

# What Happened to the 2017 Measles Outbreak in Minnesota?: An Argument against “Anti-Vaxxers”

LACIE THOMPSON, BS, MT(ACSP)<sup>CM</sup>

[lacie.thompson@sju.edu](mailto:lacie.thompson@sju.edu)

*Health Administration Department, Saint Joseph’s University, Philadelphia, Pennsylvania, U.S.A.*

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A rise in unvaccinated children is happening all over the United States. This anti-vaccine movement organized by what is known as “anti-vaxxers” is happening for several reasons among which the major reason is that vaccination allegedly causes the increased risk of autism though no strong scientific evidences for the claim do not exist. However, the increasing number of children with autism nowadays leads the anti-vaxxers to believe that there is a correlation between autism and vaccination.<sup>1</sup> With the rise of people not vaccinating their children, there are major outbreaks occurring in the U.S., particularly measles.

In May 8, 2017, there was an outbreak of measles in Minnesota. 48 people were confirmed infected among which 46 cases were children 10 years and younger, and most of them were children were under 5.<sup>2</sup> In July 13, 2017, another major measles outbreak occurred with 79 people infected.<sup>3</sup> As the last person infected was reported not having exposure to any infected individuals, it was suspected that the infant came in contact with the disease from a grocery store.<sup>4</sup> It was conjectured that the parents might have their infant child too young for vaccination sit in the cart while shopping in the grocery store.

According to the Center for Disease Control (CDC), the common symptoms of measles appears 14 days after the person is infected, as the person experiences high fever, runny nose, cough, and conjunctivitis.<sup>5</sup> It is not until 3-5 days after rash appears. So, imagine a child being brought into the physician’s office with a cough, runny nose, and watery eyes. Since the measles almost disappeared long ago in the U.S., physicians will most likely diagnose a cold or allergy and thus prescribe medicine in correspondence to it. Accordingly, it would not likely be identified as measles until the rash appears. Once the rash appears, the child patient’s fever could rise to more

<sup>1</sup> Christopher Mele, “Minnesota Sees Largest Outbreak of Measles in Almost 30 Years,” *The New York Times*, May 5, 2017, accessed Sep. 20, 2017, <https://www.nytimes.com/2017/05/05/us/measles-minnesota-vaccines.html>

<sup>2</sup> Ibid.; Jacqueline Howard, “Anti-Vaccine Groups Blamed in Minnesota Measles Outbreak,” *CNN*, July 26, 2017, accessed Sep. 18, 2017, <http://www.cnn.com/2017/05/08/health/measles-minnesota-somali-anti-vaccine-bn/index.html>

<sup>3</sup> Jeremy Olson, “New Measles Case in Minnesota Extends Threat,” *Faribault Daily News*, July 13, 2017, accessed Sep. 4, 2017, [http://www.southernminn.com/faribault\\_daily\\_news/news/article\\_890c5c16-d24e-5619-86cb-4dbfeb09c8bb.html](http://www.southernminn.com/faribault_daily_news/news/article_890c5c16-d24e-5619-86cb-4dbfeb09c8bb.html)

<sup>4</sup> Ibid.

<sup>5</sup> “Measles (Rubeola),” *Centers for Disease Control and Prevention (CDC)*, July 30, 2017, accessed Sep. 20, 2017, <https://www.cdc.gov/measles/about/signs-symptoms.html>

\*Address correspondence to: Lacie Thompson, BS, MT(ACSP)<sup>CM</sup>, Health Administration Department, Saint Joseph’s University, 5600 City Ave, Philadelphia, PA 19131., U.S.A. E-mail: [lacie.thompson@sju.edu](mailto:lacie.thompson@sju.edu).

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than 104° F.<sup>6</sup> At this temperature, the children can have some serious side effects which might be convulsions, pneumonia, dehydration, or even death. One or two children out of 1,000 that contract the disease will die.<sup>7</sup>

For physicians and healthcare workers, to stop measles and prevent further outbreaks, the vaccine must be administered to all patients that are eligible to receive it. However, the parents of these effected individuals have chosen not to vaccinate them, exercising their rights of surrogate autonomy for their children. Although the main idea for the anti-vaxxers' argument is that unvaccinated children are less likely to become autistic and in turn more likely naturally healthy, they offer rather an extensive list of reasons to support their view which is worth our attention. Let me introduce what I notice to be the most active and comprehensive voice for the anti-vaxxers. As a popular writer/publisher, the author named Sarah lists the following reasons why parents should not give their children vaccinations in her "Six Reasons to Say NO to Vaccination" published in the online magazine/blog, *the Healthy Home Economist*.<sup>8</sup>

1. The pharmaceutical can't be trusted. Pharmaceutical companies only want money, and do not look at the harms of their drugs.
2. All vaccines are loaded with chemical and heavy metals. The list of some chemicals used include antifreeze, formaldehyde, and mercury.
3. Vaccinated children are the unhealthiest, most chronically ill. Vaccinated children have higher rates of autism, allergies, and ADHD.
4. Other countries are waking up to the dangers of vaccines. The UK has suspended their chicken pox vaccine completely.
5. Numerous vaccines have already been removed.
6. You can always get vaccinated, but you cannot get unvaccinated.

