



AIM Position Statement on Personal Belief Exemptions from State Vaccination Mandates

AIM supports the right of states and territories to enact school and childcare vaccination requirements. Immunization requirements in schools and childcare provide a foundation for high-levels of vaccination in children.

Exemptions from school and childcare requirements can lead to disease outbreaks. Scientific research shows that the easier personal belief exemptions are to obtain, the more often exemptions are utilized. Exemptions, in turn, increase the risk of individual infection and population-level disease outbreaks through the erosion of herd immunity.

Given this data, AIM encourages states and territories that do not allow personal belief exemptions from school and childcare vaccination requirements to maintain this policy. AIM encourages states and territories with existing personal belief exemption policies to strengthen their regulations to assure that exemptions are only available after parental education and acknowledgement of the associated risk to their child and community.

AIM encourages consideration of the following suggested exemption requirements to encourage informed parental decision making on vaccination to reduce exemptions of convenience and to reduce risk of infection among unvaccinated children:

- Require annual renewal of exemption forms
- Require health department approval for personal belief exemptions
- Require parents or guardians to indicate on the exemption form the specific vaccine(s) from which they are exempting their child
- Require signature of licensed healthcare provider on the exemption form attesting that the parents/guardians received education on the risks and benefits of vaccines and impact of exempting
- Require a provider signature on the exemption form on an annual basis
- Require that parents or guardians receive state-approved education that delineates the personal and public health importance of immunization, the scientific basis for safety of vaccines, and the consequences of exemption for their child as well as other children in the community who are vulnerable to disease and cannot otherwise be protected.
- Require that parents or guardians sign a statement that delineates the basis, strength, and duration of their belief
- Require that parents or guardians sign a statement that they have been informed of the risks they place on their child and others by refusing to immunize their child, including the potential for serious illness or death
- Require that exempted children be excluded from school or childcare attendance and other group activities if there is an outbreak of a disease that is preventable by a vaccination from which they have been exempted
- Track exemption rates and periodically reassess the impact of exemptions on disease rates.

Background

High vaccination coverage has resulted in significant decreases in vaccine-preventable diseases. Reducing the rates of these diseases has curtailed preventable death and disability in the U.S. population, especially in children. This great reduction in disease was, in part, made possible by policy interventions like tying vaccination against certain diseases to school and daycare attendance.¹ Mandatory vaccination laws made it possible to reach high levels of vaccination, leading to herd immunity in the U.S. population.

All states allow for medical exemptions from state vaccination laws to accommodate people who cannot be vaccinated safely, such as those with egg allergies or compromised immune systems. As of March 2008, 48 states allowed exemptions for religious reasons and 21 allowed exemptions for philosophic or personal beliefs.² During 2010 and 2011, eight states had legislation introduced that aimed to add or broaden religious or philosophical belief exemptions (PBEs).³

Exemptions come in many forms and state policies differ nationwide. Some exemptions are easy to obtain while others are made difficult by administrative components that must be completed before an exemption is granted. Some of these administrative components focus on providing education on the risks and benefits of vaccination to parents, including through interactions with licensed health care providers. Research has demonstrated that there is a relationship between the ease of exemption and the exemption rate. States with easy-to-obtain exemptions have higher exemption rates than states with difficult-to-obtain philosophical belief exemptions. For example, a study of state exemption policies found that the exemption rate was less than 1% in states with difficult exemption processes compared to approximately 3.5% in states with easy exemption processes.⁴ A separate study found a similar relationship between the complexity of the exemption process and the number of nonmedical exemptions taken. The mean exemption rate for states with easy exemption processes was 2.9% while the exemption rate in states with difficult exemption processes was only 1.1%.⁵ Yet another study found that states with easy procedures for granting exemptions were associated with a 90% higher incidence of pertussis.⁶ Due to the effect of ease of exemption on exemption rates, states should consider adding components their PBEs that discourage exemptions of convenience (when exempting from the vaccine is easier than getting the vaccine).

Effects of Exemption

The current low rates of vaccine-preventable diseases (which have been made so by successful vaccination efforts) may lead some people to believe that exemptions have no practical effect on themselves or their communities.⁷ However, research has illuminated many ways in which exemptions have tangible consequences for individuals and communities. A study demonstrated that 11% of measles cases in non-exempt children originated from interaction with vaccine-exempt children.⁸

Research based on nationwide surveillance data has demonstrated that children with exemptions were 22 times more likely to have had measles than children who had not been exempted from vaccination.⁹ In some cases, research has found that children with exemptions are as much as 35 times more likely to contract measles than vaccinated children.¹⁰ Research shows the overlap between clusters of exemptions and disease. A study conducted in Michigan demonstrated the increased likelihood of a cluster of pertussis cases being within a cluster of exempted children.¹¹

Further data demonstrates that, overall, states with philosophical belief exemptions had higher pertussis incidence than those states without PBEs.¹²

