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Leaving the Herd

RETHINKING NEW YORK'S APPROACH TO COMPULSORY VACCINATION

INTRODUCTION

The debate over mandatory vaccination laws in the United States persists, fueled by outbreaks of preventable diseases, concern over the efficacy of vaccination, and the continuing development of new vaccines.¹ The dispute demands striking a proper balance between the state's legitimate interest in maintaining the health of its citizens and the right of parents to control the health of their children.

Vaccination programs have continuing importance in the world of public health. Infectious disease can still pose a challenge despite high levels of vaccination among American communities. In 2010, for instance, California experienced one of the worst outbreaks of pertussis (more commonly known as whooping cough) in several decades, resulting in 9,120 illnesses and the death of 10 infants who were too young to receive the vaccine.² Pertussis is highly contagious and quickly spreads throughout communities. At the time, it was suspected that an increase in parents' refusal to vaccinate their children was a contributing cause.³ Subsequently, a comprehensive study of the outbreak confirmed this suspicion, recognizing a strong correlation between communities with significant numbers of individuals who chose not to be vaccinated and higher incidents of pertussis.⁴ Significantly, the study found that unvaccinated

¹ See, e.g., Nicholas Bakalar, *Ask Well: Do I need a Measles Shot?*, N.Y. TIMES BLOG (Aug. 1, 2014, 9:00 AM), http://well.blogs.nytimes.com/2014/08/01/ask-well-do-i-need-a-measles-shot/?_php=true&_type=blogs&r=0 (prompting discussion on the continued necessity of vaccination against measles); see also *infra* Parts I.D., II.B.

² Nancy Shute, *Vaccine Refusals Fueled California's Whooping Cough Epidemic*, NPR (Sept. 30, 2013, 9:57 AM), <http://www.npr.org/blogs/health/2013/09/25/226147147/vaccine-refusals-fueled-californias-whooping-cough-epidemic>.

³ *Id.* Under California law, a parent may seek an exemption to school vaccination requirements "on the basis that they are contrary to his or her beliefs." CAL. HEALTH & SAFETY CODE § 120365 (2006).

⁴ Jessica E. Atwell et al., *Nonmedical Vaccine Exemptions and Pertussis in California, 2010*, 132 PEDIATRICS 624, 624-25 (2013).

communities tend to occur and cluster in certain geographic areas, which may contribute to the risk of an outbreak.⁵ The study also noted that the ease with which an exemption for vaccination can be obtained leads to lower vaccination rates. California, which allows parents to obtain an exemption for their children with relative ease, has seen the rate of these exemptions triple during the past decade.⁶

Throughout the 1960s there was a rapid drop in the number of measles cases, and by 2000 it was believed that measles had been eradicated in the United States.⁷ Nevertheless, the number of cases is on the rise.⁸ The Center for Disease Control (CDC) has reported a record number of measles cases in 2014—as of August 2014 there have been 592 documented cases of measles in the United States, the highest number of reported cases since the disease’s elimination in 2000.⁹ Prior to the development of a vaccine, reported cases in the United States numbered in the hundreds of thousands.¹⁰ The CDC attributes this trend to imported cases from countries where the disease is common and to vaccination refusals within the United States.¹¹

Diseases such as pertussis and measles are highly contagious and require high levels of immunity within a population to prevent outbreaks and the transmission of disease.¹² On the other hand, other diseases for which vaccinations are

⁵ *Id.* at 625.

⁶ *Id.* at 624-25. Since then, California has sought to restrain the use of philosophical exemptions through the inclusion of additional limitations, such as an educational requirement that provides parents with factual information to make an informed decision about their children’s health. Tara Haelle, *US States Make Opting Out of Vaccinations Harder: Legislative Efforts Aim to Tackle Rising Incidence of Disease*, NATURE (Oct. 5, 2012), <http://www.nature.com/news/us-states-make-opting-out-of-vaccinations-harder-1.11548>.

⁷ Elizabeth Cohen, *U.S. Measles Cases in 2013 May be Most in 17 Years*, CNN (Sept. 13, 2013, 9:40 AM), <http://www.cnn.com/2013/09/12/health/worst-measles-year/index.html>; see also *Graph of U.S. Measles Cases*, THE HISTORY OF VACCINES: THE COLLEGE OF PHYSICIANS OF PHILADELPHIA, <http://www.historyofvaccines.org/content/graph-us-measles-cases> (last visited Sept. 30, 2013) [hereinafter *Graph*].

⁸ Donald G. McNeil Jr., *Measles Cases in U.S. Reach a 20-Year High*, N.Y. TIMES (May 29, 2014), http://www.nytimes.com/2014/05/30/health/measles-cases-in-us-hit-a-20-year-high.html?_r=0.

⁹ *Measles Cases and Outbreaks*, CDC, <http://www.cdc.gov/measles/cases-outbreaks.html> (last updated Aug. 25, 2014). “Measles elimination . . . is defined as the absence of continuous disease transmission for 12 months or more in a specific geographic area.” *Frequently Asked Questions about Measles in the U.S.*, CDC, <http://www.cdc.gov/measles/about/faqs.html#measles-elimination> (last updated June 16, 2014).

¹⁰ *Graph*, *supra* note 7.

¹¹ Cohen, *supra* note 7; Ctr. for Disease Control, *Measles: United States: January 1—August 24, 2013*, 62 MORBIDITY & MORTALITY WKLY. REP. 741, 741-43 (2013).

¹² Atwell, *supra* note 4, at 628.

recommended are not contagious in the traditional sense; for instance, the human papillomavirus (HPV) and hepatitis B are sexually transmitted diseases and, thus, may be considered “qualitatively different from the archetypal disease for which vaccination is required.”¹³ New vaccines are developed every year, and families must contend with the increasing number of vaccine requirements. As of 2014, for instance, New York City will begin requiring that children receive flu shots prior to attending preschool or day care.¹⁴

At stake in this debate are the interests of the state in maintaining a high level of immunization for the purpose of curtailing the spread of preventable contagious disease and the right of parents to make decisions about the health of their children. This conflict is “[o]ne of the most fundamental and enduring tensions in the enterprise of public health.”¹⁵

Garrett Hardin’s essay, “The Tragedy of the Commons,” provides an apt analogy to the challenges in balancing the conflicting interests of the state and the individual in compulsory vaccination laws.¹⁶ Hardin envisions a common pasture, open to all herdsmen to bring their cattle to graze.¹⁷ While this arrangement may function for a time, there inevitably reaches a point where the commons devolves into a tragedy.¹⁸ Each individual herdsman, seeking to reap the maximum reward, will continue to add cattle despite the negative consequence of overgrazing, because the cost is shared among all and the individual is only fractionally impacted by the overgrazing.¹⁹ With each individual incentivized to act in self-interest, the pasture is inevitably destroyed.²⁰ Accordingly, the interests of all must be achieved by tempering the interests of the individual.²¹

Similarly, one can imagine “a community free of a communicable disease because of a high vaccination rate”²²

¹³ Note, *Toward a Twenty-First Century Jacobson v. Massachusetts*, 121 HARV. L. REV. 1820, 1828-32 (2008).

¹⁴ Assoc. Press, *New York City to Require Child Flu Shots*, N.Y. TIMES (Dec. 11, 2013), http://www.nytimes.com/2013/12/12/nyregion/new-york-city-to-require-child-flu-shots.html?_r=0.

¹⁵ JAMES KEITH COLGROVE, *STATE OF IMMUNITY: THE POLITICS OF VACCINATION IN THE TWENTIETH-CENTURY 2* (2006).

¹⁶ See Garrett Hardin, *The Tragedy of the Commons*, 162 SCI. 1243, 1244 (1968).

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.*

²² Kevin M. Malone & Alan R. Hinman, *Vaccination Mandates: The Public Health Imperative and Individual Rights*, in *LAW IN PUBLIC HEALTH PRACTICE* 339 (Richard A. Goodman et al. eds., 2d ed. 2007).

As a higher percentage of the community is immunized, the risk of disease decreases.²³ This creates a “herd immunity effect” that reduces the chances of any single individual contracting a disease.²⁴ Those who refuse immunization are also beneficiaries of this herd immunity because they enjoy the benefits of living in a community safe from disease.²⁵ These individuals also enjoy the additional benefit of avoiding any of the potential health risks or side effects that may result from being vaccinated.²⁶ This additional benefit incentivizes members of the community to opt out of vaccination as the risks of contracting disease lowers.²⁷ These unvaccinated individuals function as the herdsmen who continue to introduce cattle despite the threat of overgrazing. The increasing number of individuals who choose to go unvaccinated threatens the stability of herd immunity. Eventually this herd immunity is destroyed in the same manner as the common pasture.²⁸ Consequently, the commons is bound for failure as “herd immunity disappears and disease outbreaks occur.”²⁹

In an attempt “[t]o avoid this ‘tragedy of the commons,’ communities (and, in recent times, states) . . . [impose] legal requirements to mandate particular vaccinations.”³⁰ And, in turn, this imposes significant restrictions on individual autonomy, denying the individual’s right to make decisions about her health management for the sake of the majority.

