

Tuberculosis

Agent: *Mycobacterium tuberculosis* (bacteria)

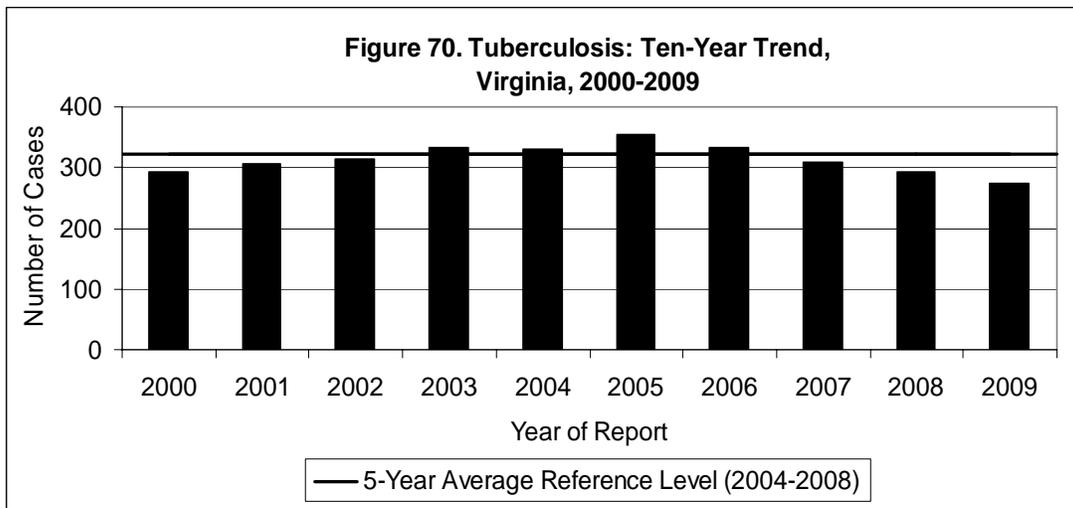
Mode of Transmission: Inhalation of tubercle bacilli via airborne droplets produced when patients with pulmonary or respiratory tract tuberculosis exhale the bacilli through coughing, singing, or sneezing.

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.

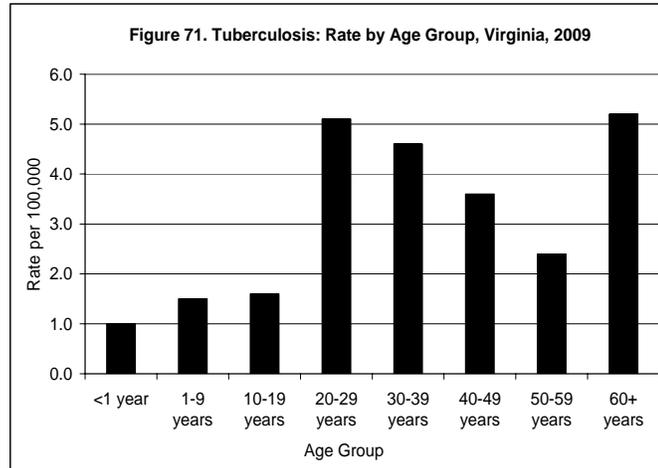
Prevention: Control measures include the prompt identification, diagnosis and treatment of persons with infectious tuberculosis, followed by timely contact investigations to identify and treat additional persons with active tuberculosis disease and persons with latent tuberculosis infection. Infection 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 273 tuberculosis cases reported in 2009 represent a 6% decrease from the 292 cases reported in 2008, a 16% decrease compared with the five-year average of 323.4 cases per year, and the fewest number of cases reported in Virginia since 1979 (Figure 70). In 2009, the nation reported the lowest number of tuberculosis cases since reporting began in 1954. The decline in Virginia in 2009 was entirely due to a smaller number of cases among foreign-born persons: 190 in 2009 compared to 212 in 2008. Drug resistance was found in 30 cases, three of which were multi-drug resistant. No cases of extensively drug resistant tuberculosis were reported. The majority of cases (70%) were reported among foreign-born persons. The five most common countries of origin were the Philippines, Viet Nam, India, Ethiopia and Nepal. This is the first year in the last decade that Mexico was not among the top five countries of origin.



Incidence rates in adults were higher than rates in children and adolescents. The highest incidence rate occurred among persons in the 60 year and older age group (5.2 per 100,000), followed by those in the 20-29 and 30-39 year age groups (5.1 and 4.6 per 100,000, respectively). The lowest rate (1.0 per 100,000) was reported among those aged less than one year (Figure 71). By race, the highest incidence by far was observed in the “other” race population (20.2 per 100,000) followed by the black population (5.9 per 100,000) and the white population (1.3 per 100,000). In 2009, all persons of “other” race with tuberculosis were Asian or Pacific Islanders.



Males had a higher rate (4.0 per 100,000) than females (3.1 per 100,000). The highest number of cases and highest incidence rate were reported from the northern region (158 cases, 7.5 per 100,000), and the lowest number and rate were seen in the southwest region (20 cases, 1.5 per 100,000) (Figure 72). The high rate in the northern region is attributed to 75% of the 190 foreign-born cases being reported from that area. Among cases reported in 2009, thirteen deaths were attributed to tuberculosis. Thirty-nine percent of these deaths occurred in persons under the age of 45.