The effects of exemption are not limited to the state and national levels; the effects are felt at the local level also. Research shows that exemptions affect school disease outbreaks. In Colorado, the mean exemption rate in schools with vaccine-preventable disease outbreaks was 4.3%, in comparison to a 1.3% exemption rate in schools without outbreaks.¹³

Philosophical belief exemptions also have financial consequences to the society, including the costs to families and public health for treating disease and controlling outbreaks. A study modeling the effects of a PBE demonstrated that annual hospitalization and non-medical costs, like time missed from work or school, related to pertussis disease would increase by 50% if the state added a philosophical belief exemption.¹⁴ The actual societal costs of an outbreak were seen during a 2008 measles outbreak in San Diego County that cost the city a total of \$124,517, or \$10,376 per case.¹⁵ San Diego reported spending 1745 person-hours on investigation and containment efforts.¹⁶ The San Diego outbreak demonstrates the considerable costs from just one outbreak of just one vaccine preventable disease.

The foregoing research demonstrates the significant impact that philosophical belief exemptions have on the nation and communities. AIM encourages all states, cities and territories to consider the growing body of evidence regarding the negative effects of philosophical belief exemptions on their communities.

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¹ Omer SB, Salmon DA, Orenstein WA, deHeart MP, Halsey N. Vaccine Refusal, Mandatory Immunization, and the Risks of Vaccine-Preventable Diseases. *NEJM* 2009; 360: 1981-8.

² Wells KB, Omer SB. The financial impact of a state adopting a personal/philosophical belief exemption policy: Modeling the cost of pertussis disease in infants, children and adolescents. *Vaccine* 2012; 30: 5901-5904.

³ Wells KB, Omer SB. The financial impact of a state adopting a personal/philosophical belief exemption policy: Modeling the cost of pertussis disease in infants, children and adolescents. *Vaccine* 2012; 30: 5901-5904.

⁴ Stadlin S, Bednarczyk RA, Omer SB. Medical Exemptions to School Immunization Requirements in the United States- Association of State Policies with Medical Exemption Rates (2004-2011). *JID* 2012; 206: 989-92.

⁵ Blank NR, Caplan AL, Constable C. Exempting Schoolchildren from Immunizations: States with few barriers Had Highest Rate of Nonmedical Exemptions. *Health Affairs* 2013; 32 (7): 1282-1290.

⁶ Omer SB, Pan WK, Halsey NA, et al. Nonmedical exemptions to school immunizations requirements: secular trends and association of state policies and pertussis incidence. *JAMA* 2006; 296:1757-1763.

⁷ Omer SB, Salmon DA, Orenstein WA, deHeart MP, Halsey N. Vaccine Refusal, Mandatory Immunization, and the Risks of Vaccine-Preventable Diseases. *NEJM* 2009; 360: 1981-8.

⁸ Feikin DR, Lezotte DC, Hamman RF, Salmon DA, Chen RT, Hoffman RE. Individual and community risks of measles and pertussis associated with personal exemptions to immunization. *JAMA* 2000; 284:3145-50.

⁹ Feikin DR, Lezotte DC, Hamman RF, Salmon DA, Chen RT, Hoffman RE. Individual and community risks of measles and pertussis associated with personal exemptions to immunization. *JAMA* 2000; 284:3145-50.

¹⁰ Omer SB, Salmon DA, Orenstein WA, deHeart MP, Halsey N. Vaccine Refusal, Mandatory Immunization, and the Risks of Vaccine-Preventable Diseases. *NEJM* 2009; 360: 1981-8.

¹¹ Omer SB, Salmon DA, Orenstein WA, deHeart MP, Halsey N. Vaccine Refusal, Mandatory Immunization, and the Risks of Vaccine-Preventable Diseases. *NEJM* 2009; 360: 1981-8.

¹² Omer SB, Pan WK, Halsey NA, Stokley, S, Moulton LH, Navar AM, et al. Nonmedical exemptions to school immunization requirements; secular trends and association of state policies with pertussis incidence. *JAMA* 2006; 296 (14): 1757-63.

¹³ Omer SB, Salmon DA, Orenstein WA, deHeart MP, Halsey N. Vaccine Refusal, Mandatory Immunization, and the Risks of Vaccine-Preventable Diseases. *NEJM* 2009; 360: 1981-8.

¹⁴ Wells KB, Omer SB. The financial impact of a state adopting a personal/philosophical belief exemption policy: Modeling the cost of pertussis disease in infants, children and adolescents. *Vaccine* 2012; 30: 5901-5904.

¹⁵ Sugerman DE, Barskey AE, Delea MG, et al. Measles Outbreak in a Highly Vaccinated Population, San Diego, 2008: Role of the Intentionally Undervaccinated. *Pediatrics* 2010; 125 (4): 747-755.

¹⁶ Sugerman DE, Barskey AE, Delea MG, et al. Measles Outbreak in a Highly Vaccinated Population, San Diego, 2008: Role of the Intentionally Undervaccinated. *Pediatrics* 2010; 125 (4): 747-755.