



Summary of Vaccine Preventable Diseases Reported to the Michigan Department of Community Health, 2010

This is a summary of reported cases of selected vaccine-preventable diseases in Michigan in 2010 (reports received in the calendar year, January 1 – December 31). Totals for 2009 are provided for comparison in the table on the final page.

Congenital Rubella – No cases of congenital rubella were reported in 2010.

Diphtheria – No cases of diphtheria were reported in 2010.

***Haemophilus influenzae* invasive disease** –

Thirty-six cases of invasive *H. influenzae* were reported, of which six were in persons 5 years of age and younger. Serotyping was performed on all but one of these isolates, none were serotype b, four were non-typeable, One was serotype f. All isolates in this age group were from blood; one case had isolates from both blood and CSF.

There were a total of 11 invasive cases reported in persons less than 15 years of age; serotyping information was available for eight, none were serotype b.

Measles - There were no reported measles cases in Michigan in 2010.

Meningococcal disease – There were a total of 24 cases of invasive meningococcal disease reported in 2010. Serogroup information was available for 14 (58%): six group B, three group C, one group w135, four group Y.

There were seven cases among persons 11-24 years of age; two were serogroup C, one was serogroup B, four were unknown. Vaccination history information was missing in the case report for six of the seven, and one indicated prior receipt of meningococcal conjugate vaccine.

There were two reported deaths, a 14 year-old male (group C) and a 22 year-old male (group C). Neither case had a record of meningococcal vaccination in the state immunization registry.

Mumps –

A total of 47 mumps cases were reported in 2010, 20 meeting the confirmed case classification and 27 classified as Suspect. Thirty cases (64%) were male; the gender ratio (male-to-female) was 1.7:1. Cases ranged in age from 2 years to 90 years, with a median age of 10 years and a mean age of 21.6 years. Of 32 cases at least 12 months and up to 25 years of age, 22 (69%) had received the age-appropriate number of mumps-containing vaccine doses.

Pertussis –

A total of 1,564 cases of pertussis were reported in 2010. This is the highest number of cases since 1962, and represents an increase of 73% over the 902 cases reported in 2009. This increase continues a rising trend since the early 1990s, which intensified starting in 2008.

Rubella –

There were no cases of rubella reported in 2010.

Tetanus –

There were 2 cases of tetanus reported in 2010. A 71 year-old female was hospitalized with complaints of jaw pain and difficulty of jaw movement; she gave a history of a nail puncture wound to the foot. She was uncertain as to her last dose of tetanus toxoid. A definitive diagnosis was not made and was classified as Probable for surveillance purposes. A 51 year-old male was hospitalized with “locked foot [and] foot drop,” and episodic muscle spasms. He reported suffering a finger laceration and abrasion approximately 1 week prior to onset. He had an extended hospitalization which included several weeks of mechanical ventilation and a tracheostomy. He had a record of last receiving Td in July 2003, about 7 years prior to this illness.

Varicella –

A total of 1,450 varicella cases were reported to MDCH in 2010, which represented a 23% decline from the 1,889 cases reported in 2009. Gender was reported for 1,413 (97.4%), with a slight preponderance of males (51%). Age was reported for 1,442 (99.4%); the median age was 9 years (mean age 10.7 years), and ranged from 1 month to 88 years. The largest proportion of cases was reported among the 10-19 years age group (589, 41%), followed by the 5-9 years age group (541, 38%). Overall 1,265 case reports (87.2%) included information about vaccine history, of which 876 (69.2%) indicated prior receipt of at least 1 dose of varicella vaccine.

Disease	Total Cases - 2009	Total Cases - 2010
Congenital Rubella	0	0
Diphtheria	0	0
<i>H. influenzae</i> invasive <5 years (serotype b)	7 (1)	6 (0)
Measles	0	0
Meningococcal disease	21	24
Mumps	22	47 (27 suspect)
Pertussis	902	1,564
Poliomyelitis	0	0
Rubella	0	0
Tetanus	0	2
Varicella	1,889	1,450

Table 1 - Number of reported cases of selected vaccine preventable diseases, Michigan, 2009 and 2010.