February 22, 2011

Do Non-Medical Exemptions to Compulsory Vaccination Programs Violate the Fourteenth Amendment?

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DO NON-MEDICAL EXEMPTIONS TO COMPULSORY VACCINATION PROGRAMS VIOLATE THE FOURTEENTH AMENDMENT?

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Abstract

Compulsory vaccination programs for children constitute good public policy, as they prevent epidemics of dangerous diseases. They also are constitutionally permitted. All but two states permit exceptions for parental beliefs. I argue that belief exemptions may violate the Fourteenth Amendment rights of children whose parents do not claim such exemptions. They certainly infringe on those rights when non-exempted children are required by law to go to school with exempted children. Finally, I demonstrate that children have standing under current Cases and Controversies doctrine to sue for enforcement of these rights.
Introduction

All states in the United States require vaccination\(^2\) of children against certain communicable diseases.\(^3\) Compulsory vaccination has reduced the incidence of serious diseases such as diphtheria, polio, and smallpox, which used to kill many children.\(^4\) However, health gains achieved by these programs now are jeopardized in some areas by an increase in non-medical exemptions from vaccination. I argue that non-medical exemptions to compulsory vaccination programs violate Fourteenth Amendment Due Process and Equal Protection rights of those without such exemption.

All states provide for medical exemption for vaccination.\(^5\) Indeed, the Fourteenth Amendment\(^6\) requires exemption of those who have a special predilection to be harmed by a vaccine.\(^7\) Two states allow no exemptions except medical exemptions.\(^8\) Seventeen\(^9\)

\(^2\) Strictly speaking, “vaccination” is “inoculation of (a person with cowpox virus in order to produce immunity to smallpox.” (Webster’s Ninth New Collegiate Dictionary (Merriam-Webster, 1991) (1301). A second definition is injection of a “preparation…that is administered to produce or artificially increase immunity to a particular disease” (Id.) This paper uses “vaccination” instead of the medically preferable “immunization” because the former is clearer to non-medical readers.

\(^3\) See James G. Hodge, Jr. and Lawrence O. Gostin, School Vaccination Requirements: Historical, Social, and Legal Perspectives, 90 Ky. L.J. 831, 833, and Table 2 at XX. (2001). A communicable disease is one transmitted from “person to person, animal to animal, animal to man, or man to animal.” Webster’s Medical Desk Dictionary, Merriam Webster, Springfield, Mass at 135 (1986). Communicable diseases are a subset of infectious diseases, which are produced by “infectious agents” (Id. at 334) such as bacteria or viruses. These agents can be acquired through traumatic injury, food, etc., and so need not be acquired directly from another large organism.

\(^4\) See Sandra W. Roush & Trudy V. Murphy, Historical Comparisons of Morbidity and Mortality for Vaccine-Preventable Diseases in the United States 298 JAMA 2155, 2156 tbl. 1 (2007). The disease and reduction rates are: diphtheria, 100%; measles, 100%; mumps, 96%; pertussis, 92%; poliomyelitis, 100%; rubella 99%; congenital rubella syndrome (in fetuses exposed to maternal rubella infection), 99%; and smallpox, 100%; (figures rounded to nearest percent); Jane F. Seward et al., Varicella Disease after Introduction of Varicella Vaccine in the United States, 1995-2000, 287 JAMA 606, 609 (2002).


\(^6\) U.S. Const. amend. XIV, § 1.

\(^7\) Jacobson v. Massachusetts, 197 U.S. 11 at 38 – 39 (1905). (“It is easy, for instance, to suppose the case of an adult who is embraced by the mere words of the act, but yet to subject whom to vaccination in a particular condition of his health or body, would be cruel and inhuman in the last degree…It will always, therefore, be presumed that the legislature intended exceptions to its language which would avoid results of that character.” (Internal citations omitted))
allow exemption for both religious and philosophical beliefs of parents.\(^8\) The rest allow exemption for religious beliefs, but not for philosophical ones.\(^9\)

The success of vaccination programs in controlling communicable diseases depends on large-scale compliance. Widespread exemption from vaccination can result in epidemics\(^10\) or outbreaks\(^11\) of these diseases. A vaccine safe enough to survive the process required for approval of its release to the public\(^12\) will not give rise to many medical exemptions. However, widespread religious and philosophical exemptions (which, taken together, I term “belief exemptions”) can endanger the success of vaccination programs, thus jeopardizing the health of many people.


\(^10\) “Parent” is used throughout to denote the legal guardian of a child.


\(^12\) The definition of epidemic is “affecting…many individuals within a population, community, or region at the same time.” (Webster’s Medical Desk Dictionary, supra note 3 at 215.)

\(^13\) An outbreak of a disease is a self-limited occurrence of a small number of cases in geographic and temporalproximity.

\(^14\) See 21 U.S.S. §§ 355 ff.
Many people in some communities sincerely believe that their children should not be vaccinated.\(^\text{15}\) Other parents may use belief exemptions to avoid the cost, trouble, or low risk of immunizing their children.\(^\text{16}\) Some states require an affidavit to obtain a belief exemption.\(^\text{17}\) In others, the process is less formal, requiring only a parental statement.\(^\text{18}\) Indeed, forms allowing such signature may be provided by schools.\(^\text{19}\) If exemption can be readily obtained using preprinted forms provided by schools,\(^\text{20}\) it is easier for parents not to immunize their children than to immunize them.\(^\text{21}\)

Part I of this paper will discuss the scientific basis for compulsory vaccination programs. Part II will discuss the law on which belief exemption is based. Part III will demonstrate that belief exemptions may be constitutionally impermissible because the violate rights of those not claiming belief exemption. Finally, Part IV will explore the question of who might have standing to challenge laws providing for belief exemptions.

I. The scientific basis for compulsory vaccination programs

A. Prevention of serious communicable illness through vaccination

1. Immunization programs markedly reduce rates of serious disease


\(^{16}\) Calandrillo, supra note 5 at 417 – 418.

\(^{17}\) In Georgia, for example, “[f]or a child to be exempt from immunization on religious grounds, the parent or guardian must first furnish the responsible official of the school or facility an affidavit in which the parent or guardian swears or affirms that the immunization required conflicts with the religious beliefs of the parent or guardian.” (Ga. Code Ann. § 20-2-771 (e) (2007).


\(^{19}\) See McNeil, supra note 15.

\(^{20}\) See Calandrillo, supra note 5 at 413.

\(^{21}\) Id. at 418.
As noted above, all states require vaccination for school attendance. School attendance is compulsory.\(^2\) It follows that vaccination is compulsory as well.

Vaccination commonly is required against poliomyelitis, mumps, measles (rubeola), diphtheria, rubella, varicella (chicken pox), \textit{Haemophilus influenzae} type b (Hib), pertussis, pneumococcal disease, and hepatitis B.\(^3\) The infectious agent in all these diseases is passed from person to person.\(^4\) Vaccination against smallpox was introduced in the 18\(^{th}\) century.\(^5\) Additional vaccines against other common communicable diseases of childhood have since been introduced, most recently in 1995 for varicella.\(^6\)

Vaccination has markedly reduced death and major morbidity from these diseases. The United States has seen a 92\% to 100\% reduction in various diseases for which childhood vaccination is required.\(^7\) The reduction in deaths from each of these diseases was at least 99\%.\(^8\) Following the introduction of varicella vaccine, the incidence of varicella soon fell by 71\% to 84\% in three localities.\(^9\) This was due to vaccination of 73\% to 82\% of children in these areas.

