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## State of Wisconsin

### Department of Health Services

#### Annual Summary of Reported Pertussis, Wisconsin, 2014 April 2, 2015

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 in Wisconsin during 2014.

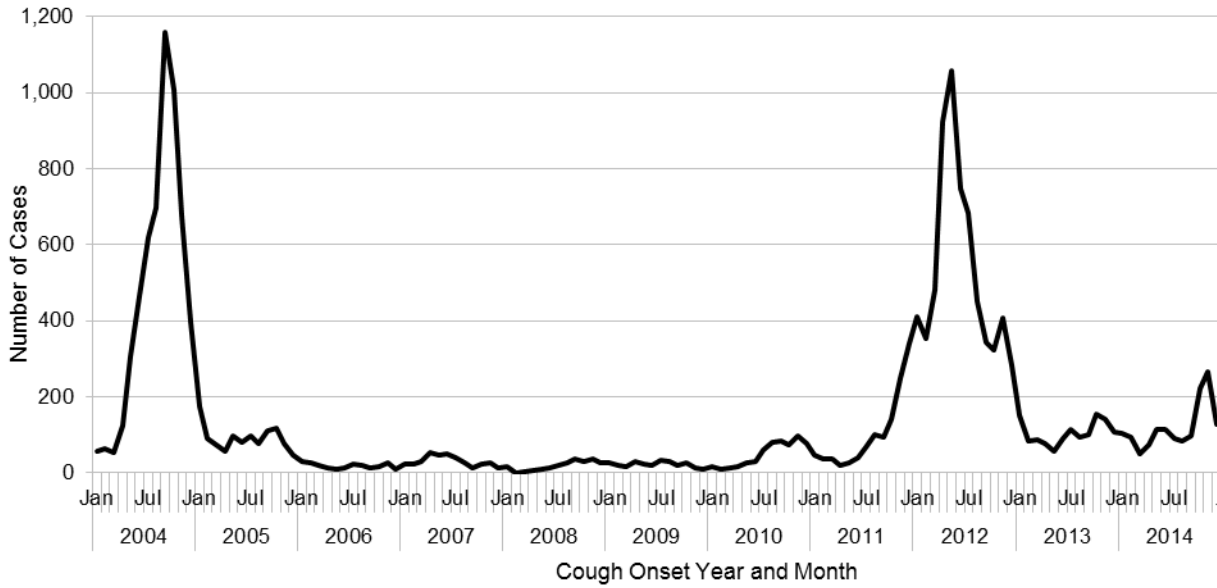
#### SUMMARY OF CASES

- During January 1 through December 31, 2014, 1,437 cases (1,079 confirmed and 358 probable) of pertussis with onset during 2014 were reported among Wisconsin residents (incidence: 25.1 cases per 100,000). In comparison, 1,258 cases were reported during 2013 (incidence: 22.0 per 100,000) and 6,462 cases were reported during 2012 (incidence: 113.1 per 100,000) (**Figure 1**).
- 65 of the 72 Wisconsin counties reported cases during 2014. The greatest numbers were reported from Walworth, Milwaukee, and Dane Counties. Reported incidence of pertussis was greatest in Buffalo, Walworth, and Rusk Counties (**Figure 2**).
- Among cases reported during 2014, median patient age at cough onset was 13 years (range: <1 month to 88 years). The Northern region had the highest incidence of reported pertussis in most age categories (**Figure 3**). Occurrence was highest among infants and adolescents aged 13-16 years (**Figure 4**).
- Among case patients, 37 (3%) had reported hospitalizations. Of hospitalized patients, 17 (46%) were aged <1 year and were hospitalized for a median of 2 days (range: 1 to 28 days). The remaining 20 hospitalized patients ranged in age from 3 to 85 years, were hospitalized for a median of 2 days (range: 1 to 37 days), and most had a reported underlying medical condition.
- No deaths were reported.
- Race and ethnicity were not reported for 21% of cases. Among those with race reported, the incidence of pertussis was highest among Whites (19.9 cases per 100,000), followed by Black/African Americans (10.3), Asians (5.8), and American Indian/Alaska Natives (4.2). Among those with ethnicity reported, the incidence of pertussis was higher among Hispanics (32.0 cases per 100,000) than non-Hispanics (18.6).
- Among case patients aged  $\leq 10$  years, 71% were up to date for age with pertussis immunizations before cough onset. Additionally, 86% of case patients aged 11 to 18 years had reportedly received Tdap before cough onset.
- 115 (8%) reported cases occurred among children aged <1 year. Among these case patients, 65% were aged <6 months. Seventeen (15%) were hospitalized. Additionally, 58% were up to date for age with pertussis immunizations, 17% were too young for immunization, 16% were under-immunized for age and 9% were eligible for another dose.

