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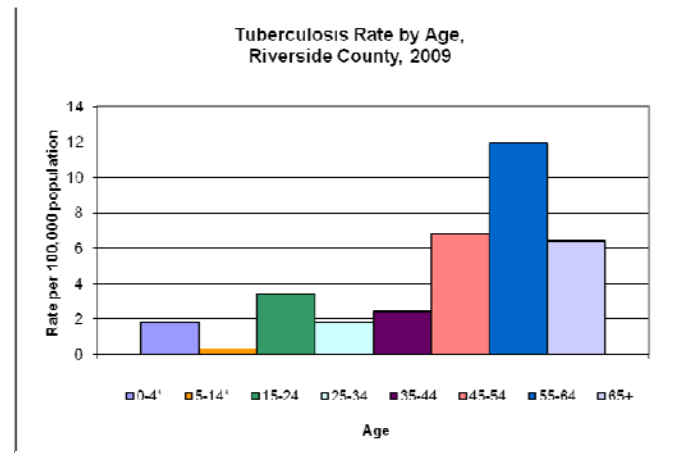
Tuberculosis Trends in Riverside County

MARCH 24, 2010

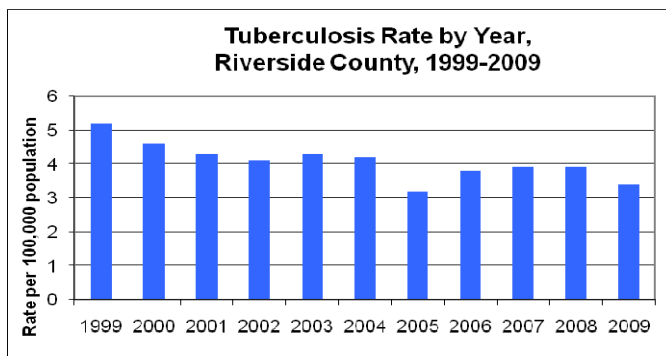
Although progress continues to be made at the National, State and local levels, tuberculosis (TB) continues to be a significant Public Health problem. Two thousand four hundred and seventy two (2,472) TB cases were reported in California in 2009, compared to 2,695 cases in 2008. This represents an 8.3% decrease in the number of cases with the case rate declining to 6.4, compared to 7.0 for 2008.

TB cases also declined in Riverside County in 2009 with 69 cases reported compared to 79 cases in 2008. It will be important to continue to monitor the number of reported cases over the next several years to determine if this is a true decrease, or a year to year fluctuation.

Two cases occurred in high school students, which necessitated testing of over 260 students and staff due to potential TB exposure.



PROFILE OF TB CASES



Age

In 2009, 41% of the cases (28) occurred in individuals 55 years and older. However, 2 cases occurred in the 0-4 year age group, which indicates recent disease transmission.

Race / Ethnicity

Data for 2009 indicates that minorities continue to be disproportionately affected by tuberculosis. Hispanics had the highest percentage (45%) of cases reported, followed by Asians (33%).

Percentage of TB Cases by Race/Ethnicity

Table 1. TB Cases by Race/Ethnicity
Riverside County 2009

| | |
|------------------------|-----|
| White | 17% |
| Hispanic | 45% |
| African American/Black | 4% |
| Asian/Pacific Islander | 33% |
| Asian/Indian | 1% |

Country of Origin

Foreign-born cases represented 72% of the cases reported in Riverside County in 2009. This is slightly lower than 78% reported for the State. The highest number of foreign-born cases originated from Mexico and the Philippines with 20 and 16 cases, respectively.

Geographic Distribution

Reported cases resided throughout Riverside County. A review of 2009 cases by region indicated a greater number of cases in western Riverside County, while the least number of cases reported living in the south county region. Ten additional cases were reported in the mid-county region, with 15 cases reported in 2009, compared to 5 cases in 2008.

**Table 2. TB Cases by Region
Riverside County 2009**

N= 69

| City | Cases Reported |
|------------|----------------|
| West | 24 |
| Mid-County | 15 |
| South | 7 |
| East | 23 |

Site of Disease

In 2009, 75% of TB cases were diagnosed with pulmonary disease. Over 2,000 individuals required evaluation for TB exposure involving a variety of group settings. Reports of extrapulmonary disease include 3 cervical lymphatic cases, 1 genitourinary case, 4 pleural cases, and 1 meningeal case.

Unusual sites, such as blood (1 case), colon (2 cases), small intestine (1 case), pericardium (1 case), skin appendages (1 case) and cranial, spinal and peripheral nerve (1 case), serve as reminders that TB can involve in any organ of the body. Forty-three percent (43%) of the 2009 cases required hospitalizations.

Drug Resistant Tuberculosis

Drug resistant tuberculosis presents challenges for medical and PHN case management of patients. An individual may have “primary” drug resistance as the result of being infected by a patient with a resistant strain of *M. tuberculosis*, or have “acquired” drug resistance, which develops during the course treatment. Factors such as inadequate treatment regimens and failure of patient to take TB medications as prescribed contribute to the development of acquired drug resistance.

Every patient who is started on anti-tuberculosis treatment is assessed for risk for non-adherence. Directly Observed Therapy (DOT) is an important TB control strategy to ensure patients complete appropriate TB treatment. Patients with multi-drug resistant TB (MDR-TB) require treatment for 18-24 months with second line drugs due to the inability to use INH and rifampin as part of the regimen. It is important that drug susceptibility studies be done on isolates identified as *M. tuberculosis*. The number of MDR-TB cases in Riverside County has varied over the last several years with 6 cases reported in 2006 and 1 case reported in 2009.

World TB Day

March 24th commemorates the day in 1882 when Dr. Robert Koch discovered that tubercle bacillus is the causative agent for tuberculosis. This observation is held March 24th of each year to highlight the progress made in the fight against tuberculosis. This day of recognition also promotes increased awareness that TB continues to be a significant public health concern. The theme selected for 2010, “**TB Elimination; Together We Can**”, reflects the importance of collaboration between Public Health and the medical community.

WORLD TB DAY - MARCH 24, 2010



“TB Elimination; Together We Can”