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# Health for All: Using Utilitarianism to Require Childhood Vaccinations

Hannah Vercellotti

*Augustana College, Rock Island Illinois*

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Health for All: Using Utilitarianism to Require Childhood Vaccinations

Hannah Vercellotti

RELG 326

Augustana College Box #2432

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## Health for All: Using Utilitarianism to Require Childhood Vaccinations

### Part I: Introduction

Imagine living in the early 1700's when infectious diseases were the most common causes of death. Unfortunately, it was normal for neighbors, friends, parents, and even children to contract and die from diseases like measles, typhoid, and malaria. Today, we are rarely forced to witness the effects of these horrible illnesses thanks to Edward Jenner's discovery of the vaccine in 1796. Vaccines consist of small doses of weakened or dead germs that are injected into the body to imitate an infection. This imitation does not lead one to become sick. It causes the immune system to fight off what it thinks is the real infection, so that the body can successfully fight off the real disease if needed in the future.<sup>1</sup> Vaccines are not only designed to protect individuals against diseases, but also to protect large groups of people from them. Because an individual who gets vaccinated will not contract certain illnesses, it is impossible for them to introduce said illnesses to others. Thus, when most people in a community choose to vaccinate, their chances of bearing witness to the perils of infectious diseases are drastically reduced. In fact, through the implementation of a global immunization initiative, smallpox was successfully eradicated in the 1980's.

Considering the fact that it is possible to eradicate infectious diseases, it may be surprising to learn that in recent years, increasing numbers of American and European parents have decided not to vaccinate their children. In defense of their decision, some parents cite conflicting religious beliefs while others emphasize the risks associated with vaccination. Regardless of the explanation given, parents' decisions to forgo vaccinating their children have

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<sup>1</sup> "Making the Vaccine Decision," U.S. Department of Health and Human Services, last modified September 27, 2017, <https://www.cdc.gov/vaccines/parents/vaccine-decision/index.html>

introduced serious illnesses back into their communities. In the first six months of 2018, there were more than 40,000 cases of measles reported across Europe. This is an incredibly significant increase, as it is already 16,000 cases more than what was reported throughout 2017. The numbers reported in the United States are not as tragic, but still show a significant increase compared to the last few years.<sup>2</sup> With these horrible, deadly diseases making a comeback that could easily be prevented, action must be taken to stop it. Despite religious beliefs and risks associated with vaccinations, state laws should require all children to get vaccinated unless doing so would cause direct harm to the child's health. This mandate adheres to the principle of utilitarianism in that the maximum number of people would benefit from immunity to serious, potentially deadly diseases.

## Part II: The Vaccine Controversy

Before arguing for an entirely new legislation, it is necessary to first understand the current laws and policies regarding vaccinations. Because healthcare is not mentioned at all in the Constitution, legislation surrounding vaccines is a matter of state discretion. Currently, all states have laws in place that require certain populations to get vaccinated against a host of diseases. These include children in public and private schools, children in daycare settings, college students, and healthcare professionals.<sup>3</sup> However, almost all states allow vaccine exemptions for medical or religious reasons, and some allow exemptions for philosophical beliefs. Many also have laws in place that define expectations of non-vaccinated children if

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<sup>2</sup> Jeffrey Kluger, "Why is measles returning to some places and not others?" *Time* 192, no. 9-10 (2018): 10.

<sup>3</sup> State School and Childcare Vaccination Laws," U.S. Department of Health and Human Services, last modified April 28, 2017, <https://www.cdc.gov/phlp/publications/topic/vaccinations.html>

