



AKPHAN

ALASKA PUBLIC HEALTH ALERT NETWORK

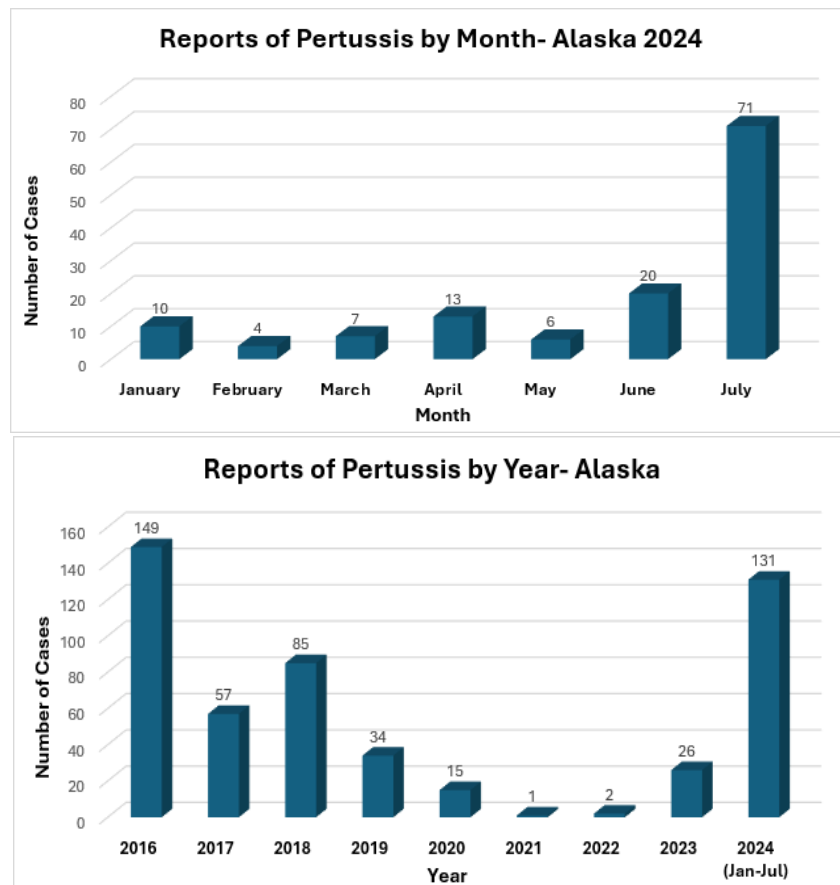
The following message was sent to you through the Alaska Public Health Alert Network (AK PHAN). Please share this information with others who may be interested. Note: Contact information for the Alaska Section of Epidemiology can be found at the end of this message.

Increase in Pertussis Activity in Alaska

Summary

Since June, 91 cases of pertussis have been reported to the Alaska Section of Epidemiology. This represents a marked increase in pertussis activity this year compared to recent years and mirrors a trend occurring throughout the United States. Most of Alaska's reported cases have occurred in the Southcentral region.

Note: There has also been sustained respiratory illness activity associated with viral infections this summer see: <https://health.alaska.gov/dph/Epi/id/Pages/COVID-19/covidandflu.aspx>



*Counts are provisional and may be updated.

*Includes confirmed and probable cases

Background

- Pertussis, also known as whooping cough, is a highly contagious respiratory disease caused by the bacterium *Bordetella pertussis*.
- Pertussis cases tend to show cyclical increases every 3-5 years due to a combination of factors, including waning immunity.
- Pertussis doesn't have a distinct seasonal pattern in the United States; however, some studies suggest that cases might increase in the summer and fall.
- Pertussis is spread through respiratory droplets (through coughing and sneezing) and sharing saliva (e.g., kissing and sharing cups/utensils).
- Infected people can spread pertussis to others during the first 2 weeks of their illness.
- Symptoms typically appear 5–10 days after exposure (range 5–21 days) and can last for weeks to months.
 - In children, the illness typically starts with mild cold-like symptoms (runny nose, mild cough, and fever) and can progress to severe coughing spells that can cause vomiting, exhaustion, and the characteristic "whoop" sound when breathing in.
 - In adults, symptoms are often milder, but can include a prolonged cough lasting weeks to months.
- Infants are at the highest risk for severe disease, with about one-third requiring hospitalization.
 - Complications can include pneumonia, apnea (cessation of breathing for >20 seconds), seizures, encephalopathy, and in severe cases, death.
 - Of those babies who get treatment for whooping cough in a hospital, about 1 out of 5 will get pneumonia (lung infection) and 1 out of 100 will die.
 - Most of the deaths each year occur in infants younger than 3 months old.
 - During 2010-2020, up to 20 babies died from pertussis each year in the United States.
 - Unvaccinated infants and those infants whose mothers did not receive the Tdap vaccine during pregnancy are at higher risk for serious illness.