\section*{2. Herd immunity is responsible for the effectiveness of mass vaccination}

\(^{22}\) See, for example, NY CLS Educ. § 2 (11) (2008).
\(^{23}\) See, for example, NY CLS Pub Health § 2164 (2)(a) (2008).
\(^{24}\) This is as opposed to communicable disease that people acquire from non-human vectors (e.g., rabies, plague, malaria).
\(^{25}\) See Hodge, \textit{supra} note 3 at 836 – 840 for a summary of Jenner’s work in developing the technique of vaccination. Jenner inoculated humans with material taken from cows with cowpox. This is a disease caused by a virus related to the smallpox virus. It induces immunity that confers cross-immunity to smallpox, but usually causes but mild symptoms in humans.
\(^{27}\) See Roush, \textit{supra} note 4. The disease rates are diphtheria, 100\%; measles, 100\%; mumps, 96\%; pertussis, 92\%; Poliomyelitis, 100\%; rubella, 99\%; congenital rubella syndrome (in fetuses exposed to maternal rubella infection), 99\%; smallpox, 100\%, and tetanus, 93\% (\textit{figures rounded to nearest percent}).
\(^{28}\) \textit{Id.}
\(^{29}\) Seward, \textit{supra} note 4 at 609
The scientific rationale for vaccinating an individual is to prevent that person from contracting a disease. The rationale behind requiring vaccination, however, is based on the phenomenon of herd immunity. This means that a disease will be eradicated from a closed population even if the vaccination rate does not quite reach 100%. I have discussed the theoretical basis of herd immunity elsewhere. The fraction of the population needed to achieve herd immunity is estimated using mathematical modeling. The phenomenon of herd immunity is generally accepted in the medical community, and is summarized as follows.

A disease outbreak in a closed community will die out when the fraction of the people who are immune is so great as to interrupt transmission of disease by removing most potential targets of infection from the chain of transmission. Herd immunity is then said to have occurred. This has two implications. First, vaccination of any individual benefits not just the vaccinated person, but all susceptible persons in the community. Second free riders will benefit from the vaccination of others without being vaccinated themselves, provided the number of free riders is not so great as to allow the proportion of vaccinated people to fall below the level needed for herd immunity.

30 Fine, PEM, *Herd immunity: History, theory, practice*. Epidemiological Rev. 15:265-302 (1993). For example, “wild polio virus ceased to circulate in most of the United States…[when only some 65 percent of children were receiving a complete course of live polio vaccine.” Id. at 291.
32 See, generally, Fine, supra note 30.
33 See, for example, James A. Taylor, *Herd Immunity and the Varicella Vaccine: Is It a Good Thing?,* 155 Arch. Pediatrics & Adolescent Med. 440 (2001) (“Because of herd immunity, the incidence of several vaccine-preventable illnesses has dropped precipitously even though significantly fewer than 100% of the eligible population has been immunized.”); Perviz Asaria & Eithne MacMahon, *Measles in the United Kingdom: Can We Eradicate It by 2010?* 333 BMJ 890 (2006) (“Because measles is so highly infectious, vaccination of 90–95% of the population with a two dose schedule is required to… halt the endemic transmission of measles.”); Tamara Kubba, *Human Papillomavirus Infection in the United Kingdom: What About Boys?* 16 Reproductive Health Matters 97, 99 (2008).
Herd immunity applies to closed communities in which people do not enter or leave. In actual communities, though, travel results in frequent entry into or departure. People with communicable diseases can enter a community and transmit the disease to susceptible targets, even if herd immunity is present. This will cause a self-limiting outbreak of that disease to susceptible individuals. Actual examples of this are discussed below.

The United States Centers for Disease Control and Prevention (“CDC”) has recommended a vaccination schedule for children\(^{34}\) that the principal American pediatric organization has adopted.\(^{35}\) Many American children are not vaccinated to the extent recommended by the CDC. The proportion of teens who received a recommended booster of diphtheria-pertussis-tetanus vaccine ranges 2009 from 93.7% in Massachusetts to 52.7% in Arkansas and South Carolina.\(^{36}\) Worse, the number of young children receiving even one dose of measles-mumps-rubella vaccine ranged from 95.6% in Tennessee to only 85.9% in Montana.\(^{37}\)

There are at least five possible reasons why children might go unvaccinated. First, parents can claim exemption. Second, some children will be too young to have completed a course of vaccination. As per current CDC recommendations, no children receive any vaccine until 2 months of age.\(^{38}\) Vaccination is deferred until 12 months for measles, rubella and chicken pox.\(^{39}\) For most vaccines, several injections are necessary.

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\(^{34}\) http://www.cdc.gov/vaccines/recs/schedules/downloads/child/2010/10_0-6yrs-schedule-pr.pdf
\(^{38}\) Id.
\(^{39}\) Id.
to achieve maximum rate of immunity. A child that has not completed a course of vaccination may be susceptible to the disease the vaccine targets.

Third, some children may be unable to receive a vaccine because of specific medical danger. Fourth, some people who receive the vaccine may be unable to develop immunity to the disease. For example, at least 10% of children fail to develop immunity to pertussis vaccine after the recommended three injections. Others might not develop immunity until completing a recommended series of doses. Some vaccines do not attain full effect until a certain age, and vaccination is deferred until that age.

Finally, parents may not vaccinate their children for social reasons such as ignorance of the vaccine, illegal presence in the United States, or inability to access care; this would have to be coupled with school inefficiency in enforcing vaccination requirements.

Even if herd immunity is present, a susceptible child can acquire a communicable disease from a carrier who enters a community. Thus, despite vaccination laws, there have been outbreaks of various communicable diseases that should be preventable through extant compulsory vaccination programs. The United States, for example, has

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40 For example, the measles-mumps-rubella vaccine (“MMR”) cannot be given to persons (1) with hypersensitivity to any component, including gelatin and neomycin; (2) with concurrent febrile infection; (3) receiving immunosuppressive therapy; (4) afflicted with leukemia and related conditions; and (5) with conditions causing immunodeficiency, including AIDS. See [prescribing information for] M-M-R II, in Physician’s Desk Reference, 65th Ed. 2166 at 2167.


42 For example, MMR is more effective at inducing immunity when given after one year of age. In children 11 months to 7 years of age, a single injection of the vaccine induced measles hemagglutination-inhibition (HI) antibodies in 95%, mumps neutralizing antibodies in 96%, and rubella HI antibodies in 99% of susceptible persons. However, a small percentage (1-5%) of vaccines may fail to seroconvert after the primary dose

experienced outbreaks of pertussis, measles, and polio. In one outbreak, a child acquired measles abroad and came to California. He and 7 of the 8 children in his school whom he infected had personal beliefs exemptions on file with the school. It is interesting that 11 of the 32 unvaccinated children with beliefs exemptions on file at that school received vaccination after the measles outbreak began. It cannot be determined, of course, whether the parents of the newly immunized children actually changed their beliefs, or whether the original exemption represented a non-principled decision that was reversed when a tangible peril to their children arose. In any event, self-limiting outbreaks of disease are possible even in a community that enjoys herd immunity. But only if herd immunity is present will the outbreak be self-limiting.

In conclusion, failure to vaccinate all medically eligible children because of parental belief can result in disease affecting not only children of the objecting parent, but also children of parents who want to protect their offspring from disease through vaccination. Of course, not even the children of the parents who filed objection can give competent consent to be exposed to the disease without protection of a vaccine.