outbreaks occur. For instance, some states forbid non-vaccinated children from attending school in the event of an outbreak.<sup>4</sup> Medical exemptions for vaccines are straightforward; children who would be subjected to direct harm if vaccinated against a certain disease are not required to get the said vaccination. For example, children who are allergic to a vaccine component or are severely immunocompromised are not required to obtain certain vaccinations because the vaccines would cause more harm than good to their health. Religious exemptions are a bit more complicated. People who seek these exemptions must explain the specific religious beliefs that conflict with the required immunization. However, most religions do not explicitly forbid parishioners to obtain vaccinations. The main problems, specifically for Christians and Buddhists, occur when vaccine contents are derived from the bodies of aborted fetuses or other forms of life.<sup>5</sup> Philosophical belief exemptions are the vaguest. They essentially state that parents can choose to forgo vaccinating their children based solely on preconceptions and beliefs, regardless of their accuracy. This form of exemption has increased in recent years, and, along with the religious exemption, has caused a great deal of controversy.

The recent controversy surrounding philosophical belief exemptions stems from the fact that parents can refuse to vaccinate for any reason even though doing so leaves not only their child at risk for obtaining infectious diseases, but also others who are unable to receive vaccinations. In 2012, the most common factors parents mentioned regarding their choice to decline vaccinations were related to lack of knowledge about vaccines, fear of side effects, conflicting priorities, low perceived importance of vaccines, and lack of perceived efficacy of

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<sup>4</sup> State School and Childcare Vaccination Laws,” U.S. Department of Health and Human Services, last modified April 28, 2017, <https://www.cdc.gov/phlp/publications/topic/vaccinations.html>

<sup>5</sup> Gordana Pelčić et al., “Religious exception for vaccination or religious excuses for avoiding vaccination,” *Croatian Medical Journal* 57, no. 5 (2016): 520.

vaccines.<sup>6</sup> These explanations are quite concerning; parents mainly opt out of vaccinations because they are neither informed on how vaccines work nor how successful they are at protecting against disease. Here, it is vital to note that these parents are not horrible. Most genuinely want to do what is best for their children, but fear the risks of irreparable, permanent damage that vaccines may cause.<sup>7</sup> Though there are some risks associated with vaccinations, the fact is that most are not serious and merely consist of swelling or redness where the shot was administered.<sup>8</sup> Since most risks associated with vaccines are minor, it is important to emphasize that the risks in not getting them are much more serious. If a child winds up getting an infectious disease, they could die. This simple fact is at the heart of the vaccine controversy. Parents who choose not to vaccinate are placing their child and other unvaccinated children at a much greater risk for illness.

The source of some misunderstanding and fear surrounding vaccinations is likely attributable to the attention given to a false study that found a link between vaccines and autism. In 1998, a physician named Andrew Wakefield conducted the study that found a link between the measles-mumps-rubella (MMR) vaccination and autism.<sup>9</sup> This study was subsequently retracted due to academic fraud; there was no real link between the MMR vaccine and autism. In addition, Wakefield's medical license was revoked. Still, many Americans continue to believe

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<sup>6</sup> Michael Favin et al., "Why children are not vaccinated: A review of the grey literature," *International Health* 4, no. 4 (2012): 231.

<sup>7</sup> Heidi I. Lawrence, "Fear of the Irreparable: Narratives in Vaccination Rhetoric," *Narrative Inquiry in Bioethics* 7, no. 3 (2016): 206.

<sup>8</sup> "Making the Vaccine Decision," U.S. Department of Health and Human Services, last modified September 27, 2017, <https://www.cdc.gov/vaccines/parents/vaccine-decision/index.html>

<sup>9</sup> Jeffrey Kluger, "Why is measles returning to some places and not others?" *Time* 192, no. 9-10 (2018): 10.

that vaccines cause autism. Some celebrities like Jenny McCarthy are partly to blame for this mistaken belief. McCarthy, whose son has autism, has been influential in perpetuating Wakefield's lies. In one of many interviews, she tells the press, "It wasn't until after the MMR [vaccine] he started showing some regression — meaning not talking as much as he used to. In playgroup, he was more by himself."<sup>10</sup> Here, McCarthy explicitly shares her belief that vaccines are to blame for her son's autism. Even though this statement is clearly biased and inaccurate, McCarthy's influence as an actress has led fans to share her beliefs and, as a result, seek vaccine exemptions for their own children. Combined with their already limited knowledge of vaccines, parents are further convinced that vaccinating their children will do more harm than good.

