

# California pertussis outbreak worst in 70 years

By ACSH Staff — December 5, 2014



According to the California Department of Public Health, the

state's recent pertussis outbreak is the worst in the past 70 years. From January 1st to November 26th, 2014, 9,935 cases of pertussis were reported: an incidence of 26 cases per 100,000, over ten percent higher than the epidemic in 2010. Disease incidence was particularly high among infants, as well as adolescents. The information was published today in the CDC's [Morbidity and Mortality Weekly Report \(MMWR\)](#) [1].

Infants under 1 year old have the greatest risk for hospitalization and death from pertussis complications. Due to evidence that pertussis antibodies can be passed to the fetus, it is recommended that pregnant women get a Tdap booster in the third trimester. Of the 211 infants under 4 months whose mothers' immunization histories were available, only 35 (17%) had mothers who received Tdap from weeks 27-36 of their pregnancy.

One major reason for the high disease burden in adolescents is waning immunity, researchers said. [Previous studies suggest](#) [2] that the newer acellular vaccines are partially to blame, because they are less protective than the older whole-cell vaccines, but result in fewer adverse effects. According to the report, it is likely that increased incidence will continue to be observed among this cohort in the absence of a new vaccine or more effective vaccination strategy. However, researchers state that although there is a high disease burden among adolescents, less than 0.5% of cases in this age group resulted in hospitalization. They also state, More data are needed to assess the potential benefit and timing of Tdap booster doses.

While waning immunity due to currently available acellular pertussis vaccines may cause higher disease incidence of pertussis to unfortunately be the new normal, the CDPH concludes by saying that overall, pertussis vaccination efforts have made significant positive changes. In the immediate prevaccine era, there were 157 cases of pertussis per 100,000 population in the United States. And many cases of pertussis in the most vulnerable age group, infants under 12 months, can still be prevented if more women receive the Tdap booster during pregnancy.

ACSH's Dr. Gil Ross had this comment: While shorter duration of vaccine's protective immunity is certainly one factor, the reservoir of pertussis is clearly increasing in those states with so-called philosophical exemptions from mandatory childhood vaccination (California is one such state, as if

you couldn't guess). While teens and adults get pertussis, it is often not diagnosed, as symptoms are often milder than in little ones. But older victims spread the infection to vulnerable babies. Young adults and even older people would be well-advised to get a Tdap booster shot to protect infants and toddlers from severe disease.

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**Source URL:** <https://www.acsh.org/news/2014/12/05/california-pertussis-outbreak-worst-70-years>

**Links**

[1] <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6348a2.htm>

[2] <http://acsh.org/2013/05/whooping-cough-vaccine-trade-offs-newer-but-less-effective/>