme that will include training of personnel and scientific research.

To evaluate, jointly with FAO, the applied nutrition programmes operating in sixteen countries of the Americas.

AMRO 4212 Research on Nutritional Anaemias (1965 - 1967) Grant to PAHO: Williams-Waterman Fund
Under this project a reference laboratory and training centre for applied research in nutritional anaemias has been set up in the Venezuelan Institute for Scientific Research in Caracas. The laboratory is participating, with laboratories in various countries, in studies on nutritional anaemias and is training personnel from these laboratories.

The Organization has provided three consultants to advise on nutrition advisory services and the extension of the studies.

AMRO 4213 Iodine Determinations in Endemic Goitre (1965 - 1967) Grant to PAHO: Williams-Waterman Fund
Under this project a centre for iodine determinations in endemic goitre has been set up in Santiago, Chile. The centre functions as a reference laboratory, carries out cross-checking for other laboratories, and trains laboratory technicians in iodine analysis methods.
for training in public health dentistry.

AMRO 4308 Mental Health Information Centre on Latin America (1963 - 1967) Grant to PAHO: US National Institutes of Health

The aim was to collect information on psychiatrists and other mental health personnel, and on mental health legislation, in Latin American countries and to collect and distribute information on mental health activities in these countries.

A centre was set up in PASB/WHO Regional Office to work on the project in collaboration with the National Clearinghouse for Mental Health Information of the National Institute of Mental Health (United States of America). A provisional directory of Latin American physicians working in mental health was prepared and basic information on over 800 mental health institutions operating in Latin America and on the teaching of psychiatry and related sciences in fifty-nine medical schools was collected. A compilation of laws and jurisprudence pertaining to the mentally ill in the Latin American countries was made, and a list of key personnel in the field of mental health in the Americas was brought up to date. In addition, the centre dealt with many requests for information on mental health subjects.

AMRO 4400 Dental Health, Inter-zone (1954 - ) PAHO

To assist countries of the Region in strengthening dental services by providing technical advisory services and fellowships for training in public health dentistry.

AMRO 4407 Dental Epidemiology (1964 - 1968) PAHO (Kellogg Foundation) (US Public Health Service)

To develop, at the University of São Paulo, Brazil, a Latin American centre for training and research in dental epidemiology.

AMRO 4409 Fluoridation of Water Supplies (1967 - 1970) Grant to PAHO: Kellogg Foundation

To provide technical training in the fluoridation of water supplies to sanitary engineers and other key personnel and to disseminate information on the subject.

AMRO 4411 Human and Material Resources in Dentistry (1967 - 1968) Grant to PAHO: US Public Health Service

To study and analyse resources available for dental health services in Latin America and to assist governments in planning the most effective use of them.

AMRO 4500 Health Aspects of Radiation (1958 - ) R PAHO (US Public Health Service)

To stimulate the adoption of international standards and procedures for radiation protection in connexion with the use of X-rays and radioisotopes and the development of regulations for the disposal of radioactive wastes; to promote the teaching of basic health physics, radiobiology, and radiation protection in medical, dental, veterinary public health, and other professional schools; to foster the use of radioisotopes for medical diagnosis, therapy, and research; and to collaborate with countries of the Region in establishing sampling stations for determining the radioactive contamination of air, food and water.

AMRO 4507 Radiation Health Protection (1964 - ) PAHO

To advise governments on protection against radiation hazards.

AMRO 4509 Radiation Surveillance (1962 - 1969) PAHO

To assist governments in the Region in organizing radiation surveillance programmes.

AMRO 4600 Industrial Hygiene (1961 - ) PAHO

To help to organize or improve the operation of national industrial hygiene services by providing technical advice and facilities for training of personnel.

AMRO 4611 Seminar on Silicosis, La Paz (July 1967) R

The purpose of the seminar, which lasted ten days, was to discuss the prevalence of silicosis in miners in Bolivia, Chile and Peru, standardize the manner of assessing the extent of the disease and seek measures for its control. There were thirty-seven participants—representatives of the Governments of Bolivia, Chile and Peru, and of the mining industries in those countries.

The Organization provided two temporary advisers, and some staff members and the adviser in industrial health attached to the industrial health project (AMRO 4600) assisted in preparing for the seminar.

AMRO 4700 Food and Drug Control, Inter-zone (1959 - ) PAHO

To provide technical advice to the national services responsible for the health aspects of production and control of foods, drugs and biologicals, both locally manufactured and imported; and to assist countries in improving national control services.

AMRO 4703 Food and Drug Control, Zone III (1964 - ) R

To assist the countries of Zone III in establishing national food and drug control programmes; and to provide technical advisory services and facilitate training of personnel. The laboratories of the University of Panama act as reference laboratories for the quality control of drugs, and the Institute of Nutrition of Central America and Panama as the reference laboratory for the control of food products.

AMRO 4800 Medical Care Services, Inter-zone (1961 - ) PAHO

To assist countries of the Region with studies associated with aspects of planning, organization, training, and applied research in medical care services.

AMRO 4803 Medical Care Services, Zone III (1962 - ) PAHO

AMRO 4804 Medical Care Services, Zone IV (1963 - ) PAHO

AMRO 4806 Medical Care Services, Zone VI (1961 - ) PAHO

To assist countries of the zone in integrating medical care services into the general health services and in formulating standards for medical care.

AMRO 4807 Rehabilitation, Inter-zone (1962 - ) PAHO

To advise the countries of the Region on problems of medical rehabilitation.

AMRO 4810 Chronic Diseases (1967 - ) PAHO

To advise on problems connected with the obtaining, from many different sources (e.g., private physicians, hospitals, social security systems, industrial compensation schemes) of data on chronic diseases and conditions.
AMRO 4815 Training for Medical Care and Hospital Administration (1967 - ) PAHO

To assist schools of public health in the Region in developing their training programmes in medical care and hospital administration.

AMRO 4816 Progressive Patient Care (1967 - )
Grant to PAHO: Kellogg Foundation

To assist in establishing, in Argentina, Brazil, Chile, Colombia, Costa Rica, Panama, Peru and Venezuela, systems of progressive patient care and in setting up a pilot centre that will also serve as a training centre for personnel from these countries.

AMRO 6100 Schools of Public Health (1953 - ) R

To assist schools of public health in the Region, especially the newer ones, to strengthen and improve their organization, administration and teaching.

AMRO 6200 Medical Education, Inter-zone (1953 - ) R PAHO

To assist countries of the Region to improve medical education, including the teaching of social medicine.

AMRO 6210 Teaching Methods and Administrative Organization of Medical Schools (1964 - ) R

To organize group discussions and seminars for the purpose of assisting medical schools in the Region to review and improve their teaching methods and administrative procedures.

AMRO 6213 Institutions for Training in Health Sciences Research (1964 - 1967) Grant to PAHO: AID

Three short-term consultants helped to establish, in Latin American countries, facilities for training research workers in health sciences. In particular, they advised on the strengthening of the course on health and population dynamics given by the School of Public Health in Santiago, Chile, and assisted in preparing the curriculum of the Centre for Health and Population Dynamics in the School of Hygiene and Public Health of the University of São Paulo, which will offer similar courses. Two twelve-month fellowships to study the teaching of public health were awarded to professors from Brazil.

AMRO 6216 Teaching of Preventive Medicine (1965 - 1969) PAHO Grant to PAHO: Milbank Memorial Fund

To make an assessment of the preventive medicine and community health teaching programmes in the medical schools in Latin America.

AMRO 6300 Nursing Education, Inter-zone (1962 - ) R

To provide advisory services in specialized areas of nursing education, fellowships for members of nursing faculties, and nursing texts in Spanish to schools of nursing in Latin America.

AMRO 6301 Nursing Education, Zone I (1963 - 1969) PAHO

To assess the nursing resources in countries and territories of the Caribbean area; and to carry out a long-term plan for the improvement of nursing services,

AMRO 6310 Programmed Instruction for Nursing Auxiliaries (1965 - 1969) PAHO

To train nurse educators in the technique of programmed instruction for nursing auxiliaries. It is intended to use this method for training the large numbers of untrained nursing personnel working in medical services in Latin America.

AMRO 6400 Sanitary Engineering Education, Inter-zone (1952 - ) PAHO

To assist countries of the Region in expanding their institutions for training sanitary engineers and in revising the curricula.

AMRO 6406 Sanitary Engineering Education, Zone VI (1967 - ) PAHO

To assist the countries of the zone in improving and extending the teaching of sanitary engineering in the schools of engineering.

AMRO 6500 Veterinary Medicine Education (1966 - ) R

To assist schools of veterinary medicine in incorporating public health and preventive medicine into their teaching programmes and in improving teaching methods.

AMRO 6507 Seminar on Teaching of Preventive Medicine and Public Health in Schools of Veterinary Medicine, Lima (13 - 24 March 1967) R

The seminar was held at the Faculty of Veterinary Medicine of the University of San Marcos in Lima. The twenty-four participants—professors of preventive medicine and public health in Latin American schools of veterinary medicine—discussed the schools’ programme of teaching in these two disciplines with a view to developing them and obtaining a greater measure of uniformity in teaching methods.

The Organization provided consultants, the cost of attendance of the participants, and some supplies.

AMRO 6600 Dental Education (1963 - ) R PAHO

To co-operate with university authorities of countries of the Region in improving teaching in schools of dentistry.

AMRO 6607 Seminars on Dental Education (1962 - 1967) PAHO (Kellogg Foundation)

The aim was to assess the situation as regards the teaching of dentistry in the Region and formulate recommendations for the solution of the problems found.

Three seminars have been held—in Colombia in 1962, in Mexico in 1964, and in Brazil in 1966. The third seminar, which took place in Petropolis from 27 November to 2 December 1966, was sponsored jointly by the Organization and the Kellogg Foundation. It was preceded by a survey of the forty-seven dental schools in Argentina, Brazil, Paraguay and Uruguay; a questionnaire was sent to the schools and the information collected was incorporated in a reference document. The seminar discussed post-graduate education in dentistry, the training of auxiliary personnel in dental schools, the role of research in dental schools, and library development, including ways of increasing the use of dental literature. There were fifty participants from Argentina, Bolivia, Brazil, Paraguay and Uruguay, and 120 observers from other countries in the Americas.

The Organization provided consultants, the costs of attendance of participants, and services for the seminars.
AMRO 6608 Training of Auxiliary Dental Personnel  
(1965 - 1969) PAHO

To promote the training of various kinds of dental auxiliary personnel and their use for work for which a fully qualified dentist is not necessary, so as to permit the extension of dental services to the population and reduce their cost.

AMRO 6609 Latin American Association of Dental Schools  
(1965 - 1967) PAHO (American Dental Association)

With assistance from the American Dental Association and the Organization, a central office was set up for the permanent secretariat of the Latin American Association of Dental Schools.

The Organization also provided services for a course on the teaching of dentistry, attended by more than a hundred deans and professors of dental schools in twenty countries, which was organized by the Latin American Association of Dental Schools on the occasion of its third congress held in Petropolis, Brazil, in December 1966, with the collaboration of the Government of Brazil and the Kellogg Foundation.

AMRO 6700 Biostatistics Education and Population Dynamics  
(1952 - ) UNDP/TA PAHO

To improve vital and health statistics in the countries of the Region by training technical and professional personnel in specialized centres.

AMRO 6707 Latin American Centre for the Classification of Diseases  
(1955 - ) R

To study problems of medical certification of causes of death; to give training on classification of causes of death in accordance with the International Classification of Diseases; and to assist in revising the Classification.

AMRO 6708 Training Programme in Hospital Statistics  
(1961 - ) PAHO Grant to PAHO: Kellogg Foundation

To organize training courses in medical records and hospital statistics, in order to improve the collection of essential data for planning health and medical services.
Afghanistan 0011  Malaria Eradication Programme  
To eradicate malaria from the entire country and prevent the re-establishment of endemicity.

Afghanistan 0013  Medical Education  
To strengthen departments of the faculties of medicine of the Universities of Kabul and Nangarhar and to train staff.

Afghanistan 0026  Rural Health  
(April 1956 - 1970) UNDP/TA UNICEF
To further the development of rural health services, in which curative and preventive services are integrated at all levels and effectively directed and supervised, and to train personnel. This project is linked with project Afghanistan 0059, for the development of basic health services (see below).

Afghanistan 0031.1  Institute of Public Health, Kabul  
To develop the Institute of Public Health for service, research and training of public health workers.

To reinforce the teaching of sanitary engineering subjects in the undergraduate civil engineering course.

Afghanistan 0033  Tuberculosis Advisory Services  
To expand tuberculosis control services in and around Kabul; to organize tuberculosis control in the provinces within the framework of the developing basic health services, and to train health personnel in the necessary techniques.

Afghanistan 0035  Nursing Advisory Services  
(June 1957 - 1971) UNDP/TA
To strengthen nursing administration, to develop midwifery education and to co-ordinate and expand nursing education and the nursing services.

Afghanistan 0044  Trachoma Control  
To study the epidemiology of trachoma in Herat Province; to initiate control activities; to develop a programme of health education in communicable eye diseases, and to train staff.

Afghanistan 0051  Training of Radiographers  
(Nov. 1965 - Feb. 1967) R
WHO provided a radiography tutor to assist in training radiographers and radiological technicians at the School for the Training of Radiographers in the Avicenna Hospital, Kabul. Supplies and equipment were also provided and two fellowships were awarded for training in the maintenance and repair of X-ray equipment.

During the period of WHO assistance fifteen first-year and eleven second-year students were given theoretical training in physics, construction of apparatus, first-aid and patient care, X-ray techniques and radiography. Teaching was hampered by lack of technical terminology in the national language and of accurate translations, and there were no facilities for practical training. The Government plans to construct a new X-ray section in the hospital and may require further assistance when it is available for teaching purposes.

Afghanistan 0054  Communicable Disease Control (Smallpox Control) (July 1964 - 1968) UNDP/TA  
To plan and carry out a smallpox control programme; to plan field epidemiological investigations of the major prevailing communicable diseases other than smallpox, and to train personnel in field epidemiology and communicable disease control.

To develop maternal and child health services and the training of auxiliary nurse/midwives in the provinces.

Afghanistan 0059  Development of Basic Health Services  
(April - May 1965; March 1966 - 1975) R UNICEF
To establish basic health services throughout the country, initially through the malaria eradication services and in co-ordination with the rural health project, Afghanistan 0026.

Afghanistan 0061  Central Authority for Housing and Town Planning, Kabul (Jan. 1967 - 1970) R
To develop the sanitary engineering aspects of the work of the Central Authority for Housing and Town Planning.

Afghanistan 0064  Smallpox Eradication (March 1967 - ) R
To carry out a national smallpox eradication programme and to train personnel.

Afghanistan 0066  Rural Water Supply (Nov. 1966 - 1970) R
To plan and implement rural water supply and sanitation programmes.

Afghanistan 0068  Nursing Administration and Education  
(Nov. 1967 - ) R
(i) To carry out a survey of site conditions and requirements for a basic school of nursing and to prepare a design and a complete set of drawings and schedules for the school; (ii) to strengthen nursing administration and education; and to establish the school of nursing.

Afghanistan 0200  Fellowships R: Paediatrics (four for four months), tuberculosis (two for two weeks).
<table>
<thead>
<tr>
<th>Project Code</th>
<th>Project Title</th>
<th>Duration</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan 0201</td>
<td>Fellowships UNDP/TA: Anatomy (twelve months), bacteriology (twelve months), diagnostic radiology (twelve months), pathology (eighteen months), sanitation (eighteen months), vaccine production (six months).</td>
<td></td>
<td>To improve the teaching of undergraduates, and to train staff in statistical methods.</td>
</tr>
<tr>
<td>Burma 0017</td>
<td>Leprosy Control (April 1960 - 1970) UNICEF</td>
<td></td>
<td>To expand and intensify the leprosy control programme to cover all endemic areas of the country and to train personnel for this purpose.</td>
</tr>
<tr>
<td>Burma 0022</td>
<td>Vital and Health Statistics, Rangoon (Dec. 1955 - June 1961; Jan. 1962 - 1968) R</td>
<td></td>
<td>To develop a system of reporting and recording health statistical data and to improve their processing, and to train staff in statistical methods.</td>
</tr>
<tr>
<td>Burma 0031</td>
<td>Malaria Eradication Programme (Feb. 1957 - 1970) R</td>
<td></td>
<td>To eradicate malaria throughout the country in progressive stages.</td>
</tr>
<tr>
<td>Burma 0037</td>
<td>Mental Health, Rangoon (Oct. - Dec. 1955; April 1965 - April 1968) R</td>
<td></td>
<td>To develop basic and post-basic programmes in mental nursing, and in-service training, in order to improve nursing care in psychiatric hospitals.</td>
</tr>
<tr>
<td>Burma 0065</td>
<td>Tuberculosis Control (Jan. 1964 - 1970) UNICEF</td>
<td></td>
<td>To develop community-oriented tuberculosis services, starting in Rangoon and Mandalay, as training and pilot areas, and to extend tuberculosis control work to other parts of the country.</td>
</tr>
<tr>
<td>Burma 0066</td>
<td>Health Education (Nov. 1966 - 1969) R</td>
<td></td>
<td>To organize courses in health education for staff from faculties of teacher-training institutions and for those holding key posts in the school organization and in the general health services.</td>
</tr>
<tr>
<td>Burma 0074</td>
<td>Strengthening of Laboratory Services (May 1967 - 1970) R</td>
<td></td>
<td>To strengthen laboratory services.</td>
</tr>
<tr>
<td>Burma 0078</td>
<td>Plague Control (Dec. 1966 - 1969) R</td>
<td></td>
<td>To assess the factors responsible for the persistence of foci of plague and to train personnel in the epidemiology and control of the disease.</td>
</tr>
<tr>
<td>Burma 0079</td>
<td>Medical Education (Dec. 1964 - Feb. 1965; March 1966 - 1970) R</td>
<td></td>
<td>To improve undergraduate and post-graduate medical education; to train teaching staff; to develop the curricula in keeping with modern concepts, and to initiate, encourage and guide research.</td>
</tr>
<tr>
<td>Burma 0080</td>
<td>Smallpox Eradication (Jan. 1967 - ) R</td>
<td></td>
<td>To carry out a smallpox eradication programme and to establish a maintenance programme and a surveillance system.</td>
</tr>
<tr>
<td>Burma 0200</td>
<td>Fellowships R: Applied parasitology and entomology (eleven months), dental education (one month), diphtheria/pertussis/tetanus vaccine production (one for four months, one for five months, one for six months), epidemiology (twelve months), production of smallpox vaccine (four months).</td>
<td></td>
<td>To strengthen the teaching of mental health in medical colleges.</td>
</tr>
<tr>
<td>Burma 0201</td>
<td>Fellowships UNDP/TA: Applied parasitology and entomology (ten months), bacteriology (twelve months), dentistry (twelve months), electro-encephalography (six months), mental health (twelve months), radiology (twelve months).</td>
<td></td>
<td>To carry out a smallpox eradication programme.</td>
</tr>
<tr>
<td>Ceylon 0004</td>
<td>Maternal and Child Health (Dec. 1966) UNDP/TA</td>
<td></td>
<td>A twelve-month fellowship was awarded under this project, for which staff and fellowships were provided between September 1955 and November 1963.</td>
</tr>
<tr>
<td>Ceylon 0026.2</td>
<td>Leprosy Control (Oct. 1967 - 1969) R</td>
<td></td>
<td>To assess the leprosy problem and plan the further development of the leprosy control programme.</td>
</tr>
<tr>
<td>Ceylon 0038</td>
<td>Strengthening of Health Services (Epidemiology) (June 1967 - 1969) R</td>
<td></td>
<td>To train personnel in epidemiology. Under the first phase of this project (February 1956 - November 1964) assistance was provided in establishing an epidemiological unit in the Directorate of Health Services.</td>
</tr>
</tbody>
</table>
Ceylon 0045 Health Statistics

To revise the system of records and reports in the health services and to train personnel in the design of documents, the processing of statistical data and other advanced techniques in medical and health statistics.

Ceylon 0047 Medical Education

To strengthen teaching in certain subjects in the faculties of medicine of the University of Ceylon at Colombo and Peradeniya.

Ceylon 0053 Nursing Advisory Services

To develop all aspects of basic and post-basic nursing education through the Nursing Unit in the Department of Health. The work done under this project up to October 1966 was described in the Annual Report for 1966.1

Ceylon 0058 Malaria Eradication Programme

To eradicate malaria from the entire country and prevent the re-establishment of endemicity.


To develop piped water supplies in major towns and other community areas.

Ceylon 0066.3 Strengthening of Laboratory Services

To study the epidemiology and control of diarrhoeal diseases and to organize bacteriological diagnostic facilities for enteric diseases in the principal hospitals and in the field; also to reorganize, co-ordinate and strengthen health laboratory services throughout the country.

Ceylon 0072 Health Education (Nov. 1966 - 1969) R

To evaluate the health education programme and to strengthen the health education services.

Ceylon 0074 Institute of Hygiene, Kalutara
(July - Sept. 1964; Feb. 1967 - 1969) UNDP/TA

To develop the Institute as a centre for training and orientation of public health staff, to improve and integrate its services and to add a health laboratory; also to upgrade the district hospital laboratories in the area served by the Institute.

Ceylon 0075 Tuberculosis Control

To organize a community-oriented tuberculosis control programme on a pilot basis in an area of the North-western Province; to continue the BCG vaccination programme and expand it to cover the whole country, and to secure the eventual integration of tuberculosis control measures into the work of the general health services.

Ceylon 0078 Strengthening of Epidemiological Services
(July 1967 - 1968) UNDP/TA

To review the organization and work of the epidemiological services.

Ceylon 0086 Pre-investment Studies of High Priority Water Supply and Sewerage Schemes in South-west Coastal Area

To carry out a pre-investment survey of the water supply and sewerage needs of the south-west coastal area and to prepare a request for further assistance from the Special Fund component of the United Nations Development Programme.

India 0053 Tuberculosis Chemotherapy Centre, Madras
(Dec. 1955 - 1971) UNDP/TA (British Medical Research Council) (Indian Council of Medical Research)

To undertake controlled trials to find simple, effective and inexpensive methods of tuberculosis control through domiciliary chemotherapy of ambulant patients, and to carry out related research.

India 0081.1 Leprosy Control (National Programme)

To carry out a leprosy control programme.

India 0081.2 Leprosy Control, Srikakulam

To provide technical direction for a leprosy control project supported by the Danish “Save the Children” Organization, and to train leprosy auxiliary personnel.

India 0098 Short Courses for Nursing Personnel
(July 1957 - Dec. 1966) R

A number of courses, mostly lasting one month, were given in different Indian states to train nurses in the organization, conduct and evaluation of short courses for nursing personnel and to introduce them to modern nursing concepts and practices that were not included in their previous training. The participants were all qualified nurses serving as matrons, sister tutors or ward sisters. WHO provided a nurse educator from March 1964

Other countries of the Region.

In January 1967 the project was replaced by an inter-country project (SEARO 0139) in order to provide for similar courses in other countries of the Region.

**India 0099.5 Nursing Education (Public Health Integration), Goa (Sept. 1963 - Dec. 1967) UNDP/TA**

To establish professional and auxiliary nursing education programmes in accordance with the pattern laid down by the Indian Nursing Council; to arrange in-service training in all teaching hospitals, and to improve methods of nursing administration in all health services.

**India 0099.6 Nursing Education (Public Health Integration), Punjab (July 1965 - May 1967) UNDP/TA**

The aim was to improve the administration and the educational programmes of basic nursing schools used for post-basic nursing education and to provide sound experience for student teachers and administrators. WHO provided a nurse educator and supplies and equipment.

Assistance was given in upgrading the basic nursing education programme of the Institute of Post-graduate Medical Education and Research, Chandigarh. Other items of work undertaken at the Institute's School of Nursing were reorganization of the curriculum; improvement of school administration; preparation of a master plan for rotation of students through the clinical field; development, to the extent possible, of clinical supervision and teaching; reorganization of the library facilities; and development of field training in public health.

The WHO nurse educator also assisted in the education programmes of the College of Nursing at the University of Punjab, Chandigarh and in the teaching and clinical supervision of post-basic students. In nursing service administration she worked closely with the matron of the post-graduate institute to develop better patterns of nursing care in the institute's hospital. She conducted several field tests of methodology for a study of nursing activities and completed a "Guide to the Study of Nursing Activities in Hospitals and Out-patient Departments".


To implement the national trachoma control programme.

**India 0103 National Tuberculosis Programme (Oct. 1956 - Oct. 1957; Nov. 1957 - 1971) UNDP/TA UNICEF**

To develop a national tuberculosis control programme by providing technical guidance, based on the results obtained in model rural and urban tuberculosis control programmes; epidemiological findings and operational research; to train sufficient public health workers of various categories for the tuberculosis control centres at district and state levels, and to develop adequate methods and procedures for assessment of the programme.

**India 0108.4 Health Education, Gujarat (Dec. 1965 - Dec. 1967) UNDP/TA**

To set up a health education bureau in the Directorate of Health Services of the State on the lines laid down by the Central Health Education Bureau; to provide training in health education for health workers and teachers, and to plan for health education of the public.

**India 0108.5 Health Education, Orissa (July 1964 - June 1965; June 1966; Nov. 1966 - Oct. 1967) UNDP/TA**

The aim was to develop the Health Education Bureau in the Directorate of Health Services, Orissa, along the lines laid down by the Central Health Education Bureau; to provide training in health education for health workers and teachers, and to plan for health education. WHO provided a health educator from July 1964 to June 1965 and from November 1966 to October 1967 and supplies and equipment.

The health educator reviewed the work of the Health Education Bureau, gave orientation training to the staff and assisted in preparing material for teaching purposes. Primary health centres, other health services and the malaria eradication project were visited in order to assess the health education being carried out and plans were prepared for future work. In addition, assistance was provided to the Institute of Education in strengthening the health education content of courses for teachers, and malaria inspectors, district sanitary inspectors and other health staff were trained in health education methods.

**India 0110.4 Nursing Adviser to Orissa (Oct. 1962 - Feb. 1967) UNDP/TA**

The aim was to organize and expand nursing education and nursing services in the state, and to co-ordinate supervisory services so as to ensure uniformly high standards of nursing and midwifery in the health programme. WHO provided a nursing adviser to the Directorate of Health Services for the duration of the project, and supplies and equipment.

A survey was made of the nursing needs and resources of the state, staff records were compiled, and job descriptions for various categories of nursing personnel were prepared. In-service education programmes were promoted in all the state hospitals and assistance in carrying them out was given to the nursing staff. Information material was distributed to the public on nursing and on the policies and procedures for the recruitment of student nurses and auxiliary nurse/midwives. The national counterpart to the WHO nursing adviser was awarded a two-year fellowship to enable her to obtain a nursing degree, with specialization in nursing administration. A post of Assistant Director of Health Services (Nursing) was established in the Directorate of Health Services.

**India 0110.5 Nursing Adviser to Gujarat (Sept. 1963 - 1968) UNDP/TA**

**India 0110.7 Nursing Adviser to Bihar (Oct. 1966 - 1970) UNDP/TA**


To strengthen selected medical colleges.


To strengthen the paediatric departments of selected medical colleges and non-teaching and district hospitals.


To expand and upgrade the teaching of paediatrics in the state's medical and nursing colleges and schools.
India 0114.6 Paediatric Training and Services, Punjab (Nov. 1965 - 1970) R UNICEF

To plan and conduct a post-basic course in maternal and child health nursing in the College of Nursing, Institute of Post-graduate Medical Education and Research, Chandigarh.


To set up a statistical unit at the headquarters of the Indian Council of Medical Research and to organize and co-ordinate medical research.

India 0136.2 Post-basic Nursing Education, Gujarat (Jan. 1963 - Dec. 1966) R

The aim was to expand public health nursing education and to upgrade public health and institutional nursing services. WHO provided a nurse educator for the duration of the project.

A one-year certificate course was started for the preparation of public health nurses, and two years later a similar course for nurse tutors was begun. To facilitate the joint administration of the two programmes, a post-basic school of nursing was established under the Ministry of Health. In 1966 the Academic Council of Gujarat University recognized both courses for study during the first year of a two-year post-basic course for qualified nurses, leading to a bachelor of science degree in nursing. A college of nursing, affiliated to the University, is to be opened to provide a nurse educator for the duration of the project.

In 1963 and 1964, two-month courses on the implementation of the new basic minimum curriculum laid down by the Indian Nursing Council, with special emphasis on the public health content, were attended by forty nurse tutors from all parts of India.

The project has placed emphasis on practical work in public health nursing in both urban and rural areas and on experience in teaching and administration of nursing schools. The nucleus of a good library has been set up and plans made for its gradual extension, and a long-term fellowships programme drawn up for the preparation of staff to teach in the degree course.

At the termination of WHO assistance, twenty-nine public health nurses and nine nursing tutors had qualified and seventeen students had been enrolled for the following year's courses.

India 0136.3 Post-basic Nursing Education, Punjab (March 1964 - 1970) R

India 0136.5 Post-basic Nursing Education, Madras (June 1964 - 1970) R

To set up a post-basic nursing school affiliated to a university.

India 0136.6 Post-basic Nursing Education (Guide for Auxiliary Nurse/Midwives) (April - Dec. 1966) R

WHO provided a nurse educator who prepared a draft outline of a study guide for auxiliary nurse/midwives and assisted in the preparation of reference and teaching materials for institutions offering short courses to qualified nurses.

India 0153 Malaria Eradication Programme (Aug. 1958 - 1972) R (AID)

To eradicate malaria from the whole country and prevent the re-establishment of endemicity.


The aim was to plan improvements to the water supply and drainage systems of Greater Calcutta. WHO provided four consultants in 1959, one for three months in 1961 and another (sanitary engineering planner) from 1963 to 1966, a resident engineer (project manager) from 1963 to 1967, and a consortium of consulting engineers. Five fellowships—three of twelve months, one of nine months and one of six months—were awarded.

Following a preliminary report by the consultants assigned to the project in 1959, the consortium of consulting engineers began work in February 1963 on the preparation of a master plan; their report was submitted to the Government in November 1966. The WHO consultant in sanitary engineering planning assisted in preparing the final report on the project, which is being submitted to the Government through the United Nations Development Programme.

Assistance to the Calcutta Metropolitan Water and Sanitation Authority is to be provided under another project (India 0240).


To develop the production of immunizing agents against diphtheria, pertussis and tetanus.


To increase the production of freeze-dried smallpox vaccine.

India 0176 Central Public Health Engineering Research Institute, Nagpur (Feb. 1961 - 1970) R UNDP/SF

To develop the Central Public Health Engineering Research Institute as a major research centre for environmental sanitation problems, to co-ordinate research programmes and to train research workers.

India 0180 Health Education in Schools (July 1964 - 1968) R

To develop the health education content of basic teacher-training courses, with the aim of extending training in health education to teacher-training institutions throughout the country.


To expand and improve the health component of the applied nutrition programme, particularly as regards the health and nutrition of mothers and children.

India 0182 Strengthening of Health Services (Epidemiology) (March 1963 - 1970) UNDP/TA

To establish or improve health intelligence units in state health directorates; to train staff in epidemiology, health statistics, microbiology and communicable disease control; and to develop the National Institute of Communicable Diseases, Delhi.
India 0183 Medical Education, Gujarat State
(Dec. 1962 - 1968) UNDP/TA

To develop medical education and medical research in Baroda Medical College.

India 0185.1 Strengthening of Health Services, Jamnagar
(Jan. 1964 - June 1967) R UNICEF

The aim was to strengthen the national health services at state, district and local levels, with emphasis on the training of all categories of health staff and on operational research. WHO provided a public health officer, a public health nurse and a sanitary, a fellowship and supplies and equipment.

The work of the WHO team included assistance in an assessment of the health service administration; measures for improvement of the administration and expansion of the services; organization of refresher and orientation training for health staff; development of a sanitation programme; starting of a district tuberculosis programme to be carried out through the primary health centres; a study of in-patients treated at the primary health centres; and the introduction, on a trial basis, of a new recording and reporting system for the centres. The laboratory at Shah Medical College was improved and now serves as a referral laboratory for Jamnagar District.

The project has shown that it is possible to increase the output, both in quality and quantity, with the health staff available. This was achieved by revising job descriptions, giving in-service training, and ensuring adequate supervision and guidance.

India 0185.2 and 3 Strengthening of Health Services, Punjab and Haryana (Jan. 1967 - 1970) R UNICEF

To strengthen the national health services at state, district and local levels, giving particular attention to the provision of training programmes for health staff and the supervision of auxiliary staff by professional staff, and to operational studies.

India 0187 Training of Radiographers (March 1967 - 1970) R

To train radiographers.

India 0188 Strengthening of Laboratory Services (Feb. 1965 - 1970) R

To strengthen health laboratory services and to improve the training of laboratory technicians.

India 0191 Development of Health Services in Community Development Areas

The aim was to strengthen the development of rural health services and to train staff, including multipurpose health auxiliaries. WHO provided a consultant in public health for three months in 1964-1965 to advise on the development of health services in community development areas, and a public health officer, stationed in Chandigarh, from December 1965 to December 1966, as well as supplies and equipment.

The public health officer made operational studies of certain of the project activities. He ascertained the extent of the basic health workers' knowledge of malaria and other communicable diseases, and of family planning, and studied their workload, and drew up a syllabus for the in-service training of malaria microscopists who, together with the laboratory technicians from the malaria eradication programme, were given training to enable them to staff the side-room laboratories of the primary health centres in Kannal District. It was decided that field work in tuberculosis control should be carried out by the staff of the primary health centres.

Following the division of Punjab State into two states—Punjab and Haryana—the project was merged with those for strengthening the health services in the two new states (India 0185.2 and 0185.3), both of which are being assisted by a single WHO team.

India 0192 Radiation Medicine Centre, Bombay

To strengthen the Radiation Medicine Centre, Bombay.

India 0194 Medical Rehabilitation

To extend medical rehabilitation services, to establish regional rehabilitation centres in some large cities and rehabilitation units in certain medical colleges, and to improve the facilities at the All-India Institute of Physical Medicine and Rehabilitation, Bombay.

India 0195 Courses in Radiological Physics, Bombay

Five one-year courses in radiological physics were given by the Directorate of Radiation Protection of the Department of Atomic Energy, Bombay, at the Bhabha Atomic Research Centre, Trombay.

WHO provided travel costs and stipends for participants and, for each course, a consultant who gave a series of lectures and assisted in drawing up the curriculum and in the general planning and conduct of the course.

India 0200 Fellowships R: Cancer (twelve months), dentistry (twelve months), embryology (twelve months), epidemiology (one for three months, two for eight and a half months), epidemiology and biostatistics (two for twelve months), epidemiology and plague control (six months), international quarantine (three months), microbiology (three and a half months), neurosurgery (six weeks), nutrition (thirteen months), ophthalmology (one for two months, one for three months and ten days), oral and maxillo-facial surgery (twelve months), paediatric surgery (twelve months), tuberculosis control (two for six weeks, one for five months, one for twelve months).

India 0201 Fellowships UNDP/TA: Facial surgery (twelve months), food control (six months), neurophysiology (twelve months), nursing (six months), nutrition (six months), public health dentistry (twelve months), public health engineering (six months), sanitary engineering (six months), serology (twelve months), smallpox vaccine production (three months), tuberculosis (five months), venereal disease control (six months).

India 0208 Improvement of Dental Education
(July - Dec. 1966; Sept. 1967 - 1969) UNDP/TA

To improve and strengthen dental education and research in a dental college.

India 0210 Public Health Engineering Education
(Sept. 1967 - 1970) UNDP/TA

To train sanitary engineers and to develop advanced courses in design for community water supply programmes.
India 0211 Environmental Health: Assistance to States (Jan. 1967 - 1970) UNDP/TA

To organize advanced training programmes for senior sanitarians.

India 0217 Yaws Eradication Programme (Dec. 1966 - May 1967) Special Account for the Yaws Programme

A WHO consultant made a survey of the endemic foci of yaws in Madhya Pradesh, Maharashtra, Andhra Pradesh, Madras and Orissa and submitted recommendations for further action.

India 0218 National Institute of Health Administration and Education, New Delhi (Sept. 1965 - 1970) R UNICEF

To teach hospital and health administration and to plan comprehensive district health services.


To assist with seminars in specialized fields organized by the Indian Academy of Medical Sciences, in order to strengthen medical teaching in the country.

India 0222 Drug Laboratory Techniques and Biological Standardization (Oct. - Dec. 1967) R

WHO provided a consultant to review the situation in drug quality control laboratories in India and to make recommendations to help in the planning of drug control facilities that would enable the needs of the country to be met.


To acquaint senior nurses with the latest developments in the application of certain managerial techniques to nursing administration; to prepare a guide for the study of nursing activities in health services; and to carry out studies of the work of auxiliary nurse/midwives in the states of Haryana, Punjab and Gujarat.

India 0228 Registry of Pathology (Nov. 1966 - March 1967) R

WHO provided two consultants (a pathologist and a laboratory technician) and supplies and equipment, to assist the Indian Registry of Pathology in setting up a centre at the Grant Medical College, Bombay, to prepare gross pathology and histopathology teaching material for medical colleges in the Region. In November 1966 the pathologist visited the Grant Medical College to prepare a list of the supplies and equipment required for the centre and, in February and March 1967, together with the laboratory technician he assisted in organizing the centre and in training staff.

India 0232 Course in Hospital Physics (Oct. 1967 - 1969) R

To train hospital physicists.

India 0233 Smallpox Eradication (Oct. 1967 - ) R

To develop the smallpox eradication programme, including its maintenance phase, and to carry out periodic assessment.

India 0246 Conference of State Engineers (Rural Water Supplies) (27 - 28 Dec. 1966) R

The purpose of the conference was to gather information on the state of development of rural water supply projects in India assisted by UNICEF and WHO, and to exchange ideas and experience in order to speed up and improve the programmes. It was attended by chief engineers of Public Health Engineering Departments of ten states in which UNICEF/WHO-assisted rural water supply projects were in operation or planned, and by the Deputy Director-General of Health Services (Public Health Engineering), the Director of the Central Health Education Bureau in New Delhi and the Director of the Planning, Research and Action Institute in Lucknow.

WHO provided the cost of attendance of fourteen participants.

India 0250 Integration of Maternal and Child Health Services into the General Health Services (Sept. 1967 - ) UNDP/TA

To integrate maternal and child health services, including health aspects of population dynamics, into the general health services in selected states.

India 0258 Improvement of Hospital Facilities (Oct. 1967 - ) R

To carry out a design study and prepare a master plan and supporting drawings for remodelling old hospitals.


To develop, within the framework of the general health services, a leprosy control programme in all endemic areas of the country, and to train personnel.

Indonesia 0032 Malaria Eradication Programme (May 1955 - 1974) R

To eradicate malaria throughout the country by stages.


To expand, reorient and improve the teaching of medical and nursing students in promotional, preventive and curative care of children in a number of paediatric departments of medical schools.


To improve methods of production of vaccines, antitoxins and toxoids.

As from 1968 the work of this project will be continued under a new project providing for assistance in smallpox vaccine production (Indonesia 0083).


To upgrade and expand training programmes for nurses and midwives.

Indonesia 0050 Tuberculosis Control (July 1961 - 1968) R UNICEF

To integrate direct BCG vaccination into the network of maternal and child health clinics and regency polyclinics and train staff for the purpose; and to extend tuberculosis case-finding by means of microscopic sputum examination, and the ambulatory treatment of cases.

Indonesia 0060 Laboratory Services (June 1967 - 1969) R

To strengthen health laboratory services.

Indonesia 0062 Medical Education (May 1964 - 1970) R

To improve departments of various faculties of medicine.
Indonesia 0065 School of Physical Therapy, Solo (March 1963 - April 1967) R

The aim was to expand and improve the training of physical therapists and to develop physical medicine and rehabilitation services. WHO provided a physical therapy tutor from March 1963 to December 1965 and for short periods in 1966 and 1967, and supplies and equipment.

The physical therapy tutor was assigned to the School of Physical Therapy in Solo, where a three-year course for training physical therapists was started in September 1963 with twenty students. The level of the training was raised and in October 1964 the school became an “Academy of Physical Therapy”.

Nineteen trained assistant physical therapists from hospitals attended the first upgraded course. Two received further training under Colombo Plan fellowships.

The physical therapy tutor also assisted with a one-year course for training sixteen physical therapy aides at the Crippled Children’s Centre, Solo, in 1963-1964 and with a two-week post-graduate course in medical rehabilitation and physical therapy at the Solo Rehabilitation Centre in 1964, attended by twenty-four physicians.

In June and October 1966 and in April 1967 the physical therapy tutor assisted the staff of the Academy of Physical Therapy in examining students, gave short courses on physical therapy teaching methods, and discussed future plans with the national authorities.


To establish a school for training technicians in the maintenance and repair of X-ray and electro-medical equipment.

Indonesia 0074 Education and Training of Public Health Staff (June 1967 - 1969) R

To train health personnel, especially paramedical, for the public health services.

Indonesia 0200 Fellowships R: Anaesthesiology (eleven months), public health administration (two for ten months, one for twelve months), sanitary engineering (twelve months).

Maldive Islands 0005 Public Health Administration (Oct. 1959 - 1971) R

To develop comprehensive basic health services and to train personnel, including health auxiliaries; and to carry out anti-malaria activities in the island of Male.

Maldive Islands 0200 Fellowships R: Malaria eradication (three months).

Maldive Islands 0201 Fellowships UNDP/TA: Nursing (twelve months).

Mongolia 0001 Strengthening of Health Services (Epidemiology) (July 1963 - 1970) R

To carry out epidemiological surveys of the prevailing communicable diseases in order to plan practical control measures; to advise all branches of the medical and health services on the use of epidemiological methods, and to train personnel.


To develop the health laboratory services and to train personnel in health laboratory work.


To study the epidemiology of tuberculosis and to plan a national tuberculosis control programme.


To develop the maternal and child health services and to establish referral facilities.

Mongolia 0005 Environmental Health (Community Water Supply) (June 1966 - 1970) UNDP/TA UNICEF

To develop water supplies and excreta disposal systems in provincial towns and rural areas.


To develop health statistical services and train personnel in health statistics procedures.

Mongolia 0008 Nursing Services and Education (Dec. 1966 - 1972) R

To set up a basic school of nursing; to strengthen existing training programmes for nursing personnel, and to improve nursing services.

Mongolia 0010 Cardiovascular Diseases (May 1967 - 1969) R

To study the epidemiology of cardiovascular conditions.

Mongolia 0200 Fellowships R: Medical services administration (two for nine months), physiology (six months), public health administration (seven and a half months).

Mongolia 0201 Fellowships UNDP/TA: Physiology (six months).

Nepal 0001 Malaria Eradication Programme (June 1954 - 1973) R (AID)

To eradicate malaria throughout the country by stages.

Nepal 0002 Nursing Education and Services (Nov. 1954 - 1974) UNDP/TA

To establish, in the Directorate of Health Services, a division of nursing to co-ordinate nursing activities in the country; to set up a basic nursing school to prepare qualified nurse/midwives for the health services; to organize courses for the preparation of auxiliary nurse/midwives; to upgrade nursing services in Bir Hospital, and to improve the clinical training of student nurses.


To develop effectively directed and supervised health services in which curative and preventive services are integrated at all levels and which are able to provide adequate technical guidance for field work and for the training of staff for the basic health services.


To develop the maternal and child health services and establish referral facilities.
Nepal 0009 Smallpox Eradication and Control of Other Communicable Diseases  
To start a smallpox control pilot project in Kathmandu valley with a view to undertaking an eradication programme, and to develop the communicable disease control unit.

Nepal 0010 Health Laboratory Services  
(May 1967 - 1970) UNDP/TA UNICEF  
To develop health laboratory services in order to improve diagnostic services and provide support for an epidemiological unit.

Nepal 0013 Leprosy Control (March 1967 - 1970) R  
To develop the services for leprosy control in the Kathmandu valley and to train health personnel.

Nepal 0014 Community Water Supply  
(June 1964 - 1970) R UNICEF  
To plan and co-ordinate the development of community water supplies.

Nepal 0016 Tuberculosis Control  
(March 1965 - 1970) R UNICEF  
To plan and implement a tuberculosis control programme, starting in the Kathmandu valley, as part of the basic health services, and to train health personnel for the purpose.

Nepal 0017 Vital and Health Statistics  
(Feb. - March 1967) UNDP/TA  
The WHO consultant assigned to Nepal between November 1965 and February 1966 provided further assistance in connexion with the collection, processing and presentation of hospital statistics. A national index of hospitals was started and a report was prepared containing diagnostic statistics and administrative data for hospitals in the Kathmandu valley for the year 1965-1966. Some supplies and equipment were also provided.

To plan health education in the basic health services and in specialized projects and to strengthen the health education services.

Nepal 0200 Fellowships R: Health education (four months).

Thailand 0002.2 Strengthening of Health Services (Integration of Specialized Programmes)  
To integrate specialized programmes for the control of communicable diseases into the general health services and to develop the rural health services.

Thailand 0017.2 Mental Health Education and Services  
To strengthen the psychiatric nursing content of the basic nursing curriculum, to organize a post-basic programme in psychiatric nursing, and to improve the mental health services.

Thailand 0021 Nursing Advisory Services  
To co-ordinate nursing services and nursing education through the Division of Nursing in the Ministry of Public Health; to develop basic nursing education, and to establish a college of nursing that will provide a programme leading to a degree of bachelor of nursing.

To intensify the leprosy control programme and extend it to cover all endemic areas, and to train personnel.

Thailand 0038.2 School of Public Health, Bangkok  
(Dec. 1966 - ) R  
To plan and advise on the various courses of the School of Public Health,

Thailand 0042 Tuberculosis Control  
To develop a national tuberculosis control programme based on the experience gained in urban and rural pilot projects, and to train health personnel in tuberculosis control techniques.

Thailand 0043 Trachoma Control  
To develop a trachoma control programme, integrated into the public health services, in the areas where the disease is endemic.

Thailand 0057 School of Tropical Medicine  
To strengthen the post-graduate School of Tropical Medicine of the University of Medical Sciences, Bangkok.

Thailand 0058 Departments of Paediatrics  
A WHO consultant in paediatrics studied the development of the paediatric education programmes in the Siriraj and Chulalongkorn medical colleges and advised on measures for further improvement.

Assistance in improving the maternal and child health services in Bangkok and the undergraduate training in paediatrics given in the two medical colleges was provided under this project between May 1962 and July 1964.

Thailand 0059 Strengthening of Health Services (Epidemiology)  
To establish, in the Department of Health, an epidemiological unit for defining prevailing disease patterns and planning control measures.

Thailand 0065 Malaria Eradication Programme  
(Jan. 1962 - 1972) R (AID)  
To eradicate malaria from the entire country.

