

# INTRODUCTION: TB CONTROL TOOLBOXES

The TB Control Toolboxes have been developed to help tuberculosis (TB) control programs take advantage of tested strategies and innovations. The Model TB Centers and other organizations have developed a number of successful approaches, but TB control program staff have not always found it easy to access or implement them. The toolboxes move beyond traditional methods of disseminating information, documenting these models in a flexible CD format that makes the tools and components easy to adapt and use.

To create the toolboxes, we have drawn upon the “best practices” of a cross-section of TB control programs. Different programs have different resource environments and approaches to TB control, and this is reflected in the variety of models and tools that are included.

## **WHAT ARE THE PURPOSES OF THE TOOLBOXES?**

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The purposes of the toolboxes are to:

- Identify the essential components of innovative TB control activities so that TB control programs can choose the ones they need and replicate or modify them
- Provide easy-to-use, step-by-step guides for implementation along with sample forms and templates that TB control programs can adopt or revise
- Enable TB control programs to customize programs to fit their specific needs or circumstances

## **WHAT DOES A TOOLBOX CONTAIN?**

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Each toolbox consists of two sections: Text and Tools. The Text files are presented in PDF format and can be downloaded to your hard drive. Text files include narrative

directions and discussion. Tool files are templates, examples, and references. While the specific contents of the Toolboxes vary according to the type and purpose of the model they present, in general you will find:

**Introduction to the TB Control Toolboxes.** Text module describing the toolboxes and how to use them.

**Program Overview.** Text module describing purpose and importance of the program that is the subject of the toolbox, including program components and strategies, necessary staffing and resources, and other relevant information.

**Step-by-Step Implementation Guide.** A clear, precise, and detailed guide that explains all the steps you need to follow to implement a successful program.

**Checklist.** Summary of the implementation steps in a handy summary format.

**Background Guides.** A more in-depth discussion of particular strategies and components that are important to the program.

**Case Studies.** Narrative examples of functioning programs.

**Tools.** Collected templates and samples of forms, letters, charts, policies, and other materials. These samples and templates have been selected to illustrate the program implementation steps and assist you in carrying them out. Also included are case studies of existing LTBI programs, a guide to additional resources, and a bibliography for further reading.

## HOW DO YOU USE A TOOLBOX?

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The modular design of the Toolboxes makes them flexible and easy to use. With this format, several people can work with various Toolbox components at the same time.

You can readily locate the items that are relevant to your situation and organize them in the way you find most functional. Using the Toolboxes, you can:

- Learn about and benefit from the successes of programs created by other TB-related organizations
- Develop and implement your own program, based on the Toolbox model
- Adopt individual program components, or adapt them to fit your circumstances
- Create a library of forms and documents that will help you run your program effectively
- Enhance your staff training about the program, its objectives, and its effective operation

## **WHERE CAN YOU OBTAIN MORE INFORMATION?**

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The TB Control Toolboxes are a collaborative project of the San Francisco TB Control Program and the Francis J. Curry National Tuberculosis Center. For further information, including a list of available Toolboxes, please contact:

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# ACKNOWLEDGEMENTS

The Francis J. Curry National Tuberculosis Center gratefully acknowledges the sources that provided information and examples for production of the tools and templates contained in the Treating Latent Tuberculosis Infection in High-Risk Populations Toolbox. These organizations include:

American Thoracic Society

California Department of Health Services, Tuberculosis Control Branch

California Tuberculosis Controllers Association

Centers for Disease Control and Prevention

City and County of San Francisco, CA – Department of Public Health, Tuberculosis Control Section

Kern County, CA – Department of Public Health, Tuberculosis Program

Los Angeles County, CA – Department of Health Services, Tuberculosis Program

New York City, NY – Department of Health and Mental Hygiene, Bureau of Tuberculosis Control

The Francis J. Curry National Tuberculosis Center also acknowledges the individuals who took the time to review the Toolbox during its development. These individuals include:

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# TREATING LATENT TUBERCULOSIS INFECTION IN HIGH-RISK POPULATIONS: AN OVERVIEW

As tuberculosis (TB) case rates in the U.S. have fallen, priorities have shifted toward prevention of future cases of active TB, increasing attention to treating latent TB infection (LTBI). Treating LTBI provides a remedy for individuals who are infected but have not yet developed the disease. However, as many health departments are confronted with decreasing resources, TB controllers and program administrators will need to focus their efforts on the highest-risk populations in their community.

This TB Toolbox has been developed to assist TB programs in planning for effective LTBI treatment among the highest-risk individuals and ensuring the highest completion rates possible. The Toolbox provides clear, concise information on how to develop a new LTBI treatment program or improve an existing one with a particular focus on urban-based programs. Information is provided to help programs develop community outreach and partnerships as well as implement patient-oriented strategies for treatment completion. It has been designed to meet the needs of highly experienced programs seeking support in a specific area as well as programs desiring more comprehensive knowledge of program development and treatment of LTBI.

## **WHO IS CONSIDERED TO BE AT HIGHEST RISK?**

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This Toolbox focuses on population groups whose members are at high risk for TB and who contend with barriers that can make it difficult to complete a course of treatment. These groups include people who are:

- HIV-infected or diagnosed as having HIV disease (AIDS)
- Using or abusing drugs or alcohol

- Homeless or marginally housed
- Chronically mentally ill
- Formerly or currently incarcerated

Individuals in these groups often live in a day-to-day survival mode. Because of social, economic, and medical factors that present obstacles to care, these groups have displayed poor adherence to treatment. Outreach interventions that target such individuals and the community organizations which provide social services to them, can reduce the number of future TB cases and provide a “window of opportunity” to raise the community’s overall health status. The Toolbox also provides examples of outreach efforts to immigrant communities with significant rates of TB infection.

## **WHY IS IT IMPORTANT TO TREAT LTBI IN HIGHEST-RISK POPULATIONS?**

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The proportion of all individuals who test positive for LTBI and ultimately progress to TB disease during their lifetime is estimated to be around 10 percent. This translates into ten persons needing to complete treatment for LTBI for every one case prevented. For some individuals, however, the rate of progression from infection to disease can be several times greater. For example, individuals with LTBI who are co-infected with HIV progress to TB disease at the rapid rate of 10 percent per year, rather than 10 percent during a lifetime. Individuals who are homeless or substance users often have other health problems that increase their risk for TB.

New immigrant communities from areas of endemic TB may also be at risk due to lack of healthcare resources and delays in diagnosis or treatment. Therefore, well-structured LTBI treatment programs targeted to those at highest risk for progression can be considered cost-effective and a priority for TB control and elimination. Such programs have the potential to substantially reduce the number of future TB cases among those persons at highest risk.

Accomplishing this goal requires more than simply providing medication. In order to serve these individuals well, an LTBI treatment program must confront the barriers that can prevent patients from completing or even beginning a course of LTBI treatment. Motivating those who are not clinically ill and who, in addition, face social, economic, and medical barriers requires commitment, skills, and resources.

By dedicating program resources to the prevention of TB disease among those who are at highest risk, TB control programs may realize savings in resources over the long term. These savings are then available to be spent on other important areas, such as case management and contact investigation.

The most significant benefit of an LTBI program is its potential to prevent future cases of TB and thereby improve the health of the community. When we forestall the development of disease in a patient with LTBI, we not only enhance the personal health status of that individual, we also prevent the possibility that he or she will infect others. Treatment of LTBI for high-risk populations has been demonstrated to dramatically decrease the number of future TB cases.

## **HOW DOES A TYPICAL LTBI PROGRAM OPERATE?**

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An effective LTBI program targeted to high-risk and hard-to-reach populations requires a multifaceted approach, including careful planning (based on a thorough assessment of community characteristics and needs), organizational capacity, available resources, and appropriate strategies. Once the program is up and running, its day-to-day operations consist of activities carried out by an interdisciplinary team that can comprise of clinicians, public health nurses, social workers, and outreach staff. We have separated these activities into five fundamental areas:

1. **Outreach to the target populations.** An LTBI program's success depends on its worker's understanding of the high-risk populations in their jurisdiction. Epidemiological information can help identify these populations. However, to work effectively with them, the program must



engage members of the target groups. This involves establishing partnerships with relevant community organizations, establishing a presence in the community, responding to community needs, and addressing the barriers that impede patients' access to care and their ability to adhere to treatment.

2. **Testing of targeted individuals.** Within the high-risk groups, individuals who have LTBI and would benefit from treatment must be identified through the administration and analysis of tuberculin skin tests, chest x-rays, and medical evaluations. Effective targeted testing programs begin with staff training to ensure successful placement, measurement, and interpretation of the tuberculin skin test.
3. **Case management.** Successful treatment of LTBI requires that the program maintain regular and consistent contact with the patient throughout the course of treatment. Case management has been proven to be an effective method for ensuring that patients complete treatment for TB disease and this approach can be structured effectively for LTBI programs. The patient is assigned to a case manager—a staff member who provides a consistent point of contact, educates the patient about TB, oversees the administration of medications, and facilitates adherence to treatment.
4. **Directly Observed Therapy (DOT).** DOT is a component of case management in which a healthcare worker or another responsible party provides each dose of medication to the patient at the time it is to be taken, and observes and documents that the patient ingests the dose. This procedure can be applied to LTBI to ensure that the patient adheres to and completes the recommended course of therapy. DOT may be administered in a clinic, in the patient's home, or in another mutually agreed-upon setting (such as a shelter, a school, or a drug treatment facility).

5. **Referrals and assistance.** LTBI programs frequently provide referrals and other kinds of assistance to link patients to services that can help meet their needs for healthcare, food, shelter, and other basic needs of daily living. When immediate needs are adequately and appropriately met, the likelihood that the patient will maintain a relationship with the LTBI program and succeed in completing treatment increases.

## **WHAT ARE THE ESSENTIAL ELEMENTS OF AN LTBI PROGRAM?**

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In addition to developing a program incorporating the comprehensive activities listed above, experience has shown that the following elements are essential to a program's success:

1. **Well-designed systems and protocols.** Putting good systems, guidelines, and protocols into place will give clarity and consistency to the goals, policies, procedures, and expectations of your program. While the systems and protocols you adopt will be specific to the size, structure, and needs of your program and the characteristics of your patient population, in general they should include:
  - A system for identifying target populations in your jurisdiction and conducting outreach to them
  - Administrative guidelines and protocols for patient eligibility (intake, assessment, retention, and discharge), case management, team communication, and referrals to outside programs
  - Clinical protocols for TB testing and evaluation, medical evaluation of suspected and known LTBI patients, medication regimens for DOT, and nonadherence or interruptions to treatment
  - A system for conducting regular program evaluation

2. **Staff who work as a team.** An LTBI treatment program is an interdisciplinary enterprise that encompasses medical personnel, social and outreach workers, and support staff, ideally in sufficient numbers to handle the caseload with a low patient-to-staff ratio. You want to employ individuals who have experience in working with persons in your target groups, and who can function together as a smoothly running team with a shared commitment to the program's purpose and goals.
3. **Collaboration with community partners.** An effective strategy for an LTBI treatment program is to forge alliances with capable organizations that serve your target populations. Because they know your patients, these groups often can help you extend your outreach efforts and expand your capacity to address community needs. In addition, they can provide resources such as shared space, technical assistance, incentives and enablers for your patients, or other assistance to patients, such as housing or substance abuse treatment. Effective collaborations are mutually beneficial. You should address with prospective partners how the arrangement can meet each partner's needs and what commitments of time, technical assistance, or other resources will be required from your agency.
4. **A patient-centered philosophy.** An LTBI program succeeds best when it addresses the needs and interests of its patients and actively works to remove their substantial barriers to care. By taking a patient-centered approach, you increase the likelihood that your patients will adhere to and complete their treatment. This philosophy requires that you acknowledge the realities of your patients' lives, including such conditions as homelessness, HIV infection, substance abuse, low literacy, or lack of English skills. You must also be aware of their beliefs and attitudes about illness and health, about TB in particular, and about the medical system. If you understand and accept these circumstances, and tailor your program accordingly, you can gain your patients' trust and cooperation. A patient-

centered philosophy is expressed in a program's activities and in the design of its service delivery. It encompasses eight key strategies:

- Seeking knowledge and understanding of the highest-risk populations in your jurisdiction
- Providing services that are located where they are accessible and convenient to patients
- Supporting culturally acceptable care
- Refraining from judgment of transient or other alternative lifestyles
- Accepting a harm reduction approach
- Providing incentives and enablers to motivate and facilitate patient adherence
- Supporting the use of proven low-cost or no-cost adherence strategies
- Providing or referring patients to essential services beyond TB treatment

## **WHAT RESOURCES WILL YOU NEED?**

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A program to treat LTBI in hard-to-reach groups requires a serious commitment in terms of time, staff, and financial resources. The budget needed to support this important effort varies from program to program. Factors to consider as you develop your own budget include:

- **The size of your LTBI caseload.** The resources needed to support your program will increase as the numbers of individuals to be tested and/or LTBI cases to be treated goes up
- **The numbers in the target groups you intend to serve.** This will impact supplies and staff ratios needed to provide case management and other services
- **The needs of the target groups you intend to serve.** Different groups have different cultures and needs. The greater the diversity of your patients, the more resources you will need in order to serve them appropriately. For example, you may need to provide interpretation services and materials in foreign languages or address social and financial barriers for homeless patients
- **The geographic scope of your program.** If you serve a major city, or if your jurisdiction encompasses more than one city or has a dispersed population, you may require multiple clinic sites, additional staffing, or provision for transportation expenditures
- **The nature and extent of your collaborations with other organizations.** What resources will your partners bring to the table? What resources will be required from your program? You will want to make a careful assessment of your partnerships' impact on your resources

The question of funding for your program is one of the most critical issues to consider in your planning. To address the above factors, it will be important to set priorities and identify sources of support. You may need to secure additional resources in order to develop, implement, and sustain an effective LTBI treatment program.

For additional resources and further information, please refer to the [Resource Guide](#) and [Bibliography](#) included in the Tools section.

# SUMMARY OF IMPLEMENTATION STEPS

Planning and implementing a successful LTBI treatment program is a complex enterprise—not a single procedure but several simultaneous ones. In general, the process consists of fifteen steps or series of activities, each of which is described in this section.

The steps can be grouped into five broad categories:

- Program planning
- Community and patient relations
- Service delivery
- Staffing
- Evaluation

Together, they comprise the basic strategies, systems, and procedures that are essential to an effective program.

Because every jurisdiction has different resources available and faces unique circumstances, needs, and demands, the steps are designed to be flexible and adaptable. You may choose not to follow them in the sequence presented here.

Most likely, you will be working on several simultaneously. Each step is important, however, and should be addressed as you design and implement your program.

Careful planning at the outset is invaluable. A detailed plan, based on a solid understanding of community needs, will enable you to make the implementation process run smoothly, avoid costly mistakes and wasted effort, and ensure your program's success. More than a to-do list, the plan should incorporate the program's goals, the tasks that will lead to the accomplishment of the goals, a timeline for implementation, and the assignment of

accountabilities to the individuals charged with getting things done. A well-crafted plan allows you to:

- Clarify your vision and goals for the training program
- Achieve consensus among the persons involved
- Establish realistic budgets and a sound structure for managing the project
- Identify strategies by which your objectives can be accomplished
- Define the many tasks involved in putting on a training program
- Delineate and assign the duties and responsibilities

The documents in this Toolbox offer you a complete planning guide. They are designed to allow you to adopt or adapt their contents according to your circumstances, alert you to issues that must be addressed, and point you to sources of additional information and assistance.