II. The First Amendment and compulsory vaccination

44 See, for example, Arthur Allen, Bucking the Herd, 290 The Atlantic Monthly 40no. 2 (September, 2002).
45 See, Measles—United States, January 1–April 25, 57 MMWR 494 (2008).
46 L Bahta, J Bartkus, PhD, J Besser, MS, et al., Poliovirus Infections in Four Unvaccinated Children—Minnesota, August–October 2005, 54 MMWR 1053 (2005), reprinted as 294 JAMA: The Journal of the American Medical Association 2689 (2005). The cases occurred in unimmunized Amish children. The pathogenic virus was a poliovirus derived from attenuated live-virus vaccine that had mutated to become pathogenic. Attenuated live virus polio vaccines are no longer used in the United States. The last American outbreak of polio caused by wild virus occurred in 1979 (Id.).
48 Id.
Belief objections to vaccination are protected only by statute; they have no constitutional protection. *Jacobson v. Massachusetts* held that state police power permits compulsory vaccination programs. In the subsequent 105 years the Supreme Court has never limited the scope of this opinion. Rather, the court affirmed this power in *Zucht v. King*. Subsequently, *Prince v. Massachusetts* used the doctrine of *parens patriae* as a basis for allowing states to require vaccination of children over First Amendment objections.

**A. The Free Exercise clause**

Through the vicissitudes of jurisprudence that have widened and then narrowed the scope of the Free Exercise clause, courts have consistently held that it does not impinge on state power to compel vaccination in order to protect public health.

*Reynolds v. United States* interpreted the Free Exercise clause as directing that “while [laws] cannot interfere with mere religious belief and opinions, they may with practices.” The Supreme Court retreated from this doctrine for a time. In 1963, it held in *Sherbert v. Verner* that laws infringing on free exercise of religion were subject to strict scrutiny. This opinion, however, permitted more relaxed scrutiny of laws

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50 See *Jacobson* supra note 7.


53 *Id.* at 166 – 167. (“[T]he state as *parens patriae* may restrict the parent's control by requiring school attendance, regulating or prohibiting the child's labor and in many other ways. Its authority is not nullified merely because the parent grounds his claim to control the child's course of conduct on religion or conscience. Thus, he cannot claim freedom from compulsory vaccination for the child more than for himself on religious grounds. The right to practice religion freely does not include liberty to expose the community or the child to communicable disease or the latter to ill health or death.”) (Internal citations omitted.)

54 U.S. Const., amend. I; (“Congress shall make no law... prohibiting the free exercise [of religion].”)


56 *Id.* at 166.

regulating “conduct or actions that “pose[] some substantial threat to public safety, peace or order.” Wisconsin v. Yoder, which was decided in 1972, emphasizes the distinction between such “conduct or actions” (which the government can bar) religious exemptions from a compulsory education law (which were permitted). In making this distinction, the Yoder court emphasized that secular high school education posed a fundamental threat to the religious life of the respondents. The Yoder decision represents a retreat from Sherbert, protecting only marked state interference with practices vital to religious life in circumstances where the practices have a relatively small effect on state interests.

Sherbert and Yoder both explicitly affirmed the holding of Prince v. Massachusetts that compulsory vaccination laws were not susceptible to limitation by the Free Exercise clause.

In any event, the Court essentially reverted to the Reynolds standard in 1990 in Employment Div. v. Smith. Cases upholding religious exemptions were distinguished as

58 Id. at 403
60 Id. at 230.
61 Id. (“This case, of course, is not one in which any harm to the physical or mental health of the child or to the public safety, peace, order, or welfare has been demonstrated or may be properly inferred.”). See, also, id. at 233 – 234 (“To be sure, the power of the parent, even when linked to a free exercise claim, may be subject to limitation under [Prince, supra note 52] if it appears that parental decisions will jeopardize the health or safety of the child, or have a potential for significant social burdens.”)
62 See, id. at 217 – 218. See also id. at 219 (“enforcement of the State's requirement of compulsory formal education after the eighth grade would gravely endanger if not destroy the free exercise of respondents' religious beliefs’) (emphasis supplied).
63 See, id., at 228-229.
64 See, Sherbert, supra note 57 at 403, Yoder, supra note 58 at 220.
65 Prince, supra note 52 at 166 – 167. “[The parens patriae authority of the state] is not nullified merely because the parent grounds his claim to control the child’s course of conduct on religion or conscience. Thus, he cannot claim freedom from compulsory vaccination for the child more than for himself on religious grounds. The right to practice religion freely does not include liberty to expose the community or the child to communicable disease or the latter to ill health or death.” (Emphasis supplied).
66 See, Employment Div., Dept. of Human Resources of Ore. v. Smith, 494 U.S. 872, 878 - 879 (1990). A later case, narrowed the scope of Smith somewhat in holding that if a law was not neutral with regard to its
involving “not the Free Exercise Clause alone, but the Free Exercise Clause in conjunction with other constitutional protections, such as freedom of speech”67. It is this second right that protects against infringement.68 Congress then passed the Restoration of Religious Freedom Act (“RFRA”)69 “to restore the compelling interest test as set forth in [Sherbert and Yoder] and to guarantee its application in all cases where free exercise of religion is substantially burdened.”70 This statute required that laws adopted by any governmental authority71 meet strict scrutiny.72

The Court, however, declared in City of Bourne v. Flores73 that RFRA was unconstitutional as applied to state laws. The Smith and Bourne decision were reinforced in Church of the Lukumi Babalu Aye, Inc. v. City of Hialeah;74 “a law that is neutral and of general applicability need not be justified by a compelling governmental interest even if the law has the incidental effect of burdening a particular religious practice.”75 The final piece in the current understanding of the scope of the Free Exercise clause was supplied by Gonzales v. O Centro Espirita Beneficente Unial do Vegetal,76 which somewhat limited the applicability of RFRA to Federal law.77

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67 Id. at 881. Of course, if there is state infringement on another constitutional right subject to strict scrutiny, there logically is no need to invoke the Free Exercise clause at all in the protection of this right. 68 Id. (“The present case does not present such a hybrid situation, but a free exercise claim unconnected with any communicative activity or parental right. Respondents urge us to hold… that when otherwise prohibitable conduct is accompanied by religious convictions, not only the convictions but the conduct itself must be free from governmental regulation. We have never held that, and decline to do so now.”)

70 42 U.S.C. 2000bb (b) (1).
71 42 U.S.C. 2000bb—2 (b) (1).
72 42 U.S.C. 2000bb—1 (b) (1).
74 See Lukumi supra note 66.
75 Id. at 531, quoting Smith, supra note 66 at 872.
77 Id. at 435. (“The Government can demonstrate a compelling interest in uniform application of a particular program by offering evidence that granting the requested religious accommodations would seriously compromise its ability to administer the program.”)
Brock v. Boozman,78 a case heard in a federal district court, revisited the impact of the Free Exercise clause on religious exemptions from vaccination following both the enactment of RFRA and the City of Bourne and Lukumi decisions. The issue was whether Smith and Lukumi precluded a legal scheme that permitted secular exemptions (in this case, a medical exemption), but not religious exemptions. 79 The plaintiff claimed that this was not neutral and of general applicability. The Brock court disagreed, and ruled that a state that allows medical exemptions can refuse to make provisions for religious exemption.80 The determinant was that the secular medical exemption did not undermine the state purpose (furthering public safety) that the law was meant to further.81 If the secular exemption and the purpose had been at odds, then the compulsory vaccination scheme presumably would have violated Lukumi.

No court has yet ruled that philosophical objections to vaccinations have the same constitutional privilege as religious objections. To the contrary, courts have ruled that state laws may disallow philosophical objections, even when religious exemptions are permitted. Hanzel v. Arter,82 for example, held that a state need not grant exemption from vaccination for non-religious beliefs such as chiropractic beliefs,83 even when religious beliefs are so privileged.84 The court based its holding on Yoder, which, as discussed, has since been partially superseded.

