

## **Mumps**

Agent: Mumps (virus)

Mode of Transmission: Person-to-person transmission through respiratory droplets, as well as through direct contact with saliva of an infected person.

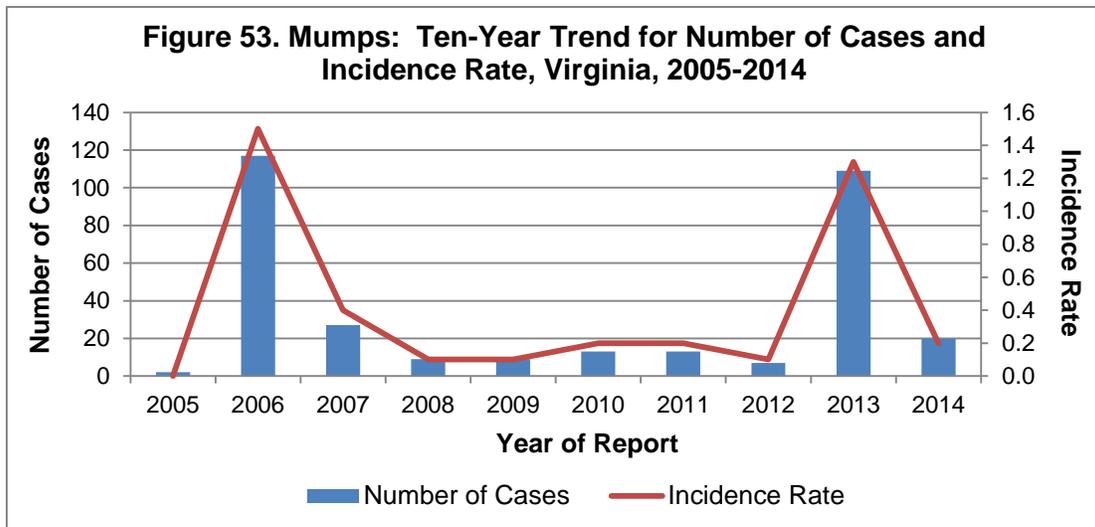
Signs/Symptoms: Fever, swelling and tenderness of one or more salivary glands. Mumps infection may present with only nonspecific or primarily respiratory symptoms and as many as 20% of mumps infections are asymptomatic. Serious complications are rare but can occur in the absence of parotitis (inflammation of salivary glands).

Prevention: Vaccination, preferably as measles-mumps-rubella (MMR) vaccine, should be administered beginning at age 12 months. Two doses of mumps-containing vaccine are recommended for school-aged children, healthcare workers, international travelers, and college students. Although MMR vaccine is very effective, it does not provide complete protection against mumps. Two doses are 88% effective at protecting against mumps; one dose is 78% effective. Outbreaks can still occur in highly vaccinated U.S. communities, particularly in close-contact settings. However, high vaccination coverage helps limit the size, duration, and spread of mumps outbreaks.

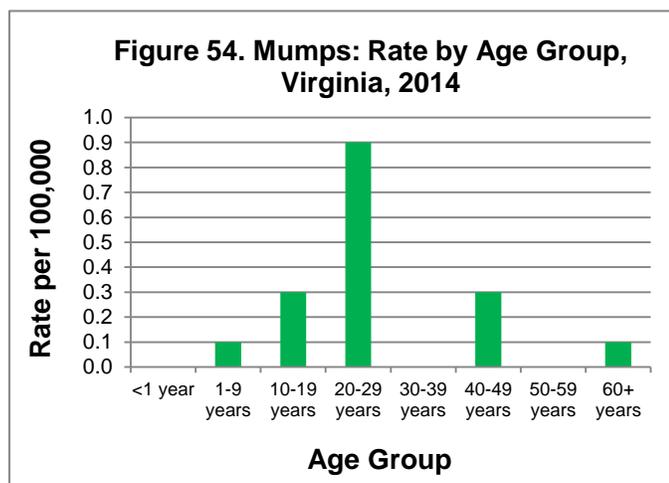
Other Important Information: In 2006, the United States experienced a multi-state mumps outbreak involving more than 6,500 reported cases. This resurgence predominantly affected college-aged students living in the Midwest, but led to college outbreaks in other states. This included Virginia, with cases occurring on multiple college campuses across the state. Between 2011 and 2013, several smaller mumps outbreaks were reported on campuses with high two-dose vaccination coverage in California, Maryland and Virginia. However, these outbreaks had limited spread, and national case counts for these years were at usual levels. The number of mumps cases increased nationally in 2014 with 949 cases reported from 30 states and two cities. Notably, Ohio reported 506 cases from a community outbreak that lasted for over nine months.

<b>Mumps: 2014 Data Summary</b>	
Number of Cases:	20
5-Year Average Number of Cases:	30.2
% Change from 5-Year Average:	-34%
Incidence Rate per 100,000:	0.2

In 2014, 20 cases of mumps were reported in Virginia. This is far less than the 109 cases reported in 2013, and a 34% decrease from the five-year average of 30.2 cases per year (Figure 53). Of note, the 109 cases reported in 2013 were primarily attributed to two college outbreaks, and closely mirror the case counts from 2006 when similar large-scale college outbreaks resulted in 117 cases in Virginia.



Among 2014 cases, the incidence rate was highest in the 20-29 year age group with 0.9 cases per 100,000, followed by the 10-19 and 40-49 year age groups with 0.3 cases per 100,000 each (Figure 54). Race was not reported for 25% of cases. Among cases where race was known, incidence was similar across racial groups with the highest incidence from the “other” race population (0.5 cases per 100,000), followed by the black and white populations with 0.2 cases per 100,000 each. Incidence was similar for males and females (0.3 and 0.2 per 100,000, respectively).



While reported from every region of the state, cases were limited to small clusters within only a few localities (see map below). Charlottesville had the highest incidence rate with 20.3 cases per 100,000, followed by Hopewell (4.5 cases per 100,000) and Halifax County (2.8 cases per 100,000). Incidence for Charlottesville was more than 100 times higher than the state incidence rate of 0.2 cases per 100,000. Cases were reported throughout the year; however, 45% of the cases had onset within the first quarter of the year.

# Mumps Incidence Rate by Locality Virginia, 2014

