The Rural Health Unit in the Philippines

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IN the countries of the East, more and more interest is being focused on rural areas because of the rise in population, the importance of food production, and the progress of land tenure reform movements. Providing local health services to rural inhabitants is of major significance and, in the Philippines, the government's health program has recently been recharted to bring these services to every municipality in the Republic.

Historical Review

Public health in the Philippines appears to have been fostered by the Franciscan friars. In 1577, Friar Clemente of the Order of Friars Unilova set up a medical dispensary for the indigent of Manila in the Posteria of the Franciscan convent in the Intramuros, or old walled city of Manila. This eventually became the San Juan de Dios Hospital, which operated at its original site for 368 years, up to the Second World War. Following the creation of this institution, other hospitals were built in many other parts of the Philippines.

In 1690, during the Spanish occupation, the Dominican Padre Juan de Pergero was instrumental in installing a water system for the town of San Juan del Monte and for Manila. Charles IV of Spain sent his personal physician, Dr. Francisco Javier de Balmis, to Mexico, Central and South America, and the Philippines, where he arrived in 1805 to introduce smallpox vaccination. The following year, the Central Board of Vaccination was established. It was the earliest official public health organization in the Philippines. In 1876, the Spanish Government appointed *medicos titulares*, who were essentially the provincial health officers of that day, and, by the end of the Spanish regime, there was an official of this type in every province but one. Most *medicos titulares* were Spanish.

A further step in the development of public health was the creation of the Superior Board of Health and Charity in 1888, and one of the last achievements in health under the Spanish occupation was the addition of a 2-year course in some fundamental medical and dental subjects to the curriculum of the University of Santo Tomas in 1898. Graduates of this course, *cirujanos ministrantes*, served as male nurses and sanitary inspectors. In remote areas, they ministered to the sick in the absence of a physician or dentist.

With the American occupation came a change in health administration. Act 157 of the Philippine Commission in 1901 set up a Board of Health of the Philippine Islands; and in the same year, Acts 307 through 309 provided for provincial and municipal boards of health, with both Filipino and American members.

In 1906, the provincial boards of health were replaced by district health officers with jurisdiction over health districts. The districts were usually coextensive with a province but sometimes encompassed more than one province or parts of provinces. Further evolution in public health took place in 1912 with the "Fajardo Act," which created sanitary divisions, essentially geographic divisions of municipalities within the provinces. They included 1 to 4 municipalities; each was assigned a "president," who had to be a duly qualified

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physician, for supervision of health work. Usually a sanitary inspector and occasionally a nurse were also assigned to the sanitary division.

Dr. Jose Fabella, the first Secretary of Health and Welfare of the Philippines, brought about the establishment of puericulture centers in 1925 for maternal and child health care in local areas. They were supported by voluntary contributions matched by national funds received from the National Sweepstakes Fund. These puericulture centers were staffed for the most part by a nurse or midwife and a woman attendant, assisted by a part-time physician. The program was largely confined to prenatal services concentrating on the delivery event. These centers still suffer from insufficient local support and lack of year-round personnel.

Under Dr. Fabella, municipal maternity and charity clinics were also set up in 1939. They operated in municipalities and municipal districts of less than 8,000 in population and were directed by either a physician, nurse, or midwife. Salaries included a basic compensation and an additional amount for deliveries personally attended, up to a specified maximum. Compensation of personnel assigned to certain hardship areas was doubled if they were nonresidents of these areas at the time of appointment. In some instances, treatment of the indigent sick in these clinics duplicated the work of the sanitary divisions.

In 1947, the Philippine Department of Health reorganized into bureaus: the bureau of hospitals; the bureau of quarantine; and the bureau of health, for supervising preventive health services throughout the country. This reorganization placed administration of city health departments at the bureau level and placed many specialty programs, such as tuberculosis control, health education, and nutrition in the division of laboratories. The municipal maternity and charity clinics were now under the bureau of hospitals, and the sanitary divisions, under the bureau of health.

