

POLICY BRIEF: MANDATORY VACCINATIONS FOR PUBLIC HEALTH

Jessica Heitzman

EXECUTIVE SUMMARY: Once considered a triumph of public health, immunizations have fallen victim to rumor and skepticism while scientific evidence takes a back seat; Washington state legislation needs to take action and eliminate all non-medical exemptions for vaccinations. Recently, Washington has reacted to a nationwide measles outbreak by tightening exemptions on the measles, mumps and rubella (MMR) vaccine to exclude personal and philosophical reasons, but still allows for religious and medical reasons (Caron, 2019). However, will this be the case for every disease outbreak, a reactionary response? We can choose to act now and save lives and costs by eliminating all but medical exemptions from immunizations for public and private schools as well as early childcare. “Vaccines can prevent infectious diseases that once killed or harmed many infants, children, and adults. Without vaccines, your child is at risk for getting seriously ill and suffering pain, disability, and even death from diseases like measles and whooping cough” (Centers for Disease Control and Prevention [CDC], 2019). The dangers of not instituting stricter requirements include outbreaks of preventable contagious diseases among healthy individuals, susceptibility of the medically vulnerable, and extraordinary healthcare costs. In a single year the economic burden of diseases in the United States that are preventable with vaccines are estimated at \$9 billion (Ozawa et al., 2016). The focus for vaccination needs to begin with public schools, private schools, and childcare centers because they are not only a potentially vulnerable population, the individuals are in close proximity to one another and the environments are perfect vectors for transmission of contagious diseases. Additionally, requiring immunizations of the young will target whole generations and substantiate a foundation for disease eradication.

Background & Significance

Vaccines trace their origin to the late 18th century and since then have been studied, improved, and developed to eliminate debilitating and deadly diseases, improving public health and quality of life for millions across the globe. Unfortunately, in the late 1990s a physician published a study that linked vaccinations to autism; this has since been debunked and the physician stripped off his medical license. While skepticism has been around since the origin of immunizations, this effectively sparked the fire that has raged into the anti-vaccine movement scientists are up against today. This movement, and activists that support this, make false claims about the science and ingredients of vaccines. If children

are unable to attend school because they are suffering from a preventable disease, that grossly impacts education for many and can in turn impact quality of life. The fearmongering and uncertainty for parents adds to their stress when seeking the right decisions for their children’s health; the anti-vaccine movement has even gone so far as to target certain minority groups (Caron, 2019). Due to the decline in vaccination rates the World Health Organization has listed this among the top 10 greatest global health threats (Berg, 2019).

Currently the Washington Administrative Code requires that a child be vaccinated against or show proof of immunity for eleven preventable diseases: Chickenpox (Varicella), Diphtheria, German Measles (Rubella),

Haemophilus influenzae type B disease, Hepatitis B, Measles (Rubeola), Mumps, Pneumococcal disease, Polio (Poliomyelitis), and Whooping cough (Pertussis) (Washington State Legislature [WSL], 2014). However, parents can choose to exempt their children from any vaccine except MMR (only religious or medical) for personal, philosophical, or religious reasons (Washington State Department of Health [WSDOH], n.d.). This does not cast a wide enough net of protection for the health of the general public. Some diseases have been completely eradicated from parts of the world and now we see a resurgence as fewer people are being vaccinated. The Centers for Disease Control and Prevention (CDC, 2019) reports, “The United States has had more than 1,000 cases of measles in 2019. This is the greatest number of cases reported in the U.S. since 1992 and since measles was declared eliminated in 2000.” Protecting the entire population from infancy with legislative measures for this public health initiative should be a high priority and action must be taken promptly.

Opposing Arguments

Loopholes currently exist to vaccination regarding religion, personal beliefs, and philosophical beliefs which are compounded by theories that vaccines themselves or certain ingredients are unsafe. Also, there is the concern that there are plots between pharmaceutical companies and government entities that drive mandatory vaccine legislation (Gutierrez, Luna, & Myers, 2019). The anti-vaccine movement has a lot of power behind it with adamant political opponents and celebrities. Even a google search with the word vaccine yields conflicting results. Another challenge with creating mandatory vaccination legislation is the cost to low income families, a problem for which the CDC has already developed a solution.