States have struck the balance between these competing interests by incorporating different exemptions into their vaccination laws. Three kinds of exemptions are generally incorporated into legislation—medical, religious, and philosophical.³¹ All states provide for a medical exemption for children who would suffer health-threatening effects from vaccination.³² The vast majority of states also provide for a religious exemption, which allows parents to forgo vaccination due to a religious belief.³³ A minority of states provide for philosophical exemptions, which are characterized by broader

²³ *Id.*

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

³¹ *Vaccine Exemptions*, JOHNS HOPKINS BLOOMBERG SCH. OF PUB. HEALTH, <http://www.vaccinesafety.edu/cc-exem.htm> (last updated Feb. 12, 2014).

³² *Id.*

³³ *Id.*

language that allows claims based on philosophical or moral convictions.³⁴ Public Health Law § 2164, New York's version of immunization law, currently provides a health and religious exemption.³⁵ Serious questions arise as to courts' current methodology in analyzing whether a child qualifies for a religious exemption.³⁶ Any intimation that a parent's beliefs are not purely "religious" precludes a parent from attaining an exception for her child, despite the sincerity of those convictions.

This note proposes that New York law ought to include a philosophical exemption with procedural safeguards that will provide obstacles to obtaining an exemption to ensure that it caters to those with sincerely held beliefs. Such a proposal can better address the tensions between the interests of the state in maintaining a healthy population and those of individuals. The first section of this note will provide a history of vaccines and the emergence of compulsory vaccination laws as an exercise of a state's police power. This section will also highlight the conflict between the state's interest in the collective health of its population and the opposing pressure of individual interests. The second section of this note will focus on New York's current immunization law, codified under Public Health Law § 2164, which compels proof of vaccination for school admittance, and its application in the courts. The third section will propose an amendment to Public Health Law § 2164 that includes a philosophical exemption coupled with procedural obstacles that address the continuing importance of vaccines in public health. Such a proposal would strike a better balance between the competing interests in vaccine laws in light of New York State's unique demographics and the ever-evolving landscape of vaccinology.

I. A HISTORY OF IMMUNIZATION

A. *The Great Success Story of the Smallpox Vaccine*

Any treatment of New York's compulsory vaccination law compels recognition of the profound effect that vaccine development has had on the history of public health. Indeed, the universal impact of vaccines is considered one of the greatest public health achievements of the twentieth century.³⁷ In the

³⁴ *Id.*

³⁵ N.Y. PUB. HEALTH §§ 2164(8)-(9) (McKinney 2007).

³⁶ See *infra* Part I.E.

³⁷ Ctr. for Disease Control, *Ten Great Public Health Achievements—United States, 1900-1999*, 48 MORBIDITY & MORTALITY WKLY. REP. 241 (1999).

early twentieth century, infectious diseases were widespread; these diseases took a great toll on populations in the United States.³⁸ In 1900, there were few treatments or preventative measures to combat infectious disease.³⁹ For instance, in 1900, 894 patients died of smallpox; in 1920, 7575 patients died of measles and 13,170 patients died of diphtheria; and in 1922, over 100,000 cases of pertussis were reported leading to the death of 5099 patients.⁴⁰ Since that time, “vaccines have been developed or licensed” to combat over twenty diseases, and national public health programs promoting the vaccination of children have led to significant declines in the incidence of infectious diseases and morbidity.⁴¹

The epitomical success story of the vaccination movement is the development and implementation of the smallpox vaccine. Smallpox devastated civilizations worldwide until the advent of immunization.⁴² Before prophylactic treatment was available, smallpox did not discriminate among its victims—affecting persons at varying levels of socio-economic status.⁴³ Eighteenth century Europe witnessed the death of 400,000 people annually from smallpox, and those who survived were often left with disfiguring scars or blindness.⁴⁴ It was well understood, even as early as the fifth century B.C.E., that those who survived smallpox gained immunity.⁴⁵ Prior to the use of vaccines, inoculation (or variolation) was the most effective way of combating the disease.⁴⁶ Variolation carried great risk as it involved making a small incision on a healthy person’s arm or leg, and inserting “fresh matter taken from a ripe pustule of some person who suffered from smallpox.”⁴⁷ This primitive form of protection was used as early as the seventeenth century and became a regular practice in early American history.⁴⁸

³⁸ Ctr. for Disease Control, *Impact of Vaccines Universally Recommended for Children—United States, 1900-1998*, 48 MORBIDITY & MORTALITY WKLY. REP. 243 (1999) [hereinafter *Impact*].

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *Id.* at 245.

⁴² Stefan Riedel, *Edward Jenner and the History of Smallpox and Vaccination*, 18 BAYLOR U. MED. CTR. 21 (2005).

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ *Id.* at 22.

⁴⁶ *Id.*

⁴⁷ *Id.*

⁴⁸ *Id.* at 22-23. For instance, George Washington ordered the immunization of all of his soldiers during the Revolutionary War after witnessing the devastation of his troops during the French and Indian War ten years earlier. *Id.* at 23.

Edward Jenner is generally credited with first developing the vaccine for smallpox.⁴⁹ Jenner keenly observed that people who had been exposed to cowpox, a related but milder version of the smallpox virus, seemed to acquire immunity to smallpox.⁵⁰ In 1796, he found a young woman whose arms and hands were covered in cowpox lesions and used the fresh matter to inoculate an eight-year-old boy.⁵¹ Following the procedure the boy “developed [a] mild fever and discomfort,” but recovered after several days.⁵² A few months later “Jenner inoculated the boy again, this time with matter from a fresh smallpox lesion. No disease developed, and Jenner concluded that protection was complete.”⁵³ Jenner named this “cowpox inoculation a ‘vaccine,’ derived from the Latin *vaccinus*, pertaining to cows.”⁵⁴ Jenner immediately recognized that vaccination could lead to the eradication of the disease, writing: “[S]ociety at large . . . [can now] behold[] . . . an antidote that is capable of extirpating from the earth a disease, which is every hour devouring its victims; a disease that has ever been considered as the severest scourge of the human race!”⁵⁵ Thomas Jefferson shared the same belief in a letter written to Jenner in 1806, expressing the confidence that future generations would “know by history only that the loathsome smallpox has existed.”⁵⁶ By the end of the nineteenth century, “scientists demonstrated that inoculation with organisms in attenuated live or dead form afforded resistance to communicable diseases.”⁵⁷

Despite the effective development of the vaccine, it would take another hundred years for its use to become widespread enough to begin controlling the disease.⁵⁸ But Jenner’s advancement eventually led to the worldwide eradication of smallpox in 1979, fulfilling his expectations for his innovation in immunization.⁵⁹ The successful implementation of this vaccine program also paved the way for the development and application of other vaccines, serving as a model for combatting infectious diseases worldwide. The expansion of this field would also lead

⁴⁹ LAWRENCE O. GOSTIN, *PUBLIC HEALTH LAW: POWER, DUTY, RESTRAINT* 372 (2d ed. 2008).

⁵⁰ *Id.*

⁵¹ Riedel, *supra* note 42, at 24.

⁵² *Id.*

⁵³ *Id.*

⁵⁴ GOSTIN, *supra* note 49.

⁵⁵ D.R. HOPKINS, *PRINCES AND PEASANTS: SMALLPOX IN HISTORY* 301 (1983).

⁵⁶ *Id.* at 310.

⁵⁷ GOSTIN, *supra* note 49.

⁵⁸ *Impact*, *supra* note 38, at 243-44.

