

## Mumps

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

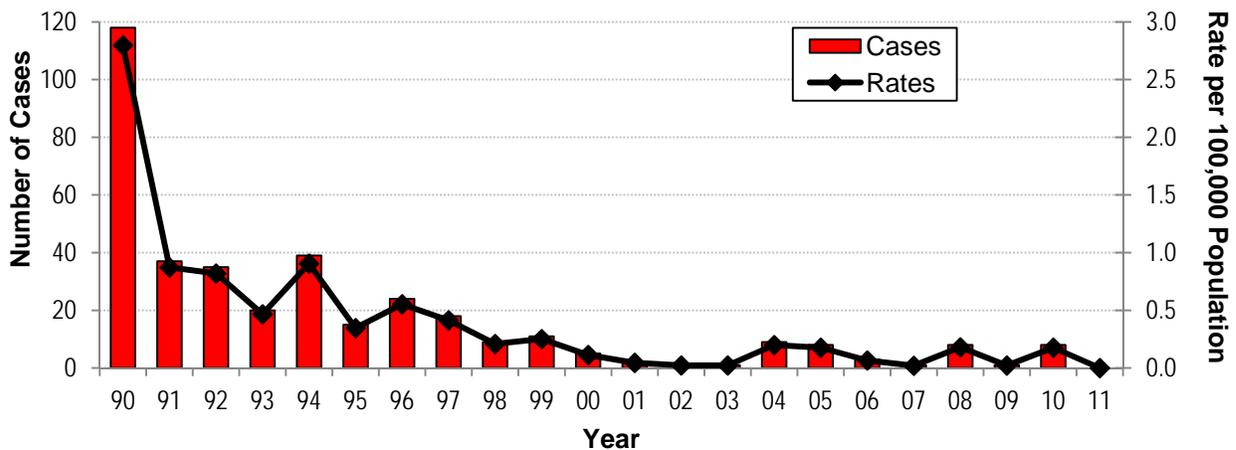
Mumps is caused by a paramyxovirus. Symptoms include fever, headache, muscle aches, tiredness, and loss of appetite, followed by swelling of salivary glands. Transmission occurs through droplets of saliva or mucus of an infected person. Humans gain immunity from mumps through previous mumps infection or vaccination.

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.

### Incidence

The incidence of mumps in Louisiana has declined dramatically with the increase of vaccination coverage (Figure 1).

Figure 1. Case numbers and rates of mumps – Louisiana 1990-2011



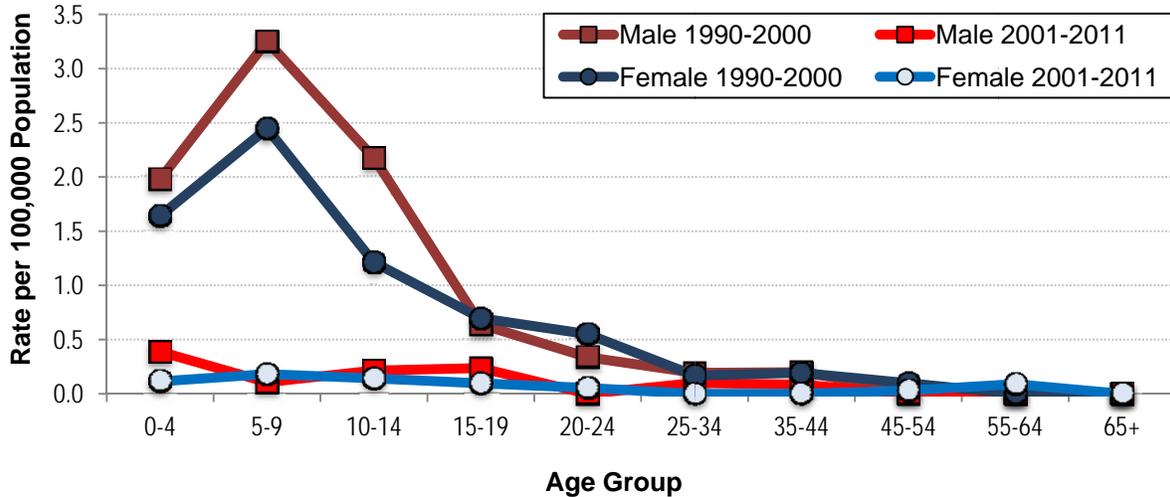
Outbreaks can occur in populations with high rates of vaccination, indicating that mumps transmission can be sustained among the few persons not protected by vaccination. Attack rates are higher among those who receive only one dose of vaccine; the current U.S. recommendation is for two doses.

### 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, with most cases occurring in persons younger than 19 years of age. Incidence rates have significantly decreased among males and females between the periods of 1990 to 2000 and 2001 to 2011 (Pearson's chi-square,

$p < 0.000$ ). There are no significant differences in incidence between the sexes (Pearson's chi-square,  $p = .08$ ) (Figure 2).

Figure 2. Mumps incidence rates by sex and age - Louisiana, 1990-2000 and 2001-2011



### Race

The distribution of mumps cases by race shows a higher overall incidence rate of mumps among Whites for the period from 1990 to 2000 (Pearson's chi-square,  $p < 0.000$ ), however there is no difference in incidence between races for the period from 2001 to 2011 (Pearson's chi-square,  $p = .55$ ). Both Whites and African-Americans show decreases in incidence between the periods from 1990 to 2000 and 2001 to 2011 (Pearson's chi-square,  $p < 0.000$ ) (Figure 3).

Figure 3. Mumps incidence rates by race and age group - Louisiana, 1988-1998 and 1999-2009

