

TB: Missed Opportunities With An Old Foe: Lack of Provider Awareness—Texas

In October 2008, Liliana was excitedly preparing for her wedding. Shortly before her wedding date, she started coughing. Her doctor said she had bronchitis and prescribed antibiotics and an inhaler. She soon felt better.



But in December, after her honeymoon, her cough returned—much worse than before. She went to a pulmonologist who again prescribed antibiotics and an inhaler, but also sent her for chest x-rays.

In February 2009, her cough returned. Liliana went back to the same pulmonologist. *"This time when the nurse came in, she was wearing a mask,"* said Liliana, *"and I was sent for blood work and sputum tests."* She was immediately contacted by Fort Bend County (TX) Clinical Health Services and told that her tests revealed she had infectious TB disease and needed to begin treatment. After five weeks of taking medication, she was shocked to learn that her TB was resistant to her medications. Liliana was diagnosed with multidrug-resistant (MDR) tuberculosis (TB) which is resistant to the two most effective TB drugs.

Because MDR TB is much more difficult to treat, she was sent to the Texas Center for Infectious Disease (TCID) hospital in San Antonio. In consultations with the adjacent CDC-funded Heartland National TB Center, doctors determined what other drugs could treat her disease. Liliana was in the hospital for 2 months. It was a hard time for Liliana—taking many pills and getting two painful shots every day.

After release from the hospital, Liliana was able to return to work, but she had to receive treatment at home for the next 16 months—taking 14 pills a day. Fortunately, the local TB control program was there to give her the help she needed. CDC recommends directly observed therapy (DOT) for all TB patients, ensuring every dose is taken. *"A volunteer would be at my house at 6 in the morning. Then after work a nurse would be waiting for me to take my other pills,"* she explains. *"All the staff were friendly and always laughing and making the best of it."*

Liliana adds, *"My advice to someone diagnosed with TB is to have patience. There is hope and there is a cure."*

Tuberculosis (TB) is an ancient illness that remains a life-threatening disease worldwide. However, TB is preventable and curable, and in the United States, CDC and state and local public health departments are working together to eliminate TB disease altogether. The number of TB cases in the United States has gone down every year since a peak in 1993. However, as cases decline, new challenges emerge. For example, health care providers often do not recognize TB symptoms, so diagnosis and treatment can be delayed.

With funding from CDC, state and local health departments ensure that all patients diagnosed with TB disease receive treatment until cured and that everyone who has come in contact with patients while they were infectious are screened and treated, if necessary. Interruptions in therapy can result in relapse, and development of drug resistance.

In addition, misdiagnosis and failure to properly treat TB can lead to further spread of the disease among families and communities, and added months of illness for the patient. Because many doctors in the United States have not seen a case of TB disease



One CDC-supported RTMCC is The Heartland National TB Center, located on the grounds of the TCID (above) in San Antonio, TX. CDC provides \$1 million a year to the Heartland Center which serves nine states: Arizona, Arkansas, Kansas, Louisiana, Missouri, New Mexico, Nebraska, Oklahoma, and Texas.

and are unfamiliar with its diagnosis and treatment, CDC supports five Regional Training and Medical Consultation Centers (RTMCCs), serving all 50 States and the US Territories. The primary purpose of each RTMCC is to:

- Provide training and health education about TB diagnosis, treatment, and other parts of TB control;
- Offer medical consultation to TB programs and medical providers who are treating TB patients, particularly those with complicated or drug-resistant cases;
- Supply technical assistance to increase human resource development in TB programs; and
- Develop TB educational materials.

The RTMCCs are also members of the Federal Training Centers Collaboration (FTCC). The purpose of the FTCC is to increase teamwork among Department of Health and Human Services funded training centers and make the best use of training resources.

A combination of these efforts—provider training, and support to health departments—has resulted in success by CDC and its partners toward TB elimination in the United States. But, we cannot let down our guard or reduce our efforts until elimination is complete—in the U.S. and globally.



Ft. Bend County Texas Health Department staff and TB patient.



Heartland Center doctors discuss diagnosis and treatment with TB patient.

TB Case Rates,* United States, 2012

Texas is one of five states with the highest rate of TB per capita (4.7 per 100,000)—The national average is 3.2 cases per 100,000

