



To: CAHAN San Diego Participants

Date: November 22, 2023

From: Public Health Services

Health Advisory: Pertussis Increasing in San Diego County

Key Messages

- Pertussis cases in San Diego County (SDC) have recently increased with 55 cases reported in October.
 - Pertussis cases were low during the pandemic, likely due in part to COVID non pharmaceutical prevention activities (masking, distancing, quarantine, and isolation).
 - Pertussis follows a cyclic pattern in SDC with peaks every 3 to 5 years. The last peak year was 2017.
- Newborns and infants too young to be vaccinated are at greatest risk of hospitalization and death from pertussis.
- Every woman should receive the pertussis vaccine (Tdap) in every pregnancy at the earliest opportunity starting at 27 weeks gestation to protect their young infants after birth.
- The primary DTaP vaccine series is essential for reducing severe disease in infants and should not be delayed.
- All healthcare workers should be immunized against pertussis with Tdap.
- The diagnosis of pertussis can be a challenge in young infants; lack of fever and mild initial symptoms may result in underestimating the potential severity of the illness.

Situation

As of October 31, there have been 130 cases of pertussis reported in San Diego residents in 2023, which is greater than the 3-year average to date for 2020 through 2022 of 113.7 cases (Figure 1). Fifty-five (42%) of these cases occurred just in October 2023. The last year in which cases several times greater than annual average in a single year was 2019 with 829 cases. So far in 2023, cases ranged in age from 3 months to 91 years, with a median age of 16 years. Sixty-one (47%) of cases were among 7–11-year-olds (Figure 2). Two adult cases were hospitalized with pertussis, but there were no deaths. Clusters of cases have been reported with increasing frequency in elementary, middle, and high school settings the County.

In addition, Tdap vaccination along with other childhood vaccines dipped during the pandemic. Results from the 2021-2022 Random Digit Dialing (RDD) survey, a telephone-based survey among San Diego residents to assess immunization coverage, knowledge, attitudes, and beliefs found 82.1% of 13–17-year-olds were vaccinated with ≥ 1 dose of Tdap. This was a drop of almost 12% from the last RDD survey conducted in 2016-2017. Similarly, adolescents aged 11-12 showed a decrease of 7.6% coverage for one or more Tdap doses received after age 10 (Figure 3).

Background

Introduction of the acellular pertussis vaccine in the 1990s was followed by increased pertussis transmission with cyclic peaks every 3 to 5 years. San Diego County, cases also peaked in 2010, 2014, and 2017 with 1,179, 2,104, and 1,163 cases, respectively. Severe disease is most common in infants too young to be vaccinated. Protecting these

infants is critical when pertussis transmission increases. To that end, immunizing every pregnant woman during every pregnancy provides the best protection to young infants. The preferred time for pregnancy immunization is between 27 and 36 weeks of gestation. Women should be immunized irrespective of prior Tdap history. Family members and other individuals who will be involved with the infant's care should be up-to-date with their pertussis immunizations including one dose of Tdap for all those 11 years or older. The Centers for Disease Control and Prevention (CDC) recommends a single dose of Tdap for healthcare personnel who have not previously received Tdap and who have direct patient contact. After receipt of that Tdap, a dose of Td or Tdap is recommended every 10 years, [especially for staff with direct contact with babies younger than 12 months of age](#).

Actions Requested

1. **Encourage** all individuals to be up-to-date with current pertussis vaccination recommendations.
 - a. Every pregnant woman should be immunized in every pregnancy, optimally at the first opportunity between 27 and 36 weeks of gestation. The California Department of Public Health (CDPH) in collaboration with local California health jurisdictions has developed a [Prenatal Tdap Toolkit](#) to assist in getting pregnant women vaccinated.
 - b. The primary DTaP series should be administered to children on time, with subsequent Tdap boosters according to the recommended schedule. Check the immunization registry (CAIR2) or EMR systems for receipt of up-to-date (UTD) status for teens to avoid missed opportunities to immunize.
 - c. [Tdap may be substituted for Td for adults when a 10-year booster is needed](#) regardless of the prior history of Tdap vaccination.
 - d. All healthcare workers should be immunized against pertussis with Tdap with consideration of a Tdap booster in place of Td every 10 years, especially for staff with direct contact with babies younger than 12 months of age.
2. **Inquire** about recent possible pertussis exposures in schools or community settings and consider pertussis despite vaccination status when evaluating patients with respiratory symptoms.
3. **Consider** pertussis regardless of age in the differential of patients with unexplained, persistent cough illness when COVID and influenza tests are negative. Symptoms of infection are generally milder in teens and adults, especially in those who have been vaccinated.
 - a. PCR testing is preferred and is widely available through local hospital laboratories.
4. **Initiate** antibiotic treatment prior to obtaining test results in patients with a clinical history suggestive of pertussis or with risk factors for severe complications. Azithromycin is the preferred antibiotic because of efficacy and compliance.
5. **Provide** post-exposure prophylaxis (PEP) to all household contacts, caregivers, and other persons who have had direct contact with respiratory, oral, or nasal secretions from a symptomatic case. PEP antibiotic treatment is the same as treatment for disease and should not be shortened.
6. **Report** all suspected or confirmed cases to the Immunization Program via a [Confidential Morbidity Report](#) (CMR) by FAX to 619-692-5677 or by calling at 866-358-2966 (select option #5) during business hours.

