During the year the Government of Indonesia made further progress with the development of health services, in spite of difficulties, particularly the continuing shortage of medical and other trained personnel. A study was undertaken to determine the best form of re-grouping the various divisions of the Ministry of Health, and a scheme of reorganization was prepared. Further advances were made in building up the public health framework of the country within which decentralization of many of the functions of the Ministry could be achieved.

There has been notable progress in the field of malaria. A technical plan for malaria eradication was formulated and has been approved by the Government. A National Malaria Eradication Board has been established by a presidential decree, and limited field operations have begun.

Like malaria, tuberculosis has long been a serious health problem in Indonesia; there is a growing realization that this disease should also be dealt with on a mass scale. To this end a five-year plan has been prepared by the Director of the Tuberculosis Division and submitted to the Ministry of Health. As a first step, two pilot surveys have been planned; the necessary staff is being recruited and trained. Following a pilot study in two areas in East Java, it has been decided to extend the consolidation scheme of the mass BCG campaign in the country.

The problem of smallpox control received special attention at a national symposium, and a scheme for eradication of the disease is under consideration by the Ministry of Health.

In order to improve the nutritional status of the people of the thickly populated island of Java, the Nutrition Division of the Ministry of Health will shortly undertake a pilot study in the district of Kravang.

Other significant advances in the field of public health were the setting up of a nursing advisory unit in the Ministry of Health, the starting of an epidemiological service, studies on the staffing of hospitals, training of auxiliary medical staff, planning for the next phase of trachoma control in high prevalence areas, and improving the system of collection and reporting of health statistics.
Aim of the project. Second phase: To plan and carry out a long-term programme of leprosy control.

Assistance provided by WHO during the year. A leprologist.

Probable duration of assistance. Until 1963.

Work done during the year. UNICEF and WHO have continued assistance to the project. Leprosy control work is being carried out in four pilot areas: Blora, Bekasi, Kampung Melaju and Menganti. Up to the end of 1958, 742 patients and 125 suspects were detected out of a total number of 270,901 persons examined. The case-finding programme by "djarupateks" (yaws control workers) carried out in 32 villages showed good results, and continuation of this more economical method of case-finding is considered to be advisable. In Djakarta and Surabaya clinical and field training of medical students on leprosy control was continued.

It has been agreed in principle, and under certain conditions, that UNICEF will supply drugs and equipment for the treatment of all leprosy patients attending treatment centres throughout the country.

Experience gained so far has shown that the prevalence rate of leprosy is comparatively low and that to continue case-finding by screening the entire population is not justified because of excessive cost; new methods are therefore under consideration.

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

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

Probable duration of assistance. Until the end of 1959.

Work done during the year. Progress in the project area was limited owing to uncertainty over the possibility of shifting the project to the Bekasi area. This shift, which had been under consideration for over a year, did not take place.
After the transfer of the drilling rig to Bekasi, exploratory well-drilling operations were carried out. Preliminary findings indicated that the water-bearing formation suitable for development as a source of water supply was comparatively deep.

The training of "kontrolir kesehatan" (sanitary inspectors) and "pendidikan tenagas" (rural sanitarians) was continued with the help of the Department of Sanitary Engineering and WHO personnel. The one-year course for port sanitarians was completed. Successful candidates were assigned to ports for in-service training.

There was more enthusiasm for the latrine construction programme, and work on promotion of the use of latrines was continued in Pasar Minggu. Two water-seal type latrines were installed and four latrine pits dug preparatory to placement of slab and bowl. Sanitary pump connections were provided to all the wells drilled or constructed.

Data were collected on the status of water supplies in Indonesia. Tabulation of the results of the sanitation survey in Pasar Minggu was completed.

A plan for environmental sanitation work at provincial level was drawn up.

Literature regarding fly control, excreta disposal and water supplies was prepared for use in mass education and rural community development programmes.

Indonesia 25 Vital and Health Statistics (Aug. 1959 - )

Aim of the project. To expand the statistical organization in the Ministry of Health and train key members of the statistical staff; to develop a long-range statistical programme with a sound system of reporting for notifiable diseases, hospital services, and general vital and health statistics; to develop an up-to-date service of vital and health statistics for planning and evaluation of health programmes.

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

Probable duration of assistance. Until the end of 1960.

