

## What Parents Should Know About Pertussis

The number of cases of Pertussis, whooping cough, in the U.S. has risen to around 18,000 in an outbreak that is on track to become the most severe in over a half century. This outbreak could in part stem from possible waning vaccine protection, as well as vaccine refusal resulting from parent fear over vaccine safety with a decrease in “herd immunity”, that is, a reduction in indirect protection for unimmunized individuals, because the rest of the community, in theory, is immunized.

Four states have reported significant increases in cases of Pertussis over the past two years. The state of Washington declared an epidemic in April with more than 3,000 cases. Wisconsin also reported more than 3,000 cases, according to the U.S. Centers for Disease Control and Prevention (CDC). California has more than 9,000 cases in a 2010 epidemic, sadly including 10 infant deaths. In July 2012, New York released preliminary figures showing 970 cases in 2012. In all of 2011, there were 931 cases reported in New York. At this rate, the number of cases in NY could more than double from last year.

A spike in pertussis cases among 10-14-year-olds may perhaps be an indicator that the pertussis vaccine may be wearing off earlier than anticipated. Of interest, the U.S. groups of 10-14-year-olds who are experiencing a high illness rate had DTaP vaccinations, which were introduced in 1997 at the same time that the prior DTP vaccine was discontinued. The earlier vaccine used whole cell parts made of killed pertussis bacteria, while DTaP uses only small acellular bacteria pieces, not the whole bacteria cell. Therefore, the CDC is studying vaccination rates and trends to try to determine if the change in vaccine preparation, among other potential causes, is related to the spike in disease outbreak.

The CDC recommends that all adults, including pregnant women, as well as grandparents of infants, should get a booster shot, because the contagious illness is especially dangerous for children under a year old who have yet completed a full cycle of vaccinations. Pertussis is most dangerous for babies who can experience sudden death from infection with pertussis. The CDC warned the current outbreak at its existing pace could become the most severe since 1959, when there were 40,000 reported cases in the U.S.

This is a good time to review your family's vaccination status. No one should rely on herd immunity as described above to protect children. The best way to prevent vaccine preventable disease and to protect a child from the risks associated with these vaccine preventable diseases is by immunization which should be administered in accordance with the time table and dosing scheduling established by the American Academy of Pediatrics and the CDC. If you have questions about your family's vaccine status, please contact your private health care provider.