⁵⁹ Scott Barrett, *The Smallpox Eradication Game*, 130 *PUB. CHOICE* 179, 183 (2007).

to an increasing number of vaccine requirements, straining the relationship between individual autonomy and general welfare.⁶⁰

B. *Emergence of Compulsory Vaccination Laws*

The emergence of compulsory state vaccination laws tracks the epidemiological history of smallpox disease and the rise of public school systems that mandated attendance. Smallpox “was the great scourge of the American colonies until the introduction of inoculation[,] . . . and the subsequent discovery of vaccination in 1798 relegated it to minor importance among the great epidemic diseases.”⁶¹ As incidence of the disease became less common, the necessity of vaccination was forgotten.⁶² Nevertheless, smallpox emerged again in the 1830s with increasingly serious outbreaks that once again brought the disease to the forefront of public consciousness.⁶³ These outbreaks coincided with the rise of the public school system through laws that mandated attendance.⁶⁴ Schools, of course, brought large groups of children under a single facility and an obvious consequence was the outbreak of contagious diseases such as smallpox.⁶⁵ Mandatory vaccination requirements naturally followed compulsory school attendance, particularly in light of the fact that vaccination was a reasonably safe and effective method of preventing disease.⁶⁶ In New York, for instance, an 1860 law authorized “school boards to refuse admission to unvaccinated children and further authorized the boards to use school funds to employ physicians to vaccinate those children who wished to attend school.”⁶⁷ Despite some successes, enforcement remained an issue. New York City was the first of the local school boards to enforce the law, creating a health department in 1866, but its medical inspectors met resistance from school inspectors who viewed vaccination as secondary to pupil enrollment.⁶⁸ Moreover, efforts to control smallpox were complicated by the steady

⁶⁰ See *infra* Part II.B. (discussing the expansion of vaccination programs to diseases with relatively low mortality rates and low infection rates).

⁶¹ John Duffy, *School Vaccination: The Precursor to School Medical Inspection*, 23 J. HIST. MED. & ALLIED SCI. 344 (1978).

⁶² *Id.*

⁶³ *Id.* at 345.

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Id.* at 346.

⁶⁸ *Id.* at 346-47.

stream of unvaccinated immigrants.⁶⁹ In other parts of the state, it took outbreaks of near epidemic proportions to compel compliance with the law.⁷⁰ In other states, a series of outbreaks along with educational campaigns led by states and health officials helped the vaccination movement gain increasing traction.⁷¹ As a result, by the end of the nineteenth century nearly all states had passed compulsory school vaccination laws.⁷²

C. *An Exercise of State Power*

In *Jacobson v. Massachusetts*, the Supreme Court set the guiding principle that defines a state's right to enact compulsory vaccination laws. In 1902, the Board of Health of Cambridge adopted a regulation compelling the vaccination of all city inhabitants in response to a smallpox outbreak that swept through the Northeast.⁷³ Mr. Henning Jacobson refused, arguing the statute violated the U.S. Constitution by depriving him of the liberty guaranteed to him through the Fourteenth Amendment.⁷⁴ Mr. Jacobson insisted "that a compulsory vaccination law is unreasonable, arbitrary and oppressive, and, therefore, hostile to the inherent right of every freeman to care for his own body and health in such way as to him seems best."⁷⁵ The Court rejected Mr. Jacobson's challenge, recognizing the state's authority to enact compulsory vaccination laws as an exercise of its police power:⁷⁶

The authority of the State to enact this statute is to be referred to what is commonly called the police power—a power which the State did not surrender when becoming a member of the Union under the Constitution. Although this court has refrained from any attempt to define the limits of that power, yet it has distinctly recognized the authority of a State to enact quarantine laws and "health laws of every description;" indeed, all laws that relate to matters completely within its territory and which do not by their necessary operation affect the people of other States. According to settled principles the police power of a State must be held to embrace, at least, such reasonable regulations established directly by legislative enactment as will protect the public health and the public safety.⁷⁷

⁶⁹ *Id.* at 347.

⁷⁰ *Id.* at 348.

⁷¹ *Id.* at 355.

⁷² *Id.* at 352.

⁷³ *Jacobson v. Massachusetts*, 197 U.S. 11, 12-13 (1905).

⁷⁴ *Id.* at 13-14.

⁷⁵ *Id.* at 26.

⁷⁶ *Id.* at 24-25.

⁷⁷ *Id.*

This holding was grounded on the interests of the state to protect the general health and safety of its citizens based on the theory of “social compact.”⁷⁸ While recognizing individual liberty, the Court held that this right does not exist without restraint—that at times individual liberty must give way “in order to secure the general comfort, health, and prosperity of the State . . . [i]t is then liberty regulated by law.”⁷⁹ *Zucht v. King* reaffirmed this holding and extended it to include laws requiring proof of vaccination for school admittance.⁸⁰ The unanimous Court declared it a long-settled principle that “it is within the police power of a State to provide for compulsory vaccination.”⁸¹ State laws can find further authority from the doctrine of *parens patriae*, as summarized by the Supreme Court in *Prince v. Massachusetts*:

[N]either rights of religion nor rights of parenthood are beyond limitation. Acting to guard the general interest in youth’s well being, the 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.⁸²

Accordingly, the government may supersede parental rights in light of the state’s “interest in protecting the welfare of children.”⁸³ “Moreover, the United States Supreme Court specifically has recognized that the enactment of statutes requiring immunization against communicable diseases, in the interest of both children and of the general public, is a valid exercise of a state’s police power.”⁸⁴

D. *Objections to Vaccinations*

Vaccination efforts have been hugely successful in reducing the incidence of infectious disease, yet compulsory vaccination laws spark continued resistance among relatively small pockets of the population. Vaccination is unique compared

⁷⁸ *Id.* at 26-27.

⁷⁹ *Id.*

⁸⁰ 260 U.S. 174, 176 (1922).

⁸¹ *Id.*

⁸² 321 U.S. 158, 166-67 (1944) (footnotes omitted).

⁸³ *Fosmire v. Nicoleau*, 551 N.E.2d 77, 83 (N.Y.1990).

⁸⁴ *In re Christine M.*, 595 N.Y.S.2d 606, 611 (Kings Cnty. Fam. Ct. 1992).

to other medical procedures in that it is performed on healthy individuals and is compulsory through state law.⁸⁵ Dozens of vaccines have been developed since the Court's decision in *Jacobson*.⁸⁶ As of 2013, the Center for Disease Control recommends that persons between the ages of zero and eighteen receive thirteen vaccines, to be administered according to a staggered schedule.⁸⁷ Every year the CDC analyzes national vaccination coverage among children entering kindergarten, generally reporting medians surpassing 90% in the 50 states and the District of Columbia.⁸⁸

Since the very inception of the vaccine movement, there has been resistance from anti-vaccination groups that rationalize their stance on health, safety, religious, philosophical, and ethical grounds.⁸⁹ Despite the general acceptance of the benefits of vaccination, small clusters of the population continue to object to mandatory vaccination programs. Objections to compulsory vaccination laws can result in highly polarizing discussions because it not only involves a tension between individual autonomy and the common good, but also the rights of parents to control healthcare decisions affecting their children.⁹⁰ This raises a variety of contentious questions, such as: "To what extent should the wishes of parents who may have philosophical or religious reasons for not wishing their children to be vaccinated prevail over society's interest in protecting children from preventable illness and building herd immunity through high levels of vaccination?"⁹¹

Like all medical procedures, vaccines are not without risk—although "safe and effective . . . they are neither perfectly safe nor perfectly effective."⁹² Vaccines can occasionally result in

⁸⁵ COLGROVE, *supra* note 15.

⁸⁶ See *Complete List of Vaccines Licensed for Immunization and Distribution in the US*, U.S. FOOD & DRUG ADMIN., <http://www.fda.gov/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM093833> (last updated June 18, 2014) .

⁸⁷ See Iyabode Akinsanya-Beysolow, *Advisory Committee on Immunization Practices (ACIP) Recommended Immunization Schedule for Persons Aged 0 Through 18 Years—United States, 2013*, 62 MORBIDITY & MORTALITY WKLY. REP. 2-8 (2013), available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/su6201a2.htm>.

⁸⁸ *Vaccination Coverage Among Children in Kindergarten—United States, 2012-13 School Year*, 62 MORBIDITY & MORTALITY WKLY. REP. 607 (2013), available at <http://www.cdc.gov/mmwr/pdf/wk/mm6230.pdf>.

⁸⁹ *History of Anti-vaccination Movements*, HISTORY OF VACCINES, <http://www.historyofvaccines.org/content/articles/history-anti-vaccination-movements#Source%202> (last visited Aug. 29, 2014).

⁹⁰ COLGROVE, *supra* note 15, at 12.

⁹¹ *Id.*

⁹² Malone & Hinman, *supra* note 22, at 348.

“adverse events.”⁹³ These can include anaphylaxis, febrile seizures, and development of the disease that the vaccine protects against.⁹⁴ Moreover, vaccines do not always provide full protection against disease. The immunity conferred by some vaccines can weaken over time. Some vaccinations may be contraindicated for certain immune compromised individuals.⁹⁵ Although adverse reactions to vaccines are rare, some parents point to these risks in objecting to vaccinating their children.