On the other side of the vaccine controversy are people who recognize the importance of vaccines and urge others to vaccinate so that the greatest number of people can be protected against infectious diseases. This stance and cited benefits are the major contributing factors to the proposed thesis. Like mentioned before, the incidence of infectious diseases in the United States has drastically declined since the twentieth century. Smallpox has been completely eradicated while the cases of other illnesses like polio, measles, diphtheria, and rubella have decreased by more than 99%.<sup>11</sup> One must not underappreciate the significance of this accomplishment. Because most Americans have not witnessed the tolls of these infectious diseases, they do not truly understand how important it is to treat them.<sup>12</sup> For example, consider what happens when a person contracts diphtheria. The illness often starts with a sore throat and

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<sup>10</sup> Jenny McCarthy, "Jenny McCarthy: 'We're Not an Anti-Vaccine Movement ... We're Pro-Safe Vaccine,'" *Frontline*, March 23, 2015.

<sup>11</sup> "Vaccine Benefits," National Institute of Allergy and Infectious Diseases, last modified March 6, 2014, <https://www.niaid.nih.gov/research/vaccine-benefits>

<sup>12</sup> Mark Doherty et al., "Vaccine impact: Benefits for human health," *Vaccine* 34, no. 52 (2016): 6707.

fever, then destroys tissue in the respiratory system, making it hard to breathe or swallow. If the infection gets into the blood stream, it also can cause serious damage to the heart, kidneys, and nerves.<sup>13</sup> It is a horrible illness that Americans are extremely fortunate not to have to experience or witness thanks to vaccines. However, vaccines are only effective in preventing and eradicating disease if enough people get vaccinated. This concept is commonly referred to as herd immunity, a method to protect an entire population from a communicable illness by producing a high level of immunity in the group. To achieve herd immunity, about 80% of a population must be immune to the disease in question.<sup>14</sup> If there are not enough people vaccinated, diseases can quickly reappear, and this is exactly what happened with the increasing number of measles cases as described in the introduction. Here, it is also important to note that herd immunity protects individuals who cannot receive vaccinations like children who are too young to receive them or those whose health would be in jeopardy if they were to receive them. Considering this, the proposed thesis allows medical exemptions since they would be harmful to the individual's health, and this small group would still be otherwise protected through herd immunity.

While the main benefit of vaccines is undoubtedly immunity to infectious diseases, high levels of protection also provide numerous economic benefits to individuals and society, further demonstrating the importance of vaccinations. It is common knowledge that when people are healthy, they are better able to reach their full potential and feel satisfied with their lives. Vaccines are a key component in staying healthy, as contracting an infectious disease makes it harder to complete activities of daily living such as playing, learning, and working. In fact,

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<sup>13</sup> "Diphtheria," U.S. Department of Health and Human Services, last modified January 15, 2016, <https://www.cdc.gov/diphtheria/about/symptoms.html>

<sup>14</sup> "Vaccine Benefits," National Institute of Allergy and Infectious Diseases, last modified March 6, 2014, <https://www.niaid.nih.gov/research/vaccine-benefits>

research has found that “preventing disease in childhood is linked to better educational performance and higher earnings later in life.”<sup>15</sup> Without the burdens of sickness holding children back from learning, they can fully participate in school and reap its benefits. Adults must also stay healthy to go to work and earn money to support themselves. For parents specifically, it is important for their children to be healthy so that they can go to work and make money; when children are sick, parents must take time off work to care for them and potentially lose some of their income.<sup>16</sup> From these examples, we see that vaccinating is related to clear economic benefits for individuals. But, these benefits do not stop at the individual; vaccines also lead to many economic benefits for society because it is much cheaper to prevent a disease than to treat it. A 2005 study found that the childhood vaccination schedule resulted in significant cost savings for society. More specifically, the program saved \$9.9 billion in direct costs and \$43.3 billion in societal costs.<sup>17</sup> The benefits are clear; vaccines prevent people from contracting horrible illnesses, help people reach their full potential, and save people money.

