

The Religious Exemption Loophole: A Building Public Health Crisis in North Carolina*

Across the United States, vaccine exemption rates have been on the rise, leading to the reemergence of previously eradicated diseases, such as measles. This trend is reflected in North Carolina, where increased use of the vaccination law's religious exemption can be tied directly to outbreaks of whooping cough and chickenpox. Importantly, North Carolinians have increasingly used the religious exemption to cover nonreligious beliefs. This Recent Development argues that North Carolina could and should amend its vaccination laws to repeal the religious exemption. Past Supreme Court precedent supports taking such an action, and doing so would help North Carolina better protect public and individual health throughout the state.

INTRODUCTION

Outbreaks of generally well-controlled, or essentially eradicated, communicable diseases¹ continue to pop up across the nation with seemingly increasing frequency, harming primarily young children.² In November 2018, North Carolina found itself in the middle of this trend when a major outbreak of chickenpox occurred at the Asheville Waldorf School.³ That outbreak can be traced directly to the high vaccination-exemption rate at the school.⁴ Yet chickenpox is not the only communicable disease of concern; there have also been multiple outbreaks of whooping cough throughout the state.⁵

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1. The North Carolina Department of Health and Human Services ("NCDHHS") defines communicable diseases as "illness due to a specific infectious agent or its toxic products that arises through transmission of that agent or its products from an infected person, animal, or reservoir to a susceptible host, either directly or indirectly through an intermediate plant or animal host, vector, or the inanimate environment." *Communicable Disease*, N.C. DEP'T HEALTH & HUM. SERVS., <https://epi.dph.ncdhhs.gov/cd/> [<https://perma.cc/XG8L-GNQY>].

2. See Emily Moon, *Why Measles Outbreaks Are on the Rise in the U.S.*, PAC. STANDARD (Feb. 12, 2019), <https://psmag.com/news/why-measles-outbreaks-are-on-the-rise-in-the-us> [<https://perma.cc/U4VE-5FYV>] ("This week, Washington State's measles outbreak reached 54 confirmed cases. It's one of five outbreaks (defined as three or more cases) in the United States so far this year.").

3. Isaac Stanley-Becker, *Anti-Vaccination Stronghold in N.C. Hit with State's Worst Chickenpox Outbreak in 2 Decades*, WASH. POST (Nov. 19, 2018), https://www.washingtonpost.com/nation/2018/11/19/anti-vaccination-stronghold-nc-hit-with-states-worst-chickenpox-outbreak-decades/?utm_term=.af3569baf99a [<https://perma.cc/H5U3-2NN8> (dark archive)].

4. See *id.* ("The private school has a higher rate of exemption on religious grounds than all but two other North Carolina schools . . . During the 2017–18 school year, 19 of 28 kindergartners were exempt from at least one vaccine required by the state.").

5. See Lavendrick Smith, *NC Whooping Cough Cases Double in Recent Weeks, and It's Expected To Get Worse*, CHARLOTTE OBSERVER (Dec. 19, 2017), <https://www.charlotteobserver.com/>

Parents are increasingly exercising the state's religious exemption to vaccination, pushing North Carolina's vaccination-exemption rate ever higher.⁶ Focusing on North Carolina's current vaccination laws, this Recent Development will explore the statutory religious exemption, raise concerns over the increasing exemption rate and how it may challenge the state's ability to protect public health, and provide potential steps the North Carolina General Assembly can take to ensure the protection of public health. Part I discusses vaccines and their importance generally, as well as highlights the role of increased exemptions and common reasons individuals use them. Part II transitions to North Carolina's current vaccination laws, the state's religious exemption and its broad use (focusing specifically on how several nonreligious factors lead to abuse of the religious exemption system), and the growing risk in North Carolina as a result. Finally, Part III proposes options for North Carolina moving forward and advocates explicitly for a revocation of the religious exemption to ensure vaccination rates remain above the levels required for community immunity and the protection of public health.

I. VACCINES AND EXEMPTIONS: THE BASICS

Before discussing North Carolina vaccination laws, it is important to establish how vaccines work, why they are important, why unnecessary exemptions are detrimental to individual and public health, and why, despite that, individuals often still seek exemptions.

A. *How Vaccines Work*

Scientists develop vaccines in a variety of ways, implementing different strategies based upon the disease the vaccine is meant to prevent.⁷ Vaccines work by capitalizing on our immune system's extraordinary ability to differentiate self (e.g., human cells, friendly bacteria) from non-self (e.g., disease-causing bacteria or viruses) by detecting unique features on the surface of cells. These features are called antigens.⁸ When our body's immune cells come across an antigen on a disease-causing bacteria or virus, this recognition

news/local/article190518379.html [https://perma.cc/5XDQ-C3XV]; *Whooping Cough Outbreak Impacts Chapel Hill Schools*, WRAL (Jan. 22, 2018), <https://www.wral.com/whooping-cough-outbreak-impacts-chapel-hill-schools/17281082/> [https://perma.cc/9RR6-5QY6].

6. Jason DeBruyn, *Across NC, More Parents Are Using Religious Exemption To Avoid Vaccinating Children*, WUNC (Aug. 15, 2019), <https://www.wunc.org/post/across-nc-more-parents-are-using-religious-exemption-avoid-vaccinating-children> [https://perma.cc/HM9Y-R3RZ].

7. *Understanding How Vaccines Work*, CTRS. FOR DISEASE CONTROL & PREVENTION, <https://www.cdc.gov/vaccines/hcp/conversations/downloads/vacsafe-understand-color-office.pdf> [https://perma.cc/35KB-FFJK] (last updated July 2018) (listing different types of vaccines).

8. *How Does the Immune System Work?*, INST. FOR QUALITY & EFFICIENCY HEALTH CARE, <https://www.ncbi.nlm.nih.gov/books/NBK279364/> [https://perma.cc/U25F-BQKX] (last updated Nov. 2019).

elicits an immune response, usually including production of antibodies to neutralize the bacteria or virus.⁹ Once our immune system associates an antigen with a particular disease-causing bacteria or virus, “memory” immune cells retain that recognition for years, allowing our body “to fight that disease in the future.”¹⁰ Vaccines capitalize on this ability to recognize harmful biological agents.¹¹ The development of vaccines involves isolation of the antigen portion of a disease-causing agent, which can trigger an immune response but likely will not cause the disease.¹² Vaccines, therefore, contain only enough of the disease-causing agent to elicit an immune response, conferring immunity, without causing the disease itself.¹³

By imitating the infection and causing production of “memory” cells, vaccines help an individual develop immunity to the disease.¹⁴ The immune system reacts to the antigens but the antigens rarely actually causes any illness.¹⁵ Vaccinations have a similar effect on the body as does the first exposure to a disease, but vaccines are much safer.¹⁶ Individuals who are given vaccines develop those memory cells without ever having to be exposed to the full-fledged disease, and then, if and when an individual is exposed to that disease at a later time, the memory cells activate a targeted immune response to help fight off the disease.¹⁷ Vaccines are a preventive treatment that help stop the spread of disease even before any onset of symptoms¹⁸ and ultimately, vaccines “provide long-lasting immunity to serious diseases without the risk of serious illness.”¹⁹

B. *Why Unnecessary Vaccination Exemptions Are Harmful*

The benefits vaccines provide are not just to the individuals who receive immunizations but actually to entire communities, particularly when rates of vaccination reach levels that provide “herd immunity.” Herd immunity occurs when there are enough members of a group immune to a disease so as to ensure

9. *Id.*

10. *Understanding How Vaccines Work*, *supra* note 7.

11. *See id.*

12. *See id.*

13. *See id.*

14. *Why Are Childhood Vaccines So Important?*, CTRS. FOR DISEASE CONTROL & PREVENTION, <https://www.cdc.gov/vaccines/vac-gen/howvpd.htm> [<https://perma.cc/ES7B-ELCQ>] (last reviewed May 2018).

15. *Id.*

16. *See id.*

17. *See Vaccines Protect You*, U.S. DEP’T HEALTH & HUM. SERVS., <https://www.vaccines.gov/basics/work/prevention> [<https://perma.cc/MYK3-RE8X>] (last updated Dec. 2017).

18. *See* Mark Doherty et al., *Vaccine Impact: Benefits for Human Health*, 34 VACCINE 6707, 6710 (2016).

19. *See Vaccines Protect You*, *supra* note 17.

