



## Review

# Rising rates of vaccine exemptions: Problems with current policy and more promising remedies



Catherine Constable<sup>a,\*</sup>, Nina R. Blank<sup>b</sup>, Arthur L. Caplan<sup>c</sup>

<sup>a</sup> New York University Medical Center, Department of Medicine, 550 First Avenue, New York, NY 10016, United States

<sup>b</sup> Department of Population Health, New York University Medical Center, 550 First Avenue, New York, NY 10016, United States

<sup>c</sup> Division of Medical Ethics, Department of Population Health, New York University Medical Center, 550 First Avenue, New York, NY 10016, United States

## ARTICLE INFO

## Article history:

Received 24 October 2013

Received in revised form 21 January 2014

Accepted 28 January 2014

Available online 13 February 2014

## Keywords:

Exemptions

Nonmedical exemptions

Vaccine-preventable diseases

Immunization

Vaccination

Bioethics

Public health

Health policy

## ABSTRACT

Parents of school-age children are increasingly claiming nonmedical exemptions to refuse vaccinations required for school entry. The resultant unvaccinated pockets in many areas of the country have been linked with outbreaks of vaccine-preventable diseases. Many states are now focused on reducing rates of nonmedical exemptions by making exemption processes more restrictive or burdensome for the exemptor. These strategies, however, pose ethical problems and may ultimately be inadequate. A shift to strategies that raise the financial liabilities of exemptors may lead to better success and prove ethically more sound. Potential areas of reform include tax law, health insurance, and private school funding programs. We advocate an approach that combines this type of incentive with more effective vaccination education.

© 2014 Elsevier Ltd. All rights reserved.

## 1. Introduction

The number of school-age children receiving vaccine exemptions for nonmedical reasons is on the rise, and at a rate that has accelerated [1]. Rates of nonmedical exemptions have exceeded 5% in some states [2]. Although at the national level, vaccination coverage in this age group has remained stable, geographic clusters of vaccine refusers are increasingly visible, leaving areas of the US exposed [3]. These unvaccinated “pockets” have been associated with increased risk of transmission of vaccine-preventable diseases not only to unvaccinated individuals, but to the entire surrounding community [4–6]. Incidence of measles – despite its being declared eliminated in 2000 is one of the major successes of vaccination programs [7] – increased steeply in the last decade from an annual median of 60 cases during 2001–2010 (four outbreaks) to 222 cases in 2011 (17 outbreaks) [8]. This resurgence has been attributed to importation of the virus by unvaccinated individuals and unvaccinated clusters within the US, which offer a foothold [5,8]. The California pertussis outbreak of 2010 – the largest in the state since 1947 – was likewise linked to unvaccinated clusters [6]. In 2012, Washington state followed with its largest pertussis outbreak since 1942 [9]. This upsurge in vaccine-preventable diseases,

although multifactorial in origin, has sparked renewed attention to state exemption policies and possible strategies to reduce rates of exemptions.

This paper provides an overview of current legislative efforts to limit rates of non-medical exemptions, as well as an analysis of the attendant ethical and implementation challenges. A well-described connection exists between exemption policies and exemption rates at the state level. Unsurprisingly, exemption processes that are more restrictive or more burdensome are linked with lower rates of exemptions [1,10–12]. Current efforts by state legislatures to curb climbing rates of nonmedical exemptions are focused on increasing the burden would-be exemptors face to exempt. Notably, however, exemption rates have continued to rise even in states that limit nonmedical exemptions to those with religious objections, as well as in states with more difficult exemption processes [1]. We conclude that these reduction strategies may be both ethically onerous and ultimately ineffective. There may be strategies that can reduce exemptions that are neither. We outline arguments for more persuasive and – to a certain extent – coercive approaches that include strengthening educational initiatives and increasing the financial liabilities of exemptors.

## 2. Three types of exemptions and their current status

All states offer medical exemptions. Currently, religious exemptions to vaccination are granted in 48 states and Washington,

\* Corresponding author. Tel.: +1 917 386 5451.

E-mail address: [catherine.constable@gmail.com](mailto:catherine.constable@gmail.com) (C. Constable).

D.C. Separately, 20 states allow philosophical, or personal-belief, exemptions—19 states explicitly offer this option. Pennsylvania extends the religious exemption to include any “strong moral or ethical conviction similar to a religious belief”, effectively rendering it a philosophical exemption. Only two states, Mississippi and West Virginia, do not allow either type of nonmedical exemption [12].

### 2.1. The case for mandates

The strength of the case for simply mandating vaccination (allowing only for medical exemptions) depends on each state’s tolerance for public risk attributable to exemptions. Courts have long sanctioned limits on autonomy in medical decision-making both to protect the best interests of children and for the promotion of public health. Specifically, in what became a landmark decision, the court in *Prince v. Massachusetts* imposed limits on parental “martyrdom” of children in violation of labor laws, extending their language to encompass activities – whether religiously or otherwise motivated – which expose children to “ill health or death” [13]. Courts have also upheld the constitutionality of compulsory vaccination without religious exemptions on the justification that an individual’s right to free exercise of religion can reasonably be subject to regulation in the interest of community safety [14,15]. Several professional societies, including the American Medical Association [16] and the Infectious Diseases Society of America [17] hold the position that provisions for nonmedical exemptions should be eliminated entirely from state statutes requiring vaccination.

