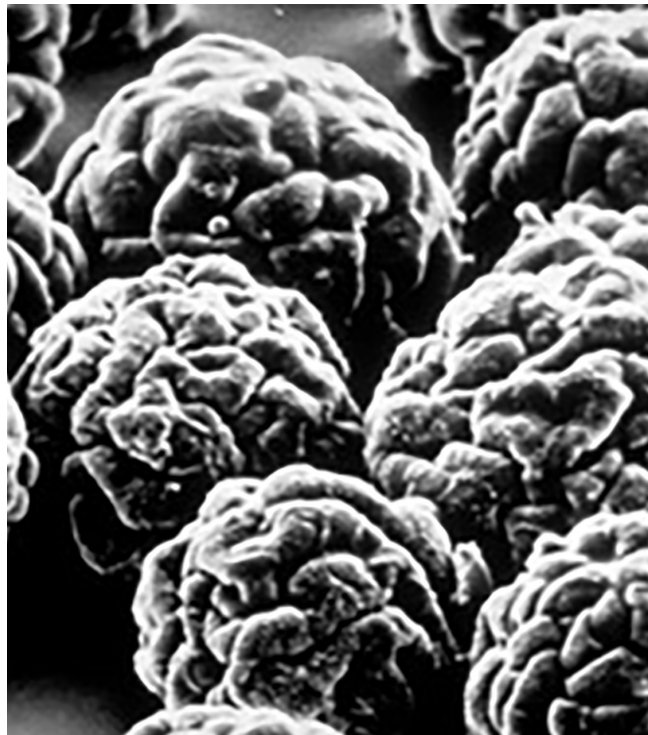




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# 2016 Vaccine Preventable Disease Summary



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Prepared  
October  
2017

# 2016 Summary of Vaccine Preventable Diseases (VPDs) 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 2016. See the [2016 Annual Summary of Reportable Diseases](#) for information on all reportable diseases in Ottawa County.

**Congenital Rubella Syndrome** – There were no cases of infants born with congenital rubella syndrome reported among Ottawa County residents. Year of last case: before 1984<sup>1</sup>.

**Diphtheria** – There were no cases of diphtheria reported among Ottawa County residents. Year of last case: before 1984<sup>1</sup>.

***Haemophilus influenzae*, invasive disease** – The vaccine protects against serotype b, formerly the cause of 95% of invasive *Haemophilus influenzae* disease. There were 3 *H. influenzae* cases reported among Ottawa County residents, but none of serotype b (Hib).

- All of these cases were over 65 years of age with a mean age of 80 years and a median age of 81 years.
- None of the cases were serotyped since all were over age 15<sup>2</sup>.
- None resulted in death and 100% 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 was one adult case of invasive meningococcal disease caused by the bacterium *Neisseria meningitidis* reported among Ottawa County residents during 2016. The case was hospitalized and had one or more underlying medical conditions that increased susceptibility to meningitis. At the time of illness, the case was under-vaccinated. Prior to this, the most recent case was in 2011.

**Mumps** – There was one suspect case of mumps reported in an Ottawa County resident who reported exposure to a mumps outbreak at a college in Kent County. Prior to this, the most recent case was in 2000.

**Pertussis (Whooping Cough)** – There were 6 pertussis cases reported among Ottawa County residents, down from 19 cases reported in 2015. There has been a declining trend in reported cases since 2013.

- One third of the cases were male.
- The age distribution of cases ranged from 10 months to 53 years with a median age of 13.5 years.
  - 1 case was less than 1 year old
  - 1 case was between 1 and 4 years
  - 1 case was between 5 and 10 years
  - 2 cases were between 20 and 24 years
  - 1 case was 45 years or older
- Five cases were vaccinated and 1 case was unvaccinated.
  - All of the vaccinated cases were up to date for their age.
  - The unvaccinated case did not receive vaccine due to parental refusal.
- No cases were associated with an outbreak.
- No cases were hospitalized. There were two pertussis-related hospitalizations in 2016.
- No pertussis-related deaths were reported. Year of last death: before 1992<sup>3</sup>.

**Pneumococcal disease (*Streptococcus pneumoniae*)** – There were 12 cases of pneumococcal disease reported among Ottawa County residents in 2016, compared to 13 in 2015.

- Two cases were in children.
  - 1 was less than 1 year old
  - 1 was between 11 and 14 years
  - One child case was unvaccinated and one was under-vaccinated.
  - Both children were hospitalized and one did not survive.
- Ten cases were in adults.
  - Of the six adult cases that were 65 years old and older, 2 were up-to-date for both PCV13 and PPSV23, 1 had received only PCV13, and 2 had unknown vaccination status.
  - Nine adult cases resulted in a hospital admission and 2 cases died.
  - Nine adult cases were known to have other underlying medical conditions.

**Polio** – There were no cases of polio reported among Ottawa County residents. Year of last case of wild-type polio: before 1984<sup>1</sup>.

**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, 15 cases were reported among Ottawa County residents compared to 23 reported cases in 2015. These cases are only a subset of the actual number of cases in Ottawa County. In March of 2011, the FDA 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 19 months to 73 years.
  - 1 was less than 4 years
  - 3 were between 15 and 24 years
  - 4 were between 25 and 44 years
  - 5 were between 45 and 64 years
  - 2 were 65 years or older

**Tetanus** – There were no cases of tetanus reported among Ottawa County residents. Year of last case: before 1984<sup>1</sup>.

**Varicella (Chickenpox)** – There were 26 confirmed and probable varicella cases reported among Ottawa County residents, an increase from 17 reported cases in 2015 and similar to the case count in 2014. Of the 2016 cases, only 6 were confirmed, either by a laboratory test or due to exposure to a person with laboratory confirmed varicella. Probable cases are not laboratory confirmed nor associated with another case of varicella.

- There were no identified outbreaks of varicella in 2016.
- No varicella-related hospitalizations were reported. The last hospitalization occurred in 2014 in a case that was too young to be vaccinated.

Among confirmed cases of varicella:

- One third were male.
- The ages ranged from 3 years to 26 years.
  - 1 was under 5 years
  - 1 was between 5 and 10 years
  - 1 was between 11 and 14 years
  - 2 were between 15 and 19 years
  - 1 was 20 years or older
- 5 of the 6 were unvaccinated.
  - One had one dose but was too young to be fully vaccinated.
  - Unvaccinated cases did not receive vaccine due to parental refusal or due to having had doctor diagnosed varicella in the past.

Table 1 – Number of reported cases of confirmed, probable, or suspect VPDs in Ottawa County from 2013-2016.

<b>Vaccine Preventable Disease (VPD)</b>	<b>Total Cases, 2013</b>	<b>Total Cases, 2014</b>	<b>Total Cases, 2015</b>	<b>Total Cases, 2016</b>
Congenital Rubella	0	0	0	0
Diphtheria	0	0	0	0
H. influenza, invasive (b)	2 (0)	3 (0)	7 (0)	3 (0)
Measles	0	0	0	0
Meningococcal disease	0	0	0	1
Mumps	0	0	0	1
Pertussis	58	41	19	6
Pneumococcal disease	13	15	13	12
Polio	0	0	0	0
Rubella	0	0	0	0
Shingles	3	10	23	15
Tetanus	0	0	0	0
Varicella	36	28	17	26

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<sup>1</sup>Electronic 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.

<sup>2</sup>Serotyping is mandatory for patients who are under 15 years of age.

<sup>3</sup>Electronic 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.miOttawa.org/healthdata>

**Front Cover Image:** Scanning electron microscope view of the wild polio virus;. Credit: <http://polioeradication.org/>