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OMG...I DIDN'T KNOW THAT!

Whoop! There It Is—Again. Whooping Cough on the Rise.

PODCAST 42

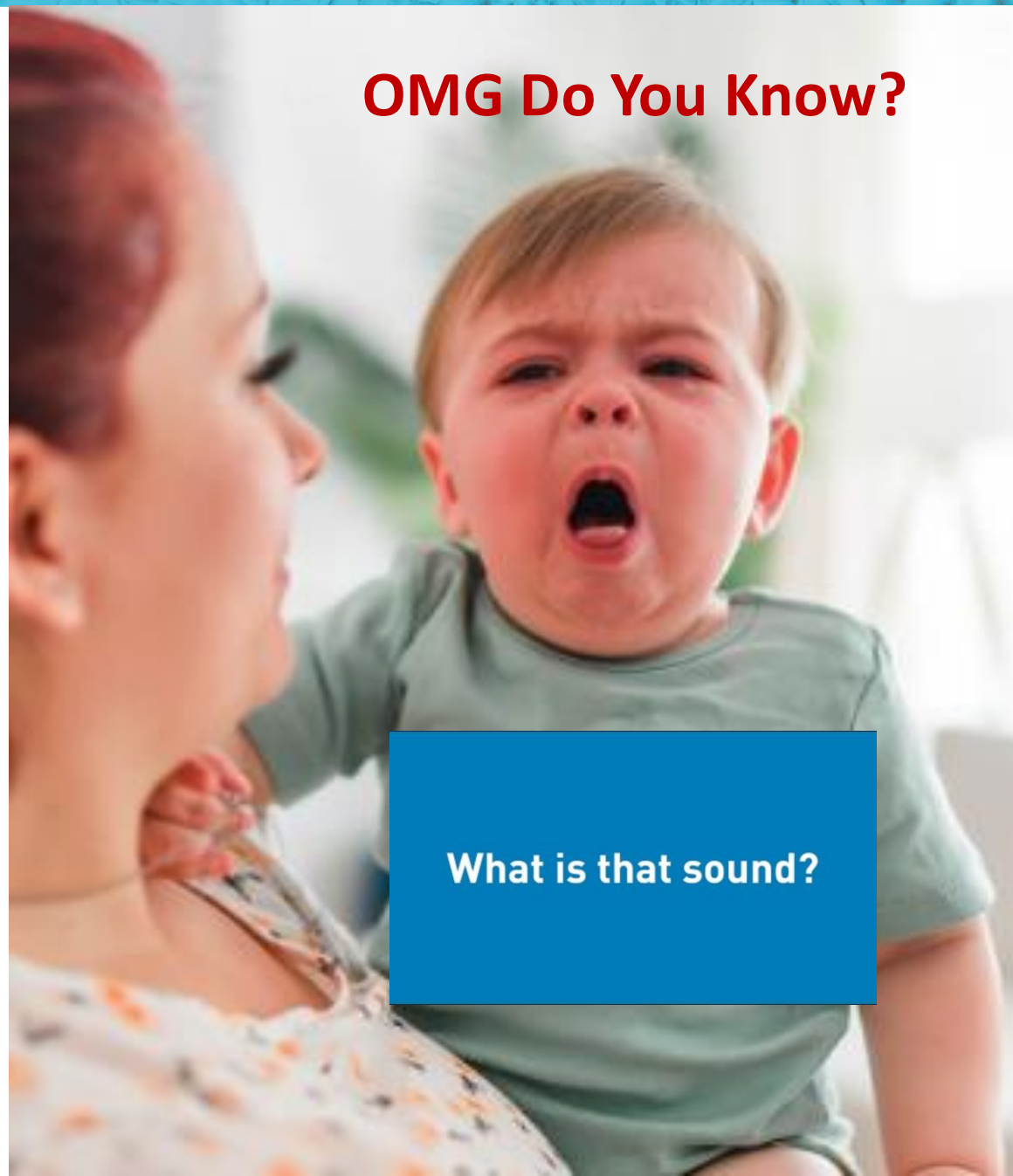
With Your HOST
DR. JANE CALDWELL

Whooping Cough, Pertussis: The Cough That Named Itself

Whooping cough is a vaccine-preventable respiratory illness caused by *Bordetella pertussis.*

- Extremely contagious and hallmarked by “whoop” or gasping air sound after cough
- Can be severe in infants and immunocompromised adults, lasting weeks to months
- Early antibiotic treatment may improve outcomes
- Delayed treatment can increase morbidity and mortality in at-risk populations

Would you recognize whooping cough if you heard it?