Work done during the year. Work was continued on the improvement of vital registration and the extension of the system to new areas. Vital statistics returns for the Indonesian population appeared for the first time in the 1957 Demographic Year Book; they covered certain regencies in Java only, the number varying from 56 in 1952 to 93 in 1956. Tabulation of the 1956 cause-of-death certificates was in progress. The medical certificate which has now been in use for three years was revised, and a start was made in compiling data for the 1957 public health statistics report. Processing of a random sample of morbidity data from polyclinics was in progress.
Training activities during the year included a course covering 88 hours for sanitary inspectors in the Akademi Kontrolir Kesehatan; two weekly lectures on elementary public health statistics in the School for Sanitarians; two short courses in public health statistics for nurses and nurse-aides in the Central Hospital, Djakarta; a three months' course for statistical assistants; a short statistical course for port sanitarians; and a vital statistics seminar, held in Magelang from 11 to 17 May 1958 with 43 statistical clerks from Central Java participating.

The statistician accompanied two tuberculosis specialists on a visit to observe the tuberculosis survey being conducted by an Australian team in Singapore, and subsequently assisted the Tuberculosis Control Section in preparing plans for practicable epidemiological surveys in different areas.

Statistical advice and assistance were given to the Institute of Nutrition, the Malaria Institute, the WHO-assisted environmental sanitation and trachoma projects, and to other institutes.

Indonesia 27  Strengthening of Health Services (Health Education) (Feb. 1957 ...)

Aim of the project. To develop and expand the health education programme and training in health education for all categories of health workers; to develop and increase the use of health education materials, including audio-visual aids.

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

Probable duration of assistance. Until 1963.

Work done during the year. The two WHO fellows who returned to the country in September 1958 after a year of study abroad are now serving as counterparts to the WHO health educator. Throughout the year, in-service training of the staff of the Sub-Division of Health Education was continued. Regular teaching sessions were also continued at the Akademi Kontrolir Kesehatan.

In addition, meetings were arranged at the Nutrition Institute, the Malaria Institute, the Port Sanitarians' School, the Ministry of Agriculture's School for Home Economic Extension Workers, and the mass education project's School for Women. Field training activities were planned for the students of the Akademi Kontrolir Kesehatan.

A number of trainees who attended the national training course in health education held in Djakarta in 1958 were visited by a team of two health educators from the Health Education Sub-Division, who assisted them in their educational work. Planning has been started for the national training course to be given in 1959 for teachers of health education in the schools run by the Ministry of Health.

A meeting was held with the physicians of the Djakarta municipal health services, which resulted in the setting up a committee to organize further educational activities.
A study of health education in schools is now under way by a committee of leaders representing the Ministry of Health and the Ministry of Education.

The WHO health educator completed her two-year assignment in June 1959. A successor is being recruited.

Indonesia 29

Strengthening of Health Services (Epidemiology)

(Dec. 1958 - )

Aim of the project. To establish an epidemiological unit in the Ministry of Health for the purpose of defining the prevailing disease pattern and of planning appropriate control measures; to advise all branches of the medical sciences on the use of the epidemiological method.

Assistance provided by WHO during the year. An epidemiologist.

Probable duration of assistance. Until the end of 1963.

Work done during the year. The epidemiologist assumed duty in December 1958. Since then his main activities were directed towards developing contacts with workers in the administrative, preventive, diagnostic and curative fields, and in explaining the objectives and functions of the epidemiological unit and the administrative structure within which it could best develop.

Under the existing administrative arrangements, the unit is a part of the combined Department of Quarantine and Epidemiology of the Ministry of Health. In order to widen the unit's sphere of influence, the Ministry of Health is proposing to set it up as an independent unit at Ministry level, in close administrative contact with the Communicable Disease Services and the Statistical Division.

The existing communicable disease reporting system, and the introduction of standard criteria of diagnosis for reportable diseases are being studied. Also, special studies on three aspects of smallpox control have been started: (i) the preparation of a plan for smallpox control on a national basis; (ii) existing methods of producing dried vaccine and future requirements of freeze-dried (Lister type) vaccine for use in outlying areas; and (iii) a research project in conjunction with the Djakarta Municipality, Eijkman Institute and Pasteur Institute, for the epidemiological, virological and diagnostic review of all cases of smallpox occurring in Djakarta.

An outbreak of poliomyelitis that took place in an outer island was investigated.
Indonesia

Trachoma Control

TA

UNICEF

(Nov. - Dec. 1954; Nov. 1955 - June 1956;
April 1957 - Sept. 1958)

Aim of the project. To study in a rural population the incidence and pattern of trachoma and the underlying factors favouring transmission of infection; to ascertain the minimum effective course of antibiotic treatment of the Indonesian type of trachoma and the rate of relapse or reinfection during the follow-up period; to set up a mass control programme based on the experience gained in the pilot project.