79 Id. at 16, citing Smith, supra note 66 at884-885 (1990); Lukumi, supra note 66 at 537.
80 Id. at 19 – 20.
81 Id. at 21 – 22.
83 See id. at 1260 -1261.
84 Id. at 1264, citing Yoder, supra note 58 at 215 -216.
Recently, a federal district court upheld the constitutionality of a West Virginia statute that did not allow religious exemptions, stating that “no case... holds that [religious] exemptions [to vaccination requirements] must be provided by states.”

**B. The Establishment Clause**

If religious exemption is granted, the Establishment clause requires that it must be granted on the basis of any sincere religious belief. This constraint is based on two Supreme Court cases.

*Lemon v. Kurtzman* created a three prong test for compliance of law to the Establishment clause.

A law “[f]irst… must have a secular legislative purpose; second, its principal or primary effect must be one that neither advances nor inhibits religion; finally, the statute must not foster an excessive government entanglement with religion.”

A law limiting government recognition or benefits to members of certain denominations does not satisfy the second and third prongs of this test. In this spirit, the Court, in *Larson v. Valente*, required application of strict scrutiny to laws discriminating between different religious denominations. Strict government neutrality among different religions is required.

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85 W. Va. Code § 16-3-4
87 See, for example, Davis v. Maryland, 294 Md. 370; 451 A.2d 107 (Md., 1982) (“[m]embership in a recognized religious group cannot be required as a condition of exemption from vaccination,” Davis at 381,113, internal citations omitted); Scherr v. Northport-East Northport Union Free School District, 672 F. Supp. 81; 1987 (E.D.N.Y., 1987).
89 Id. at 612 – 613.
90 See, for example, Scherr, supra note 87 at 89 – 90.
92 See id. at 246.
The implication of these two decisions is that religious exemptions cannot be limited to formal religious bodies, but must be extended to all those who hold sincere religious beliefs. To restrict exemption to state-recognized denominations would be to transgress the Lemon rule by inhibiting the religious belief of individuals not granted exemptions, and by entangling the government with religion by allowing the state to judge which religious bodies are worthy of claiming exemption. Lemon and Larson form the basis for Boone v. Boozman, which appears to supply the last word on the Establishment clause and vaccination. This federal district court decision dictates an algorithm that designates the roles of Lemon and Larson. The first inquiry is whether a statute discriminates among religious denominations. If so, strict scrutiny is applied, as required by Larson. If not, the Lemon test is applied. In Boone, the court held that a statute providing for exemption to vaccination when vaccination “conflicts with the religious tenets and practices of a recognized church or religious denomination,” failed the Lemon test due to excessive entanglement.

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94 See, for example, Davis, supra note 87. (“[m]embership in a recognized religious group cannot be required as a condition of exemption from vaccination,” Davis at 381,113, internal citations omitted); Scherr supra note 87.
95 See Lemon, supra note 88.
96 7 supra note 85, at 89. “The primary effect [a] limiting clause is manifestly the inhibiting of the religious practices of those individuals who oppose vaccination of their children on religious grounds but are not actually members of a religious organization that the state recognizes.” Alternatively, privileging views of certain religious bodies can be viewed as advancing the religious purposes of those bodies.
97 See id. at 90.
99 See id. at 945, citing Larson, supra note 91.
100 See id. at 945, citing Lemon, supra at 88.
102 See Boone, supra note 98 at 950.
In summary, states may, but need not, provide vaccination exemption. If they do, exemption must be provided on the basis on any religious belief. The only permissible inquiry is whether the parent’s religious beliefs are sincere.\textsuperscript{103}

C. The Fourteenth Amendment.

\textit{Jacobson}\textsuperscript{104} was decided approximately six weeks before \textit{Lochner v. New York},\textsuperscript{105} and by the same court. This court, whose views were quite favorable to the doctrine of substantive due process, held that the Fourteenth Amendment did not trump state police power with regard to public health legislation.\textsuperscript{106} I have discussed at length the relationship between the Fourteenth Amendment and public health law generally.\textsuperscript{107}

The remainder of this paper will attempt to demonstrate that the Due Process rights of potential disease victims preclude all non-medical exceptions to compulsory vaccination laws.

III. Does the Fourteenth Amendment Preclude Non-Medical Exemption to Compulsory Vaccination?

A. Intuition: Brown v. Stone

\footnotesize{\textsuperscript{103} States are permitted to ask whether the reasons parents give to refuse vaccination for their child are sincere, or whether they are, in fact religious. \textit{See} Scherr, \textit{supra} note 7 at 94 – 97. States may, however, enact statutes that preclude such investigation by local authorities. \textit{See} Department of Health v. Curry, 722 So. 2d 874, 877 (Fla. Dist. Ct. App., 1998). The author is unaware of a successful constitutional challenge to a requirement that parents seeking a religious exemption for a child be required to demonstrate the sincerity of their convictions.}\textsuperscript{104} \textit{Jacobson, supra} note 7.

\footnotesize{\textsuperscript{105} \textit{Lochner v. New York}, 198 U.S. 45, 65 (1905)}

\footnotesize{\textsuperscript{106} The \textit{Lochner} majority acknowledged that states, under their police power, could legislate on behalf of the safety of employees. \textit{See id.} at 54-56. However, the court believed that invocation of police powers was pretextual.}\textsuperscript{107} Allan J. Jacobs, \textit{Is State Power to Protect Health Compatible with Substantive Due Process Rights? Accepted for publication}, Ann. Health L. (Subsequently Jacobs II)
In 1979, the Mississippi Supreme Court ruled in Brown v. Stone on an application for religious exemption from vaccination. Mississippi law then granted religious exemptions only to children who presented a certificate executed by an “officer of a church of a recognized denomination.” The applicant, a chiropractor, belonged to a church that allowed vaccination and did not produce such a certificate. This court went further than denying the plaintiff’s application on statutory grounds. Rather, the court held that religious exemptions from compulsory vaccination denied Equal Protection rights granted by the Fourteenth Amendment to all children who received vaccination as a result of these laws.

The constitutional violation consisted of (1) subjecting some children to vaccination while others are not; and (2) exposing children to the hazard of associating with unvaccinated children. (The second of these objections seems, if anything to be a Substantive Due Process violation rather than an Equal Protection violation, since all children are exposed to their unvaccinated confreres.)

No other state has adopted this doctrine. Indeed, the Brown court did little to flesh out the reasons behind its unique, radical holding. Nevertheless, the Brown court arrived at the correct result. It pointed toward the reason why belief exemptions to vaccination are incompatible with constitutional protections. Although Brown did not formulate a

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109 Id. at 219, quoting Miss. Code Ann., Sec. 41-23-37 (1972 Supp.).
110 Id. at 219 – 220.
111 The statute would now be unconstitutional because it discriminates in favor of recognized religions against other religious beliefs. See, for example, Boone, supra note 95; Davis, supra note 87.
112 Id. at 223.
113 Id. “The exception, which would provide for the exemption of children of parents whose religious beliefs conflict with the immunization requirements, would discriminate against the great majority of children whose parents have no such religious convictions…. [I]t would require the great body of school children to be vaccinated and at the same time expose them to the hazard of associating in school with children exempted under the religious exemption who had not been immunized as required by the statute.”
clear doctrine, this court took the giant step of recognizing that children who do not avail themselves of belief exemptions have rights based on Fourteenth Amendment interests. These must be weighed against the rights claimed by those who object to vaccines, and who have succeeded in getting 48 states to shape their laws to accede to these claims.

