Legislative Prescriptions for Controlling Non-medical Vaccine Exemptions

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During 2014, numerous communities across the United States have been struck by significant, largely avoidable outbreaks of dangerous vaccine-preventable illnesses (VPIs), such as measles, mumps, and pertussis.1 Public health officials and lawmakers have connected some outbreaks to increased community vulnerability due to rising numbers of families actively declining immunizations against VPIs for their children.²

States can require that families submit documentation that their children have received mandatory vaccines as a condition of entry to childcare and elementary school.; These laws routinely include conditions under which families may apply for exemption from vaccination requirements on medical or non-medical grounds. Although studies show stricter rules on exemptions could help reduce VPI cases^{3,4}, many legislative initiatives have been focused on expanding exemptions.⁵ However, legislation proposing to strengthen protections against VPIs has been raised lately in many states, frequently focusing on the processes through which parents seek exemptions.⁶ The protective strength of a state childhood vaccination exemption law can be assessed by examining five broad groups of exemption characteristics7 (Table 1): (1) the type of exemptions; (2) the populations and entities within the state to which the law in question applica; (3) the documentation and filing processes by which individuals submit exemption applications; (4) the review process for exemption applications; and (5) the availability of appeals and applicable penalties.

Types of Exemptions

The first category of characteristics is the type of exemptions to state childhood vaccination mandates. All states allow "medical exemptions" for those with, among other things, compromised immune systems, prior adverse reactions following vaccination, allergies to vaccine components, and certain types of moderate or severe illness. While not constitutionally required, most states also permit "non-medical exemptions." Forty-eight states (all except Mississippi and West Virginia) offer parents the right to seek exemption from school vaccination requirements on the grounds that vaccination violates family religious beliefs. Twenty states offer broader grounds, allowing parents to opt their children out of vaccination requirements for philosophical or moral reasons. States with philosophical exemptions, in addition to having higher exemptor rates, also have higher rates of VPI.⁸

Applicable Institutions and Populations

Law strength also is affected by the scope of populations and entities to which the law applies. For instance, Maryland's vaccine requirements apply to private as well as public schools. Laws applicable only to public school students will necessarily be less protective. Another consideration falling within this category is whether rules permit students in the process of obtaining their full set of vaccinations to attend school. More common, perhaps, are laws that exclude children from childcare, preschool, kindergarten, or elementary school during an outbreak if they have received exemptions, or if unable to provide documentation of complete vaccination.

The Rigor of the Application Process

The third broad category of characteristics that affect the restrictiveness of a state vaccination law is the rigor of the documentation and filing process associated with applying for exemption. Factors affecting the restrictiveness of the exemption policy include whether the state provides standardized forms, such forms are easily acquired or are easy to submit, whether forms must be notarized, apply to all or just certain vaccinations, and if forms can be filed once during a child's tenure in a school system or must be re-filed annually.

The rigor of the documentation and filing process also is affected by requirements that parents receive certain educational information about the risks associated with exemption to their children and the community. This may be delivered via waiver forms requiring the parent to acknowledge a list of potential risks associated with exempting their child from immunization (Arizona), or requirements that certain written materials be shared with parents. Another parental educational approach, recently adopted by California, Oregon, and Washington, is to require parents seeking exemption engage in an "informed refusal" process.9 These compel an exemption-seeking parent to engage in a mandatory conversation about the benefits and risks of immunization guided by a health care practitioner, or undertake a sanctioned online course on vaccine benefits and risks prior to obtaining vaccine exemptions. It is believed that affording parents the opportunity to have a more in-depth discussion with a trusted care provider may increase the likelihood that some vaccine-questioning parents ultimately will choose to vaccinate their child.10

Review Mechanism and Appeal of Exemption Requests

The fourth category includes characteristics related to exemption review mechanisms, including whether parents may file an exemption without official review prior to approval by a health department, school or other official, and whether exemption-seekers may file religious exemptions without subjecting themselves to an examination of the sincerity or content of their specific beliefs. The final characteristics category includes whether an appeals process exists, and whether civil or criminal penalties exist for vaccination law violations. For example, in Georgia, parents who violate State vaccine requirements, as well as responsible officials permitting any child to remain in a school in violation of State regulations, are guilty of a misdemeanor and punishable by a fine or imprisonment.11

Considering all the characteristics discussed above, Vermont is among the most lenient states (although the state recently amended its law to require that parents annually refile religious and philosophical exemption requests and acknowledge completion of an educational requirement), while West Virginia, which does not provide a religious or philosophical exemption, has one of the most restrictive laws.

