

Point-Counterpoint

Finding the Proper Balance between Freedom and Justice: Why We Should Not Eliminate Personal Belief Exemptions to Vaccine Mandates

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Abstract Lantos and colleagues (this issue) propose to eliminate personal belief exemptions from school vaccine mandates, particularly for those vaccines that target deadly contagious childhood disease. They argue that not doing so would be unjust. In this counterpoint, we argue that, for reasons grounded in both health policy and morality, a just vaccine policy need not prohibit parents from claiming personal belief exemptions.

Common Ground

We agree with several aspects of the commentary by John D. Lantos, Mary Anne Jackson, and Christopher J. Harrison in this issue. Vaccine mandates do play a crucial role in reducing vaccine-preventable disease in the United States. A wealth of evidence supports the effectiveness of vaccine mandates (Briss et al. 2000), perhaps none more impressive than the thirty-eight-fold reduction in the number of measles cases in the 1980s after all fifty states had adopted school entry immunization laws (Orenstein 2006). Immunizations linked to school entrance successfully establish “a system of immunization, a system that works year in and year out, regardless of political interest, media coverage, changing budget situations, and the absence of vaccine-preventable disease outbreaks to spur interest” (Orenstein and Hinman 1999: S23).

We also agree that an undeniable link exists between exemptors and the transmission of disease. This link is supported by substantial evidence (Centers for Disease Control 2008; Kennedy and Gust 2008; Parker et al.

2006). In a study of measles and pertussis cases in Colorado, schools that endured pertussis outbreaks included significantly more children who had been exempted from school-entry immunization requirements than did schools that did not experience an outbreak (Feikin et al. 2000). In addition, 11 percent of vaccinated children who contracted measles during a measles epidemic did so because of contact with a child who was exempt from school-entry immunization requirements.

And, finally, we agree that we are in the midst of a querulous controversy over vaccine mandates. Recent events in our own state of Washington are an example of this controversy. On May 10, 2011, Governor Christine Gregoire signed SB 5005 into law, changing the process for claiming an immunization exemption for philosophical reasons in Washington State. The new law requires that the certificate for exemption include a statement, signed by a health care practitioner, that the parent or guardian has been informed of the benefits and risks of the immunization. In a state with the highest number of nonmedical exemptions in the nation (Centers for Disease Control 2011), this bill was supported by the Washington State Department of Health, the Washington Chapter of the American Academy of Pediatrics, the Washington Academy of Family Physicians, and the School Nurse Organization of Washington as a way to reduce the number of philosophical exemptions claimed out of convenience.

This legislation was intensely contested. Barbara Loe Fisher, founder of the National Vaccine Information Center and a staunch vaccine critic, led the national campaign against the law. Her words capture the extent of the opposition: “If this bill becomes law, it will put doctors, nurses and other medical personnel in the legal position of acting as inquisitors. . . . Americans associated with the medical profession will have the power to sit in judgment of, or interfere with, the free exercise of religious, spiritual or conscientious beliefs of other Americans” (Fisher 2011).

An Argument for Allowing Personal Belief Exemptions

Our reservations about Lantos and colleagues’ proposal to eliminate personal belief exemptions, however, begin with the fact that they are proposing to do so in a vaccine climate that can only be described as tense, confrontational, and edgy. More parents are voicing concerns about childhood vaccines—in a recent survey, over three-quarters of parents expressed some concerns (Kennedy et al. 2011). More than one-quarter of parents surveyed in another study admitted placing some trust in the

vaccine-safety advice of celebrities, and almost two-thirds placed some trust in the views of parents who believed their child was harmed by a vaccine (Freed et al. 2011). Is this the best context in which to eliminate personal belief exemptions? We think not.

While it might seem logical to reduce the opportunities parents have to eschew immunization at a time when parental opposition to vaccination is on the rise, it is important to remember that exemptions to vaccine mandates exist in order to reduce perceptions of coercion and interference with parental choice. Therefore, eliminating personal exemptions may actually hinder efforts to achieve childhood vaccination by emboldening antivaccination groups, angering vaccine-hesitant parents, activating parents who do vaccinate but who also support parental choice, and decreasing trust—all at a time when we should be nurturing parental trust rather than further eroding it. If the goal is to increase adherence to vaccine mandates, perhaps we should focus more on understanding how to improve parental confidence in childhood vaccines, rather than removing a parent's ability to opt out. By focusing on the root causes of noncompliance through research and programs that address parental vaccine safety concerns, promote transparency in the vaccine development process, and improve provider-parent communication about vaccines, we are likely to achieve a more acceptable and sustainable path to increased compliance with vaccine mandates than we would by simply removing personal belief exemptions.

