WHA

The declining societal support for vaccination

Research Report

Leiden Model United Nations 2023

"let us sing songs of freedom together"

Forum: WHA

Issue: The declining societal support for vaccination

Position: Chair

Introduction

Since the WHO started its mass vaccination campaign to eradicate smallpox in 1967, the worldwide immunisation coverage has increased dramatically. During the last decade however this coverage had plateaued. This had many different reasons, like changes in vaccine policy of countries, logistical difficulty with reaching isolated areas and increased vaccine hesitancy because of religion and misinformation. Due to the Covid-19 pandemic the coverage dropped significantly.

Although the pandemic is no longer a global health emergency, the world will feel its consequences for years to come. One of the most alarming of these consequences is the fact that 67 million children missed out on vaccinations from 2019 to 2021. In the same time span the immunisation coverage levels decreased in 112 countries across the globe. This is the largest decrease in vaccination rates in the last 30 years. It can be attributed to Covid-19 demanding the attention of health workers over vaccinations for other diseases, but also to declining societal support and political polarisation. In this research report we will look at the different causes and consequences of the declining societal support for vaccination and possible solutions for the problem.

Definition of Key Terms

Immunisation Coverage

Put simply, immunisation coverage is the percentage of a population that has been vaccinated for a certain disease. When looking at immunisation coverage you should always be careful however. The global vaccination coverage for the Hib virus for example, is 76%, while that number is at 32% in the western pacific region. The number of 76% may be useful for showing the advances the world has made in immunisation coverage, but using it to predict a possible outbreak will not work.

Herd immunity

The WHO describes herd immunity as follows: “Herd immunity … is the indirect protection from an infectious disease that happens when a population is immune either through vaccination or immunity developed through previous infection. Herd immunity is often seen as the ideal way of ensuring safety from a disease, as it also protects people unable to get the vaccine like children or people with allergies to the vaccine. When the immunisation coverage in a given area becomes too low however, the population loses this herd immunity, and people without the vaccine are at greater risk of catching the disease.”

Zero-dose children

The WHO defines zero-dose children as children that have not gotten a single vaccination. They are therefore at a higher risk of catching infectious diseases such as measles or hepatitis

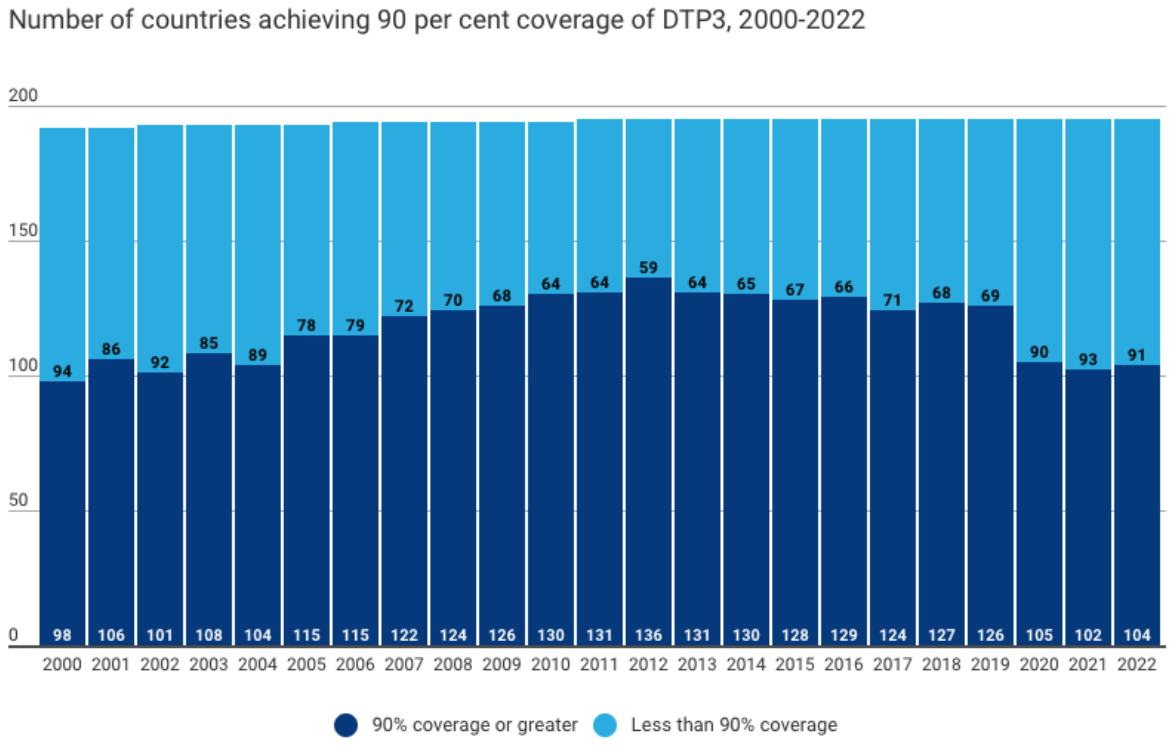
B. From 2012 to 2019 the number of zero-dose children dropped from 28.1 million to 12,9 million, but in 2022 it went back up to 14.3 million as a result of the Covid-19 pandemic.

