

Forum: Economic And Social Council

Issue: The Question of the Threat to Global Health Caused by Refusing Vaccinations

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Introduction

The World Health Organization (WHO) has declared the refusal of vaccinations as one of the top 10 global health threats in 2019.¹ The refusal of vaccinations is defined as the complete rejection of vaccinations for a person and/or their child(ren), while the opportunity of receiving vaccinations is available and affordable for them. A term related, 'vaccine hesitancy', has been defined by the Strategic Advisory Group of Experts (SAGE) as so; the acceptance of some vaccines but refusal of others, delaying the acceptance of vaccinations, or accepting vaccinations but being unsure of doing so, under the same circumstances of vaccinations being available and affordable.²

The amount of children receiving vaccinations is at its peak, yet, health officials are finding that in countries with weak health systems, as well as countries like Australia and The United States are experiencing outbreaks of easily vaccine-preventable diseases such as Measles, even when they've been named as nearly completely eliminated in the latter countries mentioned, through herd immunity.³ In general, vaccine hesitancy is prevalent in over 90% of countries using vaccinations, and the acceptance of the Measles-Mumps-Rubella (MMR) vaccine has decreased to under 95%, the threshold set by WHO as what is required for herd immunity. For example, the acceptance of the MMR vaccine acceptance rate has decreased to 91,2% in the United Kingdom, at its lowest since 2011-12, and has decreased from 91,6% in 2011 to 91,5% in the United States. A similar theme has occurred globally, leading to a nearly 30% increase in global Measles rates.⁴

Vaccine Hesitancy can show up in singular individuals or can appear in hotspots. They commonly appear in areas where non-medical exemptions (NMEs) are permitted. Vaccinations aren't administered

¹ <https://www.who.int/emergencies/ten-threats-to-global-health-in-2019>

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https://www.who.int/immunization/sage/meetings/2014/october/1_Report_WORKING_GROUP_vaccine_hesitancy_final.pdf

³ <https://unfoundation.org/blog/post/anti-vaxxers-named-top-global-health-threat-in-2019/>

⁴ [https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642\(19\)30092-6/fulltext](https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(19)30092-6/fulltext)

for every child, especially if the child suffers from a medical condition that can cause them to be endangered if given vaccinations. However, a child may also not receive a vaccination because of their family's religious beliefs or philosophical ideologies, which are considered NMEs. In the United States, for example, as of June, 2019, NMEs caused by religious beliefs have been allowed in 45 states, and philosophical NMEs have been legalized in 15. Areas allowing philosophical NMEs are most commonly the ones experiencing peaks of vaccine hesitancy.

Herd immunity is when around 95% of people in an area receive vaccinations. Herd immunity prevents a certain disease from spreading and disallows the disease to infect even those who haven't received vaccinations for it. Herd immunity is essential for those few individuals who aren't able to receive vaccinations for medical reasons, to keep them from being exposed to the disease. The issue arises when such a large portion of the population refuses vaccinations, for whatever reason, which eliminates herd immunity and allows the disease to spread.⁵

Vaccine hesitancy can be caused by numerous different factors. A newly arisen factor is social media, as people have the ability to freely discuss and spread misinformation regarding vaccines on the internet for people to see. The American Medical Association (AMA) has requested media outlets, such as social media platforms like Youtube and Facebook, as well as news outlets like the The New York Times to provide viewers with accurate and scientific information regarding vaccinations.⁶

Definition of Key Terms

Vaccination

Vaccination is the medical treatment of receiving a vaccine, a substance injected into a person's body via a needle. The substance contains a dead microbe of the illness hoping to be prevented, that stimulates the body's immune system to produce antibodies that work to disable or destroy the illness. This prepares the body to be able to fight off the disease if the person were to be exposed to it in an active form. Vaccination allows the person to develop immunity to an illness without being pre-exposed to it.⁷

Vaccine Hesitancy

Vaccine hesitancy is any form of hesitancy or insecurity in the acceptance of vaccinations. A vaccine hesitant person can feel varying amounts of uncertainty in the use of vaccinations on themselves

⁵ <https://patientengagementhit.com/features/using-provider-empathy-to-quell-the-spread-of-vaccine-hesitancy>

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<https://www.ajmc.com/focus-of-the-week/unpacking-the-root-causes-and-consequences-of-vaccine-hesitancy///?p=2>

⁷ <https://www.medicinenet.com/script/main/art.asp?articlekey=5925>

or their children, for example, they may delay the acceptance of a vaccine, accept it, but feel unsure about it, or accept some vaccinations and refuse others, even if receiving vaccinations is available and affordable for them.