Other parents’ objections may be based on the belief that vaccines are not vital to preserving their children’s health either because the body has natural mechanisms to combat infection or because these preventable diseases are not “severe enough to warrant preventative action.”⁹⁶ Other objections stem from concern about vaccine ingredients. For example, beginning in the 1940s, thimerosal, an organic form of mercury, was used as a preservative in several vaccines, including those against pertussis (whooping cough), hepatitis B, and diphtheria.⁹⁷ Allegations linking thimerosal to the development of autism as well as other developmental disorders led to the government ordering its removal from several vaccines as a purely preventative measure.⁹⁸ Although studies have proven that vaccines are not associated with an increased risk of autism, this concern persists.⁹⁹ These fears continue as the rates of autism increase, and parents point to vaccines as a possible environmental trigger.¹⁰⁰ Celebrity activists also perpetuate the debunked link between vaccines and autism by using media to

⁹³ ADVERSE EFFECTS OF VACCINES: EVIDENCE AND CAUSALITY 30 n.1 (2012), available at <http://www.iom.edu/Reports/2011/Adverse-Effects-of-Vaccines-Evidence-and-Causality.aspx> (distinguishing “adverse events” from “adverse effects in that an event is something that occurs but may not be causally associated, whereas an adverse ‘effect’ implies causation”).

⁹⁴ *Id.* at 674.

⁹⁵ *Recommendations of the Advisory Committee on Immunization Practices (ACIP): Use of Vaccines and Immune Globulins in Persons with Altered Immunocompetence*, 44 MORBIDITY & MORTALITY WKLY. REP. (1993), available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/00023141.htm>.

⁹⁶ Allison M. Kennedy et al., *Vaccine Beliefs of Parents Who Oppose Compulsory Vaccination*, 120 PUB. HEALTH REP. 252, 256 (2005).

⁹⁷ *U.S. to Order a Change in Some Vaccines*, N.Y. TIMES (July 8, 1999), <http://www.nytimes.com/1999/07/08/us/us-to-order-a-change-in-some-vaccines.html?module=Search&mabReward=relbias%3As>.

⁹⁸ *Id.*; *Timeline: Thimerosal in Vaccines (1999-2010)*, CDC, http://www.cdc.gov/vaccinesafety/Concerns/thimerosal/thimerosal_timeline.html (last visited Oct. 3, 2014).

⁹⁹ *See Vaccine Safety: Concerns About Autism*, CDC, <http://www.cdc.gov/vaccinesafety/concerns/autism> (last modified Aug. 25, 2014).

¹⁰⁰ *See* Chris Mooney, *Why Does the Vaccine/Autism Controversy Live On?*, DISCOVER MAG. (May 6, 2009), <http://discovermagazine.com/2009/jun/06-why-does-vaccine-autism-controversy-live-on#.UthYOGRDvpY> (noting “[i]t’s not hard to scare people . . . [b]ut it’s extremely difficult to unscare them”).

advocate for a reduced vaccination schedule and the removal of ingredients believed to be toxic.¹⁰¹

Other objections may be linked to deep-seated cultural mistrust of medical intervention, particularly among medically underserved and marginalized communities.¹⁰² One notable example is the relationship between the medical establishment and the African American community, which is characterized by a long history of unethical medical experimentation from the antebellum period to modern times.¹⁰³ Many early advances in medical treatment were made possible through the experimentation on slaves. Thomas Jefferson, for instance, tested the efficacy of a newly developed smallpox vaccine on two hundred slaves prior to extending its use to whites.¹⁰⁴ The reprehensible abuse of African American communities continued into the twentieth century through studies sanctioned by both the medical establishment and the U.S. Government.¹⁰⁵ The notorious Tuskegee experiment, performed during a span of 40 years in the mid-twentieth century, withheld syphilis treatment from hundreds of impoverished African Americans in order to study the progression of the disease through the human body.¹⁰⁶ Such history shades current understanding of opposition to medical treatment, including vaccination, among minority communities.

E. Current Statutory and Legal Framework

Parents have expressed their opposition to mandatory vaccination programs through legal challenges to state laws and have achieved varying degrees of success. Implicit in parental objections is the concept of liberty interest in bodily integrity—the principle that “[e]very human being of adult years and sound mind has a right to determine what shall be done with his own

¹⁰¹ See, e.g., Jeffrey Kluger, *Jenny McCarthy on Autism and Vaccines*, TIME (Apr. 1, 2009), <http://content.time.com/time/health/article/0,8599,1888718,00.html>.

¹⁰² See *Cultural Perspectives on Vaccination*, THE HISTORY OF VACCINES, <http://www.historyofvaccines.org/content/articles/cultural-perspectives-vaccination> (last visited Jan. 10, 2014).

¹⁰³ See generally HARRIET A. WASHINGTON, *MEDICAL APARTHEID: THE DARK HISTORY OF MEDICAL EXPERIMENTATION ON BLACK AMERICANS FROM COLONIAL TIMES TO THE PRESENT* (2008).

¹⁰⁴ *Id.* at 59.

¹⁰⁵ See *id.* at 157, 184. The U.S. Public Health Service initiated the Tuskegee Syphilis Study in 1932. *Id.* at 157. Over 60 years later, President Clinton formally apologized for the “shameful” actions of the federal government in “orchestrat[ing] a study so clearly racist.” *Id.* at 184.

¹⁰⁶ See *id.* at 165.

body.”¹⁰⁷ While it is unlikely that such arguments would be viable after *Jacobson*, the argument persists among objectors.¹⁰⁸

There are no federal laws compelling immunization. Such legislation is left to the determination of the states.¹⁰⁹ Accordingly, states are afforded a great deal of flexibility in drafting school immunization requirements to strike the appropriate balance between individual and state rights that “reflect differing constituencies and political cultures among the states.”¹¹⁰ Every state has laws that compel vaccination against certain diseases for school admission.¹¹¹ There are three kinds of exemptions that states may include in this legislation: medical, religious, and philosophical. Currently all states include a medical exemption in their laws, in recognition of the fact that vaccines may pose a health risk to certain children.¹¹² This exempts children for whom vaccination is contraindicated, such as those with compromised immune systems or other medical conditions that increase the risk of adverse effects. Every state, with the exception of Mississippi and West Virginia, has a religious exemption.¹¹³ The requirements for a religious exemption vary greatly from state to state: “[s]ome states require membership in a recognized religion, whereas others merely require an affirmation of religious . . . opposition.”¹¹⁴ Philosophical exemptions are presently included in 18 states’ laws.¹¹⁵ These exemptions generally “carry an even lower burden of proof than religious exemptions.”¹¹⁶ In these states, philosophical exemptions can be claimed based on “personal, philosophical, or moral convictions.”¹¹⁷

¹⁰⁷ *Schloendorff v. Soc’y of N.Y. Hosp.*, 105 N.E. 92, 93 (N.Y. 1914).

¹⁰⁸ *See, e.g.*, Barbara Loe Fisher, *Vaccines & Liberty: Let Freedom Ring*, NAT’L VACCINE INFO. CTR. (June 29, 2011, 1:01 PM), <http://www.nvic.org/getdoc/4a0e9ba9-a2de-45ec-9750-be48fdaaac68/Vaccines—Liberty—Let-Freedom-Ring.aspx>; *see also* Jonathan Emord, *Mandatory Vaccination is an Assault on Individual Liberty*, NEWS WITH VIEWS (Oct. 29, 2009), <http://www.newswithviews.com/Emord/jonathan101.htm>.

¹⁰⁹ Daniel A. Salmon & Andrew W. Siegel, *Religious and Philosophical Exemptions from Vaccination Requirements and Lessons Learned from Conscientious Objectors from Conscriptation*, 116 PUB. HEALTH REP. 289, 290 (2001).

¹¹⁰ *Id.* at 294 (quoting *Emp’t Div. v. Smith*, 494 U.S. 872 (1990)).

¹¹¹ *States with Religious and Philosophical Exemptions from School Immunization Requirements*, NAT’L CONF. OF STATE LEG. (Dec. 2012), <http://www.ncsl.org/research/health/school-immunization-exemption-state-laws.aspx> [hereinafter *States with Exemptions*].

¹¹² *Id.*

¹¹³ *Id.*

¹¹⁴ Malone & Hinman, *supra* note 22, at 348.

¹¹⁵ *States with Exemptions*, *supra* note 111 (noting that although Missouri grants a philosophical exemption, it only applies to daycare, preschool, and nursery schools).

¹¹⁶ GOSTIN, *supra* note 49, at 383.

¹¹⁷ *Id.* (internal quotation marks omitted).

