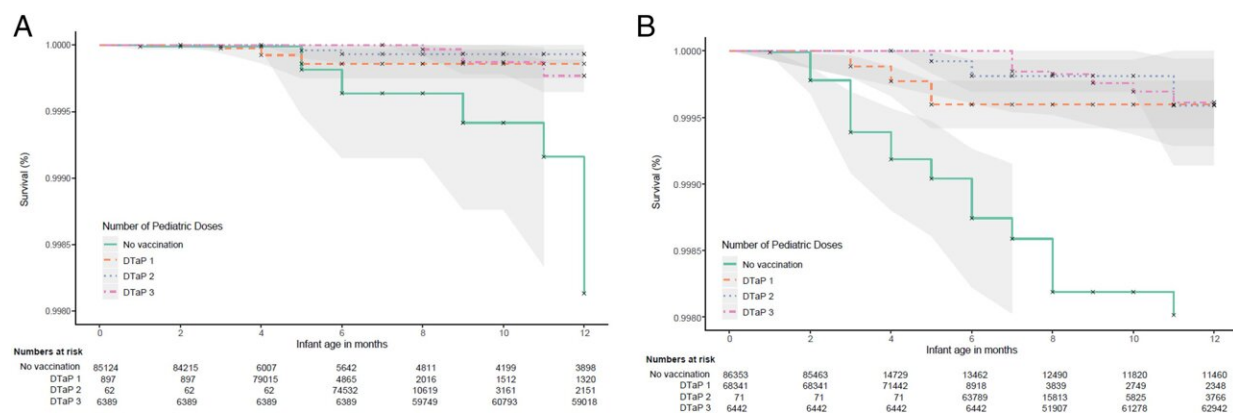


Babies better protected against whooping cough if mom is vaccinated during pregnancy, study finds

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Survival against pertussis infection among (A) maternally vaccinated infants and (B) infants with no record of maternal vaccination, by number of diphtheria-tetanus-acellular pertussis (DTaP) vaccine doses. Credit: *Pediatrics* (2023). DOI: 10.1542/peds.2023-062664

Mothers vaccinated against whooping cough (pertussis) during pregnancy have babies who are 70% less likely to have a pertussis infection in infancy, compared to the babies of unvaccinated mothers.

[The findings](#), published in *Pediatrics*, come from a collaborative study involving Menzies School of Health Research. The study looked at four years of vaccination data from nearly 280,000 births across the Northern

Territory, Queensland and Western Australia.

Whooping cough is a highly contagious, potentially life-threatening [respiratory tract infection](#). It's also a nationally notifiable disease in Australia. Whooping cough is likely to be most severe for infants in their first few weeks of life.

Backed by Australian population-based data, these findings support the recommendation for [pertussis](#) vaccinations during pregnancy between 20 to 32 weeks to help stop whooping cough infections in infants under 6 months old.

The research also debunked that infants born to vaccinated mothers may not respond as well to their first pertussis vaccine. There were concerns that the infant vaccine schedule, commencing at age 2 months, wouldn't be as effective if the mother had been vaccinated during pregnancy, but no significant impact was uncovered.

The pertussis vaccine is currently available for free in Australia in combination with diphtheria and tetanus. Pregnant mothers receive one injection, while babies are vaccinated in five stages. This research included 9,996 mother–infant pairs in the Northern Territory.

Perinatal and pediatric infectious disease epidemiologist Dr. Annette Regan says, "This research provides further reassurance of the benefits of maternal pertussis vaccination in Australia. Maternal pertussis vaccination is vital to help protect babies from whooping cough in their first few months of life, particularly before they are eligible for their first pertussis vaccine at two months of age."

Study co-author and Menzies senior research fellow, Dr. Michael Binks says, "These findings support the need to raise awareness about the importance of being vaccinated during pregnancy."

"The study found maternal [pertussis vaccine](#) uptake was lowest in the Northern Territory and Western Australia. Given the recent efforts to improve uptake in these regions a more contemporary evaluation is now warranted."

More information: Annette K. Regan et al, Maternal Pertussis Vaccination, Infant Immunization, and Risk of Pertussis, *Pediatrics* (2023). [DOI: 10.1542/peds.2023-062664](https://doi.org/10.1542/peds.2023-062664)

Provided by Menzies School of Health Research

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