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Annual Report

HEALTH and SANITATION DIVISION - Fiscal Year 1955



Philippine-American
Public Health Program
International Cooperation Administration
United States Operations Mission
to the Philippines

Reference Center
Room 1656 NS

PICTURE SUMMARY

Health Projects

The health of the people is really the foundation upon which
all their happiness and all their powers as a state depends.

..... Benjamin Disraeli
Battersea, England
June 23, 1877



President Ramon Magsaysay and Colonel Harry A. Brenn, Director of ICA Mission to the Philippines, tackle some knotty problems in connection with the Philippines American economic aid program.



The Secretary of Health, Dr. Paulino J. Garcia and Dr. Horace DeLien, Chief of ICA Health and Sanitation Division work over plans of reorganization of the Department of Health and program implementation.

Rural Health Units

91 Rural Health Units were established in FY 1955 in addition to the 81 ICA-Philcusa units. Technical Consultant on Rural Health confers with Project Director, provincial and municipal health officers during visit to rural health unit.

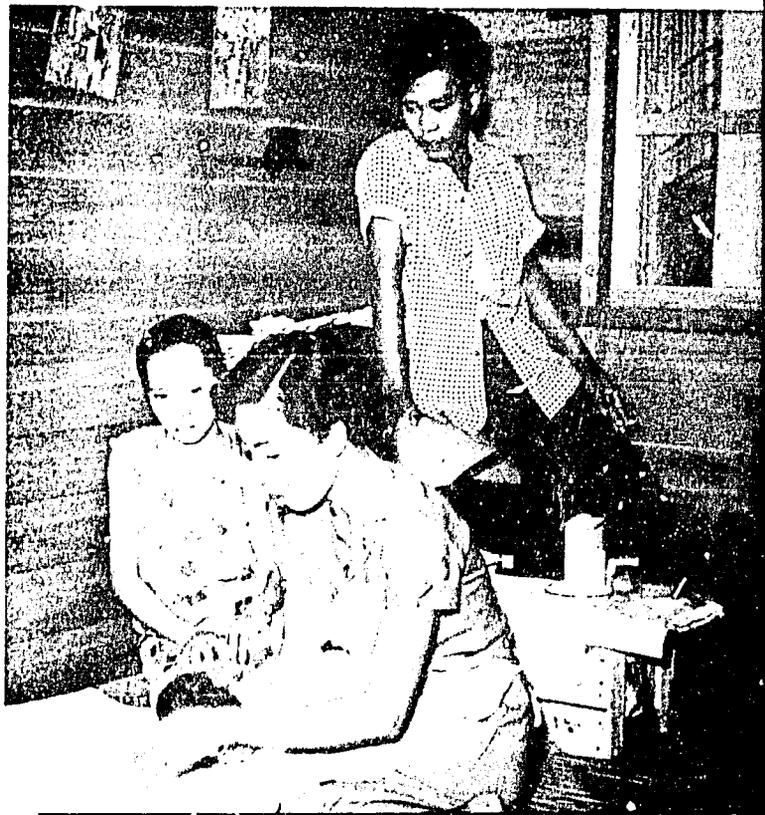


1,771,847 people were given medical care by physician and nurse in rural health units during FY 1955.

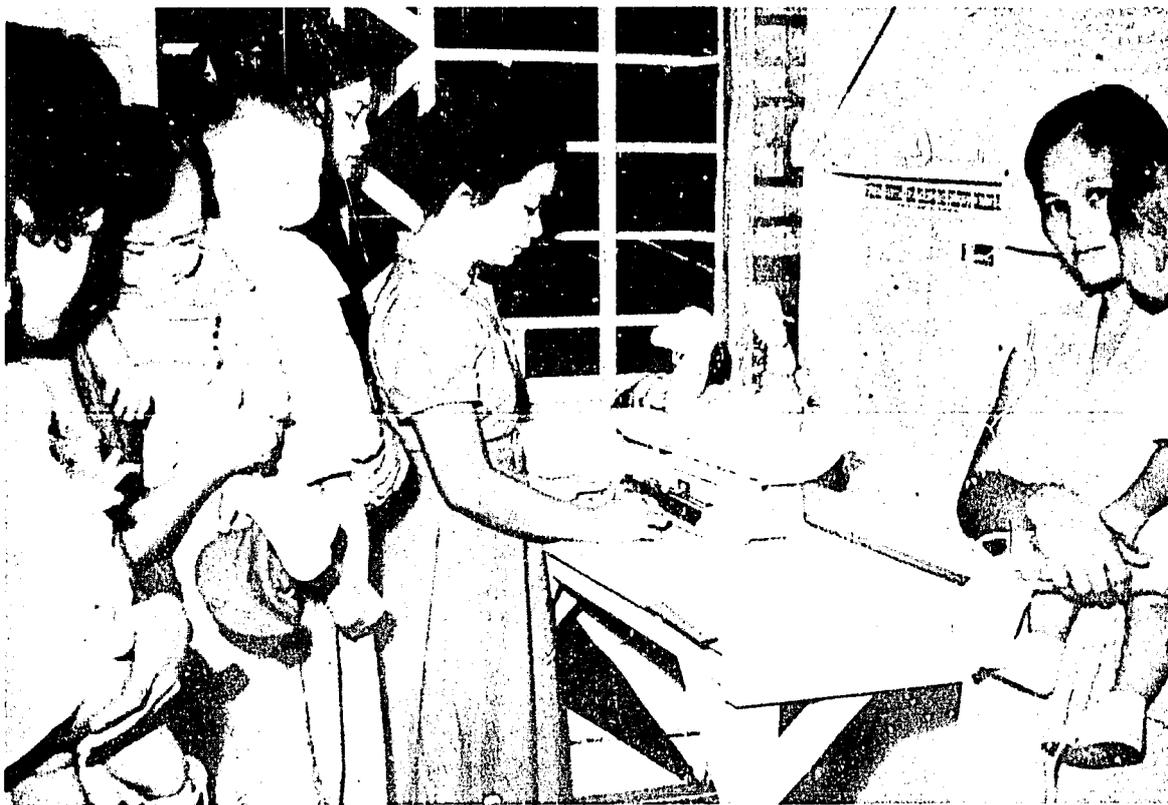


Public health nurses demonstrated home nursing and other techniques to 65,976 mothers attending well child conferences in barrio health centers.

5



Public health nurses of the Rural Health Units made 24,000 post-natal visits during FY 1955. Here a nurse demonstrates care of baby to mother and father in their home.



Babies were weighed during the 33,917 well child conferences held during FY 1955 in barrio health centers to observe and record growth and development.



Municipal health officer and provincial health officer on a routine visit in rural areas pause to discuss health problems with citizens.

6



Municipal health officer confers with the staff of the Rural Health Unit and the visiting personnel. They discuss the use of teaching aids for mothers classes.

MALARIA Control



1,616,500 Anti-malaria tablets were distributed free by the 30 malaria control teams in FY 1955 to 288,800 patients.

Thirty-one percent of children 2-10 years old had an enlarged spleen, (a factor which is used in measuring malaria prevalence) before spraying with DDT. One year after spraying, only eleven percent of the same age group had an enlarged spleen.

- Six Year Program



Spray-crews loading for a day's work. During the year there were two thousand spraymen employed by the Malaria Control Project for a 100-day period.

Spraymen applying DDT to the inside of a house. During the year 1,260,000 houses were treated with DDT residual spray giving protection from malaria to 6,300,000 people.



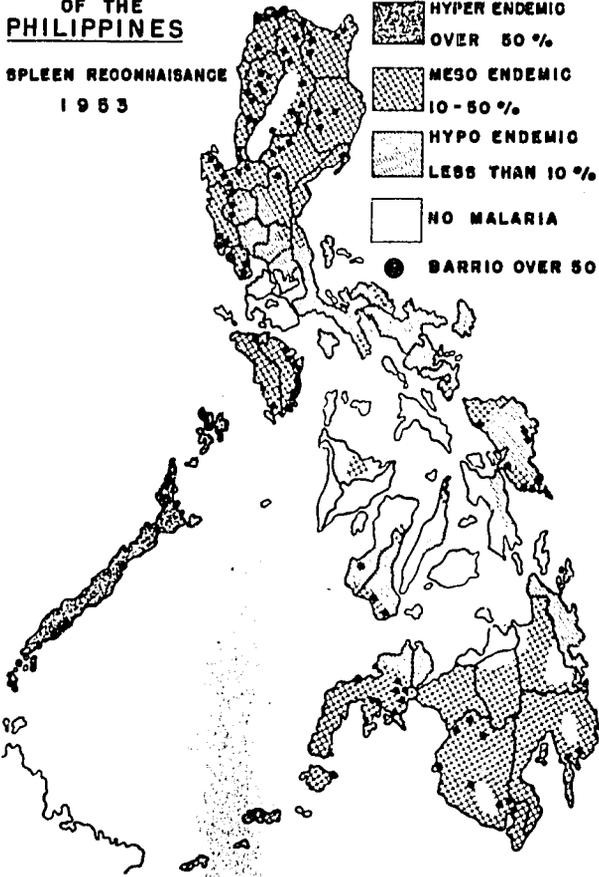
**MALARIA MAP
OF THE
PHILIPPINES**

**SPLIEN RECONNAISSANCE
1953**

Fig. 1

LEGEND

-  **HYPER ENDEMIC
OVER 50 %**
-  **MESO ENDEMIC
10-50 %**
-  **HYPO ENDEMIC
LESS THAN 10 %**
-  **NO MALARIA**
-  **BARRIO OVER 50 %**



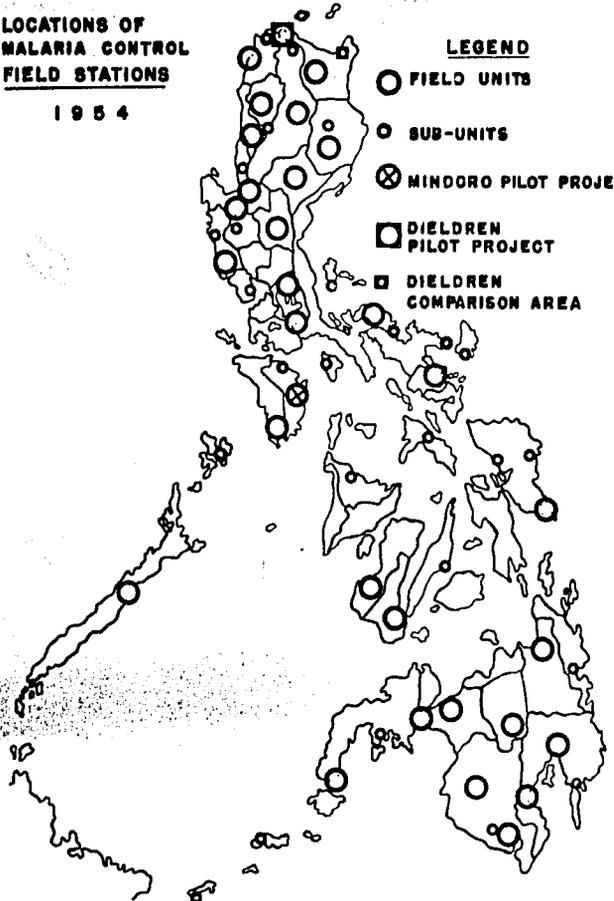
**LOCATIONS OF
MALARIA CONTROL
FIELD STATIONS**

1954

Fig. 2

LEGEND

-  **FIELD UNITS**
-  **SUB-UNITS**
-  **MINDORO PILOT PROJECT**
-  **DIELDREN
PILOT PROJECT**
-  **DIELDREN
COMPARISON AREA**



Personnel Training

92 rural medical officers were trained in FY 1955. Here they are shown construction details of a squatting type privy by a Sanitary Engineer.



213 sanitary inspectors were trained during FY 1955 and under supervision actually built privies from locally available materials.





All rural medical officers were given demonstration of water sample collection during their work in the five Regional Training Centers.

367 nurses, 290 midwives and 60 nurse-supervisors received training in maternal and child health work during FY 1955. Demonstration and supervision services and characteristic of the training.





Five laboratory instructors were trained at the 406th Medical General Laboratory (US Army) in Japan to head up the five Regional Laboratories. Ten (10) assistant-laboratory instructors and 8 helpers were trained in the Philippines. These people will, in turn, give laboratory training to public health personnel and service to the people.

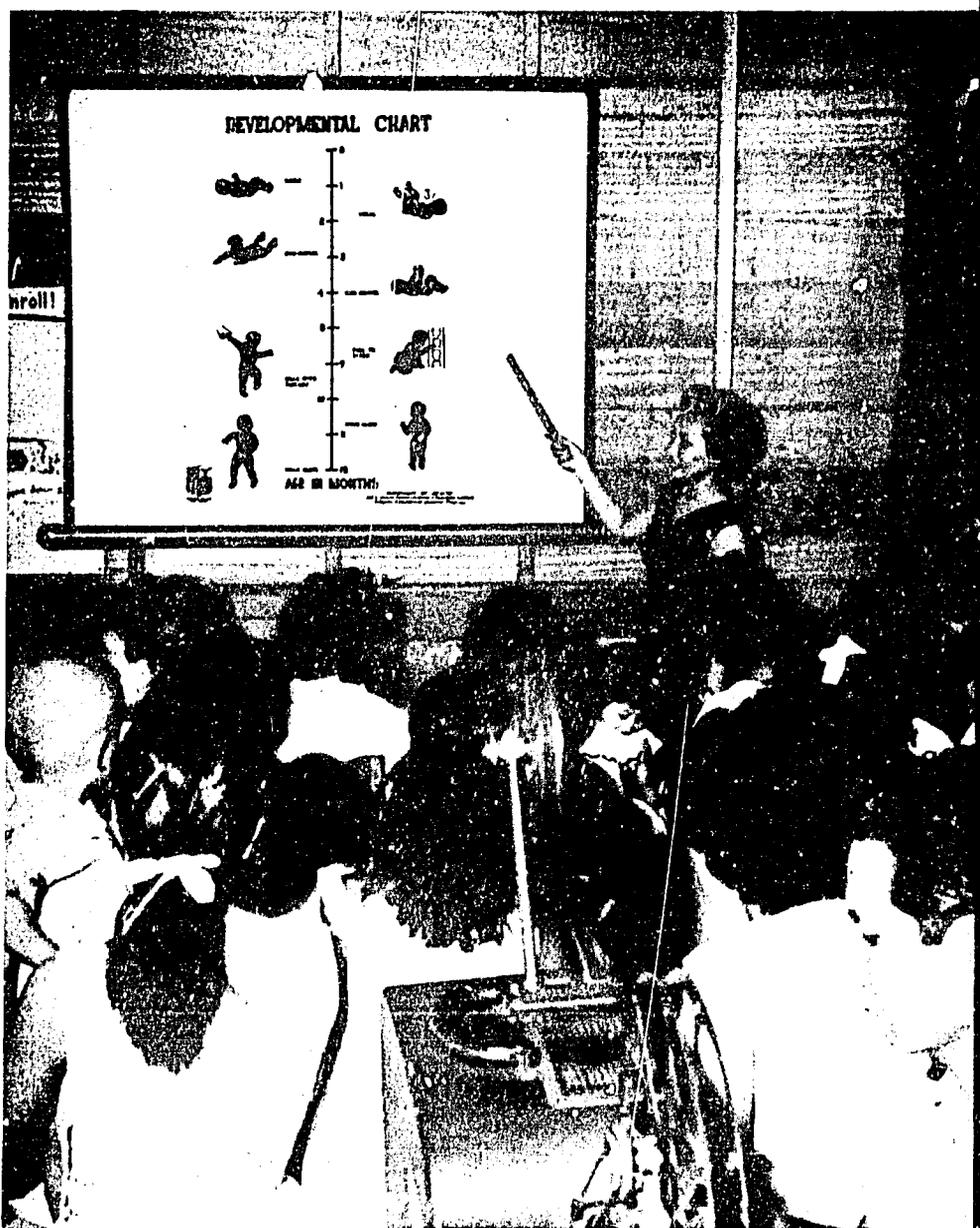
The serious approach of the laboratory personnel in the five regional training laboratories will give a big boost to better medical diagnosis and practice in the Philippines.





The more than 700 public health nurses and midwives who were trained in FY 1955 were given supervised work experience in clinics.

HEALTH EDUCATION of the Public



472,340 people saw movies and filmstrips during 1955 on health subjects and had the opportunity for discussion with health personnel.



5,000 parents during 1955 received training in classes which were organized by 27 health educators, Doctors, nurses, engineers and sanitary inspectors assisted in training during the eight hour course.



A mother gives a return demonstration after the nurse has taught her group how to bathe the baby.



1,118 medical officers, nurses, midwives and sanitary inspectors were taught the use of educational aids by the health educators in the regional training centers during the year.

550 food handlers were trained in regional training centers during the year. Visits were made to their places of work by the health educator and the sanitary engineer to arrange for the series of classes.





Planning the program for the health education of the public and in-service training of public health personnel is a job for the entire health team.

And

AMONG OTHER ACTIVITIES

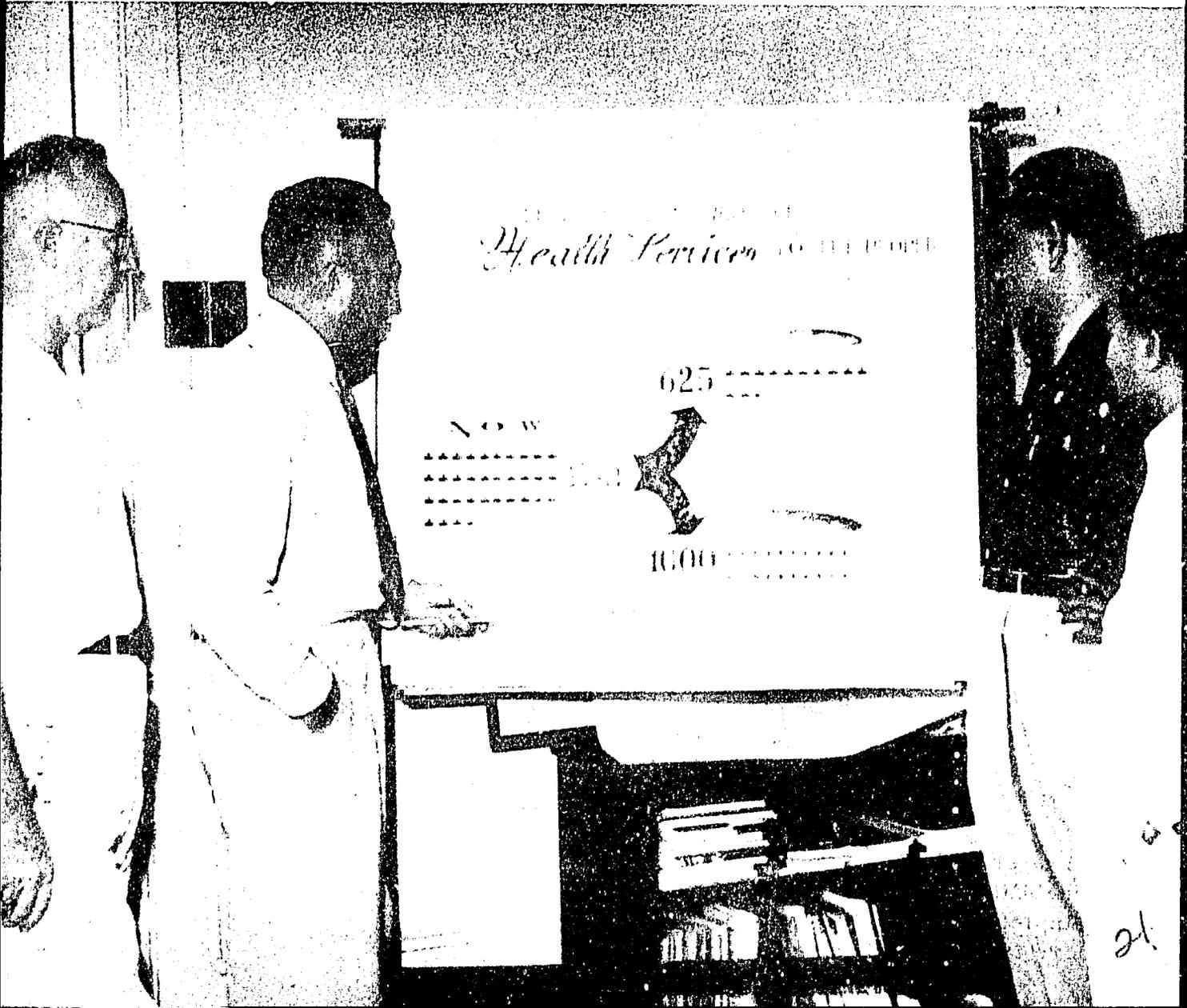


The Secretary of Health plans for a long-range public health training program and health education of the public through frequent meetings with the Dean of the Institute of Hygiene, Dr. Hilario Lara; the Chief of the ICA Health and Sanitation Division, Dr. Horace DeLien; and the Director of the Western Pacific Region of the World Health Organization, Dr. I. C. Fang.



Dean Hilario Lara of the Institute of Hygiene and Col. Harry A. Brenn, Director of ICA discuss with Dr. Horace DeLien, Chief of the Health and Sanitation Division the assignment of a part-time basis of Dr. Annie Laurie Keyes, Health Education Advisor, ICA, to the Institute of Hygiene to assist in the development of a section for the health education of the public. She is the first of five TAs who will eventually be assigned to the institute from the Health and Sanitation Division staff. Photo shows left to right: Dr. Annie Laurie Keyes, Dean Hilario Lara, Director Brenn, Dr. Horace DeLien, Chief of the Health and Sanitation Division, ICA and Mrs. Teodora V. Tiglao, Health Educator of the Rural Health Demonstration and Training Center who will work with Dr. Keyes.

65 public health personnel have been trained in the United States since 1953 and 59 others are scheduled for FY 1956. Upon their return they talk with the Chief of the Health and Sanitation Division and staff.



WELLS



1,629 deep wells serving approximately a quarter of a million people with safe water. Well surveys were made by the Department of Health during FY 1955.

11 water systems have been completely rehabilitated and 4 others are nearing completion, providing safe water for more than 600,000 persons.



HOSPITAL

Rehabilitation

Provincial Hospital Nursery portraying equipment furnished by PHILCUSA/ICA such as Bassinets, linens, and mattresses.



Polyviso being used - one of the equipment furnished the Philippine General Hospital by PHILCUSA/FOA.





Surgery being performed at the Philippine General Hospital showing surgical instruments, operating table, anaesthesia machine, surgical light, suction machine furnished by PHILCUSA/FOA.



Eye, Ear, Nose and Throat treatment and diagnostic unit furnished the Philippine General Hospital by PHILCUSA/FOA.



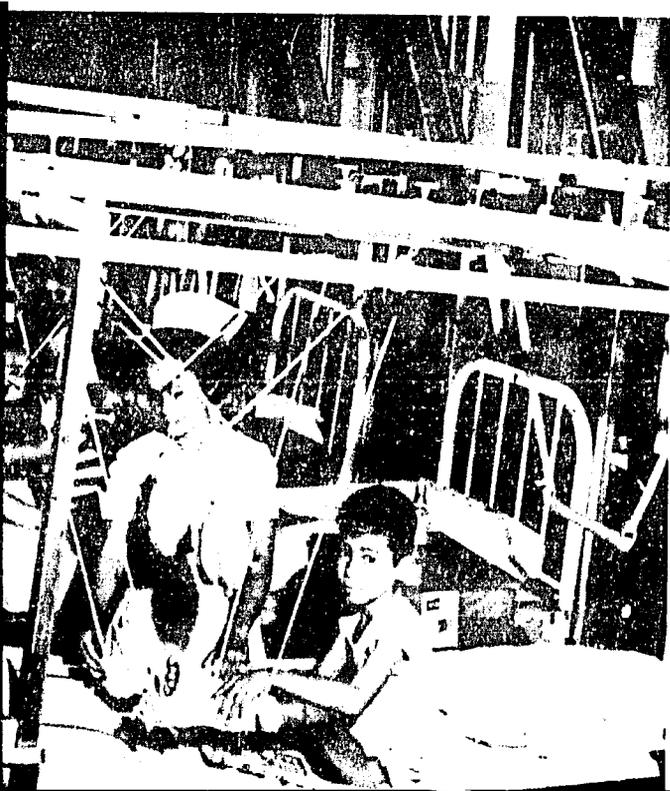
Food Service in charity ward at Government Hospital from PHILCUSA-FOA heated food carriage. Beds, mattresses, linen, pillows, balkan frames and bedside tables also furnished by PHILCUSA/FOA.



Pediatric ward in National Hospital. Cribs, mattresses, linen and dressing carriage furnished by PHILCUSA/FOA.

Pediatric orthopedic ward in national Hospital. Cribs, mattresses, linen and dressing carriage furnished by PHILCUSA/FOA.

Nursery in National hospital - bassinets, bassinet stands, infant's scales, bassinet mattresses and linen furnished by PHILCUSA/FOA.

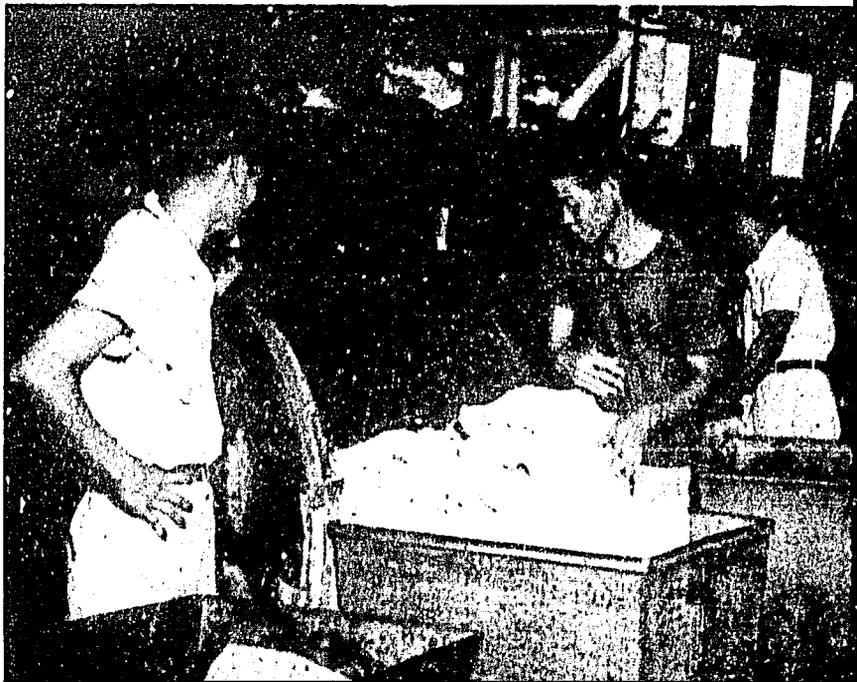




Physical therapist exercising patient in Orthopedic Ward of a National hospital, Beds, balkan frames, linen, mattresses, bedside tables furnished by PHILCUSA/FOA.

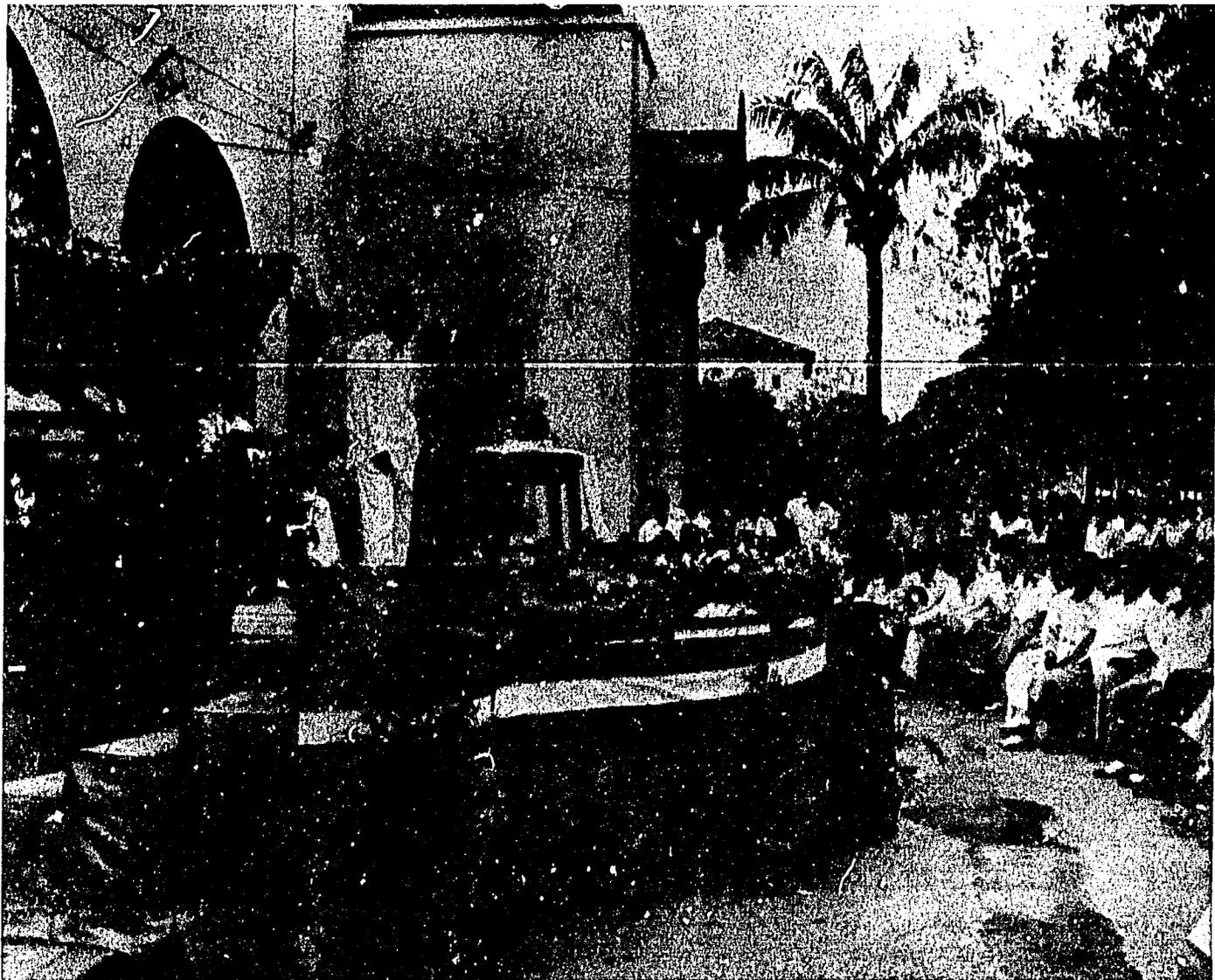


Laundry training for eight Government Hospital workers at the Clark Air Force Base for the operation of the PHILCUSA/FOA laundry equipment furnished the Quezon Institute and the Department of Health.





Brig. General William L. Lee, Commander of Clark Field Air Force Base: Mr. Harry A. Brenn, Director of ICA Mission in the Philippines and Dr. Tranquilino Elicano, Director of Bureau of Hospitals, congratulating one of the successful trainees in the operation of hospital laundry at Clark Field.



Mr. Frank Morrison, Analytical Statistician (Demography) discusses health statistics with Dr. Generoso Roman.



There have been an average of 60 radiographic examinations daily since the inauguration of the Chest Clinic at the Philippine General Hospital on March 24, 1955.

Listening intently to Dr. Miguel Canizares remarks at the Inauguration ceremony are Dr. Florencio Quintos, Director of the Philippine General Hospital; Executive Secretary Pedro S. Lopez of the Philippine Tuberculosis Society; Dr. Horace DeLien, Chief of the Health & Sanitation Division, US Operations Mission to the Philippines; Chairman Filemon Rodriguez of the National Economic Council and Coordinator of US Aid; Mr. Harry A. Brenn (guest speaker) Director of the US Operations Mission to the Philippines.

UNITED STATES OF AMERICA OPERATIONS MISSION
TO THE PHILIPPINES

FY 1955 ANNUAL REPORT

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HEALTH AND SANITATION DIVISION
STAFF AND FUNCTIONS **

Horace DeLien, M.D., Chief (Medical Director, USPHS). EOD* November 9, 1951, to present. Advisory to Director of Mission and Staff on health matters; general direction and administration of the Health & Sanitation Division; liaison with PHILCUSA counterpart on health projects and programs; advisor and consultant to the Department of Health of the Philippines; liaison with other health agencies (governmental, non-governmental, or international); liaison with non-health agencies in which coordination and integration of health activities are necessary to the total welfare of the community.

Travis McNeel, Chief Malariologist (Sanitary Director, USPHS). EOD March 4, 1954, to present. Consultant and advisor on planning, programming, and standardization of techniques and the conduct of surveys and research in malaria control; liaison, consultative and advisory, to counterparts in PHILCUSA, the Department of Health, and other agencies, local and international, both within and without the country and Southeast Asia.

Malcolm J. Ford, M.D., Rural Health Consultant (Medical Director, USPHS). EOD August 2, 1954, to present. Advises and consults with the Department of Health, international agencies within the Philippines and Southeast Asia, private associations, and other groups in the Rural Health Program.

Annie Laurie Keyes, Ph. D., Health Education Advisor. EOD November, 1952 to present. Consults and advises with the Department of Health; serves part-time as Professor of Health Education at the Institute of Hygiene, University of the Philippines; consults with other universities, public schools, international agencies within the Philippines and Southeast Asia, and non-governmental agencies on matters of health education training of health personnel and health education of the public.

Samuel M. Rogers, Sanitarian Training Officer (Sr. Sanitarian and Training Officer, USPHS). EOD February, 1954 to present. Advises and consults with the Department of Health, international agencies within the Philippines and Southeast Asia, private associations, and other groups in training of health personnel.

Joel I. Connolly, Sanitary Engineer, Water Supply and Sanitation. EOD December 18, 1952, to August 19, 1955. Consults with and advises the Department of Health, universities, international agencies within the Philippines and Southeast Asia, and non-governmental agencies in matters pertaining to public health engineering.

*EOD - Entrance on duty.

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Health and Sanitation Division Staff and Functions**

James G. Williams, Hospital Administrator. EOD October, 1954, to present. Consults with and advises the Department of Health on planning, programming, standardization of techniques related to hospital administration and management; liaison, consultative and advisory to counterparts in Philcusa, the Department of Health, and other agencies, local and international, within both the Philippines and Southeast Asia.

Frank S. Morrison, Analytical Statistician (Demography). EOD December 21, 1954, to present. Advises and consults with the Department of Health, Bureau of Census and Statistics, international agencies with the Philippines and Southeast Asia, and other agencies concerned with the organization, development and improvement of vital and health statistics.

**Staff members preparing this Annual Report

OTHER STAFF MEMBERS SINCE 1951

Genevieve R. Soller, Health Officer (Nurse). (Sr. Nurse Officer, USPHS). February 29, 1952, to May 28, 1955.

Bertha L. Moore, M.D. Medical Officer (Surgeon, USPHS). November 16, 1952, to December 9, 1954.

Elinor D. Stanford, Nurse Consultant, Acting Hospital Administrator (Nurse Officer, USPHS). September 26, 1952, to March 5, 1955.

Archie D. Hess, Ph. D., Chief Malariologist (Scientist Director, USPHS) November 17, 1952, to May 24, 1954.

Henry K. Beye, M.D., Consultant in Rural Health, School Health and Bilharziasis (Schistosomiasis) Control. (Sr. Surgeon, USPHS). March 13, 1952, to February 11, 1954.

Lindon J. Murphy, Waterworks Design Engineer (Sr. Sanitary Engineer, USPHS). October 6, 1953, to August 18, 1954.

Aubrey L. Willard, Sanitary Engineer, Malaria Control (Sr. Sanitary Engineer, USPHS). May 26, 1954, to May 28, 1954.

Ronald G. Macomber, Sanitary Engineer, Water Supply and Sanitation (Sanitary Engineer, USPHS). September 14, 1951, to September 17, 1953.

Other Staff Members Since 1951

John T. Goltman, Hospital Rehabilitation and Supply Officer.
August 27, 1951, to August 28, 1953.