Herd Immunity

When most people in an area are vaccinated for a certain disease, it makes it difficult for the disease to be passed onto more people, thus preventing it from spreading. Herd immunity is important to protect people in vulnerable positions and that can't receive the vaccine from getting the disease as well.

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Non-Medical Exemption

A non-medical exemption, or NME, is when a person refuses a vaccination for themselves or their child for a non-medical reason, for example because of religious or philosophical reasons.⁹

Vaccine-Preventable Disease

A disease that can be prevented by vaccination or herd immunity.

Measles

A disease that causes symptoms such as high fever, rash, and flu symptoms. Measles kills more than 100,000 people yearly.¹⁰

Measles-Mumps-Rubella (MMR) Vaccine

A vaccine given to young children in two doses, prevents the diseases; Measles, Mumps and Rubella.¹¹

Background

History

From their initial introduction to the present, vaccines have always faced opposition. Never has there been a time where vaccination wouldn't have someone skeptical of them, even in modern times; no

⁸ <https://vk.ovg.ox.ac.uk/vk/herd-immunity>

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<https://www.cdc.gov/vaccines/imz-managers/coverage/schoolvaxview/requirements/exemption.html#:~:targetText=Exemptions%20from%20state%20or%20local%20requirements%20may%20apply%20to%20some%20children.&targetText=A%20medical%20exemption%20is%20allowed.for%20religious%20or%20philosophical%20reasons.>

¹⁰ <https://www.mayoclinic.org/diseases-conditions/measles/symptoms-causes/syc-20374857>

¹¹ <https://www.cdc.gov/vaccines/vpd/mmr/public/index.html>

matter the evidence of their safety and effectiveness. Vaccine hesitancy over its period of existence has almost always followed two primary themes; the belief it causes more harm than benefits, and the opposition of the idea of vaccines being compulsory.

After the invention of the smallpox vaccine, created by Edward Jenner in 1796, smallpox immunization programs were implemented to prevent the disease from spreading. As the amount of vaccine-preventable disease cases decreased rapidly, within the twentieth century, questions of the requirements of vaccination began to arise. The public had no longer seen the effects of those illnesses, and so believed vaccination for it would no longer be necessary. When vaccines were originally introduced, people would still see the serious and sometimes fatal symptoms of the diseases first hand, meaning the public was enthusiastic and prepared to face the slight symptoms of the vaccine if it meant avoiding getting the illness themselves. However, as the vaccine-preventable diseases and their symptoms were no longer prevalent to those living after the start of consistent vaccination programs, they believed facing the symptoms of the vaccination would be more harmful than just going without it.

Opposition of the idea of vaccination being compulsory has existed since its origin. Within 25 years of the introduction of the smallpox vaccine, most European cities, as well as Boston in the United States, had implemented laws making it mandatory for children to have taken the smallpox vaccine if they wished to attend school. Over the years this law was taken into account in almost every US state, with varying enforcement depending on the number of current outbreaks. This caused considerable tension between health and the public. In 1906, a news article from York, Pennsylvania titled "Vaccination Stirs Revolt," reported; "Threats to burn schoolhouses, whip teachers, and punish school directors have been the outcome of the enforcing of the compulsory vaccination law". In some schools over half of the students refused vaccinations, and in other areas, people would engage in fights with police as an act of resistance against compulsory vaccination. As a result, the enforcement of vaccinations did eventually decrease, as amounts of smallpox began to decrease as well.

However, with the eventual increase of cases of vaccine-preventable diseases, laws establishing new requirements regarding vaccinations were introduced in the 1970s. These laws took into consideration people's thoughts on mandatory vaccinations; government intrusion on religious beliefs, general distrust of medical science, and infringement of personal liberty, and created requirements instead of complete compulsory vaccination to the routine recommendation of vaccinations for school-age children.¹²

Prevalence

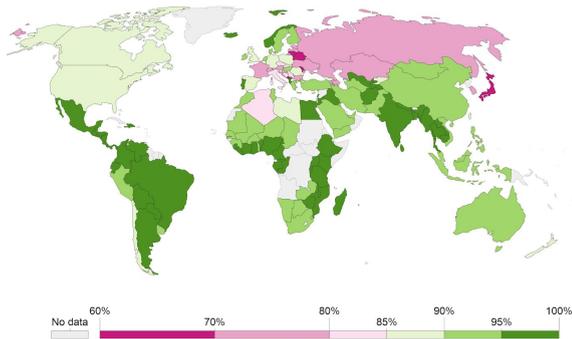
¹²

<https://journalofethics.ama-assn.org/article/new-media-old-messages-themes-history-vaccine-hesitancy-and-refusal/2012-01>

The Wellcome Trust, a London-based research charity published its article Wellcome Global Monitor of 2019. The Wellcome Global Monitor surveys over 140,000 people across over 140 countries, studying what people think about science and major health challenges. They asked three major questions regarding vaccination; whether vaccinations are important for children to have, whether they're safe, and whether they're effective.