General Overview

Declining Rates in Numbers

Immunisation coverage can not easily be summarised by one metric, because there are many different vaccines that all have different coverage rates and efficiencies. One way people often use to measure immunisation coverage however, is the number of zero-dose children present in the country. If the number of zero-dose children in a country is relatively high, this can be an indication that there are problems with the routine vaccination in that country.

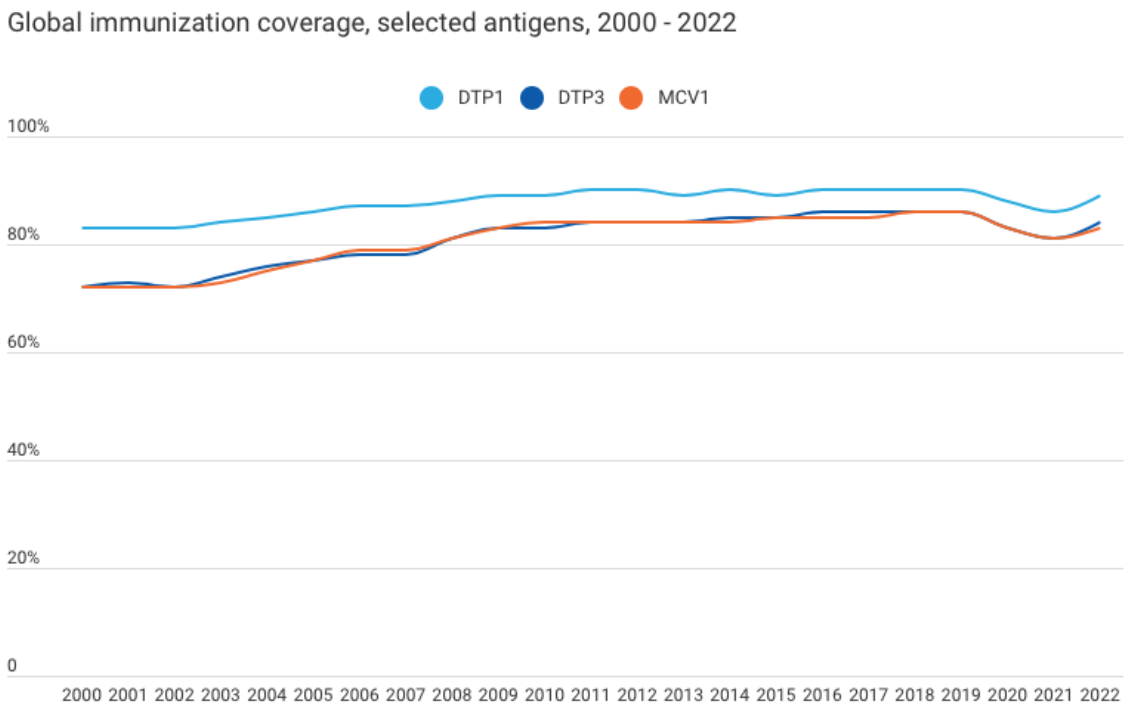
Another way of measuring the quality of routine vaccination programs in a given country is looking at the coverage levels of the DTP vaccine. This vaccine is given in three separate doses (hence the DTP1 /DTP3) and it immunises children against Diphtheria, Tetanus, and Pertussis. In the figure below you can see the number of countries achieving 90 percent coverage of DTP 3. (0 percent coverage was the goal the WHO set for 2030 in its immunisation plan. In the figure below you can also clearly see the dip in vaccinations after 2019.