Thailand 0067 Radiation Protection Services  
To establish a Division of Radiation Health Protection in the Ministry of Public Health, to develop radiation protection measures, and to organize a radiation protection course.
Thailand 0070 Vector-borne Disease Control (Haemorrhagic Fever) (June 1963 - June 1967) R

The aim was to study the epidemiological factors responsible for the persistence of haemorrhagic fever, and particularly the bionomics of the vectors, with a view to planning effective control measures. A WHO consultant made a study of the epidemiological situation in June 1963 and, in accordance with his recommendations, the Government started a pilot project in the village of Hvai Kwang, on the outskirts of Bangkok, in April 1964. In June 1964 the consultant visited the project to assess progress. Between March and May 1965 a second WHO consultant and the entomologist from the regional assessment team on malaria eradication (SEARO 0007) assisted in carrying out susceptibility tests on Aedes aegypti larvae in eleven localities of the urban area of Bangkok. A twelve-month fellowship was awarded to a medical officer in June 1967.

Further assistance is being provided by the Aedes Research Unit, Bangkok, under project Inter-regional 0306.

Thailand 0071 School for Radiological Technology, Bangkok (Jan. 1965 - 1968) UNDP/TA

To train radiographers.


To develop the training of physical therapists for the expansion of orthopaedic and rehabilitation services.

Thailand 0076 Health Education (Dec. 1966) R

A WHO consultant assisted the School of Public Health in improving its health education courses, particularly as regards the programme for school health educators. The School's manual for field training was revised and a section on field training for school health education students was added.

Thailand 0081 Water Pollution (Dec. 1966 - 1969) R

To improve measures for the prevention and control of water pollution.

Thailand 0082 Venereal Disease Control (Feb. 1967 - 1968) R

To organize a programme for the control of venereal diseases.


To improve dental education of professional and auxiliary dental staff, and to strengthen dental services.

Thailand 0200 Fellowships R: Health education (two for three months, two for three and a half months), medical services administration (one month), nutrition (ten days), physical therapy (twelve months), preventive and social medicine (ten months), public health administration (two for one month), rural health (three for two months), tuberculosis control (two weeks), venereal disease control (three weeks), veterinary public health (twelve months).

Thailand 0201 Fellowships UNDP/TA: Diphtheria/pertussis/tetanus vaccine production (twelve months), nutrition (twelve months), preventive and social medicine (ten months).


To make an independent appraisal of the status of malaria eradication and of any special aspects of the eradication programme in countries of the Region.

SEARO 0030 Smallpox Eradication and Epidemiological Advisory Team (Oct. 1962 - 1970) UNDP/TA

To assist the countries of the Region in the eradication of smallpox and in the development of epidemiological services.

SEARO 0038.2 Production of Freeze-dried Smallpox Vaccine (Nov. 1967 - 1968) R

To assist countries of the Region with the production of freeze-dried smallpox vaccine.

SEARO 0050 Reorganization of Rural Health Records and Reports (Jan. 1961 - 1968) R

To organize a system of rural health service records and reports in certain rural health centres in Afghanistan, India, Nepal and Thailand, and to train personnel in the collection, processing and presentation of vital and health statistics at the rural health centre level.

SEARO 0061.2 Course for Medical Records Officers, Rangoon (9 Nov. 1966 - 15 Sept. 1967) R

The purpose of the course was to train medical records officers for hospital records and statistical departments. It was the second course of its kind, the first having been held in Bangkok in 1964-1965. There were eight trainees from Burma, India, Indonesia and Thailand, and four medical records officers from Malaysia attended part of the course. The WHO medical records officer attached to the vital and health statistics project in Burma (Burma 0022) planned and directed the course, and undertook part of the teaching with assistance from the staff of that project and the medical records officer assigned to the inter-country hospital statistics project (SEARO 0072). A number of guest lecturers were appointed by the Government of Burma. WHO provided six fellowships—five for ten months and one for seven and a half months—and supplies and equipment.

SEARO 0064 Development of Community Water Supply Programme (April 1965 - 1971) R

To provide governments of the Region with consultant services for the development of their urban and rural community water supply projects.

SEARO 0072 Hospital Statistics (Jan. 1963 - 1968) UNDP/TA

To assist the Governments of Afghanistan, Ceylon, India and Thailand in organizing an efficient system for the maintenance and flow of records in certain hospitals, in collecting, processing and presenting hospital statistical data on a national scale, and in training medical records and hospital statistics personnel.


The project was undertaken in accordance with a resolution of the Regional Committee for South-East Asia, to provide facilities for external cross-checking of blood films from malaria eradication programmes in the Region. WHO provided a laboratory technician and a grant to the Government of India to meet the salaries of national staff and contingent expenses.
In co-operation with the Government, a centre for cross-checking was established at the Central Research Institute, Kasauli, in June 1963 and up to the end of 1966 it examined 106,539 blood slides, 80 per cent. of which were received from Ceylon.

SEARO 0096 Medical Education

Under this project, the aim of which was to assist in improving teaching methods in medical schools, the following assistance was provided:

(a) In November 1965 a consultant in social obstetrics was assigned to Ceylon for three months to advise on the inclusion of the subject in the teaching of obstetrics and gynaecology.

(b) In July 1966 a consultant in paediatrics was provided to India for eight months to advise on post-graduate training in paediatrics. During his visit he also made a study of the paediatric education programmes assisted by UNICEF and WHO in India.

(c) In February 1967 a consultant went to Ceylon and India for one month to advise on the maintenance and repair of electro-medical equipment. He visited the workshops in the General Hospital, Colombo and the Barnard Institute of Radiology, Madras, and advised on the possibility of their being used for teaching purposes.


To assist training in nutrition and to support the Nutrition Research Laboratories, Hyderabad, India, in carrying out their programme.

SEARO 0099.3 Epidemiology of Virus Diseases

To assist in the development of global epidemiological surveillance of haemorrhagic fever and in studies on methods of control at the national and international levels.

SEARO 0102 Asian Institute for Economic Development and Planning, Bangkok
(Jan. 1964 - 1971) R UNICEF (ECAFE)

To strengthen the faculty of the Asian Institute for Economic Development and Planning, established with the help of the United Nations Development Programme (Special Fund) and UNICEF, and to assist with the training in health aspects of planning and public health administration.

SEARO 0103 Hospital Designs

To assist in the preparation of hospital designs.

SEARO 0112 Seminar on Smallpox Eradication, New Delhi
(12-16 Dec. 1966) UNDP/TA

The purpose of the seminar was to exchange information on the epidemiological factors responsible for the persistence of smallpox endemic areas, on the methods adopted in the smallpox control and eradication programmes in operation in the Region, and on means of strengthening the programmes in order to achieve the eradication of the disease. Ten medical officers responsible for smallpox eradication programmes in the Region attended the seminar, in which the members of the WHO smallpox eradication and epidemiological advisory team (project SEARO 0030) also took part. The report of the seminar stressed the necessity of adequate coverage of the population by vaccination, and of proper supervision of the work and evaluation of results. Other points covered were the quality and handling of vaccine, the vaccination method, and contra-indications to vaccination. Guidelines for the improvement of the programmes were drawn up.

WHO provided a consultant for two weeks.

SEARO 0116 Nursing Conference, Bangkok

The purpose of the conference was to prepare guidelines and recommendations for the conduct of in-service nursing education programmes in hospitals and public health agencies in the Region. It was attended by twenty-four senior nurses from Afghanistan, Ceylon, India, Indonesia, Nepal and Thailand.

WHO provided a consultant for four months and the cost of attendance of the participants. The regional nursing adviser, and other WHO staff from the Regional Office, headquarters and field programmes in the Region assisted with the conference.

SEARO 0124 Typhoid Immunization (Nov. 1966 - 1969) R

To assist governments of the Region in the preparation of acetone-inactivated and dried vaccine, in order to facilitate systematic immunization programmes for susceptible age-groups.


To assist governments of the Region in improving infectious-disease hospitals to enable them to provide adequate diagnostic, treatment and teaching facilities.

SEARO 0129 Health Statistics Seminar, New Delhi

The purpose of the seminar was to enable health statisticians and health administrators to review together the health statistics programmes in their countries, particularly with respect to rural health records and reports. There were twenty participants from seven countries of the Region and ten observers—one from Mongolia, seven from the Eastern Mediterranean and Western Pacific Regions, one from UNICEF and one from the Rockefeller Foundation. In addition, a number of WHO staff members working in community health service projects attended.

WHO provided two consultants and the cost of attendance of the participants.


To provide workshops for national leaders in health administration and health education and to develop a methodology for planning health education as an integral part of health programmes; to suggest procedures for planning and implementing health education activities, and to evolve criteria for evaluating their effectiveness.

SEARO 0131 Seminar on Goitre Control, New Delhi

The seminar had fourteen participants from Afghanistan, Burma, Ceylon, China (Taiwan), India, Malaysia, Nepal and Thailand, and there were two observers from FAO and one from UNICEF. They discussed the prevalence and severity of endemic goitre in the countries represented, control measures taken or planned, and difficulties encountered, and made recommendations on control programmes.
WHO provided two consultants and the cost of attendance of the participants, and three staff members assisted with the seminar. A consultant was also provided by UNICEF.

SEARO 0133 Strengthening of Medical Education  
(April 1967 - 1968) R
To strengthen departments of medical colleges and to introduce modern teaching methods.

SEARO 0136 Smallpox Eradication Programme  
(Nov. - Dec. 1966) Special Account for Smallpox Eradication
WHO provided a consultant for six weeks to review the smallpox control projects in Afghanistan and Nepal. He made recommendations for intensification of the campaigns with a view to eventual eradication of the disease.

SEARO 0138 Course on Leprosy Control, Bangkok and Phra-pradaeng  
The main purpose of the course, which was attended by thirteen doctors from Afghanistan, Burma, India, Indonesia, Nepal and Thailand, and six WHO fellows studying in Thailand, was to promote the adaptation of control measures to present knowledge of leprosy epidemiology. It included an intensive review of the clinical aspects of the disease, as well as of its epidemiology, and a critical assessment of leprosy control measures in various parts of the Region was undertaken.
Assistance with the course was provided by WHO regional office staff and staff from WHO-assisted leprosy control projects in the Region.

SEARO 0139 Short Courses for Nursing Personnel  
To organize in the countries of the Region short courses for qualified nursing personnel and to assist in training nursing personnel in the organization, conduct and evaluation of such courses.

SEARO 0144 Production of Rehydration Fluid  
(Feb. - March 1967) R
WHO provided a consultant for five weeks to advise the Governments of Afghanistan, India and Nepal on the production and distribution of rehydration fluid and its application in the treatment of cholera and other acute diarrhoeal diseases.

SEARO 0146 Regional Cholera Control Team  
(Sept. 1966 - 1970) R
To assist governments in combating the risk of cholera and in controlling outbreaks of the disease.

SEARO 0151 Meeting on Anaemia, New Delhi  
(12 - 13 Jan. 1967) R
Two temporary advisers assisted with an informal meeting, attended by representatives of Ceylon and India, at which the nature and extent of nutritional anaemia in the two countries were discussed.

SEARO 0200 Fellowships R: Five for two weeks, to physicians from Afghanistan, Ceylon, Indonesia, Nepal and Thailand, for participation in a seminar on hospital administration held in New Delhi.
Albania 0005 Cancer Control (1962 - ) UNDP/TA
To develop a specialized cancer control programme by building up a central institute with up-to-date equipment, and by training physicians, physicists and engineers for the medical and technical aspects of the programme.

Albania 0006 Vaccine Production (1966 - 1970) R
To develop adequate facilities for the production of the vaccines and sera necessary for preventing and controlling communicable diseases.

Albania 0007 Central Institute of Epidemiology, Microbiology and Immunology (1965 - 1972) UNDP/TA
To develop the Central Institute of Epidemiology, Microbiology and Immunology, which is to be established in Tirana to conduct work in microbiology, virology and parasitology, produce sera, vaccines, toxoids and gamma-globulins and provide specialized training for various categories of personnel.

Albania 0008 Centre for Resuscitation and Casualty Services (1967 - ) UNDP/TA
To establish a centre to strengthen the organization of resuscitation and casualty services and to train the necessary staff.

Algeria 0001 Communicable Eye Disease Control (1956 - ) UNDP/TA UNICEF
To carry out a programme for the control of communicable eye diseases. The programme includes a self-treatment mass campaign and the organization of collective treatment in schools, the control of trachoma and related diseases in the family environment, health education, and the training of technical personnel.

Algeria 0006 Rehabilitation (1963 - 1967) UNDP/TA
The aim was to promote rehabilitation for the disabled, make a general rehabilitation plan for the country, and train personnel in rehabilitation techniques. From 1963 to 1966 WHO provided a specialist in medical rehabilitation who assisted in planning and organizing rehabilitation services and, from 1963 to 1967, a physical therapist. Between 1963 and 1965 thirty-seven assistant kinesitherapists were trained in three courses. In 1965 a school for kinesitherapists was opened and the first ten students graduated in 1967. A three-month fellowship was awarded to the Director of the School.

Algeria 0007 Environmental Health (1963 - 1972) R UNICEF
To develop and strengthen environmental health services and to train sanitation personnel.

Algeria 0008 Environmental Sanitation (1963 - 1972) UNDP/TA UNICEF
To train sanitation personnel and promote work in environmental sanitation.

Algeria 0010 Community Water Supply (1963 - ) Special Account for Community Water Supply
To study specific aspects of the community water supply programme.

Algeria 0014 Nursing Education (Oct. 1963 - 1972) UNDP/TA UNICEF
To organize and implement basic training programmes for the different categories of nursing and midwifery personnel and to establish a post-basic school to prepare nurses for administrative and teaching responsibilities.

Algeria 0015 Training of Medical Assistants (1965 - ) R
To plan and organize training for medical assistants (techniciens sanitaires).

Algeria 0200 Fellowships R: Engineering—diploma course (ten months), sanitary engineering (eleven months), virology (six months).

Algeria 0502 Environmental Health (1963 - 1972) R UNICEF
To develop and strengthen environmental health services and to train sanitation personnel.

Algeria 0503 Environmental Sanitation (1963 - 1972) UNDP/TA UNICEF
To train sanitation personnel and promote work in environmental sanitation.

Algeria 0504 Health Education (1964 - 1971) UNDP/TA UNICEF
To promote health education work; to train personnel of various categories in the subject; to develop methods and techniques of health education and to prepare material adjusted to the conditions in and needs of the country.

Algeria 0505 Nutrition Advisory Services (1963 - 1971) R (FAO)
To conduct nutrition surveys, to review programmes for the prevention of malnutrition, and to train personnel.

Algeria 0506 Epidemiology and Health Statistics (Jan. 1964 - 1970) UNDP/TA
To organize health statistical services and to train national personnel in health statistics; to use the statistical data collected for determining priorities in public health planning.

Algeria 0507 Nursing Advisory Services (Oct. 1963 - 1970) UNDP/TA
To reorganize and improve nursing and midwifery services.
Algeria 0508  Malaria Pre-eradication Programme (1964 - ) R MESA
To prepare technical, administrative and operational services for a malaria eradication programme within the framework of the rural health services; to organize the network of rural health services which, in the course of the preparatory, attack and consolidation phases of the malaria eradication programme, will carry out malaria case-finding and treatment.

Algeria 0509  Public Health Laboratories (May 1967 - 1975) UNDP/TA
To organize, in the public health services, basic laboratory services for diagnostic work in bacteriology, parasitology and virology and to train laboratory staff.

Algeria 0510  Maternal and Child Health (Dec 1963 - 1972) UNDP/TA UNICEF
To reorganize and extend maternal and child health work in health centres throughout the country, and to develop training facilities for maternal and child health workers and related personnel.

Austria 0200  Fellowships R: Bacteriology (one month), drug control (one month), food control (three for two weeks, one for one month), food control for radioactive contamination (six weeks), food hygiene (one for two weeks, one for one month), national health insurance (one month), nursing administration and education (three and a half months), nursing education (one month), parasitology (one month), radiation protection (three months), tuberculous bacteriology and exfoliative cytology (one month).

Belgium 0200  Fellowships R: Food control (three weeks), hospital administration (six weeks), internal medicine (one for two months, one for three months), molecular biology (ten weeks), nursing education and services—organization and administration (twelve months), orthopaedics (two months), rehabilitation (three months), virology (three months).

Bulgaria 0011  Post-basic Nursing and Midwifery Education (1967 - 1971) UNDP/TA
To prepare nurses and midwives for administrative and teaching positions in a post-basic school of nursing which is to be established.

Bulgaria 0014  Rehabilitation (1967 - ) UNDP/TA
To train personnel for the rehabilitation services.

Bulgaria 0200  Fellowships R: Allergy (six months), endocrinology (two for three months), food control (three months), immunology of tissue transplantation (two months), liver surgery (two for three months), neurology/psychiatry (four months), neurosurgery of the cerebral circulatory system (two months), occupational health (two months), ophthalmology (three months), pharmacology of autonomous nerve system (four months), professional orientation of schoolchildren and students (two months), radiodiagnosis in gastroenterology (three months), sanitation in housing and town planning (two months), sterility (two months), tomography (one month), virology (one month).

Czechoslovakia 0009  Medical Training Institutes (1960 - 1970) R
To assist national institutions in developing their undergraduate and post-graduate programmes in medicine.

Czechoslovakia 0200  Fellowships R: Anaesthesiology (three weeks), gerontology and geriatrics (four months), haematology (two months), neurosurgery (two months), nursing education—organization of post-basic programmes (two months), occupational health (two months), pathophysiology of respiration (two months), pharmacology (two months), school health (three months), tuberculous epidemiology and control (three weeks), virology (two months).

Denmark 0200  Fellowships R: Laboratory animal colonies (ten weeks), nursing (ten weeks), public health nursing services and education (three months), surgery of bile duct (ten weeks).

Finland 0200  Fellowships R: Air pollution and radiation protection (one month), anaesthesiology (three weeks), biochemistry (three months), epidemiology and vital and health statistics (four months), health education in schools (two months), mental health (two for one month), mental hospital planning (two weeks), midwifery and public health nursing (one month), neurology (two months), occupational therapy (two months), physical therapy (one month), public health administration (one month), sanitary engineering (eleven months).

France 0200  Fellowships R: Care of the mentally retarded (one month), cardiovascular diseases—organization of medical services (two weeks), health statistics (three months), hospital administration (four for three weeks), laboratory animal colonies (one month), medico-social services for the elderly (three weeks), mental health (three weeks), public health and welfare services organization (two weeks), vascular radiology (three months).

Germany 0200  Fellowships R: Biometrics and epidemiology (three and a half months), food control (two months), immunopathology (three months), occupational health (five weeks), psychiatry (three months), public health administration and communicable diseases (six weeks).

Greece 0017  Nursing Education and Administration (1956 - 1970) UNDP/TA
To train nurses abroad for teaching and administrative posts in a post-basic school of nursing which is to be established to prepare tutors and administrators for nursing education programmes and services.

To organize comprehensive and co-ordinated health services in a rural area where new methods of public health administration can be tested, practical training can be given to all categories of public health personnel, and demonstration and research can be carried out. Services for vital and health statistics, maternal and child health, dental health, medical care, mental health and environmental health are to be organized in the demonstration area.

Greece 0031  Occupational Health Services (1967 - ) R
To train personnel for the occupational health services.

Greece 0034  Community Water Supply (1963 - ) Special Account for Community Water Supply
To promote community water supplies in an area where general socio-economic development is taking place.
Greece 0200 Fellowships R: Anaesthesiology (one for three weeks, one for nine weeks), cardiology (three months), endocrinology (five and a half months).

To develop new medical teaching programmes in certain medical schools.

Hungary 0008 Training of Sanitary Engineers (1965 - 1972) UNDP/TA
To organize the training of sanitary engineers and to train sanitary engineers as teachers.

Hungary 0010 Nursing and Midwifery Education and Administration (1966 - 1975) UNDP/TA
To develop nursing and midwifery education programmes and establish a post-basic school to prepare nurses and midwives for administrative and teaching posts in schools of nursing, in hospitals and in public health nursing and midwifery services.

Hungary 0011 Air Pollution (1965; 1967 - 1970) UNDP/TA
To train personnel for the control of air pollution.

Hungary 0200 Fellowships R: Allergies of children (two months), audiology (one for one month, one for two months), biology and biochemistry (three months), cancer therapy, surgery and anaesthesiology (one month), dental health (two weeks), first aid in factories (three months), haematology (three months), hand surgery (three months), immunology of tissue transplantsations (two months), kidney transplantation (three months), medical education (six weeks), microbiology (three months), neuroendocrinology (three months), noise control (two months), paediatrics (two months), physiology (three months), social psychology (three months), surgical treatment of vascular diseases (two months).

Iceland 0200 Fellowships R: Nursing administration (ten months).

Ireland 0200 Fellowships R: Endocrinology (one month), mental health (one month).

Italy 0023 Nursing Education and Administration (1960 - ) R
To train nurses abroad for teaching and administrative posts in the post-basic school of nursing, which is to prepare nurse tutors and administrators for nursing education programmes and services.

Italy 0200 Fellowships R: Cardiology (one for one month, one for two months), endocrine and metabolic diseases (three and a half months), food and drug control (one month), food control (one month), geriatrics (two months), health education (one for one month, one for five weeks), health programming systems (one month), hospital organization (one month), milk hygiene (one month), nursing schools administration (one month), public health laboratories (one month), public health administration (two for one month), road accident prevention (three weeks), virology (one month).

Malta 0006 Diabetes Control (1965 - 1966) UNDP/TA
Two three-month fellowships were awarded to assist in improving services for the control and treatment of diabetes.

Malta 0011 Dental Health (1967 - ) R
To provide training in dental health.

Malta 0012 Community Water Supply (1966 - ) Special Account for Community Water Supply
To plan community water supply programmes and to study specific problems that may be encountered in developing programmes initiated in previous years.

Malta 0014 Wastes Disposal and Water Supply (1966 - ) UNDP/SF
To carry out engineering and feasibility studies and draw up a construction and investment programme for immediate and phased long-term plans for the improvement and development of waste disposal and water supply facilities; also to investigate the legal, managerial and financial aspects of the programme.

Morocco 0023 Medical Education (1966 - 1975) R
To strengthen teaching and research in preventive and social medicine and in the basic medical sciences at the Faculty of Medicine, Rabat, and to train national staff.

Morocco 0030 Community Water Supply (1962 - ) Special Account for Community Water Supply
To draw up a programme for community water supply development.

Morocco 0032 Food Hygiene (1965 - ) R UNDP/TA
To take measures against the microbiological contamination of processed foods; and to organize seminars to improve food hygiene practices.

Morocco 0200 Fellowships R: Gastroenterology (ten weeks), microbiology (two for one month), social services for juvenile delinquents (six months).

Morocco 0211 Epidemiology and Health Statistics (1961 - 1972) R
To develop the national vital and health statistical services and to organize statistical courses and lectures for various groups of health personnel and students.

Morocco 0212 Training of Health Statistical Personnel (1964 - ) UNDP/TA
To improve the training of statistical staff, for which purpose a school for statistical personnel is being organized.

Morocco 0502 Nursing Education (1959 - 1969) R
To develop basic nursing education, and also the post-basic school of nursing, which prepares qualified nurses for leading posts in specialized fields, including midwifery and nursing administration and education.
Morocco 0504  Nursing Services and Education  
(1967 - 1977) UNDP/TA

To develop nursing education and administration, public health nursing and hospital nursing services, at national and local levels.

This project replaces the project for the training of auxiliary health personnel (Morocco 0093), which began in 1957.

Morocco 0507  Environmental Sanitation  
(1958 - ) UNDP/TA

To develop a national programme of environmental sanitation by establishing for the purpose a sanitary engineering section in the Ministry of Health and training health personnel, including auxiliaries.

Morocco 0508  Public Health Laboratories  
(March 1966 - 1970) UNDP/TA

To train the laboratory technicians required for the development of a public health laboratory system, and to prepare for an expanded teaching programme.

Morocco 0509  Communicable Eye Disease Control  
(1952 - ) UNDP/TA UNICEF

To develop a nation-wide programme for the control of trachoma and seasonal conjunctivitis, using fully the possibilities offered by the reorganized rural health services; and to carry out field surveys in areas of high endemicity and in schools, to serve as a basis for action in future years.

Morocco 0510  Malaria Pre-eradication Programme  
(1962 - ) R MESA

To prepare for a malaria eradication programme by the organization of technical, administrative and operational services; and to train medical and paramedical personnel of public health services (especially rural health services) in malaria eradication concepts and techniques.

Netherlands 0015  Fellowships R: Drug analysis (three weeks), epidemiology (three weeks), epidemiology and health statistics (ten weeks), food microbiology (two for one month), health education (two months), medical education (two months), medical electronics (two months), water-supply (two weeks), waterworks operation (six weeks).

Norway 0200  Fellowships R: Public health—diploma course (nine months), rehabilitation (two months).

Poland 0015  Medical Education  

To provide assistance to certain medical schools, particularly in improving facilities for teaching the basic medical sciences.

Poland 0016  Tuberculosis Control  
(1960 - 1970) UNDP/TA UNICEF

To train staff in tuberculosis control; later, to set up a pilot area project for tuberculosis control; to study the epidemiological characteristics of tuberculosis in different population groups, and to assess the efficacy of various control measures in reducing the risk of infection, especially among children.

Poland 0024  Health Statistical Services  
(1963 - 1966) UNDP/TA

WHO provided two consultants, each for three weeks, eight fellowships of from one to five months, and supplies, to assist in developing the health statistical services, improving the comparability of statistical data and organizing a morbidity survey.

Poland 0026  Protection of River Waters against Pollution  
(1965 - ) UNDP/SF

To develop scientific and research work for the control of water pollution by domestic wastes, industrial effluents, saline waste waters and waste waters from thermal power stations in the Slasko Dabrowskie area.

Poland 0027  Mental Health  
(1967 - ) UNDP/TA

To provide training in child mental health and the rehabilitation of psychiatric patients in order to strengthen the mental health services.

Poland 0200  Fellowships R: Air pollution (one month), biochemistry (one for four months, one for six and a half months), coding instruction (two weeks), epidemiology of mental disorders (five months), health statistics (four months), maternal and child health (six weeks), microbiological laboratories (ten weeks), public health—diploma course (five and a half months).

Romania 0005  Rehabilitation  
(1967 - ) UNDP/TA

To provide training in the organization of centres for the care and rehabilitation of patients suffering from diseases of the locomotor system resulting from rheumatic conditions.

Romania 0200  Fellowships R: Anaesthesiology (two weeks), cancer research (six and a quarter months), cardiology (three months), immunology problems in rheumatism (two months), orthopaedics (three months), radiological treatment of cancer (three months), renal transplantation (three months), surgery for children (three months), urinal pathology of children (one for one month, one for four months), vaccine production (two months).

Spain 0012  Brucellosis Control  
(1954 - ) UNDP/TA

To conduct epidemiological studies of brucellosis in animals and man and to produce live vaccine for an extensive vaccination campaign to immunize about one million animals in ten provinces.

Spain 0023  Rehabilitation of Handicapped Children  
(1959 - ) UNDP/TA UNICEF

To develop a national programme for the rehabilitation of handicapped children; to establish training centres and expand the services for handicapped children throughout the country.

Spain 0025  Epidemiological Studies of Virus Diseases of Public Health Importance  
(1964 - ) UNDP/TA

To resume the study of methods for the prevention and control of respiratory and enteric virus diseases that was started in 1959.
Spain 0030 Health Demonstration and Training Area  
(1965 - 1972) UNDP/TA
To set up, as part of the general plan for socio-economic development, a public health demonstration and training area with a complete network of co-ordinated rural health services. The area will be used for testing administrative and technical methods, for carrying out surveys, and, in collaboration with the National School of Public Health, for training various categories of health staff.

Spain 0031 Mental Health Services  
(1966 - 1972) UNDP/TA
To develop the mental health services, especially those for the rehabilitation of psychiatric patients.

Spain 0200 Fellowships R: Coding instruction (two weeks), electronic microscopy (three months), food control (two for one month), medical education (three weeks), reanimation services (six weeks), social welfare (two months), ulcerative colitis (ten weeks).

Sweden 0200 Fellowships R: Health planning (two months), hospital infection prevention (one month), physical therapy (three months), psychiatric nursing (four months), veterinary public health (eight months).

Switzerland 0018 Study of the Functions of Nursing Personnel  
(1965 - 1969) R
To determine the responsibilities and differentiate the functions of the various categories of nursing personnel required by the health services. The findings of this study will serve as a basis for planning the different types of training needed and the staffing of nursing services.

Switzerland 0200 Fellowships R: Health statistics (four months), microbiology (three weeks), neurophysiology (two months), ophthalmology (four months), psychosomatic medicine (three months).

Turkey 0011 Leprosy Control  
(1953 - ) UNDP/TA UNICEF
To carry out a leprosy control programme covering the endemic area of the country and to integrate it progressively into the general health services.

Turkey 0016 School of Public Health, Ankara  
(1960 - 1968) R
To develop the School of Public Health in Ankara.

Turkey 0023 Malaria Eradication Programme  
(1957 - ) R MESA UNICEF (World Food Programme)
To achieve malaria eradication throughout the country.

Turkey 0046 Master Plan for Water Supply and Sewerage for the Istanbul Region  
(1965 - ) UNDP/SF
To prepare a master plan, and feasibility and preliminary engineering and other organizational studies for the extension and improvement of the water and sewerage system of Greater Istanbul and the rapidly developing industrial areas in the vicinity.

Turkey 0200 Fellowships R: Leprosy rehabilitation (two months), tuberculosis programmes (two months).

Turkey 0502 Health Statistical Services  
(1964 - ) R
To develop the national, regional and local health statistical services.

Turkey 0503 Environmental Health Services  
(1964 - ) R
To develop the environmental sanitation services and train sanitation personnel.

Turkey 0504 Environmental Sanitation  
(1964 - 1970) UNDP/TA
To promote environmental sanitation work.

USSR 0200 Fellowships R: Anaesthesiology (three weeks), biochemistry of antibiotics (three months), biochemistry of hormones (three months), biochemistry of nerve cells (twelve months), electronic microscopy (six months), endocrinology and biochemistry (four months), malacology (one month), medical genetics (six months), neuropathology (one for six months, one for six and a half months), orthopaedics (six months), psychiatry (five months), radiotherapy of cancer (six months), sera protein fractionation (one for three months, one for four months), surgical treatment of rheumatism (five months), toxicology and forensic medicine (three months).

United Kingdom 0200 Fellowships R: Dental health (one month), drug addiction (one and a half months), maternal and child health (one month), nursing education and administration (one for one month, one for one and a half months), post-graduate medical education (one month), smallpox (one month), venereology (one month).

Yugoslavia 0020 Public Health Administration  
(1956 - ) UNDP/TA
To train various categories of health personnel for the federal and republic institutes of public health.

Yugoslavia 0037 Early Detection and Control of Cancer  
(1965 - ) UNDP/TA
To train health personnel for the chronic and degenerative disease centres that are to be set up in certain republics.

Yugoslavia 0045 Community Water Supply  
(1967 - ) Special Account for Community Water Supply
To carry out engineering and feasibility studies, master plans, construction and investment programmes for water supply and wastes disposal, and a programme of water pollution control for the Autonomous Province of Kosovo-Metohija.

Yugoslavia 0165 Trachoma Control and Prevention of Loss of Vision  
(1967 - ) UNDP/TA
To continue the trachoma control programme; and to organize pilot schemes for early case-finding and treatment of ophthalmic conditions in infants and pre-school children, mass case-finding of other potentially blinding eye conditions in adults and elderly people, and preventive measures and accident prevention programmes to improve the system of specialized health services.
Yugoslavia 0200  Fellowships R: Anatomy (two months), cardiology (two months), dental surgery (three months), epidemiology and vital and health statistics (four months), pathophysiology (one for four months, one for five months), radiology (two months), stomatology (four months), surgery (two months), surgery for children (two months), toxicological chemistry (three months).

Yugoslavia 0201  Fellowships UNDP/TA: Air pollution (two months), cancer diagnosis and radiological treatment (five months), cancer—early diagnosis and treatment (five months), dental surgery (six months), endocrinology (twelve months), environmental sanitation (one for two months, one for ten weeks), gynaecological cancer cytology (two months), gynaecological cancer diagnosis (four months), hand surgery (four months), neuropsychiatry (five months) neurosurgery (four months), pre-cancerous conditions—diagnosis and radiological treatment (five months), public health—diploma course (nine months), public health services (three for four months), surgical treatment of vascular diseases (nine months), traumatology (four months), vascular diseases (three months).

EURO 0147  Symposium on Human Factors in Road Accidents, Rome (16 - 20 Oct. 1967) R

The purpose of the symposium was to discuss the physical and psychological aspects of the human factors involved in road accidents, with a view to suggesting preventive measures.

WHO provided a consultant, nine temporary advisers and the cost of attendance of twenty-two participants from Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, Finland, France, Hungary, Italy, Luxemburg, Netherlands, Norway, Poland, Romania, Spain, Sweden, Switzerland, Turkey, Union of Soviet Socialist Republics, United Kingdom and Yugoslavia.

EURO 0184  Trachoma Control (1958 - ) UNDP/TA

To provide specialized technical advice on the further development of communicable eye disease control projects in several countries of the Region, and to study the need for general sight-saving programmes in these and other countries.

EURO 0185  Follow-up of Inter-country Activities on a National Basis (1958 - ) R

To assist governments in developing national activities arising out of the inter-country programmes of the European Region.

EURO 0207  Undergraduate Medical Education (1961 - ) R

To stimulate improvements in undergraduate medical teaching and particularly the introduction of preventive and social medicine at various stages and in various sections of the curriculum.

EURO 0232  Malaria Eradication Evaluation (1962 - ) R

A team to visit countries on request in order to assist in determining whether eradication of malaria has been achieved.

EURO 0256  Seminar on the Organization of Resuscitation and Casualty Services, Leningrad (3 - 7 July 1967) R

The purpose of the seminar was to review the experience on the organization of resuscitation and casualty services, to discuss further needs and to consider how to improve the existing services. The following aspects received particular attention: epidemiology and pathophysiology of accidents, first treatment, reporting systems and communications, transport, organization of casualty services in hospitals and on a regional basis, and training in first aid. There were twenty-three participants from Belgium, Bulgaria, Czechoslovakia, Denmark, Federal Republic of Germany, Finland, France, Hungary, Iceland, Netherlands, Norway, Poland, Sweden, Union of Soviet Socialist Republics, United Kingdom and Yugoslavia. The cost of their attendance was paid for by their respective governments. WHO provided six temporary advisers.

EURO 0261  Travelling Seminar on Psychiatric Hospital Care and Rehabilitation, Warsaw and Bristol (13 - 22 Sept. 1967) R

The seminar studied the developments in psychiatric hospital care in European countries, particularly as regards their influence on the rehabilitation of psychiatric patients and the prevention of chronicity.

WHO provided five temporary advisers and the cost of attendance of twenty-five participants from Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, Federal Republic of Germany, Finland, France, Greece, Hungary, Ireland, Italy, Malta, Morocco, Netherlands, Norway, Poland, Romania, Spain, Sweden, Switzerland, Turkey, Union of Soviet Socialist Republics, United Kingdom and Yugoslavia.

EURO 0275  Preparatory Arrangements for Conferences: (1964 - ) R

To make preparations and preliminary arrangements for conferences, seminars, etc., to be held in the following year.

EURO 0299.1  International Children's Centre Course on Social Paediatrics, Paris (27 April - 5 July 1967) R: Fellowships for seven trainees from Algeria, Bulgaria, Hungary, Romania, Turkey, Union of Soviet Socialist Republics, and Yugoslavia.


EURO 0302  Post-graduate Medical Training (1965 - ) R

To stimulate improvements in post-graduate medical training and to assist national efforts in this field, mainly by the provision of consultants, lecturers, fellowships and supplies to post-graduate training institutes, schools of public health and schools of tropical medicine. It is also planned to support some inter-country activities concerned with post-graduate training.

The project is a continuation, in a modified form, of project EURO 110—European Schools and Training Centres in Public Health, which was completed in 1964.

EURO 0305  Consultant Services (1965 - ) R

To meet requests—sometimes of an urgent nature—from countries in the Region for advice on subjects for which no specialized health officer is available and for which it may be impracticable to obtain assistance from headquarters staff.

EURO 0308  School of Public Health, Rennes (1966 - 1967) R

WHO provided an epidemiologist to contribute to teaching and research in epidemiology at the School of Public Health, Rennes (France) to whose courses French-speaking students from other countries, including WHO fellows, are admitted.
EURO 0319 Entomological Services to North African Countries (1965 - ) R

To provide entomological advice for the malaria projects in Algeria and Morocco and, if necessary, to those in Turkey and other countries.

EURO 0321 Study of the Effectiveness of Tuberculosis Control Services (1966 - ) R

To assist governments in assessing the effectiveness of their tuberculosis control programmes. This long-term regional study, which follows the Technical Meeting on Tuberculosis Control held in Copenhagen in 1966, should make it possible to improve the accuracy and comparability of tuberculosis morbidity data.

EURO 0323 Automation of Public Health Laboratory Services (1966 - ) R

To assist countries in developing the automation of laboratory methods and to help them to develop, as part of the national microbiological services, a network of virus diagnostic laboratories with a system for the collection and distribution of laboratory information to supplement notifications of infectious diseases.


This study, which followed up the project on the Epidemiology of Mental Disorders (EURO 0192) completed in 1965, will provide background material for the 1968 conference on the planning of mental health services.

Three consultants and two temporary advisers prepared a bibliography of the literature on the influence of social factors on mental health published in different European countries, made a review of the reporting system of mental health statistics, and prepared a preliminary report on planning and organization of mental health services.

EURO 0347 Courses on Air Pollution and Water Pollution (1967 - ) R

To promote, in national institutions, short courses on air and water pollution, with special reference to public health, to enable personnel from interested countries to bring their knowledge up to date and to acquaint them with new developments.

EURO 0350 Epidemiological Studies (1966 - ) R

To study and report on specific aspects of mortality and morbidity of particular interest to the Region. If appropriate, the findings will be presented to the annual sessions of the Regional Committee for Europe. Also, to co-ordinate and assist limited inter-country studies on relevant epidemiological subjects.

EURO 0374 Study on Poliomyelitis Surveillance (1967 - ) R

To assist countries in reviewing the situation following the large-scale poliomyelitis vaccination programmes carried out from 1958 to 1962, and to establish for the Region standardized surveillance methods and procedures for controlling the disease.

EURO 0375 Symposium on Methods of Evaluation of Public Health Programmes, Kiel (14 - 17 Nov. 1967) R

The purpose of the seminar was to discuss the available methods of evaluation of public health programmes and their application in the Region.

WHO provided two consultants, five temporary advisers and the cost of attendance of ten participants from Belgium, Bulgaria, Czechoslovakia, France, Federal Republic of Germany, Netherlands, Norway, Poland, Sweden and the United Kingdom.

EURO 0379 Symposium on Pneumoconiosis, Katowice (19 - 23 June 1967) R

The symposium dealt with epidemiology, treatment and rehabilitation, measurements of dust concentrations, their control and biological monitoring. There were nineteen participants, four observers from Poland, and representatives from ILO, the International Social Security Association, the European Economic Community, the European Coal and Steel Community and the United Nations Public Health Service.

WHO provided a consultant, seven temporary advisers and the cost of attendance of twelve participants from Bulgaria, Hungary, Romania, Spain, Turkey, Union of Soviet Socialist Republics, and Yugoslavia.

EURO 0381 Seminar on the Rehabilitation of Patients with Cardiovascular Diseases, Noordwijk aan Zee, Netherlands (2 - 7 Oct. 1967) R

The purpose of the seminar was to promote the application of modern methods in the rehabilitation of patients with cardiovascular diseases. It followed up theWHO expert committee meeting on the subject, held in 1963.

WHO provided a consultant, six temporary advisers, and the cost of attendance of twenty-three participants from Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, Federal Republic of Germany, Finland, France, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Romania, Spain, Sweden, Switzerland, Union of Soviet Socialist Republics, United Kingdom and Yugoslavia.

EURO 0383 Study of the Treatment and Disposal of Radioactive Wastes (1967 - ) R (IAEA)

To study, in collaboration with IAEA, the public health aspects of the treatment and disposal of municipal wastes into which radioactive material is discharged.

EURO 0385 Meeting on the Undergraduate Teaching of Basic Medical Sciences, Copenhagen (11 - 13 April 1967) R

Twelve temporary advisers from Denmark, France, Federal Republic of Germany, Hungary, Ireland, Italy, Poland, Sweden, Turkey, Union of Soviet Socialist Republics, United Kingdom and Yugoslavia discussed the integration of the teaching of the basic medical sciences (anatomy, physiology, biochemistry, etc.), recommended by the WHO Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel which met in 1960.


The purpose of the symposium was to discuss the place of epidemiology in undergraduate and post-graduate medical education, the content of courses, and teaching methods. It was attended by eighteen teachers of epidemiology, public health
administrators, and medical educators from Algeria, Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, Federal Republic of Germany, Finland, France, Greece, Hungary, Ireland, Italy, Malta, Morocco, Netherlands, Norway, Poland, Romania, Spain, Sweden, Switzerland, Turkey and Union of Soviet Socialist Republics, and by five observers from Belgium.

WHO provided a consultant, two temporary advisers and the cost of attendance of the participants, and staff members from headquarters and the Regional Office presented papers.

EURO 0611 Course on Public Health Practice, Soissons
(23 May - 13 June 1967) R

A four-week course, in French, for public health doctors concerned with rural health or with the teaching of public health. It was similar to those given since 1955 alternately in French at the Soissons Public Health Centre, France, and in English at the Uusimaa Public Health Research and Training Centre, Finland.

WHO provided fellowships for sixteen trainees from Algeria, Austria, Belgium, Bulgaria, Czechoslovakia, France, Greece, Iran, Italy, Morocco, Poland, Romania, Spain, Switzerland, Syria and Yugoslavia.

EURO 0771 Post-basic Nursing and Midwifery Education
(1954 - 1966) R

The aim was to assist in developing national facilities for post-basic nursing and midwifery education by preparing teachers and administrators for post-basic schools; to take part in studies in nursing education; and to advise post-basic schools on revision of curricula and administrative practices. WHO provided consultant services and twenty-nine fellowships, of from two weeks' to twelve months' duration, to nurses from Belgium, Denmark, Federal Republic of Germany, Finland, France, Poland, Sweden, Switzerland and United Kingdom.

EURO 0772 International School of Advanced Nursing Education
(In French), Lyons (1962 - ) R

To set up a school of advanced nursing education that will prepare nurses from countries in and outside Europe for positions of leadership in specialized branches of nursing, for nursing education and administration and for research in nursing.

EURO 0773 International School of Advanced Nursing Education
(In English), Edinburgh (1963 - 1966) R

The school was set up in 1964 in the Department of Nursing Studies of the Faculty of Social Sciences, University of Edinburgh, in order to prepare nurses from European and other countries for leading positions in specialized branches of nursing and for nursing education and administration.

Six WHO temporary advisers assisted the Faculty in planning the curricula and establishing administrative procedures. Three twelve-month fellowships were awarded to the teaching staff, and a six-week fellowship enabled a faculty member to observe similar schools abroad. Nine temporary advisers gave lectures and teaching equipment was provided.

From its inauguration in 1964 up to the academic year 1966-1967 the school admitted twenty-two WHO fellows from the European and other regions.

EURO 1143 Symposium on the Health Effects of Air Pollution,
Prague (6 - 10 Nov. 1967) R

The symposium, which followed up the Symposium on the Epidemiological Aspects of Air Pollution held in Copenhagen in 1960, reviewed the studies carried out since, and discussed advances in the epidemiology of the ill-effects of air pollution on health, including the correlation of morbidity and mortality statistics with air pollution levels and other epidemiological indices.

WHO provided a consultant, nine temporary advisers and the cost of attendance of sixteen participants from Belgium, Czechoslovakia, Denmark, Finland, France, Federal Republic of Germany, Italy, Luxembourg, Netherlands, Poland, Romania, Sweden, Switzerland, Turkey, Union of Soviet Socialist Republics and United Kingdom.

EURO 1341 Cancer Epidemiology (1967) R

WHO provided a consultant to advise on epidemiological surveys of cancer in Poland, and awarded three fellowships (of two, two and a half and three and a half months) to candidates from Czechoslovakia, Greece and Yugoslavia.

EURO 1343 Studies on Cancer Control and Treatment

The aim was to provide for training of personnel and exchange of information on cancer epidemiology, registration, early detection and treatment. In 1966 a four-week fellowship was awarded to a trainee from Czechoslovakia and two four-month fellowships to trainees from Turkey. A Working Group on the Epidemiological Study of Stomach Cancer was held from 17 to 19 January 1967 in Copenhagen, and was attended by seven temporary advisers from Czechoslovakia, Denmark, France, Norway, Poland and the United Kingdom.

EURO 1383 Course on Hospital and Medical Administration
(In Russian), Moscow (Oct. 1967 - July 1968) R

WHO provided three lecturers and fellowships to eight trainees from Bulgaria, Czechoslovakia, Hungary, Mongolia, Poland, Romania and Yugoslavia for the fifth diploma course in hospital and medical administration given in Russian at the Central Institute for Post-graduate Medical Studies in Moscow.

EURO 1513 Dental Health Services (1964 - ) R

To follow up the Seminar on Dental Health Services for Children, held in Göteborg in 1960, by providing consultants to survey the progress made, and to assist certain countries to develop dental health services for children.

EURO 1793 Study of Cardiovascular Diseases (1960 - ) R

A study of registration, coding and reporting of deaths from cardiovascular diseases, including prevalence surveys of ischaemic heart diseases in some European countries showing different mortality rates.

EURO 1796 Course on Coronary Intensive Care (in English),
Edinburgh (4 - 18 Sept. 1967) R

The purpose of the course, which was based on a study on the treatment of patients with myocardial infarction made by a WHO consultant in 1965, was to train specialized cardiologists in methods of treatment used in special units and with the organization of such units.

WHO provided two lecturers and fourteen fellowships to trainees from Belgium, Czechoslovakia, Denmark, Finland, France, Federal Republic of Germany, Ireland, Italy, Netherlands, Norway, Poland, and Union of Soviet Socialist Republics.
EURO 2133 Studies on Chronic Rheumatoid Arthritis
(1966 - ) R

Following the Technical Conference on the Public Health Aspects of Chronic Rheumatoid Arthritis and Related Diseases held in 1963, to give further support to and ensure the co-ordination of prevalence studies, using accepted methodology, and to enable suitable physicians to gain sufficient knowledge of epidemiology so that they can start studies in this field in their respective countries.

EURO 2161 Courses on Epidemiology and Vital and Health Statistics (in English), London

Three courses—two on vital and health statistics and one on biometrics and epidemiology—were organized in collaboration with the London School of Hygiene and Tropical Medicine to give physicians and health statisticians training in the application of statistical methods to public health and to epidemiological and clinical studies.