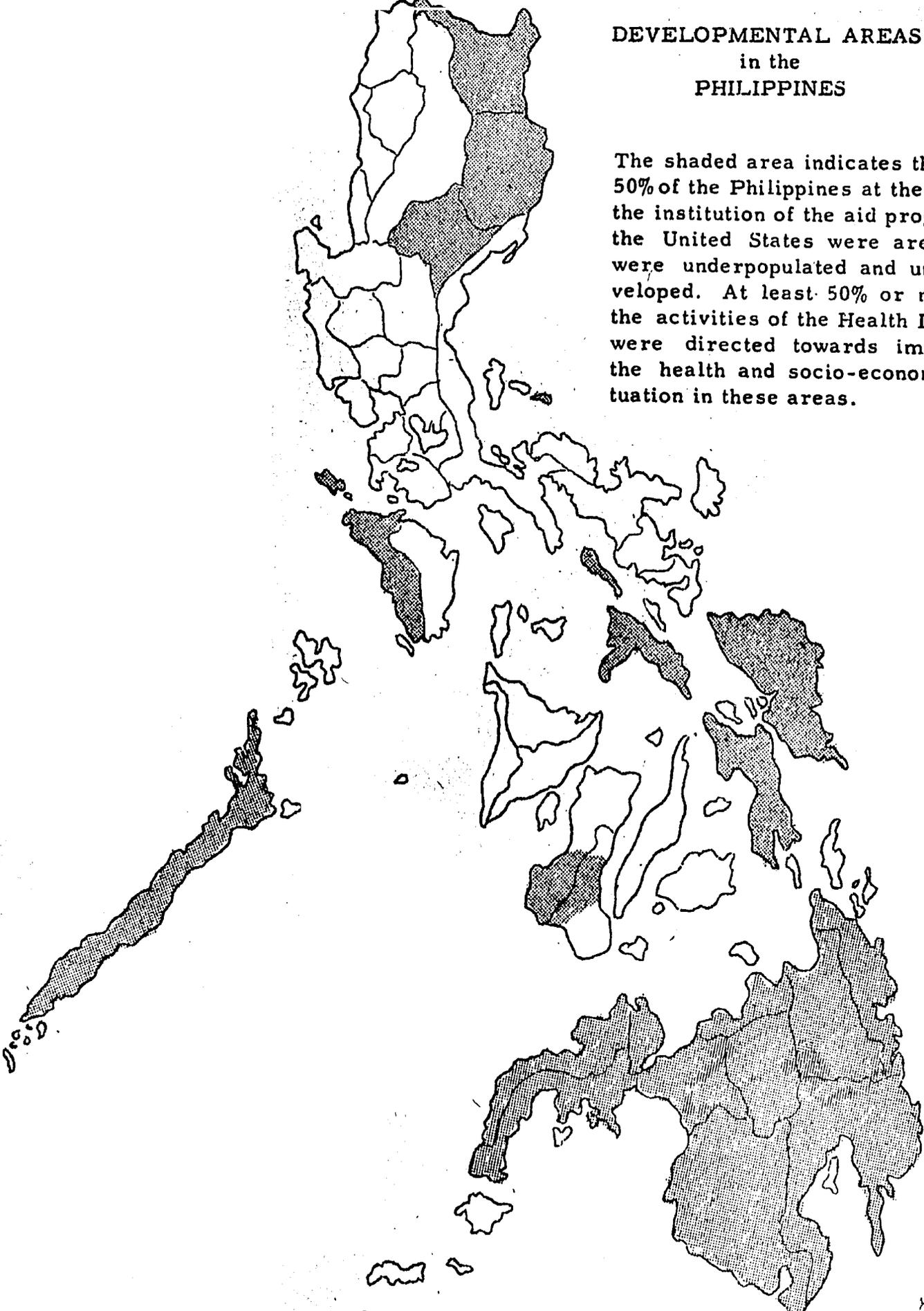
Frankie S. Hansell, Health Education Specialist, March 19, 1952,
to June 6, 1953.

David Walker, USPHS Entomologist. March, 1952, to March, 1953.

Leroy Young, M.D. Acting Director (Private Practitioner)

**DEVELOPMENTAL AREAS
in the
PHILIPPINES**

The shaded area indicates that over 50% of the Philippines at the time of the institution of the aid program of the United States were areas that were underpopulated and underdeveloped. At least 50% or more of the activities of the Health Division were directed towards improving the health and socio-economic situation in these areas.



United States of America Operations Mission
to the Philippines

Health Division

FISCAL YEAR 1955 ANNUAL REPORT

Introduction

Health Activities 1951 to September 1955

"The Health of the people is really the foundation upon which all their happiness and all their power as a state depends."

Benjamin Disraeli

"Health can be purchased." Secretary Paulino J. Garcia

"Improved health and sanitation mean a better socio-economic condition and full life for the people of the Republic of the Philippines in the community of free and democratic nations."

Colonel Harry A. Brenn

Post World War II found the Philippines with malaria causing 10,000 deaths annually and an estimated yearly attack rate of 2,000,000. Of the twenty leading reportable causes of death in 1951, nineteen were in the preventable category. The major causes were respiratory diseases, arthropod vector-borne disease, enteric diseases, deficiency diseases, and others usually associated with inadequate socio-economic conditions, insanitation, and the lack of the following basic necessities: (1) clean water in sufficient quantity; (2) proper housing; (3) job opportunities; (4) well rounded diets; and (5) adequate and proper disposal of body wastes.

The hospital and health facilities were stripped of operating equipment, personnel, funds, supplies, materials, and utilities. The municipal water systems were partially or totally destroyed or rendered ineffective due to lack of maintenance. The barrios were, for the most part, without clean water in sufficient quantities; there was lack of proper excreta and body waste disposal facilities. In fact, all the necessities for a minimum state of physical, mental, and social well-being were lacking.

In addition, poverty, lack of understanding of the causal relationship between disease and insanitation, and the existing socio-economic conditions were largely responsible for the high disease index in the Republic of the Philippines.

The basic problems in health in the Philippines suggested to the Department of Health and its American component, the Health Division of USOM/Philippines, several broad approaches to their understanding and resolution.

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First, scanning and reconnaissance surveys of the entire field of health activities in the Philippines were made; second, an overall inventory of trained health personnel was taken which involved the following corollary activities--evaluation of the quality and quantity of health personnel and relation of the findings to the needs--secondly, assessment of the training facilities available--thirdly, designing a pattern for the training, based upon the needs, the quality and the quantity of personnel available for training--fourthly, designing curricula, finding instructors, quarters, classrooms, and the requisition and obtaining of equipment for this purpose--fifthly, obtaining of operating funds, supplies, transportation, authorizations for travel, per diem, etc.

This was accomplished by individual spot-checks by teams of two--one Filipino and one American technical assistant--and by the use of multiple discipline teams, review of records and historical and other data available and personal conferences, the coordination with the international agencies through the organization of the public health coordinating committee of the Philippines, and the training of special teams to do specific spot surveys. An example to illustrate this technique was the training of hospital survey teams to determine the commodity and personnel requirements after first ascertaining the existing facilities, both governmental and non-governmental, the quality of the facilities and their potentiality for proper use, the utilities available, the population to be served, and the need and potential of acceptance of health in the community.

The following factors were considered and given proper emphasis in the assistance program:

- (a) Development and resettlement areas of the country.
- (b) Population density and health problems.
- (c) Community attitudes and disease indices.
- (d) Existing health facilities.
- (e) Community resources.
- (f) Potential resources that could be developed as a result of assistance.
- (g) Existing resources that could be reactivated.
- (h) Existing pool of trained health personnel.
- (i) Availability of health services from all sources; private, government, non-government, and international.
- (j) Demonstrated community need and willingness to indulge in self-help on a cooperative basis to reduce disease and secure good health for the individual, the family, and the community.

Technical and economic assistance was pointed toward the minimum quantity and quality that would bring results. Coordinated and cooperative use, as well as interchange of personnel and commodities between health activities was sought. Effort was made to discover evidence that the community was capable of and willing to expend its own resources and energies for self-help. This was of utmost importance in the projection of health programs if adequate provision

were to be made for operation, maintenance, repair and replacement of commodities.

President Magsaysay committed his administration to an action program aimed at improving the life of barrio people. He has frequently emphasized and focused attention on the vital role which health plays in this developmental program.

In rapid response to such dynamic leadership, the Department of Health is taking steps which will enable it to meet the expectations of the President. Comprehensive plans for improving and expanding the medical and public health services to the people are going forward. The President was authorized to reorganize the Government. There is before the National Economic Council, the President, and the Congress of the Republic of the Philippines a proposed Department of Health reorganization plan aimed at decentralization of authority and responsibility to the health activity closest to the people. The reorganization of the Department of Health on the national, provincial, and local levels is calculated to increase its efficiency, avoid duplication and stimulate increased professionalism so that the maximum amount of service can be rendered to the greatest number of people in the shortest length of time.

The thinking and position of the Government has thus been oriented to attack the basic leading causes of death. This is being done by developing and implementing long-range plans for improving the socio-economic conditions; developing a broad program of water supply for domestic, agricultural, and industrial uses; thorough and expanding health education and training activities; and educating the people how to dispose properly of body wastes and excreta. Strong attacks are being continued against malaria, nutritional diseases, diarrheas and dysenteries, and other preventable diseases. Rural health units, community health education of the public, tuberculosis control, health personnel training, and hospital rehabilitation are improving the health and providing preventive and curative services directly to the people.

The Department of Health as a major component of the Government began concentrating on development of projects to overcome these conditions. Long-range planning is in effect in health education and training. A six-year malaria control program was developed. The water problems were identified and plans promulgated for rehabilitation of water systems on a demonstration basis.

The Philippine-American (ICA-PHILCUSA) assisted program is directed at strengthening the Department of Health at all levels so as to provide health services on a continuing basis to the immediate community, barrio, province or municipality as well as to selected cities.

To do this it was necessary to develop projects in each major category in which assistance was needed. Projects for technical

assistance and commodities were considered in these areas of health activity: School health, public health education and information, serum and vaccine production, hospital rehabilitation, chest clinics, public health training in the Philippines and in the United States, malaria control, schistosomiasis control, water supply (wells and springs), water supply (piped systems), and rural health units. Each of these projects and activities will be discussed in detail later in the report.

These projects were fundamentally originated with the Secretary of the Department of Health and represent an objective approach to definition and treatment of major health problems.

Based upon the evaluation of the surveys and training potential and considerable committee and team work at all levels, both within the Department of Health and the American component (ECA, MSA, FOA, ICA), the following projects were presented to the Philippine Council for U. S. Aid, representing the Philippine Government, and the American component, ECA, representing the United States of America.

1. School health program.
2. Public health education.
3. Training (pre-service and in-service).
4. Serum and vaccine production (Alabang Laboratory).
5. Provincial hospital rehabilitation.
6. Rehabilitation of the Philippine General Hospital, the teaching hospital for the University of the Philippines Medical School and School of Nursing.
7. Chest clinics for tuberculosis control.
8. Public health training of Filipinos in the U.S. and elsewhere.
9. Malaria Control.
10. Schistosomiasis control.
11. Water supply (wells and springs).
12. Water supply (Piped systems).
13. Rural health units program.
14. Nutrition.

Change in emphasis

In FY 1952 the primary emphasis was placed on project development and commodity procurement. This was a tripartite activity and required considerable time and much effort as it was a searching out of possibilities in new fields; first, providing the necessary kinds and quantity of commodities that would fit into the existing health program in the Philippines, and second, determining the number, the quality, and the kinds of health personnel available to operate the commodities efficiently and effectively.

The second phase was long-range planning and the beginning of a training program and the stimulation of interest in providing personnel, funds, and facilities to make possible acceptable medical care to the people of the Philippines.

The third phase moved from commodities, long-range planning and the initial stages of training to more active implementation of plans and expanded program of training, increasing the numbers and disciplines trained at the regional training centers and elsewhere.

The fourth phase moved heavily into program evaluation and intensive training. Contracts were entered into with the Philippine Society of Cardiologists, the Philippine Society of Anesthesiologists, and other groups to train health personnel in the proper use of highly technical equipment and evaluation of the information received through the operation of these instruments and commodities.

Institute of Hygiene

The Institute of Hygiene of the University of the Philippines is being assisted in strengthening its teaching staff by the addition of a health educator, a hospital administrator, a public health nurse, a public health engineer, and a biostatistician. These individuals will assist in setting up and developing teaching units in their respective disciplines. This will make possible in-country training of health personnel and, eventually, students can be accepted from other countries in this region for training in public health.

ICA/PHILCUSA provided commodities to the Quezon Institute to establish an extension of its activities to the Philippine General Hospital. A chest clinic was organized to support teaching facilities and staff for the students of the University of the Philippines Medical School. This innovation strengthened the understanding of tuberculosis and other diseases of the chest.

International Agencies

Early in the history of the Philippine Mission it was obvious that a coordination device would be necessary to bring together in conference the international and local agencies interested in the field of public health in the Philippines. In January, 1952, the first meeting of the Philippine Public Health Coordinating Committee was held and from this there developed a three-fold purpose which was (1) to insure that the governmental programs will not duplicate programs of member agencies; (2) to improve and insure coordination between agencies working in the Philippines; (3) to clear all programs through the committee in an informal manner so as to avoid duplication of efforts among agencies. Thirty-seven meetings of this Committee have been held since its inception.

The scope of its activities has been expanded through the medium of the development of sub-committees of the Public Health Program Coordinating Committee. These sub-committees have representation in the Department of Health in the Philippines, various international agencies in the field of health, and others who are working in activities closely related thereto.

These sub-committees are eight in number and are working in the following fields:

Environmental Sanitation	Maternal & Child Health
Health Education & Training	Mental Health
Hospital Rehabilitation	Rural Health units
Malaria Control	Schistosomiasis

Their primary function is to develop information and data regarding a specific field and to prepare for the parent committee a document identifying the problem and all its characteristics and concluding their suggestions and recommendations as to how the problem may best be resolved. They are also responsible for assisting in the development of long-range operating programs involving specific problems.

Conferences and Workshops

The staff of the Philippine-American Mutual Assistance program has been involved in regional and bi-regional conferences, seminars, workshops, and in curricula and manual development. Work conferences have covered the fields of world health, maternal and child health, mental health, records and reports, performance budgeting, reorganization, vital statistics, community-school health programs, and similar areas in the field of health. The first hospital workshop has been established and was so successful that a series of five has now been developed to take place in various parts of the Philippines in order to reach all personnel. The persons involved include the chiefs of hospitals, the chief nurses and the administrative officers. In all workshops, emphasis is placed on team work as a means of improving services and skills in cooperative planning and action actually takes place. Nine workshops on Community Health have been held, one at the provincial level, one at the municipal level, and seven at the barrio level to demonstrate how long-range planning can be done at those levels.

The staff has participated in planning and carrying out these workshops. Their work with the Department of Education and ICA/ED includes planning and working in the eight normal school curriculum workshops, assisting in the revision of the health education program for elementary schools and health education. Nearly a hundred working conferences have been held with committees and working parties for specific purposes of planning and training.

Reorganization of the Department of Health

This has required considerable staff action and coordination with the ICA (FOA) contract groups and the Department of Health in the development of the type of information which the Secretary of Health could successfully send to the Congress and the President of the Philippines. This reorganization plan is described in detail in the Appendix.

USOM Staff Development

One of the principal activities of significant worth has been the continuous staff education and interchange of ideas and information within the Health and Sanitation Division of the Mission related to all fields of Mission activities within the Philippines, with special emphasis on the relationship to health problems in this country. The Chief of HSD has represented the United States Government as chief delegate at the meetings of the Western Pacific Regional Office of WHO for the past two years. This has made possible a better understanding of inter-relationships between this organization and other agencies engaged in the field of health.

During FY 1955 the Health Division staff members have participated in the Second Asian Malaria Conference in Baguio, and the Bi-Regional Public Health Conference in New Delhi. Their tours of temporary duty include the countries of Vietnam for four weeks, Taipei for three months, the holding of pre-seminar meetings on health education for WHO in eight other countries in the Western Pacific during January 1955, and study of training programs at Johns Hopkins University, the Communicable Disease Center, the School of Public Health at the University of California, and the International Cooperation Center in Hawaii.

The staff has participated constantly in the activities of many voluntary agencies such as the Philippine Public Health Association, the Philippine Medical Association, the National Council on Community Development, the Health Education Association of the Philippines, and many others.

The development of long-range plans in the field of health has been a part of the many activities of the Health Division. This projection of proposed activity based on the best data available has considerable significance in setting up objectives and guiding principles; establishing priorities, setting time and space targets for producing results; and accomplishing these objectives. The best example of projecting programs into a long range effective plan has been that of the six-year malaria control and eradication program.

Training Program

This began with the development of five regional training centers and has passed through three phases of commodity acquisition, limited personnel training, and the development of the regional laboratories. At this stage coordination and integration of the major training programs of the Philippines is beginning to crystalize. Training resources of the U. S. Air Force at Clark Field in the Philippines and the U. S. Army in Japan have been utilized by the Health Division in training Filipino technicians in the operation of clinical laboratories and hospital laundries.

Curriculum Revision and Development

Revision of the curriculum for the undergraduate program in health education in the College of Education at the University of the Philippines was completed in 1954. A graduate program in public health education leading to a degree in public health has been completed at the Institute of Hygiene of the University of the Philippines and four students, public health employees, completed their work early in FY 1956.

The health education curriculum for public schools and normal schools training teachers is in the process of revision through the joint efforts of the Department of Education, the ICA Education and Health Divisions, and some participation on the part of public health personnel. The curricula of all the government schools of nursing have been revised during the period of 1952-1955.

Attention is being focused on the need for improvement of medical school curricula and training through sending faculty members to the U. S. for study in the basic sciences. These plans have been worked out with a committee of the Deans of the Medical Schools.

Miscellaneous

The Health Division has worked with many private organizations in fields of health, has reviewed documents and x-rays related to visa applications, has processed in excess of 700 vaccination certificates, and many other activities of a miscellaneous nature, in addition to their fundamental work in special fields.

The forward look of the proposed staffing pattern is to study further the field of education and training so that at least 50% of the time of the Health Division may be spent in this office and the other time in technical advisory capacity to the Department of Health. This is the beginning of the phasing out of the health activity of the American component and the phasing in of the Philippine trainees into the fiber of the health activities, with the hope that the Department of Health of the Philippines will in turn provide technical assistance to the nations of this part of the world and become the education and training center in health matters.

Trends in the Department of Health

There is increased emphasis on providing better health services to all the people in the Philippines. Public health methods of prevention and treatment of disease are being improved through the decentralization of health activities to the provincial hospitals and rural health units, with the regionalization of training, laboratory sciences and supervision. As a corollary to the activities of the Department of Health, the Philippine people are working

for the improvement of socio-economic conditions, housing, water supplies, and methods of excreta and waste disposal. Strenuous efforts are being made to provide greater job opportunities and to become self-sufficient in the necessary agricultural and other commodities. The Department of Health is providing better health service in quantity and quality, backstopped by extensive and intensive health education and training programs.

Many private groups, associations, foundations and international agencies are supporting the Philippine people in the approach to solution of their most pressing problems. The Department of Health is surveying its activities at all levels and attempting to make an evaluation of the effectiveness of the total departmental activity and that of its segments. There is a strong trend to provide necessary supplies, commodities, equipment, and funds so that health personnel can operate acceptably in their respective disciplines. The provincial health office has been strengthened and the health officer is now charged, by Executive Order, with assuming responsibility for all health activities within the province to which he is assigned. The Department of Health is making better use of universities, institutes, and educational bodies to bolster both national and field health services. Contracts have been made with medical societies to provide training in the specialties with groups such as anesthesiologists, radiologists, and other technicians.

Long range programming is coming into its own and is having a marked effect on the efficiency and effectiveness of the Department of Health. Strong emphasis on good administration and management in all fields of health has taken place. Many of the modern methods for planning for education and program implementation, such as workshops, seminars and working conferences, are finding wide-scale application. Five regional laboratories have been established for the purpose of training and re-training medical and public health technicians with the ultimate objective of having personnel soundly trained in these disciplines in all units of the Department of Health.

There is a strong trend towards making proper use of good staff and line procedures in administration, management, and budgeting. Development of budget has moved in the direction of performance budgeting with the Bureau of Health being one of the first Bureaus to accomplish this objective. There is also a strong movement to establish improved basic data for the guidance of the health programs. Appraisals have been made of the various bureaus; needs have been determined for the present and have been projected as specific year-by-year goals through three to six-year periods.

MALARIA CONTROL
FISCAL YEAR 1955 ANNUAL REPORT.

Malaria has long plagued the people of the Philippine Islands where annually 10,000 deaths and over 2,000,000 cases of this disease are/or were reported. The annual economic losses from malaria in the Philippines are estimated by various economists at 120,000,000 pesos as a minimum to over 500,000,000. Dr. Paul Russell in his book "Malaria" states that imports from malarious countries carry a "malaria tax" probably of not less than 5 percent, due to the fact that malaria among laborers always increases the cost of what these workers are trying to manufacture or produce. If this formula is applied in the Philippines the ₱120,000,000 estimated loss annually would surely be greatly exceeded probably reaching the ₱500,000,000 mark.

In order to assist the Philippine Department of Health with this preventable health problem the International Cooperation Administration (earlier known as MSA and later as FOA) entered into an agreement with the Department of Health whereby the International Cooperation Administration would furnish certain commodities and the Philippine Government would provide an adequate counterpart fund to supply man-power. This agreement was entitled "A Six-Year Philippine-American Plan for Malaria Control in the Philippines". This agreed upon plan of action covered all phases of operations, the major ones being: objectives, scope, method of control, financing, organization and reporting. Malaria surveys were immediately started in order to determine the malaria problem in the Philippines. Figure I shows the results of the 1953 surveys giving the acuteness of the problem by location.

The main objectives of this six-year malaria control project were:

1. To reduce the prevalence of malaria in the Philippines to where the disease is no longer a public health problem;
2. To develop a long-range program by which the Philippine Government can, with its own resources, keep malaria permanently under control.

The guiding principles along with a general description of this malaria control program showing plans and agreements were presented in the Philippine-American Public Health Program Annual Report of 1954.

3. Number of patients treated, by Malaria Control teams:

February 1952 - June 1952	23,437
July, 1952 - June 1953	86,467
July 1953 - June 1954	168,413
July 1954 - June 1955	288,799

A total of 1,616,500 anti-malaria drugs, mostly aralen, nivaquine and camoquin were given in FY 1955 as treatment by the Malaria Control teams to the 288,799 patients listed above. Anti-malaria drugs were also supplied, but not included in these totals, to provincial health officers, municipal health officers and rural health units. These health officers and health units gave treatment to over 50,000 patients based on the amounts of drugs distributed. We did not receive the number of patients treated by these various health units so we were not able to include the number of patients that they treated.

4. Spleen Examinations:

Originally an index area was located in each of the thirty malaria control zones and Figure II shows location of Malaria Control teams. However, it was later determined that it would be better if a smaller number of index areas were used and more detailed data collected. Following this decision ten areas, well distributed over the Philippines, were selected and from these areas data are collected on a given date, a known size sample and from a preselected area. The same person or persons are assigned to collect the data in each area each time they are collected.

Malaria surveys made, using spleen palpation techniques, before spraying and after spraying produced the following results:

<u>Spleen Examination</u>	<u>Pre-Observation</u> <u>1954</u>	<u>Post-Observation</u> <u>1955</u>
Children 2-10 years:		
Number examined	6,781	7,392
Number positive	2,103	847
Percentage	31%	11%

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2. Population protected:

February 1952 - June 1952	None
July 1952 - June 1953 (DDT)	1,075,000
July 1953 - June 1954 (DDT)	6,379,500
July 1954 - June 1955 (Dieldrin & DDT) ...	6,302,400

The above records show that 1,260,000 houses were treated during the past year giving protection from malaria to over 6,000,000 people. This is the second year that this number of houses has been treated and this is in accord with the plans of the program which calls for all houses in the malarious areas to be treated for three consecutive years. Next year will be the third "big" year and it is planned to treat the same houses a third time and any additional houses that may be built in the area that is under control.

The table below shows the schedule of operation from 1953 to 1958:

	Houses to be sprayed per year - (1000)						Total
	1953	1954	1955	1956	1957	1958	
No. of houses	215	1260	1260	1260	350	350	4695
No. of units	10	30	30	30	10	10	

The operational schedule given above shows that the program is now approximately 58 percent complete. The program in 1956 and in 1957 will be very important and will be the key to the success of the Malaria Control Program. A full and complete program must be operated in 1956 and the reduction called for in 1957 must be carefully planned in order that the necessary work will be done in all critical areas as scheduled. It is possible that in certain areas a change in insecticides may be advantageous and plans are being formulated to make such changes in all sections where it will be beneficial to the program.

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It was agreed that the primary method of control would be the area-wide application of DDT residual spray to all houses in all of the malarious areas of the Philippines for three consecutive years. It was estimated that 95 percent of the operation would involve this one measure. It was also agreed that anti-malaria drugs would be used in the program to provide malaria suppression in areas of road construction and other developmental projects. In addition, free therapeutic treatment would be given to such clinical cases as they come to the attention of the malaria control staff or other public health officers in malarious areas.

In FY 1953 under this plan 215,000 were given a DDT residual spraying. In FY 1954, 1,260,000 houses were treated and again in FY 1955 the same number, 1,260,000 were given DDT residual spraying.

Below is a listing of houses sprayed, number of people given protection from malaria and the number of patients treated with anti-malaria drugs.

Accomplishments:

1. Houses sprayed:

February 1952 to June 1952	spent gathering baseline data
July 1952 to June 1953 with DDT	215,000
July 1953 to June 1954 with DDT	1,260,000
{ July 1954 to June 1955 with DDT	1,249,610
	{ July 1954 to June 1955 with Dieldrin. 10,686
Total houses sprayed in FY 1955	1,260,296

After one year of DDT spraying, there is observed a drop of 65% of the spleen rates in the Index Areas and it is presumed that there is a similar decrease in the rest of the endemic areas.

Blood Surveys:

The parasite rate of children 2-10 years has dropped markedly from 17% to 4%. Likewise, the parasite rate in adults dropped from 19% to 6%.

Blood Examinations:

We collected and examined 162,972 blood smears in FY 1955. Of these, 15,147 were Plasmodium vivax; 7,756 were Plasmodium falciparum; 98 were Plasmodium malariae and 180 were Mixed. The relative prevalence of each type is as follows:

<u>Plasmodium vivax</u>	65.6%
<u>Plasmodium falciparum</u>	34.0%
<u>Plasmodium malariae</u>4%

Malaria Transmission:

After one year of DDT spraying, there is an indication that transmission is still going on in the sprayed areas. However, the transmission (infant parasite rate) has dropped from 5.7% to 1.8%.

The percent of reduction of malaria one year after DDT residual spraying is shown in Figure II. This chart shows that 65 percent reduction has been obtained in all age groups and from these results it is believed that malaria is under control at present and that it may be possible to even eradicate the disease in large areas if not from all of the nation by the end of this program, FY 1958.

5. Training:

In-service training has been provided by the Institute of Malariology at Tala, Rizal for all professional personnel used on the Malaria Control Program. Over 400 courses for malaricologists, engineers and technicians have been taught to personnel of the Malaria Control Project and to others that have requested training in malaria and its control. A few men have returned for a second course, often in a related field, therefore a few less than 400 students have been enrolled. In

addition to those trained for the Philippine Department of Health, several trainees have been sent by private companies. The Philippine Army sent 26 enlisted men to be given 90 days of training as malaria technicians. The Army is also planning to send 30 men for a similar type of training next year. Nine technicians from Vietnam have been given training in Malaria Control and 20 more from Vietnam are scheduled for next fiscal year. The World Health Organization sent one malariologist from HongKong, for an advanced "refresher" training course.

In addition to the above training, a three-day course is given to all personnel that apply for work at the beginning of the spraying season. The thirty malaria field stations hold these classes and have approximately 100 applicants taking the course in each station. This means that 3,000 persons receive a three-day course in malaria and its control each year. From the 3,000 that take the training, 2,000 who make the best grade, are employed for a period of 100 days which is the length of the spraying season. Each year the above procedure is repeated.

6. Contest for Education:

A contest was conducted in the High Schools of Northern Luzon in which the students wrote an essay on "Malaria and its Control". There were over 2,000 students who took part in this contest representing most of the High Schools in the area. The students winning the first, second, and third place received a medal, while the schools of the winning students received school supplies, mostly athletic goods, as prizes.

7. Publications:

Since the Malaria Control Program started in 1952 the personnel of the program have prepared 35 articles covering practically all phases of malaria and malaria control for release to the public. Several of these articles were published in National and/or International Journals while others were released through the publications of the Philippine Department of Health and others are in press.

The following is a list of these articles:

1952:

1. Modus Operandi in the Control of Malaria under Philippine Conditions. Antonio Ejercito. J. Phil. Med. Assn. 23, 12. 683-690 Dec. 1952.

2. Observations on Supposedly Unusual Breeding of the Philippine Malaria Vector. J. B. Mendoza and B. Abinoja Phil. J. Sc. 31, 1, 53-58 Mar. 1952
3. Trial with Clostridium tetani Toxoid in the Inhibition of Malaria Relapse J. B. Mendoza J. Phil. Med. Assn. 28, 2, 61-66 February 1952.
4. Congenital Malaria - A Case Report. J. B. Mendoza and B. Ongkiko J. Phil. Med. Assn. 30, 8, 398-450 August 1952
5. Present Concepts in Malaria and its Therapy. J. B. Mendoza. J. Phil. Med. Assn. 28, 190-213 April 1952
6. An Illustrated Guide to the Study of Philippine Anopheles F. E. Baisas. In manuscript. March 1952

1953:

1. A Natural Decline of Malaria. J. B. Mendoza. Paper submitted to the 8th Pacific Science Congress, Manila. November 1953
2. Development of Malaria Control in the Philippines. C. Urbino. Paper submitted to the 8th Pacific Science Congress, Manila. November 1953
3. Malaria Outbreak in Relation to A. minimus flavirostris in High Altitudes G. R. Villanueva and F. Kalaw. Paper submitted to the 8th Pacific Science Congress, Manila. November 1953.
4. Preliminary Studies of Malaria in Mountain Province. M. F. Ingco. Paper submitted to the 8th Pacific Science Congress, Manila, Nov. 1953
5. Abnormalities in the Salivary Glands of Anopheles Mosquitoes. A. U. Pagayon. In manuscript 1953.
6. A Peculiar Parasite in the Egg of Anopheles A. U. Pagayon. In manuscript 1953
7. Syllabus for Malaria Training Courses for Malariologists, Engineers and Technicians. A. Ejercito and J. B. Mendoza. In manuscript. 1953. Revised in 1954 and again in 1955

8. Pictorial Key to Adults (females) of Philippine Anopheles. Pictorial Key to Larvae of Philippine Anopheles. J. B. Mendoza Released in printed leaflets 1953, revised in 1954
9. The Probable Life Cycle of the Human Plasmodia. In Wax Model. J. B. Mendoza and L. S. Cruz. Artist. Exhibited in the 9th Pacific Science Congress, Manila, November 1953.
10. Malaria Control Methods in the Philippines. A. Ejercito. In manuscript. Read before the staff and technicians of the U. S. Army Chemical Center, Edgewood, Maryland, October 1953.

1954:

1. A Review of Black Water Fever Occurrence in Palawan. G. R. Villanueva J. Phil. Med. Assn. 30, 1, 36-40 January 1954
2. Resting Height of *A. minimus flavirostris* in Houses During Daytime. F. E. Baisas. Paper submitted to the Southeast Asia and Western Pacific Regions Malaria Conference, Baguio, November 1954.
3. Is *A. litoralis* a Vector Species? F. E. Baisas. In manuscript. 1954
4. Development of Malaria Control in the Philippines. G. L. Adan. J. Phil. Med. Assn. 30, 1, 29-35. January 1954
5. Mindoro DDT Pilot Project. P.I.-WHO-U.S. Assisted Project. Report completed and copies distributed.
6. A Six-Year Philippine-American Plan for Malaria Control in the Philippines. A. Ejercito, A. D. Hess, and A. L. Willard. A. J. Tr. Med. & Hyg. 3,6, 971-980 November, 1954 and H.E.A.P. Journal 1954.
7. Malaria Transmission, the Vector and its Control. Illustrated in pictures Conjoint work of the Division of Malaria and the Philippine Manufacturing Company. Distributed in leaflets by the latter in the early part of 1954.
8. Manual of Instruction for Malaria Field Personnel on DDT Residual Spraying: A. Ejercito, T. E. McNeel and G. L. Adan, December 1954.

1955:

1. Philippine National Malaria Control Programme. A. Ejercito. J. Phil. Med. Assn. 31, 1, 1-17 January 1955.
2. Field Observations on Malaria Transmission in Utero. J. B. Mendoza and G. R. Villanueva. Paper under preparation 1955
3. Unusual Clinical Manifestations of Malaria. G. R. Villanueva and J. B. Mendoza - Paper under preparation 1955
4. Pictorial Illustrations of Different Control Methods on Malariogenic Waters. A. Ejercito. In manuscript. Distributed to students and visitors, May 1955
5. Abridged general and specialized courses for malaria technicians. A. Ejercito and J. B. Mendoza April 1955
6. Vietnamese Anopheles. F. E. Baisas. In manuscript. Distributed May, 1955
7. Cle illustre des Anopheles du Vietnam
Cle illustre des Larves D' Anopheles du Vietnam
J. B. Mendoza and Du van Minh, April 1955
8. Malaria. General Information for the public. A. Ejercito, T. E. McNeel and J. B. Mendoza. In manuscript. Distributed by Head Malariologists. June 1955
9. Malaria Control. Suggestion of duties to be done before beginning a DDT residual spraying of houses program for the control of malaria. T. E. McNeel and G. L. Adan. In manuscript. Distributed to students and Head Malariologists, May 1955.
10. DDT Not Toxic to Domestic Animals. J. B. Mendoza. 1955 News item released in various local newspapers in June and July 1955
11. Philippine Anopheles. A. Ejercito and J. B. Mendoza. In Manuscript August 1955.

8. Financing:

Summary of Project Costs

During the early months of the ICA (ECA, MSA, FOA) aid program in the Philippines, in FY 1952, commodity assistance was provided in the amount of approximately \$620,000 to the Malaria Control Project. This was prior to the development of the Six-Year Malaria program and was an emergency measure to reinforce the small-scale control operations of the Department of Health's regular Malaria Control Division. The Six-Year Plan itself called for an estimated additional aid in the amount of \$3,000,000 and ₱9,800,000. These expenditures were to be made from FY 1953 through FY 1958.

Dollar aid in the first three years of the Six-Year Plan (FY 1953 and FY 1955) has totalled approximately \$1,600,000. Dollar requirements for the final three years are now estimated at \$760,000, making a total of \$2,360,000 for the Six-Year Plan. Even with inclusion of the \$620,000 commodity aid in FY 52, the grand total of the dollar contribution of the malaria project will keep within the original \$3,000,000 estimate.

Peso financing requirements have been met through FY 1955, and appear to be assured for the duration of the project. Through the end of FY 1954 the Philippine Government had appropriated ₱600,000 (₱200,000 each year) for support of the regular malaria program and some support to the expanded malaria project. An additional net ₱1,060,000 was allocated to the project in FY 1953 and FY 1954 from the PHILCUSA Special (Lump Sum) appropriations. In this same period (FY 1952-FY 1954) supplementary peso financing in the amount of ₱2,480,000 came from the Counterpart Fund-Special Account. The total peso contribution to the project through FY 1955 amounts to approximately ₱7,600,000. No counterpart assistance was provided in FY 1955 or will be provided in subsequent years. Instead a Special Appropriation of ₱1,978,000 was approved for the project in FY 1955 and also the regular appropriation for the project in FY 1955. In addition the regular appropriation for FY 1955 was increased from ₱137,000 to ₱337,000, partially to provide operating funds for 6 additional field units. A review of the malaria project budgets is as follows:

Malaria Control Funds - Dollar and Peso Budgets since beginning of project, 1952:

A review of the dollar budget shows the following:

FY 1952	\$ 620,000.00
FY 1953 - 1954	1,160,000.00
FY 1955	443,000.00
FY 1956, 57 & 58	760,000.00 (Est.)

GRAND TOTAL \$ 2,983,000.00

A review of the peso budget shows the following:

<u>Funds</u>	<u>FY 1952</u>	<u>FY 1953</u>	<u>FY 1954</u>	<u>FY 1955</u>	<u>T O T A L</u>
General Fund					
RA 820	—	₱ 754,515.00 ^{1/}	—	—	—
RA 906	—	—	₱ 826,430.00 ^{1/}	—	—
RA 1150 Sec. 2	—	—	—	₱ 1,142,910.00 ^{2/}	—
RA 1150 Sec. 4	—	—	—	1,979,500.00 ^{1/}	₱ 4,713,840.00
Additional		10,485.00			
Appropriated		765,000.00	826,430.00	3,122,410.00 ^{3/}	—
Expenditures		465,417.56	593,729.19	3,122,410.00 ^{3/}	4,181,556.75
		324,365.13	1,980,067.14	—	—
General Appropriations	200,000.00	200,000.00	200,000.00	337,080.00	937,080.00
GRAND TOTAL	₱ 374,896.94	₱ 989,782.69	₱ 2,773,796.93	₱ 3,459,490.00 ^{4/}	₱ 7,597,966.56

1/ - PHILCUSA Special appropriation

2/ - Special Departmental appropriation for Malaria Control

3/ - Appropriated

4/ - Includes ₱54,000 appropriated but held in reserve by Budget Commission

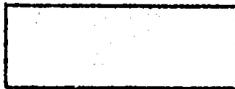
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FIGURE III.

