

# Tuberculosis Prevention and Control

Tuberculosis (TB) is a communicable, airborne disease caused by the bacillus *Mycobacterium tuberculosis* (*M.tb*). The Ben Franklin TB Control Program consists of the TB Clinic and the Direct Observed Therapy (DOT)/ Outreach Team.

The Clinic screens for TB and treats patients for latent TB infection (LTBI), preventing future active TB cases. The DOT Program treats active TB patients and their contacts at home, investigates new cases, works to stop TB disease from spreading, and educates the community.

## TB Control Program Outcomes for 2009

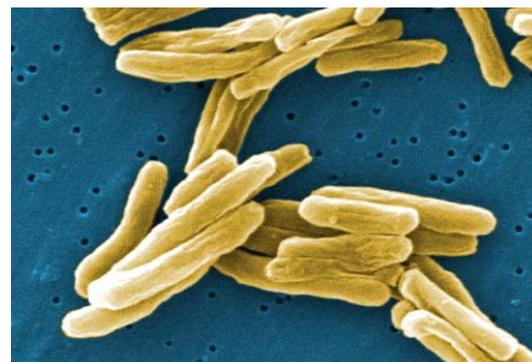
- 97% of active TB patients completed therapy.
- 100% of active TB patients were interviewed by staff within 3 days of diagnosis.
- 94% of close contacts of active TB patients were evaluated for TB disease and infection.
- 90% of close contacts of TB patients, who were found to be infected with TB, were placed on medication to prevent their TB from becoming active.

## Latent TB Infection (LTBI)

Persons who are infected with *M.tb* but not sick or contagious, have latent TB infection (LTBI). They most likely 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 medication called Isoniazid (INH), taken daily for nine months, kills the latent TB germ.

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

Contacts of active TB cases are at the greatest risk to develop active TB disease within two years of being exposed.



*Mycobacterium tuberculosis*

Serving Columbus and Franklin County Residents



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2009 Annual Report

# Ben Franklin Tuberculosis Control Program

"Keeping You TB Free"



# Ben Franklin Tuberculosis Control Program Activities

## TB in 2009

- 23% of Ohio's active TB patients lived in Franklin County.
- 73% of active TB patients were foreign-born (born in other counties).
- At least 30 different nationalities were served by the Program.
- Translation services in many languages were provided.
- Leading countries of origin for TB patients: 27% were from the United States, 27% from Somalia, 17% from Ethiopia and Mexico, and 7% were from Tanzania and the Kenya.
- 12% of active TB cases abused alcohol and/or drugs.
- 25% of active TB cases were unemployed, and 5% were homeless.
- 22% were 15-24 years old, 58% were 25-44 years old, and 20% were 45 and over.



## Franklin County TB Stats

| Years                   | 2009   | 2008   | 2007   |
|-------------------------|--------|--------|--------|
| TB Cases                | 41     | 61     | 78     |
| Fr. Case Rate           | 3.63   | 5.5    | 7.2    |
| Ohio Cases              | 180    | 213    | 252    |
| Oh. Case Rate           | 1.6    | 1.9    | 2.2    |
| TB Clinic Visits        | 12,986 | 18,035 | 29,561 |
| Outreach Visits         | 10,467 | 14,749 | 15,759 |
| X-Rays                  | 1045   | 1,252  | 2,149  |
| Skin Tests              | 912    | 2,468  | 7,616  |
| QuantiFERON-Blood Tests | 2,526  | 3,393  | 2,799  |
| Medication Visits       | 3,302  | 4,393  | 7,238  |

## Who should be tested for TB?

- People in close contact with someone who has active TB.
- Immigrants from countries with a high rate of TB.
- Residents/employees working or living in group settings
- People with HIV infection or other medical conditions that cause a weakened immune system
- Illicit drug users
- Health care workers serving high-risk clients (people listed above)

## 2010 Goals

- The therapy completion rate for contacts with latent TB infection (LTBI), will increase to 75% through intensive case management and enhanced community partnerships.
- Increase active TB surveillance efforts in high-risk for TB groups and increase education and awareness activities throughout Franklin County.
- Serve as the TB Resource Center for Franklin County Human Service Agencies so they can be proficient in their own internal TB surveillance processes.
- Implement standardized productivity measures across the TB Program that will reflect efficiencies gained from cross training/job sharing efforts.

## TB Case Study

Columbus Public Health's (CPH) Ben Franklin TB Control Program first met K.J. in the summer of 2009, but this US-born African-American female's story really started earlier that spring. She had been smoking for years, had heart disease, circulatory system problems, and had a cough that would not go away. So she went to see a physician.

Because she had a long history of smoking, the doctor ordered a scan of her lungs. From the results of the test, she was diagnosed with lung cancer and surgery was recommended as the best course of treatment. After her surgery a tissue sample was sent to the lab to determine the cancer type. The results came back that the mass causing her coughing was not cancer, but *Mycobacterium tuberculosis*. K.J. had TB!

Since TB is a reportable disease, the Ben Franklin TB Control Program was notified of her new diagnosis right away. She was started on standard 4-drug therapy by the TB Control Program's outreach staff, as ordered by the TB Physician. She was also on non-TB medications to treat her other health problems, which needed adjusted since these drugs interacted with her TB regimen.

Besides evaluating and treating active TB cases using Direct Observed Therapy (DOT), CPH staff provides Direct Observed Preventive Therapy (DOPT) for any close contacts and family members that may be diagnosed with Latent TB Infection. The TB Control Program staff found another family member to be infected with TB and they were also treated. This person had spent the most time with her in the hospital after her lung surgery when she was not in isolation. The TB Program's social worker linked K.J. to other resources since she could not work, such as transportation and help with electric bills. Thanks to the perseverance and dedication of CPH staff, this patient and her family were successfully treated for TB and have hope for a healthier and safer future.