“no sustained chains of transmission can be established.”²⁰ Specifically, herd immunity is said to be attained when the proportion of the population that is immune exceeds the rate at which the incidence of the pathogen occurs.²¹ Once the population level of immunized individuals is high enough, the rate of disease spread will decline, and ultimately, transmission among individuals will become unsustainable.²² Vaccinations and herd immunity are important for community health because they passively protect “the very young and aged and those who are immunocompromised.”²³ Even if some individuals remain unvaccinated, when enough members of the community vaccinate and establish herd immunity, the disease becomes bottlenecked and spreading of the targeted disease is prevented.²⁴

The level of required immunization to establish herd immunity, however, varies based upon the disease in question.²⁵ For example, the threshold for measles is typically thought to fall between ninety to ninety-five percent vaccination rates, while polio requires only eighty to eighty-five percent.²⁶ Because this threshold varies, it is important that vaccine rates remain as high as possible.

When individuals choose to use exemptions and forego their vaccinations, the levels of immunized individuals can drop dangerously below the threshold required for herd immunity. Those individuals who are unable to receive vaccinations will no longer be protected.²⁷ Beyond concerns of herd immunity, individuals who fail to receive vaccinations will themselves be subject to the far more serious, and sometimes deadly, illness that comes with exposure to some

20. Marcel Salathé, *Why a Few Unvaccinated Children Are an Even Bigger Threat than You Think*, WASH. POST (Feb. 3, 2015), https://www.washingtonpost.com/posteverything/wp/2015/02/03/why-a-few-unvaccinated-children-are-an-even-bigger-threat-than-you-think/?noredirect=on&utm_term=.09fe7d7a633f [<https://perma.cc/6Q5F-LLBL> (dark archive)].

21. See C.J.E. Metcalf et al., *Understanding Herd Immunity*, 36 TRENDS IMMUNOLOGY 753, 753 (2015).

22. *Id.*

23. Michael L. Mallory, Lisa C. Lindesmith & Ralph S. Baric, *Vaccination-Induced Herd Immunity: Successes and Challenges*, 142 J. ALLERGY & CLINICAL IMMUNOLOGY 64, 64 (2018).

24. See *Community Immunity How Vaccines Protect Us All*, NIH NEWS HEALTH (Oct. 2011), <https://newsinhealth.nih.gov/2011/10/community-immunity> [<https://perma.cc/82J2-36FQ>].

25. *Herd Immunity: How Does It Work?*, OXFORD VACCINE GROUP (Apr. 26, 2016), <https://www.ovg.ox.ac.uk/news/herd-immunity-how-does-it-work> [<https://perma.cc/Q6ZX-Y2WK>] (“[Herd immunity] varies depending on the germ and how contagious it is. The more contagious it is then the more people need to be vaccinated for herd immunity to work.”).

26. *Id.*

27. See *Five Important Reasons To Vaccinate Your Child*, U.S. DEP’T HEALTH & HUM. SERVS., https://www.vaccines.gov/getting/for_parents/five_reasons [<https://perma.cc/K7LU-83EA>] (last updated Jan. 2018) (“While some babies are too young to be protected by vaccination, others may not be able to receive certain vaccinations due to severe allergies, weakened immune systems from conditions like leukemia, or other reasons. To help keep them safe, it is important that you and your children who are able to get vaccinated are fully immunized.”).

of these vaccine-preventable diseases.²⁸ Although many of the diseases we receive vaccination for are rare in this country, they still circulate globally, can be brought into the United States, and can ultimately put the entire population at risk.²⁹

C. Reasoning Behind Seeking a Nonmedical Exemption

Despite the dangers of foregoing vaccinations, many still fail to obtain for themselves or for their children those vaccines mandated by state law. First, financial and access issues play a role in increasing the rates of individuals seeking exemption from vaccination. For example, some individuals cannot obtain their vaccines or maintain the recommended vaccine schedule due to a lack of time, money, or simply geographic location in relation to a provider.³⁰ As the Centers for Disease Control and Prevention (“CDC”) note, certain vaccination rates tend to be lower in rural areas, likely because “there are fewer pediatricians in rural areas compared to urban areas,” or because rural physicians serve broader population bases and may stock fewer of the recommended vaccinations.³¹ Though initiatives exist that intend to reduce these burdens, geographic location still plays a role in access to vaccinations.³² For example, since 2005, one hundred sixty rural hospitals have closed across the nation, and eleven have closed within North Carolina.³³ In some communities, parents are “overwhelmed, and overworked, and not able to keep up with their children’s vaccinations,” or they may simply not have access to clinics because of “lack of transportation or inconvenient clinic hours.”³⁴ Additionally, parents have pointed to their child care needs for other children when taking one child to the doctor, the cost of vaccines, and lack of knowledge about accessing healthcare coverage or scheduling appointments as reasons for not vaccinating their

28. See *Vaccines Protect You*, *supra* note 17.

29. See *Understanding How Vaccines Work*, *supra* note 7.

30. C. Lee Ventola, *Immunization in the United States: Recommendations, Barriers, and Measures To Improve Compliance: Part 1: Childhood Vaccinations*, 41 PHARMACY & THERAPEUTICS 426, 426 (2016) (“However, some parents decline or delay vaccinating their children or follow alternative immunization schedules because of medical, religious, philosophical, or socioeconomic reasons.”).

31. *Vaccination in Rural Communities*, CTRS. FOR DISEASE CONTROL & PREVENTION, <https://www.cdc.gov/ruralhealth/vaccines/index.html> [https://perma.cc/Y4D7-7P5P].

32. North Carolina has implemented an immunization program that provides vaccines to families that might not otherwise have access, by reducing or eliminating “vaccine cost as a barrier to vaccination of eligible children.” *North Carolina Immunization Program (NCIP)*, N.C. DEP’T HEALTH & HUM. SERVS., https://immunize.nc.gov/family/nc_immnz_program.htm [https://perma.cc/Z6PF-8LL2]. This program, however, only applies to individuals aged eighteen and younger; unvaccinated adults are ineligible to participate, so financial status is still a factor for the general population. *Id.*

33. *160 Rural Hospital Closures: January 2005 — Present (118 Since 2010)*, UNC CECIL G. SHEPS CTR. FOR HEALTH SERVS. RES., <https://www.shepscenter.unc.edu/programs-projects/rural-health/rural-hospital-closures/> [https://perma.cc/TY4C-JNMP].

34. See Ventola, *supra* note 30, at 433.

children.³⁵ These factors have been identified as “significant barriers to [getting] young children . . . fully immunized.”³⁶ When it is difficult to access vaccines, it is unsurprising that parents will make use of easier-to-use exemptions.³⁷

Second, there are personal beliefs that lead individuals to refuse vaccinations. Of course, many individuals point to their religion as a reason. However, there are also what can only be classified as personal objections, i.e., beliefs that do not stem from traditional organized religion or physician-affirmed medical contraindications. These personal objections have been referred to as “vaccine hesitancy,” a reluctance or refusal maintained by parents who have “significant concerns about vaccinating their infants” or themselves.³⁸ One of the most well-known personal objections to vaccines stems directly from the scientifically disproven belief that vaccinations cause autism.³⁹ In some cases, “vaccine hesitancy” may lead to individuals avoiding all vaccinations. There is no single reason that leads to vaccine hesitancy, rather “[t]he expression can be used to refer to a ‘gap in parental knowledge’ or refer to ‘reflection and deliberation about the benefits of specific vaccines.’”⁴⁰

Though vaccine hesitancy stems from a number of root causes,⁴¹ a major factor is the spread of misinformation through social media and the internet about vaccine ingredients and alleged dangers, not all of which stems from reputable sources.⁴² A study published in 2015 found that “the number of American adults who report having heard ‘a great deal’ about the disadvantages of vaccines for children has nearly doubled in the last 14 years (to 30 percent), and over 52 percent currently report being ‘unsure’ whether certain vaccines

35. Nancy C. Sharts-Hopko, *Issues in Pediatric Immunization*, 34 AM. J. MATERNAL CHILD NURSING 80, 82 (2009).

36. Edwin L. Anderson, *Recommended Solutions to the Barriers to Immunization in Children and Adults*, 111 MO. MED. 344, 344 (2014).

