



District Health Department #10



REPORT TO THE BOARDS OF HEALTH

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Mid-Michigan District Health Department, Wednesday, July 26, 2017
District Health Department #10, Friday, July 28, 2017

Mumps

Mumps is caused by a virus spread person-to-person through droplets of saliva or mucus, much like influenza¹. Before vaccine began in 1967, nearly every child had a case of mumps. It was a frequent cause of outbreaks in the military; in fact, only influenza and gonorrhea were a more common cause of hospitalization among soldiers during World War I¹. Mumps was also one of the most common causes of aseptic (viral) meningitis and sensorineural deafness (deafness caused by nerve damage) in childhood¹. Since the vaccination program started in the United States, there has been over a 99% reduction in mumps cases².

Symptoms of mumps include generally feeling unwell with headache, loss of appetite, and low-grade fever¹. Parotitis, or swollen salivary glands, is the most common symptom, but only occurs in 31% to 65% of sick individuals¹. It can take anywhere from 12 to 25 days for illness to appear after being exposed to someone who is carrying the mumps virus; but most commonly, it develops within 16 to 18 days. Unfortunately, infected individuals become contagious several days before their symptoms appear, which may cause them to unknowingly spread mumps to others.

Complications from mumps can occur. Orchitis, or testicular inflammation, occurred in 12% to 66% of infected men that had gone through puberty during the pre-vaccine years¹. Since vaccination, it is observed in 3% to 10% of post-puberty men¹. Prior to the vaccination era, mumps was the cause of 10% of aseptic meningitis and 36% of encephalitis¹. Also prior to vaccination availability, 3.5% of mumps cases were complicated by pancreatitis, 4.1% lead to temporary deafness and 1 out of 20,000 cases suffered from permanent deafness in one ear¹. Unfortunately, 2 in 10,000 individuals died as a result of mumps¹. Since vaccination has been available, rates of meningitis, encephalitis, pancreatitis, and deafness have been less than 1%¹.

The mumps vaccine is given as part of the Measles, Mumps, and Rubella (MMR) vaccination. The first dose is given at 12 months of age, and a second is given at age 4 through 6 years¹. Two doses are 88% effective at protecting against mumps (range: 66% to 95%)³. However, outbreaks can still occur in crowded environments, such as schools, colleges, sports teams, and camps, where it is easy to come in contact with saliva from others, either by inhaling droplets, or sharing personal items¹. In fact, there were several outbreaks on university campuses in 2016 and the number of mumps cases in the U.S. in 2016 outnumbered all cases in the prior five years combined³. For more



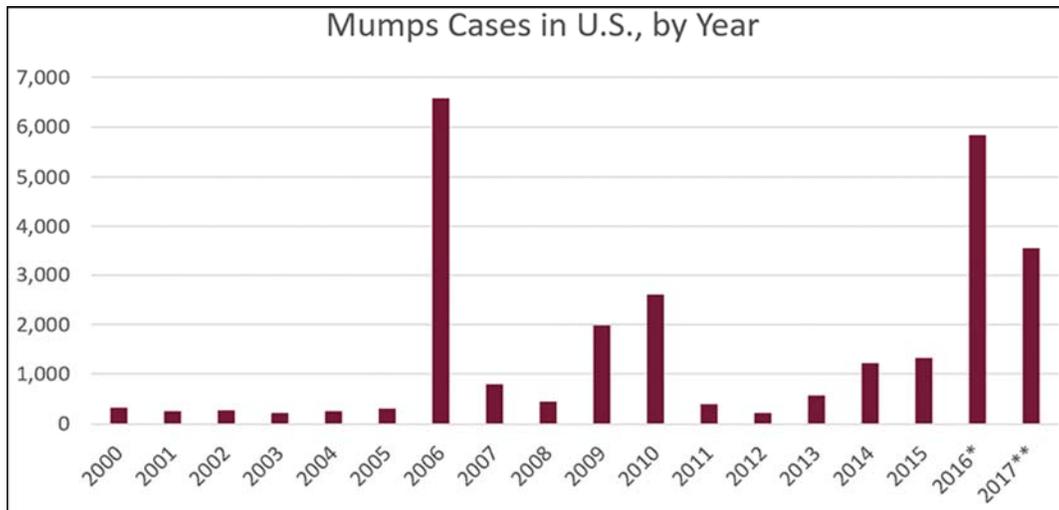
Parotitis in Sidney Crosby, player for NHL Penguins team and 2014 U.S. Winter Olympics Hockey Team. One of numerous NHL players to contract mumps during the 2014-2015 season.

¹ Centers for Disease Control and Prevention (CDC). (2015, July 30). Epidemiology and Prevention of Vaccine-Preventable Diseases: Mumps. Retrieved July 17, 2017, from <https://www.cdc.gov/vaccines/pubs/pinkbook/mumps.html>

² Centers for Disease Control and Prevention (CDC). (2016, November 22). Vaccines and Preventable Diseases. Retrieved July 17, 2017, from <https://www.cdc.gov/vaccines/vpd/mumps/index.html>

³ Centers for Disease Control and Prevention (CDC). (2017, June 27). Mumps. Retrieved July 17, 2017, from <https://www.cdc.gov/mumps/outbreaks.html>

details on some of the larger and more interesting outbreaks that have occurred over the past 10 years, see <https://www.cdc.gov/mumps/outbreaks.html>.



* Case count is preliminary and subject to change.

**Cases as of June 17, 2017. Case count is preliminary and subject to change.

Source: [Morbidity and Mortality Weekly Report \(MMWR\), Notifiable Diseases and Mortality Tables](#)

The number of cases in Michigan has been variable. However, the number of cases this year already exceeds the total number reported for all of 2016:

YEAR					
	2013	2014	2015	2016	2017
Number of Mumps Cases	16	39	20	36	as of 7/8/17: 37 (9 in Kent Co)

Cases in local districts:

YEAR										
Agency	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
MMDHD	2	0	0	1	0	0	0	0	1	1
DHD#10	1	0	0	0	0	0	0	0	0	0
CMDHD	0	0	0	0	0	0	0	0	0	0

Board of Health Healthy Living Recommendations:

1. Be sure you and your loved ones have received two doses of MMR.
2. Do not share drinks, eating utensils, or other items that have touched the mouth, particularly if attending camps, school, or in sports.
3. Practice good infection prevention, like covering coughs and sneezes and washing hands often with soap and water.
4. Seek medical care if you develop signs or symptoms of the mumps.