Serologic Survey for Syphilis In Migratory Labor Camps Of Upstate New York

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CASE FINDING of syphilis among migratory laborers has been a difficult problem. In New York State the same facilities for venereal disease control are available to migrants as to all residents of the State. However, many migrants do not know about these facilities. Even when they do, many are reluctant to use them unless incapacitated by pain or illness. Clinics, whether operated during the day or night, have not been a satisfactory means of discovering more than a portion of the syphilis believed to be present. Therefore, the policy adopted by the Public Health Service of providing funds for serologic surveys for syphilis to be conducted in the labor camps was welcomed in New York State.

New York is a large State, and migrant workers during the summer and fall months are scattered throughout, from Long Island to the most western counties. Since many of the camps accommodate less than 20 migrants, serologic surveys reaching all migrants in the State are obviously impractical. However, with proper planning, large numbers can be tested by conducting surveys in the larger camps. To accomplish this, the location and census of labor camps must be known, and operations should be confined to areas where the least possible time is needed for travel from camp to camp. Sanitation officers of the three New York State districts in which the surveys were conducted were very helpful in providing this information and in planning contacts with the camp owners and managers prior to the actual surveys.

The efficiency of the campaign was greatly augmented by the full cooperation of the personnel in these offices. In the last analysis, however, the success of the survey depended on the personnel of the teams in the field. The young men and women composing these teams worked many more hours than the usual 40 in a week. They refused to be stopped by difficulties that could be overcome by additional planning and hard work. They worked well with each other and wasted little time. Had it been otherwise, the number of patients examined would have been much smaller.

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The Operating Teams

Starting July 11, 1955, and finishing September 23, 1955, two teams, consisting of a clerk and a nurse, or technician, skilled in doing venipunctures, operated in camps located in eight counties of northwestern New York State. Blood was withdrawn from the workers after they returned from the fields in the evenings or while they were in camp on rainy days. With rare exceptions, the cooperation of all workers, 15 years of age or over, was easily obtained, and operations within the camps usually continued until 10:30 or 11 p. m. Owing to advance notice, the workers were prepared for the visit at night, and little time was lost in getting under way after the team arrived. Frequently, each team visited several camps in a single night. During each working day, one of the members of the two operating teams visited the camps to be surveyed that night, thus assuring a good reception and a well-organized plan of operations for the night.

As the nearest serologic laboratory equipped to handle the increased volume of blood speci-

Table 1. Results of testing for syphilis among migrant workers in New York State, July 11–September 15, 1955

Age group (in years)	White				Nonwhite			
	Number tested	Number positive	Number doubtful	Percent reactive	Number tested	Number positive	Number doubtful	Percent reactive
<15	8	0	0	0	118	3	1	3. 39
15–24	54	1	1	3. 70	1, 726	92	40	7. 65
25–34	36	0	0	0	1, 217	216	83	24. 57
35–44	36	0	0	0	1, 008	238	91	32. 64
45–54	14	0	0	0	631	173	71	38. 67
55–64	6	0	0	0	258	82	30	43. 41
65+	1	0	0	0	63	8	6	22. 22
Total	155	1	1	1. 29	5, 021	812	322	22. 59

mens was usually 20 to 60 miles from the headquarters where the teams were working, one of the team members motored to the laboratory each morning to deposit the specimens drawn the night before and to pick up reports on those that had been tested. In this way, workers found to have positive reports could be interviewed and treated, if necessary, within several days at the most after the blood had been withdrawn. Treatment was given by a physician or under the direct supervision of a physician. Although treatment was arranged at the shortest possible interval after blood was taken, it was impossible to find all migrants whose serologic tests were reported positive or doubtful. In some cases, blood specimens were taken from workers who were only visiting the camp on the night blood was withdrawn. In other cases, workers had transferred to another camp or were absent the night treatment was given. Repeated visits to a camp to find one or more seropositive cases were usually impractical. About 10 percent of the nonwhite persons with positive or doubtfully positive test reports could not be interviewed or examined for treatment.

Treatment

In mass surveys of this kind, the advantages of examining and treating the largest possible number of persons must be weighed against the desire to maintain high standards of diagnosis. In the absence of clinics and the full cooperation of patients, thorough diagnostic examinations are impossible. In the migrant survey, quality of diagnosis was frankly sacrificed for quantity. As a result, probable diagnoses were based largely on the report of a single serologic test for syphilis performed by a flocculation technique usually used only for screening purposes. Attempts were made to obtain histories from all patients with positive or doubtful test reports. The histories were frequently vague and unreliable. Therefore, we treated, on suspicion, most patients with doubtful tests for syphilis and no reliable history of previous adequate treatment.

Treated patients were given a card with the date and the kind and amount of therapy received. They were told to keep the card with their Social Security card or driver's license and to show it at future medical examinations. Even though some or many of these cards may be lost, unnecessary re-treatment might be avoided in numerous cases, if the practice of providing migrants with such a record of treatment were to become universal.

Treatment consisted of a single injection of 2,400,000 units of benzathine penicillin G, contained in a disposable syringe. This dose, concentrated in a total volume of 4 milliliters, caused varying amounts of pain and soreness at the site of injection. A few patients coming to our attention were incapacitated by pain for periods of at least several days. The single injection is convenient and it saves time, but complaints of severe pain would undoubtedly have been diminished or avoided had 1,200,000 units of a less concentrated suspension been injected into each buttock. The only other incapaci-

tating reaction coming to our attention was in a woman who was hospitalized for "serum sickness."