PREVALENCE OF MALARIA
BEFORE AND ONE YEAR AFTER DDT RESIDUAL SPRAYING
DATA FROM 9 INDEX AREAS

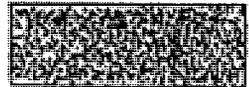
LEGEND:



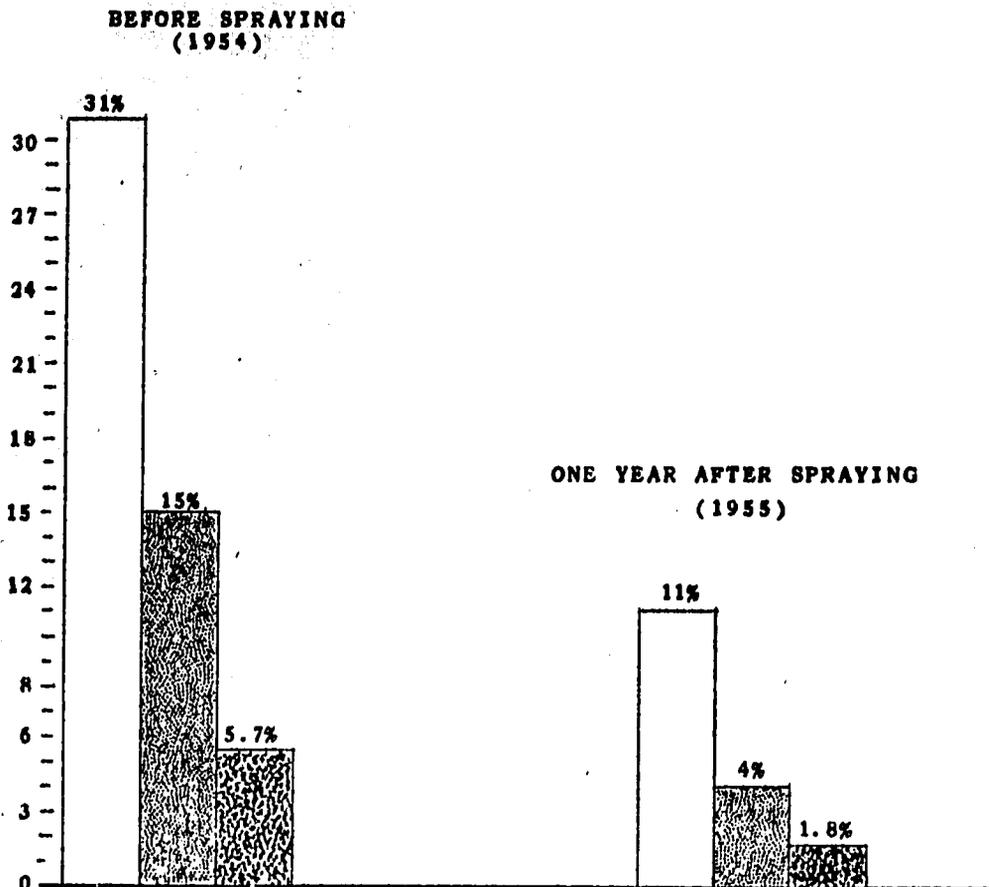
SPLEEN RATE IN
CHILDREN 2-10



PARASITE RATE IN
CHILDREN 2-10



INDEX OF TRANSMISSION
PARASITE RATE OF INFANTS
EXCLUDING 1-10 DAYS OLD



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THE SCHISTOSOMIASIS CONTROL PROJECT
FISCAL YEAR 1955 ANNUAL REPORT

Background Information

The Schistosomiasis Control Pilot Project as conceived by the international expert team that recommended its establishment in the Philippines after a thorough study of the problem in 1952 envisaged a pilot field laboratory in the center of an endemic area where practical, effective, and economical methods of control will be tried and demonstrated. For proper evaluation of results, the project should operate at least three years. After successful results have been obtained, an expanded control program can be undertaken in the other endemic areas of the country. The Project was formally launched on June 3, 1953.

Objectives and Achievements

To accomplish this objective, a building to house the laboratory was constructed in Palo, Leyte. Equipment, supplies and materials were procured both with dollars and pesos as financial aids from FOA, PHILCUSA, WHO and UN Technical Assistance Program; and personnel of the Division of Schistosomiasis with experience in schistosomiasis survey work numbering around forty were assigned to the Project.

While the building was under construction and the dollar and peso commodities were being procured, the personnel housed in temporary headquarters in two towns of Palo and Tanauan gathered baseline data and made census of the human and animal population; determined the incidence of schistosomiasis among them by stool examination; undertook snail and toilet surveys and made maps of the zones where control measures were to be instituted. These maps indicated the location of snail colonies, the position of the houses, streams, creeks, irrigation canals and other land marks including roads, mountains, springs, swamps, etc. With the completion of the buildings in January 27, 1954 and the arrival of the Pilot Project of the needed dollar and peso commodities worth \$12,082.91 and ₱24,960.93 respectively, the Project could be considered in full operation early in 1954 and towards the end of the fiscal year, baseline data that were collected in the two towns of Palo and Tanauan were completed. Among the other investigations finished were the standardization of stool techniques and selection of standard methods to be adopted in the Project; studies on age and sex incidence of stratified samples of human population (representing all ages); studies on hatchability of schistosome ova from man and different animals; studies on methods of determining snail density in the field; and studies on sex ratio, growth and infection rate of snails in various typical colonies.

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Other investigations which got underway in FY 1955 and to be continued in FY 1956 are longevity studies of miracidia; cercariae and snails; effect of storage on hatchability of Schistosoma Japonicum ova; breeding of snails in the laboratory; infection experiments to study the existence of different strains of Schistosoma Japonicum; snail trapping in irrigation canals; experiments on feeding of ducks with Oncomelania quadrasi snails; weather observations and pH determination of water and soil.

There were no funds budgeted by ICA for FY 1955 nor subsequent years for schistosomiasis investigations. However, it is planned to continue to provide any technical assistance which the general staff of the Health and Sanitation Division can give this program when called upon.

Copies of detailed progress research reports are made to the ICA Mission at regular intervals, but to date no general control methods of the disease have been established. The team of workers see a great need now for relating their studies and action to a total public health program.

RURAL HEALTH UNITS
FISCAL YEAR 1955 ANNUAL REPORT

OBJECTIVES

- I. To provide health and medical services to all rural areas of the Philippines. These services to include:
 - A. Preventive
 1. Communicable disease control
 2. Sanitation
 3. Prenatal and postnatal care
 4. Vital statistics
 5. Health Education
 6. Well-child conferences
 - B. Clinical
 1. Outpatient medical care
 2. Home nursing and medical care including deliveries
 3. Minor surgery
- II. To combine personnel rendering these services under one local health unit serving the whole municipality.

BACKGROUND

In 1952 the local health and medical services of the rural Philippines were received from three separate entities:

Presidents of Sanitary Districts
Municipal Maternity and Charity Clinics
Puericulture Centers

Agencies had little or no facilities or funds for travel and supplies, consequently their activities were minor and confined to the poblacion (the center area of a municipality). The barrio (small communities around the center of the town) residents received almost no benefit. Many municipalities (towns) were without health or medical care of any kind and in areas where personnel and facilities were available it was frequently overlapping or duplicated.

Special programs such as Vaccinating Parties, Skin Clinics and Tuberculosis Units worked at fragments of the health problem without particular coordination or integration at the local level.

ACCOMPLISHMENTS

FY 1952 - Demonstration Units

Eighty-one demonstration units of five personnel (physician, public health nurse, midwife, sanitary inspector, and clerk-driver) were established, at least one in each province. These assumed all health activities in the municipality to which they were assigned, carrying out both clinical and public health activities. These were supplied with equipment by the Mission (jeep, refrigerator, sterilizer, examining lamp, examining table, microscopes, assorted medical instruments and a year's supply of medicines). Since most of the personnel were untrained in public health, they were given an orientation before being sent to the field. They were under the supervision of the Provincial Health Officer and the Rural Health Unit Project Director and his staff.

FY 1953 - Additional Units

Fifty-two Offices of President of Sanitary District were given personnel to build their staffs up to the level of the Demonstration Units (with the exception of clerk-driver). They were also given essentially the same equipment as the demonstration units.

Barrio Medical Kits

Four hundred Barrio Medical Kits were purchased. These were collections of simple medicines and equipment for minor illnesses. They were accompanied by a Manual prepared jointly by Philippine and American health and medical workers. This Manual outlines the diagnosis, treatment and prevention of the most frequent diseases found in rural areas of the Philippines. The kits were assigned to barrios chosen from lists submitted by Provincial Health Officers, with highest priority going to land resettlement areas. The kits are supervised by a health committee composed of 3 to 5 members, usually including the school teacher and supervised by the Municipal Health Officer. These have frequently acted as the nucleus of a barrio health center to which has been added items of simple furniture and equipment.

FY 1954 - Long Range Planning

During this period the first long range study and plan of operation was devised as part of a document incidental to requesting additional Mission aid to the program. This was revised in the light of subsequent developments.

Additional Units

During this year aid was given to 111 additional units, including 20 more offices of President of Sanitary District. This brought the total of assisted units to 244. Included in this equipment for the first time were 40 outboard motors, very useful pieces of transportation equipment in the Philippines. An additional supply of materials sufficient for 400 Barrio Medical Kits was given, bringing the total to 800.

Rural Health Act

During the last few weeks of this year the Congress of the Philippines gave evidence of its great belief in the rural health program by passing the Rural Health (RA 1082). This created the position of Provincial Health Officer in each province, and the position of Municipal Health Officer in each municipality. These were designated as the chief health official for their respective jurisdictions and put the various preventive and out-patient care entities under one head. It established new salary scales for health workers, established dental services in congressional districts and defined two categories of local health units, "junior" and "senior".

A senior unit was defined as one having four personnel, namely a physician, public health nurse, midwife and sanitary inspector. A junior unit was two personnel, either a nurse or physician and either a midwife or sanitary inspector. Every municipality was to have at least a senior unit. Municipal districts were to receive junior units. Municipalities of more than 35,000 population would receive a junior unit in addition to the senior unit. Complete coverage of all the country was envisioned by July, 1958. A sum of ₱4,000,000 was appropriated for the first year, with this amount to be increased by one million for each of three successive years, thereby giving a total appropriation over the four years of ₱22,000,000.

FY 1955 - Revision of Long-Range Plan

With the passage of the Rural Health Act the situation changed. Plans for full health coverage now had to be built around the July, 1958 target date. After study it was found that insufficient funds had been appropriated to properly implement the Act. Too few funds had been made available to provide for proper supply and maintenance. A plan was designed that postponed the target date but kept implementation within the funds appropriated. Finally after considerable discussion it was decided to use salary savings from FY 1955 and request ₱400,000 additional funds from Congress in order to operate the program properly in FY 1956. Congress appropriated the funds and transfers were made. The following schedule and map are included here to show the latest revision of the plan of operation.

PERCENT OF MUNICIPALITIES WITH SENIOR UNITS
(As of July 1, 1955)

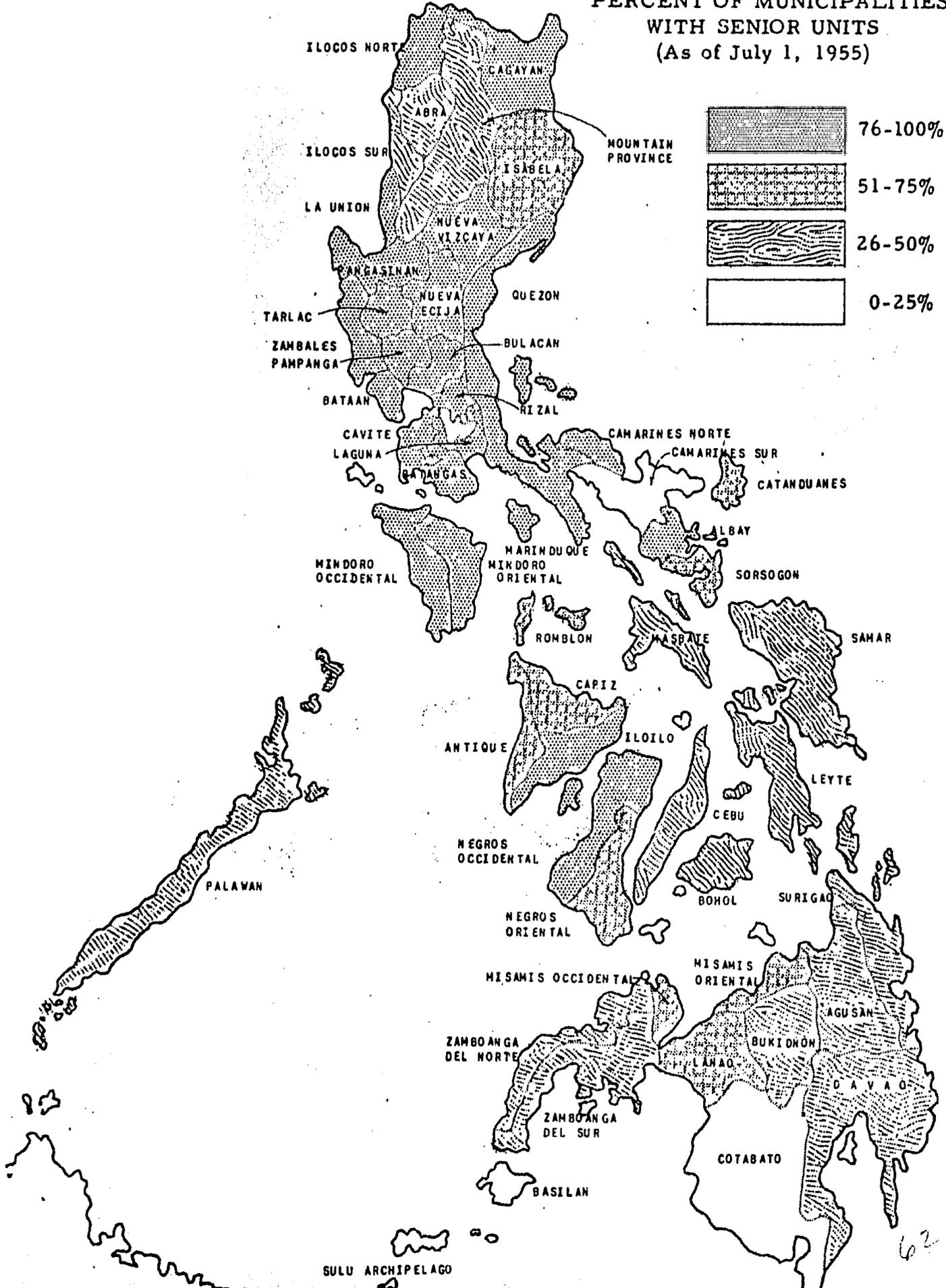


TABLE I - DEVELOPMENT OF THE RURAL HEALTH UNITS PROJECT
IN ACCORDANCE WITH RA 1082

S E N I O R R U R A L H E A L T H U N I T S :						JUNIOR RURAL HEALTH UNITS		
Fiscal Year	Complete	Incomplete	Raised to Complete Unit	New	Cumulative Total	New	Cumulative Total	Total Units in Operation End of F.Y.
1954 - 1955	650	350	-	-	1,000	-	-	1,000
1955 - 1956	801	233	117	34	1,034	66	66	1,100
1956 - 1957	952	116	117	34	1,068	66	132	1,200
1957 - 1958	1,102	-	116	34	1,102	66	198	1,300

EXPLANATION

Senior Rural Health Unit

Complete - Staff consists of physician, nurse, midwife, sanitary-inspector.

Incomplete - Being staffed; eventually to become a complete unit.

Raised to Complete Unit - Staff completed during the fiscal year.

New - Completely staffed when opened.

Cumulative Total - Number of units at the end of the year.

Junior Rural Health Unit

A unit is staffed by 2 persons. These will be placed in either municipal districts as the sole unit or added to the senior unit in municipalities of over 35,000 population.

63

As of June 30, 1955 health personnel had been placed in 1186 municipalities and 761 of these units had at least 3 public health staff members. It cannot be stated which of any of these are classified as incomplete. In any case the implementation is far ahead of the schedule set forth in June 30, 1953.

Supply, maintenance, and supervision are the most pressing problems. Planning of requisitions is done with the aid of the staff of North General Hospital. Integration of purchasing for FOA assisted units and for unassisted units is planned and should improve purchasing. Advice of clinicians is being used in requisitioning of drugs.

Records and Reports Review

A committee consisting of a provincial health officer, a municipal health officer, two officials of the Central Office of the Health Department, and the Biostatistician and Rural Health Advisor began reviewing the record and report system with a view to streamlining it and making it more efficient.

A great deal of time was being spent in executing forms and records at all levels of the Department. In addition, forms were being added to conform to the performance budgeting procedures being used on a trial basis by the Bureau of Health. After consultation with various persons receiving and using these records and reports, the Project Director decided that review of the whole system was needed, and asked for appointment of the Review Committee. Various special divisions, professional groups and administrative officials were invited to confer with the Committee. All records and reports used by rural health units were being reviewed. At an early date the task was seen to be great and work continued into the next fiscal year.

At the end of the fiscal year 1953, public health nurses had been designated as supervisors and an orientation course had been given them. They were still in local assignments as no budget item for supervisors was available. A total of 5 positions for nurse supervisors are all that were available, these being originally intended for the 81 demonstration units.

Supervisory work of the provincial health officers varies considerably. Supervision must be improved for all other professional groups. The provincial health officers are taking more responsibility for better service in the health units. They and the sanitation personnel on their staffs should have in-service training to better prepare them for their parts in the rural health units program.

DOCUMENTS PRODUCED

1. Preliminary Document of Philippine-American Program for Rural Health - 1953 - 1000 copies

Dr. Clemente Gatmaitan, Chief, Division of Sanitation,
Bureau of Health.

Dr. Henry K. Beye, Consultant, Rural and Tropical Diseases, FOA

Dr. Augusto A. Uyenko, Medical Officer, Division of Sanitation,
Department of Health.

Dr. Bertha L. Moore, Rural Health Consultant, FOA

2. Manual for Barrio Health Committee, Conducting Barrio Medical Kits
Bureau of Health, Philippine-American Rural Health Project
April 1954 - 10,000 copies

SCHOOL HEALTH
FISCAL YEAR 1955 ANNUAL REPORT

No regular program of technical assistance has been given to this program by the Mission staff. Originally when the project was initiated, planning was done with the Project Director. Consultation has been given to specific projects from time to time upon request. The project has no appropriated peso counterpart but is financed by contributions of 50 centavos from each school child. The immediate and operational responsibilities of this project belong to the Bureau of Public Schools working through the Division of School Medical and Dental Services.

OBJECTIVES:

General Objectives - Correction, protection and promotion of the health of all public school children by intensified attack on the causes of the common ailments among them and by a vigorous health education campaign.

Specific Objectives -

- (1) Early detection and treatment of common defects found among school children.
- (2) Preventive and curative measures against the common ailments among school children.
- (3) Detection of anemia and malnutrition and the institution of proper treatments and dietary measures.
- (5) Health Education program through audio-visual aids, lectures, demonstrations and conferences by technicians to help solve individual and group health problems.
- (6) Treatment of dental caries and its prevention through prophylaxis and topical application of 2% solution sodium fluoride.

ACCOMPLISHMENTS:

Treatments

A total of 88,752 pupils and 451 teachers had been treated using the FOA-PHILCUSA medicine and supplies for the year 1952-53 and a total of 195,073 pupils and 468 teachers for the year 1953-54. For the school year 1954-55 reports from the provinces gave a total of 500,856 pupils and 1,577 teachers treated in the school clinic. These reports, however, are still incomplete due to the fact that the field of operation of this project is so widely spread throughout the Philippines that reports are often times delayed.

The defects or diseases treated are as follows:

<u>Diseases or Defects</u>	<u>No. Treated</u>
1) Anemia	3,840
2) Malnutrition and Avitaminosis	90,147
3) Intestinal Parasitism	9,147
4) Ulcer	22,986
5) Ear, Nose & Throat Infections as Tonsillitis & Otitis Media	7,876
6) Other Skin Diseases	338,451
7) Scabies	59,157
8) Minor Injuries	170,329
9) Malaria	9,027
10) Gastro-Intestinal Ailments as Diarrhea	6,801
11) Yaws'	81
12) Cold, Flu, Bronchitis & other Viral Infections	27,548
13) Conjunctivitis & Granular Eyelids	43,154
14) Fainting and Dizziness	320
15) Pediculosis	2,972
16) Tinea Flava	104,605
17) Tooth Abscess	590

Binakayan Pilot Project

This project was started to investigate the methods of improving the sanitation of homes of school children through a combined treatment and health education approach to the intestinal parasitism problem. Microscopic stool examinations found 99% of the school children in this barrio of Kawit, Cavite infested. Of these infestations approximately 90% were ascaris and the remainder were either hookworm, pinworm or whipworm. Surveys indicated 70% of the families in the barrio had no sanitary waste disposal.

Treatment with hexylresorcinol was coordinated with an intensive health instruction and community organization program.

There is reported marked increase in interest in improving the sanitary facilities of the area. This project will be watched with interest for evidence of substantial and permanent improvement.

Dental Program

This consisted mainly in topical application of 2% sodium fluoride to school children's teeth. Two demonstration teams held sessions to show the proper techniques of this procedure to school dentists and pointed out the benefits of the program to school officials. Following are the number of applications done during the year:

SODIUM FLUORIDE APPLICATION, July 1, 1954 to June 30, 1955

<u>Application of Sodium Fluoride</u>		<u>No. of Children Applied</u>
First Application	!	38,179
Second Application	!	10,094
Third Application	!	5,468
Fourth Application	!	2,741

HEALTH EDUCATION
FISCAL YEAR 1955 ANNUAL REPORT

BACKGROUND INFORMATION

If there is to be a lasting and supported health program in the Philippines, it is necessary that the understanding, cooperation and participation of the people are obtained. Although this is the task and responsibility of all health workers, there must nevertheless be a vigorous, imaginative, expanding and integrated health education program within the Department of Health at all levels to assist in the accomplishment of this objective.

The Division of Health Education and Information (DHEI) with ICA (ECA, MSA, FOA) assistance developed a long-range program of health education for the public in 1953 ^{1/}. This program was based on needs established by the 1952 Reconnaissance Survey in Mindanao; Department of Health Records of Morbidity and Mortality and available information on barrio health conditions. It is now being revised. ^{2/} This program was the basis for securing commodities in the approximate amount of \$158,000 during 1953 and 1954.

The Division of Health Education and Information is so placed in the organizational structure of the Department of Health that it is able to operate directly with all Bureaus, Divisions, Offices, Regional Training Centers, Provincial and City Health Departments, Municipal Health Offices, Rural Health Units and Special Field Projects.

A history of public health education in the Philippines appears in both the 1953 proposed program, the Revised Three-Year Program and in Health Educators at Work. ^{3/}

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- ^{1/} Philippine-American Public Health Education
A Six-Year Program
 - ^{2/} Three-Year Program for Health Education of the Public for the
Philippines The Department of Health, 1955.
 - ^{3/} Health Educators at Work, Volume 6, May 1955 Edited by
Eunice N. Taylor and Lucy S. Morgan, School of Public Health,
University of North Carolina.

OBJECTIVES

1. To assist through health education in bringing about the improvement in physical, mental and social well-being of the people as a direct contribution of the Department of Health toward the community and economic development of the Philippines;
2. To stimulate people to help themselves in attaining a higher level of health through community organization, study, and action;
3. To promote full use of available resources for better health;
4. To guide the development of an integrated long-range Department of Health program of health education at local levels;
5. To work for the coordination of the health education program of the Department of Health with other agencies and involve the related agencies and organizations in the development of such programs;
6. To develop a program of community health education activities which will promote a better understanding, appreciation and utilization of the services of the medical practitioners;
7. To provide technical assistance in the recruiting, selecting, training and assignment of health education personnel to special projects, to regional, provincial and municipal health departments, and rural health units in terms of criteria and priorities for special health education personnel;
8. To recommend ways to improve the basic and professional education of health educators, teachers, medical and para-medical personnel, by working with training programs in the Department of Health, the Department of Education, the Institute of Hygiene, the University of the Philippines, and other Universities and Colleges, both private and public.

GUIDING PRINCIPLES

Any aspect of a total country program must fit into the framework of the country's government. Public health is a very important aspect of community and national development. The planning of the health education program takes into account all the present problems and developments in the Department of Health and in the Philippine Government. Economic, social, educational and public health improvements must be integrated and accomplished together if progress is to be optimal and permanent.

1. The public health education and information program which receives FOA/PHILCUSA aid is under the control and supervision of the Secretary of Health of the Philippines.
2. The Division of Health Education and Information of the Department of Health is responsible for the administration of the program.
3. The Division of Health Education and Information (DHEI) is responsible for the technical direction, coordination and evaluation of all health education activities of the Department of Health at all levels.
4. As health education is an integral part of every service of the Department of Health the Chief of the Division of Health Education and Information shall participate in the over-all public health programming, policy-making, staffing and budgeting.
5. The DHEI shall have a staff of technical personnel for educational work in general public health and specialized programs.
6. The DHEI shall be the publisher of official publications and educational materials of the Department of Health; as such it shall provide technical assistance in the preparation, editing and distribution.
7. The DHEI shall develop and assist in the implementation of a program of public relations for the Department of Health.
8. The DHEI shall cooperate with and provide technical assistance to civic, voluntary and official agencies with regard to their health education activities.
9. The DHEI shall be responsible for the receipt, custody, distribution and proper use of all commodities granted under the ICA/PHILCUSA aid.
10. The DHEI shall be provided with adequate funds on a continuing basis for personnel services and other operational expenses.
11. The DHEI shall submit all the required reports to the Secretary of Health and in addition shall be responsible for the submission of a consolidated report of health education activities in the Philippines, copies of which shall be furnished the PHILCUSA and Health and Sanitation Division-ICA.

ACHIEVEMENTS THRU FISCAL YEAR 1953

1. The functions and organization of a modern, dynamic Division of Health Education and Information in the Department of Health were set up.
2. A study of the present activities of the Division was made.
3. A job description for each staff member based on a time study of his activities was prepared.
4. Job descriptions were prepared for staff needed to carry out the newly developed functions of the Division of Health Education and Information (DHEI).
5. A national committee made up of representatives from the Department of Health from provincial and city health departments, and from several of the public health educators was set up to prepare a statement of the functions of a general health educator who would be employed to work in communities, in provinces, and in special ICA/PHILCUSA projects.
6. Pre-requisites for public health training of health educators were prepared.
7. A discussion was held and approval was secured for an "emergency" training program of health education trainees. The training was set up by the Rural Health Demonstration and Training Center.
8. The curricula were examined of all accredited institutions training eligibles for public health education training health education majors, home economics, nurses and science majors who could qualify for entrance in the Institute of Hygiene.
9. Criteria for the assignment of these trainees were prepared in accordance with the program plans and they were assigned in strategic places.
10. A survey was made of educational activities and needs of all the divisions, bureaus, and institutes of the Department of Health.
11. Estimated peso budgets were prepared for the six-year period and commodities listed which were needed to carry out the nation-wide health education program aimed at the barrio level.
12. The 1953-54 peso budget was revised in light of recent planning.

During the last quarter of the fiscal year 1953, the Project Director and his staff with assistance from the FOA Health Education Consultant moved forward by:

1. Developing educational materials, films and regular publications with the cooperation of FOA and the Regional Production Center.
2. Instituting regular weekly staff meetings to:
 - a. Discuss developments since the arrival of foreign aid;
 - b. How the staff might become more effective as a team and make better use of existing resources;
 - c. Learn about the training of health educators in the Rural Health Demonstration and Training Center (RHDC);
 - d. Help plan and carry out the expansion of the DHEI in terms of the newly developed functions; and
 - e. Participate as a team in the implementation of a nation-wide program.
3. Reviewing the functions of the FOA Technical Assistant in Health Education.
4. Working closely with the six public health education trainees who had been employed March 1 and were under "emergency" training at RHD & TC. These trainees participated whenever possible in the development of the Six Year Program.

ACHIEVEMENTS THRU FISCAL YEAR 1954

1. The proposed Six-Year Plan with a letter requesting study and an evaluation was transmitted by the Secretary of Health and the Chief of HSD-ICA to:

All District and City Health Officers
All Project Directors and Heads of Offices of the Department of Health
All Departments and Divisions of the Philippine Government and selected individuals
The University of the Philippines, Colleges of Education, Nursing and the Institute of Hygiene
All Divisions of FOA
FOA/Washington and the US Public Health Service
WHO/Geneva and the Western Pacific Regional Advisers in the Manila Regional Office
UNICEF and UNESCO Manila Offices
Schools of Public Health in the United States

2. Replies to the request mentioned above were mimeographed and used for further study:

By the District and City Health Officers during their annual convention, April, 1954

By the Field Committee appointed by the Secretary of Health

By the DHEI, HSD-FOA and WHO staffs

3. A Field Committee was established by the Secretary of Health in the last quarter of 1954 to make use of all the evaluations and revise the Six-Year Plan into a Five-Year Program which would fit into the President's over-all Five-Year Country Program.

4. Working relationships were established with the Institute of Hygiene in the preparation of a graduate program in Public Health Education and some assistance was given in the health education training in both the graduate and undergraduate program in the Institute by the staff of HSD-ICA.

5. Assistance was given by the health educator at the Rural Health Demonstration and Training Center and the HSD TA to the University of the Philippines, College of Education as follows:

- a. In the revision of their curriculum for health education majors.
- b. In two workshops as consultants in health and conservation of human resources: The Teacher Education Workshop and the Workshop for School Administrators.

6. Working relationships were established with the Health Education Section of the Division of Instruction in the Bureau of Public Schools, the Department of Education through joint planning of and assistance in the Davao Provincial Workshop on School and Community Health.

7. Work with the Bureau of Agriculture Extension included:

- a. The preparation of educational materials on water supply, sanitation and nutrition.
- b. Technical assistance in the in-service training program for their national staff.
- c. Technical assistance in the actual conducting of training courses in health education, well digging and privy building.

8. Six DHEI staff members were given three months training in multilith off-set process and a printing unit was established by the US Government/Washington authorizing the transfer of a press, camera, whirler, and all necessary accessories from the Regional Production Center/Manila to FOA/Manila to the Department of Health.

9. A silk screen printing unit was also established by the three artists upon arrival of commodities from the initial procurement authority of 1952.
10. Three-hundred thirty thousand posters were made with this unit.
11. One DHEI staff member took one month's training in the National Library in preparation for the establishment of a central library for the Department of Health.
12. Nine health educators were added to the staff of six and given emergency training at Rural Health Demonstration and Training Center (RHD & TC) and placed in strategic assignments; five additional ones were recruited for training bringing the total to 20.
13. Eight local health education programs were initiated in Rural Health Units with the assignment of a health educator as a member of the team in eight of the regular Rural Health Unit Teams.
14. Other staff members added include: one health education specialist, one artist and four auxiliary workers.
15. DHEI health educators and the HSD/FOA-TA participated in a week-long workshop on school health held in RHD & TC.
16. DHEI initiated and gave direct consultation in the development of the first provincial work conference ever held on school and community health. It was held in Davao as mentioned above. It was participated in from its inception by the health departments, public and private schools and agriculture extension workers at the provincial level. Its purpose was to train their professional leaders in those three fields and to initiate the planning of a long range program of health education to be carried out in school and community health throughout the province.
17. An in-service workshop for the 20 health educators was held.
18. District and City Health Officers were assisted in the preparation of their convention program. Their special programs in that convention on health education and training of public health personnel were conducted by the Health Education Advisor of HSD/FOA and the Manager of RHD & TC.
19. DHEI prepared the section on "Some Teaching Methods and Materials" for the Guide for Regional Training Centers and assisted with the editing and production of this guide.

20. Other materials prepared and/or produced by DHEI included:

- 500 Barrio Medical Kit Manuals (English)
- 50,000 Minimus Killer of the Barrio People
(A Malaria Primer in English and Tagalog)
- 40,000 Malaria Posters (English and Tagalog)
- 10,000 Boil Your Water (Booklet - English)
- 2,122,625 reprints of health literature on 21 different subjects in 4 different dialects were provided DHEI by FOA-ID through the Regional Production Center

21. All of the \$56,165.92 commodities were distributed with the exception of 282 filmstrip projectors. The latter were stored until filmstrips could be secured.

22. An island-wide distribution system was worked out between the DHEI and Col. Andres Soriano's business interests whereby their 950 cold-drink trucks would deliver to the Departments of Health large packages of health literature to provincial and city health officers as a public service. Twenty-nine health officers received such packages during March, 1954.

23. Approximately 472,510 pieces of health literature were distributed by health educators in connection with group teaching; 175 film showings were held by the mobile units and health educators for 73,000 persons; 60 radio programs produced; 160 mothers completed a course in mothercraft which consisted on the average of 8 meetings for each class; 900 food handlers completed classes of 6-hour sessions; 650 press releases were prepared.

24. Dr. Jose S. Navarro, former acting chief of DHEI and Project Director was sent to the University of North Carolina for 12 months training in public health education.

25. Specifications and a firm request were prepared and sent to FOA/W for \$100,000 worth of educational and training aids and equipment. Procurement authorizations (PA 4637 for \$25,000 and PA 4217 for \$75,000) were received in April.

26. DHEI staff participated in all the public health sessions of the 8th Pacific Science Congress November 16-28 and our sound recording technicians tape recorded the entire proceedings for the Executive Committee of that Congress.

ACHIEVEMENTS THRU FISCAL YEAR 1955

General Administration

1. An Office Guide to improve internal organization of DHEI was prepared for the purpose of delegating responsibilities for more effective accomplishment of activities in the DHEI.
2. Assistance was given in the preparation for the FAO/WHO Seminar on Health Education and Nutrition Education to be held in the Philippines in October-November for representatives from 28 countries in the Western Pacific and South East Asia countries.
3. Job descriptions for DHEI were completed.
4. A joint plan with UNESCO/TA Mission was worked out by DHEI with the Pangasinan Health Officer and School Superintendent to place a public health educator in the Community School Training Center in Bayambang. Agreement was reached on her job description before the assignment.
5. Plans for a central library for the Department of Health were completed and most of the new books and films have been accessioned. Film and book catalogues are under preparation.
6. All films, books and other equipment intended for Regional Training Centers have been sent to them.

Supervision

1. The DHEI-TA spent only two weeks in the field in the supervision of field personnel.
2. The Health Education Specialist and the ICA-TA gave consultation in the preparation for and execution of One Community Working Conference in Pangasinan and follow-up conference in seven barrios.

Staff (Professional Growth)

1. The Health Education Specialist was granted a fellowship by UN for six weeks of study and observation in Community Development in India during October and November, 1954.
2. Two health educators were sent to the United States in August 1954 for a year of study in public health education - one to Harvard University and one to the University of California.

3. The ~~Third In-Service Working Conference~~ for all health educators was held during the week of December 8 - 14, 1954. Miss Helen Mantikainen of WHO, Geneva and Lynford L. Keyes of the Western Pacific Regional Office were among the resource persons.

4. Eight more health educators were recruited and assigned for the intensive three months "emergency" training course at RHD & TC. This brings the total number to 27: 5 in Regional Training Centers; 6 in Rural Health Units; 3 in Provincial Staffs; 3 in Manila Area for training and work in the slums and 2 in the United States for study.

5. Forty one persons from the staffs of Provincial Health Officers (usually a sanitary inspector or male nurse) have been trained as movie operators.

6. Five movie operators on the National DHEI staff were given 6 weeks of training in operation, maintenance and how to teach operation by the USIA of the American Embassy.

7. Six men were given one week of training at the USIA Regional Production Center on wrapping, packaging and distribution.

Consultation to Other Divisions and Bureaus and Work with Other Agencies

1. The DHEI-TA assisted the Department of Education in a curriculum workshop in Albay Normal School.

2. One of the Regional Health Educators assisted the Department of Education in a curriculum workshop in Cebu Normal School.

3. The health education specialist assisted the Bureau of Agriculture Extension in community health education training for their supervisors.

