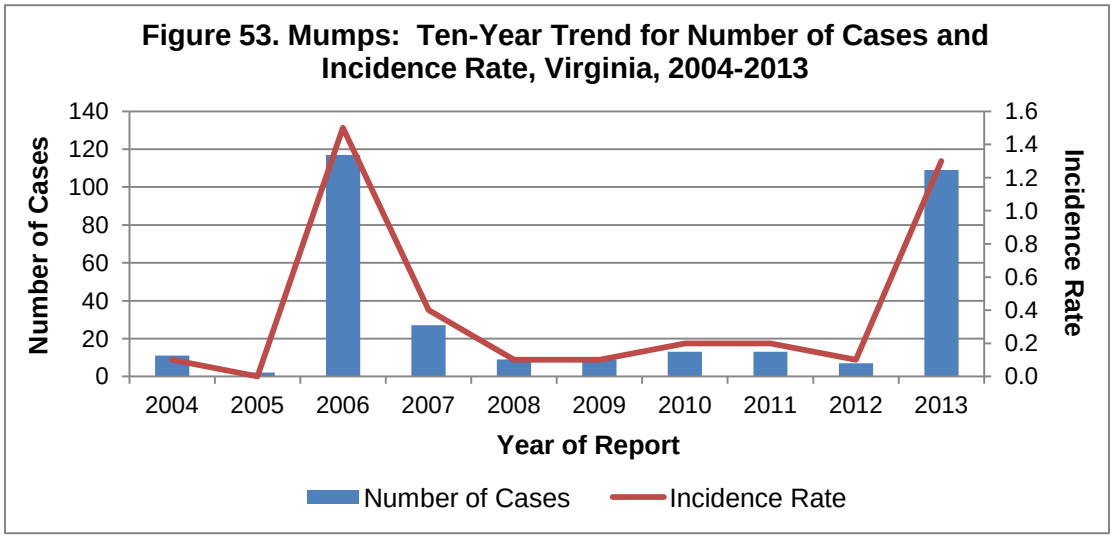
Mumps

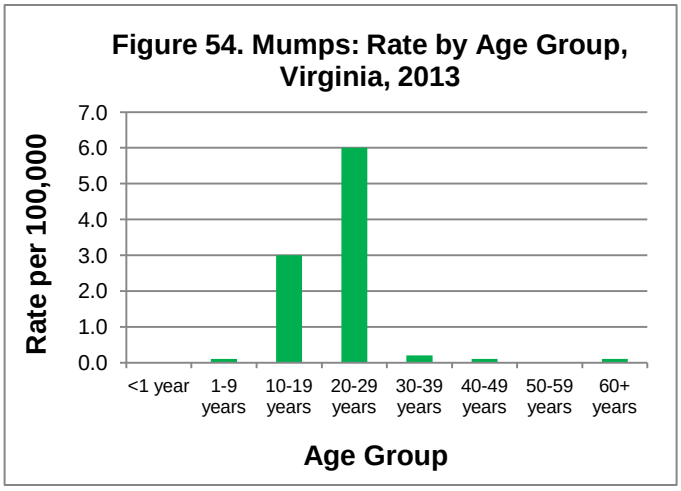
Agent: Mumps (virus)
Mode of Transmission: Person-to-person transmission through respiratory droplets, as well as through direct contact with saliva of an infected person.
Signs/Symptoms: Fever, swelling and tenderness of one or more salivary glands. Mumps infection may present with only nonspecific 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, protection against mumps is not complete. 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. In 2013, 438 people from 39 states in the U.S. were reported to have mumps.

Mumps: 2013 Data Summary	
Number of Cases:	109
5-Year Average Number of Cases:	10.2
% Change from 5-Year Average:	+969%
Incidence Rate per 100,000:	1.3

The dramatic increase in reported mumps cases in Virginia, a jump from 7 cases in 2012 to 109 in 2013, was primarily due to two college outbreaks, one significantly larger than the other. While the 2013 cases are well above the previous 5-year average of 10.2 cases, the 2013 case counts closely mirror those of 2006 when similar large-scale college outbreaks resulted in 117 cases in Virginia (Figure 53).



Among the 2013 cases, the highest incidence occurred in the 20-29 year age group (6.0 per 100,000), followed by the 10-19 year age group (3.0 per 100,000) with all other age groups having an incidence of 0.2 per 100,000 or less (Figure 54). Race was unknown for 29 cases (27%); however, when known, 88% of the cases occurred in whites followed by 6% each in the black and "other" race categories. Although more cases were reported among males than females (57 versus 52), incidence rates were similar for both sexes (1.4 and 1.2 per 100,000, respectively).



Due to the outbreaks, cases were clustered primarily in the second quarter of the year, and in the central and northwest regions. These regions housed the two colleges where outbreaks occurred, with the larger outbreak occurring in the central region. Incidence by locality can be seen in the map below.

Mumps Incidence Rate by Locality
Virginia, 2013