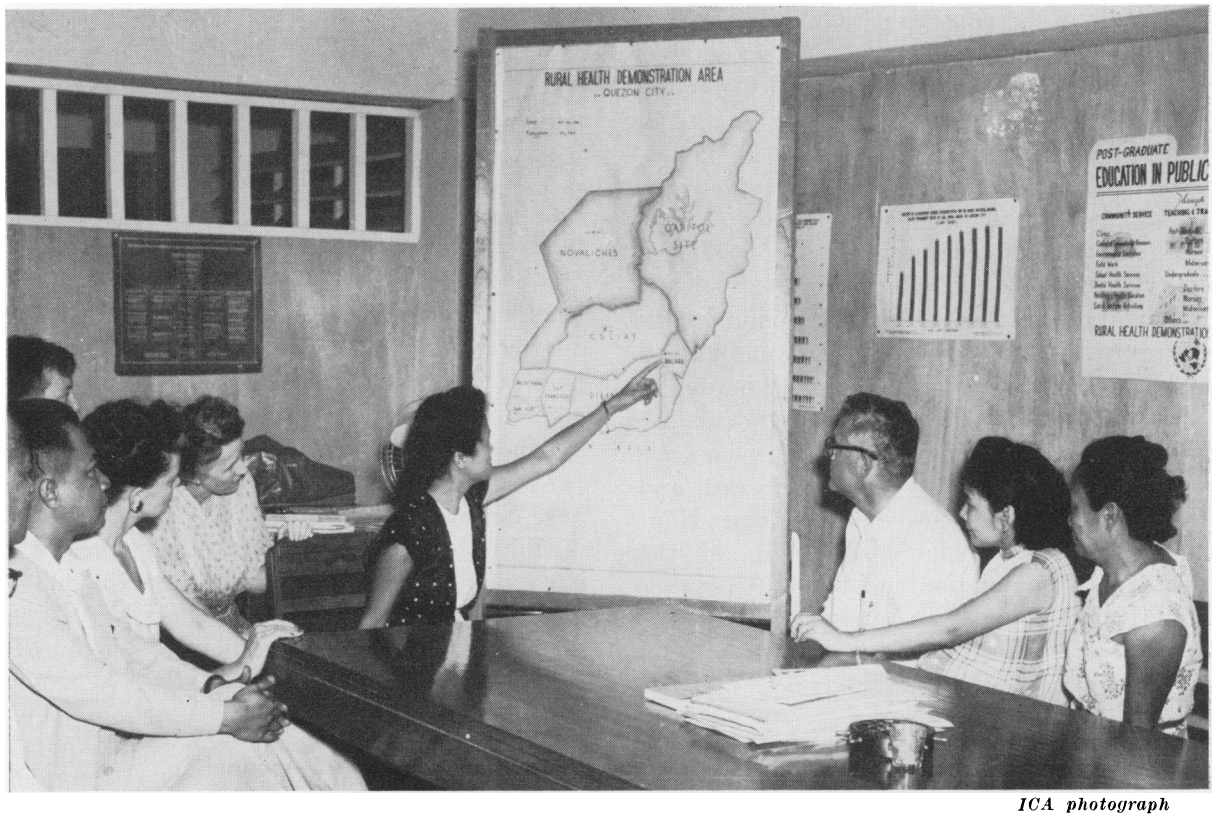
At the mid-century mark, many separate local health programs had accumulated. The president of the sanitary division was charged with duties in preventive medicine in addition to medical care. Frequently, he had no more than 1 or 2 sanitary inspectors to assist him. He was required by the act creating his office to "provide himself with the necessary appliances and also the instruments for all emergency cases, medical, surgical, and obstetrical." He had an advisory relation only to the puericulture centers. There were about 400 sanitary divisions serving about 1,200 municipalities.

The activities of all local health units were confined almost entirely to the *poblacion* or town center, leaving the outlying *barrios* or rural areas relatively unserved.

The specialty programs concentrated on isolated phases of the health problem, such as malaria, tuberculosis, venereal disease, and health education. A program of immunization, principally for smallpox, was carried out by vaccinating parties, which were made up of nonprofessional workers who covered specified areas. Their schedule called for a visit to each province once in 5 years. Nominally supervising this group of activities in the province was the district health officer, whose actual authority apparently extended only to the presidents of the sanitary divisions. He also had general supervision of the health of the people of the province. The number of sanitary inspectors, nurses, and clerks he had to assist him depended on the size and popula-

ICA photograph

Nurse at the El Salvador Rural Health Unit, Misamis Occidental, gives prescribed medication to sick baby.