**B. Doctrine: Enhanced Public Health Scrutiny and Inchoate Classes**

I have discussed the constraints of Due Process on vaccination law\(^ {114} \) and on public health law in general.\(^ {115} \) I have argued that though vaccination programs that now are generally required for children in all states are constitutionally permissible, requirement of certain kinds of vaccinations may not be constitutionally permissible.\(^ {116} \) I also have formulated a description of a constitutional doctrine that I believe explains the law in this area as it currently stands.\(^ {117} \) This involves application of two doctrines that are compatible with current Supreme Court jurisprudence with regard to public health. The application of these doctrines to belief exemptions will demonstrate the error of allowing such exemptions.

**1. Enhanced Public Health Scrutiny**

In sustaining a compulsory vaccination law over a Fourteenth Amendment challenge, the *Jacobson* court established constraints on state power to require vaccination.\(^ {118} \) Hodge and Gosten\(^ {119} \) characterize these constraints as a requirement that

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\(^ {114} \) See Jacobs I, *supra* note 31.

\(^ {115} \) See Jacobs II, *supra* note 107.

\(^ {116} \) See Jacobs I, *supra* note 31, *passim*.

\(^ {117} \) Id.

\(^ {118} \) Jacobson, *supra* note 7, *passim*.

\(^ {119} \) See Hodge, *supra* note 3 at 856 - 857.
the measures (1) respond to a public health necessity, (2) use reasonable means, (3) display proportionality of means, and (4) make provision for avoiding foreseeable harm caused by a vaccine.\(^{120}\)

I have reformulated these principles in language that can be generalized to all public health law, and which a court could easily apply.\(^{121}\) The elements of the constraints are (1) a well founded threat to public health; (2) a favorable risk-benefit balance between the measure and the threat that it addresses; (3) that the benefits of the public health measure exceed all harms caused by the law, whether or not related to health; and (4) exemptions for people at special risk from imposition of the public health measure.\(^{122}\) These principles dictate a standard of scrutiny that I termed “enhanced public health scrutiny.”\(^{123}\) This scrutiny falls short of requiring the narrowest possible remedy to the public health problem. Presumably, the threat to public health that such legislation is designed to address is grave enough to constitute at least an important government interest. I demonstrated that this doctrine is compatible with key Supreme Court cases concerning public health; i.e., that if the Court had applied this doctrine, it would have come to the same.\(^{124}\)

2. The Inchoate Class

I have presented a scenario in which the rights and interests of a class of patients with a fictitious heart cancer are pitted against those who will later contract that

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\(^{121}\) Jacobs II, *supra* note 107 at XXX NEED PAGE REFS.

\(^{122}\) *Id.*

\(^{123}\) *Id.*

\(^{124}\) *Id.*
Patients with cancer might benefit from immediate release of drugs of unproven efficacy. In contrast, those who will later develop cancer will benefit from an orderly but more protracted program of drug development such as that now mandated by Federal law. Both groups have identical interests—palliation of heart cancer. Those people who will later contract the disease, however, cannot be identified at the time enactment of such a measure or litigation against the measure is contemplated. Others, therefore, must speak for them.

In this case, and in many cases where the state can enact laws to ameliorate threats to health, such laws may protect a class of individuals with three characteristics. First, all class members will later incur a well-defined serious disease or injury in the absence of specific state or legal action. Second, the harm can be averted as a proximate effect of a proposed state action. Finally, members of the class cannot be identified at the time action is contemplated or, indeed, until they actually suffer the adverse event. I have termed groups of one or more people with these three characteristics (such as the future heart cancer patients in the hypothetical) an “inchoate class with fundamental health interests” or, more simply, an “inchoate class.”

Members of an inchoate class have a fundamental interest in averting threats to their health. Class members, however, cannot defend their own interest since they do not and cannot know they belong to the class and have this interest. Only regulation, legislation or the courts can protect their health interest. When the state acts to protect the

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127 Jacobs II, supra note 107 at XX. need page reference—p 25 on manuscript
128 Id. at XX page Ref
129 Id. at XX page Ref
130 Id. at XX page Ref
131 Id.
health of an inchoate class, it is pursuing a compelling state interest.\textsuperscript{132} Defending a fundamental interests of an inchoate class against private encroachment is as compelling as defending it against government encroachment. But what happens when a fundamental interest of members of an inchoate class is pitted against a fundamental right of those burdened by the public health legislation?

Opposition of a fundamental non-health right and a fundamental health interest invites courts to weigh the magnitude of the empirical effects of alternative solutions on both sides in the dispute. If competing interests are both fundamental, they cannot be prioritized using doctrine. If one side loses something fundamental, then whatever the other side gains cannot, by definition,\textsuperscript{133} be more than fundamental. One fundamental principle cannot be more elemental that another. What is left to distinguish between the parties' claims is the relative empirical benefit of their claims.\textsuperscript{134}

Armed with the doctrines of enhanced public health scrutiny and inchoate classes with fundamental health interests, it now is possible to analyze the constitutionality of belief exemptions to compulsory vaccination.

\textbf{C. Vaccination, Inchoate Classes and Enhanced Public Health Scrutiny}

The following hypothetical vignette is a concrete (though extreme) example of the problem for which this article seeks a solution.

\textbf{Birkenwald}

Birkenwald is city in the State of Nature. The vaccination rate of children in its schools is 30\%, well below the minimum estimate for herd immunity protection for any major communicable childhood disease.

\textsuperscript{132} See id. at XX page Ref
\textsuperscript{133} Merriam-Webster defines “fundamental” as serving as an origin, primary; basic, essential; of central importance.” \textit{THE MERRIAM-WEBSTER DICTIONARY} 201 (11th. ed. 2005). Black’s Law Dictionary defines “fundamental law” as “the organic law that establishes the governing principles of a nation or state; esp. constitutional law.” \textit{BLACK’S LAW DICTIONARY} 697 (8th ed. 2004). Both of these definitions seem to imply that fundamental laws cannot be ranked according to importance.
\textsuperscript{134} Jacobs II, \textit{supra} note 107 at XX Page Ref
Many residents of Birkenwald belong to groups that oppose childhood vaccination. Some are followers of Reinhold Pool, a libertarian physician. They incorrectly believe both that vaccines are contaminated with mercury, and that this mercury causes autism. Others belong to one of two religions. Jehovah’s Prosecutors believe that people who receive vaccination cannot go to heaven. The Church of Divine Karma (“CDK”) does not believe in an afterlife, but holds that vaccination blocks spiritual development. Finally, many parents are aware that vaccination has rare complications, and prefer that other people’s children bear the risks inherent in achieving herd immunity.

People travel to Birkenwald from throughout the world. Murray Butler Whirlpool College (“MBW”), a CDK institution, has many foreign students, as does the renowned Nature Institute of Technology. Amalgamated Armor sponsors a think tank in Birkenwald that receives many visits from soldiers and scholars from all over the world who are in search of innovative uses for weapons. People from Birkenwald frequently visit other countries as well.

Nature requires exemptions for children whose parents hold a sincere belief opposing vaccination. Birkenwald schools have a check-off form for parents to request vaccination exemptions.

Nature has the highest incidence of pertussis in the nation. Infection rates are highest in Birkenwald, and fall off with increasing distance from there. Also, Birkenwald recently experienced an outbreak of measles. The index case was an exchange student at MBW. Twelve children became infected; three of them died. One of these could not receive the vaccine because of allergies. Another was too young to be vaccinated. The third lived in a neighboring community.

