

## Pertussis

Agent: *Bordetella pertussis* (bacteria)

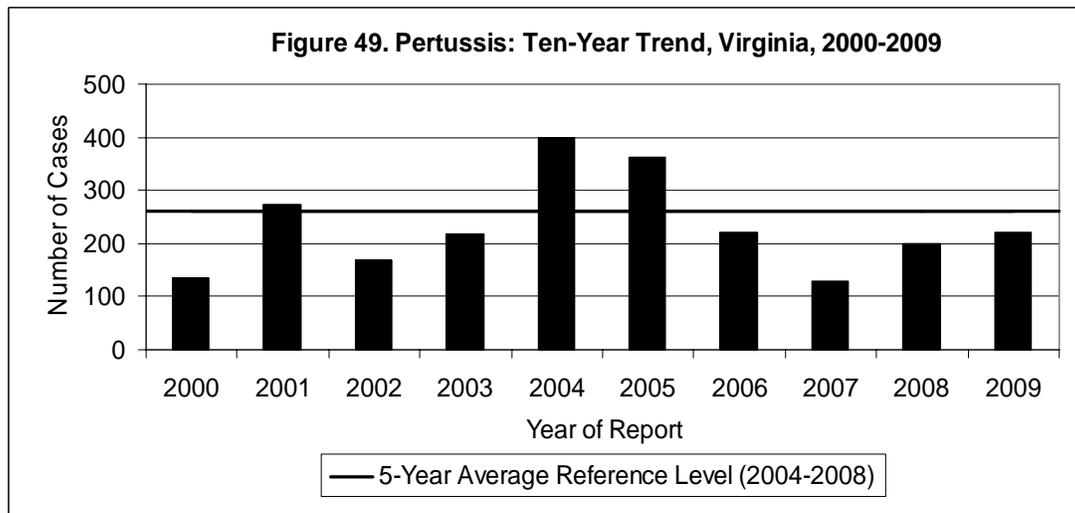
Mode of Transmission: Person-to-person transmission by contact with respiratory droplets from infected patients.

Signs/Symptoms: Insidious cough that progresses to paroxysmal coughing (i.e., severe, sequential coughs with difficulty inhaling) and may be accompanied by post-cough vomiting.

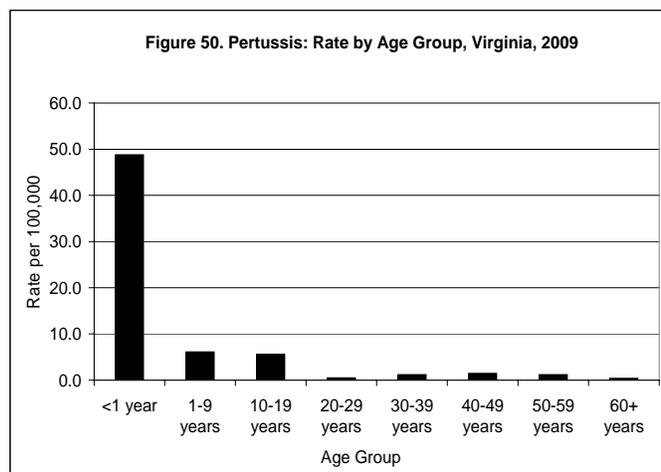
Prevention: Vaccination beginning at 2 months of age.

Other Important Information: Pertussis is also known as whooping cough. Coughing fits can last up to 10 weeks or more. In vaccinated populations, the case-fatality rate is low. When deaths occur, they are generally in children less than six months old who are too young to have been vaccinated.

In 2009, 222 cases of pertussis were reported in Virginia. This is a 12% increase from the 198 cases reported in 2008 and a 15% decrease from the five-year average of 262.0 per year (Figure 49). Cases of pertussis typically occur in waves, with peak numbers appearing every 3-5 years. A large number of cases (400) was reported in 2004 with a downward trend through 2007. This general downward trend in pertussis cases since 2004 was also observed nationally. The number of pertussis cases has been increasing since 2007 in Virginia and nationally.



In Virginia, pertussis cases were reported from every age group, but those <1 year of age had a substantially higher incidence rate than any of the other age groups, with 48.8 cases per 100,000 population. The next highest incidence rates were observed in the 1-9 year and 10-19 year age groups, with 6.1 and 5.6 cases per 100,000, respectively (Figure 50). Thirty-five percent of cases were missing race data. Among cases with race reported, incidence in the white population was more than



twice the rate in the black population (2.2 and 1.0 per 100,000, respectively), and more than four times the rate in the “other” population. Females had a higher incidence rate than males (3.4 and 2.3 per 100,000, respectively).

Among regions, the central region had the highest incidence (4.4 per 100,000). This was followed by the northwest region (3.2 per 100,000). The largest proportion of cases (37%) occurred in the third quarter of the year. Ten outbreaks related to pertussis were reported in 2009. Seven of the outbreaks were linked to schools, two to daycare facilities, and one was a community-based outbreak involving children and adults. The largest outbreaks occurred in the northwest, central and southwest regions; each of these outbreaks involved 5 cases.