“Stop TB in Our Lifetime” 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 2,317 cases were identified in the State in 2011 compared to 2,329 for 2010, a reduction of only 12 cases. Riverside County’s case rate of 3.0 exceeds the year 2011 national objective of 1.0 case per 100,000 populations. The number of cases per year has ranged from 80 to 68 cases; rates are reflected in Figure 1.

Seventy-eight (78%) percent of reported cases were foreign born. The majority of cases were from Mexico and the Philippines with 25 and 20 cases respectively. Eight cases originated from other countries such as Vietnam, China and India. Fifteen cases occurred in U.S. born individuals.

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=68 - Riverside County 2011

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>Cases Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>West</td>
<td>32</td>
</tr>
<tr>
<td>Mid-County</td>
<td>6</td>
</tr>
<tr>
<td>South</td>
<td>7</td>
</tr>
<tr>
<td>East</td>
<td>23</td>
</tr>
</tbody>
</table>

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. One MDR-TB case was identified in 2011 in Riverside County (refer to Figure 3). 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

Multi-Drug Resistant TB
Riverside County, 2006-2011

TB-HIV Connection

It is important to assess individuals with tuberculosis (TB) for human immunodeficiency virus infection (HIV). Testing should occur at the time of TB diagnosis, unless the patient is known to be HIV positive, or a negative HIV test result was documented within the previous 6 months.

Co-infection with TB and HIV requires expert care and coordination of treatment for both diseases. A major concern in treating TB in HIV-infected persons is the interaction of rifampin (RIF) with certain anti-retroviral agents (some protease inhibitors [PIs] and non-nucleoside reverse transcriptase inhibitors [NRTIs]). Rifabutin, which has fewer problematic interactions, may be used as an alternative to rifampin.

CDC recommends that a diagnostic HIV test and Opt-Out HIV screening be a part of routine clinical care in all health-care settings. Opt-Out HIV testing in medical settings has been permissible without written consent under California law since January 2008. Prior to ordering the test, the law requires providers to inform the patient that:

- HIV testing is planned
- Information about the test will be provided
- Information about treatment options and further testing needed will be given
- The patient has the right to decline the test

If patient declines an HIV test, it must be documented in the patient’s medical record.

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. Phone: (951) 358-5107 Fax: (951) 358-7922