## **SUMMARY OF THE IMPLEMENTATION STEPS**

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### **Program Planning**

#### **STEP 1. SITUATIONAL ANALYSIS**

Conduct a situational analysis on which to base your planning: Identify target groups, develop a community profile, and assess your organization's capacity and resources for implementing the program.

#### **STEP 2. GUIDELINES, PROTOCOLS, AND STRATEGIES**

Review relevant guidelines, protocols, and strategies for LTBI treatment.

#### **STEP 3. PROGRAM FRAMEWORK**

Design the framework of your LTBI program.

STEP 4. BUDGET AND FUNDING  
Develop a program budget and identify sources for program funding.

STEP 5. ACTION PLAN  
Develop an action plan for implementation of the program.

### **Community and Patient Relations**

STEP 6. COMMUNITY PARTNERS  
Establish collaborations with community partners.

STEP 7. COMMUNITY OUTREACH  
Plan your community outreach strategies.

STEP 8. CULTURALLY APPROPRIATE CARE  
Assess and acquire what you need to provide culturally appropriate care.

STEP 9. INCENTIVES AND ENABLERS  
Provide for incentives and enablers.

### **Service Delivery**

STEP 10. LOCATION  
Plan the location where you will deliver services.

STEP 11. ADMINISTRATIVE PROTOCOLS  
Develop administrative protocols.

STEP 12. CLINICAL PROTOCOLS  
Develop clinical protocols.



## **Staffing**

### STEP 13. STAFFING REQUIREMENTS

Identify and provide for staffing needs.

### STEP 14. TRAINING

Train staff to implement the LTBI program.

## **Evaluation**

### STEP 15. EVALUATION

Conduct an evaluation of your training event.

## **STEP 1: CONDUCT A LOCAL SITUATIONAL ANALYSIS ON WHICH TO BASE YOUR PLANNING**

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To ensure that your LTBI treatment program is built on a solid foundation, you must have a clear understanding of the problem you are trying to address, the environment in which your program will operate, and the conditions and circumstances that will influence program activities. Therefore, the first step in planning your program is to take a close look at the target groups, the community, and your own organization. This analysis will enable you to make sound choices about the approaches, strategies, and solutions that are most likely to be effective in your situation. It will also help you demonstrate the need for the program to people who influence policy and funding decisions.

### **ACTIVITY 1-A**

Identify which groups in your jurisdiction have the highest risk for LTBI and TB disease, based on local epidemiological trends. These are your program's target groups. Sources of information could include:

- Data from Reports of Verified Cases of Tuberculosis (RVCT)
- Census data
- County agencies responsible for homeless services; drug and alcohol programs; services to refugees, immigrants, and migrant workers; and indigent care

### **ACTIVITY 1-B**

Develop a community profile that describes your target groups in detail. This profile should address:

- Demographic characteristics (e.g., age, gender, cultural or ethnic origin, primary language)
- Neighborhoods where members of the target groups are located

- Types of places they habitually frequent
- Their cultural, ethnic, and linguistic needs
- Health issues, including TB incidence and barriers that prevent or discourage group members from receiving care
- Agencies or organizations that provide them with services

#### ACTIVITY 1-C

Assess your organization's existing capacity and resources for implementing an LTBI program and its ability to address any aspects that might be lacking. Factors to consider include (among others):

- Staff with appropriate training and expertise
- An appropriate location for delivering services
- Relationships with community agencies and organizations
- Adequate financial support

## **STEP 2: REVIEW RELEVANT GUIDELINES, PROTOCOLS, AND STRATEGIES FOR LTBI TREATMENT**

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The situational analysis gives you a solid understanding of the needs and priorities you are trying to address. The next step is to examine the current approaches to LTBI testing and treatment and to investigate solutions and strategies that you might want to incorporate into your program.

### **ACTIVITY 2-A**

Review guidelines published by the American Thoracic Society (ATS) and the Centers for Disease Control and Prevention (CDC) for targeted testing and treatment of LTBI, along with supplemental references in the Morbidity and Mortality Weekly Report (MMWR).

The Tools section includes a sample copy of the guidelines: [ATS/CDC Statement: Targeted Testing and Treatment of LTBI](#). To locate additional guidelines or to check for updates, see the CDC listing under the "Internet Resources" section of the [Resource Guide](#) in the Tools section.

### **ACTIVITY 2-B**

Review your local LTBI treatment protocol or establish such a protocol if one is not currently in place.

### **ACTIVITY 2-C**

Examine strategies, case studies, and information from this Toolbox and other sources to determine the approaches most applicable to your community and situation.

## STEP 3: DESIGN THE FRAMEWORK FOR YOUR LTBI PROGRAM

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The aim of an LTBI program is to provide the community with services that are strategically designed and delivered to meet local needs and priorities. With the information you have obtained through your situational analysis, community profile, and examination of LTBI guidelines, protocols, strategies, and resources, you can create a sound framework for your jurisdiction's program. Consider the process by which the principle elements of the program framework should be determined and who should be involved. It might be worthwhile to seek the participation of various stakeholders to benefit from their ideas and achieve their buy-in.

### ACTIVITY 3-A

Determine who should be involved in the development of the program framework and invite their participation.

### ACTIVITY 3-B

Set up a process for considering questions and issues, making decisions, and achieving consensus.

### ACTIVITY 3-C

Develop the framework for your LTBI program. Key elements include:

- *Purpose or mission:* why the LTBI program is being established  
*Example:* "The TB control program will reduce future cases and transmission by treating high-risk populations with LTBI."
- *Target populations:* the populations within the community that your program will focus on as its highest priorities
- *Goals or desired outcomes:* the results you want the program to achieve. These should be stated in specific enough terms that you can measure and evaluate the outcomes

*Example:* “The TB Control program will develop a program for targeted testing and treatment of LTBI among homeless persons within one year. The program will establish a baseline for targeted testing. Using national objectives, this jurisdiction will achieve the following objective: at least 75% of homeless persons infected with LTBI will complete treatment within one year.”

- *Program strategies:* how you intend to accomplish the desired results. Consider such aspects as:
  - Community partnerships and outreach
  - Patient outreach and retention
  - Program administration, organizational structure, and staffing
  - Funding and financial management

#### ACTIVITY 3-D

Document the agreed-upon program framework and key elements and distribute as appropriate.

## **STEP 4: DEVELOP A PROGRAM BUDGET AND IDENTIFY SOURCES FOR PROGRAM FUNDING**

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Funding will be critical for developing and implementing your LTBI program. In many jurisdictions, the existing financial resources are not sufficient to permit the full development and implementation of an LTBI treatment program. If this is your situation, you may need to seek additional sources of support. The program planning steps and other information in this Toolbox can help you in developing program documentation to strengthen your funding requests.

Potential funding sources could include local, state, and federal government agencies and programs. If your jurisdiction receives CDC Cooperative Agreement funds, review your program's budget to determine if and how these resources should be dedicated to any aspect of your LTBI project. Also, investigate how your program could use federal and state resources, such as Medicaid funds, for providing TB-related services. You might consider providing eligibility counseling and application assistance for patients eligible for Medicaid. Consult with your state TB program for eligibility criteria. Any Medicaid funds generated may not be of direct benefit, as these funds are often directed to the general government revenue streams. However, your program may garner additional staff and program support if it is seen as capable of producing revenue.

Other funding sources to investigate include organizations and foundations at the community or national level that focus on healthcare concerns such as providing healthcare access for medically underserved persons or groups, improving the health status of communities, or preventing and treating infectious disease. Non-financial resources may be developed through collaborations and community partnerships, as described more fully in Step 7. For information on some possible sources of funding, please refer to the "Funding Resources" section of the [Resource Guide](#) in the Tools section.

#### ACTIVITY 4-A

Develop a preliminary financial plan and budget, including:

- Start-up expenses that will be incurred in the course of planning and implementing the program
- Annual operating costs, by expense category
- Anticipated revenues and their sources (e.g., payments for services from patients, insurers, or other third-party sources)
- Amount of funding that is currently available and its sources
- Amount of additional funding that will be needed to implement and operate the program

#### ACTIVITY 4-B

Develop a list of prospective sources for the additional necessary funding and obtain information about their application requirements and procedures. Possibilities could include:

- City or county government
- Federal and state resources such as Medicaid or programs of such agencies as the CDC or the National Institutes of Health (NIH)
- Local organizations and foundations with an interest in improving the health status of the community or increasing individuals' access to healthcare
- National organizations concerned with TB or infectious diseases

#### ACTIVITY 4-C

Develop and submit funding proposals.

#### ACTIVITY 4-D

Set up financial management systems to enable your program to monitor income and expenditures and handle financial transactions in an accurate, timely manner.



## **STEP 5: DEVELOP AN ACTION PLAN FOR IMPLEMENTATION OF THE PROGRAM**

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The action plan outlines the specific activities or projects that your organization will undertake to implement your LTBI treatment program. The plan should indicate:

- Each task or activity to be accomplished
- The person responsible
- The date when the task will begin
- The due date or deadline

The action plan incorporates the project timeline and establishes a feasible implementation schedule and a target date for having the program fully operational. Depending on the complexity of your particular situation, the target date could be several weeks or months into the future. Once the target date is set, calculate backward from that point to establish start dates and due dates for the implementation activities.

One helpful way to document your action plan is in the form of a written checklist that includes responsible parties and due dates. This will prove to be an invaluable tool, as it can function as a running tally of which tasks have been completed, when they were accomplished, and what remains to be done. It allows you to record and review your progress and prevents important elements from being overlooked. The [LTBI Program Action Plan](#), an easily modifiable template based on the steps and activities described in this Toolbox, is included in the Tools section.

### ACTIVITY 5-A

Assign a staff person to be in charge of the implementation process.

#### ACTIVITY 5-B

Design or adopt a checklist or action plan outline to use as a planning tool. The plan should include:

- All activities and tasks to be accomplished
- The person responsible for each activity, task, or phase of the plan
- The timeline for implementation, including a feasible target date for the program launch and start dates and due dates for each activity

#### ACTIVITY 5-C

Distribute the action plan to everyone who is responsible for one or more of the activities or tasks and to other stakeholders as appropriate.

#### ACTIVITY 5-D

Review and update the action plan regularly to reflect completed activities, revised deadlines, and any new situations that arise. Distribute the updated plan to keep everyone apprised.

## **STEP 6: ESTABLISH COLLABORATIONS WITH COMMUNITY PARTNERS**

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The collaborations you establish with community partners can have a strong impact on your program. Many of your decisions—for example, how you will conduct outreach or where you will locate a clinic or service site—may depend in part on the types of organizations with which you collaborate, the goals and capacities of your partners, and the nature of the partnerships you forge.

These associations can broaden the reach of your program and increase your chances for success. You will want to assess what you have to offer your partners in exchange that will help them achieve their objectives. The most productive collaborations are those in which the partners clearly understand the mutual benefits. For more detailed information, refer to [Background Guide 4](#).

### ACTIVITY 6-A

Assess what you need and expect from community partners and what your organization can offer in establishing mutually beneficial collaborations.

### ACTIVITY 6-B

Identify prospective partners and assess the potential benefits and drawbacks of collaborating with each one.

### ACTIVITY 6-C

Contact prospective partners to propose the collaboration and explain the LTBI program: its purpose, importance, and objectives.

### ACTIVITY 6-D

Discuss and agree upon:

- The scope of services to be offered
- Anticipated costs and how they will be allocated among the partners
- Each partner's roles, responsibilities, and expectations
- The standards by which the partners will evaluate their collaboration

#### ACTIVITY 6-E

Negotiate and execute a Memorandum of Understanding (MOU) with each partnering organization to document the terms of your agreement. A template, [MOU: Infectious Disease Screening](#), is included in the Tools section.

## **STEP 7: PLAN YOUR COMMUNITY OUTREACH STRATEGIES**

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The groups that are typical targets of LTBI programs are frequently hard to reach and difficult to motivate. Your program's ability to achieve its goals will depend in large measure on your success in engaging and interacting with its target groups, the individuals within them, and the organizations that work with them in your community. It is vital to identify and employ outreach strategies that are specific to the particular groups you want to reach and communicate with them in ways that respect their culture, their needs, and their personal modes of belief and behavior.

To locate more detailed information on outreach to various ethnic groups, refer to the EthnoMed listing in the "Foreign Language Patient Information Resources" section of the [Resource Guide](#) included in the Tools section. To locate more detailed information on outreach to the homeless, see the National Health Care for the Homeless Council listing in the "Cultural Competency" section of the [Resource Guide](#).

### ACTIVITY 7-A

Research outreach strategies that have been demonstrated to be effective in reaching your target groups.

### ACTIVITY 7-B

Explore possible ways that you might collaborate with community partners on your outreach efforts.

### ACTIVITY 7-C

Develop an outreach action plan.

## **STEP 8: ASSESS AND ACQUIRE WHAT YOU NEED TO PROVIDE CULTURALLY APPROPRIATE CARE**

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Communicating with high-risk patients in culturally appropriate ways can be a critical factor in securing the patient's agreement to undergo TB testing and adhere to a course of treatment. Some TB control programs have invested in recruiting and retaining qualified bilingual staff that match the targeted populations. Other jurisdictions use outside resources to meet these needs.

Another issue to consider is the literacy level of patients, both those who speak English and those who do not. It may be necessary to develop or acquire low-literacy and culturally appropriate materials to communicate effectively with some individuals. For more detailed information, please refer to the "Culturally Appropriate Care" section of [Background Guide 3](#). To locate additional resources, please review the sections on "Cultural Competency," "Foreign Language Patient Information Resources," and "Low Literacy Materials" in the [Resource Guide](#) located in the Tools section.

### ACTIVITY 8-A

Identify your internal resources (i.e., bilingual staff) for communicating and working appropriately with members of the cultural, ethnic, and linguistic groups to which high-risk individuals in your jurisdiction typically belong.

### ACTIVITY 8-B

Identify external resources that you might draw upon, such as:

- Translation and interpretation services from local hospitals or universities
- Community-based organizations that serve the target populations
- TB programs and organizations that can supply educational and outreach materials appropriate for the populations your program serves

#### ACTIVITY 8-C

Arrange with the identified resources to obtain services and acquire materials that will help your program work effectively with the populations it serves.

## **STEP 9: PROVIDE FOR INCENTIVES AND ENABLERS**

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Incentives and enablers are forms of assistance that your program can offer patients to help them overcome barriers, motivate them to be tested for LTBI, or induce them to adhere to treatment. Incentives and enablers are an important patient-centered strategy for boosting the number of patients who complete LTBI treatment.

Incentives and enablers have been defined in a variety of ways. Enablers are often described as actions and services that remove barriers to therapy, such as providing bus tokens to allow the patient to get to the clinic. Incentives, on the other hand, are the “carrot on the stick” that may motivate the patient to adhere to treatment and serve as a reward. Incentives could include movie passes, a certificate of completion of therapy, or other services directed toward the patient’s recreation or enjoyment. Other examples of successful incentives and enablers have included meal and shopping coupons, hygiene kits, and housing.

For more detailed information, please refer to the “Use of Incentives and Enablers” section of [Background Guide 3](#).

### ACTIVITY 9-A

Research possible incentives and enablers that would meet the needs of your target groups and motivate your patients and which are feasible for your program to provide. Consider your own resources as well as skills, programs, goods, and services that could be provided by community partners and local organizations.

### ACTIVITY 9-B

Decide on an initial menu of incentives and enablers. Over time, this list is likely to be modified as new patient needs are identified, new partnerships are established, and the success and feasibility of various incentives and enablers is evaluated.

### ACTIVITY 9-C

Identify sources for the selected incentives and enablers and make the necessary arrangements to have them available for distribution.