Assistance provided by WHO during the year. (a) A trachomatologist; (b) Tabulation cards.

Work done. The second phase of the project was completed in September 1956, when the trachomatologist left Indonesia.

Field operations included: (1) two types of surveys in Semarang area - a general systematic survey and repeated monthly surveys - planned to provide information on the incidence and pattern of trachoma in a rural population and the underlying factors favouring transmission of infection, and (2) school treatment organized in six different regions of the country for the study of the minimum effective course of antibiotic treatment and the rate of relapse or reinfection during the follow-up period.

The following observations were made by the trachomatologist in his assessment of the problem:

(1) Epidemiologically, the high proportion of mild trachoma and the importance of conjunctivitis, with its seasonal cycle, are emphasized. The reservoir of infection of both trachoma and conjunctivitis is among pre-school and school-children, whilst the household is the "epidemiological cell" for both these conditions.

(2) The value of achromycin oily suspension for both trachoma and conjunctivitis has been confirmed, whereas the interrupted treatment scheme of ten to twelve applications per day at certain intervals is the most practical and economical one for the country. Administration of the treatment by teachers has not proved satisfactory.

(3) At this stage of development, because of the limited health personnel and budget of the country, future control activity should be concentrated on and limited to schools, in spite of the epidemiological importance of the household. Moreover, the interrupted treatment schedule of conjunctivitis would be effective in the indirect control of trachoma. Screening should be done by mantri, supervision by helpers, and treatment by school-children.

The objectives of the project were achieved in respect of epidemiological information and methods of treatment to be applied in Indonesia, and the Government is now preparing a plan of action for a conjunctivitis treatment campaign in selected areas, especially where school services are best organized.
Indonesia 32 Malaria Eradication
TA (May 1955 - )
MESA
(ICA)

Aim of the project. To improve and intensify the national malaria programme; to extend the facilities of the Malaria Institute, Djakarta.

Assistance provided by WHO during the year. (a) Ten malarialogists, an entomologist, nine assistant malarialogists, a sanitarian and an administrative officer; (b) A six-month international fellowship; (c) Supplies and equipment.

Probable duration of assistance. Until 1969.

Work done during the year. The malaria control activities in West, East and Mid-Java continued to make good progress. The Government has accepted the new goal of malaria eradication for the entire country, and eight zones, with approximately 1.4 million inhabitants in each, have been selected - seven in Java and one in Sumatra. The plan of operations for malaria eradication, signed by the Government separately with WHO and ICA, covers a period of eleven years, starting with eight zones in 1959. The programme is ultimately intended to protect 75 million people.

Training of personnel has been carried out, and a short-term consultant in training was assigned to Indonesia to advise the Government on its training programme.

In Kalimantan, in addition to routine malarialogic surveys, observations on the biomics of A.umbrosus in Pontianak and A.venhuisi in Bandjamasin were carried out, with particular reference to their resting and feeding habits. The results of precipitin tests of blood meals from A.venhuisi showed that this mosquito was strongly anthropophilic.

Most of the international personnel have been recruited and assigned to the project; the rest are under recruitment.

Close collaboration is being maintained with ICA.

A plan for carrying out special studies with the collaboration of international study teams has been developed in consultation with national and ICA malarialogists.

Indonesia 34 Assistance to Medan Medical School
R (Sept. 1956 - )

Aim of the project. To upgrade the Departments of Anatomy, Physiology and Pharmacology at the Medan Medical School and to develop curricula in these subjects; to improve the pre-clinical training programme; to train national counterparts.
Assistance provided by WHO during the year. (a) A professor of anatomy and a professor of physiology; (b) Supplies and equipment.

Probable duration of assistance. Indefinite.

Work done during the year. The visiting professor of anatomy continued his courses with the assistance of a demonstrator in histology. The Department is now housed in the extensive new building. The counterpart problem still exists, and lack of trained staff will be a handicap until graduates from this new medical school can be recruited.

At the beginning of 1959 the new visiting professor of physiology (replacement) started his assignment. Some reorganization of the large class was attempted with the help of student assistants, in the absence of a counterpart. The Department is now housed in the new pre-clinical building. A few textbooks have been supplied by WHO and ICA, but general shortage of textbooks still remains a problem.

Indonesia 36 Strengthening of Maternal and Child Health Services
(Oct. 1956 --)

Aim of the project. To evaluate the maternal and child health services and training facilities in the country and to plan their extension.

Assistance provided by WHO during the year. A twelve-month international fellowship.

Probable duration of assistance. Until 1963.

