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HEALTH ADVISORY: Pertussis Increases across Oregon

October 4, 2024

Dear Colleagues,

We hope this message finds you well. Benton County is sharing an Oregon Health Authority (OHA) Pertussis Health Alert Network (HAN) advisory.

614 pertussis cases have been reported in Oregon during 2024. For comparison, 29 pertussis cases were reported at this time during 2023. The 2024 pertussis case counts are the highest annual total since 2012. Only 256 (43%) of the 2024 cases were up-to-date with vaccination. Among 59 infant cases, only 6 mothers received the recommended Tdap dose during pregnancy.

Infants are the highest risk group for pertussis-related morbidity and mortality. Between 2003 – 2023, infants accounted for 12% of pertussis cases and 76% of pertussis hospitalizations. Infants were associated with all five pertussis-related deaths in Oregon since 2003. Before the recommendation that **pregnant women should get Tdap during each pregnancy**, an Oregon infant was hospitalized with pertussis for 90 days, required extracorporeal oxygenation for 43 days, suffered complications including stroke, and had hospital charges totaling \$1.5 million.

OHA's key recommendations to protect young infants include:

- Vaccination of pregnant women at 27 – 36 gestational weeks with Tdap, regardless of the mother's prior Tdap vaccination history.
- Tdap given to pregnant women will stimulate the development of maternal anti-pertussis antibodies, which will pass through the placenta and protect infants—particularly those too young to be vaccinated against the disease.
- When an infant or pregnant woman is in the household of someone with pertussis, all household members should receive a course of antibiotics effective against *Bordetella pertussis*—typically, a 5-day course of azithromycin.

The full OHA HAN can be reviewed below.

We appreciate your diligence in protecting the health of our collective communities.

A handwritten signature in blue ink, appearing to read "Carolina Amador".

Carolina Amador, MD, MPH
Public Health Officer

A handwritten signature in blue ink, appearing to read "April Holland".

April Holland
Public Health Administrator



To: Physicians and other health care professionals

Dear LPHAs and Tribes: Please distribute a copy of this information to health care professionals in your jurisdiction. For questions, please contact Juventila Liko: juventila.liko@oha.oregon.gov. Thank you.

Pertussis increases across Oregon.

In 2024 as of October 1st, 614 cases of pertussis have been reported to the Oregon Health Authority (compared to 29 cases at this time in 2023). Already this represents the highest annual total since 2012, when 910 cases were reported. In the intervening years, annual pertussis case counts have been as low as 3 cases in 2021 and as high as 593 in 2015.

Among the 19 counties with reported pertussis to date in 2024, Lane County leads with 198 cases, followed by Multnomah (126), Clackamas (84), Deschutes (56), Washington (44), Marion (38) Jefferson (16), Linn (15), Columbia (6), Coos (5), Yamhill (5), Polk (4), Hood River (3), Jackson (3), Wasco (3), Benton (2), Malheur (2), Crook (1).

Data from January through October 1 indicate that only 265 (43%) of this year's cases have been up-to-date with vaccination. Among the 59 infant cases, only six mothers were documented to have received the recommended dose of Tdap during the pregnancy.

Key Recommendations:

Infants—particularly those too young to be fully vaccinated—are at the highest risk of contracting pertussis and at the highest risk of being hospitalized if they do. Before the recommendation that **pregnant women should get Tdap during each pregnancy**, an Oregon infant was hospitalized with pertussis for 90 days, required extracorporeal oxygenation for 43 days, suffered complications including stroke, and had hospital charges totaling \$1.5 million.

To protect young infants, we recommend that those who are pregnant receive Tdap vaccination at 27–36 weeks of pregnancy—irrespective of the mother's prior history of receiving Tdap. Tdap given to pregnant women will stimulate the development of maternal anti-pertussis antibodies, which will cross the placenta and protect infants—particularly those too young to be vaccinated against the disease. Various studies have found such vaccination to be 78%–91% effective in preventing pertussis among young infants.

When an infant or pregnant woman is in the household of someone with pertussis, all household members should receive a course of antibiotics effective against *Bordetella pertussis*—typically, a 5-day course of azithromycin.

Other Recommendations:

Vaccination against pertussis is routinely recommended for infants, children, adolescents, and adults.

- All children should be vaccinated against diphtheria, tetanus and pertussis at 2, 4, 6, and 15–18 months, and again at 4 years to kindergarten age.
- All persons ages 10 and older should receive a single dose of Tdap.
- Tdap may be given in lieu of recommended decennial Td boosters.

The only methods for the laboratory diagnosis of pertussis are culture and polymerase chain reaction. PCR can provide timely results with improved sensitivity over culture.

Guidance and Resources:

- Use of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccines: updated recommendations of the Advisory Committee on Immunization Practices—United States, 2019. Available at <https://www.cdc.gov/mmwr/volumes/69/wr/mm6903a5.htm>.
- Oregon Health Authority Public Health Division Pertussis Investigative Guidelines. Available at <https://www.oregon.gov/oha/PH/DiseasesConditions/CommunicableDisease/ReportingCommunicableDisease/ReportingGuidelines/Documents/pertussis.pdf>.

Additional resources:

- Oregon Public Health Division Acute and Communicable Disease Prevention Data Dashboard. Available at <https://public.tableau.com/app/profile/oregon.public.health.division.acute.and.communicable.disease.pre/vizzes#!>.
- Skoff TH, Blain AE, Watt J, et al. The impact of the U.S. maternal Tdap vaccination program on preventing pertussis in infants <2 months of age: a case-control evaluation. *Clin Infect Dis* 2017; 65:1977–83. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/pmc5754921>
- Liko J, Robison SG, Cieslak PR. Pertussis vaccine performance in an epidemic year—Oregon, 2012. *Clin Infect Dis* 2014; 59:261–3. Available at <https://pubmed.ncbi.nlm.nih.gov/24748523>
- Liko J, Koenig WJ, Cieslak PR. Suffer the infants: a severe case of pertussis in Oregon, 2012. *Public Health Repo* 2015; 130:435–9. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/pmc4529826>
- Liko J, Koenig WJ, Cieslak, PR. Five-year follow-up of a severe case of pertussis in Oregon, 2012. *Public Health Rep* 2019; 134: 587–91. Available at <https://www.oregon.gov/oha/ph/diseasesconditions/diseasesaz/pertussis1/pertussis-phr-aug2019.pdf>