Unvaccinated Children and Outbreaks of Disease

Citation	Methods	Participants	Outcomes
Aloe, C. F. (2016). The Correlation of Nonmedical Vaccine Exemptions and Clusters of Pertussis Cases in the United States, 2012 (Doctoral dissertation).	The aim of this investigation was to determine if there was a correlation between nonmedical vaccine exemptions and clusters of pertussis cases in the United States during 2012.	Kindergarten immunization data as well as pertussis cases at the county level were examined.	The results of the investigation indicated that geographic clusters of nonmedical vaccine exemptions pose a risk to the surrounding communities.
Feikin, D. R., Lezotte, D. C., Hamman, R. F., Salmon, D. A., Chen, R. T., & Hoffman, R. E. (2000). Individual and community risks of measles and pertussis associated with personal exemptions to immunization. Jama, 284(24), 3145-3150.	Population-based, retrospective cohort study using data collected on standardized forms regarding all reported measles and pertussis cases.	Children aged 3 to 18 years in Colorado during 1987-1998	Exemptors were 22.2 times more likely to acquire measles and 5.9 times more likely to acquire pertussis than vaccinated children.
Imdad, A., Tserenpuntsag, B., Blog, D. S., Halsey, N. A., Easton, D. E., & Shaw, J. (2013). Religious exemptions for immunization and risk of pertussis in New York State, 2000–2011. Pediatrics, peds-2012.	The objective of this study was to describe rates of religious vaccination exemptions over time and the association with pertussis in New York State (NYS).	Religious vaccination exemptions reported via school surveys of the NYS Department of Health from 2000 through 2011 were reviewed by county, and the changes were assessed against incidence rates of pertussis among children reported to the NYS Department of Health	The prevalence of religious exemptions varies among NYS counties increased during the past decade. Counties with higher exemption rates had higher rates of reported pertussis among exempted and vaccinated children, when compared with the low-exemption counties.
Phadke, V. K., Bednarczyk, R. A., Salmon, D. A., & Omer, S. B. (2016). Association between vaccine refusal	To evaluate the association between vaccine delay, refusal, or exemption and the	a. 18 published measles studies which described 1,416 measles cases	Of the 970 measles cases with detailed vaccination data, 70.6% of these had nonmedical exemptions

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and vaccine-preventable diseases in the United States: a review of measles and pertussis. Jama, 315(11), 1149-1158.	epidemiology of measles and pertussis.	b. 32 reports of pertussis outbreaks, which included 10,609 individuals for whom vaccination status was reported	Among 8 outbreaks, from 59% through 93% of unvaccinated individuals were intentionally unvaccinated.