



Summary of Vaccine Preventable Diseases Reported to the Michigan Department of Community Health, 2012

This is a summary of reported cases of selected vaccine-preventable diseases in Michigan in 2012 (reports received in the calendar year, January 1 – December 31). Totals for 2011 are provided for comparison in the table on the final page.

Congenital Rubella – No cases of congenital rubella were reported in 2012.

Diphtheria – No cases of diphtheria were reported in Michigan in 2012.

***Haemophilus influenzae* invasive disease** – A total of 82 invasive *H. influenzae* cases was reported. Cases ranged in age from newborn to 97 years, with 19 cases under 15 years of age and 16 who were 5 years of age or less. Serotyping was completed on all 19 of these cases, 4 of which were determined to be serotype b. These included a 5 month-old unvaccinated Amish male infant diagnosed with sepsis, meningitis, and pneumonia; a 10-month old unvaccinated male with meningitis, bacteremia, and pneumonia; a 10 year-old fully vaccinated female admitted for bacterial peritonitis and whose peritoneal fluid and blood grew *H. influenzae*; and a 13 year-old female, fully vaccinated, with Hib isolated from a blood culture. Of the non-b cases under 15 years of age, 3 were serotype a, 1 was serotype d, 3 were serotype f, and 8 were non-typeable.

Measles – There was 1 case of measles reported in 2012, a 15 month-old unimmunized infant who had traveled with family to Pakistan for 3 months and was exposed to measles there, developing rash on the day of return. She was hospitalized in Chicago upon clearing customs and discharged after 3 days. There were no secondary cases identified.

Meningococcal disease – There were a total of 15 cases of invasive meningococcal disease reported in 2012, 14 confirmed and one suspect (a case in which the CSF gram stain indicated rare gram negative diplococci but there was no growth on culture). Cases ranged in age from 25 days to 68 years. All of the 14 cases that had *N. meningitidis* isolated on culture were serogrouped: 6 were serogroup B, 2 were serogroup C, and 6 were serogroup Y. There were 7 cases between 11 years and 24 years of age; 2 were serogroup B, 2 were serogroup C, 2 were serogroup Y, and one did not grow on culture.

There were 4 reported deaths, a 1 month-old male infant (serogroup B), a 19 year-old female (serogroup B, history of 1 dose of meningococcal vaccine at age 14), a 19 year-old male (serogroup B, history of 1 dose of meningococcal vaccine at age 14), and a 23 year-old female (serogroup Y, no history of meningococcal vaccination).

Mumps – There were 23 cases of mumps reported, ten were classified as Probable and 13 were Suspect (suspect cases are not included in final data by CDC). Cases ranged in age from 4 years to 82 with a median age of 16 years, and 15 (65%) cases were male.

Among the 10 probable cases, the age range was also 4 – 82 years, with a median age of 43 years; 6 cases were male. Of the probable cases, only 3 were under 35 years of age; of these 2 had a history of 1 mumps vaccine dose and 1 had a history of 2 doses.

Pertussis – A total of 845 pertussis cases were reported, a 22% increase over the 691 cases reported in 2012. The median age was 10 years (average age 15.9 years) and ranged from 3 days to 91 years; 121 (14.3%) cases were under 6 months of age, and about 23% of cases occurred among individuals 20 years of age and older, with cases reported across the age spectrum (see Pertussis Figure 1). There was one reported death, a 3 month-old unvaccinated infant. Overall 84 case reports indicated a hospitalization, with the proportion of hospitalized cases greatest among infants under 6 months of age (42%). Cases were reported from 60 of Michigan’s 83 counties (see Pertussis Figure 2).