Starting from the first question, 92% of the planet's population believe vaccinations are important for children, however, a few countries had surprisingly low rates, such as Belarus, with only 61% of the people taking the survey agreeing, and Japan, with 66% agreeing. Secondly, the percentage of people disagreeing whether vaccines are safe is 7% globally. Some of the highest amounts of mistrust are in France, with a third of the population disagreeing that vaccination is safe, Gabon (26%); Togo (25%); and Russia (24%). Finally, people disagreeing on vaccines being effective; only around 5% disagreed. Some of the most skeptical countries were Liberia (28%); France (18%); Namibia (16%); and Peru (15%).¹³

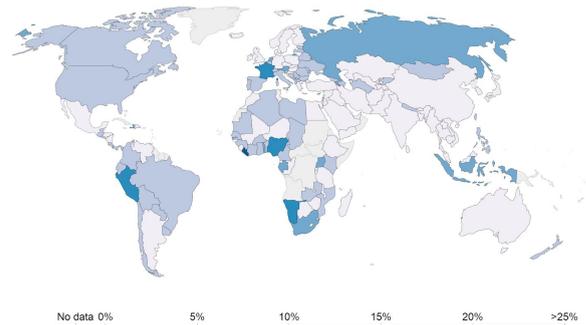
Share that agrees that vaccines are important for children to have, 2018
The share of people who responded that they "strongly agree" or "somewhat agree" with the statement 'Vaccines are important for children to have.'



Source: Wellcome Trust Global Monitor (2019)
OurWorldInData.org/vaccination • CC BY

Share that disagrees that vaccines are effective, 2018

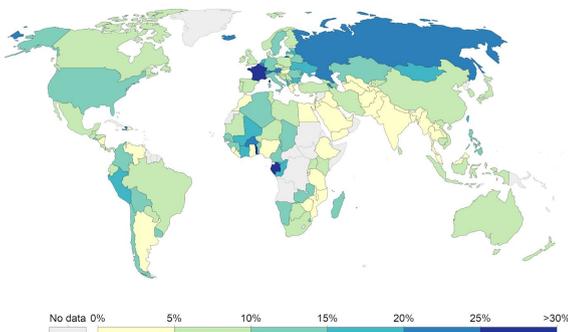
The share of people who responded "strongly disagree" or "somewhat disagree" to the statement 'Vaccines are effective'.



Source: Wellcome Trust Global Monitor (2019)
OurWorldInData.org/vaccination • CC BY

Share that disagrees that vaccines are safe, 2018

The share of respondents who responded "strongly disagree" or "somewhat disagree" to the statement 'Vaccines are safe.'



Source: Wellcome Trust Global Monitor (2019)
OurWorldInData.org/vaccination • CC BY

The data collected by The Wellcome Trust put into a world map by Our World in Data.¹⁴

¹³ <https://wellcome.ac.uk/reports/wellcome-global-monitor/2018/>

¹⁴ <https://ourworldindata.org/support-for-vaccination>

Causes Behind Vaccine Hesitancy

There is no one definite reason that causes vaccine hesitancy among all vaccine hesitant people. The issue is complex and unclear, however, some common themes do occur between some vaccine hesitant people. Personal experience often shapes a person's views of vaccination. If somebody has had a negative experience with vaccines; whether or not that experience was directly caused by the vaccination; they may feel skeptical upon accepting them again, especially for their children. Vaccine hesitant people most commonly refuse vaccination for their own children, out of fear of what it could do to them. They've developed a mistrust with the idea of vaccination, believing it'll be more harmful than beneficial to their children. The symptoms of taking certain vaccinations, like in the 1970s, the Diphtheria, Tetanus, and Pertussis (DTP) vaccine was alleged to have caused high fevers, seizures and even permanent brain damage. Because of this, parents refused the vaccine and even after being shown proof of it being safe, people remained skeptical. A similar case to this, was when in the 1990s worry of the MMR vaccine leading to autism surfaced; a theory still common amongst vaccine hesitant people, despite being proved as incorrect. Another reason is the understatement of a disease's severity or the perception of the chances of getting the disease as too remote. For example, the Human Papilloma Virus (HPV) vaccine was denied from children by their parents, as it is a sexually transmitted virus. This vaccination is most commonly given to pre-teen girls and boys, and with the age range of the children receiving the vaccine, parents believe it isn't important; refuse to acknowledge their children's sexual activity in the future.¹⁵

Consequences of Refusing Vaccinations

The refusal of vaccinating your children can cause immense problems not only for the child but for the people around them as well. Refusing vaccines affects society, and the larger the number of people refusing vaccinations, the bigger the consequence. Generally, a large number of people refusing vaccinations can lead to outbreaks of the disease people are refusing vaccination for. As vaccine hesitancy often shows up in hotspots, it can cause large quantities of cases of vaccine-preventable diseases. Vaccine hesitant individuals often disregard how their actions endanger individuals who are vulnerable around them. Not choosing to vaccinate your healthy children capable of accepting vaccinations endangers those who cannot physically accept vaccinations, as well as children who are too young.