ICA photograph

The largest number of rural health unit personnel were trained at the Quezon City Rural Health and Demonstration Center, a part of the rural health program in the Philippines. Here, the center's project director illustrates its scope and functions.

tion of the province. Often, where other organizations were inactive, his own local activities offered the sole medical services to the community. He apparently had no official control over the puericulture centers and essentially none over the various specialized programs.

In 1954, the bureau of health had 402 physicians, 152 nurses, 15 midwives, and 1,478 sanitary inspectors in the rural areas. With the 450 charity clinics operated by the bureau of hospitals and 500 active puericulture centers, there were an additional 880 physicians, 1,185 nurses, and 295 midwives employed at least part time in the rural areas.

Professional Health Workers

The duties of the sanitary inspector cover a wider field of activity than they do in the United States. In the Philippines, the sanitary inspector is an all-round health worker. He gives first aid and immunizations, makes sanitary surveys, diagnoses and treats disease, and fills out birth, death, and morbidity certificates. There is one stationed in more than 90 percent of the country's municipalities. In many areas, he is the first and only official health worker and sometimes the only government worker of any type. Educational requirements are high school graduation, and, before 1954, training was by the apprentice method. He still favors the khaki uniform with appropriate insignia and assumes the "parade rest" posture when in the presence of health officers, suggesting the quasi-military background of his specialty.

Midwifery is fairly well advanced in the Philippines, though there are many opportunities for improvement. In order to receive a license from the Board of Medical Examiners, the applicant must have completed an 18 months' course in a school approved by the government and have actually performed a specified number of deliveries under supervision.

Schools of nursing also leave something to be desired but are generally very acceptable. A bachelor's degree in public health nursing is offered by the University of the Philippines, and nurses were recently admitted to the Institute of Hygiene, the government university's postgraduate school of public health.

Physicians and engineers receive good specialty training in public health in the institute, which grants the certificate of public health and, provided a specified grade is maintained and a thesis approved, the degree of master of public health. Approximately 50 students are graduated each year, about 40 of whom are physicians. The faculty is well trained, and visiting teachers are provided by Johns Hopkins University under sponsorship of the Rockefeller Foundation and by the U. S. International Cooperation Administration.

Rural Population

According to an official estimate, the population of the Philippines in 1956 was 22,265,330. Of the three general areas in the Republic, Luzon Island is the most densely populated. Next in population density is the central or Visayan group of many smaller islands, and last is Mindanao Island. Palawan and Mindanao Islands, with the most acreage of essentially uninhabited land, are the main areas involved in the resettlement area program of the government.

The Filipino is predominately a rural citizen. At least 70 percent of the people live in rural areas and engage in predominately agricultural occupations. The 53 provinces are subdivided into municipalities, the basic government units, and the seat of municipal government is in the *poblacion*, situated where the population is densest. Elected officials of the municipality are a mayor, council members, a treasurer, police, and justice of the peace. Frequently the *poblacion* is also the site of an ancient church constructed during the Spanish regime. Scattered throughout the remainder of the municipality are more or less clearly defined subdivisions known as *barrios*. These are governed by a *teniente* or community leader, who is elected in some cases but who usually serves without pay, and a *barrio* council. An even smaller division is the *sitio*, hardly more than a collection of houses. The following illustrates the population levels of the municipalities according to the census of 1948:

Population groups	*Number of municipalities*
Under 5,000	206
5,000–20,000	691
20,000–40,000	229
40,000 and over	56

Another geographic division is the municipal district, which is administered entirely by appointed officials and has less autonomy than a municipality.

A peculiarity of the country is the large expanse of some of its 27 cities. Some of these have large areas that are definitely rural. One is said to be larger in area than any other city in the world, and another has parts which, until recently, were unexplored. The cities have their own government separate from the provincial administration.

Medical and Auxiliary Personnel

The distribution of medical and auxiliary personnel is predominantly urban. In July 1955, physicians in Manila and other urban areas numbered 4,996 out of an estimated population of 6 million, while the estimated rural population of 15 million had only 3,331. The number of medical school graduates examined annually by the Board of Medical Examiners more than quadrupled (249 to 1,050) between 1949 and 1954.

