



Pertussis Report, Wisconsin, 2016
October 3, 2016

Using information reported to the Wisconsin Division of Public Health (DPH) via the Wisconsin Electronic Disease Surveillance System (WEDSS), this report summarizes pertussis case occurrence and investigation activity in Wisconsin during 2016. A summary of the DPH guidelines for the prevention and control of pertussis, including links to important resources, can be found starting at the bottom of this page.

SUMMARY OF CASES

- During January 1 through October 2, 2016, 757 cases (535 confirmed and 222 probable) of pertussis with onsets during 2016 were reported among Wisconsin residents. In comparison, 456 cases were reported during the same time period in 2015 and 831 cases were reported during the same time period in 2014 (**Figure 1**). Note: Additional cases may have occurred during recent weeks that have not been completely investigated or reported to DPH.
- 52 of the 72 Wisconsin counties have reported cases in 2016. The greatest numbers were reported from Winnebago, Marathon, and Kenosha Counties. Reported incidence of pertussis was highest in Pepin, Ashland, and Marathon Counties (**Figure 2**).
- Median patient age at cough onset was 13 years (range: <1 month to 78 years). Occurrence was highest among infants aged <1 year and adolescents (**Figure 3**).
- Among case patients, 22 (3%) had reported hospitalizations. Among hospitalized patients, 13 (59%) were aged <1 year. The median length of stay was 3 days.
- No deaths have been reported.
- Among case patients aged 2 months through 10 years, 69% were up to date for age with pertussis immunizations before cough onset. Among case patients aged 11 to 18 years, 86% had reportedly received Tdap before cough onset.
- 59 (8%) reported cases occurred among children aged <1 year. Among these case patients, 43 (73%) were aged <6 months and 13 (22%) were hospitalized. Additionally, 60% were up to date for age with pertussis immunizations, 20% were too young for immunization, 10% were under-immunized for age and 10% were eligible for another dose.

SUMMARY OF INVESTIGATION ACTIVITY

- During September 2016, the rate of new pertussis investigations (an estimate of the current rate of pertussis activity) increased in the Northern Region (**Figure 4**). Marathon, Columbia, and Polk Counties reported higher levels of pertussis activity during September 2016 than during August 2016.
- During January 1 through October 2, 2016, 23 *Bordetella parapertussis* infections were reported among Wisconsin residents, compared to 34 reported during the same time period in 2015.

PREVENTION AND CONTROL OF PERTUSSIS

- For detailed DPH guidelines: <http://www.dhs.wisconsin.gov/immunization/pertussis.htm>
<https://www.dhs.wisconsin.gov/publications/p0/p00637.pdf>
- **Infected individuals are most contagious during the catarrhal stage and the first 2 weeks after cough onset.** While pertussis and parapertussis are illnesses characterized by prolonged cough, waiting until a patient has a cough of 2 or more weeks duration before considering a diagnosis of pertussis will result in substantial transmission of *Bordetellae* to others. When pertussis is known to be occurring in a community, recognition of pertussis during the catarrhal stage of illness should be enhanced, particularly when a patient with catarrhal stage illness had known contact with a patient who has a confirmed or probable pertussis.

- Test for *B. pertussis* only in patients with an acute cough illness suspected of having pertussis. Test with both PCR and culture whenever possible. If only one test can be conducted, test with PCR. Nasopharyngeal (NP) swabs are the recommended specimen for pertussis testing and should be collected as soon as pertussis is suspected (preferably within 21 day of cough onset) for the best chance of detection of the bacteria.
- Treat with a recommended macrolide, regardless of vaccination status, if the patient has been coughing for 21 days or less (42 days or less if the patient is an infant).
- Isolate until 5 full days of appropriate antibiotic treatment have been completed.
- Recommend prophylaxis for high-risk close contacts if the contact occurred within the last 21 days.
- Immunize according to ACIP recommendations: <http://www.cdc.gov/vaccines/hcp/acip-recs/index.html>
- Report suspected cases to your local health department: <https://www.dhs.wisconsin.gov/lh-depts/counties/index.htm>
- Contact your DPH Regional Immunization Representative if you have other questions about pertussis or about this report: <https://www.dhs.wisconsin.gov/immunization/centralstaff.htm>

DEFINITIONS

Case: An acute cough illness, with a completed investigation, meeting the CDC/CSTE case definition for confirmed or probable pertussis. CDC/CSTE definitions: <http://www.cdc.gov/pertussis/surv-reporting.html#case-definition>.

Investigation: The follow-up interview and actions taken by the local health department to control disease in an individual with a suspected case of pertussis and prevent disease among the individual's close contacts.