4. Various members of the staff participated officially in the following activities:

- PRRM Project at San Mateo, Rizal
- YMCA Community Development Program at Calumpit, Bulacan
- Community Development Program at Noveleta and Binakayan, Cavite
- Tanglaw ng Bayan at Torres Bugallon, Polo, Bulacan in cooperation with the Rural Health Unit
- Malaria Control Project in the interpretation of Public Health Education
- Health Education Seminar of the College of Education, University of the Philippines on May 27 and 28, 1955
- Preparation of the Three-Year Program of Training of the Personnel Training Program
- Preparation of Maternity Service Manual and Manual for Hilots (Midwives)

Preparation of a prospectus for third country training
 program
 President's Community Development Planning Council
 The Health Education Association of the Philippines

Mass Communications

Publications, Film Showings and Distribution

Press releases 779
 Radioscripts written 28
 Radio programs produced 28

A total of 651 film showings attended by 472,340 people

Charts prepared 136
 Diplomas (lettering) 928
 Silk screen processing (posters) 600
 Photographic prints 672

Total of 193,540 copies of 26 different pamphlets were
 printed on the DHEI multilith

Number of pamphlets distributed2,357,775

The following number of health personnel were given a half-day
 of training in health education by health educators in training centers:

Physicians 112
 Nurses 432
 Midwives 290
 Sanitary inspectors 166
 Health educators 18

Total 1,018

A total of 5,948 adults enrolled in classes organized and conducted
 by health educators with assistance from health team members as follows:

Parents' Class 875
 Homemakers' Class 1,110
 Mothers' Class 1,026
 Foodhandlers' Class 925
 Adult Health Class 1,239
 Teenagers' Class 475
 Mothercraft 160
 Nutrition Class 100
 Social Hygiene Class 38

Conferences and meetings attended by DHEI personnel 181

Col. Andres Soriano's (San Miguel) trucks distributed 44 packages
 of educational materials to Provincial Health Officers,

Dollar Commodities

Commodities in the approximate amount of \$118,000 have been received to-date. These include books, films, guides, etc. for training of health personnel and a few films for use with the public; art and film supplies, projectors, etc. A detailed copy of these supplies and copies of the bills of materials are available (from our files) for examination.

Budget

While it is not possible to know exactly what was spent for health education of the public since this project is fused with health training, it is roughly estimated to be ₱290,000. The statement of expenditures for both projects is as follows:

Statement of Expenditures as of June 30, 1955

	Authorized Allotment	Total Expenditure as of June 30, 1955	Balance
Republic Act 1150	₱397,791.16	₱375,028.72	₱22,762.44
C.P. No. 552 Principal No. 11	192,598.25	125,371.74	67,226.51
Republic Act 906	160,984.63	160,984.63	0
C. P. Special A c c o u n t	111,433.55	106,877.77	4,555.78
T O T A L	₱ 862,807.59	₱768,262.86	₱ 94,544.73

Statement of Expenditures as of June 30, 1954

	Authorized Allotment	Total Expenditure as of June 30, 1954	Balance
Republic Act 906	₱190,968.33	₱171,932.87	₱ 19,035.46
C. P. Special A c c o u n t	130,160.00	111,433.55	18,726.45
T o t a l	₱ 321,128.33	₱ 283,366.42	₱ 37,761.91

FUTURE PLANS

Year by Year Goals

It must be recognized that major ultimate objectives or goals in public health education, as in all phases of education, are realized gradually and over a long period of time. A fundamental principle in any health education program is that planning, execution and evaluation be continuous and a two-way process in terms of health education needs. This means that provincial, city, municipal and barrio people, as well as representatives of related agencies in this developmental process should be involved. This set up is important in financial consideration and in the determination of personnel, commodities, and supplies since a program which truly serves the people cannot be developed alone by administrators from the National level.

It is intended that the following goals shall be achieved through the joint efforts at all levels with leadership from the DHEI.

Goals for Fiscal Year 1956

General

1. To complete the staffing pattern for DHEI.
2. To fully implement the internal reorganization plans for the DHEI.
3. To complete the dollar commodity program in terms of the official three-year program.
4. To study and make recommendations to the Secretary of Health regarding consolidation of publications of the different bureaus, offices and institutions under the Department of Health.
5. To hold regularly well planned staff meetings in order to think through problems and coordinate activities.
6. To evaluate the total program of health education.
7. To establish civil service eligibility for health educators.
8. To complete the central library.
9. To plan a program of activities (operational plans) for all the Units and Sections of DHEI which will achieve the objectives set forth.
10. To develop a health education advisory committee made up of representatives from the Bureaus and Offices of the Department to better facilitate the services and working relationships of DHEI.

11. To stimulate planning of local programs of health education and give as much assistance as possible.

Staff(Professional Growth)

1. To send three health educators to the United States for public health training, majoring in health education.
2. To detail three emergency trained health educators in the Institute of Hygiene for a year of study in public health.
3. To participate in the FAO/WHO Bi-Regional Seminar (South East Asia and the Western Pacific) on Health Education and Nutrition Education October 7 - November 3, 1955, to be held in the Philippines.
4. To hold the fourth annual in-service working conference for health educators.
5. To encourage each provincial health officer to include in his budget an item for a qualified, trained health educator which DHEI could provide from its staff or recruit and assign for training.
6. To plan the necessary training and re-training of staff members to improve and speed up all operations.

Consultation and Supervision

1. To work more closely with the President's Community Development Council.
2. To work more closely with the Department of Education and the Bureau of Agricultural Extension in community health education activities.
3. To plan a program of systematic supervision of the field personnel.
4. To work more closely with other Divisions and Bureaus in their working conferences for personnel.

Mass Communications

To project kinds and numbers of materials needed by topics, dialects and educational level and set target dates for completion.

Budget

To revise budget estimates and prepare a performance budget.

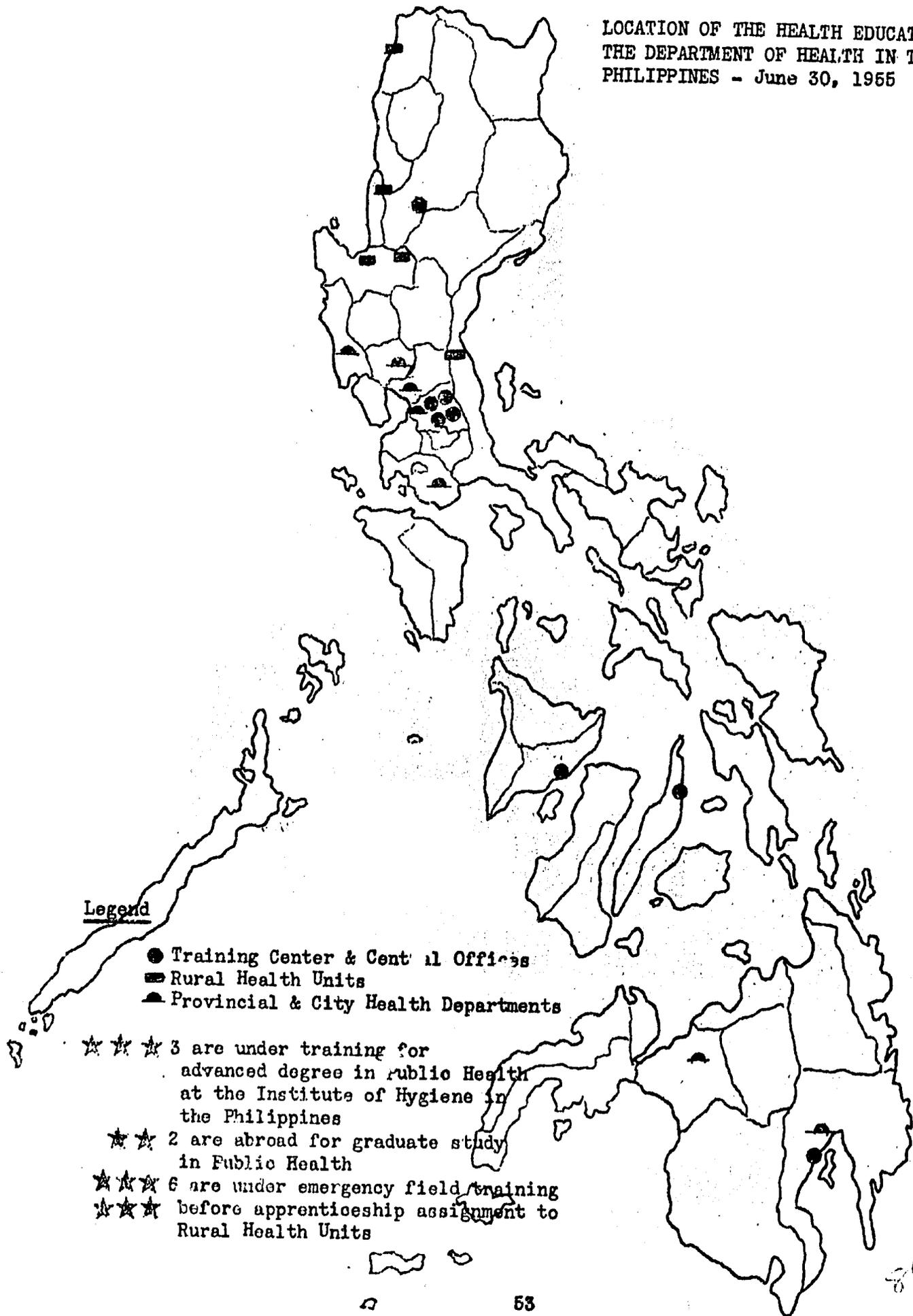
Goals for Fiscal Year 1957

Many of the objectives which have been outlined for fiscal year 1956 and 1957 are obviously continuous requirements for the DHEI. They will demand the energies of every staff member of the Division if the program of community public health education is to "catch up" with the developments in public awareness of the need for better health. Effort will be made over the next five years to provide at least one health educator for every province and city, and to decentralize centers. Due to the increasing demand from the field for health education personnel and services, it is hoped that over a period of years a major responsibility of the DHEI will be to coordinate and assist with local program development and that the administration of community programs shall truly move to the community level. This is the lasting way to progress toward better health for all the people.

DOCUMENTS PREPARED

1. Report of the First Provincial-City Work Conference on School and Community Health held at Davao, Davao - "On to Better Health for Davao" - January 1955.
2. Report on School and Community Health Work Conference held in Bayambang, Pangasinan - October 1954.
3. First School Health Workshop - Rural Health Demonstration and Training Center.
4. Philippine-American Public Health Education A Six-Year Plan - 1953.
5. Revised Three-Year Program for Health Education of the Public for the Philippines - The Department of Health, 1955.
6. Well Construction and Sanitation (prepared jointly with the Public Works Division).
7. Assisted in the preparation of Documents on other Health Projects and the WHO-UNICEF-FOA (small leaflet).

LOCATION OF THE HEALTH EDUCATORS OF
THE DEPARTMENT OF HEALTH IN THE
PHILIPPINES - June 30, 1955



Legend

- Training Center & Central Offices
- Rural Health Units
- ▲ Provincial & City Health Departments

- ☆☆☆ 3 are under training for advanced degree in Public Health at the Institute of Hygiene in the Philippines
- ☆☆ 2 are abroad for graduate study in Public Health
- ☆☆☆ 6 are under emergency field training before apprenticeship assignment to Rural Health Units

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PERSONNEL TRAINING - CP 452
FISCAL YEAR 1955 ANNUAL REPORT

The basic objectives of this project remain unchanged from that reported previously. It is only the method of implementation that is subject to change as conditions vary from year to year.

The objectives of the training program are to strengthen the Department of Health at all levels and to:

1. Provide opportunities for the new employee to develop an understanding of the purpose, program and activities of the Department of Health; become familiar with the structure, policies, laws and regulations, and become acquainted with the duties and responsibilities of the job to be performed;
2. Expand the knowledge and skill of the regular staff and keep them up-to-date on the latest methods and procedures in the professional or technical field;
3. Plan experiences for the basic medical, nursing, midwife and other professional students to gain a better understanding of the principles of public health;
4. Provide better health services to the people through better trained personnel, and
5. Reduce morbidity and mortality, improve social and economic standards and increase the productivity of the people.

The implementation of RA 1082 which provides for the establishment of approximately 1300 rural health units within a period of four years has in turn resulted in an increased training load beyond the original plans of this project. Obviously adjustment was necessary to provide training for both professional and sub-professional groups and maintain a working team balance.

Development of a successful program involves not only material resources but most significantly the human factor. The growth and development or preparation of the human resources is at best a slow process influenced by their level of training and interest.

The training of Public Health personnel is carried out through the following methods with regard to the group concerned:

a. Regional Training Centers -

Located in five areas of the Philippines and opportunity is afforded trainees (nurses, doctors, midwives, sanitary inspectors and health educators) to learn through doing by participating, under supervision, in the activities of a local health department. The field work is supplemented by classroom work adjusted to the level of the trainees.

b. Regional Training Laboratories -

The training of laboratory technicians for hospitals, etc., will be provided through five laboratories in various parts of the Philippines assisted in terms of personnel and materials. It is expected that actual training will be underway by January 1, 1956. These laboratories will do both service and training. Here again development will proceed at a slow pace only as fast as techniques and procedures are mastered in relation to the competence of staff and student. The laboratory training program will lift the practice of medicine from the present unsupported clinical symptoms level to one of supported diagnosis based upon or supplemented by laboratory findings.

c. Specialized Training -

There is need for advanced training in specialized techniques or procedures for the professional component of the health team. This aspect of the program is carried out in cooperation with various professional societies such as anesthesiologists, cardiologists, etc.

d. Itinerant Training Teams -

The use of these teams is an attempt to bring to the more distant areas the latest in techniques and procedures related to both preventive and curative medicine. This program will be carried out through specialists and returned trainees from abroad.

e. Type A Trainees -

This program involves the training in institutions abroad of selected personnel who have the potential and capacity for leadership in terms of teaching and supervision. Training of this type is considered for these levels beyond that locally available.

f. Third Country Training -

The Philippines has developed training in certain fields well beyond that of other countries in South East Asia. In this connection the Institute of Malariology and the Division of Sanitary Engineering provides training on a multicountry basis. Training in an environment and conditions similar to one's own country affords many advantages.

Accomplishments
Fiscal Year 1952

The activity during this fiscal year involved clarification of the project description, preparation of commodity specifications; efforts were made to establish a consultant staff and staff for the training centers; a manual was made of policies, procedures and techniques for training centers and standardizing of records. During this period the first two training centers to be activated were Manila and Baguio. A review of the annual report for FY-52 indicates the multitude of problems faced by the training TA, in maintaining an even keel with regard to the program.

There are thirteen Type "A" Trainees sent to the United States for advanced studies.

<u>Field of Training</u>	<u>No. of Participants</u>
Public Health Nursing	1
Quarantine Training	1
Social Service	1
Nutritional Biology	1
Food and Drug Administration	1
Anti-Biotic Tech. (Health Education)	1
Public Health Administration	1
Anti-Biotic Tech. (Serum & Vaccine Prod.)	1
Food Inspection Sanitation	1
Hospital Administration	1
Sanitary Engineering	1
Sanitary Water Supply	1
Water Supply	1

Fiscal Year 1953

A subcommittee of the Department of Health training committee established the categories and numbers of personnel to be trained including the length and frequency of the courses. Job descriptions and qualifications were prepared and criteria for the selection of training centers were completed.

The activation of the Rural Health Units program created the initial demand for trained personnel, As a consequence a project director was appointed March 16, 1953 and through June 30 approximately 318 persons were trained as follows:

Physicians	-	65
Nurses		
Staff	-	85
Sup.	-	5
Midwives	-	82
Sanitary Insp.	-	<u>81</u>
Total	-	318

The following field of training and numbers of participants were offered during FY-53.

<u>Field of Training</u>	<u>No. of Participants</u>
Water Systems (Sanitation & Inspection)	2
Hospital Architect	1
Hospital Laundry Service	1
X-Ray Engineer	1
Hospital Maintenance & Equipment	1
Hospital Administration	1
Epidemiology	1
Thoracic Surgery	1
Public Health Administration	2
Administration, Nursing Educ. & Serv.	1
Nursing Arts Instructor	1
Clinical Instruction	1
Pathology Technician	2
Public Health Nursing	1
Administration, Nsg. Educ. & Serv.	1
Malaria Control	1
Health Education	1

Fiscal Year 1954

A Firm Request (FR-4P68) dealing with the commodities necessary to inaugurate the training of laboratory technicians was submitted to FOA/Washington. In this connection a "Purchase Authority" for \$52,000 was issued in response to the "Firm Request". A field survey was completed to determine the suitability of existing laboratories with regard to personnel, facilities and equipment.

Five regional health departments have been strengthened with equipment and personnel and are able to render more effective health service while at the same time, providing training. All centers are open and in full operation with the exception of two, Ilcilo and Davao.

As an outcome of the team visit to the Baguio Regional Training Center, A Suggested Guide for Public Health Personnel Regional Training Centers was prepared by a committee composed of representatives of the Health Personnel Training Project, the four training centers in the Manila area, and the Division of Health and Sanitation/FOA. The purpose of the guide was to assist the health officer and his staff, strengthen the health program and prepare for field training responsibilities. The guide included an interpretation of the training project and set forth objectives, guiding principles and policies; outlined in some detail, what a health department should do to become a training center; proposed steps to follow in developing a training program; and, presented some of the most effective teaching methods and materials. The Appendix included Evaluation Forms, Job Description and Training Reports. This guide was made available to all health personnel responsible for training. It is in use but will be revised after a reasonable period of time; the revision will be based on the recommendations of the persons using the guide.

Continuation training for anesthesiologists, in cooperation with the Philippine Anesthesiology Society, was conducted. The training was designed to meet the needs of anesthesiologists in hospitals using modern equipment supplied through the Hospital Rehabilitation Program.

Categories and Number of Personnel Trained
in the Five Regional Training Centers,
July 1, 1953 to June 30, 1954

Categories	Training Centers					Total
	(Area) Manila	Baguio	Cebu	Iloilo	Davao	
Physicians						
Health Officers	66					66
Anesthesiologist	22					22
Nurses						
Public Health	297	25				322
Student	405	17				422
Midwives						
Supervisors - nurses	10					10
Nurse/licensed	249					249
Sanitary Inspectors	14	30	23	12		79
Health Educators	7					7
Rodent Control						
Operator	55					55
Mosquito Control						
Operator	21					21
Other Health						
Workers	2					2

The following fields of training and numbers of participants were offered during FY-54.

<u>Field of Training</u>	<u>No. of Participants</u>
Malaria Control Entomology	1
" " Engineering	1
Public Health Administration	4
Public Health Nursing	3
Water Supply (Sanitary Engineering)	2
" " (Sanitation & Inspection)	4
Public Health Education	2
Hospital Administration	2
Nursing Administration	1
Clinical Nursing	2
Hospital Food Service	1
Anesthesia	1
Plant Maintenance Equipment Repair	1
Electron Microscopy	1
Dermatology, Syphilology & Epidemiology	1
Regional Laboratory Training	5

Fiscal Year 1955

1. Establishment of five Regional Training laboratories at Manila, Baguio, Cebu, Davao and Iloilo. Instructors for each of these laboratories received six months of special training at the 406th U. S. Army Medical Laboratory in Japan. A total of \$39,000 worth of laboratory equipment was received and distributed.

2. Special training for physicians was provided for in the use of the electrocardiograph, metabolators and colorimeters and the techniques of anesthesiology.

3. A Maternity Service Manual for nurses and midwives was prepared and issued, during this period.

4. Number of Personnel trained - (see Table #1).

5. Personnel trained since 1953 (Chart #1).

6. Cumulative Health Services (Table #2).

7. Third Country Trainees -

a. Four sanitary engineers from Vietnam were given a special training, observation course for one week.

8. Preparation or revision of curricula for physicians and other public health personnel.

9. A three year program for the project was prepared during this year. Planning for a program of this type required information from the various entities of the Department.

10. Training was undertaken in all the Regional Centers during this period. Definite improvement has been noted in the quality of training.

11. There was a total of fifty-nine participants selected and processed for type A training abroad in the following fields of training.

<u>Field of Training</u>	<u>No. of Participants</u>
Malaria Program Administration	1
Rural Hospital Administration	7
Hospital Nursing Administration	3
Maintenance Engineer for Medical Equipment	2
Water Supply and Sanitation	2
Sanitary Engineering (Sanitation)	2
Radioisotope Training	1
Public Health Laboratories	7
Fundamental Medical Subjects	6
Rural Public Health Administration	5
Public Health Nurse Instructors	3
Sanitary Engineering (Training)	2
Clinical Instructor (Basic Nursing)	3
Public Health Education	3
Public Health Nursing Adm. and Supervision	4
Hospital (Medical Records) Librarian	1
Public Health Administration in T. B.	2
Radiology	2
Public Health Nursing T. B.	1
Public Health Programming and Training	1
Malacology	1
	<hr/>
TOTAL	59

Future Plans

a. The new three year program will serve as a guide to the future activities. It will provide flexibility to meet the needs of the service.

b. Encouragement of the team approach to both medical and public health problems will be approached in two ways:

- 1) Sending abroad teams for study and observation at various levels (Type "A" trainees) suitable for service at the Regional, Provincial and local level.
- 2) Through the Regional training centers and selected institutions utilize the returned teams to train other teams on the various levels.

c. It is expected that training of laboratory technicians will be undertaken by January 1, 1956. This timing provides a six month period in which the Regional laboratories can establish service and achieve smooth operation. It is anticipated that between 40 to 50 technicians will be trained this fiscal year.

The preparation of a laboratory technician's manual will be undertaken during the second quarter of FY 56. The U. S. Army Medical Laboratory Manual will be used as a guide with suitable modification in language and scope. There will, however, be no change in the procedure required to perform the examination.

d. The Regional Training Centers in support of the expanding Rural Health Units program will train during this fiscal year the following categories and number of new employees:

Physicians	-	67
Nurses	-	184
Midwives	-	185
Sanitary Inspectors	-	<u>95</u>

531 TOTAL

In addition to the foregoing the regular in-service training activities will continue:

e. An itinerant team of returned trainees will be formed consisting of a nurse, hospital administrator, and an architect or engineer to visit and assist the hospital program.

f. In conjunction with a proposed WHO project a program of selection and training will be undertaken to develop

potential candidates for Chief Sanitary Inspectors or Sanitarians. This will be an attempt to bridge the gap in training available as now offered at the Regional Training Centers and the Institute of Hygiene.

g. On the basis of past experience an attempt to perfect the administrative functions of the project by reviewing the guiding principles and policies with the object of making the necessary revisions.

h. Preparation of various teaching aids such as flip-charts, posters, manuals, etc., for the training centers.

i. Develop and maintain a cost accounting system which would aid in the preparation of future budgets.

j. Accomplish suitable written agreements between the training project and cooperating health departments and agencies.

k. Review curricula, manuals, etc., now in use in terms of accuracy, value and need.

l. Develop and maintain close working relations with the Institute of Hygiene.

m. Prepare a brochure describing the training program of the Department of Health.

Documents:

1. Report of Nursing Visit - Baguio Health Department Training Center - June 29 - July 3, 1954
2. Suggested Guide for Public Health Personnel Regional Training Centers - January, 1954
3. A Proposed Short and Long Range Program for Nursing Based on an Analysis of Studies of Nursing Resources, Service, and Education - 1949 - 1954
4. Maternity Service Manual for Nurses and Midwives - 1955
5. Food Sanitation - by S. M. Rogers - Health Messenger Department of Health - July 22, 1955
6. Guide for Sanitary Food Service
7. A Look at the Food Storeroom
8. Refrigerated Food Storage
9. Specification for Shelves and Floor Racks for the storeroom.

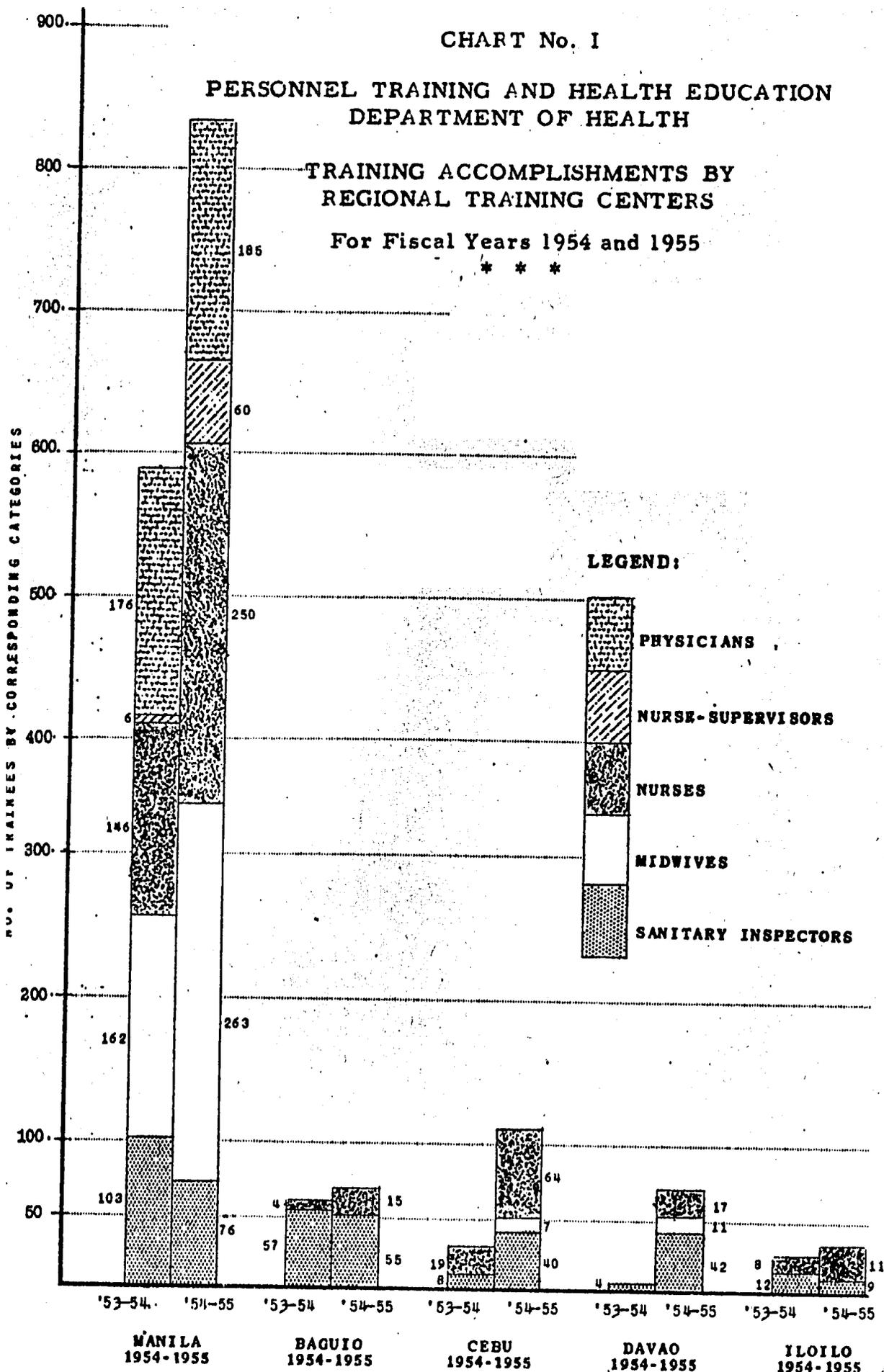
CHART No. I

PERSONNEL TRAINING AND HEALTH EDUCATION
DEPARTMENT OF HEALTH

TRAINING ACCOMPLISHMENTS BY
REGIONAL TRAINING CENTERS

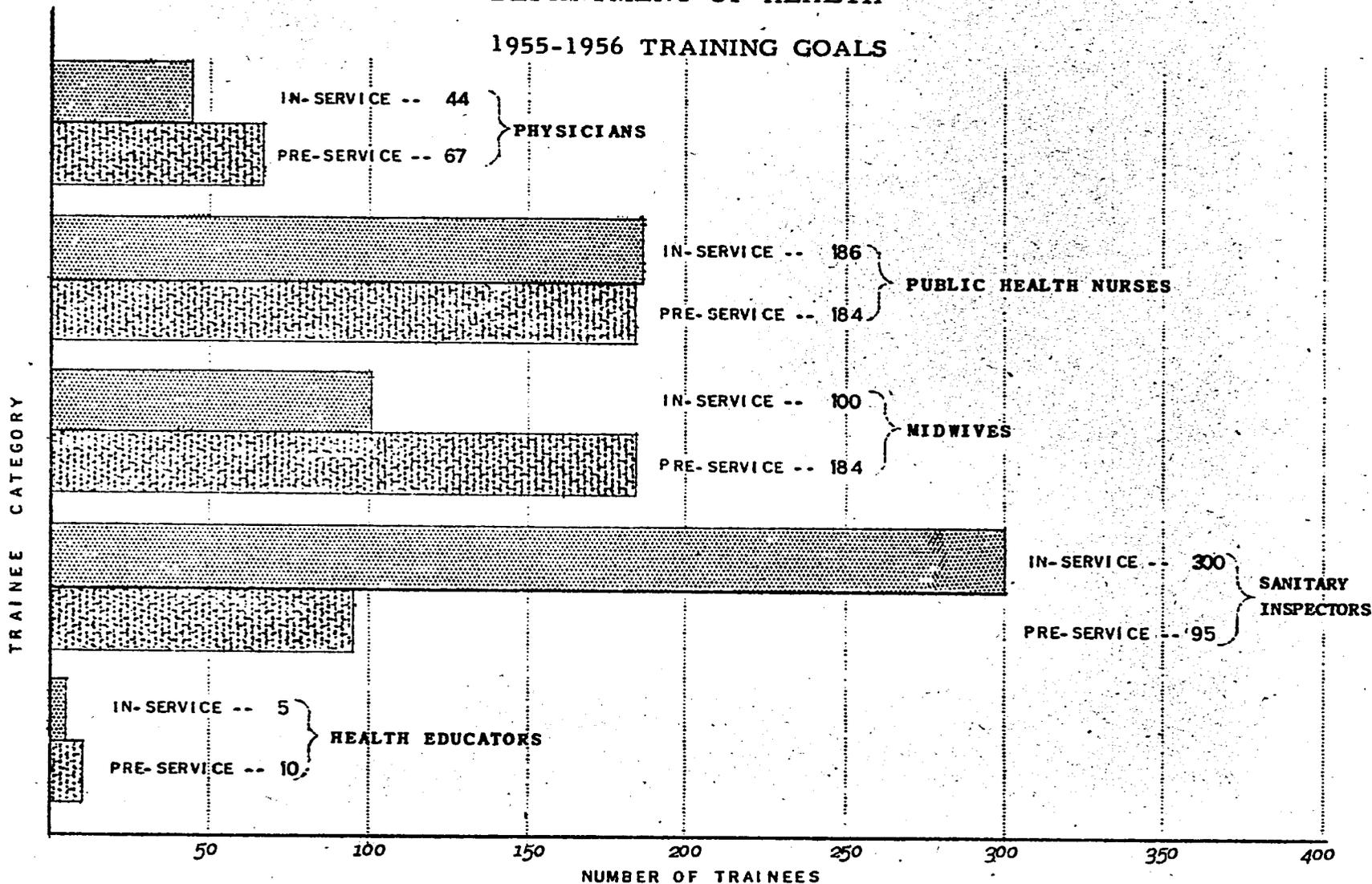
For Fiscal Years 1954 and 1955

* * *

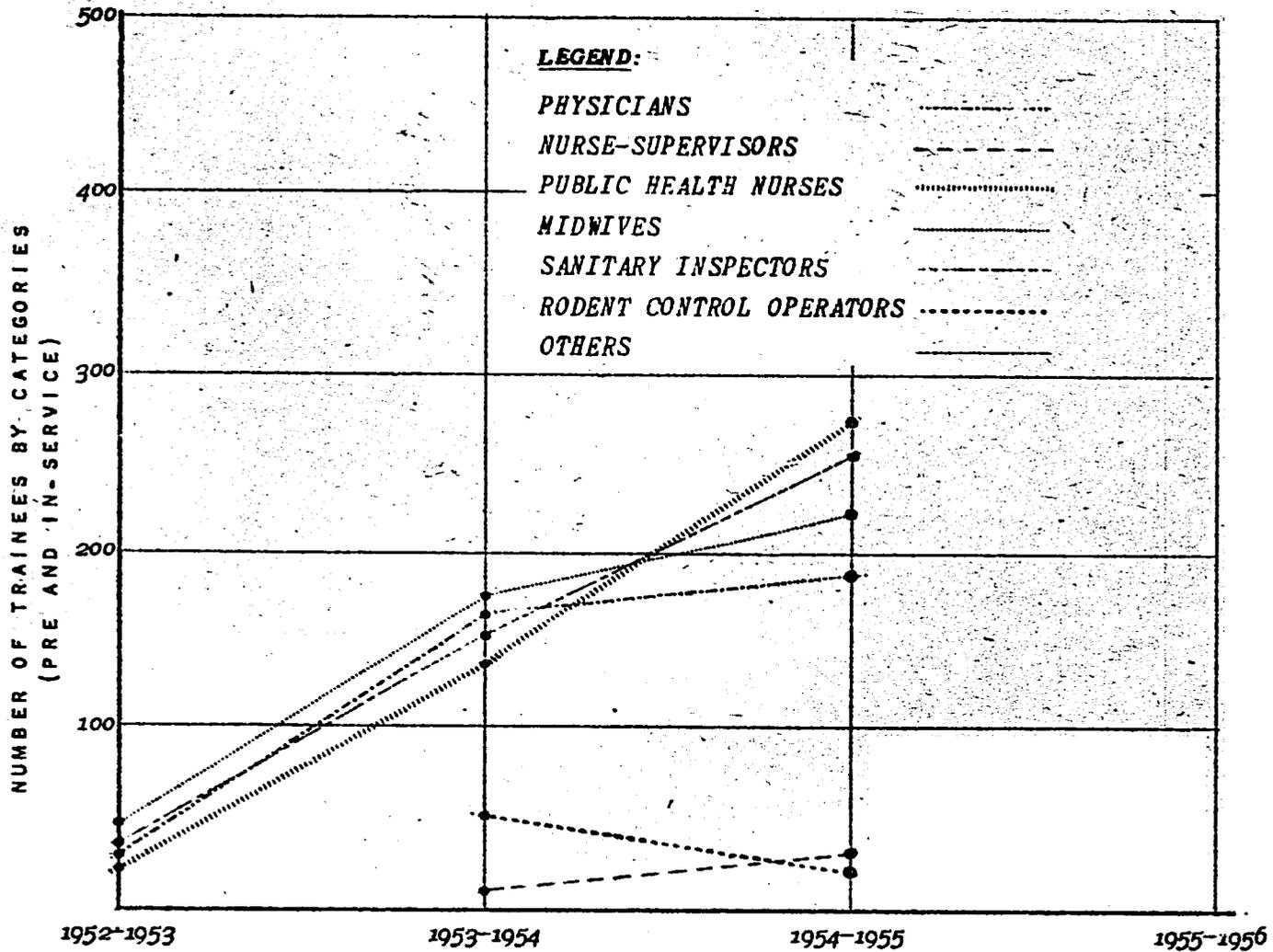


PERSONNEL TRAINING AND HEALTH EDUCATION
DEPARTMENT OF HEALTH

1955-1956 TRAINING GOALS



TRAINING ACCOMPLISHMENTS BY FISCAL YEAR



9-1

HOSPITAL REHABILITATION PROGRAM*
FISCAL YEAR 1955 ANNUAL REPORT

INTRODUCTION

Before the outbreak of the war in 1941, the Philippines had a fairly good network of public and private hospitals established strategically throughout the country to meet the minimum needs of the people for hospital services. There were 66 government hospitals with a bed capacity of 8,888. Of these hospitals, 53 were destroyed as a result of military operations during the last war. Thirty-two (32) hospital buildings have been refunded in reconstruction costs but because of the high cost of labor and materials at the time, this effort resulted only in partial rehabilitation. More funds were needed to complete rehabilitation of the damaged hospitals. Previous to the inauguration of the Hospital Rehabilitation Program, not a single hospital had been adequately rehabilitated as far as equipment was concerned. Some hospitals were housed in quarters not built for hospital purposes. The majority were undersized and overcrowded. It was estimated that for rehabilitation of hospital buildings alone at least ₱20,000,000 was needed. Hospital buildings were inadequate to serve the sick and assure safe hospitalization.

The acquisition of equipment is equally, if not more, essential to make hospital service effective, efficient and appreciated by the people. Hence, a program has been evolved to facilitate grants-in-aid to accelerate hospital rehabilitation. Deserving institutions were, under this program, provided with the necessary equipment essential for the care, diagnosis, treatment, comfort and safety of the patients. The major policy of this program is not for rehabilitation in terms of equipment alone, but to assure better service to the people and improve patient care.