We also argue that the problem is not the existence of personal belief exemptions but the ease with which they can be obtained. States in which it is easy to obtain a personal belief exemption have higher exemption rates than those in which obtaining an exemption is more difficult (Omer et al. 2006). In the effort to strike a balance between parental autonomy and public health, it seems more appropriate to focus on how we can change, not eliminate, the process of granting personal belief exemptions. It should not be easier for parents to claim an exemption than it is to get their child vaccinated, but that does not mean that parents should be prohibited from claiming an exemption. Instead, there needs to be more administrative oversight to ensure that parents who claim an exemption indeed have sincerely held personal beliefs supporting their decision and an understanding of the risks of allowing a child to remain unvaccinated. This is, in fact, exactly what Washington State successfully enacted with SB 5005.

Ultimately, the moral justification for any coercive state action, such as a vaccine mandate without the option of a personal belief exemption,

should be based on the harm principle (Diekema 2004). As such, the question that needs to be addressed as a result of Lantos and colleagues' proposal is whether a parental choice to claim a personal belief exemption for a specific vaccine significantly increases the likelihood of serious harm to the child and to others as compared with a choice to vaccinate. Although "significantly increases" and "likelihood of serious harm" are subject to interpretation, it is unlikely that, apart from a widespread and uncontrolled epidemic of a vaccine-preventable disease, this threshold of harm would be met by a parental choice to opt out of routine vaccinations.

By way of example, consider a hypothetical scenario in which a parent has exempted her ten-year-old child from the tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap) vaccine for personal reasons. Assuming a pertussis incidence rate of 7.7 cases per 100,000 among children aged ten to nineteen, a transmission rate in a school setting of 50–80 percent (Plotkin, Orenstein, and Offit 2008), and the morbidity and mortality statistics associated with pertussis (1 percent of children aged ten to seventeen with pertussis require hospitalization and 2 percent have pneumonia as a complication [Lee et al. 2004]), and the vaccine (less than 4 percent of children who receive the Tdap vaccine will have high fever, severe headache, and severe fatigue, and less than 5 percent will have a severe local reaction (pain, redness, or swelling at the injection site) [Broder et al. 2006])), would it be justifiable to force this child to receive the Tdap vaccine against parental wishes? Although it is clear that it is more likely than not that the exempted child who had pertussis would transmit it to other schoolchildren and that the risks of pertussis outweigh the risks of the vaccine, it is also clear that it is unlikely for the child to contract the disease given the baseline incidence rate of pertussis and very unlikely for other similarly aged children (i.e., those he or she is most likely to infect at school) to suffer serious complications from pertussis. In general, the potential risks of harm to the unimmunized child and other schoolchildren do not seem disproportionately great so as to justify disrespecting parental authority by forcing immunization.

One could argue that this risk-benefit calculation, in reality, is considerably more complicated. One could include nonmedical costs of pertussis infection as well as the risks of the disease in other age groups—since these children will also be susceptible during an outbreak—and inclusion of these factors might tip the balance. For instance, if we consider the most at-risk group of children to be those aged less than one, 60 percent will require hospitalization (Broder et al. 2006), and 25 percent of infants of those who are less than six months of age will have pulmonic, encephala-

litic, or nutritional complications (Heininger et al. 1997). But, while these risks certainly push us closer to the threshold of serious harm, there is still not a significant risk of them occurring. However, if the child was attending a school in an area where the incidence of pertussis was double the current baseline rate or was currently experiencing a pertussis outbreak, these risks would become greater and the harm threshold might be reached.

A Just Vaccine Policy

School vaccine mandates that allow for personal belief exemptions can be designed in a way that allows for personal freedom yet minimizes unfairness. Although Lantos and colleagues are right to state that personal belief exemptions as they currently exist in vaccine policy are unjust—personal belief exemptions as currently conceived do allow parents to reap some of the benefits of immunization (through herd immunity) without taking any of the risks (no vaccine is 100 percent safe)—there is a more reasonable way to create a just vaccine policy than by eliminating personal belief exemptions altogether. One approach has already been mentioned: make exemptions more difficult to obtain. We should not reward exemptors by making the exemption process easier than the vaccination process. Obtaining an exemption should require some effort on the part of the parent. Washington State's new law requires a visit to a physician to discuss vaccination. This can be coupled with public policy designed to provide incentives to vaccinate. For instance, insurers could lower insurance rates, and states could offer tax rebates. Other countries, such as Australia, have used parental incentives since the 1990s and have found them to be effective at improving vaccination coverage (Salmon et al. 2006).

Finally, the burden of vaccination should be reduced and the costs spread more fairly. Vaccinations should be made available to everyone with no out-of-pocket costs. Since everyone benefits from vaccination, everyone should pay the costs associated with a vaccination program. This could be accomplished through a publicly funded vaccination program that includes coverage of any vaccine-related injury. Any vaccine policy that passes the financial burdens of vaccination (by charging for the vaccine or the costs of administering it) only to those complying with vaccine mandates violates the principle of justice.

Conclusion

We share Lantos and colleagues' goal of protecting children from vaccine-preventable disease. We also appreciate the need to establish limits to the freedom to opt out of vaccine mandates. However, we disagree with their proposed change in vaccine policy primarily because it attempts to achieve these shared objectives using a method akin to brute force without first exploring less coercive alternatives. We think a more effective approach is one that offers greater flexibility in balancing competing goods and greater opportunity to favorably influence public opinion toward encouraging vaccination. Personal belief exemptions need not be eliminated, just revised.

