The Public Health Program for Mexican Migrant Workers

NORMA J. ROBINSON

CONTINUAL EFFORT has been made by the Public Health Service to identify the health problems and to establish specific health requirements for migrant laborers coming into this country.

Of the 1¼ million migrant laborers employed in agriculture in the United States, approximately one-half million are foreign nationals, principally from Mexico. The Mexican component is about 450,000. Those who are recruited in Mexico for brief periods of time to meet a specific need are called braceros (from the Spanish word for "arm"). During 1957, braceros were employed in 27 States, ranging from California on the west coast to Delaware in the east.

The program for employment of foreign labor in the United States requires that each worker pass a physical examination. Today, the Public Health Service has developed a procedure for screening large numbers of laborers in a relatively short period of time.

Early Recruitment

Mexico has been a source of labor for the United States for many years. For a long period, however, this recruiting was unsupervised. Workers were brought in without adequate guarantees as to employment, housing, sanitary conditions, and wages. The working conditions and ultimate economic status of many of the Mexican laborers in the United

Miss Robinson is a management analysis officer, General Methods Staff, Office of the Surgeon General, Public Health Service.

States became a serious problem for this country and for Mexico. Particularly during the period of economic depression following 1929, distress was general among the Mexican residents in the United States; consequently, many of the laborers returned to Mexico in various degrees of destitution. The Mexican Government was therefore prompted to incorporate in the Mexican Federal Labor Law of 1931 definite regulations governing the migration of Mexican workers, and the Mexican Constitution outlined these workers' rights, including compensation for injuries or illnesses and the guarantee of return transportation for workers given contracts for employment outside the country (1a). This official act had a marked impact on the emigration of laborers and the establishment of standards for the employment of Mexican agricultural workers.

Historically, the Division of Foreign Quarantine of the U.S. Public Health Service has had specific responsibility for preventing the introduction of quarantinable and other dangerous and contagious diseases into the United States and for preventing the entry of aliens with mental and physical conditions excludable under the immigration laws. Prior to World War II, medical inspections of Mexican nationals entering the United States were performed at the ports of entry along the Mexican border. For the temporary visitor, the medical inspection was rather cursory. However, it appears that particular attention was given to inspecting for pediculosis to prevent the introduction of typhus fever, and disinfestation was frequent. Mexican nationals were permitted to

enter the United States as temporary visitors for work on farms during limited periods.

During World War II

At the beginning of World War II, demands for personnel in the war industries and the armed services created labor shortages, particularly in agriculture. The Mexican Government was requested to provide Mexican laborers for agricultural work in the United States, and in July 1942 that government consented to grant labor assistance as a part of its contribution to the war effort.

During and following World War II, the responsibility for the Mexican labor recruitment program was assigned to several United States agencies, such as the Farm Security Administration, the War Manpower Commission (with the U.S. Employment Service and U.S. Selective Service), and various branches of the U.S. Department of Agriculture (1b). Within the administrative framework of the Farm Security Administration, and subsequently the War Food Administration, provision was made for carrying out a medical program for the agricultural workers. Accordingly, funds for the medical examination program were transferred from the responsible agency to the Division of Foreign Quarantine, Public Health Service.

Teams of Public Health Service medical officers from the Foreign Quarantine, Venereal Disease Control, and Tuberculosis Divisions were sent to Mexico to carry out examinations in cooperation with Mexican health officials.

According to a Public Health Service report on the history of the physical examinations, these officers followed traditional medical procedures used for immigrants. The workers were examined for conditions of the skin, heart, lungs, and teeth and for venereal diseases. Tests were also made of the eyes, ears, nose, and throat, the blood pressure, and the general skeletal, muscular, and nervous systems. Most laborers were vaccinated or revaccinated for smallpox and given initial typhoid inoculations. In addition, photofluorographic chest X-rays and serologic tests were given to prospective laborers when facilities permitted.

When the war emergency program began, the selection of eligible laborers was carried out in Mexico City, a practice which made possible a centralized examination program. However, at the end of 1944 the selection center was moved from Mexico City to Irapuato, and, subsequently, other selection centers were established and operated at the discretion of the Mexican Government (1c). Medical personnel with mobile X-ray units were sent from the Public Health Service to the recruiting points within Mexico, where numerous problems arose in operating the units (2). After 1 or 2 years' experience, Public Health Service medical officers were sent to the recruiting points in Mexico solely to assist local physicians in X-ray and other medical procedures connected with mass examinations.