DESCRIPTION OF PROJECT:

A. Objective:

This project was started in 1952 with the objective of raising the level of hospital service in the Philippines through increasing the medical and personnel staff and providing them with necessary equipment essential for accurate diagnosis, treatment, comfort, and safety of the patient, thereby improving the quality of medical and patient care in the national and provincial hospitals.

* - Taken from the Report of Dr. T. Elicano, Project Director.

B. Guiding Principles:

1. This project provides for the rehabilitation of the essential equipment necessary to raise the standard of hospital service in all hospitals under the Department of Health.
2. The provincial hospitals shall have priority. Priorities among them, however, shall be determined after the survey conducted by the Bureau of Hospitals. The National Hospitals shall have the second priority.
3. Recommendations based on the survey shall be submitted for approval by competent authorities of MSA, PHILCUSA, and the Department of Health.
4. All assistance given shall be in the form of direct grant.
5. The use of hospital equipment shall be extended to all patients, whether they are in the pay or charity section of the hospital.
6. Proper use and maintenance should be assured by the recipient hospital authorities. For that matter, the staff members must be professionally qualified to use, handle, or operate the equipment.
7. Final selection of a recipient institution for hospital equipment will not be made unless and until the institution can provide the Department of Health, PHILCUSA, and MSA, with an authenticated guarantee that the equipment will be properly handled, installed and maintained.
8. Recipient hospital must have sufficient funds with which to continue its operations at a satisfactory level.
9. All equipment shall be received by the Bureau of Hospitals which will make subsequent sorting, crating and transshipment of approved equipment for hospitals designated to receive the aid.
10. The supervision and control of the project shall be the function of the Bureau of Hospitals.
11. Accomplishments attained due to this grant should be reported every three months to PHILCUSA and MSA.

C. Implementation:

1. The ECA then MSA and FOA and now ICA was inaugurated in the Philippines in April, 1951.

2. One of its first steps was to allocate \$500,000 for hospital rehabilitation. This was in August, 1951. \$500,000 was additionally allocated in 1952 and in 1953, a further allocation of \$540,000.

3. The Director of Public Health Division, MSA/Manila, guided the development of the project from the time of his arrival in the Philippines in November, 1951.

4. The ECA/TA arrived in August, 1951. He lent assistance to Secretary of the Department of Health, Honorable Juan Salcedo, Jr.; to Director Tranquilino Elicano of the Bureau of Hospitals; and to the Hospital Rehabilitation Project Director, Dr. Antonio Rodriguez.

5. Dr. Rodriguez and the ECA/TA worked with the PHILCUSA staff particularly with Dr. Leon Santiago and Dr. Anastacio Lising in the preparation of a comprehensive specification list. The PHILCUSA was then under the Chairmanship of Mr. Jose Yulo.

6. Provincial Hospitals were visited personally by the MSA/TA, Dr. Rodriguez of the Bureau of Hospitals, and Dr. Santiago of the PHILCUSA. The preliminary survey was made to determine overall needs. A complete detailed survey was impossible at this time but the reconnaissance survey showed that the hospitals lacked most items of basic equipment.

7. Specifications were prepared and submitted to PHILCUSA October 6, 1951. PHILCUSA submitted them to MSA/Manila, December 5, 1951. MSA/Manila dispatched them to Washington, December 10, 1951. Washington approved the list January 2, 1952. Bids were called on March 26, 1952.

8. The first contract was made June 15, 1952. The first deliveries to the Philippines began to arrive on October 1, 1952. Distribution to Provincial Hospitals began March 3, 1953.

9. Dollar specifications having been prepared, a peso counterpart project was prepared covering local expenses and locally produced hospital equipment such as bedside stands, office desks, chairs, cabinets, mattresses, pillows, etc.

10. The next problem to be faced was that of distribution. To whom should the equipment go, and what basis would be used for selection. A committee was formed consisting of representatives from MSA, the Bureau of Hospitals, and PHILCUSA. It was decided to divide the country into 3 regions: Luzon, Visayas, and Mindanao, and for reasons of standardization and simplification in the distribution of equipment, hospitals would be classified into 3 groups: 25 bed capacity, 50 bed capacity, 100 bed capacity.

11. The small committee then requested the formation of a larger committee to determine the minimum equipment needs of the various categories of hospitals. Such a committee was formed and after a number of meetings agreed upon the minimum equipment list for each category of hospital. This list was the basis of a hospital survey which determined shortages and acted as a guide for the distribution of equipment when received. The survey list was not identical with the procurement list. The survey list represented total minimum needs and the procurement list represented only the most critical items. The number of items on this procurement list was limited by the actual funds available in both dollars and pesos.

12. Staff members of the Bureau of Hospitals were not familiar with survey methods or techniques and it was necessary to organize a school for those staff members in the Division of Hospitals under Dr. Enrique F. Ochoa, assisted by Dr. Rafael E. Delgado and Dr. Consorcia Bautista, who helped conduct the survey. The field survey team consisted of the following people: Dr. Jose Florentino, Dr. Manuel Q. Arambulo, Dr. Ismael Villarica, Dr. Arturo B. Baltazar, Dr. Victorio P. Dominguez, Dr. Sabas E. Yap, Dr. Jose Verzosa and Dr. Justo de la Llana. The school itself was conducted by TAs of the MSA. After the school was completed, a sample survey was made as a demonstration and then the team went to the field and surveyed the 90 Government Hospitals under the Bureau of Hospitals.

13. While the survey was being conducted, the responsible committee organized the fact that need alone could not be the criterion for the distribution of the equipment. It became evident that equipment would be useless unless the hospitals possessed the right kind and the sufficient number of staff members. Adequate funds were also needed for maintenance and operation. Consideration of all factors indicated that final qualification of hospitals seeking aid would be the concrete demonstration of a need plus definite proof that the hospital could and would provide for a proper staff and sufficient funds needed for maintenance and operation.

14. The survey results received were carefully studied. One of the first distressful facts noted was that very few of the hospitals had people sufficiently trained in the operation and care of anesthesia apparatus, x-ray equipment, and electrocardiograph. The committee decided, therefore, that schools in the operation and care of this kind of equipment should be instituted and equipment of this kind would not be issued until the hospital staff members were adequately trained. An x-ray school was immediately opened, training x-ray technicians and physicians in the radiology department to increase their present knowledge in Operative Radiographic Techniques. Then, training in Anesthesiology and Electrocardiography followed. These were conducted by the Philippine Society of Anesthesiologists and by the Philippine Heart Association, respectively.

15. The creation of the Executive Committee of the Department of Health composed of Dr. M. Arambulo of the Bureau of Hospitals, TAs of the ICA and Dr. C. Batenga of the PHILCUSA guided to a large extent the proper utilization of hospital equipment and hospital personnel through regular and systematic field visits and consultation.

16. Regional workshops have been instituted by Secretary Paulino J. Garcia in order to insure the improvement of patient care thru better administration and closer team work. These are attended by chiefs of hospitals, chief nurses and the administrative officers.

D. Immediate Reactions:

The morale and interest of hospital personnel greatly improved after the receipt of new equipment as it has provided them with the essential tools with which to perform their duties in the care of the sick.

The doctors are now provided with proper operating tables, lights, suction apparatus and anaesthesia equipment which enables them to perform surgical operations under safer and more favorable conditions.

The introduction of the standard hospital medical or surgical bed allows the nurse and the doctor to perform treatment on patients with greater ease. Previously, many of the patients were on cots. The patients' environment and comfort have been greatly improved with the new beds.

X-ray, electrocardiograph, and basal metabolism machines have provided the physician with tools to aid him in determining the diagnosis and treatment of the patient. Microscopes, colorimeter and centrifuge apparatus have assisted the laboratory technician in performing more reliable tests.

The dietary departments have been able to improve the quality of food service as they now have refrigerators in which to store food and food conveyors to deliver hot food to the wards.

Hospital cribs and bassinets have provided security for the young child and infant. In many instances, these cribs have reduced the number of watchers as heretofore the child was placed in an adult bed or cot and there was great danger of his falling and also of transmitting infectious diseases to the newborn.

Fifty-nine provincial and national hospitals received grants in aid in the form of diagnostic equipment, beds, operating and delivery room equipment, ambulance, station wagons, utensils, instruments, steel generators, x-ray, laboratory, anaesthesia apparatus, wheel chairs, laundry equipment, isolettes (infant incubators), infant bassinets, children cribs, food conveyors, oxygen tanks, dental equipment, etc. The total value of the equipment and supplies received and distributed as of June 30, 1955, was \$1,463,574.21. The Philippine Government thru the PHILCUSA provided P696,748.81 for equipment and supplies. Among the items supplied during the period under review were: mattresses, pillows, foot stools, bedside cabinets, office furnitures, nurses' desks, chairs, oxygen tanks, electric generator, oxygen, linens, mattress covers, etc. In addition to the Philippine Counterpart in pesos, arrastre and personnel services were paid by the local government.

Most significant of all is the reaction of the people - patients and community members. The public has become "hospital conscious". In years past only when patients were in a dying condition did they seek hospital admission and treatment. As the number of patients gradually soared higher with each passing year, side by side with the installation of new equipment and supplies for the improvement of patient care, mortality rates have significantly declined with each year.

E. Financing:

Total amount of dollar equipment received
from November 24, 1952 up to
July 31, 1955 \$1,463,574.21

Total peso equipment for same period... P 696,748.81

F. Achievements:

During the whole period covered by the Hospital Rehabilitation Program, 59 hospitals were selected for rehabilitation, out of the 82 government hospitals under the Bureau of Hospitals, based on their ability to comply with the guiding principles. The remaining 23 hospitals failed to qualify either staffwise or financially.

To complement the acquisition of modern hospital equipment, and to better improve hospital services to the people, technical men in each hospital were directed to come to Manila to undergo training in the use of the equipment or apparatus placed under his direct charge. Careful screening in the selection of hospital staffs and personnel has been instituted in order to bring about the desired improvement of patient care.

During the period covered by this report, no less than 100 doctors, nurses and technicians finished their training in hospitals in Manila. Three batches of x-ray trainees (radiologists and x-ray technicians) finished their courses. This training insures the proper use of x-ray equipment and thus prevents useless waste. Resident physicians assigned as anesthesiologists were likewise required to undergo training, in order to familiarize themselves with the proper use of anaesthesia apparatus. Training was also conducted in electrocardiography, basal metabolism, and colorimeter. Training in laundry operation was likewise conducted at Clark Field. During the past three years the ICA/PHILCUSA Technical Assistance Training Program, has sent twenty-six persons to the United States to supply the various branches of hospital work. Of this number, 15 have returned to the Philippines and are now working in the particular field in which they were trained.

The first of a series of Regional Workshops was held in Negros Occidental Provincial Hospital, Bacolod City. In attendance were chiefs of hospitals, chief nurses and administrative officers of all hospitals in the Visayan area. This was the first planned move to improve hospital services, without additional cost, by systematic group-planning, group-thinking and group solution of problems common to hospital administrators. It was attended by no less than the Secretary of Health, the Chairman of the Senate Committee on Health and Chief of the Health and Sanitation Division of the ICA. Consultants from the central office and ICA/TAs in the fields of hospital administration, nursing, finance, statistics and health education served as resource persons. By solving jointly the root causes of common deficiencies in hospital services, improvement of patient care has been greatly improved.

G. Evaluation:

The acquisition of much needed hospital equipment under this program has made every Filipino "hospital conscious". Medical and technical staff became imbued with high morale because of the handy tools and facilities afforded them in the performance of their hospital duties. Patients seek hospital care and treatment with full confidence and reliance in the hospital's more efficient and effective service. The people have regained confidence in these institutions, established primarily for service to all.

Admissions have increased by almost 50%; major operations soared by 40%; and out-patient department increased by 35% in 3 years period. All these increases entailing more volume in hospital work and activities occurred without increases in the number of beds or proportionate increase in appropriations. It may be stated in passing that this improvement in hospital care has led to greater economy through shortening of patient days and therefore, better utilization of beds. In the year 1952, statistics has shown that one hospital bed was utilized by 25 patients, but by 1955 the same bed has been utilized by 31 patients.

Survey work conducted under this program uncovered defects and other problems which served as the principal basis upon which a long-range program to improve hospital service was evolved.

Training of medical and other technical personnel was spurred by the acquisition of new and modern equipment so that nearly all hospitals are now manned by personnel trained in the use of specialized equipment supplied by ICA/PHILCUSA.

It may be significant to advance the observation that as a consequence of this Hospital Rehabilitation Program, ultimately, the socio-economic stabilization of the county will be aided. More and better hospital care, definitely would shorten patient days in the hospital, which would also mean shortening of unproductive time. More lives have been saved because of better care, resulting in the conservation of more man power which redound to increased production. By increasing the life span of the citizenry, the life output per capita is also increased, hence increased production will be a contributory factor in augmenting the economic stability of the country. The number of medical cases has increased since 1952 and so have the number of major operations. From the following graphs I, II, III, IV, and V, it is noted that after the Hospital Rehabilitation Program was inaugurated the number of patients admitted, medical cases, number of out-patients, and major operations has greatly increased. It is also very striking to observe in the following graph that the percentage of mortality in our hospitals has gone down from 3% to a little over 2% last year. This reduction of the mortality rate is an indication that the Hospital Rehabilitation Program has brought about tremendous improvement in every phase of hospitalization.

FUTURE OBJECTIVES

The future objective of this project is to continue to improve patient care by proper financing and continued training of medical and para-medical personnel. It is hoped that this objective shall be accomplished by the nationalization of funds upon adoption by Congress of the Reorganization Plan of the Department of Health and the hospital in-service training programs. Planned working conferences and added academic courses to the Philippine Institute of Hygiene are already initiated and underway.

It is anticipated that Advisory Boards made up of lay people influential in their communities shall be established in each government hospital to assist in fund raising; advise towards good public relations; assist in suggested procedures, management and to bring the hospital nearer the people it serves. Two such boards have recently been organized in Baguio and in Sorsogon. Latest reports received are that they are very effective and are endeavoring to assist in the administration of the hospital.

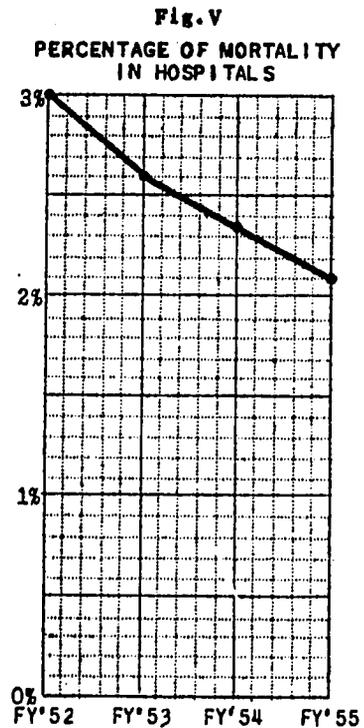
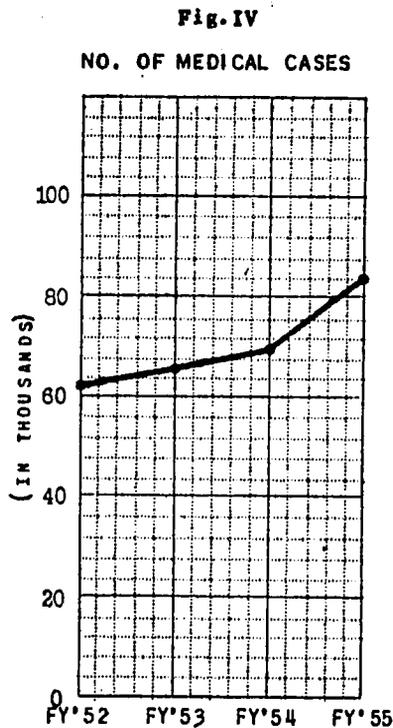
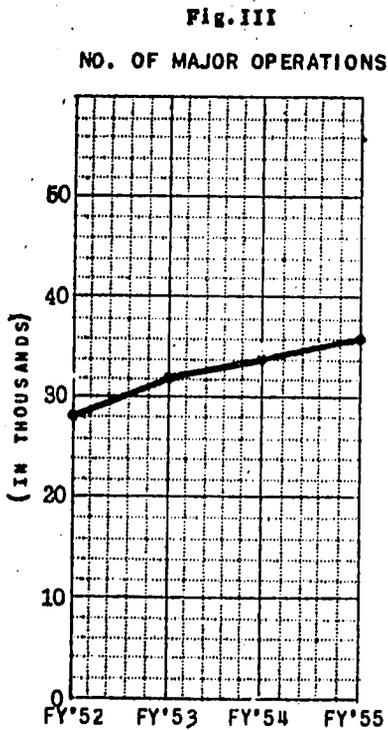
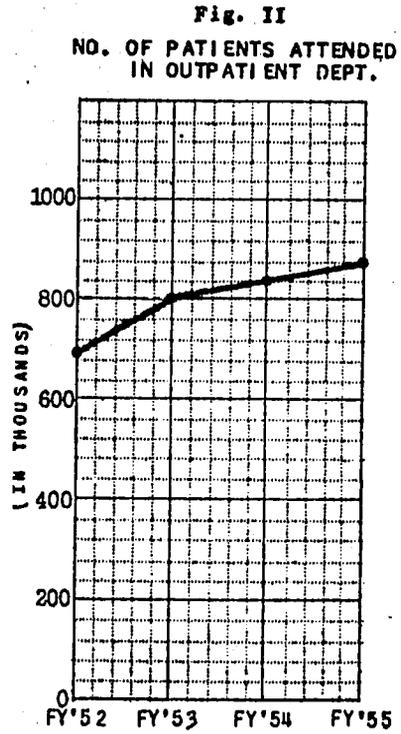
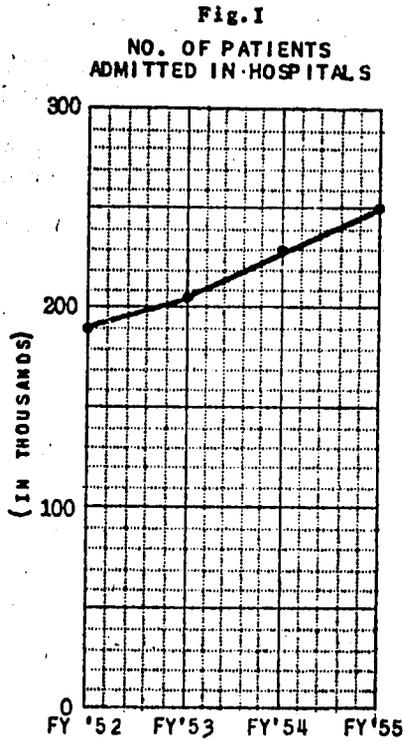
EQUIPMENT AND SUPPLIES
INVENTORY REPORT AND SUMMARY OF DISTRIBUTION
(As of June 30, 1955)

<u>HOSPITAL</u>	DISTRIBUTION (Issued & Loaned)			
	D O L L A R		P E S O	
	Equipment	Supplies	Equipment	Supplies
	Total Value	Total Value	Total Value	Total Value
<u>LUZON</u>				
<u>25-bed capacity</u>				
Abra Emergency	9,292.76	425.49	5,565.64	73.05
Bataan Provincial	15,432.98	429.13	6,084.17	68.20
Bayombong	5,611.19		5,465.77	70.40
Bontoc	5,720.93		4,789.35	55.00
Camarines Norte Prov.	12,104.56	424.34	5,727.60	55.00
Ilocos Norte Prov.	13,889.11	425.49	5,328.99	55.00
Marinduque Prov.	11,618.28	210.88	5,717.21	63.80
Mindoro Prov.	17,987.32	434.64	5,934.55	55.00
San Carlos	11,990.94	108.77	4,527.89	44.00
San Pablo City	9,641.21	418.89	4,746.53	61.60
<u>50-bed capacity</u>				
Albay Prov.	28,263.49	430.70	9,585.93	137.00
Bulacan Prov.	21,667.66	530.95	10,656.39	185.30
Cagayan Prov.	27,323.59	956.92	11,102.66	139.95
Ilocos Sur Prov.	19,620.71	425.49	10,251.65	115.30
Isabela Prov.	19,425.78	957.31	9,546.61	125.85
La Union Prov.	17,675.32		10,750.07	137.30
Sorsogon Prov.	31,763.24	956.10	13,721.55	172.10
Zambales Prov.	23,241.07	559.76	10,714.86	139.95
<u>100-bed capacity</u>				
Baguio General	56,767.96	740.20	25,880.19	524.90
Batangas Prov.	45,036.12	639.51	17,723.34	303.80
Camarines Sur Prov.	31,971.62	430.70	18,315.12	233.80
Laguna Prov.	36,372.95	210.89	20,746.81	346.90
Nueva Ecija Prov.	35,358.45	639.49	18,935.92	300.25
Pampanga Prov.	50,136.98	639.44	21,332.85	336.20
Pangasinan Prov.	24,976.94	530.71	14,385.99	249.95
Quezon Memorial	36,543.01	638.30	20,384.79	225.85
Rizal Prov.	46,752.94	640.20	20,666.11	346.35
Tarlac Prov.	32,206.07	639.44	20,456.32	303.80
A. O.			7.50	

HOSPITAL	D O L L A R		P E S O	
	Equipment	Supplies	Equipment	Supplies
	Total Value	Total Value	Total Value	Total Value
<u>300-bed capacity</u>				
Maternity & Children	35,165.94		16,060.35	261.80
Motor Pool, D. H.		3,408.65		
National Orthopedic	44,533.33	530.67	25,340.55	675.90
National Mental	501.87		432.40	
National Indigent and Children	7,425.38		5,951.47	
North General	15,979.58		8,662.95	
Philippine General	585.96			
P.T. & Health Edu- cation	4,270.09			9.90
San Lazaro Hosp Lab.	155.83	292.20		
San Lazaro	26,034.14	494.61	11,871.19	220.00
H. R. P. Bureau of Hospitals	5,372.20	31.19	128.90	1.20
<u>V I S A Y A S</u>				
<u>25-bed capacity</u>				
Antique Prov.	13,846.91	424.31	4,908.56	55.00
Cuyo	6,155.21		4,184.32	68.20
Puerto Princesa	8,080.63		4,282.83	68.20
Roxas Memorial	12,312.34	424.74	4,627.51	55.00
<u>50-bed capacity</u>				
Capiz Prov.	18,336.76	210.86	7,992.78	110.00
Iloilo Prov.	29,987.20	212.04	12,980.35	154.60
Masbate Prov.	18,017.93	425.49	11,179.51	137.30
Negros Or. Prov.	20,670.66	953.98	9,638.08	100.35
Samar Prov.	17,294.54	431.10	8,999.58	83.75
Western Leyte	16,998.67	425.89	9,409.44	57.65
<u>100-bed capacity</u>				
Bohol Prov.	33,169.57	430.70	16,912.55	199.35
Leyte Prov.	31,334.19	107.61	17,628.34	281.80
Negros Occ. Prov.	54,196.53	994.99	29,983.20	485.75
Southern Islands	57,396.19	955.42	27,007.41	521.80
<u>M I N D A N A O</u>				
<u>25-bed capacity</u>				
Aurora Prov.	2,322.01		2,661.67	55.00
Bukidnon	14,079.90	434.34	5,607.84	55.00
Butuan	12,068.40	425.49	5,976.66	68.20
Lanao General	14,340.76	424.34	6,125.35	83.60
Rizal Memorial	11,720.64	424.74	5,394.90	55.00
Surigao Prov.	11,521.41	425.89	5,549.10	55.00

HOSPITAL	D O L L A R		P E S O	
	Equipment	Supplies	Equipment	Supplies
	Total Value	Total Value	Total Value	Total Value
<u>50-bed capacity</u>				
Cotabato	25,212.10	433.57	10,410.58	121.15
Misamis Occ. Prov.	23,124.82	424.34	10,144.55	117.50
Misamis Or. Prov.	27,306.73	432.42	11,300.63	135.44
<u>100-bed capacity</u>				
Davao General	42,821.48	530.67	19,182.44	346.35
Zamboanga General	48,688.22	693.00	18,064.04	421.55
<u>T O T A L</u>	<u>\$1,429,198.18</u>	<u>\$30,462.86</u>	<u>₱ 686,559.01</u>	<u>₱10,099.70</u>
Distribution as of June 30, 1955	\$1,459,661.04	\$3,913.17	₱ 696,658.71	₱90.10

GRAPHS SHOWING TRENDS IN HOSPITAL SERVICES



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PHILIPPINE GENERAL HOSPITAL
FISCAL YEAR 1955 ANNUAL REPORT

I. BACKGROUND

The Philippine General Hospital is the teaching hospital of the College of Medicine, University of the Philippines. It is now included in the American Medical Association's list of hospitals approved for internship, and the College of Medicine itself is a member of the Association of American Medical Colleges which accepts only class "A" medical schools.

Seventy percent of the physical plant was damaged during the war and equipment and supplies almost completely destroyed. Much restoration was accomplished to the physical plant by the War Damage Commission and some surplus army equipment was supplied. This equipment had become worn and obsolescent, consequently replacement was necessary in order that the level of patient care could be maintained and brought closer to acceptable standards. Lack of funds prevented this institution from accomplishing the task of rehabilitation, so a request was made through PHILCUSA to FOA in 1952.

A. Objectives

The project proposed to assist the Philippine Government in the rehabilitation and improvement of the Philippine Medical Center in the Philippine General Hospital. The project has three specific objectives:

1. To improve the facilities of Medical Center.
2. To improve the quality of medical instruction.
3. To provide adequate research facilities.

B. Guiding Principles

1. With the implementation of its Rehabilitation Project under the FOA/PHILCUSA assistance program, the Philippine General Hospital will provide itself with efficient and well-prepared medical, nursing, and other technical staffs and thus effectively serve as a teaching and training center for students and professionals.

2. The Philippine General Hospital will continue to provide regular clinical post-graduate courses in order to strengthen the medical profession and bring it in line with the advance of medical science.

3. Equipment coming under the FOA/PHILCUSA aid shall be used equally for the free and pay patients, without distinction as to rank, religion, or political affiliation.

4. All books and journals shall be housed in a library which shall be made accessible to students, professionals, and research workers in science who might have need for them.

5. All equipment, books, and journals granted under the FOA-PHILCUSA aid shall be stamped or marked with the official seal of the Philippine-American Development Program.

6. Budgetary provisions have been made for employment of technical personnel necessary for the carrying out of the project.

7. There shall be provided in the Philippine General Hospital Budget a regular appropriation for the maintenance and operation of the equipment granted under the FOA/PHILCUSA assistance program.

II.

A. Achievements 1952-1954

1. Procurement authorizations for FY 1953 amounted to \$520,000 for hospital equipment and teaching supplies to improve the clinical service and teaching facilities of the hospital. Contracts were let for \$492,630 of the above authorization.

2. FY 1954 procurement authorization was for \$103,000 from which contracts were let for \$70,702. Of this amount kitchen equipment, books and a laundry unit* was purchased. Equipment and supplies began to arrive in April, 1953. All departments of the hospital were improved by the end of FY 1954 and with this added equipment fulfilling the needs of the hospital, the teaching facilities for the School of Medicine has been improved.

* - The laundry was transferred to the Department of Health for better utilization upon the request of PGH and the mutual agreement between the Department of Health, PHILCUSA, PCH and ICA.

B. Achievements 1954-1955

1. All equipment with exception of a few items under repair is in use and functioning with maximum benefit to patient care and to the teaching program of the University of the Philippines.

2. Hospital services have been extended to the homes of patients after discharge from the hospital made possible by the receipt of PHILCUSA/FOA station wagons for use by the Social and Home Service nursing plan. This service has succeeded in shortening the length of stay of hospital patients resulting in availability of beds for a greater number of patients. The team visitations are averaging 22 cases daily since inauguration.

3. Screening of patients is possible now with the addition of the 70 mm X-ray machine provided by PHILCUSA/FOA to Quezon Institute and installed in the Philippine General Hospital to be used by the two institutions as a joint teaching program in early detection of tuberculosis. The unit is installed in the Out-Patient Department resulting in increased services and relieving the congestion of the X-Ray Department. Presently the unit is averaging 60 chest X-rays daily with the expectation of increasing this number as funds become available for more supplies. Presently an average of 8% of cases examined has been determined as positive.

4. The kitchen has completed installation of all equipment provided which has greatly improved the dietary service to the patients. Plans are being provided to completely modernize the food distribution to create more efficient management of the service.

5. Professional students (nurses and physicians) have greatly benefited from the medical books, and periodicals. A complete library is provided to the students in the building donated by the China Medical Board. The FOA-purchased books and periodicals are made available to others in the Medical Profession through the library.

III FINANCING

	<u>Dollar Support</u>		<u>Peso Counterpart</u>
Procurement Authorization	\$520,000.00	\$103,000.00	₱216,000.00
Contracts let	428,727.66	72,129.91	91,780.04
Commodities arrived	373,873.95	68,313.17	91,780.04
% of equipment now in use	94%	100%	100%

IV CONCLUSIONS AND FUTURE PLANS

As a result of receiving this equipment it may be stated that this project has contributed to the economic development of the country by offering to the people an institution devoted to teaching, research and the curative phase of medicine equal to some and surpassing most other countries.

Future plans include continued improvement of patient care in the hospital and improved service by research and teaching to the medical profession of the Philippines and the Far East.

PHILIPPINE GENERAL HOSPITAL CHEST CLINIC
FISCAL YEAR 1955 ANNUAL REPORT

OBJECTIVE

1. A 70 mm X-ray unit (Photo-roentgen) 200 M. A., 100 K.V. for radiography and fluoroscopy was purchased by ICA for the Philippine Tuberculosis Society to be used in the Admission Department of the Philippine General Hospital. The agreement between the Philippine Tuberculosis Society and the Philippine General Hospital is that this X-ray unit shall serve the patients in the Manila area and will also be used for training nursing and medical students of the U. P. College of Medicine. This unit will also serve as a demonstration tuberculosis unit for all general hospitals to show the importance of chest x-rays of all admitted cases.

2. Since this type unit is a new concept in the hospitals of the Philippines, the X-ray unit shall be a demonstration of the value of pre-admission x-ray diagnosis. It is understood that all patients regardless of preliminary diagnosis shall be x-rayed to assist in determining early cases of tuberculosis.

The Quezon Institute (the training hospital for the Philippine Tuberculosis Society) will provide the needed peso appropriations for the project. The Quezon Institute has adequate and sufficiently trained staff for assignment to this project.

GUIDING PRINCIPLES

1. The tuberculosis clinic to be established in the Philippine General Hospital will serve patients in the area and will be used for training medical and nursing students from the University of the Philippines.

2. This unit will also serve as demonstration tuberculosis unit for all general hospitals to show them the importance of chest x-rays of all admitted cases.

3. All equipment and facilities will be used for free in-patients and out-patients.

4. The Philippine Tuberculosis Society will provide all the necessary personnel who will be chosen from duly qualified trained and selected members of the staff of the Quezon Institute.

ACCOMPLISHMENTS

The X-ray Extension Service of the Quezon Institute was inaugurated at the Philippine General Hospital on March 24, 1955. Since that date there has been an average of 60 radiographic examinations daily. This unit is serving to lessen the congestion of the PGH X-ray Department in addition to being an excellent teaching instrument for medical students in the early detection of tuberculosis. The end results expected and now being recognized from the installation of this unit are ^{that} it is serving in the early detection of tuberculosis and it is demonstrating the value of early detection of tuberculosis to other medical schools and general hospitals.

With the recognition of the value of routine X-ray examination upon admission it is felt that other medical schools and general hospitals shall follow the example set by the Quezon Institute Extension Service at the Philippine General Hospital in offering the same service. This should eventually tend to lower the mortality rate of tuberculosis by virtue of early treatment of the disease.

United States of America Operations Mission
to the Philippines

Health and Sanitation Division

SERUM AND VACCINE PRODUCTION
ALABANG LABORATORIES REHABILITATION

A. Background Information

This is a project to provide plant and equipment for rehabilitation of the sera and vaccine facilities of the Alabang Laboratories. The project was initiated to rehabilitate the power plant, provide pure water, necessary boilers, and laboratory equipment to increase production fifty percent or more on smallpox, cholera, dysentery, rabies, BCG and typhoid vaccine, as well as anti-toxin serum and anti-venim.

The commodities for the laboratory began to arrive July, 1952 and by the end of this fiscal year all of the equipment for this project had been received. All of the equipment is in operation with the exception of the Diesel Engines and the Turbo Deep Well Pump due to lack of provisions for the installation expenses for some minor equipment like air compressors, vacuum pumps and generators. The dollar assistance for this project terminated June 30, 1953 but the peso counterpart budget was extended three times to cover the installation charges. Extension of the peso budget was necessary as the essential accessories for the Diesel Engines were lacking and could not be installed until they were received by the manufacturers.

B. Guiding Principles

1. This project provides for the rehabilitation of the power house and the furnishing of equipment in the Research and Production Laboratories in Alabang.

2. The laboratory shall, after the receipt of the equipment produce sera, vaccines, and other biological products to the extent of the previous production.

3. These biological products are to be supplied to government agencies at production cost plus cost of handling.

4. Reports on the accomplishments shall be submitted every three months together with the balance sheet of production, sale, and receipt.

5. The Public Health Research Laboratories shall be the agency responsible for the implementation of this project.

6. The project director shall report on the inventory and date of installation of commodities received for this project.

Serum and Vaccine Production-Alabang Laboratories (Continued)

On July 17, 1954 the new Plasma Dehydrating Laboratory was opened. It is located on the grounds of the Department of Health, and the plasma manufacturing apparatus was transferred from the Alabang Laboratory to this building. The Department of Health Laboratories is collaborating with the Philippine Red Cross in further developing the blood and plasma bank program to meet the needs of the country now and in case of disaster.

C. Specific Achievement

Dollar commodities purchased for the rehabilitation of this laboratory consisted of power plant equipment, such as a rotary vacuum pump, air compressor, generator, and steam boilers. Laboratory equipment consisted of sterilizers, incubators, binocular microscopes, electronic microscope, plasma shelling and drying apparatus, spectrophotometer, autoclaves, and other routine laboratory equipment.

The rehabilitation of the Alabang Laboratories has greatly enhanced the production of vaccine and sera and during this fiscal year the following biologic products were manufactured:

C.D.T. P.A. - - - - -	4,176,627 cc
Rabies Vaccine (human) - - - - -	2,484,960 cc
Rabies Vaccine (veterinary) - - - - -	32,830 cc
BCG Vaccine - - - - -	332,015 cc
Vaccine Virus - - - - -	2,447,500 Doses
Normal Horse Serum - - - - -	1,280 cc
Anti-Dysenteric Serum - - - - -	12,280 cc
Anti-Tetanic Serum 1,500 U - - - - -	19,482 cc
Spl. Dysentery Vaccine (for horse) - - -	4,000 cc
Pertussis Vaccine - - - - -	64 cc
Cholera Vaccine - - - - -	32,250 cc
Cholera-dysentery-typhoid Vaccine - - -	144 cc

The serum and vaccines were sold both locally and abroad and the total sales for FY 1954 amounted to ₱591,038.13. The following biological products were shipped to the neighboring East Asia countries:

<u>Country</u>	<u>Biological</u>	<u>Quantity</u>	<u>Cost</u>
Burma	Dried Vaccine Virus	100,000 vials	
		50 doses each	₱ 4,652.40
Bangkok, Thailand	Anti-Rabies Vaccine	1,000 bottles	
		(30 cc each)	2,000.00
Hongkong)	BCG Vaccine	5,635 ampules	5,635.00
Indonesia)		(10 cc each)	
Sarawak)			
Indonesia	BCG Vaccine	1,130 ampules (5 cc ea)	565.00
	Tuberculin Dilutions	5,700 bottles	4,650.00
	PPD 5 T.U.	(30 cc. each)	
		<u>T O T A L</u>	<u>₱ 17,502.40</u>

Serum and Vaccine Production-Alabang Laboratories (Continued)

Budget

	<u>Dollar</u>	<u>Counterpart</u>
FY 1952	205,000	
FY 1953		104,000
FY 1954		49,000

WATER SUPPLY AND ENVIRONMENTAL SANITATION
FISCAL YEAR 1955 ANNUAL REPORT

A significant forward step taken during the fiscal year 1955 was the formulation of a reorganization plan for the Department of Health which was presented to the Governmental Survey and Reorganization Commission and to the Congress. In this proposed reorganization, the present Section of Sanitary Engineering is to be raised to the status of a Division and called the Division of Environmental Sanitation.

