

Notes From the Field

TB Net Tracking Network Provides Continuity of Care for Mobile TB Patients

Tuberculosis (TB) historically has been a difficult disease to treat in migrant farmworkers and other mobile populations. The duration of TB treatment (a minimum of 6 months) and the multiple clinics visited by mobile patients during the course of therapy make continuity of care a major problem. In addition, the mobility of migrant workers has made it difficult to conduct population-based epidemiologic studies of tuberculosis in this population. A study of TB prevalence in the migrant patient population in North Carolina found active TB in 0.47% of Hispanics and 3.6% of US-born Blacks. TB infection rates were 37% in Hispanics and 62% in US-born Blacks.¹

Much of the difficulty derives from the current health care system's inability to accommodate mobility in populations undergoing treatment. Although migrant patients have been diagnosed with active TB or TB infection and started on treatment, there has been no system for referring these patients to other care facilities as they move during the course of the year. The result has been a failure of continuity of care and a concomitant failure in adherence to treatment.

Previously, many clinics dealt with this problem simply by refusing to initiate treatment for patients who would soon be moving. Lacking confidence in patients' ability to pursue treatment in new locales, clinicians believed that starting treatment would only mean their patients would develop resistance to first-line TB drugs. Clearly, what clinicians needed was a consistent conduit for the intrastate, interstate, and binational transfer of medical data between care facilities.

In an effort to establish effective linkages of public health clinics treating these patients, and to prevent the development of drug-resistant TB, the Migrant Clinicians Network, a national clinical network of clinicians who treat farmworkers, developed a migrant tracking and referral project called TB Net. With an initial \$100,000 contract from the Texas Department of Health (made possible with monies from the Centers for Disease Control and Prevention), the Migrant Clinicians Network began working on the task of developing a national TB network in 1995. The first patients were enrolled in the TB Net tracking system in February 1996.

In part, TB Net is a national clearinghouse for TB tracking linkages and referrals designed to facilitate the continuity of treatment needed to combat TB. The system has 4 major components:

- *Portable record.* Each patient is given a wallet-size booklet containing the patient's demographic characteristics; treatment start date and projected duration; current and past treatment regimens; drug resistance and susceptibility; x-ray and sputum results; skin test results; and a drug-o-gram, which allows clinicians to check off the number of weeks a patient has taken each prescribed drug.

- *Toll-free number.* Printed on the back of the portable record is a toll-free telephone number to be used by health care workers for clinical referral and follow-up.

- *Binational, bilingual consultation.* The toll-free number can also be used by clinicians needing in-depth consultation in English or Spanish. This hotline bridges the gap between disparate Mexican and American TB treatment regimens and breaks down the language barrier that hinders clinical consultation across the US-Mexico border.

- *Statistical database.* All patients are enrolled in the database, which contains the information from the portable record plus epidemiologic data that can be used to provide a broader understanding of the mobile TB patient population in the United States.

The network has now expanded to 22 US states and includes linkages with binational projects all along the US-Mexico border. Almost 70 clinics currently participate in TB Net, and the system has expanded to track homeless patients, prison parolees, and other mobile populations (e.g., border residents and persons with marginal employment status).

Along the way, TB Net has addressed many barriers to care experienced by mobile populations. For example, to ensure continuity of care while protecting patients' privacy and data security, the system allows confidential data transfer between states and among care providers. Every patient enrolled in the system is assigned a unique patient identifier, based on the formula established by and used in the Mexican national health care system. This identifier is used in all data transfer, and clinicians requesting medical records must provide the correct identifier before they are given the information. Additional measures have been taken to ensure data security, and strict internal protocols are in place to prevent mishandling of patient medical information.

TB Net currently tracks 506 patients, 351 of whom are eligible to have completed prophylactic treatment or treatment for active disease. Of the 77 eligible patients with active TB, TB Net has tracked 51 to completion of treatment. The other 26 have refused treatment, are continuing treatment owing to gaps in therapy, or have died (all 4 patients who died were coinfecting with AIDS). Of the 274 patients eligible to have completed prophylactic treatment, TB Net has successfully tracked 173 to completion and lost 61; 40 patients have refused treatment. On average, TB Net patients seek treatment at 2.3 different clinics during the course of their treatment.

A comparison of TB Net's percentages of patients lost to follow-up with Texas' statewide figures provides a clearer understanding of the barriers to care presented by patients' mobility. In 1995, Texas lost 2% of its active TB caseload during the course of

therapy. Patients receiving prophylactic treatment had a 70.2% completion rate. Unfortunately, there are no baseline data for use in determining success rates for migrant farmworkers who receive TB treatment without the intervention of an integrated network of clinical linkages, but estimates from California range from 30% to 50%.

The majority of the credit for TB Net's success must go to its participating clinics, and the Migrant Clinicians Network strongly supports any clinic interested in enrolling its mobile TB patients, be they farmworkers, homeless, prisoners, or others who move during the course of therapy. There is no cost to clinicians who enroll their patients.

Public health clinicians from across the country have effectively used TB Net's system for clinical linkages and patient referrals. Clinics that once refused to start mobile patients on therapy for fear the patients would disappear are now willing to prescribe anti-TB medication. The promise of a comprehensive tracking initiative that provides prompt clinical feedback for case referrals and updates should continue to attract public health clinicians and other clinicians who treat mobile patients. Increased participation in systems such as TB Net, in turn, will slow the spread of TB infection among migrant farmworkers and other mobile populations and will give patients who previously had

little possibility of being cured a chance to achieve happier, healthier lives. □

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Reference

1. Ciesielski SD, Seed JR, Esposito DH, Hunter N. The epidemiology of tuberculosis among North Carolina migrant farm workers [published correction appears in *JAMA*. 1991; 266:66]. *JAMA*. 1991;265:1715-1719.

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