

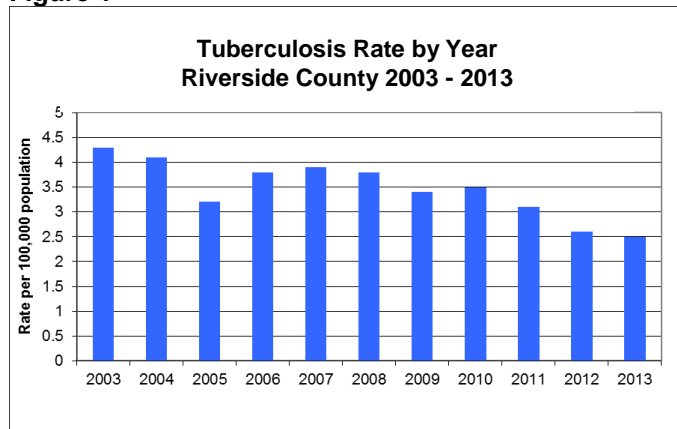
WORLD TB DAY - MARCH 24, 2014

“WORKING TOGETHER TO ELIMINATE TB”

“Working Together to Eliminate TB” is this year’s World TB Day theme. Tuberculosis (TB) is a disease that requires a global approach while implementing effective strategies at the local level.

According to the Centers for Disease Control and Prevention, TB infects one third of the world’s population. An estimated 2.3 million Californians are estimated to be infected with TB. The California Department of Public Health indicated that 2,170 cases were identified in the State in 2013 compared to 2,189 for 2012, a reduction of only 19 cases. In Riverside County the number of cases per year has ranged from 75 to 54 cases. Riverside County’s case rate of 2.5 exceeds the year 2020 national objective of 1.0 case per 100,000 population. See rates in Figure 1.

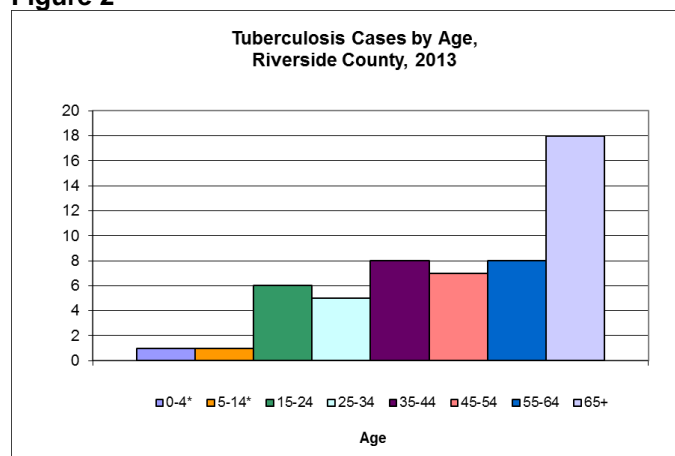
Figure 1



Profile of TB Cases

A review of the demographic characteristics of reported cases for 2013 indicates that 48% of the individuals were 55 years or older. One case occurred in a child in the 0-4 year age group, indicating recent transmission. The age distribution is depicted in Figure 2.

Figure 2



Seventy-six (76) percent of reported cases were foreign born. The majority of cases were from Mexico and the United States with 18 and 13 cases respectively.

Although the majority of TB cases occurred in Western Riverside County, cases are distributed throughout Riverside County. The geographic distribution is reflected in Table 1.

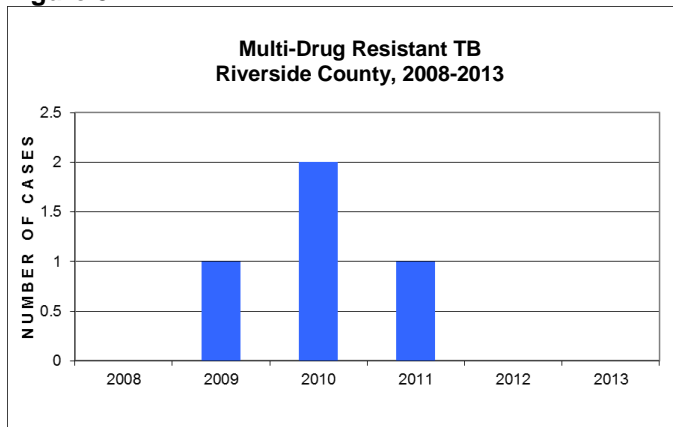
Table 1: N= 54

| Geographic Area | Cases Reported |
|------------------------|-----------------------|
| West | 32 |
| Mid-County | 13 |
| South | 2 |
| East | 7 |

Important TB Control Strategies

A key TB control strategy to move toward the control of tuberculosis is the early identification and appropriate treatment of individuals with active disease. The core regimen for pan-sensitive TB consists of INH, rifampin, PZA and ethambutol. Patients with multiple-drug resistant TB require treatment for 18-24 months with appropriate medications based on the drug susceptibility studies. All patients on treatment for TB are assessed for risk for non-adherence by a Public Health Nurse. At risk patients are enrolled in the Public Health Directly Observed Therapy Program (DOT). PHN case managers play an important role ensuring patients complete treatment.

Figure 3



TB and Diabetes

Diabetes increases the risk for progression from latent TB infection (LTBI) to active disease and complicates treatment of active TB. There are delays in diagnosis for both diabetes and TB.

Globally, the number of people with diabetes is increasing. CDC recommends that every patient with TB over the age of 18 should be screened for diabetes. Abnormal glucose values should be repeated in patients who have

no symptoms of diabetes. It is essential that hospitalized TB patients demonstrate the ability to check their blood glucose and administer insulin prior to being discharged.

LTBI & TNF Blocker Therapy Case Study

A 30 year old health care worker (HCW) had a 12 mm TB skin test identified during a pre-employment physical. The chest x-ray revealed 2 small calcified granulomas. The HCW was born in a TB endemic country and had a history of BCG. The positive TB skin test was attributed to BCG and the employee was not offered treatment for latent TB infection (LTBI).

The HCW was started on Humira for a skin disorder. One year later, the HCW presented with productive cough, unexplained weight loss, and fever. A chest x-ray showed bilateral upper lobe infiltrates. The initial diagnosis was community acquired pneumonia. The HCW was treated with antibiotics without symptomatic improvement. He subsequently developed hemoptysis. The physician ordered AFB cultures, which were smear and culture positive for *M. tuberculosis*. Over one hundred patients and staff were exposed. Twenty-five percent of the co-workers converted their TB skin test. This case highlights the importance of LTBI treatment for health care workers with a positive TB skin test, who are on TNF Blocker therapy.

Moving Toward TB Elimination

Although progress has been made at the national, state, and local levels in the fight against tuberculosis, the disease continues to impact individuals, their families and communities throughout the world.

The recognition of March 24 as World TB Day highlights the importance of thinking globally while acting locally to control tuberculosis. Collaboration between Public Health, the medical community and other key partners is essential for the control of this disease.

Tuberculosis is reportable to Public Health, Disease Control within 1 day of identification. Phone: (951) 358-5107 Fax: (951) 358-7922

WORLD TB DAY 2014
WORKING TOGETHER TO ELIMINATE TB