37. See Robert Roos, *Study: Medical Vaccine Exemptions Rise Where They’re Easier To Get*, UNIV. MINN. CTR. FOR INFECTIOUS DISEASE RES. & POL’Y (Aug. 30, 2012), <http://www.cidrap.umn.edu/news-perspective/2012/08/study-medical-vaccine-exemptions-rise-where-theyre-easier-get> [<https://perma.cc/9RGG-C28D>] (discussing a study published in the *Journal of Infectious Disease* that found “[m]ore parents obtain medical vaccination exemptions for their kindergarten children in states where they are easier to get”).

38. Eve Dubé et al., *Vaccine Hesitancy: An Overview*, 9 HUM. VACCINES & IMMUNOTHERAPEUTICS 1763, 1763–64 (2013).

39. *Id.* (“Fear of autism is still today a frequently reported vaccine safety concern among parents in different settings.”).

40. *Id.* at 1764–65 (quoting Helen Rees & Shabir A Madhi, *Will the Decade of Vaccines Mean Business as Usual?*, 378 LANCET 382, 384 (2011), and Baruch Velan, *Acceptance on the Move: Public Reaction to Shifting Vaccination Realities*, 7 HUM. VACCINES 1261 (2011)).

41. See *id.* at 1768–70.

42. See *id.* at 1765 (“The most recent and well-known is the fraudulent association between the MMR vaccination and autism that was first highly publicized in the United Kingdom, but then rapidly diffused worldwide.”).

cause autism.”⁴³ This is likely due in part to the prevalence of such information online. For example, People Advocating Vaccine Education (“PAVE”) is a North Carolina-based group that intends to “help the public make informed and intelligent decisions about childhood and adult vaccines.”⁴⁴ PAVE claims that, “[a]lthough constantly denied by policy makers aiming for 100% compliance, vaccines have been linked to autism, epilepsy, . . . and a host of other serious conditions.”⁴⁵ The group believes that individuals have been “threatened, intimidated and humiliated by a public health system that has turned the illusion of vaccine safety and efficacy into a science,” and point to its own research page to support its claims of danger.⁴⁶ However, rather than citing to any number of recent peer-reviewed scientific studies, PAVE relies on the business-promoting website “drgreenmom.com,” much of which has not itself been updated in nearly half a decade or longer.⁴⁷ Additionally, many celebrities have also publicly called into question the scientific research behind vaccinations, further polarizing and muddling public knowledge and opinion.⁴⁸

Ironically, another cause of vaccine hesitancy stems from the success of vaccines themselves.⁴⁹ Because vaccines have been so successful at preventing and eradicating previously deadly illnesses, current generations do not recognize the dangers associated with the communicable diseases that once ran prevalent.⁵⁰ Individuals simply no longer recall the impact of some of the diseases that they now refuse to vaccinate against.⁵¹ One major global survey recently found that “people in higher-income countries were among the least

43. Sander L. van der Linden, Chris E. Clarke & Edward W. Maibach, *Highlighting Consensus Among Medical Scientists Increases Public Support for Vaccines: Evidence from a Randomized Experiment*, 15 BMC PUB. HEALTH 1207, 1207 (2015) (quoting Frank Newport, *In U.S., Percentage Saying Vaccines Are Vital Dip Slightly*, GALLUP (March 6, 2015), <https://news.gallup.com/poll/181844/percentage-saying-vaccines-vital-dips-slightly.aspx> [<https://perma.cc/3PY7-FYDU>]).

44. *Are Vaccines Safe?*, PEOPLE ADVOCATING VACCINE EDUC., <https://vaccineeducation.org/are-vaccines-safe/> [<https://perma.cc/V6M5-EKZ5>].

45. *Id.*

46. *Id.*

47. *Recommended Reading*, PEOPLE ADVOCATING VACCINE EDUC., <https://vaccineeducation.org/recommended-reading/> [<https://perma.cc/TY9P-VXQR>]; *Resources/Links*, PEOPLE ADVOCATING VACCINE EDUC., <https://vaccineeducation.org/resourceslinks/> [<https://perma.cc/J3R7-DP7E>].

48. See EJ Dickson, *A Guide to 17 Anti-Vaccination Celebrities*, ROLLING STONE (June 14, 2019), <https://www.rollingstone.com/culture-features/celebrities-anti-vaxxers-jessica-biel-847779/> [<https://perma.cc/M4XG-YKL5>].

49. Ventola, *supra* note 30, at 432 (“Paradoxically, one reason for vaccine hesitancy among parents may be the widespread success of immunization.”).

50. *Id.*

51. See Jonah Kaplan & Tonya Simpson, *More North Carolina Families Using Religious Exemptions To Opt Out of Vaccinations*, ABC 11 (Sept. 24, 2019), <https://abc11.com/health/more-nc-families-using-religious-exemptions-to-opt-out-of-vaccinations/5556028/> [<https://perma.cc/K8VX-H239>] (“People who lived through these diseases that killed their children were so desperate for the vaccine they wouldn’t have dreamed of refusing them,” said Dr. Gabriela Maradiaga-Panayotti, a Duke Hospital pediatrician. “There are many people now who don’t think this is an active issue.”).

confident in vaccine safety” and that “the further people are from outbreaks, and the more distant the memory of diseases like whooping cough and measles, the more likely they are to shun vaccines.”⁵²

II. NORTH CAROLINA’S GROWING VACCINATION PROBLEM

Having discussed generally vaccines and concerns about exemptions, this part shifts to focus more specifically on North Carolina. It discusses North Carolina’s vaccination laws including the religious exemption and identifies how and why the public health is placed at risk through such a broad exemption.

A. *North Carolina’s Vaccination Laws*

North Carolina has implemented several of laws to address children’s vaccination requirements for certain communicable diseases. First, the state requires under section 130A-152 that “[e]very child . . . be immunized against diphtheria, tetanus, whooping cough, poliomyelitis, red measles (rubeola) and rubella. In addition, every child present in [North Carolina] shall be immunized against any other disease upon a determination by the Commission that the immunization is in the interest of the public health.”⁵³ While section 130A-152 requires *every* child be immunized, there is no enforcement mechanism defined under the statute. Rather, the state focuses on enforcement in section 130A-155, which provides that children cannot attend *any* school or childcare facility “unless a certificate of immunization indicating that the child has received the immunizations required by [N.C.G.S. §] 130A-152 is presented.”⁵⁴ Together, these statutes make clear that North Carolina unequivocally requires children to be vaccinated but places an emphasis on vaccinations in schools and childcare facilities—locations where children will be in large numbers and in close proximity to one another—in order to protect the public health of the state.

Despite the fact that communicable diseases can be prevented by vaccines and these diseases constitute a clear public health concern, North Carolina provides exemptions to the vaccination requirements.⁵⁵ First, the state allows individuals to receive medical exemptions, so long as “a physician licensed to practice medicine in [North Carolina] certifies that a required immunization is or may be detrimental to a person’s health.”⁵⁶ Those who face adverse reactions

52. Julia Belluz, *Religion and Vaccine Refusal Are Linked. We Have To Talk About It*, VOX (June 19, 2019), <https://www.vox.com/2019/6/19/18681930/religion-vaccine-refusal> [https://perma.cc/MZL5-7WXA].

53. N.C. GEN. STAT. § 130A-152(a) (2019).

54. *Id.* § 130A-155(a).

55. *Id.* §§ 130A-156, -157.

56. *Id.* § 130A-156.

or are immunosuppressed rely heavily upon the medical exemption.⁵⁷ Second, North Carolina provides a religious exemption, stating that “[i]f the bona fide religious beliefs of an adult or the parent, guardian or person in loco parentis of a child are contrary to the immunization requirements [of North Carolina], the adult or the child shall be exempt.”⁵⁸ Importantly, unlike some states, North Carolina does *not* provide a philosophical exemption, which would allow individuals to “object to immunizations because of personal, moral or other beliefs.”⁵⁹

B. *North Carolina’s Dangerous Loophole*

The religious exemption in North Carolina, broad and without any enforcement mechanism, allows for exemption because of personal belief, despite the explicit lack of a statutory philosophical exemption to vaccinations. Unlike the medical exemption, which must be completed by a physician, there is no mandated form that parents must fill out or have authorized by an independent party in order to use the religious exemption.⁶⁰ Practically speaking, all a parent or guardian needs to do to utilize the religious exemption is provide the school or childcare center with a simple written statement of religious belief.⁶¹ However, the written statement does not even need to state a specific religious belief that is contrary to immunization; rather, “[i]t can be as short and simple as ‘I am opposed to immunization due to a bona fide religious belief.’”⁶² So long as the statement also includes the child’s name and date of birth, it is valid.⁶³

57. See *What Is an Exemption and What Does It Mean?*, CTRS. FOR DISEASE CONTROL & PREVENTION, <https://www.cdc.gov/vaccines/imz-managers/coverage/schoolvaxview/requirements/exemption.html> [https://perma.cc/MC43-EFCV] (last updated Oct. 12, 2017) (stating that a medical exemption “is allowed when a child has a medical condition that prevents them from receiving a vaccine”).

