CASE STUDY 2

COMMUNITY-BASED SERVICE DELIVERY TO THE FOREIGN-BORN: SAN FRANCISCO

Key elements of the program discussed in the following pages include:

- Community-based strategies for engaging foreign-born populations
- Targeted screening and treatment for LTBI
- Locating services close to the patients to be served
- Appropriate use of data with community leaders and local politicians

INTRODUCTION

This case study describes how the San Francisco Department of Public Health Tuberculosis Control Program (SFDPH TBC) collaborates with key community partners to provide latent tuberculosis infection (LTBI) screening and treatment services to a large foreign-born population in the county. In this model, SFDPH TBC partnered with existing public health primary-care clinics to provide tuberculosis (TB) screening and treatment and with private community clinics to promote community-based screening and evaluation referrals. Under this model, SFDPH TBC provided experienced TB control staff to train and mentor the staff at public- and private-sector agencies with the goal of eventually transferring the responsibility for TB screening and LTBI therapy to the local clinics.

BACKGROUND

TB rates in San Francisco have ranked within the top five metropolitan areas in the US. In 2003, the case rate was 20.4 per 100,000 (four times the national rate of 5.1). Within specific subpopulations, rates of TB have exceeded national rates by up to 35 times. Furthermore, there is a large reservoir of persons with LTBI that remains a significant concern to SFDPH TBC, as this pool may contribute to future TB cases.

In response to this concern, SFDPH TBC implemented a targeted campaign to address TB disease and infection in its high-morbidity populations in the 1980s, implementing a "triplicate high-risk" referral mechanism involving over 50 community agencies. This effort eventually resulted in an enhanced homeless outreach program when SFDPH TBC opened its dedicated TB clinic in the Tenderloin district of San Francisco in 1993. Beginning in 2000, SFDPH TBC implemented a community-based approach to improve evaluation and treatment of LTBI among the foreign-born Chinese community. While SFDPH TBC had already developed a referral system within the community to promote TB screening and referral, it instituted an "intensification" process to strengthen the existing relationships within a public health clinic, Chinatown Public Health Clinic #4, to deliver targeted LTBI services. The intensification would also facilitate capacity, referrals, and services from private health organizations serving the Chinese community.

In recent years, two specific factors emerged as major obstacles to TB control and elimination in San Francisco. The first was the high transmission rates among the city's large homeless and drug-using populations, caused by the crowded settings of poverty (shelters, low-cost hotels, and jails) and the catalyst of high HIV rates. The second and far more daunting obstacle was the large reservoir of TB-infected individuals among San Francisco's foreign-born Asian population, which is estimated to have an infection rate as high as 50%. Of the active TB cases among the foreign-born in this city, 68% occurred among Asians from China, the Philippines, and Vietnam. One in every three TB cases in San Francisco is ethnic Chinese.

The capacity of SFDPH TBC to provide treatment for LTBI was limited to those at highest risk for developing TB disease and those referred by providers screening high-risk individuals (see referral criteria). With changing morbidity and reduced active cases, San Francisco could concentrate on LTBI treatment. However, SFDPH TBC realized that it could not address the large reservoir of TB-infected individuals without the participation of community clinics serving "at-risk" foreign-born populations.

San Francisco decided to focus on the Chinese immigrant population, given its high infection rates. To determine the population's access to medical services and infrastructure, SFDPH TBC conducted a needs assessment using a variety of methods, including geo-mapping of TB cases in San Francisco in 1999 and 2000. Through this study, SFDPH TBC determined that given the target population—Chinese, many of whom are elderly—a convenient location for services was critical. Chinatown was a logical choice for several reasons:

- The neighborhood's concentration of Chinese residents is very high. Chinese residents of other districts within the city (e.g., Sunset, Richmond, or Silver Avenue) come into Chinatown to work or shop and could pick up refills of medication prescriptions at the same time

- SFDPH had an existing district public health clinic in Chinatown. Many of the clinic's patients were also under the care of other Chinatown clinics, service providers, or private-sector clinicians in the area

- Many Chinese grandparents come in to pick up refills for their grandchildren while their parents are at work. In most cases, these grandparents rely on public transportation and they would find it very difficult to take a bus to the SFDPH's TB Clinic (which is located across town at San Francisco General Hospital) due to language and cultural barriers as well as lack of knowledge about the correct bus route

The needs assessment and subsequent planning led SFDPH TBC to present this information at its 2000 World TB Day event. SFDPH TBC invited local politicians, including the District's Supervisor, along with the Health Commissioner. At that event,

the Supervisor made a political commitment to respond to the problem of TB in Chinatown. While concurrent resources did not materialize, SFDPH TBC used this promise as a catalyst to establish the Chinatown TB Outreach and Prevention Services (CHOPS) program. CHOPS would become a project committed to involving clinics and providers in the neighborhood in the provision of TB screening and treatment to members of the target population.

