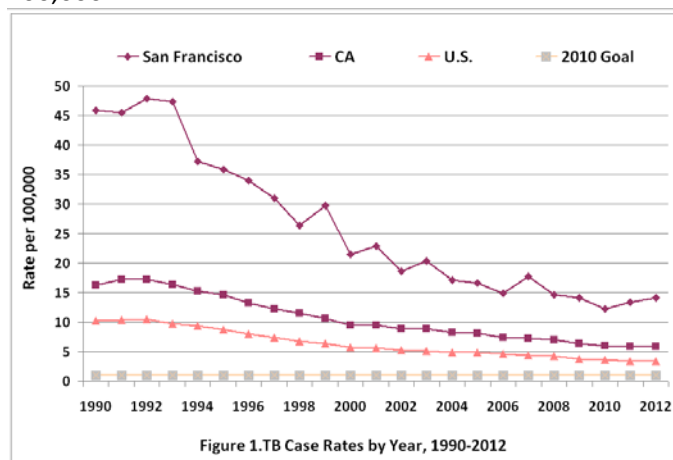


Tuberculosis in San Francisco, 2012

The mission of the San Francisco TB Control Section is to control, prevent and finally eliminate tuberculosis in San Francisco by providing compassionate, equitable, and supportive care of the highest quality to all persons affected by this disease.



In 2012, 116 new TB cases were reported in San Francisco, for an incidence rate of 14.1 cases per 100,000 population. This represents an increase of 7.4% from 2011 and 18.4% from 2010 when TB cases were at an all time low (98 cases). This is concerning as this is the second consecutive year the number of cases has increased, a trend that has not been seen in the past two decades. See Figure 1. Additionally, the rate of TB in San Francisco is greater than four times the 2011 national average of 3.4 cases per 100,000 and more than twice the 2012 California average of 5.8 cases per 100,000.



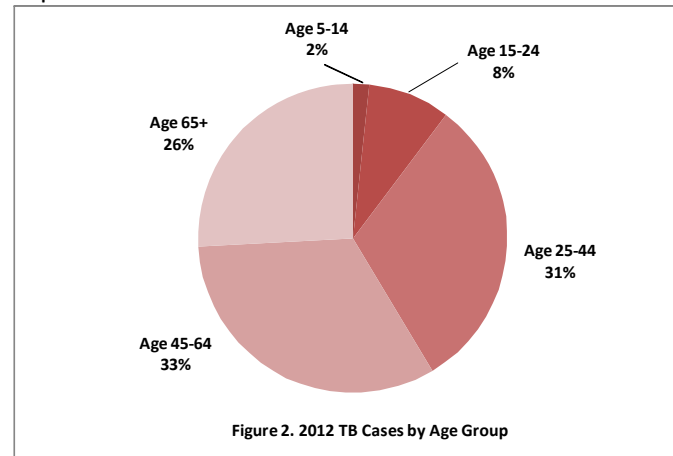
Case Finding and Case Management

This year, 6% of TB cases were found through contact investigation, 16% through community-based targeted testing, and 78% through hospital and private provider referrals. A greater percentage of cases referred to TB clinic by hospitals and private providers have infectious TB than cases found through contact investigation and community screening (40%, 20%, and 22% respectively), suggesting cases found through passive case finding have more advanced disease than cases found through active TB screening methods.

While hospitals and private providers identify the majority of TB cases, only 8% are solely treated and managed by this group. The TB clinic co-manages 37% of all cases and solely manages 54% of cases.

Age, Race/Ethnicity and Place of Birth

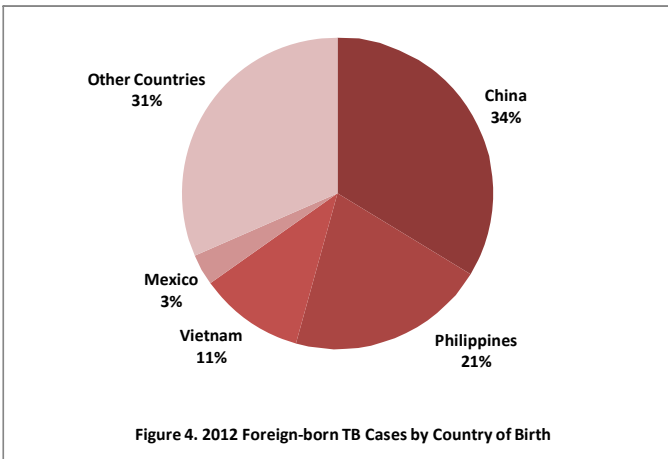
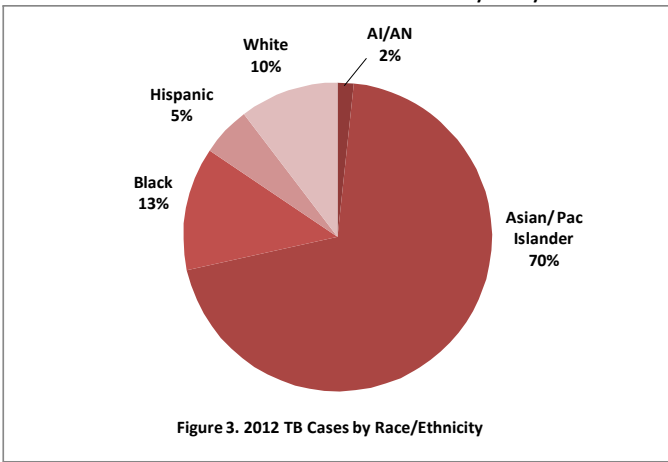
Similar to prior years, the average age of persons with TB was 52 years old, with 59% occurring in persons over the age of 45. See Figure 2. Asian cases are more frequently older with over half >59 years of age, while Hispanic cases tend to be younger with over half <30 years of age. Only 2 pediatric cases (0–14 years old) were diagnosed this year; a significant decrease (compared to 8 in 2011). Both cases were due to recent exposure to TB.