58. N.C. GEN. STAT. § 130A-157 (2019).

59. See *States with Religious and Philosophical Exemptions from School Immunization Requirements*, NAT’L CONF. ST. LEGISLATURES (June 14, 2019), <http://www.ncsl.org/research/health/school-immunization-exemption-state-laws.aspx> [https://perma.cc/8WNB-3AC3] (showing eighteen states, including Michigan, Utah, Texas, and Wisconsin, provide philosophical exemptions from vaccination requirements); see also MICH. COMP. LAWS ANN. § 333.9215(2) (through P.A.2020, No. 21, of the 2020 Regular Session, 100th Legislature) (“A child is exempt from [vaccination requirements] if a parent, guardian, or person in loco parentis of the child presents a written statement . . . to the effect that the requirements of this part cannot be met because of . . . other objection to immunization.”).

60. See *N.C. Exemptions*, N.C. DEP’T HEALTH & HUM. SERVS. (Sept. 11, 2019) <https://www.immunize.nc.gov/schools/ncexemptions.htm> [https://perma.cc/TSF5-78TM].

61. See Anne L. Knight, *Religious Exemptions to North Carolina’s Childhood Immunization Requirements: What Constitutes a Bona Fide Religious Belief?*, U.N.C. SCH. GOV’T BULL., Fall 2004, at 12, 15; see also *N.C. Exemptions*, *supra* note 60.

62. See Knight, *supra* note 61.

63. *Id.*

There is no clear answer as to what constitutes a “bona fide religious belief.” First, section 130A-157 does not define “bona fide religious belief.” Additionally, it allows the exempted individual to attend the school or facility “upon submission” of the statement to the institution; the statute itself does not contemplate review, and certainly not state-level review.⁶⁴ Accordingly, if there have been rejections of a religious exemption at the institutional level, they are difficult to find. North Carolina’s corresponding administrative regulation also fails to define “bona fide religious belief,” though it does provide further insight as to what is *not* meant by the religious exemption. The regulation, in congruence with the lack of any statutory provision otherwise, provides that there is no exemption in the “case of a personal belief or philosophy of a parent or guardian” that is “not founded upon a religious belief.”⁶⁵ However, there is no further explanation as to what is required for a belief to be “founded upon a religious belief.” Finally, no North Carolina court has defined what this clause means, or the extent of its scope.⁶⁶

This ambiguity has led to continuous use of the exemption for reasons expanding far beyond its intended purpose. Between the 2015–16 and the 2016–17 school years, only four states had a “larger percentage increase in non-medical vaccine exemptions.”⁶⁷ Considering North Carolina does not have a philosophical exemption, the entirety of the increase stems from its religious exemption. “This is not a case of people becoming more religious but simply them using it as a loophole to allow them to legally send their children to school without vaccinations.”⁶⁸ Public health officials and anti-vaccine advocates both agree: “the exemption is being claimed by parents whose true objection to the shots has nothing to do with faith.”⁶⁹ Additionally, the founder of PAVE has acknowledged that “some parents claim the religious exemption when their

64. N.C. GEN. STAT. § 130A-157 (2019).

65. 10A N.C. ADMIN. CODE 41A.0403 (2018).

66. See Knight, *supra* note 61 at 12, 13 (stating that, as of 2004, “no published North Carolina case has construed the meaning of bona fide in the context of the religious exemption or has established what inquiry, if any, a school or health official may make into the sincerity of parents’ religious objection to immunization”). To date, the only reference a North Carolina court has made with respect to the clause was in stating that the bona fide exemption was not even considered as a portion of its holding. *In re Stratton*, 153 N.C. App. 428, 434, 571 S.E.2d 234, 238 (2002) (focusing instead on whether the state, having gained temporary custody of the children from an adjudication of neglect, had the right to make the vaccination decisions for the children, in stating that “[a]ppellants have presented evidence of a religious objection to immunization, and we do not consider the bona fide nature of that objection”).

67. Nikki Pritchard, *Let’s Put Our Faith in Vaccines, Not Exemptions*, NEWS & OBSERVER (Raleigh Nov. 30, 2017, 11:17 AM), <https://www.newsobserver.com/opinion/op-ed/article187417988.html> [<https://perma.cc/CAP3-AUVX>].

68. *Id.*

69. See Martha Quillin, *Thousands of NC Students Aren’t Vaccinated—All Because of This Easy Exemption*, NEWS & OBSERVER (Raleigh), <https://www.newsobserver.com/news/politics-government/article188633004.html> [<https://perma.cc/XG7C-FBR2>] (last updated Apr. 25, 2018).

rationale has more to do with concerns over the safety or efficacy of vaccines.”⁷⁰ An Asheville-area attorney who counsels parents on how to exempt their children from vaccination requirements noted that under North Carolina rules as they currently stand, “[y]ou don’t even have to believe in God” to use the religious exemption.⁷¹ As application of the religious exemption continues to increase in North Carolina, specifically through nonreligious-based use, the risk to the entire public, not just to unvaccinated individuals, grows.⁷²

C. *The Resulting Risk*

Put bluntly, one need only look at the outbreaks of chickenpox or whooping cough in North Carolina to understand the risk.⁷³ Where exemption rates are high, communicable diseases are likely to follow.⁷⁴ North Carolina has been “lucky” so far, in that there has not been a major outbreak of a disease like measles, “but . . . the thing about luck [is]: you never know when it’s going to change.”⁷⁵ The religious exemption loophole provides an easy route to avoid vaccination requirements, and the increasing vaccination exemption rates can be traced directly to it.⁷⁶ The medical exemption rate has held relatively steady, but in the 2017–18 school year, about “1.5 percent, or 1 out of 300 students, claimed the [religious] exemption,” a growth from 1.2 percent the year prior.⁷⁷ In Wake County, kindergarteners “saw a sharp increase in non-vaccinations[,] . . . point[ing] mostly to an increase in religious exemptions.”⁷⁸ Mecklenburg and Buncombe Counties also experienced increased exemption rates among kindergartners, primarily due to increases in the use of the religious exemption.⁷⁹ In fact, sixty counties in North Carolina had a “year-over-year

70. *Id.*

71. *Id.*

72. *See supra* Section I.B.

73. *See supra* notes 3–5 and accompanying text.

74. *Id.*

75. Pritchard, *supra* note 67.

76. *See* Quillin, *supra* note 69 (“The number of N.C. kindergarteners opting out of required childhood vaccinations on religious grounds more than doubled in the five school years from 2012 to 2016.”).

77. *See* N.C. DEP’T HEALTH & HUM. SERVS., 2017-2018 KINDERGARTEN IMMUNIZATION REPORTING DATA BY SCHOOL, https://mediad.publicbroadcasting.net/p/wcqs/files/201808/2017-2018_kindergarten_immunization_reporting_data_by_school__003_.pdf [https://perma.cc/47TL-V953]. *Compare* Debruyn, *supra* note 6, with Marcel Salathé, *supra* note 20.

78. *See* Morgan Frances, *Child Vaccination Rates Down Across North Carolina*, FOX 46 CHARLOTTE (Jan. 8, 2019), <http://www.fox46charlotte.com/news/local-news/child-vaccination-rates-down-across-north-carolina> [https://perma.cc/BKJ6-PHVV].

