

Summary of Vaccine Preventable Diseases Reported to the Michigan Department of Health and Human Services, 2016

This is a summary of reported cases of selected vaccine-preventable diseases in Michigan in 2016. Totals for 2015 are provided for comparison in the table on the final page.

Congenital Rubella – No cases of congenital rubella were reported in 2016.

Diphtheria – No cases of diphtheria were reported in Michigan in 2016.

***Haemophilus influenzae* invasive disease** –

There were 188 cases of invasive *Haemophilus influenzae* disease reported in 2016; cases ranged in age from newborn to 97 years. There were 19 cases under 15 years of age, with 17 of them under age of 5 years. Isolates from all of the reported cases under age 15 were serotyped. None were identified as serotype b. There were two serotype a, one serotype d, one serotype e, three serotype f, and 12 not typeable.

Measles –

There was one case of measles reported in Michigan in 2016, a 60 year old female who became infected while traveling in Indonesia. The diagnosis was confirmed both by measles IgM serology and positive measles rt-PCR test results which indicated a D8 viral genotype. The patient was hospitalized for 4 days and despite concerns for exposure to her both inside and outside various medical settings, there were no secondary cases identified.

Meningococcal disease –

There were six cases of meningococcal disease reported in 2016. Cases ranged in age from 5 to 56 years. There were 2 serogroup B cases, 1 serogroup Y, 1 serogroup W135, and 2 isolate were of types unable to be serogrouped. There were no outbreaks or clusters identified. All 6 cases were hospitalized. There was one death reported, a 21 year-old female.

Mumps –

There were 38 mumps cases reported in 2016, with case classifications as follows: 3 Confirmed, 19 Probable, 16 Suspect. The majority of cases were sporadic in nature without linkage or connection to other cases in Michigan or elsewhere. There was one outbreak identified which consisted of 3 cases at a college in Kent County; the outbreak index case may have been exposed to an outbreak in Illinois. Overall, cases ranged in age from 18 months to 99 years and cases were 58% male.

Pertussis –

There were 389 cases of pertussis (whooping cough) reported in 2016. Due to the considerable variability in clinical illness that may accompany infection with the *B. pertussis* organism, it is likely pertussis disease is generally under-recognized and under-reported. Nevertheless the 2016 reported total represents a 22% decrease from the 496 cases in 2015. Cases were reported throughout the year, with a notable increase in reported cases in

November and December in some counties in the southeast area of the state. Cases were reported in 45 of the state’s 83 counties. Cases ranged in age from 15 days to 80 years with a median age of 9 years and a mean age of 15.3 years. Females accounted for 55% of reported cases. Hospitalization was reported for 23 5.9% of cases; there were no reported deaths in 2016.

Rubella –

There were no rubella cases in Michigan in 2016.

Tetanus –

There was one case of tetanus reported in 2016, the patient was an adult male with an unknown history of tetanus immunization who suffered a puncture wound 2-3 weeks prior to illness onset.

Varicella –

A total of 567 cases of chickenpox were reported in 2016, slightly more than the 548 cases in 2015. Cases ranged in age from 1 month to 89 years with a median of 7 years and a mean of 11.3 years. Hospitalization was reported for 23 cases (4.1%). There were no reported deaths. Laboratory testing was reportedly done for 131 cases (23.1%); PCR positive results were reported for 99 (17.5%).

Table 1 - Number of reported cases of selected vaccine preventable diseases, Michigan, 2016 and 2015.

Disease	Total Cases 2016	Total Cases 2015
Congenital Rubella	0	0
Diphtheria	0	0
<i>H. influenzae</i> invasive <5 years (serotype b)	17 (0)	13 (0)
Measles	1	1
Meningococcal disease	6	8
Mumps (includes Suspect)	38	18
Pertussis	389	496
Poliomyelitis	0	0
Rubella	0	0
Tetanus	1	0
Varicella	567	548