CDC. Pertussis. https://www.cdc.gov/pertussis/about/index.html. Updated April 2, 2024. Accessed June 10, 2024.

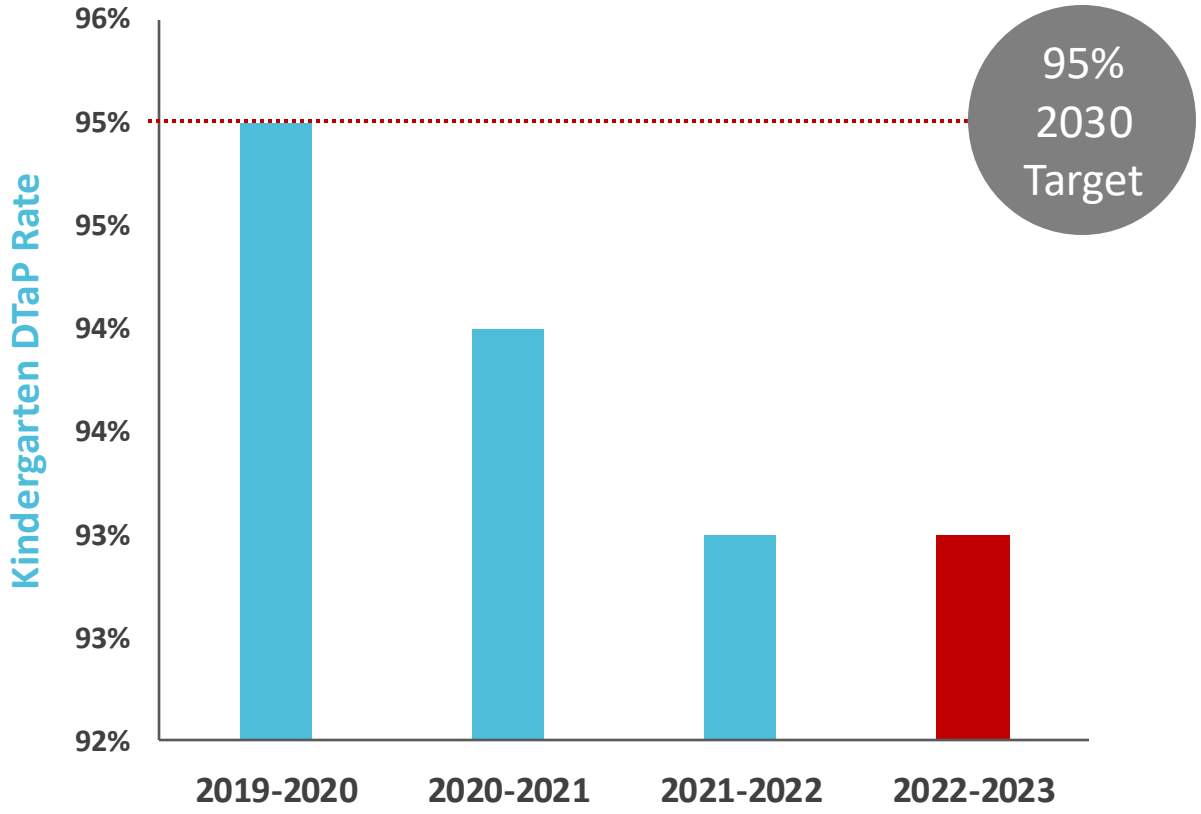
Childhood Pertussis Immunization Rates Are Declining

National childhood vaccination rates (DTaP, MMR, polio, VAR) have been declining since the pandemic.

- Increased exemptions
- Misinformation and hesitancy
- Other barriers to vaccinations