#### ACTIVITY 9-D

Establish guidelines and procedures for the disbursement of incentives and enablers, including:

- *Eligibility:* decide which patients are qualified to receive particular incentives or enablers and under what circumstances
- *Authority:* determine which staff members are authorized to disburse particular incentives or enablers and under what circumstances
- *Distribution:* develop a distribution plan for the incentives and enablers. Identify how these items will be sent to the field
- *Tracking:* develop a system and procedure for keeping track of incentives and enablers given to each patient and documenting decisions made about them

#### ACTIVITY 9-E

Set up referral mechanisms to link patients with programs, goods, or services that your program cannot provide.

#### ACTIVITY 9-F

Plan for regular evaluation of your incentives and enablers so that their effectiveness can be assessed, problems can be identified and resolved, issues of funding and resources can be addressed, and modifications can be made as needed.

## **STEP 10: PLAN THE LOCATION WHERE YOU WILL DELIVER SERVICES**

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Planning the location for your delivery of services is a complicated process. It demands that you assess the needs of both your patients and your program and determine how these needs can best be met within the limitations of your available resources. In general, you will want to find a location that is convenient, accessible, and comfortable for the individuals being served. Such factors as the geographic size and the demographic characteristics of the community may indicate that more than one location is needed. One viable option may be to co-locate your services in a space provided by or shared with a community partner. Another possibility to consider is not having a fixed location at all. Instead, you might equip a vehicle to serve as a mobile clinic that can reach patients in multiple neighborhoods. For more information on selecting and setting up a suitable space, please refer to the “Services located where they are accessible and convenient to patients” section of [Background Guide 3](#).

### ACTIVITY 10-A

Decide where your services should be located by determining neighborhoods and areas in which your target patients are most likely to reside, work, or visit.

### ACTIVITY 10-B

Assess your program to determine your space needs and how you will reconcile them with your budget:

- How much space you will require
- What activities must be accommodated
- How the space should meet the needs and expectations of the patients, the community, and the staff
- What resources are available to accommodate your space needs

#### ACTIVITY 10-C

Based on this assessment, decide on the space option that makes the most sense for your program:

- Single stationary location
- Multiple locations
- Mobile unit
- Space shared with community partners

#### ACTIVITY 10-D

If you will be using a space not already occupied by your agency, make the necessary arrangements (e.g., lease, occupation agreement) to establish the terms and conditions of your use of the selected space.

#### ACTIVITY 10-E

Design a site plan that indicates the types, sizes, and arrangement of spaces (e.g., examination rooms, waiting areas, offices), structural changes needed, and the decor and finish materials (paint colors, flooring, etc.).

#### ACTIVITY 10-F

Determine what furnishings and equipment will be needed and develop an acquisition plan.

#### ACTIVITY 10-G

Engage suppliers to accomplish any work that needs to be done to make the space suitable for your program's use.

#### ACTIVITY 10-H

Arrange for your move into the completed space.

## STEP 11: DEVELOP ADMINISTRATIVE PROTOCOLS

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Your administrative protocols will outline the steps, mechanisms, timelines, and accountabilities for the non-clinical activities undertaken by your program, including:

- Patient eligibility
- Intake and assessment
- Referrals of patients to other services or programs
- Discharge
- Staff communication
- Procurement and storage of supplies
- Documentation and record keeping

If your jurisdiction does not already have such protocols in place, template forms and sample protocols provided in this Toolbox can be modified to suit your situation. For additional information, please refer to [Background Guide 2](#).

### ACTIVITY 11-A

Review available models for LTBI treatment program administrative procedures.

For detailed descriptions of three LTBI treatment programs, refer to [Case Study 1](#) and [Case Study 2](#) (drawn from the experience of the San Francisco Department of Public Health, TB Control Program), as well as [Case Study 3](#) (from the San Diego Health Department, TB Control Program).

As a sample, the Tools section of the toolbox contains a full set of protocols from one LTBI treatment program, [NYC DOHMH Protocols for LTBI](#) (Source: New York City Department of Health and Mental Hygiene).

In addition, the Tools section includes the related policy statement, [CDHS/CTCA Guidelines: Interjurisdictional Continuity of Care](#) (Source: California Department of

Health Services and California Tuberculosis Controllers Association). If your jurisdiction has not already published a statement on this topic, this may serve as a useful guide in developing local administrative procedures.

#### ACTIVITY 11-B

Determine what modifications are needed to fit the models to your program's situation and locality.

#### ACTIVITY 11-C

Develop and document the specific administrative protocols that your program will use.

Templates for correspondence, Notification: Treatment Completion and Notification: TB Clearance, are also provided.

#### ACTIVITY 11-D

Distribute the completed protocols to appropriate staff members.

## STEP 12: DEVELOP CLINICAL PROTOCOLS

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Your clinical protocols will outline the standards, steps, mechanisms, timelines, and accountabilities for the medical and clinical activities undertaken by your program, including:

- Targeted TB testing
- Medical evaluations to follow up positive tests and assess LTBI patients
- Medication regimens for DOT
- Distribution of medication doses
- Patient management
- Nonadherence or interruptions to treatment

If your jurisdiction does not already have such protocols in place, template forms and sample protocols provided in this Toolbox can be modified to suit your situation. For more detailed information, refer to [Background Guide 2](#).

### ACTIVITY 12-A

Review available models for clinical procedures.

As examples, the Tools section of the Toolbox contains a full set of protocols from one LTBI treatment program, [NYC DOHMH Protocols for LTBI](#) (Source: New York City Department of Health and Mental Hygiene), and select examples from another, [SF Treatment Protocol](#), [SF Missed Dose Flowchart](#), [SF Nonadherence Protocol](#), [SF Missed Appointments Protocol](#), and [SF Interruption Protocol](#) (Source: San Francisco Department of Public Health, Tuberculosis Control Program).

In addition, the Tools section includes a set of related guidelines: [ATS/CDC Statement: Targeted Testing and Treatment of LTBI](#) (Source: American Thoracic Society and Centers for Disease Control and Prevention).

To locate additional guidelines or to check for updates, see the CDC under the “Internet Resources” section of the [Resource Guide](#) in the Tools section.

#### ACTIVITY 12-B

Determine what modifications are needed to adapt the models to your program’s situation and locality.

Two templates for working with nonadherent clients, [Notification: Missed Appointment](#) and [Patient Tracking Log](#), are included in the Tools section.

#### ACTIVITY 12-C

Develop and document the specific clinical protocols that your program will use.

#### ACTIVITY 12-D

Distribute the completed protocols to appropriate providers and staff members and provide training as necessary.

## **STEP 13: IDENTIFY AND PROVIDE FOR STAFFING NEEDS**

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Your staff carries the success of your program on its shoulders. Be sure to provide for a staff that is of adequate size, has the necessary mix of skills and experience, communicates effectively, and can operate together as a team. For more detailed information about staff roles, please refer to [Background Guide 1](#).

### ACTIVITY 13-A

Assess the staffing requirements of your LTBI program:

- Designate which staff position will be responsible for coordinating and overseeing your LTBI treatment program
- Determine what additional staff positions your program will need
- Decide whether these roles will be filled by current staff or if new staff will be hired

### ACTIVITY 13-B

Develop or modify job descriptions to incorporate the LTBI treatment program responsibilities. Three easily modifiable templates, [Job Description: Outreach Worker](#), [Job Description: Program Coordinator](#), and [Job Description: Social Worker](#), are included in the Tools section.

### ACTIVITY 13-C

Determine what resources will be required for the staff (office space, telephone, equipment, etc.).

### ACTIVITY 13-D

If new staff will be hired, develop and implement a recruitment action plan and timeline for:

- Identifying possible sources of qualified candidates
- Presenting the positions in a way that will attract such candidates



- Publicizing the openings in venues that will reach prospective applicants
- Screening and evaluating persons who apply
- Selecting the applicants you wish to hire and making job offers

## **STEP 14: TRAIN STAFF TO IMPLEMENT THE LTBI PROGRAM**

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Once your LTBI program is ready to launch, staff training is essential to operating successfully. By taking a systematic approach to training, you will ensure that your staff understands the purpose and importance of the LTBI program and knows how to carry out the program's administrative and clinical protocols. For more detailed information, please refer to [Background Guide 3](#).

### ACTIVITY 14-A

Identify the training needs of your staff with regard to the LTBI program.

### ACTIVITY 14-B

Create an action plan for conducting the training. The action plan should specify:

- Who is responsible for the training
- What information will be covered
- How the information will be presented (as a class session, as reading materials, etc.)
- What training materials will be used and from what source they will be obtained
- How individuals' progress will be measured

### ACTIVITY 14-C

Set up a schedule and handle any necessary logistical arrangements for conducting training sessions. Be sure that field safety education is regular and ongoing for all staff members. An easily modifiable template, [Field Safety Checklist](#), that can be used as both training material and documentation is included in the Tools section.

### ACTIVITY 14-D

Conduct the training program.

## **STEP 15: DEVELOP TOOLS AND PROCEDURES FOR CONDUCTING REGULAR PROGRAM EVALUATIONS**

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Evaluation is an essential component of your LTBI program. A formal evaluation, conducted regularly, will help you understand the strengths and weaknesses of the program, provide valuable feedback to staff, and give you a basis for developing and implementing improvements.

To locate more detailed information about program evaluation, see the “Evaluation” section of the [Resource Guide](#) included in the Tools section.

### ACTIVITY 15-A

Determine which measures, standards, and outcomes you will use to evaluate your LTBI program.

### ACTIVITY 15-B

Develop and document procedures for conducting the evaluation and for collecting, analyzing, and reporting the data that will be used.

### ACTIVITY 15-C

Set up a schedule for regular program evaluations.

### ACTIVITY 15-D

Conduct the scheduled evaluations and assess the results.

# CHECKLIST FOR IMPLEMENTATION STEPS AND ACTIVITIES

This checklist is provided to give you a quick overview of the steps and activities you will undertake to implement your LTBI treatment program and to provide a convenient means of tracking your progress.

## **PROGRAM PLANNING**

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### STEP 1. CONDUCT A LOCAL SITUATIONAL ANALYSIS ON WHICH TO BASE YOUR PLANNING

- 1-A. Identify which groups in your jurisdiction have the highest risk for LTBI and TB disease, based on local epidemiological trends.
- 1-B. Develop a community profile that describes your target groups in detail.
- 1-C. Assess your organization's existing capacity and resources for implementing an LTBI program.

### STEP 2. REVIEW RELEVANT GUIDELINES, PROTOCOLS, AND STRATEGIES FOR LTBI TREATMENT

- 2-A. Review ATS/CDC guidelines for targeted testing and treatment of LTBI.
- 2-B. Review your local LTBI treatment protocol or establish such a protocol if one is not currently in place.

- 2-C. Examine strategies, case studies, and information from this Toolbox and other sources to determine the approaches most applicable to your community and situation.

STEP 3. DESIGN THE FRAMEWORK FOR YOUR LTBI PROGRAM

- 3-A. Determine who should be involved in the development of the program framework and invite their participation.
- 3-B. Set up a process for considering questions and issues, making decisions, and achieving consensus.
- 3-C. Develop the framework for your LTBI program: purpose or mission, target populations, goals or desired outcomes, and program strategies.
- 3-D. Document and distribute the agreed-upon program framework.

STEP 4. DEVELOP A PROGRAM BUDGET AND IDENTIFY SOURCES FOR PROGRAM FUNDING

- 4-A. Develop a preliminary financial plan and budget.
- 4-B. Develop a list of prospective sources for the additional necessary funding and obtain application information.
- 4-C. Develop and submit funding proposals.
- 4-D. Set up financial management systems.

STEP 5. DEVELOP AN ACTION PLAN FOR IMPLEMENTATION OF THE PROGRAM

- 5-A. Assign a staff person to be in charge of the implementation process.

- \_\_\_ 5-B. Design or adopt a checklist or action plan outline to use as a planning tool.
- \_\_\_ 5-C. Distribute the action plan to everyone who is responsible for activities or tasks and to other stakeholders as appropriate.
- \_\_\_ 5-D. Review and update the action plan regularly.

## **COMMUNITY AND PATIENT RELATIONS**

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### STEP 6. ESTABLISH COLLABORATIONS WITH COMMUNITY PARTNERS

- \_\_\_ 6-A. Assess what you need and expect from community partners and what your organization can offer in establishing mutually beneficial collaborations.
- \_\_\_ 6-B. Identify prospective partners and assess the potential benefits and drawbacks of collaborating with each one.
- \_\_\_ 6-C. Contact prospective partners to propose the collaboration and explain the LTBI program: its purpose, importance, and objectives.
- \_\_\_ 6-D. Discuss and agree upon:
  - The scope of services to be offered
  - Anticipated costs and how they will be allocated among the partners
  - Each partner's roles, responsibilities, and expectations
  - The standards by which the partners will evaluate their collaboration

- 6-E. Negotiate and execute a Memorandum of Understanding (MOU) with each partnering organization to document the terms of your agreement.

STEP 7. PLAN YOUR COMMUNITY OUTREACH STRATEGIES

- 7-A. Research outreach strategies that have been demonstrated to be effective in reaching your target groups.
- 7-B. Explore possible ways that you might collaborate with community partners on your outreach efforts.
- 7-C. Develop an outreach action plan.

STEP 8. ASSESS AND ACQUIRE WHAT YOU NEED TO PROVIDE CULTURALLY APPROPRIATE CARE

- 8-A. Identify your internal resources (i.e., bilingual staff) for communicating and working appropriately with members of the cultural, ethnic, and linguistic groups to which high-risk individuals in your jurisdiction typically belong.
- 8-B. Identify external resources that you might draw upon.
- 8-C. Arrange with the identified resources to obtain services and acquire materials that will help your program work effectively with the populations it serves.

STEP 9. PROVIDE FOR INCENTIVES AND ENABLERS

- 9-A. Research possible incentives and enablers that would meet the needs of your target groups.
- 9-B. Decide on an initial menu of incentives and enablers.

- \_\_\_ 9-C. Identify sources for the selected incentives and enablers and make the necessary arrangements to have them available for distribution.
- \_\_\_ 9-D. Establish guidelines and procedures for the disbursement of incentives and enablers.
- \_\_\_ 9-E. Set up referral mechanisms to link patients with programs, goods, or services that your program cannot provide.
- \_\_\_ 9-F. Plan for regular evaluation of your incentives and enablers.

## **SERVICE DELIVERY**

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### STEP 10. PLAN THE LOCATION WHERE YOU WILL DELIVER SERVICES

- \_\_\_ 10-A. Decide where your services should be located by determining the neighborhoods and areas your target patients are most likely to reside, work, or visit.
- \_\_\_ 10-B. Assess your program to determine your space needs and how you will reconcile them with your budget.
- \_\_\_ 10-C. Decide on the space option that makes the most sense for your program: single stationary location, multiple locations, mobile unit, or space shared with community partners.
- \_\_\_ 10-D. Make the necessary arrangements to establish the terms and conditions of your use of the selected space.
- \_\_\_ 10-E. Design a site plan.



- \_\_\_ 10-F. Determine what furnishings and equipment will be needed and develop an acquisition plan.
- \_\_\_ 10-G. Engage suppliers to accomplish any work that needs to be done to make the space suitable for your program's use.
- \_\_\_ 10-H. Arrange for your move into the completed space.

**STEP 11. DEVELOP ADMINISTRATIVE PROTOCOLS**

- \_\_\_ 11-A. Review available models for administrative procedures.
- \_\_\_ 11-B. Determine what modifications are needed to fit the models to your program.
- \_\_\_ 11-C. Develop and document the specific administrative protocols that your program will use.
- \_\_\_ 11-D. Distribute the completed protocols to staff.