The number of graduate sanitary engineers engaged in the work of the Department of Health has been increased from one in 1950 to thirty-one in 1955. Eight of these men were added to the staff early in this fiscal year, following a period of intensive special training. These men were selected on the basis of competitive examinations.

Two of these engineers studied at the University of Minnesota and one at the University of North Carolina during this year, under ICA-PHILCUSA fellowship.

Community Water Supply

Wells and Springs Project 50. 52. 01

The need for this project continues. The number of new wells constructed is not yet sufficient to keep pace with the increase in population.

Both financial assistance and technical advice are necessary.

The objectives continue to be the same as previously reported, namely: to drill 755 deep wells, construct 1,000 shallow wells, and improve 1,000 springs in development areas of the Philippines where death rates due to water-borne sickness are high and where wells will demonstrate the value of safe water and spur local and national governments to do more for themselves in providing adequate potable water supplies. The experience to date indicates the great need for educating people to use a safe source of water when they have a choice between a safe and an unsafe source of water supply. In too many cases, it has been observed that when a safe well-water supply is provided, the people who are intended to be helped thereby continue to use unsafe but nearer supplies.

A campaign to improve all water supplies, so that even those persons who will not or cannot carry water from a distance will have their health protected, is now under way by the Department of Health.

The Liberty Wells Association

The Secretary of Health is Chairman of the Board of Directors of this voluntary organization. Nearly a million pesos have been voluntarily contributed in cash to the Liberty Wells Association up to the end of FY 55. Other contributions in materials and labor bring the total to approximately 1,100,000 pesos. These funds supplement those appropriated by Congress and supplied by ICA/PHILCUSA.

Achievements

The Department of Health reports that, as of June 30, 1955, it has made 3468 reconnaissance surveys and 2792 sanitary surveys. The reconnaissance survey gets data needed to determine, in conference with representatives of the Department of Public Works and Communications, the approximate area in which wells should be constructed. After agreement has been reached, the sanitary survey is made. The number of completed sanitary surveys is now approximately 1,200 greater than the number of wells completed or under construction in this project. Consequently there is no immediate prospect that well drilling might be retarded because of lack of surveys.

The Bureau of Agricultural Extension has continued to cooperate with the Health and Sanitation Division in educating village people to demand safe water and in teaching them how to build a good sanitary dug well and a sanitary privy.

The following table shows the official figures released by the Bureau of Public Works, for the period January 1, 1954 to July 6, 1955.

Well Activities of the Bureau of Public Works January 1, 1954 to July 6, 1955 (eighteen months) Drilled Wells Completed

FOA - PHILCUSA

By Contractors	405
By Administration	17

FOA - Bureau of Public Works

By Administration	1089
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Bureau of Public Works RA 920	284
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Other Government Entities	45
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Liberty Wells Association	<u>97</u>
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Total	1937
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Of the 1,937 wells constructed, FOA-PHILCUSA assistance was used in 1,511. This is 78% of the total, and strikingly reflects the importance of this aid in the nation's overall well construction activity. Without this aid, the well construction would have fallen still farther short of meeting the needs of the increasing population of the Philippines.

Great efforts have been made during this fiscal year to increase the output per employee in the project, thus reducing the average cost per well constructed. There is believed to be an opportunity for further improvement, particularly in accelerating the moving of drill rigs to new locations after completing a well.

Spring Improvements

The improvement of springs has proceeded continuously. Owing to the nature of these improvements, the cost of each is much lower than the cost of a deep drilled well. However, the number of springs suitable for improvement is relatively small, largely because of distant locations of springs relative to centers of population. The tendency to go farther and farther away in search of additional spring sources, as larger needs for water develop, should be frowned upon and more attention should be given to purifying, under proper Health Department supervision, of water from near-by sources.

Ninety-nine springs had been improved and two hundred seventy were being improved at the end of the year under review, at a cost slightly less than ₱75,000.00

Preparations have been made for the improvement of two hundred thirty other springs as rapidly as possible.

Financial Summary of Wells and Springs Project to June 30, 1955.

I. Under the Department of Health	Authorized	Actual		
		Expenditure		
RA 1150	₱ 850,350	390,895		
RA 906	45,860	45,860		
Counterpart Fund Special Account	510,338	428,852		
II. Under the Bureau of Public Works				
Counterpart Fund Special Account	<u>1,015,461</u>	<u>975,469</u>		
Total	₱ 2,422,009	₱1,841,076		
III. Dollar Allocations				
	<u>PA</u>	<u>PR</u>	<u>Contracts</u>	<u>Arrivals</u>
	\$ 1,626,324	\$ 1,616,324	\$1,282,329	\$ 1,285,522

Piped Water System Projects 50.52. 02

Of the fifteen water systems approved for improvement, nine were completed, four were nearly completed, the contract for one had just been awarded and the remaining one was being recommended for cancellation, at the end of the period under review. The recommendation for cancellation was based upon the failure of the municipality to put up its share of the cost. Two other water systems were being investigated with the idea of substituting them for the one intended for cancellation.

Financial Summary of Piped Water Systems Project

I. Local peso counterpart for labor

Authorized peso budget	₱ 233,456
Total peso release	219,453
Actual Expenditures	218,071
Balance	1,382

II. Cost of Commodities

Dollar commodities (PA 2290)	\$ 671,483.27
Pig Lead (CP No. 461)	₱ 118,766.40
Jute	₱ 15,787.20

Miscellaneous

Work was done with the Institute of Hygiene looking toward rehabilitation of its building and the provision of a public health engineering laboratory. Cooperation was given to the Department of Public Service and Department of Health of the City of Manila in solving some of its problems of sanitary engineering. Work in the Environmental Sanitation Subcommittee of the Public Health Program Coordinating Committee, the Environmental Sanitation Study Group and the Committee on Wastes Disposal was continued. Cooperation was given in training of sanitarians and home demonstrators of the Extension Bureau of the Department of Agriculture.

TUBERCULOSIS IN THE PHILIPPINES
FISCAL YEAR 1955 ANNUAL REPORT

Two major units are engaged in Tuberculosis Control. They are the Philippine Tuberculosis Society and the Division of Tuberculosis in the Department of Health of the Philippines.

On September 2, 1955, upon the request of the Secretary of the Department of Health, these two organizations met to form a Tuberculosis Technical Coordinating Committee. The title indicates the objective of this committee. The Articles of Incorporation and By-Laws of the Philippine Tuberculosis Association set forth these general purposes:

- "(a) To advance the knowledge about tuberculosis by encouraging original research on the part of its members and others;
- "(b) To collect and record facts concerning tuberculosis in the Philippines and to disseminate information thereof through every possible channel;
- "(c) To combat the spread of tuberculosis and to afford relief to those afflicted therewith by every known and possible means;
- "(d) To establish branches of the Society throughout the Philippines for the purpose of carrying out the objects of the Society, and to provide rules and regulations for the government of such branches;
- "(e) To acquire, erect, hold, manage and operate hospitals and sanatoria for the treatment and study of tuberculosis and kindred diseases;
- "(f) To acquire, lease and own any and all real estate that may be necessary or useful in carrying out the purposes for which the Society is formed and to receive and accept donations of money or of property, real or personal, from any person or entity, including the Commonwealth of the Philippines or any of its sub-divisions and instrumentalities; and
- "(g) To sell or lease any of the property that may be acquired by the corporation."

The Division of Tuberculosis, under Public Law 1136, has the following purposes and responsibilities:

"SECTION 1. The Division of Tuberculosis in the Department of Health, hereinafter called the Division, is reorganized to include an administrative section with a statistical, motor and electrical maintenance, library, and buildings and grounds maintenance units; a section of clinics and therapy; a section of prevention and immunization with a BCG immunization and children's clinic, and health education and social service units; a section of X-ray operation and maintenance; and a section of TB laboratory and research.

The Division shall have a chief and an assistant chief who shall be appointed by the Secretary of Health and shall receive annual compensation at the rate of seven thousand two hundred pesos and six thousand pesos, respectively. It shall also have such technical, clerical and other personnel as may be determined by the Secretary of Health who shall appoint them and fix their compensation in accordance with law; Provided, however, That all the subordinate personnel of the present Division of Tuberculosis in the Department of Health shall continue in office with at least the same compensation.

SECTION 2. The Division shall have the following functions:

- (a) To coordinate, direct, and implement a well-balanced, comprehensive and intensive scheme of tuberculosis control services in the country, including prevention by direct (BCG immunization) and indirect methods, diagnosis, treatment, social rehabilitation, public health training (for laymen and medical personnel), research, epidemiological and statistical studies, and national and international pooling of information;
- (b) To establish and maintain at least thirty fully-equipped fully-manned provincial TB centers within four years, complete with diagnostic laboratory, X-ray and treatment facilities (surgical and non-surgical), giving free services;
- (c) To operate and supervise wards for TB patients in provincial hospitals where there are provincial TB centers;
- (d) To establish and maintain at least thirty mobile X-ray units within four years in order to reach rural areas with no access to the district centers;
- (e) To establish and maintain at least thirty mobile TB prevention units to undertake mass BCG immunization of susceptible children and young adults, intensive health education of the public by all possible means (loudspeaker attached to wagons, lectures, movies, leaflets); home-visiting by home-visitors in rural areas, and gathering of epidemiological information on TB;

- (f) To establish and maintain at least six village rest settlements, in strategic and suitable geographic areas in all the three principal regions of the Philippines, for patients with initial or convalescing tuberculosis who have no place in sanatoria or hospitals, and to facilitate their rehabilitation and replacement, as well as those of their families, into normal society by teaching them gainful occupations under proper medical control;
- (g) To establish and maintain a National Tuberculosis Center to serve as the central headquarters for the direction of public health tuberculosis work throughout the country, to receive all reports, and statistical and epidemiological information, to serve as training center in tuberculosis for all categories of public health workers in the country;
- (h) To pool all information on tuberculosis and exchange such information with other countries; and
- (i) To cooperate with all agencies, governmental and voluntary, in matters of general public health welfare.

SECTION 3. There is created the National Advisory Council on Tuberculosis to be composed of the Secretary of Health, as Chairman, one representative each of the Department of Labor, Department of Education, and Social Welfare Administration, to be designated by their respective heads, a representative of the Philippine Tuberculosis Society, and a representative each of two civic organizations to be designated by the President of the Philippines. The Chief of the Division of Tuberculosis shall be the executive-secretary of the National Advisory Council on Tuberculosis. The said Council shall give advice to the Division regarding the performance of its functions.

SECTION 4. The FOA-PHILCUSA and WHO-UNICEF-assisted TB and BCG units when they are ready to be turned over fully to the Government, all tuberculosis clinics supported by provincial or city governments if the provinces and cities concerned agree, and all the TB public health activities of the Department of Health, Department of Education, and Social Welfare Administration are transferred to the Division of Tuberculosis as herein re-organized. The said Division is authorized and directed to receive, staff, and maintain any TB center or pavilion which the Philippine Tuberculosis Society may turn over voluntarily to the Division.

SECTION 5. In lieu of the appropriations for the present Division of Tuberculosis in the Department of Health, there is appropriated, out of any funds in the National Treasury not otherwise appropriated, the sum of two million five hundred thousand pesos, or so much thereof, as may be necessary, to carry out the purposes of this Act for the fiscal year nineteen hundred fifty-five. The necessary sum for the operation of the Division

in subsequent years shall be included in the General Appropriation Act.

SECTION 6. This Act shall take effect upon its approval*.

*APPROVED: June 16, 1954

*Finally passed by the Senate on May 19, 1954 "

It is obvious that there is a paralleling of the responsibilities and authorities of these two organizations. Excerpts from the Annual Reports of the Philippine Tuberculosis Society for FY 1954-55 and of the Division of Tuberculosis will emphasize this parallelism

"The Philippine Tuberculosis Society

Manila

Annual Report for the Fiscal Year 1954-1955

Legislation

Various bills affecting the Society were presented for consideration by the Third Congress of the Philippines at its second session which was concluded late in May. Among these proposed legislations was the bill authorizing the Bureau of Posts to issue semi-postal stamps annually during the period of the annual fund and educational drive of the Society as an additional source of income for the Society. This bill was passed by the House of Representatives and was certified by the President of the Philippines as urgent to the Senate. Unfortunately through the Finance Committee of the Senate the measure was tabled on the ground that there were defects in its provisions which would make the bill if passed inoperative. It is hoped that the same bill with the defects removed will be submitted again in the next regular session of Congress. Another bill appropriating P300,000 as additional grant-in-aid to the Society, authored by Congressman Tobias Fornier, was passed by both Houses and signed by the President of the Philippines, Republic Act No. 1390. A bill seeking to amend the Grand Derby Law was not acted upon by Congress. Another bill which proposed to amend Republic Act No. 983 with regard to the amount guarantee which the racing clubs are required to put up for charity races also failed to receive final sanction of Congress.

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Philippine Tuberculosis Society Units in Actual Operation

Tuberculosis Hospital

The Quezōn Institute, still with 1,350 beds, a great majority of which are occupied by charity cases. The Institute maintains and operates a dispensary department for out-patients, the attendance which reached a new high during the year. It opened an extension service unit at the Philippine General Hospital in March, 1955.

Tuberculosis Pavilions

Iloilo Tuberculosis Pavilion, Iloilo City, with 30 beds
Cebu Tuberculosis Pavilion, Cebu City, with 45 beds (15 for teachers) and a Social Service Department.
Roxas Memorial Tuberculosis Pavilion, Roxas City, with 25 beds.
Tacloban Tuberculosis Pavilion, Tacloban City with 20 beds.
Angeles Tuberculosis Pavilion, Angeles, Pampanga, with 50 beds.

Pavilion Soon to Open

Bohol Tuberculosis Pavilion, Tagbilaran, Bohol

Proposed Pavilion, for which exploratory talks were held during the year

Dumaguete, Negros Oriental

Chest Clinics and Dispensaries (All provided with limited number of emergency beds)

Central Chest Clinic and Dispensary, 1893 Rizal Avenue, Manila (Day and night service with an average daily attendance of 400).
Zamboanga Chest Clinic and Dispensary, Zamboanga City
Vigan Chest Clinic and Dispensary, Vigan, Ilocos Sur
Tuguegarao Chest Clinic and Dispensary, Tuguegarao, Cagayan
Pasay Chest Clinic and Dispensary, Pasay City
Legaspi Chest Clinic and Dispensary, Legaspi Albay
Dagupan Chest Clinic and Dispensary, Dagupan City
Calapan Chest Clinic and Dispensary, Calapan, Or. Mindoro

Mass Case Finding

A Mobile X-ray unit for mass surveys in schools, factories, business and commercial establishments, and in communities.

Financial Status

The financial statement of the Society (Central Office, Quezon Institute and Provincial Branches) is hereunder presented:

Receipts

Membership fees, donations and bequests	₱ 566,981.45	14.57%
Dispensary Services, including Provincial Dispensaries and Pavilions	375,159.07	9.54%
Christmas Seals Sales	132,861.29	3.41%
Benefit Horse Races	208,568.10	5.36%
Jai-Alai	244,965.09	6.30%
Charity Sweepstakes	750,000.00	19.27%
Hospital Services, Quezon Institute	1,580,464.00	40.62%
Miscellaneous Income	32,423.08	0.83%
<hr/>		
Total receipts	₱ 3,891,422.88	100.0%

Expenditures

Administration	303,342.32	8.22%
Health Education & Information Service	140,264.88	3.80%
Medical Social Service	90,622.93	2.46%
Care and treatment	3,023,397.87	81.90%
Maintenance and Repairs	76,180.48	2.06%

Outlays

Buildings and Equipment	₱ 3,691,503.91	100.0%
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Excess of Receipts Over Expenditures

₱ 199,918.97

PROPERTY

During the year, the Society purchased equipment, supplies, materials and medicines; incurred expenses for repairs, and received donations consisting of medicines and supplies, as follows:

1. Equipment (for Central Office & Branches)	12,143.66
2. Supplies and materials and medicines	63,639.45
3. Semi-Expendable and Non-expendable Property including books	3,341.78
4. Repairs (Motor vehicles, office furniture and equipment)	9,192.40
5. Donated medicine and supplies	6,923.33
Issued to the Central Office, including Central Dispensary, provincial branches and the Quezon Institute	
	6,702.86

Personnel

All in all, there were in the service of the Society 1,089 officials and employees including temporary and emergency employees. Of this number the Central Office had 187; the provincial branches, 152; and the Quezon Institute, 750. The Quezon Institute had 70 physicians including the Director and the Superintendent, 135 nurses, one part time dentist, and two social

workers; while the Central Office had 16 physicians, including the Chief of the Medical and Social Service Division and the physician of the Mobile X-ray Unit, 35 nurses, 5 nurse social workers including the Chief of Social Service, 3 social workers and 1 social work helper. The provincial branches had 13 physicians, 60 nurses, and one social worker. The rest of the personnel in all these services consisted of nursing aids, attendants, clerical helps, and others.

Records

During the year, outgoing mail matters (ordinary, registered, and special delivery mails) numbered 51,508, and packages sent out numbered 68,892, for which the Society spent the total amount of ₱7,166.97 as mailing charges. The incoming mail received numbered 11,868.

Fund Raising

The two main fund raising activities of the Society were pursued more intensively and effectively in the hope of improving the finances of the Society so as to meet the financial requirements of our services,

- A. The Annual Fund and Educational Drive - During the period under review, the fund campaign yielded a total of ₱592,820.40, including donations in kind, which is only a few thousands less than our goal of ₱600,000.00. The campaign was a success from the financial point of view if we consider the fact that 80% of the collections in the provinces and cities is retained by them. Moreover, additional remittances are received from time to time especially from the Division Superintendent of Schools. The contribution of the Armed Forces of the Philippines amounting to about ₱15,000 has yet to be received.
- B. Christmas Seals Sale - In the year previous, the return from Christmas Seals sale amounted to ₱134,100.56. During the period covered by this report, the Christmas Seals sale proceeds already reached ₱134,234.80,* with the report from the provinces on their seal sale campaign still incomplete. The great bulk of these proceeds came from the public schools which turned in ₱58,148.83; business firms in Manila and in the provinces ₱20,760.98; private schools and colleges, ₱18,076.41; and the rest from the general public and miscellaneous sources.

*Includes late remittances received after June 30, 1955.

THE QUEZON INSTITUTE

Unlike in previous years, the Quezon Institute during the period under review improved its finances, as a result of the increased allotment received from the charity fund of the Philippine Charity Sweepstakes Office, the increased receipts from hospital service, the grant-in-aid from the Government under Republic Act No. 1031 appropriating ₱300,000.00 of which the Institute received ₱285,000, the remaining ₱15,000 having been held by the Government in reserve. Pursuant to the Act above mentioned, this grant-in-aid was earmarked for the laundry plant, the expansion of the kitchen, and the construction of an incinerator. Actual construction of the laundry plant and the kitchen addition had been started and these projects are expected to be completed during the early part of the incoming fiscal year. The construction of the incinerator will also be undertaken as soon as the necessary data are received from the Metropolitan Water District (now the National Waterworks and Sewerage Authority). The laundry plant will house the complete modern laundry unit received by the Institute as part of the FOA-PHILCUSA aid.

New Services

The Extension Service Unit of the Institute in the Philippine General Hospital was inaugurated on March 24, 1955. This is a service jointly sponsored by the Institute and the Philippine General Hospital with FOA-PHILCUSA aid. (See page 81).

A research work is being conducted by the research laboratory of the Institute seeking to develop a new type of TB vaccine. Based on the progress of the work so far, there are indications of apparent encouraging developments.

Accomplishments

A total of 3,791 in-patients were given hospital care this year or an increase of 180 over the previous years. This number which is in excess of the bed capacity of the Institute was made possible by the implementation of a policy of discharging patients as soon as it is found reasonably certain that treatment of their cases can be continued in their homes.

The out-patient service takes care of discharged cases by visiting them periodically in their homes, for which purpose trained nurses, accompanied whenever necessary by a physician, do home visits day by day. A team of social workers perform a similar service. These teams of nurses, physicians, and social workers likewise take care of deserving cases awaiting admission in the Institute.

Attendance in the Quezon Institute Dispensary Service numbered 36,568. Service in the dispensary was improved and uninterrupted as a result of the installation of the X-ray units and accessories received as aid from the FOA-PHILCUSA.

Laboratory service, as usual, involved mostly routine examinations of sputum, blood, urine, feces, and pleural fluids. There were also special examinations performed such as culture of sputum, gastric and bronchial washings; serological tests for Kahn, Hangers, etc.; bacteriological examinations of bronchial lavage and fungus; histopathological studies of sputum, pleural fluid, and bronchial lavage together with tissue biopsy and bio-chemical determinations of blood and other body fluids.

Major surgical interventions for lung cases consisted of 50 resections of both sexes of varying ages, 1/3 of whom were children below 12 years; thoracoplasty, 21.

Medical interns from the University of the Philippines, University of Santo Tomas, and Manila Central University took turns in undergoing training and observing for a period of two weeks each group. Conferences, lectures, and ward training were given to nursing students from the Philippine General Hospital who at the same time were given the opportunity to observe the various activities of the Institute.

Statistics

<u>Movements of Sick Population</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
No. of patients at the beginning of the year..	755	456	1,211
No. of patients admitted during the year	1,461	1,119	2,580
No. of patients given hospital care	2,216	1,575	3,791
No. of patients discharged	1,247	1,010	2,257
No. of deaths	96	62	158
No. of patients on furlough at the end of year	48	32	80
No. of patients remaining at the end of the year	825	471	1,296

Number of Cases Examined for Pulmonary Tuberculosis

Re-examined 10,464
 New Cases 26,104

Total 36,568

Pneumothorax.

Males and Females

No. of patients at start of the year	122
Initials	26
Discontinued:	
By physicians	35
By patients	7

Pneumothorax (Cont)

Males & Females

Transferred In	-
Transferred Out	3
Finished	16
Died	-
Number of Refills	3,043
No. of patients at end of fiscal year	87

Pneumoperitoneum

No. of patients at start of the year	702
Initials	225
Discontinued:	
By physicians	131
By patients	48
Transferred In	11
Transferred Out	35
Finished	36
Died	6
No. of Refills	25,454
No. of patients at end of fiscal year	682

Intrapleural and Other Treatments

Thoracentesis	498
Instillations	104
Irrigations	103
Decompressions	70
Intubations	60
Paracentesis	8

X-Ray Activities

Number of X-ray Exposures	39,078
Repeat Exposures	544
<hr/>	
Total	39,622
Fluoroscopy	62,577

Admissions

A. <u>Tuberculosis Conditions</u>	
1. Pulmonary	2,172
2. Extra Pulmonary	58
B. Non-Tuberculous Conditions	193
C. Infectious Diseases	7
D. Intra-Abdominal Conditions	10
E. Cardio-vascular and Other Conditions	33
Re-admissions	<u>107</u>
Total Admissions	2,580

Discharges

Male Patients	1,247
Female Patients	<u>1,010</u>
Grand total	2,257

Routine Examinations of Laboratory Service

	Total (In-Patients & <u>Out-Patients</u>)
Sputum	29,917
Urine	5,367
Feces	3,679
Blood	9,857
Pleural Fluids	<u>213</u>
Total	49,033

Special Procedures & Examinations in Clinical & Biochemical Lab.

1. Cultures	2,528
2. Serological Tests	1,873
3. Bacteriological Examinations	380
4. Histo-Pathological Studies	1,243
5. Bio-chemical Determinations	3,892
6. Other Blood Studies	<u>523</u>
Grand Total	10,439

Dental Clinic

	<u>Both Sexes</u>
1. No. of patients	1,018
2. No. of treatments	748
3. No. of extractions	1,112
4. No. of fillings	108

E. K. G. Service

New Cases	278
Old Cases	133
Total .	<u>411</u>

E.E.N.T. Clinic .

Old Patients	612
New Patients	<u>572</u>
Total .	1,184

Classification of E.E.N.T. Patients as to Organs Affected.

Eyes	430
Ears	175
Nose	323
Throat	421
Total .	<u>1,349</u>

Bronchoesophagology Service

Bronchoscöpy	401
Bronchoscöpy and Bronchögram	123
Bronchögram	74
Laryngošöpy, direct	6
Esöphagoscopy	7
Esophageal dilation	2
Total .	<u>613</u>

Surgical Service

Head and Neck	96
Chešt and Back	109
Abdominal	46
Extremities	6

MEDICAL AND SOCIAL SERVICE DIVISION

The Medical and Social Service Division of the Society during the fiscal year 1954-1955 continued to execute its functions such as the examination, care and treatment of patients, home visits by physicians and nurses, and extended social service to clients either by direct assistance or by referral to other existing welfare agencies.

This Division has under its direct supervision the five pavilions and the eight chest clinics and dispensaries mentioned elsewhere in this report, all of which pursued their activities during the year with greater effectiveness. Although the five pavilions had a total bed capacity of only 170,694 patients were admitted therein during the year as charity patients. Attendance at the provincial branches totaled 322,300, 224,691 of whom underwent X-ray examinations while 254,525 treatments were administered, free of charge, in the dispensaries or pavilions or in the homes of the patients. Medicines were also given free. Of the 199,456 medical prescriptions issued, 133,162 were filled by our pharmacies, free of charge. More frequent visits and inspection of these branches by the Supervising Physician brought about improvement in our services therein.

The domiciliary service, also under this Division, was decentralized in that field nurses and social workers were assigned to the various congressional districts in Manila and suburbs. The work is done in close collaboration and coordination with the Manila Health Centers.

The undernourished patients and contacts of tuberculous cases numbering 34,380 were the recipients of milk rations with the help of the UNICEF and leading milk distributors.

From the Manila Central University, 374 senior medical students and 534 interns underwent in this Division observation and training - - - a requirement in their curriculum for chest diseases. Also affiliated with the Division for observation and training in public health were 213 student nurses from different schools of nursing in Manila and 13 social workers. Classes on Home Care of Tuberculosis were conducted, from which 386 students were graduated; 215 in the City of Manila and 171 in the provinces.

The Social Service extended aid to 38,981 patients, about 1/4 of whom were visited and interviewed outside of our stations.

Statistics

1. Total attendance	322,300
2. Individual patients (new and old)	
a. Tuberculous (Individuals - new)	18,949
3. X-Ray Examinations	224,691
a. Radiography	3,443
b. Fluoroscopy	203,028
c. Photo-fluorography	18,220
4. Tuberculin tests	2
a. P.P.D. I	0
b. P.P.D. II	2

Statistics (Con't)

5.	Treatments	254,525
a.	Artificial Pneumothorax:	
	(1) Initials	68
	(2) Refills	2,274
b.	Pneumoperitoneum:	
	(1) Initials	225
	(2) Refills	12,174
c.	Thoracentesis	280
d.	Injections	38,083
	(1) Given in the clinic	35,879
	(2) Given in the homes	2,204
e.	Medicines given in the homes	1,965
f.	Prescriptions issued	199,456
	(1) Filled By pharmacy	133,162
	(2) Filled outside	66,294
6.	Laboratory examinations	16,420
7.	Field Work:	
a.	Visits by physicians	1,260
b.	Visits by nurses	41,329
	(1) Demonstration - (Sputum Disposal	18,542
	(Bedside Nursing	641
	(Gen. preventive measures	9,475
	(2) Recommended for aid	1,205
c.	UNICEF number of feedings	36,984
8.	Referred to other agencies	2,120
9.	Social Worker's interviews	38,981
10.	Social Worker's visits	10,486
11.	Milk Rations	34,380

HEALTH EDUCATION & INFORMATION SERVICE DIVISION

Health education and information is one of the principal functions of the Society. The progress in the effort to control tuberculosis is based on what people do about it and is largely determined by what they know about the disease and how they feel about it. Cultural factors, such as religious beliefs, social patterns, educational levels, the degree of economic stability, community attitudes, have a bearing on the manner in which the health education program should be planned and carried out. On the other hand, among others, ignorance and indifference make the control of tuberculosis difficult.

When the first educational program was launched by the Society in 1910, it could do little more than give a few rules of personal hygiene aside from a few clinic lectures and pamphlets. Today, we have expanded our health education program to include methods of information, such as the radio, television, audio visual films, lectures, and group discussions, demonstrations, classes for the community called "Home Care on Tuberculosis", the publication of a scientific magazine, - "Crusade", and monthly newsletter for laymen, handbooks and manuals for patients and daily newspaper columns on tuberculosis, questions and answers by mail.

The health education program is integrated in every phase of the Society's activities since medical work, social work, legislation, Christmas Seals sale, fund raising campaign and public relations carry with them an opportunity for building an understanding of the tuberculosis program.

Health education in Schools - Services for children and other groups are stressed in the conviction that attitudes and habits formed in youth set the pattern for adult behavior. These consist of lectures and audio-visual exhibits, poster contests, school newspaper essay contests on tuberculosis and a yearly pre-enrollment X-ray of all pupils and teachers of schools and universities.

Health Education in Industry - Audio-visual exhibits and lectures in business firms and factories coupled with actual X-ray services of workers started since 1950 and it is gratifying to note that more and more requests for these services come from business and industrial firms. Because of the workmen's compensation law, more business firms and offices require a chest-X-ray examination first before employment. The far-reaching effect of this legislation cannot be under-estimated, as it provides us with a means of discovering not only early cases of tuberculosis but also other chest diseases, such as heart diseases and cancer of the lungs.

Problems and Plans

1. Lack of trained personnel. At present, health education is carried out in relation with all activities. Physicians, nurses, social workers, fund raisers, are all involved in educating the public regarding the disease, but we lack funds for the employment of health educators whose main job would be health education especially to carry on a systematic program with the schools. Our program with patients and their families both in and out of the hospital is done through the home service personnel.
2. Lack of local materials such as charts, posters, and audio-visual films. Except for three or four locally produced films, most of those shown to people are the English and Tagalog versions of films borrowed from the USIS Library. These films cannot be used for more than one month. The great demand for these films by other organizations make it difficult for us to plan a consistent schedule for their showing in the provinces.
3. Plan is to employ more health educators to:
 - a. Work in schools;

- b. Have regular conferences with other health education workers from the Government and universities. This will give our workers a chance to broaden their horizons especially because tuberculosis is closely related with other health conditions, such as nutrition, poor housing, mental health, etc.;
- c. Make our health education program more generalized rather than limited to tuberculosis. Our "Crusade" magazine and posters should include other health materials like other respiratory diseases, avitaminosis and other deficiency diseases, mental health, family budgeting, recreational and vocational guidance, etc.
- d. Use more local materials.

Accomplishments

Number of persons examined by the Mobile X-ray Unit in schools, colleges, universities, factories, industries, offices, and the general public	59,040
Educational materials, pamphlets, leaflets and other publications including TB abstracts distributed to the general public	179,125
Press releases	631
Lectures	40
Number of students given orientation course on tuberculosis (medical interns, medical clerks, student nurses, students in social work)	1,134
Radio interviews, ceremonies, spot announcements .	1,092
Crusade circulation	65,560"

The following information is provided by the Annual Report of the Division of Tuberculosis of the Department of Health of the Republic of the Philippines:

"I. Occurrences of importance to the Division

During this period the following events took place:

1. Passage of Republic Act 1136. This became law on June 16, 1954. The Act reorganized the Division of Tuberculosis and provided for an initial expenditure of ₱2.5 million for an expanded program of tuberculosis control. Among the services established are provincial chest centers, mobile x-ray units, mobile preventive units and village rest settlements. The Law provides that 30 units each of provincial chest centers and mobile x-ray units must be accomplished within four years of the passage of the Act. Thirty mobile preventive units are also authorized while 6 village rest settlements are envisaged.

2. Funds were allocated in the amount of ₱250,000 to construct the National Tuberculosis Center Building which will house the Division staff including the BCG Clinic of the Section of Prevention and Immunization and the Central Chest Clinic of the Section of Clinics and Therapy.

3. Reorganization of the Division pursuant to R.A. 1136 was undertaken by the Division staff upon instruction of the Secretary of Health.

"II. The Budget

Total appropriations for F.Y. 1954 was ₱659,024. Budget for F.Y. 1955, after passage of R.A. 1136 was 2.4 times greater--₱1,611,195.81. The latter represented 4.6% of the budget of the Department of Health and constitutes a cost to the people of ₱0.077 per capita for the year.

A breakdown of the general items comprising the Division budget for F.Y. 1954 and F.Y. 1955 will be seen in Appendix

From the table referred to, it will be seen that appropriations for F.Y. 1955 increased substantially in personal services (by about 30%) and with it, traveling expenses and supplies and materials, each by about 26%. The only reduction from F.Y. 1954 to F.Y. 1955 was in sundries which was reduced by some 60%.

The heaviest increase was in equipment outlay which rose from ₱2,500 in F.Y. 1954 to ₱317,381.05 in F.Y. 1955. The latter amount was set aside for the purchase of x-ray units in partial implementation of the requirements of the new law. Furthermore, another outlay of ₱250,000 was provided for the construction of the National Tuberculosis Center Building referred to above. Another outlay was in the amount of ₱150,000 for the construction of buildings for one village rest settlement also provided by the law. The total amount of ₱717,381.03 were therefore for building and equipment outlays, constituting already 44% of the budget for F.Y. 1955. Substantial increase of appropriation (30%) were provided also for personnel services which were principally for the incorporation of the personnel of the mobile preventive units, under the Section of Prevention and Immunization, in the Division budget. Previously they were paid from provincial funds and from the UNAC.

From the foregoing, it will be seen that the added appropriation covered principally building and equipment outlays (which the Division could not avail of during the fiscal year) and for personnel who were already delivering services for the Division even if paid by another agency. It will also explain why the increased appropriation for FY. 1955 could not proportionately increase production of services during the same period.

Performance by project has been measured in terms of services rendered. The Settlement Project has been left out because, during this period, it was still in the planning stage. But it was necessary to subdivide the Prevention and Treatment Project into at least two categories to provide a more faithful index of the kind of service rendered. For this purpose two subprojects were decided, viz., Tuberculin Test and BCG Vaccination and Chest Clinic Services.

Under Tuberculin Testing and BCG Vaccination, production was 2,162,914 units at a cost of ₱356,839.26, giving a unit cost of ₱0.17 per service. As will be explained later, production for this project decreased by 19.5% from F.Y. 1954 because of certain difficulties encountered.

Chest Clinic Services accounted for a total of 410,520 units at a total cost of ₱1.05 per unit of service. This unit cost is rather high as shown by the current (i.e. FY 1956) estimate of ₱0.63 per unit service. The difference arises from the only 10 chest units actively operating (which is 1/6 of the minimum number set by law) and the added charges of training of technical personnel in estimating the project cost.

The number of man-years for general administration was 61, and for the whole agency, 423, represented by a ratio of 1:7. While reflecting a relatively high number of personnel for administration, according to recognized standards, it is expected that when all the tuberculosis service units are established, the ratio will become more reasonable, at 1:9 in F.Y. 1957 and about 1:12 in F.Y. 1960.

The number of personnel (all categories) by project may be summarized as follows:

Prevention and Treatment	324
General Administration	61
Rest Settlement	-
	385

"III. General Statistical Information on Tuberculosis in the Philippines

Collected data on the occurrence of tuberculosis in the Philippines has not yet been subjected to detailed analysis.

Mortality and morbidity reports are collected by the Bureau of Health from the local health offices distributed in the country. Locally, mortality reports are filed by non-medical men and registered in the Office of the Municipal Treasurer. While morbidity reports are always incomplete anywhere, they are more so in this country because the chest dispensaries (both public and voluntary) as well as the medical practitioners do not always report their TB cases to the local health office.

The national mortality from tuberculosis in 1954 was 23,491 deaths representing a mortality rate of 110.91 per 100,000 population. The national morbidity rate was 24,627 per 100,000 population. This gives a ratio of 2 cases for every single TB mortality and comes short by 8 of the expected 10 active cases of tuberculosis per death.

Information accumulating in this Division over the past few years from mass tuberculin testing shows that, in the Philippine population, negative reactors to tuberculin (5 TU) between the ages of 0-19 years is 45.4%. Positive reactors by age group obtained by tests performed on 5.4 millions of individuals throughout the country are:

0 - 6	21.35%
7 - 14	49.88%
15 - 19	76.21%

Positive reading in this study begins at 6 mm. of induration.

Higher prevalence of infection is noted in populated or urban compared to rural areas. Geser noted these observations in 1952:

Place	Positive Tuberculin Reactors		Area
	0 - 7 years	8 - 14 years	
Tondo, Manila	72%	96%	Urban
Tarlac Province	25%	70%	Predominantly rural
Cebu Province	24%	64%	"
Davao Province	24%	47%	"

Mortality has been declining gradually since 1918 when recording had become more reliable. In 1918 the TB mortality rate was 290 deaths per 100,000; in 1930, 255 deaths; and in 1940, 220 deaths. The rate of descent has been marked since 1946 when there were 180 deaths per 100,000. In 1950 there were 140 deaths; in 1954, 110 deaths. Over the past 36 years (1918-1954), mortality from tuberculosis had declined by 62%. While decline in mortality before the war (1930-1940) had decreased by only 13.5% in 10 years, the decline in 8 years (1946-1954) after the war has been 41.5%. Increased x-ray units for early diagnosis and the introduction of antimicrobial therapy in the post-war years have been responsible for this rapid decline. Compared to the experience of other countries, however, the decline in mortality has been a modest one.

