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HIV Infection, Syphilis, and Tuberculosis Screening Among Migrant Farm Workers -- Florida, 1992

An estimated 2.7-4.0 million persons in the United States are classified as migrant and seasonal farm workers (1). Despite a high prevalence of tuberculosis (TB) and other conditions among migrant workers (2-4), approximately 13% have access to or receive care at federally funded migrant health clinics (5). During February-March 1992, to assess the prevalence of selected health conditions among migrant farm workers, the Florida Department of Health and Rehabilitative Services (FDHRS) conducted a voluntary screening for human immunodeficiency virus (HIV)-1 infection, syphilis, and TB among workers living in 14 migrant camps in Immokalee, Florida. This report summarizes the results of the screening and describes disease-prevention efforts developed by FDHRS for migrant workers.

The period February 1-March 31 was chosen for screening because Florida's perishable crops are in season and the number of migrant workers peaks. Outreach workers went door-to-door in the camps encouraging workers aged greater than or equal to 16 years to enroll, and leaflets encouraging enrollment were posted in the camps several days before the screening began. Screening was conducted during evening hours. Participants received pretest HIV counseling and signed an informed consent form for testing for HIV-1 antibody (enzyme immunoassay with confirmatory Western blot or immunofluorescent assay), syphilis, and TB infection (Mantoux testing with 5 tuberculin units of purified protein derivative). In addition, participants completed an interviewer-administered questionnaire assessing their work, lifestyle, and medical history. Participants were asked to return within 48-72 hours for a skin test reading, serologic test results, and posttest HIV counseling.

Tuberculin skin tests (TSTs) were considered positive if the induration was greater than or equal to 10 mm for HIV-1- seronegative persons and greater than or equal to 5 mm for HIV-1- seropositive persons. Any positive skin test reading in this screening was

attributed to infection with *Mycobacterium tuberculosis* because 1) bacille Calmette-Guerin (BCG) vaccination is usually given as a childhood vaccination in all native countries of migrant farm workers and TST reactivity to BCG wanes over time and 2) vaccinated persons included in this screening were in a group at high risk for TB.

Of an estimated 518 persons greater than or equal to 16 years of age residing in the 14 migrant camps, 310 (60%) participated in the screening. Participants were predominantly male (247 [80%]), Hispanic (165 [53%]) or black non-Hispanic (130 [42%]), and foreign-born (Haiti [93 (30%)], Mexico [83 (27%)], and Guatemala [44 (14%)]).

Twenty-six (8%) had reactive serologic tests for syphilis (STS); 15 (5%) were HIV-1-antibody seropositive (four of the 15 had reactive tests for both HIV-1 and syphilis). Persons born in the United States (11%) were more likely than those who were foreign-born (3%) to have positive HIV-1 tests (relative risk [RR]=3.6; 95% confidence interval [CI]=1.4-9.7) and reactive STS (RR=2.0; 95% CI=1.0-4.2). Of the 267 workers whose TSTs were read, 118 (44%) were positive, including four who were also HIV-1-antibody seropositive. TST positivity was similar among U.S.-born and foreign-born workers (RR=0.9; 95% CI=0.6-1.3).

Workers with reactive STS were referred for treatment; of the 26 who had a reactive STS, one person had primary syphilis; six, secondary syphilis; four, early latent syphilis; and five, late latent syphilis. Five had been previously treated for syphilis, and five were unavailable for examination.

Those with positive test results for TB or HIV-1 infection were referred for further evaluation. Thirteen of the 15 persons who were HIV-1 seropositive had newly diagnosed infections. Of the 118 participants with positive TSTs, 55 (47%) returned for chest radiographs and sputum collection. Isoniazid preventive therapy was initiated for 18 persons with latent tuberculous infection; in addition, active TB was diagnosed in one person and treatment was initiated. When necessary, ongoing care was arranged by referring workers to migrant health centers in other locations.

Analysis of questionnaire data (controlled for birthplace [i.e., U.S.-born versus foreign-born]) indicated that use of crack cocaine was associated with positive STS (RR=4.1; 95% CI=1.3-12.6). Risk factors associated with HIV-1-antibody seropositivity included having more than two sex partners during the last 6 months (RR=3.8; 95% CI=1.3-11.1), a prior history of syphilis (RR=3.8; 95% CI=1.2- 11.7), and among men, having ever paid for sex (RR=2.8; CI=0.9- 9.0). Injecting-drug use (IDU) and homosexual behavior were rarely reported, regardless of HIV-1-infection status; of those who were HIV-1 positive, none reported IDU, one male reported homosexual behavior, and one female reported bisexual behavior. Forty-seven percent of the participants had never used a condom.

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Editorial Note

Editorial Note: When compared with migrant-worker populations in other areas of the United States, workers in the southeastern United States are more likely to live away from their families while doing farm work (64%), to live in poverty (73%), and to lack documentation of legal residence status (25%) (6) -- factors that can impede their access to medical care. The findings in this report document high prevalences of syphilis, HIV-1 infection, and TB among migrant workers in this region of Florida. The 8% prevalence of positive STS among persons in this survey was higher than the 0.8% reported in a national serologic survey (7). Moreover, the HIV-1 seroprevalence of 5% was higher than the 3.5% reported in populations of Belle Glade, another Florida agricultural community, and the 2.6% reported for farm workers in North Carolina (4,8).

The high TST reactivity among workers in this survey is consistent with previous reports (9). Because test results were available within 72 hours, most workers in this screening returned to receive their test results; however, many workers relocated and did not return for follow-up with chest radiographs and sputum tests, which were scheduled several weeks later. In addition, some workers who tested positive but who did not have symptoms (e.g., coughing) did not believe a positive TST indicated TB. Workers were given letters with test results to present to health centers in other locations.

The FDHRS survey identified a substantial number of migrant farm workers with unrecognized and untreated preventable diseases. In particular, treatment and counseling of these persons could prevent transmission of STDs to their sex partners and, for TB, to those with whom they live and travel. Although the precise magnitude of TB among migrant workers is not known, different studies have detected high prevalences of asymptomatic tuberculous infection and clinical TB among these populations; the risk for TB among migrant workers has been estimated as six times greater than in the total U.S. population (10). The Advisory Council for the Elimination of Tuberculosis recently offered recommendations for the prevention and control of TB among migrant workers (10).

The screening to detect HIV-1 infection, syphilis, and TB among migrant workers in Immokalee underscores the need for public health professionals who are trained to respond to health-care needs within the migrant-worker population. The FDHRS used data from this screening to develop crosstraining for public health workers on STDs, including HIV infection, and TB and is conducting other assessments of the prevalence of

communicable diseases among migrant farm workers in Florida.

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