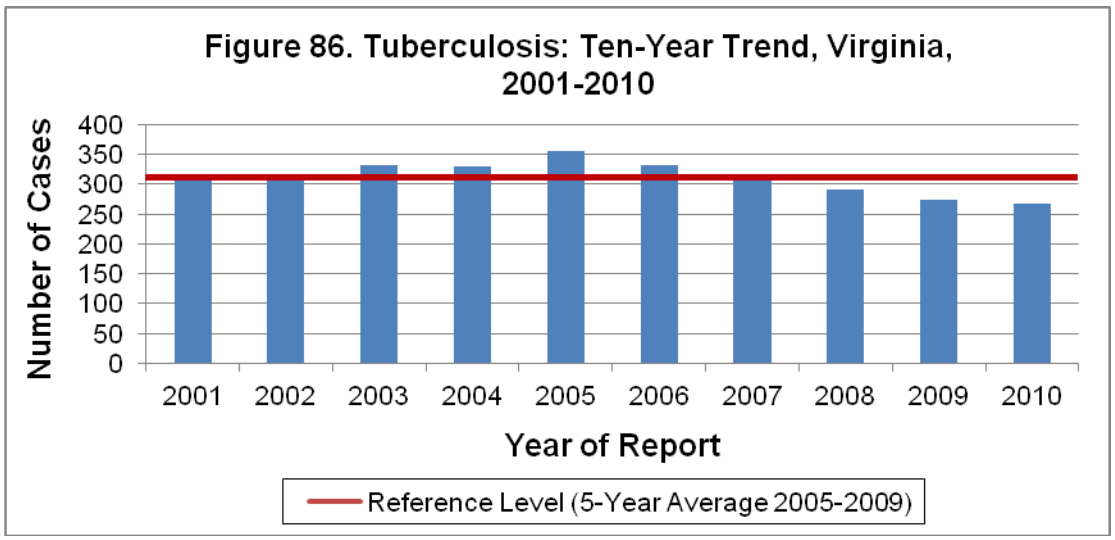
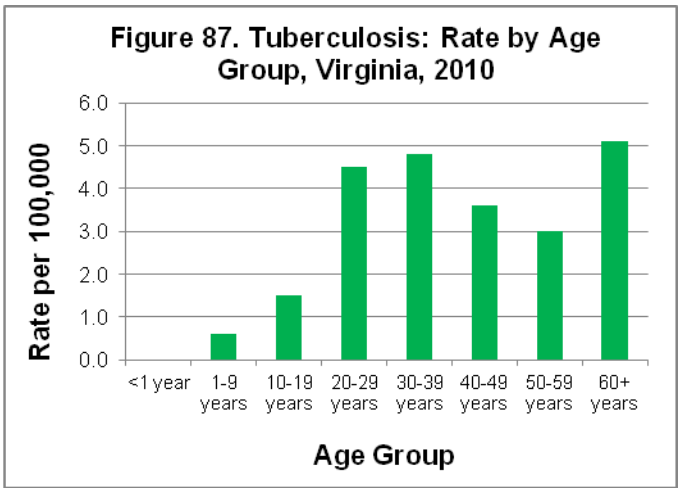
Tuberculosis

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. About 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 268 tuberculosis cases reported in 2010 represent a 2% decrease from the 273 cases reported in 2009, and a 14% decrease compared with the five-year average of 312.2 cases per year (Figure 86). This is the fewest cases reported in Virginia since 1979, and is consistent with a continuing nationwide decline in reported cases. An important factor contributing to the downward trend in Virginia is fewer cases among the foreign-born population, including a decrease of 9% from 2009 to 2010. However, most cases (65%) continue to be reported among foreign-born persons. The five most common countries of origin were Ethiopia, Viet Nam, India, the Philippines, and Nepal. This is the second year in the last decade that Mexico was not among the top five countries of origin. Drug resistance was seen in 36 Virginia cases, none of which was multi-drug resistant.



Incidence rates were higher in adults than in children and adolescents. The highest incidence rate occurred among persons in the 60 year and older age group (5.1 per 100,000), followed by those in the 30-39 and 20-29 year age groups (4.8 and 4.5 per 100,000, respectively). No cases were reported among infants less than 1 year of age, and the rate among those aged 1-9 years was 0.6 per 100,000 (Figure 87). By race, the highest incidence was observed in the "other" race group (17.6 per 100,000), which was three times the rate in the black population (5.3 per 100,000) and twelve times the rate in the white population (1.4 per 100,000). In 2010, all persons of "other" race with tuberculosis were Asian or Pacific Islanders.



Males had a higher rate (4.2 per 100,000) than females (2.6 per 100,000). The highest number of cases and highest incidence rate were reported from the northern region (147 cases, 6.8 per 100,000), where 75% of the foreign-born TB cases lived, and the lowest number and rate were seen in the southwest region (18 cases, 1.3 per 100,000) (Figure 88). Among cases reported in 2010, sixteen deaths were attributed to tuberculosis. Seventy-five percent of these deaths occurred among persons aged 60 years and older.