Indonesia 40 Vaccine and Sera Production
(April 1959)

Aim of the project. To advise the Government on methods of production of anti-sera.

Assistance provided by WHO during the year. (a) A consultant for three weeks; (b) A three-month international fellowship.

Work done. A short-term consultant was assigned in April 1959 to advise the Pasteur Institute, Bandung, on production, purification and concentration techniques in respect of anti-sera. His recommendations are under consideration. A fellowship programme recommended for special training of national personnel at the Institute is being implemented.

Indonesia 41 Nursing Adviser
(Oct. 1957 -)

Aim of the project. To strengthen, expand and co-ordinate programmes for training all categories of nursing and midwifery staff, and to establish a Division of Nursing.
Assistance provided by WHO during the year. (a) A nursing adviser; (b) A twelve-month international fellowship; (c) Supplies and equipment.

Probable duration of assistance. Until the end of 1962.

Work done during the year. The nursing adviser attended meetings of a committee which was set up to study the curriculum needs and revisions for the two-year courses at the Post-Basic School, Bandung. The committee has recommended that the students of the nurse-teachers' course, the midwife-teachers' course and the public health nursing course should follow the same basic course during the first year and specialize in their respective fields in the second year. The curriculum drawn up by the committee allows for substantial education in public health, nursing arts and general education. In the absence of a sufficient number of qualified nurses for the course in public health nursing, plans are under way to organize a two-year qualifying or upgrading course for "old-type" nurses. This course will include public health nursing subjects.

Nineteen public health nurse students and twelve midwife teachers have graduated from the Post-Graduate School of Nursing.

The nursing adviser and her counterpart were transferred temporarily to Djakarta in February 1959 to assist the Planning Board in the Ministry of Health, pending the establishment of a Nursing Unit.

A study of nursing education and nursing services in various parts of Indonesia was made and a report submitted to the Government. The nursing adviser and her counterpart also served on a committee set up to study and define public health nursing in Indonesia and to prepare job descriptions for the various categories of nursing personnel working in the public health field.

Aim of the project. To stimulate the use of educational techniques by provincial health personnel and to find more effective ways of working with the people.

Assistance provided by WHO during the year. (a) Half the cost of board, lodging and travel of twenty participants from outside Djakarta; (b) Supplies and equipment.

Probable duration of assistance. To be repeated annually until 1961.

Work done during the year. A national training course in health education was held in Djakarta from 17 November to 13 December 1958. Twenty-four health personnel from different provinces attended the course. Twelve of them were "kontrolir kesehatan" (sanitary inspectors) working at the provincial level. In this first annual course, attention was given to the development of health education by personnel working in the provinces, and emphasis was placed on the application of educational methods to the
work of health personnel. Each participant, upon his return to his home
station, was asked to draw up a plan for developing health education.
Materials such as flannelgraphs and silkscreen posters were demonstrated,
and every student was given an opportunity to assemble a kit of these
materials to be taken home. A special feature of the course was a field
visit to the Bekasi training unit.

Indonesia 45 Assistance to Faculty of Medicine, Surabaya (Pharmacology)
(Sept. 1957 - )

Aim of the project. To upgrade the Department of Pharmacology at the
University of Surabaya and to improve teaching and training facilities.

Assistance provided by WHO during the year. (a) A professor of pharmacology;
(b) Supplies and equipment.

Probable duration of assistance. Until the end of 1959.

Work done during the year. The professor of pharmacology continued his
teaching programme. His counterpart went abroad on fellowship studies in
1958 and is expected back in September 1959. The study of pharmacology
extends through two years, and there are now four teacher-assistants in the
Department. A lecture course was given to students of the Dental Faculty.

Research on serum protein patterns, an analysis of indigenous drugs
and a study of typhoid fever problems are being carried out in co-operation
with the Departments of Physiology, Pharmacy, and Internal Medicine.
Certain essential supplies have been furnished by WHO.

The Faculty of Medicine at Surabaya is entering into an affiliation
with the University of California, which was formerly associated for a
period of five years with the Faculty of Medicine at Djakarta.

Indonesia 48 Fellowships
R

Tuberculosis: A one-month fellowship for study in India.

Nursing: A twelve-month fellowship for study in Australia, Singapore and
Malaya.

Dental Health: A twelve-month fellowship for study in the United States of
America.

Indonesia 49 Fellowships
TA

Pharmacology: An eight-month Fellowship for study in the United States of
America.

7. MALDIVE ISLANDS

Maldive Islands 3 Fellowships
R

Nursing: A four-year fellowship for study in India.