PROGRAM OBJECTIVES

Through the CHOPS program, SFDPH TBC sought to decrease the number of TB cases from reactivation in San Francisco by increasing treatment access for LTBI in the Asian community and placing more individuals on treatment. Given the community-based organizations' access and proximity to a large foreign-born population, SFDPH TBC established the following objectives for the project:

- Increase community TB testing and referrals of suspects and Mantoux (PPD) test positives to the SFDPH TB Clinic for evaluation
- Establish LTBI treatment sites at community clinics, beginning with the Chinatown District Health Center
- Develop a TB surveillance community network that would link health centers to SFDPH TBC to monitor and evaluate the proposed program and provide feedback to the involved health centers
- Develop and implement a plan for TB community education
- Provide TB technical assistance to community clinics

PROGRAM IMPLEMENTATION

SFDPH TBC was able to use federal funds as seed money to initiate CHOPS in 2000. The initial step was to develop a partnership with the public health center in Chinatown, the Chinatown District Health Center #4. SFDPH TBC agreed to delegate trained TB control staff—a registered nurse and a health worker—to Clinic #4 to perform targeted testing and provide treatment for TB and LTBI.

As part of the intensification process, SFDPH TBC also established a partnership with community services providers. These providers were initially identified by SFDPH TBC as providing services in the target community. SFDPH TBC approached the facilities individually to identify which agencies were providing TB skin testing (TST). For those agencies with TST services, SFDPH TBC agreed to provide education about TB and TST training. SFDPH TBC also established a referral process whereby the agencies would offer to refer specific, eligible groups of PPD positives to SFDPH TBC for additional evaluation. For private community-based organizations and private hospitals, the SFDPH TBC protocols describe:

- Which patients should be screened for TB
- How frequently TB testing should be repeated
- Under what circumstances an individual should be referred to the SFDPH TB Clinic for evaluation

In San Francisco public clinics, screening is provided for school entry, healthcare workers, and entry into congregate homes or programs, as well as for any patients who have certain risk factors that have been delineated by SFDPH TBC. The community clinics identify candidates for screening, while the TB Clinic evaluates high-risk patients that have been referred. SFDPH TBC also provides consultation, education, and specialty clinic services to community agencies. SFDPH TBC meets individually with the agencies and provides education on an as-needed basis for new staff. Patients who are diagnosed as having LTBI are treated at the SFDPH TB clinic.

To facilitate the referral process, SFDPH TBC developed administrative tools in the early 1980s that include a pre-printed triplicate agency referral/feedback form. The form and referral provide information about the reason for referral, TB evaluation data, and a symptom review. The referring data (name, demographics, and PPD results) are completed by the referring agency, while SFDPH TBC uses the form for evaluation and treatment follow-up. Copies of the document are provided to the referring agency by SFDPH TBC to report outcomes.

In the last pages of this case study, Tables A and B summarize information on the CHOPS model.

OUTCOMES

In the last 10 years, between 200 and 580 patients with LTBI were referred annually from Chinatown Health Center #4 to the SFDPH TB Clinic for evaluation. A significant number were found to have active TB. Of those found to have LTBI, 75-95% were placed on treatment, with over 85% completing necessary therapy. Health Center #4 had been using older limited guidelines for screening and many missed opportunities for TB screening and treatment existed in Chinatown because of a lack of community and provider awareness.

Through CHOPS, SFDPH TBC has also accomplished the following:

- Established a collaborative project with the Chinatown Public Health Center #4, the Northeast Medical Services (NEMS) private clinic, and the Chinese Hospital

- Provided screening and treatment at no cost to patients. Health Center #4 had previously charged patients for the skin testing service

- Delivered services at community sites with minimal involvement of SFDPH TBC staff: an RN and one health worker

- From 9/00 through 12/03, 1,760 patients were placed on LTBI treatment and assigned to CHOPS for refills of their prescriptions for treatment medications

- Achieved completion rates for LTBI estimated at 90-95%

DISCUSSION

By entering into the community health center partnership, SFDPH TBC is moving toward its goal of developing a long-term, sustainable community LTBI treatment site to address the problem of the LTBI reservoir within high-risk foreign-born populations in San Francisco.

While the referral and intensification activities increased demand for evaluation services at SFDPH TBC, the program has also increased SFDPH TBC's overall treatment capacity by making screening and follow-up treatment more convenient and accessible within the community.

