

2009 Georgia Program and Data

Summary:

TUBERCULOSIS



GEORGIA DEPARTMENT OF
COMMUNITY HEALTH
Division of Public Health

Tuberculosis (TB) is an infectious disease caused by the germ *Mycobacterium tuberculosis* or tubercle bacilli. It usually affects the lungs but can affect any part of the body. TB is curable, but can be fatal if not treated appropriately.

WHAT IS TUBERCULOSIS (TB)?

TB is an infectious bacterial disease that is spread from person to person through the air. It usually affects the lungs (pulmonary TB), but can affect any part of the body. TB is transmitted when persons with pulmonary or laryngeal TB cough, sneeze, speak, or sing, and expel droplets containing TB bacilli. A susceptible person may inhale the tubercle bacilli and get infected.

WHAT ARE THE SIGNS AND SYMPTOMS OF TB?

The most common symptoms of pulmonary TB include a persistent, productive cough lasting more than 2-3 weeks, coughing up blood, fever, night sweats, weakness, and weight loss.

WHAT CAN BE DONE TO PREVENT THE SPREAD OF TB?

The best way to stop TB transmission is immediate respiratory isolation of infectious TB patients at home or at a health care facility and starting effective TB therapy. Infectiousness declines rapidly after adequate therapy is started and the patient adheres to the prescribed TB treatment. TB patients must cover their mouths and noses when coughing, and take the prescribed medicines as directed by their health provider.

WHO IS AT RISK FOR TB?

Anyone can get TB, but some people are at higher risk:

- Close contacts of a person with infectious TB
- HIV infected individuals
- Immunosuppressed persons, e.g., on prolonged corticosteroid therapy or taking tumor necrosis factor blockers
- Foreign-born persons from countries where TB is common
- Injecting drug users
- Residents and employees of homeless shelters, nursing homes, jails, and prisons
- Mycobacterial laboratory personnel and health care workers who serve high-risk clients
- Persons with diabetes mellitus, silicosis, end stage renal disease, gastrectomy, jejunioileal bypass, leukemia, lymphoma, or cancer of the head or neck

These persons should receive a TB skin test annually to screen for active TB or latent TB infection.

What is the difference between active TB disease and latent TB infection (LTBI)?

In active TB disease, the person is symptomatic and TB bacilli are actively multiplying and attacking different parts of the body. Persons with active TB disease can infect other people.

Latent TB infection is a condition in which TB bacilli are present in the body but are inactive because the immune system can fight the bacteria to stop it from multiplying. Persons with LTBI

have no symptoms and are not contagious, but may develop TB disease later in life if they do not receive treatment for LTBI.

PROGRAM OVERVIEW

The mission of the Georgia TB Prevention and Control Program is to control TB transmission, prevent illness, and ensure TB treatment completion. This is accomplished by the following:

1. Identifying and treating persons who have active TB disease,
2. Finding, screening and treating infected contacts, and
3. Screening high-risk populations

The Georgia TB Program is funded by the state of Georgia and the U.S. Centers for Disease Control and Prevention.

WHAT DOES THE TB PROGRAM DO?

- Conducts case reviews to ensure that all TB cases in Georgia are evaluated and treated
- Provides individualized case management to TB patients that includes social services, incentives and enablers to complete treatment, and directly observed therapy (DOT)
- Identifies, locates, and evaluates persons exposed to TB
- Provides tuberculin skin testing, bacteriology, radiologic services, and anti-TB medications to persons who have active TB and their contacts
- Provides education and treatment to contacts with latent TB infection (LTBI) to prevent future illness
- Maintains statewide TB surveillance system and ensures complete, accurate, and timely reporting of newly diagnosed and suspected TB cases
- Provides QA/QI oversight and builds capacity of health districts, hospitals, and health providers to identify, treat, and control transmission of TB through education, training, and technical assistance

WHAT PROGRAM SERVICES ARE AVAILABLE?

- Medical consultation
- Nurse case management
- Free laboratory diagnostic testing
- Free TB and LTBI medications
- Directly observed therapy
- Contact investigation
- Outbreak and cluster investigation
- Surveillance and Epidemiology
- Education and Training
- Incentives and enablers to patients to complete TB and LTBI therapy

WHERE ARE SERVICES LOCATED?

In every county health department and district health offices statewide

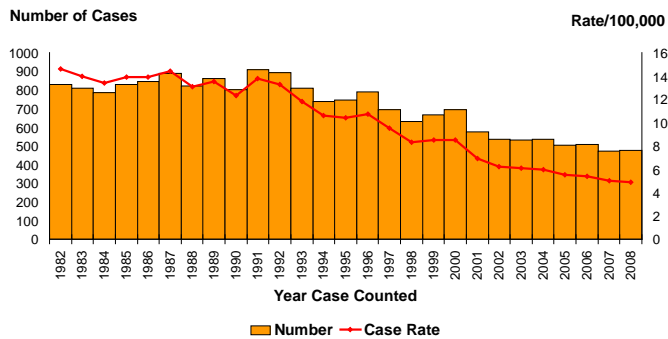
WHO IS ELIGIBLE FOR PROGRAM SERVICES?