An important epidemiological study would be to determine the prevalence of morbidity in representative Philippine communities. This is all the more necessary, not only because studies of this kind have not yet been undertaken but because of the influence that antimicrobials play in altering the previously known ratio between morbidity and mortality in tuberculosis. There is also need for determining by further testing and pointed analysis the distribution of TB infection by age group, geographical distribution and occupation in this country. Studies in these lines will help determine the magnitude of the TB problem and aid considerably in shaping the future TB program for the country.

"IV. General Activities

These may be divided into three projects, viz., general administration, prevention and treatment and rest settlements.

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A. General Administration. This concerns the functions of the Division staff such as program planning, evaluation and supervision in the field. It is also concerned with the technical training of personnel in the tuberculosis field, the keeping of statistics and records and research.

Training of personnel is concerned principally with pre-service and in-service training. Periodically also, medical practitioners are given refresher courses in tuberculosis to familiarize them with current thinking and practices in the field.

Information shows that 510 individuals of different professional categories received training or orientation in tuberculosis work. Those who stayed for only 2 hours to 1/2 day for observation of the routine activities of the services of the Division are the following groups: interns, 118; physicians, 37; student nurses, 185; nurses, 60; midwives, 10; or a total of 410 individuals.

Those who stayed for a longer period to train for special employment consisted of x-ray technicians, 16, averaging from 3-6 months, depending upon their previous experience and aptitudes. Laboratory technicians, on the whole, stayed 6 months and 30 of them were trained during the year. Four more technicians stayed each for 1 month, to undergo special training in tuberculosis laboratory work.

There were three "post-graduate" or refresher courses held during the year for physicians on the subject of tuberculosis. The average length of training was 8 weeks and the subjects covered included the whole fields of activity in which the Division is engaged. There were 50 physicians who came for this training and completed the time required for the course.

In line with the principles agreed during the reorganization discussions, plans were developed to standardize categories of technical personnel employed by the division:

1. All medical officers below section and unit heads would be ranked either as:
 - a) Phthisiologist supervisor
 - b) Senior phthisiologist
 - c) Junior phthisiologist
 - d) Medical officer

These rankings would be distinguished by length of service and by fulfilling specific qualifications.

An important objective is to provide theoretical and practical training that will give the medical officers a balanced knowledge and familiarity with the current clinical and public health concepts and practices in tuberculosis.

2. Nurses would be recruited or trained to satisfy the minimum qualifications of public health nurses. They would also be given added training in tuberculosis nursing. Levels here would consist of chief TB public health nurse, TB public health nurse supervisor, TB senior public health nurse and TB public health nurse.
3. Other technical personnel include x-ray and laboratory technicians.

Development of the unit of statistics and epidemiology is one of the important decisions reached by the Division committee on reorganization. It is recognized that until a good system of recording and analysis of accumulated and collected data is accomplished, the Division will have difficulty in planning, developing and evaluating its program and procedures.

B. Prevention and Treatment of Tuberculosis

1. Tuberculin Testing and BCG Immunization. This is a national mass program which started in October 1951 in pursuance to the tripartite agreement between the Philippine Government, the WHO and the UNICEF.

The cumulative result of the mass campaign from October 1951 to July 31, 1955 are:

Starting Tests.....	5,778,962
Completing Tests.....	4,878,958
Negatives.....	2,502,395
Vaccinated.....	2,529,781

It will be noted that the number of vaccinated exceeds the negatives by 27,386. This difference constitutes the group of newly born infants who were vaccinated without preliminary testing. The above figures also indicate that 84.6% of the tested return for reading and are vaccinated in the event that they were negative.

In the fiscal year under review, performance reported were:

Tuberculin Tests.....	1,552,317.
Completing Tests.....	1,351,282
Non-reactors.....	613,611
Positive reactors.....	737,771
BCG vaccination.....	609,597

This information points that 87% of those tuberculin tested return for reading. Completed tests show 54.5% positives and 45.5% negatives within the target age group of 0-19 years. Negative reactors were vaccinated in 82.6% of instances.

There was noted a decrease in the number of vaccinations during FY 1955. Vaccination in FY 1954 was 836,515 as against 609,597 in FY 1955, or a decrease of 27%. Reasons for decreased production during FY 1955 have been ascribed to:

- (1) Reduction of personnel per team (or unit) from 7-8 to 4 individuals.
- (2) Job insecurity among personnel following suspension of UNAC aid led to resignations and work stoppages.
- (3) Areas of coverage were increasingly left to remote and sparsely populated areas and communities already gone over previously, for another testing and vaccination of invertors and the non-vaccinated.

The third reason here listed will continue to prevail and will explain lower performance, with consequently increased unit cost, for the project in the future.

The areas covered by the teams as of June 30, 1955 numbered 39 provinces and 19 cities leaving 13 provinces and 8 cities more to be covered by FY 1957, and exclusive of some areas in the covered provinces where certain population groups were by-passed for security, inaccessibility, and related reasons.

Another activity closely associated with the conduct of the campaign is health education and information. The accent on this activity is to rally the people to submit to tuberculin testing and BCG vaccination but opportunity is availed of to educate the people on tuberculosis as a disease and how it may be prevented.

Future activities of the mobile preventive units, which are established by the law, will include assessment of allergy in the population as brought about by the vaccination campaign and the conduct of surveys for prevalence of tuberculosis infection. There is now the thinking that the Rural Health Units can follow up immunization work started by the BCG teams in their respective localities. If this materializes, it will nevertheless take 5 years to evaluate pilot projects operated by the Rural Health Units and train and supervise all Rural Health Unit personnel in BCG field work before complete turn over can be made. After this period, the teams may be decreased to 1 mobile preventive unit per regional area, or a total of 10 units. These units, in addition to studying prevalence of tuberculosis infection and extent of vaccination allergy can also work closely with the chest clinics in their work concerning tuberculosis control.

2. Chest clinics* The Division operated and supervised 19 chest clinics, including 10 units run directly by the Division and 9 units that were owned or managed by the local or provincial governments.

There were 3 mobile x-ray units: two were assigned and managed by the provincial chest centers at Nueva Ecija and Negros Occidental while another in Manila did not operate as a separate unit. In general, the mobile units operated only intermittently due to mechanical troubles and, therefore, performed only a limited service during the period.

The static chest units operated by the Division of Tuberculosis during the fiscal year were:

- (1) National Chest Center (which includes the BCG Clinic and the Central Chest Clinic)
- (2) Tondo Chest Clinic
- (3) Cebu Chest Clinic
- (4) Cabanatuan Chest Clinic
- (5) Cotabato Chest Clinic
- (6) Davao Chest Clinic
- (7) Pangasinan Chest Clinic
- (8) Cagayan de Oro Chest Clinic
- (9) Butuan Chest Clinic
- (10) Ilocos Norte Chest Clinic

(*See page 120)

Static chest clinics under local or provincial government management were:

- (1) Negros Occidental Chest Clinic
- (2) Batangas Chest Clinic
- (3) Quezon Provincial Chest Clinic
- (4) Laguna Chest Clinic
- (5) Baguio Chest Clinic
- (6) Manila City Hall Chest Clinic
- (7) Tarlac Chest Clinic

During the same period, 14 chest clinics operated by the Philippine Tuberculosis Society were distributed in other areas of the country. Wherever the Division has a clinic, the Society does not usually install its own. This makes possible extension of chest facilities to a larger area. Exception to this general rule prevails, however, in Manila and Cebu. The situation in Manila can hardly be termed duplication principally because of the compensation offered by the demands of the heavy population. But the situation in Cebu City, where there are two chest clinics, is different. Because one chest clinic, outside of private units, can reasonably serve the needs of its 179,000 population; the other chest clinic can logically be assigned to another large community in the province of Cebu. This problem is now the subject of negotiation between the two tuberculosis organizations.

Taking all the chest clinics together, public as well as voluntary, the estimated ratio of chest clinic to the national population is 1 in 620,000 people. Each chest clinic will consequently have a potential active case load of 7,000 TB patients based on the ratio of tuberculosis mortality to active cases. However, due to difficulty of transportation in many areas, it is not possible for many individuals to come either for examination or treatment in the chest clinic nearest their area.

Activities of the chest clinic consisted principally of:

- (1) Case finding
- (2) Diagnostic procedures
 - a) Laboratory
 - b) Bronchoscopy
- (3) Treatment (medical and collapse)
- (4) Institutional care in hospital under care of phthisiologist of chest center
- (5) Health education
- (6) Public health nursing

(1) Case finding. There was recorded a total of 480,825 x-ray, fluorographic and fluoroscopic examinations during the fiscal year from the 19 chest units under the supervision of the Division.

It is not possible to obtain from the record the exact number of individuals examined during the fiscal year although a broad approximation may be obtained from the number of fluorographic and fluoroscopic examinations. Many of the "X-ray" or large films taken are confirmatory examinations as shown by the high positives (41.8%) obtained by this procedure.

An estimate, therefore, of the probable number of individual examinations during the year (i.e., from the total number examined by fluorography and fluoroscopy) gives an equivalent of 476,579 individuals. Records show that the Manila Chest Clinics give the highest number of examinations totalling 176,080, or 36.6% of all the fluoroscopic and fluorographic examinations.

After excluding the performances of the newly opened clinics and mobile x-ray units, it is seen that the average annual examinations in each chest clinic was 25,800, or an equivalent of 2,120 examinations per clinic per month, or 85 examinations per clinic per day.

The average positive findings for tuberculosis in the chest clinics was 9.78% (10.3% in fluoroscopy and 9.27% in fluorography). That individuals coming for examination in the chest clinics were selected cases (i.e., with complaints, history or contacts) is shown by the high positive findings and, further, by the contrast of results obtained from the mobile x-ray units.

The mobile x-ray units showed a positive yield of 2.67% out of 49,352. No information has been supplied as to the age composition, selection of the individuals examined, and other pertinent circumstances related to the conduct of chest examination by these units to warrant the more positive statement that the percentage of positives found by mass x-ray is equivalent to the prevalence of tuberculosis morbidity in Philippine communities.

(2) Other Diagnostic Procedures. A total of 44,084 sputum examinations were performed in the central and field clinic dispensaries; only 1/6 of these, or 6,999, were positive for acid-fast bacilli. Considering the ratio of minimal to advanced cases (moderate and far advanced) frequently observed in these chest clinics, 1:3, the number of positive findings are quite low.

Assuming that only one specimen per patient was obtained from each of the estimated 49,875 new cases discovered during the year, 89% will have submitted specimens while the remainder did not.

While the estimate is hypothetical, the figures reported indicate meager use being made of sputum examination for the confirmatory diagnosis of tuberculosis in the chest clinics at present. Another inference is that examinations are not satisfactory (as shown by low positive findings, 15.8%, despite high percentage of advanced cases) either because of poor specimen collection or poor technique.

Other laboratory examinations performed were:

Bacteriological examinations on	
body fluids & secretas.....	1,715
Biopsies.....	212
Blood.....	14,177
Urine.....	11,305
Stool.....	3,261
Miscellaneous.....	1,733

32,403

Other diagnostic examinations consisted of broncho-
graphy and bronchoscopic examination totalling 186 examinations.

Interviews. The total interviews recorded during the year was 102,854. Assuming that all the 49,875 positive cases were interviewed, there would be 2.5 interviews per new case. It is logical to expect, however, that many interviews would be held also for the old cases although the data did not give this detail.

A review of the interviews of cases within the last six months (January to June, 1955) indicate that of the 51,670 interviews held in all the chest clinics, 40,006 (78.5%) were with new and 11,644 (21.5%) with old cases. If this condition had prevailed throughout the fiscal year, it would indicate that 80,700 of the 102,854 interviews were given to new cases, or an average of 1.6 interviews per new patient.

(3) Treatment. Data on the number and frequency of medical consultations and treatment with antimicrobials to patients are not available, possibly because they were not regularly included in the routine report by medical officers in the field.

Consolidated report for initial collapse cases during the fiscal year was 9,102 cases as against 6,997 in FY 1953.

The estimated number of initials per chest clinic is therefore 480 per year or 40 per month.

There were 3,384 initials and 12,836 refills in all the clinics during the first semester of 1955, constituting an average of 4 refills per patient for the period. The expected minimum insufflation for six months per patient would be at least 25 refills. The record indicates therefore either a defect in recording faithfully all refills in the clinic, or failure to report all discontinued collapse cases for whatever reason occurring during the period, or both.

(4) Institutional Care. There are 4 chest clinics that have access to TB wards where patients requiring hospitalization may be admitted; viz., Central Chest Clinic, in Pavilion XII of San Lazaro Hospital; Cabanatuan, at Nueva Eoija Provincial Hospital; Cebu Chest Clinic, at Southern Island Hospital and Davao Chest Clinic, at Davao General Hospital.

There were 295 beds available for hospitalizing tuberculosis patients in these areas. There were 1,133 admissions in these wards during the year, indicating a turnover of almost 4 patients per bed per year or an average stay of 3 months per patient. Basing calculations on the number of admissions (1,133) and mortality (166) occurring in the wards, the result indicates the relatively high mortality (14.6%) occurring in these wards which would be a consequence principally of admission of advanced cases.

It was not possible to estimate the cost of hospitalization for the patients. Administratively, the hospital wards are operated by the Bureau of Hospitals. Only technical service is provided by the Division staff. Consequently, their reports to the Division do not include the cost of hospitalization.

Involved calculation is not necessary to emphasize the fact that the number of hospital beds available for tuberculosis patients is extremely low in relation to tuberculosis deaths.

Nationally, there were about 2,000 beds available in voluntary and public hospitals during 1954. Mortality from tuberculosis during the same year was 23,491 deaths. The estimated number of beds required would therefore be about 53,000 beds. The ratio presented by the Philippine situation is 1 bed for every 12 deaths.

Bases for admission in the wards are made ordinarily for these conditions:

- (a) Candidates for collapse or surgical measures.
- (b) Emergency.
- (c) Observation and diagnosis.
- (d) Routine rest regimen.

(5) Health Education of patients although a necessary and routine part of clinical consultation and treatment, has not been recorded in the monthly reports.

(6) Public health nursing accounted for 2,236 home visits during the year. On the basis of 48,848 new cases alone, only 4.8% would have been visited, if only 1 of these visits were assigned per patient.

Although public health nursing service is still undeveloped except perhaps in Manila and Bacolod, it lays special stress on medical-social work wherever it is practiced. But for the most part, a large percentage of nursing activities are clinical nursing, consisting principally of assisting medical officers in the clinics and such other routine duties.

C. Rest Settlements. It was originally intended to implement the law by establishing two village rest settlements.

One unit was intended for Luzon and the site chosen was in San Luis, Pampanga. It was thought that savings could be made by its location within the reservation of a land resettlement project of the national government. However, after some negotiations, the plan was disapproved by the Office of the President.

Another unit was proposed near Silay, Occidental Negros, but objections were raised because of its distance from Manila and the difficulty that would result for the purpose of supervision. An incentive, however, was the promise of additional financial aid to the project by Senator Loocsin. After the San Luis project was disapproved, and after a survey of the Silay area, it was decided to establish the pilot project in this province. One asset in favor of Occidental Negros is the highly developed social and industrial organizations there which could help greatly in the development of the rehabilitation project.

It was also decided before the termination of the fiscal year to operate only one pilot project, for which building appropriations had been provided in the amount of \$150,000. Further planning for its administration and operation is being conducted by the Division. Operation is expected to start before the end of FY 1956.

V. COMMENTS.

Heretofore, the Division had been operating principally as a service unit. It has followed the usual policy of providing medical service first, when this was needed, ahead of a more systematic program of tuberculosis control. In the post-war years, however, the initial objective of service had been supplemented by direct preventive activities in the form of BCG immunization.

Since preponderance of activities were on direct medical services, little time was given to the study of the epidemiological aspects of the disease, knowledge necessary to enable formulation of the program of control. But this has been recognized and FY 1956 should see the strengthening of this particular activity. One of the acute needs, along this line, is the proper recording and keeping of data accumulating from the multifarious activities of the Division. Action along this line is now being undertaken.

Another result of this emphasis is the limited attention that has been given to the public health aspects of the problem and the failure to develop policies and procedures to meet them. The Division Reorganization Committee has initiated an attitude which is calculated to fill this need.

Passage of RA 1136 has necessitated an appraisal of the Division's operating policies and required a review of its national control program.

R.A. 1136 sought to re-organize the Division of Tuberculosis. R.A. 997 also sought to reorganize the national government and with it the Department of Health and, necessarily, the Division of Tuberculosis. It was the task of the Division Reorganization Committee to develop an organization structure and a system of administration that would satisfy these two laws. After spending some time on this work, the Commission is preparing a recommendation along these lines:

1. The organizational structure of the Division of Tuberculosis will implement provisions of R.A. 1136.
2. In the event that R.A. 997 is finally effected by the President and approved by the Congress, the structure

in (1) above will be so fashioned that it will readily fit in and satisfy the Department Reorganization Plan.

3. As a necessary part of (1) and (2), measures are recommended which will strengthen the Division administratively and enable it to provide maximum service within its potential.

These measures are:

- a) Matters affecting internal administration, and within the discretion of the Chief of Division, such as definition of duties and responsibilities of sections and units as well as their personnel.
- b) Proposals for position classification and salary standardization, in pursuance to Wapco standards.
- c) Developing a working program for the operation of chest clinics -- both static and mobile units -- which will assure furtherance of case finding besides preventive and treatment measures.
- d) Supervised home care will be fostered and to this end, public health nursing will be developed and/or improved. This will change the routine of clinic nursing now current to a balanced one of public health and clinical nursing service.
- e) Closer working relations will be established between field tuberculosis services and the local and provincial health offices in the development and implementation of the local tuberculosis program.
- f) To assure an intelligent execution of the public health aspects of tuberculosis work being inaugurated, in-service training of technical personnel will be developed and systematized.
- g) Attention will be given to nursing supervision of the staff nurses in the field. Medical-social service will be included in the content of their work.
- h) The Division staff will undertake studies for the improvement of their respective services through field observations, evaluation of reports and performance in the field, and by research.

- i) Developing policy and establishing procedures with reference to the future role of the mobile preventive units, not only with reference to their present function of mass tuberculin testing and vaccination, but how they may share in the activities of the chest clinics and work with the local health officers for the community tuberculosis control program.
- j) Health education in tuberculosis will be promoted further by seeking consultative service from the proper agency of the Department to help Division of Tuberculosis personnel in developing techniques, use of media and materials to this end.

This concludes the excerpt from the Annual Report of the Division of Tuberculosis for FY 1955.

Note: The ten chest units referred to on page 112 were equipped by Philippine/American (ICA) aid as a joint project. The American component furnished dollar commodities and the Philippine component the peso commodities. Ten units were supported from ICA/Philcusa funds one year and then were taken over either by the province or by the national government.

LOCATIONS OF TUBERCULOSIS X-RAY UNITS

Stationary X-ray Units

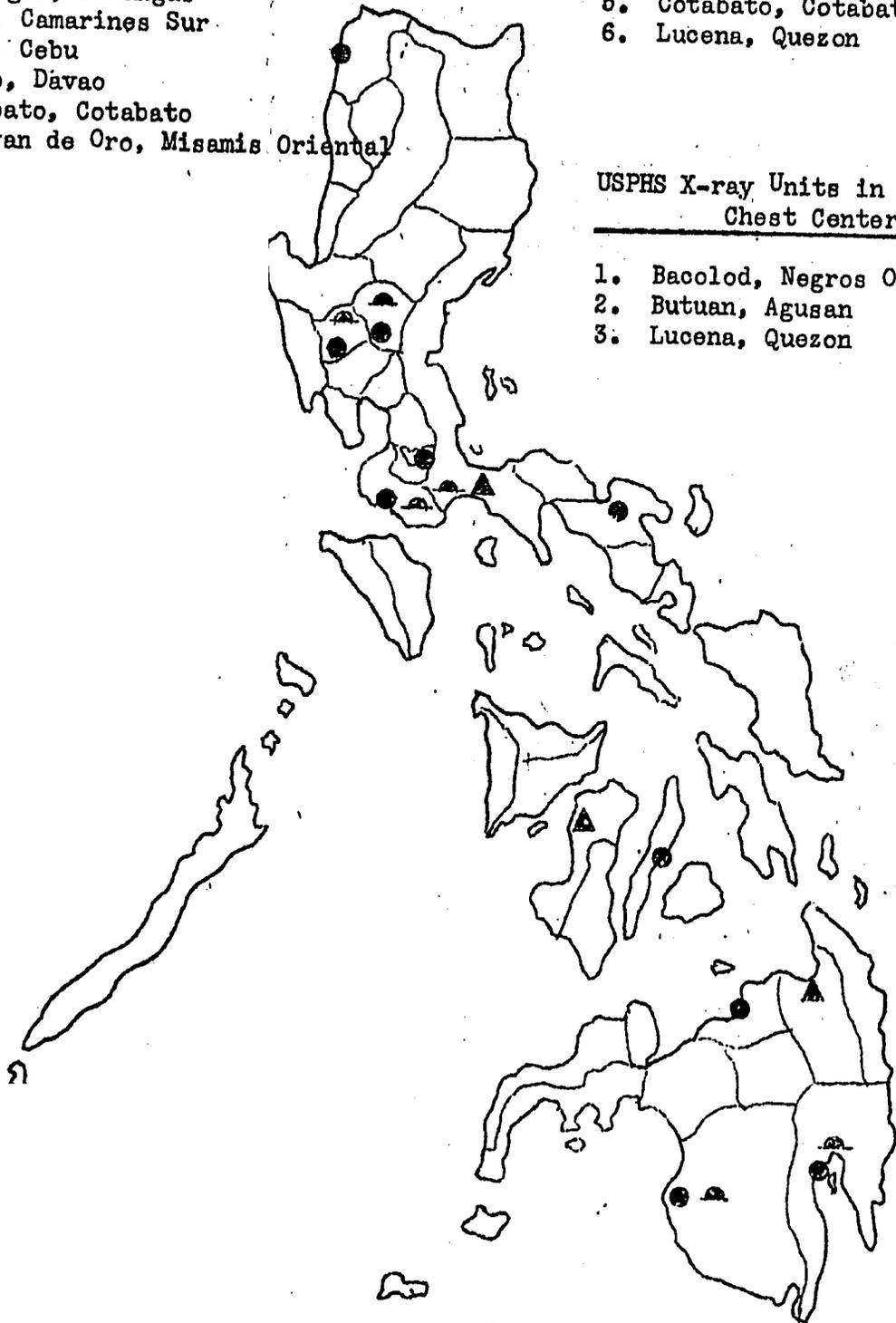
1. Tarlac, Tarlac
2. Cabanatuan, Nueva Ecija
3. Laoag, Ilocos Norte
4. Sta. Cruz, Laguna
5. Batangas, Batangas
6. Naga, Camarines Sur
7. Cebu, Cebu
8. Davao, Davao
9. Cotabato, Cotabato
10. Cagayan de Oro, Misamis Oriental

Transportable X-ray Units

1. Tarlac, Tarlac
2. Cabanatuan, Nueva Ecija
3. Batangas, Batangas
4. Navao, Davao
5. Cotabato, Cotabato
6. Lucena, Quezon

USPHS X-ray Units in Provincial Chest Centers

1. Bacolod, Negros Occidental
2. Butuan, Agusan
3. Lucena, Quezon



- FOA TRANSPORTABLE FLUOROSCOPIC
- FOA STATIONARY PHOTO-ROENTGEN
- ▲ USPHS X-RAY IN PROVINCIAL CHEST CENTERS

APPENDICES

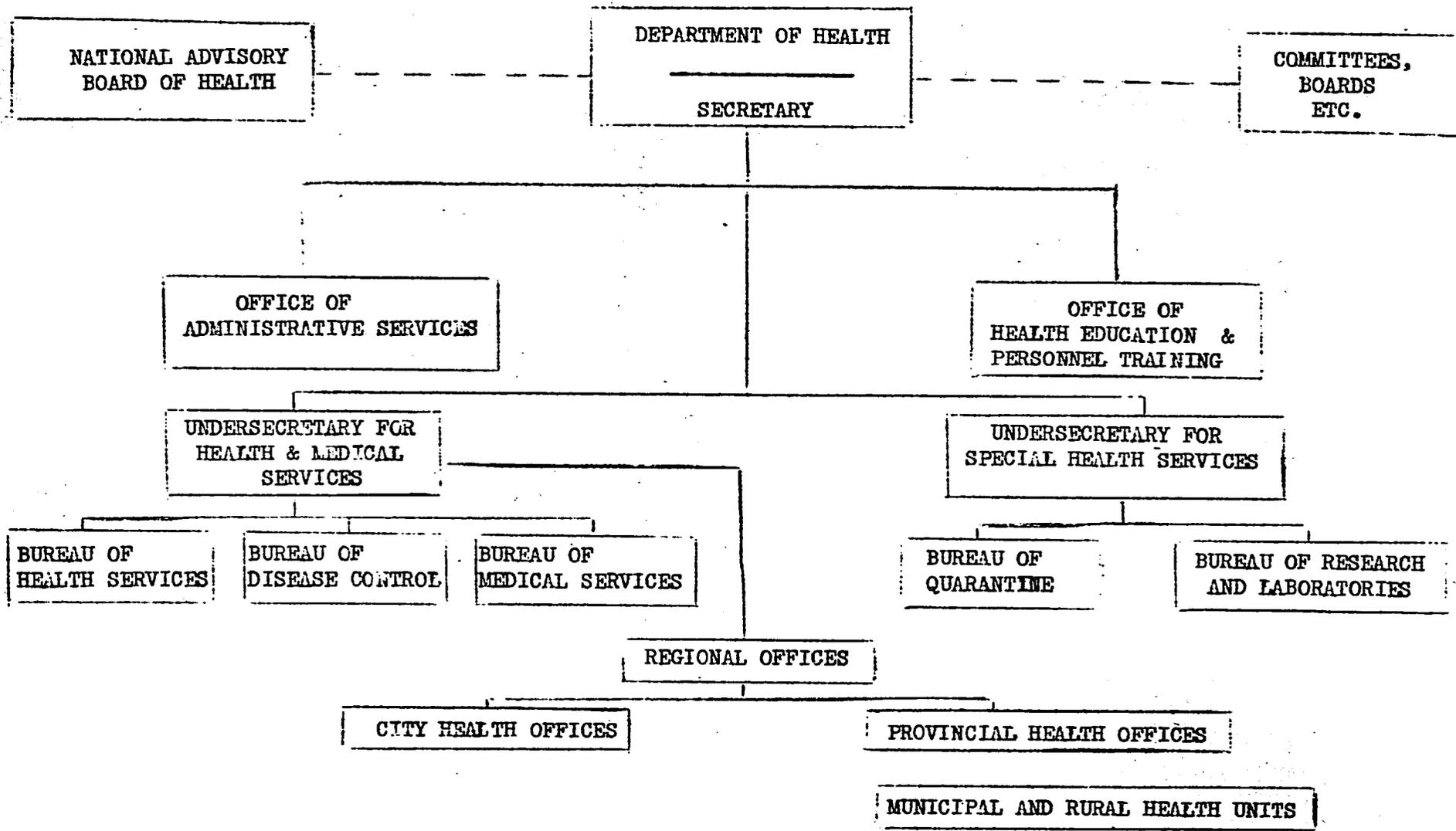
APPENDIX I

PROPOSED REORGANIZATION
OF THE DEPARTMENT OF HEALTH
OF THE PHILIPPINES

The President of the Philippines, under the provisions of Republic Act 997, as amended by Republic Act 1241, was empowered to reorganize the Government of the Philippines. The Department of Health of the Philippines approached the problem by orienting its reorganization pattern entirely to the Philippine setting, making use of its combined staff experience, and obtained the assistance of experts in this type of activity.

In brief, it is a plan for decentralization to regional offices and places responsibility and authority in the unit of the Department of Health closest to the people served. Under the proposed plan there will be an Undersecretary of Health and Medical Services, an Undersecretary of Special Health Services, twelve members of the National Advisory Board for Health, a Director of Health Services, a Director of Medical Services, a Director of Disease Control, and a Director of Research and Laboratories.

The chart on the following page shows a proposed plan of organizational structure of the Department of Health under the proposed reorganization plan.



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APPENDIX II

Status of Vital and Health Statistics

Development of vital statistics in the Philippines may be related to three principal eras: (1) the Spanish period; (2) the post revolutionary period; and (3) the American regime. In the early Spanish period, it was entirely an ecclesiastical registration system. Following the separation of church and state resulting from the revolution, it was converted into civil registration, primarily for legal purposes. Under the American regime, the concepts of registration for statistical purposes were superimposed on the existing system, and it was placed under the supervision of the national health service. Organizationally, therefore, the pattern of the vital statistics system was predominantly Spanish origin.

Following the establishment of the Bureau of Census and Statistics by Commonwealth Act No. 591, approved August 19, 1940, the responsibility for vital statistics was transferred to that Bureau from the Bureau of Health, where the functions are disposed in the Office of Civil Registry and the Division of Demography and Vital Statistics. Progress in the development of vital statistics was, of course, disrupted as a result of the war and this continued throughout the subsequent rehabilitation period, so that it may be said that little progress has been made since the prewar period.

As of now, therefore, the system is badly in need of reorganization to bring it up to date and in compliance with the international standards. The vital statistics services in the Bureau of the Census are understaffed and lack adequate equipment. Such data as are being produced are incomplete and inaccurate, and are so delayed as to be of little practical value. The Bureau of Health, for its own purposes, has developed its own reporting mechanism through its field personnel. Civil registration at the local level is one of the responsibilities of the Municipal Treasurer, with the exception of a few large cities where the civil registry office is located in the city health department. The data, limited to totals, is obtained by the municipal health authorities from the civil registry offices and transmitted to the Bureau of Health where it is consolidated in monthly and annual statistics reports. The resulting statistics are somewhat more complete and accurate than those at present compiled by the Bureau of the Census and Statistics, but fall far short of the standards now deemed essential.

Morbidity statistics and other more specialized statistics required for specific programs are collected through municipal health services, but are likewise lacking in completeness and accuracy. The statistical services, including the collection of hospital statistics by the Bureau of Hospitals, are widely dispersed, and there is much overlapping and duplication which should be eliminated. The greatest problem is the improvement in the data at the source which will require intensive effort on the part of all concerned. The rural health units which are rapidly being extended and are expected to cover the whole country eventually are being utilized to some extent to improve the vital and health statistics data at the source, and can become a major factor in its future development.

The last census was taken in 1948, since which time there has been so much internal population movement due to the government resettlement program and other factors, that there are no accurate population figures available for the political subdivisions of the country.

The foregoing very brief description will serve to give some idea of the situation in vital and health statistics in the Philippines as it exists today.

There are practically no trained personnel in the key vital and health statistics positions at either the Bureau of Health, the Manila Health Departments, or the Bureau of the Census and Statistics and such as have been trained in the United States in previous years have drifted into other governmental positions, or into university teaching positions which carry more attractive salaries. No participants for training in vital and health statistics are included among those leaving for the States this fall, although two or three submitted applications, and none are presently receiving training in the States. Renewed efforts are being made to include at least one or two in the next group.

The historical background, legislative foundation and the existing organization and statistical service has been reviewed with particular attention to the existing defects and short-comings as a basis for initiating alleviating measures. However, for a number of months a government reorganization proposal has been pending which would drastically affect the vital statistics organization, including the transfer of certain functions as between departments or offices of the government. Consequently, the officials concerned have been reluctant to initiate any major activities in vital and health statistics so long as this uncertainty persists.

In spite of this present situation, however, there has been some activity, with considerably more in prospect:

1. A committee on Rural Health Unit forms, records, and reporting practice has been formed, and as a result of several meetings, indications are that the records and reports will be revised, reduced in number, and greatly simplified. This will eliminate much of the overlapping and duplication which now exists, and enhance the value of the resulting data.
2. The Bureau of Hospitals is preparing to initiate a similar review of hospital records, reporting, and statistical practices.
3. The Sixth Edition of the International Statistical Classification of Diseases, Injuries and Causes of Death has recently been adopted for use in the Bureau of Health, the Bureau of Hospitals, the Manila Health Department, and the Bureau of Census and Statistics.
4. A proposal to establish a National Committee on Vital and Health Statistics, as recommended by the World Health Organization, has been under consideration for some time.
5. The proposed reorganization plan for the Bureau of Health includes the establishment of a Statistical Division to consolidate the public health statistical services. It is believed this could be done to some extent within the present framework without special legislative authorization.
6. A revised form of death certificate to conform to international standards; including the medical certificate form recommended by the World Health Organization, is now under consideration and is expected to be adopted shortly. This will be followed by revision of the birth certificate and adoption of a separate stillbirth or fetal death certificate.
7. Both the Bureau of Health through its rural health units, and the Civil Registry Office through its local offices, are exerting efforts to improve birth and death reporting, and are seeking means of intensifying these activities.
8. The Chief of the Division of Demography and Vital Statistics of the Bureau of the Census has just returned from a year of training in the United States in vital and health statistics as an FOA participant, and has resumed his former position. Contemplated measures to improve the vital statistics work by the Bureau of the Census have been held in abeyance awaiting his return.

9. Several employees have been temporarily added to the staff of the Division of Demography and Vital Statistics and the Office of Civil Registry from other offices in the Bureau of Census and Statistics, to assist in catching up a backlog of work which has built up ^{due} to shortage of personnel. Good progress is being made, but it will require a number of months to place the work on a reasonably current basis.
10. The Bureau of the Census and Statistics has obtained a ruling from the Department of Justice that vital statistics returns may be forwarded from the local civil registry offices postage-free. Lack of postage has been a source of failure or delay in forwarding of these returns to the Bureau.
11. Two technicians of the Bureau of the Census and Statistics are expecting to leave shortly for Calcutta for training in demography and vital statistics at the All India Institute of Hygiene and Public Health, under fellowships provided by the Colombo Plan.
12. Some elementary training in biostatistics is being given to personnel in the government services in evening classes of the Institute of Hygiene, University of the Philippines, and the United Nations Training Center. However, there are no adequate in-service training facilities available.

A delegation of three from the Bureau of Census and Statistics will attend the Regional Population Conference sponsored by the United Nations, to be held at Bandung, Indonesia, November 28 to December 3, 1955. At least one of the delegates will be selected from the Division of Demography and Vital Statistics.

In conclusion, it appears that the atmosphere is now favorable for intensified efforts to improve the vital and health statistical services. The technicians concerned, although working under difficulties, are extremely conscious of the defects of the system, and eager to initiate improvements.

APPENDIX III

VITAL AND HEALTH STATISTICS

Basic data from the 1948 Census of Population of the Philippines was included in the Appendix, Pages XXV to XXVII of the Annual Report of the Health and Sanitation Division for the Fiscal Year 1954, to which reference is made. The following data is taken from the annual vital statistics reports of the Bureau of Health:

Table I
Mid-Year Estimated Population, Number of Births,
Deaths Under One Year, and Crude Rates,
Philippines: 1945 - 1954, inclusive

<u>Year</u>	<u>Estimated</u> <u>Mid-Year</u> <u>Population</u>	<u>Number</u>	<u>Rate/1000</u> <u>Population</u>	<u>Number</u>	<u>Rate/1000</u> <u>Population</u>	<u>Number</u>	<u>Rate/1000</u> <u>Population</u>
1945	18,134,343	-	No	data	available	-	-
1946	18,472,755	533,283	28.87	278,546	15.08	66,902	125.45
1947	18,811,167	572,226	30.42	238,527	12.68	63,809	111.51
1948	19,149,579	602,415	31.46	243,467	12.71	68,897	114.37
1949	19,487,991	609,138	31.26	231,151	11.86	66,114	108.54
1950	19,826,403	642,472	32.40	226,505	11.42	65,273	101.60
1951	20,164,815	637,264	31.60	237,937	11.80	67,209	105.46
1952	20,503,227	648,725	31.67	241,020	11.77	65,883	101.56
1953	20,841,639	661,938	31.76	239,988	11.51	69,729	105.34
1954	21,180,051	702,662	33.17	217,650	10.28	66,175	94.18

The mid-year population estimates were calculated by the arithmetic increase method, based in the censuses of 1939 and 1948, and projected through the year 1954. During the 10-year period, according to the estimates, the population increased by slightly over three millions. During the same period the recorded birth rate per thousand population showed a fairly steady increase from 28.87 per 1000 population in 1946 to 33.17 in 1954 while the general death rate decreased from 15.08 per 1000 population in 1946 to 10.28 in 1954. The infant mortality rate per thousand live births dropped during the same period from 125.45 in 1946 to 94.18 in 1954. However, these rates must be used with caution, since there is evidence of considerable under-registration of births and deaths.