Pertussis Testing

- Collect a nasopharyngeal swab for pertussis PCR (recommended method).
 - PCR has optimal sensitivity during the first 3 weeks of cough when bacterial DNA is still present in the nasopharynx. PCR can provide rapid confirmation.
 - Specimens for PCR testing should be obtained by aspiration or swabbing the posterior nasopharynx.
 - See [CDC's best practices](#) for using PCR to diagnose pertussis.
- See CDC's information for [laboratory testing for pertussis](#).

Vaccinations

The best way to prevent pertussis is to get vaccinated. Pertussis remains one of the leading causes of vaccine-preventable deaths worldwide, despite overall high vaccination coverage. Most pertussis deaths occur in young babies who are either unvaccinated or incompletely vaccinated.

- **DTaP Vaccine:** This vaccine protects against diphtheria, tetanus, and pertussis and is recommended for children in a series of five shots, at 2, 4, 6, and 15-18 months, with a booster at 4-6 years.
 - DTaP fully protects 98% of children within the year following the last dose, and about 71% of children 5 years after getting the last dose of DTaP.

- **Tdap Vaccine:** This booster vaccine is recommended for adolescents starting at 11-12 years of age and continuing every 10 years.
 - Tdap fully protects about 73% of adolescents in the first year after vaccination, and about 34% of people 4 years after vaccination.
 - Pregnant women are also advised to receive the Tdap vaccine during each pregnancy to protect newborns from pertussis.
 - Tdap vaccination during the third trimester of pregnancy prevents about 78% of pertussis cases in infants younger than 2 months old, and about 90% of hospitalizations for infants younger than 2 months old with pertussis.
- Prioritize vaccinating:
 - Unvaccinated and under vaccinated infants and young children.
 - People who have direct contact with infants (i.e., children <1 year old).
 - People with high-risk health conditions.
 - Pregnant women at 27–36 weeks gestation (third trimester) should receive one dose of Tdap vaccine (during each pregnancy).

Healthcare Providers

- **Think Pertussis.** Consider pertussis, regardless of age or vaccination status, in patients exhibiting:
 - Prolonged cough. Pertussis should be considered in the diagnosis of coughs lasting greater than 1 week.
 - Paroxysmal cough and/or post-tussive vomiting or whoop in young children.
 - Apnea or cyanosis without the characteristic paroxysmal cough, especially in infants.
 - A cough illness of 3 or more days and a known close exposure to a pertussis case.
- **Test.** Collect a nasopharyngeal swab for pertussis PCR (recommended method).
 - Test early to assure timely administration of antibiotic therapy for infected patients.
 - See [CDC's best practices](#) for using PCR to diagnose pertussis.
- **Treat.** Antimicrobial therapy may help reduce symptoms and prevent the spread of disease to others. The [recommended antibiotics for treatment or postexposure prophylaxis of pertussis](#) are:
 - Azithromycin
 - Azithromycin remains the drug of choice for treatment or prophylaxis of pertussis in very young infants.
 - Clarithromycin
 - Erythromycin
 - Healthcare providers can also use trimethoprim-sulfamethoxazole.
 - Monitor infants <1 month of age who receive a macrolide for the development of IHPS and for other serious adverse events.
 - Treatment within the first 1-2 weeks is most effective for reducing symptom severity.
 - Instruct people with confirmed or suspected pertussis to stay home from work, school, or childcare.
 - Patients are considered non-infectious after completing the 5th day of appropriate antimicrobial treatment.
- **Notify.** Pertussis is a reportable condition in Alaska. Report cases to Alaska Section of Epidemiology of newly diagnosed cases by calling 907-269-8000; or fax an [Infectious Disease Report Form](#) to 907-561-4239.
- **Postexposure Prophylaxis (PEP).** Offer PEP to:
 - Household contacts of a pertussis case
 - All asymptomatic household contacts of a pertussis case should receive PEP within 21 days of onset of cough in the index patient.

- Contacts that are highest risk, include infants under 12 months of age and people with high-risk health conditions that may be exacerbated by a pertussis infection.
- Women in their third trimester of pregnancy may be a source of pertussis to their newborn infant.

For More Information

- CDC Pertussis: <https://www.cdc.gov/pertussis/index.html>
- State of Alaska Pertussis: <https://health.alaska.gov/dph/Epi/id/Pages/dod/pertussis/pertussis.aspx>
- CDC Clinical Overview of Pertussis: <https://www.cdc.gov/pertussis/hcp/clinical-overview/index.html>
- CDC Immunization Schedule: <https://www.cdc.gov/vaccines/schedules/hcp/index.html>
- State of Alaska Immunization Information: <https://health.alaska.gov/dph/Epi/iz/Pages/parents.aspx>

This message is sent to you as a service of the State of Alaska, Department of Health, Division of Public Health, through the Section of Epidemiology:

3601 C Street, Suite 540
Anchorage, Alaska 99503
Phone: 907-269-8000
24-hour Emergency Phone: 1-800-478-0084
Website: epi.alaska.gov