79. *See* Helen Chickering & Jason Debruyn, *Buncombe County Vaccination Religious Exemption Hit an All-Time High*, BLUE RIDGE PUB. RADIO (Aug. 29, 2018), <https://www.bpr.org/post/buncombe-county-vaccination-religious-exemptions-hit-all-time-high#stream/0> [https://perma.cc/EC6D-7KFC] [hereinafter *Buncombe County Vaccination*] (“Buncombe County once again had the highest number of unimmunized students, who opted for a religious exemption.”); Frances, *supra* note 78 (“Mecklenburg County saw the largest increase in non-vaccinated kindergarteners, up almost 2.5% from the previous

increase in the percentage of parents claiming a religious exemption,” while eighty counties “had higher rates of religious exemption last year than in the 2011-12 school year.”⁸⁰ Although these rates may not seem dangerously high, 2018 is the eighth year in a row that the rate of use of the religious exemption has increased across the state.⁸¹

The loophole in North Carolina’s law is made more dangerous by a phenomenon known as “geographic clustering.” Geographic clustering occurs when like-minded individuals form their own subcommunities within a geographic region or social community.⁸² Because of clustering, state- and county-wide measurements of vaccination rates may inaccurately represent the threat that exists within smaller communities, like schools, childcare facilities, and neighborhoods.⁸³ Though the North Carolina statewide religious exemption rate was 1.2 percent for kindergarteners in 2017–18,⁸⁴ Wake and Mecklenburg Counties had exemption rates of 1.2 percent and 1.9 percent, respectively, while Buncombe, Transylvania, and Watauga Counties had exemption rates above 4.5 percent.⁸⁵ Clustering is prevalent among those who seek religious exemptions.⁸⁶ Part of this is because “parents are often worried

year.”). Opponents to and proponents of vaccines alike identify more than mere religious belief as leading to the increase in use of the religious exemption. A study by the North Carolina Department of Public Health found that childcare operators in Buncombe County “believe parents are hesitant to vaccinate children because of vaccine safety concerns and not because they have a true religious exemption to vaccinating.” See *Child Care Religious Exemptions*, N.C. DEP’T HEALTH & HUM. SERVS., <https://www.immunize.nc.gov/data/studiesonimmunization.htm#ccr> [<https://perma.cc/4ZS2-XVZF>]. Additionally, the founder of PAVE said: “Now this is just the impression a lot of us get from Buncombe County, is there is a more naturally minded community there . . . [a]nd they are going to be using natural methods to either prevent or manage disease as it happens.” See Jason Debruyne & Helen Chickering, *More Parents Not Vaccinating Their Kids*, WUNC (Aug. 30, 2018), <https://www.wunc.org/post/more-parents-not-vaccinating-their-kids> [<https://perma.cc/EF8K-7JPG>].

80. See Debruyne, *supra* note 6.

81. *Id.*

82. See *Buncombe County Vaccination*, *supra* note 79 (showing comments made by Buncombe County Health and Human Services Director, Dr. Jennifer Mullendor, on clustering in Buncombe County).

83. See *2017-2018 Kindergarten Immunization Reporting Data by School*, *supra* note 77 (showing that individual exemption rates vary greatly among individual schools in comparison to the county-wide numbers).

84. Interestingly, while the data cited by *2017-2018 Kindergarten Immunization Reporting Data by School*, *supra* note 77 suggests that the religious exemption rate was 1.2 percent statewide, data provided by the CDC suggests that the nonmedical exemption rate was actually 1.8 percent. See Jenelle L. Mellerson et al., *Vaccination Coverage for Selected Vaccines and Exemption Rates Among Children in Kindergarten—United States, 2017–18 School Year*, 67 MORBIDITY & MORTALITY WKLY. REP. 1115, 1119 (2018).

85. See Carli Brosseau, *Asheville Chickenpox Outbreak Revives Debate About Religious Exemptions to Vaccines*, NEWS & OBSERVER (Raleigh Nov. 28, 2018), <https://www.newsobserver.com/news/local/education/article221988420.html> [<https://perma.cc/R7R5-BEC2> (staff-uploaded archive)].

86. See *Buncombe County Vaccination*, *supra* note 76 (“The numbers reflect that sentiment, according to Buncombe County Health and Human Services Director Dr. Jennifer Mullendore . . .

about backlash from the medical community and other parents, so they choose keep their choice not to vaccinate quiet, sharing only with other like-minded parents,” which helps to develop these clustered communities.⁸⁷ When clustering occurs in vaccine-exempt communities, it means “an unvaccinated individual is more likely to be in contact with other unvaccinated individuals than would be expected by chance, [and] clusters of susceptible individuals will form and thus constitute a subpopulation in which the disease can spread and cause local outbreaks.”⁸⁸ Essentially, at a local level, geographic clustering undercuts the benefits of wider herd immunity, as it results in tightly knit subpopulations adverse to immunizations and thus without vaccinations.⁸⁹

This phenomenon is shown more clearly through individualized school statistics: measurements of state and county vaccination exemption rates tend to fall well below ten percent,⁹⁰ but some individual schools drop far below the “herd immunity” threshold.⁹¹ For example, within Watauga County, where the exemption rate among newly enrolled kindergarteners is 4.7 percent, Two Rivers Community School, a tuition-free, public charter school in Boone, had a 23.5 percent religious exemption rate.⁹² Where individual communities fall below the threshold, they face an elevated risk of infection,⁹³ as shown by the 2018 chickenpox outbreak at the Asheville Waldorf School, where 110 of the 152 students had not received the chickenpox vaccination.⁹⁴

If this trend continues, and nonmedical exemptions continue to increase,⁹⁵ specifically within geographic clusters, then herd immunity will fail in specific communities, allowing preventable communicable diseases to “spread like

⁸⁷The non-medical exemptions tend to cluster in charter and private schools. We have schools where exemption rates are extremely high into the 20, 30 percent; even 60 percent range.”).

⁸⁸ *Id.*

⁸⁹ See Marcel Salathé & Sebastian Bonhoeffer, *The Effect of Opinion Clustering on Disease Outbreaks*, 5 J. ROYAL SOC'Y INTERFACE 1505, 1505 (2008).

⁹⁰ Paul Fine, Ken Eames & David L. Heymann, “Herd Immunity”: *A Rough Guide*, 52 CLINICAL INFECTIOUS DISEASES 911, 914 (2011).

⁹¹ See 2017-2018 Kindergarten Immunization Reporting Data by School, *supra* note 77.

⁹² *Buncombe County Vaccination*, *supra* note 79 (“At N.C Virtual Academy and North Carolina Connections Academy, both in Durham County, rates of religious exemption were 12.8 percent and 13.6 percent, respectively. At Emerson Waldorf School in Orange County 28 percent claimed the religious exemption. Wake County has six schools where the rate of religious exemption was in double digits.”).

⁹³ See 2017-2018 Kindergarten Immunization Reporting Data by School, *supra* note 77; see also *Two Rivers Community School*, <https://trcsboone.org/> [<https://perma.cc/R5QG-BZQH>] (providing background information on the institution).

⁹⁴ See Brosseau, *supra* note 85.

⁹⁵ Sam DeGrave, *A Leader in Vaccine Exemption, Asheville Waldorf Has NC's Worst Chickenpox Outbreak Since '95*, ASHEVILLE CITIZEN TIMES (Jan. 9, 2019), <https://www.citizen-times.com/story/news/local/2018/11/16/asheville-waldorf-chickenpox-outbreak-ncs-largest-decades/2024694002/> [<https://perma.cc/E3LB-3K8C>].

⁹⁶ Louis R. Caplan, *Vaccination Policies and Rates of Exemption from Immunization, 2005–2011*, 367 NEW ENG. J. MED. 1170, 1171 (2012).

wildfire.”⁹⁶ A continuation of the religious exemption loophole means North Carolina will increasingly encounter outbreaks of preventable diseases.

III. RECOMMENDING SOLUTIONS

North Carolina’s failure to adequately define or enforce a “bona fide religious belief” requirement has allowed individuals to use the exemption for a variety of nonreligious beliefs.⁹⁷ The religious exemption rate continues to climb, which continues to put the public health in danger.⁹⁸ In fact, the danger to public health has become so alarming that former U.S. Food and Drug Administration Commissioner Scott Gottlieb strongly considered federal intervention in some states’ vaccine exemptions, including North Carolina.⁹⁹ Now is the time for North Carolina to act at a state level and make needed changes to its vaccine exemptions to benefit the public health and prevent a major disease outbreak.

A. *Correcting North Carolina’s Dangerous Trend: Implementing Legislative Changes*

North Carolina’s next step should be to implement change at a legislative level: amend the current law to ensure better protection of public health. Whether by defining “bona fide religious belief” or entirely revoking the religious exemption, the North Carolina General Assembly must take active steps to protect public health.