Table II

Reported Cases and Deaths from Selected Diseases; Morbidity and Mortality Rates per 100,000 Population, Philippines, 1953-1954

Diseases	1953		1954		1953		1954	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Pulmonary Tuberculosis	48,079	230.69	25,101	120.44	52,161	246.27	23,491	110.91
Bronchopneumonia	33,257	159.57	24,494	117.52	30,626	144.60	20,023	94.54
Beriberi under 1 year	19,622	94.15	17,134	82.21	19,196	90.63	16,433	77.59
Beriberi one year & over	18,629	89.38	7,088	34.01	20,364	96.15	6,873	32.45
Pneumonia	9,429	45.24	7,284	34.95	9,201	42.50	6,561	30.98
Bronchitis	62,375	299.28	22,626	108.56	74,690	352.68	19,192	90.61
Malaria	54,119	259.67	6,720	32.24	71,363	336.93	5,236	24.72
Influenza	28,474	136.32	4,515	21.66	58,344	257.47	4,200	19.83
Measles	11,857	56.89	2,477	11.88	4,659	22.00	566	2.67
Whooping Cough	5,792	27.79	559	2.68	7,682	36.27	543	2.56
Diar. & Ent. Under 2 yrs.	23,988	115.10	11,459	54.98	25,362	119.74	9,378	44.28
Diar. & Ent. 2 Yrs & over	25,412	121.93	5,728	27.48	27,349	129.13	4,464	21.28
Bacillary Dysentery	754	3.61	213	1.02	656	3.10	118	0.56
Amoebic Dysentery	2,279	10.93	422	2.02	2,278	10.75	305	1.44
Dysentery, Unspec.	2,210	10.60	406	1.95	1,410	6.66	222	1.05
Typhoid	347	1.66	138	0.66	639	3.02	188	0.89
Tuberculosis, other organs	1,969	9.45	1,625	7.80	1,956	9.24	1,381	6.52
Tetanus	1,951	9.36	1,454	6.98	2,226	10.51	1,693	7.99
Diphtheria	808	3.88	280	1.34	817	3.86	211	1.00
Rabies	194	0.93	194	0.93	208	0.98	208	0.98
Chickenpox	2,328	11.17	-	-	2,895	13.68	-	-
Leprosy	51	0.24	20	0.10	62	0.29	17	0.08
Poliomyelitis	125	0.60	31	0.15	386	1.82	73	0.34
Schistosomiasis	406	1.95	109	0.52	628	2.97	171	0.81
Cancer	2,503	12.00	2,404	11.53	2,585	12.20	2,553	12.05

While the above figures provide some indices of health conditions in the Philippines, they are affected by under-reporting and in many cases by lack of competent medical diagnoses. From the tables, the five leading causes of death in 1953 and 1954 in rank order of importance were pulmonary tuberculosis, bronchopneumonia, bronchitis, beriberi under one year, and diarrhea and enteritis under two years. However, there was a substantial drop in the death rates in 1954 as compared with the corresponding death rates for 1953, and there was also a substantial decrease in the infant mortality rate.

Table III is based on a tabulation by the Bureau of Census and Statistics, of deaths by age and sex in 1952. Later data in this form is not available. It will be noted that 28.4% of the total deaths were children under one year of age; and 50.7% were children under five. These percentages would probably be slightly lower based on 1954 data.

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Table III
Reported Deaths At Ages, By Sex, Showing
Percent and Cumulative Percent by Age Groups*
Philippines - 1952

Deaths At Ages	Male	Female	Total	Percent	Cumulative Percent
Under 1	28,338	20,742	49,080	28.4	28.4
1 - 4	21,063	18,295	39,358	22.3	50.7
5 - 9	4,134	3,497	7,631	4.3	55.0
10-14	1,775	1,261	3,036	1.7	56.7
15-19	1,864	1,570	3,434	1.9	58.6
20-24	2,668	2,243	4,911	2.8	61.4
25-29	2,594	2,720	5,314	3.0	64.4
30-34	2,256	2,557	4,813	2.7	67.1
35-39	2,854	3,184	6,038	3.5	70.6
40-44	2,438	2,445	4,883	2.6	73.2
45-49	2,569	2,346	4,915	2.8	76.0
50-54	2,544	2,136	4,680	2.6	78.6
55-59	2,093	1,815	3,908	2.2	80.8
60-64	2,686	2,208	4,894	2.7	83.5
65-69	2,139	1,862	4,001	2.3	85.8
70-74	2,746	2,462	5,208	2.9	88.7
75-79	2,118	1,864	3,982	2.3	91.0
80 & over	6,605	7,845	14,450	8.2	99.2
Not stated	799	617	1,416	.8	100.0
Totals	94,283	81,669	175,952	100.0	100.0

*Source: Division of Demography and Vital Statistics, Bureau of the Census and Statistics.

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MEDICAL MANPOWER FUTURE IN THE PHILIPPINES

The development of the physical and human resources of the Philippines is creating an increasing demand for qualified medical personnel. Public Law 1082, an Act strengthening health and dental services in rural areas, and providing funds therefor, contemplates the establishment of not less than 1,300 rural health units by 1958. Republic Act 1136, reorganizing the Division of Tuberculosis in the Department of Health, and the expanded hospital program all require increasing numbers of physicians. There is the additional demand by the people for health services brought about by their appreciation of the activities of the rural health units, the malaria control units, the improvement in the provincial and other governmental hospitals, the advancement of science and medicine, the increasing social consciousness of the doctor generally, and lastly, the strong health education program now underway.

The major factor, however, in creating a greater deficit of medical manpower is the estimated natural increase of births over deaths. The following table illustrates rather vividly this point:

Year	Births	Deaths	Natural Increase
1950	642,742	226,505	416,237
1951	637,264	237,937	399,327
1952	648,725	241,020	407,705
1953	661,939	239,988	421,951
1954	702,662	217,650	485,012
Totals	3,293,332	1,163,100	2,130,232
5-year average	658,666	232,620	426,046

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If the figure of one doctor for each 1,000 population is valid then not less than four hundred to five hundred new doctors are required each year to cover the needs of the natural increase in the population alone. One other factor closely related to numbers of physicians needed in the Philippines is that of their distribution. The M.D. Medical Journal, Vol. IV, No. 7, July, 1955, shows the following table with estimated distribution of doctors in the Philippines:

	No. of Physicians	Est. Population
Manila	2,381	2,000,000
Other urban areas	2,615	4,000,000
Rural areas	3,331	15,000,000
Totals	8,327	21,000,000

The marked disparity in the numbers clustered in the urban areas as contrasted to those in the rural areas constitutes a grave problem in providing health services equitably throughout the Philippines.

Seventeen of the eighteen selected reportable causes of death during the last decade are preventable through proper application of known public health and disease preventive procedures. The rise of currently acceptable scientific and medical approaches and techniques requires a large number of doctors trained specifically in these areas. Numbers of doctors trained for the next two decades may be more important to the overall health of the people than length and depth of training. In other words, selective training in medical schools with change in the strong emphasis from the clinical to the public health and disease preventive aspects of medicine is worth considering. Studies in epidemiology, ecology, social science, case finding, methodology of community development, simplified laboratory

procedures, immunology, nutrition, health program initiation, implementation and evaluation, and health survey techniques can have merit.

The curriculum pointed to general practice of medicine and rural practice has stronger possibilities of advancing the broad medical field at this time than do the specialties. This does not mean that medicine should stand still while the seventeen diseases mentioned above are controlled or eradicated, but only that a broad medical spectrum approach is necessary to reach numbers of people, while clinical medicine and research are occupied with smaller groups of non-well persons that public health procedures have not reached or been unsuccessful in keeping healthy.

Is it not time for the best qualified people in the Philippines to come together to review, study, discuss, and evaluate existing health services available to the people, the source of supply of health personnel, the quality and quantity needed, the type of training now in vogue in the schools, and relate the total to the health needs of the country.

Neither society nor medicine nor science can remain static. Only through constant review and evaluation can the forward motion necessary in a society have substance and be properly directed. There is presented below an estimate of the physician ratio to population for some twenty years in the future in the Philippines, with the hope that it will be a base for discussion of the entire field of education, training, community health needs, type of trained health personnel best suited to the culture, resources, geography, and disease indices of the Philippines.

Table I shows the enrollment in private medical schools during the school years 1951-1955, inclusive, by sex; and the percentage of enrollment by sex.

Table II shows the total enrollment in the medical schools in the Philippines for the school year 1954-1955. The data for the University of the Philippines is not 1954 data, but the 1954-1955 enrollment is said to be approximately the same.

Table III shows the number of graduates from private schools for the school years 1948-1954 inclusive, by sex and percentage of each sex. The University of the Philippines is not included.

Table IV shows the number of candidates examined by the Board of Medical Examiners; number and per cent passed and number and per cent failed for the years 1949 through August, 1954. Results of the last examination in 1954 are not yet available. However, 206 took the examination and, presuming that approximately the same percentage applies, 82.6%, or 171, passed, and 35 failed. Examinations are held four times a year, in February, May, August and November. Failed candidates may take subsequent examinations.

It will be noted from Tables I and II that the total enrollment has increased each year. It is also interesting to note that the percentage of female enrollment has increased each year, reaching almost 48% in 1954-55. The percentage of female graduates also increased each year as shown in Table III, except for the year 1953-54, when it dropped from a high of 33% to 27%.

Comparison of Tables III and IV indicates that practically all of the graduates take the Board examinations. The number of candidates passed increased each year from 1949 through 1954. The number and

percentage failed increased disproportionately from 14% in 1949 to 45% in 1953. In 1954, however, the percentage failed dropped to 17.4%.

Since the number of new physicians has steadily risen from 214 in 1949 to some 1050 in 1954, it seems a fair assumption that this will continue for some years to come. This is also indicated by the present medical school enrollment, Table II. This is likely to continue until the medical profession begins to approach the saturation point, and then taper off to a degree which will maintain a fairly stable ratio of physicians to population. Roughly, we may estimate this by taking an average figure, based on the present five year enrollment of 1200 per year.

In 1953, according to the Philippine Medical Directory, there were some 6700 physicians in the Philippines to which have since been added about 1050, or a total of about 7750 as of the beginning of 1955. From this figure the following table has been calculated:

ESTIMATED NUMBER OF PHYSICIANS,
AND RATIO TO POPULATION, 1954-1975, INCLUSIVE

<u>Year</u>	<u>Number of Physicians</u>	<u>Estimated Mortality</u>	<u>Surviving Physicians</u>	<u>Population Estimated</u>	<u>Population per Physician</u>
1954	7,750	77	7,673	21,238,700	2,766
1955	8,873	83	8,790	21,643,600	2,462
1956	9,990	100	9,875	22,056,100	2,234
1957	11,075	115	10,960	22,476,500	2,051
1958	12,160	125	12,035	22,904,900	1,903
1959	13,235	135	13,100	23,341,500	1,782
1960	14,300	150	14,150	23,786,400	1,681
1961	15,350	160	15,190	24,239,800	1,596
1962	16,390	170	16,220	24,701,800	1,523
1963	17,420	185	17,235	25,172,600	1,461
1964	18,435	193	18,242	25,652,400	1,406
1965	19,442	204	19,238	26,141,400	1,358
1966	20,438	215	20,223	26,639,700	1,317
1967	21,423	226	21,197	27,147,400	1,281
1968	22,397	237	22,160	27,664,900	1,248
1969	23,360	248	23,112	28,192,200	1,219
1970	24,312	259	24,053	28,729,600	1,194
1971	25,253	270	24,983	29,277,200	1,172
1972	26,183	281	25,902	29,835,200	1,152
1973	27,102	291	26,811	30,403,900	1,134
1974	28,011	300	27,711	30,983,400	1,118
1975	28,911	---	---	31,574,000	1,092

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It will be realized, of course, that this is a very rough estimate; the average increase of 1,200 per year is probably too conservative; and the estimated physician mortality too high. But it appears probable that, barring some severe dislocation, the ratio of one physician per thousand population will be reached by 1975, and perhaps several years earlier.

TABLE I
ENROLLMENT IN MEDICINE*

School year	1st year			2nd year			3rd year		
	M.	F.	Total	M.	F.	Total	M.	F.	Total
1951-52	1254	534	1788	1023	387	1410	703	302	1005
1952-53	-	-	1660	-	-	1522	-	-	1451
1953-54	1099	451	1550	974	435	1409	997	423	1420
1954-55	1064	558	1622	847	434	1281	1049	462	1511
	4th year			5th year					
	M.	F.	Total	M.	F.	Total			
	642	243	885	374	152	526			
	-	-	1071	-	-	750			
	867	467	1304	667	217	884			
	870	388	1258	687	311	998			

*Does not include the University of the Philippines

Year	Total		TOTAL		Grand Total
	Males	Percent	Females	Percent	
1951-52	3996	71.2	1618	28.8	5614
1952-53	4561	70.7	1893	29.3	6454
1953-54	4574	69.7	1993	30.3	6567
1954-55	<u>4517</u>	<u>52.4</u>	<u>2153</u>	<u>47.6</u>	<u>6670</u>
	17648	56.7	7657	43.3	25305

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TABLE II
ENROLLMENT IN MEDICAL SCHOOLS
1954 - 1955

	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>
Private schools	1622	1281	1511	1268	998
Univ. of the Philippines*	112	93	100	83	85
Totals	1734	1374	1611	1341	1083

*Not 1954 data

TABLE III
STATISTICAL DATA ON GRADUATES*

<u>School year</u>	(MEDICINE)				<u>Total</u>
	<u>Male</u>	<u>Percent</u>	<u>Female</u>	<u>Percent</u>	
1948-49	157	76.2	49	23.8	206
1949-50	155	74.9	52	25.1	207
1950-51	190	74.0	67	26.0	257
1951-52	356	70.4	150	29.6	506
1952-53	536	66.8	267	33.2	803
1953-54	<u>626</u>	<u>72.8</u>	<u>234</u>	<u>27.2</u>	<u>860</u>
totals	2020	74.2	819	28.8	2839

*Does not include the University of the Philippines

TABLE IV
RESULTS OF MEDICAL BOARD EXAMINATIONS

<u>Year</u>	<u>Candidates Examined</u>	<u>Candidates Passed</u>	<u>Candidates Failed</u>	<u>Percent Failed</u>
1949	249	214	35	14.0
1950	323	216	107	33.1
1951	398	248	150	37.6
1952	724	411	313	43.2
1953	1074	588	486	45.2
1954*	1050	867	183	17.4
	<u>3818</u>	<u>2544</u>	<u>1274</u>	<u>33.3</u>

*Figures for 1954 do not include the November examination, for which the results are not available. 206 took the examination, and presuming the same percentage, 17.4% applies, 171 passed and 35 failed.

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To get at the real base for medical manpower in the Philippines certain information must be obtained, analyzed, evaluated, and kept current. The following are but a few examples of the type of information and data needed:

1. How many doctors are in active practice?
Full time? _____ Part time? _____
2. How many are not in practice?
3. How many are in research?
Full time? _____ Part time? _____
4. How many are teaching medicine?
Full time? _____ Part time? _____
5. How many are in the Department of Health?
Full time? _____ Part time? _____ Distribution? _____
Categories? _____
6. How many are in the Veterans Administration?
Full time? _____ Part time? _____ Distribution? _____
Categories? _____
7. How many are in the Armed Forces?
Full time? _____ Part time? _____ Distribution? _____
Categories? _____
8. Number in the medical specialties?
Full time? _____ Part time? _____ Distribution? _____
Categories? _____
9. Number in administrative services?
Full time? _____ Part time? _____ Distribution? _____
Categories? _____
10. Distribution within the country by city, province, municipality, and barrio?

11. Number in industrial practice?

Full time? _____ Part time? _____ Distribution? _____

Categories? _____

12. Income by categories and location?

13. Number retired? _____

14. Other?

Once the baseline of medical manpower is established, then it is possible to proceed to certain other related fields in studying the best methods of making effective use of this manpower. The medical schools and the Institute of Hygiene are the producers of medical manpower while the Department of Health, Industry, etc., are the users.

Logically, a first step would be to have a complete survey made of all the producing agencies to be followed by an equally careful study of the using agencies. This would make it possible to determine if the product produced is so trained so that the using agency will not have to re-train before making assignment to duty. The adjustments necessary between the producer and user will thus be pinpointed.

It will also determine if the using agency is assigning the individual to work for which he is trained, or if he is miscast or misassigned. Channels of communication and coordination can be established between producer and user. Needs by discipline and categories can be assessed. Short or long supplies can be predicted or identified. Flexibility in curricula can be obtained to meet predicted needs.

In conclusion, when such information and data are accumulated, analyzed and evaluated, it will be possible to better devise curricula

in medical schools related to the demonstrated needs of the country. Programs may also be worked out to make possible maximum use of medical manpower both in peacetime and in case of disaster.

APPENDIX V

ESTIMATES OF DENTAL RESOURCES AND NEEDS IN THE PHILIPPINES

This is an attempt to arrive at an estimate of the number of dentists in the Philippines, the need for additional dentists, and how long it will take to fill this need.

Table I shows the enrollment in the dental colleges for the school years 1950-51 to 1954-55 inclusive:

Table I
Enrollment in Dental Colleges
1950-51 to 1954-55

<u>Year</u>	<u>University of the Philippines</u>	<u>Private Schools</u>	<u>Totals</u>
1950-51	166	4453	4619
1951-52	115	4803	4918
1952-53	69	3212	3281
1953-54	52	2583	2635
1954-55	<u>44</u>	<u>2002</u>	<u>2046</u>
	446	17,053	17,499

It will be noted that the enrollment has decreased by almost sixty percent during the past four years.

Table II shows the number of graduates of the dental colleges for the school years 1949-50 to 1954-55, inclusive.

Table II
Number of Graduates of Dental Colleges

<u>Year</u>	<u>University of the Philippines</u>	<u>Private Schools</u>	<u>Totals</u>
1950-51	36	671	707
1951-52	39	860	899
1952-53	27	713	740
1953-54	26	948	974
1954-55	9	536	545

The number graduated in 1954-55 was the lowest during the past five years. However, the proportion of graduates to enrollments has greatly increased. This may indicate either more careful selection of students; or a lowering of the standards for graduation from dental colleges. The latter could be reflected in the high percentage of failures in the Board Examinations the past two years (See Table No. III). On the other hand, the high percentage of failures may be due to more stringent Board Examinations.

Table III
Results of Examinations - Board of Dental Examiners*

<u>Year</u>	<u>Number Examined</u>	<u>Number Passed</u>	<u>Percent</u>	<u>Number Failed</u>	<u>Percent</u>
1950	602	465	77.2	137	22.8
1951	839	492	58.6	347	41.4
1952	1280	876	68.4	404	31.6
1953	1338	565	42.2	773	57.8
1954	<u>1480</u>	<u>757</u>	<u>51.2</u>	<u>723</u>	<u>48.8</u>
	5539	3155	56.9	2384	43.1
5-year average	1107	631	56.9	477	43.1

*Note: 704 took the examination in June 1955, but the results are not yet available. Examinations are held in June and December each year. Failed candidates may take a subsequent examination.

The Board of Dental Examiners states that since 1902, 6731 dentists passed the board examinations, but the Board has no record of the actual number in practice in the Philippines today.

The Philippine Medical Directory for 1953, published by Phil-med Services, Inc., Manila, contains a table showing the number and distribution of dentists in the Philippines as of 1951-1952. It shows a total of 2436 dentists in the Philippines, with an average of one dentist to 8138 people. The following table shows the ratio of dentists to population in the cities and provinces having one dentist to 10,000 population or less:

Table IV
Cities and Provinces with One Dentist for 10,000 Population or Less*
1951-1952

<u>Cities and Provinces</u>	<u>Population</u>	<u>Dentists</u>	<u>Population per Dentist</u>
Bacolod City	109,328	15	7288
Baguio City	30,196	6	5031
Bataan	94,224	14	6730
Batanes	10,915	2	5458
Bukidnon	64,541	33	1956
Bulacan	425,473	72	6048
Butuan City	23,778	7	3396
Cabanatuan City	55,037	7	7862
Cavite	226,657	60	4773
Cavite City	35,052	13	2696
Cebu City	171,220	34	5036
Dagupan City	45,854	22	2084
Davao City	114,077	20	5704
Iloilo City	113,651	25	4546

Table IV (Cont'd)

<u>Cities and Provinces</u>	<u>Population</u>	<u>Dentists</u>	<u>Population Per Dentist</u>
Laguna	277,553	43	6454
Lipa City	50,724	6	8454
Manila	1,052,891	1137	926
Nueva Ecija	421,888	43	9811
Ozamis City	35,262	6	5877
Pampanga	423,996	56	7671
Pasañ City	94,755	40	2369
Quezon City	120,367	84	1433
Rizal	498,367	105	4752
Roxas City	32,353	8	4044
San Pablo City	51,170	21	2437
Tarlac	338,253	45	7517
Tagaytay City	144,206	20	7216
Zambales	<u>108,588</u>	<u>16</u>	<u>6787</u>
Total	5,170,929	1960	2638

*Source: Philippine Medical Directory, 1953.

Excluding these areas, there were only 476 dentists to serve the remainder of the population, 14,655,000 people, or an average of one dentist to about 30,000 people. Above the 1:10,000 ratio, the range extends from 1:10,565 (Pangasinan) to 1:159,648 (Lanao). It will also be noted there were 1137 dentists in the City of Manila or a ratio of one dentist to 936 people, and concentrations of dentists in other population centers.

Adding to the total of 2436 dentists in 1951-52 reported in the Philippine Medical Directory, the total of 2198 that passed the Board since, makes a total of 4634 dentists which is the latest figure obtainable.

On the basis of the official population estimate for 1954, this would give a ratio of one dentist to 4570 people if the dentists were evenly distributed. Assuming that the same proportion of dentists continues to prevail in Manila as previously, there are now approximately 2162 dentists in Manila, or one dentist to 575 people, and 2472 outside of Manila or one dentist to approximately 8000 people, if these dentists were evenly distributed.

In relation to the enrolled school age groups, amounting to 4,314,371* in both the public and private schools, there is an average of one dentist to 930 pupils in Manila and outside of Manila an average of one dentist to approximately 1600 pupils. Actually there was an estimated 7,554,060 in the school-age groups six to nineteen years old, and of these, an estimated 7,190,800 are outside of Manila. To serve this latter group there is an average of one dentist to 2900 children of school age.

*Source: Bureau of Public Schools, 1954 Statistical Bulletin; Bureau of Private Schools, Private School Statistics, 1954-1955.

It is estimated that a dentist could fill 1800 tooth cavities per year, based on a 40-hour week, and that the average number of cavities per child would vary from three to five. Using the lower figure, it would require some 7200 dentists for this service to enrolled students, and 12,590 if the service were extended to the entire school-age group. This would not take into account extractions, prophylaxis, and other dental services required. Even on this basis, there is a shortage of some 2500 dentists to serve the enrolled pupils, and a shortage of 7956 to serve the whole school-age group. At the present rate of 757 dentist admitted to practice in 1953-1954 it would take over ten years to bridge this gap without taking into account the total needs of the school-age group, to say nothing of the remainder of the population, and without taking into account population increment, or attrition of the dental profession due to death or other causes.

The following table shows the work accomplished by the dental service of the Bureau of Public Schools for the school years 1946-47 to 1954-55 inclusive.

Table V
Bureau of Public Schools
Work Accomplished by the School Dentists from 1946-1955*

School Year	No. of Dentist	No. of Schools Visited	No. of Patients	No. of Pupils Given Prophylaxis	No. of Pupils with Defects	No. of Pupils Defects Corrected	No. of Teeth Extracted	No. of Teeth Filled
1946-47	107	2,647	308,918	281,576	203,470	143,414	227,307	100,898
1947-48	181	9,290	1,257,446	921,189	693,989	316,307	660,292	270,043
1948-49	210	11,140	1,522,952	1,460,000	794,608	433,233	824,688	342,269
1949-50	237	13,594	2,020,807	1,726,041	908,511	484,827	929,615	376,451
1950-51	254	13,044	1,953,237	1,851,795	857,950	688,152	850,255	349,799
1951-52	265	13,079	1,863,978	1,789,758	939,715	476,818	809,042	299,231
1952-53	232	13,575	1,432,872	1,641,571	903,226	426,618	824,286	290,607
1953-54	261	15,231	2,131,411	1,677,730	967,339	967,339	865,193	240,261
1954-55	261	15,823	2,246,100	1,842,296	1,022,769	496,357	959,487	249,492

The number of public school dentists almost doubled in the three year period, 1946-49, but since then has increased at a much slower rate to the present total of 261. The number of schools visited in 1954-55 increased to more than six times the number visited in 1946-47. The number of patients visited in 1954-55 amounted to about two-thirds of the total enrollment. Over half of the enrolled pupils were given prophylaxis. Of those examined, over one million were found to have defects of which less than half were corrected. Undoubtedly, some of the defects found were beyond the corrective stage, but the dentists were unable to cope with the demand for service. Total extractions represent 862,527 extractions of temporary teeth, and 96,960 permanent teeth. The number of tooth cavities filled amounted to 249,492, an average of 960 per dentist. This is a low figure compared with the measure used in the preceding discussion, which would be expected in view of the time devoted by the public school dentists to other services. Also, in visiting over 15,000 schools, obviously a great deal of time was consumed in travel, for which no figures are available. However, the table does reflect in concrete terms the magnitude of the dental requirements in the public schools and supports to a large degree the estimates made of the shortage of dentists to properly serve the school age group in the Philippines.

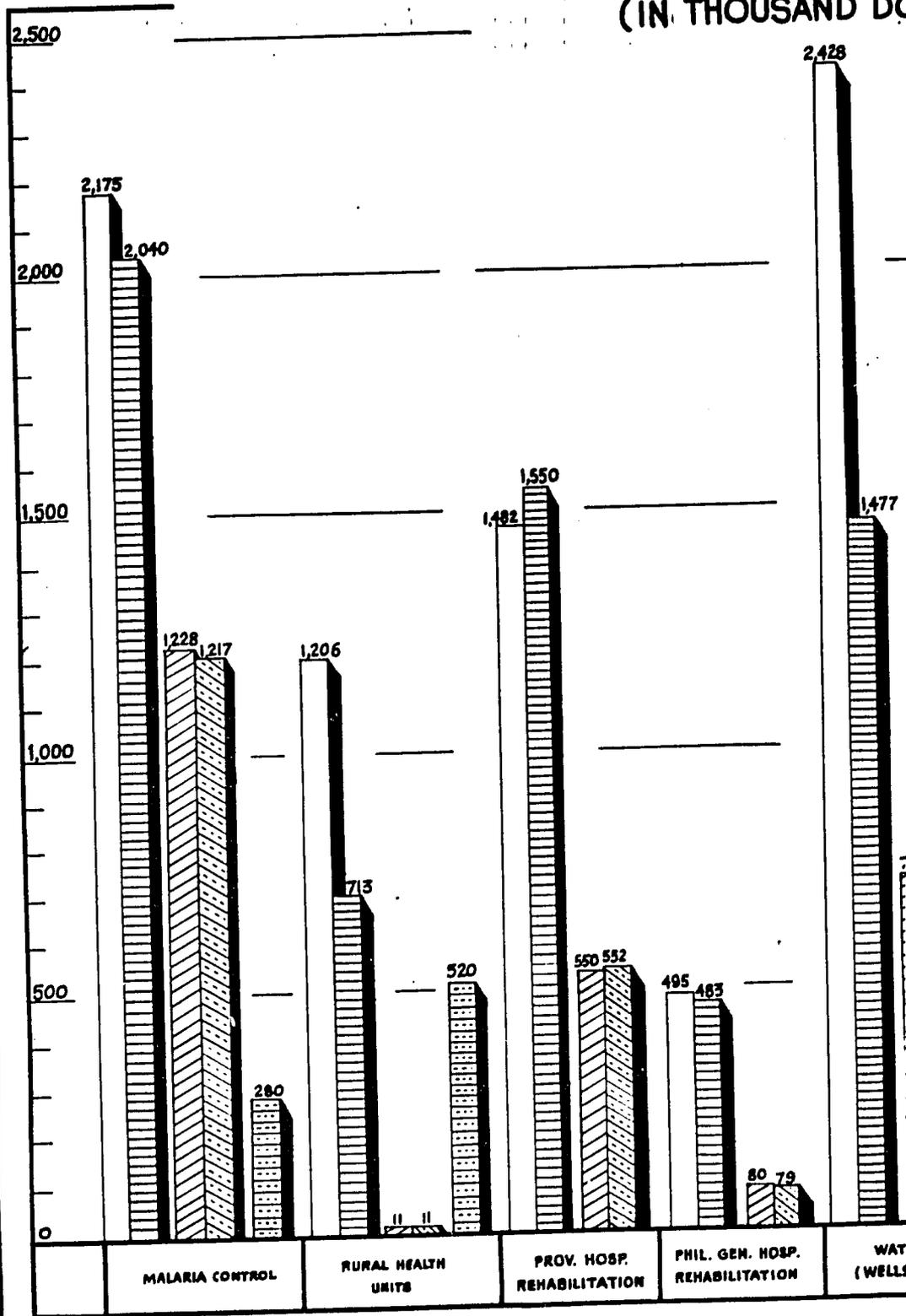
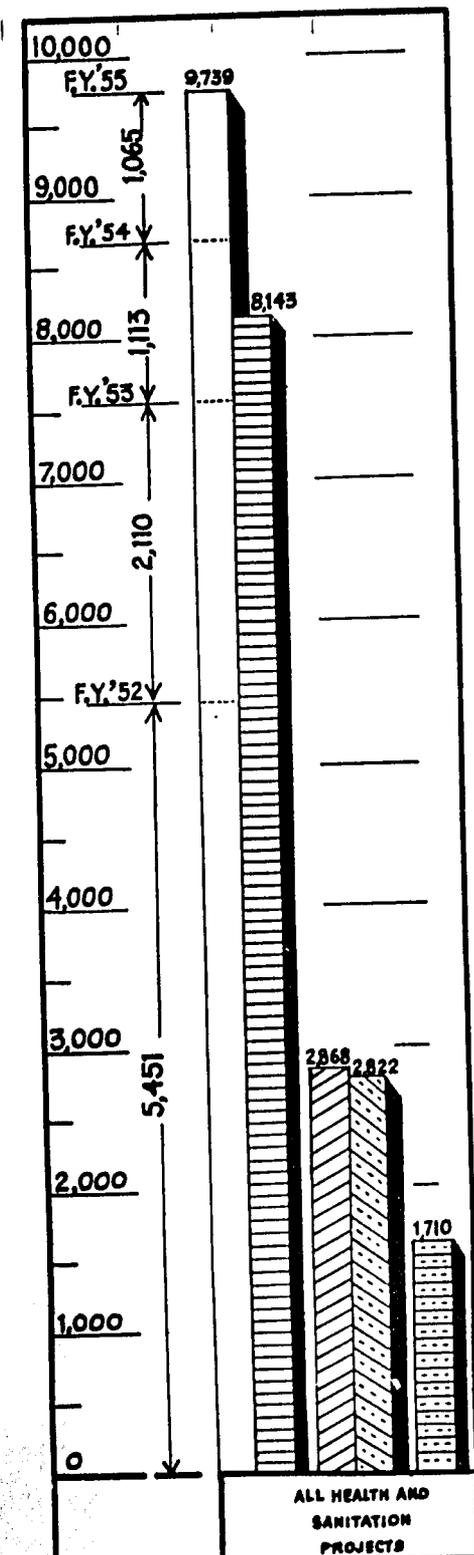
*By Courtesy of Dr. Felix Angeles, Chief, Dental Section, Bureau of Pub. Sch.

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COMMODITY

STATUS OF DOLLAR PROCUREMENT AUTHORIZATION AND PESO COUNTERPART FUNDS (AUTHORIZED AND AND 1955, WITH TOTAL PROGRAMMED

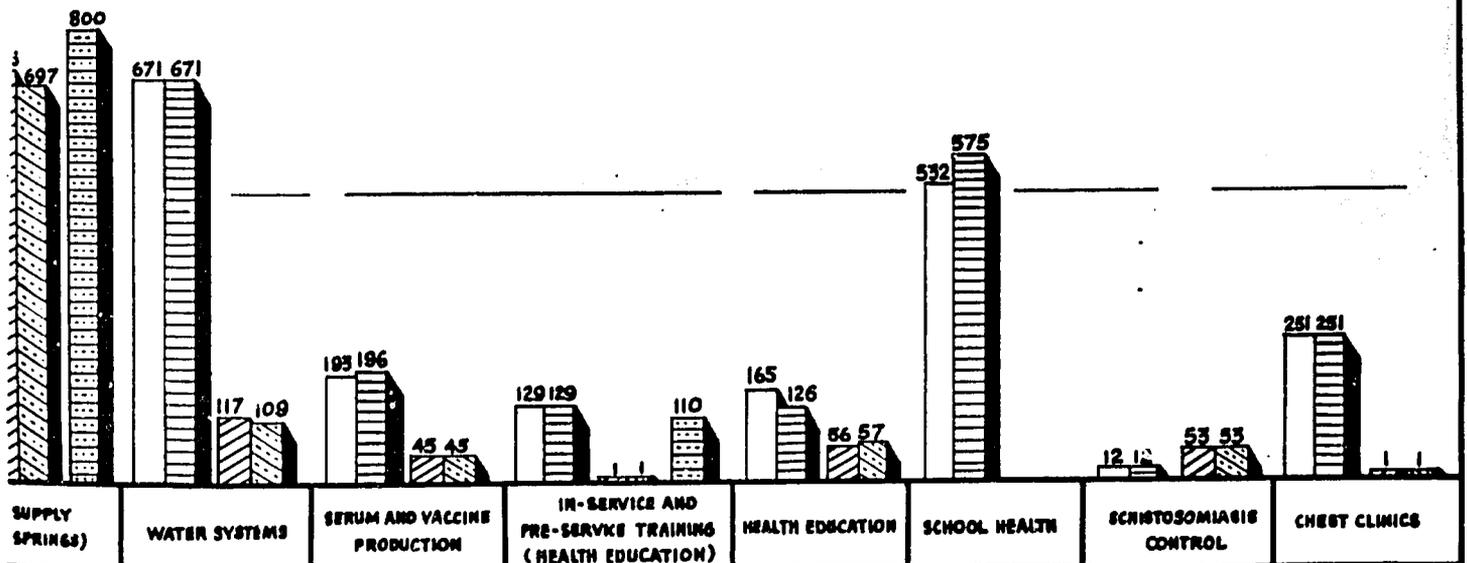
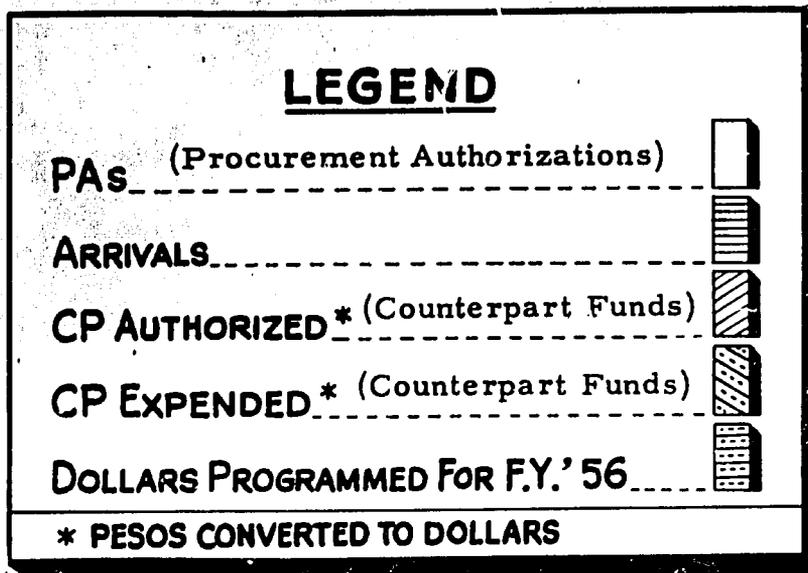
(IN THOUSAND DOLLARS)



TIES

AND/OR PROJECT IMPLEMENTATION ORDERS
EXPENDED) DURING F.Y. 1952, 1953, 1954,
FOR F.Y. 1956 - ALL CUMULATIVE

DOLLARS)



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