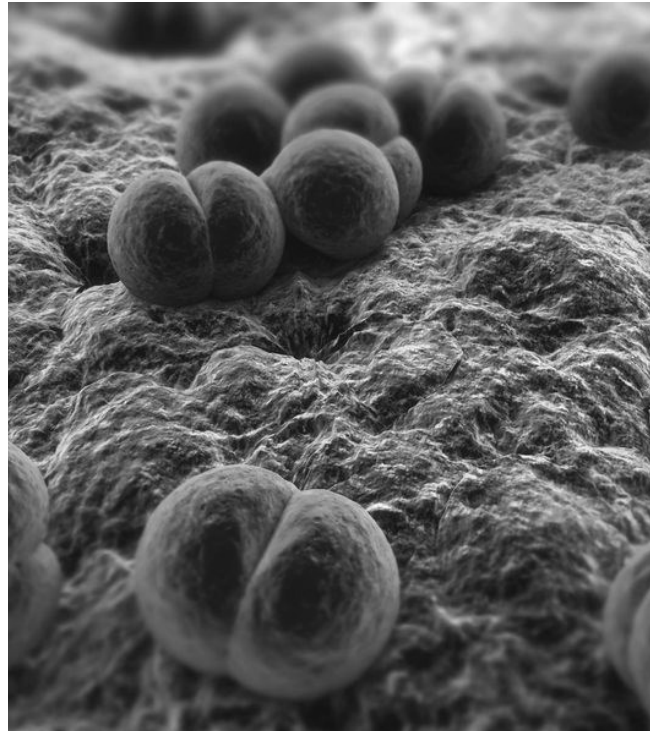




2015 Vaccine Preventable Disease Summary



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2015 Summary of Vaccine Preventable Diseases (VPD) Reported to Ottawa County

[State of Michigan VPDs Summary of Statistics](#)

This is a detailed summary of reported cases of selected vaccine-preventable diseases in Ottawa County in 2015. See the [2015 Annual Summary of Reportable Diseases](#) for information on all reportable diseases in Ottawa County.

Chickenpox (Varicella) – There were 17 varicella cases reported among Ottawa County residents, a decrease from 28 reported cases in 2014.

- The age distribution for these cases ranged from 9 months to 34 years with a mean age of 8.3 years and a median age of 5 years.
 - 5.9% (1) were under 1 year
 - 41.2 % (7) were between 1 and 4 years
 - 35.3% (6) were between 5 and 10 years
 - 11.8% (2) were between 11 and 19 years
 - 5.9% (1) were 30 years or older
- Ten cases (58.8%) had at least 1 dose of varicella vaccine and 6 cases (35.3%) were unvaccinated. The vaccination history of one adult case was unavailable.
 - 9 of the vaccinated cases (56.3%) were up to date.
 - 1 of the vaccinated cases (6.3%) was not up to date.
 - Unvaccinated cases did not receive vaccine due to: patient too young, parental refusal, and medical contraindication.
- 3 cases (17.6%) were the result of a multi-county varicella outbreak.
 - Transmission occurred at a school.
 - The three Ottawa County cases were not vaccinated.
- No varicella-related hospitalizations were reported. The last hospitalization occurred in 2014; less than one month of age, the case was too young to be vaccinated.

Congenital Rubella – There were no cases of congenital rubella reported among Ottawa County residents. Year of last case: before 1984¹.

Diphtheria – There were no cases of diphtheria reported among Ottawa County residents. Year of last case: before 1984¹.

***Haemophilus influenzae*, invasive disease** – The vaccine protects against serotype b, formerly the cause of 95% of invasive *Haemophilus influenzae* disease. There were 7 *H. influenzae* cases reported among Ottawa County residents, but none of serotype b (Hib).

- The age distribution for these cases ranged from 3 months to 81 years with a mean age of 23.6 years and a median age of 36 years. The largest age group were under age 6.
 - 57.2% (4) were 5 years old or younger
 - 14.3% (1) were between 16 and 19 years
 - 28.6% (2) were 45 years or older
- 3 of the 4 cases younger than 15 years were serotyped².
 - Among all cases serotyped, 3 were serotype a, 1 was serotype f, and 2 were unknown serotype.
- None resulted in death and 71.4% resulted in a hospital admission.

Measles – There were no cases of measles reported among Ottawa County residents. Year of last case: 1991 (two cases).