1. Defining “Bona Fide Religious Beliefs”

To begin, the General Assembly could keep the religious exemption, and simply pass legislation defining bona fide religious beliefs. Ideally, this would allow school and childcare facility officials to review exemption requests. Additionally, this would provide greater clarity to the public as to what falls

96. See *Buncombe County Vaccination*, *supra* note 79.

97. See Quillin, *supra* note 69 (“[P]ublic health officials and anti-vaccine advocates agree that the exemption is being claimed by parents whose true objection to the shots has nothing to do with faith. ‘I’ve had parents tell me they use it because there is no way for the state to decline it,’ said Sen. Jeff Tarte, a Republican from Mecklenburg County.”); see also *North Carolina Exemption Information*, PEOPLE ADVOCATING VACCINE EDUC., <https://vaccineeducation.org/217-2> [<https://perma.cc/954K-EGMF>] (responding to a frequently asked question of whether religious exemptions can be denied and answering, “Not legally. A judge may rule against you, but no judge can rightfully deny your claim to a religious exemption”).

98. See *supra* Section II.B–C.

99. See Marilyn Haigh, *FDA Head Says Federal Government May Take Action if States Don’t Adjust Lax Vaccine Exemption Laws*, CNBC (Feb. 21, 2019), <https://www.cnbc.com/2019/02/21/fda-head-says-federal-government-may-take-action-if-states-dont-adjust-lax-vaccine-exemption-laws.htm> [<https://perma.cc/9WMM-ZYQL>]. This Recent Development will not discuss the separate issues that would surely stem from a federal encroachment of state vaccination law, as its focus is solely upon actions that North Carolina may take, but it certainly provided the impetus for states to act.

under that exemption, and might help some individuals to understand whether their beliefs actually qualify for the exemption. Where policies for exemptions are more rigorous, compliance with vaccination requirements tends to be higher.¹⁰⁰ Yet, a mere definition is unlikely to actually change the overall usage of the exemption, so long as it remains unenforced.¹⁰¹ This is particularly true if the statute continues to state such an exemption is valid “upon submission.”¹⁰²

This suggestion is also fraught with several moral and legal concerns. Defining bona fide religious belief with the understanding that the definition would be used to review submissions’ validity would essentially allow officials, acting as state agents, to decide whether individual beliefs were actually religious or simply philosophical or personal in nature. This type of review of religious belief establishes potentially dangerous precedent, signifying that state review of acceptable religious beliefs is valid. Understandably, officials are also unlikely to want to leave questions of religious validity open to their own interpretation for fear of public backlash.¹⁰³ Beyond just these moral concerns, such language would almost certainly lead to legal challenges.¹⁰⁴ A legal challenge might find the wording of the statute unconstitutional and result in its repeal.¹⁰⁵ Accordingly, updating the language of the statute to define, or allow for introspection into, bona fide religious beliefs is not recommended.

2. Eliminate the Religious Exemption

If North Carolina wants to ensure that it can continue to protect public health by maintaining vaccination rates above the necessary thresholds for herd immunity, then the state government must pass legislation that eliminates the religious exemption. North Carolina would not be the first state to eliminate the religious exemption.¹⁰⁶

100. See Y. Tony Yang & Ross D. Silverman, *Legislative Prescriptions for Controlling Nonmedical Vaccine Exemptions*, 313 J. AM. MED. ASS’N 247, 247 (2015).

101. See Quillin, *supra* note 69 (stating that individuals use the exemption even though they realize their belief is not based in religion, because they can get away with it).

102. See *supra* Section II.B; see also N.C. GEN. STAT. § 130A-157 (2019).

103. Kaplan & Simpson, *supra* note 51 (showing that public officials are already afraid of eliminating the religious exemption, but even more so determining whose belief is validly religious or not).

104. See, e.g., Jimmy Vielkind, *Vaccination Foes Ask Judge To Strike Down Law Banning Religious Exemptions*, WALL STREET J. (Aug. 14, 2019), <https://www.wsj.com/articles/vaccination-foes-ask-judge-to-strike-down-law-banning-religious-exemptions-11565811938> [<https://perma.cc/9HQ9-G6QX> (dark archive)].

105. See, e.g., *Sherr v. Northport-East Northport Union Free Sch. Dist.*, 672 F. Supp. 81, 89 (E.D.N.Y. 1987) (holding that the religious exemption statute limiting religious exemptions to “bona fide members of a recognized religious organization” violated the First Amendment); see also *Brown v. Stone*, 378 So. 2d 218, 233 (Miss. 1979) (holding that the religious exemption in question violated the Fourteenth Amendment and was thus void).

106. Maine, New York, and California have all eliminated their exemption through statutory changes. California eliminated its exemption in 2015, while Maine and New York followed suit in early

California, for example, allows only medical exemptions from its vaccine requirements.¹⁰⁷ Following a large measles outbreak traced back to Disneyland, the California State Legislature proposed and passed a law that eliminated all other exemptions. As a result, during the 2014–15 school year, only “90.4% of kindergartners in California public schools were fully immunized,” but by the 2017–18 school year, 95.1 percent had all of their immunizations.¹⁰⁸ Within three years of the bill’s passage, immunization rates had increased a sizeable amount.

However, “the elimination of personal belief exemptions was offset to some degree by an increase in medical exemptions. Prior to the passage of SB277, only 0.2% of students had a medical exemption By 2017-18, that figure had more than tripled, to 0.7%.”¹⁰⁹ Part of that increase is believed to be legitimate; as the easier-to-obtain exemptions closed, those with genuine medical exemptions switched over to the medical exemption.¹¹⁰ Unfortunately, a portion of the rise is believed to stem from illegitimate uses. One study noted that “counties that had high [personal belief exemption] rates before SB277 also had the largest increases in medical exemptions during the first year of SB277 implementation.”¹¹¹ More concerning were the physicians who “[wrote] medical exemptions for children without scientifically justified medical contraindications to vaccines.”¹¹²

Even still, the early improvement in California’s vaccination rate indicates eliminating the religious exemption may successfully increase vaccination rates in North Carolina. And California has since cracked down on potentially erroneous exemptions, passing a new law that provides for additional review of medical exemptions by public health officials and eliminating physicians’ abilities to collect payment for issuing such waivers.¹¹³ The best way North Carolina can ensure whooping cough, chickenpox, and measles outbreaks are minimized or prevented altogether in the state is to follow California’s lead and pass legislation that eliminates the religious exemption.

2019 as the United States saw its highest number of measles cases in twenty-seven years. See *New York Eliminates Religious Exemption to Vaccine Requirements*, ASSOCIATED PRESS (June 13, 2019), <https://www.nbcnews.com/health/kids-health/new-york-eliminates-religious-exemption-vaccine-requirements-n1017431> [<https://perma.cc/G977-RYKP>].

107. See *States with Religious and Philosophical Exemptions from School Immunization Requirements*, *supra* note 59.

108. See Karen Kaplan, *Here’s What Happened After California Got Rid of Personal Belief Exemptions for Childhood Vaccines*, L.A. TIMES (Oct. 29, 2018), <https://www.latimes.com/science/sciencenow/la-sci-sn-vaccine-medical-exemptions-20181029-story.html> [<https://perma.cc/N5CB-HX7X>].

109. *Id.*

110. *Id.*

111. Salini Mohanty et al., *Experiences with Medical Exemptions After a Change in Vaccine Exemption Policy in California*, 142 PEDIATRICS 1, 2 (2018).

112. *Id.* at 8.

113. See Elizabeth Aguilera, *Five Things To Know Now About California’s New Vaccine Law*, CALMATTERS (Sept. 15, 2019), <https://calmatters.org/health/2019/09/california-new-law-vaccination-medical-exemption/> [<https://perma.cc/598H-MUBQ>].