Test Results

Serologic test results were received for 5,176 persons of which all but 155 were nonwhite (table 1). The white persons tested, although temporarily living in labor camps, were not migrants from outside New York State. Among these 155, there was 1 reactor in 127 men and 1 doubtfully positive result in the 28 women, making an overall reactive rate of 1.29 percent. Both were in the age bracket 15–24. The man had received no previous treatment, and the woman was given additional therapy.

The overall reactive rate for the 5,021 nonwhite persons was 22.59 percent. The rate of positive and doubtful reactivity for nonwhite women ranged from 4.92 percent in the small number of 61 girls under 15 years old to 41.12 percent in women aged 45–54 and was consistently higher than for men of all ages up to this point (table 2). For persons over 55, the rate for women was 28.6 percent compared with 41.9 percent for men. For all nonwhites, the range was from 3.39 percent in children under 15 years old to 43.41 percent for persons aged 55–64.

A slightly higher (although generally consistent) percentage of doubtful reports occurred among women than men. Experiences with the specific treponemal immobilizing antibody tests show that more biological false-positive serologic tests for syphilis are found in women

Table 2. Results of testing for syphilis among nonwhite migrant workers in New York State, July 11–September 15, 1955

Age (in years)	Male				Female			
	Number tested	Number positive	Number doubtful	Percent reactive	Number tested	Number positive	Number doubtful	Percent reactive
<15	57	1	0	1. 75	61	2	1	4. 92
15–24	1, 131	46	20	5. 84	595	46	20	11. 09
25–34	747	113	45	21. 15	470	103	38	30. 00
35–44	679	146	54	29. 46	329	92	37	39. 21
45–54	434	118	45	37. 56	197	55	26	41. 12
55–64	206	67	27	45. 63	52	15	3	34. 62
65+	52	8	6	26. 92	11	0	0	--------
Total	3, 306	499	197	21. 05	1, 715	313	125	25. 54

Table 3. Disposition of reactors in nonwhite migrant workers in New York State, July 11–September 15, 1954

Age (in years)	Number reactors	Number reactors examined	Brought to treatment		Returned to treatment		Adequate previous treatment		Number reactors not examined
			Number	Percent examined	Number	Percent examined	Number	Percent examined	
<15	4	3	2	66. 67	1	33. 33	--------	--------	1
15–24	132	112	79	70. 54	17	15. 18	16	14. 29	20
25–34	299	254	148	58. 27	33	12. 99	73	28. 74	45
35–44	329	295	169	57. 29	60	20. 34	66	22. 37	34
45–54	244	221	128	57. 92	51	23. 08	42	19. 00	23
55–64	112	107	56	52. 34	14	13. 08	37	34. 58	5
65+	14	12	8	66. 67	2	16. 67	2	16. 67	2
Total	1, 134	1, 004	590	58. 76	178	17. 73	236	23. 51	130

than in men, and an undetermined number of the doubtfully positive tests in this survey may not have represented a past or present syphilitic infection. As previously mentioned, when in doubt we usually treated without attempting further examination.

The difference between the percentages of reactive reports in the white workers who were not actually migrants and the nonwhite migrants is striking, but it must be recognized that the mode of life and socioeconomic status of migrants are peculiarly conducive to venereal disease. The laborers follow the crops in many sections of the country. They comprise a moving army without benefit of the discipline and living conditions provided to most armies. Many have had little or no formal schooling. Yet, migrant laborers are still an indispensable part of our agricultural economy, and their health is of national concern.

That some progress has been made in the general reduction of the reservoir of infectious syphilis among migrants may be inferred from table 3. While the older ages have the higher rates of reactivity, it is also true that a greater proportion of those reactors had either already been adequately treated for their infection or at least had once been under the care of a physician and had received some treatment. These data may show some past accomplishments, but the great majority (over 70 percent) of the reactors in the younger age groups had no treatment for syphilis. If syphilis is to be controlled, case finding in the younger age groups is essential. Bringing these younger migrants with reactive test results to treatment was in itself justification of the survey.

Treatment for Gonorrhea

Due to the lack of privacy and also of time, male patients were not examined for urethal discharges in many of the camps. However, all migrants with such complaints or other illness were urged to report them. As a result, 95 males were treated with penicillin because of urethral discharges, and 24 female contacts of these patients were also treated.

Summary

Reports of serologic tests for syphilis were received for 5,021 nonwhite migrants. Of these, 812 (16.2 percent) had definitely positive tests, and 322 (6.4 percent) had doubtfully positive tests. Histories of adequate previous treatment were obtained from 236 of the patients with positive or doubtfully positive tests. Of 155 whites examined, only one had a definitely positive test report, and one had a doubtful report. A total of 770 patients received penicillin therapy for presumed syphilis and 119 were treated for presumed gonorrhea.

Tranquilizing Drug Research

The Public Health Service has established the Psychopharmacology Service Center in the National Institute of Mental Health, Bethesda, Md. The center will assist in the development of scientifically sound nationwide research on tranquilizing and other phrenotropic drugs used in the treatment of mental illness. Technical and research advisory services will be provided to scientists.

Dr. Jonathan O. Cole has been appointed psychiatrist in charge of the center. He received his psychiatric training at the Payne Whitney Clinic of the New York Hospital, New York City. Following 2 years' service as an Army psychiatrist, Dr. Cole joined the staff of the Division of Medical Sciences, National Research Council, Washington, D. C., where he worked with its committees on psychiatry and stress.