

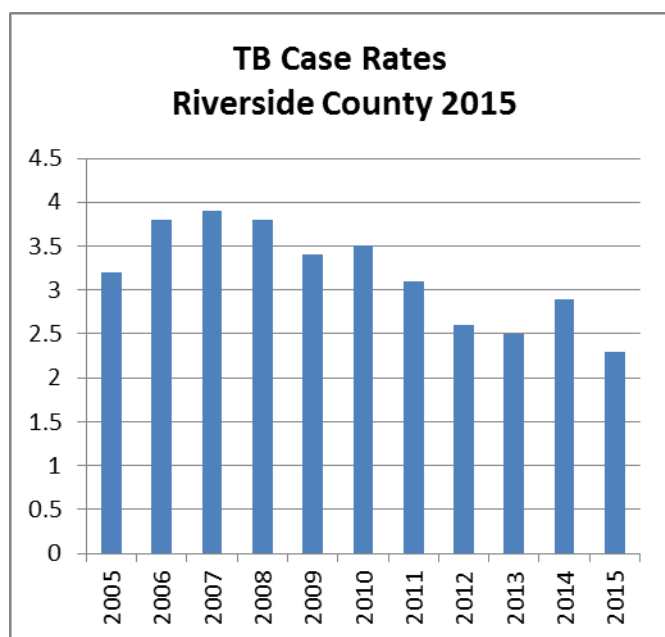
WORLD TB DAY - MARCH 24, 2016

“Unite to End TB”

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

According to the Centers for Disease Control and Prevention, TB infects one third of the world’s population. It is estimated that 2.3 million Californians are infected with TB. The California Department of Public Health indicated that 2,137 cases were identified in the State in 2015 compared to 2,134 for 2014. Riverside County’s case rate of 2.3 for 2015 exceeds the year 2020 national objective of 1.0 case per 100,000 population. The number of cases per year has ranged from 52 to 65 cases. Case rates are reflected in Figure 1.

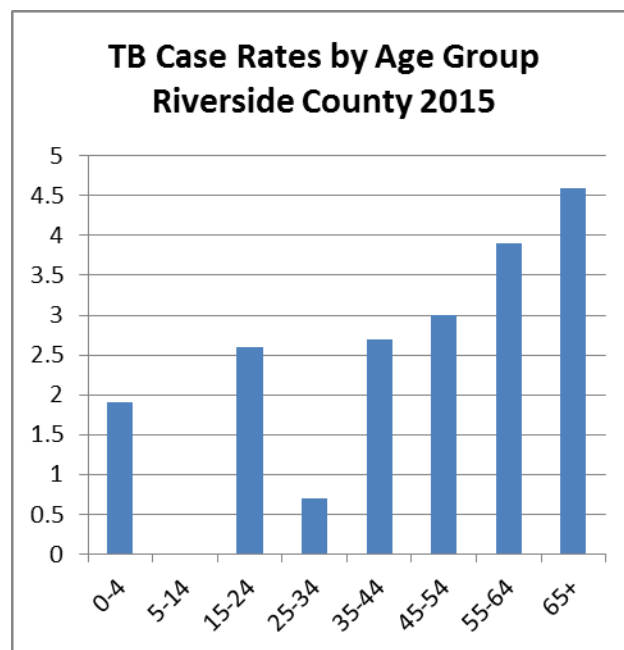
Figure 1



Profile of TB Cases

A review of the demographic characteristics of reported cases for 2015 indicates that 42% of the individuals were 55 years or older. Three cases occurred in children in the 0-4 years of age group, indicating recent transmission. The age distribution is depicted in Figure 2.

Figure 2



Eighty (80%) percent of reported cases were foreign born. The majority of cases were from Mexico.

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

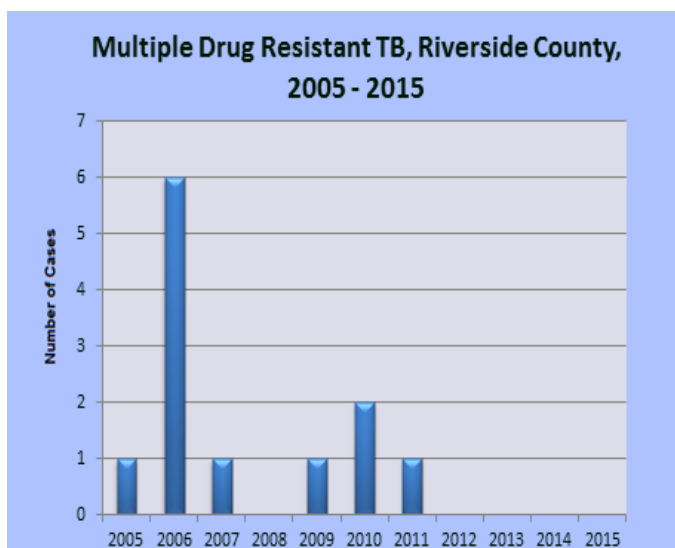
Table 1: N= 52 - Riverside County 2015

Region	2015
West	22
Mid/Pass	7
South	5
East	18
Total	52

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, pyrazinamide (PZA) and ethambutol. Patients with multiple-drug resistant (MDR) TB require treatment for 18-24 months with appropriate medications based on the drug susceptibility studies. No MDR-TB cases have been identified in Riverside County since 2011 (refer to Figure 3). Multiple-drug resistant tuberculosis (MDR-TB) is defined as TB disease that is resistant to at least isoniazid and rifampin, two of the most effective first line drugs. Extensively drug resistant (XDR TB) refers to TB that is resistant to isoniazid, rifampin, a fluoroquinolone and a second-line injective. 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).

Figure 3



LATENT TB INFECTION (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 a biologic 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, hospitals, the medical community and other key stakeholders is essential for the control of this disease.

Tuberculosis is reportable to Public Health, Disease Control within 1 day of identification.
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