This proposed solution has already been tried once within the past five years in North Carolina, but it is time to try again. In 2015, a bill was proposed in the North Carolina General Assembly to help improve vaccination levels throughout the state.¹¹⁴ The bill sponsors were concerned that the rapid increase in exemptions would ultimately lead to widespread harm.¹¹⁵ One portion of that bill, entitled “Enact Stricter Immunization Requirements,” sought to repeal the religious exemption in its entirety.¹¹⁶ In doing so, effectively all children, minus those with genuine medical exemptions, would be required to receive the vaccinations defined in North Carolina regulations. Though the bill passed its first reading, it was sent to Committee, and was never given a second vote.¹¹⁷

Unfortunately, the bill faced stark public opposition.¹¹⁸ Much of that opposition stemmed from grassroots organizations and individuals across the state.¹¹⁹ Opponents expressed concern over the dangers of vaccines and concerns with infringement on individual religious liberty.¹²⁰ At one protest, proponents of the bill were “[s]urrounded by children . . . [holding] signs comparing mandatory vaccination to Nazi Germany, war crimes and terrorism.”¹²¹ The public outcry was strong enough to kill the bill. The sponsoring senators decided not to move it forward after its initial introduction: “After hearing

114. See S.B. 346, Gen. Assemb. of N.C., Sess. 2015 (N.C. 2015).

115. Laura Leslie, *NC Vaccine Bill Dead*, WRAL (Apr. 1, 2015), <https://www.wral.com/nc-vaccine-bill-dead/14554219/> [<https://perma.cc/KZ45-QF8B>] [hereinafter *NC Vaccine Bill*] (“Sponsors cited concerns about the growing number of children whose parents were using the religious exemption to opt them out of vaccination requirements.”); Jim Morrill, *NC Senate Bill Would Make Childhood Vaccinations Mandatory*, NEWS & OBSERVER (Raleigh Mar. 19, 2015), <https://www.newsobserver.com/news/politics-government/state-politics/article15402488.html> [<https://perma.cc/6PPJ-ZNMR>] (“‘The intent is not to violate religious freedom in any way, shape or form,’ Sen. Jeff Tarte said at a news conference. ‘(But) your rights stop at the point you start impinging on anybody else’s rights.’”). The bill was sponsored by a mix of Republican and Democratic Senators, including Senators Tarte, Barringer, Van Duyn, Bryant, and Robinson, representing everywhere from Buncombe to Guilford to Mecklenburg counties. S.B. 346, Gen. Assemb. of N.C., Sess. 2015 (N.C. 2015).

116. Morrill, *supra* note 115.

117. *Senate Bill 346*, N.C. GEN. ASSEMBLY, <https://www.ncleg.gov/BillLookup/2015/S346> [<https://perma.cc/LZ5H-5DEY>].

118. Carter Coyle, *Proposed Bill Would Prevent Religious Exemption for Vaccinating Children*, FOX 8 (Mar. 20, 2015), <https://myfox8.com/2015/03/20/proposed-bill-would-prevent-religious-exemption-for-vaccinating-children> [<https://perma.cc/5HN5-8RQ8>]; see *NC Vaccine Bill*, *supra* note 115.

119. See Coyle, *supra* note 118; see also *Legislative Update*, PEOPLE ADVOCATING VACCINE EDUC. (2019), <https://vaccineeducation.org/legislative-update/> [<https://perma.cc/TV4X-YDGF>] (“Many parents from across the state turned out to protest SB-346.”).

120. See Coyle, *supra* note 118 (explaining how one opponent shared concerns about the agenda behind the bill, as well as fear of risk of vaccinations in making children ill); *NC Vaccine Bill*, *supra* note 115 (“But opponents decried the bill as governmental overreach and said the proposal violated parental rights as well as the constitutional right to free exercise of religion.”).

121. Laura Leslie, *Vaccine Opponents Make Their Case*, WRAL (Mar. 27, 2015), <https://www.wral.com/vaccine-opponents-make-their-case/14536537> [<https://perma.cc/NME9-FFQ8>].

serious concerns about stricter vaccine and immunization requirements from our constituents and from citizens across the state, we have decided we will not move forward with Senate Bill 346. The vaccine bill is dead.”¹²²

Hopefully, public outcry will be different this time around as public sentiment nationally has shifted in favor of mandatory vaccinations.¹²³ Recent outbreaks of measles in New York and California have publicized the dangers of religious exemptions.¹²⁴ Legislators also have a responsibility to ensure public health and that the most vulnerable individuals remain protected. Currently, the religious exemption prevents that. The General Assembly needs to re-introduce, and pass, legislation that eliminates the religious exemption.

3. Potential Legal Challenges¹²⁵

It is important to note that the above legislative changes might be seen as infringing on constitutional protections. Interestingly, elimination of the religious exemption entirely is likely to pass constitutional muster.¹²⁶ *Jacobson v. Massachusetts*,¹²⁷ the quintessential Supreme Court case on a state’s ability to mandate compulsory vaccination, found that Massachusetts had such power to

122. *NC Vaccine Bill*, *supra* note 115.

123. See HART RESEARCH ASSOCS., STUDY #19175 (Apr.-May 2019), <https://www.documentcloud.org/documents/5989185-19175-NBCWSJ-April-May-Poll.pdf> [<https://perma.cc/CX4P-GYWT>] (suggesting seventy-two percent think vaccinations should be mandatory); Sara Dutton et al., *CBS News Poll on Vaccines and the Measles Outbreak*, CBS NEWS (Feb. 20, 2015 7:00 AM) <https://www.cbsnews.com/news/cbs-news-poll-on-vaccines-and-the-measles-outbreak/> [<https://perma.cc/W4RX-C9EZ>] (suggesting that number at sixty-six percent nationally). A September 2019 poll from the Harvard T.H. Chan School of Public Health and SSRS found “that Americans broadly support (84%) requirements for parents to have children vaccinated against preventable diseases like measles, mumps, and rubella in order to attend school.” Press Release, Harvard T.H. Chan Sch. of Pub. Health & SSRS, Poll Finds Public Support for School-Based Vaccination, but Limited Trust in Vaccine Safety and Public Health Agencies (Sept. 12, 2019), <https://www.hsph.harvard.edu/news/press-releases/poll-finds-public-support-for-school-based-vaccination-but-limited-trust-in-vaccine-safety-and-public-health-agencies/> [<https://perma.cc/P2GB-ULBQ>].

124. See Jacqueline Howard, *New York City Measles Outbreak Has Ended, Health Officials Say*, CNN (Sept. 3, 2019), <https://www.cnn.com/2019/09/03/health/new-york-city-measles-outbreak-over-bn/index.html> [<https://perma.cc/LJ39-GQ4K>]; *Measles Cases and Outbreaks*, CTRS. FOR DISEASE CONTROL & PREVENTION, <https://www.cdc.gov/measles/cases-outbreaks.html> [<https://perma.cc/698P-V8RE>] (showing recent stories and numbers on the outbreak of measles nationwide); Jennifer Zipprich et al., *Measles Outbreak—California, December 2014–February 2015*, CTRS. FOR DISEASE CONTROL & PREVENTION (Feb. 20, 2015), <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6406a5.htm> [<https://perma.cc/8NQE-5ULT>].

125. This section will not discuss all of the potential legal challenges to such legislative changes but will review a few of the most likely and relevant concerns. There is simply insufficient time to debate every legal challenge that might be proposed regarding to such statutory changes.

126. See *Jacobson v. Massachusetts*, 197 U.S. 11, 38 (1905); see also Linda LeFever, *Religious Exemptions from School Immunization: A Sincere Belief or a Legal Loophole?*, 110 PA. ST. L. REV. 1047, 1057 (2006).

127. 197 U.S. 11 (1905).

do so through use of the police powers.¹²⁸ In its analysis, the Court determined that “[t]here are manifold restraints to which every person is necessarily subject for the common good,” and that “a community has the right to protect itself against an epidemic of disease which threatens the safety of its members.”¹²⁹ Four main criteria were set forth by the Court in determining whether the a state’s compulsory vaccination laws are constitutional. First, the Court noted that the law must react to some public health necessity.¹³⁰ Second, there must be a reasonable relationship between the intervention and the public health objective.¹³¹ Third, the regulation must be proportional to the risk.¹³² Finally, the Court recognized that the regulation itself should avoid causing harm.¹³³ Under those guidelines, the Court determined that the Massachusetts compulsory vaccination law, which did not provide for a religious exemption, did not “invade[] *any right* secured by the Federal Constitution.”¹³⁴

However, a change to the law that allows for the review of what actually constitutes a religious belief by state actors might face additional constitutional challenges, like violation of the Establishment Clause. As an example, a prior New York statute allowed for religious exemptions from vaccinations, but only when parents were “bona fide members of a recognized religious organization” that had doctrine opposing immunization.¹³⁵ That provision was ultimately held unconstitutional in *Sherr v. Northport-East Northport Union Free School District*,¹³⁶ not because it allowed for inquiry into religious beliefs, but because it only allowed for beliefs from *state*-recognized religious organizations.¹³⁷ The court in *Sherr* stated that there was no need for a “lengthy citation or analysis of case law construing the establishment clause,” because it was clear that the statute’s “limitation of a religious exemption from vaccination to those who are members

128. *Jacobson*, 197 U.S., at 24–25.

