

Chickenpox (Varicella)

Agent: Varicella-zoster virus (VZV)

Mode of Transmission: Person-to-person transmission by direct contact or through droplet or airborne spread of vesicular lesion fluids or respiratory secretions from an infected person.

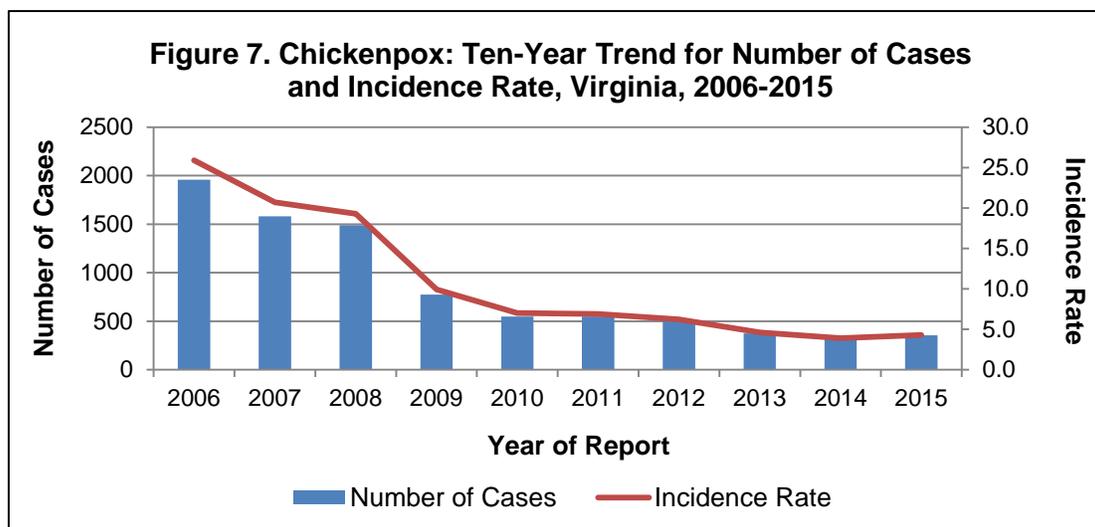
Signs/Symptoms: Acute onset of fever and generalized, pruritic, vesicular rash typically consisting of 250-500 lesions. Successive crops of lesions appear first on the head and progress to the trunk and extremities. Lesions can appear on the scalp, armpit, and mucous membranes of the mouth, respiratory tract, and eye.

Prevention: Administration of vaccine should occur for children starting at age 12 months followed by a second dose at age 4-6 years.

Other Important Information: The disease is highly transmissible; susceptible household contacts have an 80-90% risk of becoming infected. In healthy children, acute varicella is generally mild and self-limited; however, severe complications may occur, especially in adults. Herpes zoster, or shingles, occurs when latent VZV reactivates and causes recurrent disease.

Chickenpox: 2015 Data Summary	
Number of Cases:	354
5-Year Average Number of Cases:	460.0
% Change from 5-Year Average:	-23%
Incidence Rate per 100,000:	4.3

The 354 cases of chickenpox reported in 2015 represents a 9% increase from the 324 cases reported in 2014, but a 23% decrease from the five-year average of 460 cases per year (Figure 7). The statewide incidence rate was 4.3 cases per 100,000 population. The overall decline in cases since 2006 is likely due to the introduction of the two dose vaccination requirement for daycare and school entry.



Rates for chickenpox remain highest in the youngest age groups. The highest incidence rate was observed in those less than one year of age (27.2 cases per 100,000). Incidence rates generally declined as age increased, with 15.6 cases per 100,000 for the 1-9 year age group and 6.9 cases per 100,000 for the 10-19 year age group. Incidence rates for the remaining age groups ranged from 3.3 to 0.2 per 100,000 with the lowest rate occurring in the 60 year and older age group. Incidence rates were higher in males compared to females (4.6 and 3.9 cases per 100,000 respectively). Information on race was reported for 75% of cases. Of the cases with a known race, incidence was highest among the “other” race population at 5.2 cases per 100,000, followed by the white population (3.3 cases per 100,000), and the black population (2.2 cases per 100,000). Cases of chickenpox were reported evenly throughout the year. The northwest region had the highest incidence with 6.7 cases per 100,000 followed by the northern region with 5.4 cases per 100,000. Incidence rates for the other three regions were below the state incidence rate. Incidence by locality can be seen in the map below.

Four outbreaks were reported in 2015; two outbreaks occurred within correctional facilities, one at a daycare, and one at an elementary school. This is an increase from the one outbreak reported in 2014 and two outbreaks in 2013. The average number of cases reported per outbreak has declined over the past five years from 9.6 cases per outbreak in 2011 to 6.0 cases per outbreak in 2015. Vaccination status was assessed for each outbreak. More than half of the outbreak-associated patients had an immunization status of unknown, or only received one dose of vaccine as they were not recommended for the second dose based on age. The outbreaks, while small in scale, highlight the need for vaccination within congregate settings including schools and correctional facilities.

Chickenpox Incidence Rate by Locality Virginia, 2015

