

TUBERCULOSIS PREVENTION & CONTROL

About Our Program

The Ben Franklin TB Control Program consists of the TB Clinic and the Direct Observed Therapy (DOT) Team.

The TB Clinic screens for TB and treats patients for latent TB infection (LTBI) in contacts of people with active TB, in governmental quarantine referrals, and in people at high risk for TB.

The DOT Program treats active TB patients and their contacts at home, observes patients taking their medications for at least 6 months, investigates new cases, works to stop TB disease from spreading, and collaborates with the TB Clinic to educate the community.

Tuberculosis

Tuberculosis (TB) is a communicable, airborne disease caused by the bacillus *Mycobacterium tuberculosis (M.tb)*.

People who are infected with M.tb but are not sick or contagious, have **latent TB infection (LTBI)**. They most likely will have a positive skin or blood test and a normal chest x-ray. About 10% of people with LTBI will go on to develop active TB disease in their lifetime. However, a two-drug medication regimen of Rifapentine and Isoniazid, taken weekly for 12 weeks, kills the latent TB germ.

Failure to finish the entire treatment for LTBI can lead to active TB disease. Not taking the medication as directed can also lead to multidrug-resistant (MDR) TB. This means that different drugs will no longer work to kill the infection.

People in close contact with someone who has active TB are at greatest risk for developing active TB disease themselves within two years.



COLUMBUS OHIO'S BEN FRANKLIN TUBERCULOSIS CONTROL PROGRAM

2014 REPORT

Ben Franklin Tuberculosis Control Program

Serving Columbus and Franklin County Residents

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COLUMBUS
PUBLIC HEALTH



FRANKLIN COUNTY TUBERCULOSIS STATISTICS

	2012	2013	2014
TB Cases in Franklin County	42	50	49
Cases per 100,000 in Franklin County	3.7	4.2	4.0
TB Cases in Ohio	149	148	156
Cases per 100,000 in Ohio	1.3	1.3	1.3
Cases per 100,000 in the US	4.2	3.0	3.0

OUR CASES

Residence & Origin:

- 31% of Ohio's active TB patients lived in Franklin County
- 82% of active TB patients were foreign-born

Cases by Age & Sex:

- Average: 47 years
- Range: 11 years - 89 years
- Male: 25 cases (51%)
- Female: 24 cases (49%)

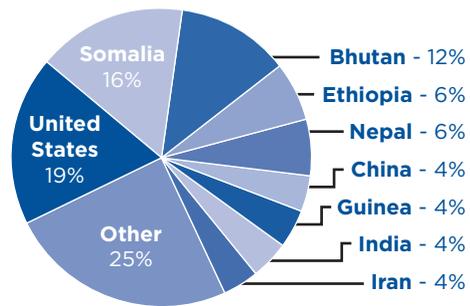
Infection Location:

- TB infection in the lungs: 75%
- TB in the lining of the lungs: 10%
- TB in the lymph system (fluid that flows between cells): 8%

Other Demographics:

- 52% of our TB cases were black, 37% were Asian, and 14% were white.
- 6% of active TB cases were HIV positive, 6% used non-injection drugs, 2% abused alcohol, and 2% were in the corrections system.
- 62% of foreign-born TB cases arrived in the U.S. within the last 5 years, 45% of all cases had obvious TB symptoms, and 4% of all cases were found by our Quarantine Referral exams.

TB Cases By Country of Birth



TUBERCULOSIS CONTROL PROGRAM OUTCOMES

- 94.6% of newly diagnosed TB patients completed therapy in less than 12 months, an indicator of effective nurse case management.
- 100% of the people newly diagnosed with LTBI that had been contacts of active TB cases were started on prevention treatment. This helps prevent spread of TB in the community.
- 93% of TB cases with a positive TB culture had shown a negative culture within 2 months, an indicator of the effectiveness of Direct Observed Therapy.
- 96% of TB patients had an HIV status documented in their medication record, a crucial factor in the TB plan of care. People infected with HIV have weakened immune systems, making it harder to fight TB infection.

A PATIENT'S EXPERIENCE WITH TB

J.H. came to the U.S. as an immigrant from Africa in 2014. Upon arriving in Franklin County, his family brought him to the hospital because of his rapid weight loss, weakness and seizures. He weighed just 110 pounds, was vomiting blood, and had to be put on a ventilator. Tests revealed he had active TB and HIV, which had become AIDS. To make matters worse, he was found to have multidrug-resistant (MDR) TB.

The Columbus Public Health's Ben Franklin TB Control Program was notified and became involved in his case. After 6 weeks in the hospital, the Ben Franklin TB Control Program took over his care. He began living at a hotel while he was infectious with MDR-TB and could not go to his relatives' house since they had small children. The Ryan White Program worked with the TB Program to secure permanent housing for him and support for food. The TB Social Worker helped arrange for needed medications through the pharmaceutical manufacturer's assistance program as the patient had no money or insurance. The TB Social Worker also helped J.H. with CT scans to check if the TB-AIDS induced brain lesions had shrunk, with mental health support for depression, and with immigration assistance with his green card. The Direct Observed Therapy (DOT) team in the TB program visited J.H. twice a day to administer his medications.

By the summer of 2014, he was up to 145 pounds and off isolation, but still needed TB visits twice a day. The Social Worker worked on transportation so J. H. could start to attend English as a Second Language classes, with the goal of eventually be able to find work. J.H. will need TB antibiotics for at least 2 years; but having both MDR-TB and AIDS will be an on-going challenge to maintain his health. Both the TB Program and Ryan White Program were critical for improving his health and preventing the further spread of TB.