After World War II

Following World War II, recruiting continued under the provisions of international executive agreements between Mexico and the United States. Unfortunately, these agreements frequently were delayed until the need for such laborers in the United States was acute, and without an agreement, Mexican citizens could not be legally recruited. At the same time it was known that there were Mexican citizens entering the United States illegally for agricultural work.

According to a U. S. Department of Labor report, the number of Mexicans who entered this country illegally (wetbacks) increased from 29,000 in 1944 to 565,000 in 1950 (3). Both countries were concerned about the problem, but the Mexican border, approximately 1,600 miles in length, proved to be difficult to patrol effectively. There were then nine official crossing points along the Mexican border which were staffed by Public Health Service personnel. Although the Immigration Service was guarding the border, the number of patrol officers was not sufficient to force all to enter at the legal crossing points.

It was realized from the start that to give a medical examination, including chest X-ray, to each laborer who entered the United States was impossible. This was especially true during accelerated recruiting activities immediately after the signing of an international executive agreement. In addition, the large segment of the Mexican migrant labor force entering the United States illegally obviously could not have been examined.

In 1949 the international executive agreement between Mexico and the United States included a significant change which seriously affected the medical examination of Mexican laborers. Under this agreement, laborers illegally in the United States could be recruited and contracted for agricultural work. Subsequent recruiting of wetbacks in the United States was carried out sporadically in scattered areas to meet the labor needs of particular localities. Under these conditions, the Division of Foreign Quarantine could not make complete examinations for tuberculosis. Although the Service could not conduct a comprehensive medical examination program for the illegal entrants, laborers who were recruited in Mexico were given medical examinations at the designated ports of entry, according to the terms of the 1949 agreement.

Legislative Authority

For several years the Mexican Government had been seeking agreements which would prevent the illegal exodus of Mexican workers and protect, with respect to wages and working conditions, its citizens employed in the United States. To insure that the United States would promptly and effectively support compliance with the obligations in the work contracts between employer and employee, the Mexican Government requested that the United States adopt legislation to authorize a United States Government agency to contract workers. Public Law 82–78 giving the legislative authority to employ agricultural workers from the Republic of Mexico was passed on July 12, 1951.

This legislation gave the Secretary of Labor the responsibility for bringing from Mexico agricultural workers subject to United States immigration laws. The Public Health Service, with responsibility for performing the physical and mental examinations of arriving aliens for the Immigration Service, continued to carry out the medical program for the Mexican laborers.

Following enactment of the new law, Mexico and the United States entered into the Migrant Labor Agreement of 1951. This agreement allowed establishment of migratory centers in Mexico and reception centers in the United States to recruit and contract Mexican laborers. Both Public Law 78 and the Migrant Labor Agreement have been extended periodically. The present legislative authority will expire on June 30, 1959.

Medical Examination

It was agreed that the Public Health Service would conduct at the migratory centers in Mexico a physical and mental examination of each laborer to assure that he met the mental and health requirements for admission to the United States. If facilities were available, each laborer would be physically examined and given a photofluorographic chest X-ray, with modern equipment, and a serologic test. Service physicians were to be assisted by Mexican physicians who would later replace them. In accordance with the agreement, the migratory centers in Mexico were to be located at Aguascalientes, Aguascalientes; Guadalajara, Jalisco; Irapuato, Guanajuato; Monterrey, Nuevo Leon; and Chihuahua, Chihuahua.

On September 13, 1951, Public Health Service personnel and equipment for the photofluorographic activities at the migratory centers in Irapuato, Guadalajara, and Aguascalientes were dispatched to Mexico. However, inadequate electric power for operating fluorographic equipment made X-raying impossible. At Aguascalientes and Guadalajara it was reported that electric power could not be brought to buildings housing the X-ray equipment. In addition, power stations were reportedly shut down during daylight hours, and Service personnel were advised that there were troublesome voltage variations in the local municipal systems. During the period from September 13 to October 17, 1951, no X-rays were made. Because of these difficulties, it was concluded that the program had to be performed at the reception centers in the United States.