References

- Briss, P. A., L. E. Rodewald, A. R. Hinman, A. M. Shefer, R. A. Strikas, R. R. Bernier, V. G. Carande-Kulis, H. R. Yusuf, S. M. Ndiaye, S. M. Williams, and The Task Force on Community Preventive Services. 2000. Reviews of Evidence Regarding Interventions to Improve Vaccination Coverage in Children, Adolescents, and Adults. *American Journal of Preventative Medicine* 18 (suppl. 1): 97–140.
- Broder, K. R., M. M. Cortese, J. K. Iskander, K. Kretsinger, B. A. Slade, K. H. Brown, C. M. Mijalski et al. 2006. Preventing Tetanus, Diphtheria, and Pertussis among Adolescents: Use of Tetanus Toxoid, Reduced Diphtheria Toxoid, and Acellular Pertussis Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP). *Morbidity and Mortality Weekly Report* 55 (RR03): 1–34.
- Centers for Disease Control and Prevention. 2008. Outbreak of Measles—San Diego, California, January–February 2008. *Morbidity and Mortality Weekly Report* 57:203–206.
- . 2011. Vaccination Coverage among Children in Kindergarten—United States, 2009–10 School Year. *Morbidity and Mortality Weekly Report* 60:700–704.
- Diekema, D. S. 2004. Parental Refusals of Medical Treatment: The Harm Principle as Threshold for State Intervention. *Theoretical Medicine and Bioethics* 25:243–264.
- Feikin, D. R., D. C. Lezotte, R. F. Hamman, D. A. Salmon, R. T. Chen, and R. E. Hoffman. 2000. Individual and Community Risks of Measles and Pertussis Associated with Personal Exemptions to Immunization. *Journal of the American Medical Association* 284:3145–3150.
- Fisher, B. 2011. WA State Vaccine Law Threatens Exemptions and Violates Privacy. National Vaccine Information Center, February 13. nvic.org/NVIC-Vaccine-News/February-2011/WA-State-Vaccine-Law-Threatens-Exemptions---Violat.aspx.
- Freed, G. L., S. J. Clark, A. T. Butchart, D. C. Singer, and M. M. Davis. 2011. Sources

- and Perceived Credibility of Vaccine-Safety Information for Parents. *Pediatrics* 27 (suppl. 1): S107–S112.
- Heininger, U., K. Klich, K. Stehr, and J. D. Cherry. 1997. Clinical Findings in Bordetella Pertussis Infections: Results of a Prospective Multicenter Surveillance Study. *Pediatrics* 100:E10.
- Kennedy, A. M., and D. A. Gust. 2008. Measles Outbreak Associated with a Church Congregation: A Study of Immunization Attitudes of Congregation Members. *Public Health Reports* 123:126–134.
- Kennedy, A., K. Lavail, G. Nowak, M. Basket, and S. Landry. 2011. Confidence about Vaccines in the United States: Understanding Parents' Perceptions. *Health Affairs* 30:1151–1159.
- Lee, G. M., S. Lett, S. Schauer, C. LeBaron, T. V. Murphy, D. Rusinak, and T. A. Lieu. 2004. Societal Costs and Morbidity of Pertussis in Adolescents and Adults. *Clinical Infectious Diseases* 39:1572–1580.
- Omer, S. B., W. K. Pan, N. A. Halsey, S. Stokley, L. H. Moulton, A. M. Navar, M. Pierce, and D. A. Salmon. 2006. Nonmedical Exemptions to School Immunization Requirements: Secular Trends and Association of State Policies with Pertussis Incidence. *Journal of the American Medical Association* 296:1757–1763.
- Orenstein, W. A. 2006. The Role of Measles Elimination in Development of a National Immunization Program. *Pediatric Infectious Disease Journal* 25:1093–1101.
- Orenstein, W. A., and A. R. Hinman. 1999. The Immunization System in the United States: The Role of School Immunization Laws. *Vaccine* 17 (suppl. 3): S19–S24.
- Parker, A. A., W. Staggs, G. H. Dayan, I. R. Ortega-Sánchez, P. A. Rota, L. Lowe, P. Boardman, R. Teclaw, C. Graves, and C. W. LeBaron. 2006. Implications of a 2005 Measles Outbreak in Indiana for Sustained Elimination of Measles in the United States. *New England Journal of Medicine* 355:447–455.
- Plotkin, S. A., W. A. Orenstein, and P. A. Offit. 2008. *Vaccines*. 5th ed. Philadelphia: Saunders.
- Salmon, D. A., S. P. Teret, C. R. MacIntyre, D. Salisbury, M. A. Burgess, and N. A. Halsey. 2006. Compulsory Vaccination and Conscientious or Philosophical Exemptions: Past, Present, and Future. *Lancet* 367:436–442.