WHO provided (i) for the 1966 course on vital and health statistics—a fellowship to a trainee from Norway and (on other projects) fellowships to four trainees from Hungary and Poland; (ii) for the course on biometrics and epidemiology—fellowships to four trainees from Czechoslovakia, Hungary, Italy and Netherlands and (on other projects) fellowships to three trainees from Finland, Poland and Yugoslavia; (iii) for the 1967 course on vital and health statistics—fellowships to two trainees from Czechoslovakia and Denmark and (on other projects) fellowships to trainees from Finland, France and Turkey.

EURO 2162 Course in the Application of Statistical Methods to Problems of Health (in French), Brussels

The course was organized in collaboration with the Free University of Brussels to give physicians and health statisticians training in the application of statistical methods to public health and to epidemiological and clinical studies.

WHO provided fellowships to four trainees from Greece, Italy, Poland and Switzerland and (on other projects) two lecturers and a fellowship to a trainee from Poland.


A course, in Russian, similar to that described under project EURO 2162 above. WHO provided three lecturers, fellowships to four trainees from Poland and the Union of Soviet Socialist Republics, and supplies and equipment, and (on another project) a fellowship to a trainee from Poland.

EURO 2222 Training of Teachers in Cancer Cytology
(1967 - ) R

To enable specialized physicians to acquire, in outstanding European laboratories, a high standard of knowledge of cancer cytology with a view to teaching this specialty in their respective countries in order to relieve the shortage of staff hampering the use of this technique for the early diagnosis of some types of cancer.

EURO 2541 Course for Coding Instructors (in English), London (6 - 17 March 1967) R

The purpose of the course was to improve national mortality statistics and their international comparability and to assist in the application of the Eighth Revision of the International Classification of Diseases and Causes of Death.

The fifteen participants came from Denmark, Finland, Greece, Federal Republic of Germany, Ireland, Netherlands, Poland, Sweden and Yugoslavia and the cost of their attendance was paid for by the respective governments. WHO provided a temporary adviser.

EURO 2542 Course for Coding Instructors (in French), Paris (15 - 30 Nov. 1967) R

A course similar to that described under project EURO 2541 above. WHO provided three temporary advisers and the registration fees of participants from Belgium, France, Italy, Morocco and Spain.

EURO 2591 Course on the Medical and Social Aspects of the Care of the Elderly (in English), Glasgow
(1 - 27 May 1967) R

The course, which was for clinical teachers in medical schools, provided training in recent advances in the care of the elderly, including the preventive and social aspects. It also covered the contribution which can be made by ancillary services and various ways of organizing geriatric services.

WHO provided three lecturers and twelve fellowships to physicians from Austria, Denmark, Finland, Federal Republic of Germany, Netherlands, Norway, Sweden, Italy, Ireland, Spain, Switzerland, and the United Kingdom.

EURO 2631 Study on Health Problems Created by Noise
(Dec. 1966; May 1967) R

As a continuation of the study carried out in 1964, two consultants prepared a report on the effects of noise on human health and the legislative measures taken by different European countries pertaining to noise control; they also made a detailed bibliography covering this field.

EURO 2882 Conference on the Health Aspects of Regional Socio-economic Development, Montpellier (France)
(6 - 10 Nov. 1967) R

The purpose of the conference, which formed part of WHO's contribution to the regional development programme of the United Nations, was to outline the main features of a health policy for regional planning and to define the place of health in regional development programmes in the light of current demographic and economic trends. It was attended by health administrators concerned with the planning of health services, sanitary engineers, planners and economists from Algeria, Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, Federal Republic of Germany, Finland, France, Greece, Hungary, Ireland, Italy, Malta, Monaco, Netherlands, Norway, Poland, Romania, Spain, Sweden, Switzerland, Turkey, Union of Soviet Socialist Republics, United Kingdom and Yugoslavia, and by representatives of the United Nations and of the Council of Europe.

WHO provided three consultants, six temporary advisers and the cost of attendance of twenty-six participants.
EURO 3071  Algeria/Morocco Anti-malaria Co-ordination Meeting, Rabat (7 - 8 Dec. 1966) MESA

A meeting to co-ordinate activities and discuss operational points, and the general development of the malaria programmes in North Africa.

WHO provided the cost of attendance of the six participants from Algeria, Morocco, Spain and Tunisia and services for the meeting, at which six WHO staff members were also present.


Following a planning meeting, during which three temporary advisers in co-operation with WHO staff prepared the design of this study, two consultants visited Austria, France, Hungary, Netherlands, Sweden and the United Kingdom to survey the methods used by the health authorities in examining the extent to which there is an excessive use of drugs involving danger to health and economic waste, and prepared recommendations for future action.

EURO 3361  Training of Sanitary Engineers (in Russian) (1966 - ) R

To assist the annual post-graduate course in sanitary engineering in Poland.

EURO 3362  Training of Sanitary Engineers (in French) (1967 - ) R

To assist in the development of an academic course for sanitary engineers and provide training for teaching staff.


The purpose of the course was to provide dental officers with additional knowledge and experience in dental public health. There were eleven trainees from Belgium, Bulgaria, Denmark, Federal Republic of Germany, France, Greece, Romania, Spain, Turkey and Yugoslavia. They spent two weeks in Brno, one week in Bratislava and one week in Prague, and visited dental health institutions in those cities.
EASTERN MEDITERRANEAN

Aden 0200 Fellowships R: Cholera bacteriology (four weeks), laboratory techniques (eleven months), tuberculosis bacteriology (six weeks), tuberculosis control (three months).

Cyprus 0021 Air Pollution Survey (May - June 1967) R
WHO provided a consultant for one month to make a preliminary survey of actual and potential air pollution problems in Nicosia and other towns and to recommend measures for investigation and control.

Cyprus 0023 Pharmaceutical Quality Control (1967 - 1969) R
To establish a laboratory for the quality control of pharmaceutical preparations, chemicals and specialties and for identification of dependence-producing drugs, and to train staff in modern analytical techniques.

Cyprus 0200 Fellowships R: Food inspection (two for nine months), laboratory techniques (eleven months), hospital administration (twelve months), medical care services (three weeks), nursing administration (twelve months), occupational therapy (two for twelve months), psychiatric medicine—diploma course (twelve months), undergraduate medical studies (twelve months).

Cyprus 0201 Fellowships UNDP/TA: Undergraduate medical studies (twelve months).

Ethiopia 0003 Advisory Services in Vital and Health Statistics (Sept. 1952 - 1969) UNDP/TA
To strengthen the health statistical unit in the Ministry of Public Health, improve the collection, compilation and publication of vital and health statistical data and train statistical personnel of various categories at central and provincial levels.

Ethiopia 0006 Tuberculosis Control (March 1959 - 1969) UNDP/TA UNICEF
To test effective and practical methods of tuberculosis control in the Addis Ababa and Asmara centres and in the mobile units operating in a pilot area, with a view to extending them to the whole country.

To train health personnel to staff the expanding health services, particularly in rural areas.

Ethiopia 0017 Medical Education (Dec. 1964 - 1970) R UNICEF
To develop the medical faculty at the Haile Selassie I University in Addis Ababa.

Ethiopia 0024 Advisory Services in Epidemiology (Oct. 1966 - 1969) UNDP/TA
To plan, develop and operate epidemiological services at all levels of the health services.

To provide technical supervision and guidance to the health personnel working in rural health centres, to develop the provincial health services, and to set up a department of health services in the Ministry of Public Health.

Ethiopia 0029 Course for X-ray Technicians (Jan. 1963 - July 1967) UNDP/TA
WHO provided an X-ray technician who helped to organize a two-year course to train X-ray technicians for the hospital radiology installations. In addition, he assisted several hospitals, made an assessment of the work of the practical X-ray technicians in Asmara, Axum and Assab, carried out a survey of the X-ray Department of the Prince of Makonnen Memorial Hospital from the point of view of radiation safety and started a study for the establishment of a personnel radiation monitoring system.

WHO provided a medical nutritionist from October 1964 to February 1966 to assist in strengthening the Nutrition Department of the Ministry of Public Health, which advises the Government on nutrition matters and takes part in the training of public health and medical officers in nutrition, and which has the long-term objective of improving the nutritional status of the population by means of nutrition education carried out through rural health centres and maternal and child welfare and health education services.

The project, originally planned to continue until 1968, was terminated in December 1966 at the request of the Government.

Ethiopia 0032 Community Water Supply (1967 - 1970) Special Account for Community Water Supply
To investigate, design and supervise the construction of community water supplies in the small towns of Ethiopia, starting in Tigre Province.

Ethiopia 0036 Environmental Health Services (March 1967 - 1970) R
To plan and administer a national environmental health programme.

Ethiopia 0039 Malaria Eradication Training Centre (1959 - beyond 1969) R
To train technical staff for the malaria eradication programme.
Ethiopia 0040  Malaria Eradication Programme  
(1967 - beyond 1971) R MESA (AID)  
To eradicate malaria from the whole country by stages. The eradication programme follows the pre-eradication programme carried out with WHO assistance from 1962 to 1966.

Ethiopia 0200  Fellowships R: Basic nursing (three for twelve months), gastroenteric diseases (eighteen months), medical supplies (three months), tuberculosis (three weeks), undergraduate medical studies (two for twelve months).

Ethiopia 0201  Fellowships UNDP/TA: Undergraduate medical studies (three for twelve months).

Iran 0001  Malaria Eradication Programme  
(1957 - beyond 1971) R UNICEF  
To eradicate malaria progressively throughout the country by residual spraying and other measures.

Iran 0007  Nutrition Institute  
(1963 - Feb. 1968) UNDP/TA UNICEF (FAO)  
To investigate, by field surveys, the nature and incidence of the main nutritional diseases and deficiencies, especially in mothers and children in rural and in over-populated areas; to plan and implement measures for improving nutrition in various population groups (including the assessment of the nutritional value of indigenous foodstuffs, the promotion of production and distribution of food, the training in nutrition of medical, nursing and other professional staff, and the carrying-out of nutrition education in general health centres, maternal and child health centres and in hospitals).

Iran 0028  Mental Health Services  
(May 1959 - June 1967) R  
The aim was to reorganize and integrate the mental health services, to train personnel and to carry out research on mental health subjects. WHO provided a psychiatrist from January 1960 to June 1964, a psychiatric nurse educator from May 1959 to April 1961 and another from April 1965 to June 1967, consultant services and supplies and equipment. The psychiatric nurse educator assigned in 1959 assisted in establishing and conducting courses for psychiatric nursing personnel. By 1961, twenty-four nurse instructors had been prepared for teaching mental health nursing and psychiatric nursing to student nurses and auxiliary personnel, and nine graduate nurses had been trained for psychiatric nursing in mental health institutions. The second psychiatric nurse educator, assigned in 1965, helped to organize in-service training and courses for graduate nurses at Razi Hospital. One-year courses for psychiatric aides were also started. The WHO psychiatrist advised the Government on the planning and implementation of the mental health programme and on psychiatric services generally. He organized and took part in a number of courses for psychiatrists, general physicians, under-graduates, nurses, and other professional groups concerned with offenders and drug addicts and also helped to start research projects on the epidemiology of mental disorders. He revisited the project from September 1965 to January 1966 and again in October-November 1966 and in 1967 to review progress and make recommendations for future work.

Iran 0029  Cancer Control (Sept. - Oct. 1967) R  
WHO provided a consultant to conduct a seminar on the pathology of tumours of the thymus and parathyroid glands and related bone complications.

Iran 0038  Schistosomiasis Control  
(Nov. 1958 - 1968) UNDP/TA  
To carry out field studies on the epidemiology of schistosomiasis and on its prevention; to train staff; and to plan a control programme, integrated as far as possible into the programme for economic development.

Iran 0043  Post-graduate Education in Public Health  
To develop post-graduate training in public health and allied fields at the School of Public Health, University of Teheran.

Iran 0047  Rehabilitation and Training in Physical Therapy  
The aim was to improve medical rehabilitation by training physical therapy students at the School of Physical Therapy at the University of Teheran. WHO provided a physical therapy tutor and supplies and equipment. The University School of Physical Therapy, the curriculum of which was based on international standards, was opened in February 1965 with thirty students selected from 180 applicants. In November 1966 another twenty, out of 360 candidates, were admitted. In addition to helping to run the school, the WHO physical therapy tutor advised the Jamalabad rehabilitation centre, which had been set up with WHO assistance in 1964, during the first phase of the project, for poliomyelitis patients, and the Physical Therapy Department of the Firouzgar Hospital. She also drew up a plan for a rehabilitation training programme for the whole country. To meet the demand for the treatment of spastics, a centre was established at the Pahlavi Hospital and operated by trained students under the supervision of the WHO tutor. Later six fully qualified Iranian physical therapists were appointed to take part in the treatment of patients and in the teaching at the school.

Iran 0049  High Institute of Nursing, Teheran  
(June 1967 - 1969) UNDP/TA  
To develop basic nursing education at university level.

Iran 0052  Post-basic Nursing Education, Shiraz  
(Nov. 1963 - 1969) R  
To strengthen nursing services through post-basic nursing education to prepare teachers, supervisors and administrators for leading posts in nursing.

Iran 0053  Laboratory for Pharmaceutical Quality Control  
To organize, direct and operate a laboratory for the quality control of pharmaceutical preparations, chemicals, drugs and specialties, either locally manufactured or imported, and to review recent legislation governing the trade.

Iran 0058  Teaching of Sanitary Engineering, University of Teheran (Feb. - April 1967) R  
WHO provided a consultant who carried out an assessment of the teaching and research programme in sanitary engineering at the Faculty of Engineering of the University of Teheran.
A professor of sanitary engineering was provided to the Faculty in 1964, the year in which post-graduate instruction in sanitary engineering was started.

**Iran 0059 Medical Faculty, Isfahan (March 1966 - 1970) R**

To improve the teaching of undergraduate medical students and to develop the training and research activities of the Isfahan Medical Faculty, particularly in the basic medical sciences.

**Iran 0067 Rehabilitation of Drug Addicts**

(Jan. 1967 - ) UNDP/TA

To organize and develop a comprehensive programme of rehabilitation services for drug addicts.

**Iran 0200 Fellowships R: Bacteriology** (twelve months), biological production control (ten months), biological products (twelve months), family planning (three months), herpetology—preparation and standardization of venoms and antivenins (six months), maternal and child health (three months), medical records (twelve months), narcotic drugs testing (two months), nursing (four for twelve months), nutrition (eight months), psychiatry (six months), psychiatric nursing (sixteen months), psychiatric nursing education and services (three months), public health administration (five weeks), public health practice (three weeks), sanitary engineering (twelve months), sanitary science (twelve months), sociology (eighteen months), tuberculosis bacteriology (three months).

**Iran 0201 Fellowships UNDP/TA: Drug addiction—treatment and rehabilitation (six months), nursing (twelve months), psychiatric nursing administration and teaching (twelve months), psychiatric treatment techniques for narcotic addiction (six months), radioisotopes (twelve months).**

**Iraq 0011 Malaria Eradication Programme**

(1957 - beyond 1970) R UNICEF

To eradicate malaria from the whole country, as an extension of the malaria control programme with which WHO has assisted since 1932.

**Iraq 0033 College of Medicine, Baghdad (1958 - 1970) R**

To develop the Department of Social and Preventive Medicine of the College of Medicine, Baghdad, with a view to expanding teaching and research in the subject.

**Iraq 0035 Training of Health Personnel**

(Jan. 1960 - 1969) UNDP/TA

To train sanitarians for the health services.

**Iraq 0037 College of Nursing, Baghdad (March 1962 - 1973) R**

To prepare nurses for leading posts in nursing services administration and in nursing education.

**Iraq 0040 Hospital Services Administration** (Nov. 1966 - 1969) R

To improve hospital administration at the Medical Centre, Baghdad.

**Iraq 0042 Advisory Services in Epidemiology**

(Jan. 1964 - 1968) UNDP/TA

To plan, develop and operate epidemiological services at all levels of the health services.

**Iraq 0049 Rural Health Advisory Services**

(Feb. 1964 - 1969) UNDP/TA UNICEF

To plan and develop rural health services and to use them for field training of professional and auxiliary health personnel.

**Iraq 0052 Cholera Control (May - June 1967) R**

WHO provided a consultant for one month to assist in improving the production of cholera vaccine. He helped to re-organize the laboratories, and trained personnel in production methods and in control testing.

Consultant services provided under this project in 1966 in connexion with an outbreak of cholera were described in the Annual Report for that year.¹

**Iraq 0061 Public Health Laboratory Services**

(Feb. 1967 - 1968) R

To organize the Bacteriology Institute in Baghdad and to set up in the Institute a section for the study of enteric diseases.

**Iraq 0200 Fellowships R: Anaesthesiology** (eleven months), cholera control (two for two weeks), health planning and control of communicable diseases (eleven months), maternal and child health (six months), public health—diploma course (four for twelve months), public health administration (two weeks), vaccine production (one for six weeks, one for two months).

**Israel 0005 Malaria Eradication Programme**

(Jan. - March 1967) R

WHO provided two consultants to assess the progress made in the malaria eradication programme, started in 1959, with a view to the eventual certification of eradication of the disease.

**Israel 0007 Nursing Education** (Jan. 1965 - 1970) R

To study and evaluate nursing needs and resources in order to plan nursing education programmes.

**Israel 0025 Medical Education** (1964 - 1969) R

To assist the Hadassah Medical School, Hebrew University, or other related schools or training centres, in the development of teaching and research.

**Israel 0041 Industrial Water Use and Conservation**

(Oct. 1966 - 1968) UNDP/TA Special Account for Community Water Supply

To study the disposal of liquid industrial wastes so as to prevent pollution of natural waters, and, as a secondary consideration, to conserve industrial water.


To plan and organize a national survey on refuse disposal.

**Israel 0044 Geriatric Services** (Aug. - Sept. 1967) R

WHO provided a consultant who made an analysis of the situation regarding geriatric services in Israel, and submitted recommendations for their improvement and for the training of physicians and paramedical personnel.

Israel 0200 Fellowships R: Air pollution and radiation protection (three months), blood fractionation (one month), cardiology (eight weeks), cell culture (six months), clinical teaching and supervision (three for four months), drug standardization (three months), hospital administration (one for two months, one for four months), maternal and child health (six months), medical education (two months), microbiological examination of food (six months), public health engineering (twelve months), undergraduate veterinary education (twelve months).

Jordan 0002 Nursing Education, Amman
(March 1965 - ) UNDP/TA
To strengthen nursing education through the expansion and extension of the programme of the College of Nursing, Amman.

Jordan 0006 Malaria Eradication Programme
(June 1958 - beyond 1969) UNDP/TA (AID)
To eradicate malaria from the whole country and prevent its re-establishment.

Jordan 0016 Nutrition Division
(Jan. 1966 - 1973) R UNICEF
To establish hospital dietary services in urban and rural hospitals and to conduct training programmes for the hospital dietitians; to formulate suitable diets based on local foods and food habits; and to co-ordinate the work of the governmental and non-governmental organizations concerned with institutional and hospital feeding in Jordan.

Jordan 0021 School Health Services (1967) R UNICEF
A twelve-month fellowship was awarded for participation in a diploma of public health course and for field training in school health, and supplies and equipment were provided to assist the development of school health services.

Jordan 0023 Vaccine Production
(Nov. 1959 - 1969) R UNICEF
To develop the production of diphtheria and tetanus vaccines, and to train technical personnel.

Jordan 0025 Public Health Advisory Services (1967 - 1969) R
To strengthen the planning, organization and administration of health services.

WHO provided a sanitary engineer to assist the Ministry of Municipal and Rural Affairs in implementing its community water supply and sewage and wastes disposal programme, and in carrying out preliminary work with a view to the preparation of a request to the United Nations Development Programme (Special Fund component) for assistance in the planning of sewage disposal projects for some of the larger towns in Jordan. He also gave assistance in connexion with water supply and waste disposal to the Amman Municipality and advised the Natural Resources Authority on problems of community water supply.
The assistance provided during the first phase of this project (from 1962 to 1964) was described in the Annual Report for 1965.

Jordan 0028 Rehabilitation Services (May 1967 - ) R
To formulate a programme for the development of physical therapy services in the rehabilitation of the physically handicapped.

Jordan 0038 Advisory Services in Epidemiology
(June - July 1967) R
WHO provided two consultants (an epidemiologist and a sanitarian) who advised on measures to prevent outbreaks of communicable diseases among refugees and to improve the sanitary conditions in schools and refugee camps, as well as on the storage and dispensing of drugs and other medical supplies received from various sources.
Some supplies, such as insecticides, sprayers and chemicals for sterilization of water, were also provided.

Jordan 0200 Fellowships R: Bacteriology (eleven months), cancer surgery (twelve months), cardiology (twelve months), cholera epidemiology and control (three weeks), dermatology (two for twelve months), forensic medicine (twelve months), glass-blowing techniques (four months), medical and surgical equipment repair (six months), medical stores management (six weeks), neurology (twelve months), neuropsychiatry (six months), nursing (twelve months), nutrition (two for six months), paediatrics and child health (twelve months), pertussis vaccine production (six months), pharmaceutical analysis (twelve months), public health (twelve months), public health and hygiene (twelve months), radiodiagnosis (twelve months), tropical medicine (two for twelve months), virology (twelve months), vital and health statistics (twelve months).

Jordan 0201 Fellowships UNDP/TA: Nursing (twelve months).

Kuwait 0004 Nursing Education (Dec. 1966 - Feb. 1967) R
WHO provided a consultant for two months who advised on the improvement of nursing care and on the redefinition of nursing policies, practices and requirements.

Kuwait 0020 Smallpox Eradication (1967) R
Following a smallpox outbreak in April 1967, WHO provided advisory services and 140,000 doses of freeze-dried smallpox vaccine.

Kuwait 0200 Fellowships R: Dentistry (nineteen months), haematology (two for twelve months), nursing services administration (twelve months), physical therapy (two for twelve months).

Kuwait 0204 Fellowships Funds-in-trust: Haematology (twelve months).

Lebanon 0001 Health Education Services
(April - July 1967) R
A consultant was provided for three months to assist in evaluating the health education services and in reviewing plans for strengthening them.

Lebanon 0004 Rural Health Unit
(March 1965 - June 1968) UNDP/TA UNICEF
To organize in Halba a model district unit of rural health services, to be used as a demonstration and training centre for
health personnel of other rural health units. This is a follow-up of a project that was carried out in Saida in 1957 and 1958, and in north Lebanon from 1960 to 1962.

**Lebanon 0013 Public Health Laboratory (Oct. 1967) R**  
Two WHO consultants, in vaccine production and in laboratory construction, advised on the production of vaccines for use in humans.

**Lebanon 0031 Rehabilitation of the Physically Handicapped (Second phase: April 1963 - 1969) R**  
To develop physical therapy services at the rehabilitation centre at Ouzai, Beirut.

**Lebanon 0044 Pharmaceutical Quality Control (1967 - 1969) R**  
To develop pharmaceutical services and to organize a pharmacy department in the Ministry of Public Health. Project Lebanon 0036 (Management of Pharmacy and Medical Stores) has been combined with this project.

**Lebanon 0047 Provincial Laboratory Services (1966 - Dec. 1967) R**  
The aim was to establish and reinforce provincial laboratories so as to complete the network of health laboratory services. WHO provided a laboratory technician for six months in 1966 and 1967, and some laboratory supplies. The laboratory technician reviewed the work of the provincial laboratories, gave training to the staff and made recommendations for improvements. New premises for some of the laboratories have been constructed to allow of expansion of their activities.

**Lebanon 0048 Cholera Vaccine (1967) R**  
WHO provided vaccine for cholera prophylaxis.

**Lebanon 0200 Fellowships R: Hospital administration (twelve months), public health (two for twelve months), public health administration (twelve months), public health nursing (twelve months), rodent control (two months), sanitary engineering (twelve months), X-ray techniques (twelve months).**

**Lebanon 0201 Fellowships UNDP/TA: Industrial hygiene (six months).**

**Libya 0002 Maternal and Child Health Demonstration and Training Centre, Suk-el-Juma, Tripoli (Nov. 1965 - 1970) Funds-in-trust**  
To strengthen and expand maternal and child health services in the western provinces; and to train various categories of health personnel in maternal and child health work and in midwifery.

**Libya 0003 Nursing Education, Tripoli (Sept. 1955 - 1975) R UNICEF**  
To develop a nursing education programme adapted to local needs and resources in order to provide professional nurses and assistants for the country's expanding health services.

**Libya 0007 Health Training Institute, Benghazi (Dec. 1955 - 1970) Funds-in-trust**  
To train some selected groups of health auxiliaries and paramedical personnel for hospitals and health centres, particularly in rural areas.

To strengthen nursing services in Libya through the establishment in Benghazi of a nursing school which will prepare nurses to meet the needs of the country.

**Libya 0009 Malaria Eradication Programme (April 1960 - beyond 1969) R Funds-in-trust**  
To eradicate malaria from the whole country. This follows the pre-eradication survey carried out (under the same project number) from June 1958 to September 1959.

To train auxiliary maternal and child health personnel to staff maternal and child health and basic health centres in rural areas.

To establish, in the Ministry of Health, a nutrition unit that will evaluate nutrition conditions in the country and prepare a nutrition programme; to set up a nutrition laboratory, and to train medical, health and nursing personnel in nutrition.

**Libya 0021 Maternal and Child Health Advisory and Supervisory Services (Nov. 1965 - 1970) Funds-in-trust**  
To improve and expand maternal and child health services as an integral part of the general health services; to give health education to mothers and children; to increase the efficiency of all maternal and child health workers; and to strengthen and co-ordinate the organization, administration and operation of all services related to the care of mothers and children.

**Libya 0022 Tuberculosis Control (Pilot Area) (March 1963 - 1969) UNDP/TA Funds-in-trust UNICEF**  
To set up a tuberculosis centre in Benghazi to train staff and demonstrate tuberculosis control techniques and to serve as the centre of operations for a pilot area project; to plan a national control programme on the basis of the results of the pilot area project.

**Libya 0024 Schistosomiasis Control (Dec. 1965 - 1969) UNDP/TA Funds-in-trust**  
To plan and develop schistosomiasis control measures and to train personnel.

**Libya 0025 Health Education Services (April - July 1967) R**  
WHO provided a consultant for three months to review the health education services. He made a number of recommendations regarding the organization and administration of health education services at national and provincial levels and in respect of the health education aspects of the main health projects.
Libya 0027 National Health Planning
(Feb. 1966 - 1969) UNDP/TA Funds-in-trust
To assess the health problems in the country and establish priorities for dealing with them; to appraise the efficiency of the health services in meeting the health needs of the population and to draw up guidelines for their future development; to determine the facilities needed in the health services for planning and evaluation and for co-ordination with the overall planning for the economic and social development of the country; and to prepare plans for national health programmes.

Libya 0028 Environmental Health Aspects of Town Planning
(April 1967 - 1969) Funds-in-trust
To advise the Ministry of Housing on the environmental health aspects of metropolitan and town planning and housing.

Pakistan 0011 Institute of Hygiene and Preventive Medicine,
Lahore (1967 - 1969) R
To reorganize the teaching programme and administration of the Institute of Hygiene and Preventive Medicine, and to establish a department of health education.

Pakistan 0033 Epidemiological Services, East Pakistan
(Oct. 1961 - 1969) UNDP/TA
To develop epidemiological and bacteriological departments in the Public Health Institute, Dacca, East Pakistan.

Pakistan 0036 Malaria Eradication Programme
(1961 - 1975) R MESA (AID)
To eradicate malaria from the whole country, by stages. The eradication programme follows a pre-eradication survey carried out with assistance from WHO in 1959 and 1960.

Pakistan 0037 Medical Education, East Pakistan (1967 - 1970) R
To develop a department of social and preventive medicine at the Dacca Medical College, East Pakistan, for teaching, research and demonstration purposes.

Pakistan 0038 Nutrition Institute, Islamabad (1967 - 1969) R
To reorganize the Nutrition Institute and to review the nutrition programme.

Pakistan 0039 Leprosy Control (Nov. 1961 - 1969) R
To control leprosy, which is endemic in both East and West Pakistan.

Pakistan 0041 Smallpox Eradication (1967 - 1970) R
To accelerate the smallpox eradication programme in East Pakistan and to develop an assessment and surveillance system, and to carry out an eradication programme in West Pakistan.

Pakistan 0048 National Health Laboratories, Islamabad
(Nov. 1964 - 1970) R
To establish national health laboratories in Islamabad, with a view to centralizing laboratory research for both West and East Pakistan.

Pakistan 0049 Malaria Eradication Training Centres
(Nov. 1960 - beyond 1969) R
To train in malaria eradication techniques technical staff of all levels for the national malaria eradication service.

Pakistan 0050 Tuberculosis Control
(Jan. 1953 - 1969) UNDP/TA UNICEF
To determine the methods of tuberculosis control which would be effective in implementing the national plan.

Pakistan 0054 Community Water Supply and Rural Sanitation,
West Pakistan (Nov. 1964 - 1969) R UNICEF
To develop the organization and management of community water supply programmes and study their technical, legal and financial aspects; and to improve rural sanitation.

Pakistan 0055 Environmental Health Services
(March 1967 - 1970) R UNICEF
To establish, in the Ministry of Health, a department of environmental health for planning and administering a programme in this field.

Pakistan 0057 Hospital and Health Centre Statistics
(Jan. 1967 - 1969) UNDP/TA
To develop model procedures for providing information on the curative and preventive work of hospitals and health centres; to carry out special studies on the registration of vital events and on staffing problems; to set up a training centre for medical records officers; and ultimately to establish a system of national hospital and health centre statistics.

Pakistan 0060 Radiation Protection (April - July 1967) R
WHO provided a consultant to advise on the installation of two radiation protection laboratories, one in East Pakistan and one in West Pakistan, and to assist with an appraisal of the radiation protection services. His findings will serve as a basis for the development of national legislation and regulations on radiation protection.

Pakistan 0061 School of Tropical Medicine and Hygiene,
To develop post-graduate training and research at the School of Tropical Medicine and Hygiene in Dacca.

Pakistan 0200 Fellowships R: Clinical pathology (twelve months), epidemiology (two for nine months), haematology (twelve months), hospital administration (twelve months), industrial hygiene—diploma course (nine months), medical education and research (six weeks), medical entomology (twelve months), public health—diploma course (twelve months), public health—master's degree (three months), training of technicians (one week).

Pakistan 0201 Fellowships UNDP/TA: Public health—master's degree (twelve months).
Qatar 0001 Environmental Health Advisory Services
To study environmental health problems and to plan and carry out measures for their solution.

Qatar 0200 Fellowships R: Auxiliary nursing (twelve months), laboratory techniques (three for twelve months), X-ray techniques (two for twelve months).

Saudi Arabia 0004 Malaria Pre-eradication Programme
(1962 - beyond 1969) R
To build up the technical, administrative and operational facilities for a full-scale malaria eradication programme and at the same time to develop the rural health services, so that they may provide efficient collaboration in the eradication programme. The programme follows the pre-eradication survey carried out with the assistance of WHO from July 1959 to March 1962.

Saudi Arabia 0007 Public Health Laboratory Services
To set up a national health laboratory in Riyadh.

Saudi Arabia 0013 Tuberculosis Control (Feb. 1963 - 1969) R
To test, through the tuberculosis centre in Riyadh and the mobile BCG vaccination units, practical and effective methods of case-finding, and of treatment and follow-up of tuberculosis patients, to be extended later to the whole country.

Saudi Arabia 0023 Public Health Advisory Services
(July 1967 - 1969) UNDP/TA
To improve the administration of the public health services and the planning, co-ordination, evaluation and follow-up of health programmes.

Saudi Arabia 0029 Basic Public Health and Medical Care Services (Aug. 1963 - 1969) Funds-in-trust
To improve provincial and community health services in the Eastern Province; and to develop the 250-bed base hospital in Dammam so that it can provide specialized clinical services for the area and serve as a staff training centre.

Saudi Arabia 0035 Training of Medical and Health Personnel
(Dec. 1964 - Feb. 1968) Funds-in-trust
To set standards for the education and training of health personnel and define the technical responsibility of each category; to carry out manpower surveys of health personnel and determine short-term and long-term needs; and to develop educational facilities for professional health personnel, including the country's first medical school.

To develop the municipal programme, with emphasis on environmental engineering.

Saudi Arabia 0200 Fellowships R: Biochemistry (twelve months), cholera control (two for three weeks, one for two months), haematology (four months), laboratory techniques (two months), medical stores management (two for six months), toxicology (twelve months), tropical medicine and hygiene—diploma course (three months), tuberculosis laboratory techniques (six months), undergraduate medical studies (one for ten months, two for twelve months, one for nineteen months), undergraduate pharmacy studies (twelve months).

Somalia 0002 Malaria Pre-eradication Programme
(May 1962 - beyond 1969) R MESA UNDP/TA
To build up the technical, administrative and operational facilities for a full-scale malaria eradication programme and at the same time to develop the rural health services, so that they may provide efficient collaboration in the eradication programme. This programme follows the pilot project and pre-eradication survey carried out with the assistance of WHO from 1955 to 1962.

Somalia 0008 Health Training Institute, Mogadishu
(Jan. 1959 - 1972) R UNICEF
To train various categories of health auxiliary personnel, including medical assistants, assistant sanitarians and assistant public health nurse/midwives; and to provide in-service training and refresher courses.

Somalia 0011 Tuberculosis Control
(March 1960 - 1970) UNDP/TA UNICEF
To test, in certain areas, simple, practical and effective methods of tuberculosis treatment and prevention, including BCG vaccination and sputum examination; to study the possibility of extending these methods to the whole country and their integration into the work of basic health centres. The project is operated from the tuberculosis centre at Mogadishu, which is also used for training.

Somalia 0013 Basic Health Services
(March 1962 - 1968) R UNICEF
To set up a rural demonstration and training area which will provide practical training for the students of the WHO-assisted project Somalia 0008 (Health Training Institute, Mogadishu) and experience in the development of an integrated public health service in a rural area.

Somalia 0015 Nursing Education, Hargeisa
(Sept. 1961 - 1970) R UNDP/TA
To strengthen the nursing services by improving the nursing education programme.

Somalia 0018 Environmental Health Services
The aim was to organize and carry out a national environmental health programme, with particular emphasis on the provision of community water supplies. WHO provided a sanitary engineer for one and a half years and a sanitary technician for nine months.

The WHO staff advised on environmental health programmes to be carried out by the Ministry of Health; many of these however, could not be implemented owing to the shortage of personnel and funds in the Ministry. Assistance was also given to the health personnel training school in Mogadishu. The WHO sanitary engineer also prepared designs for a number of rural water supplies and the sanitary technician undertook a survey of wells in Mogadishu and made recommendations on their sanitary protection.
To plan and implement a smallpox eradication programme and intensify the surveillance system.

Somalia 0020 Organization of Medical Care
(May 1962 - 1969) R
To improve the medical care services, particularly as regards surgery and anaesthesiology; and to provide clinical training facilities for health personnel, especially student nurses.

Somalia 0025 Public Health Laboratory Services
(1966 - 1971) R
To develop sound technical methods for laboratory investigation and to provide training facilities, including in-service training for all grades of technical staff.

Somalia 0200 Fellowships R: Anaesthesiology (twelve months), laboratory techniques (three months), nursing (thirteen months), public health administration (two weeks), public health nursing (eleven months), quarantine in seaports and airports (six weeks), sanitation (two for eleven months), undergraduate medical studies (thirteen for twelve months), undergraduate pharmacy studies (seven for twelve months).

Somalia 0201 Fellowships UNDP/TA: Undergraduate medical studies (four for twelve months), undergraduate nursing studies (twelve months).

Sudan 0006 Malaria Pre-eradication Programme
(June 1963 - beyond 1969) R MESA
To build up the technical, administrative and operational facilities for a full-scale malaria eradication programme and at the same time to stimulate the development of the rural health services, so that they may provide efficient collaboration in the eradication programme. The programme follows the pre-eradication survey carried out with the assistance of WHO from January 1961 to December 1962.

Sudan 0015 Communicable Eye Disease Control
To test the effectiveness of the control methods used in a pilot treatment programme for communicable eye diseases in urban and rural communities.

Sudan 0019 Rural Health Demonstration Area
WHO provided a medical officer from October 1962 to April 1964, a sanitary engineer from June 1962 to April 1964, and a sanitary officer from March 1966 to February 1967 to help to develop the medical care, preventive and environmental health services in the demonstration area set up at El Huda, in the Menagil section of the Gezira irrigated area, as part of a pilot scheme of community development. In addition, they assisted the Khartoum Rural Council with its community development project.

Sudan 0020 Nutrition Division, Khartoum
To establish a nutrition division in the Ministry of Health, to carry out nutrition surveys throughout the country, and to train personnel.

Sudan 0025 Onchocerciasis Control (March 1963 - 1969) R MESA
To carry out a survey of onchocerciasis infection in the main section of the Nile north of Khartoum and in Bahr-el-Ghazal and Equatoria Provinces, so as to determine the reasons for the prevalence of the infection, in particular the relationship between the disease in man and the breeding places of the insect vector; to develop a programme for the control and prevention of onchocerciasis; and to train personnel.

Sudan 0026 Smallpox Eradication (Jan. 1962 - 1969) R
To plan and implement a smallpox eradication programme and to intensify the surveillance system.

Sudan 0030 Cancer Control (1963 - 1969) R
To develop, in Khartoum Hospital, radiation and isotopes services for the treatment of cancer patients.

Sudan 0032 Malaria Eradication Training Centre
(May 1963 - beyond 1969) R MESA
To train staff for the malaria eradication service.

Sudan 0036 Environmental Health (Jan. 1965 - 1970) R
To plan and administer a national environmental health programme.

Sudan 0038 Vital and Health Statistics Advisory Services
(Jan. 1965 - 1969) R
To strengthen vital and health statistics at the Ministry of Health, to develop a vital and health statistical system in the country and to train personnel of various levels.

Sudan 0039 Teaching of Paediatrics
To establish a department of paediatrics in the Faculty of Medicine, Khartoum University, to carry out teaching and research.

Sudan 0041 Treatment of Industrial Wastes
(Sept. - Nov. 1967) UNDP/TA
A WHO consultant assisted with a study of pre-treatment of selected industrial wastes in the Khartoum North industrial area. Studies will be continued with the help of the staff of the environmental health project (Sudan 0036).

Sudan 0042 Community Water Supply, Gezira
The aim was to study the problems of water purification in the villages of the Gezira area, with a view to improving the present plants and designing new ones. WHO provided a short-term consultant during 1965 and 1966, and a fellowship in sanitary engineering to a candidate who has returned and taken up his assignment with the Sudan Gezira Board. The recommendations made by the WHO consultant in 1965 and 1966, followed up by a WHO sanitary engineer from the WHO-assisted environmental health project (Sudan 0036), were accepted by the Sudan Gezira Board for implementation.

Sudan 0043 Electro-encephalography
To establish an electro-encephalography unit at the Khartoum teaching hospital.

The aim was to study the risks of spread of schistosomiasis and onchocerciasis that would be incurred by irrigation farming in the Jebel Marra area; to collect information on the epidemiology of the two diseases; if necessary, to conduct field investigations; and to determine what control measures should be applied. This project was part of a survey of the land and water resources of the Jebel Marra area being carried out with assistance from the United Nations Development Programme (Special Fund component), with FAO as the executing agency. WHO provided two consultants—an epidemiologist from April 1966 to March 1967 and an assistant (anthropology) from December 1966 to April 1967.

The project area was surveyed and data collected on the distribution and prevalence of the most important endemic diseases such as schistosomiasis, onchocerciasis, veneral diseases, tuberculosis and leishmaniasis, and studies were made on environmental health, population patterns and movements of nomads. Specimens of snails and simuliid larvae were collected for identification. Schistosomiasis was found to be highly endemic in the central and western district of the southern region, province of Darfur—where the prevalence is as high as 90 per cent. in some areas. However, there appeared to be no serious risk of the spread of onchocerciasis in the project area in the near future.

Sudan 0046 Training of Waterworks Personnel (May 1966 - 1968) UNDP/TA

To train waterworks personnel, particularly those in the sub-professional grades.


WHO provided two consultants, one in public health administration and the other in medical education and training, for four months and six weeks respectively, to make an assessment of the organization and administration of the health services, of the availability of professional and auxiliary health personnel and of facilities for their training, and to make recommendations for the future development of the health services and of training programmes.

Sudan 0200 Fellowships R: Clinical nursing instruction (twelve months), epidemiology (nine months), haematology (twelve months), health education (six months), midwifery (ten months), nutrition (twelve months), pharmaceutical analysis and control (twelve months), psychiatry (two for twelve months), public health—diploma course (two for twelve months), radiotherapy (twelve months).

Syria 0002 Malaria Eradication Programme (March 1956 - beyond 1969) R MESA UNDP/TA

To eradicate malaria from the whole country and prevent its re-establishment.

Syria 0004 Schistosomiasis Control (Nov. 1964 - Dec. 1967) R

To assess the situation as regards the prevalence and control of schistosomiasis, especially in the Kamichiiea area; to devise new methods for controlling the intermediate hosts; to improve health education, environmental sanitation and the treatment of schistosomiasis; and to draw up a programme for training professional and auxiliary personnel.


WHO provided a medical officer, a sanitary and a nurse to assist in establishing and developing at Haran El Awamid a rural health centre through which a model health service could be provided and that could be used for demonstration and training purposes, with a view to the future expansion of rural health services. In mid-1966 the national staff assumed the full charge of the services and training provided by the centre and the WHO staff were transferred to Afrine, in the Governorate of Aleppo, to assist in organizing a rural health demonstration and training centre for the north of the country.

Syria 0020 Communicable Eye Disease Control (1966 - 1969) R UNICEF

To carry out a study of the epidemiology of trachoma and related eye infections and develop effective technical and administrative methods for their control; to train personnel, and to set up adequate services within the existing pattern of public health services for maintaining the control programme on a permanent basis and extending it.


To develop the services of the public health and endemic diseases laboratory, and particularly the food microbiology section.

Syria 0037 Nursing Education, Damascus (Nov. 1960 - 1972) R UNICEF

To set up a national school of nursing that will provide the country with better-qualified nurses and thus contribute to raising the standard of nursing education and nursing services.

Syria 0039 Training of Sanitarians (July 1962 - Dec. 1967) UNDP/TA

To train sanitarians for service in the Ministry of Health and Public Assistance.


To develop a tuberculosis control programme, integrated in the national health services, and to train personnel for the purpose.

The work done during the first phase of this project, which was assisted by WHO from March 1965 to December 1966, is described in the Annual Report for 1966.\(^1\)

Syria 0047 Medical School, Aleppo (July 1966 - 1972) UNDP/TA

To establish a medical school in Aleppo and to raise the standard of medical education and research in the country.

\(^1\) Off. Rec. Wld Hlth Org. 156, 214.
Syria 0054 Community Water Supplies, Euphrates Valley
(Sept. 1966 - March 1967) UNDP/TA

WHO provided a short-term consultant for six months to advise on the design of water supplies for the communities in the Euphrates valley.

Syria 0056 Cholera Prevention (1967) R

WHO provided 500,000 tablets for the disinfection of drinking-water.

Syria 0200 Fellowships R: Bacteriology (twelve months), hospital administration (one for six months, one for two years), medicine with emphasis on cardiology (five and a half months), medico-social sciences (eleven months), paediatrics (six weeks), public health—diploma course (one for nine months, one for twelve months), public health inspection (two for twelve months), public health nursing (twelve months), public health practice (three weeks), sanitation—diploma course (twelve months), smallpox vaccine production (four months), tropical public health—diploma course (twelve months), vector control (six months), vital and health statistics (six months).

Tunisia 0003 Communicable Eye Disease Control
(Nov. 1953 - 1969) UNDP/TA

To carry out a mass campaign against seasonal conjunctivitis, collective treatment of trachoma in schools, and a programme of research on communicable eye diseases.

Tunisia 0017 Malaria Eradication Programme
(1966 - 1969) R MESA

To eradicate malaria from the country and prevent its re-establishment.

Tunisia 0018 Environmental Health Services
(May 1962 - 1970) UNDP/TA UNICEF

To develop a national programme of environmental health and to train personnel for the purpose.

Tunisia 0027 Medical Education (Jan. 1961 - 1972) R

To set up the first medical school in Tunisia, and to organize a medical course, starting with the preclinical sciences.

Tunisia 0029 Medical Rehabilitation
(Dec. 1961 - 1969) UNDP/TA

To set up a medical rehabilitation programme for the physically handicapped; and to train medical and paramedical personnel.

Tunisia 0033 Training Centre for the Repair and Maintenance of Medical Equipment (Jan. 1963 - 1969) UNDP/TA

To train personnel in the repair and maintenance of medical apparatus.

Tunisia 0034 Nursing Education, Tunis
(Oct. 1965 - 1972) UNDP/TA

To organize courses to prepare qualified nurses for administrative posts in nursing services. This project has been amalgamated with project Tunisia 0031 for the training of nursing personnel.

Tunisia 0036 Schistosomiasis Control
(July - Sept. 1967) UNDP/TA

A consultant epidemiologist was provided for three months to assist with a survey on the prevalence and incidence of schistosomiasis and with the identification of snail intermediate hosts in the endemic areas, and to help to train personnel.

Tunisia 0200 Fellowships R: Anaesthesiology (two for twelve months), gynaecology and obstetrics (twelve months), haematology and blood transfusion (twelve months), medical biology (two for twelve months), medical use of radioisotopes (twelve months), medico-social sciences (twelve months), nursing (one for two months, one for twelve months), nursing schools organization and administration (three weeks), pneumo-phtisiology (two for twelve months), urology (two for twelve months).

United Arab Republic 0023 Malaria Eradication Programme

To eradicate malaria from the country and prevent its re-establishment.

United Arab Republic 0027 High Institute of Public Health,

To develop the High Institute of Public Health so that it may advance the knowledge and training of professional health workers in all fields of public health, promote research and field work, and contribute to the solution of practical health problems in the United Arab Republic.

United Arab Republic 0038 Sanitary Engineering Research
(Oct. 1958 - 1968) UNDP/TA

To organize a laboratory and centre for sanitary engineering research and to strengthen the teaching of the subject.

United Arab Republic 0044 Concentrated Sera Production Plant
(1957 - Dec. 1966) UNDP/TA

The aim was to set up a purified and concentrated sera production unit in the central laboratories in Agouza, but progress was slow owing to lack of financial support, technical personnel and adequate space.

In 1962 a WHO consultant made recommendations on methodology and on the necessary supplies and equipment for mass production of purified and concentrated sera; and in 1966 another consultant visited the project and submitted a report on the developments effected during the period 1962-1966. Three fellowships were granted to members of the concentrated sera production plant for studies abroad.