**STEP 12. DEVELOP CLINICAL PROTOCOLS**

- \_\_\_ 12-A. Review available models for clinical procedures.
- \_\_\_ 12-B. Determine what modifications are needed to adapt the models to your program.
- \_\_\_ 12-C. Develop and document the specific clinical protocols that your program will use.
- \_\_\_ 12-D. Distribute the completed protocols to appropriate providers and staff members and provide training as necessary.

## STAFFING

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### STEP 13. IDENTIFY AND PROVIDE FOR STAFFING NEEDS

- 13-A. Assess the staffing requirements of your LTBI program.
- 13-B. Develop or modify job descriptions to incorporate the LTBI treatment program responsibilities.
- 13-C. Determine what resources will be required for the staff (office space, telephone, equipment, etc.).
- 13-D. If new staff will be hired, develop and implement a recruitment action plan.

### STEP 14. TRAIN STAFF TO IMPLEMENT THE LTBI PROGRAM

- 14-A. Identify the training needs of your staff with regard to the LTBI program.
- 14-B. Create an action plan for conducting the training.
- 14-C. Set up a training schedule and handle necessary logistical arrangements.
- 14-D. Conduct the training program.

## EVALUATION

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### STEP 15. DEVELOP TOOLS AND PROCEDURES FOR CONDUCTING REGULAR PROGRAM EVALUATIONS

- 15-A. Determine which measures, standards, and outcomes you will use to evaluate your LTBI program.
- 15-B. Develop and document procedures for conducting the evaluation and for collecting, analyzing, and reporting the data that will be used.
- 15-C. Set up a schedule for regular program evaluations.
- 15-D. Conduct the scheduled evaluations and assess the results.

# BACKGROUND GUIDES

## **BACKGROUND GUIDE 1: STAFFING AND TEAMWORK FOR AN LTBI PROGRAM**

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Your staff team is the key to your LTBI program's success. The effort to keep hard-to-reach, high-risk populations on a sustained course of treatment requires:

- Low patient-to-staff ratios
- The right mix of staff skills and abilities
- Shared team values
- Collaboration and teamwork
- Individual resilience and coping skills for a stressful work environment
- Attention to staff needs and morale by administrators

### WHAT ARE THE STAFFING REQUIREMENTS FOR AN LTBI PROGRAM?

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An LTBI program is an interdisciplinary endeavor, requiring the contributions and commitment of physicians, registered nurses, social workers, and support personnel. While the staffing structures of individual health departments will vary, an LTBI team typically comprises the following types of positions or skill sets:

*Program coordinator:* leads and supervises the team, directs the implementation of program strategies, and ensures that policies and protocols are carried out.

*Physician:* performs medical evaluations of patients, prescribes medications, and is available for consultation on patient health issues.

*Registered nurse:* develops patient-specific care plans, monitors the packaging and provision of DOT doses, provides direct patient care services as needed, and makes and follows up on referrals to other providers for meeting the patient's health and medical needs.

*Social worker/Case worker:* assesses patients' needs beyond LTBI treatment, makes recommendations to the team on ways to meet those needs and motivate individual patients to adhere to treatment, and makes referrals to link patients with sources for primary healthcare, mental health services, substance abuse services, or social services.

*Disease control investigator (DCI):* conducts community outreach to identify candidates for screening and treatment and to secure their participation, screens members of high-risk groups, counsels and educates patients on TB and the importance of treatment, participates in DOT, and advises team members on co-infectious diseases such as HIV and STD.

*Outreach health worker:* works directly with patients in an assigned caseload, administers and documents DOT doses, develops and maintains supportive relationships with patients throughout the course of treatment, dispenses incentives and enablers to motivate patients, assists patients in solving problems and meeting needs that impact their ability to adhere to treatment, and searches for patients who have missed scheduled doses.

*Support staff:* handles scheduling, record keeping, and administrative tasks for the program.

Three easily modifiable templates, [Job Description: Outreach Worker](#), [Job Description: Program Coordinator](#), and [Job Description: Social Worker](#), are included in the Tools section.

## HOW LARGE A STAFF WILL YOU NEED?

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The number of individuals you have in each category, whether they are full-time or part-time, will depend on a number of factors:

- Size of your caseload
- Nature of your caseload, i.e., its degree of diversity (the ethnicities or cultures it includes), the general health status of your patients, and the types of psychological, social, and economic challenges they face
- Geographic reach of your program
- Types of treatment regimens being offered and length of the treatment course
- Number and type of locations where treatment is administered

## WHAT ARE THE QUALITIES OF EFFECTIVE TEAM MEMBERS?

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In addition to possessing solid skills in their particular professions or occupations, members of your LTBI team should be mature individuals who have experience in working with the target populations and who are comfortable and empathetic with individuals in those groups. In the last pages of this background guide, Table A summarizes the qualities of effective members for the LTBI Team.

## WHAT KIND OF TRAINING AND ORIENTATION SHOULD LTBI TEAM MEMBERS RECEIVE?

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New staff should receive an in-depth orientation to the purposes and protocols of the LTBI program. Typically, the orientation period for a new team member covers approximately the first four months of employment and includes:

- Training-by-immersion in the service environment

- Mentoring by experienced staff members
- Practice under supervision

Training should be an ongoing endeavor to ensure that staff continue to be knowledgeable and up to date in three essential areas:

- Basic knowledge of TB
- The health services system
- Community outreach

In the last pages of this Background Guide, Table B summarizes the essential knowledge needed by members of the LTBI Team.

TABLE A: QUALITIES FOR THE LTBI TEAM

<p>Qualities of effective team members</p>	<ul style="list-style-type: none"> <li>• Experience working with the target populations</li> <li>• Comfort and empathy with the target groups</li> <li>• Sensitivity and ability to relate effectively to people from ethnic, racial, or cultural groups different from one’s own</li> <li>• Ability to relate to and intervene with addicted and mentally ill individuals</li> <li>• An expressed interest in working with the underserved and the urban poor</li> <li>• Good personal boundaries and the ability to perceive when limits are challenged</li> <li>• Skill in communicating effectively with patient groups and co-workers</li> <li>• Willingness to work flexible hours such as early morning or evening hours</li> <li>• If in recovery for addiction, verifiable clean and sober status for a minimum of one year</li> </ul>
<p>Qualities of professional team members  (social workers, physicians, registered nurses)</p>	<ul style="list-style-type: none"> <li>• Ability to organize work and set workload priorities</li> <li>• Experience in working with persons from varied ethnic, racial, or cultural groups and sexual orientations, as well as homeless individuals</li> <li>• Knowledge of the greater health and social services system</li> <li>• Willingness and ability to advocate for the urban poor under care for LTBI</li> <li>• Good leadership and communication skills in working with a diverse team</li> <li>• Experience with communicable disease programs (STD/HIV/TB), or mental health and substance abuse programs</li> <li>• Ability to work flexible hours</li> </ul>



TABLE B: ESSENTIAL KNOWLEDGE NEEDED BY MEMBERS OF THE LTBI TEAM

<p>Basic knowledge of tuberculosis</p>	<ul style="list-style-type: none"> <li>• TB 101 (annual update)</li> <li>• Infection control</li> <li>• Blood-borne pathogen and needle-stick prevention training</li> <li>• Tuberculin skin testing (TST) training</li> <li>• HIV counseling and testing (including use of Orasure)</li> <li>• Hepatitis training</li> </ul>
<p>Health services system</p>	<ul style="list-style-type: none"> <li>• Orientation to all TB Clinic units</li> <li>• Basic knowledge of laboratory and diagnostic procedures, including sputum collection and x-ray</li> <li>• Targeted testing sites</li> <li>• Program policies and procedures, including staff roles and documentation</li> <li>• Primary healthcare services used by target patients</li> <li>• Mental health and substance abuse treatment programs</li> <li>• HIV services in the community</li> <li>• Jail health services and TB program</li> </ul>
<p>Community outreach</p>	<ul style="list-style-type: none"> <li>• Transportation policies (e.g., use of agency vehicles, transport of patients)</li> <li>• Targeted testing concepts</li> <li>• Providing TB education for outside agencies</li> <li>• Frequently accessed community agencies, including homeless shelters, food kitchens, and SRO hotels</li> </ul>

# BACKGROUND GUIDES

## **BACKGROUND GUIDE 2:**

### **CASE MANAGEMENT AND DIRECTLY OBSERVED THERAPY FOR LTBI**

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Case management is an essential part of an effective LTBI treatment program. Using a case management strategy means that the staff works as an interdisciplinary team to facilitate the patient's ability to adhere to a lengthy course of treatment.

The Case Management Society of America defines case management as “a collaborative process which assesses, plans, implements, coordinates, monitors, and evaluates options and services to meet an individual's health needs through communication and available resources to promote quality, cost-effective outcomes.” This approach provides the patient with the strong support he or she needs in order to understand and follow medical recommendations. For patients with TB disease, directly observed therapy (DOT) is an essential component of case management. DOT occurs when a health worker or other medical team member provides each dose of medication directly to a patient, as prescribed by the treating physician. The assigned staff member must observe the patient swallowing each dose and document that this has occurred.

For more than two decades, TB disease has been effectively treated by systematic DOT, which is now considered standard practice. However, the strategy of providing DOT for LTBI has only recently come to the forefront. It is proving to be a useful methodology for reducing the progression to TB disease among high-risk individuals.

#### **WHY ARE CASE MANAGEMENT AND DOT RECOMMENDED FOR THE TREATMENT OF LTBI?**

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Infected individuals who are at highest risk for developing active TB disease often are challenged with difficult life circumstances—such as homelessness, drug or alcohol use, or HIV infection—that can impede their ability to adhere to LTBI treatment. This

difficulty in adherence is especially true if they must self-administer their medication. Case management that includes DOT is considered the best way to address the barriers and challenges these patients face so that they can complete their full treatment course. DOT for LTBI high-risk clients, especially those who are co-infected with HIV or have HIV risk factors, has the potential to dramatically decrease the number of future TB cases.

## WHAT TREATMENT REGIMEN IS PROVIDED TO LTBI PATIENTS?

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To prevent the development of TB disease in individuals who have TB infection, the standard treatment regimen is isoniazid (INH). This medication is given daily or twice weekly for an extended period (for example, six or nine months), depending on such factors as the patient's age and HIV status.

For patients who have contraindications for INH or who are contacts of an individual with INH-resistant TB, rifampin is an alternative for preventive treatment. Refer to the American Thoracic Society and Centers for Disease Control and Prevention guidelines for current treatment recommendations. The Tools section includes a sample copy of the [ATS/CDC Statement: Targeted Testing and Treatment of LTBI](#) guidelines, as well as [Update: Adverse Event Data and Revised ATS/CDC Recommendations Against the Use of Rifampin and Pyrazinamide for Treatment of Latent Tuberculosis Infection](#). To locate additional guidelines or to check for updates, see the CDC listing under the "Internet Resources" section of the [Resource Guide](#) in the Tools section.

A detailed sample from an LTBI treatment program, [NYC DOHMH Protocols for LTBI](#) (Source: New York City Department of Health and Mental Hygiene), is included in the Tools section.

## WHAT ARE THE OTHER COMPONENTS OF THE CASE MANAGEMENT APPROACH?

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An effective LTBI program for hard-to-reach, high-risk LTBI patients requires more than observing and recording medication doses. It often requires the following activities and approaches that are fundamental to case management. Implementing these activities will help patients complete their course of treatment and will increase your program's rate of success.

*Assign each patient to an individual case manager.* A newly enrolled patient is assigned to the caseload of a particular individual on the staff. This case manager has the primary responsibility for establishing a supportive relationship and helping the patient meet the challenges of adherence to treatment. The case manager educates the patient about TB and the importance of treatment, works with him or her to plan when and where to provide doses, and provides a consistent point-of-contact linking the patient with the program.

*Encourage trusting relationships and good communication between patients and staff.* The staff, in particular the case manager, needs to be skilled at both conveying messages to patients and eliciting information from them. Good communication is key to treatment completion and is the primary means the staff has to convey concern and build trusting relationships.

The case manager needs to learn from the patient:

- The patient's understanding of TB infection, treatment recommendations, and reactions to medication
- The patient's beliefs about TB status, appropriate healthcare practices (which vary among cultural groups), and the healthcare system
- Information about his or her medical, psychological, and social needs
- Locating information

In turn, the case manager needs to make sure the patient understands:

- The purpose of the treatment and the importance of completing it
- The staff's expectations of the patient once treatment begins
- The limits to program incentives and other benefits

Since this population of patients can be sensitive to inconsistency in messages, staff members need to be clear on policies and to convey them accurately to patients.

*Back up good patient relationships with clear clinical and administrative protocols.* Well-defined policies and clearly stated written protocols will help the team achieve efficiency, consistency, and fairness in its dealings with patients. This is especially important when you are dealing with patients who are likely to test staff members and “shop around” among staff until they obtain the answers they want. Your policies, guidelines, and procedures need to be clearly communicated to the LTBI team and repeated regularly at staff conferences.

At the same time, it should be understood that flexibility is also essential in dealing with persons in your target groups, and that the good judgment of your team members should be respected.

*Coordinate activities and communicate with staff about patients and problems.* Supervisors and staff members must work together to ensure that the entire team is well informed about the current status of patients, that issues and problems are addressed, that each team member has an adequate caseload, and that all patients are covered if their assigned case manager is absent. The case manager must be able to provide clear and accurate information to other team members who are involved in patient care, such as the identity of:

- The physician who assesses the patient's medical status and prescribes LTBI treatment

- The nurse who prepares treatment doses, monitors medical status throughout the treatment course, and refers the patient as his or her status changes over time
- Other outreach staff, administrative support personnel, and supervisors who should be alerted of any special conditions when the patient comes for care

*Hold regular case conferences.* The most efficient way to keep everyone on the team up-to-date is to schedule case conferences on a regular basis, preferably weekly. The case conference also provides an opportunity for building trust among staff through sharing frustrations and receiving support.

The entire treatment team should attend the case conference, including the physician, nursing staff, outreach staff members, social workers, and the TB control program officer. Choose a non-clinic time for case conference meetings so that as many team members as possible may attend. Every effort should be made for case managers to be present to discuss the patients under their care.

At the case conference, each case manager should update the team on his or her assigned patients. Subjects for discussion include:

- *Problems with individual patients.* If a case manager is experiencing difficulty, the team can offer support and solutions.
- *Location changes.* The team can be brought up to date on who is in jail, who has moved, or who is out of town temporarily.
- *Medical information.* Staff with medical and nursing expertise can help the team learn more about TB diagnosis and treatment, symptoms of adverse reactions to medications, and other medical conditions or co-diagnoses that might complicate LTBI treatment.

- *Social services information.* Social workers can alert the team to benefits, housing, and treatment options available for the patients.
- *Group strategies for outreach, treatment, and scheduling.* For example, the team might use this opportunity to develop a targeted screening schedule for homeless shelters or a TB training for staff of community-based organizations (CBOs).

## HOW IS COMPLETION OF TREATMENT DEFINED?

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Every LTBI treatment program must define treatment completion so that the staff and the patient have benchmarks against which to measure progress toward the agreed-upon goal. The treatment goal is set on an individual basis for each patient according to the physician's decision, based on appropriate standards of care, regarding the regimen and duration of treatment that will be most suitable for that individual. For example, in San Francisco's Tuberculosis Outreach Prevention Services program, typical treatment goals are:

- Completion of 180 daily doses or 52 twice-weekly doses (equivalent to six months of doses) of INH within nine months, *or*
- Completion of 270 daily doses or 76 twice-weekly doses (equivalent to nine months of doses) of INH within twelve months

## HOW CAN YOUR PROGRAM HELP PATIENTS COMPLETE THEIR COURSE OF TREATMENT?

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Because of high-risk lifestyles, the patients receiving LTBI treatment often have difficulty adhering to an ideal course of treatment. It is not necessary to take every dose of prescribed treatment in order to acquire protection from progression to TB. However, the more closely the patient can adhere to the treatment, the more likely it is that he or she will receive an adequate course.