### Part III: Utilitarianism

A complete understanding of ethical decision making, and more specifically utilitarianism, is necessary to understand the proposal to change state laws to require all children to receive vaccinations unless it is medically unadvised. In *Navigating Right and Wrong: Ethical*

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<sup>15</sup> Mark Doherty et al., “Vaccine impact: Benefits for human health,” *Vaccine* 34, no. 52 (2016): 6707.

<sup>16</sup> Mark Doherty et al., “Vaccine impact: Benefits for human health,” *Vaccine* 34, no. 52 (2016): 6710.

<sup>17</sup> Fangjun Zhou et al., “Economic Evaluation of the 7-Vaccine Routine Childhood Immunization Schedule in the United States, 2001,” *Archives of Pediatric and Adolescent Medicine* 159, no. 12 (2005): 1136.

*Decision Making in a Pluralistic Age*, Daniel E. Lee distinguishes between two approaches to ethical decision making: deontological and consequentialist. Deontological approaches hold that people have duties, through rules or commands, to act in certain ways while consequentialist approaches assert that ethical decisions should be made based on what is likely to happen in the future. One branch of consequentialism is utilitarianism, which advocates for taking actions that will benefit the greatest number of people.<sup>18</sup> British philosopher, John Stuart Mill popularized this principle in his book *Utilitarianism* by asserting that “actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness. By happiness is intended pleasure, and the absence of pain; by unhappiness, pain, and the privation of pleasure.”<sup>19</sup> Taken together to understand the ethics behind the proposed change to vaccination laws, these sources assert that utilitarianism prescribes taking actions that will produce the greatest amount of happiness for the greatest number of people. Interestingly, doing so sometimes requires sacrificing the interests of a select number of people so that the population as a whole will benefit. Finally, it is important to note the difference between act utilitarianism and rule utilitarianism. The former assesses the potential benefits and drawbacks of one act while the latter assesses the potential benefits and drawbacks in the long-run if everyone were to engage in a certain action.<sup>20</sup> Both forms of utilitarianism are present in the controversy surrounding vaccines. It seems that parents who choose not to vaccinate their children are following act utilitarianism, focusing only on their belief that this will benefit their child. On the other hand,

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<sup>18</sup> Daniel E. Lee, “What Counts as Justice,” in *Navigating Right and Wrong: Ethical Decision Making in a Pluralistic Age*. (New York: Rowman & Littlefield, 2002), 29-31.

<sup>19</sup> John Mill, *Utilitarianism, Liberty, and Representative Government*. (New York: E. P. Dutton and Company, 1951), 8.

<sup>20</sup> Daniel E. Lee, “What Counts as Justice,” in *Navigating Right and Wrong: Ethical Decision Making in a Pluralistic Age*. (New York: Rowman & Littlefield, 2002), 30.

parents who choose to vaccinate their children and recognize the benefit it has for the population are rule utilitarianists. This form of thinking is essential to the proposal to require all children to receive vaccinations.

#### Part IV: Applying Utilitarianism to the Vaccine Controversy

Looking at the vaccine controversy through a utilitarianist perspective, it is clear that changing state legislation to require all children to get vaccinated unless it would cause direct harm to the child's health is the morally correct thing to do. As established in the previous section, utilitarianism advises taking actions that will produce the greatest amount of happiness for the greatest number of people. Requiring vaccinations of all children relates to this principle; there are countless benefits generated when most of the population gets vaccinated. First, recall that when herd immunity is established in a population, it prevents the people in it from contracting communicable diseases. Being sick, especially with communicable diseases like measles and diphtheria, causes pain and discomfort, and can inhibit one from completing tasks of daily living. It produces the reverse of happiness. Thus, requiring all children to get vaccinated certainly adheres to utilitarianism as preventing populations of people from getting sick from infectious diseases produces the greatest amount of happiness. In addition to the prevention of communicable disease, remember that there are clear economic benefits to society that stem from high levels of vaccination rates. One can easily reason that the economic benefits produced by preventing diseases constitutes a great deal of happiness because not only does it alleviate potential financial hardship, but the money saved can be used to help others in other beneficial ways. Considering the two main benefits of widespread vaccine use, utilitarianists would support

the decision to require all parents to vaccinate their children since doing so would promote happiness for the greatest number of people.