United Arab Republic 0049 Schistosomiasis Control Pilot
Project and Training Centre (Jan. 1961 - 1969) R UNICEF

To test measures for controlling schistosomiasis, so as to find those cheapest and most effective under conditions in the United Arab Republic. The project serves as a field demonstration and training centre for the Region.
United Arab Republic 0050 Nursing Education
(Aug. 1961 - 1968) UNDP/TA

To strengthen nursing education and services through basic and post-basic nursing education; and to develop a model educational plan for nursing personnel and model nursing services in hospitals and health centres.

United Arab Republic 0060 Higher Institute of Nursing, Cairo University (Sept. 1965 - 1970) R

To develop a four-year degree programme in basic nursing, so as to prepare nurses for leading posts in nursing education, administration and services.

United Arab Republic 0063 Virus Vaccine Production Centre (1966 - beyond 1969) R

To set up a vaccine production centre for poliomyelitis, measles and other virus vaccines.

United Arab Republic 0064 Health Component in Lake Nasser Development Centre (Oct. 1966 - 1972) UNDP/ SF (FAO)

To examine the public health problems arising from environmental changes associated with the comprehensive Lake Nasser development scheme in the Aswan region, which is being carried out with assistance from the United Nations Development Programme (Special Fund component).

United Arab Republic 0065 Cancer Institute, Cairo (May 1967 - 1969) R

To improve the Cancer Institute, Cairo University, and to develop cancer diagnosis, treatment, control and research activities throughout the country.

United Arab Republic 0200 Fellowships R: Allergy (six weeks), applied parasitology and entomology—diploma course (nine months), cardiac surgery (one month), communicable diseases epidemiology (three months), communicable diseases epidemiology, control and prevention (three and three-quarter months), diabetic care and organization of diabetic centres (six months), epidemiology (nine months), hospital administration (three months), leprosy control (three months), maternal and child health (six weeks), maxillo-facial plastic surgery and cancerology (six months), onchocerciasis (six months), public health dentistry (twelve months), radioisotopes—labelling of platelets and white blood cells (two months), rural health services (two months).

United Arab Republic 0201 Fellowships UNDP/TA: Drug addiction and treatment of addicts (six months), nursing education (six months), rheumatic heart disease in children (six months).

Yemen 0003 Public Health Administration (Jan. 1961 - beyond 1969) R

To develop the public health and medical care services.

Yemen 0008 Health Centre and Training School, Sana’a (July 1956 - 1970) UNDP/TA UNICEF

To establish a health centre and training school in Sana’a in order to provide training for auxiliary health personnel (including assistant sanitarians, assistant nurses and laboratory assistants), to demonstrate modern practice in the prevention and cure of some diseases and the control of communicable diseases, to assist the promotion of health, and to facilitate the organization of public health services.

Yemen 0015 Local Health Services, Hodeida and Taiz (Nov. 1963 - 1970) R UNICEF

To organize two health centres—one in Hodeida and one in Taiz—to provide integrated health services to the community, and to train various categories of auxiliary health personnel.

Yemen 0016 Smallpox Eradication (1966 - 1969) R

To reorganize the smallpox eradication programme.

Yemen 0200 Fellowships R: Entomology (two months), hospital administration (five for six months), hydrology (twelve months), maternal and child health and paediatrics (twelve months), medical assistants’ course (two for twelve months), medical laboratory techniques (twelve months), sanitation (eight for six months), surgery (twelve months), tuberculosis and BCG vaccination (four months), undergraduate dentistry studies (one for nine months, one for twelve months), undergraduate medical studies (two for four months, two for nine months, six for twelve months, one for thirteen months, one for nineteen months), undergraduate pharmacy studies (two for twelve months).

Yemen 0201 Fellowships UNDP/TA: Undergraduate dentistry studies (nine months), undergraduate medical studies (three for nine months, five for twelve months, one for thirteen months).

EMRO 0007 Arab States Training Centre for Education in Community Development, Sirs-el-Layyan (Jan. 1953 - 1969) UNDP/TA (FAO) (ILO) (UNESCO)

To integrate training in the health education and public health aspects of community development into the programme of the Centre, which trains community development workers from Arab States. Emphasis is given to the preparation of physicians, nurses, sanitarians, teachers and agricultural and social workers. This is primarily a UNESCO-assisted project, in which WHO collaborates and provides training in health subjects.

EMRO 0023 Dental Health (Sept. 1964 - 1966) R

A WHO consultant made a dental health survey in Iraq, Jordan and Pakistan between September 1964 and January 1965, and advised on the establishment of dental health and dental care programmes. Supplies and equipment for the Omdurman School for Dental Assistants, in Sudan, and a fellowship, were also provided under this project.
EMRO 0043 Advisory Services (1958 - 1968) R
To provide countries of the Region with consultant services on subjects for which there is no regional adviser, in cases where it is impracticable to obtain assistance from headquarters staff.

EMRO 0045 Participation in Educational Meetings
(April 1959 - 1970) R
To enable countries of the Region to participate in seminars, conferences and training courses organized in other regions and by other agencies.

EMRO 0051 Epidemiological and Statistical Centre
The aim was to assist in carrying out surveys in connexion with tuberculosis and other projects in the Region and in analysing their results, and to advise on the planning and assessment of health programmes. WHO provided a health statistician and a statistical clerk, and some medical literature.
An analysis, before and after processing by computer, was made for the Ministry of Health of Iraq of the results of tuberculosis surveys in Basra and Diwaniya Provinces.
On several occasions epidemiological and bacteriological data were processed for the Bilharziasis Research Team (see project inter-regional 0052), and reports and tables were prepared.
Data concerning the health situation in the Region was processed for the Region's statistical yearbook.

EMRO 0053 Fellowships for Training in Virology R: Iran—one for twelve months; Iraq—one for twelve months.

Under this project, the aim of which was to supply books and periodicals to meet the most urgent needs of medical libraries in the Region, assistance was provided to Ethiopia, Iran, Iraq, Pakistan, Sudan, Syria, Tunisia and the United Arab Republic.
As from 1967 onwards, provision for books and periodicals has been included under the medical education project, EMRO 0084.

EMRO 0058 Malaria Eradication Evaluation Team
To assist in special epidemiological studies of malaria eradication programmes, particularly in problem areas.

EMRO 0061 Training of Laboratory Technicians
(May 1962 - 1969) R
To provide advanced training for laboratory technician tutors who will occupy teaching and supervisory posts in their countries of origin. Two courses have been given in Beirut and it is planned to hold further courses in Jordan, at the inter-country level, and to revise the curriculum so as to prepare specialized laboratory technicians in serology, immuno-haematology and blood bank methods.

EMRO 0062 Training of Medical Radiology Technicians
(Sept. 1965 - 1968) UNDP/TA
To train instructors in X-ray techniques at courses held at the Radium Institute, Baghdad.

EMRO 0079 Advanced Training for Sanitarians
(1966-mid - 1969) UNDP/TA
To provide advanced training in sanitation and supervision of sanitation services, and training for experienced national sanitarians from selected countries.

EMRO 0084 Medical Education (Jan. 1965 - 1970) R
To assist countries in the Region in developing undergraduate and post-graduate medical education, and in establishing new medical faculties.

EMRO 0088 Smallpox Eradication (1966 - 1969) R
To assist countries in the Region in the planning, implementation and assessment of their smallpox eradication programmes, and also to assist national laboratories in developing diagnostic methodology and in improving the production of smallpox vaccine.

EMRO 0101 Medical Records Advisory Services
(Feb. 1966 - 1970) UNDP/TA
To provide advice on medical recording in hospitals and health centres to countries in the Region that are developing medical records units, and to train national medical records officers.

WHO provided twenty-six fellowships to qualified nurses from Ethiopia, Iraq, Jordan, Lebanon, Libya, Somalia, Sudan, Syria and Tunisia to enable them to train as supervisors and teachers in psychiatric nursing in the courses given at the Lebanon Hospital for Mental Disorders, Asfouriyeh, Beirut.

EMRO 0131 Special Group Meeting on Medical Education, Baghdad (18 - 24 Nov. 1967) R
The purpose of the meeting, which followed up the Group Meeting on Medical Education held at the Regional Office in 1963, was to explore the possibilities of promoting medical education in the countries of the Region with the assistance of WHO. It was attended by nineteen medical educators from Iran, Iraq, Lebanon, Pakistan, Sudan, Syria and the United Arab Republic.
WHO provided a consultant, three temporary advisers and the cost of attendance of the participants.

EMRO 0136 Regional Team for Cholera Control and Prophylaxis (1966 - 1967) R
The aim was to assist countries of the Region where outbreaks of cholera might occur, by providing advisory services on control measures and prophylaxis and on programmes for the prevention of cholera.
In 1966 consultants were provided to Iran, Iraq, Jordan, Kuwait, Lebanon, Saudi Arabia and Syria.
In 1967, an epidemiologist and a bacteriologist were provided to Saudi Arabia in March and April, and a clinician visited Jordan, Kuwait, Lebanon and Saudi Arabia in order to review, with medical officers concerned, recent methods of cholera treatment, and to train paramedical personnel in this field.

EMRO 0156 Group Meeting on Health Education, Alexandria (3 - 7 April 1967) R
The purpose of the meeting was to enable health education experts and directors of health education services to exchange
views and experience on the development and promotion of health education work. Various aspects of the planning and administration of health education activities were discussed in the light of the problems and needs of the Region. Technical papers were prepared by eight education officials in the Region, and by the Regional Director, regional advisers, and the WHO public health adviser at the Arab States Training Centre for Education in Community Development. The recommendations of the meeting emphasized the planning of health education work as part of the basic health services and focused on the personnel problems of the Region.

WHO provided two temporary advisers and the cost of attendance of twenty participants from Cyprus, Ethiopia, Iran, Iraq, Jordan, Kuwait, Lebanon, Pakistan, Sudan, Syria and United Arab Republic.


To investigate problems of rodent infestation, to propose control measures and to train municipal, port and quarantine officers responsible for rodent control in the principles and practice of rodent control operations.

**EMRO 0200 Fellowships R:**
- Ethiopia—radiation protection (two for twelve months); Iran—health planning (eleven weeks), social paediatrics (two for eleven weeks); Iraq—radiation protection (five weeks); Pakistan—sanitary engineering (one for three months, one for eighteen months); Sudan—radiation protection (five weeks), sanitary engineering (twelve months); Syria—social paediatrics (eleven weeks); United Arab Republic—radiation protection (five weeks), social paediatrics (eleven weeks).
Australia 0200 Fellowships R: Clinical pathology (twelve months), health education (twelve months), noise control in industry and the community (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 - ) R
To eradicate malaria from the country. This follows the malaria pre-eradication programme started in 1962.

Brunei 0200 Fellowships R: Environmental health (two months).

Cambodia 0001 Malaria Pre-eradication Programme
(July 1962 - ) 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
The aim was to improve nursing and midwifery education. WHO provided four nurse educators for the first five years, and five from 1957 to 1963, after which the number was gradually reduced. Fellowships were awarded for the training of national counterparts.

From 1951 to 1956, work was concentrated mainly on providing in-service training for nursing and midwifery personnel, broadening and strengthening the two-year basic nursing and midwifery education programmes and training rural midwives. In 1961 new three-year state-recognized nursing and midwifery courses, including teaching and supervised experience in public health nursing, and a one-year course for auxiliary nursing personnel were introduced.
The main results of the project have been as follows: The nursing school, which originally formed part of the Prévah Ket Meālea Hospital, Phnom-Penh, now comes directly under the Office of the Director-General of Health Services and its teaching staff are able to implement the educational programmes more efficiently. The number of nursing and midwifery students has reached 365 and there are approximately ten applicants for every vacancy. Auxiliary nursing and midwifery training programmes have been developed and supervised practice for the students has been planned. The wards and departments used for the practical training of students have been improved.

Cambodia 0007 Tuberculosis Control
( May 1965 - 1970) R UNICEF
To set up the nuclei 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
The aim was to develop a pattern for an integrated health unit consistent with the country's facilities and resources: to develop and test public health methods to strengthen the administration of the local health services; and to give field training to various categories of health personnel at the Takhmau Rural Health Training Centre, whose activities, with those of the provincial dispensary, cover the entire district of Kandal Stung, with a population of 90,000. WHO provided a medical officer, a public health nurse, a nurse/midwife, a sanitarian and a sanitary engineer.
An important activity was the training of national staff and the field training of public health nurses and midwives. The services provided by the Centre have been gradually merged with those of the provincial dispensary and progress has been made in the administrative organization of the Centre, which now offers services in maternal and child health, including domiciliary midwifery, school health, immunization (including BCG vaccination carried out in conjunction with a WHO-assisted tuberculosis control project) and dental care. There has also been gradual acceptance of home-visit as an essential public health service.
The project has stimulated the development of health centres throughout the country, although the Takhmau Centre will continue to serve as a public health training and orientation base for the Ministry of Public Health until sufficient trained staff are available to operate the new centres.
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 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 - 1972) R UNICEF (FAO)
To improve nutritional levels in the community; to study the etiology and epidemiology of nutritional diseases and deficiencies affecting the population; to establish patterns for practical nutrition programmes that can be adapted for any part of the country; and to train national staff for their implementation and evaluation.

Cambodia 0023 Leprosy Control  
(Oct. - Nov. 1967) R
A consultant was provided for one month to assess the nature and extent of the leprosy problem and current leprosy control work, and to assist in planning and implementing an extended programme for leprosy control.

Cambodia 0026 Public Health Nursing Advisory Services  
(Jan. 1967 - 1968) UNDP/TA
To organize a system of public health and midwifery administration and services to meet the changing health needs and resources of the country.

Cambodia 0200 Fellowships R: Hospital administration (twelve months), public health administration (two for twelve months).

China 0020 Mental Health Programme, Taiwan  
To establish, as part of the mental health programme, a post-basic training programme for psychiatric social workers, and to review the psychiatric nursing services and the psychiatric nursing content of the nursing education programme.

China 0027 Institute of Public Health, Taiwan  
(Aug. 1958 - 1970) R (China Medical Board)
To strengthen the training at the Institute of Public Health, particularly in epidemiology and public health practice.

China 0024 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  
(Feb. - March 1967) R UNICEF
A consultant was provided for one month to review the first phase of the school health education project assisted by UNICEF and to make recommendations for future development.

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 0049 Physical and Occupational Therapy, Taiwan  
(Dec. 1966 - 1972) R
To organize at the National Taiwan University collegiate courses for training physical therapists and occupational therapists and to improve professional standards.

China 0051 Smallpox Vaccine Production, Taiwan  
(June - July 1967) R UNICEF
The WHO consultant provided in December 1965 to advise on the establishment and maintenance of the freeze-dried smallpox vaccine production unit made a further visit to review the work of the unit and ensure that the vaccine produced complied with international standards.
China 0052 Virus Laboratory Services, Taiwan  
(Sept. 1967 - 1968) R

To develop the diagnostic services in the virus laboratory of the Communicable Disease Control Centre and to strengthen the services in the local laboratories; to carry out surveys and studies for assessing the prevalence and nature of virus infections, especially among children, in order to provide a basis for the formulation of specific disease control programmes; and to train local personnel in techniques for immunological diagnosis of virus diseases.

China 0053 Water Pollution, Taiwan (Oct. - Dec. 1967) R

WHO provided a consultant for two months to advise on the planning and execution of water pollution surveys, on the training of national staff for the work, and on other matters related to the water pollution control programme.

China 0055 Nursing Administration, Taiwan  

To strengthen the Nursing Division of the Provincial Department of Health and increase its participation in the development of health programmes; to improve nursing organization, administration and supervision; to carry out studies in nursing practice; and, in collaboration with the education authorities, to improve the programmes and the practical training facilities for student nurses.

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 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 (Feb. 1967) R

WHO provided a consultant in public health engineering for ten days to advise on national environmental health programmes, including particularly the short-term and long-term planning of sewerage works.

China 0200 Fellowships R: BCG vaccine production (three months), health education (twelve months), industrial hygiene (six months), leprosy control (six weeks), leprosy prevention and rehabilitation (six months), maternal and child health (twelve months), nursing (four for twelve months), psychiatric social work (twelve months), public health administration (three and a half months), public health engineering services (two for twelve months), public health nursing (one for three and a half months, one for twelve months), public health nursing in tuberculosis (three and a half months), river water pollution (six months), tuberculosis (four and a half months), wastes disposal (two for six months), water pollution control (nine months).

Cook Islands 0200 Fellowships R: Medical studies (twelve months), nursing (twelve months).


To improve health education work in the health services and teaching institutions and to develop the health education aspects of training programmes in the school of medicine, the schools of nursing and other institutions.

Fiji 0200 Fellowships R: Nursing administration (two for twelve months), public health administration (one for two months, one for nine months).

Gilbert and Ellice Islands 0004 Nursing Education  
(Feb. 1964 - 1970) 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), midwifery services (twelve months), tuberculosis control (twelve months).

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

To plan, set up and train staff for a statistical section in the Tuberculosis Unit of the Medical and Health Department; and to collect, process and provide statistical data for general and research purposes in the tuberculosis service.

Hong Kong 0200 Fellowships R: Dental technology (two for six months), radiation protection (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: Accident prevention in pre-school children (one month), assay of marihuana (three months), dental health (three months), drug control (three months), environmental sanitation in urban development (three months), health laboratory services (ten weeks), health planning for suburban communities (two for three months), maternal and child health (three months), medical insurance systems (three months), medical research administration (three months), narcotic addiction — after-care of patients (six weeks), orthopaedic surgical treatment of the physically handicapped (three months), public health administration (three months), radiation protection (three months), streptococcal infections (five weeks), tuberculosis (three months), vaccine supply organization (three months), venereal disease control (three months), vital and health statistics (ten weeks).

Korea 0004 Leprosy Control  
(Nov. 1961 - 1970) UNDP/TA UNICEF (Order of Malta)

To expand the leprosy control programme.
Korea 0013 Malaria Pre-eradication Programme  
(Jan. 1962 - 1973) 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  
To develop an effective and comprehensive tuberculosis control programme, so as to reduce, and finally to eliminate, the infection as a public health problem.

Korea 0025 Local Health Services, Chungchong Namdo  
(March 1963 - 1973) R UNICEF
To develop the public health services in the demonstration province (Chungchong Namdo) and the local health services in other provinces; and to train local health personnel at the Division of Training of the National Institute of Health.

Korea 0027 School of Public Health, Seoul National University  
To develop and strengthen the teaching faculty of the School of Public Health, Seoul National University.

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.

Korea 0200 Fellowships R: BCG vaccine production (three months), dental health (three weeks), epidemiology (twelve months), health education (twelve months), laboratory services (twelve months), public health nursing (twelve months), tuberculosis bacteriology (ten weeks).

Laos 0009 Public Health Administration Advisory Services  
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  
The project was part of the integrated rural development project assisted by the United Nations, FAO and UNESCO, the aim of the health component being to assess the health needs of the local communities comprising the rural development centres set up under that project, to develop local health programmes and to provide the communities with a basic health service. WHO provided a sanitarian and a nurse/midwife from March 1961 and a medical officer from September 1964.

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 0015 School of Medicine (Nov. 1967 - 1970) R
To improve the standard of teaching at the School of Medicine particularly in the basic medical sciences and in preventive and social medicine.

Laos 0018 Rehabilitation of the Physically Handicapped  
To assess the extent of the problem of the physically handicapped; to plan and operate rehabilitation facilities and to train staff for them; and to review legislation dealing with the physically handicapped.

Laos 0024 Smallpox Eradication (1967 - 1969) R
To intensify the smallpox vaccination and surveillance activities to prevent the introduction of smallpox from other endemic areas.

Laos 0200 Fellowships R: Gynaecology and obstetrics (twelve months).

Laos 0201 Fellowships UNDP/TA: Paediatrics (twelve months).
Malaysia 0014  Hospital Administration, West Malaysia  (May 1956 - Dec. 1966) UNDP/TA

The aim was to review the hospital administration system and to provide training for non-medical hospital administrators. WHO provided a hospital administrator and fellowships.

In the first phase, after the basic principles to be followed by government hospitals had been established, attention was directed to setting up the framework for planning hospital services on a national and an individual hospital basis. In the second phase, the emphasis was on establishing a division of hospitals in the Ministry of Health. Six basic courses in hospital administration for newly-recruited hospital administrators and five regional courses on the administration of district hospitals were given.

Provision has been made to increase the staff of the Division of Hospitals. In 1966 the Ministry decided that there should be a hospital administrator for all hospitals with at least 200 beds; since the project started, twenty-seven such posts have been established and there are now hospital administrators in all general hospitals, mental hospitals and tuberculosis hospitals, and in the leprosarium.

Consideration is being given to increasing their in-service training and also to extending the period of training of non-medical hospital administrators and to admitting for training only persons holding a university degree.

---

Malaysia 0020 Malaria Pre-eradication Programme, West Malaysia  (July 1964 - June 1967) R
Malaysia 0020 Malaria Eradication Programme, West Malaysia  (July 1967 - 1978) R

The aim of the pre-eradication programme, which followed a malaria eradication pilot project (February 1960 - June 1964) was to develop throughout the country the operational, technical and administrative facilities of the malaria and public health services for the subsequent implementation of a malaria eradication programme, including the training of national staff and completion of country-wide epidemiological surveys of malaria. WHO provided a malarialogist, a sanitary engineer and an entomologist for the duration of the project, seventeen fellowships and supplies and equipment.

A country-wide malaria-metric survey covering the sixty-nine districts of the eleven states of West Malaysia revealed that in 65 per cent. of all 1316 villages, malaria was endemic and that the disease was a public health problem of primary importance in rural areas. Surveys were also carried out on the habits of the vector anophelines and on the extensive malaria control work undertaken in each state.

Taking into consideration the present well-developed state of the rural health services, the pre-eradication programme was terminated in June 1967 and superseded by a malaria eradication programme under the same project number. This latter programme, with the final objectives of eradicating malaria from West Malaysia and preventing its recurrence, was introduced. The first two years are devoted to lectures and demonstrations and to apprenticeship in the various divisions of the Institute of Medical Research, and in the third year the probationer is employed as a member of the technical staff in one of six approved laboratories. The WHO tutor assisted in training laboratory assistants for the Medical School and Hospital, University of Malaya, in 1963 and 1964, and also assisted the Public Health Institute, Kuala Lumpur, in the preparation of a training course for laboratory assistants.

The project has resulted in more comprehensive instruction for laboratory technicians and the time spent on systematic instruction has been increased from twenty to 160 hours. Greater use has been made of the training resources of the Institute of Medical Research. Eighty-seven probationers were trained during the operation of the project. The overall laboratory structure in the country needs to be reviewed to enable an assessment of training needs to be made.

Malaysia 0030 Health Education Advisory Services, West Malaysia  (Jan. 1962 - 1970) 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 - 1971) 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 and expand the rural health services in East and West Malaysia and to train personnel according to a consolidated plan, which includes phasing of expansion and development of uniform standards throughout the country.

Malaysia 0040 University of Malaya  (Sept. 1965 - ) 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 recording.

Malaysia 0041 Environmental Health Advisory Services, East Malaysia  (Jan. 1966 - 1969) R UNICEF

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 - 1971) R UNDP/TA UNICEF
To eradicate malaria from Sabah. The eradication programme follows anti-malaria operations for which WHO has provided assistance since July 1955.

Malaysia 0043 Malaria Eradication Programme, East Malaysia (Sarawak) (Oct. 1961 - 1971) R UNDP/TA UNICEF
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. He advised on the establishment of a school for the training of medical laboratory technicians and helped to organize a course for training tutors and refresher courses for advanced technicians. He also advised on standards for different types of laboratories and assisted in preparing a training programme for meeting the immediate and future needs of the health laboratory services for laboratory technicians and assistants.

Malaysia 0200 Fellowships R: East Malaysia — rural health (four months); West Malaysia — environmental health (twelve months), hospital administration (six months), nursing education (twelve months), nursing services research methodology (four months), pharmaceutical manufacture and technology (six months), psychiatric nursing services and education (seven months), public health administration (six months), rural water supply development and environmental sanitation (three 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), mental health nursing (three for five weeks).

Niue 0200 Fellowships R: Anaesthetics (six months).

Papua and New Guinea 0200 Fellowships R: Bacterial diseases (three months), child health (three months), dental health (one for four months, one for six months), environmental health (three months), malaria eradication (three and a half months), maternal and child health (two for four months), paediatric surgery (two for four months), public health administration (ten months), tuberculosis control (six weeks).

Philippines 0001 Master Plan for a Sewerage System for the Manila Metropolitan Area (Dec. 1966 - ) UNDP/SF
To prepare a master plan for a sewerage system for the Manila metropolitan area and a phased sewerage-development programme to meet the present and future requirements of the metropolitan population. The work includes the preparation of detailed financial and engineering studies for the first phase of development, which involves the construction of the most urgently needed works.

To develop a mental health programme for the whole country.

The aim of the project was to reorganize the central and regional environmental sanitation services. WHO provided a sanitary engineer for most of the duration of the project; staff of the Division of Environmental Sanitation were the national counterparts.

In the initial phase, during which posts for eight regional engineers were established, long-term plans were formulated, attention was given to refuse disposal and urban sanitation and training of sanitary inspectors was started. In the middle phase, designs were made for city water supplies and solid waste disposal plants, surveys of stream pollution were carried out and requirements drawn up for school sanitation and laboratories for water analysis. Preparatory work was done on the compilation of a handbook for sanitarians. During the final phase, activities were chiefly devoted to the planning and design of water supplies, field surveys and investigations, and the identification of difficulties or obstacles encountered in the implementation of various field activities. The main activity, however, was the preparation of the first and second five-year plans for environmental sanitation; these established the framework within which all sanitation activities will be carried out in the future.

The decentralization of the Division of Environmental Sanitation makes for greater efficiency of operation; there are, however, financial problems, and difficulties in recruiting sufficient qualified staff.

Philippines 0050 Virology Centre (Sept. 1965 - June 1967) UNDP/TA
WHO provided a virologist to assist in building up a diagnosis laboratory and referral centre for the identification of viral agents of diseases. Some units of the Bureau of Research and Laboratories were reorganized and a bank of standard viruses and their antisera was set up. The Alabang laboratory was provided with assistance in order to enable it to function as a control laboratory for the production of virus vaccines. Fellowships for training national staff were awarded.

The aim was to organize an advanced training programme for sanitary inspectors and to demonstrate environmental sanitation work in a selected area. WHO provided a sanitarian from 1958 to 1966 and an additional sanitarian in 1964.

Training courses for sanitary inspectors were conducted from 1958 onwards at the four regional training centres of Manila, Dagupan, Cebu and Davao. The courses, lasting ten weeks, were held from one to three times a year, and were attended by 974 sanitary inspectors during the period of the project. Six sanitary inspectors completed WHO fellowships and are assisting in the conduct of the courses. The community development area associated with the Manila training centre in Taytay, Rizal, was completed. Three more areas for the other regional centres are still under development. A handbook for sanitary inspectors was prepared with the collaboration of the Department of Health, the University of the Philippines, the Institute of Hygiene, the National Science Development Board and WHO staff, and
Philippines 0053 Malaria Eradication Programme
To eradicate malaria from the country and prevent its re-establishment.

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
The aim was to organize, at the University of the Philippines, collegiate courses for physical therapists and occupational therapists and for sub-professional workers. WHO provided a physical therapy adviser and an occupational therapy adviser. The project has in the main fulfilled its objectives. The school of Physical Therapy and Occupational Therapy at the National Orthopaedic Hospital has competent national staff and should be able successfully to carry on the work. There are problems of student intake, of “drop-outs”, of salary scales for graduates and of senior instructing staff on the physical therapy side.

Philippines 0073 School Health Education
(Oct. 1963 - 1968) UNDP/TA UNICEF
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 improve food sanitation and to establish standards for food hygiene.

Philippines 0092 National Hospital Programme
(May - Sept. 1967) R
Two WHO consultants made a study of government and private hospitals and submitted recommendations on the organization and administration of the hospital system.

Philippines 0101 Dental Health Advisory Services
WHO provided a consultant for one month to advise on the planning and development of a programme in public health dentistry and on the teaching of preventive dentistry at undergraduate and post-graduate levels. He also gave advice on dental surveys and research and on the oral use of fluorides.

Philippines 0102 Public Health Engineering
(Feb. 1967) R
WHO provided a consultant in public health engineering for one week to advise on national environmental health programmes, including particularly the short-term and long-term planning of sewerage works.

Philippines 0200 Fellowships
R: Leprosy (twelve months), paediatric nursing (two for twelve months), public health administration, with emphasis on statistics (twelve months), reconstructive surgery and rehabilitation in leprosy (six months), sanitary engineering (twelve months).

Ryukyu Islands 0200 Fellowships
R: Dental health (three for three months), epidemiology (twelve months), environmental health (twelve months), health education (twelve months), hospital administration (twelve months), industrial health (two for three months), laboratory services (twelve months), occupational health (two for three 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 - 1970) 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
The aims were 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 practical training; to revise the Midwives’ Ordinance and the rules of the Midwives’ Board; and to plan and organize midwifery services. WHO provided a nurse educator (midwifery) for the duration of the project, and a consultant from August to December 1966.

Assistance was given in surveys and studies of midwifery service and education programmes, in the development and improvement of services and in the revision of legislation. Rural midwifery services were developed as part of the training programmes for midwives. Supplementary and refresher courses were held in English for 119 midwives and in Malay for some thirty midwives. Twenty-one nurse/midwives attended a two-week refresher course. Midwifery tutors have been trained and placed in charge of all the education and training programmes. A study of the training of midwives, and the report of the Review Committee of the Midwives Board, have provided the basis for the plan of action since 1962, and the recommendations of the Review Committee have been implemented through the Coordination Committee, consisting of the medical staff, the matron and the tutor in charge of the midwifery school, which was set up in 1965 to co-ordinate all aspects of the hospital training of midwives.
One recommendation of the Committee was to reduce gradually the number of pupil midwives who are not nurses and to replace them by trained midwives—two trained midwives to three pupils. The recommendation, when fully implemented, will help to reduce the number of midwives unemployed as a result of the rise in hospital deliveries and will lessen the teaching load for the tutors, thus making it possible to improve the quality of the teaching and to plan better practical experience for the pupil midwives and nurses during their year of post-basic midwifery training.

**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 0016 Medical Statistics and Hospital Records**
(Oct. 1967 - April 1968) R

WHO provided a consultant to review the health statistical services and hospital records services and assist in reorganizing them and in training the necessary staff, and to advise the Ministry of Health on various aspects of statistics.

**Singapore 0020 Refuse Collection and Disposal**

WHO provided two consultants to make a survey of the refuse collection and disposal system and to advise on the selection of refuse disposal plans best suited to local conditions.

**Singapore 0200 Fellowships R: Environmental sanitation**
(two for five months), hospital nursing administration (twelve months), immunofluorescent techniques (three weeks), public health administration (eight months), radiography (twelve months), tuberculosis bacteriology (six months), tuberculosis control (six months).

**Tonga 0001 Environmental Sanitation**

The aim was to strengthen sanitation services; 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. WHO provided a social anthropologist from April 1958 to June 1960 and a sanitary engineer from November 1958 to December 1966.

Surveys and investigations were carried out to obtain information on groundwater resources, including investigations to determine the thickness of the freshwater lens and to ascertain the types of water supplies and excreta disposal facilities, and other sanitation measures, most suitable for the village pilot projects and for the capital, Nuku'alofa.

The headworks, transmission lines and about one third of the distribution system for the Nuku'alofa water project were constructed. The system will serve a population of 30,000; water supply systems were built to serve 26,000 inhabitants in forty-five villages and thirty-two schools with 7000 pupils and the schools were provided with sanitary facilities. Two thousand water-seal latrines were installed.

Campaigns were conducted for the purpose of improving refuse disposal systems and eliminating breeding places of flies.

Assistance was provided in establishing the Water Board which will operate the Nuku'alofa water supply and supervise the construction and operation of village water supplies.

**Tonga 0008 Study and Control of Diarrhoeal and Enteric Diseases**

To study the eiological agents of enteric and diarrhoeal diseases in the population, and especially in young children, and to assess their relative importance; and to improve diagnostic and therapeutic procedures and control measures.

**Tonga 0200 Fellowships R: Environmental health**
(two for twelve months), public health administration (two for twelve months), public health nursing (nine months).

**Viet-Nam 0003 Maternal and Child Health Services**
(Dec. 1966 - May 1967) UNICEF

A WHO nursing consultant was provided for six months to make a survey of 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.

Previous assistance in maternal and child health was provided under this project between December 1954 and June 1965.

**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 BCG 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 0016 Malaria Pre-eradication Programme**
(March 1959 - Dec. 1966) 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 0030 Industrial Hygiene  
(Oct. 1967 - 1968) UNDP/TA  
To determine the nature and extent of occupational health and industrial hygiene problems and the factors responsible for them; to assess the facilities and resources for their control; to review the relevant legislation and regulations; to strengthen the occupational health and safety services; and to examine problems of air and water pollution caused by industry.

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.

A WHO consultant was provided for one month to assess the nature and extent of the leprosy problem and current leprosy control activities, and to assist in planning an expanded programme for leprosy control.

Viet-Nam 0038 National Institute of Hygiene and Public Health  
To set up a national institute of hygiene and public health to provide training and services and conduct research.

Viet-Nam 0039 National Health Planning  
WHO provided a consultant for one month to assess present health needs and the general resources which could be used for health planning under existing conditions; and to advise the Ministry of Health on the organizational and administrative aspects of the planning process.

Western Samoa 0007 Filariasis Control  
(July 1965 - 1970) 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.

To develop and strengthen the organization and operation of the general health services, particularly at district and local levels; to improve the operation of the rural health programme; to organize in-service training for medical and paramedical personnel; to conduct epidemiological studies on the most important causes of morbidity and mortality in the country; and to plan disease control programmes as part of the general health services.

Western Samoa 0013 Public Health Laboratory Services  
To develop and strengthen the health laboratory services.

Western Samoa 0200 Fellowships R: Assistant dental officers' course (five for twelve months), assistant medical officers' course (five for twelve months), dentistry (six months), medical studies (twelve months), nursing (seven for twelve months), ophthalmology (six months), physical therapy (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:

*Hong Kong, Malaysia, Philippines and Singapore — Venereal Diseases and Treponematoses.* A consultant for two weeks in November-December 1967 to demonstrate the fluorescent treponemal antibody test and to assist the governments concerned to develop venereal diseases and treponematoses diagnostic laboratory services.

*Philippines — Goitre Control.* A consultant for two weeks in October 1967 to assist the Department of Health in planning a pilot goitre control project, based on the injection of iodized oil, and to advise on laboratory studies necessary for the evaluation of the project.

WPRO 0080 Mekong River Schistosomiasis Survey  
(Dec. 1966 - Feb. 1967) UNDP/ECAFE Mekong Committee  
WHO provided a parasitologist and a malacologist to make a survey of Khong Island in Laos in order to ascertain whether schistosomiasis occurs in man or other vertebrates of the area and whether a snail host exists. A fairly extensive focus of human schistosomiasis was discovered. No oncomelanid snails were found, and examination of the stools of animals in the area failed to show the presence of *Schistosoma japonicum* ova. A more extensive survey is planned.

WPRO 0083 Maternal and Child Health Advisory Services, South Pacific Area  
A maternal and child health team, based in Fiji, to conduct in-service and refresher courses for maternal and child health staff, as required, in territories of the South Pacific area.

WPRO 0109 Schools of Public Health (1967 - ) R  
The following fellowships were provided: New Zealand — public health education and training (five weeks); Papua and New Guinea — public health problems in relation to medical training (six weeks); Philippines — public health education and training (three and a half months).
WPRO 0114 Participation in Educational Meetings (1967 - 1969) R

The following fellowships were awarded for participation in educational meetings: (i) for an IAEA course on planning for the handling of radiation accidents — two-week fellowships to candidates from India, Japan, Malaysia and Thailand (ii) for the WHO seminar on the organization and management of laboratory services, London (project Inter-regional 0301) — four-week fellowships to candidates from China (Taiwan), Malaysia, Philippines and the Republic of Korea; (iii) for training in tuberculosis control — a six-week fellowship to a candidate from the Republic of Viet-Nam.

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

The seminar considered the different interpretations and applications of the International Sanitary Regulations, reviewed health clearance procedures for international traffic, rat, flea and mosquito control, and port and airport sanitation. Measures to control plague were thoroughly discussed, the situation in Viet-Nam being taken as a 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 New Guinea, Philippines, Republic of Korea, Republic of Viet-Nam, Ryukyu Islands, Singapore and Tonga. Two observers from AID and the United States Army in the Republic of Viet-Nam also attended.

WHO provided the cost of attendance of the participants and consultants.


The purpose of the seminar was to exchange views on the health aspects of urban development in countries of the Region, to assess the resources which would be available for implementing plans for urban health and to draw up guidelines for urban health planning as part of the national process.

There were twenty-two participants from Australia, China (Taiwan), Hong Kong, Japan, Laos, Malaysia, Papua and New Guinea, Philippines, Republic of Korea, Republic of Viet-Nam, Ryukyu Islands, Singapore and Western Samoa, and observers from the United Nations Development Programme and the South Pacific Commission.

WHO provided three consultants and the cost of attendance of the participants. Two staff members, one from headquarters and one from the Regional Office, and personnel from the United Nations Economic Commission for Asia and the Far East, and from the Ministry of Law and National Development, Singapore, assisted with the seminar.


The course, which was the second course on tuberculosis held in the Region, was sponsored by the Government of Japan and WHO. Its purpose was to provide assistance in training national workers in the application of modern methods of tuberculosis control. It was also designed to stimulate the provision of practical training and demonstration in national institutions. There were ten participants from China (Taiwan), Hong Kong, India, Indonesia, East Malaysia (Sarawak), Philippines, Republic of Korea, and Thailand.

WHO provided five lecturers (on statistics, tuberculin testing, tuberculosis chemotherapy, planning, organization and evaluation of national tuberculosis programmes, and the WHO policy on tuberculosis control), the cost of attendance of five participants, and reference material.

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.


To assist the governments of countries and territories in the Region in assessing the general situation regarding the communicable diseases, in planning epidemiological and laboratory surveys of the most important of them, in planning and organizing control and preventive measures, and in strengthening epidemiological and laboratory services.


To assist countries and territories in the South Pacific area to develop public health nursing services as a part of the general health services.


The purpose of the seminar was to review the status of paediatric education in the Region. There were thirty-three participants from China (Taiwan), Fiji, Hong Kong, Japan, Laos, Malaysia, Papua and New Guinea, Philippines, Republic of Korea, Republic of Viet-Nam, and Singapore. Sessions were held in Manila, Kuala Lumpur, Saigon, Seoul and Taipei. In each place the session started with an assessment of local methods of paediatric teaching, which was followed by discussions on the ideal method of teaching paediatrics and on how far it could be applied in the country concerned. Each session ended with the formulation of a series of recommendations.

WHO provided three consultants, the cost of attendance of the participants and supplies and equipment.


The seminar discussed the development and co-ordination of occupational health services at all levels, particularly as regards the needs of developing countries and the relationship between productivity and workers' health and safety. Recommendations were made on regional training programmes and on collaboration between occupational health physicians, industrial hygienists, occupational health nurses and factory inspectors in dealing with occupational health problems. There were twenty-one participants — health and labour authorities — from Australia, China (Taiwan), Fiji, Hong Kong, Japan, Laos, Malaysia, New Zealand, Philippines, Republic of Korea, Republic of Viet-Nam, Ryukyu Islands, Singapore, and Thailand.

WHO provided the seminar director, two consultants in industrial hygiene and occupational health nursing and three temporary advisers and the cost of attendance of the participants. ILO provided two consultants.
WPRO 0143 Malaria Eradication Assessment Team
(Feb. 1967 - )
To make independent appraisals 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 - 1968) UNDP/ECFAE Mekong Committee
To carry out a health survey in the development area of the lower Mekong Basin in co-operation with the Mekong Committee of the Economic Commission for Asia and the Far East. The countries covered by the survey are Cambodia, Laos, Republic of Viet-Nam and Thailand.

WPRO 0174 Conference of Directors or Representatives of Schools of Public Health, Manila (6 - 10 Nov. 1967) P
The purpose of the conference was to enable directors and representatives of schools of public health to exchange information on the organization and programmes of their schools. The subjects discussed included the adequacy of courses for meeting present and future health needs, field training in public health, public health research, and co-operation between schools of public health, for which purpose the conference recommended that an association be established. There were sixteen participants, from Australia, China (Taiwan), India, Indonesia, Iran, Japan, Lebanon, New Zealand, Pakistan, Philippines, Republic of Korea, Singapore, Thailand, Uganda and United Arab Republic, and observers from the United States Agency for International Development, the Rockefeller Foundation and the South Pacific Commission.
WHO provided two consultants and the cost of attendance of the participants.

WPRO 0200 Fellowships R: Health education (two for twelve months), nutrition (four months), public health administration (twelve months), radiography (twelve months).
INTER-REGIONAL

Inter-regional 0051 Treponematoses Epidemiological Team (1959 - ) R

To study the nature, extent and significance of treponemal infections by epidemiological serological random surveys, in order to provide data for estimating the emphasis needed in continued surveillance activities after mass programmes, particularly campaigns against yaws; to study and evaluate the application of diagnostic techniques in treponematoses to populations in tropical countries, in order to obtain information for the selection of practical and specific tests, which in turn can lead to new knowledge on the nature and extent of infection; to undertake epidemiological research for the improvement of methodology and operation systems in multipurpose immunological surveys (e.g. combined with malaria, virus diseases, immuno-haematology, etc.) in co-operation with national laboratories and WHO reference centres.

Inter-regional 0052 Bilharziasis Research Team (Jan. 1967 - ) R

To carry out investigations on the epidemiology of schistosomiasis, including the clinical aspects, in representative communities. Activities under the project will include the training of research workers, the evaluation of assessment methods and techniques, and the checking of research information.

Inter-regional 0054 Leprosy Epidemiological Team (1966 - 1967) R

The team replaced a leprosy advisory team, provided between 1960 and 1965, which carried out surveys in various countries of Africa and South-East Asia and in Argentina, for the purpose of assessing the results of leprosy control programmes and obtaining uniform epidemiological data from different parts of the world. The leprosy epidemiological team carried out a survey in Agua de Dios, Colombia from 1965 to 1966. The information collected is being analysed.

Inter-regional 0070 Malaria Eradication: Pool of Advisers (1961 - ) R MESA

To have available malarialogists and entomologists who can be assigned at short notice to assist governments in planning and implementing eradication programmes, to advise on particular problems or to replace WHO advisers who are away ill or on leave.

Inter-regional 0078 Malaria Eradication: Technical Consultants (1959 - ) R

To provide expert advice on the preparation of malaria eradication programmes, to assist governments to assess such programmes and to advise on special technical problems.

Inter-regional 0079 Malaria Eradication: Training Programme for International Recruits (1958 - ) R

To train in malaria eradication techniques malarialogists, entomologists, sanitary engineers, sanitarians and other categories of staff, in internationally assisted malaria eradication training centres and subsequently in malaria eradication projects.

Inter-regional 0081 Study Tours of Malaria Eradication Projects for Advisers (1960 - ) R

To enable malaria advisers to undertake visits to malaria eradication programmes in operation in order to study their organization and functioning; and to assist in training team leaders and advisers in eradication.

Inter-regional 0110 Training Programme for French-speaking Nurses (1962 - ) R

To prepare French-speaking nurses and midwives for teaching and administrative posts in basic and post-basic schools of nursing and midwifery and in nursing services in various countries.

Inter-regional 0112 Malaria Eradication: Team for Field Research on Special Epidemiological Problems (1961 - ) R

To undertake studies on the factors causing persistent transmission of malaria, and to carry out field research for the development and demonstration of new techniques to interrupt such transmission.

Inter-regional 0113.1 International Course in the Epidemiology and Control of Tuberculosis, Prague (27 April - 16 Sept. 1967) R UNDP/TA

One of a series of courses organized in co-operation with the Post-graduate Medical School in Prague, to teach modern methods of controlling tuberculosis as a public health problem to physicians who will be key organizers of tuberculosis programmes. There were sixteen trainees, from Argentina, Ceylon, Chile, Czechoslovakia, Ecuador, Ethiopia, India, Indonesia, Japan, Kenya, Nigeria, Pakistan and Singapore. The course, which was given in English, included lectures, discussions and practical demonstrations in Prague, followed by two months' additional training—one month at the Danish Tuberculosis Index, Copenhagen, and one month at the National Tuberculosis Institute, Bangalore, India.

WHO provided fellowships for fifteen trainees, lecturers (including WHO staff members) and some equipment.

Inter-regional 0113.2 International Course in the Epidemiology and Control of Tuberculosis, Rome (15 Feb. - 31 May 1967) R UNDP/TA

One of a series of courses organized in co-operation with the Carlo Forlanini Institute, Rome, similar to that described under project Inter-regional 0113.1 above, but given in French. There were eleven trainees, from Argentina, Cambodia, Cameroon, Chile, Gabon, Madagascar, Nicaragua, the Republic of Vietnam, Romania, Spain, and Syria. The course included lectures, discussions and practical demonstrations in Rome, and three weeks' practical field training at a newly-created pilot centre in the province of Latina.

WHO provided fellowships for the trainees, lecturers (including WHO staff members) and some equipment.
Inter-regional 0117 Course on Medical Rehabilitation, Copenhagen (4 Sept. 1967 - 31 May 1968) UNDP/TA

The course is for qualified physicians who have worked for at least a year in general hospital service and a further two years on rehabilitation and who wish to study medical rehabilitation in general or to specialize in rehabilitation as applied to such fields as geriatrics, orthopaedics, neurosurgery and rheumatology. It consists of theoretical and practical instruction and includes lectures on modern concepts and general principles of rehabilitation and teaching in anatomy, physiology, pathology and psychological aspects of rehabilitation. WHO provided fellowships for the twenty-one participants from Afghanistan, Bulgaria, Chile, Greece, Hungary, India, Iran, Poland, Spain, Syria, Turkey, United Arab Republic and Yugoslavia.

Inter-regional 0120.1 Anaesthesiology Course, Copenhagen (Jan. - Dec. 1967) UNDP/TA

A course, similar to those that have been held yearly since 1956 at the Anaesthesiology Training Centre, Copenhagen, for training medical personnel.

WHO provided fellowships for twenty-seven trainees from Bulgaria, China (Taiwan), Greece, Hong Kong, Hungary, Iran, Iraq, Japan, Malta, Mexico, Pakistan, Philippines, Poland, Republic of Korea, Romania, Spain, Sudan, Thailand, Turkey, United Arab Republic and Yugoslavia. A fellowship for a trainee from Indonesia was provided under another project.

Inter-regional 0156 Integrated Public Health (March 1962 - ) UNDP/TA

A service of experts to help governments in strengthening and integrating their health services, covering a wide variety of public health activities, including public health administration, maternal and child health, nutrition, epidemiology, statistics, health laboratory services, etc. The experts are available, individually or as a team, for any requesting country, and also provide a complementary service for field projects.

Inter-regional 0172 Field Trials of New Insecticides and Anti-malarial Drugs (Second Team) (1962 - ) MESA

To carry out field trials of new insecticides and drugs that are of potential value in malaria eradication.