Figure 1. Number of reported confirmed and probable cases of pertussis by month and year of cough onset, Wisconsin, January 1, 2011 through October 2, 2016

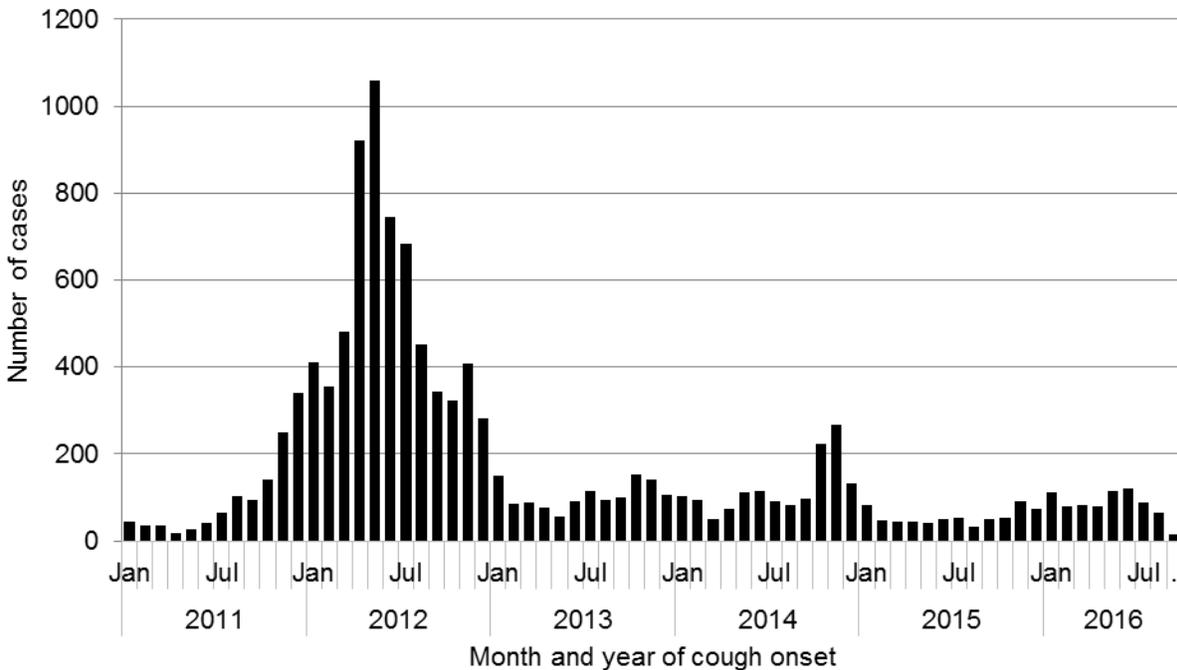


Figure 2. Number and incidence of reported confirmed and probable cases of pertussis, by county of residence, Wisconsin, January 1, 2016 through October 2, 2016 (N=757)