In 1954 there were 3,030 graduate nurses active in the country, a ratio of 1:5,400 of population. The ratio ranged from 1:940 in Manila to 1:26,972 in one of the provinces. Seventeen provinces had less than 1 nurse for each 10,000 persons. During the 5-year period 1950–54 a total of 2,533 nurses were licensed by the National Board of Nurse Examiners. There were 2,167 inactive nurses in April 1954. In the same month, there were 1,173 registered midwives, 287 of whom were in Manila.

Morbidity

As with most nations of Malayan ancestry, pulmonary tuberculosis is an important problem in the Philippines. The tropical climate

ICA photograph

ICA nursing consultant and her counterpart, a Filipino rural health nurse, make a home visit to a rural home in Tala, Rizal.

contributed much to the role of malaria as a leading cause of morbidity and mortality, but fortunately this disease is rapidly disappearing as the result of a successful residual spray program. Because of poor sanitation, the enteritides and schistosomiasis continue to be prevalent. The Philippines is the second most important endemic area in the world for *Schistosoma japonicum*; and, particularly among children, yaws, dermatophytoses, scabies, and "tropical ulcer" are common. Also, the effect of poor food habits and relatively low standards of living have contributed to the reported high incidence of nutritional deficiencies.

Campaigns against highly epidemic diseases, such as cholera and smallpox, have been successful. Small outbreaks have occurred, but no significant incidence has been reported for many years. The last recorded case of smallpox was in 1949, and of cholera, in 1935.

Apropos of this is the quality of mortality and morbidity reporting which leaves much to be desired. Reports from rural areas have been, in a high percentage of cases, from nonmedical personnel or from physicians who have never seen the cases.

High infant mortality, presumably related to poor obstetrical care, poor sanitation and nutrition, is another public health problem. In 1953 more than one-fourth (29.9 percent) of the deaths in the Philippines occurred below age 1, and more than one-half (53.5 percent) below age 3. Most deliveries are performed by the traditional birth attendant, or *hilot*, an unlicensed, untrained midwife. Informal reports of the percentage of deliveries by *hilots* range around 85 percent. Estimates of the proportion of deliveries by licensed midwives and nurses are about 10 percent, and by physicians, 5 percent. Hospitals usually take care of only abnormal deliveries, most women preferring to be delivered at home.

Philippine-American Demonstration

Following the establishment of the first mission of the U. S. Mutual Security Agency to the Philippines in 1951, the Department of Health made numerous studies of the health situation in cooperation with the Health Division of the mission. In 1952 the rural health unit project was formed. This project concentrated on a demonstration of integrated health services at the municipal level and provided a team of professional health workers for the demonstration. In most instances, communities without puericulture centers or charity clinics were chosen as sites for the demonstration. Teams of Filipino professional health workers, each consisting of a physician, public health nurse, midwife, and a sanitary inspector, were employed by the Department of Health with funds from the Philippine Council for United States Aid, and assigned to 81 municipalities. The U. S. Mutual Security Agency contributed equipment and supplies to the project. Each unit received a jeep, refrigerator, instrument sterilizer, microsope, examining tables, various medical instruments, and a supply of medicine calculated to last a year. These units were put into the field in 1953. In the subsequent year, additional units were set up in 52 sanitary district offices.

By the end of fiscal year 1954–55, a total of 244 units had been built up to a basic staff of 4 and given necessary equipment. Concurrently with the inception of this project, a training program was set up for the orientation of incoming personnel. Training centers were founded in four major cities of the Philippines. Also, the Rural Health Demonstration and Training Center in Quezon City was utilized. The orientation course, lasting about 6 weeks, consisted of a general review of public health programs, the organization of the department of health, and various administrative procedures in the conduct of local health services.

The *barrio* medical kit was an early feature of this rural health program. Its purpose is to furnish prompt medical care to the isolated *barrio* during the interim when more comprehensive phases of the rural health program are being organized. Essentially, the kit is a large plywood case containing a supply of relatively simple drugs and remedies which could be used with a minimum of medical supervision. Accompanying it is a manual covering basic sanitation, nutrition, health education, first aid, and emergency treatment of common conditions found in rural areas. The kit is preferably placed in a new hut or a house specially constructed of local materials, but sometimes the residence of a prominent citizen is satisfactory.

The kit is administered by a *barrio* health committee of from 3 to 5 members, usually including a teacher and a sanitary inspector, if one is stationed in the area. Supervision is assigned to the municipal health officer. Usually, the provincial health officer is also particularly interested in the project and assists in its organization and supervision.