There is a general consensus among legal scholars that states are not constitutionally obligated to include exemptions based on religious or philosophical beliefs.¹¹⁸ Recent case law addressing a First Amendment right to a religious exemption from school vaccination is nearly non-existent since 48 states provide for such a statutory right. Furthermore, Supreme Court precedent suggests that an asserted First Amendment right to religious exemption would fail. An overview of “[t]he Supreme Court’s jurisprudence makes clear that the right of free exercise does not relieve an individual of the obligation to comply with a ‘valid and neutral law of general applicability.’”¹¹⁹ In order to evaluate whether a regulation violates an individual’s free exercise right under the First Amendment, the Court uses a balancing test “requir[ing] the government to justify any substantial burden on religiously motivated conduct by a compelling government interest and by means narrowly tailored to achieve that interest.”¹²⁰ States are likely to meet that burden on the grounds of both their police power and the doctrine of *parens patriae*.¹²¹ The Court “sees a compelling state interest in mandating vaccination of children because of the health threat to the community and to the children themselves.”¹²² Moreover, the use of vaccination is narrowly tailored to achieve that interest as there are few “practical alternative[s] to vaccination,” other than completely isolating an individual from society.¹²³ Accordingly, some “state courts have applied this reasoning in holding that mandatory vaccination of school children does not interfere with the right to religious freedom.”¹²⁴

The issue of whether states are constitutionally permitted to enact religious exemptions in compulsory immunization laws is still unsettled.¹²⁵ For instance, Mississippi’s highest court held that the State’s religious exemption violated the Fourteenth Amendment by “discriminat[ing] against the great majority of

¹¹⁸ *Id.* at 382; Malone & Hinman, *supra* note 22, at 349-50; *see also* Workman v. Mingo Cnty. Bd. of Educ., 419 F. App’x 348, 353 (4th Cir. 2011); McCarthy v. Boozman, 212 F. Supp. 2d 945, 948 (W.D. Ark. 2002); Sherr v. Northport-E. Northport Union Free Sch. Dist., 672 F. Supp. 81, 83 (E.D.N.Y. 1987).

¹¹⁹ GOSTIN, *supra* note 49, at 382 (quoting Employment Div. v. Smith, 494 U.S. 872, 879 (1990)).

¹²⁰ Malone & Hinman, *supra* note 22, at 349 (citing Sherbert v. Verner, 374 U.S. 398, 406-08 (1963)).

¹²¹ *Id.* at 350.

¹²² *Id.*

¹²³ *Id.*

¹²⁴ Salmon & Siegel, *supra* note 109, at 291.

¹²⁵ *Id.*

children whose parents have no such religious convictions.”¹²⁶ And that “immunization against certain crippling and deadly diseases particularly dangerous to children before they may be admitted to school, serves an overriding and compelling public interest.”¹²⁷

Assuming states are authorized to grant religious exemptions, there is further “disagreement among courts concerning whether exemptions tied to membership in a recognized or established religious organization violate the First Amendment prohibition against laws ‘respecting an establishment of religion.’”¹²⁸ In New York, for example, an earlier version of its mandatory vaccination law limiting its religious exemption to “bona fide members of a recognized religious organization”¹²⁹ violated the “both the establishment and free exercise clauses of the First Amendment to the United States Constitution.”¹³⁰ Nevertheless, “[f]or the time being, individual states have the de facto power to decide the matter for themselves.”¹³¹

II. NEW YORK LAW AND EMERGING ISSUES

New York’s compulsory vaccination law allows two kinds of exemptions—medical and religious. Courts faced with interpreting whether a parent qualifies for a religious exemption have construed the language very narrowly. As a result, parents face substantial difficulty in securing such an exemption despite holding sincere convictions against the practice of vaccination. The ever-changing landscape of disease prevention and the vast diversity of sincerely held beliefs in New York State calls into question the continued viability of the state’s current vaccination law and counsels the inclusion of a philosophical exemption.

A. *New York Public Health Law § 2164*

Under current New York law, each parent is required to have his or her child vaccinated against several diseases in order to be admitted to a school.¹³² The law provides for both a

¹²⁶ *Brown v. Stone*, 378 So. 2d 218, 223 (Miss. 1979).

¹²⁷ *Id.* at 222.

¹²⁸ Salmon & Siegel, *supra* note 109, at 291.

¹²⁹ *Sherr v. Northport-E. Northport Union Free Sch. Dist.*, 672 F. Supp. 81, 91 (E.D.N.Y. 1987) (quoting the statute).

¹³⁰ *Id.*

¹³¹ Salmon & Siegel, *supra* note 109, at 291.

¹³² N.Y. PUB. HEALTH LAW § 2164(6) (McKinney 2007).

medical¹³³ and religious exemption.¹³⁴ Section 2164 of New York Public Health Law requires parents to immunize their children against “poliomyelitis, mumps, measles, diphtheria, rubella, varicella, Haemophilus influenza type b (Hib), pertussis, tetanus, pneumococcal disease, and hepatitis B.”¹³⁵ Moreover, “[n]o principal, teacher, owner or person in charge of a school shall permit any child to be admitted to such school, or to attend such school, in excess of fourteen days, without . . . acceptable evidence of the child’s immunization.”¹³⁶ Like all other states, New York includes an exemption for medical reasons.¹³⁷ Subsection nine of the statute also includes an exemption for religious beliefs: for “children whose parent, parents, or guardian hold genuine and sincere religious beliefs which are contrary to the practices herein required . . . no certificate shall be required as a prerequisite to such children being admitted or received into school or attending school.”¹³⁸

Currently, to determine if a student qualifies for this religious exemption, the court analyzes whether a parent’s “opposition to immunization is based on beliefs that are (1) religious, (2) genuine, and (3) sincere.”¹³⁹ This can present a great challenge to the courts as it involves the dubious business of defining religious belief. The question necessarily arises whether it is or should be the role of the government to determine which beliefs are religious enough to warrant statutory protection. Courts recognize the enormous difficulty of defining religious belief and often comment on the perilous nature of such an endeavor.¹⁴⁰ Courts must proceed carefully in their analysis and be diligent in avoiding the trap of evaluating the credibility of the asserted beliefs.¹⁴¹ While acknowledging the task of defining religion as “elusive and constitutionally perilous,” courts nonetheless continue to attempt to create a

¹³³ *Id.* at § 2164(8).

¹³⁴ *Id.* at § 2164(9).

¹³⁵ *Id.* at § 2164(2)(a).

¹³⁶ *Id.* at § 2164(7)(a).

¹³⁷ *Id.* at § 2164(8) (“If any physician licensed to practice medicine in this state certifies that such immunization may be detrimental to a child’s health, the requirements of this section shall be inapplicable until such immunization is found no longer to be detrimental to the child’s health.”); *Vaccine Exemptions*, *supra* note 31.

¹³⁸ N.Y. PUB. HEALTH LAW § 2164(9).

¹³⁹ Check *ex rel.* MC v. N.Y.C. Dep’t of Educ., No. 13-CV-791 (SLT)(LB), 2013 WL 2181045, at *9 (E.D.N.Y. May 20, 2013) (quoting *Caviezel v. Great Neck Pub. Sch.*, 701 F. Supp. 2d 414, 427 (E.D.N.Y. 2010), *aff’d*, 500 F. App’x 16 (2d Cir. 2012)) (internal quotation marks omitted).

¹⁴⁰ *See, e.g.*, *Farina v. Bd. of Educ.*, 116 F. Supp. 2d 503, 507 (S.D.N.Y. 2000).

¹⁴¹ *Id.*

feasible definition.¹⁴² Courts rely on nebulous definitions that seem all-encompassing, yet become limited in their application. In exploring the difficulty of defining the concept of religion, one court emphasized the diversity of religious belief:

[T]he tremendous diversity of the manners in which human beings may perceive of the universe and their place in it may make the task [of defining religion] virtually impossible. Scholars have been deeply perplexed by the problems engendered by the necessity of delineating what constitutes “religion” which the First Amendment protects, and courts have struggled to formulate workable definitions. The Supreme Court, for example, has held that a religion need not necessarily be founded upon a belief in the fundamental premise of a “God” as commonly understood in Western theology, and has written that “the test of belief ‘in a relation to a Supreme Being’ is whether a given belief that is sincere and meaningful occupies a place in the life of its possessor parallel to that filled by the orthodox belief in God.” The Supreme Court and the Second Circuit have each declared religion to involve the “ultimate concerns” of individuals, and the Second Circuit has stated that one touchstone of a religion is present where a believer will categorically disregard elementary self-interest rather than transgressing religious tenets.¹⁴³

At first blush, such a conception of religion appears broad—refusing to limit itself solely to the dogmatic beliefs of organized religion and seemingly including a more spiritual approach to religion.¹⁴⁴ In undertaking religious analysis under the context of section 2164(9), courts’ acceptance of “religious” belief is more constrained. New York jurisprudence consistently rejects any religious views that are informed by philosophical, moral, or medical beliefs.¹⁴⁵ Moreover, parents cannot claim an exemption if their belief is founded upon scientific evidence, personal theories, or philosophical conviction.¹⁴⁶

The analysis of an individual’s religious conviction is “inherently subjective[,]” as the court is unable to delve into the consciousness of parents to evaluate the religiousness of their beliefs.¹⁴⁷ Thus, a court is compelled to evaluate the plaintiff’s testimony and attempt to deduce whether the beliefs espoused by the plaintiff against vaccination are sufficiently genuine and sincere to warrant a religious exemption.¹⁴⁸ A court will

¹⁴² *Caviezel*, 701 F. Supp. 2d at 427.

