

# Mumps

Mumps is an acute viral illness characterized by fever and swelling of the salivary glands, typically the parotids. Transmission is generally through respiratory droplets or through direct contact with nasal secretions.

Once an almost universal childhood infection, mumps incidence decreased in the United States with routine childhood vaccination. Reporting of this vaccine-preventable viral infection was discontinued in Oregon in 1981 but reestablished July 1, 2006, prompted by outbreaks.

Laboratory diagnosis of mumps in highly vaccinated populations is challenging. Studies have shown negative serologic tests in a person with true mumps as well as a negative RT-PCR if the buccal swab is collected more than three days after parotitis onset. To increase the likelihood of detecting mumps, collecting both serum and buccal swab is recommended from all patients with suspected mumps.

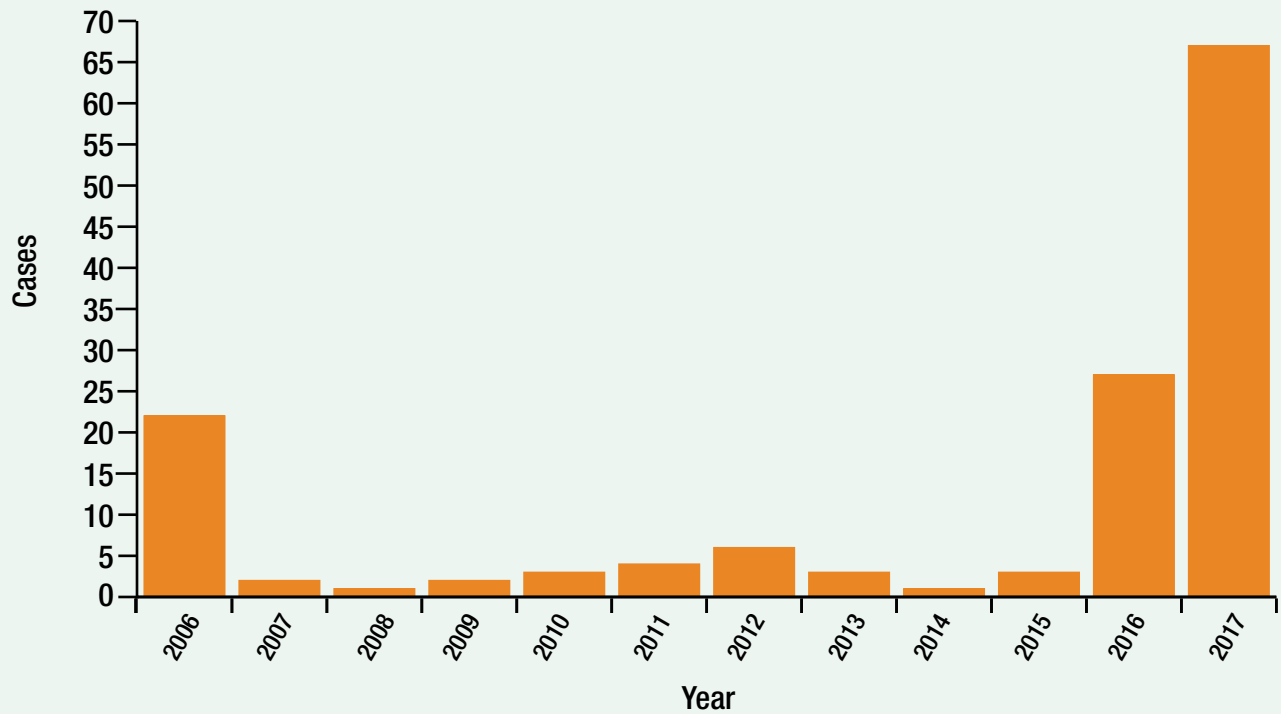
In 2017, 67 cases were reported in Oregon. A total of 39 cases were outbreak-related reported, mainly by Marion and Union counties. Among 25 cases <19 years of age, 18 were up to date on vaccination. Complications included seven cases of orchitis, one temporary hearing loss and one hospitalization.