Changing the current legislation on vaccinations will undoubtedly meet some harsh criticism from those who currently receive religious and philosophical belief exemptions; however, it is important to remember that utilitarianism sometimes requires sacrificing the interests of some to best serve the population. Because those who currently receive non-medical exemptions to vaccinations are often act utilitarianists, they do not realize how harmful it is to refuse vaccinations. Stepping into a rule utilitarianist perspective is necessary; if all parents chose not to vaccinate their children, massive outbreaks of disease would be inevitable, destroying all the progress made to eradicate infectious diseases.<sup>21</sup> Furthermore, utilitarianists sometimes require sacrificing the interests of some individuals to benefit the population. Mill notes that even though an act might be beneficial to some individuals, it should be abstained from if it would be harmful if everyone were to engage in it. He then goes on to state, “The amount of regard for the public interest implied in this recognition, is no greater than is demanded by every system of morals, for they all enjoin to abstain from whatever is manifestly pernicious to society.”<sup>22</sup> Because it is in the public interest for all healthy people to receive vaccinations, Mill would urge us to abstain from allowing non-medical exemptions to vaccinations. Doing so would be incredibly harmful to our society, as it has a high potential to cause outbreaks that would be easily prevented by vaccines.

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<sup>21</sup> Mark Doherty et al., “Vaccine impact: Benefits for human health,” *Vaccine* 34, no. 52 (2016): 6712.

<sup>22</sup> John Mill, *Utilitarianism, Liberty, and Representative Government*. (New York: E. P. Dutton and Company, 1951), 23.

One source of opposition to the proposed thesis would likely come from parents who currently receive religious exemptions to vaccinating their children since this exemption would no longer be allowed. These individuals claim that the administration of some vaccines, mainly those derived from aborted fetuses or other forms of life, conflict with their religious beliefs. Freedom of religion is protected in the First Amendment of the Constitution, so current legislation is sympathetic to the concerns of religious individuals regarding vaccination use; it is a priority to ensure that their rights are respected and protected. Changing the current legislation to forbid religious exemptions to vaccinations will undoubtedly spark opposition in individuals who seek these exemptions, as they may view the act as conflicting with their religious beliefs. As mentioned previously, some Catholics oppose vaccines derived from aborted fetuses since they believe that one's life begins at conception and that all life is extremely valuable. It is important to mention that five vaccines are made by growing viruses in fetal cells that were obtained from two elective abortions in the 1960's. These cells were originally used because viruses need cells to grow, and fetal cells tend to last much longer than most cells. Essential to note is that only the cells from the two aborted fetuses are used to make these vaccines; no new sources of fetal cells are needed.<sup>23</sup> Considering these facts, one can still see why some Catholic individuals desire to seek exemptions. However, what many religious people fail to realize is that religions, broadly speaking, do not detest vaccinations. Even vaccinations derived from aborted fetuses and other forms of life have become permitted because they serve to protect many more lives; it is a select few individual parents and religious leaders that problematically interpret