Local health services have been assisted by the United Nations Children's Fund, mainly in the form of support of special programs, including maternal and child hygiene, yaws control, and BCG vaccination.

The Rural Health Act of 1954

In July 1954, the Congress of the Philippines passed the Rural Health Act, calling for the establishment of a rural health unit in every municipality and municipal district of the Philippines. It also made several administrative changes in the rural health program, among them the appointment of municipal health officers, the changing of the name of the district health officer to provincial health officer, the establishment of dental services in each congressional district, and the general increase in salaries of local health personnel. It also appropriated for this program 4 million pesos ($2 million, at the official rate) plus 1 million pesos annually for 4 years. The target date for full application of the act is July 1958.

The act called for two categories of units, a senior unit of a physician, public health nurse, midwife, and sanitary inspector; and a junior unit with a combination of a physician or a nurse plus a midwife or a sanitary inspector. Every municipality or combination of municipal districts with a population of more than

Status of rural health units relative to staffing projected under the Rural Health Act

Fiscal year	Total units in operation at end of fiscal year (complete and incomplete)	Junior units		Senior units			
		Cumulative total completed	New units completed	Cumulative total completed	New units completed	Raised to complete units [1]	Incomplete units
1955	1,000	----------	----------	650	----------	----------	350
1956	1,100	66	66	801	34	117	233
1957	1,200	132	66	952	34	117	116
1958	1,300	198	66	1,102	34	116	----------

[1] To be raised to complete staff of four members before end of fiscal year.

5,000 was to receive a senior unit. Those of more than 35,000 were given a junior unit in addition.

An additional provision established a public health dentist in each congressional district, those with more than 150,000 population receiving an additional dentist. This was estimated to provide 162 dentists for the 102 congressional districts. Dental positions already in the public health programs were included in this total figure. This program has been developing slowly, and funds for travel and for equipment have been increased to accelerate its progress.

The Rural Health Act also set up the following new scale of salaries for local health personnel:

Position	*Range*
Municipal health officer	₱3,000–4,200
Public health dentist	2,400–3,120
Public health nurse	2,400–2,580
Midwife	1,440–1,800
Provincial sanitary inspector	1,440–1,560

These salaries may be compared with the wages of private corporation employees compiled in a survey made for the Wage and Position Classification Office of the Philippine Government in 1954. These salaries apply to urban areas only:

Position	*Interquartile range*
Physician	₱2,092–5,550
Dentist	1,515–4,000
Nurse (hospital)	1,266–1,785
Hospital attendant	1,075–1,238

To fulfill the project in an orderly manner, a plan of operation was drawn up in 1954 in which the rural health units gradually progress towards the complete staffing called for in the act (see table).

As of July 1, 1956, the project was proceeding well, even a little ahead of schedule. The following is an analysis of the staffing of rural health units on that day in 1,317 municipalities and municipal districts, in reference to the projected plan:

Number with all four categories filled	510
Percent with all four categories filled	38.8
Number with three or more categories filled	876
Percent with three or more categories filled	66.6
Number with health personnel of any category	1,231
Percent with health personnel of any category	93.5
Number of physicians on duty	1,013
Number of nurses on duty	814
Number of midwives on duty	855
Number of sanitary inspectors on duty	1,491

Usefulness of Equipment

At the end of 1953, the 81 demonstration units were polled on their use of the various items of equipment. Among the items listed as most useful were the jeep, the outboard motor, the sphygmomanometer, stethoscope, microscope, examining table and chairs, and refrigerator. The following are the results of the poll, in general, and some observations made by unit personnel and consultants.

The most useful piece of equipment, according to 66 of the 81 units, was the jeep. Where any reasonable semblance of road existed, it increased the effective range of health unit personnel in their assigned areas. In most rural sections, automotive transportation, public or private, was still scarce. The jeep was used not only to transport unit personnel to the peo-

ple but also to carry patients to the hospital. It mobilized the unit. There were, however, few facilities for repair and maintenance in most rural areas. Also, since automobiles were relatively scarce in most of these areas, even among government officials, the jeep was subject to unauthorized use. In addition, relatively few Filipinos had been trained to drive or properly maintain automotive equipment. Solutions were being found to most of the problems, however, through revision of antiquated rules and regulations, training of personnel, and the maximum use of district engineer stations or vocational training schools.

