Weekly Pertussis Update for Washington State

Washington State Department of Health

2024 year-to-date (YTD) confirmed and probable cases reported through 06/22/2024 (week 25).

This update summarizes all reports of pertussis in persons with illness onset dates during CDC weeks 1 - 25. The included reports were received by local health jurisdictions (LHJs) and reported to Washington State Department of Health (DOH) – Communicable Disease Epidemiology. Lab result reporting and case investigations take time, so it sometimes takes 3 to 4 weeks after a positive test for a case to be classified as confirmed or probable pertussis. The data presented in this report is therefore subject to change over time.

There have been a total of 326 cases reported statewide so far in 2024, compared to 26 cases reported by week 25 in 2023. Dates for the 2023/2024 comparison are based primarily on symptom onset dates. For information about pertussis case counts in prior years, please refer to DOH's Communicable Disease Annual Reports or the Annual Pertussis Reports.

Figure 1: Number of Pertussis Cases Reported in Washington State by CDC Week of Symptom Onset: 2023 (blue) vs 2024 (red)

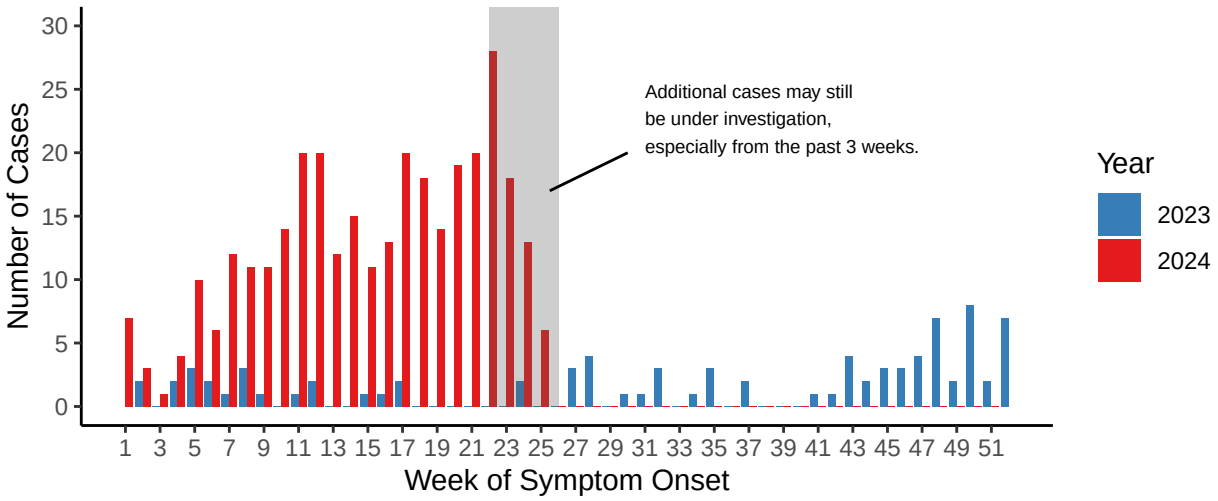


Figure 2: WA State Pertussis Cases Reported by Month and Year (black) with Projected Baseline and Epidemic Thresholds (red dashed lines), 2014 through year-to-date 2024[1]

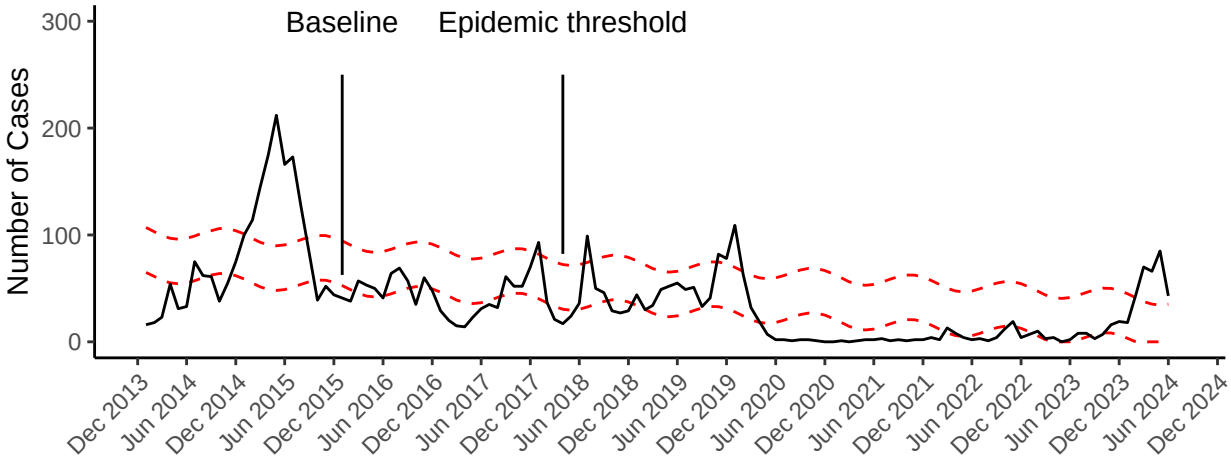


Table 1: WA State Pertussis Cases by Age Group, 2024 weeks 1 - 25

Age Group	OFM 2022 Population	Number of Cases	Rate per 100,000 persons	% of cases by age group*
< 1	88,441	34	38.4	10
1 - 4	349,505	78	22.3	24
5 - 9	476,054	62	13.0	19
10 - 13	396,426	48	12.1	15
14 - 18	480,566	58	12.1	18
19 - 24	588,771	10	1.7	3
25 - 44	2,225,672	22	1.0	7
45 - 64	1,911,375	9	0.5	3
65+	1,347,568	5	0.4	2
All ages	7,864,378	326	4.1	100

**Due to rounding, percentages may not always add up to 100%*

The overall year-to-date incidence rate is 4.1 pertussis cases per 100,000 Washington residents from weeks 1 through 25, with an incidence rate among infants under one year of age of 38.4 cases per 100,000 (see Table 1). Infants under one year of age are among the most vulnerable to severe pertussis disease.