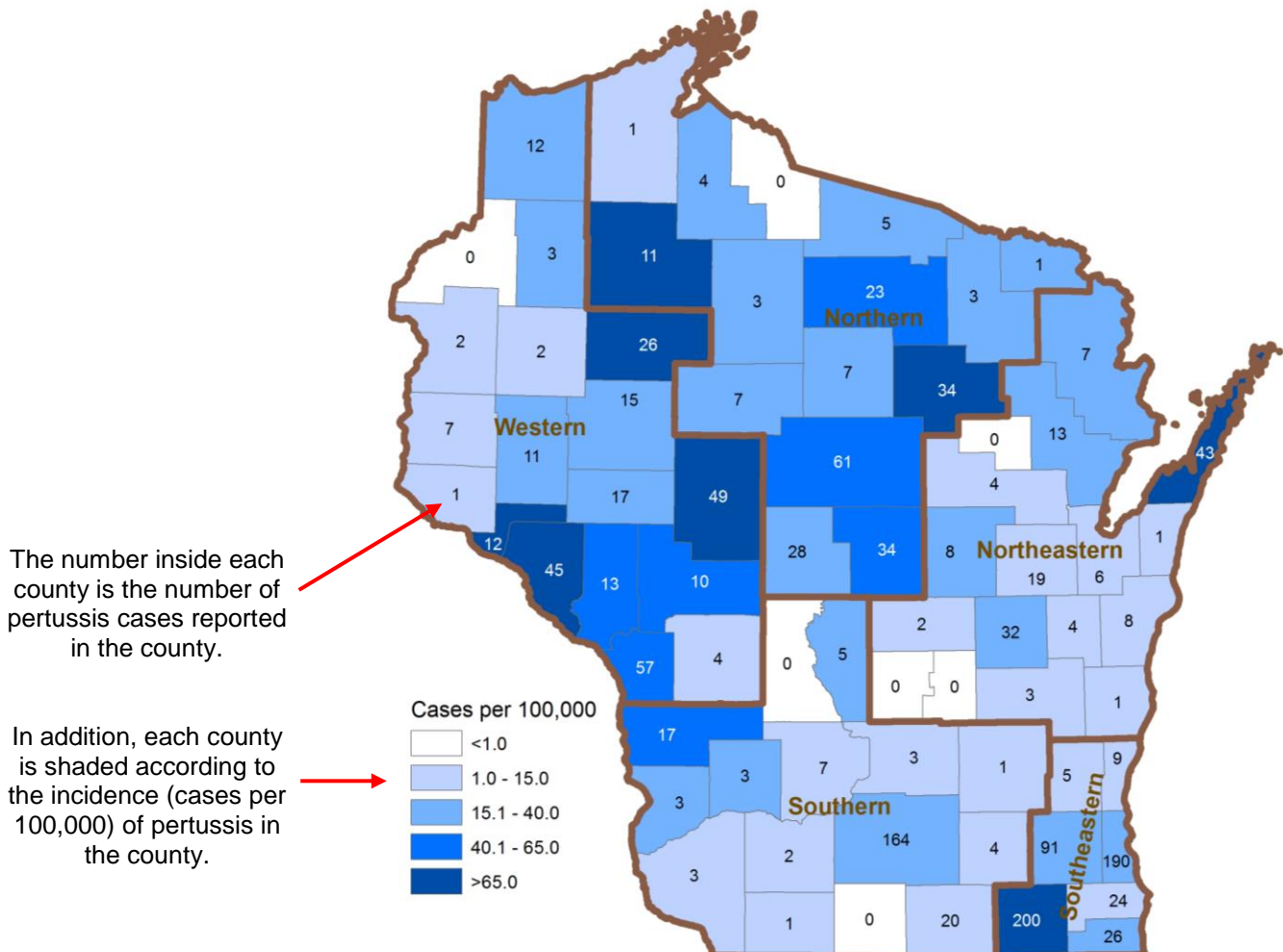
#### DEFINITION

**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>.

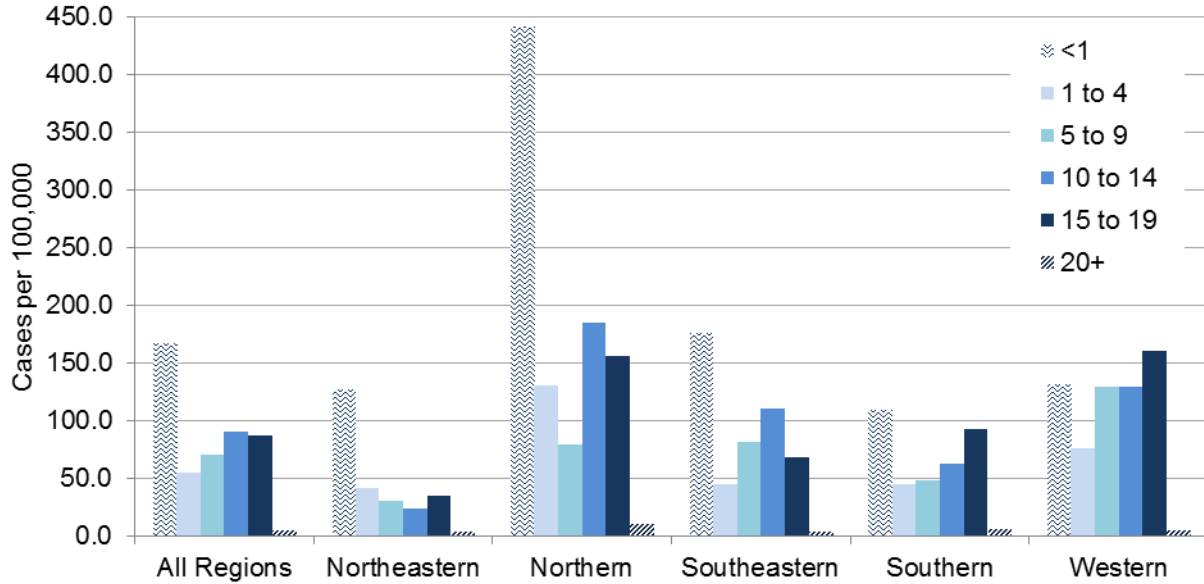
**Figure 1.** Number of reported confirmed and probable cases of pertussis by month and year of cough onset, Wisconsin, January 1, 2004 through December 31, 2014



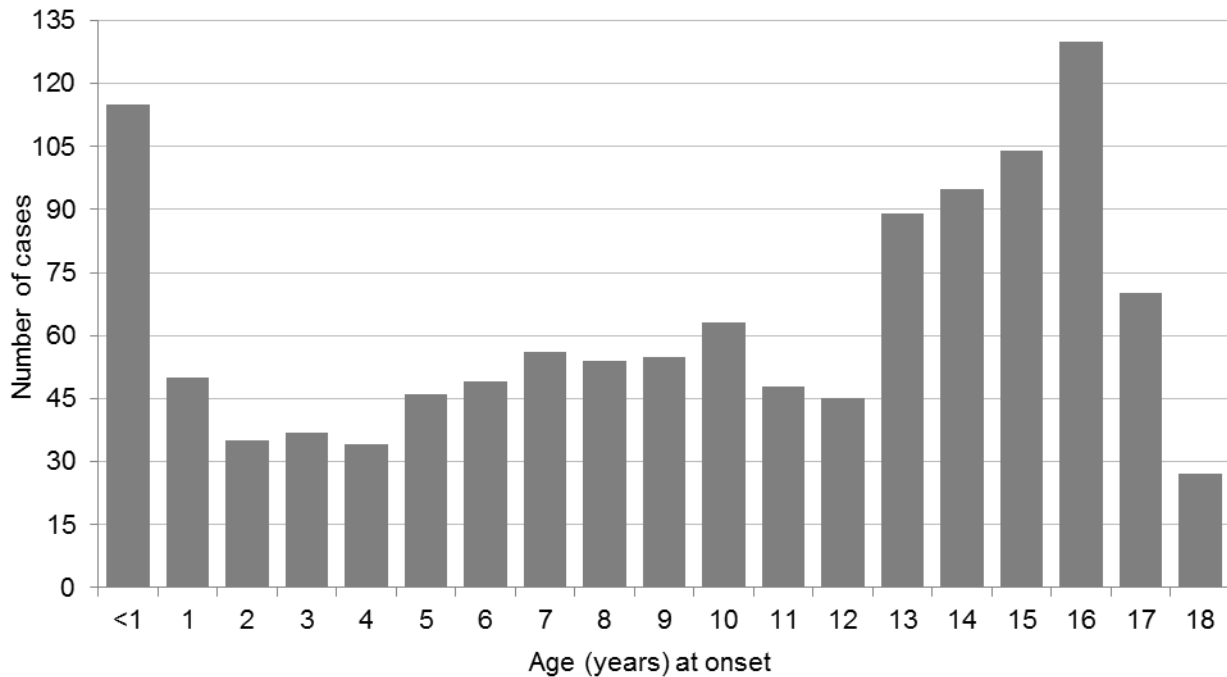
**Figure 2.** Number and incidence of reported confirmed and probable cases of pertussis, by county of residence, Wisconsin, January 1, 2014 through December 31, 2014 (N=1,437)



**Figure 3.** Incidence (per 100,000) of confirmed and probable pertussis cases, by age group and public health region, Wisconsin, January 1, 2014 through December 31, 2014 (N=1,437)



**Figure 4.** Number of reported confirmed and probable cases of pertussis among children aged  $\leq 18$  years, by age at onset, Wisconsin, January 1, 2014 through December 31, 2014 (N=1,202)



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.