Particularly useful in the Philippines for serving the more than 600 inhabited islands were outboard motors. Usually, the small islands are settled only along their coasts and since few or no roads exist inland, transportation must be by water, either on rivers or the open sea. Frequently, one municipality includes several small islands to which no public transportation is available. Motors were used to propel the traditional *banca* type of boat which could be maneuvered close to shore and which, when equipped with outrigging and a 25 hp. motor, could successfully negotiate stretches of open water. The same problems of supply and maintenance applied here but were not so large.

The original 81 demonstration units reported the sphygmomanometer and stethoscope to be the second most useful items. They were used extensively by physician, nurse, and midwife in maternal and child hygiene work. Most of these mercury type sphygmomanometers that were supplied apparently were in good condition after 3 years.

The original justification for the typewriter was for typing of records, reports, and correspondence. Correspondence was minimal, however, and many records were handwritten. There was considerable doubt that the usefulness of this item for persons not particularly trained in its use justified its relatively high cost.

The use of the microscope was mainly confined to the examination of urine (a small hand centrifuge was also supplied) and of feces for parasite ova. Blood smears for malaria were examined occasionally and blood counts infrequently. The general opinion was that the microscope should be issued only to physicians who could be expected to use it efficiently. Fungus growth on the lens and some rust or corrosion were noted but less than expected in the tropical climate. Few facilities existed in the Philippines for repair and maintenance of microscopes.

For emergency and minor surgery, the original units were supplied with 12 mosquito forceps, 24 hemostats, 4 tissue forceps, 4 dressing forceps, 2 sponge forceps, 2 needle holders, 6 surgical scissors, and 2 grooved directors. Also included were an ether mask, an ether dropper, and rubber gloves. It was found that after 2 years of operation very few units had used more than 1 or 2 of the instruments. In many units most of the forceps were never removed from the original package. The ether mask and dropper were not known to have been used in any unit, and the rubber gloves in many instances had deteriorated. Rural health units were doing little more than repair of superficial lacerations or other very minor surgery; the equipment originally given exceeded actual needs, except for obstetrical forceps which were used by many units. Rural physicians evidently preferred to transport seriously injured or ill patients to the hospital than to operate under unfavorable conditions, especially if they did not have special training or experience in surgical procedures. Also, the hospital system in the Philippines was fairly well developed, there being at least one government hospital in every province.

The use of the refrigerator in rural health units has been mainly for storage of biologics, antibiotics, and perishable drugs. Few blood and urine specimens, water samples, or other materials for examination were stored in refrigerators, probably because the proposed system of regional laboratories had not been sufficiently developed to handle such work from the average health unit. Refrigerators up to 7 cubic feet were placed in units, but they were much too large for the average 4- to 5-worker unit in the present stage of development. The small 1½ cubic foot refrigerators are being ordered. Problems of operation also plagued

the use of this item. Many small towns had no electric current or had it only for varying periods of 6 to 12 hours a day. However, if the full capacity of the freezing unit were used to freeze ice during the time the unit was in operation, the box would be cool during the nonoperating period. Another apparently successful alternative was the kerosene refrigerator. Kerosene was usually available in the rural areas, and, when properly operated, this type of refrigerator seemed to function well in tropical climate.

The simply constructed metal examining tables and chairs were undoubtedly in use, as was other furniture supplied by the Philippine Department of Health. After much evidence that these items could be constructed locally from native materials, it was decided to foster this approach to stimulate interest in the health unit and its work. Such tables and chairs were frequently donated by individuals, with credit plainly lettered on the piece. Sample plans and bills of materials were supplied to local health officers. The items will therefore probably not be supplied to the Philippine rural health program by international assistance agencies in the future.

Electric and alcohol sterilizers were supplied, as well as pans for use on primus stoves. The same difficulty was found with the electric sterilizer as with other electric appliances. Sterilizing instruments was possible at night when current was available but the unit personnel were not anxious to do the job then; they preferred to find other methods that could be used during the day. The large alcohol sterilizer needed a large amount of fuel to bring the necessary amount of water to a boil. Usually, it was used only to sterilize the larger instruments such as obstetrical forceps. The small alcohol syringe and needle sterilizer was useful in smaller clinics.