Meningococcal disease (*Neisseria meningitidis*) – There were no cases of invasive meningococcal disease caused by the bacterium *Neisseria meningitidis* reported among Ottawa County residents. Year of last case: 2011 (one case).

Mumps – There were no cases of mumps reported among Ottawa County residents. Year of last case: 2000 (one case).

Pertussis – There were 19 pertussis cases reported among Ottawa County residents. This is down from 41 cases reported in 2014.

- The age distribution for these cases ranged from 4 months to 70 years with a mean age of 17.2 years and a median age of 10 years. 57.9% of cases were 14 years or younger.
 - 15.8% (3) were under 1 year
 - 21.1% (4) were between 1 and 4 years
 - 15.8% (3) were between 5 and 10 years
 - 21.1% (4) were between 11 and 19 years
 - 26.3% (5) were 20 years or older
- Thirteen cases (68.4%) had at least 1 dose of vaccine and 5 cases (26.3%) were unvaccinated. The vaccination history of one adult case was unavailable.
 - 11 of the vaccinated cases (84.6%) were up to date.
 - 2 of the vaccinated cases (15.4%) were not up to date.
 - All unvaccinated cases did not receive vaccine due to parental refusal.
- No cases were associated with an outbreak.
- 2 cases (10.5%) resulted in a hospital admission.
 - Both were up to date on their vaccination.
- No pertussis related deaths were reported. Year of last death: before 1992³.

Pneumococcal disease (*Streptococcus pneumoniae*) – There were 13 cases of pneumococcal disease reported among Ottawa County residents.

- The age distribution for these cases ranged from 12 years to 88 years with a mean age of 61.2 years and a median age of 65 years.
 - 7.1% (1) were between 5 and 14 years
 - 7.1% (1) were between 30 and 44 years
 - 85.7% (11) were 45 years or older
- Only 3 adult cases had received any vaccine. The *Streptococcus pneumoniae* vaccination history of the remaining adults was unavailable.
 - Of the two cases 65 years and older, one was up to date and the other had only received PPSV23 vaccine.
 - The adult case under age 65 had received PPSV23 due to underlying health conditions.
- 12 cases (92.3%) resulted in a hospital admission and 1 death was reported.

Polio – There were no cases of polio reported among Ottawa County residents. Year of last case of wild-type polio: before 1984¹.

Rubella – There were no cases of rubella reported among Ottawa County residents. Year of last case: 1994 (two cases).

Shingles – Though shingles reporting is not required in Michigan, 23 cases were reported among Ottawa County residents compared to 10 reported cases in 2014. These cases are only a subset of the actual number of cases in Ottawa County. The FDA has approved the shingles vaccine for use in individuals 50 years old and above (CDC recommends vaccination for individuals 60 years or older).

- The age distribution for these cases ranged from 11 years to 93 years with a mean age of 55.5 years and a median age of 51 years.
 - 43.5% (10) were over the age of 65.
 - 26.1% (6) were between 45 and 54 years
 - 30.4% (7) were younger than 45 years
 - Two of these cases were under 20 years of age. One individual was up to date on the varicella vaccine; the other never received the required second dose.

Tetanus – There were no cases of tetanus reported among Ottawa County residents. Year of last case: before 1984¹.

Table 1 – Number of reported cases of VPDs in Ottawa County from 2013-2015.

Vaccine Preventable Disease (VPD)	Total Cases, 2013	Total Cases, 2014	Total Cases, 2015
Congenital Rubella	0	0	0
Diphtheria	0	0	0
H. influenza, invasive (b)	2 (0)	3 (0)	7 (0)
Measles	0	0	0
Meningococcal disease	0	0	0
Mumps	0	0	0
Pertussis	58	41	19
Pneumococcal disease	13	15	13
Polio	0	0	0
Rubella	0	0	0
Shingles	3	10	23
Tetanus	0	0	0
Varicella	36	28	17

¹Electronic data is available from 1984 to the present. There may have been a case of this disease among Ottawa County residents prior to 1984, however this data is not currently obtainable.

²Serotyping is mandatory for patients who are under 15 years of age.

³Electronic data for deaths related to this disease is available from 1992 to the present. There may have been a death among Ottawa County residents prior to 1992, however this data is not currently obtainable.

<http://www.mtottawa.org/healthdata>

Front Cover Image: Scanning electron microscope view of *Neisseria meningitidis*; from www.bioquellus.com/technology/microbiology/neisseria-meningitidis/