Source: WHO/UNICEF national immunization coverage estimates, 2022 revision.

In this next figure you can see the global immunisation coverage of three different vaccines. From this figure you can make out that by looking at the DTP3 vaccination coverage can give you an idea of trends in immunisation coverage, but not of absolute numbers. You can also

see that although the immunisation coverage of the DTP3 vaccine improved in 2022 to near pre-pandemic levels, this did not translate to a big increase in countries achieving the 90% DTP3 immunisation coverage goal.



Source: WHO/UNICEF national immunization coverage estimates, 2022 revision.

Causes for the declining vaccination rate

The declining vaccination rate has many different causes that all contribute to the problem. Some of these causes are relatively new, others have always been present and others still have been worsened by the recent Covid-19 pandemic.

The most important new cause is the spread of misinformation about vaccines through social media. Social media makes spreading misinformation easier because it gives people a larger audience, but that is not the only way social media impacts this problem. Social media also gives financial incentive for people to radicalise, sensationalise and polarise, regardless of the facts. Social media can of course also be used to spread correct information about vaccines, and to increase immunisation coverage, but people that harbour anti-establishment sentiments will often flock towards the false information that confirms their biases. This shows that this misinformation can not be easily fixed. Simply giving people the facts is often not good enough, there needs to be a broader change in how health organisations and governments communicate to people.

The second major cause for vaccine hesitancy are cultural convictions or religious beliefs. These factors have historically always been a problem when trying to increase immunisation coverage. They can not easily be avoided, as this would mean forcing people to change their beliefs which takes a lot of time. Personal beliefs are most probably not the cause of the decline in vaccination rates in the last few years, as they have always been present.

Thirdly, a lack of understanding on the working of vaccines also contributes to vaccine hesitancy. This is understandable, as vaccines are a complex topic, and not everyone has access to free schooling. This factor goes hand in hand with the last important factor: the fear of side effects from the vaccine. If people do not know what the side effects will be, or do not trust that the stated side effects are correct they will be very hesitant to take the vaccine. Being open about the side effects is the only way to solve this issue. By stating that there are no side effects at all, people will become suspicious.

Lastly, the Covid-19 pandemic has also had a more direct impact on immunisation rates, especially in developing countries. This is because the pandemic caused a surge in demand for healthcare that the healthcare infrastructure of these countries could not handle. This caused resources that previously would have been used to further the vaccination plan set by the WHO, to be used in handling the pandemic instead. As a result, several countries lagged behind on schedule with routine vaccinations. Because vaccination coverage had reached a plateau in the years before the pandemic, the impact that Covid had on immunisation coverage and herd immunity was extra large. Since communities had nothing to fall back on when the vaccination numbers decreased.

Consequences of declining coverage

The problem of declining immunisation coverage also has a lot of different consequences. The most obvious is the fact that more people will get sick, resulting in more illness in affected communities, more economical damage from missed labour and higher healthcare costs.

But the effects of lower immunisation rates does not solely affect the people who have not taken a given vaccine by choice. The declining rates can cause a loss of herd immunity, and this affects people who may not be able to get the vaccine like children, pregnant women, people with certain medical conditions and people with allergies to previous vaccines. Choosing not to get the vaccine puts these people at a higher risk, and so causes significant ethical concerns. It is therefore important to not let immunisation rates fall even lower than they currently are.