Pertussis Figure 1

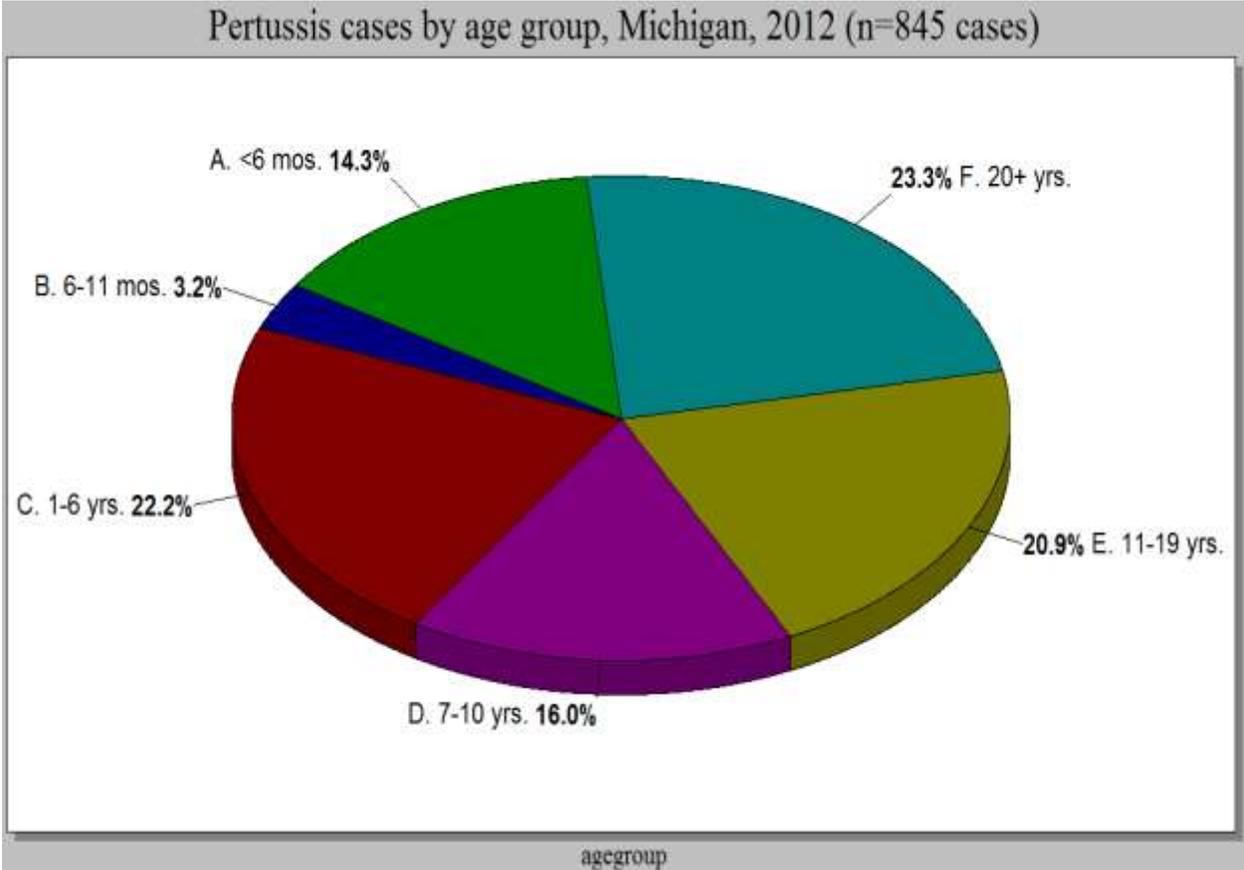


Table 1 - Number of reported cases of selected vaccine preventable diseases, Michigan, 2011 and 2012.

Disease	Total Cases 2011	Total Cases 2012
Congenital Rubella	0	0
Diphtheria	0	0
<i>H. influenzae</i> invasive <5 years (serotype b)	14 (1)	16 (2)
Measles	2	1
Meningococcal disease	12	16
Mumps	21 (12 suspect)	23
Pertussis	691	845
Poliomyelitis	0	0
Rubella	0	0
Tetanus	4	2
Varicella	1,036	972