Of the 34 infants who had pertussis so far in 2024: 29 were old enough to have received a dose of pertussis-containing vaccine, and 4 (12%) had received at least one dose.

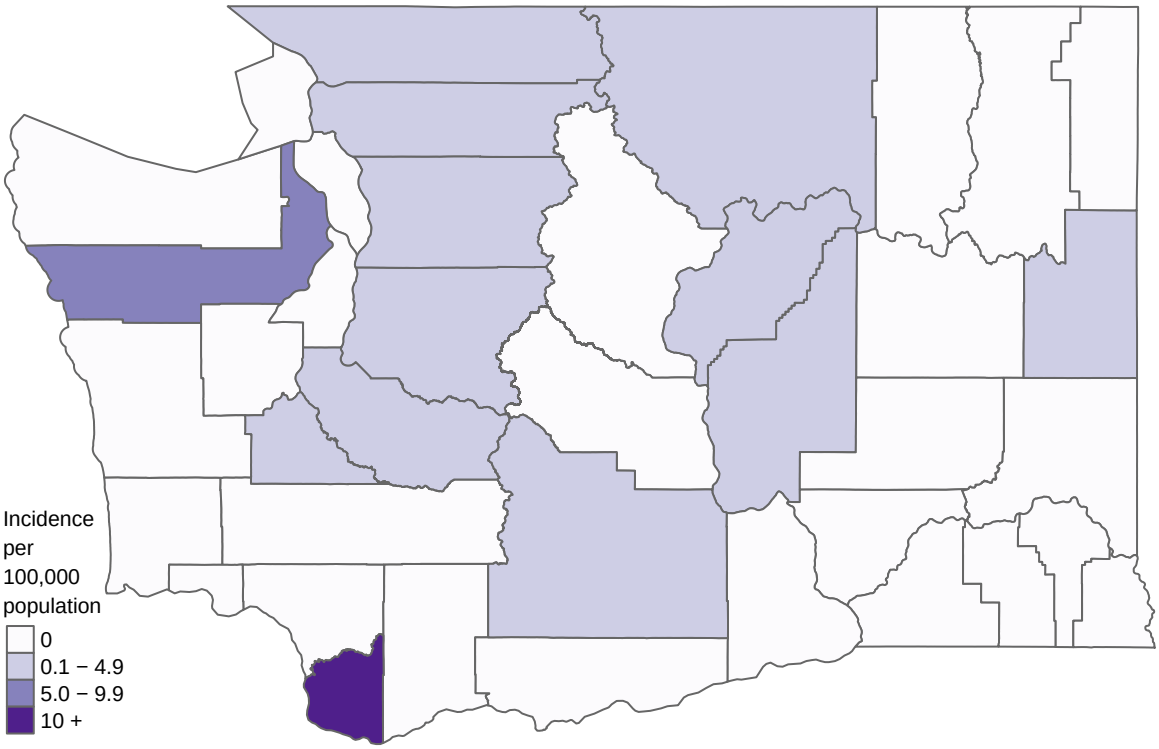
Table 2: WA State Pertussis Cases by County, 2024 weeks 1 - 25

County	Number of Cases	OFM 2022 Population	Rate per 100,000 persons
Clark	102	520,898	19.6
King	64	2,317,702	2.8
Chelan	62	80,648	76.9
Douglas	21	43,997	47.7
Pierce	21	937,403	2.2
Snohomish	12	847,301	1.4
Spokane	11	550,703	2.0
Grant	5	101,800	4.9
Skagit	5	131,253	3.8
Yakima	5	259,952	1.9
Jefferson	4	33,347	12.0
Clallam	3	77,625	3.9
Okanogan	3	42,702	7.0
Thurston	3	300,496	1.0
Whatcom	3	231,648	1.3
Benton	1	212,300	0.5
Franklin	1	99,756	1.0

Among the 17 counties with reported pertussis activity so far in 2024, the number of pertussis cases in a given county ranges from 1 to 102 and county-level YTD incidence rates range from 0.5 to 76.9 per 100,000 persons (see Table 2).

- The median and mean county-level year-to-date incidence rates in counties reporting pertussis activity are 2.8 and 11.2 per 100,000 persons, respectively.
- 22 counties have reported no pertussis cases as of CDC week 25 of this year.

Figure 3: Six-Week Pertussis Incidence Rates by County, 2024 weeks 19 - 25



The incubation period for pertussis is up to 21 days, so six weeks represents two 21-day incubation periods. Outbreaks of pertussis are usually declared over after six weeks have passed with no additional cases. The map above uses the past six weeks of data to highlight areas where the potential for continuing outbreaks exists based on current patterns of reported pertussis disease.

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1. *Pelat C, Boëlle PY, Cowling BJ, Carrat F, Flahault A, Ansart S, Valleron AJ. Online detection and quantification of epidemics. BMC Med Inform Decis Mak. 2007 Oct 15 ; 729* – software available at https://periodic.sentiweb.fr/

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