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<sup>23</sup> "Vaccine Ingredients—Fetal Tissues," Children's Hospital of Philadelphia, last modified December 7, 2017. <https://www.chop.edu/centers-programs/vaccine-education-center/vaccine-ingredients/fetal-tissues>

religious values as opposed to vaccinations.<sup>24</sup> In fact, in their statement, “Caring for Health: Our Shared Endeavor,” the Evangelical Lutheran Church in America states that, “[They] urge renewed political and financial support for services undertaken on behalf of the entire community to prevent epidemics, limit threats to health, promote healthy behavior, reduce injuries, assist in recovery from disasters, and ensure that people have access to needed services.”<sup>25</sup> Vaccinations are undoubtedly essential in preventing epidemics, and, therefore, Lutherans specifically would urge their worshipers to obtain vaccinations. While it may initially seem that taking away religious exemptions to vaccinations contradicts the constitutional right to freedom of religion, this is untrue. The teachings of most religions emphasize the importance of one’s health, and do not explicitly oppose vaccinations.

Another group that will likely oppose the proposed change in vaccine legislation is parents who currently hold philosophical belief exemptions since they would also have to start vaccinating their children. These individuals bring up a unique case in the vaccine controversy, as the main reasons they give for refusing to vaccinate are related to a fear of risks involved with vaccinations, a lack of knowledge about them, and a perception that they are not very effective. They would likely find the requirement to vaccinate their children scary and oppose the change, claiming it does not properly consider their personal beliefs and opinions. What parents who receive philosophical belief exemptions fail to realize is that there is an abundance of research showing that vaccines do much more benefit than harm. Claiming that vaccines are not effective or safe is entirely false. They have greatly reduced the incidence of infectious diseases in

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<sup>24</sup> Gordana Pelčić et al., “Religious exception for vaccination or religious excuses for avoiding vaccination,” *Croatian Medical Journal* 57, no. 5 (2016): 520.

<sup>25</sup> Evangelical Lutheran Church in America (ELCA), “Caring for Health: Our Shared Endeavor” (ISBN 6-0001-7736-4, Minneapolis, 2003), 13.

America and provided significant economic benefits to society. They are also extremely safe, as the Food and Drug Administration (FDA) routinely checks for their quality and effectiveness.<sup>26</sup> As mentioned previously, it is also important to remember that these parents do not intend to harm their children. In fact, they just want to keep them safe. For this reason, it is essential that upon informing parents of this new legislation, we not only teach them about the importance of vaccinations, but also take time to thoughtfully answer their questions. Listening to and understanding the concerns of these parents is the first step in effective communication.<sup>27</sup> Actress Jenny McCarthy mentioned in an interview that her son's pediatrician did not listen to her concerns about vaccines; instead, he ignored her worries and proceeded to administer vaccines to her son per McCarthy's husband's consent.<sup>28</sup> Had the pediatrician taken some time to sit down and thoughtfully address all of McCarthy's concerns, she would likely have a very different take on vaccines and her son's autism. Though parents' concerns may seem silly and trivial compared to the substantial evidence that vaccines are safe and effective, we must be patient with them and truly aim to teach them about the countless benefits of vaccines.

## Part V: Conclusion

The current legislation surrounding vaccines is unacceptable. Allowing parents to forgo vaccinating their children for religious and philosophical reasons has proven detrimental to our

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<sup>26</sup> "Making the Vaccine Decision," U.S. Department of Health and Human Services, last modified September 27, 2017, <https://www.cdc.gov/vaccines/parents/vaccine-decision/index.html>

<sup>27</sup> Heidi I. Lawrence, "Fear of the Irreparable: Narratives in Vaccination Rhetoric," *Narrative Inquiry in Bioethics* 7, no. 3 (2016): 209.

<sup>28</sup> Jenny McCarthy, "Jenny McCarthy: 'We're Not an Anti-Vaccine Movement ... We're Pro-Safe Vaccine,'" *Frontline*, March 23, 2015.

society, especially considering the increasing numbers of measles cases appearing throughout the United States. Using a rule utilitarianist perspective, it is necessary to require all children to receive their vaccinations unless doing so is medically unadvised. Doing so would help prevent epidemics of infectious diseases, improve the economy, and protect children who cannot receive vaccinations for medical purposes. We must consider what is best for society as a whole, not just the interests of a select few.

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