Are there substantive grounds for courts to overturn belief exemptions such as those permitted by the laws of Nature? I have proposed a four-step test for evaluating the constitutionality of public health laws, based on the doctrines of enhanced public health scrutiny and inchoate groups:

The threshold question is whether a law is a public health law—meaning whether its purpose is to prevent or ameliorate disease or injury. The second step of the analysis is to determine whether the law’s challenger has an interest protected by fundamental right that is protected by the Constitution but burdened by the public health law. If so, the third step is to identify an inchoate class. An inchoate class is present when there are as-yet-unidentified individuals whose health will be impaired if a law is not implemented, but who will avoid the harm if the law is enforced. Finally, enhanced public health scrutiny is applied to determine whether the government may impose the regulation. This scrutiny requires that (1) the law’s purpose must be to ameliorate a well-founded threat to public health; (2) there is persuasive empirical evidence that the law will achieve this purpose; (3) the public health benefits of the law exceed the overall burden; and (4) the law exempts individuals who would incur disproportionate adverse impact from its application.135

135 Id. at XX need page reference
I now will apply this test to challenges to laws that exempt individuals from public health measures. This requires adding a fifth step to the analysis. This is whether the health interest of an inchoate group that is compromised by statutory exemptions granted to others constitutes a fundamental right whose violation by such statutory exemption for others traduces the constitution.

The challenge to the belief exemption certainly meets the threshold question, in that the challenged law is a public health law, establishing and regulating a compulsory vaccination program.

Second, challenge can be brought by members of two groups whose fundamental health interest is burdened. The first consists of children who cannot receive vaccination for one of the reasons enumerated in Section II. They are at risk of contracting communicable diseases either from a sporadic outbreak or from lack of herd immunity in the community. The second group consists of children who actually receive vaccination, and who thus are exposed to the vaccinations’ cost, discomfort, and risk of complications. Those who are not vaccinated are free riders on the costs borne by those who are vaccinated, as they benefit from herd immunity. Conversely, those who are vaccinated bear a disproportionate cost of protecting the community.

Third, there are two inchoate classes, corresponding to the two interests described in the previous paragraph. The first class is comprised of those children who, despite their parents’ desire to cooperate with vaccination requirements, contract a communicable disease from other children whose parents obtained belief exemption for them. The second class consists of those children who become ill as a result of receiving the vaccine.
The fourth inquiry is whether the challenge to the law survives enhanced public health scrutiny. First, would a successful challenge objectively result in improved health for more people than it hurts? Second, would the burden to all fundamental rights and interests, whether or not health related, exceed the public health benefits? Fourth, does the remedy to the challenge take into account those who would undergo a disproportionate adverse impact? This is an empirical enquiry whose results are specific to each disease and vaccine. It is likely to balance in favor of the inchoate class when the disease is serious. For example, the incidence of pertussis increased tenfold in the United States from 1976 to 2003, with increasing infant mortality from the disease, despite the development of safer and more effective vaccines. The first four conditions, therefore, have been met.

The fifth and final step is to ask if the health interest of the parties burdened by the public health legislation constitutes a constitutionally protected right. Without the existence of such a right, the state may exclude belief exemptions, but is not compelled to do so. But a court may be required to guarantee a constitutionally protected right.

**D. Constitutional Objections to Belief Exemptions**

There are at least two possible Fourteenth Amendment grounds for requiring vaccination of schoolchildren. The first is an Equal Protection ground based on *Brown*. The second is a Due Process challenge by persons who cannot be vaccinated.

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139 See Brown, *supra* note 108 at 223.
As noted above, the Brown decision held that religious exemptions violate Equal Protection guarantees of the Fourteenth Amendment because they “require the great body of school children to be vaccinated and at the same time expose them to the hazard of associating in school with children exempted under the religious exemption who had not been immunized as required by the statute.”

There are two arguments here.

First, belief-exempt students benefit from vaccination programs through herd immunity while those without exemption are exposed to the discomforts, dangers, and costs of vaccines in order to attain herd immunity. This puts non-exempt children at a disadvantage on the basis of laws permitting expression of anti-vaccination beliefs.

Second, those who cannot be vaccinated for medical reasons, or who do not develop expected immunity from a vaccine, are at greater risk of infection because of the refusal of some to be vaccinated. This claim seems to fall under the mantle of Due Process, rather than under Equal Protection.

It has been argued that persons at risk of serious injury or death enjoy a fundamental right to medical self-defense. For any of the diseases covered by compulsory vaccination programs, there is an inchoate class of children who will become seriously ill or die. A right of medical self defense would give these children a constitutional right to enjoin vaccination of all who do not have medical contraindications. However, the District of Columbia Court of Appeals declined to recognize such a right.

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140 Brown, supra note 108 at 223
142 See Abigail, supra note 125.
Prince" affirmed the power of the state to require vaccination over Free Exercise claims. The Prince court stated that “[p]arents may be free to become martyrs themselves. But it does not follow they are free, in identical circumstances, to make martyrs of their children.” The Prince court further said that the “right to practice religion freely does not include liberty to expose the community or the child to communicable disease or the latter to ill health or death.” (Emphasis added.) These dicta permit the state to compel vaccination, but do not go quite as far as requiring the state to compel vaccination. However, courts have relied on Prince and related cases to supersede parents’ authority by compelling medical care, or to punish parents for refusing to provide children with medical treatment. There was even a successful lawsuit for wrongful death against a custodial parent who refused to provide medical care. As discussed above, the Supreme Court had long since defended the constitutionality of school vaccination programs against Due Process challenge.

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143 Prince supra note 52.
144 Id. at 170.
145 Id. at 166 – 167.
146 See, for example, Cantwell v. Connecticut, 310 U.S. 296, 303 – 304 (1940) (“Thus the [First] Amendment embraces two concepts, — freedom to believe and freedom to act. The first is absolute but, in the nature of things, the second cannot be.”) (quoted by New Jersey v. Perricone, 37 N.J. 463, 472; 181 A.2d 751 (N.J., 1962)). See, also, Reynolds, supra note 55 (affirming state law prohibiting bigamy against a challenge by a religion that advocated bigamy) (quoted by id. at 473); Parham v. J.R., 442 U.S. 584, 603 (1979) (“a state is not without constitutional control over parental discretion in dealing with children when their physical or mental health is jeopardized”) (quoted by Spiering v. Heineman, 448 F.Supp.2d 1129, 1139 - 1140 (D. Neb., 2006)).
149 Lundman v. McKown, 530 N.W.2d 807 (Minn. App., 1995)
150 Zucht, supra note 51.
Some lower courts have gone further, holding that the state is obliged to protect the health of children against parents who decline to provide them with medical care.\textsuperscript{151} In two cases, this conclusion was based on state law.\textsuperscript{152} In \textit{P.J. v. Wagner},\textsuperscript{153} though, the 10\textsuperscript{th} Circuit based this conclusion on prior rulings by the Supreme Court.\textsuperscript{154} \textit{P.J.} relied on \textit{Globe Newspaper Co, v. Super. Ct.}\textsuperscript{155} to rule that the well-being of children was a compelling government interest. It further relied on \textit{Parham v. J.R.} to assert that the welfare of children could trump parental Due Process rights when the “physical or mental health” of their children “is jeopardized.”\textsuperscript{156} \textit{P.J.} also cited \textit{Prince},\textsuperscript{157} though \textit{Prince} upheld police power over Free Exercise rights rather than Fourteenth Amendment rights.\textsuperscript{158}

If these courts are correct, and parents may not place their own children in danger then, \textit{a fortiori}, they have an obligation not to endanger others’ children. Finding a general right of children to compel vaccination of other children requires an expansive view of Due Process.

But there is one situation common to most children that should preclude belief exceptions on the basis of the rights of children not seeking exemption. This situation is compulsory school attendance. All states have compulsory education laws,\textsuperscript{159} which

\textsuperscript{151} P.J., \textit{supra} note 147 at 1198 (“[S]tates have a compelling interest in and a solemn duty to protect the lives and health of the children within their borders.”); von Eiff \textit{v. Azicri}, 720 So.2d 510, 516 (Fla., 1998); Karwath, \textit{supra} note 147 at 150 (“The State has a duty to see children receive proper care and treatment.”).