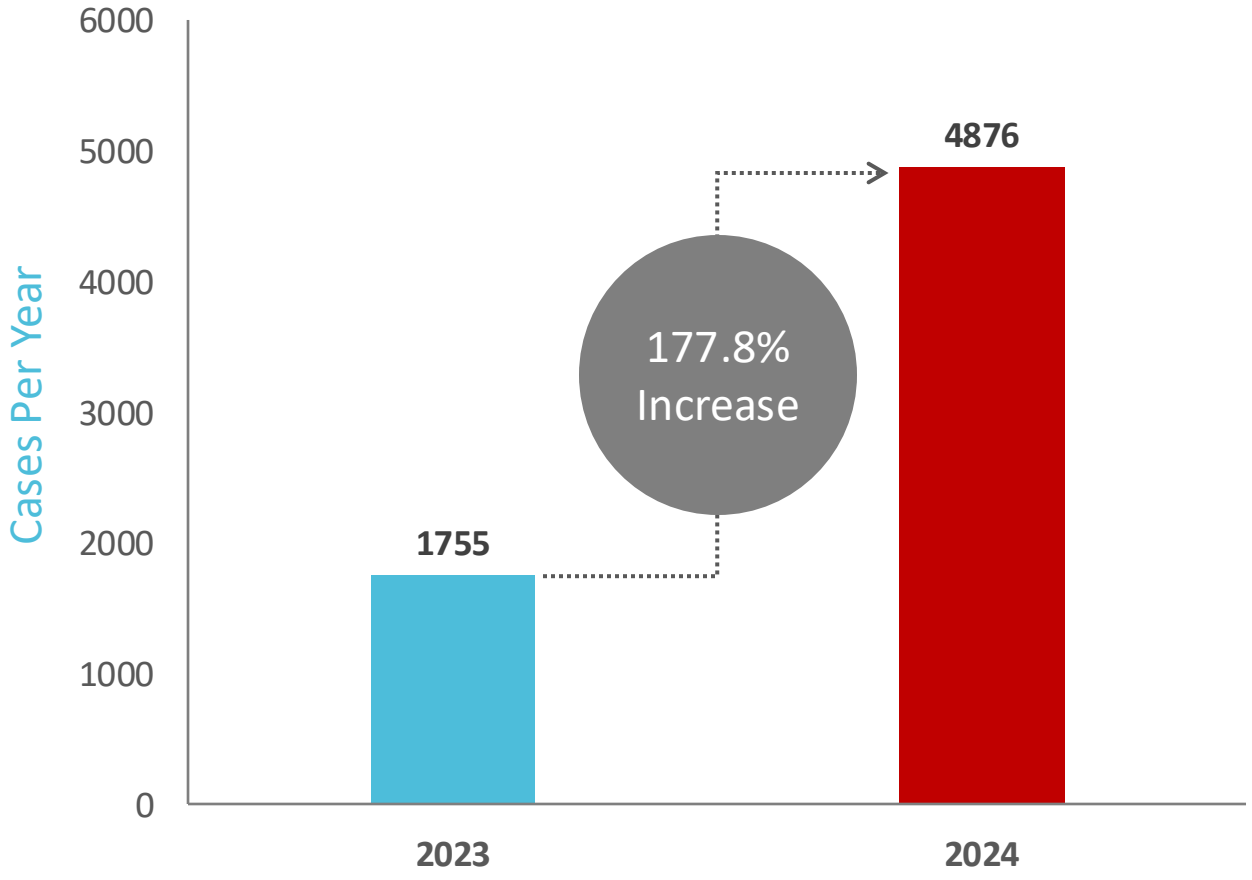
Pertussis vaccine recommendations

- Infants and children ≤ 6 years: 5 dose series of DTaP
- Pregnant adults: Tdap at 27-36 weeks gestation
- Children 7+ and adults: Tdap every 10 years



Seither R, et al. *MMWR Morb Mortal Wkly Rep.* 2023;72:1217–1224.
https://www.immunize.org/wp-content/uploads/catg.d/p2055.pdf. Updated March 12, 2024. Accessed July 5, 2024.

U.S. Whooping Cough Outbreaks Increased in 2024



https://www.newsweek.com/whooping-cough-map-fda-concerned-1908394. Updated Jun 6, 2024. Accessed June 13, 2024.

Symptoms and Stages

Early symptoms: Stage 1 Catarrhal Symptoms

May last 1 to 2 weeks

- Slight fever
- Mild or occasional coughing
- Runny nose
- Pause in breathing in babies

Later symptoms: Stage 2 Paroxysmal Stage

Last from 1 to 6 weeks up to 10 weeks

- Prolonged, repeated, or violent coughing episodes
- Whooping sound when inhaling
- Vomiting and exhaustion after coughing fits (called paroxysms)

Recovery: Stage 3 Convalescent Stage

Lasts about 2 to 3 weeks

- Recovery is gradual
- Coughing lessens but fits of coughing may return
- Susceptible to other respiratory infections for many months

CDC. https://www.cdc.gov/pertussis/signs-symptoms/. Accessed June 13, 2024.