By October 31, 1951, approximately 120,000 laborers had been admitted to the United States without receiving chest X-rays. As a solution, the photofluorographic equipment was moved from the migratory centers in Mexico to reception centers in the United States. At Eagle Pass, Tex., the first X-rays were taken on November 4, 1951. Photofluorographic equipment was installed at the reception centers in El Paso and Harlingen, Tex., and El Centro, Calif., and was in operation about 30 days after the establishment of the X-ray program at the Eagle Pass reception center.

The reception centers were successful in taking only 8,028 X-rays during the rush season. The reason for this limited number was that the majority of laborers had received contracts when the difficulties were being encountered in Mexico and before it was possible to install photofluorographic equipment at the reception centers in the United States. Many of the laborers X-rayed had already been in the United States and were returning to the reception centers to be recontracted.

Migratory and Reception Centers

There are, then, two types of migratory labor processing centers: migratory centers in Mexico and reception centers within the United States along the Mexican border. The reception centers in the United States now are at Hidalgo, Eagle Pass, and El Paso, Tex.; Nogales, Ariz.; and El Centro, Calif. In Mexico the number and the location of the migratory centers are influenced by the demand for laborers. During fiscal year 1957, Mexico's migratory centers were at Empalme, Sonora; Monterrey, Nuevo Leon, and Chihuahua, Chihuahua. Each migratory center recruits the laborers in accordance with requests received from the reception centers.



Until 1954, illegal entrants from Mexico continued to pose a serious problem. While the recruiting program contracted about 200,000 laborers under the terms of the international agreement during 1953, it was estimated that approximately 1 million Mexicans crossed the border illegally to accept employment.

In 1954, the U. S. Department of Justice increased the number of border patrol officers and took other effective measures leading to the gradual decline in the illegal entry of Mexican laborers.

A concomitant change occurred in the number of laborers recruited to fill the gap produced by the decline in illegal immigration. Based on experience, the U. S. Department of Labor had planned to request 260,000 laborers from Mexico during fiscal year 1955; however, it was necessary to recruit 350,000 laborers during that year in order to meet the demand. The number of laborers contracted each year has continued to increase, as indicated by the 428,416 laborers during fiscal year 1956 and 450,162 laborers during fiscal year 1957. Today the wetback problem has been largely resolved, and braceros are provided by the controlled farm labor program.

Current Medical Program

The action taken to control illegal immigration has made possible the conduct of an effective medical program for Mexican laborers. Since 1954, every laborer contracted by the U. S. Department of Labor has been given a medical examination. In addition, the medical program is geared to meet the increases in the need for agricultural workers, without sacrificing the quality of the medical examinations.

The entire medical program for Mexican laborers at the migratory centers in Mexico and the reception centers in the United States is carried out under the direction of the Public Health Service medical officer assigned to the district quarantine station, El Paso, Tex. Mexican doctors and nurses are employed to perform the medical examinations at the migratory centers in Mexico, and Public Health Service doctors and a limited number of contract doctors conduct the medical program at the reception centers in the United States. The medical examination at the migratory centers in Mexico is essentially a screening process. On the basis of clinical diagnosis, laborers who have tuberculosis, venereal diseases, or other conditions making them unfit for accepting employment in the United States are rejected. Those who pass the physical examination are vaccinated for smallpox. The vaccine is provided by the Mexican Government without cost to the United States farm placement program.

The primary purpose of the physical examinations at migratory centers in Mexico is to eliminate unnecessary hardships for the Mexican laborers. Those who are rejected at the migratory centers are spared the trip to the reception center and the disappointment of being rejected and returned to the migratory center. In addition, the Mexican physicians at the migratory centers aid the laborers in finding medical care, frequently at the office of the Mexican health service, for remediable conditions. The record of medical rejections at the migratory centers for the fiscal years 1952 through 1957 is shown in table 1.

Laborers who pass the physical examination at the migratory centers are transported, under the supervision of the U. S. Labor Department, by railroad or bus to the reception centers. There they are first processed by the Public Health Service personnel. Each laborer and his personal effects are dusted with an insecticide. The laborer is then examined for evidence of venereal disease, given a photofluorographic chest X-ray, and examined for any other physical conditions which would be contagious or make the laborer unfit for agricultural work. All laborers with evidence of venereal disease are routinely treated, and most of them are then permitted to accept employment. However, when a venereal disease case cannot be cured with a single treatment, the laborer is rejected and returned to Mexico.

