

IX. TARGETED TESTING IN POPULATIONS AT HIGH-RISK

MODULE OUTLINE

1. Standards of Public Health Practice
 2. Practical Aspects of Targeted Testing
 3. Assessment of Populations at High-Risk
 4. Community Educations
 5. Community Partnerships
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1. STANDARDS OF PUBLIC HEALTH PRACTICE

- IX-1. Targeted testing initiatives are discussed with TTBE Central Office (C.O.) prior to implementation.
- IX-2. Regional epidemiologic data is used to identify high-risk groups for targeted testing.
- IX-3. All targeted testing initiatives include a plan for testing, follow-up medical evaluation and treatment.

2. PRACTICAL ASPECTS OF TARGETED TESTING

Targeted testing is a TB control strategy for persons at high risk for tuberculosis infection (TBI) or at high-risk for progression to TB disease once infected with *M. tuberculosis*. The goals of targeted testing are to:

- Identify persons at high risk for infection with *M. tuberculosis* or those at high risk for progression to TB disease if infected
- Evaluate these high-risk individuals for infection and disease
- Treat individuals infected with *M. tuberculosis* or with active disease

All testing activities will be accompanied by a plan that includes **(Standard of Public Health Practice IX-3)**:

- Description of high-risk group(s) to be targeted
- Education plan
- Screening and testing strategy (e.g., on-site screening with TB RAT, testing with IGRA, etc.)
- Clinical evaluation for those with a positive TB test
- Treatment for those infected with *M. tuberculosis* or active disease

Targeted testing initiatives are discussed with TTBE Central Office (C.O.) prior to implementation **(Standard of Public Health Practice IX-1)**. Targeted TB screening and testing should be undertaken **only** if resources are identified and available to ensure full evaluation and treatment.

3. ASSESSMENT OF POPULATIONS AT HIGH-RISK

Regional epidemiologic data is used to identify high-risk groups for targeted testing (**Standard of Public Health Practice IX-2**). Examples of regional epidemiologic data sources include:

- Tuberculosis Program Area Module (TB PAM)
- Patient Tracking and Billing Management System (PTBMIS)
- Regional population data profiles (from Census Bureau or other population sources)

Table IX-1 identifies groups to consider for targeted TB screening and testing:

Table IX-1: Groups to Consider for Targeted Testing

Persons at Increased Risk* for <i>M. tuberculosis</i> Infection	Persons at an Increased Risk** for Progression of Infection to Active Tuberculosis
<ul style="list-style-type: none"> • Foreign-born persons from areas that have a high incidence of active tuberculosis (e.g., Africa, Asia, Eastern Europe, Latin America, and Russia) 	<ul style="list-style-type: none"> • Persons with human immunodeficiency virus (HIV) infection±
<ul style="list-style-type: none"> • Persons (including students) who visit areas with a high prevalence of active tuberculosis (Refer to current World Health Organization data for high prevalence countries), especially if visits are frequent or prolonged. It is recommended for these persons to have TB testing 8-10 weeks after leaving the high prevalence area. 	<ul style="list-style-type: none"> • Persons who are receiving immunosuppressive therapy such as tumor necrosis factor-alpha (TNF-α) antagonists, systemic corticosteroids equivalent to ≥15 mg of prednisone per day, or immune suppressive drug therapy following organ transplantation†
<ul style="list-style-type: none"> • Residents, employees, or volunteers in congregate settings (e.g., correctional facilities, long-term care facilities, and homeless shelters) 	<ul style="list-style-type: none"> • Persons with silicosis, diabetes mellitus, chronic renal failure, leukemia, lymphoma, or cancer of the head, neck, or lung
<ul style="list-style-type: none"> • Other populations defined locally as having an increased incidence of <i>M. tuberculosis</i> infection or active tuberculosis, possibly including medically underserved, low-income populations, or persons who abuse drugs or alcohol 	<ul style="list-style-type: none"> • Persons who have had a gastrectomy or jejunioileal bypass
	<ul style="list-style-type: none"> • Cigarette smokers and persons who abuse drugs or alcohol
	<ul style="list-style-type: none"> • Other populations defined locally as having an increased incidence of active tuberculosis, possibly including medically underserved or low-income populations

*Persons with these characteristics have an increased risk for *M. tuberculosis* infection compared with persons without these characteristics.

**Persons with these characteristics have an increased risk for progression of infection to active tuberculosis compared with persons without these characteristics.

± Indicates persons at increased risk for a poor outcome (e.g., meningitis, disseminated disease, or death) if active tuberculosis occurs.

References:

1. CDC. Updated Guidelines for Using Interferon Gamma Release Assays to Detect *Mycobacterium tuberculosis* Infection—United States, 2010. MMWR 2010; 59 (No. RR-5) (adapted). <http://www.cdc.gov/mmwr/PDF/rr/rr5905.pdf>
2. American College Health Association (ACHA). Guidelines Tuberculosis Screening and Testing of College and University Students, 2014. http://www.acha.org/publications/docs/ACHA_Tuberculosis_Screening_April2014.pdf

4. COMMUNITY EDUCATION

TB control programs should provide education and training in the clinical and public health aspects of TB to all health department staff. Staff members should:

- Receive education at regular intervals on their particular responsibilities in the program
- Demonstrate proficiency in those areas.

Based on the local epidemiology and needs, TB programs should also educate:

- Local health-care providers (both public and private)
- Community members
- Public health officials
- Policy makers on TB prevention and control

5. COMMUNITY PARTNERSHIPS

Community-based organizations (CBOs) can be particularly effective in providing information and education on TB disease to their constituencies. As part of the communities they serve, CBOs are often highly regarded, and their messages might be accepted more positively than those delivered by the state and/or local health department. Organizations providing services to populations at risk for TB disease should perform the following tasks:

- Partner with the state and local public health TB program and medical care providers from the community to facilitate access for the targeted population to:
 - Diagnostic services
 - Treatment
 - Prevention services
- Become involved in support initiatives, such as state and local TB advisory committees and coalitions; and
- Coordinate with public health agencies and educational institutions to develop education programs that are tailored culturally and linguistically to their populations.

Reference:

1. CDC. Core Curriculum on Tuberculosis, What the Clinician Should Know, 2013. <http://www.cdc.gov/tb/education/corecurr/default.htm>