TB Program services are provided at no charge to persons who may have TB, confirmed TB cases, and contacts of TB cases, regardless of their ability to pay.

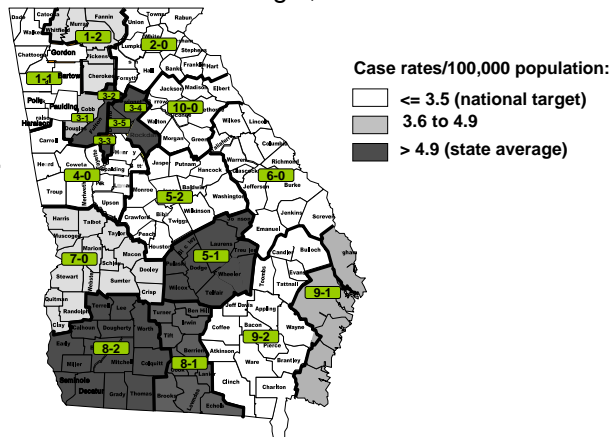
TB cases are decreasing in Georgia due to successful Public Health interventions

- In 2008, 478 TB cases were reported in Georgia – a 1% increase from 2007, but a 47% decrease from the early 1990s when 800-900 cases were reported every year.
- Georgia has the 9th highest TB case rate (4.9 per 100,000) among the 50 states in Georgia.
- Fulton, DeKalb, Gwinnett, and Cobb Counties accounted for 51% of reported TB cases.
- Majority of TB cases were male (64%), the highest proportion of cases by race/ethnicity were among black, non-Hispanics (48%), and the highest proportion of cases by age group (37%) occurred among persons 25-44 years old.
- High-risk populations: 41% of TB cases were foreign-born, 22% abused alcohol, 11% were drug abusers, 12% were HIV-positive, 10% were homeless, 6% were prisoners, 2% were in nursing homes.
- One multidrug-resistant (resistant to at least isoniazid and rifampin) case was reported in 2008.

TB Cases and Case Rates Georgia, 1982-2008



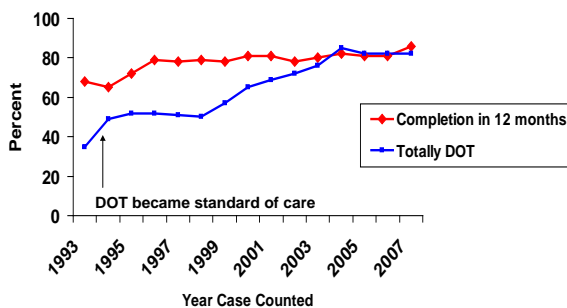
TB Case Rates by Health Districts Georgia, 2008



Public Health Departments monitor TB treatment by directly observed therapy

- TB treatment takes at least 6-9 months to complete (1,2). In 2008, 94% of TB cases reported in 2007 completed TB treatment and 86% completed within 12 months.
- Ensuring treatment completion prevents drug-resistant TB strains from emerging.
- 82% received treatment exclusively by directly-observed therapy (DOT) from Public Health Department staff who watch patients take every dose of their medications to make sure patients complete their treatment and are cured.

Timely TB Treatment Completion and Directly Observed Therapy (DOT) Georgia, 1993-2007



Public Health Departments conduct contact investigations to prevent the spread of TB in the community

To screen for TB infection among contacts to a TB case, public health staff ask if contacts have TB-like symptoms, administer a TB skin test (TST) and if the TST is positive, a chest x-ray is done (3,4).

- 4,823 contacts to TB cases reported in 2007 were evaluated by public health departments to determine if they were infected with TB.
- 935 (19%) of contacts to TB cases were found to have latent TB infection and were given treatment to prevent development of active TB.
- 46 (1%) of contacts to TB cases developed active TB and were given anti-TB medications by directly observed therapy.

Education and Training Opportunities

The Georgia State TB Program can provide speakers for on-site training and educational events. Call the TB Nurses at 404-657-2634 to discuss the needs of your facility and staff.

The following classes are offered to public health districts upon request:

- TB Contact Investigation
- Directly Observed Therapy (DOT)
- TB Case Management
- Outreach Worker Training
- TB Update and Skin Test Certification

Web-based Resources for TB Information:

- Georgia TB Program:
<http://www.health.state.ga.us/programs/tb/index.asp>
- Southeastern National TB Center:
<http://sntc.medicine.ufl.edu/>
- CDC Division of TB Elimination:
<http://www.cdc.gov/tb/default.htm>
- World Health Organization:
<http://www.who.int/topics/tuberculosis/en/>

References:

1. Georgia Department of Human Resources, Division of Public Health, Georgia TB Reference Guide, 2005.
2. CDC. Treatment of Tuberculosis. *MMWR* 2003; 52 (No. RR-11).
3. CDC. Guidelines for the Investigation of Persons with Infectious TB: Recommendations from the National TB Controllers Association and CDC. *MMWR* 2005; 54 (No. RR-15, 1-37).
4. CDC. Targeted Tuberculin Testing and Treatment of Latent Tuberculosis Infection. *MMWR* 2000; 49 (No. RR-6).

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