All laborers with tuberculosis. contagious diseases, or other disqualifying physical defects are rejected and returned to the migratory centers in Mexico. In accordance with the joint operating instructions between the United States and the Mexican Government, effective July 1, 1956, laborers rejected at the reception centers must be reported to the Mexican consul. The Public Health Service doctor at the reception center gives the worker and the Mexican consul a written diagnosis of the case so that the information may be transmitted to the appropriate Mexican authorities. The medical causes for rejection and the number of laborers rejected at the reception centers for the fiscal years 1952 through 1957 are shown in table 2.

Medical Program Cost

Employers of Mexican laborers reimburse the United States Government for all expenses of the Mexican farm labor program, except costs of U. S. Department of Labor personnel, through a revolving fund to which employers pay a fixed fee per worker hired. The remainder of the fund is made up of Department of Labor appropriations. Since 1954 the costs of medical examinations of Mexican laborers have been charged to that fund.

Medical expenses are incurred for (a) medical examinations and vaccinations performed

Table 1.	Medical rejections	at the migratory	centers for fiscal	years 1952 through '	1957
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]	Medical caus		x			
Fiscal year	Number of laborers examined	Mental	Tubercu- losis and pulmonary conditions	Venereal disease	Other conditions	Total rejected	Rate of rejection	
1952 1953 1954 1955 1956 1957	$187, 569 \\ 205, 941 \\ 180, 871 \\ 263, 376 \\ 415, 210 \\ 440, 332$	5 70 1 0 2 3	29 93 27 52 87 35	$373 \\ 588 \\ 394 \\ 1, 189 \\ 3, 190 \\ 1, 808$	$\begin{array}{c} 3, 206 \\ 7, 033 \\ 5, 432 \\ 4, 353 \\ 6, 778 \\ 3, 741 \end{array}$	$\begin{array}{r} 3,\ 613\\ 7,\ 784\\ 5,\ 854\\ 5,\ 594\\ 10,\ 057\\ 5,\ 587\end{array}$	1. 92 3. 77 3. 23 2. 12 2. 42 1. 26	

Table	2.	Medical	causes	for	rejecting	Mexican	migrant	laborers	and	number	rejected	at	the
			recep	otion	centers d	uring fisca	l years 1	952 throu	gh 19	957	•		

]	Medical caus					
Fiscal year	Number of laborers examined	Mental	Tubercu- losis and pulmonary conditions	Venereal Other disease conditions		Total rejected	Rate of rejection	
1952 1953 1954 1955 1956 1957	$\begin{array}{c} 333,071\\ 292,891\\ 221,119\\ 340,070\\ 435,332\\ 457,360\end{array}$	$12 \\ 39 \\ 23 \\ 9 \\ 13 \\ 14$	$\begin{array}{r} 676\\ 2,536\\ 2,724\\ 4,357\\ 5,277\\ 5,050\end{array}$	75 523 188 271 16 98	116 764 658 1, 132 451 416	879 3, 862 3, 593 5, 769 5, 757 5, 578	0. 26 1. 3 1. 6 1. 7 1. 3 1. 2	

at the migratory centers in Mexico, (b) hospital and medical care for laborers who are injured or become ill between migratory centers and the reception center or at the reception center, and (c) medical examinations performed at the reception centers in the United States.

The Foreign Quarantine Division conducts the entire medical program at a minimal cost to employers. During fiscal year 1957 Mexican laborers were examined at the migratory centers in Mexico at a cost of approximately 20 cents per laborer. The complete medical examinations, including chest X-rays, at the reception centers in the United States, for 457,360 laborers amounted to approximately 73 cents per laborer. The medical examinations at the migratory centers in Mexico, hospital and medical care provided by the Public Health Service, and medical examinations at the reception centers in the United States were performed, on the average, for 95 cents per laborer receiving a contract for employment in the United States.

Today the medical program for the examination of Mexican laborers conducted by the quarantine service is effective because many of the problems plaguing efforts to conduct a complete medical program during and after World War II have been resolved. Control of illegal labor immigration, development of new techniques and equipment, and research have all contributed to the success of the present medical program. However, the program is subjected to continuous review and analysis in order to improve further the techniques and procedures and to resolve the challenging problems still encountered.

Venereal Disease Program

For many years the Public Health Service and certain State health departments have been concerned about the possible importation of venereal infections into the United States by immigrants. In the examination program for Mexican laborers, the venereal disease aspect has received considerable attention. Mexican laborers recruited since the early part of World War II have been medically examined, and, whenever laboratory facilities have been available, have been given serologic tests for the detection of syphilis.