¹⁴³ *Sherr v. Northport-E. Northport Union Free Sch. Dist.*, 672 F. Supp. 81, 92 (E.D.N.Y. 1987) (internal citations omitted).

¹⁴⁴ *Farina*, 116 F. Supp. 2d at 507-08.

¹⁴⁵ *See Check ex rel MC v. N.Y.C. Dep’t of Educ.*, No. 13-CV-791 (SLT)(LB), 2013 WL 2181045, at *10 (E.D.N.Y. May 20, 2013).

¹⁴⁶ *See id.*

¹⁴⁷ *Farina*, 116 F. Supp. 2d at 508.

¹⁴⁸ *Id.*

generally scrutinize the plaintiff's testimony and statements of belief for inconsistencies and indications that the plaintiff's belief is based on some motivation other than what they characterize as religion. Hence, the analysis of the "genuine" and "sincere" factors usually "merge, and a Court is called to determine whether an expressed religious belief contrary to vaccination is in fact held by a child's parents, and is the real reason that the parents object[ed] to vaccination."¹⁴⁹

In its application, the court's analysis often concludes that a plaintiff's conviction is both sincere and genuine, but fails on the threshold question of whether the objection stems from a *religious* belief. An indication that a parent's objection is based, at least in part, on any reason other than religion tends to automatically disqualify a parent from obtaining an exemption under the court's current analysis. For instance, in *Farina v. Board of Education*, the plaintiffs sought a religious exemption for their children.¹⁵⁰ They described their religious belief as follows:

We believe that God has created us in His image. In being created in God's image, we are given His immune system . . . We believe it is sacrilegious and a violation of our sacred religious beliefs to violate what God has given us by showing a lack of faith in God.¹⁵¹

Still, pointing to other parts of their testimony, the court concluded that the parents' "objections to immunization are based on their personal fears for the health of their children, rather than on genuine and sincerely held religious beliefs."¹⁵² The court found that the parents' statements expressing concern that the injection of "such substances would prove injurious to the health, and therefore the spirit" of their children, as well as repeated statements that one of their immunized children experienced regression in his speech and behavior, reflected a greater concern with the physical rather than spiritual health of the children.¹⁵³

A similar result was reached more recently in *Check v. New York City Department of Education*.¹⁵⁴ There, the plaintiff contended that her religious beliefs entitled her child to an

¹⁴⁹ *Caviezel v. Great Neck Pub. Sch.*, 701 F. Supp. 2d 414, 428 (E.D.N.Y. 2010), *aff'd*, 500 F. App'x 16 (2d Cir. 2012).

¹⁵⁰ *Farina*, 116 F. Supp. 2d at 504.

¹⁵¹ *Id.* at 506 (quoting the plaintiffs' statement).

¹⁵² *Id.* at 513.

¹⁵³ *Id.* at 506, 508.

¹⁵⁴ *Check ex rel. MC v. N.Y.C. Dep't of Educ.*, No. 13-CV-791 (SLT)(LB) 2013 WL 2181045 (E.D.N.Y. May 20, 2013).

exemption from the statutory requirements under section 2164.¹⁵⁵ The plaintiff provided the following statement as a basis for her action:

[I]t is my strong belief that all vaccines are made in violation of God's word. Vaccines are made with toxic chemicals that are injected into the bloodstream by vaccination. All vaccines are made with foreign proteins (viruses and bacteria) and some vaccines are made with genetically engineered viral and bacterial materials. Therefore I feel vaccinat[ing] my child conflicts with my religious beliefs because I believe that man is made in God's image and the injection of toxic chemicals and foreign proteins into the bloodstream is a violation of God's directive to keep the body (which is to be treated as a temple) holy and free from impurities.¹⁵⁶

The plaintiff further contended that her faith guided all aspects of her life and explained that she adopted these views after the birth of her youngest daughter.¹⁵⁷ While not doubting the plaintiff's sincerity, the court ultimately concluded that her objections were based on her personal rather than religious belief that vaccines threatened the health of her child.¹⁵⁸ As in *Farina*, the court pointed to testimony that indicated that the plaintiff's objections were not solely based on religious beliefs. In particular, the court noted that the plaintiff developed her views on vaccination after her daughter experienced serious health issues as an infant.¹⁵⁹ Throughout her testimony, the plaintiff also expressed concern over the adverse effects vaccines could have on her daughter's health, such as risk of anaphylaxis, and the ingredients contained in vaccines.¹⁶⁰ The court found that the plaintiff was "a loving parent . . . dedicate[d] to her daughter's health and safety" and doubted neither her sincerity nor the genuineness of her beliefs; however, the court ultimately concluded that the plaintiff's "resolve to protect her child [did] not constitute a religious belief."¹⁶¹ It is confounding that while the court did "not doubt the sincerity of plaintiff's testimony that she 'wait[s] on the word of God, to tell [her] how and what to do' in a particular situation, [the court nonetheless concluded that] it does not follow that every decision that plaintiff makes after such reflection is a religious one."¹⁶²

¹⁵⁵ *Id.* at *1.

¹⁵⁶ *Id.* at *4 (quoting the plaintiff's complaint).

¹⁵⁷ *Id.* at *6-7.

¹⁵⁸ *Id.* at *3, *11.

¹⁵⁹ *Id.* at *7.

¹⁶⁰ *Id.* at *7-8.

¹⁶¹ *Id.* at *10.

¹⁶² *Id.* (citation omitted) (first alteration in original).

As these cases demonstrate, parents face an uphill battle in obtaining a religious exemption under New York's current law. Any suggestion that the parent's opposition is based on non-religious beliefs fails the "religious" factor of the court's analysis. In these cases, the parents' decision making seems at least partly motivated by religious conviction. In both *Farina* and *Check*, the parents expressed a belief that vaccination would be contrary to the plan of the divine. Their claims, however, failed as their opposition was not purely based on religious motivations. Consequently, as New York law now stands, these "mixed-motive" cases are dead in the water. Courts "recognize that religious beliefs may develop over time."¹⁶³ If "the test of belief 'in a relation to a Supreme Being' is whether a given belief that is sincere and meaningful occupies a place in the life of its possessor parallel to that filled by the orthodox belief in God,"¹⁶⁴ then a sincerely held belief that also incorporates secular concerns over the health and safety of a child should not be so easily dismissed. These court decisions demonstrate that even if the parents' beliefs are both genuine and sincere, the court will delve into the credibility of the beliefs expressed by the parents. The result is the court parsing which beliefs are sufficiently acceptable to warrant the protections of the law.

B. *The Changing Landscape*

Although courts attempt to use an expansive definition of religion, this approach ultimately falls short of encompassing the diversity of views and experiences that inform an individual's religious or spiritual identity. This is particularly problematic in light of the importance such beliefs can hold in an individual's life. Religious views can inform an individual's "core values, dominant attitudes, lifestyle choices, self-image, and personal goals."¹⁶⁵ In withholding recognition of a parent's sincerely held belief, the court in effect devalues that belief. This issue becomes especially troubling upon considering the variety of religious views and the trend away from identifying with traditional, organized religions.

¹⁶³ *Friedman v. Clarkstown Cent. Sch. Dist.*, 75 F. App'x 815, 819 (2d. Cir. 2003).

¹⁶⁴ *Sherr v. Northport-E. Northport Union Free Sch. Dist.*, 672 F. Supp. 81, 92 (E.D.N.Y. 1987) (quoting *United States v. Seeger*, 380 U.S. 163, 165-66 (1965)).

¹⁶⁵ GEORGE BARNA, *FUTURECAST: WHAT TODAY'S TRENDS MEAN FOR TOMORROW'S WORLD* 123 (2011).

People are often categorized into Christian and non-Christian, which can be further divided into the commonly recognized religious movements such as Protestantism, Catholicism, Buddhism, Hinduism, etc.¹⁶⁶ Nevertheless, there is a growing trend within the U.S. of individuals who describe themselves as spiritual rather than religious.¹⁶⁷ “This characterization has been adopted by about one-quarter of all adults, but it is normative among people under the age of thirty.”¹⁶⁸ Though the definition of this concept varies greatly, it generally reflects an “indifference toward the usual church program and events and a distinct distaste for the politics and traditions of the conventional church world.”¹⁶⁹ These trends add to the already difficult task of defining religion.¹⁷⁰

Moreover, the changing landscape of disease prevention may counsel re-evaluating the assumptions underlying *Jacobson v. Massachusetts*.¹⁷¹ At the turn of the twentieth century, infectious diseases were rampant and there were few preventative treatments available.¹⁷² Even the smallpox vaccine, which had been discovered over a century earlier, was not used widely enough to prevent outbreaks.¹⁷³ *Jacobson* was decided following an outbreak of smallpox of epidemic proportions, in this context; “vaccination was a medical necessity to combat the disease.”¹⁷⁴ New vaccines are regularly being developed and introduced, which may have an effect on the recommended vaccine schedules. While in the 1990s, vaccine innovation had largely slowed to a stop, recently, many companies are investing

¹⁶⁶ *Id.* at 126.