The first step in promoting adherence is to make sure that patients understand the purpose of the treatment, why it is important, and what is expected of them. When the patient begins treatment, and at intervals thereafter, explain what the physician has ordered and ask the patient to repeat back what he or she understands about the medication, the number of doses needed, the length of treatment, the anticipated completion date, and symptoms of adverse reactions. In addition to maintaining close staff-patient relationships, as described above, strategies that LTBI programs have found helpful in increasing adherence include:

- Understanding the realities of the individual patient's daily life
- Offering incentives and enablers
- Making it easier to take treatment, for example, by providing fast-track drop-in dosing or tailored dose administration in the field
- Providing twice-weekly treatment doses, which allow flexibility in days the patient needs to present for treatment. For example:

If the patient has a Monday/Thursday dose schedule but is not available on a particular Monday, he or she can take the dose on Tuesday and still meet the schedule of two observed doses in a week.

Dosing responsibilities can be divided between agencies that work with the patient, so that each week the LTBI program staff provides the medication on one scheduled treatment day (e.g., Monday) and another agency provides it on the next treatment day (e.g., Thursday).

## HOW DO YOU HANDLE PATIENTS WHO MISS APPOINTMENTS?

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Missed appointment can be expected from all but the most highly motivated patients. If a patient fails to come to the clinic for a treatment dose or to present for treatment at an agreed-upon time or place, team members need to take action by documenting



the missed appointment in program records, ensuring that the full team is alerted to the situation and ready to respond, and initiating a search to locate the patient.

In the last pages of this background guide, Table A summarizes the specific steps to be taken in the event of a missed appointment. You should develop protocols for your program to guide decisions about treatment interruptions. Questions to be resolved include:

- What constitutes treatment interruption?
- What conditions will determine whether an interrupted treatment regimen can be resumed or whether the earlier doses should be disregarded and the treatment regimen begun anew?
- How many “re-starts” will be attempted for sporadically adherent patients?
- Under what circumstances will the program abandon efforts to have a particular patient complete his or her treatment regimen?

**REMEMBER:** Helping patients adhere to treatment is a group responsibility. Everyone must work together when helping patients throughout the healing process. (Adapted from San Francisco Department of Public Health, Tuberculosis Control Section.)

TABLE A: AN INTERDISCIPLINARY APPROACH TO ADDRESSING NONADHERENCE

<p>Anytime a dose is missed</p>	<p>All team members should:</p> <ul style="list-style-type: none"> <li>• Ask the patient what happened and record the reason for missed dose</li> <li>• Encourage the patient to adhere to treatment by motivational counseling and problem solving</li> </ul>
<p>When a patient misses one dose</p>	<p>The case manager and/or appropriate team members should:</p> <ul style="list-style-type: none"> <li>• Document the missed dose in the clinic records</li> <li>• Phone or otherwise contact the patient, reminding him or her to come into the clinic</li> <li>• Contact the patient with a second reminder if he or she fails to appear within a reasonable time (define this time interval in your program protocols)</li> <li>• If the patient misses a second deadline to appear or was scheduled to have a dose delivered and did not present for treatment, attempt to redeliver the dose to the patient</li> <li>• Make necessary adjustments in incentives and enablers</li> </ul>
<p>When there has been no communication and the patient misses the second consecutive dose</p>	<p>The case manager and/or appropriate team members should:</p> <ul style="list-style-type: none"> <li>• Attempt to make a delivery and, if possible, find out the reason why the patient is not adhering to treatment or honoring his or her contract for incentives and enablers</li> <li>• Initiate a search, using the locating information obtained when the patient enrolled:             <ol style="list-style-type: none"> <li>1. Phone, send letters, or make home visits to known places of residence</li> <li>2. Contact relatives and friends, if known</li> <li>3. Check with:                 <ul style="list-style-type: none"> <li>– Places where the patient is known to hang out</li> <li>– Shelters, soup kitchens, or other facilities the patient is known to use</li> <li>– Other programs or agencies that work with the patient (HIV program, parole officer, etc.)</li> <li>– Jails, if the patient has a history of incarceration</li> <li>– Hospitals, if patient has significant risk factors for hospitalization</li> </ul> </li> </ol> </li> </ul>

# BACKGROUND GUIDES

## **BACKGROUND GUIDE 3: THE PATIENT-CENTERED PHILOSOPHY**

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A program based on a patient-centered philosophy focuses on meeting the needs of patients where they are. It operates on the assumption that when patients are unable to adhere to treatment, the first step must be to examine services from the patient's perspective to see how activities can be modified to serve them better.

The patients at highest risk for TB have needs, interests, attitudes, and behaviors that may run counter to your program's purpose and goals. LTBI treatment is likely to be very low on their priority list, particularly since it addresses a condition that has no obvious symptoms and has not yet made them sick. If you are to succeed in enrolling them in your program's agenda, you must put their needs and interests first.

Doing this means acknowledging, understanding, and accepting the realities of their lives. It means setting aside judgment, tailoring your services to accommodate their situations, and working with patients to take small steps that can improve their health and their lives.

A patient-centered philosophy is expressed not in your words but in your activities and in the design of your service delivery. It encompasses eight key strategies:

1. Knowledge and understanding of the highest-risk populations in your jurisdiction
2. Services that are located where they are accessible and convenient to patients
3. Culturally acceptable care
4. A nonjudgmental attitude toward transient lifestyles
5. A harm reduction approach
6. The use of incentives and enablers

7. The use of proven low- or no-cost adherence strategies
8. Provision of essential services beyond TB treatment

While it may not be feasible for every LTBI program to encompass each of these strategies in its entirety, an effective program will incorporate important aspects from each of the eight.

The strategies are described in the sections that follow and suggestions are given to help you in implementing them. The tables referred to in the text will be found at the end of the appropriate section.

## 1. KNOWLEDGE AND UNDERSTANDING OF THE HIGHEST-RISK POPULATIONS IN YOUR JURISDICTION

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To provide patient-centered services, it is essential to understand who the patients are and what they need from the TB program.

*Find and analyze information on the highest-risk populations.* Staff members need to locate and evaluate available information about the highest-risk populations in your jurisdiction. To obtain the information, consult such sources as:

- Epidemiology reports about TB cases, case rates, and geographic distribution within the city or county
- TB case reports
- Hospital admissions data
- Patient data from community health and social service providers
- Client data from agencies serving foreign-born individuals

*Develop a list of organizations and agencies likely to encounter your target population.* You should develop a working relationship with community gatekeepers such as community and social agencies that serve the population of concern. These agencies are likely to have valuable information about your patients. Several agencies may work with the same individuals but each one will have differing and valuable perspectives on clients' situations and needs. In the last pages of this background guide, Table G suggests the kinds of organizations your agency might investigate.

*Develop a profile of your target populations.* When you have gathered the relevant information, you can develop a profile of the hard-to-reach populations in your jurisdiction and determine where a targeted outreach effort would be efficient and cost-effective. The profile should answer such questions as:

- Who are the target patients? What are their demographic characteristics?
- What defines them as high-risk and hard to reach?
- What neighborhoods do they reside in or frequent?
- Where (at what kinds of places) do they eat, sleep, and conduct their daily activities?
- Where do they receive services?
- What barriers do they encounter to receiving services?
- What other health issues do they have that need to be addressed?

*Use the opportunity to build partnerships.* Don't lose sight of the longer-term objective of building partnerships with others who are also serving these same populations. While you search for target groups, inquire about ongoing TB screening or health related efforts by other agencies in the community.

## 2. SERVICES LOCATED WHERE THEY ARE ACCESSIBLE AND CONVENIENT TO PATIENTS

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The hallmark of a patient-centered approach to TB services is its flexibility and willingness to go to where the patient is. This means that TB testing and treatment can be provided in an environment that the patient finds accessible and comfortable.

The TB program staff must be familiar with the neighborhood(s) frequented by the target populations for two reasons. First, staff need to feel comfortable and safe as they move about the neighborhood seeking patients. Second, their proximity to the patients will help them assess any changes in the patients' daily environment. That will enable them to act to mitigate any detrimental effect that the changes might have on patients' willingness or ability to be screened or treated.

*Choose appropriate location(s) for service delivery.* Where to locate services is a crucial decision for the success of an LTBI treatment program. To give you the greatest chance of reaching patients or having them keep appointments, and encouraging them to adhere to recommendations, you will want to select a site that is:

- In a neighborhood familiar and comfortable to the target population
- Close to other frequently accessed services, such as food kitchens, low-cost hotels, shelters, or street camps
- On a main street, accessible by walking, where anonymity and safety are enhanced
- Near major bus or subway lines
- Accessible to frequent-referral primary healthcare agencies and social services

*If your program has limited resources, explore forming partnerships with community agencies.* Partnerships can produce creative arrangements for sharing space with other groups that serve the same high-risk populations, such as mental health, substance abuse, or social service agencies; community clinics or healthcare facilities; churches; or food bank programs. These agencies and organizations might provide a physical site location for testing, and they also can lend legitimacy and credibility to the TB program staff activities. In arranging to share space, it is important to make testing and treatment as accessible to the patient as possible while causing minimal disruption to activities of the collaborating facility. In the last pages of this background guide, Table A suggests the kinds of organizations and spaces that your program might investigate.

*Consider a mobile location rather than a stationary one.* A mobile unit, such as a specially outfitted van, can be taken into multiple neighborhoods following a regular schedule in each place. By making efficient use of staff and other resources, the unit can effectively expand the reach of an LTBI program.

*Make your staff aware of safety issues.* When working in the neighborhoods and environments in which the hardest-to-reach LTBI patients reside, health workers may face unsafe conditions and situations. Verbal and physical abuse are potential occupational hazards in a treatment program targeting those living in urban inner-city neighborhoods or other environments frequented by socially marginalized individuals.

It is vitally important that staff be trained to understand and stay alert to personal safety issues when in the TB clinic and in the field. Health workers and outreach workers can become desensitized to a potentially hazardous environment and supervisory staff must be heedful of this possibility. Your program should develop, communicate, and reinforce protocols to ensure staff safety. In the last pages of this background guide, Table B summarizes essential safety practices.

*Design your space to provide for the needs and comfort of patients and staff. A well-designed clinic space can contribute to higher levels of patient adherence and staff retention. In the last pages of this background guide, Table C details the kinds of spaces that would ideally be planned for and accommodated in an LTBI clinic site.*

### 3. CULTURALLY APPROPRIATE CARE

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Every patient brings into encounters with the TB program a unique set of attitudes, values, beliefs, knowledge, and understanding. These characteristics have been gained from his or her personal experiences, cultural background, family, friends, and social environment. Such factors affect how the patient regards healthcare issues and responds to the requests and recommendations of providers. Likewise, each provider brings his or her own set of attitudes, values, beliefs, knowledge, and understanding to the patient-provider relationship and these may create barriers to care. By providing culturally appropriate care, you increase the likelihood that your patients will comprehend what your program is trying to accomplish and that they will feel that complying with what you ask is in their best interest.

#### **What does culturally appropriate care mean?**

Culturally appropriate care typically means care that takes into account a patient's cultural, ethnic, or language background. These factors certainly apply when you are working with high-risk patients, but in that case the concept of culturally appropriate care expands beyond those parameters. The psychological, social, and economic subsets to which your patients belong have their own distinctive cultural characteristics—beliefs and behaviors common to persons in those particular groups.



## What can your program do to provide culturally appropriate care?

*Conduct initial and ongoing individual assessments.* These assessments should concern the patient's:

- Cultural, ethnic, and linguistic background
- Psychological, social, and economic characteristics
- Educational level and ability to comprehend the information that your program will provide
- Level of knowledge about TB
- Beliefs about TB and his or her risk from latent TB infection
- General beliefs about health, disease, and the healthcare system
- Informal self-care practices
- Connections with culturally relevant agencies and organizations

*Provide language-appropriate services to the extent possible.* Ideally, the TB team members represent a variety of language and cultural groups and can work effectively with patients of diverse backgrounds. While it is not always feasible to achieve this ideal, your team should be prepared to handle the needs of patients from the most significant segments of your target populations. To locate more detailed information, refer to the "Foreign Language Patient Information Resources" section of the [Resource Guide](#) included in the Tools section.

*Make non-English information available to those who need it.* If a patient does not speak English and there is no one on staff who speaks the native language, it is important to find trained interpreters or hire staff who can provide education about TB and LTBI in the patient's native language. Foreign language pamphlets on these topics can be obtained from the CDC and other

programs. To locate more detailed information, refer to the “Cultural Competency” section of the Resource Guide included in the Tools section.

*Be cautious about making assumptions about a patient’s language or culture.* Don’t assume that everyone in a given group speaks the same language. Individuals within a group or category may have very different degrees of acculturation as well as different language skills and preferences.

*Develop a resource bank of culturally appropriate services.* Make referrals to agencies that can provide suitable services. Survey organizations and agencies in your area to determine which language and cultural groups they are best equipped to serve.

*Assess the literacy level of both the patient and the materials available.* Even with patients who primarily speak English, your team must be sensitive to variations in their reading ability and educational level so they can provide appropriate materials. Pamphlets and visual aids should be readable and visually uncomplicated. There are low-literacy level materials available. To locate more detailed information, refer to the “Low Literacy Materials” section of the Resource Guide included in the Tools section.

#### 4. A NONJUDGMENTAL ATTITUDE TOWARD TRANSIENT LIFESTYLES

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An awareness of transient lifestyles and a nonjudgmental attitude toward them are essential for outreach team members. Many high-risk patients who receive treatment for LTBI are homeless or have unstable living arrangements. The goal of keeping patients involved long enough to complete appropriate LTBI treatment should be inherent in the mission of the TB team.

*Obtain and maintain accurate locating information.* No matter where you locate your services, obtaining detailed patient locating information is critical. It is important to know where your patients can be found. Even homeless patients often have daily

routines and activities that take them consistently to certain locations. At the first encounter, staff should obtain details about:

- Names and addresses of family members, relatives, and friends
- Places where the patient reports “hanging out” most often
- Shelters, agencies, and organizations where the patient stays or obtains food and services

Finding transient patients often requires a lot of detective work. As staff members search for individuals, good locating information will minimize their frustration. Be aware, though, that people are often reluctant to give out this sort of information. It will help if your staff can develop a high tolerance for common problems like being given wrong addresses and false locating information.

*Always confirm agreements with patients about where they do and do not prefer to receive treatment.* If your staff are able to meet the patient at locations of his or her choosing, adherence to treatment is more likely.

*Remember that homelessness is episodic for most people.* This awareness is crucial for good outreach work with high-risk patients who often move in and out of homes, shelters, hotels, street locations, and back again. Be sure to update locating information often.

*Develop relationships with persons who are in contact with patients.* It is worthwhile whenever possible to make allies of persons who know a patient or might control access to him or her. Building these relationships can require persuasive skills, patience, and adaptability, but the effort can pay off later when TB staff members are searching for the patient.