Notwithstanding the health concerns that drive this recommendation, in a nation that places a premium on autonomy, states have been very wary of mandating a medical intervention without any accommodation of personal or religious beliefs. Notably, the only two states that allow neither type of nonmedical exemption have, for many years, considered pieces of legislation that would add one of these options (as recently as 2012, both states considered but ultimately rejected bills that would permit exemptions for either philosophical or religious reasons) [12]. As public preference at this point in time makes widespread adoption of strict mandates improbable, policymakers interested in raising or preserving vaccination rates continue to direct their efforts towards tightening exemption processes.

### 2.2. Philosophical versus religious exemptions

The inclusion of a philosophical provision by many states has been linked with a higher rate of exemptions as well as a higher incidence of vaccine-preventable diseases, and has thus raised concerns among some policy-makers [1,11]. Yet attempts to more narrowly define exemptible objections as those linked to “valid” religious beliefs have met with resistance, as they pose legal, ethical and logistical dilemmas.

Legislative changes concerning the types of beliefs eligible for exemption have been pursued by a number of states. Two states that allow religious exemptions, New Jersey and New Mexico, have moved to change the wording of their exemption policies to specify that protected beliefs must meet the standard of “bona fide” religious tenets or practices, or to explicitly state that the religious exemption policy should not be loosely interpreted to cover philosophical exemptions. Vermont, which currently allows philosophical objections, considered but rejected legislation that would remove this option, restricting nonmedical exemptions to the religious category. At the same time, however, lawmakers in at least eight states have proposed legislation that would broaden their exemption criteria to include a philosophical option [12].

What is clear is that the overall tide of legislative change is not in the direction of removing the personal-belief option, notwithstanding the consequences for vaccination rates. Indeed, the First Amendment implications of limiting exemptions to a state-determined conception of valid or “true” religious belief are highly contentious [18–20]. Policies that rest on the argument that unrecognized or personal religious beliefs are less worthy of protection than those documented by a known religious establishment, or, that are less deeply-held, do not have a bright future in a society committed to religious and cultural pluralism.

### 2.3. Challenging the sincerity of exemptors: Fraught with problems

Greater ease of obtaining an exemption in terms of administrative barriers is associated with higher exemption rates and incidence of vaccine-preventable disease, and has accordingly been viewed as a possible area of intervention for legislators [1,10,21]. Rota and colleagues observed that in many states, obtaining an exemption is actually simpler and less time-consuming than meeting vaccination requirements [10]. In recent analyses, between 15 and 17 states have been classified as having “difficult” exemption procedures based on requirements that include a letter from a parent outlining the reasons for opposing vaccination, notarization of a form or letter, or a form that cannot be accessed online [1,12]. Many proposals have supported strengthening these types of barriers as a means of holding exemptors to a higher standard of sincerity [10,11,19,22]. This approach, too, raises ethical and practical issues.

While it is tempting to believe that more complicated exemption processes offer insight into which exemptors are sincere in their beliefs, they may only select for people most adept at surmounting burdensome processes. In the absence of evidence that obstacle-navigating is a valid proxy for sincerity efforts to measure strength of conviction by imposing more burdens are ethically suspect. Although the courts have allowed states to consider sincerity of belief among their criteria for granting exemptions, they have also acknowledged the perils of this approach, which, in practice, can verge on “heresy testing” [23].

Even if the sincerity of all exemptors could reliably be measured, this strategy may misfire. Decisions at the population level regarding vaccination are tethered to what has been termed a “free-rider effect”, which predicts a feedback loop between the prevalence of vaccine-preventable diseases and individual vaccination choices [24]. Vaccine scares in the setting of low disease prevalence lead to a drop-off in vaccination rates, as was seen in England and Wales during the whole cell pertussis scare of the 1970s—a decline which ultimately led to large-scale outbreaks of pertussis. While herd immunity appears – often falsely – to offer protection, vaccines and their perceived risks will continue to look to many people like the larger threat. Conversely, as the prevalence of a disease goes up, people are less likely to exempt [24]. In this way, “sincerity” may be a highly malleable variable. This effect can be seen in an even more reflexive way in instances such as the recent San Diego measles outbreak, where 41% of people who had declined or deferred vaccinating their children opted for post-exposure vaccination after their child was exposed to a measles case [25]. The implementation of a process where exemptions are granted on the strength of an individual’s desire to opt in or exempt would potentially amplify the movements of an already dangerous pendulum—producing, in effect, a “forced pendulum” [26].

## 3. Education rather than obstacles

To the extent that in many states obtaining an exemption is easier than getting a child vaccinated, the exemption process could

Download English Version:

<https://daneshyari.com/en/article/10966941>

Download Persian Version:

<https://daneshyari.com/article/10966941>

[Daneshyari.com](https://daneshyari.com)