Economic costs should also be considered when looking at this issue. As the lower vaccination rate is mostly a problem for developing countries, these costs hit extra hard. More sick days means less productivity, and less productivity means damage to the economy. Low immunisation rates and the resulting health problems also force governments to invest more into their healthcare systems, while vaccines could be a cheap alternative. The impact that missing school days has on the education and wellbeing of children is not yet fully known but should be taken seriously, as UNICEF is calling the loss of education due to the pandemic “nearly insurmountable”. The problem is most apparent in low- and middle income countries, where literacy rates of 10 year olds have gone down from 47 to 25 percent since the pandemic.

Major Parties Involved

World Health Organisation

Since its establishment in 1948, the WHO has coordinated vaccination programmes, made efforts to standardise drugs and sent aid packages to areas suffering from health emergencies, all to fulfil its mandate to promote the attainment of " the highest possible level of health" by all peoples. The policy of the WHO is determined by the World Health Assembly (WHA). This decision-making body consists of delegations from every single member state and meets annually in Geneva to form global health policies for the coming year.

United Nations International Children's Emergency Fund (UNICEF)

Unicef is a special programme of the UN that was founded in 1946 to help children suffering from the effects of World War II. Its mission quickly changed to supporting children around the world, suffering from various different types of crises. UNICEF is involved in various immunisation programs against childhood illnesses, and is therefore one of the organisations drawing attention to the immunisation crisis, caused by the declining societal support for vaccinations.

Nigeria

Factors such as low internet accessibility, religious beliefs and general lack of reliable information about vaccines have led to an estimated 6.2 million children in Nigeria not receiving any form of vaccination, becoming zero dose children. This makes Nigeria the country with the largest amount of zero dose children in the world.

India

The number of zero dose children in India went up from 1.3 to 2.7 million as a result of the pandemic. This makes it the country with the second highest number of zero dose children in the world. There is still a lot of work to be done for local authorities and other organisations to restore trust in vaccines.

Timeline of Events

1400 C.E.	Immunisation has been practised by cultures all around the world since at least 1400 C.E. although this was sometimes dangerous, as it worked by exposing patients to live viruses (albeit in small quantities).
1796	We start speaking of immunisation when Dr Edward Jenner starts immunising people against smallpox by exposing them to less harmful cowpox.
1879	The Anti Vaccination Society of America was founded, as a response to policy makers developing new vaccination laws.
1954	The newly developed Salk vaccine against Polio helps bolster the public perception on vaccines and build trust.
1967	The first mass vaccination campaign is set up by the WHO under the name of the Intensified Smallpox Eradication Program.

1980	The WHO declared smallpox eradicated.
1988	The WHO launches the Global Polio Eradication Initiative.
1998	Andrew Wakefield writes the first scientific article linking vaccines to autism. The article was published in a prominent medical journal, but has since been discredited by peer review studies, and the journal has retracted the article. Despite all this there are still people who believe in the link between vaccines and autism.
March 11 2020 - current	The WHO declares Covid-19 a pandemic in March 2020. Apart from causing an estimated 6,959,316 deaths globally, Covid-19 was also one of the causes for 67 million children globally to miss out on being vaccinated. Although the pandemic has not been declared to be over by the WHO, it is no longer deemed a global health emergency.
December 2020	Covid-19 also spurred scientists to develop a vaccine as soon as possible, resulting in one of the fastest vaccine rollouts in history. In December 2020, only a year after the first cases were signalled, the first doses of Covid-19 vaccine were administered.

Possible Solutions

Combating Misinformation

There are many different ways authorities could try to increase trust and decrease vaccine hesitancy, but combating misinformation is one of the most important. By giving people access to reliable information, you arm them against misinformation campaigns. Using social media and other mass media such as radio or television will increase the audience, and therefore magnify the effect that the information campaign has. Internet access is limited in some communities however, in those cases posters or pamphlets could fulfil this role.

Collaborating with local health workers could also yield great results, as people see their doctor as a figure of authority. They will also be quicker to believe their own doctor, a person whom they have known for a long time, than an ad they saw in the newspaper. Working together with religious leaders could also yield the same results. Because religious beliefs are often a factor in causing vaccine hesitancy, hearing religious leaders endorse the vaccine would help alleviate the problem.