While much has been done to reduce U.S. incidence rates of VPIs, recent events show us that ready access to international travel means that exposure to a disease in one part of the world can lead to a case arising in a local community.¹² That case is more likely to become an outbreak when there are more opportunities to pass the infection on to multiple additional vulnerable hosts. Recent outbreaks have shown that areas particularly susceptible to trigger wider VPI outbreaks following a single exposure are those in which exemptors cluster geographically, often in particular schools, religious institutions, and communities.¹³ Although the elimination of philosophical or religious exemptions is likely politically unfeasible, to guard against a continuing rise in the number of VPI cases, legislatures should consider implementing a combination of various more rigorous policies, from requiring exemption-seeking parents to submit annual exemption requests, completing education requirements, and through extending vaccination requirements to private as well as public schools.

Table 1: Legislative Options

1. Types of	Religious exemption availability
Exemptions	Philosophical exemption availability
2. Applicable Institutions and Populations	Vaccination documentation requirement for access to childcare
	services
	Vaccination documentation requirement for access to pre-school
	Vaccination documentation requirement for access to elementary
	school
	Applicability of vaccination statutes to both public and private
	schools
	Availability of provisional admission for incompletely vaccinated
	students
	Exclusion of exempting children from facilities during outbreaks
3. The Rigor of the Application Process	Availability of state provided standard exemption form
	Availability of online access to exemption form and electronic
	submission
	Notarization requirement before submission
	Requirement of exemption request to re-file annually
	Educational component requirement before submission
	Requirement of participating in an informed refusal process before
	submission
	Requirement of signed statement from filers related to removal from
	school during outbreaks for submission
	Availability of scalable exemption request
	Requirement of parental rationale statement for submission
	Requirement of signed statement from clergy or other health
	professional for submission
	Requirement of proof of vaccination regardless of immunity
4. Review Mechanism	Requirement of health department, school or other official to review
	or approve application
	Requirement of review of sincerity of beliefs for exemption filers
	Requirement of review of content of religious beliefs for religious
	exemption filers
5. Appeal and Penalty	Availability of appeal for denied exemption applicants
	Availability of civil or criminal penalties for violators

References

¹ Centers for Disease Control and Prevention. Current Outbreak List. Available at:

http://www.cdc.gov/outbreaks/. Accessed July 28, 2014.

² Gastañaduy PA, Redd SB, Fiebelkorn AP, Rota JS, Rota PA, Bellini WJ, Seward JF, Wallace
GS. Measles – United States, January 1-May 23, 2014, *MMWR Morb Mortal Wkly Rep.* 2014 Jun
6;63(22):496-9.

³ Omer SB, Pan WK, Halsey NA, Stokley S, Moulton LH, Navar AM, Pierce M, Salmon DA. Nonmedical exemptions to school immunization requirements: secular trends and association of state policies with pertussis incidence. *JAMA* 2006;296(14):1757-63.

⁴ Yang YT, Debold V. A Longitudinal Analysis of the Effect of Non-medical Exemption Law and Vaccine Uptake on Vaccine-Targeted Disease Rates. *Am J Public Health* 2014;104(2):371-377.

⁵ Omer SB, Peterson D, Curran EA, Hinman A, Orenstein WA. Legislative challenges to school immunization mandates, 2009-2012. *JAMA* 2014 Feb 12;311(6):620-1.

⁶ Student Immunizations Prior to School Attendance, Colorado-2014-HB1288, Available at http://legiscan.com/CO/text/HB1288/id/964923. Accessed August 5, 2014.

⁷ Yang YT, Debold V. State Vaccination Requirements and Exemption Law Database.

ICPSR34486-v1. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2013-02-22. Available at http://doi.org/10.3886/ICPSR34486.v1 Accessed August 4, 2014.

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(24):3145-50.

⁹ Silverman RD. No more kidding around: restructuring non-medical childhood immunization exemptions to ensure public health protection. *Annals of Health Law* 2003;12(2):277-94.

¹⁰ Nyhan B, Reifler J, Richey S, Freed GL. Effective messages in vaccine promotion: a randomized trial. *Pediatrics* 2014;133(4):e835-42.

¹¹ The Official Code of Georgia Annotated § 20-2-771. (h)

¹² Papania MJ, Wallace GS, Rota PA1, Icenogle JP, Fiebelkorn AP, Armstrong GL, Reef SE, Redd SB, Abernathy ES, Barskey AE, Hao L, McLean HQ, Rota JS, Bellini WJ, Seward JF. Elimination of endemic measles, rubella, and congenital rubella syndrome from the Western hemisphere: the US experience. *JAMA Pediatr* 2014;168(2):148-55.

¹³ Omer SB, Enger KS, Moulton LH, Halsey NA, Stokley S, Salmon DA.Geographic clustering of nonmedical exemptions to school immunization requirements and associations with geographic clustering of pertussis.*Am J Epidemiol* 2008;168(12):1389-96.