Risk Factors

Age and underlying medical conditions may increase risk for severe cases of whooping cough

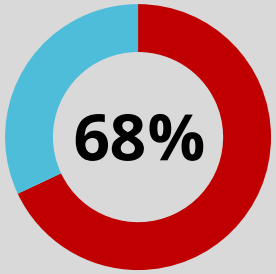
- **Unvaccinated or incompletely vaccinated** have higher risk for severe complications and death
- One third need **treatment in a hospital**
- **Hospitalization** is most common in infants younger than 6 months

- Some conditions that may be **worsened by whooping cough** include, but are not limited:
  - **Immunocompromising** conditions
  - Moderate to severe medically-treated **asthma**

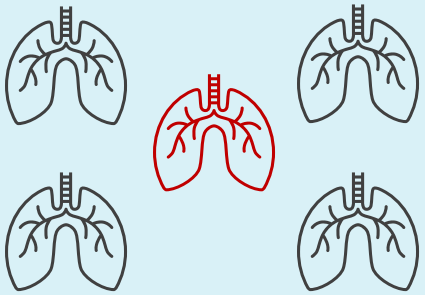
CDC. https://www.cdc.gov/pertussis/about/index.html#cdc_disease_basics_risk-risk-factors Accessed June 7, 2024

Infant Complications of Pertussis

Approximately **1 in 3** babies under 1 year old need care in the hospital



Develop **apnea**



1 in 5 develop **pneumonia**

1 in 50 infants will have **convulsions**

1 in 150 develop **encephalopathy**

1 in 100 infant mortality rate

CDC. https://www.cdc.gov/pertussis/pregnant/mom/deadly-disease-for-baby.html. Updated December 1, 2022. Accessed June 7, 2024.

Pertussis Treatment Recommendations

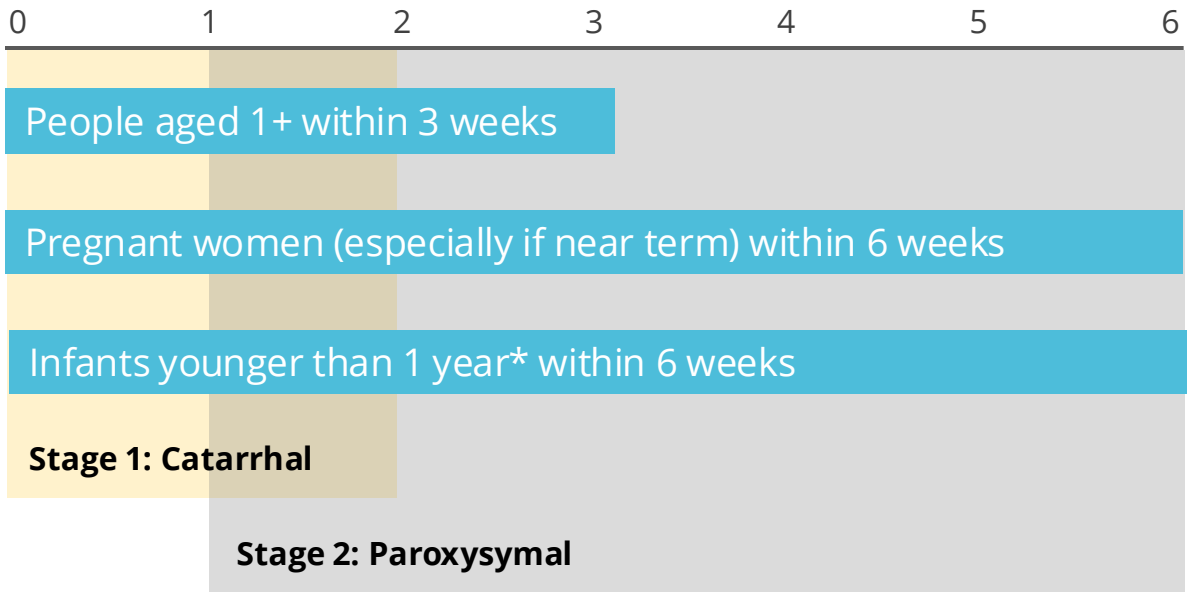
Recommended antibiotics for treatment or postexposure prophylaxis

- Macrolides* (azithromycin, clarithromycin, erythromycin)
- Trimethoprim-sulfamethoxasole

Treatment recommendations

- With positive pertussis test
- Before test with suggestive history, high-risk, or contact with high-risk individual
- Postexposure prophylaxis for high-risk contacts

Recommended Treatment Timeline



Early antibiotic treatment is necessary to reduce symptom severity. Late antibiotics will not improve course or transmissibility.

* Macrolides should be used with caution in infants less than 1 month. An association between oral macrolides and infantile hypertrophic pyloric stenosis has been reported. Azithromycin remains first line treatment for very young infants as the risk of pertussis complications outweighs the risk of stenosis. Trimethoprim-sulfamethoxazole is an alternative to macrolides in infants > 2 months.

CDC. Treatment of Pertussis. https://www.cdc.gov/pertussis/hcp/clinical-care/index.html. Updated April 2, 2024. Accessed July 3, 2024

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audible blend of timely scientific and medical knowledge.

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