Prior to 1951 all serologic tests were performed in Mexico. However, in 1951 the migratory labor agreement between Mexico and the United States permitted Public Health Service physicians to carry out such examinations and treatment of positive cases of syphilis.

Since the beginning of fiscal year 1955, the Venereal Disease Program in cooperation with the Division of Foreign Quarantine, the Department of Labor, and several State health departments has serologically screened more than 300,000 migrant agricultural workers from Mexico. The annual figures are as follows:

Number tested	Number reactors	Percent reactive
24, 750	2, 614	10.6
31, 712	2, 914	9. 2
165, 355	12, 559	7.6
96, 376	8, 008	8. 3
	Number tested 24, 750 31, 712 165, 355 96, 376	Number Number tested reactors 24, 750 2, 614 31, 712 2, 914 165, 355 12, 559 96, 376 8, 008

¹7 months.

Screening of the migrant group for syphilis has been hindered by the fact that the blood specimens had to be mailed to distant laboratories for testing and the braceros were dispersed to various working localities before the test results were known. The reactors had to be traced to their place of work and brought in for diagnosis before they could be treated for syphilis. This procedure involved costly fieldwork and complicated recordkeeping. The Venereal Disease Program has solved this problem by developing a rapid blood test that gives immediate on-the-spot results. The new test, known as the rapid plasma reagin (RPR) test, is now being demonstrated in the Mexican migrant testing program at El Centro, Calif., and reactive cases are detected immediately, diagnosed, and treated. Thus the need for field investigation work and records has been entirely eliminated.

In addition to diagnostic and treatment services provided at the El Centro reception center, epidemiological reports are prepared on marital contacts of venereally infected braceros and referred to State health departments in Mexico for followup.

Recently the Public Health Service presented to representatives of the U.S. Department of Labor and to growers concerned with the farm labor program of Mexico a plan for conducting a serologic screening service at the reception centers. This plan was unanimously approved although the screening as proposed means some additional cost to the growers. The demonstration project in El Centro was taken over by the Division of Foreign Quarantine on July 1, 1958, and similar activities are expected to start by September 1 at the three other large reception centers on the border. The Venereal Disease Branch of the Communicable Disease Center, Public Health Service, is assisting the Division of Foreign Quarantine by supplying personnel to advise on program requirements, to help train laboratory workers in RPR testing, and to assist in initiating the program at the other centers.

Photofluorographic X-rays

To the extent that X-ray facilities have been available and Mexican laborers legally recruited, it has been possible to prevent Mexican laborers with tuberculosis from entering the United States. As effective control measures were taken to prevent illegal migration from Mexico, the number of laborers who were X-rayed and rejected under a controlled recruitment program continued to increase. Only 61,654 Mexican laborers were X-rayed during 1952 as compared with the 457,360 Mexican laborers in 1957.

Efforts were directed to establishing a complete X-ray program following the decision to carry out the X-ray program at the reception centers in the United States rather than at the migratory centers in Mexico. Because the X-ray activities required more time than any other phase of the examination, developing the most efficient methods of operation was emphasized. Today peak workloads of approximately 4,000 laborers per day are processed by achieving maximum capacity from each machine. The records reveal that two X-ray machines have taken as many as 5,400 photofluorograms during one 24-hour period. The total process, taking photofluorograms, developing the film, and reading the X-rays, has been accomplished at the reception centers without time delays.

While the laborers are at the reception centers, the photofluorograms are read by physicians with special training in radiology. When the X-ray reveals that a laborer has tuberculosis, the laborer is returned to Mexico. During the fiscal years 1952 through 1957, approximately 20,000 Mexican laborers were returned for that reason.

The rate of rejection of laborers with tuberculosis appears to be declining. Of the total examined, 1.22 percent were returned during fiscal years 1954 and 1955, 1.14 percent during 1956, and 1.07 percent during 1957.

In the past, one cause of a slowdown in the X-ray work had been the need to make $14'' \ge 17''$ X-ray plates whenever the 70 mm. photofluorogram suggested tuberculosis or any other disqualifying condition. A recently developed X-ray camera improves the quality of the film to the extent that $14'' \ge 17''$ X-ray plates are no longer necessary. In addition to saving the cost of the $14'' \ge 17''$ X-ray plates, the new camera decreases the radiation exposure to about one-third of that received from the present equipment. Plans are being made to install this camera at all reception centers.