\textsuperscript{152} Von Eiff, \textit{supra} note 151 at 516; \textit{also, see} Karwath, \textit{supra} note 147 at 150.

\textsuperscript{153} P.J., \textit{supra} note 147.

\textsuperscript{154} Id. at 1198.


\textsuperscript{156} \textit{Parham}, supra note 146 at 603.

\textsuperscript{157} See P.J., \textit{supra} note 147 at 1187, 1197 – 1198.

\textsuperscript{158} \textit{Prince}, \textit{supra} note 52.

generally require that children be placed in schools.\textsuperscript{160} Congregation of hundreds, or even thousands, of children in one building\textsuperscript{161} results in exposure of all children who attend the school to many people who may carry infections viruses and bacteria. Were it not for school, these children likely would be working or playing alone or in small groups, much as adults do. The collection of many children in close quarters thus enhances transmission of communicable disease.

There is a general duty to abate based on the common law principle that a party that creates a risk has a duty to rescue.\textsuperscript{162} This common law duty may require states to abate the risk; this can be done by compelling vaccination as a requirement of attending school, or by excluding unvaccinated children from school. I will not discuss whether Free Exercise clause protects children with belief exemptions against vaccination requirements based on common law. This is because the right to abatement gives rise to a constitutional right. By increasing children’s potential exposure to communicable diseases, the state infringes on their liberty rights. Washington v. Glucksberg\textsuperscript{163} sets forth a two-prong test for whether a putative right is entitled to Fourteenth Amendment protection: the right must be “deeply rooted in this Nation's history and tradition… and implicit in the concept of ordered liberty.”\textsuperscript{164} The duty to rescue, being a common law duty, is so rooted. Furthermore, exposure of children by the state to danger impinges on

\textsuperscript{160} Parents may home school their children in all states under certain circumstances. See http://www.hslda.org/laws/default.asp?State=RI (last accessed October 5, 2010). In 2003, 2.3% of all American students were home schooled. See http://nces.ed.gov/pubs2006/homeschool/ (last accessed October 5, 2010). This discussion does not apply to home-schooled students.

\textsuperscript{161} See Jacobs I, supra note 31, citing New York City Department of Education, 2009-10 Class Size report, http://schools.nyc.gov/AboutUs/data/classsize/classsize.htm (follow link to “Detailed School-level data) (last accessed October 5, 2010). This gives statistics for average class size for all New York City public schools, which is over 20 students per class in most schools.


\textsuperscript{164} Id. at 720 – 721. (Internal citations omitted.)
the concept of ordered liberty; the state should not compel children to be exposed to unnecessary danger. The state subjects children to danger of infection by requiring them to congregate in schools. This creates both a state duty to rescue and a right by the children to compel rescue by the state.

A state statutory and regulatory scheme providing for belief exemptions creates an unnecessary risk of children acquiring communicable diseases in a school environment. This violates the right of children to enjoy the safest possible school environment. On the other hand, a vaccination program without belief exceptions minimizes the risk. As noted above, the appropriate level of scrutiny is enhanced public health scrutiny. Therefore, compulsory vaccination or some equally effective measure is required by the Due Process clause of the 14th Amendment. I can conceive of no practical measure of comparable effectiveness.

IV. Standing

In order to realize these constitutional rights, however, a child must first get into court to plead them. This requires standing to sue.

There are other avenues to overturning belief exemptions. These exemptions can be eliminated by individual states. Congress could use its spending power\textsuperscript{165} to make federal support of state health programs contingent on revoking these exemptions.\textsuperscript{166} This would make it difficult and expensive for states to continue belief exemptions. This may not be a major priority for a Congress that passed RFRA.

\textsuperscript{165} U.S. Const, Art. I, § 8, cl. 1.
\textsuperscript{166} See South Dakota v. Dole, 483 U.S. 203, 206 - 207 (1987), which asserts the constitutional basis for this practice.
It has been suggested that lawsuits based on tort can remedy the problem by compensating victims who contract diseases because other children are unvaccinated, and by serving as a deterrent to claims of exemptions.\textsuperscript{167} This suggestion is incorrect. A suit that lies in negligence\textsuperscript{168} must plead a breach of duty by the defendant.\textsuperscript{169} Specific statutory grounds for exemption to vaccination seem to remove any duty. If the legislature explicitly permits such exemption, it thereby implicitly declares that taking advantage of this exemption does not breach a duty. The only remaining remedy is to sue to overturn belief exemptions on constitutional grounds.

To satisfy the Constitution’s Case or Controversy requirement,\textsuperscript{170} which is necessary for standing, a plaintiff must plead that she has suffered an injury-in-fact, that the injury is fairly traceable to the actions of the defendant, and that the injury will likely be redressed by a favorable decision.\textsuperscript{171} The injury-in-fact must be “(a) concrete and particularized, and (b) actual or imminent, not conjectural or hypothetical.”\textsuperscript{172} In addition to these constitutional requirements, the Supreme Court “has held that ‘the plaintiff generally must assert his own legal rights and interests,’” rather than those of “third parties.”\textsuperscript{173}

\textsuperscript{168} Parents who sincerely seek belief exemptions clearly do not do so with the intent of harming children not their own, so there is no basis for allegation of an intentional tort. The argument against a negligence suit given in this paragraph would seem to apply \textit{a fortiori} to a suit based on strict liability.
\textsuperscript{169} See Dobbs, supra note 162, § 114.
\textsuperscript{170} U.S. Constitution, Art. III, § 2, cl. 1.
\textsuperscript{172} Lujan, supra note 171 at 560 (1992) (\textit{Internal citations and quotations deleted}).
A lawsuit to compel universal vaccination would have to be based on the possibility of future injury to the plaintiff, from increased risk of harm, or from inevitability of such injury to a plaintiff who is a member of an inchoate class.\(^{174}\) The Supreme Court has not ruled directly either on whether either increased risk of disease\(^{175}\) or apprehension of harm is a cognizable injury.\(^{176}\)

Some circuit courts of appeal have allowed standing on these bases, though. The Second Circuit held in *Baur v. Veneman* that “an enhanced risk of disease transmission may qualify as injury-in-fact in consumer food and drug safety suits.”\(^{177}\) The *Baur* court recognized that “the potential harm from exposure to dangerous food products or drugs is by nature probabilistic, yet an unreasonable exposure to risk may itself cause cognizable injury.”\(^{178}\) Furthermore, if “the harm is sufficiently concrete and particularized,” there can be injury-in-fact even if many people have been exposed to the enhanced risk.\(^{179}\) The *Baur* court awarded standing on the basis of criteria which define an inchoate class.

In *Sutton v. St. Jude Medical*, the Sixth Circuit arrived at a similar conclusion.\(^{180}\) The plaintiffs had been implanted with a medical device that failed more often than similar devices made by other manufacturers, leading to enhanced risk of serious

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\(^{174}\) Inevitability of future harm to members of an inchoate class is a doctrine that this author has proposed, but which has not been recognized by courts. As will be seen, the other two grounds for standing have been recognized in some circumstances.