Potential allies can include:

- Friends and relatives of the patient
- Staff or “gatekeepers” at single-room-occupancy (SRO) hotels, shelters, or other housing options
- Social workers or staff at social services programs that have dealt with the patient
- Staff at food pantries/distribution sites

## 5. HARM REDUCTION-BASED PHILOSOPHY

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Patients in the high-risk, hard-to-reach categories that are the targets of your LTBI program may use drugs or engage in other behaviors that healthcare providers may consider harmful. While such behaviors can interfere with LTBI treatment, changing them is extraordinarily difficult even when patients and providers are strongly motivated. Your program has a better chance to succeed if it embraces the harm reduction approach.

### **What is meant by harm reduction?**

Harm reduction is a philosophy and a set of practical strategies that encourage any positive change in a patient’s health status even if the patient is making other life choices that could have a negative impact. This philosophy has been used successfully in many types of healthcare programs, most notably in HIV prevention.

In a harm reduction–based TB program, the focus is on the goal of adherence to and completion of treatment. Services are provided regardless of whether a client abstains from or participates in substance use or other harmful behaviors. Impacting or changing the patient’s life choices is not considered

relevant to the treatment goal and, therefore, such choices are only addressed to the extent that they actively prevent the client from completing a full course of medication. While the patient may be offered help in making a desired behavior change, access to a drug treatment program for example, there is no expectation or requirement attached to the offer.

A harm reduction model of TB service requires staff to:

- Accept without judgment a client's decision to use alcohol or other drugs or to participate in other harmful behaviors
- Treat each client with respect at all times
- Maintain a nonjudgmental attitude toward the client's long-term goals regarding substance use or other high-risk behaviors
- Prioritize the setting of immediate and achievable goals for treating LTBI and providing access to other needed healthcare

TB programs can follow these recommendations and still maintain clear rules and guidelines around clients' use, sale, and possession of drugs and alcohol on-site. However, tolerance for the realities of substance use and abuse is essential for successful treatment of LTBI in high-risk individuals.

### **How can your program incorporate the harm reduction approach?**

*Understand the principles of harm reduction.* Because harm reduction demands that interventions and policies designed to serve drug users reflect specific individual and community needs, there is no universal definition of or formula for implementing harm reduction. However, the Harm Reduction Coalition considers several principles central to harm reduction practice. In the last pages of this background guide, Table D summarizes these principles.

*Reinforce team values that embrace harm reduction.* Remember that an individual can complete treatment for LTBI without abstaining from harmful

behaviors, including substance abuse. The TB program team should realize that many patients may consider getting high on drugs more important than taking the TB medications. The team can support the patient in adhering to the course of treatment without supporting, condoning, or condemning other behaviors or activities.

*Expect patients to be inconsistent.* Patients will vary from day to day in their behaviors, moods, attitudes, and degree of acceptance of outreach staff members. The staff needs to be extraordinarily consistent in response. Even among those who respond positively to offers of access to drug or alcohol treatment, relapse is common.

*Do not tie treatment of LTBI to a goal of drug treatment or abstinence.* Your program's goal is to have patients complete LTBI treatment. When this occurs, it is a significant accomplishment and, in and of itself, is beneficial for the patient.

*View the LTBI treatment course as a window of opportunity.* The regimen may allow an individual patient to make healthier lifestyle choices in time. Whenever possible, offer counseling, social services, and a continuum of choices that promote change but do not require or expect the change necessarily to occur.

## 6. THE USE OF INCENTIVES AND ENABLERS

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The hard-to-reach urban populations who live in transient housing and/or cope with mental health and substance abuse issues often have unmet basic needs for food, shelter, clothing, transportation, and healthcare. The TB program can assist patients in satisfying these needs as part of a larger effort to improve their health status and social functioning. Such assistance frequently is provided in the form of incentives and enablers, which have been shown to be extremely effective in motivating patients to adhere to treatment.

## What are incentives and enablers?

*Enablers* are intended to increase the patient's ability to adhere to the prescribed treatment by providing assistance to complete medically-related tasks, while *incentives* provide extra motivation to patients to maintain adherence through a long course of treatment for LTBI.

At times the distinction between incentives and enablers blurs or even disappears. What is an enabler for one individual may be an incentive to another. Certain assistance (for example, a monthly bus pass) might be considered both an incentive and an enabler. In the last pages of this background guide, Table E lists a number of effective incentives and enablers, which may include assistance with food, transportation, or other subsistence issues.

## How can you make the best use of incentives and enablers?

*Identify your patients' unmet needs.* Incentives and enablers work best when they meet a person's real needs or serve his or her interests. In the process of developing a profile of your target populations, collect information on their needs to determine what forms of assistance would be most likely to motivate the behavior you seek; that is, getting tested or treated for LTBI.

*Research and identify the incentives and enablers most applicable to your program.* Base your choices on their pros and cons, taking into consideration such factors as:

- Do they meet a need for the patients in question?
- Are they feasible for your program, given their requirements in terms of cost, staff time, location, or demands on resources?
- Can they be provided in whole or in part by community partners?

*Enlist community partners to help through providing incentives and enablers for some of these needs. Partners may be able to donate goods, offer discounts, provide services, or connect patients with programs. For more detailed information please refer to [Background Guide 4](#).*



## TABLE A: POSSIBLE SITES FOR LTBI TESTING AND TREATMENT

Define spatial requirements, frequency of use, size and characteristics of populations served, privacy needs, program strategies, and testing and treatment requirements. Then consider which of the following site options might work for your program:

- Establish a physical location for the program in donated space in the facilities of the partner organization
- Rent space from an established agency or organization at below-market rates
- Arrange to provide LTBI testing and treatment services on the partner organization's premises at certain specified times daily or weekly
- Locate services in shelters that are free of clients during daytime hours
- Provide on-site testing at shelters, low-cost hotels, and food kitchens. Many shelters require "TB clearance" for shelter residents at specified intervals and welcome assistance in meeting this requirement
- Collaborate with community clinics and healthcare facilities on tuberculin skin testing (TST) of the targeted populations by training providers about TST, furnishing TST supplies, and offering TB program staff assistance
- Enlist organizations that patients frequent (such as food kitchens, shelter sites, or community clinics) to provide space and opportunity for directly observed therapy (DOT) doses. Staff members may be willing to help observe doses or deliver messages to patients
- Investigate partnerships with less traditional locations (such as churches or day-care centers) that host 12-step meetings or serve other community needs

TABLE B: APPROPRIATE SAFETY PRACTICES FOR THE LTBI TEAM

<p>In the field</p>	<ul style="list-style-type: none"> <li>• Travel in pairs and use a “buddy system”</li> <li>• Leave word at the clinic on visits planned, including estimated time of return</li> <li>• Obtain clear directions or locate your destination on a map before embarking for an unfamiliar destination</li> <li>• Appear to “know where you are going” and pay constant attention to the environment when moving by car or on foot</li> <li>• Become familiar with the area’s “safe havens,” such as police stations or institutions where help can be obtained if needed</li> <li>• Avoid areas known to be active drug markets</li> <li>• Avoid going to neighborhoods at times when they are known to be most dangerous</li> <li>• Share with your “buddy” any observations or nonverbal cues indicating that a particular environment or encounter is not safe and support each other in moving out of the situation</li> <li>• Be alert to changes in the community that may impede staff’s ability to continue working there safely</li> <li>• Discontinue the dose administration attempt in that place if the staff member feels uncomfortable for any reason</li> </ul>
<p>In the clinic or office</p>	<ul style="list-style-type: none"> <li>• Develop a system for keeping track of staff members' whereabouts while they are carrying out their LTBI program responsibilities</li> <li>• Institute a tracking system for program vehicles</li> <li>• Set up mechanisms for reporting safety concerns and taking quick actions to address them</li> <li>• Ensure that the LTBI team communicates about safety issues at daily staff sessions or weekly case conferences, exchanging experiences, information, and creative methods that will help ensure the staff’s safety</li> </ul>

TABLE C: SPACES IN AN LTBI CLINIC

<p>Public spaces</p>	<p><b>Waiting room</b> This space does not need to be large if the program has a “fast track” method of dealing with patients, seeing individuals as soon as possible after arrival.</p> <p><b>Private examination or counseling rooms</b> These rooms are used for LTBI treatment doses, lab work, HIV or STD counseling and testing, physician and nurse evaluations, and social work consultations. Patients should have the opportunity to ask for a private space during their visit.</p> <p><b>Restroom</b> For patient use.</p>
<p>Staff spaces</p>	<p><b>Office space</b> Staff members need their own desks in office space away from the patient care area. Privacy is needed for phone calls and charting. If modular office space is created, there should be a private room available for staff phone calls.</p> <p><b>Kitchen facility</b> For staff use and preparation of patient food incentives.</p> <p><b>Break space</b> For staff breaks.</p> <p><b>Conference room</b> For staff conferences and meetings.</p>

TABLE D: PRINCIPLES OF HARM REDUCTION

- Accept that licit and illicit drug use is part of our world and choose to work to minimize its harmful effects rather than simply ignoring or condemning it
- Understand drug use as a complex, multifaceted phenomenon that encompasses a continuum of behaviors from severe abuse to total abstinence and acknowledge that some ways of using drugs are clearly safer than others
- Establish quality of individual and community life and well-being—not necessarily cessation of all drug use—as the criteria for successful intervention and policies
- Call for the nonjudgmental, noncoercive provision of services and resources to people who use drugs and the communities in which they live in order to assist them in reducing attendant harm
- Ensure that drug users and those with a history of drug use routinely have a real voice in the creation of programs and policies designed to serve them
- Affirm drug users themselves as the primary agents of reducing the harms of their drug use and seek to empower users to share information and support each other in strategies which meet their actual conditions of use
- Recognize that the realities of poverty, class, racism, social isolation, past trauma, sex-based discrimination, and other social inequalities affect both people’s vulnerability to and capacity for effectively dealing with drug-related harm
- Do not attempt to minimize or ignore the real and tragic harm and danger associated with licit and illicit drug use

TABLE E: EFFECTIVE INCENTIVES AND ENABLERS FOR HIGH-RISK TB PATIENTS

<p>Food to supplement daily nutrition</p>	<p>Lunch bags Low-cost alternative: obtain food donations from local merchants, bakeries, restaurants, or large grocery outlets.</p> <p>Fast-food coupons Low-cost alternative: arrange with fast-food chains for discounted or donated coupon; some chains offer these to programs that serve the poor.</p> <p>Grocery coupons Coupons should allow patients to buy groceries and cooked or ready-to-eat items. They cannot be used for alcohol or cigarettes.</p> <p>Restaurant meals \$5.00 or more.</p> <p>Note: many cities have food pantry programs that allow community programs to access food for distribution to clients or patients at very low cost.</p>
<p>Transportation assistance</p>	<p>Bus tokens Low-cost alternative: see if your city provides free tokens to patients receiving care.</p> <p>Monthly bus pass Low-cost alternative: help disabled patients access local, state, or federal transportation programs for which they are eligible.</p> <p>Taxi vouchers For emergency access to care.</p> <p>Car transportation TB staff may provide care transportation for patients going to clinical appointments or emergency care. Liability issues should be investigated for such cases.</p>
<p>Other subsistence issues</p>	<p>Housing or housing subsidies During treatment period.</p> <p>Prepackaged doses of LTBI medications For weekends or short trips.</p>

TABLE E (continued)

Other subsistence issues	<p>Arrangements to receive DOT in another jurisdiction For short trips.</p> <p>Clothing or shoes vouchers Low-cost alternative: work with thrift stores or clothing banks.</p> <p>Cash \$5-10 per week of treatment. Should be reserved for highest-risk patients who fail to adhere with other incentives.</p> <p>Social worker available to patient Low-cost alternative: team up with a social worker from another program to provide on-site service 1–2 days a week.</p>
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TABLE F: LOW- AND NO-COST ADHERENCE STRATEGIES THAT WORK

<p>Confidentiality</p>	<ul style="list-style-type: none"> <li>• Inform patients that interactions and communications are confidential</li> <li>• Ask each patient where the best place is to find him or her, where he or she wants to receive medications, and where program staff should not approach</li> <li>• Offer the clinic setting or office as the most private location</li> <li>• Talk to individuals behind closed doors, out of the waiting area where other people could enter and overhear</li> <li>• If a patient lives in housing where there is often illegal drug use or violence, negotiate a safe environment nearby for dosing appointments</li> </ul>
<p>Communication</p>	<ul style="list-style-type: none"> <li>• Encourage staff to be aware of their personal habits of speech and nonverbal communication as a means to improve communication</li> <li>• Refrain from any remarks which may be perceived as condescending or judgmental</li> <li>• At each encounter, convey an attitude of acceptance and respect to the patient by using appropriate tone, words, and gestures</li> <li>• Model appropriate language regarding TB infection and TB medications. Use the term “TB infection” not “TB” and indicate that medications are a means of preventing future disease</li> <li>• At intervals, reassess what the patient understands regarding his or her infection and treatment</li> <li>• Avoid “you” statements which can be perceived as judgmental or insulting. Instead, use “I” or “we” statements</li> <li>• Alert clients to the risks of mixing alcohol with INH, then inquire about alcohol use before suggesting strategies for decreasing or eliminating alcohol use</li> <li>• Never use ultimatums or threats with a patient, no matter how many times the patient may fail to follow through with expected behavior</li> <li>• Reassure patients whenever doubts about confidentiality arise</li> </ul>
<p>Patience</p>	<ul style="list-style-type: none"> <li>• Give each patient sufficient time, even when you are feeling rushed. Allow patients time if they need to tell you about their problems</li> <li>• Expect to search for individuals, realizing that you may need to go to them</li> </ul>
<p>Acceptance</p>	<ul style="list-style-type: none"> <li>• Understanding that a patient may project frustrations and anger about daily worries onto the TB program staff during a given encounter. Anger about having LTBI infection may come out unexpectedly and may be expressed in hostile remarks to staff</li> </ul>

TABLE F (continued)

<p>Flexibility</p>	<ul style="list-style-type: none"> <li>• Understand that a patient may be calm one day and then angry and upset the next</li> <li>• Be willing to adapt in order to get a patient to take each dose</li> <li>• If a patient is involved in something private (even a drug sale), come back later</li> <li>• Realize that each day in the field is different. Encourage staff to have realistic expectations and to be prepared for unexpected occurrences</li> </ul>
<p>Trust</p>	<ul style="list-style-type: none"> <li>• Recognize that the patient needs to trust the staff member and that building trust takes time and repeated encounters</li> <li>• Keep in mind a long-range vision. A patient's behavior at any one encounter is not as important as building a relationship that leads to an adequate pattern of treatment doses</li> <li>• Recognize that the TB program may be the patient's entry to the healthcare system. Trust in the TB staff can lead to needed care for other health problems</li> <li>• Prepare staff members for the attachment and emotional connection to patients that can develop, given the length of treatment. Allow time to discuss emotional upheavals with the TB team</li> </ul>
<p>Consistency</p>	<ul style="list-style-type: none"> <li>• Explain to patients that they may be assigned one or another staff member for case management purposes, but any staff may work with them on a given day</li> <li>• Be aware of individual patient beliefs, fears, and stereotypes, and be willing to assign staff to facilitate treatment</li> <li>• Encourage staff to do their best to keep agreements and to be where they have said they will be</li> <li>• Be willing to look for the patient if an appointment is missed</li> <li>• Listen to problems that the patient is facing and assist when possible</li> </ul>
<p>Setting limits</p>	<ul style="list-style-type: none"> <li>• Set clear guidelines, procedures, and decision-making authorities with regard to the giving of incentives to patients and be consistent in implementing them</li> <li>• Inform all staff members about what it is possible for the program to do and how to refer requests for housing, shelter, treatment, etc. to the appropriate staff</li> <li>• Encourage consistency in complying with patient requests. Develop and communicate team norms about such issues as transporting patients in program vehicles. Recognize that patients will test limits at every level</li> </ul>



TABLE F (continued)

Setting limits	<ul style="list-style-type: none"><li>• Be aware that “staff splitting” can occur when a patient receives inconsistent messages from various staff members</li><li>• When confusion or attempts at manipulation arise, deliver a clear “no, sorry” in a matter-of-fact fashion while restating limits</li></ul>
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TABLE G: LOCAL ORGANIZATIONS AND AGENCIES

Populations	Organizations or Agencies
Homeless or marginally-housed persons	<ul style="list-style-type: none"> <li>• Local homeless shelters</li> <li>• Missions</li> <li>• Churches in inner-city areas</li> <li>• Food kitchens and food banks</li> <li>• Social services agencies</li> </ul>
Current or recent people with drug or alcohol addictions	<ul style="list-style-type: none"> <li>• Detox programs</li> <li>• Short- and long-term treatment programs</li> <li>• Voluntary and court-ordered programs</li> <li>• Halfway houses</li> <li>• Police/community service programs that provide crisis pick-up and sleep-off services</li> <li>• Harm reduction programs (such as drop-in centers or needle exchange programs)</li> </ul>
People with recent corrections experience	<ul style="list-style-type: none"> <li>• Parole staff</li> <li>• Local jail and prison health care providers</li> <li>• Halfway houses</li> <li>• Public health liaison staff</li> </ul>
Undocumented foreign-born persons	<ul style="list-style-type: none"> <li>• Agencies serving urban migrants</li> <li>• Food services or shelters serving specific ethnic groups or neighborhoods</li> <li>• Missions which target specific language or ethnic groups</li> <li>• Day laborer programs</li> </ul>
Mentally ill/dual diagnosis persons	<ul style="list-style-type: none"> <li>• Community mental health agencies</li> <li>• Social services with case management functions</li> <li>• Day treatment programs</li> <li>• Local psychiatric emergency services</li> <li>• Homeless shelters</li> </ul>

Check with city and county public health programs and local service agencies for resource guides that may direct you to assistance in locating members of your target populations.