Louse Control

The human body louse is the well-known transmitter of typhus, one of the six quarantinable diseases. In the course of careful control activities against the insect, including disinfestation with DDT, the question of louse resistance to that insecticide arose.

Historically, DDT-resistant body lice were first observed in Korea in 1951. The insecticide, used so effectively throughout the world in the control of lice, and certain others used since 1945 were no longer effective in the control of body lice in that war area. It was found, however, that lindane brought satisfactory control. Also, an insecticide mixture containing pyrethrum, used for many years in insect control work, proved effective against DDT-resistant lice. Unfortunately, however, it was found that pyrethrum does not possess the highly desirable residual quality of DDT and lindane.

Further, findings in 1953 from a survey of the World Health Organization showed an alarming degree of insecticide resistance, particularly to DDT, in the lice studied in a number of countries. This survey found resistance to DDT in body lice in Mexico and reported a few instances of louse resistance to lindane and even to pyrethrum, findings corroborated in more recent studies.

During February and March 1957, the Public Health Service conducted at El Centro, Calif., tests which showed moderate resistance to DDT. When lice were exposed for 24 hours to 0.1 percent DDT in 4 tests, the survival rate ranged from 32 percent to 100 percent. The average survival in these 4 tests was 59.0 percent. When 0.5 percent DDT was used in 6 tests, the survival rate ranged from 9.0 percent to 37.0 percent, with an average of 20.0 percent. Application of 1.0 percent DDT in 6 tests showed a survival rate ranging from 8.0 percent to 35.0 percent, with an average of 20.0 percent. Use of 5.0 percent DDT in 4 tests provided survival rates ranging from 3.0 percent to 40.0 percent, with an average of 25.0 percent. In all tests at least moderate resistance to DDT was exhibited by the lice. These findings are supported by results of studies conducted since.

At least for the present, the use of DDT in louse control work along the Mexican border has been abandoned, and although lindane appears satisfactory now, possibly within the next year or two this insecticide may suffer the same fate. New insecticides must be ready for use at that time. Otherwise, it may become necessary to revert to the cumbersome and expensive louse-control methods used prior to DDT. In that era, clothing, bedding, and other items were treated with steam or dry heat in specially constructed autoclaves or with chemicals such as hydrocyanic acid gas or chloropicrin. Persons were treated with kerosene emulsion soap and other similar crude formulations.

Scientists and insecticide manufacturers throughout the world are striving to find insecticides that may be effectively and safely employed in louse control. The actual efficacy and, particularly, the safe use of new insecticides for the control of body lice on human beings remains to be demonstrated, first in the laboratory and then under operational conditions in the field. The Division of Foreign Quarantine is now planning a research program for studies which will lead to a solution of the insecticide resistance problem.

In spite of setbacks from insecticide resistance, the Foreign Quarantine Division's louse control activities have had some measure of success. It was the opinion of professional personnel making the medical examinations of Mexican laborers in 1951 and 1952 that as many as one-half of the Mexican laborers were suffering from pediculosis. A careful inspection of a number of Mexican laborers during 1956 showed infestation to be only about 10 percent.

Smallpox Vaccination

Mexican laborers are vaccinated against smallpox in compliance with the Public Health Service requirements. Until recently, Mexican laborers were vaccinated each year without regard to previous vaccinations even though the recognized period of immunity after a successful immunization is 3 years. The practice of revaccinating many of the laborers upon reentry was adopted as the most expeditious means of insuring that all laborers were immunized. During the past year the U. S. Department of Justice has adopted the practice of issuing identification cards on which the date of the smallpox vaccination is stamped. After the Mexican laborers are issued identification cards, they will be revaccinated only at the end of a 3-year period. The revised procedure will provide the necessary immunization against smallpox and, at the same time, reduce the amount of vaccine and personal services needed previously to vaccinate all laborers annually.

Medical Care Program

The Division of Foreign Quarantine provides emergency medical care for Mexican workers who become ill while enroute from the migratory centers in Mexico or who otherwise need emergency medical care while at the reception centers in the United States. Nearby hospitals have been contracted to care for the laborers who develop serious or prolonged illnesses. The need for hospital care is determined by the medical personnel at the reception centers. Expenditures for hospitalization have been extremely low in comparison with the number of laborers who enter the reception centers each year. The cost of hospitalization was \$9,331 during fiscal year 1955, \$12,586 during 1956, and only \$5,649 during 1957.