Inter-regional 0190 Leprosy/BCG Trial Team, Burma (April 1964 - 1969) R

To carry out a trial to assess the value of BCG vaccination in the prevention of leprosy.

Inter-regional 0212 Field Trials of New Insecticides and Anti-malarial Drugs (First Team) (1962 - ) R

To carry out field trials of new insecticides and drugs that are of potential value in malaria eradication.

Inter-regional 0218 Cancer Advisory Team, Asia (1963 - 1967) R

A WHO team carried out a pilot project in the district of Mainpuri, India, in order to study the epidemiology of oropharyngeal tumours, and particularly their relation to chewing and smoking habits. All new cases of cancer, including cancer of the oropharynx, were registered according to area and the patients were interviewed on their chewing and smoking habits. The same type of interview was undertaken in a representative sample of the population of the district.

Inter-regional 0231 Assistance to Trachoma Research (Jan. 1965 - Dec. 1967) R

To assist in advancing laboratory research on problems of international interest and practical importance in the field of trachoma and related infections.

Inter-regional 0234 Economic Commission for Africa (1964 - ) R

WHO is providing a sanitary engineer to assist the various sections of the Economic Commission for Africa on the environmental health aspects of its physical development programmes. The WHO sanitary engineer, who was previously attached to the Housing, Building and Planning Section of the Commission, will now deal with environmental health aspects of all the programmes that are being developed by the Economic Commission for Africa.

Inter-regional 0242 Cancer Advisory Team, Africa (1964 - 1967) R

To arrive at a working definition of the so-called Burkitt's tumour versus other lymphomas, as a first step towards further investigations on these tumours. Histopathological, clinical and some epidemiological information is being collected from cases of lymphomas in children in several places in Africa, together with pathological material. The information collected is being assembled at the Institut Gustave Roussy, Villejuif, France. Pathological slides will be circulated among a few specialized pathologists whose independent and blind readings will be analysed and further related to clinical features.

This project is being continued by the International Agency for Research on Cancer.

Inter-regional 0252 Course on Immunofluorescent Techniques, Paris (30 June - 13 July 1967) R

The course, which was held at the Pasteur Institute, Paris, provided training in the basic aspects of fluorescent antibody techniques, their application for diagnostic purposes in microbiology, virology, parasitology, etc. and their use in immunological surveys and epidemiological studies. There were nineteen participants from Belgium, Burundi, Cambodia, Central African Republic, Chile, Colombia, France, Gabon, Iran, Italy, Lebanon, Madagascar, Mali, Poland, Romania, Switzerland, United Arab Republic, Venezuela and Yugoslavia.

WHO provided fellowships for the participants, the cost of the preparation of literature, and some supplies for practical training. Twenty-four lecturers from the Pasteur Institute and other institutes in France assisted with the course, together with a WHO staff member.

Inter-regional 0270 Anopheles Control Research Unit, Kaduna, Nigeria (1960 - ) R

To investigate the ecological factors concerned in the control of anopheles mosquitoes and to carry out field trials of appropriate control measures including village-scale trials (Stage VI of WHO's insecticide development programme) of new insecticides.

Inter-regional 0271 Research Unit for the Control of Mosquito Vectors of Filariasis, Rangoon (1962 - ) R

To carry out research and field trials on the control of mosquitoes, particularly the vectors of filariasis, using organophosphorus and other new insecticides, biological control procedures, and other techniques not at present employed.

The seminar was the third in a series of ten annual meetings, the purpose of which is to secure wider international agreement between psychiatrists on psychiatric diagnosis, classification and statistics. The main task of the seminar was to clarify problems related to mental disorders of childhood. Diagnostic exercises were carried out with pre-circulated case histories and recorded interviews of patients by psychiatrists.

The seminar was attended by a permanent group of twelve experts from Austria, France, Japan, Norway, Peru, Union of Soviet Socialist Republics, United Kingdom and United States of America, together with twelve participants from France and other countries in Western Europe.

Inter-regional 0276 Cholera Control Team
(1964 - ) UNDP/TA

A team, consisting of an epidemiologist, a bacteriologist and a clinician, to assist countries in developing and improving their programmes for the control of cholera; to assist, when required, in dealing with cholera epidemics; and to advise on epidemiological, laboratory and clinical aspects of control and treatment.

Inter-regional 0287 Advanced Course in Diagnosis, Treatment and Prevention of Major Cardiovascular Diseases, Copenhagen
(1 Nov. 1967 - 15 June 1968) UNDP/TA

The purpose of the course is to train physicians from developing countries in clinical cardiology, including modern diagnostic techniques, and to give them basic training in respiratory pathophysiology, epidemiology and the prevention of cardiovascular diseases. The programme includes visits to out-patient clinics, departments of medicine and paediatrics, and cardiopulmonary laboratories.

Fellowships were provided for the ten participants, who came from India, Japan, Malaysia, Pakistan, Philippines, Republic of Korea, Ryukyu Islands, Sudan, Thailand and United Arab Republic.

Inter-regional 0289 Course on Child Dental Health, Copenhagen
(1 March - 29 May 1967) UNDP/TA

The purpose of the course was to improve the teaching and practice of dentistry for children. It was given at the Royal Dental College in Copenhagen by the faculty of the College and was attended by eleven teachers of pedodontics and administrators of children's dental health services from Bulgaria, India, Iran, Malta, Mexico, Pakistan, Philippines, Republic of Korea, Spain, Thailand and United Arab Republic.

WHO provided fellowships for the trainees.

Inter-regional 0300 Trypanosomiasis Study Team

To assist in surveying areas where trypanosomiasis is endemic and to collaborate in exchanging epidemiological information, in order to obtain a clear picture of the present endemic foci potentially dangerous for a flare-up of the disease, both human and animal, and of the distribution and changes in advance of the fly belts; also to propose co-ordinated measures and to promote the use of modern techniques and methods for trypanosomiasis control.

Inter-regional 0303 Seminar on Food-borne Diseases and Intoxications and Food Hygiene Practices, New Delhi

The purpose of the seminar was to identify the major food-borne diseases and intoxications in the South-East Asia, Eastern Mediterranean and Western Pacific Regions, to determine the methods of investigation and of reporting suitable for the areas concerned, and to discuss principles of food hygiene practice for dealing with the situation. There were eighteen participants from Afghanistan, Ceylon, India, Indonesia, Iran, Iraq, Lebanon, Malaysia, Philippines, Republic of Korea, Republic of Viet-Nam, Sudan, Syria, Thailand and United Arab Republic.

WHO provided the cost of their attendance, two consultants, and three temporary advisers who, together with three WHO staff members, acted as discussion leaders.

Inter-regional 0306 Aedes Research Unit, Bangkok
(1966 - ) Special Account for Medical Research

To carry out research on the ecology and population dynamics of the Aedes vectors of haemorrhagic fever and dengue, particularly A. aegypti and A. albopictus, with the objective of developing effective methods of interrupting transmission of these diseases; also to carry out field trials on the control of A. aegypti, using organophosphorus, carbamate and other insecticides, biological control procedures, and other techniques not at present employed.

Inter-regional 0322 Course in Ergonomics, Bombay
(15 Nov. - 8 Dec. 1967) R (ILO)

The purpose of the course was to stimulate interest in ergonomics and to stress its importance for implant health and productivity in developing countries. The main topics discussed were: (i) anatomical, physiological and psychological considerations in man's work environment; and (ii) design, environmental and organizational factors of importance in practical ergonomics.

There were seventeen participants from Bulgaria, Ceylon, China (Taiwan), India, Indonesia, Iran, Iraq, Malaysia, Nigeria, Philippines, Republic of Korea, Thailand, Turkey, Uganda, United Arab Republic and United Republic of Tanzania.

WHO provided the director of the course and lecturers, fellowships for participants, and supplies.

Inter-regional 0374 Community Water Supply : Consultant Services (Sept. 1965 - ) UNDP/TA

To advise governments on priority problems in community water supply and sewerage, on project development and financing, and on the establishment of national, regional or local authorities for community water supply; and to assist governments, as required, in the preparation of requests to the United Nations Development Programme, the World Bank, or other agencies, in connexion with the planning and financing of community water supplies.

Inter-regional 0388 Course in Methods and Techniques for Parasitic Disease Surveys, Kampala
(24 April - 31 May 1967) R

The course provided practical training in the latest diagnostic, epidemiological and statistical techniques required in preparing operations for the control of parasitic diseases and in evaluating their progress. There were fifteen participants from Ethiopia, Ghana, Greece, Iran, Iraq, Kenya, Nigeria, Pakistan, Sudan, Syria, Turkey, Uganda, Union of Soviet Socialist Republics,
and United Arab Republic. WHO provided the cost of their attendance, four consultants and ten temporary advisers, and two WHO staff members assisted with the course.

Inter-regional 0389  Travelling Seminar on Leishmaniasis, Union of Soviet Socialist Republics  
(22 May - 10 June 1967) UNDP/TA  
The aim of the seminar was to consider the epidemiological and research aspects of leishmaniasis and the planning and conduct of public health campaigns against the disease. It was held in Moscow, Samarkand and Baku, and the principal subjects discussed were the epidemiology of leishmaniasis, clinical and chemotherapeutic aspects, geographical distribution, animal reservoirs, and immunology. There were seventeen participants from Brazil, Ethiopia, India, Iran, Iraq, Israel, Kenya, Mexico, Pakistan, Sudan, Syria, Turkey, United Arab Republic, Venezuela, and Yugoslavia.
WHO provided three consultants and the cost of attendance of the participants, and four WHO staff members assisted with the seminar.

Inter-regional 0391 Seminar on Organization and Management of Laboratory Services, London  
(4 - 28 July 1967) R  
The purpose of the seminar, which was held, in English, at the London School of Hygiene and Tropical Medicine, was to present and discuss the organizational, management, developmental and operational aspects of national laboratory services, and to demonstrate and discuss the organization in the United Kingdom, where hospital and public health laboratories, as well as laboratories which combine the two functions, are in operation. The seminar was attended by seventeen directors of laboratory services in Afghanistan, Burma, China (Taiwan), Ethiopia, Ghana, India, Indonesia, Iran, Kenya, Liberia, Malaysia, Nigeria, Philippines, Republic of Korea, Sudan, Uganda and United Republic of Tanzania.
Staff and supplies and equipment for the seminar were provided by the London School of Hygiene and Tropical Medicine and staff by the United Kingdom Public Health Laboratory Service. WHO provided the cost of attendance of the participants.

Inter-regional 0395 Seminar on Integration of Community Water Supplies into Planning of Economic Development, Geneva  
(19 - 28 Sept. 1967) R  
The purpose of the seminar was to review the problems connected with the integration of plans for the provision of community water supplies into economic planning, especially in developing countries, and to promote a wider recognition of the influence of community water supplies on general economic development. It was attended by twenty engineers and economists from Algeria, China (Taiwan), Czechoslovakia, Ghana, India, Jamaica, Malaysia, Mali, Mexico, Nigeria, Peru, Philippines, Senegal, Syria, Thailand, Tunisia, and Turkey. The World Bank and the United Nations Development Programme sent observers.
WHO provided two consultants, four temporary advisers and the cost of attendance of the participants.

Inter-regional 0397 Meeting on Genetic Studies of Primitive Groups, Geneva  
(3 - 7 July 1967) R  
The meeting had eighteen participants, from Australia, Brazil, France, Italy, Japan, Malaysia, Netherlands, Nigeria, United Kingdom and United States of America. Most of the members of the 1962 Scientific Group which elaborated the protocol for genetic studies of primitive populations were present, as well as investigators who had received WHO support for studies among the South American Indians in Brazil and Surinam, Eskimos, African Pygmies, and the Hadza tribe. The findings of these and other studies conducted in the last five years were discussed with particular regard to methodology, since the International Biological Programme is giving considerable impetus to similar investigations. It became clear to the meeting that the additional experience acquired, plus recent developments in the theory and objectives of population genetics, made desirable a review of the original protocol, issued as Technical Report Series No. 279.
WHO provided the cost of attendance of the participants.

Inter-regional 0398 Course on Biological Standardization,  
Zagreb (3 - 28 Oct. 1967) R  
The course, which was held at the Institute of Immunology in Zagreb, provided practical training in techniques of biological assay and other test procedures to be employed for the control of biological products used in medicine. There were ten participants from Ceylon, Guatemala, Iraq, Mexico, Singapore, Sudan, Thailand, Turkey and Yugoslavia. WHO provided the cost of their attendance, and four temporary advisers who, together with two WHO staff members, assisted with the teaching.

Inter-regional 0400 WHO/PAHO/IBP Meeting of Investigators on Population Biology of Altitude, Washington, D.C.  
(13 - 17 Nov. 1967) R  
The purpose of the meeting, which was organized in cooperation with the Human Adaptability Section of the International Biological Programme, was to review research being carried out on human adaptation to altitude. There were fifty participants from Bolivia, Chile, Czechoslovakia, France, India, Italy, Mexico, Netherlands, Norway, Peru, Switzerland, United Kingdom, and United States of America. They discussed the biological aspects of natural and acquired acclimatization to altitude, taking into account genetic and environmental factors and their relationship to specific health problems of populations living at different altitudes. The areas where knowledge is insufficient or data conflicting were identified and recommendations made for further research.
The Organization provided four members of the secretariat and the cost of attendance of twelve participants.

Inter-regional 0403 Advanced Field Evaluation of Insecticides  
(1967 - ) MESA  
To carry out operational field trials of new insecticides (Stage VI of WHO's insecticide development programme) or of new methodology for control of anopheline mosquitoes based on ecological considerations.

Inter-regional 0407 Seminar on Water Pollution Control, New Delhi  
(15 - 22 Nov. 1967) R  
The seminar comprised fifteen participants, from Brazil, Bulgaria, Ceylon, Ethiopia, Guatemala, India, Iraq, Japan, Liberia, Nigeria, Philippines, Romania, Thailand, United Arab Republic and Zambia, and three observers — from India and from the Economic Commission for Asia and the Far East and UNESCO. The participants presented an account of the water
pollution situation in their respective countries and discussed the problems of countries situated in areas where water is scarce and which are undergoing rapid industrialization and urbanization.

WHO provided a consultant, seven lecturers and the cost of attendance of the participants; a WHO staff member assisted with the seminar.

Inter-regional 0429 Conference on Global Impacts of Applied Microbiology, Addis Ababa
(6 - 11 Nov. 1967) R (FAO) (UNESCO) (IAMS) (ICRO)

The Second International Conference on Global Impacts of Applied Microbiology was organized by the Panel on Applied Microbiology of the International Cell Research Organization (ICRO) under the auspices of UNESCO and WHO, in consultation with the Food and Agriculture Organization, the International Association of Microbiological Societies (IAMS) and the Haile Selassie I University. The aim of the Conference was to focus attention on the contributions which applied microbiology can bring to the economy and welfare of developing nations.

WHO provided a consultant and the cost of attendance of seven participants from Costa Rica, Guinea, India, Nigeria, Senegal, United Arab Republic and United Kingdom. Four staff members from headquarters assisted with lectures and the presentation of papers.

A WHO headquarters staff member, together with a staff member from the Regional Office for Africa, also participated as lecturers in the training course held after the Conference from 13 to 18 November.

Inter-regional 0430 Technical Meeting on the Routine Surveillance of Radionuclides in Air and Water, Geneva

The purpose of the meeting was to specify detailed procedures for the radiological monitoring of air and water especially directed to and designed for implementation by public health authorities. There were thirteen participants from Canada, Czechoslovakia, Denmark, France, India, Italy, Japan, Netherlands, New Zealand, Switzerland, Union of Soviet Socialist Republics, United Kingdom and United States of America, and representatives of the United Nations Scientific Committee on the Effects of Atomic Radiation, the International Commission on Radiological Protection and the European Nuclear Energy Agency.

WHO provided the cost of attendance of the participants, two consultants, and the services of two staff members.

Inter-regional 0432 Conference on International Co-operation in the Prevention of Cholera, Ankara
(28 Feb. - 2 March 1967) R

The aim of the conference was to establish closer international co-operation in an effort to prevent the westward movement of the present pandemic of cholera into countries of the Eastern Mediterranean and European Regions; and to discuss measures for prevention and control of this disease on the national level, and correct application of the International Sanitary Regulations in the control of cholera on the international level, avoiding excessive and ineffective measures such as have sometimes been applied in recent years. The conference was attended by twenty-five health officials, including six Ministers of Health, from Algeria, Bulgaria, Greece, Iran, Iraq, Jordan, Kuwait, Lebanon, Morocco, Pakistan, Saudi Arabia, Sudan, Syria, Turkey, Union of Soviet Socialist Republics, United Arab Republic, Yemen and Yugoslavia.

WHO provided the cost of attendance of the participants, three consultants and conference staff. The Director-General of WHO and nine staff members took part in the Conference.

Inter-regional 0434 Administrative Consultants
(1967 - ) MESA

To advise on and promote the raising of funds for international health and to study economic aspects of malaria eradication.

Inter-regional 0441 Course on the Organization and Operation of Blood Transfusion Services, Budapest
(8 Nov. 1967 - 8 May 1968) UNDP/TA

To provide the necessary basic training to medical officers who will be responsible for the organization and development of national blood transfusion services. There are ten trainees from Afghanistan, Burma, Cuba, Ghana, India, Indonesia, Iran, Iraq, Mexico and United Arab Republic. They will spend three months at the Central Institute for Haematology and Blood Transfusion, Budapest, and three months working at various regional blood transfusion centres in Hungary.

Inter-regional 0445 Inter-regional and Regional Cholera Control Teams (1966 - ) UNDP/TA

Teams, similar to the team described under Inter-regional 0276 above, to assist countries in developing and improving their programmes for the control of cholera: to assist, when required, in dealing with cholera epidemics; and to advise on epidemiological, laboratory and clinical aspects of control and treatment.

Inter-regional 0446 Course on Cholera Control, Calcutta
(24 April - 13 May 1967) UNDP/TA

The course, which was held at the School of Tropical Medicine in Calcutta, was similar to those held in May 1965 in Calcutta and March 1966 in Alexandria. The programme comprised lectures on epidemiology, bacteriology, treatment and control of cholera, practical work and field visits. There were nineteen participants from Hong Kong, India, Indonesia, Iran, Iraq, Israel, Nepal, Papua and New Guinea, Philippines, Sudan, Thailand, and United Arab Republic, and three observers from India.

WHO provided the cost of attendance of the participants and a consultant, and contributed to the expenses of running the course, with which four WHO staff members assisted.

Inter-regional 0473 Advanced Course in Paediatrics, Warsaw
(12 Sept. - 18 Nov. 1967) R UNICEF

The purpose of the course, which was organized by the National Institute of Mother and Child, Warsaw, in collaboration with UNICEF and WHO, was to assist developing countries in improving their maternal and child health services by providing doctors responsible for maternal and child health programmes with advanced training in the administration and organization of maternal and child health services and in some important aspects of paediatrics. It was given, in English, at the National Institute of Mother and Child, Warsaw, and comprised lectures, group discussions, and visits to institutions. The subjects covered included the planning and organization of maternal and child health services and training in developing countries, socio-medical problems connected with childhood diseases, child nutrition, infection, health statistics and health education.
Special emphasis was placed on practical training during field visits, especially to rural maternal and child health centres.

Fellowships for eleven doctors from Ghana, Iran, Iraq, Kenya, Nigeria, Pakistan, Sierra Leone, Sudan, Turkey, Yugoslavia and Zambia were provided by UNICEF. WHO provided two lecturers to teach special subjects and lead discussions, a consultant, and a fellowship for visits to developing countries to the Director of the course.

Inter-regional 0474 Travelling Seminar on Plague, Union of Soviet Socialist Republics (1 - 24 June 1967) UNDP/TA

The seminar was similar to the one held in the Union of Soviet Socialist Republics in September 1965 (project Inter-regional 0293), but was conducted in French and Russian. It was held in Moscow, Baku and Alma-Ata. The aim was to provide an opportunity for medical personnel from countries where natural foci of plague exist to study modern epidemiological and bacteriological methods used in the field and laboratory for the prevention of this disease. There were sixteen participants from Brazil, Democratic Republic of the Congo, Ecuador, Iran, Lebanon, Madagascar, Mauritania, Mongolia, Peru, Syria and Turkey.

WHO provided three consultants, conference staff and the cost of attendance of the participants.

Inter-regional 0478 Immunology Research Team (1967 - ) R

To advise on training, organize courses in immunology and immunological techniques, and to collaborate in research and in developing regional training centres for research in immunology, especially as related to parasitic and other tropical diseases.

Inter-regional 0486 Seminar on Air Pollution Control, Union of Soviet Socialist Republics (31 Aug. - 20 Sept. 1967) UNDP/TA

The purpose of the seminar, which was held in Moscow and Volgograd, was to provide guidance for countries undergoing rapid industrialization and urbanization, which are likely to be faced with air pollution problems. There were eighteen participants from Argentina, Brazil, Bulgaria, Hungary, India, Iran, Japan, Mexico, Pakistan, Peru, Poland, Romania, Turkey, United Arab Republic, Venezuela and Yugoslavia.

WHO provided a consultant, two lecturers, the cost of attendance of the participants, as well as a representative selection of publications and textbooks on air pollution which, after the seminar, were donated to the library of the Central Institute for Post-graduate Medical Studies, where the Moscow meetings of the seminar took place.

Inter-regional 0489 Refresher Course on Anaesthesiology, Copenhagen (17 Sept. - 7 Oct. 1967) R UNDP/TA

A course, the fourth of a series, for WHO trainees having attended one of the annual courses at the Anaesthesiology Training Centre, Copenhagen.

WHO provided eighteen fellowships for trainees from Bahamas, Finland, Greece, Indonesia, Iran, Iraq, Pakistan, Philippines, Poland, Spain, Thailand, Turkey, Union of Soviet Socialist Republics, United Arab Republic and Yugoslavia.

Inter-regional 0490 Travelling Seminar on the Organization of Medical Care, Union of Soviet Socialist Republics (6 - 26 April 1967) UNDP/TA

The seminar enabled its participants to study the systems of medical care in the Soviet Union, from the feldsher posts in rural areas to the teaching and research institutes, and including intermediate and specialized hospitals, polyclinics for ambulatory, care dispensaries for tuberculosis and neuropsychiatric disorders, factory medical care services, etc. Lectures were given on methods for determining hospital bed requirements, on training hospital administrators, and on architectural programming and planning. The programme included visits to institutions in Moscow, Kiev, Poltava and Leningrad. There were twenty-seven participants from Afghanistan, Argentina, Ceylon, Colombia, Costa Rica, Ghana, Greece, Hungary, India, Iran, Iraq, Japan, Malaysia, Malta, Mexico, Peru, Sierra Leone, Sudan, Syria, Turkey, Uganda, United Arab Republic, United Republic of Tanzania, and Venezuela.

WHO provided the cost of attendance of twenty-five participants and two consultants, and a WHO staff member attended the seminar.

Inter-regional 0492 Course on Planning and Organization of In-service Education Programmes in Nursing, Copenhagen and Roskilde (8 Sept. - 21 Oct. 1967) UNDP/TA

The purpose of the course was to assist countries in improving nursing care in health institutions by preparing nurses in all aspects of in-service education. It comprised two main areas of study: the concept and objectives of in-service education; and the planning, organization and conduct of in-service education programmes in nursing.

WHO provided fellowships for eighteen trainees from Barbados, Bulgaria, Cyprus, Ghana, Honduras, Indonesia, Israel, Japan, Kenya, Poland, Romania, Singapore, Spain, Turkey, Uganda and Zambia, and three temporary advisers to assist in the conduct of the course, teach special subjects and lead discussions. Staff members of the Regional Office for Europe participated in the planning and organization of the course, lectured, and acted as group-discussion leaders.

Inter-regional 0493 Seminar on Organization of Mental Health Services, Union of Soviet Socialist Republics (14 June - 5 July 1967) UNDP/TA

The seminar was for psychiatrists and public health officers from developing countries who would be in a position to share responsibility for the organization of mental health services at the national level. Its purpose was to demonstrate how a network of psychiatric services has been established in urban and rural areas, its links with general health, social welfare and education services, and the implications in terms of training of staff and provision of facilities. The seminar visited Moscow, and urban and rural services in the Ukraine, Armenia and Georgia.

WHO provided two consultants and the cost of attendance of twenty participants from Argentina, Colombia, Democratic Republic of the Congo, Dahomey, Iran, Lebanon, Madagascar, Mauritius, Morocco, Peru, Romania, Spain, Tunisia and Turkey.

Inter-regional 0497 Travelling Seminar on the Training and Utilization of Medical Assistants (Feldshers), Union of Soviet Socialist Republics (29 Sept. - 20 Oct. 1967) UNDP/TA

The fifteen participants in the seminar, who came from Costa Rica, Ethiopia, Ghana, Iran, Kenya, Liberia, Mexico, Mongolia, Papua and New Guinea, Sierra Leone, Somalia and Sudan, visited Moscow, Krasnodar and Suhumi to study the use and training of medical assistants. WHO provided the cost of their attendance and two consultants, and two WHO staff members assisted with the seminar.

The course provided training in various methods of meat inspection, together with the national and international aspects of meat control, in the hygienic handling of meat at the time of slaughter of the animal and during transportation and storage, in hygiene during the processing of meat into various meat products, in trade in meat, veterinary administration and animal diseases.

WHO provided fellowships for three trainees from Ethiopia, Libya and the United Republic of Tanzania, and a WHO staff member presented lectures.

Inter-regional 0499 FAO/WHO Training Centre on Meat Hygiene, Roskilde, Denmark
(1 Oct. - 4 Nov. 1967) UNDP/TA (FAO)

The course, which was for senior workers in meat hygiene, was concerned with problems related to fresh meat, including meat inspection, and provided laboratory and classroom instruction in recent advances in meat hygiene.

WHO provided the cost of attendance of nine trainees from Argentina, Ceylon, China (Taiwan), Colombia, Hungary, Iran, Japan, Republic of Korea and Spain, and a WHO staff member presented lectures.

Inter-regional 0501 Course in Malacology, Copenhagen

The course was held at the Danish Bilharziasis Laboratory, which is the WHO Reference Centre for Snail Identification. The principal subjects studied were the latest methods for snail identification, for the rearing of snails in the laboratory, and their infection with schistosomes, and for their control. There were six participants from Ethiopia, Iran, Uganda, United Arab Republic and United Republic of Tanzania. WHO provided the cost of their attendance and two temporary advisers, and a WHO staff member assisted with the course.
Annex 1

MEMBERS AND ASSOCIATE MEMBERS OF THE WORLD HEALTH ORGANIZATION

at 31 December 1967

At 31 December 1967 the World Health Organization had 126 Member States and three Associate Members. They are listed below, with the date on which each became a party to the Constitution or the date of admission to associate membership.

<table>
<thead>
<tr>
<th>Country</th>
<th>Date of Admission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>19 April 1948</td>
</tr>
<tr>
<td>Albania</td>
<td>26 May 1947</td>
</tr>
<tr>
<td>Algeria</td>
<td>8 November 1962</td>
</tr>
<tr>
<td>Argentina</td>
<td>22 October 1948</td>
</tr>
<tr>
<td>Australia</td>
<td>2 February 1948</td>
</tr>
<tr>
<td>Austria</td>
<td>30 June 1947</td>
</tr>
<tr>
<td>Barbados</td>
<td>25 April 1967</td>
</tr>
<tr>
<td>Belgium</td>
<td>25 June 1947</td>
</tr>
<tr>
<td>Bolivia</td>
<td>23 December 1949</td>
</tr>
<tr>
<td>Brazil</td>
<td>2 June 1948</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>9 June 1948</td>
</tr>
<tr>
<td>Burma</td>
<td>1 July 1948</td>
</tr>
<tr>
<td>Burundi</td>
<td>22 October 1962</td>
</tr>
<tr>
<td>Byelorussian SSR</td>
<td>7 April 1948</td>
</tr>
<tr>
<td>Cambodia</td>
<td>17 May 1950</td>
</tr>
<tr>
<td>Cameroon</td>
<td>6 May 1960</td>
</tr>
<tr>
<td>Canada</td>
<td>29 August 1946</td>
</tr>
<tr>
<td>Central African Republic</td>
<td>20 September 1960</td>
</tr>
<tr>
<td>Ceylon</td>
<td>7 July 1948</td>
</tr>
<tr>
<td>Chad</td>
<td>1 January 1961</td>
</tr>
<tr>
<td>Chile</td>
<td>15 October 1948</td>
</tr>
<tr>
<td>China</td>
<td>22 July 1946</td>
</tr>
<tr>
<td>Colombia</td>
<td>14 May 1959</td>
</tr>
<tr>
<td>Congo (Brazzaville)</td>
<td>26 October 1960</td>
</tr>
<tr>
<td>Congo, Democratic Republic</td>
<td>24 February 1961</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>17 March 1949</td>
</tr>
<tr>
<td>Cuba</td>
<td>9 May 1950</td>
</tr>
<tr>
<td>Cyprus</td>
<td>16 January 1961</td>
</tr>
<tr>
<td>Czechoslovakia</td>
<td>1 March 1948</td>
</tr>
<tr>
<td>Dahomey</td>
<td>20 September 1960</td>
</tr>
<tr>
<td>Denmark</td>
<td>19 April 1948</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>21 June 1948</td>
</tr>
<tr>
<td>Ecuador</td>
<td>1 March 1949</td>
</tr>
<tr>
<td>El Salvador</td>
<td>22 June 1948</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>11 April 1947</td>
</tr>
<tr>
<td>Federal Republic of Germany</td>
<td>29 May 1951</td>
</tr>
<tr>
<td>Finland</td>
<td>7 October 1947</td>
</tr>
<tr>
<td>France</td>
<td>16 June 1948</td>
</tr>
<tr>
<td>Gabon</td>
<td>21 November 1960</td>
</tr>
<tr>
<td>Ghana</td>
<td>8 April 1957</td>
</tr>
<tr>
<td>Greece</td>
<td>12 March 1948</td>
</tr>
<tr>
<td>Guatemala</td>
<td>26 August 1949</td>
</tr>
<tr>
<td>Guinea</td>
<td>19 May 1959</td>
</tr>
<tr>
<td>Guyana</td>
<td>27 September 1966</td>
</tr>
<tr>
<td>Haiti</td>
<td>12 August 1947</td>
</tr>
<tr>
<td>Honduras</td>
<td>8 April 1949</td>
</tr>
<tr>
<td>Hungary</td>
<td>17 June 1948</td>
</tr>
<tr>
<td>Iceland</td>
<td>23 June 1948</td>
</tr>
<tr>
<td>India</td>
<td>12 January 1948</td>
</tr>
<tr>
<td>Indonesia</td>
<td>23 May 1950</td>
</tr>
<tr>
<td>Iran</td>
<td>23 November 1946</td>
</tr>
<tr>
<td>Iraq</td>
<td>23 September 1947</td>
</tr>
<tr>
<td>Israel</td>
<td>21 June 1949</td>
</tr>
<tr>
<td>Italy</td>
<td>11 April 1947</td>
</tr>
<tr>
<td>Ivory Coast</td>
<td>28 October 1960</td>
</tr>
<tr>
<td>Japan</td>
<td>16 May 1951</td>
</tr>
<tr>
<td>Jordan</td>
<td>7 April 1947</td>
</tr>
<tr>
<td>Kenya</td>
<td>27 January 1964</td>
</tr>
<tr>
<td>Kuwait</td>
<td>9 May 1960</td>
</tr>
<tr>
<td>Laos</td>
<td>17 May 1950</td>
</tr>
<tr>
<td>Lebanon</td>
<td>19 January 1949</td>
</tr>
<tr>
<td>Lesotho</td>
<td>7 July 1947</td>
</tr>
<tr>
<td>Liberia</td>
<td>14 March 1947</td>
</tr>
<tr>
<td>Libya</td>
<td>16 May 1952</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>3 June 1949</td>
</tr>
<tr>
<td>Madagascar</td>
<td>16 January 1961</td>
</tr>
<tr>
<td>Malawi</td>
<td>9 April 1965</td>
</tr>
<tr>
<td>Malaysia</td>
<td>24 April 1958</td>
</tr>
<tr>
<td>Maldives Islands</td>
<td>5 November 1965</td>
</tr>
<tr>
<td>Mali</td>
<td>17 October 1960</td>
</tr>
<tr>
<td>Malta</td>
<td>1 February 1965</td>
</tr>
<tr>
<td>Mauritania</td>
<td>7 March 1961</td>
</tr>
<tr>
<td>Mexico</td>
<td>7 April 1948</td>
</tr>
<tr>
<td>Monaco</td>
<td>8 July 1948</td>
</tr>
<tr>
<td>Mongolia</td>
<td>18 April 1962</td>
</tr>
<tr>
<td>Morocco</td>
<td>14 May 1956</td>
</tr>
<tr>
<td>Nepal</td>
<td>2 September 1953</td>
</tr>
<tr>
<td>Netherlands</td>
<td>25 April 1947</td>
</tr>
<tr>
<td>New Zealand</td>
<td>10 December 1946</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>24 April 1950</td>
</tr>
<tr>
<td>Niger</td>
<td>5 October 1960</td>
</tr>
<tr>
<td>Nigeria</td>
<td>25 November 1960</td>
</tr>
<tr>
<td>Norway</td>
<td>18 August 1947</td>
</tr>
<tr>
<td>Pakistan</td>
<td>23 June 1948</td>
</tr>
<tr>
<td>Panama</td>
<td>20 February 1951</td>
</tr>
<tr>
<td>Paraguay</td>
<td>4 January 1949</td>
</tr>
<tr>
<td>Peru</td>
<td>11 November 1949</td>
</tr>
<tr>
<td>Philippines</td>
<td>9 July 1948</td>
</tr>
<tr>
<td>Poland</td>
<td>6 May 1948</td>
</tr>
<tr>
<td>Portugal</td>
<td>13 February 1948</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>17 August 1949</td>
</tr>
<tr>
<td>Romania</td>
<td>8 June 1948</td>
</tr>
<tr>
<td>Rwanda</td>
<td>7 November 1962</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>26 May 1947</td>
</tr>
<tr>
<td>Senegal</td>
<td>31 October 1960</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>20 October 1961</td>
</tr>
<tr>
<td>Singapore</td>
<td>25 February 1966</td>
</tr>
<tr>
<td>Somalia</td>
<td>26 January 1961</td>
</tr>
<tr>
<td>South Africa</td>
<td>7 August 1947</td>
</tr>
<tr>
<td>Spain</td>
<td>28 May 1951</td>
</tr>
<tr>
<td>Sudan</td>
<td>14 May 1956</td>
</tr>
<tr>
<td>Sweden</td>
<td>28 August 1947</td>
</tr>
<tr>
<td>Switzerland</td>
<td>26 March 1947</td>
</tr>
<tr>
<td>Syria</td>
<td>18 December 1946</td>
</tr>
<tr>
<td>Thailand</td>
<td>26 September 1947</td>
</tr>
<tr>
<td>Togo</td>
<td>13 May 1960</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>3 January 1963</td>
</tr>
<tr>
<td>Tunisia</td>
<td>14 May 1956</td>
</tr>
<tr>
<td>Turkey</td>
<td>2 January 1948</td>
</tr>
<tr>
<td>Uganda</td>
<td>7 March 1963</td>
</tr>
<tr>
<td>Ukrainian SSR</td>
<td>3 April 1948</td>
</tr>
<tr>
<td>Union of Soviet Socialist Republics</td>
<td>24 March 1948</td>
</tr>
<tr>
<td>United Arab Republic</td>
<td>16 December 1947</td>
</tr>
<tr>
<td>United Kingdom of Great Britain and Northern Ireland</td>
<td>22 July 1946</td>
</tr>
<tr>
<td>United Republic of Tanzania</td>
<td>15 March 1962</td>
</tr>
<tr>
<td>United States of America</td>
<td>21 June 1948</td>
</tr>
<tr>
<td>Upper Volta</td>
<td>4 October 1960</td>
</tr>
<tr>
<td>Uruguay</td>
<td>22 April 1949</td>
</tr>
<tr>
<td>Venezuela</td>
<td>7 July 1948</td>
</tr>
<tr>
<td>Viet-Nam</td>
<td>17 May 1950</td>
</tr>
<tr>
<td>Western Samoa</td>
<td>16 May 1962</td>
</tr>
<tr>
<td>Yemen</td>
<td>20 November 1953</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>19 November 1947</td>
</tr>
<tr>
<td>Zambia</td>
<td>2 February 1965</td>
</tr>
</tbody>
</table>

Associate Members

<table>
<thead>
<tr>
<th>Country</th>
<th>Date of Admission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mauritius</td>
<td>9 May 1963</td>
</tr>
<tr>
<td>Qatar</td>
<td>5 March 1964</td>
</tr>
<tr>
<td>Southern Rhodesia</td>
<td>16 May 1950</td>
</tr>
</tbody>
</table>

* Member States that have acceded to the Convention on the Privileges and Immunities of the Specialized Agencies and its Annex VII.
## Annex 2

### MEMBERSHIP OF THE EXECUTIVE BOARD


<table>
<thead>
<tr>
<th>Designated by</th>
<th>Designated by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. A. Abdulhadi</td>
<td>Libya</td>
</tr>
<tr>
<td>Mr. A. F. Abrar</td>
<td>Somalia</td>
</tr>
<tr>
<td>Dr. A. R. M. Al-Adwani, Rapporteur</td>
<td>Kuwait</td>
</tr>
<tr>
<td>Professor E. Auijaleu</td>
<td>France</td>
</tr>
<tr>
<td>Dr. J. C. Azurin</td>
<td>Philippines</td>
</tr>
<tr>
<td>Dr. D. Badarou</td>
<td>Dahomey</td>
</tr>
<tr>
<td>Dr. A. Benvakhle, Rapporteur</td>
<td>Morocco</td>
</tr>
<tr>
<td>Dr. M. Din bin Ahmad</td>
<td>Malaysia</td>
</tr>
<tr>
<td>Professor N. H. Fišek</td>
<td>Turkey</td>
</tr>
<tr>
<td>Professor J. Geric, Vice-Chairman</td>
<td>Yugoslavia</td>
</tr>
<tr>
<td>Sir George Godber</td>
<td>United Kingdom of Great Britain and Northern Ireland</td>
</tr>
<tr>
<td>Professor D. M. González Torres</td>
<td>Paraguay</td>
</tr>
<tr>
<td>Dr. J-C. Happi, Vice-Chairman</td>
<td>Cameroon</td>
</tr>
<tr>
<td>Dr. O. Keita</td>
<td>Guinea</td>
</tr>
<tr>
<td>Professor P. Macúch</td>
<td>Czecho-Slovakia</td>
</tr>
<tr>
<td>Dr. P. D. Martínez</td>
<td>Mexico</td>
</tr>
<tr>
<td>Dr. A. F. Mondet</td>
<td>Argentina</td>
</tr>
<tr>
<td>Dr. M. P. Otolorin</td>
<td>Nigeria</td>
</tr>
<tr>
<td>Dr. C. Quirós</td>
<td>Peru</td>
</tr>
<tr>
<td>Dr. K. N. Rao</td>
<td>India</td>
</tr>
<tr>
<td>Dr. D. Venedikto</td>
<td>Union of Soviet Socialist Republics</td>
</tr>
<tr>
<td>Dr. M. K. El Wassy</td>
<td>Yemen</td>
</tr>
<tr>
<td>Dr. J. Watt, Chairman</td>
<td>United States of America</td>
</tr>
</tbody>
</table>

**Designated by**

- Libya
- Somalia
- Kuwait
- France
- Philippines
- Dahomey
- Morocco
- Malaysia
- Turkey
- Yugoslavia
- United Kingdom of Great Britain and Northern Ireland
- Paraguay
- Cameroon
- Guinea
- Czecho-Slovakia
- Mexico
- Argentina
- Nigeria
- India
- Union of Soviet Socialist Republics
- Yemen
- United States of America

#### 2. Fortieth Session (Geneva, 29-30 May 1967)

The Twentieth World Health Assembly in resolution WHA20.16 elected Australia, the Federal Republic of Germany, the Ivory Coast, Pakistan, Panama, Romania, Sweden and the United Arab Republic to designate persons to serve on the Board in place of the retiring members—designated by Cameroon, Kuwait, Libya, Malaysia, Paraguay, Turkey, the United Kingdom of Great Britain and Northern Ireland, and Yugoslavia. This resulted in the following composition of the Board at the fortieth session:

<table>
<thead>
<tr>
<th>Designated by</th>
<th>Designated by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor E. Auijaleu</td>
<td>France</td>
</tr>
<tr>
<td>Dr. J. C. Azurin</td>
<td>Philippines</td>
</tr>
<tr>
<td>Dr. D. Badarou, Rapporteur</td>
<td>Dahomey</td>
</tr>
<tr>
<td>Dr. A. Benvakhle, Rapporteur</td>
<td>Morocco</td>
</tr>
<tr>
<td>Dr. A. E. Calvo</td>
<td>Panama</td>
</tr>
<tr>
<td>Dr. E. A. Dualeh</td>
<td>Somalia</td>
</tr>
<tr>
<td>Dr. A. Engel</td>
<td>Sweden</td>
</tr>
<tr>
<td>Dr. M. S. Haque</td>
<td>Pakistan</td>
</tr>
<tr>
<td>Dr. H. M. El-Kadi</td>
<td>United Arab Republic</td>
</tr>
<tr>
<td>Dr. O. Keita</td>
<td>Guinea</td>
</tr>
<tr>
<td>Professor P. Macúch, Vice-Chairman</td>
<td>Czecho-Slovakia</td>
</tr>
<tr>
<td>Professor L. von Manger-Koenig</td>
<td>Federal Republic of Germany</td>
</tr>
<tr>
<td>Dr. P. D. Martínez, Vice-Chairman</td>
<td>Mexico</td>
</tr>
<tr>
<td>Professor I. Moraru</td>
<td>Romania</td>
</tr>
<tr>
<td>Dr. B. N’Dia Köff</td>
<td>Ivory Coast</td>
</tr>
<tr>
<td>Dr. V. V. Olgún</td>
<td>Argentina</td>
</tr>
<tr>
<td>Dr. M. P. Otolorin, Rapporteur</td>
<td>Nigeria</td>
</tr>
<tr>
<td>Dr. P. Kyn</td>
<td>Burma</td>
</tr>
<tr>
<td>Dr. C. Quirós</td>
<td>Peru</td>
</tr>
<tr>
<td>Dr. K. N. Rao, Chairman</td>
<td>India</td>
</tr>
<tr>
<td>Sir William Refshauge</td>
<td>Australia</td>
</tr>
<tr>
<td>Dr. D. D. Venedikto</td>
<td>Union of Soviet Socialist Republics</td>
</tr>
<tr>
<td>Dr. M. K. El Wassy</td>
<td>Yemen</td>
</tr>
<tr>
<td>Dr. J. Watt</td>
<td>United States of America</td>
</tr>
</tbody>
</table>

**Unexpired term of office as at the time of closure of the Twentieth World Health Assembly**

- France: 2 years
- Philippines: 2 years
- Dahomey: 2 years
- Morocco: 1 year
- Panama: 3 years
- Somalia: 2 years
- Sweden: 3 years
- Pakistan: 3 years
- United Arab Republic: 3 years
- Guinea: 1 year
- Czecho-Slovakia: 1 year
- Federal Republic of Germany: 3 years
- Mexico: 1 year
- Romania: 3 years
- Ivory Coast: 3 years
- Argentina: 2 years
- Nigeria: 2 years
- Burma: 2 years
- Peru: 1 year
- India: 1 year
- Australia: 3 years
- Union of Soviet Socialist Republics: 2 years
- Yemen: 1 year
- United States of America: 1 year

---

1 Dr. L. W. Jayesuria, alternate, attended the session.
2 Dr. T. Alan, alternate, attended the session.
Annex 3

ORGANIZATIONAL MEETINGS IN 1967

Executive Board, thirty-ninth session: Standing Committee on Administration and Finance
Executive Board: Standing Committee on Headquarters Accommodation, fourteenth session
Executive Board, thirty-ninth session
Executive Board, thirty-ninth session: Léon Bernard Foundation Committee
Executive Board, thirty-ninth session: Standing Committee on Non-governmental Organizations
Executive Board: Ad Hoc Committee
Twentieth World Health Assembly
Executive Board, fortieth session
Regional Committee for South-East Asia, twentieth session
Regional Committee for Europe, seventeenth session
Regional Committee for the Western Pacific, eighteenth session
Regional Committee for the Eastern Mediterranean, seventeenth session:
  Sub-Committee A
  Sub-Committee B
Regional Committee for Africa, seventeenth session
Regional Committee for the Americas, nineteenth session/Directing Council of PAHO, XVII meeting

Annex 4

EXPERT ADVISORY PANELS AND COMMITTEES

1. EXPERT ADVISORY PANELS

The expert advisory panels in existence at 31 December 1967 were on the following subjects:

Air pollution  Health laboratory services  Nutrition
Antibiotics  Health of seafarers
Bacterial diseases  Health statistics
Biological standardization  Human genetics
Biology of human reproduction  Immunology
Brucellosis  Insecticides
Cancer  International pharmacopoeia and pharmaceutical preparations
Cardiovascular diseases  International quarantine
Chronic degenerative diseases  Leprosy
Dental health  Malaria
Drug dependence  Maternal and child health
Environmental health  Medical research
Food additives
Food hygiene
Health education

1 See resolution WHA12.17.
2. EXPERT COMMITTEES

The membership of the expert committees that met in 1967 was as follows:

**Expert Committee on Non-Proprietary Names for Pharmaceutical Preparations**

*Geneva, 26-28 April*

- Mr T. C. Denston, former Secretary, British Pharmacopoeia Commission, London, England
- Dr J. B. Jerome, Assistant Director, Department of Drugs, American Medical Association, Chicago, Ill., USA
- Dr P. Lechat, Professeur agrégé, Pharmacological Institute, Faculty of Medicine, University of Paris, France
- Dr K. Schriever, Institute of Pharmacy and Food Chemistry, University of Munich, Federal Republic of Germany
- Professor V. V. Zakusov, Director, Institute of Pharmacology and Chemotherapy, Academy of Medical Sciences of the USSR, Moscow, USSR

**Expert Committee on the Control of Ascariasis**

*Geneva, 26 June - 1 July*

- Dr A. Gabaldón, Adviser, Department of Malaria and Environmental Health, Ministry of Health and Welfare, Caracas, Venezuela
- Dr Ch. Mofidi, Director, Institute of Public Health Research, University of Teheran, Iran
- Dr K. Morishita, Professor Emeritus of Osaka University, Takarazuka City, Japan
- Professor Š. D. Moškovskij, Chief, Department of Medical Protozoology, Marcinovskij Institute of Medical Parasitology and Tropical Medicine, Moscow, USSR
- Professor M. Sankalé, Chair of Clinical Medicine, Faculty of Medicine and Pharmacy, University of Dakar, Senegal
- Dr O. D. Standen, Director, The Wellcome Research Laboratories of Tropical Medicine, Beckenham, Kent, England

