Mumps

Mumps is a Class B Disease and must be reported to the state within one business day.

Mumps is caused by a paramyxovirus. Symptoms include fever, headache, muscle aches, tiredness, and loss of appetite, followed by swelling of salivary glands. Mumps spreads through droplets of saliva or mucus of an infected person. People become immune to mumps if they have had the disease before or are vaccinated.

Before a vaccination program was implemented in the U.S., mumps was a common illness in infants, children, and young adults. The first mumps vaccine was licensed in 1967, and by 2005, high vaccination coverage resulted in a 99% reduction in mumps rates in the United States. According to the Centers for Disease Control and Prevention (CDC), two doses of the vaccine is estimated to be 88% effective at protecting an individual from infection.

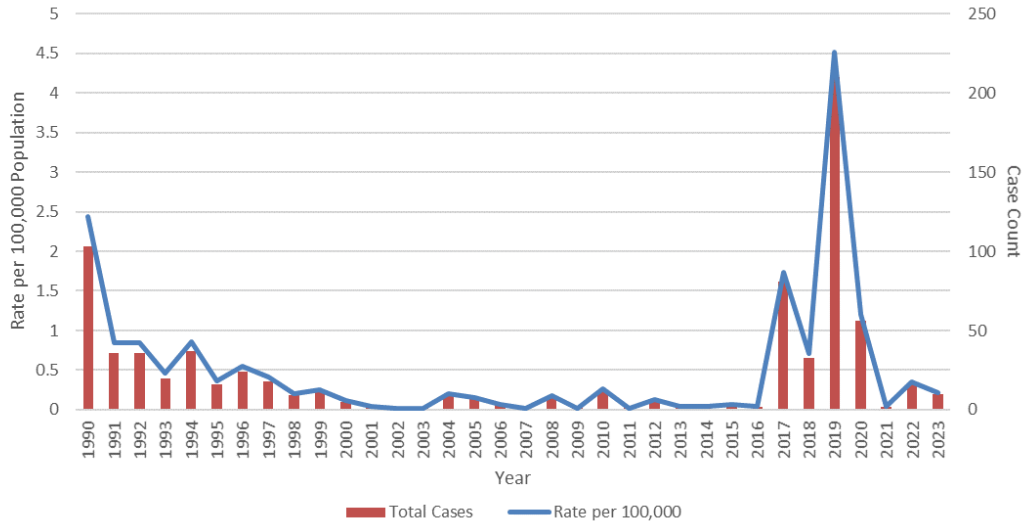
Since 2006, the number of reported mumps cases has increased, with most linked to outbreaks. A majority of these outbreaks occur in places where individuals are living in close proximity to one another, such as at college campuses. Outbreaks can occur in populations with high rates of vaccination, showing that mumps can spread among the small number of individuals who remain unprotected. The risk of infection is higher for those who have received only one dose of the vaccine.

According to the CDC, between 2015 and 2019, the U.S. experienced mumps outbreaks of varying sizes and settings, with cases beginning to rise in late 2015. In 2020, mumps cases declined compared to the previous six years, possibly due to social distancing and other COVID-19 prevention measures. However, mumps continued to circulate across the U.S. despite these measures.

Incidence

After a steady decline of mumps cases from the 1990s to the mid-2010s, there was a sharp increase in 2017 peaking dramatically in 2018 before gradually declining. This spike aligns with the university mumps outbreak in 2017, during which 58 cases were identified, primarily among students. The data suggests that after the outbreak, cases decreased but remained sporadic.

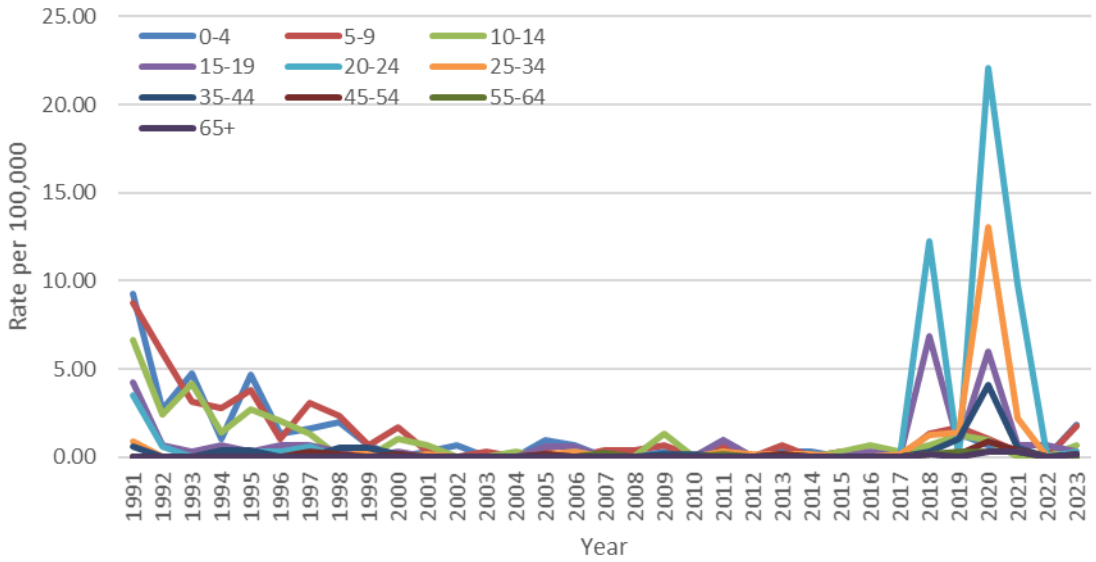
Figure 1: Case numbers and rates of mumps – Louisiana, 1990-2023



Sex and Age

The age group distribution shows that mumps is a disease occurring primarily in younger people. Even after the sharp decrease in incidence following widespread use of the vaccine, incidence rates remain slightly higher among the younger age groups. While the rates were highest in individuals younger than 20 years-old prior to 2000, the most affected age group has shifted to college-age young adults (Figure 2).

Figure 2: Mumps incidence rates by age - Louisiana, 1991 – 2023



Race

Both White people and Black people experienced declines in incidence rates of mumps in 2023. (Figure 3).

Figure 3: Mumps incidence rates by race - Louisiana, 1990 - 2023