¹⁶⁷ *Id.* at 131.

¹⁶⁸ *Id.*

¹⁶⁹ *Id.*

¹⁷⁰ See Jeffrey Omar Usman, *Defining Religion: The Struggle to Define Religion Under the First Amendment and the Contributions and Insights of Other Disciplines of Study Including Theology, Psychology, Sociology, the Arts, and Anthropology*, 83 N.D. L. REV. 123, 149 (2007) (arguing that “[w]hen trying to define religion, the fundamental problem is that the definition arrived at generally is ‘either too narrow and excludes many belief systems which most agree are religions, or [it is] too vague and ambiguous, suggesting that just about anything and everything is a religion.” (quoting AUSTIN CLINE, WHAT IS RELIGION? DEFINING THE CHARACTERISTICS OF RELIGION, available at <http://atheism.about.com/od/religiondefinition/p/WhatReligion.htm> (last visited Oct. 2, 2014))).

¹⁷¹ See, e.g., Christopher Richins, *Jacobson Revisited: An Argument for Strict Judicial Scrutiny of Compulsory Vaccination*, 32 J. LEGAL MED. 409, 410 (2011); *Toward a Twenty-First Century Jacobson v. Massachusetts*, *supra* note 13; Andrew Zoltan, Note, *Jacobson Revisited: Mandatory Polio Vaccination as an Unconstitutional Condition*, 13 GEO. MASON L. REV. 735 (2005).

¹⁷² *Impact*, *supra* note 38, at 243.

¹⁷³ *Id.*

¹⁷⁴ *Toward a Twenty-First Century Jacobson v. Massachusetts*, *supra* note 13, at 1820.

in vaccine development “[a]s wealthy countries spend much more on health care, and as poorer countries put new emphasis on disease prevention.”¹⁷⁵ Numerous companies have delved into this burgeoning industry, “spending billions trying to develop vaccines for various cancers, staph infections and malaria.”¹⁷⁶ These investments are propelling us into a “a new golden era of vaccinology.”¹⁷⁷ Consequently, some of these recently developed vaccines have been characterized as “qualitatively different from their predecessors in that they are not medically essential to preventing the spread of disease.”¹⁷⁸ It has been suggested that such vaccines are inherently different than the smallpox vaccine, which targeted highly contagious diseases.¹⁷⁹ Conversely, “for sexually transmitted diseases . . . like HPV, compulsory vaccination is not a medical necessity because individuals can protect themselves through some combination of sexual knowledge, disease screening, safe sex, and abstinence.”¹⁸⁰ Accordingly, one approach may be to distinguish between vaccines that are “medically necessary” and “practically necessary.”¹⁸¹ This could lead to the creation of a “two-tiered system in which medically necessary vaccines are linked with narrower exemptions and practically necessary vaccines are instead linked with generous exemptions[, which would] strike[] a reasonable balance between liberty and the public health.”¹⁸²

This constantly evolving world of disease prevention warrants a reweighing of the balance to adapt to changing circumstances. In meeting these new challenges, “[i]t is critical to recognize the importance of flexibility in the state administration of immunization exemptions. All school immunization requirements are state-based; there are no federal laws mandating vaccination.”¹⁸³ This flexibility gives states the room to craft variations in compulsory vaccination laws that “reflect differing constituencies and political cultures

¹⁷⁵ G. Pascal Zachary, *Vaccines and Their Promise are Roaring Back*, N. Y. TIMES (Aug. 26, 2007), http://www.nytimes.com/2007/08/26/business/yourmoney/26ping.html?_r=0.

¹⁷⁶ *Id.*

¹⁷⁷ *Id.* (quoting Gregory A. Poland of the Mayo Clinic).

¹⁷⁸ *Toward a Twenty-First Century Jacobson v. Massachusetts*, *supra* note 13, at 1820.

¹⁷⁹ *See id.*

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

¹⁸² *Id.* at 1840.

¹⁸³ Salmon & Siegel, *supra* note 109, at 294.

among the states, and [make] decisions regarding the [appropriate] balance of individual vs. state rights.”¹⁸⁴

New York State is home to over one million inhabitants of various racial and ethnic backgrounds.¹⁸⁵ New York City alone is inhabited by over eight million people, with each borough witnessing continuing population growth and drawing thousands of foreign immigrants.¹⁸⁶ This tremendous diversity of people reflects a variety of views, cultural traditions, and religious beliefs. Accordingly, New York’s Public Health Law ought to reflect this dynamic population and the changing landscape of disease prevention.

III. A PHILOSOPHICAL EXEMPTION TO NEW YORK’S PUBLIC HEALTH LAW

In order to respond to these changing trends in health care law and societal values, New York Health Law § 2164 ought to be amended to include a philosophical exemption. There is such a proposal currently being considered in the New York legislature.¹⁸⁷ This act proposes to amend subdivision nine of section 2164 as follows:

This section shall not apply to a person who holds *personal objections* or genuine and sincere religious beliefs which are contrary to the practices herein required, and no certificate of *immunization, medical tests and treatments* shall be required as a prerequisite to such person being admitted or received into or attending an institution.¹⁸⁸

This bill was proposed in contemplation of the myriad of changes in vaccine development, the difficulties of granting religious exemptions “in an equitable manner,” and the desire to grant parents a greater degree of “involvement in medical decisions involving their children.”¹⁸⁹

The inclusion of such an exemption would obviate the issues that arise in litigation involving religious exemptions under subdivision nine of section 2165 as it currently exists. Defining religion is an inherently difficult task. Currently,

¹⁸⁴ *Id.* (quoting *Emp’t Div. v. Smith*, 494 U.S. 872 (1990)) (internal quotation marks omitted).

¹⁸⁵ *State & County Quick Facts: New York*, UNITED STATES CENSUS BUREAU (last updated July 8, 2014, 6:37 AM), <http://quickfacts.census.gov/qfd/states/36000.html>.

¹⁸⁶ Bill Chappell, *New York City Hits a New Population Mark, Topping 8.3 Million*, NPR.ORG, (Mar. 14, 2013, 7:14 PM), <http://www.npr.org/blogs/thetwo-way/2013/03/14/174353179/new-york-city-hits-a-new-population-mark-topping-8-3-million>.

¹⁸⁷ See S.B. 3934, 236th Ann. Leg. Sess. (N.Y. 2013).

¹⁸⁸ *Id.*

¹⁸⁹ N.Y. COMM. REPORT ON S.B. 3934, 236th Leg. Sess. (Mar. 1, 2013).

subdivision nine requires courts to parse parental beliefs into the religious and the philosophical. This proves particularly difficult in situations where a parent's religious belief is also informed by personal and philosophical concerns. In light of the diversity of sincerely held beliefs that motivate parents seeking exemptions, a philosophical exemption would accommodate sincerely held beliefs that do not so easily fall into a clearly delineated category of "religious" belief.

The tension between the common good and the individual is a recurring theme in litigation concerning mandatory vaccination laws. Accordingly, any modification to New York's Public Health Law would necessitate balancing the interests in common health and individual autonomy. It is indisputable that state vaccination laws requiring proof of immunization for school attendance and entry have led to nationwide increases in the rates of vaccination and decreases in the incidence of disease.¹⁹⁰ Yet, these laws are implemented at the expense of a parent's right to make decisions regarding their children's health. Although the philosophical exemption strikes a better balance, the introduction "of philosophical or personal exemptions raises concern that the implied broader interpretation might result in increased numbers of exemptions relative to waivers granted specifically for religious reasons."¹⁹¹ Hence, the inclusion of procedural safeguards can help address these concerns and aid in maintaining the balance between the competing interests at stake.

One potential consequence of a philosophical exemption is the concern that parents may choose not to vaccinate their children as a matter of convenience. Thus, a philosophical exemption must include procedural safeguards to prevent a flood of exemptions and account for the "issue of convenience."¹⁹² Studies have shown that "states with easily obtained philosophical exemptions have been shown to have higher exemption rates. This has led to the concern that philosophical exemptions may be taken merely for convenience in cases where claiming an exemption is easier than completing the

¹⁹⁰ Jennifer S. Rota et al., *Process for Obtaining Nonmedical Exemptions to State Immunization Laws*, 91 AM. J. PUB. HEALTH 645, 645 (2001); Daniel A. Salmon et al., *Compulsory Vaccination and Conscientious or Philosophical Exemptions: Past, Present, and Future*, 367 LANCET 436, 436 (2006).

