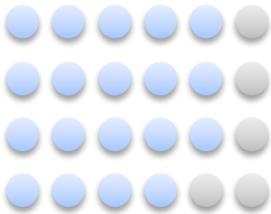


# 24

Cases of pertussis in infants less than 3 months.



**17** of 20 case mothers with known vaccination status did NOT have prenatal Tdap.



**19** out of 24 cases were hospitalized.



The median hospital stay for babies whose mothers were unvaccinated during pregnancy was **4 days, compared to ≤1 day** if they were vaccinated.

## Update for Prenatal Healthcare Providers: Pertussis in Tennessee Infants- September 2017

### The situation:

In Tennessee so far this year 24 infants under 3 months of age have been diagnosed with pertussis, or whooping cough. Nineteen have been hospitalized. These numbers are not unprecedented, but are too high. There is a **simple, effective way to prevent neonatal pertussis: vaccinate mothers with a tetanus-diphtheria-pertussis (Tdap) vaccine between 27-36 weeks gestation in every pregnancy.** This has been recommended by the Centers for Disease Control and Prevention (CDC) and the American College of Obstetrics and Gynecology (ACOG) since 2013, but fewer than 50% of pregnant women get it.

Pertussis is serious: on average, one in 100 infants <3 months with pertussis will die. Recent large studies<sup>1-3</sup>, have demonstrated a **78-90%** reduction in the risk of pertussis among infants born to vaccinated mothers and 90% protection against hospitalization in case infants <2 months whose mothers were vaccinated<sup>3</sup>. Protection is conferred by high levels of maternal antibodies transferred across the placenta to the fetus. Of the 20 infant cases this year whose maternal vaccination status was known, **17/20 (85%) had mothers who did not receive Tdap during pregnancy.** The 3 whose mothers had Tdap during pregnancy were hospitalized for a day or not at all: those born to unvaccinated mothers had a median hospital stay of 4 days (range: 1-24 days).

### What can you do? Make a strong recommendation and offer Tdap vaccine.

Mothers are most likely to be vaccinated if their prenatal care provider strongly recommends that they receive Tdap (and influenza) vaccine during pregnancy, and then provides the vaccine. If you do not have Tdap, our health departments and other clinics and pharmacies do. Use our data to help hesitant mothers understand why vaccination is important. You can prevent a serious illness too many Tennessee families have already faced this year.

### Additional resources:

- <https://www.cdc.gov/pertussis/clinical/prevention.html> (CDC)
  - <https://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Update-on-Immunization-and-Pregnancy-Tetanus-Diphtheria-and-Pertussis-Vaccination> (ACOG)
1. Baxter R, Bartlett J, Fireman B, et al. Effectiveness of Vaccination During Pregnancy to Prevent Infant Pertussis. *Pediatrics*. 2017;139(5):e20164091
  2. Dabrera G, et al. A case-control study to estimate the effectiveness of maternal pertussis vaccination in protecting newborn infants in England and Wales, 2012-2013. *Clin Infect Dis*. 2015;60(3):333-7.
  3. Tami H Skoff, et. al. Impact of the US Maternal Tetanus, Diphtheria, and Acellular Pertussis Vaccination Program on Preventing Pertussis in Infants <2 Months of Age: A Case-Control Evaluation, *Clin Infect Dis*. , cix724, <https://doi.org/10.1093/cid/cix724> (Sept. 2017)