

# To *Your* HEALTH *Fresno County*

Bringing you public health issues and ways to improve personal, family, neighborhood and community health



## **Eliminate TB in Fresno County**

January 21, 2015

Last year, 51 Fresno County residents were sickened with a severe illness that many believe to be a disease of the past. Tragically, 8 of these individuals died. The disease is tuberculosis and it remains a significant local and global concern.

Tuberculosis, or TB, was often referred to as the “white death” or “white plague” in past centuries. TB continues to cause illness in 9 million people worldwide each year and results in 1.5 million deaths annually.

While most cases of TB are found outside the United States, 9,588 new cases were identified in this country in 2013. Of those, 2,169 were in California.

The illness is caused by the bacteria *Mycobacterium tuberculosis* (and in some instances *Mycobacterium bovis*). It usually affects the lungs, but can affect virtually any organ or tissue in the body. There is no effective vaccine and treatment requires administration of more than one antibiotic over a period of many months.

The bacterium is spread from person to person in microscopic droplets released into the air from an individual with the illness when he/she coughs, sings, or speaks. Much less commonly, the disease can be contracted by ingesting unpasteurized dairy products containing the bacteria organism.

Inhalation of droplet particles containing TB bacteria can result in one of the following: the organisms can 1) be eliminated by the body’s natural defenses; 2) begin to multiply in the lung tissue, then be surrounded and contained by the body’s immune system (this is latent TB infection or LTBI); or 3) begin to multiply and overwhelm the body’s immune system (resulting in TB disease).

Persons with latent TB infection (LTBI) have a 10–20% chance that the contained TB bacteria will overcome the body’s defenses and cause TB disease at some time during their life unless the infection is treated early.

Latent TB infection (LTBI) causes no symptoms and cannot be spread to others. A centuries–old test known as PPD (purified protein derivative) or TST (tuberculin skin test), can detect LTBI and more recently blood tests have been developed that can test for latent TB infection also. Treatment of TB infection at any time before it becomes TB disease can help to prevent the disease.

Risk of acquiring TB infection is highest among individuals who:

- Were born in, or traveled extensively to, countries with high rates of TB disease
- Have been in contact with someone with TB disease
- Live or work in a long term care facilities or correctional facilities
- Are homeless

Risk of TB infection becoming TB disease is highest in individuals who:

- Are HIV positive
- Engage in IV drug use
- Are immunocompromised due to illness or medication
- Have diabetes
- Smoke tobacco
- Have renal disease
- Abuse alcohol
- Have experienced severe weight loss

There are three central tenants to TB control and elimination. These are: 1) rapid identification of TB disease and immediate initiation and completion of treatment; 2) rapid and thorough identification of individuals exposed to persons with TB disease so that they can be evaluated and treated for TB infection or TB disease if either are identified; and 3) identification of all individuals at higher risk for TB infection and TB disease with testing of these individuals for TB infection (this is referred to as “targeted testing”).

As individuals and families, we can consult with our medical providers for any cough with a fever that lasts two weeks or longer. We can also ask our medical provider to screen for risk of TB infection and test for infection if we are at higher risk.

As medical providers, we must consider TB as a possible diagnosis in those patients presenting with respiratory or systemic symptoms. We must also screen ALL of our patients for risk of TB infection and test those patients determined to be at higher risk. [California Tuberculosis Controllers Association](#) has tools for assessing this risk. We must also immediately report diagnosed or suspected TB disease to the Fresno County Department of Public Health at 559–600–3413.

As educators and employers, we should encourage screening for risk of TB infection among our students, staff, and employees as well as encourage testing of those at higher risk. We should also encourage those who are ill to stay home from school or work.

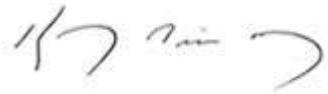
As community leaders and public officials, we should encourage testing for TB infection in populations at higher risk. These populations include individuals who live or work in correctional facilities, drug treatment facilities, and homeless shelters.

Together we can eliminate tuberculosis in Fresno County.

For more information on tuberculosis, visit:

- [CDC Basic Tuberculosis Facts](#)
- [California Tuberculosis Control Branch](#)

Here's to your health!

A handwritten signature in black ink, appearing to read "Ken Bird". The signature is stylized and somewhat cursive.

Dr. Ken Bird, Fresno County Health Officer