Furthermore, the project helped to create political will by educating decision-makers using local epidemiology to show the need for TB control in specific neighborhoods. Since the initial World TB Day celebration in 2000 when the burden of TB in the Chinatown community was presented to the public, there has been an increased awareness of the problems of TB among certain decision-makers.

Establishing this program has resulted in a number of benefits for SFDPH TBC and for the patients. The most important has been increased adherence to LTBI treatment regimens. Use of the Chinatown public health clinic has reduced the wait time for patients and has provided very personalized one-on-one services for INH refill patients. Staff report that they have more time to explain treatment procedures and educate their patients about prevention and other TB-related concerns.

Targeted testing and treatment cannot be done without data and political will. A successful community-based program requires the following:

- Medical infrastructure
- Local TB policies that are established and in place
- Political will and identification of resources
- Partnership with agencies performing targeted testing
- Mechanism or logistical plan for screening and medical evaluation
- Program evaluation. Sharing compelling data with the "right" community leaders (politicians, opinion leaders, and medical center administrators) is key to getting people on board

CONCLUSIONS

Health departments implementing community-based strategies—particularly those targeting foreign-born populations—must recognize that the program cannot do it all. Providing TB services and screening in high-incidence communities can play an important role in mentoring the medical community and preventing future TB cases.

TABLE A: SAN FRANCISCO COMMUNITY-BASED DELIVERY MODELS

	Community Referral	Community Intensification[1]
Public/Private Status	Private-Sector Community Health Centers (CHC)	Public Health Clinic #4
Services Provided	CHCs initiate targeted testing, provide TB Skin Test (TST) and symptom review, and refer positive TSTs and TB suspects to SFDPH TB clinic for medical evaluation and treatment	SFDPH TBC provides TB Control staff to provide TB screening and delivery of LTBI treatment and DOT of active TB cases. Evaluation conducted at SFDPH TB clinic
Evaluation Criteria	CHCs refer clients to TB Clinic based on established eligibility criteria	Screening provided for school entry, health care workers, recent immigrant from endemic TB regions, entry into congregate homes and programs

[1] Intensification refers to the process of identifying and responding to community-based risk through a targeted community outreach which includes dedicated resources and political commitment.

TABLE B: ELIGIBILITY FOR REFERRAL TO SAN FRANCISCO GENERAL HOSPITAL TB CLINIC

Priority eligible persons	1. Younger than 21 years of age *and* positive PPD 2. Documented converter (recorded negative PPD less than 2 years prior to positive PPD) 3. Abnormal chest x-ray *and* positive PPD 4. Special clinical circumstances (i.e., at risk for HIV) 5. Contact of an active case 6. Associates of a reactor child (a child younger than 7 years of age; close household contacts) 7. Newcomers to the United States (arrived within the last 5 years from Asia, Latin America, or Africa. Positive PPD *and* are younger than 35 years of age)
PPD-positive patient referrals	1. Residential and outpatient alcohol and drug treatment centers 2. Addiction treatment sites 3. County jails 4. OB/GYN (SFGH only) 5. Refugee clinic (SFGH) 6. Senior companion program (On Lok, Canon Kip) 7. Shelter program (homeless) 8. Volunteer organizations (Salvation Army, Valencia Street, or Harrison Street Detox – unpaid employee of shelters) 9. Volunteers (San Francisco Unified School District, a parent of a student)
Other specific referrals accepted by Ward 94	1. Old cases – routine if closed out less than two years ago. Resistant cases may return anytime 2. Private medical doctor referral with diagnosis, x-ray, treatment, *and* letterhead referral 3. Self referral – must have bottle of TB Rx or evidence of active TB (i.e., referral form) 4. SFGH-OPD (Out Patient Department) - Consultation Referral Form 5. Immigration – <u>must be San Francisco resident</u>: Class A. Patient has entered the U.S. *and* has <u>no</u> PMD Class B. Patient has entered the U.S. *or* Patient is an alien seeking adjustment of status 6. Employee referrals • Coroner's Office employee • 101 Grove Street, laboratory staff • SFGH employee – Positive PPD *and* Hospital Consultation Form • Day Care Center employee • City Clinic employee • DPH employee

TABLE B: ELIGIBILITY FOR REFERRAL TO SAN FRANCISCO GENERAL HOSPITAL TB CLINIC (cont)

All referrals must be San Francisco residents, except:	1. City School bus drivers 2. Employee Health Services (EHS) personnel 3. Contacts 4. Private medical doctor consultation for medical evaluation; not merely PPD positive referred for chest x-ray