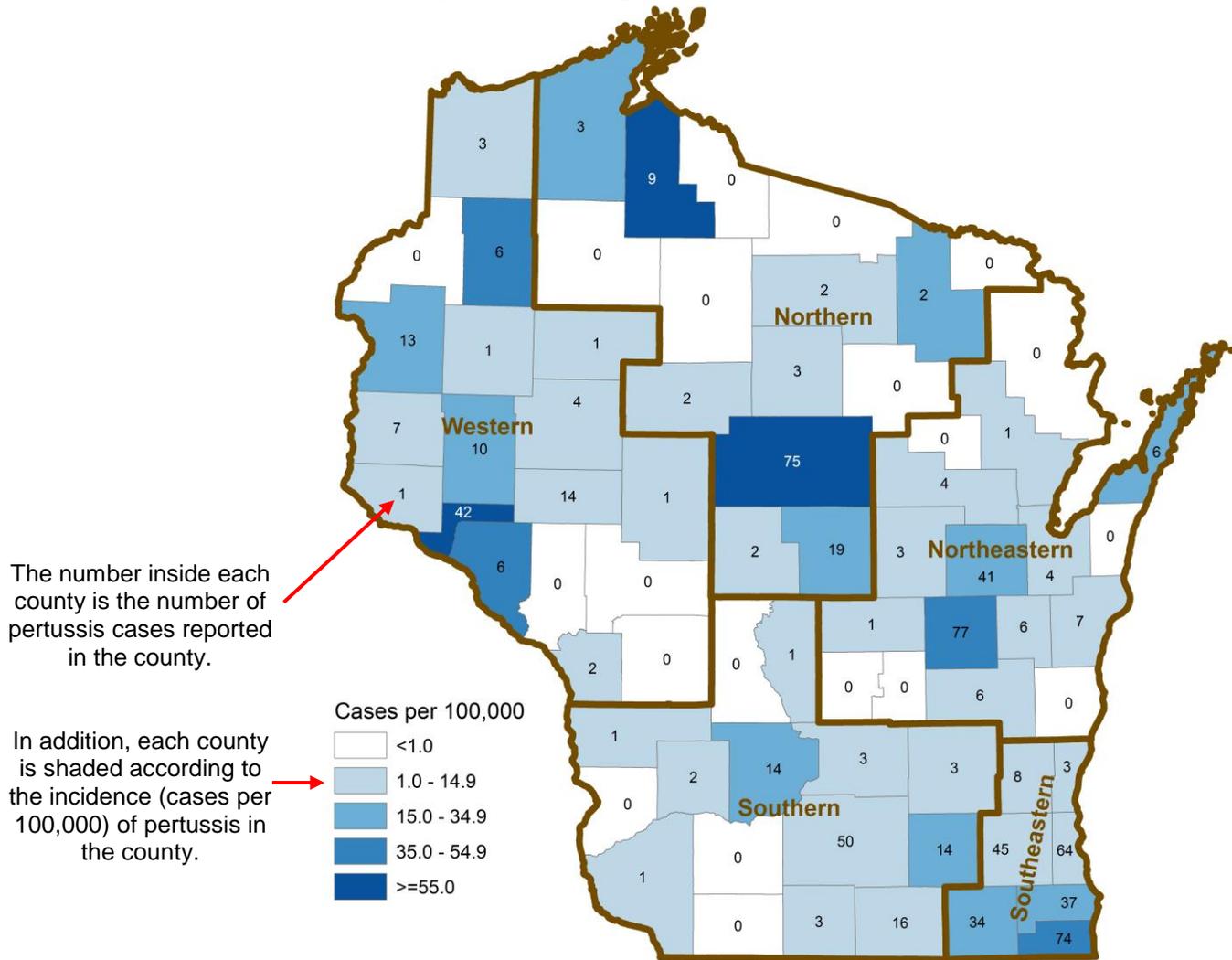
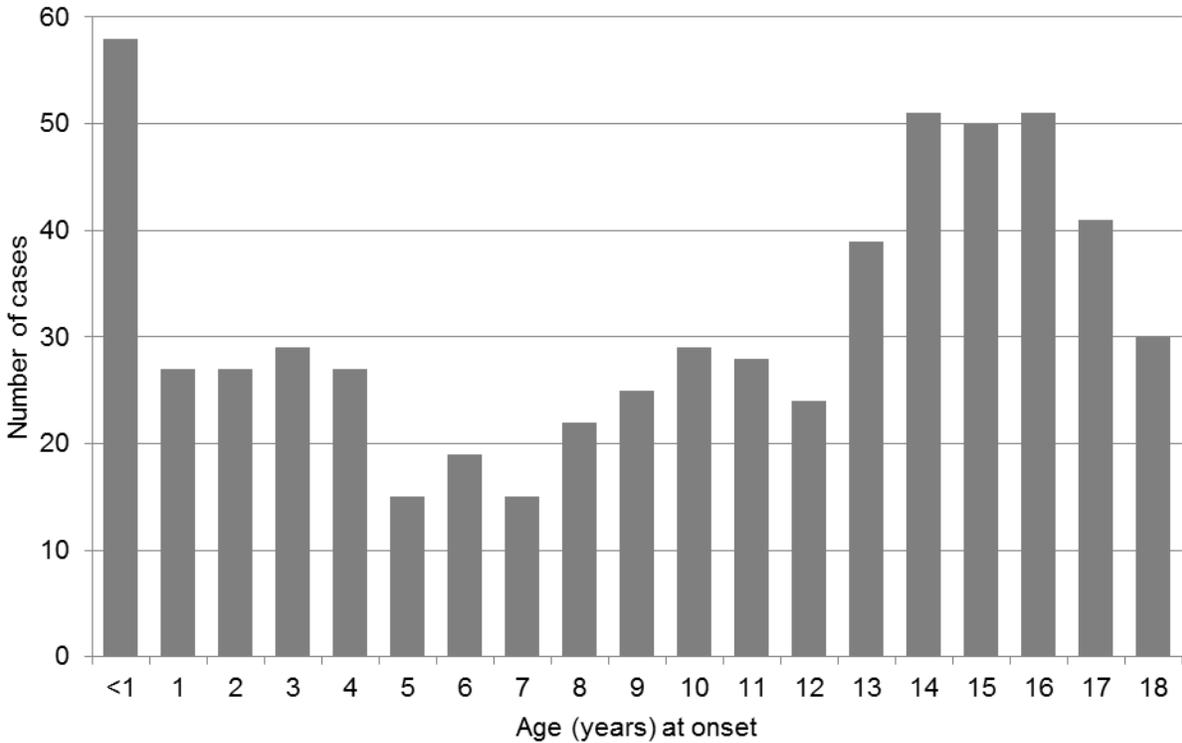


Figure 3. Number of reported confirmed and probable cases of pertussis among children aged ≤18 years, by age at onset, Wisconsin, January 1, 2016 through October 2, 2016 (N=607)



Routine vaccination with the 5-dose DTaP series is recommended at ages 2, 4, 6, and 15-18 months and 4-6 years; routine vaccination with 1 dose of Tdap is recommended at age 11-12 years.

Figure 4. Number of new pertussis investigations (per 100,000), by public health region and month of report to the local health department, Wisconsin, January 1, 2012 through October 2, 2016