# BACKGROUND GUIDES

## **BACKGROUND GUIDE 4:**

### **PROACTIVE COLLABORATION WITH OTHER COMMUNITY PROVIDERS**

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Conducting outreach in any community can be challenging. It often requires providing a multitude of services to a diverse population over a large geographic area and each of those conditions carries its own set of often hard-to-meet demands.

One strategy for addressing the challenges is to join forces with other agencies that have goals in common with yours or that serve clients with similar needs. Collaborations and partnerships can be especially effective when you are serving clients who have multiple diagnoses or are contending with other difficult issues such as HIV, homelessness, mental illness, substance abuse, or involvement with the criminal justice system.

Community partners can assist each other in many ways. For example, partners might provide space in which to deliver services, facilitate outreach to particular individuals or groups, give access to helpful databases, offer technical assistance, or furnish incentives and enablers to help patients adhere to LTBI treatment. In return, you can supply similar services to them.

#### WHAT BENEFITS DO YOU GAIN WHEN YOU COLLABORATE WITH COMMUNITY PARTNERS?

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The specific advantages of collaboration will depend on the type of organization selected as a partner and the capacities and requirements that each partner brings to the table. These can include:

*Cost-effectiveness.* By sharing resources, each partner may be able to leverage their resources more effectively and lower individual program costs.

*Credibility.* You will gain credibility with your prospective clients when you are allied with organizations they already trust.

*Increased referrals to your program.* Through their programs, partners may have access to high-risk clients who need testing or have been identified as having LTBI and may increase their ability to influence them to participate in TB testing or treatment.

*Expert assistance in reaching your target clients and providing them services.* You will be able to tap the knowledge and experience of your partner's staff in working with clients. For example:

- Identifying, locating, and providing outreach to members of your target groups
- Addressing issues affecting your clients, such as substance abuse or lack of housing
- Providing culturally acceptable services to individuals who have particular ethnic or cultural backgrounds or who belong to other kinds of groups with shared attitudes, beliefs, and behaviors

*Increased community awareness of TB issues.* Collaborations open up opportunities to educate the staff and clients of other programs about TB and the importance of treatment.

*Seamless services for clients.* Seamless services are services offered to an individual client by multiple agencies in an integrated way and often in one location. Frequently the client perceives no distinction among the agencies providing the services. The more convenient it is to obtain services, the more willing clients are to accept them. The result is fewer gaps in services and fewer clients lost to follow-up.

## WHO ARE POTENTIAL PARTNERS FOR COLLABORATION?

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To identify likely partners, consider who else in your community serves the target population. Possibilities may include:

- Methadone programs
- Homeless shelters
- Social service providers or service centers
- Community clinics
- Substance abuse treatment centers (inpatient and outpatient)
- Needle exchange programs
- Food pantries or meal programs
- Correctional facilities
- HIV/AIDS service providers

After you have listed the possibilities, assess the potential benefits and drawbacks of each. What will each program gain? What will be the advantages to your clients and theirs? What will be the costs, financial or otherwise? How do your needs and strengths mesh with those of your candidate organization? A good collaboration has synergy—one partner's needs are complemented by what the other can provide and the combined endeavor is larger than the sum of its parts. Determining which agency to work with can be a complex task and you may need to re-evaluate your choices as the process evolves.

Once you have identified a prospective partner, approach the organization to explain the LTBI program, propose the collaboration, and begin preliminary discussions of the possibilities.

## WHAT ARE THE KEYS TO A SUCCESSFUL COLLABORATION?

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A successful collaboration provides something of value to all of the participating partners. It allows each of them to expand their reach and accomplish goals that would be difficult to achieve alone.

*A clear understanding of your own needs and expectations.* It pays to take time at the outset to assess what your reasons are for participating in a collaboration, what you hope to gain, and what your organization has to offer that can benefit potential partners. If you are fully aware of what you bring to the partnership and what you would like to get from it, your chances for satisfaction and success increase dramatically.

*Trust and credibility among the collaborating agencies.* These qualities are the cornerstone of a successful relationship. Achieving trust can be a lengthy process but is a worthwhile investment of time. Be upfront and straightforward about your issues and concerns and encourage your partner to do likewise.

*Agreement on goals, roles, and responsibilities.* For a collaboration to work well, the participants must work together to carefully define their mutual goals for the joint effort and agree upon the roles and responsibilities of each party. Refer to the last pages of this background guide, Table A, for a list of objectives to consider when building relationships with community partners.

*A sound evaluation process.* With your partners, decide what criteria you will use to declare the collaboration a success or failure and determine how the results of the evaluation can be incorporated into improvements in the program. You might wish to consider establishing a trial period for the collaboration. When the trial period is concluded, you can evaluate the arrangement and either terminate or continue the partnership.

*Written documentation of all the terms and conditions to which the partners have agreed.* Outline all the decisions made in setting up the collaboration, including the goals,

roles, and responsibilities of each partner, in an interagency agreement or memorandum of understanding (MOU). An easily modifiable template, MOU: Infectious Disease Screening, is included in the Tools section. This ensures that all partners are clear from the outset about their mutual expectations, reduces the chance of future misunderstandings, and provides the foundation for a harmonious and productive relationship.

TABLE A: BUILDING A SUCCESSFUL WORKING RELATIONSHIP WITH COMMUNITY PARTNERS

<p>Goals and desired outcomes</p>	<ul style="list-style-type: none"> <li>• What does each partner bring to the collaboration?</li> <li>• What does each partner hope to gain from working together?</li> <li>• What are the potential costs and benefits to the programs and the clients?</li> <li>• What are the specific program objectives to be attained?</li> </ul>
<p>Program parameters</p>	<ul style="list-style-type: none"> <li>• What is the scope of services that will be offered?</li> <li>• How, when, and where will the services be delivered?</li> <li>• Which clients will receive services? Are all clients eligible or are there criteria that must be met?</li> </ul>
<p>Roles and responsibilities</p>	<ul style="list-style-type: none"> <li>• Who will be responsible for each component? <ul style="list-style-type: none"> <li>– Scheduling</li> <li>– Staffing</li> <li>– Assessing client eligibility</li> <li>– Coordination and monitoring</li> <li>– Intake</li> <li>– Documentation</li> <li>– Provision of services</li> <li>– Evaluation</li> </ul> </li> <li>• How will funding and financial responsibilities be handled? Which partner will be responsible for which costs?</li> <li>• How will communication be handled between agencies? Who will be the day-to-day contacts?</li> <li>• Who will have decision-making powers? How will changes be made to protocols or agreements?</li> <li>• What are the consequences if responsibilities are not met?</li> <li>• How will overlapping program boundaries or “turf issues” be resolved?</li> </ul>
<p>Evaluation</p>	<ul style="list-style-type: none"> <li>• Will there be a trial period? If so, for how long?</li> <li>• What criteria will be used to declare the collaboration a success or failure?</li> <li>• How will evaluation results be incorporated into the program?</li> </ul>



# CASE STUDY 1

## **THE SAN FRANCISCO MODEL: TUBERCULOSIS OUTREACH PREVENTION SERVICES (TOPS)**

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

- Providing DOT for LTBI
- Locating services in inner-city neighborhoods, close to the patients to be served
- Implementing patient-centered strategies, guided by a philosophy of harm reduction
- Utilizing incentives and enablers

## **INTRODUCTION**

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San Francisco has long been a city with diverse populations, including large numbers of individuals who are socially and culturally marginalized. Many of those individuals fall into one or more of the categories that put them at the greatest risk for progressing to tuberculosis (TB) disease once infected.

Beginning in the early 1980s, San Francisco's TB program became one of the first in the nation to treat high-risk individuals with latent TB disease through a dedicated targeted treatment program, which included patient-centered methods and directly observed therapy (DOT). By tailoring its treatment approach to the patients' needs, the program has achieved high treatment completion rates. The treatment approach included matching each patient to staff who were familiar with their respective cultural and language characteristics and employing patient-specific incentives and enablers to encourage the patients to maintain their commitment to the treatment process.

In 1993, the San Francisco Department of Public Health Tuberculosis Control Program (SFDPH TBC) extended its efforts to treatment of LTBI to very high risk, U.S.-born, disenfranchised populations, including persons who use illicit substances and those with HIV risk factors. SFDPH TBC implemented the Tuberculosis Outreach Prevention Services (TOPS) program to make testing and treatment affordable, accessible, and acceptable to those at high risk of progression to TB disease by providing services within their own community. As part of the selection process for determining where to locate TOPS, SFDPH TBC used its RFLP (Restriction Fragment Length Polymorphism) data to evaluate transmission data. This data confirmed disease transmission within the targeted area known as the Tenderloin district.

The TOPS program evolved over several years as more was learned about effective strategies.

## **POPULATIONS SERVED**

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TOPS brought TB testing and treatment services closer to the target populations living in the highest incidence area of the inner city. The TOPS satellite clinic is located in the Tenderloin/South of Market district of San Francisco, an area which has traditionally seen a concentration of people experiencing homelessness, addiction, or both.

People living in this area not only have high rates of latent TB infection, but commonly have multiple health problems, especially concurrent HIV, hepatitis C and other infections, and mental health or substance abuse issues. Additionally, many live in environments that may be unsafe and overcrowded or that offer poor ventilation and sanitation, such as shelters, low-cost hotels, jails, abandoned buildings, or even on the street. It is estimated that 8,000 to 13,000 individuals in San Francisco are homeless on any given day and many of the individuals so described spend time in and around these two districts.

## **PROGRAM GOALS**

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Goals of the TOPS program are to:

- Stop transmission and detect TB cases in high-prevalence neighborhoods
- Prevent potential TB transmission by identifying and treating infected persons living in high-risk settings as well as those at high risk for progressing to TB (e.g., those dually infected with TB/HIV)
- Prevent reactivation among those with latent infection—prioritizing those who are HIV-positive or at risk for HIV infection

## **LOCATION OF SERVICES**

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Initial efforts to provide DOT for LTBI in San Francisco occurred at the central TB clinic attached to San Francisco General Hospital. This strategy had some advantages: staffing shortages could be covered more easily and physicians, x-ray, and lab services were close at hand.

However, this location limited the staff's outreach, contact, and involvement with members of the target population and the agencies serving them. Patients with LTBI had poor access for receiving their DOT doses, which meant that many of them failed to complete their course of treatment.

The solution was to create a satellite site separate from central TB services. The high-risk patients more readily accepted the new clinic. The location was convenient and easily accessed, and being able to obtain the services in their own neighborhood enhanced patients' anonymity, privacy, and perceived safety.

## **PATIENT-CENTERED STRATEGIES**

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In its mission, strategies, and modes of operation, the TOPS program embodies the patient-centered philosophy. TOPS staff are committed to:

- Building long-term, trust-based relationships with their patients
- Using signed contracts with patients to set up clear expectations and outline each party's responsibilities during the treatment period
- Finding patients if doses are missed
- Problem-solving with the patient to overcome the barriers they face during the course of treatment

## **HARM REDUCTION PHILOSOPHY**

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This model successfully builds relationships of trust and acceptance between health staff and patient. Team members provide an unconditional positive approach to patients regardless of self-inflicted, harmful behavior. Building upon this premise, the TOPS team focuses on delivering the message that patients can play an active role in reducing adverse consequences related to their use of substances like drugs and alcohol. In particular, staff members encourage patients to understand that they are at risk for progressing to active TB disease and that they can prevent this by adhering to the prescribed therapy.

## **INCENTIVES AND ENABLERS**

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The TOPS program provides substantial incentives and enablers to all high-risk clients. Incentives and enablers that have proved effective include:

- Transportation assistance

- Food items, coupons, or vouchers
- Clothing or shoe vouchers from local thrift stores or low-cost stores
- Movie passes issued at specific threshold points during treatment and when other incentives no longer motivate
- Pre-packaged doses of LTBI medications or arrangements to receive DOT in another jurisdiction for patients who must be away from the area for a limited time
- Referral to housing assistance
- Referrals and advocacy for the patient's entry into a treatment or methadone maintenance program

The staff has established protocols that provide guidance on patient eligibility for various incentives and enablers, how often they may be offered and in what amounts, any limitations or conditions on the assistance provided, record keeping, and staff accountabilities.

## **ATTENTION TO PATIENT NEEDS BEYOND TB TREATMENT**

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The TOPS clinic has a social worker on staff. If the health worker or nurse perceives that a patient needs primary healthcare, mental health services, substance abuse services, or if the patient identifies such a need, the patient is referred to the social worker for assessment and referral. The patient agrees to accept all referrals that are provided.

Additionally, TOPS provides on-site HIV and STD testing. Both health workers and disease control investigators receive training in HIV pre- and post-test counseling, STD counseling, and HIV and STD specimen collection. Patients who agree to be tested and who receive positive results see the staff doctor or nurse for appropriate referrals.

## **PROACTIVE COLLABORATION WITH OTHER PROVIDERS**

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The TOPS team recognizes that it cannot succeed alone. To increase rates of TB screening and improve patients' access and adherence to DOT, the TOPS clinic collaborates with a number of community-based agencies.

TOPS's outreach is directed not only to potentially infected individuals but also to health and social services professionals serving those at high risk. TOPS provides educational in-services to bring these providers up-to-date on LTBI treatment recommendations and uses energetic, creative methods to develop effective referral patterns and to follow up on referred individuals.