Religious groups condone the risk versus benefit approach to vaccination, accepting what is best for all. If there are components that are

not generally acceptable, such as ingredients containing pork in Islamic law, but there is not an acceptable alternative to the vaccine, the vaccine supports the greater good and health of the community and is thus acceptable to receive (Pelčić et al., 2016). According to McNeil (2019b), “[r]eligious authorities have meticulously studied how vaccines are made and what is in them, and still have ruled that they do not violate Jewish, Islamic or Catholic law.” While Catholic law represents a large Christian denomination, others including Mormons, Episcopalians, Lutherans, and others endorse vaccinations including requiring that school children be vaccinated and affiliated hospitals distribute them (McNeil, 2019b). To this end, it can be surmised that personal opinions exist among individual factions, not the religious body, and does not justify the risk to population health. As Pelčić et al. (2016) states, “[t]he majority of religions respect life as a basic value and therefore oppose the use of vaccines derived from aborted human fetuses (Catholicism) or any form of life (Buddhism). But if these vaccines serve to protect many more lives they are permitted” (p. 520). The biggest concern with religious exemptions is the potential for a disease to spread among unvaccinated communities. For example, a measles outbreak in New York in 2019 was attributed to Orthodox communities, who widely dispel vaccination. This is the same year Members of the community had traveled to Israel and contracted the highly contagious disease, allowing their communities to be vectors for the wider population (McNeil, 2019a).

Careful improvements and changes to vaccinations over more than two centuries have helped to ensure the safety and availability of vaccinations. Adverse reactions to vaccinations are very rare and closely monitored by the CDC. In fact, the chances of having a serious reaction to a vaccine are 1 in a million, and the reportedly dangerous ingredients in vaccinations are commonly found in everyday items or exist in similar quantities inside our own bodies (CDC,

2019).

Furthermore, while there may be benefits for pharmaceutical companies if there is a surge in vaccinations, the benefits are undoubtedly more favorable for the public and are cost effective. The cost to receive a vaccine is substantially lower than the cost of medical care after contracting a preventable disease. To this end, insurance companies cover the cost of most vaccinations, but the CDC has the Vaccines for Children Program (VFC). The VFC covers the cost for kids who are under 19 years of age and fall under any of the following: Medicaid-eligible, uninsured, underinsured, and American Indian or Alaskan Native (CDC, 2016).

Implications & Recommendations

Vaccinations are a safe, effective, fiscally responsible solution to potential outbreaks of preventable diseases that can have life limiting and lethal consequences. Mandating immunizations for public schools, private schools, and childcare centers, and eliminating all non-medical exemptions for required vaccines establishes an essential foundation for the future of public health. Allowing the anti-vaccine movement to continue to gain momentum and permitting accessibility to loopholes can propagate a healthcare crisis, just like the measles outbreak in Washington in 2019, can occur at any time. If there is an opportunity to potentially eradicate vaccine-preventable diseases the time is now, before another outbreak has us wishing we would have done something sooner.

References

- Berg, S. (2019, November). Restoring trust in vaccines. *American Medical Association Moving Medicine Magazine*, 13-18.
- Caron, C. (2019, June 14). Vaccine laws are changing. Here's what you need to know. *The New York Times*. Retrieved from <https://parenting.nytimes.com/health/vaccine-exemptions-measles>
- Centers for Disease Control and Prevention. (2016). About VFC. Retrieved from <https://www.cdc.gov/vaccines/programs/vfc/about/index.html>
- Center for Disease Control. (2019). Making the vaccine decision: Addressing common concerns. Retrieved from <https://www.cdc.gov/vaccines/parents/why-vaccinate/vaccine-decision.html>
- Gutierrez, M., Luna, T., & Myers, J. (2019, September 22). The hidden battle over California's new vaccine law. *Los Angeles Times*. Retrieved from <https://www.latimes.com/california/story/2019-09-21/sb276-california-vaccine-law-fight-gavin-newsom-legislature-how-it-happened>
- McNeil, D. G. (2019a, April 24). Measles outbreak infects 695, highest number since 2000. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/04/24/health/measles-outbreaks-us.html>
- McNeil, D. G. (2019b, April 26). Religious objections to the measles? Get the shots, faith leaders say. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/04/26/health/measles-vaccination-jews-muslims-catholics.html?module=inline>
- Fombonne, E. (2009). Epidemiology of pervasive developmental disorders. *Pediatric Research*, 65(6), 591-598. doi:10.1203/pdr.0b013e31819e7203
- Ozawa, S., Portnoy, A., Getaneh, H., Clark, S., Knoll, M., Bishai, D.,...Patwardhan, P. D. (2016). Modeling the economic burden of adult vaccine-preventable diseases in the United States. *Health Affairs*, 35(11). doi: 10.1377/hlthaff.2016.0462
- Pelčić, G., Karačić, S., Mikirtichan, G. L., Kubar, O. I., Leavitt, F. J., Tai, M. C.,... Tomašević, L. (2016). Religious exception for vaccination or religious excuses for avoiding vaccination. *Croatian Medical Journal*, 57, 516-521.
- Washington State Department of Health. (n.d.). School and childcare immunization. Retrieved from <https://www.doh.wa.gov/CommunityandEnvironment/Schools/Immunization#laws>