**Expert Committee on the Education of Engineers in Environmental Health**

*Geneva, 4-10 July*

- Professor S. J. Arceivala, Vice-Principal, Victoria Jubilee Technical Institute, University of Bombay, India
- Mr M. Assar, Sanitary Engineer, Under-Secretary of State for Planning and Programmes, Ministry of Health, Teheran, Iran
- Mr R. Cheradame, Ingénieur général des Mines, Directeur des Études de l’Ecole polytechnique, Paris, France
- Dr K. J. Ives, Professor of Public Health Engineering, University College, London, England
- Mr C. de Laet, Secretary-General, Canadian Council of Resource Ministers, Montreal, P.Q., Canada

**Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel (Training of Medical Assistants and Similar Personnel)**

*Geneva, 4-8 September*

- Dr J. M. Gekonyo, Senior Medical Officer in charge of Training, Ministry of Health, Nairobi, Kenya
- Professor J. F. Isakov, Head, Central Board for Educational Establishments, Ministry of Health of the USSR, Moscow, USSR
- Dr E. F. Rosinski, Deputy Assistant Secretary for Health Manpower, Department of Health, Education and Welfare, Washington, D.C., USA
- Professor M. Sankalé, Chair of Clinical Medicine, Faculty of Medicine and Pharmacy, University of Dakar, Senegal
- Dr B. S. Sehgal, Specialist (Rural Health), Planning, Research and Action Institute, Lucknow, India
- Professor J. Sénécal, Centre hospitalier et universitaire, Pontchaillou Hospital, Rennes, France
- Professor A. M. A. Shamy, Head, Department of Social and Preventive Medicine, Faculty of Medicine, University of Khartoum, Sudan

**Expert Committee on Malaria**

*Geneva, 12-18 September*

- Dr N. Ganguli, Deputy Director of Public Health, Insect Borne Diseases Branch, Directorate of Health Services, Calcutta, India
- Dr M. K. Q. Hashmi, Director, Malaria Eradication Programme, Karachi, Pakistan
- Dr L. M. Howard, Director, Health Service, Office of War on Hunger, Agency for International Development, Department of State, Washington, D.C., USA
- Dr I. S. Kadama, Chief Medical Officer; Permanent Secretary, Ministry of Health, Entebbe, Uganda
- Dr A. Lacan, Issy-les-Moulineaux, France
- Professor G. Lupascu, Director, Department of Parasitology, Cantacuzino Institute, Bucharest, Romania
- Professor G. Macdonald, Director, Ross Institute of Tropical Hygiene, London School of Hygiene and Tropical Medicine, London, England
- Professor E. J. Pampana, Florence, Italy (former Director of WHO Malaria Eradication Division)
Expert Committee on Biological Standardization

Geneva, 25-30 September
Dr D. R. Bangham, Director, Department of Biological Standards, National Institute for Medical Research, London, England
Dr H. H. Cohen, Director, National Institute of Public Health, Utrecht, Netherlands
Dr J. Desbordes, Director, Microbiology Section, National Public Health Laboratory, Paris, France
Dr C. Hamburger, Chief, Hormone Department, Statens Serum Institut, Copenhagen, Denmark
Dr T. B. Jablokova, Chief, BCG and Tuberculin Laboratory, State Institute for the Control of Medico-biological Preparations, Moscow, USSR
Dr P. Krag, Director, International Laboratory for Biological Standards, Statens Serum Institut, Copenhagen, Denmark
Dr R. Murray, Director, Division of Biologies Standards, National Institutes of Health, Bethesda, Md., USA
Dr J. B. Shrivastav, Deputy Director-General of Health Services, New Delhi, India
Mr J. R. Thayer, National Biological Standards Laboratory, Parkville, Victoria, Australia
Dr A. E. Wilhelmi, Division of Basic Health Sciences, Department of Biochemistry, Emory University, Atlanta, Ga., USA
Mrs S. M. Bohm, Director, Division of Nursing, Department of Health, Wellington, New Zealand
Dr P. Charbonneau, Inspecteur général, Administration générale de l'Assistance publique, Paris, France
Dr A. K. Mazen, Chairman of the Board, Medical Care Organization, Cairo, United Arab Republic
Dr R. L. Mehra, Medical Adviser to the Indian High Commissioner in the United Kingdom, London, England
Professor N. Pesonen, Director-General, National Medical Board, Helsinki, Finland
Professor F. B. Roth, Chairman, Department of Health Administration, School of Hygiene, University of Toronto, Ont., Canada
Dr A. F. Tuboku-Metzger, Consultant Physician, Mitcham, Surrey, England

Expert Committee on Mental Health (Organization of Services for the Mentally Retarded)

Geneva, 26 September - 2 October
Dr A. Amoussou, Chief, Neuropsychiatric Service, Cotonou, Dahomey
Dr T. Asuni, Neuropsychiatrist, Aro Hospital, Abeokuta, Nigeria
Dr A. D. B. Clarke, Professor of Psychology and Dean of Science, University of Hull, England
Dr K. Z. Hasan, Assistant Professor of Medicine, Head of Department of Neuropsychiatry, Post-graduate Medical Centre, Jinnah Hospital, Karachi, Pakistan
Dr G. A. Jervis, Director, Institute for Basic Research in Mental Retardation, Letchworth Village, Thiell, N.Y., USA
Professor K. Ikeda, Faculty of Education, Kyushu University, Fukuoka, Japan
Dr V. V. Koval'ev, Professor of Child Psychiatry, Central Institute for Post-graduate Medical Studies, Moscow, USSR
Dr M. E. de Lorenzo, Chief, Mental Retardation Section, Inter-American Children's Institute, Montevideo, Uruguay
Dr R. S. Portray, Lecturer, University of Brussels, Belgium

Expert Committee on Microbiological Aspects of Food Hygiene (with the Participation of FAO)

Geneva, 10-16 October
Professor R. Buttiaux, Chief of Section, Department of Food Bacteriology, Pasteur Institute, Lille, France
Professor E. M. Foster, Director, Food Research Institute, University of Wisconsin, Madison, USA
Dr Betty C. Hobbs, Director, Food Hygiene Laboratory, London, England
Dr K. K. Iya, Deputy Director-General (Animal Sciences), Indian Council of Agricultural Research, Ministry of Food and Agriculture, New Delhi, India
Professor A. Jepsen, Royal Veterinary and Agricultural College, Copenhagen, Denmark
Dr E. H. Kampelmacher, Head, Laboratory for Zoonoses, National Institute of Public Health, Utrecht, Netherlands
Professor L. Kotter, Head, Institute of Food Hygiene, University of Munich, Federal Republic of Germany
Dr F. Quevedo, Director, Latin American Centre of Food Bacteriology, Lima, Peru
Dr G. Sakaguchi, Head, Department of Food Research, National Institute of Health, Tokyo, Japan
Dr J. Takacs, Head, Central Laboratory, Veterinary Meat Control Service, Budapest, Hungary

Expert Committee on Health Statistics (Morbidity Statistics)

Geneva, 7-13 November
Dr M. J. Aubenque, Chief, Division of Medical and Health Statistics, National Institute of Statistics and Economic Studies, Paris, France
Dr Y. Behm, Professor of Biostatistics, School of Public Health, University of Chile, Santiago, Chile
Dr P. Densen, Deputy Administrator, City of New York Health Services Administration, New York, N.Y., USA
Dr M. J. W. de Groot, Chief, Division of Health Statistics, Netherlands Central Bureau of Statistics, The Hague, Netherlands
Dr V. K. Ovčarov, Head, Health Statistics Department, Semaško Institute of Social Hygiene and Public Health Administration, Moscow, USSR

1 Unable to attend.
Dr K. C. Patnaik, Professor of Preventive and Social Medicine, All-India Institute of Medical Sciences, New Delhi, India

Dr K. Saakwa-Mante, Medical Statistician, Ministry of Health, Accra, Ghana

Expert Committee on Coccal Infections

Geneva, 21-27 November

Professor G. Laurell, Dean, Faculty of Medicine, University of Uppsala, Sweden

Dr I. M. Lyampert, Gamaleja Institute of Epidemiology and Microbiology, Moscow, USSR

Dr Y. Miyamoto, Department of Microbiology, Kanagawa Prefectural Public Health Laboratory, Yokohama, Japan

Dr M. D. Moody, Chief, Streptococcus Unit, Bacteriology Section, National Communicable Disease Center, Atlanta, Ga., USA

Professor P. Mozziconacci, Faculty of Medicine, University of Paris, France

Dr M. T. Parker, Director, Cross-Infection Reference Laboratory, Central Public Health Laboratory, London, England

Professor C. H. Rammelkamp, Research Laboratories, Metropolitan General Hospital, Cleveland, Ohio, USA

Dr J. Rotta, Director, Streptococcus Reference Laboratory, Institute of Epidemiology and Microbiology, Prague, Czechoslovakia

Expert Committee on Planning and Evaluation of Health Education Services

Geneva, 28 November - 4 December

Dr C. Alfaro-Alvarez, Director, Health Education, Ministry of Public Health and Social Welfare, Lima, Peru

Dr J. K. E. Amorin, Visiting Senior Lecturer, Department of Preventive and Social Medicine, Ghana Medical School, Accra, Ghana

Miss M. J. Kraft, Chief, Health Education Unit, Office of International Health, United States Public Health Service, Department of Health, Education and Welfare, Washington, D.C., USA

Dr V. N. Mihajlova, Chief Inspector for Health Publicity, Ministry of Health of the USSR, Moscow, USSR

Dr R. A. Noordin, Chief, Health Education Division, Ministry of Health; Director, Public Health Institute, Kuala Lumpur, Malaysia

Mr H. Sebsibe, Assistant Minister, Ministry of Public Health, Addis Ababa, Ethiopia

Dr I. M. Wasf, Director of Health Education, Ministry of Health, Cairo, United Arab Republic

Dr R. C. Wofinden, Medical Officer of Health, Department of Public Health, Bristol, England

Expert Committee on Water Pollution Control

Geneva, 12-18 December

Professor G. M. Fair (former Professor of Sanitary Engineering, Harvard University), Cambridge, Mass., USA

Dr J. Ganczarczyk, Deputy Director, Water Economics Research Institute, Warsaw, Poland

Mr F. Josa, Engineer in charge of Roads and Waterways, Municipality of Barcelona, Spain

Mr R. S. Mehta, Consulting Engineer (former Director, Central Public Health Engineering Research Institute, Nagpur), Ahmedabad, India

Mr O. O. Oladapo, Deputy Senior Engineer, Lagos Executive Development Board, Lagos, Nigeria

Mr H. Romero Alvarez, Chief Engineer, Water Supply and Sewerage, Ministry of Hydraulic Resources, Mexico City, Mexico

Professor H. I. Shuval, Sanitary Engineering Adviser, Ministry of Health; Director, Environmental Health Laboratory, Hadassah Medical School, Hebrew University, Jerusalem, Israel

Dr B. A. Southgate, former Director, Water Pollution Research Laboratory, Stevenage, Herts., England

Joint Committees

Joint FAO/WHO Expert Committee on Food Additives (Specifications for Identity and Purity and Toxicological Evaluation of Some Flavouring Substances and Non-Nutritive Sweeteners)

Geneva, 21-28 August

Dr G. Brownlee, Professor of Pharmacology, King's College, University of London, England

Mr R.-A. Dehove, Service for Suppression of Fraud and Quality Control, Ministry of Agriculture, Paris, France

Dr G. J. van Esch, Head, Laboratory of Toxicology, National Institute of Public Health, Utrecht, Netherlands

Dr O. G. Fitzhugh, Deputy Director, Division of Toxicological Evaluation, Food and Drug Administration, Department of Health, Education and Welfare, Washington, D.C., USA

Dr G. Hail, Chemist, Haarmann & Reimer, Holzminden, Federal Republic of Germany

Dr R. L. Hall, Director of Research and Development, McCormick & Co., Inc., Baltimore, Md., USA

Dr K. Kojima, Assistant Chief, Food Chemistry Section, Ministry of Health and Welfare, Tokyo, Japan

Professor P. Marquardt, Chief, Section of Experimental Therapeutics, University of Freiburg im Breisgau, Federal Republic of Germany

Professor A. A. Pokrovskij, Director, Institute of Nutrition, Academy of Medical Sciences of the USSR, Moscow, USSR

Professor J. F. Reith, Department of Food Chemistry and Toxicology, University of Utrecht, Netherlands

1 Unable to attend.
Mr G. R. A. Short, Consultant to Bush, Boake, Allen Ltd.,
Hackney, London, England
Dr Ta-Cheng Tung, Professor of Biochemistry, National
Taiwan University, College of Medicine, Taipei, Taiwan
Dr C. A. Vodoz, Firmenich & Co., Geneva, Switzerland

Joint Meeting of the FAO Working Party and the WHO Expert
Committee on Pesticide Residues

Rome, 4-11 December
Dr W. F. Almeida, Director, Division of Microbiology and
Hygiene, Biological Institute, São Paulo, Brazil
Dr V. Beneš, Head, Department of Toxicology, Institute of
Hygiene, Prague, Czechoslovakia
Mr J. W. Cook, Deputy Director, Division of Food Chemistry,
Food and Drug Administration, Department of Health,
Education and Welfare, Washington, D.C., USA
Professor J. M. Coon, Head, Department of Pharmacology,
Jefferson Medical College, Philadelphia, Pa., USA
Dr H. Egan, Laboratory of the Government Chemist, Ministry
of Technology, London, England
Dr O. G. Fitzhugh, Deputy Director, Division of Toxicological
Evaluation, Food and Drug Administration, Department of
Health, Education and Welfare, Washington, D.C., USA
Dr R. Goulding, Principal Medical Officer, Ministry of Health,
London, England
Dr H. Hurtig, Research Co-ordinator (Pesticides), Research
Branch, Department of Agriculture, Ottawa, Ont., Canada
Professor F. Korte, Chemical Institute, University of Bonn,
Federal Republic of Germany
Dr H. Laudani, Director, Stored Product Insect Research and
Development Laboratory, Agricultural Research Service,
United States Department of Agriculture, Savannah, Ga.,
USA
Dr E. Y. Spencer, Director, Research Institute, Department of
Agriculture, London, Ont., Canada
Dr B. Terracini, Head, Section of Environmental Carcinogenesis,
National Cancer Institute, Milan, Italy

Dr N. van Tiel, Director, Plant Protection Service, Ministry of
Agriculture and Fisheries, Wageningen, Netherlands
Professor R. Truhaut, Director, Toxicological Research Centre,
Faculty of Pharmacy, University of Paris, France

Joint IAEA/WHO Expert Committee on Medical Radiation
Physics

Geneva, 12-18 December
Dr Y. Bresson, Professor of Biophysics, Faculty of Medicine
and Pharmacy, University of Dakar, Senegal
Dr T. S. Bunnag, Head, Department of Radiology, Chulalongkorn
Hospital Medical School, University of Medical Sciences,
Bangkok, Thailand
Dr O. Chomicki, Isotope Department, Bielanski Hospital,
Polish Atomic Energy Commission, Warsaw, Poland
Professor Irina G. Lagunova, Director of Medical Sciences;
Director, State Institute for Research on Roentgenology and
Radiology, Moscow, USSR
Professor J. Reboul, Electro-r?liological Clinic, Hôpital
Saint-André, Bordeaux, France
Dr E. Strajman, Professor of Biophysics, Faculty of Medical
Sciences, University of Buenos Aires, Argentina
Professor R. Walstam, Institute of Radiophysics, Stockholm,
Sweden
Dr E. W. Webster, Department of Radiology, Massachusetts
General Hospital, Boston, USA
Sir Brian Windeyer, Dean, Middlesex Hospital Medical
School, London, England

3. COMMITTEE ON INTERNATIONAL QUARANTINE

Geneva, 28 November - 7 December
Dr J. C. Azurin, Director, Bureau of Quarantine, Manila,
Philippines
Dr P. N. Burgasov, Deputy Minister of Health of the USSR,
Moscow, USSR
Dr M. S. Chadha, former Director, National Institute of Health
Administration and Education, New Delhi, India
Professor J. Dehaussy, Dean, Faculty of Law, University of
Dijon, France
Dr C. L. González, Technical Adviser, Directorate of Public
Health, Caracas, Venezuela
Dr M. S. Haque, former Director-General of Health, Islamabad,
Pakistan

Dr I. S. Kadama, Chief Medical Officer; Permanent Secretary,
Ministry of Health, Entebbe, Uganda
Dr J. Lembrez, Director of Sanitary Control at Frontiers,
Marseille, France
Dr K. D. Quarterman, Deputy Chief, Malaria Eradication
Program, National Communicable Disease Center, Savannah,
Ga., USA
Professor A. B. Semple, Medical Officer of Health, City and
Port of Liverpool, England
Dr D. J. Sencer, Director, National Communicable Disease
Center, Atlanta, Ga., USA
Dr S. Al-Wahbi, Director of International Health, Ministry of
Health, Baghdad, Iraq
4. ADVISORY COMMITTEE ON MEDICAL RESEARCH

The Advisory Committee on Medical Research was established pursuant to resolution WHA12.17.

Ninth Session, Geneva, 19-23 June

Professor D. Bovet, Director, Institute of Pharmacology, University of Sassari, Sardinia, Italy

Professor I. T. Costero, Director, Department of Pathological Anatomy, National Institute of Cardiology, Mexico City, Mexico

Dr R. Courrier, Emeritus Professor at the Collège de France; Member of the Institut de France; Permanent Secretary of the Academy of Sciences; Member of the Academy of Medicine, Paris, France

Sir John C. Eccles, Director, Institute for Biomedical Research, Chicago, Ill., USA

Dr J. C. Edozien, Professor of Chemical Pathology, Nigeria

Dr M. Florkin, Professor of Biochemistry, University of Liège, Belgium

Dr B. N. Halpern, Professor at the Collège de France; Member of the Institut de France, Paris, France

Professor N. K. Jerne, Director, Paul-Ehrlich Institute, Frankfurt-am-Main, Federal Republic of Germany

Professor W. Kuryłowicz, Director, State Institute of Hygiene, Warsaw, Poland

Sir Aubrey Lewis, Professor of Psychiatry, University of London, England

Professor S. R. Mardashev, Vice-President, Academy of Medical Sciences of the USSR; Chair of Biochemistry, First Medical Institute, Moscow, USSR

Dr W. McDermott, Livingston Farrand Professor of Public Health and Preventive Medicine, Cornell University Medical College, New York, USA

Dr Ch. M. H. Mofidi, Dean, School of Public Health; Director, Institute of Public Health Research, University of Teheran, Iran

Dr C. Puranananda, Director, Queen Saovabha Memorial Institute, Bangkok, Thailand

Professor B. Rexed, Science Advisory Council, Stockholm, Sweden

Professor M. Roche, Director, Venezuelan Institute of Scientific Research, Caracas, Venezuela

Sir Max Rosenheim, President, Royal College of Physicians, London, England

Professor T. H. Weller, Richard Pearson Strong Professor of Tropical Public Health, and Chairman, Department of Tropical Public Health, Harvard University, Boston, Mass., USA

Professor V. M. Ždanov, Director, Ivanovskij Institute of Virology, Academy of Medical Sciences of the USSR, Moscow, USSR

Annex 5

SCIENTIFIC GROUP MEETINGS IN 1967

Scientific Group on Chemotherapy of Malaria
Scientific Group on Health Factors Involved in Working under Conditions of Physical Stress
Scientific Group on Neurophysiological and Behavioural Research in Psychiatry
Scientific Group on the Immunology of Malaria
Scientific Group on Genetics of the Immune Response
Scientific Group on Respiratory Viruses
Scientific Group on Smallpox Eradication
Scientific Group on Hormonal Steroids in Contraception
Scientific Group on the Cytogenetics of Vectors of Diseases of Man
Scientific Group on Principles for the Clinical Evaluation of Drugs
Scientific Group on Inborn Errors of Metabolism
Scientific Group on Paediatric Research
Scientific Group on Basic and Clinical Aspects of Intra-uterine Devices
Scientific Group on Comparative Studies of American and African Trypanosomiasis

Geneva, 25 April - 1 May
Geneva, 29 August - 4 September
Geneva, 4-9 September
Geneva, 20-26 September
Geneva, 2-7 October
Geneva, 9-14 October
Geneva, 17-24 October
Geneva, 23-27 October
Geneva, 31 October - 6 November
Geneva, 13-18 November
Geneva, 20-26 November
Geneva, 28 November - 4 December
Geneva, 5-11 December
Washington, D.C., 11-16 December

1 Scientific group reports published in 1967 are listed in Annex 15.
ANNEX 6

NON-GOVERNMENTAL ORGANIZATIONS IN OFFICIAL RELATIONS WITH WHO

at 31 December 1967

Biometric Society
Central Council for Health Education
Council for International Organizations of Medical Sciences
Inter-American Association of Sanitary Engineering
International Academy of Legal Medicine and of Social Medicine
International Air Transport Association
International Association for Child Psychiatry and Allied Professions
International Association of Logopedics and Phoniatrics
International Association of Microbiological Societies
International Association for Prevention of Blindness
International Astronautical Federation
International Brain Research Organization
International Commission on Radiological Protection
International Commission on Radiation Units and Measurements
International Committee of Catholic Nurses
International Committee of the Red Cross
International Confederation of Midwives
International Council on Jewish Social and Welfare Services
International Council of Nurses
International Council of Scientific Unions
International Council on Social Welfare
International Council of Societies of Pathology
International Dental Federation
International Diabetes Federation
International Epidemiological Association
International Federation of Gynecology and Obstetrics
International Federation for Housing and Planning
International Federation for Medical and Biological Engineering
International Federation of Physical Medicine
International Federation of Sports Medicine
International Federation of Surgical Colleges
International Fertility Association
International Hospital Federation
International Hydatidological Association
International League of Dermatological Societies
International League against Rheumatism
International Leprosy Association
International Organization against Trachoma
International Paediatric Association
International Pharmaceutical Federation
International Planned Parenthood Federation
International Society of Biometeorology
International Society of Blood Transfusion
International Society of Cardiology
International Society for Criminology
International Society of Radiographers and Radiological Technicians
International Society for Rehabilitation of the Disabled
International Union of Architects
International Union against Cancer
International Union for Child Welfare
International Union for Health Education
International Union of Local Authorities
International Union of Pure and Applied Chemistry
International Union against Tuberculosis
International Union against the Venereal Diseases and the Treponematoses
International Water Supply Association
League of Red Cross Societies
Medical Women's International Association
Permanent Commission and International Association on Occupational Health
World Confederation for Physical Therapy
World Federation of the Deaf
World Federation for Mental Health
World Federation of Neurology
World Federation of Occupational Therapists
World Federation of Societies of Anaesthesiologists
World Federation of United Nations Associations
World Medical Association
World Psychiatric Association
World Union OSE
World Veterans Federation
World Veterinary Association
### Annex 7

#### REGULAR BUDGET FOR 1967

<table>
<thead>
<tr>
<th>Appropriation section</th>
<th>Purpose of appropriation</th>
<th>Original amount voted</th>
<th>Transfers concurred in by the Executive Board</th>
<th>Supplementary estimates</th>
<th>Revised appropriations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PART I: ORGANIZATIONAL MEETINGS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. World Health Assembly</td>
<td></td>
<td>402 000</td>
<td>-</td>
<td>-</td>
<td>402 000</td>
</tr>
<tr>
<td>2. Executive Board and its Committees</td>
<td></td>
<td>184 200</td>
<td>-</td>
<td>-</td>
<td>184 200</td>
</tr>
<tr>
<td>3. Regional Committees</td>
<td></td>
<td>124 800</td>
<td>(2 400)</td>
<td>-</td>
<td>122 400</td>
</tr>
<tr>
<td><strong>Total - Part I</strong></td>
<td></td>
<td>711 000</td>
<td>(2 400)</td>
<td>-</td>
<td>708 600</td>
</tr>
<tr>
<td><strong>PART II: OPERATING PROGRAMME</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Programme Activities</td>
<td></td>
<td>41 614 190</td>
<td>54 126</td>
<td>(14 700)</td>
<td>41 653 616</td>
</tr>
<tr>
<td>5. Regional Offices</td>
<td></td>
<td>4 903 633</td>
<td>(36 717)</td>
<td>-</td>
<td>4 866 916</td>
</tr>
<tr>
<td>6. Expert Committees</td>
<td></td>
<td>262 000</td>
<td>-</td>
<td>-</td>
<td>262 000</td>
</tr>
<tr>
<td><strong>Total - Part II</strong></td>
<td></td>
<td>46 779 823</td>
<td>17 409</td>
<td>(14 700)</td>
<td>46 782 532</td>
</tr>
<tr>
<td><strong>PART III: ADMINISTRATIVE SERVICES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Administrative Services</td>
<td></td>
<td>3 524 177</td>
<td>(15 009)</td>
<td>(6 300)</td>
<td>3 502 868</td>
</tr>
<tr>
<td><strong>Total - Part III</strong></td>
<td></td>
<td>3 524 177</td>
<td>(15 009)</td>
<td>(6 300)</td>
<td>3 502 868</td>
</tr>
<tr>
<td><strong>PART IV: OTHER PURPOSES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Headquarters Building Fund</td>
<td></td>
<td>500 000</td>
<td>-</td>
<td>231 500</td>
<td>731 500</td>
</tr>
<tr>
<td>9. South-East Asia Regional Office Building</td>
<td></td>
<td>-</td>
<td>-</td>
<td>350 100</td>
<td>350 100</td>
</tr>
<tr>
<td><strong>Total - Part IV</strong></td>
<td></td>
<td>500 000</td>
<td>-</td>
<td>581 600</td>
<td>1 081 600</td>
</tr>
<tr>
<td><strong>SUB-TOTAL - PARTS I, II, III, AND IV</strong></td>
<td></td>
<td>51 515 000</td>
<td>-</td>
<td>560 600</td>
<td>52 075 600</td>
</tr>
<tr>
<td><strong>PART V: RESERVE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Undistributed Reserve</td>
<td></td>
<td>3 202 890</td>
<td>-</td>
<td>245 150</td>
<td>3 448 040</td>
</tr>
<tr>
<td><strong>Total - Part V</strong></td>
<td></td>
<td>3 202 890</td>
<td>-</td>
<td>245 150</td>
<td>3 448 040</td>
</tr>
<tr>
<td><strong>TOTAL - ALL PARTS</strong></td>
<td></td>
<td>54 717 890</td>
<td>-</td>
<td>805 750</td>
<td>55 523 640</td>
</tr>
</tbody>
</table>

---

1 Resolution WHA19.41.
2 Resolutions EB39.R6 and EB.41R.8.
3 Resolution WHA20.12.
### Annex 8

**NUMBERS AND DISTRIBUTION OF THE STAFF**

at 30 November 1966 and 30 November 1967

<table>
<thead>
<tr>
<th>Distribution</th>
<th>Staff as at 30 November 1966</th>
<th>Staff as at 30 November 1967</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Regular Budget</td>
</tr>
<tr>
<td><strong>Headquarters ²</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internationally recruited</td>
<td>396</td>
<td></td>
</tr>
<tr>
<td>Locally recruited</td>
<td>604</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1000</td>
<td>960</td>
</tr>
<tr>
<td><strong>Regional Offices</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Africa</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internationally recruited</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Locally recruited</td>
<td>192</td>
<td></td>
</tr>
<tr>
<td></td>
<td>240</td>
<td>240</td>
</tr>
<tr>
<td><strong>The Americas</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internationally recruited</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Locally recruited</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>81</td>
<td>80</td>
</tr>
<tr>
<td><strong>South-East Asia</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internationally recruited</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Locally recruited</td>
<td>137</td>
<td></td>
</tr>
<tr>
<td></td>
<td>173</td>
<td>173</td>
</tr>
<tr>
<td><strong>Europe</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internationally recruited</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Locally recruited</td>
<td>95</td>
<td></td>
</tr>
<tr>
<td></td>
<td>141</td>
<td>141</td>
</tr>
<tr>
<td><strong>Eastern Mediterranean</strong></td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Locally recruited</td>
<td>96</td>
<td></td>
</tr>
<tr>
<td></td>
<td>138</td>
<td>138</td>
</tr>
<tr>
<td><strong>Western Pacific</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internationally recruited</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Locally recruited</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>104</td>
<td>104</td>
</tr>
<tr>
<td><strong>WHO Representatives' and Zone Offices</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internationally recruited</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Locally recruited</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td></td>
<td>116</td>
<td>116</td>
</tr>
</tbody>
</table>

¹ International Agency for Research on Cancer.
² Including Liaison Offices.
THE WORK OF WHO, 1967

<table>
<thead>
<tr>
<th>Distribution</th>
<th>Staff as at 30 November 1966</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
|                                       | Total                        | Regular  | Technical Assistance | Voluntary Funds | IARC  
|                                       |                              | Budget   |                        |                   |          |          |          |
| Field Staff in Countries              |                              |          |                      |                   |          |          |          |
| Internationally recruited              | 917                          | 493      | 433 \(^a\)           | 24                |          |          |          |
| Locally recruited                     | 33                           |          |                      |                   |          |          |          |
| Total                                 | 950                          | 493      | 433 \(^a\)           | 24                |          |          |          |
| Other Offices                         |                              |          |                      |                   |          |          |          |
| International Children's Centre, Paris|                              |          |                      |                   |          |          |          |
| Internationally recruited              | 1                            |          | 1                    |                   |          |          |          |
| Locally recruited                     | 1                            |          |                      |                   |          |          |          |
| Total                                 | 4                            |          | 1                    |                   |          |          |          |
| International Agency for Research on  |                              |          |                      |                   |          |          |          |
| Cancer                                |                              |          |                      |                   |          |          |          |
| Internationally recruited              | 3                            |          | 15                   |                   |          |          |          |
| Locally recruited                     | 1                            |          |                      |                   |          |          |          |
| Total                                 | 4                            |          | 15                   |                   |          |          |          |
| Inter-regional Activities             |                              |          |                      |                   |          |          |          |
| Internationally recruited              | 44                           |          |                      |                   |          |          |          |
| Locally recruited                     | 4                            |          |                      |                   |          |          |          |
| Total                                 | 48                           |          |                      |                   |          |          |          |
| Staff on loan to WHO, or on leave     |                              |          |                      |                   |          |          |          |
| without pay                           | 54                           |          |                      |                   |          |          |          |
| Staff on secondment or loan to other  |                              |          |                      |                   |          |          |          |
| organizations                         | 1                            |          |                      |                   |          |          |          |
| Short-term consultants                | 139                          |          |                      |                   |          |          |          |
| Total                                 | 3190                         |          |                      |                   |          |          |          |
| WHO GRAND TOTAL                       |                              |          |                      |                   |          |          |          |
| PAHO GRAND TOTAL                      | 871                          |          |                      |                   |          |          |          |

\(^1\) International Agency for Research on Cancer.

\(^a\) Including 78 agents in the Democratic Republic of the Congo.

\(^b\) Including 56 agents in the Democratic Republic of the Congo.
## Annex 9

**COMPOSITION OF THE STAFF BY NATIONALITY**

at 30 November 1967

<table>
<thead>
<tr>
<th>Country</th>
<th>WHO</th>
<th>PAHO</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Algeria</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Argentina</td>
<td>21</td>
<td>15</td>
<td>36</td>
</tr>
<tr>
<td>Australia</td>
<td>29</td>
<td></td>
<td>29</td>
</tr>
<tr>
<td>Austria</td>
<td>13</td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>Belgium</td>
<td>30</td>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>Bolivia</td>
<td>10</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>Brazil</td>
<td>27</td>
<td>30</td>
<td>57</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Burma</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Burundi</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Cameroon</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Canada</td>
<td>61</td>
<td>2</td>
<td>63</td>
</tr>
<tr>
<td>Ceylon</td>
<td>14</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Chile</td>
<td>17</td>
<td>31</td>
<td>48</td>
</tr>
<tr>
<td>China</td>
<td>25</td>
<td>1</td>
<td>26</td>
</tr>
<tr>
<td>Colombia</td>
<td>13</td>
<td>22</td>
<td>35</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>3</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Cuba</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Cyprus</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Czechoslovakia</td>
<td>30</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Dahomey</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Denmark</td>
<td>27</td>
<td>1</td>
<td>28</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Ecuador</td>
<td>6</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>El Salvador</td>
<td>3</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Federal Republic of Germany</td>
<td>42</td>
<td>1</td>
<td>43</td>
</tr>
<tr>
<td>Finland</td>
<td>6</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>France</td>
<td>107</td>
<td>1</td>
<td>108</td>
</tr>
<tr>
<td>Ghana</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Greece</td>
<td>16</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Guatemala</td>
<td>4</td>
<td>44</td>
<td>48</td>
</tr>
<tr>
<td>Haiti</td>
<td>20</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Honduras</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Hungary</td>
<td>9</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>India</td>
<td>49</td>
<td>3</td>
<td>52</td>
</tr>
<tr>
<td>Indonesia</td>
<td>7</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Iran</td>
<td>12</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Iraq</td>
<td>4</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Ireland</td>
<td>16</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Israel</td>
<td>6</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Italy</td>
<td>44</td>
<td></td>
<td>44</td>
</tr>
<tr>
<td>Jamaica</td>
<td>7</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Japan</td>
<td>17</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>Jordan</td>
<td>11</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Lebanon</td>
<td>18</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Madagascar</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Malta</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Mauritius</td>
<td>4</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Mexico</td>
<td>18</td>
<td>11</td>
<td>29</td>
</tr>
<tr>
<td>Morocco</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Nepal</td>
<td>4</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Netherlands</td>
<td>37</td>
<td>1</td>
<td>38</td>
</tr>
<tr>
<td>New Zealand</td>
<td>11</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Nigeria</td>
<td>5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Norway</td>
<td>9</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Pakistan</td>
<td>13</td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>Panama</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Paraguay</td>
<td>7</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Peru</td>
<td>14</td>
<td>15</td>
<td>29</td>
</tr>
<tr>
<td>Philippines</td>
<td>22</td>
<td></td>
<td>22</td>
</tr>
<tr>
<td>Poland</td>
<td>25</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Portugal</td>
<td>8</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>10</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Romania</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Senegal</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Singapore</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>South Africa</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Southern Rhodesia</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Spain</td>
<td>18</td>
<td>9</td>
<td>27</td>
</tr>
<tr>
<td>Sudan</td>
<td>10</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Sweden</td>
<td>22</td>
<td></td>
<td>22</td>
</tr>
<tr>
<td>Switzerland</td>
<td>47</td>
<td></td>
<td>47</td>
</tr>
<tr>
<td>Syria</td>
<td>10</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Thailand</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Togo</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>8</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Tunisia</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Turkey</td>
<td>5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Union of Soviet Socialist Republics</td>
<td>38</td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>United Arab Republic</td>
<td>35</td>
<td></td>
<td>35</td>
</tr>
<tr>
<td>United Kingdom of Great Britain and Northern Ireland</td>
<td>186</td>
<td>15</td>
<td>201</td>
</tr>
<tr>
<td>United Republic of Tanzania</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>United States of America</td>
<td>153</td>
<td>70</td>
<td>223</td>
</tr>
<tr>
<td>Upper Volta</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Uruguay</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Venezuela</td>
<td>5</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Viet-Nam</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>27</td>
<td></td>
<td>27</td>
</tr>
<tr>
<td>Zambia</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Stateless</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>WHO</th>
<th>PAHO</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1534</td>
<td>350</td>
<td>1884</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>WHO</th>
<th>PAHO</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Agency for Research on Cancer</td>
<td>16</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Geographically excepted posts</td>
<td>114</td>
<td></td>
<td>114</td>
</tr>
<tr>
<td>Short-term consultants</td>
<td>138</td>
<td>36</td>
<td>174</td>
</tr>
<tr>
<td>Agents in the Democratic Republic of the Congo</td>
<td>56</td>
<td></td>
<td>56</td>
</tr>
<tr>
<td>Staff locally recruited</td>
<td>1443</td>
<td>529</td>
<td>1972</td>
</tr>
<tr>
<td>Staff on secondment to other organizations</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

**GRAND TOTAL**

<table>
<thead>
<tr>
<th>Country</th>
<th>WHO</th>
<th>PAHO</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grand Total</td>
<td>3302</td>
<td>915</td>
<td>4217</td>
</tr>
</tbody>
</table>
Annex 10

STATUS OF MALARIA ERADICATION

1. COUNTRIES ENTERED ON WHO OFFICIAL REGISTER OF AREAS WHERE MALARIA ERADICATION HAS BEEN ACHieved FOR THE WHOLE TERRITORY

<table>
<thead>
<tr>
<th>Region of the Americas</th>
<th>European Region</th>
<th>Eastern Mediterranean Region</th>
<th>Western Pacific Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominica</td>
<td>Bulgaria</td>
<td>Cyprus</td>
<td>China (Taiwan)</td>
</tr>
<tr>
<td>Grenada and Carriacou</td>
<td>Hungary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jamaica</td>
<td>Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>St Lucia</td>
<td>Romania</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>Spain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venezuela 1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. COUNTRIES IN WHICH MALARIA ERADICATION PROGRAMMES WERE IN OPERATION AT 31 DECEMBER 1967

<table>
<thead>
<tr>
<th>Region of the Americas</th>
<th>European Region</th>
<th>Eastern Mediterranean Region</th>
<th>Western Pacific Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mauritius</td>
<td>United Republic of South Africa *</td>
<td>Dominican Republic</td>
<td>Haiti</td>
</tr>
<tr>
<td>Portugal (Cape Verde Islands) *</td>
<td>Brazil and Pemba</td>
<td>Republic of Costa Rica</td>
<td>Honduras</td>
</tr>
<tr>
<td>South Africa *</td>
<td>British Honduras</td>
<td>Ecuador</td>
<td>Mexico</td>
</tr>
<tr>
<td>Swaziland *</td>
<td>Republic of Swaziland</td>
<td>El Salvador</td>
<td>Peru</td>
</tr>
</tbody>
</table>

3. COUNTRIES ASSISTED BY THE ORGANIZATION IN 1967 WITH ANTIMALARIA OPERATIONS OTHER THAN ERADICATION PROGRAMMES

<table>
<thead>
<tr>
<th>African Region</th>
<th>European Region</th>
<th>Eastern Mediterranean Region</th>
<th>Western Pacific Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cameroon</td>
<td>Mauritania</td>
<td>Saudi Arabia</td>
<td>British Solomon Islands</td>
</tr>
<tr>
<td>Congo,</td>
<td>Algeria</td>
<td>Somalia</td>
<td>Protectorate</td>
</tr>
<tr>
<td>Democratic</td>
<td>Morocco</td>
<td>Sudan</td>
<td>Cambodia</td>
</tr>
<tr>
<td>Republic of</td>
<td></td>
<td></td>
<td>Republic of Korea</td>
</tr>
<tr>
<td>Dahomey</td>
<td>Sierra Leone</td>
<td></td>
<td>Republic of Viet-Nam</td>
</tr>
<tr>
<td>Ghana</td>
<td>Togo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guinea</td>
<td>Uganda</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liberia</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Major part of country entered on the WHO official register as having eradicated malaria.
### Annex 11

**FELLOWSHIPS AWARDED, BY SUBJECT OF STUDY AND BY REGION**

1 December 1966 - 30 November 1967

<table>
<thead>
<tr>
<th>Subject of Study</th>
<th>Region</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Africa</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Americas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>South-East Asia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Europe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eastern Mediterranean</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Western Pacific</td>
<td></td>
</tr>
<tr>
<td>Health Organization and Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Public Health Administration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public health administration</td>
<td>26</td>
<td>50</td>
</tr>
<tr>
<td>Hospital and medical care administration</td>
<td>22</td>
<td>18</td>
</tr>
<tr>
<td>Construction of health institutions</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Medical librarianship</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>48</td>
</tr>
<tr>
<td></td>
<td></td>
<td>76</td>
</tr>
<tr>
<td></td>
<td></td>
<td>26</td>
</tr>
<tr>
<td></td>
<td></td>
<td>79</td>
</tr>
<tr>
<td></td>
<td></td>
<td>45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>46</td>
</tr>
<tr>
<td>Sub-total—Public Health Administration</td>
<td></td>
<td>320</td>
</tr>
<tr>
<td><strong>Environmental Health</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental sanitation</td>
<td>38</td>
<td>87</td>
</tr>
<tr>
<td>Housing and town planning</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Food control</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>96</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>65</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>41</td>
</tr>
<tr>
<td>Sub-total—Environmental Health</td>
<td></td>
<td>286</td>
</tr>
<tr>
<td><strong>Nursing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing and midwifery</td>
<td>32</td>
<td>57</td>
</tr>
<tr>
<td>Public health nursing</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Medical social work</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>71</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>44</td>
</tr>
<tr>
<td></td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>Sub-total—Nursing</td>
<td></td>
<td>222</td>
</tr>
<tr>
<td><strong>Maternal and Child Health</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal and child health</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Paediatrics and obstetrics</td>
<td>15</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Sub-total—Maternal and Child Health</td>
<td></td>
<td>42</td>
</tr>
<tr>
<td><strong>Other Health Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental health</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Health education</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Occupational health</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Nutrition</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Health statistics</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Dental health</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Control of pharmaceutical and biological prepara-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>tions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>43</td>
</tr>
<tr>
<td></td>
<td></td>
<td>45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54</td>
</tr>
<tr>
<td></td>
<td></td>
<td>128</td>
</tr>
<tr>
<td></td>
<td></td>
<td>48</td>
</tr>
<tr>
<td></td>
<td></td>
<td>72</td>
</tr>
<tr>
<td>Sub-total—Other Health Services</td>
<td></td>
<td>390</td>
</tr>
<tr>
<td><strong>Total — Health Organization and Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>191</td>
<td>314</td>
</tr>
<tr>
<td></td>
<td>106</td>
<td>315</td>
</tr>
<tr>
<td></td>
<td>198</td>
<td>211</td>
</tr>
<tr>
<td></td>
<td>1335</td>
<td></td>
</tr>
<tr>
<td><strong>Percentage</strong></td>
<td>42</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>42</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>Subject of Study</td>
<td>Region</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Africa</td>
<td>The Americas</td>
</tr>
<tr>
<td>Communicable Diseases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaria</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Venereal diseases and treponematoses</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>Other communicable diseases</td>
<td>17</td>
<td>32</td>
</tr>
<tr>
<td>Laboratory services</td>
<td>40</td>
<td>39</td>
</tr>
<tr>
<td>Chemotherapy, antibiotics</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Total — Communicable Diseases</td>
<td>79</td>
<td>96</td>
</tr>
<tr>
<td>Percentage</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Clinical Medicine, Basic Medical Sciences and Medical and Allied Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLINICAL MEDICINE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgery and medicine</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Anaesthesiology</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Radiology</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Haematology</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Other medical and surgical specialties</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td>Sub-total — Clinical Medicine</td>
<td>30</td>
<td>8</td>
</tr>
<tr>
<td>Basic Medical Sciences and Medical and Allied Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic medical sciences</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Medical and allied education</td>
<td>5</td>
<td>119</td>
</tr>
<tr>
<td>Undergraduate medical studies</td>
<td>143</td>
<td>—</td>
</tr>
<tr>
<td>Sub-total — Basic Medical Sciences and Medical and Allied Education</td>
<td>159</td>
<td>126</td>
</tr>
<tr>
<td>TOTAL — CLINICAL MEDICINE, BASIC MEDICAL SCIENCES AND MEDICAL AND ALLIED EDUCATION</td>
<td>189</td>
<td>134</td>
</tr>
<tr>
<td>Percentage</td>
<td>41</td>
<td>24</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>459</td>
<td>544</td>
</tr>
</tbody>
</table>
## Annex 12

### WHO COLLABORATIVE RESEARCH: CONTRACTS CONCLUDED WITH INSTITUTIONS FOR PROJECTS INITIATED IN 1967

<table>
<thead>
<tr>
<th>Subject of Research</th>
<th>Region</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Africa</td>
<td>The Americas</td>
</tr>
<tr>
<td>Bacterial diseases (other than leprosy and tuberculosis)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Biology, pharmacology and toxicology:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological standardization</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Human genetics</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Human reproduction</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Immunology</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Pharmacology and toxicology</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Chronic and degenerative diseases:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Cardiovascular diseases</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Dental health</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Environmental health (other than vector biology and control)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Leprosy</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Malaria</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>Mental health</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Nutrition</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Occupational health</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Parasitic diseases (other than malaria)</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Public health administration: Organization of medical care</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Smallpox</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Vector biology and control</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Venereal diseases and treponematoses</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Veterinary public health</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Virus diseases (other than smallpox)</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>20</td>
<td>33</td>
</tr>
</tbody>
</table>
Annex 13

RESEARCH GRANTS FOR TRAINING AND EXCHANGE IN 1967
BY SUBJECT AND TYPE OF GRANT

<table>
<thead>
<tr>
<th>Subject</th>
<th>Training grants</th>
<th>Grants for exchange of research workers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacterial diseases (other than tuberculosis)</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Biology, pharmacology and toxicology:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological standardization</td>
<td>—</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Human genetics</td>
<td>—</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Immunology</td>
<td>5&lt;sup&gt;a&lt;/sup&gt;</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Pharmacology and toxicology</td>
<td>—</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Chronic and degenerative diseases:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Cardiovascular diseases</td>
<td>5&lt;sup&gt;b&lt;/sup&gt;</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Pneumology</td>
<td>1&lt;sup&gt;c&lt;/sup&gt;</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Maternal and child health</td>
<td>1</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Mental health</td>
<td>2&lt;sup&gt;d&lt;/sup&gt;</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Parasitic diseases</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Public health administration:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health laboratory services</td>
<td>1</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Organization of medical care</td>
<td>—</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Radiation health</td>
<td>2</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Research co-ordination</td>
<td>—</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>2</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Vector biology and control</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Venereal diseases and treponematoses</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Veterinary public health</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Virus diseases</td>
<td>10</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Vital and health statistics</td>
<td>1</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>38</strong></td>
<td><strong>38</strong></td>
<td><strong>76</strong></td>
</tr>
</tbody>
</table>

<sup>a</sup> Two partly supported by the Government of Czechoslovakia.
<sup>b</sup> Two supported by the Swedish National Association against Heart and Chest Diseases.
<sup>c</sup> Supported by the Swedish National Association against Heart and Chest Diseases.
<sup>d</sup> One partly supported by the Government of Czechoslovakia.
Annex 14

WHO REFERENCE CENTRES

Below are listed the institutions serving as international or regional reference centres:

BACTERIAL DISEASES

Enteric Infections

* International Reference Centre for Enteric Phage-Typing
  * Central Public Health Laboratory, London, England

* International Escherichia Centre
  * Statens Seruminstitut, Copenhagen, Denmark

* International Salmonella Centre
  * Institut Pasteur, Paris, France

* International Shigella Centres
  * Central Public Health Laboratory, London, England
  * National Communicable Disease Center, Atlanta, Ga., United States of America

Meningococcal Infections

* International Reference Centre for Meningococci
  * Laboratoire de Microbiologie, Centre de Recherches du Service de Santé des Troupes de Marine, Marseilles, France.

