

Tuberculosis

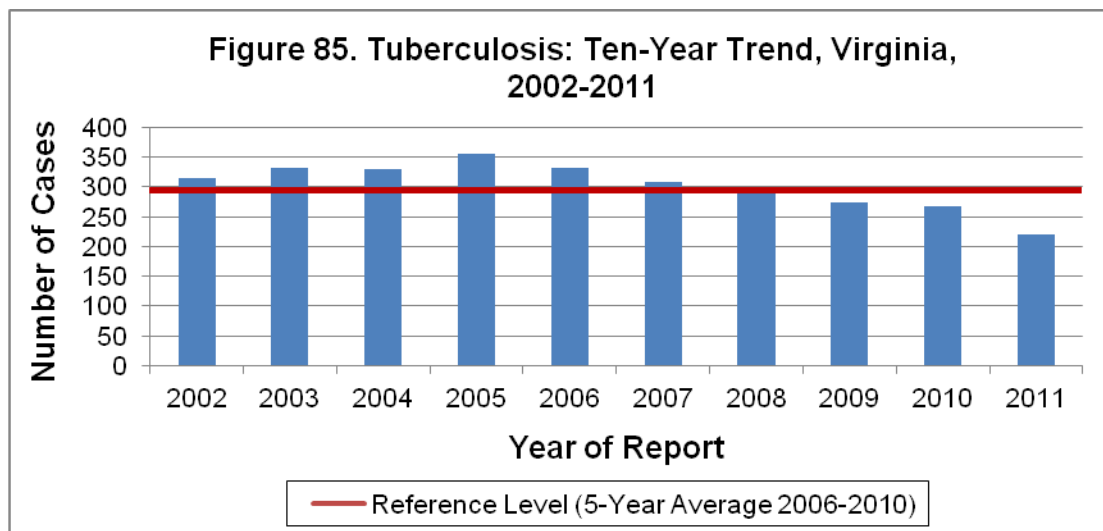
Agent: *Mycobacterium tuberculosis* (bacteria)

Mode of Transmission: Inhalation of tubercle bacilli via airborne droplets produced when patients with pulmonary or respiratory tract tuberculosis exhale the bacilli through coughing, singing, or sneezing.

Signs/Symptoms: Dependent on the organ(s) affected. General systemic signs and symptoms include fever, chills, night sweats, weight loss and fatigue. Symptoms of pulmonary tuberculosis may also include a prolonged (i.e., greater than 3 weeks) productive cough and coughing up blood.

Prevention: Control measures include the prompt identification, diagnosis and treatment of persons with infectious tuberculosis, followed by timely contact investigations to identify and treat additional persons with active tuberculosis disease and persons with latent tuberculosis infection. Infection control measures should be practiced in high-risk settings.

Other Important Information: Persons with latent tuberculosis infection do not have any signs or symptoms of disease. These persons do not spread tuberculosis bacteria. Approximately 10% of those infected with tuberculosis will develop active disease during their lifetime, with the greatest risk for disease progression during the two years following infection. Co-infection with HIV and other immune suppressing conditions represent the greatest risks for progression to active disease.

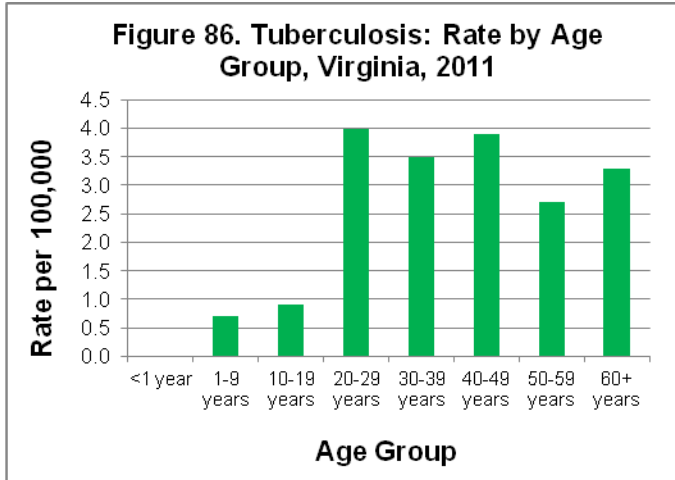


The 221 tuberculosis cases reported in 2011 represent an 18% decrease from the 268 cases reported in 2010, and a 25% decrease compared with the five-year average of 294.8 cases per year (Figure 85). This is the fewest cases reported in Virginia since 1979, and is consistent with a continuing nationwide decline in reported cases. A steady decline in TB among U.S.-born people, coupled with a significant decline among the foreign-born has produced these historic lows. From 2010 to 2011, foreign-born cases declined by 7%

while remaining 72% of the reported cases. The five most common countries of origin were India, Ethiopia, the Philippines, and Viet Nam, with China, Mexico and Nepal tied for the fifth rank. Drug resistance was seen in 14 Virginia cases, two of which were multi-drug resistant.

Incidence rates were higher in adults than in children and adolescents. The highest incidence rate occurred among persons in the 20-29 year age group with 4.0 per 100,000. Among older adults, persons aged 40-49 years had the highest rate, while among children, the rate for the 10-19 year age group was highest at 0.9 per 100,000. No cases were reported among infants <1 year of age (Figure 86). By race, the highest incidence was observed in

the “other” race group (8.9 per 100,000), which was three times the rate in the black population (3.0 per 100,000) and more than five times the rate in the white population (1.6 per 100,000). In 2011, all those of “other” race with tuberculosis were Asian or Pacific Islanders. Males had a higher rate (3.2 per 100,000) than females (2.3 per 100,000).



The highest number of cases and highest incidence rate occurred in the northern region (137 cases, 6.1 per 100,000), where 77% of the foreign-born TB cases lived. The lowest number and rate were seen in the southwest region (15 cases, 1.1 per 100,000) (Figure 87). Among cases reported in 2011, fifteen deaths were attributed to tuberculosis. Sixty percent of these deaths occurred among persons aged 60 years and older.

