

Tuberculosis

Agent: *Mycobacterium tuberculosis* (bacteria)

Mode of Transmission: Inhalation of tubercle bacilli via airborne droplets produced when patients with pulmonary or respiratory tract tuberculosis (TB) 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.

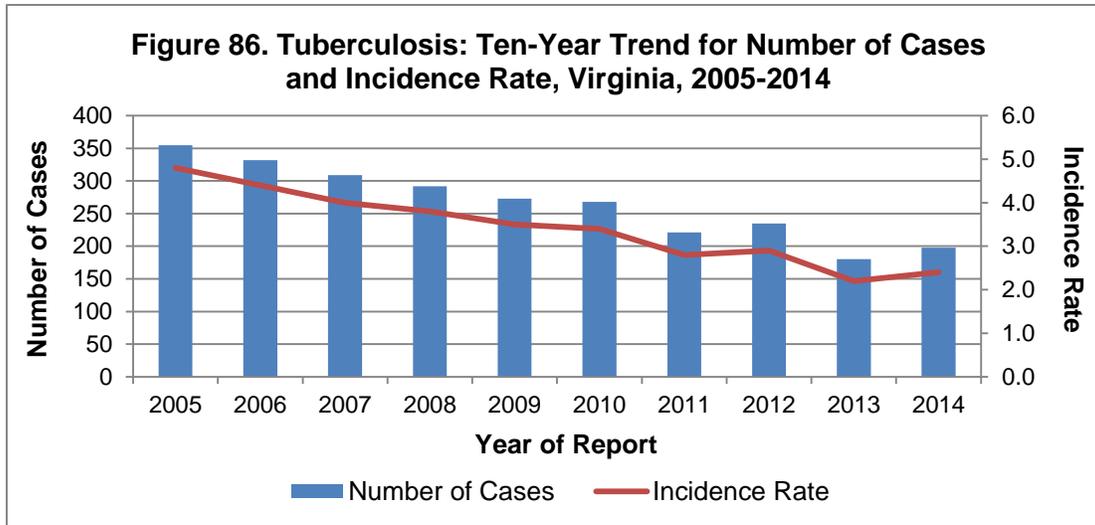
Prevention: Control measures include the prompt identification, diagnosis and treatment of persons with infectious tuberculosis, followed by timely contact investigations to identify and treat additional persons with active tuberculosis disease and persons with latent tuberculosis infection. Special 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.

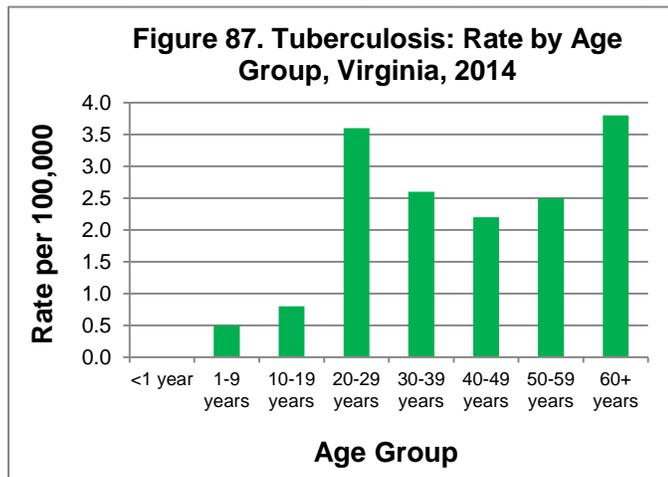
Tuberculosis: 2014 Data Summary	
Number of Cases:	198
5-Year Average Number of Cases:	235.4
% Change from 5-Year Average:	-16%
Incidence Rate per 100,000:	2.4

In 2014, 198 cases of tuberculosis were reported in Virginia. While this represents a 10% increase in reported cases when compared to 2013, when a record low of 180 cases were reported, the general trend in tuberculosis incidence in Virginia continues to be downward (Figure 86). The U.S. incidence rate of 3.0 cases per 10,000 was a 2% decrease from the 2013 incidence rate, which is the smallest incidence rate decrease in the last ten years.

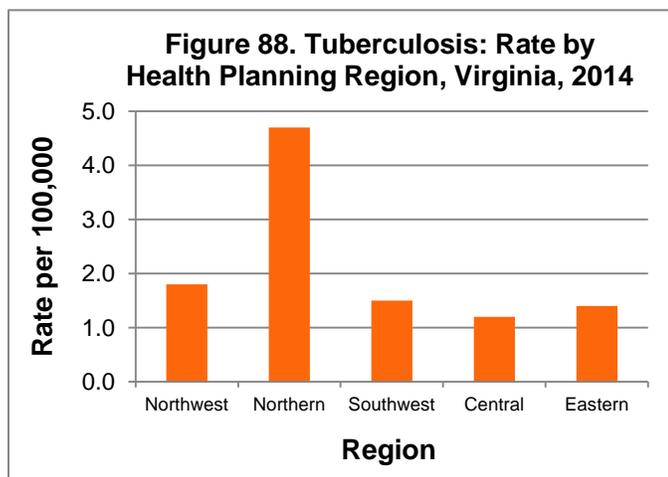
The increase in reported cases of tuberculosis in Virginia in 2014 can largely be attributed to a 65% increase in cases among U.S.-born persons, from 31 in 2013 to 51 in 2014. However, the 31 in 2013 was a 40% drop from the 52 in 2012, indicating that the occurrence of this disease in the U.S.-born population fluctuates. The number of cases among the foreign-born population stayed relatively stable, with 147 cases reported in 2014 compared to 149 in 2013. The five most frequent countries of origin for persons reported with tuberculosis in 2014 who were born outside the U.S. were India, Viet Nam, Ethiopia, Korea, Philippines and El Salvador (tie).



Incidence rates were higher in adults than in children and adolescents. The highest incidence occurred among those in the 60 year and older age group (3.8 cases per 100,000), followed by those aged 20-29 (3.6 per 100,000) (Figure 87). Incidence among other adult age groups ranged from 2.2 to 2.6 cases per 100,000. Incidence among children ranged from 0.5 per 100,000 in the 1-9 year age group to 0.8 per 100,000 in the 10-19 year age group. No cases occurred among infants in 2014. By race, the highest incidence was observed in the “other” race population (13.2 per 100,000), while incidence was substantially lower in the black and white populations (2.9 and 1.2 per 100,000, respectively). Males had higher incidence (2.6 per 100,000) than females (2.2 per 100,000).



The highest number of cases and highest incidence rate (113 cases, 4.7 per 100,000) occurred in the northern region, where 70% of the foreign-born TB cases live (Figure 88). Incidence in the other regions ranged from 1.2 per 100,000 in the central region to 1.8 per 100,000 in the northwest region. Incidence by locality can be seen in the map below.



For culture-positive cases with drug sensitivity reported, 13% had resistance to at least one first-line drug. Three cases were multidrug-resistant (resistant to isoniazid and rifampin). No outbreaks were attributed to TB during 2014.

Tuberculosis Incidence Rate by Locality Virginia, 2014