129. *Id.* at 26–27.

130. *See id.* at 25 (“The state may invest local bodies . . . with authority in some appropriate way to safeguard the public health and the public safety.”).

131. *See id.* (“[T]he 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.”).

132. *See id.* at 38 (acknowledging that there are uses of the police power so disproportionate to its purpose, “so arbitrary and oppressive . . . as to justify the interference of the courts to prevent wrong and oppression”).

133. *See id.* at 38–39 (“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. We are not to be understood as holding that the statute was intended to be applied to such a case, or, if it was so intended, that the judiciary would not be competent to interfere and protect the health and life of the individual concerned.”).

134. *Id.* at 38 (emphasis added).

135. N.Y. PUB. HEALTH LAW § 2164(9) (2018).

136. 672 F. Supp. 81 (E.D.N.Y. 1987). The state chose not to appeal this decision.

137. *Id.* at 89.

of *recognized* religious organizations is blatantly violative of that First Amendment guarantee.”¹³⁸

Finally, there is always the potential that opponents to changes to, or eliminations of, the religious exemption might bring new and unique lawsuits. For example, opponents to the religious exemption revocation in New York filed suit alleging such a change conflicted with the federal Individuals with Disabilities Education Act.¹³⁹ Because of the near certainty that any change to the religious exemption will result in legal challenges,¹⁴⁰ the North Carolina General Assembly should implement additional public health interventions simultaneously that might help to initially reduce exemption rates.

B. *Concurrent Public Health Interventions*

Research suggests that improving accessibility to vaccines will help raise vaccination rates.¹⁴¹ First, North Carolina could implement a state-run “reminder system.”¹⁴² If the state were to “‘centralize’ the [reminder] process so that a coordinating agency (such as a health department) [could] implement it,” there would be a greater likelihood that individuals would adhere to the vaccination schedule.¹⁴³ With the implementation of NCCARE360¹⁴⁴ across the state, the General Assembly can earmark funds for a vaccination schedule reminder program that might help to actually effectuate this solution.

Second, the state could seek to provide financial incentives for vaccinations. Whether through tax incentives or by “providing vaccines for free to the uninsured,” financial incentives are options to mitigate the lack of access some individuals face.¹⁴⁵ In fact, North Carolina has already implemented a

138. *Id.* (emphasis added).

139. Dan M. Clark, *Attorneys Drop Federal Challenge to NY Law Ending Religious Exemptions to Vaccines*, N.Y. L.J. (Aug. 26, 2019) <https://www.law.com/newyorklawjournal/2019/08/23/attorneys-drop-federal-challenge-to-ny-law-ending-religious-exemptions-to-vaccines/?slreturn=20200028122121> [<https://perma.cc/P9U4-EUCW>]. Because these suits are still pending, and recently so, this Recent Development will not get into the specifics of such legal arguments.

140. In order to ensure this Recent Development stays somewhat on topic, it will not dive into the scope of legal challenges to compulsory vaccination laws. For further insight into potential legal challenges and outcomes, including specifically religious challenges, see generally Erwin Chemerinsky & Michele Goodwin, *Compulsory Vaccination Laws are Constitutional*, 110 NW. U. L. REV. 589 (2016).

141. Julie Leask, *Target the Fence-Sitters*, 473 NATURE 443, 444 (2011) (“For every concerned parent . . . there is another who finds it difficult to get her child immunized on time because of practical barriers such as a lack of transport, money or help to mind other children.”); *see also supra* Section I.C.

142. Ventola, *supra* note 30, at 435.

143. *Id.*

144. *About*, N.C. DEP’T HEALTH & HUM. SERVS., <https://www.ncdhhs.gov/about/department-initiatives/healthy-opportunities/nccare360> [<https://perma.cc/F4BE-4F48>]; NCCARE360, <https://nccare360.org> [<https://perma.cc/3LHC-N28T>] (“NCCARE360 provides the opportunity for health to all North Carolinians by providing public access to resources and helping health and community-based organizations make electronic referrals, communicate in real time, securely share client information, and track outcomes together.”).

145. Ventola, *supra* note 30, at 436.

program that offers fee-free vaccinations to certain populations of children, but this program fails to account for any adults lacking vaccinations.¹⁴⁶ Some studies suggest that gift certificates, whether for groceries or baby products, might also encourage individuals to meet scheduled vaccinations.¹⁴⁷ Unfortunately, studies suggest that the provision of free vaccines has only a limited effect, and further research is necessary to figure out what the best strategy might be in offering financial incentives.¹⁴⁸

Third, acting to improve access to accurate information can also beneficially cut down the rate of exemption. Research shows that the greatest impact can be attained by targeting “[f]irst-time pregnant women . . . because first pregnancy is the ‘teachable moment’ and attitudes and beliefs about childhood vaccines are frequently not fully formed at this point.”¹⁴⁹ These information programs should include “peer-led and expert-resourced parent discussion groups; and social-media strategies that address rumours and promote vaccination.”¹⁵⁰ As there are an abundance of resources that perpetuate misconceptions about vaccines, improving access to information can help reduce vaccination hesitancy.¹⁵¹ Information programs should “incorporate community input and Web-based tools for information dissemination” to have their greatest impact.¹⁵²

These options are likely to improve the vaccination rates without removing the religious exemption and should be implemented regardless of what else North Carolina does. Additionally, as these policies do not impact the use of the exemption, they are more likely to receive greater public support. Those who strongly oppose vaccinations due to personal reasons, merely using the religious exemption as a means to an end, will likely still prove problematic if just the less aggressive steps are taken, meaning some pockets of mass exemption will remain.¹⁵³ However, the state has an obligation to protect public health and should provide accurate information and resources to the public. North Carolina should not be dissuaded from taking every step it can to reduce

146. *North Carolina Immunization Program (NCIP)*, *supra* note 32.

147. *Increasing Appropriate Vaccination: Client or Family Incentive Rewards*, CMTY. PREVENTATIVE SERVS. TASK FORCE <https://www.thecommunityguide.org/sites/default/files/assets/Vaccination-Incentive-Rewards.pdf> [<https://perma.cc/3YUS-TWMW>] (last updated July 15, 2015).

148. Amanda F. Dempsey & Gregory D. Zimet, *Interventions To Improve Adolescent Vaccination: What May Work and What Still Needs To Be Tested*, 49 AM. J. PREVENTATIVE MED. S445, S449 (2015).

149. Daniel A. Salmon et al., *Vaccine Hesitancy: Causes, Consequences, and a Call to Action*, 49 AM. J. PREVENTATIVE MED. S391 (2015).

150. Leask, *supra* note 141, at 445.

151. See Edwin L. Anderson, *Recommended Solutions to the Barriers to Immunization in Children and Adults*, 111 MO. MED. 344, 346 (2014).

152. Ventola, *supra* note 30, at 435.

153. Leask, *supra* note 141, at 445 (“Between 3% and 7% of all children are under-vaccinated because their parents refuse some or all vaccines; these parents tend to have intractable views.”).

the vaccination exemption rate to help eliminate the spread of preventable communicable diseases.

CONCLUSION

North Carolina's religious exemption, undefined as it is, has allowed for flagrant abuse of its provisions. In its most practical application, it is overinclusive and allows residents—based upon any personal reason—to simply submit a statement claiming a religious belief, without enumerating any belief, in order to receive an exemption from compulsory vaccinations without any oversight. As a result, North Carolina's religious exemption rates have been increasing, leaving some communities and individuals dangerously vulnerable to the communicable diseases the same vaccinations were designed to prevent.

The North Carolina General Assembly must act now to ensure the religious exemption is not abused further. The most clear-cut way forward, and most likely to be upheld in court, is to pass legislation that revokes the religious exemption in its entirety. North Carolina should simultaneously ensure it incorporates additional public health interventions to provide adequate outreach to those who might misconstrue the importance of such a change. To fail to do so is to ignore the incredible risk such an unchecked exemption poses to the public health.

BRIAN CHAMPION**

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