Key Member States and NGOs Involved and Their Views

The United States of America

¹⁵ <https://globalhealth.duke.edu/media/news/many-faces-vaccine-hesitancy>

The United States has experienced a peak in their amounts of vaccine hesitancy in the last few years, as well as peaks in the amount of measles and mumps cases. With the implementation of the law allowing NMEs in every state, the problem can only be expected to rise.

France

France is one of the highest ranking nations on the planet when regarding skepticism of vaccinations. A third of France's population believe vaccinations aren't safe, making them the most vaccine hesitant nation of 2018. Also, a fifth of the French don't believe in them being effective.¹⁶

WHO (World Health Organization)

The World Health Organization has named vaccine hesitancy one of the top 10 global health threats of 2019. WHO believes vaccine hesitancy is a problem that can reverse the advancements made across the planet to eliminate vaccine-preventable diseases.¹⁷

Timeline of Events

Date	Description of event
February 12, 2009	Vaccine Court ruled that MMR vaccine, when administered with thimerosal-containing vaccines, does not cause autism.
May, 2012	Global Vaccination Plan Released for 2011-2020 ¹⁸
October 1, 2014	Report of SAGE Working Group on Vaccine Hesitancy Released
August 15, 2015	WHO published "Recommendations on Vaccine Hesitancy" in special issue of the journal <i>Vaccine</i> .
January 18, 2019	WHO Names Vaccine Hesitancy a Global Health Threat

UN Involvement, Relevant Resolutions, Treaties and Events

- Global health and foreign policy, December 10 2009 (**A/RES/64/108**)¹⁹

¹⁶ <https://edition.cnn.com/2019/07/03/health/france-fighting-vaccine-skepticism-partner-intl/index.html>

¹⁷ <https://www.who.int/emergencies/ten-threats-to-global-health-in-2019>

¹⁸ <https://apps.who.int/iris/bitstream/handle/10665/329097/WHO-IVB-19.07-eng.pdf?ua=1>

¹⁹ <https://undocs.org/en/A/RES/64/108>

- The role of the United Nations system in implementing the ministerial declaration on the internationally agreed goals and commitments in regard to global public health, July 23 2010 **(E/RES/2010/24)**
- Enhancing capacity-building in global public health November 30 2005 **(A/RES/60/35)**²⁰
- Children's Vaccine Initiative **(E/ICEF/DEC/1991/16)**

Possible Solutions

Education

The addition of education of vaccinations should be considered. Improving the education of both parents and children on vaccines is important to resisting vaccine hesitancy. Educating people on the effects, symptoms, and reasons behind vaccinations is important to improving stances on vaccines. It's important to educate both parents, but also children. Children need to be shown the importance of having vaccinations and told the dangers of not receiving them. Implementation of additional classes, courses and workshops regarding health and vaccines in schools could be a possible method of reaching children and giving them the information they need from for example parents who refuse to vaccinate their children themselves.

Improving Trust of Health Organizations

Trust between the public and health organizations should be attempted to be improved for the advancements of eradicating vaccine hesitancy. The most effective method of improving the issue is as earlier mentioned; education. People should be educated on the scientific background of modern medicine and the trustworthiness of it. Another option is trying to use media as a way to inform people on the importance and safety of vaccines and other healthcare programs.

Implementation of Laws

An option could be consideration of more strict laws concerning vaccination. For example, laws regarding NMEs should be more strict, or maybe only very specific NMEs should be allowed. Another consideration is allowing more autonomy for children regarding vaccines. A considerable option could be giving children over the age of 15 the option of getting vaccines without needing parental consent, if they don't have any pre-recorded health issues preventing it. Parents obviously shouldn't be left in the dark about what vaccines their children receive, however it could be an option for children who's parents are strongly against vaccines but they themselves feel vaccines are important for themselves.

²⁰ <https://undocs.org/en/A/RES/60/35>

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[some%20children.&targetText=A%20medical%20exemption%20is%20allowed,for%20religious%20or%20philosophical%20reasons.](#)

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