¹⁹¹ Rota et al., *supra* note 190, at 645.

¹⁹² Kennedy et al., *supra* note 96, at 253.

increasingly complex schedule for recommended vaccinations.”¹⁹³ This suggests “the need for states to develop policies and procedures for requesting and granting exemptions, and to ensure that school personnel and local health departments fully understand and implement these policies and procedures.”¹⁹⁴ It follows then that if New York were to “include [a] philosophically based belief[exemption], and at the same time ensure a system that requires individuals who are applying for exemptions to meet carefully constructed criteria demonstrating strong sincerity of belief, it may be possible that the expanded definition will have little or no effect on the overall number of exemptions.”¹⁹⁵ Hence, one solution could include procedural or administrative obstacles that hinder exemptions of convenience. This could take the form of heightened filing requirements, such as notarized signatures, requiring parents to obtain exemption forms from local health departments, or requiring the signature of a local health department official.¹⁹⁶ These kinds of procedures would help to ensure that exemptions are granted to individuals who hold sincere beliefs, either religious or philosophical, rather than those who seek to avoid vaccinations as a matter of convenience.¹⁹⁷

Another complicating consequence of including a philosophical exemption is the epidemiological impact resulting from a significant number of exemptions. Studies on the impact of widespread exemption use demonstrate that an increase in exemptions can weaken herd immunity over time.¹⁹⁸ It may be possible to grant parents an increased degree of control over the vaccination schedule of their children without threatening the health and safety of the general population.¹⁹⁹ Nevertheless, it is still necessary to address the “question of how large the exempt minority should be allowed to become, and whether the recourse to coercion becomes more acceptable if a sufficiently large number of parents decide against vaccinating their children.”²⁰⁰ As previously noted, “[e]pidemiological studies of the effects of

¹⁹³ *Id.*; see also Rota et al., *supra* note 190, at 647 (noting “[a]n inverse relationship . . . between the complexity of requirements and the proportion of children claiming exemptions”).

¹⁹⁴ Malone & Hinman, *supra* note 22, at 349.

¹⁹⁵ Salmon & Siegel, *supra* note 109, at 293.

¹⁹⁶ See Rota et al., *supra* note 190, at 646-67 (describing the various state practices that increase the level of complexity for obtaining exemptions).

¹⁹⁷ Salmon et al., *supra* note 190, at 440 (arguing that the U.S. approach to exemptions from compulsory vaccinations could use lessons learned from the conscientious objectors to conscription model).

¹⁹⁸ COLGROVE, *supra* note 15, at 13.

¹⁹⁹ See *id.*

²⁰⁰ *Id.*

unvaccinated clusters of children on the spread of illness suggest that, especially in the case of highly contagious conditions such as measles [and pertussis], even small numbers of susceptible youth can endanger the community's health."²⁰¹ Vaccines protect not only those who are vaccinated but also the unvaccinated, such as children who are too young to receive the measles or pertussis vaccines. Accordingly, even small numbers of exemptions can threaten the health of the community, particularly those most vulnerable. Consequently, it may be the case that for certain preventable diseases the procedural safeguards included with a philosophical exemption may not be sufficient. The best recourse for such situations would have to focus on quick identification of the disease at the onset of symptoms and outbreak control.²⁰² Responsibility would necessarily fall to the schools to implement quarantine procedures. Schools are particularly vulnerable due to the close contact among children, and children who have been granted exemptions would be excluded from educational institutions when the disease is present (as is the current practice).²⁰³

Another potentially effective procedural safeguard to help ensure that the general rates of vaccination are kept at a sufficiently high level to maintain herd immunity would be a requirement that parents receive education about the risks or consequences of forgoing vaccination. Families that are provided with the opportunity to discuss both their health concerns and misconceptions about the associated risks of vaccination are much more likely to vaccinate their children.²⁰⁴

Individuals with backgrounds characterized by low income and less access to education are significantly less likely to be vaccinated or to vaccinate their children.²⁰⁵ "This

²⁰¹ *Id.*; see also Salmon et al., *supra* note 190, at 440 (2006) ("The risks of measles and pertussis in school-aged children in the USA with non-medical exemptions have been reported to be 22-35 times and 5-9 times higher, respectively, than those in vaccinated children. The community risk associated with exemptions has been demonstrated through modeling and epidemiological investigations." (footnotes omitted)).

²⁰² See Preeti Kutty et al., *Chapter 7: Measles*, in *MANUAL FOR THE SURVEILLANCE OF VACCINE-PREVENTABLE DISEASES 7-3, 7-14-18* (6th ed. 2013), available at <http://www.cdc.gov/vaccines/pubs/surv-manual/chpt07-measles.pdf>.

²⁰³ Benjamin Mueller, *Judge Upholds Policy Barring Unvaccinated Students During Illness*, N.Y. TIMES (June 22, 2014), <http://www.nytimes.com/2014/06/23/nyregion/judge-upholds-policy-barring-unvaccinated-students-during-illnesses.html?smid=tw-nytimeshealth&seid=auto&r=1>.

²⁰⁴ Manika Suryadevara et al., *Community-Centered Education Improves Vaccination Rates in Children from Low-Income Households*, 132 PEDIATRICS 319, 323 (2013), available at <http://pediatrics.aappublications.org/content/early/2013/07/02/peds.2012-3927.full.pdf+html>.

²⁰⁵ COLGROVE, *supra* note 15, at 13.

phenomenon was observed as early as the 1920s in the first nationwide surveys of vaccination status, and was rediscovered in the 1950s in the wake of the introduction of the Salk [or polio] vaccine, when national surveillance of vaccination coverage became routinized.”²⁰⁶ An additional element to this issue is the decreasing visibility of “vaccine-preventable diseases . . . [which can result in] a lack of appreciation for the severity of such diseases, often in conjunction with public misconceptions of vaccine risks.”²⁰⁷ Accordingly, a requirement that parents seeking an exemption be referred to educational counseling either with school officials or healthcare providers would be an effective safeguard. For instance, in a study tracking the efforts to improve vaccination rates among “high-risk, resource-poor families” through education, researchers found that “vaccine completion rates increased from 28% to 45% in the [nine] months after . . . educational intervention and that influenza vaccine rates increased from 32% to 49%.”²⁰⁸ The study further demonstrated that “individualized educational intervention” was more effective, with “[m]ost vaccine updates . . . occur[ing] during the first month after [the educational program].”²⁰⁹ Consequently, education programs would help “to ensure that parents are accurately informed of the risks and benefits of immunization by public health personnel”²¹⁰ prior to being granted an exemption. The use of these procedural safeguards would be essential to maintaining a sufficiently high vaccination rate to maintain herd immunity.

CONCLUSION

Public health law will always involve a difficult tension between individual interests and the “communal interests in healthy populations.”²¹¹ While “[t]he process of obtaining an exemption must properly reflect the importance that society has accorded immunization through its laws,”²¹² the law must

²⁰⁶ *Id.*

²⁰⁷ Rota et al., *supra* note 190, at 645.

²⁰⁸ Suryadevara et al., *supra* note 204, at 323; *see also* Bernadino Roca et al., *Impact of Education Program on Influenza Vaccination Rates in Spain*, 18 AM. J. MANAGED CARE 446 (2012), available at <http://www.ajmc.com/publications/issue/2012/2012-12-vol18-n12/impact-of-education-program-on-influenza-vaccination-rates-in-spain/1> (showing an association between improvement in rates of influenza vaccination among an adult over-60 population and access to educational materials).

²⁰⁹ Suryadevara et al., *supra* note 204, at 323.

²¹⁰ Rota et al., *supra* note 190, at 648.

²¹¹ GOSTIN, *supra* note 49, at 6-7.

²¹² Rota et al., *supra* note 190, at 648.

also recognize parental rights to make informed decisions as to the health of their children. Given the changes in vaccine development to diseases that are not contagious in the traditional sense and the varied set of sincerely held beliefs that motivate parents seeking exemptions for their children, it is appropriate for New York to reconsider its current approach and strike a better balance of the interests at stake. A philosophical exemption to the current health law would avoid the problematic issue of mixed-motive cases in exemption litigation. Coupled with safeguards that would prevent exemptions of convenience and ensure that parents make decisions as to the health of their children based on accurate information about the efficacy and safety of vaccines and based on sincerely held beliefs, a philosophical exemption meets the modern challenges of a dynamic society.

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