

MLS Laboratory Update:

DECEMBER 6TH, 2024

Purpose of this Message:

To provide clinical laboratory partners with information regarding a significant increase in pertussis cases in Minnesota.

Action Item:

Please review the information below and share with your clinical laboratory partners.

- Test for pertussis by collecting nasopharyngeal specimen for PCR or serum specimen for IgG; consider collecting both PCR and serum specimens for those with cough illness lasting between two to four weeks. Most reference laboratories have ability to test for pertussis. For more information on timing of specimen collection and testing and general testing recommendations visit [MDH: Pertussis Laboratory Testing \(www.health.state.mn.us/diseases/pertussis/hcp/labfacts.html\)](http://www.health.state.mn.us/diseases/pertussis/hcp/labfacts.html).
- Report clinically diagnosed and lab confirmed cases to the Minnesota Department of Health (MDH) at [Vaccine Preventable Disease \(VPD\) Reporting Form \(https://redcap.health.state.mn.us/redcap/surveys/?s=WTLER8NA7FYFFCE8\)](https://redcap.health.state.mn.us/redcap/surveys/?s=WTLER8NA7FYFFCE8).

Background:

As of Dec. 4, 2024, there have been 2,324 cases of pertussis reported in Minnesota since the start of the year. An increase in pertussis of this magnitude has not been seen since 2012. Cases are occurring statewide, with concentrations in the seven-county metro. The median age of cases is 14 years (range: one month to 92 years); 77 cases have been in infants \leq 12 months of age. Among the cases, 57 have reported pneumonia and 34 have been hospitalized. The increase in cases is not unexpected given pertussis cases cycle every 3-5 years. Waning Tdap immunity among high school age students is also contributing, as immunity begins to wane around one to two years after the most recent Tdap vaccine (routinely recommended booster dose administered at 11-12 years of age).

MDH works with school staff and other settings to provide letters for exposed families to be evaluated, tested, and treated for pertussis if a cough develops. For more information on exclusion recommendations used in school settings, visit [Pertussis: School and Activities Exclusion Recommendations \(https://www.health.state.mn.us/diseases/pertussis/school/schoolexcl.pdf\)](https://www.health.state.mn.us/diseases/pertussis/school/schoolexcl.pdf)

Pertussis cases can be misdiagnosed as acute asthma, bronchitis, sinusitis with persistent cough, or pneumonia. In the initial weeks, pertussis symptoms can resemble a cold. Additionally, vaccinated persons can experience milder forms of pertussis, presenting only with a prolonged cough; however, they still transmit disease. Therefore, testing for pertussis, even in mild cases, is crucial to prevent further transmission.

Additional Information:

Thank You

Thank you to our MLS laboratory partners for providing positive specimens to MDH-PHL throughout this increase in cases. Your partnership and efforts are very much appreciated.

Contagious period, exclusion, and treatment

- People with pertussis are contagious for the first 21 days of coughing or until they have completed the first five days of appropriate antibiotic treatment, whichever occurs first.
 - Those with pertussis should stay home from work, school, and activities through the infectious period.
 - If cough duration is already beyond 21 days, antibiotics are not recommended, as the person is no longer contagious and the medication will not relieve the symptoms. Exceptions include those who are pregnant or infants <1 year of age, then treatment can be considered within 42 days of cough onset.
- People who receive post-exposure prophylaxis but do not have symptoms, do not need to stay home from school, work, or other activities.
 - If they develop symptoms, they should stay home through the first five days of antibiotic treatment.
- More information on appropriate antibiotics for pertussis can be found at [Pertussis Treatment and Prophylaxis](https://www.health.state.mn.us/diseases/pertussis/hcp/treatment.html) (<https://www.health.state.mn.us/diseases/pertussis/hcp/treatment.html>)

Vaccination

Vaccination is crucial in preventing and reducing the spread of pertussis. Immunity to pertussis begins to wane one to two years after Tdap vaccination. Clinicians should ensure the following:

- Vaccinate with Tdap during every pregnancy. Infants are at high-risk for complications and benefit from maternal antibody transfer. Tdap can be given any time during pregnancy during this community outbreak.
- Adults should receive a Tdap booster every 10 years and as needed for wound management. Tdap can be used whenever Td is recommended to provide patients with protection against pertussis: [Use of Tetanus Toxoid, Reduced Diphtheria Toxoid, and Acellular Pertussis Vaccines: Updated Recommendations of the Advisory Committee on](#)

[Immunization Practices — United States, 2019](https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6903a5-H.pdf)
(<https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6903a5-H.pdf>)

For More Information

- [MDH: Pertussis Information for Health Professionals](http://www.health.state.mn.us/diseases/pertussis/hcp/index.html)
- [MDH: Pertussis Information for Schools and Child Care](http://www.health.state.mn.us/diseases/pertussis/school/index.html)
- [CDC: Child and Adolescent Immunization Schedule by Age](http://www.cdc.gov/vaccines/hcp/imz-schedules/child-adolescent-age.html)
- [CDC: Adult Immunization Schedule by Age](http://www.cdc.gov/vaccines/hcp/imz-schedules/adult-age.html) (www.cdc.gov/vaccines/hcp/imz-schedules/adult-age.html)

Questions: Please contact: the Minnesota Laboratory System inbox at:
health.mnlabsystem@state.mn.us

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Minnesota Laboratory System
Minnesota Department of Health, Public Health Laboratory
601 Robert St. N, St. Paul, MN 55164-0899
651-201-5200
health.mnlabsystem@state.mn.us
www.health.state.mn.us/diseases/idlab/mls/index.html

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