The largest proportion of cases reported annually continues to be among the Asian population (70%). See Figure 3. As in prior years, the majority of Asian (94%) and Hispanic cases (100%) are foreign-born. Interestingly, as the overall number of white, non-Hispanic cases declines, the proportion of cases among foreign-born whites has increased. In 2008, 90% of white cases were U.S.-born and in 2012, only 40% were U.S.-born (11 and 12 cases each year, respectively).

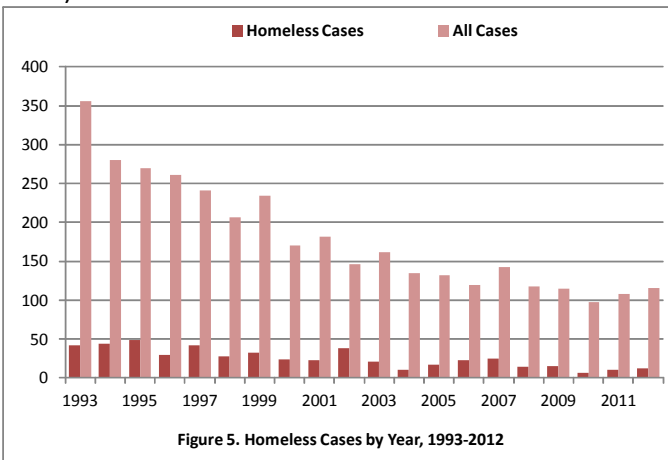
In 2011, 80% of cases were reported among foreign-born individuals – 33% from China, 21% from the Philippines, 11% from Vietnam, and 3% from Mexico. See Figure 4. The median time in the U.S. prior to TB diagnosis was 15 years; however this varies by country of origin. For example, Filipino cases reside in the U.S. a

median of 23 years prior to diagnosis, while Mexican cases are in the U.S. for a median of only 10 years.



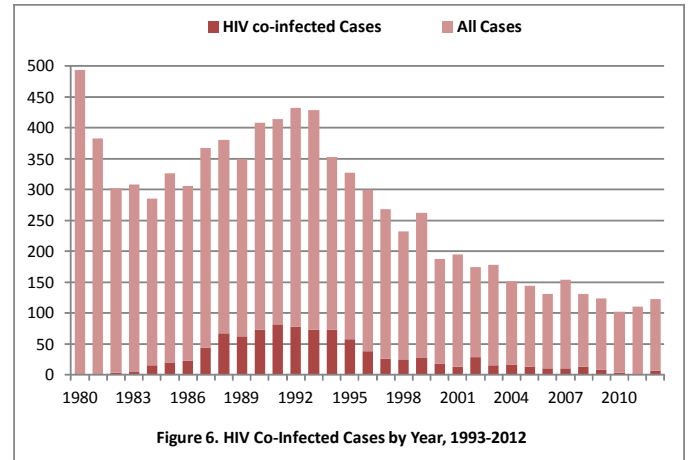
Homelessness

TB in the homeless/marginally housed remained stable in 2012, with 12 cases reported; 41% of which were HIV-positive. See Figure 5. This year, no cases occurred in shelter residents and 8 occurred in residents of SRO hotels (3 of which were due to an outbreak in one hotel).



Co-morbidities and Deaths

Comorbid conditions such as diabetes and tobacco use are becoming increasingly important risk factors for active TB, much more so than HIV infection. In 2011, 6% of TB cases were co-infected with HIV, See Figure 6, while 28% of active TB cases reported current or past use of tobacco and 15% had diabetes.



There were 9 deaths among TB cases in 2012 but only three died due to their TB disease. All deaths occurred in foreign-born Asians. In fact, in 2012, 26% of Asians cases, over the age of 64, died with TB.

Drug Resistance

Over the past three years, the percent of culture-positive cases with any form of drug resistance has ranged from 19-23%. In 2012, 16 cases (19% of culture-positive cases) were resistant to at least one anti-TB drug. The majority of cases were resistant to Isoniazid (INH) alone or in combination with another non-Rifampin, first-line drug. There was one MDR-TB case reported this year and the isolate was resistant to all first-line anti-TB drugs.

For additional information regarding the data presented in this report, please contact:

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