In sum, what is argued above is that children's lives are *saved* from the vaccines the corresponding ethical principles can be non-maleficence and beneficence. However, I would like to introduce what may work as a counter-argument. I will list them as six reasons which correspond to each reason above.

1. According to the FDA, vaccines are under the same strict guidelines that all drugs are under. The vaccines are created and ran through trials to understand any possible side effect, and can take years to fully develop.<sup>9</sup>
2. There are many chemicals that are in vaccines when they are being created. This can include formaldehyde, but it is removed before the product is packaged. Also, there is a compound in vaccines, thimerosal, that does contain mercury. But, it is not an ingredient in most pediatric vaccines.<sup>10</sup>
3. According to the CDC, vaccines prevent many life-threatening diseases in children. These include meningitis, tetanus, whooping cough, and many others.<sup>11</sup>
4. The UK did suspend the chicken pox vaccine, but not because it is unhealthy to receive the vaccine. According to the NHS, there is a fear that the vaccine will cause an increase in shingles.<sup>12</sup>
5. According to the CDC, the first rotavirus vaccine was taken off the market for adverse side effects, but there is a new vaccine that protects against rotavirus that has minimal side effects.
6. Although this is true, there is no way to know at what age a child could get a disease. If a parent decides to vaccinate for measles at age 5, there is no guarantee that a child will not contract that disease at 4.

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<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

<sup>8</sup> Sarah, "Six Reasons to Say NO to Vaccination," *The Healthy Home Economist*, June 5, 2017, accessed Sep. 3, 2017, <http://www.thehealthyhomeeconomist.com/six-reasons-to-say-no-to-vaccination/>

<sup>9</sup> "Vaccine Product Approval Process," *U.S. Food and Drug Administration (FDA)*, August 24, 2015, accessed Sep. 4, 2017, <https://www.fda.gov/biologicsbloodvaccines/developmentapprovalprocess/biologicslicenseapplicationsblaprocess/ucm133096.htm>

<sup>10</sup> "Ingredients in Vaccines-Fact Sheet," *CDC*, Feb. ,22, 2011, accessed Sep. 7, 2017, <https://www.cdc.gov/vaccines/vac-gen/additives.htm>

<sup>11</sup> "For Parents: Vaccines for Your Children," *CDC*, August 2, 2016, accessed Sep. 3, 2017, <https://www.cdc.gov/vaccines/parents/diseases/child/index.html>

<sup>12</sup> "Chicken Pox Vaccine," *NHS*, January 7, 2016, accessed Sep. 5, 2017, <http://www.nhs.uk/Conditions/vaccinations/Pages/chickenpox-vaccine.aspx>

There are other important reasons that children should be vaccinated. It is a community health issue. First, as briefly mentioned above, it poses threats to children who cannot get vaccines. Though the vaccine prevents patients from getting the disease, not all patients can get the vaccine. Children too young or people suffering from immunosuppression cannot receive the vaccine. That means that the parents of young children have a moral obligation to get their children vaccinated for other children who cannot get vaccinated.

Second, it creates a discrimination between vaccinated children and unvaccinated ones in doctors' office. According to a recent study, one in five pediatricians are refusing to see unvaccinated patients. The reason is not only to protect the unvaccinated but also to protect their business because some parents do not want to go to a physician that allows unvaccinated patients.<sup>13</sup>

Thirdly, there is a culture of individuals that want to ride on this herd immunity, which is ethically unjustifiable. That is, parents do not need to vaccinate their children because others are vaccinated. They believe that if everyone has the vaccine, then there is no way their child could get sick, because no one can be a carrier. This is true for a small portion of the community. Different diseases have various levels of herd immunity status. These different levels represent how easily the disease is spread. For example, polio has a level of 5-7, but in measles the number is 12-18.<sup>14</sup> Therefore, measles takes a larger number of vaccinated persons to create the herd immunity than polio does. Certain individuals simply want to ride on this herd immunity. They want the population to acquire immunity, but do not want to have possible side effects of the vaccine on their children. This selfishly motive does not help strengthen the community's health, for, more people thought this way, there would never be herd immunity. The only justifiable case of riding on herd immunity is the case of people that truly cannot be vaccinated such as children too young to be vaccinated or those immunocompromised or children with allergies to the vaccines.

The 2017 measles outbreak in Minnesota is the largest in the last 30 years. The chances of contracting the disease is almost none when the person has had their vaccine. Though it is understandable that some parents decide not to vaccinate their children due to their fear based on the beliefs in the reasons aforementioned, the three reasons provided, particularly the last one, seem to outweigh the individuals' fear. When public health for the entire community is endangered, an individual's autonomy must be curbed for common survival.

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<sup>14</sup> Emily Willingham and Laura Helft, "Herd Immunity," *PBS*, September 5, 2014, accessed Sep. 9, 2017, <http://www.pbs.org/wgbh/nova/body/herd-immunity.html>

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