\(^{175}\) The decision in *Steel Co. v. Citizens for a Better Environment*, 523 U.S. 83 (1998) implies in *dicta* that the Court would be amenable to doing so. “If respondent had alleged a continuing violation or the imminence of a future violation, the injunctive relief requested would remedy that alleged harm. But there is no such allegation here.” *Steel Co.* at 108. (*Emphasis added.*)

\(^{176}\) *But see Metro-North Commuter RR Co. v. Buckley*, 521 U.S. 424 (1997). The issue was whether a statute permitted recovery for infliction on the basis of emotional distress on the basis of fear of developing cancer after occupational exposure to asbestos. (*Id.* at 427 – 429). The court denied the plaintiff’s claim. (*Id.* at 436.) The question of standing did not arise.

\(^{177}\) *See Baur v. Veneman*, 352 F.3d 625, 628, 633 – 635 (2d Cir., 2003).

\(^{178}\) *Id.* at 634; *internal quotes and citations omitted*...

\(^{179}\) *See id.* at 635.

cardiovascular complications. 181 This “class of as-of-yet uninjured device implantees”182 (which is an inchoate class) had standing, based on future risk of harm, to sue for establishment of a medical monitoring fund.183 Recent decisions184 in other circuits have followed the lead of Baur and Sutton in allowing standing on the basis of future risk of injury being an injury-in-fact.185

The Second Circuit has also allowed standing for claims of apprehension of future harm. Denney v. Deutsche Bank AG, a case involving a lawsuit for fraudulent tax counseling, characterized “fear or anxiety of future harm” as an injury-in-fact.186 I believe that to thus allow standing based on apprehension of future injury may facilitate lawsuits based on speculative claims. It is easy to claim fear and anxiety over any

181 Id. at 569.
182 Id. at 570.
183 See, id. at 571.
185 However, the District of Columbia Circuit ruled in Natural Resources Defense Council v. Environmental Protection Agency, 440 F. 3d 476, 483 (D.C. Cir., 2006) that standing based on future injury must involve “substantial probability, which it characterizes as a “non-trivial chance of injury. The facts in that case showed a chance of injury of 1 in 4.2 billion per person per year (id. at 481; emphasis in original), and standing was denied. Inchoate class doctrine might be a better criterion for determining whither those with future risk merit standing; standing would be granted to a member of an inchoate class in which there was a defined high probability that a member of the class will incur a defined adverse impact on health. This has two advantages. First, this criterion draws a clear and reasonable line between those who may sue and those who may not. If, using reasonable assumptions, someone will probably be injured, then those at risk of the injury may sue; if not, they may not sue. Second, during consideration of the substantive issues, comparison of the magnitude of the inchoate class with the harm that will befall it makes it possible for courts to weigh the benefits and costs of action against those of inaction.
186 Denney v. Deutsche Bank AG, 443 F.3d 253, 264 (2nd Cir., 2006). This opinion also states that “exposure to toxic or harmful substances has been held sufficient to satisfy the Article III injury-in-fact requirement even without physical symptoms of injury caused by the exposure, and even though exposure alone may not provide sufficient ground for a claim under state tort law.” (Denney at 264 – 265.) The citation used to support this holding (Whitmore v. Arkansas, 495 U.S. 149, 155 - 156 (1990) does not appear to contain any text that would support this holding, and may have been cited in error. Other circuit court cases, however, have so held, though on the basis of enhanced risk rather than on the basis of fear or apprehension of injury. (See Baur, supra note 176; Sutton, supra note 180.)
exposure that might rationally be supposed to be a possible cause of injury. On the other hand, an enhanced risk standard or, a fortiori, an inchoate class standard, restricts standing to those who allege an objective risk of injury. Be that as it may, the apprehension of future injury standard is governing precedent in the Second Circuit.

Denney also has been used as persuasive precedent elsewhere. In any event, use of the Denney standard would not materially affect my argument or conclusions regarding standing to challenge belief exemptions to vaccinations.

One kind of plaintiff that could sue to overturn belief exemptions would be children who, for medical reasons, cannot receive vaccine or develop immunity to a disease, and who therefore are at risk of acquiring the disease from an infected person. Such children have an enhanced risk of injury through contracting the disease in question in school (and form an inchoate class). Compelling vaccination of all other children,

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187 The Metro North court expressed fear that “that the costs associated with a rule of liability would become so great that, given the nature of the harm, it would seem unreasonable to require the public to pay the higher prices that may result” (Metro-North, supra note 176 at 436.) See, also, Consolidated Rail Corp. v. Gottshall, 512 U.S. 532, 552 (1994), which states that a “[S]ignificant problem is the prospect that allowing [suits for negligent infliction of emotional distress] can lead to unpredictable and nearly infinite liability for defendants…[T]his is based upon the recognized possibility of genuine claims from the essentially infinite number of persons, in an infinite variety of situations, who might suffer real emotional harm as a result of a single instance of negligent conduct.”

188 See, for example, McLoughlin v. People’s United Bank, Inc., 286 F. Supp 2d 70 (D. Conn., 2008); In re Methyl Tertiary Butyl Ether Products Liability Litigation v. Exxon Mobil Corp., 643 F.Supp.2d 446 (S.D.N.Y. 2009).

189 Rhodes, supra note 184. This interesting opinion makes the error of equating “enhanced risk” demanded by Baur (Baur, supra note 176 at 634) with “fear or anxiety,” the Denney standard (Denney, supra note 175 at 264 – 265) (Rhodes at 758). Rhodes stated that Sutton held that a plaintiff “has standing to sue for medical monitoring when his only injury is a perceived risk of future harm”; in fact, Sutton stressed that it was the enhanced risk of complications that formed the basis of the lawsuit. (Sutton, supra note 170.) Worse, the Rhodes court cited as persuasive precedent a Supreme Court dissent from a 7-2 decision, which the Rhodes court described as a concurrence. (Rhodes at 758, citing Ortiz v. Fibreboard Corp., 527 U.S. 815 (1999) (Breyer, J., concurring (sic)).

190 The question of possible mootness arises in the plaintiff who sues because she is too young to have completed vaccination. By the time the case is adjudicated, she likely will have been vaccinated. Mootness does not apply to a case that is ‘capable of repetition, yet evading review.” Roe v. Wade, 410 U.S. 113, 125 (1973), quoting So. Pac. Terminal Co. v. Int. Comm. Comm., 219 US 498, 515 (1911). Thus, in recurring cases involving transient health conditions (such as pregnancy; see Roe at 125), the case is justiciable even though the plaintiff’s injury or potential injury will have resolved by the time the case is resolved.
when not medically contraindicated, is permitted by *Jacobson*,191 and serves as an appropriate remedy.

Second, children required to be vaccinated, and who have been vaccinated, may be able to bring suit to overturn laws that provide for belief exemptions. Such a suit would claim injury on the basis of an Equal Protection violation, based on the *Brown v. Stone* doctrine. First, these children have incurred the tangible injuries of cost, inconvenience and discomfort that accompany vaccinations. Some may have incurred serious injury. Furthermore, some of them belong to an inchoate class of children who may develop late complications of vaccination; alternatively, they may claim enhanced risk.

**Conclusion**

Eliminating religious and philosophical exemptions from compulsory childhood vaccination is highly desirable as public policy. Furthermore, it is required by the Constitution.

Children who either cannot receive a vaccination or who do not develop immunity to a vaccination may have a Due Process right to compel uniform enforcement of compulsory vaccination programs, with no non-medical exceptions. Such children certainly have such a right if the state compels them to attend school, as the state is thus subjecting them to enhanced risk of acquiring a communicable disease.

In addition, children who undergo vaccination have a right to compel universal vaccination with exemptions only for valid medical reasons, despite parents’ belief

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objections. This is based on the Equal Protection clause, which requires sharing of the costs and risks inherent in compulsory vaccination programs.

Finally, any child whose rights are violated by existing compulsory vaccination programs with belief exemptions have standing to sue to overturn such exemptions on constitutional grounds.