Staphylococcal Infections

* International Reference Centre for Staphylococcal Phage-typing
  * Central Public Health Laboratory, London, England

Streptococcal Infections

* International Reference Centre for Streptococcus Typing
  * Streptococcus Reference Laboratory, Institute of Epidemiology and Microbiology, Prague, Czechoslovakia

BIOLOGY, PHARMACOLOGY AND TOXICOLOGY

Antibiotics

* International Centre for Information on Antibiotics
  * Laboratoire de Microbiologie générale et médicale, University of Liège, Belgium

Biological Standardization

* International Laboratories for Biological Standards
  * Statens Seruminstitut, Copenhagen, Denmark
  * National Institute for Medical Research, London, England
  * Central Veterinary Laboratory, Ministry of Agriculture, Fisheries and Food, Weybridge, England

* International Centre for Information on Type Cultures
  * Institut d’Hygiène et de Bactériologie, University of Lausanne, Switzerland

Human Genetics

* International Reference Centre for Abnormal Haemoglobin
  * Medical Research Council’s Abnormal Haemoglobin Research Unit, Department of Biochemistry, University of Cambridge, England

* International Reference Centre for Glucose-6-Phosphate Dehydrogenase
  * Department of Medicine — Medical Genetics, University of Washington, Seattle, Wash., United States of America

* International Reference Centre for Serum Protein Groups
  * Zoology Department, University of Texas, Austin, Tex., United States of America

* Regional Reference Centres for Glucose-6-Phosphate Dehydrogenase
  * Department of Haematology, Tel-Hashomer Government Hospital, Jerusalem, Israel
  * Sub-Department of Haematology, University College Hospital, Ibadan, Nigeria

Immunology

* International Reference Centre for Genetic Factors of Human Immunoglobulins
  * Centre départemental de Transfusion sanguine et de Génétique humaine, Bois-Guillaume, Seine-Maritime, France

* International Reference Centre for Immunoglobulins
  * Institut de Biochimie, University of Lausanne, Switzerland

* International Reference Centre for the Use of Immunoglobulin Anti-D in the Prevention of Rh Sensitization
  * Medical Research Council, London, England

International Reference Laboratory for the Serology of Autoimmune Disorders
Rheumatoid Research Department, Middlesex Hospital Medical School, London, England

International Reference Centre for Testing of Natural Resistance Factors
* Department of Immunology, Institute of Epidemiology and Microbiology, Prague, Czechoslovakia

International Reference Centre for Tumour-Specific Antigens
* Division of Immunology and Oncology, Gamaleja Institute of Epidemiology and Microbiology, Moscow, Union of Soviet Socialist Republics

Regional Reference Centres for Genetic Factors of Human Immunoglobulins
Department of Medical Microbiology, University of Lund, Sweden
Department of Biology, Western Reserve University, Cleveland Ohio, United States of America

Regional Reference Centres for Immunology (Research and Training)
Department of Microbiology and Immunology, School of Medicine, University of São Paulo, Brazil
Department of Chemical Pathology, University College Hospital, Ibadan, Nigeria
* Institut de Biochimie, University of Lausanne, Switzerland

Pharmaceuticals
International Reference Centre for Chemical Reference Substances
Centre for Authentic Chemical Substances, Apotekens Central-laboratorium, Solna, Stockholm, Sweden

International Reference Centre for the Histopathology of Leukaemias and other Neoplastic Conditions of the Haematopoietic Cells
Institut de Cancérologie et d’Immunogénétique, Hôpital Paul Brousse, Paris, France

International Reference Centre for the Histopathology of Mammary Tumours
Bland Sutton Institute of Pathology, Middlesex Hospital, London, England

International Reference Centre for the Histopathology of Odontogenic Tumours
Department of Oral Pathology, Royal Dental College, Copenhagen, Denmark

International Reference Centre for the Histopathology of Oral Precancerous Conditions
* Department of Oral Pathology, Royal Dental College, Copenhagen, Denmark

International Reference Centre for the Histopathology of Oropharyngeal Tumours
Sarojini Naidu Medical College, Agra, Uttar Pradesh, India

International Reference Centre for the Histopathology of Ovarian Tumours
Institute of Oncology, Leningrad, Union of Soviet Socialist Republics

International Reference Centre for the Histopathology of Salivary Gland Tumours
Bland Sutton Institute of Pathology, Middlesex Hospital, London, England

International Reference Centre for the Histopathology of Skin Tumours
Pathology Department, University of Western Australia, Perth, Australia

International Reference Centre for the Histopathology of Soft Tissue Tumours
Armed Forces Institute of Pathology, Washington, D.C., United States of America

International Reference Centre for the Histopathology of Thyroid Gland Tumours
University Institute of Pathology, Cantonal Hospital, Zurich, Switzerland

International Reference Centre for the Histopathology of Uterine Tumours and Related Conditions
* Institute of Radiopathology, Karolinska Institute, Stockholm, Sweden

International Reference Centre for the Provision of Frozen Transplantable Tumour Strains
Department of Tumour Pathology, Karolinska Institute, Stockholm, Sweden

International Reference Centre for the Provision of Tumour-bearing Animals
Netherlands Cancer Institute, Amsterdam, Netherlands

Cardiovascular Diseases
Centre for Cardiovascular Diseases (Research and Training)
Makerere College, University of East Africa, Kampala, Uganda

Centre for Comparative Cardiovascular Studies
Comparative Cardiovascular Studies Unit, University of Pennsylvania, Philadelphia, Pa., United States of America

Rheumatic Diseases
International Reference Centre for the Study of the Diffuse Connective Tissue Diseases
* Hôpital Cochin, Paris, France

MALARIA
International Malaria Reference Centre
Laboratory of Parasite Chemotherapy, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Md., United States of America

Regional Malaria Reference Centres
Horton Malaria Reference Laboratory, Epsom, England
National Institute of Communicable Diseases, New Delhi, India

MENTAL HEALTH
International Reference Centre for Information on Psychotropic Drugs
* National Institute of Mental Health, Chevy Chase, Md., United States of America

International Reference Centre for the Study of Adverse and Side Effects of Psychotropic Drugs
* Centre psychiatrique Sainte-Anne, Paris, France

Regional Reference Centres for the Study of Psychotropic Drugs
* Faculty of Medicine, Hokkaido University, Sapporo, Japan
* Clinique neuropsychiatrique, Faculté mixte de Médecine et de Pharmacie, University of Dakar, Sénégal

NUTRITION
Anaemias
International Reference Centre for Anaemias
* School of Medicine, University of Washington, Seattle, Wash., United States of America

Regional Reference Centres for Anaemias
Department of Pathology, St Bartholomew's Medical College, London, England
University of Witwatersrand, Johannesburg, South Africa

PARASITIC DISEASES

Leishmaniasis
International Reference Centre for Leishmaniasis
Department of Parasitology, Hadassah Medical School, Jerusalem, Israel

Schistosomiasis
Snail Identification Centre
Danish Bilharziasis Laboratory, Copenhagen, Denmark

Trypanosomiasis
International Reference Centre for Trypanosomiasis
East African Trypanosomiasis Research Organization, Tororo, Uganda

TUBERCULOSIS
Tuberculosis Diagnostic Reference Laboratory
Tuberculosis Research Institute, Prague, Czechoslovakia

International Reference Centre for BCG Seed-lots and Control of BCG Products
* BCG Department, Statens Seruminstitut, Copenhagen, Denmark

VECTOR BIOLOGY AND CONTROL
International Reference Centre for the Diagnosis of Diseases of Vectors
Department of Zoology and Entomology, Ohio State University, Columbus, Ohio, United States of America

International Reference Centres for the Evaluation and Testing of New Insecticides
* Toxicology Research Unit, Medical Research Council Laboratories, Carshalton, Surrey, England
* Tropical Pesticides Research Unit, Porton Down, Wiltshire, England
* Department of Entomology, University of California, Riverside, Calif., United States of America
* Entomological Research Division, Agricultural Research Service, US Department of Agriculture, Gainesville, Fla., United States of America
* Technical Development Laboratories, National Communicable Disease Center, Savannah, Ga., United States of America
* Laboratoire d’Entomologie, Centre Muraz, Bobo-Dioulasso, Upper Volta

International Reference Centre for Maintenance and Distribution of Standardized Strains of Anopheles
Ross Institute, London School of Hygiene and Tropical Medicine, London, England

International Reference Centre for Maintenance and Distribution of Standardized Strains of the *Culex pipiens* Complex
Institute of Genetics, Johannes Gutenberg University, Mainz, Federal Republic of Germany

International Reference Centre for Maintenance and Distribution of Standardized Strains of *Musca domestica*
Institute of Zoology, University of Pavia, Italy

VENEREA L DISEASES AND TREPONEMATOSES

International Reference Centre for Endemic Treponematoses
* Institut Alfred Fournier, Paris, France

International Reference Centre for Gonococci
*Nisseria* Department, Statens Seruminstitut, Copenhagen, Denmark

International Treponematoses Laboratory Centre
Johns Hopkins University, Baltimore, Md., United States of America

Serological Reference Centres for Treponematoses
Treponematoses Research Laboratory, Statens Seruminstitut, Copenhagen, Denmark
Veneral Disease Research Laboratory, National Communicable Disease Center, Atlanta, Ga., United States of America

VIRUS DISEASES

Arbovirus Diseases

International Reference Centre for Arboviruses
Department of Epidemiology and Public Health, Yale University School of Medicine, New Haven, Conn., United States of America

Regional Reference Centres for Arboviruses
Queensland Institute of Medical Research, Brisbane, Australia
Institute of Virology, Bratislava, Czechoslovakia
Service de la Fièvre jaune et des Arboviruses, Institut Pasteur, Paris, France
Department of Virology and Rickettsiology, National Institute of Health, Tokyo, Japan
Institut Pasteur, Dakar, Senegal
East African Virus Research Institute, East African Common Services Organization, Entebbe, Uganda
Viral Encephalitides Section, Institute of Poliomyelitis and Viral Encephalitides, Moscow, Union of Soviet Socialist Republics
Virology Section, National Communicable Disease Center, Atlanta, Ga., United States of America

Cell Cultures

International Reference Centre for Cell Cultures
* American Type Culture Collection, Rockville, Md., United States of America

Enterovirus Diseases

International Reference Centre for Enteroviruses
Department of Virology and Epidemiology, Baylor University College of Medicine, Houston, Tex., United States of America

Regional Reference Centres for Enteroviruses
Enterovirus Department, Statens Seruminstitut, Copenhagen, Denmark
Section de Virologie, Laboratoire national de la Santé publique, Lyons, France
Department of Enteroviruses, National Institute of Health, Tokyo, Japan
Department of Bacteriology, University of Singapore
South African Institute for Medical Research, Johannesburg, South Africa
Institute of Poliomyelitis and Viral Encephalitides, Moscow, Union of Soviet Socialist Republics

Influenza

World Influenza Centre
National Institute for Medical Research, London, England

International Influenza Centre for the Americas
Virology Section, National Communicable Disease Center, Atlanta, Ga., United States of America

Mycoplasmas

International Reference Centre for Human Mycoplasmas
Laboratory of Viral Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Md., United States of America

FAO/WHO International Reference Centre for Animal Mycoplasmas
* Institute of General Pathology and Bacteriology, University of Aarhus, Denmark

Respiratory Virus Diseases other than Influenza

International Reference Centres for Respiratory Virus Diseases other than Influenza
Common Cold Research Unit, National Institute for Medical Research, Harvard Hospital, Salisbury, England
Laboratory of Viral Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Md., United States of America

Regional Reference Centres for Respiratory Virus Diseases other than Influenza
Epidemiological Research Unit, Fairfield Infectious Diseases Hospital, Melbourne, Australia
Institute of Epidemiology and Microbiology, Prague, Czechoslovakia
Respiratory Virus Laboratory, National Institute of Health, Tokyo, Japan
South African Institute for Medical Research, Johannesburg, South Africa

1 Not including rabies, shown under Zoonoses.
Ivanovskij Institute of Virology, Moscow, Union of Soviet Socialist Republics
Respirovirus Unit, Virology Section, National Communicable Disease Center, Atlanta, Ga., United States of America

Rickettsioses
Regional Reference Centre for Human Rickettsioses
Rocky Mountain Laboratory, National Institute of Allergy and Infectious Diseases, Hamilton, Mont., United States of America

Smallpox
Regional Reference Centres for Smallpox
* National Communicable Disease Center, Atlanta, Ga., United States of America
Research Institute of Virus Preparations, Moscow, Union of Soviet Socialist Republics

Trachoma
International Reference Centre for Trachoma
Francis I. Proctor Foundation for Research in Ophthalmology, University of California Medical Center, San Francisco, Calif., United States of America

VITAL AND HEALTH STATISTICS
Centres for the Classification of Diseases
* Department of Public Health Statistics, Semaško Institute of Social Hygiene and Public Health Administration, Moscow, Union of Soviet Socialist Republics

ZOOONES
Brucellosis
FAO/WHO Brucellosis Centres
Department of Zoonoses, Department of Agriculture and Animal Husbandry, Buenos Aires, Argentina
Commonwealth Serum Laboratories, Parkville, Victoria, Australia
State Veterinary Serum Laboratory, Copenhagen, Denmark
Central Veterinary Laboratory, Ministry of Agriculture, Fisheries and Food, Weybridge, England
Centre de Recherches sur la Fièvre ondulante, Institut Bouisson-Bertrand, Montpellier, France
Veterinary Microbiological Institute, Athens, Greece
Indian Veterinary Research Institute, Mukteswar-Kumaon, Uttar Pradesh, India
Centre for the Study of Brucellosis, Institute of Hygiene and Microbiology, University of Florence, Italy
National Institute of Animal Health, Tokyo, Japan
Medical Research Institute, General Hospital, Mexico City, Mexico

1 Until May 1967.

Onderstepoort Veterinary Laboratory, Onderstepoort, South Africa
Institut Pasteur, Tunis, Tunisia
Institute of Veterinary Bacteriology and Serology, Istanbul, Turkey
Department of Medicine, University of Minnesota, Minneapolis, Minn., United States of America
Brucellosis Centre, State Laboratory of Hygiene, Rijeka, Yugoslavia
WHO Brucellosis Centre
Gamaleja Institute of Epidemiology and Microbiology, Moscow, Union of Soviet Socialist Republics

Leptospirosis
WHO/FAO Leptospirosis Reference Laboratories
Laboratory of the Department of Health and Home Affairs, Brisbane, Australia
London School of Hygiene and Tropical Medicine, London, England
Israel Institute for Biological Research, Ness-Ziona, Israel
Istituto Superiore di Sanità, Rome, Italy
National Institute of Health, Tokyo, Japan
Institute for Tropical Hygiene and Geographical Pathology (Royal Tropical Institute), Amsterdam, Netherlands
Division of Veterinary Medicine, Walter Reed Army Medical Center, Washington, D.C., United States of America
WHO Leptospirosis Reference Laboratory
Gamaleja Institute of Epidemiology and Microbiology, Moscow, Union of Soviet Socialist Republics

Rabies
International Reference Centres for Rabies
Institut Pasteur, Paris, France
Pasteur Institute of Southern India, Coonoor, India
*Wistar Institute, Philadelphia, Pa., United States of America
Regional Reference Centre for Rabies in the Americas
*Rabies Laboratory, National Communicable Disease Center, Atlanta, Ga., United States of America

OTHER FIELDS
Blood Groups
International Blood Group Reference Laboratory
Medical Research Council's Blood Group Reference Laboratory, Lister Institute of Preventive Medicine, London, England

Serum Reference Banks
World Serum Reference Bank
Department of Epidemiology and Public Health, Yale University School of Medicine, New Haven, Conn., United States of America
Regional Serum Reference Banks
Institute of Epidemiology and Microbiology, Prague, Czechoslovakia
South African Institute for Medical Research, Johannesburg, South Africa
Annex 15

PUBLICATIONS ISSUED BY THE WORLD HEALTH ORGANIZATION IN 1967

This annex lists the publications issued by WHO in 1967 and the language of issue.1

MONOGRAPH SERIES

23 Laboratory Techniques in Rabies, second edition, by various authors (F, R)
49 Operation and Control of Water Treatment Processes, by C. R. Cox (F, S)
50 Snail Control in the Prevention of Bilharziasis, by various authors (F)
51 Statistical Methods in Malaria Eradication, by Satya Swaroop (R)
52 Trials of Prophylactic Agents for the Control of Communicable Diseases. A Guide to their Organization and Evaluation, by T. M. Pollock (R)
53 The Assessment of the Nutritional Status of the Community (with special reference to field surveys in developing regions of the world), by D. B. Jelliffe (R)
54 Hospital Planning and Administration, by R. Llewellyn-Davies and H. M. C. Macaulay (R)
55 Laboratory Techniques in Brucellosis, by G. G. Alton and Lois M. Jones (E)

PUBLIC HEALTH PAPERS

25 Housing Programmes: The Role of Public Health Agencies, by various authors (F)
26 Domestic Accidents, by E. Maurice Backett (F)
27 Trends in the Study of Morbidity and Mortality, by various authors (F)
30 Noise. An Occupational Hazard and Public Nuisance, by Alan Bell (F, R)
31 A Guide for Staffing a Hospital Nursing Service, by Marguerite Paetznick (R)
32 An International Study of Health Expenditure and its Relevance for Health Planning, by Brian Abel-Smith (E)

TECHNICAL REPORT SERIES

316 The Technical Basis for Legislation on Irradiated Food, report of a Joint FAO/IAEA/WHO Expert Committee (R, S)
317 Chemotherapy of Bilharziasis, report of a WHO Scientific Group (R)
318 Water Pollution Control, report of a WHO Expert Committee (R)
319 WHO Expert Committee on Leprosy, third report (R, S)
320 University Health Services, fourteenth report of the WHO Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel (R)
321 WHO Expert Committee on Rabies, fifth report (R)
322 Cancer Treatment, report of a WHO Expert Committee, (R)
323 Requirements for Biological Substances — Manufacturing Establishments and Control Laboratories — Poliomyelitis Vaccine (Inactivated) — Poliomyelitis Vaccine (Oral) — Smallpox Vaccine, report of a WHO Expert Group (R)
324 WHO Expert Committee on Malaria, twelfth report (R, S)
325 Human Viral and Rickettsial Vaccines, report of a WHO Scientific Group (R)
326 Clinical Aspects of Oral Gestogens, report of a WHO Scientific Group (R)
327 The Use of Human Immunoglobulin, report of a WHO Expert Committee (R)
328 Planning of Radiotherapy Facilities, report of a Joint IAEA/WHO Meeting (R)
329 WHO Expert Committee on Biological Standardization, eighteenth report (R, S)
330 Fourth WHO Scientific Group on Trachoma Research, report (R)
331 The Midwife in Maternity Care, report of a WHO Expert Committee (R)
332 Basic and Clinical Aspects of Intra-Uterine Devices, report of a WHO Scientific Group (R, S)
333 Chemistry and Physiology of the Gametes, report of a WHO Scientific Group (R, S)
334 Immunological Aspects of Human Reproduction, report of a WHO Scientific Group (R, S)
335 WHO Expert Committee on Onchocerciasis, second report (R, S)
336 Sampling Methods in Morbidity Surveys and Public Health Investigations, tenth report of the WHO Expert Committee on Health Statistics (R, S)
337 The Training and Preparation of Teachers for Medical Schools with Special Regard to the Needs of Developing Countries, fifteenth report of the WHO Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel (R)
338 Haemoglobinopathies and Allied Disorders, report of a WHO Scientific Group (R, S)
340 Joint FAO/WHO Technical Meeting on Methods of Planning and Evaluation in Applied Nutrition Programs, report (R)
341 Principles for Pre-Clinical Testing of Drug Safety, report of a WHO Scientific Group (R, S)

1 C = Chinese; E = English; F = French; P = Portuguese; R = Russian; S = Spanish; E-F = English and French; E/F = bilingual edition.
Prevention of Rheumatic Fever, report of a WHO Expert Committee (R, S)

WHO Expert Committee on Dependence-Producing Drugs, fifteenth report (R)

Immunochemistry of Cancer, report of a WHO Scientific Group (F, R, S)

The Training of Health Laboratory Personnel (Technical Staff), fourth report of the WHO Expert Committee on Health Laboratory Services (R, S)

Research on Genetics in Psychiatry, report of a WHO Scientific Group (F, R, S)

WHO Expert Committee on Nursing, fifth report (R, S)

Procedures for Investigating Intentional and Unintentional Food Additives, report of a WHO Scientific Group (E, F, S)

Measurement of the Public Health Importance of Bilharziasis, report of a WHO Scientific Group (E, F)

National Health Planning in Developing Countries, report of a WHO Expert Committee (E, F, S)

Conference of Directors of Schools of Public Health, report of a WHO Inter-Regional Conference (E, F)

WHO Expert Committee on Cholera, second report (E, F, S)

Appraisal of the Hygienic Quality of Housing and its Environment, report of a WHO Expert Committee (E, F, S)

Joint ILO/WHO Committee on Occupational Health, fifth report (E, F, S)

The Use of Health Service Facilities in Medical Education, sixteenth report of the WHO Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel (E, F, S)

Safe Use of Pesticides in Public Health, sixteenth report of the WHO Expert Committee on Insecticides (E, F, S)

WHO Expert Committee on Malaria, thirteenth report (E, F, S)

Teaching of Immunology in the Medical Curriculum, report of a WHO Expert Committee (E, F, S)

WHO Expert Committee on Filariasis (Wuchereria and Brugia Infections), second report (E, F)

Biology of Fertility Control by Periodic Abstinence, report of the WHO Expert Committee (E, F, S)

WHO Expert Committee on Biological Standardization, nineteenth report (E, F)

Requirements of Vitamin A, Thiamine, Riboflavin and Niacin, report of a Joint FAO/WHO Expert Group (E, F, S)

Services for the Prevention and Treatment of Dependence on Alcohol and Other Drugs, fourteenth report of the WHO Expert Committee on Mental Health (E, F)

Principles for the Testing of Drugs for Teratogenicity, report of a WHO Scientific Group (E, F, S)

Epidemiological Methods in the Study of Chronic Diseases, eleventh report of the WHO Expert Committee on Health Statistics (E, F)

Standardization of Procedures for the Study of Glucose-6-Phosphate Dehydrogenase, report of a WHO Scientific Group (E, F)

Treatment and Disposal of Wastes, report of a WHO Scientific Group (E, F)

Mosquito Ecology, report of a WHO Scientific Group (E, F)

Arboviruses and Human Disease, report of a WHO Scientific Group (E, F)

Pesticide Residues in Food, joint report of the FAO Working Party on Pesticide Residues and the WHO Expert Committee on Pesticide Residues (E)

Research in Psychopharmacology, report of a WHO Scientific Group (E, F)

Epidemiology and Control of Schistosomiasis, report of a WHO Expert Committee (E, F)

Specifications for the Identity and Purity of Food Additives and their Toxicological Evaluation: Some Emulsifiers and Stabilizers and Certain Other Substances, tenth report of the Joint FAO/WHO Expert Committee on Food Additives (E, F)

Prevention of the Re-Introduction of Malaria, report of a WHO Meeting (E, F)

Chemotherapy of Malaria, report of a WHO Scientific Group (E)

The Education of Engineers in Environmental Health, report of a WHO Expert Committee (E, F)

Joint FAO/WHO Expert Committee on Nutrition, seventh report (E)

Joint FAO/WHO Expert Committee on Zoonoses, third report (E, F)

Control of Ascariasis, report of a WHO Expert Committee (E, F)

Current Problems in Leptospirosis Research, report of a WHO Expert Group (E, F)

NON-SERIES PUBLICATIONS

International Sanitary Regulations, third annotated edition (R)

Trends in Cancer Research (F, R)

Methods of Radiochemical Analysis (R)

World Directory of Schools of Pharmacy, 1963 (R)

World Directory of Dental Schools, 1963 (E)

International Medical Guide for Ships (E)

Guide to Ship Sanitation, by V. B. Lamoureux (E)

International Histological Classification of Tumours No. 1: Histological Typing of Lung Tumours (E, F, R, S)

Specifications for the Quality Control of Pharmaceutical Preparations, Second Edition of the International Pharmacopoeia (E, F)

Specifications for Pesticides Used in Public Health — Insecticides — Rodenticides — Molluscicides — Repellents — Methods, third edition (E)


International Non-proprietary Names for Pharmaceutical Preparations: Cumulative List No. 2 (1967) (E, F)
<table>
<thead>
<tr>
<th>Page</th>
<th>Description</th>
</tr>
</thead>
</table>
| 147  | The Work of WHO, 1965  
Annual Report of the Director-General (R) |
| 148  | Executive Board, Thirty-seventh Session  
Part I — Resolutions, Annexes (R) |
| 149  | Executive Board, Thirty-seventh Session  
Part II — Report on the Proposed Programme and Budget Estimates for 1967 (R) |
| 151  | Nineteenth World Health Assembly  
Part I — Resolutions and Decisions, Annexes (R) |
| 152  | Nineteenth World Health Assembly  
Part II — Plenary Meetings: Verbatim Records. Committees: Minutes and Reports (R) |
| 153  | Executive Board, Thirty-eighth Session (R) |
| 154  | Proposed Programme and Budget Estimates for 1968 (R) |
| 156  | The Work of WHO, 1966  
Annual Report of the Director-General (E, F, R, S) |
| 157  | Executive Board, Thirty-ninth Session  
Part I — Resolutions, Annexes (E, F, S) |
| 158  | Executive Board, Thirty-ninth Session  
Part II — Report on the Proposed Programme and Budget Estimates for 1968 (E, F, S) |
| 160  | Twentieth World Health Assembly  
Part I — Resolutions and Decisions, Annexes (E, F, S) |
| 161  | Twentieth World Health Assembly  
Part II — Plenary Meetings: Verbatim Records. Committees: Summary Records and Reports (E, F, S) |
| 162  | Executive Board, Fortieth Session (E, F, S) |
| 163  | Proposed Programme and Budget Estimates for 1969 (E, F, S) |
|      | Basic Documents, eighteenth edition (E, F, R, S) |
|      | Handbook of Resolutions and Decisions, ninth edition (E, F, S) |

**PERIODICALS**

**World Health**  
Monthly (E, F, P, R, S)

**WHO Chronicle**  
Volume 21, Nos. 1-12 (C, E, F, R, S)

**Bulletin of the World Health Organization**  
Volume 34, Nos. 1-6 (R)  
Volume 35, Nos. 1-6 (R)  
Volume 36, Nos. 1-6 (E-F)  
Volume 37, Nos. 1-6 (E-F)

**International Digest of Health Legislation**  
Volume 18, Nos. 1-4 (E, F)

**Epidemiological and Vital Statistics Report**  
Volume 20, Nos. 1-12 (E/F)

**World Health Statistics Annual**  
1962 — Volume III (R)  
1963 — Volume I (R)  
1963 — Volume II (E/F)  
1963 — Volume III (E/F)  
1964 — Volume I (E/F)
Annex 16

WHO LIBRARY STATISTICS, 1967

Acquisitions

Periodicals received:
- by subscription .................................. 756
- by exchange with WHO publications ....... 1 327
- by gift ........................................... 744
Total .................................................. 2 827

Annual reports received ................................ 1 285
Books and pamphlets ordered .......................... 1 341
Books and pamphlets received ......................... 4 968
Volumes bound ........................................ 2 067

Catalogue

- Titles catalogued ................................ 1 798
- Articles in journals indexed ....................... 12 011
- Documents indexed ................................ 4 893
- Index cards filed .................................. 37 600
- Index cards distributed to headquarters Secretariat and regional offices ....... 203 200

Loans

- Lent to WHO Secretariat ............................ 10 232
- Lent to other libraries ............................. 4 302
- Borrowed from other libraries ..................... 2 540
- Periodicals circulated to WHO Secretariat ...... 70 146
- Photocopying (number of exposures) .............. 76 442
- Items consulted in reading rooms ................. 24 993

Medical literature supply

Orders placed for
- Headquarters Secretariat (number) .............. 486
- (items) ............................................. 1 372
- Regional offices (number) .......................... 1 823
- (items) ............................................. 8 930
- Duplicates distributed to regional offices and to other libraries ............... 9 257

---------
THE WORK OF WHO, 1967

ANNUAL REPORT OF THE DIRECTOR-GENERAL

TO THE

WORLD HEALTH ASSEMBLY AND TO THE UNITED NATIONS

INDEX

WORLD HEALTH ORGANIZATION

GENEVA

May 1968
INDEX

Main references by subject, and main references to the project list by country, are in heavy type.

Abortion studies, 64
Accidents, road, symposium on human factors, Rome, 133
Accommodation, headquarters, 51
Regional Office for Africa, 57, 58
Regional Office for Europe, 74
Regional Office for South-East Asia, 70
Aden, 138
Administrative Committee on Co-ordination, 35, 37, 40, 42
Advisory Committee on Medical Research, 27, 29, 38, 178
Advisory Committee on the Teaching of Preventive and Social Medicine in Latin America, 65
Aedes, 6, 9, 11, 12, 13, 40
research unit, Bangkok, 12, 125, 164
Aedes aegypti eradication, 60, 66, 111
Caribbean area, 111; Colombia, 101; Cuba, 102; Surinam, 106; Venezuela, 107
Afghanistan, 6, 16, 31, 41, 48, 67, 68, 75, 116-117, 125, 127
African Region, 55-58, 85-95
Air pollution, 35-36, 46, 62, 64
Brazil, 98; Chile, 62, 100; Cyprus, 138; Hungary, 130; Republic of Viet-Nam, 159
courses, Europe, 134
seminar, USSR, 36, 167
symposium, Prague, 36, 135
Aircraft disinsection, 13
Airports, hygiene and sanitation, 7, 78
Albania, 128
Algeria, 3, 31, 41, 51, 71, 72, 73, 128-129, 134
Altitude, population biology, WHO/PAHO/IBP meeting of investigators, Washington, 25, 165
Americas, Region of the, 59-66, 96-115
Anaemia, 24, 61, 112
meeting, New Delhi, 127
Anaesthesiology courses, Copenhagen, 163, 167
Andean region development programmes, 44, 97, 102, 106
Anniversary of WHO, twentieth, 49-50, 180
Bacterial diseases, 16-18, 68
Barbados, 49, 97, 111
BCG vaccination and vaccines, 14-15, 40, 56, 67, 78
Ceylon, 118; Democratic Republic of the Congo, 86; Indone-
see also Schistosomiasis
Biological standardization, 26
course, Zagreb, 26, 165
see also Schistosomiasis
Blindness, prevention, Yugoslavia, 132
Biomedical sciences, 26-28
Blood grouping, 32
Blood transfusion services, course, Budapest, 32, 166
Bolivia, 59, 63, 97
Botswana, 11, 31, 55, 85
Bovine tuberculosis, Argentina, 60
Brazil, 3, 4, 7, 10, 11, 14, 22, 27, 33, 59, 60, 61, 63, 64, 65, 97-99, 114
British Honduras, 99-100
British Solomon Islands Protectorate, 151
British Virgin Islands, 108
Brucellosis, 18, 60, 63
Spain, 131
Brunei, 78, 151
Budget, for 1967, 49-50, 180
see also Programme and budget estimates for 1969
Bulgaria, 16, 43, 129
Bulletin of the World Health Organization, 5, 8, 13, 15, 23
Burn, 6, 7, 12, 13, 15, 17, 24, 40, 41, 67, 75, 117
Burundi, 6, 37, 51, 55, 57, 85
Cambodia, 7, 16, 51, 78, 79, 80, 151-152, 161
Cameroon, 4, 55, 85, 95
Canada, 13, 32, 100
Cancer, 21-22, 28, 40, 135
Albania, 128; Argentina, 61; Chile, 100; India, 163; Iran, 75, 139; Poland, 135; Sudan, 75, 145; United Arab Republic, 75, 148; Yugoslavia, 132
Auxiliary health personnel, 42, 57, 62, 68, 80, 115
Argentina, 97; British Solomon Islands Protectorate, 151;
Colombia, 61, 101; Costa Rica, 101; Democratic Republic of the Congo, 86; Guatemala, 103; Honduras, 103;
Iraq, 140; Kenya, 88; Libya, 142; Maldives Islands, 123;
Nicaragua, 105; Nigeria, 90, 91; Panama, 105; Paraguay,
105; Peru, 106; Somalia, 144; Uruguay, 107; Yemen, 148

Abortion studies, 64
Accidents, road, symposium on human factors, Rome, 133
Accommodation, headquarters, 51
Regional Office for Africa, 57, 58
Regional Office for Europe, 74
Regional Office for South-East Asia, 70
Aden, 138
Administrative Committee on Co-ordination, 35, 37, 40, 42
Advisory Committee on Medical Research, 27, 29, 38, 178
Advisory Committee on the Teaching of Preventive and Social Medicine in Latin America, 65
Aedes, 6, 9, 11, 12, 13, 40
research unit, Bangkok, 12, 125, 164
Aedes aegypti eradication, 60, 66, 111
Caribbean area, 111; Colombia, 101; Cuba, 102; Surinam, 106; Venezuela, 107
Afghanistan, 6, 16, 31, 41, 48, 67, 68, 75, 116-117, 125, 127
African Region, 55-58, 85-95
Air pollution, 35-36, 46, 62, 64
Brazil, 98; Chile, 62, 100; Cyprus, 138; Hungary, 130; Republic of Viet-Nam, 159
courses, Europe, 134
seminar, USSR, 36, 167
symposium, Prague, 36, 135
Aircraft disinsection, 13
Airports, hygiene and sanitation, 7, 78
Albania, 128
Algeria, 3, 31, 41, 51, 71, 72, 73, 128-129, 134
Altitude, population biology, WHO/PAHO/IBP meeting of investigators, Washington, 25, 165
Americas, Region of the, 59-66, 96-115
Anaemia, 24, 61, 112
meeting, New Delhi, 127
Anaesthesiology courses, Copenhagen, 163, 167
Andean region development programmes, 44, 97, 102, 106
Anniversary of WHO, twentieth, 58, 66, 69, 73, 77, 80
Anopheles Control Research Unit, 12, 163
Anopheles gambiae, 12
Antibiotics, 32
Antigua, 108
Arab States Training Centre for Education in Community Development, Sirs-el-Layyan, 76, 148
Arboviruses, 8, 9
Argentina, 7, 8, 10, 59, 60, 61, 62, 63, 64, 96-97, 114
Ascariasis, 11
Asian Institute for Economic Development and Planning, 45, 126
Associate Members, 171
Associations of schools of public health, 42
Atherosclerosis, 22, 23, 40
Australia, 48, 151
Austria, 129
Automatic data-processing systems, see Computers
Automation of laboratory services, 134
Cancer (continued)
advisory teams, 163
cytology, training of teachers, 136
working group on epidemiological study of stomach cancer,
Copenhagen, 135
Cardiovascular diseases, 22-23, 71, 73, 135
Mongolia, 67, 123
course on coronary intensive care, Edinburgh, 135
course on diagnosis, treatment and prevention, Copenhagen,
164
seminar on rehabilitation of cardiovascular patients, Noordwijk,
71, 134
Caribbean area, 63, 64, 110, 111, 112
Central African Republic, 85
Central American Congress on Health Education, Guatemala City, 63
Cerebrospinal meningitis, 16, 17-18, 94
Morocco, 17, 71; Upper Volta, 18
seminar, Bobo-Dioulasso, 18, 56, 95
Cerebrovascular disease, 22, 23
Chad, 37, 51, 57, 85
Chagas' disease, 59, 66
Chad, 37, 51, 57, 85
China (Taiwan), 10, 11, 16, 24, 37, 40, 44, 78, 80, 152-153
China (Taiwan), 10, 11, 16, 24, 37, 40, 44, 78, 80, 152-153
Chile, 8, 59, 60, 61, 62, 64, 100, 114
Chikungunya, 9
Chagas' disease, 59, 66
Chad, 37, 51, 57, 85
Chagas' disease, 59, 66
Children, dental health course, Copenhagen, 23, 164
Chile, 8, 59, 60, 61, 62, 64, 100, 114
China (Taiwan), 10, 11, 16, 24, 37, 40, 44, 78, 80, 152-153
Cholera, 7, 16-17, 35, 67, 69, 73, 78
India, 16, 17; Iraq, 140; Lebanon, 142; Philippines, 16, 17;
Syria, 147; Thailand, 17
conference, Ankara, 16, 75, 166
team, 16, 67, 127, 149, 164, 166
course, Calcutta, 16, 166
inter-country meetings, Eastern Mediterranean, 75
Chronic diseases, 113
Uganda, 107
Classification of diseases, 24, 39, 115, 136
Codeine, pharmacology, 29
CODEPID, 7
Codex Alimentarius Commission, Joint FAO/WHO, 20, 45
Collaborative International Pesticides Analytical Committee, 12
Colombia, 4, 7, 40, 59, 60, 61, 62, 63, 64, 100-101, 114, 162
Commission for Social Development, 31, 45
Committee on International Quarantine, 6-7, 177
Communicable diseases, 6-20, 55, 59-60, 67, 69, 71, 75, 78, 108
Afghanistan, 116; China (Taiwan), 152; India, 120; Jordan,
141; Liberia, 89; Mongolia, 123; Nepal, 124; Nigeria, 90;
Seychelles, 92; Sierra Leone, 92; Thailand, 124
advisory team, Western Pacific, 78, 160
Communicable eye diseases, Algeria, 128; Morocco, 131; Sudan,
142; Syria, 146; Tunisia, 147; United Republic of Tanzania,
93
see also Trachoma
Communications science, research in, 38
Community development, 44, 76
Venezuela, 107
training centres, 76, 111, 148
Community water supply, see Water supplies
Comparative studies, cardiovascular and cerebrovascular dis-
eases, 23
oncology, 22
virology, 19
Computers, 14, 39, 40
Congo (Brazzaville), 4, 10, 32, 56, 57, 86
Congo, Democratic Republic of, 7, 41, 51, 55, 56, 86, 95
Conjunctivitis, 9
see also Communicable eye diseases
Constitution, WHO, acceptance of amendments, 49
Contributions, collection, 50
Convention on the Privileges and Immunities of the Specialized
Agencies, 49, 171
Cook Islands, 153
Co-operation with other organizations, 43-47, 73, 80
see also under names of individual organizations
Co-ordination, study submitted to the Economic and Social
Council, 45
Coronary heart disease, 22, 23
course on intensive care, Edinburgh, 135
Costa Rica, 59, 61, 63, 64, 101, 114
Council of Europe, 46, 73
Cuba, 59, 60, 101-102
Culex pipiens fatigans, 11, 12
Cyprus, 4, 75, 138
Czechoslovakia, 3, 7, 9, 13, 15, 22, 40, 129, 135, 136
Dahomey, 57, 86
Data-processing systems, see Computers
Democratic Republic of the Congo, 7, 41, 51, 55, 56, 86, 95
Denmark, 13, 14, 40, 73, 129, 136
Dental health, 23, 61, 113, 114, 115, 135
Burma, 117; Chile, 100; China (Taiwan), 153; Colombia, 101;
Greece, 129; India, 121; Iraq, 148; Jamaica, 61; Jordan,
148; Malta, 130; Netherlands, 23; Pakistan, 148;
Paraguay, 105; Philippines, 157; Sudan, 148; Thailand,
125; Venezuela, 61, 108
course, Czechoslovakia, 137
choral, 23, 61, 113, 114, 115, 135
Data-processing systems, see Computers
Democratic Republic of the Congo, 7, 41, 51, 55, 56, 86, 95
Denmark, 13, 14, 40, 73, 129, 136
Dental health, 23, 61, 113, 114, 115, 135
Burma, 117; Chile, 100; China (Taiwan), 153; Colombia, 101;
Greece, 129; India, 121; Iraq, 148; Jamaica, 61; Jordan,
148; Malta, 130; Netherlands, 23; Pakistan, 148;
Paraguay, 105; Philippines, 157; Sudan, 148; Thailand,
125; Venezuela, 61, 108
course, Czechoslovakia, 137
course on child dental health, Copenhagen, 23, 164
seminar on training and utilization of dental personnel,
New Delhi, 23
seminars on dental education, Americas, 115
Dental materials, regional centre, Venezuela, 61
Diabetes, Malta, 130
Diarrhoeal diseases, Ceylon, 118; Tonga, 158
see also Enteric diseases
Diphtheria, 17
Disinsection, aircraft, 13
Domina, 108
Dominican Republic, 59, 63, 64, 102
Drug addicts, rehabilitation, Iran, 140
Drug dependence and abuse, 29
Drug safety and monitoring, 29, 30
Drug safety and monitoring, 29, 30
Drugs, consumption, study, 137
quality control, 77
Cyprus, 138; India, 122; Iran, 139; Lebanon, 142
specifications, 30
Dubai, 51, 75
Dysentery, 17
Eastern Mediterranean Region, 75-77, 138-150
Economic and Social Council, 37, 42, 45
Economic Commission for Africa (ECA), 45, 95, 163
Economic Commission for Asia and the Far East (ECAFE),
10, 45, 80, 161
Economic Commission for Europe (ECE), 37, 45, 73
Economic Commission for Latin America (ECLA), 45, 110
Economic development planning, seminar on integration of
care supplies, Geneva, 165
see also Socio-economic development
Ecuador, 7, 51, 59, 60, 61, 63, 102
INDEX

Education and training, 41-42, 62, 65, 67, 69, 76, 77, 79-80, 133, 149, 159
China (Taiwan), 152; Indonesia, 123; Libya, 142; Malaysia, 155; Saudi Arabia, 144; Sudan, 146
see also Auxiliary health personnel; Dental health; Fellowships; Medical education; Nursing; Public health training; Sanitarians; Sanitary engineering; Veterinary medicine education
El Salvador, 12, 59, 60, 61, 63, 64, 102
Elderly, care of, course on medical and social aspects, Glasgow, 136
Enteric diseases, 17, 78
Ceylon, 118; Iraq, 140; Spain, 131; Tonga, 158
see also Diarrhoeal diseases
Environmental health, 35-36, 46
see also Air pollution; Water pollution
Epidemiology and Vital Statistics Report, 15, 39
Epidemiological cable code (CODEPID), 7
Epidemiological surveillance, 6, 7
Epidemiology, 6, 40, 55, 67, 69, 95, 108, 160
Algeria, 128; Central African Republic, 85; China (Taiwan), 153; Ethiopia, 138; Greece, 129; Guinea, 87; Kenya, 88; Malaysia, 155; Mali, 89; Mauritius, 90; Pakistan, 143; Philippines, 156, 157; Qatar, 144; Republic of Korea, 154; Republic of Viet-Nam, 159; Sierra Leone, 92; Somalia, 144; South Pacific area, 160; Sudan, 145; Tunisia, 147; Turkey, 132; Zambia, 94
see also Sanitation
Environmental pollution, 35-36, 46
see also Air pollution; Water pollution
Epidemiological and Vital Statistics Report, 15, 39
Epidemiological cable code (CODEPID), 7
Epidemiological surveillance, 6, 7
Epidemiology, 6, 40, 55, 67, 69, 95, 108, 160
Albania, 128; Cambodia, 152; Ceylon, 117, 118; China (Taiwan), 152; Ethiopia, 138; India, 120; Iraq, 140; Liberia, 89; Mongolia, 123; Pakistan, 142; Thailand, 124; Togo, 93
centres, 94, 149
courses, London, 136
smallpox eradication and epidemiological advisory team, South-East Asia, 67, 125
studies, 112, 131, 134
symposium on teaching of epidemiology in medicine and public health, Brussels, 42, 73, 134
Epidemiology and communications science, research in, 38
Epilepsy, glossary of terms, 24
Ergonomics, course, Bombay, 25, 164
Ethiopia, 3, 11, 41, 51, 75, 76, 138-139, 149
European Nuclear Energy Agency, 36
European Region, 71-74, 128-137
Executive Board, membership, 172
Expert Advisory Panel on Food Hygiene, 19
Expert advisory panels, 173
Expert Committee on Biological Standardization, 26, 175
Expert Committee on Coccal Infections, 18, 176
Expert Committee on Food Additives (FAO/WHO), 29, 176
Expert Committee on Health Statistics, 39, 175-176
Expert Committee on Hospital Administration, 32, 175
Expert Committee on Malaria, 4, 174
Expert Committee on Medical Radiation Physics (IAEA/WHO), 24, 177
Expert Committee on Mental Health, 23, 175
Expert Committee on Microbiological Aspects of Food Hygiene, 19, 175
Expert Committee on National Health Planning in Developing Countries, 31
Expert Committee on Non-Proprietary Names for Pharmaceutical Preparations, 30, 174
Expert Committee on Pesticide Residues, 29, 46, 177
Expert Committee on Planning and Evaluation of Health Education Services, 33, 176
Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel, 42, 174
Expert Committee on the Control of Ascariasis, 11, 174
Expert Committee on the Education of Engineers in Environmental Health, 36, 174
Expert Committee on Tuberculosis, 14
Expert Committee on Water Pollution Control, 36, 176
Expert committees, 174-177
External Auditor of PAHO, 66
Eye diseases, see Communicable eye diseases; Trachoma
Family planning, health aspects, 44, 64, 68, 69
FAO, see Food and Agriculture Organization
FAO/UNICEF/WHO Protein Advisory Group, 45
FAO/WHO Codex Alimentarius Commission, Joint, 20, 45
FAO/WHO Expert Panel on Milk Quality, 20
FAO/WHO Food Standards Programme, Joint, 18, 20, 45
FAO/WHO/OAU(STRC) Regional Food and Nutrition Commission for Africa, Joint, 56, 95
FAO Working Party on Pesticide Residues, 29, 45, 177
Federal Republic of Germany, 3, 7, 9, 11, 32, 48, 129
Fieldshers, training and utilization, travelling seminar, USSR, 42, 167
Fellowships, 41, 76, 80
numbers awarded (1 Dec. 1966 - 30 Nov. 1967), 185-186
Fiji, 79, 153
Filariasis, 11, 13, 69
Ceylon, 11, 118; Western Samoa, 11, 159
research unit, 13, 163
Films, 29, 48
Finland, 32, 129, 136
Fluorescent antibody techniques, course, Paris, 32, 163
Fluoridation, table-salt, 61
water, 44, 110, 113
course, Cincinnati, 61
Food additives, 29-30, 45
Food and Agriculture Organization (FAO), jointly assisted activities, 10, 31, 57
food and nutrition, 12, 18, 20, 24, 29, 45, 56, 79, 80, 112
radiation health, 25, 46
veterinary public health and zoonoses, 18, 19, 46
water resources development and land reclamation, 35, 45, 86, 88, 91, 94
Food hygiene, 18, 19-20, 45, 77, 110, 113
Argentina, 96; Malaysia, 155; Mexico, 104; Morocco, 130; Philippines, 157; Republic of Korea, 154; Republic of Viet-Nam, 159; Togo, 93
seminar on food-borne diseases and intoxications, New Delhi, 19, 164
Food production, 45
Food Standards Programme, Joint FAO/WHO, 18, 20, 45
Foot-and-mouth disease, 66, 110
Foundations' Fund for Research in Psychiatry, 61
France, 3, 4, 11, 13, 14, 17, 41, 48, 129, 133, 136
French Antilles and Guiana, 103
Gabon, 10, 86
Gambia, 86
Genetics, see Human genetics
Haemoglobinopathies, 26
Haemorrhagic fever, 6, 13, 67, 126
Thailand, 125; Yugoslavia, 71
Haiti, 14, 59, 60, 103
Headquarters, accommodation, 51
Secretariat, structure, 50-51
Health demonstration areas, Algeria, 72; Cuba, 102; Democratic Republic of the Congo, 56; Greece, 129; Madagascar, 89; Republic of Korea, 154; Spain, 132; Sudan, 145; Syria, 146
Health education, 33, 46, 56, 79, 126
Algeria, 128; Bolivia, 53; Brazil, 63; Burma, 117; Caribbean area, 64, 111; Ceylon, 33, 118; China (Taiwan), 152; Fiji, 79, 153; Ghana, 87; India, 68, 119, 120; Lebanon, 76, 141; Libya, 33, 76, 142; Malaysia, 155; Nepal, 33, 124; Nigeria, 91; Pakistan, 143; Peru, 63; Philippines, 79, 157; Sierra Leone, 33; Singapore, 158; Thailand, 68, 125; Uganda, 94
conference, New Delhi, 33
group meeting, Alexandria, 33, 76, 149
Health inspectors, training, Guatemala, 103; Sierra Leone, 92; Zambia, 94
see also Sanitary inspectors
Health laboratory services, see Laboratory services
Health legislation, 66
Health manpower, 80
conference on health manpower and medical education, Maracaibo, 65
studies, Colombia, 62, 65, 101
Health planning, Pan American Programme, 43, 62
seminar on health planning in urban development, Singapore, 160
see also National health planning
Health protection and promotion, 21-25, 61-62, 67-68, 71-72, 75-76, 79
Health sciences, research and training, 64, 66, 114
Helminthic infections, 11
Histological Typing of Lung Tumours, 21
Honduras, 59, 61, 62, 63, 103-104
Hong Kong, 8, 153, 159
Hospital administration, 31-32, 114
Argentina, 97; Barbados, 97; India, 122; Iraq, 140; Malaysia, 155; Trinidad and Tobago, 106; Uruguay, 107; West Indies, 108
course, Moscow, 135
see also Medical care
Hospital physics, India, 122
see also Medical records
Hospital records, Singapore, 158
see also Medical records
Hospitals, 69, 126
Algeria, 72; India, 122; Philippines, 157; Venezuela, 108
equipment maintenance course, Port of Spain, 63
planning and design, 31, 126
use by population, studies, 32
Housing, 37, 44, 45, 111, 116
Libya, 143; Venezuela, 107
Human genetics, 26-27
meeting on genetic studies of primitive groups, Geneva, 27, 165
Human rights, 44
Hungary, 8, 17, 130, 136
IAEA, see International Atomic Energy Agency
ICAO, see International Civil Aviation Organization
Iceland, 130
ILO, see International Labour Organisation
IMCO, see Inter-Governmental Maritime Consultative Organization
Immunofluorescent techniques, course, Paris, 32, 163
Immunology, 28
Albania, 128
research team, 167
India, 3, 4, 6, 7, 15, 16, 17, 21, 25, 27, 32, 33, 35, 36, 41, 48, 67, 68, 69, 75, 118-122, 126, 163
Indonesia, 6, 7, 41, 67, 122-123, 127
Industrial hygiene, 62, 113
Argentina, 96; Chile, 100; Mexico, 104; Republic of Viet-Nam, 159; Venezuela, 108
see also Ergonomics; Occupational health
Industrial wastes, Israel, 140; Sudan, 145
see also Wastes disposal
Influenza, 7, 8, 19
Insecticide poisoning, 13, 77
Insecticides, 11-12, 40, 109, 163, 165
see also Pesticides
Institute of Nutrition of Central America and Panama, 61, 112, 113
Inter-American Development Bank, 46, 64
Inter-Governmental Maritime Consultative Organization (IMCO), 7, 13, 25, 46
International Agency for Research on Cancer, 21, 28, 40
International Air Transport Association, 7
International Association of Microbiological Societies, 166
International Atomic Energy Agency (IAEA), 24, 25, 36, 46, 134
International Biological Programme, 25, 46, 165
International Bureau of Education, 33, 46
International Cell Research Organization, 166
International Commission on Radiological Protection, 36
International Conference on Public Education, 33
International Congress for Dermatology, Thirteenth, Munich, 14
International Council of Nurses, 46
International Federation of Medical Societies, 21
International Dental Federation, 23, 33
International Federation for Gynecology and Obstetrics, 22
International Federation of Physical Medicine, 46
International Institute of Educational Planning, 42
International Labour Organisation (ILO), 25, 31, 32, 40, 45, 48, 160
INDEX