Mandatory Vaccination

Another possible solution might be to introduce mandatory vaccination. In theory this solves the problem of vaccine hesitancy completely, because it would not matter if someone was sceptical about taking the vaccine, it would simply be mandatory for everyone. But when thinking about it like this you are ignoring some important factors. People often do not want to take the vaccine, because they do not trust their government, and this trust will not come back if the government starts forcing its citizens to vaccinate. So by implementing mandatory vaccination, you are actually only exasperating the problem. Moreover, mandatory vaccination may be seen to interfere with several human rights, like the right to bodily integrity, the right to autonomy and the freedom of religion.

One might also say however, that the health benefits of mandatory vaccination outweigh these basic human rights. You might also point out that, just like with the 1954 Polio vaccine, simply showing people the effects of the vaccine would be enough to convince them. So there remains a fine line to be tread, on one side the decline of trust towards authorities, and on the other the possible health benefits. The best possible solution might lie somewhere between introducing a complete mandatory vaccination law and doing nothing at all. One can think of mandatory vaccination for certain professions only, and possibly for children in daycare. Or one might contemplate introducing certain benefits for people that are vaccinated, such as tax cuts.

Sources

- *A brief history of vaccination*. (n.d.). https://www.who.int/news-room/spotlight/history-of-vaccination/a-brief-history-of-vaccination
- Adejoro, L. (2023). 6.2 million Nigerian children unvaccinated in three years -WHO. *Punch Newspapers*. https://punchng.com/6-2-million-nigerian-children-unvaccinated-in-three-years-who/#:~:text=The%20World%20Health%20Country%20Representative,the%202023%20African%20Vaccination%20Week.
- *Building trust to reach zero-dose children in India*. (n.d.). UNICEF. https://www.unicef.org/stories/sowc-2023/india-reaching-zero-dose-children
- *COVID:19 scale of education loss 'nearly insurmountable', warns UNICEF*. (n.d.). https://www.unicef.org/press-releases/covid19-scale-education-loss-nearly-insurmountable-warns-unicef#:~:text=Children%20have%20lost%20basic%20numeracy%20and%20literacy%20skills.&text=In%20low%2D%20and%20middle%2Dincome,53%20per%20cent%20pre%2Dpandemic.
- *History of Anti-Vaccination movements*. (n.d.). History of Vaccines. https://historyofvaccines.org/vaccines-101/misconceptions-about-vaccines/history-anti-vaccination-movements
- *Immunization coverage*. (n.d.). https://www.who.int/data/gho/data/themes/topics/immunization-coverage
- Mingst, K. (2023, 30 september). *UNICEF | Definition, History, & Facts*. Encyclopedia Britannica. https://www.britannica.com/topic/UNICEF
- *New data indicates declining confidence in childhood vaccines of up to 44 percentage points in some countries during the COVID-19 pandemic*. (n.d.). https://www.unicef.org/press-releases/sowc_2023_immunization
- The Editors of Encyclopaedia Britannica. (2023, 18 september). *World Health Organization (WHO) | History, Organization, & Definition of Health*. Encyclopedia Britannica. https://www.britannica.com/topic/World-Health-Organization
- *UNICEF Immunization Roadmap 2018-2030*. (2018, September). unicef.org. Retrieved September 30, 2023, from https://www.unicef.org/sites/default/files/2019-01/UNICEF_Immunization_Roadmap_2018.pdf
- *World Health Assembly*. (z.d.). https://www.who.int/about/governance/world-health-assembly

- World Health Organization: WHO. (2020, July 15). WHO and UNICEF warn of a decline in vaccinations during COVID-19. *who.int*. https://www.who.int/news/item/15-07-2020-who-and-unicef-warn-of-a-decline-in-vaccinations-during-covid-19
- World Health Organization: WHO. (2023). Immunization coverage. *www.who.int*. https://www.who.int/news-room/fact-sheets/detail/immunization-coverage