The requirements for emergency medical care at the reception centers have always been unpredictable. In 1957, an unprecedented need for this care occurred when the Asian influenza became epidemic among the Mexican laborers. A total of 4,122 cases of influenza was reported by the reception centers from August 3 through October 11, 1957. Because of the short duration and mildness of the illness, the patients usually did not require hospitalization, and it was necessary to provide medical care at the reception centers. During the height of the epidemic the medical personnel frequently worked round-the-clock. Only two laborers were sent to contract hospitals for treatment.

After the Mexican laborer has been contracted and leaves the reception center, the employer is responsible for providing medical care. The laborer, while employed in the United States, is given the same guarantees with respect to medical care and compensation that are provided to domestic agricultural workers under applicable State laws. In the absence of such laws, the employer must either obtain an insurance policy or supply an indemnity bond to secure the payment of benefits, including medical, surgical, and other necessary care and treatment, for work-connected illness or injury. In addition to insuring the laborer against occupational risks, the employer must also obtain life and nonoccupational insurance for the Mexican workers. However, the premiums for the latter insurance are deducted from the Mexican worker's wages.

Summary

The recruitment of Mexican laborers, originally a war emergency measure at the beginning of World War II, has become an established program. Mexican laborers are considered essential in the production of agricultural products in the United States, and during 1957 they were employed in 27 States. At present, Mexican laborers represent approximately two-fifths of all the migrant laborers (United States and foreign) employed in the United States.

Since the start of recruitment in 1942, a specific program for the medical examination of these laborers has been carried out by the Public Health Service. However, for many years the Mexican labor program was fraught with unique problems precluding the most effective conduct of its medical phase. The progress of such a program depended upon the establishment of effective international agreements between the United States Government and the Mexican Government. The United States Government, moreover, had to enact special legislation on the employment of Mexican nationals and had to take effective measures to prevent the illegal immigration of laborers into the United States.

Since 1954 every Mexican laborer who has received a contract for employment in the United States has been dusted with an insecticide, vaccinated, examined for evidence of venereal disease, given a photofluorographic chest X-ray, and examined for any other condition which would make the laborer inadmissible or unfit for agricultural work.

Of the challenging problems in the medical

examination program, louse control is one of the most significant. Scientists throughout the world are searching for new insecticides that may be effectively and safely employed in louse control, and the quarantine service is planning to participate in the laboratory research. The Public Health Service continues to seek new methods to improve the present program in order to prevent the introduction of dangerous contagious diseases into the United States.

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Rehabilitation of the Deaf-Blind

Publication of a manual to guide the rehabilitation of the deaf-blind was announced at a meeting June 19, 1958, in Washington, D. C., sponsored by the Industrial Home for the Blind in Brooklyn, N. Y., and the Office of Vocational Rehabilitation, Department of Health, Education, and Welfare. This book for professional workers is the first such major effort in the United States for the rehabilitation of the deafblind.

The manual is the result of 2 years of study and research by the staff of the home and other specialists, supported by a research grant from the Federal agency. It is primarily a summary report of the pilot study, treating rehabilitation of the deaf-blind in simple language. Later volumes will discuss more technical aspects.

At the Washington meeting, Miss Mary E. Switzer, director of the Office of Vocational Rehabilitation, received the first copy of the manual from Peter J. Salmon, executive director of the home. Miss Switzer, pointing out that the key to rehabilitation of the deaf-blind is communication, said that one of the easiest methods is the recently developed international standard manual alphabet, now recommended for worldwide use. In this system, the communicator uses an index finger to outline standard block letters in the palm of the recipient.

A member of the home's staff, Robert J. Smithdas, who holds a master's degree although he has been blind and deaf since child-



Peter J. Salmon uses a grease pencil to demonstrate the new international standard manual alphabet. Robert J. Smithdas is the "reader." In actual practice, letters are merely traced in the palm of the hand.

hood, demonstrated the system at the meeting. Others attending the gathering were representatives of Gallaudet College and other organizations concerned with the blind and the deaf.

Copies of Rehabilitation of Deaf-Blind Persons: A Manual for Professional Workers are available from the Industrial Home for the Blind, 127 Willoughby St., Brooklyn, N. Y.