

# Incidence and reproduction numbers of pertussis

22 June 2010

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Analyses of serological and social contact data from five European countries by Mirjam Kretzschmar and colleagues show that childhood vaccination against *Bordetella pertussis* (whooping cough) has shifted the burden of infection from children to adolescents and adults. Adolescents and adults rarely develop severe pertussis

Two new [statistical methods](#) were used to estimate the incidence and basic reproduction number of pertussis. The authors used cross-sectional data on the seroprevalance of [antibodies](#) to pertussis toxin and cross-sectional data on social contact patterns from 5 countries. The results of this study suggest that in countries with high childhood vaccine coverage, adolescents and young adults are reservoirs for asymptomatic pertussis infection.

The researchers suggest pertussis could be eliminated if a vaccine or vaccine schedule could be developed that provided life-long protection against pertussis.

**More information:** Kretzschmar M, Teunis PFM, Pebody RG (2010) Incidence and Reproduction Numbers of Pertussis: Estimates from Serological and Social Contact Data in Five European Countries. PLoS Med 7 (6): e1000291.  
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