Conclusion

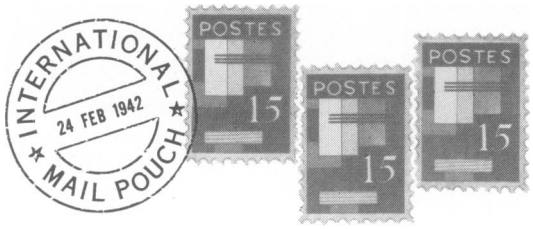
The background and salient points in the evolution and progress of local health services in the Republic of the Philippines have been presented with the expectation that the problems in that country are parallel with those in other countries in the area. Opportunities will arise in the future for exchange of information on the application of the Philippine program. One thing is certain: The rural people in the Philippines want these services, and the demand is large and steadily augmenting.

Tenth World Health Assembly

Surgeon General Burney headed the United States delegation at the Tenth World Health Assembly in Geneva, May 7–24, 1957. Highlights of the assembly were adoption of the 1958 budget of $13,500,000 recommended by the executive board and unanimous acceptance of the invitation to hold the eleventh assembly in the United States. The U.S.S.R., Albania, Bulgaria, and Poland resumed active membership.

In addition to calling for more voluntary contributions to the special malaria eradication fund, the assembly approved a continuing WHO program in peaceful uses of atomic energy. This program includes training health physicists and physicians in public health aspects of atomic energy, scheduling an expert committee meeting on graduate public health training in atomic energy, and study of disposal of radioactive wastes.

Dr. Al-Wahbi of Iraq, president of the assembly, awarded the Darling Foundation Medal and Prize to Dr. Paul F. Russell of the Rockefeller Foundation for outstanding achievements in the control of malaria. The Leon Bernard Foundation Prize was awarded to Professor Kacprzak of Poland for his work in social medicine.



These paragraphs, based on overseas reports from public health personnel with missions and field parties of the International Cooperation Administration, give a glimpse into health work abroad. Most of the original material appears in an administrative publication distributed by the Public Health Division of the ICA.

Plaque for Sulimaniyah

The new health center of Sulimaniyah in Iraq received a silver plaque in honor of its part in the agriculture and industry exhibition held for the first time in that place. Visitors from town and village were received at the center with complete explanations of the uses of this facility. Sulimaniyah has been isolated from external influences. The economy is rural, the faith Islamic (Sunni sect), the language Kurdish (many dialects). Most Kurds also speak some Turkish, Farsi, or Arabic. Those who have been to school read, write, and speak Arabic and Kurdish and frequently have some understanding of English.

—M. ELIZABETH DARDEN, *public health nurse adviser, formerly with United States Operations Mission, Iraq.*

Smallpox Detection the Hard Way

On the afternoon of December 13 we received a report of smallpox in the village of Pishvah 45 miles southeast of Teheran in the Varamin area of Iran. Dr. Cyrus Arasteh and I readied an investigation team and vehicle and departed that night, in a mixture of snow and drizzle. We came to a flooded river where we charged with our 4-wheel drive around a bus and a large truck that were stuck side by side blocking the "road." But we mired in over the hubs and slammed against a high bank. Our hardy Iranian driver, Akbar, took off his shoes, rolled up his pants legs to the hip, jumped out in the falling snow and icy water, and began digging furiously, singing gaily the whole time. An hour and a half later with the help of a cable to another car we wound ourselves up out of the sea of mud. In the meantime my efforts to help had amounted to my stepping off into space of the black night for a 6-foot fall into a ravine where I ended up with muddy water over my head. I had some damage to my knee and was litter bound for the rest of the night. During our investigation three cases of smallpox were found in a family that had recently arrived from Tabriz. Nine thousand persons in the area were vaccinated, and it was reported that no more smallpox occurred.

A tiny Iranian gets immunized against smallpox in Iran's national campaign against the disease by one of the vaccinators trained by the International Cooperation Administration for the program.

—FRANZ ROSA, M.D., *public health physician, United States Operations Mission, Iran.*

Endowment

In a village near Shiraz, Iran, the year-long efforts of a sanitary aide with the Public Health Cooperative Organization to build a sanitary program reaped an unexpected benefit. One of the villagers, who owned a small amount of property, became so impressed with what he had learned about sanitation and hygiene that he endowed the rent from one of his shops to the village council for sanitation in the village.

—ALBERT P. KNIGHT, M.D., *chief, Health Division, United States Operations Mission, Iran*