TOPS has negotiated memoranda of understanding (MOUs) with several in-patient substance abuse treatment centers. Staff members of these agencies provide DOT to TOPS patients who are participating in their programs. Additionally, TOPS staff provide PPD testing at local shelters and work with health staff from the San Francisco jail to ensure continuity of care after release for active TB patients and HIV-positive patients on LTBI treatment. Methadone clinics have proved to be especially effective partners. Their clients, who tend to have many high-risk factors, are required by federal regulations to be screened for TB. As a result of San Francisco's partnership with three methadone clinics, all methadone clients were screened for active TB, and the majority of those with TB—who are eligible for treatment—are placed on appropriate therapy.

## **STAFFING**

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The TOPS program staff includes:

- Program coordinator (1)
- Part-time physician (1) or immediate daily access to a TB-knowledgeable physician

- Registered nurse (1)
- Senior disease control investigator (1)
- Social worker (MSW) (1)
- Outreach health workers (4)

The staffing reflects the effort required for outreach and follow-up on 90 to 100 patients with LTBI from targeted hard-to-reach populations.

## **RECRUITMENT**

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Recruited staff are those with experience in working with high-risk populations at shelters, social services programs, and substance-abuse detox and treatment centers.

## **STAFF TRAINING**

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All staff members receive the following training:

- “TB 101” training provided by experienced medical staff
- Completion of Centers for Disease Control and Prevention’s *TB Self Study Modules*
- Training in the placement and reading of PPDs by the clinic’s head nurse
- Regular attendance at HIV, TB, STD, and/or hepatitis workshops provided by the TB clinic, the City and County Health Department, or local community-based organizations
- Staff participation in health fairs, research projects, etc., to increase their knowledge and to help them become more comfortable and creative in carrying out their duties

Staff members are also asked for their input and feedback in developing new strategies for addressing patient needs, clinic protocol, and more.

## **DOT RESPONSIBILITIES OF TEAM MEMBERS**

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At TOPS, the administration of DOT is a team effort. Once the patient has been tested and evaluated by the physician and treatment of LTBI has been prescribed, several staff members work together to assist the patient in taking the medications.

### **Outreach Health Workers**

Each outreach health worker carries a maximum caseload of 25 patients. The outreach health worker:

- Observes the patient swallowing the medication
- Dispenses food and other incentives to the patient after dosing
- Records each observed dose of medication on the medication log sheet
- Records any adverse reactions reported and refers the patient for immediate nursing or medical evaluation
- Requests any lab testing (e.g., blood draw) that may be indicated and facilitates the patient's providing of needed samples at the appropriate time and location
- Provides LTBI treatment for the patient in the field if the individual does not come to the program clinic site or has another arrangement regarding where and when to receive doses
- Searches for the patient who misses appointments for dosing
- Documents attempts to reach the patient



- Alerts other team members to search for the missing patient on daily rounds

## **Nursing**

The registered nurse monitors LTBI treatment for the hardest-to-reach patients enrolled in the program and is available as needed for patient assessments and referrals to medical and health services. The registered nurse:

- Exchanges information with the physician concerning individual patient status or prescribed treatment
- Packages individual doses of medications for each patient (usually about two weeks in advance of need)
- Charts and maintains accountability for doses administered by program staff
- Provides DOT doses to patients attending the program clinic, as needed
- Monitors patients for symptoms of adverse reactions and evaluates patients referred by outreach staff
- Provides lab tests, HIV counseling and testing, STD screening, and other direct patient care services
- Makes and follows up on referrals to other providers for meeting the patient's health and medical needs
- Participates in team case conferences
- Develops patient-specific care plans

## **Social Workers**

The TOPS program social worker takes an active role in monitoring the treatment doses received by patients as part of the comprehensive care offered to patients in the form of incentives and referrals. The social worker:

- Assesses the patient's psychosocial needs
- Makes appropriate referrals to care based on the assessment
- Makes recommendations to the team about specific incentives and enablers that will motivate and assist the patient

## **Supervisory Staff**

The TOPS supervisory staff are experienced disease control investigators who participate in daily treatment activities and monitor the quality of services provided. Supervisory staff members:

- Recruit, train, and supervise TB team members
- Ensure that program protocols are being followed by staff
- Assess problems in adherence and assign outreach staff to extend field investigations
- Monitor the Review of Symptoms (ROS) forms for each patient receiving LTBI treatment. These forms are required monthly or more often, depending on medication regimen
- Ensure that an identification photograph is obtained for each patient enrolled in the program
- Ensure that Release of Information forms are signed for each patient

- Ensure that HIV/STD testing is offered to program participants and provided to those that give consent (HIV status can affect the length of treatment)
- Troubleshoot problems related to individual patient challenges

## **CASE MANAGEMENT RESPONSIBILITIES OF TEAM MEMBERS**

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TOPS uses a case management approach to assist its high-risk patients during their course of treatment and facilitate their ability to adhere to the treatment regimen.

### **Case Managers**

Each patient enrolled in the program is assigned to a particular outreach worker or disease control investigator. The individual case manager:

- Receives new patients assigned to the caseloads and attempts to contact the patient within 24–48 hours of referral
- Establishes rapport with the patient
- Educates the patient in terms he or she can understand about:
  - TB and its transmission
  - TB infection versus TB disease
  - Treatment protocols for LTBI
  - Adverse reactions that should be reported immediately
- Obtains locating information from the patient
- Develops a plan with the patient concerning where and when to provide LTBI treatment doses

- Makes referrals to a physician, nurse, or social worker for other needs which are identified during patient encounters
- Participates in case conferences held by the LTBI program team and shares important information that can enhance team efforts to care for the patient
- Alerts medical and supervisory staff of missed medication doses or unobserved doses
- Follows up on any missed appointment or commitment by a patient within 48 hours
- Ensures the timely documentation of:
  - Treatment doses administered
  - Adverse symptom assessment
  - Outreach attempts when patient misses doses or appointments

### **Supervisors and All Team Members**

Supervisors and staff coordinate and consult on cases daily and plan together to ensure that all patients have coverage if a case manager or other team member is absent. All TB staff share the patient care needs. Each team member:

- Takes an assigned rotating shift at clinic
- Provides and documents DOT doses to all patients presenting for doses
- Dispenses incentives
- Provides emergency transportation as needed for patients coming to the TOPS clinic

## **CONCLUSION**

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The success of the TOPS program has depended on the active application of patient-centered strategies by a well-supported staff. The concept of patient-centered care has been applied to the location of the program, the use of incentives and enablers, and a broad adoption of the philosophy of harm reduction. These techniques, combined with a mission of locating and treating both active and latent disease, and a willingness to collaborate, are key elements that should be incorporated into any LTBI program.

# 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**

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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

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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**

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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

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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**

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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**

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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**

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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 <sup>1</sup>
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

<sup>1</sup> 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

<p>Priority eligible persons</p>	<ol style="list-style-type: none"> <li>1. Younger than 21 years of age <i>and</i> positive PPD</li> <li>2. Documented converter (recorded negative PPD less than 2 years prior to positive PPD)</li> <li>3. Abnormal chest x-ray <i>and</i> positive PPD</li> <li>4. Special clinical circumstances (i.e., at risk for HIV)</li> <li>5. Contact of an active case</li> <li>6. Associates of a reactor child (a child younger than 7 years of age; close household contacts)</li> <li>7. Newcomers to the United States (arrived within the last 5 years from Asia, Latin America, or Africa. Positive PPD <i>and</i> are younger than 35 years of age)</li> </ol>
<p>PPD-positive patient referrals</p>	<ol style="list-style-type: none"> <li>1. Residential and outpatient alcohol and drug treatment centers</li> <li>2. Addiction treatment sites</li> <li>3. County jails</li> <li>4. OB/GYN (SFGH only)</li> <li>5. Refugee clinic (SFGH)</li> <li>6. Senior companion program (On Lok, Canon Kip)</li> <li>7. Shelter program (homeless)</li> <li>8. Volunteer organizations (Salvation Army, Valencia Street, or Harrison Street Detox – unpaid employee of shelters)</li> <li>9. Volunteers (San Francisco Unified School District, a parent of a student)</li> </ol>
<p>Other specific referrals accepted by Ward 94</p>	<ol style="list-style-type: none"> <li>1. Old cases – routine if closed out less than two years ago. Resistant cases may return anytime</li> <li>2. Private medical doctor referral with diagnosis, x-ray, treatment, <i>and</i> letterhead referral</li> <li>3. Self referral – must have bottle of TB Rx or evidence of active TB (i.e., referral form)</li> <li>4. SFGH-OPD (Out Patient Department) - Consultation Referral Form</li> <li>5. Immigration – <u>must be San Francisco resident</u>:  <ul style="list-style-type: none"> <li>Class A. Patient has entered the U.S. <i>and</i> has <u>no</u> PMD</li> <li>Class B. Patient has entered the U.S.</li> </ul> <p style="text-align: center;"><i>or</i></p> <ul style="list-style-type: none"> <li>Patient is an alien seeking adjustment of status</li> </ul> </li> <li>6. Employee referrals <ul style="list-style-type: none"> <li>• Coroner’s Office employee</li> <li>• 101 Grove Street, laboratory staff</li> <li>• SFGH employee – Positive PPD <i>and</i> Hospital Consultation Form</li> <li>• Day Care Center employee</li> <li>• City Clinic employee</li> <li>• DPH employee</li> </ul> </li> </ol>

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

<p>All referrals must be San Francisco residents, except:</p>	<ol style="list-style-type: none"><li>1. City School bus drivers</li><li>2. Employee Health Services (EHS) personnel</li><li>3. Contacts</li><li>4. Private medical doctor consultation for medical evaluation; not merely PPD positive referred for chest x-ray</li></ol>
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# CASE STUDY 3

## **COMMUNITY PARTNERSHIP PROJECT: SAN DIEGO COUNTY**

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

- Co-location of services
- Decentralization of LTBI therapy
- Cost and reimbursement issues
- Appropriate use of data with community leaders and local politicians

## **INTRODUCTION**

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This case study details a decentralized, clinic-based prevention program in which a public health department, the San Diego Health Department's TB Control Program (SDHD TBC), teamed with a group of community health centers (CHCs) to provide targeted treatment services to high-risk patients. SDHD TBC recognized that many high-risk individuals were being screened for TB at CHCs, but did not receive treatment for latent tuberculosis infection (LTBI) because they lacked insurance. In response, SDHD TBC used federal assistance funds to implement an LTBI outreach program targeting uninsured populations. This case study highlights the effectiveness of partnering with community-based clinics, but raises the critical issue of resources required to support similar efforts.

In San Diego County, California, private and non-profit CHCs form the backbone of the community's primary care and preventive health services. They provide health care to more than 320,000 patients each year, many of whom are uninsured. SDHD TBC developed an innovative outreach program, the Community Partnership Project, to

use this network of CHCs to target its LTBI program to a large foreign-born and uninsured population.

## **TARGET POPULATION**

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Community clinics serve important groups at risk for TB, including recent immigrants, the homeless, and the uninsured. The clinics are neighborhood institutions whose staff and boards of directors reflect the ethnic and cultural composition of the communities they serve. Prior to initiating the Community Partnership Project, SDHD TBC determined that many high-risk individuals were screened for TB at the CHCs but did not always receive LTBI therapy, often due to lack of insurance. While patients were frequently referred to the TB Clinic at SDHD, most did not follow up with the referral. The Community Action Partnership to Prevent TB (CAPP-TB) program was designed to improve treatment success by providing LTBI therapy at sites the patient considers his or her medical “home”.

## **DEVELOPMENT AND IMPLEMENTATION OF THE COMMUNITY PARTNERSHIP**

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To better serve this population, SDHD TBC applied to and received funding from the Centers for Disease Control and Prevention (CDC) Division of Tuberculosis Elimination to implement a clinic-based targeted testing and treatment program. SDHD TBC utilized a Request for Proposal (RFP) process to elicit bids from CHCs throughout San Diego County. The clinics would agree to provide LTBI services and, in turn, SDHD TBC would reimburse these services.

To qualify for the program, the clinics had to:

- Serve a high-risk population
- Demonstrate existence of LTBI treatment protocols

- Agree to provide LTBI screening and treatment services
- Follow current CDC recommendations for LTBI therapy
- Have accessible clinic hours and locations
- Have competitive reimbursement rates
- Have patients sign a statement that they had no current health insurance

Geographic location was also considered to ensure CAPP-TB clinics were located in all regions of the county. Selected clinics would be reimbursed for providing isoniazid (INH) therapy.

During the first year of the program (2001), San Diego contracted with seven CHCs, with 17 clinic locations. An eighth CHC was added in 2002.

As part of the contract, reimbursement is contingent on clinics providing information on patient demographics, dates of monthly visits, and reasons for discontinuing therapy. SDHD TBC performs random audits to ensure compliance.

## **ACHIEVEMENTS**

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A review of the CAPP-TB program indicates that the CHCs enrolled 1,813 patients (2001–2002) at a mean cost of \$218 per patient. Enrollment levels varied among clinics—one enrolling fewer than 20 patients (a CHC serving a predominantly homeless population), while another had more than 300.

LTBI completion rates for the first year averaged around 60% (see Table A). While these rates were below the goal of 75%, they rival LTBI completion rates reported in most TB programs. Because these rates reflect the start-up year of this new program, it is expected that outcomes for 2002 will be higher for many of the CHCs.

The program uses an innovative approach to provide the clinics with an incentive for facilitating the patients' completion of treatment. Reimbursement is provided in two phases. Half of the bid price is paid at the time of patient enrollment, with the remainder prorated over nine months of treatment. In the last pages of this Case Study, Table A summarizes program participation, outcomes, and cost.

## **DISCUSSION**

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In evaluating its program, San Diego determined that the collaboration with the local CHCs has had numerous benefits. High-risk patients with LTBI have been able to receive therapy from a convenient medical provider, located in their neighborhood without cost being a barrier. Excellent completion rates were achieved during the initial year, which might be attributed to the ability of the patients to have care provided at a site they already consider their medical home.

The clinics have benefited by having a source of reimbursement for this preventive health service. Further, the project has enabled many of the clinics to collect and analyze their own data for LTBI. This facilitates understanding of the LTBI problem within the clinic's client pool and can assist with operational analysis. Participation in the program has also improved clinical skills and built important capacity within the community clinic.

An additional important benefit of the program is that having the CHCs provide LTBI services has allowed the health department to concentrate on managing patients with active disease and contacts requiring LTBI therapy. In addition, the CHCs and the SDHD TBC meet quarterly, which has provided an ongoing forum for discussion of mutual concerns and development of collaborative solutions.

## **CONCLUSION**

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Overall, the community-based approach has provided San Diego with an effective approach to improving LTBI treatment services and completion rates. However, while decentralizing LTBI therapy has provided a number of benefits and has been relatively inexpensive, its continuation will depend on SDHD TBC's securing of ongoing funding. The initial development and implementation relied on outside funding from federal sources. Unless sources of continuing funding can be found, the program may be unable to maintain its support for this partnership. Health departments wishing to build upon this model will be challenged to identify financial resources but can strengthen their arguments for support by pointing to the cost-effectiveness and treatment success of San Diego's approach.

TABLE A: SUMMARY OF CLINIC PARTICIPATION, PATIENT OUTCOMES, AND COST –  
COMMUNITY PARTNERSHIP PROJECT, SAN DIEGO COUNTY, CA

2001		
CLINIC INFORMATION		
Participating sites	7 CHCs (17 clinics)	
PATIENT INFORMATION		
	Number	Percentage
Patient enrollment	846	–
Outcome information	813	96%
Completed 6 months of treatment	470	58%
Lost to follow-up	180	22%
Patient stopped treatment	99	12%
Provider stopped treatment	28	3.4%
Moved	25	3%
Other (side effects)	11	1%
COST		
Mean per patient	\$218.00	