

Pertussis

Agent: *Bordetella pertussis* (bacteria)

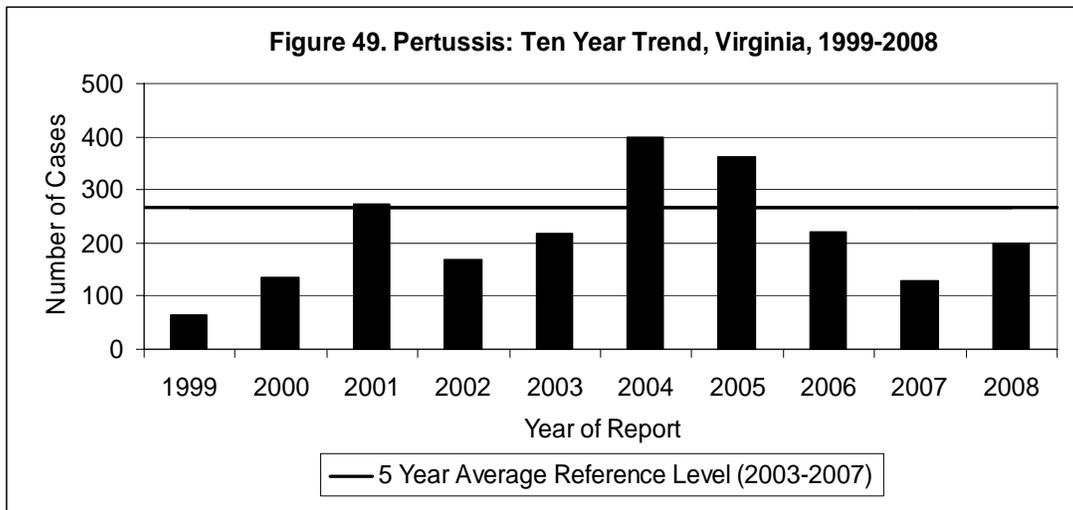
Mode of Transmission: Contact with droplet respiratory secretions from infected patients.

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

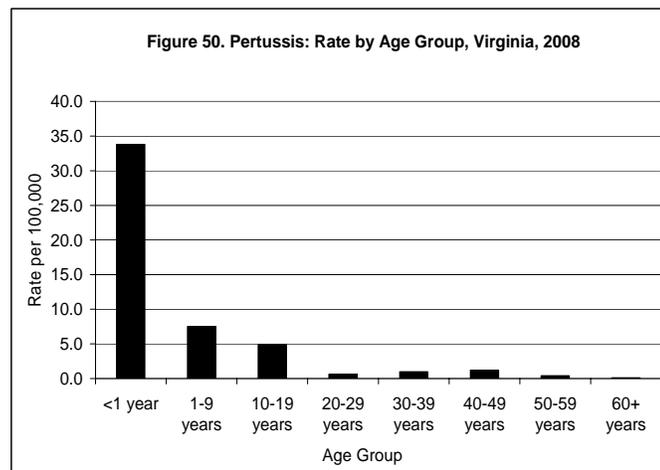
Prevention: Vaccination beginning at 2 months of age.

Other Important Information: 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 received the vaccine.

In 2008, 198 cases of pertussis were reported in Virginia. This is a 55% increase from the 128 cases reported in 2007 and a 26% decrease from the five year average of 266.2 per year (Figure 49). Cases of pertussis typically occur in waves, with peak numbers appearing every 3-4 years. A high of 400 cases was reported in 2004, followed by a downward trend occurring through 2007. This general downward trend in pertussis cases from 2004 to 2007 and the increase from 2007 to 2008 were also noted nationally.



In Virginia, pertussis cases were reported from every age group. Those less than one year of age had the highest incidence rate, with 33.8 cases per 100,000. This was followed by the 1-9 and 10-19 year age groups, with 7.5 and 4.9 per 100,000, respectively (Figure 50). The incidence rate in the white population was more than three times the rate in the black population (2.2 and 0.7 per



100,000, respectively), while the rate in the “other” population was 0.2 per 100,000. Females had a slightly higher incidence rate than males (2.9 and 2.2 per 100,000, respectively).

Among regions, the northwest region had the highest incidence rate (3.4 per 100,000). This was followed by the eastern and northern regions, with 2.8 per 100,000 in each region. The remaining regions ranged from 1.1 to 2.5 per 100,000. The largest proportion of cases (60%) occurred in the third and fourth quarters of the year. Nine outbreaks were reported in 2008. The largest outbreak occurred in the northwest region during the fourth quarter and involved 16 cases. Among the cases reported in 2008, one death was attributed to pertussis in a female infant.