International Medical Guide for Ships, 25
International Office of Epizootics, 19
International Paediatric Association, 34
International Pharmacopoeia, 30
International Planned Parenthood Federation, 27
International quarantine, 6-7
International Sanitary Regulations, 6-7, 16, 78, 108
International Society of Biometeorology, 46
International Society of Blood Transfusion, 32
International Society of Radiographers, 47
International Standard Classification of Occupations, 40, 45
International Symposium on Immunopathology, Fifth, 28
International Union of Pure and Applied Chemistry, 47
International Union of Pharmacology, 29
International Union of Architects, 47
International Union against Tuberculosis, 14
International Union against the Venereal Diseases and the Treponematoses, 14, 33
International Union against Tuberculosis, 14
International Union for Health Education, 33
International Union of Architects, 47
International Union of Pharmacology, 29
International Union of Pure and Applied Chemistry, 47
Iran, 3, 10, 12, 16, 24, 33, 41, 75, 139-140, 149
Iraq, 11, 16, 51, 75, 76, 140, 148, 149
Ireland, 48, 130
Irrigation, health implications, 45
Sudan, 146; Uganda, 94; United Arab Republic, 148
see also Land reclamation; Water resources development
Israel, 4, 9, 27, 33, 41, 75, 140-141
Italy, 4, 41, 48, 130, 136
Ivory Coast, 4, 6, 35, 51, 55, 57, 88, 94
Jamaica, 9, 24, 32, 33, 61, 62, 63, 64, 104, 111
Japan, 9, 13, 17, 22, 78, 153
Japanese encephalitis, 78
Joint committees, 176-177
Joint FAO/WHO Codex Alimentarius Commission, 20, 45
Joint FAO/WHO Expert Committee on Food Additives, 29, 176-177
Joint FAO/WHO Food Standards Programme, 18, 20, 45
Joint FAO/WHO/OAU (STRC) Regional Food and Nutrition Commission for Africa, 56, 95
Joint IAEA/WHO Expert Committee on Medical Radiation Physics, 24, 177
Jordan, 16, 75, 76, 141, 148, 149
Josiah Macy Jr Foundation, 64
Kellogg Foundation, 61, 110
Kenya, 4, 6, 7, 11, 31, 43, 48, 55, 56, 57, 88
Korea, Republic of, 31, 78, 153-154
Kuwait, 7, 16, 51, 75, 141, 149
Laboratory services, 32, 55, 69, 79, 111, 134, 160
Algeria, 129; Brazil, 98; Burma, 117; Caribbean area, 111; Ceylon, 118; China (Taiwan), 153; Costa Rica, 101; French Antilles and Guiana, 103; Gabon, 86; Guatemala, 103; Haiti, 103; India, 121; Indonesia, 122; Iraq, 140; Laos, 154; Lebanon, 142; Mexico, 104; Mongolia, 123; Morocco, 131; Nepal, 68, 124; Nicaragua, 105; Nigeria, 91; Pakistan, 143; Philippines, 156; Republic of Viet-Nam, 158; Saudi Arabia, 144; Sierra Leone, 92; Somalia, 145; Syria, 146; Thailand, 68; Togo, 93; Venezuela, 108; Western Samoa, 159
seminar, Petropolis, 32, 63
seminar on organization and management, London, 32, 160, 165
Laboratory technicians and assistants, training, 32, 149
Congo (Brazzaville), 86; Gabon, 86; India, 68; Laos, 154; Malaysia, 155, 156
Lake Nasser development scheme, United Arab Republic, 148
Land reclamation, health aspects, 45
Kenya, 88; Sudan, 146
see also Irrigation; Water resources development
Laos, 10, 16, 31, 78, 80, 154, 159, 161
Latin American Association of Dental Schools, 115
Latin American Centre for Medical Administration, Argentina, 63, 97
Latin American Centre for the Classification of Diseases, 115
League of Red Cross Societies, 8, 33, 47
Lebanon 16, 32, 33, 75, 76, 141-142
Leishmaniasis, 11
travelling seminar, USSR, 11, 165
Leprosy, 15-16, 60, 67, 109
Argentina, 60, 96; Burma, 15, 40, 117; Cambodia, 78, 152; Ceylon, 117; China (Taiwan), 152; Colombia, 40, 162; Ecuador, 60; India, 15, 118; Indonesia, 122; Nepal, 124; Nigeria, 56, 91; Pakistan, 143; Republic of Korea, 78, 153; Republic of Viet-Nam, 78, 159; Thailand, 124; Turkey, 132; Venezuela, 60; Zambia, 94
BCG trial team, Burma, 15, 163
course, Bangkok and Phra Pradang, 15, 127
epidemiological team, 15, 162
travelling seminar, Argentina, Ecuador and Venezuela, 15, 109
Leptospirosis, 19, 60, 63
Brazil and Chile, 60
Lesotho, 49, 88
Leukaemia, symposium on comparative research, Paris, 22
Liberia, 6, 7, 51, 55, 57, 89
Libraries, medical, 149
Library, WHO, statistics for 1967, 197
Library of Medicine, PAHO Regional, Sao Paulo, 65, 99
Libya, 31, 32, 33, 76, 142-143
Madagascar, 7, 57, 89
Malacology, course, Copenhagen, 11, 168
Malaria, 3-5, 28, 44, 55, 57, 59, 66, 67, 69, 75, 109, 162, 166
Afghanistan, 116; Algeria, 71, 129, 134; Argentina, 96; Bolivia, 97; Brazil, 59, 97, 98; British Honduras, 99; British Solomon Islands Protectorate, 151; Brunei, 78, 151; Burma, 67, 117; Cambodia, 78, 151; Cameroun, 55, 85; Ceylon, 118; Colombia, 59, 100; Costa Rica, 59, 101; Cuba, 59, 101; Cyprus, 75, 75; Dahomey, 86; Democratic Republic of the Congo, 86; Dominican Republic, 59, 102; Ecuador, 59, 102; El Salvador, 59, 102; Ethiopia, 75, 138, 139; French Antilles and Guiana, 103; Ghana, 87; Guatemala, 59, 103; Guinea, 87; Guyana, 103; Haiti, 59, 103; Honduras, 59, 103; India, 67, 120; Indonesia, 67, 122; Iran, 75, 139; Iraq, 140; Israel, 75, 140; Ivory Coast, 94; Jordan, 141; Lebanon, 75; Liberia, 89; Libya, 142; Malaysia, 78, 155, 156; Maldives Islands, 67, 123; Mauritania, 90; Mauritius, 55, 90; Mexico, 59, 104; Morocco, 71, 131, 134; Nepal, 123; Nicaragua, 59, 105; Nigeria, 55, 91, 94; Pakistan, 75, 143; Panama, 59, 105; Paraguay, 59, 105; Peru, 59, 105; Philippines, 78, 157; Qatar, 75; Republic of Korea, 143; Republic of Viet-Nam, 158; Réunion, 91; Saudi Arabia, 144; Senegal, 92; Sierra Leone, 92, 94; Somalia, 144; Sudan, 145; Surinam, 59, 106; Syria, 75, 146; Thailand, 124; Togo, 55, 93; Trucial States, 75; Tunisia, 75, 147; Turkey, 3, 44, 71, 132, 134; Uganda, 94; United Arab Republic, 147; United Republic of Tanzania, 55, 93; Yemen, 75
antimalarial drugs, 3, 4, 57, 59, 109, 163
Medical education (continued)
symposium on drug resistance in human malaria, Washing-
ton, 59
blood films, cross-checking, 125-126
certification and registration of eradication, 3, 4, 5, 75
control of vectors in international traffic, 7
co-ordination meetings, 75, 137
status of eradication in countries, 184
teams, advisory, Africa, 95
assessment and evaluation, 125, 133, 149, 161
epidemiology, 109, 162
training centres, national and international, 3, 55, 75, 94, 98,
108, 138, 143, 145, 159
Malawi, 89
Malaysia, 3, 4, 6, 11, 27, 32, 51, 78, 155-156, 159
Maldive Islands, 67, 123
Mali, 7, 33, 57, 89-90
Malnutrition, influence on toxicity of pesticide residues, 30
see also Nutrition
Malta, 24, 35, 72, 130
Manual of the International Classification of Diseases, Injuries, and
Causes of Death, 39
Maternal and child health, 33-34, 44, 56, 64, 68, 112
Afghanistan, 68, 116; Algeria, 129; British Solomon Islands
Protectorate, 151; Burundi, 85; Ceylon, 117; Chad, 85;
Chile, 64; Gabon, 86; Ghana, 87; Greece, 129; Haiti, 103;
India, 122; Ivory Coast, 88; Kenya, 88; Laos, 154; Libya,
142; Madagascar, 89; Mauritania, 90; Mongolia, 68,
123; Nepal, 68, 123; Nigeria, 90; Philippines, 157;
Republic of Viet-Nam, 158; Rwanda, 92; South
Pacific area, 80, 159; Uganda, 93
courses, 34, 133, 166
see also Children; Paediatrics
Mauritania, 90
Mauritius, 55, 90
Measles, 9, 44
vaccine production, United Arab Republic, 148
Meat hygiene, course for meat inspectors, Nairobi, 168
training centre, Roskilde, 168
Medical assistants, training and utilization, Algeria, 73, 128
travelling seminar, USSR, 42, 167
Medical care, 31-32, 45, 113, 114
Argentina, 97; Brazil, 99; Chile, 100; Costa Rica, 101; Domin-
ican Republic, 102; Greece, 129; Honduras, 104; Mexico,
104; Saudi Arabia, 144; Senegal, 92; Somalia, 145; Sudan,
145; Uruguay, 107; Venezuela, 108; Yemen, 148
course on hospital and medical administration, Moscow, 135
Latin American Centre for Medical Administration, Argentina,
63, 97
symposium on medical care administration, Medellin, 63
travelling seminar, USSR, 32, 167
see also Hospital administration
Medical certificate of cause of death, international form, 69
Medical degrees, equivalence, 42
Medical education, 41-42, 57, 65, 73, 114, 126, 127, 133, 149
Afghanistan, 41, 69, 116; Argentina, 97; Brazil, 99; Burma, 41,
117; Cameroon, 85; Ceylon, 69, 118; Chile, 100; Colombia,
101; Czechoslovakia, 129; Democratic Republic of
the Congo, 41; Ethiopia, 41, 76, 138; Hungary, 130;
India, 41, 69, 119, 121, 122; Indonesia, 41, 122; Iran, 41,
140; Iraq, 140; Israel, 140; Jamaica, 104; Kenya, 57,
88; Laos, 154; Malaysia, 155; Mexico, 105; Morocco, 41,
130; Nicaragua, 105; Pakistan, 143; Panama, 105, Peru,
106; Poland, 131; Rwanda, 92; Syria, 76, 146; Thailand,
69; Tunisia, 41, 76, 147; United Republic of Tanzania,
42, 93; Uruguay, 107; Venezuela, 108
Medical education (continued)
conference on medical education and health manpower,
Maracay, 65
group meeting, Baghdad, 149
meeting on undergraduate teaching of basic medical sciences,
Copenhagen, 42, 73, 134
proposed WHO medical school, 80
Revolving Fund for Teaching and Laboratory Equipment,
50, 51
symposium on the teaching of epidemiology in medicine and
public health, Brussels, 42, 73, 134
Medical equipment, maintenance and repair, Ceylon and India,
126; Tunisia, 147
Medical libraries, 149
Medical records, 115, 149
Malaysia, 155; Pakistan, 143; Trinidad and Tobago, 106
course, Rangoon, 68, 125
see also Statistics
Medical research, grants for training and exchange, 41, 188
collaborative projects, 187
co-ordination, 38, 59, 64-65, 111
symposium on use of non-human primates, Lyons, 18
Medical Research Council (United Kingdom), 8, 15
Medical textbooks, 42, 65
Meckong River Basin development, 10, 79, 80, 159, 161
Member States, 49, 171
emergency assistance to, 51
Meningitis, see Cerebrospinal meningitis
Mental health, 23-24, 73, 113
Argentina, 61, 96; Burma, 24, 117; Ceylon, 24, 117; Chile, 100;
China (Taiwan), 24, 152; Colombia, 61; Costa Rica, 61;
El Salvador, 61; Greece, 129; Honduras, 61; Iran, 24,
139; Jamaica, 24, 104; Malta, 24; Mexico, 61; Panama, 61;
Philippines, 24, 156; Poland, 131; Spain, 132; Thailand,
24, 124; Venezuela, 24, 108
Information Centre on Latin America, 113
study of social factors in mental health, Europe, 134
travelling seminar on mental health services, USSR, 24, 167
see also Psychiatry
Mexico, 3, 27, 48, 59, 60, 61, 64, 104-105, 110
Microbiology, Albania, 24; Brazil, 99; India, 120
conference on global impacts of applied microbiology, Addis
Ababa, 6, 166
Midwifery, 32, 33, 95, 111, 112, 135, 162
Afghanistan, 116; Argentina, 63, 96; Barbados, 97; Brazil, 63,
98; British Solomon Islands Protectorate, 151; Bulgaria,
129; Cambodia, 79, 151; Cameroon, 85; Gambia, 86-
87; Gilbert and Ellice Islands, 153; Hungary, 130; India,
119, 120, 122; Indonesia, 122; Laos, 154; Libya, 142;
Morocco, 130; Nepal, 123; Senegal, 92; Singapore,
157-158; Togo, 93; United Republic of Tanzania, 93;
Uruguay, 63
Milbank Memorial Fund, 62, 65
Milk hygiene, 20
Molluscidicides, 10
Mongolia, 6, 17, 48, 67, 68, 70, 123
Monserratt, 108
Morocco, 17, 32, 35, 41, 48, 71, 72, 73, 130-131, 134
National committees on vital and health statistics, 39
National health planning, 31, 56, 62, 66, 68, 76, 77, 79, 80, 95,
112
Afghanistan, 31; Algeria, 31; Argentina, 96; Botswana, 31,
85; Brazil, 98; Colombia, 101; Costa Rica, 101; Jamaica,
104; Kenya, 31, 88; Laos, 31; Libya, 31, 76, 143; Mali,
89; Nicaragua, 105; Panama, 105; Republic of Korea,
INDEX

National health planning (continued)
31; Republic of Viet-Nam, 31; 159; Rwanda, 92; Sierra Leone, 31

course, Santiago, Chile, 62
course on national health planning and administration, Port of Spain, 62
Nepal, 7, 16, 17, 33, 48, 67, 68, 123-124, 125, 127
Netherlands, 23, 48, 131, 136
Netherlands Antilles, 105, 108
New Hebrides, 156
New Zealand, 156, 159
Nicaragua, 59, 61, 64, 105
Niger, 14, 56, 57, 90
Nigeria, 4, 9, 10, 13, 14, 36, 37, 40, 43, 55, 56, 57, 90-91, 94
Niue, 156
Noise, effect on health, 46, 73, 136
Nomenclature regulations, 39
Non-governmental organizations in official relations with WHO, 179
Non-proprietary names for pharmaceutical preparations, 30
Norway, 22, 131, 136
Nursing, 24, 32-33, 56, 64, 68, 69, 79, 111, 112, 114, 127, 135, 162
Afghanistan, 116; Algeria, 72, 128; Argentina, 63, 96, 97;
Barbados, 97; Brazil, 33, 63, 98, 99; British Solomon Islands Protectorate, 151; Bulgaria, 129; Cambodia, 79, 151, 152; Cameroon, 85; Caribbean area, 63, 114; Central African Republic, 85; Ceylon, 118; Chad, 85, 97; Chile, 100; China (Taiwan), 153; Colombia, 63, 131, 136;
Dominican Republic, 63, 102; Ecuador, 63, 102; El Salvador, 63; Gabon, 56; Gambia, 86-87; Ghana, 87; Gilbert and Ellice Islands, 153; Greece, 129; Guyana, 103; Honduras, 63, 104; Hungary, 130; India, 33, 68, 118, 119, 120, 122; Indonesia, 122, 123; Iran, 33, 139; Iraq, 140; Israel, 33, 140; Italy, 130; Jamaica, 33, 63, 104, Jordan, 141; Kenya, 56, 88; Kuwait, 141; Laos, 154; Libya, 76, 142;
Malaysia, 155; Mali, 33, 89; Mauritania, 90; Mexico, 105; Mongolia, 123; Morocco, 72, 130, 131; Nepal, 123;
Niger, 90; Nigeria, 56; Peru, 63, 106; Philippines, 79;
Senegal, 92; Seychelles, 92; Sierra Leone, 56, 92; Singapore, 79, 157; Somalia, 144; South Pacific area, 160; Switzerland, 33, 72, 132; Syria, 146; Thailand, 124; Togo, 93; Trinidad and Tobago, 106; Tunisia, 147; United Arab Republic, 148; United Republic of Tanzania, 93; Uruguay, 107; Venezuela, 108; West Indies, 108; Zambia, 94
centres for post-basic education, Dakar and Ibadan, 94, 95
course on in-service education, Bangkok, 33, 68, 126
course in psychiatric nursing, Beirut, 149
courses in administration and supervision, Barbados, 111
international schools, Edinburgh and Lyons, 135
workshops, Americas, 63
Nutrition, 24, 44, 45, 56, 61, 66, 67, 79, 80, 95, 112, 113
Algeria, 128; Argentina, 96; Brazil, 98; Cambodia, 152; Caribbean area, 112; Colombia, 101; Congo (Brazzaville), 56; Cuba, 102; Dominican Republic, 102; Ecuador, 102; Ethiopia, 138; Haiti, 103; India, 120, 126; Iran, 139; Ivory Coast, 88; Jordan, 141; Kenya, 88; Libya, 142;
Madagascar, 89; Mali, 90; Mexico, 104; Pakistan, 143; Peru, 106; Senegal, 92; Sudan, 145; Uganda, 93; United Republic of Tanzania, 56, 93; Venezuela, 108
Joint FAO/WHO/OAU (STRC) Regional Food and Nutrition Commission for Africa, 56, 95

Obstetrics, Ceylon, 126; Uganda, 95
see also Midwifery

Occupational health, 25
Chile, 62, 100; Greece, 129; Republic of Viet-Nam, 159;
Venezuela, 108
seminar, Manila, 25, 79, 160
see also Ergonomics; Industrial hygiene

Occupational therapy, China (Taiwan), 152; Japan, 153; Philippines, 157; Venezuela, 108

Occupations, International Standard Classification of, 40, 45
Office of the United Nations High Commissioner for Refugees, 45

Onchocerciasis, 11, 57
Guinea, 11, 87; Sudan, 145; Volta River Basin, 55
teams, 11, 55, 94

Organisation de Coordination et de Coopération pour la Lutte contre les Grandes Endémies, 95

Organization of African Unity, 46, 56, 95
Organization of American States, 66
Organization of medical care, see Medical care
Organizational meetings in 1967, 173
Organizational structure of WHO Secretariat, 50-51
Orthopaedic appliances, Argentina, 97; Brazil, 99

Paediatrics, 34
Brazil, 64, 99; India, 119, 120, 126; Indonesia, 122; Nigeria, 95;
Philippines, 157; Sudan, 145; Thailand, 124; Uganda, 95
course, Warsaw, 34, 166
courses, Americas, 64, 112
seminar, Western Pacific, 79, 160
Pakistan, 3, 6, 7, 16, 75, 76, 143, 148, 149
Pan American Foot-and-Mouth Disease Centre, 66, 110
Pan American Health Organization (PAHO), 59, 60, 63, 64-65, 165
Advisory Committee on Medical Research, 59, 64-65, 111
Executive Committee, number of members, 66
Pan American Zoonoses Centre, 60, 63, 96, 109, 110
Panama, 59, 60, 61, 105, 114
Papua and New Guinea, 156, 159
Paragonimiasis, Ecuador, 60
Paraguay, 59, 105
Parasitic diseases, 10-11, 19, 109
course on survey techniques, Kampala, 10, 55, 164
meeting on immunological aspects, 65
Pathology teaching material, India, 69, 122
Permanent Central Narcotics Board, 29
Pertussis, 17
Peru, 7, 22, 27, 59, 60, 61, 62, 63, 64, 105-106, 114
Pesticides, legislation, 25
residues, 29-30, 45
safe use, 13
specifications, 12
see also Insecticides; Molluscicides

Pharmaceuticals, 30
see also Drugs
Pharmacology and toxicology, 29-30
Pharmaceuticals, 30
see also Drugs
Pharmacology and toxicology, 29-30

Pharmacy and medical stores management, Lebanon, 142
Philippines, 3, 6, 7, 16, 17, 24, 37, 78, 79, 156-157, 159
Physical therapy, China (Taiwan), 152; Indonesia, 123; Iran, 139; Japan, 153; Jordan, 141; Lebanon, 142; Philippines, 159; Thailand, 125; Venezuela, 108
Pinta, 13
Plague, 7, 16, 17, 60, 67, 78, 110
Brazil, 60, 98; Burma, 117; Ecuador, 102; Peru, 106
travelling seminar, USSR, 17, 167
Pneumococcosis, symposium, Katowice, 72, 134
Poison control centres, 29
Poisoning, insecticide, 13, 77

see also under names of individual publications
Research, in epidemiology and communications science, 38
see also Medical research
Respiratory diseases in textile workers, 45
Respiratory viruses, 8
Spain, 131
Resuscitation and casualty services, Albania, 128
seminar, Leningrad, 133
Réunion, 91–92
Revolving Fund for Teaching and Laboratory Equipment for Medical Education and Training, 50, 51
Rheumatoid arthritis, 136
Rhinoviruses, 8
Rodent control, 78, 150
Romania, 4, 131
Rubella, 9
Rural health, 111
Afghanistan, 116; British Solomon Islands Protectorate, 151; Cambodia, 151; Congo (Brazzaville), 86; Ethiopia, 138; Ghana, 87; Greece, 129; Iraq, 140; Kenya, 88; Laos, 154; Lebanon, 141; Madagascar, 89; Malaysia, 155; Mauritania, 90; Nigeria, 90, 91; Sierra Leone, 92; Spain, 132; Sudan, 145; Surinam, 106; Swaziland, 93; Syria, 146; Thailand, 124; Uganda, 94; Western Samoa, 159
see also Public health services
Rwanda, 11, 92
Ryukyu Islands, 157
Sanitation, 36, 37, 45, 57, 76, 110
Sanitary inspectors, training, Philippines, 156
see also Health inspectors
Sanitary engineering, 36, 66, 77, 110, 114
Afghanistan, 116; Argentina, 97; Bolivia, 97; Brazil, 98, 99; Chile, 100; Colombia, 101; Costa Rica, 101; Honduras, 104; Hungary, 130; India, 121; Iran, 139–140; Ivory Coast, 88; Kenya, 57, 88; Liberia, 89; Madagascar, 89; Malaysia, 155; Mexico, 104, 105; Morocco, 131; Nicaragua, 105; Nigeria, 91; Panama, 105; Peru, 106; Saudi Arabia, 144; United Arab Republic, 147; Uruguay, 107; Venezuela, 108
courses, Europe, 73, 137
Sanitary inspectors, training, Philippines, 156
see also Health inspectors
Sanitation, 36, 37, 45, 57, 76, 110
Afghanistan, 116; Algeria, 128; British Honduras, 100; Caribbean area, 110; Central African Republic, 85; Chad, 85; Costa Rica, 101; Dahomey, 86; Gabon, 86; Guinea, 87, 87; Guyana, 103; India, 120, 121; Ivory Coast, 88; Jordan, 141; Kenya, 88; Liberia, 89; Madagascar, 89; Mali, 89; Mauritius, 90; Morocco, 131; Niger, 90; Nigeria, 91; Pakistan, 143; Philippines, 156; Republic of Korea, 154; Republic of Viet-Nam, 159; Senegal, 92; Seychelles, 92; Sierra Leone, 92; South Pacific area, 160; Togo, 93; Tonga, 158; Turkey, 132; Zambia, 94
ports and airports, 7, 78
see also Environmental health
Sardinia, 48
Saudi Arabia, 16, 75, 144, 149
Schistosomiasis, 10–11, 110
Argentina, 59; Brazil, 10, 59, 98; Congo (Brazzaville), 10; Gabon, 10; Ghana, 55, 87; Iran, 139; Japan, 78; Laos, 10, 78, 159; Libya, 142; Nigeria, 10, 55; Philippines, 78; Syria, 146; Tunisia, 147; Uganda, 10; United Arab Republic, 147; United Republic of Tanzania, 10, 55, 93
advisory team, Africa, 94
bilharziasis research team, 10, 149, 162
course in malacology, Copenhagen, 11, 168
Schizophrenia, 24
Argentina, 61, 96
School health services, Jordan, 141
Scientific Group on Basic and Clinical Aspects of Intra-Uterine Devices, 27
Scientific Group on Chemotherapy of Malaria, 4
Scientific Group on Comparative Studies of American and African Trypanosomiasis, 11
Scientific Group on Genetics of the Immune Response, 27
Scientific Group on Health Factors involved in Working under Conditions of Physical Stress, 25
Scientific Group on Hormonal Steroids in Contraception, 27
Scientific Group on Inborn Errors of Metabolism, 27
Scientific Group on Neurophysiological and Behavioural Research in Psychiatry, 24
Scientific Group on Paediatric Research, 34
Scientific Group on Procedures for Investigating Intentional and Unintentional Food Additives, 29
Scientific Group on Respiratory Viruses, 8
Scientific Group on Smallpox Eradication, 7
Scientific Group on Standardization of Procedures for Chromosome Studies in Abortion, 27
Scientific Group on the Biology of Fertility Control by Periodic Abstinence, 27
Scientific Group on the Immunology of Malaria, 28
Scientific Group on the Standardization of Procedures for the Study of G-6-PD, 27
Scientific Group on the Treatment and Disposal of Wastes, 37
Scientific groups, meetings in 1967, 178
Scientific information, communication, 46
Scientific personnel, emigration, 64
Senegal, 8, 9, 14, 27, 57, 92
Sera production, Indonesia, 122; United Arab Republic, 147
Serum reference banks, 6, 193
Sewage and sewage disposal, 37, 46, 64, 66, 79, 80
Argentina, 96; British Honduras, 100; Burundi, 37, 57; Ceylon, 35, 43, 68, 118; Chad, 37, 57, 85; Chile, 100; China (Taiwan), 152; Costa Rica, 101; Dominican Republic, 102; El Salvador, 102; Ghana, 35, 57, 57, 87; Guatemala, 103; Ivory Coast, 35, 57; Jordan, 141; Liberia, 57; Madagascar, 57; Mali, 57, 90; Mongolia, 123; Nigeria, 37, 43, 57; Peru, 106; Philippines, 37, 79, 156, 157; Senegal, 92; Turkey, 72, 132; Uganda, 35, 43, 57; Upper Volta, 57; Yugoslavia, 35
see also Wastes disposal
Seychelles, 92
Ship sanitation, guide, 36
Sierra Leone, 4, 31, 33, 51, 55, 56, 92, 94
Silicosis, seminar, La Paz, 62, 113
Singapore, 6, 37, 78, 79, 157–158, 159
Smallpox, 6, 7–8, 9, 55, 57, 59, 66, 69, 75, 78, 95, 109, 149
Afghanistan, 67, 116, 127; Argentina, 59, 96; Bolivia, 59, 97; Brazil, 59, 98; Burma, 117; Burundi, 55, 85; Chile, 59, 100; Colombia, 59, 100; Cuba, 101; Dahomey, 86; Democratic Republic of the Congo, 55, 86; Ecuador, 59; Guinea, 87; India, 67, 122; Indonesia, 67; Kenya, 55, 88; Kuwait, 141; Laos, 154; Lesotho, 89; Mali, 90; Mauritania, 90; Nepal, 67, 124, 127; Pakistan, 143; Paraguay, 59, 105; Peru, 59, 105; Somalia, 145; Sudan, 145; United Republic of Tanzania, 55, 93; Upper Volta, 94; Uruguay, 59, 107; Yemen, 148; Zambia, 55, 94
courses in diagnostic methodology, Brazil, 8, 59, 63
eradication and epidemiological advisory team, South-East Asia, 67, 125
international certificate of vaccination, 7
seminar, Bangkok, 8
New Delhi, 126
Snake antivenins, meeting on requirements for production, 26
Social security, 32, 45
Socio-economic development, health aspects, 31, 44, 45, 57
conference, Montpellier, 72, 136
Somalia, 32, 75, 144-145
South Africa, 49
South-East Asia Region, 67-70, 116-127
South Pacific area, 159, 160
South Pacific Commission, 80
Southern Rhodesia, 92
Spain, 131-132
Specifications for drugs, 30
Staff of WHO, 50-51
composition by nationality, 183
numbers and distribution, 181-182
Staphylococcal infections, 18
Statistics, 39-40, 44, 65, 68-69, 77, 95, 111, 115
Afghanistan, 125; Algeria, 128; Argentina, 96, 97; Brazil, 98, 99; Burma, 117; Cambodia, 152; Ceylon, 118, 125; Costa Rica, 101; Ethiopia, 138; Greece, 129; India, 69, 120, 125; Malaysia, 155; Mongolia, 123; Morocco, 130; Nepal, 124, 125; Niger, 56, 90; Pakistan, 143; Poland, 131; Republic of Viet-Nam, 158; Senegal, 92; Singapore, 158; Sudan, 145; Thailand, 125; Turkey, 132
centre, Yaoundé, 95
course for medical records officers, Rangoon, 68, 125
courses for coding instructors, London and Paris, 136
courses on application of statistical methods to public health, Bratislava and Brussels, 136
courses on epidemiology and statistics, London, 136
epidemiological and statistical centre, Eastern Mediterranean, 149,
seminar, New Delhi, 36, 69, 126
see also Medical records
St Kitts, 108
St Lucia, 108
Streptococcal infections, 18
Sudan, 3, 37, 75, 76, 145-146, 148, 149
Supply services, 51, 77
Surgical operations, analysis of classifications, 39
Surinam, 27, 59, 106
Swaziland, 93
Sweden, 9, 22, 32, 40, 48, 132
Switzerland, 33, 41, 72, 132
Syphilis, 13-14
see also Venereal diseases
Syria, 16, 35, 75, 76, 146-147, 149
Tanzania, United Republic of, 4, 7, 10, 13, 41, 55, 56, 93
Technical discussions, at Health Assemblies, 6, 37
regional, 34, 56, 66, 68, 69, 74, 77, 79, 81
Technical Report Series, 26
Tetanus, 17
see also Vaccine production
Thailand, 6, 7, 12, 13, 16, 17, 24, 25, 27, 67, 68, 69, 124-125, 127, 161
Thalassaemia, 26, 27
Thalidomide, use in leprosy, 15
Togo, 40, 55, 57, 93
Tonga, 17, 78, 158
Tortola, 108
Tourist establishments, guide to sanitation, 37
town planning, Afghanistan, 116; Libya, 143
see also Urbanization
Toxoplasmosis, 19
Trachoma, 9-10, 133, 163
Afghanistan, 116; Burma, 117; China (Taiwan), 10, 40, 152;
India, 119; Syria, 146; Thailand, 124; Tunisia, 147;
United Republic of Tanzania, 55; Yugoslavia, 132
Treponematoses, 13-14
Nigeria, 14, 40, 56; Togo, 40
advisory team, Africa, 14, 56, 94
epidemiological team, 14, 162
see also Yaws
Trinidad and Tobago, 8, 9, 61, 64, 106, 109, 111
Tropical medicine, Burma, 117; Pakistan, 143; Thailand, 124
Trucial Oman, 7
Trucial States, 75
Trust Territory of the Pacific Islands, 158
Trypanosomiasis, 11
Botswana, 11, 55, 85; Kenya, 11, 43, 55, 88; Rwanda, 11
study team, 164
Tuberculosis, 14-15, 40, 56, 60, 67, 69, 78, 109, 149
Afghanistan, 67, 116; Argentina, 60, 96; Burma, 67, 117;
Cambodia, 151; Ceylon, 67, 118; Ecuador, 102; Ethiopia, 138;
Ghana, 56, 87; Hong Kong, 153; India, 67, 118, 119, 121; Indonesia, 122; Iraq, 149; Kenya, 56, 88;
Lesotho, 88; Libya, 142; Maldive Islands, 67; Mauritius, 90; Mongolia, 67, 123; Nepal, 67, 124; New Hebrides, 156; Niger, 90; Nigeria, 90; Pakistan 143; Philippines, 157; Poland, 131; Republic of Korea, 154; Repub-
lic of Viet-Nam, 158; Rwanda, 92; Saudi Arabia, 144; Senegal, 92; Somalia, 144; Swaziland, 93; Syria, 146;
Thailand, 67, 124; Uganda, 56, 94
advisory team, Western Pacific, 159
course, Medéllín, 60
Panama, 60, 64
Tokyo, 160
courses, Prague and Rome, 14, 162
study of services, Europe, 134
working group, Guatemala, 60
Tunisia, 41, 75, 76, 147, 149
Turkey, 3, 44, 48, 71, 72, 73, 75, 132, 134, 135, 136
Twentieth anniversary of WHO, 58, 66, 69, 73, 77, 80
Typhoid fever, 17, 27, 78, 126
Western Samoa, 78
Typhus, 6, 7
Burundi, 85
Uganda, 10, 35, 43, 56, 57, 93-94
UNESCO, see United Nations Educational, Scientific and Cultural Organization
UNICEF see United Nations Children's Fund
UNICEF/WHO Joint Committee on Health Policy, 24, 33, 34, 44
Union of Soviet Socialist Republics, 9, 13, 35, 40, 132
United Arab Republic, 8, 11, 13, 27, 51, 75, 147-148, 149
United Kingdom of Great Britain and Northern Ireland, 4, 7, 9, 14, 22, 32, 48, 132
United Nations, 31, 44, 48, 73, 80
Lower Mekong Basin Development Programme, 10, 79, 80, 159, 161
see also Economic and Social Council
United Nations Advisory Committee on the Application of Science and Technology to Development, 24, 44
United Nations Children's Fund (UNICEF), jointly assisted activities, 15, 44
cerebrospinal meningitis, 17
leprosy, 15
malaria, 3
maternal and child health, 34, 56, 64, 73
United Nations Children’s Fund (continued)
nutrition, 24, 56, 79, 80
smallpox, 8
treponematoses, 13
water supplies, 35, 68
United Nations Commission for Social Development, 31, 45
United Nation Commission on Narcotic Drugs, 29
United Nations Consultative Committee for Public Information, 48
United Nations Development Decade, 43, 45
United Nations Development Programme (UNDP), 43 -44, 50, 57, 62
Special Fund component, 11, 35, 37, 72, 79, 86, 88, 91, 94, 148
Technical Assistance component, 33, 73
United Nations Educational, Scientific and Cultural Organization (UNESCO), 6, 31, 33, 42, 46, 56, 57, 76, 80, 148, 166
United Nations High Commissioner for Refugees, Office of the, 45
United Nations Industrial Development Organization, 25
United Nations Institute for Training and Research, 44
United Nations Population Commission, 27
United Republic of Tanzania, 4, 7, 10, 13, 41, 55, 56, 93
United States Agency for International Development (AID), 31
United States of America, 3, 4, 7, 13, 17, 29, 32, 65, 107, 110
Upper Volta, 13, 18, 55, 57, 94
Urbanization, 37, 44, 111
Venezuela, 107
seminar on health planning in urban development, Singapore, 160
see also Town planning
Uruguay, 8, 59, 61, 63, 64, 107
Vaccination and vaccines, Uganda, 93
brucellosis, 18
cerebrospinal meningitis, 18
cholera, 16, 78
Lebanon, 142
diphtheria/pertussis/tetanus, 17
Mongolia, 17
dysentery, 17
measles, 9, 44
poliomyelitis, 9, 66
Uganda, 93
rabies, 110
Mexico/United States border, 60, 110; Trinidad and Tobago, 109
smallpox, 7, 9, 78
Argentina, 96; Bolivia, 97; Brazil, 98; Kenya, 88; Uruguay, 107
typhoid, 17, 27
Western Samoa, 78
see also BCG vaccination and vaccines
Vaccine production, 69, 111
Albania, 128; Indonesia, 122; Lebanon, 142
bacterial, 68
brucellosis, 18
cholera, 16
Iraq, 140
diphtheria, Jordan, 141
diphtheria/pertussis/tetanus, 17
India, 120
Vaccine production (continued)
measles, United Arab Republic, 148
poliomyelitis, United Arab Republic, 148
rabies, 60, 110
Brazil, 98; Mexico, 104; Uruguay, 107
smallpox, 8, 63, 75, 109, 125
Argentina, 96; Brazil, 98; Chile, 100; China (Taiwan), 152;
Cuba, 101; Guinea, 87; India, 120; Kenya, 88
tetanus, Jordan, 141
typhoid, 126
virus, 68
Brazil, 98; Philippines, 156; United Arab Republic, 148;
Venezuela, 108
yellow fever, Brazil, 98; Colombia, 101
Vector biology and control, 7, 11-13, 78, 163
Malaysia, 155; Republic of Korea, 154; Republic of Viet-Nam, 159
see also Aedes
Venerale diseases, 13-14, 109
Ceylon, 117; Chile, 60, 100; Hong Kong, 159; Malaysia, 159;
Panama, 60; Philippines, 159; Republic of Viet-Nam, 158;
Singapore, 159; Thailand, 125
Venezuela, 15, 24, 60, 61, 62, 64, 107-108, 114
Veterinary medicine education, 114
Bolivia, 97; Brazil, 60, 99; Chile, 60, 100; Colombia, 60;
Guatemala, 60, 103; Peru, 106; Uruguay, 107; Venezuela, 60
seminar, Lima, 60, 114
Veterinary public health, 18-20, 46, 110
Viet-Nam, Republic of, 6, 12, 16, 17, 31, 78, 80, 158-159, 161
Virology training, 149
Virus diseases, 8-10
Spain, 131
see also Vaccine production
Voluntary Fund for Health Promotion, 50, 51
Wastes disposal, 37, 76
Burundi, 37, 57; Chad, 37, 57; China (Taiwan), 37; Dahomey, 86;
Israel, 140; Jordan, 141; Malaysia, 155; Malta, 72, 130;
Nigeria, 37, 43, 57; Republic of Korea, 154; Republic of Viet-Nam, 159;
Singapore, 37; Sudan, 37; Yugoslavia, 132
see also Radioactive wastes; Sewerage and sewage disposal
Water fluoridation, 44, 110, 113
course, Cincinnati, 61
Water pollution, 36, 45, 46, 66
Brazil, 98; China (Taiwan), 153; India, 36; Israel, 140; Nigeria,
36, 57, 91; Poland, 72, 131; Republic of Viet-Nam, 159;
Thailand, 125
courses, Europe, 134
seminar on water pollution control, New Delhi, 36, 165
Water resources development, health aspects, 35, 44, 110
Congo (Brazzaville), 86; Dahomey, 86; Mekong River basin,
10, 79, 80, 159, 161; Nigeria, 91; Sudan, 146; United Arab Republic, 148
see also Irrigation
Water supplies, 35, 46, 64, 66, 68, 76, 77, 79, 80, 110, 125, 164
Afghanistan, 116; Algeria, 128; Argentina, 96; Barbados, 97;
Bolivia, 97; Brazil, 98; British Honduras, 100; Ceylon,
35, 43, 68, 118; Chile, 100; China (Taiwan), 152; Colombi,
101; Costa Rica, 101; Dahomey, 57, 86; Dominican Republic,
102; Ecuador, 102; El Salvador, 102; Ethiopia, 138;
Ghana, 35, 57, 87; Greece, 129; Guatemala, 103;
Guinea, 87; Haiti, 103; Honduras, 103; India, 35, 68,
120, 122; Ivory Coast, 35, 57; Jamaica, 104; Jordan, 141;
Liberia, 57; Madagascar, 57; Malaysia, 153; Mali, 57, 90;
Water supplies (continued)
Malta, 35, 72, 130; Mexico, 104; Mongolia, 123; Morocco, 35, 130; Nepal, 124; Nigeria, 91; Pakistan, 143; Peru, 106; Republic of Korea, 154; Republic of Viet-Nam, 159; Senegal, 35, 57, 92; Somalia, 144; South Pacific area, 160; Sudan, 145; Syria, 35, 147; Togo, 57, 93; Tonga, 158; Turkey, 72, 132; Uganda, 35, 43, 57; Upper Volta, 57; Uruguay, 107; Venezuela, 107; West Indies, 108; Yugoslavia, 35, 132

seminar on integration of community water supplies into planning for economic development, Geneva, 165
symposium on administration of services, San Salvador, 110

Waterworks personnel, training, Sudan, 146
Weekly Epidemiological Record, 5, 7
West Indies, 108
Western Pacific Region, 78-81, 151-161
Western Samoa, 11, 51, 78, 159
WHO Chronicle, 30, 36
Working Capital Fund, 50
World Directory of Dental Schools, 23, 42
World Directory of Veterinary Schools, 42
World Federation of Public Health Associations, Interim Commission, 47
World Food Programme, 3, 8, 44
World Health, 48
World Health Day, 48
World Health Statistics Annual, 39

World Influenza Centre, 8
World Literacy Programme, 46
World Meteorological Organization, 46

X-ray technicians, training, 149
Afghanistan, 116; Burma, 68; Ethiopia, 76, 138; Indonesia, 123; Iraq, 76
X-ray units, Kenya, 88
Xenopsylla cheopis, 11, 12

Yaws, 13-14
Brazil, 14, 60, 98; Haiti, 14, 60; India, 122; Niger, 14; Sierra Leone, 92
see also Treponematoses
Yellow fever, 6, 7, 55, 89
see also Vaccine production
Yemen, 32, 75, 148
Yugoslavia, 9, 14, 16, 17, 32, 35, 48, 71, 73, 132-133, 135, 136

Zambia, 55, 94
Zoonoses, 18-20, 69, 109, 110
Argentina, 96
seminar, Havana, 60