Outbreaks can still occur in highly vaccinated communities, particularly in close-contact settings. Two doses of the vaccine are 88% effective at protecting against mumps; one dose is 78% effective. The driving forces for the recent outbreaks might be a combination of the imperfect vaccine effectiveness, waning immunity and the intensity of exposure.

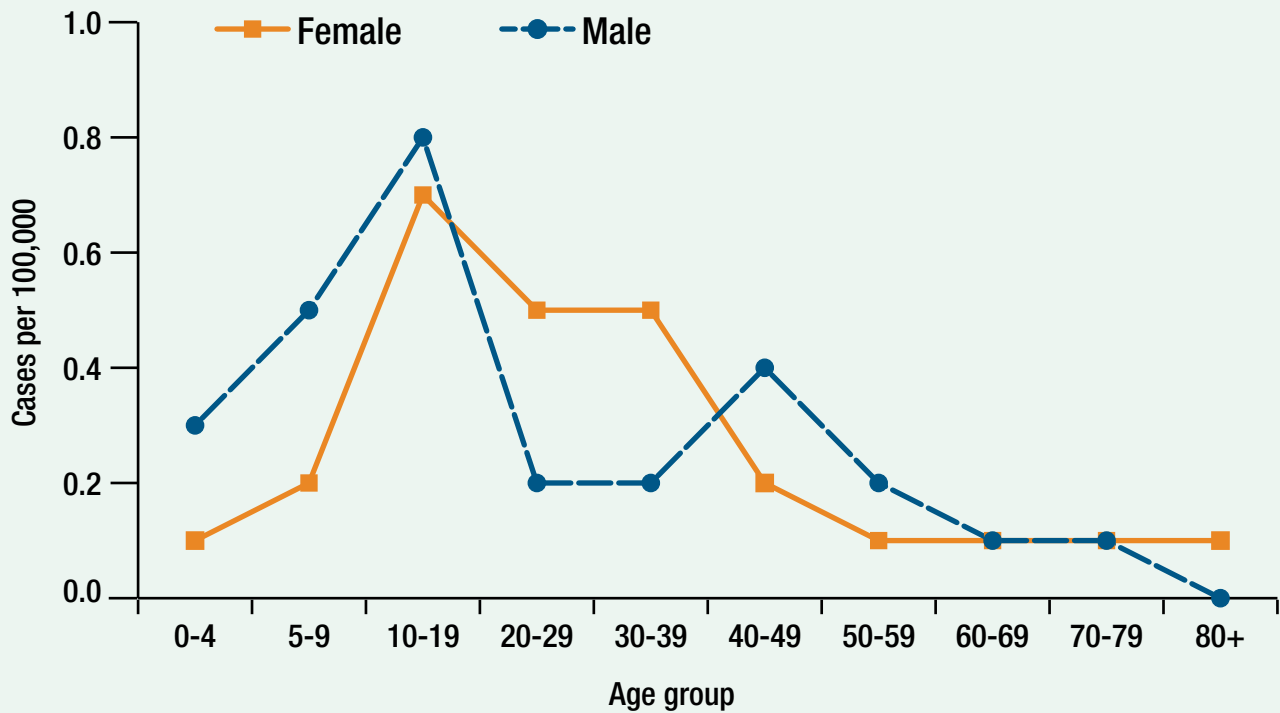
Still, high vaccination coverage helps limit the size, duration and spread of mumps cases. Also, because of vaccination, complications of mumps have been substantially reduced. Mumps remains endemic, and vaccination is the best prevention tool.

Because as many as 20% of mumps virus infections are asymptomatic, and nearly 50% are associated with nonspecific or primarily respiratory symptoms (with or without parotitis), mumps infections are significantly underreported.

## Mumps by year: Oregon, 2006–2017



## Incidence of mumps by age and sex: Oregon, 2017



## Prevention:

- One dose of vaccine (as MMR) for all children at 12–15 months of age.
- A second dose (as MMR) for school-age children and for adults at high risk of mumps exposure (e.g., health care personnel, international travelers and students at post-high-school educational institutions).
- One dose of vaccine (as MMR) for all persons born during or after 1957 who are not at high risk of mumps exposure.