Resources

Federal

- [Pertussis: Clinical Features | CDC](#)
- [Specimen Collection and Diagnostic Testing | CDC](#)
- [Pertussis and Postexposure Antimicrobial Prophylaxis \(PEP\) | CDC](#)

State

- [Pertussis Prevention Materials – California Vaccines for Children \(eziz.org\)](#)

Local

- [CAHAN: Pertussis Increasing in San Diego, February 16, 2017 | CoSD](#)

Thank you for your participation.

CAHAN San Diego

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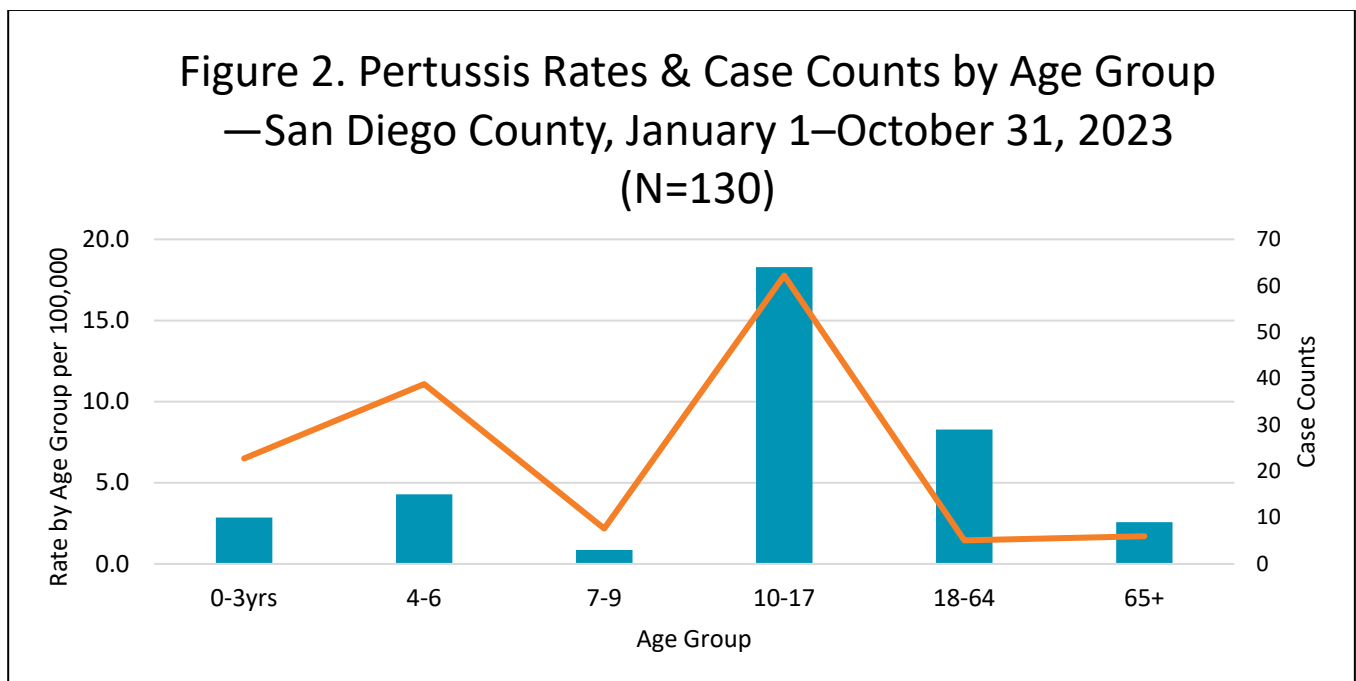
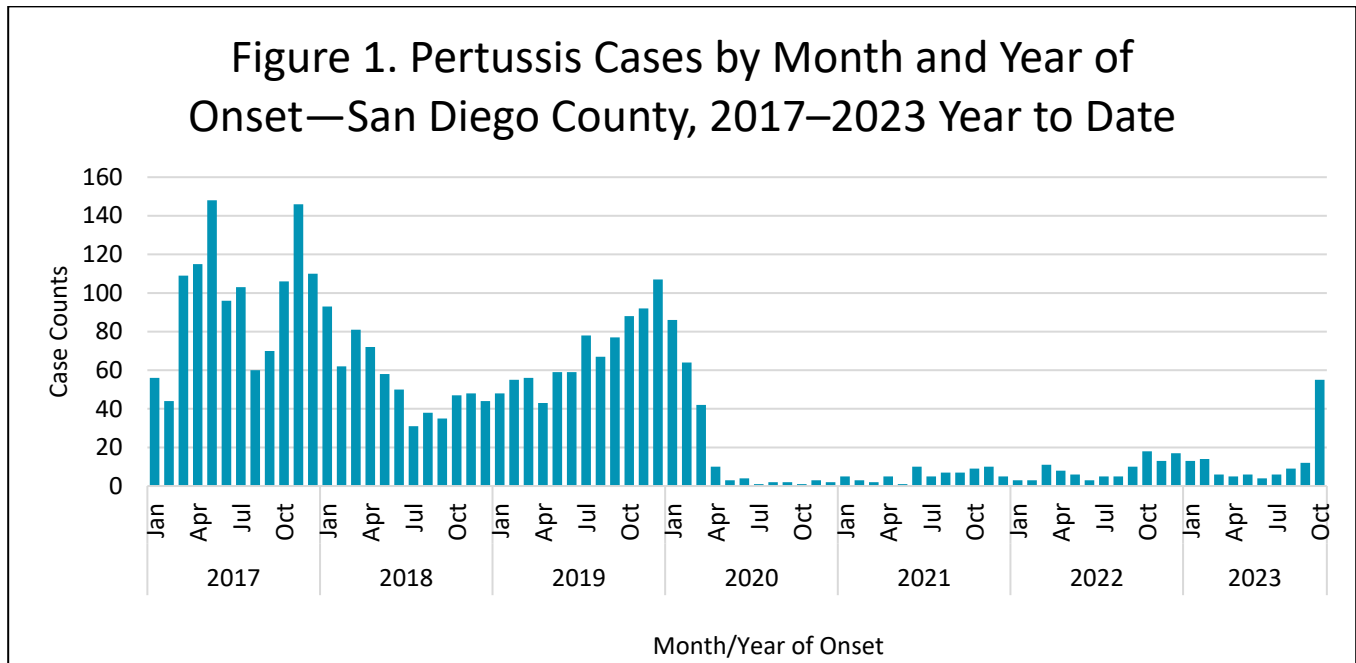
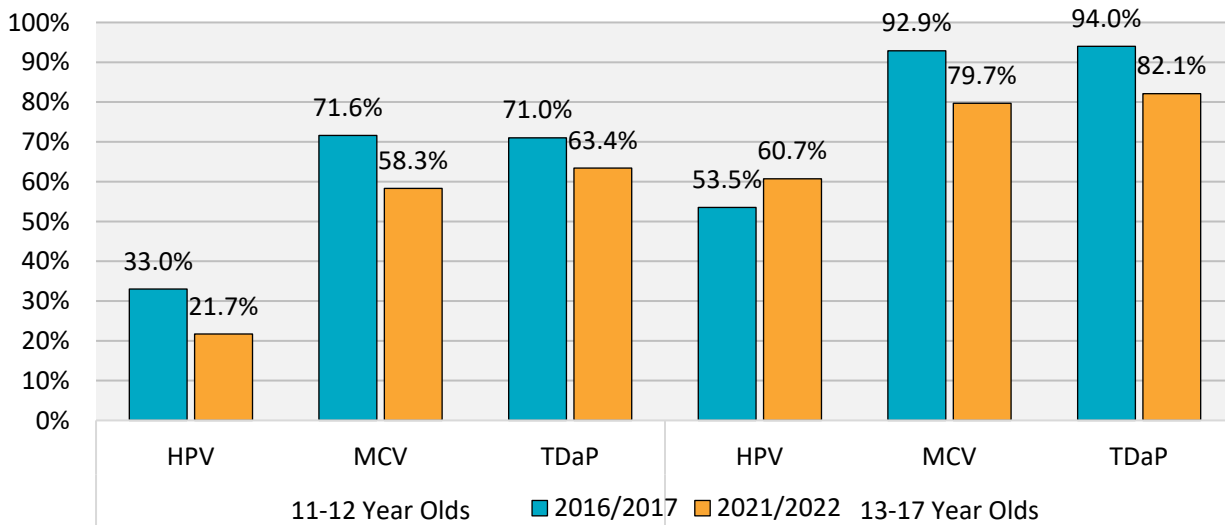


Figure 3. Post Verification Vaccine Coverage Rates* by Age Group, 2016/2017 vs. 2021/2022—San Diego County



*Weighted coverage rates among those with Adequate Provider Data (APD)

Vaccine rates shown are for respondents with:

HPV=2 doses of vaccine if series was started prior to age 15 or 3 doses of series was started at or after age 15

MCV=1 or more dose of MCV

Tdap=1 or more Tdap doses received after age 10

All figures were prepared by County of San Diego Health and Human Services Agency, Public Health Services, Epidemiology and Immunization Services Branch 11/20/2023. Data are preliminary and subject to change.