



COVID-19 VACCINE HESITANCY IN THE UNITED STATES: WHAT FACTORS ARE CONTRIBUTING TOWARDS VACCINE HESITANCY IN THE US?

Nandika Poddar

Article DOI: <https://doi.org/10.36713/epra11141>
DOI No: 10.36713/epra11141

ABSTRACT

In this paper, I take a look at vaccine hesitancy in the United States with regard to the Covid-19 vaccine. A large portion of the population may be hesitant in receiving the new Covid-19 vaccine, posing risks to both the individual and their community, as exposure to a contagious disease puts the individual at risk. These individuals are far more likely to spread the disease to others if they do not get vaccinated. I will also talk about the "3 Cs" vaccine hesitancy model, which consists of confidence, complacency, and convenience.

INTRODUCTION

Defined by the World Health Organisation as a "delay in acceptance or refusal of vaccines despite availability of vaccine services", vaccine hesitancy has existed for as long as vaccines have been around. But in light of the Covid-19 pandemic, vaccine hesitancy has taken on a new meaning. Concerns about the safety of COVID-19 vaccines may contribute to vaccine hesitancy.

The World Health Organisation (WHO) is now coordinating a global campaign aimed at preventing disease, detecting it early, and treating it. The development of a COVID-19 vaccine is crucial for organisations' continued efforts to flatten the infection curve. Vaccine availability, on the other hand, does not guarantee adequate population immunisation, as indicated by vaccine hesitancy (Omer & Salmon, 2009). Because past research has shown that vaccine compliance is unpredictable and variable, successful vaccination against this disease will require widespread awareness campaigns about vaccine safety and efficacy. Vaccine hesitancy continues to be a barrier to widespread vaccination against highly contagious diseases.

The mandated nature of vaccines, their coincidental temporal linkages to negative health implications, lack of familiarity with vaccine-preventable diseases, and lack of confidence in companies and public health authorities are all factors that contribute to vaccine hesitancy. Although vaccination is customary in the United States, over the last decade, the number of parents claiming non-medical exemptions to school vaccination requirements has risen. Vaccine refusal has been linked to outbreaks of many diseases, causing unnecessary suffering in children and wasting scarce public health resources. Vaccine hesitancy is a critical issue that must be addressed since effective control of vaccine-preventable diseases demands the long-term maintenance of incredibly high immunisation rates. The

multifaceted and varied causes of vaccine hesitancy necessitate a diverse set of responses at the personal, provider, health-care system, and national levels. These include standardised measurement tools to quantify and locate vaccine hesitancy clustering and better understand issues of trust; a rapid, independent, and transparent review of an enhanced and appropriately funded vaccine safety system; adequate reimbursement for vaccine risk communication in doctors' offices; and individually tailored messages for parents who have vaccine concerns, particularly first-time pregnant women. Vaccines have never had a greater potential to prevent sickness and save lives. That potential, however, is reliant on parental vaccination acceptance, which demands trust in vaccines, healthcare professionals who suggest and administer vaccines, and the institutions to guarantee vaccine safety.

CAUSES FOR VACCINE HESITANCY

Vaccine hesitancy has existed for as long as vaccines have existed. Smallpox vaccine was received with hesitancy and outright rejection when it was first discovered. There are a variety of reasons why some people are afraid to get vaccinated, just as there were when the smallpox vaccine was first introduced. Smallpox has been eradicated in the modern world as a result of a successful vaccination programme, and vaccinations have effectively controlled many other major causes of illness and mortality. As a result, worry of many vaccine-preventable diseases has evolved to dread of vaccines (Chenn & Hibbs, 1998).

Vaccine hesitancy has been influenced by a number of social factors (Cooper et al., 2008). Trust in vaccine manufacturers and the government, which purchases and promotes vaccines on a huge scale, is at an all-time low. Fear of the "pharmaceutical industrial complex" and improper government-industry connections, as well as mistrust of science and the medical profession, has spurred vaccine



hesitancy among some members of the public (Poland et al., 2009). While strong support for vaccines from paediatricians and other health care providers has been critical to our immunisation program's success, the medical model has evolved significantly over time. Many parents prefer a shared decision-making process with their paediatrician rather than being told what to do for their children's health (Smith et al., 2006). Pediatricians and other healthcare providers are increasingly under pressure to see more patients in less time, and they're dealing with parents who turn to the internet for disinformation and bad research. Furthermore, they are finding it more difficult to properly communicate accurate and impartial information regarding vaccines to parents, as well as to address their individual concerns. Although efforts to provide new tools to healthcare providers have been made, the problem remains unsolved. Vaccine safety concerns are fast crossing national borders and circling the globe in our electronic age.

Vaccines are not just victims of their own success, but they also struggle to sustain public trust due to biases that frequently influence risk perceptions and decision-making. There is typically a "compression" bias (Ball et al., 1998), which causes people to overestimate the incidence of rare dangers such as those linked with vaccination. People are influenced by "ambiguity aversion" to prefer recognised dangers, such as those from diseases, to unknown risks that are less common, such as the likelihood of vaccine adverse reactions. Furthermore, "natural hazards" (illness) are preferred over "manmade risks" (vaccination). "Errors of omission" (risks of not vaccinating) are preferred over "errors of commission" (risks of vaccination). Vaccine adverse event reports are frequently twisted and exaggerated as a result of sensationalistic media coverage and the quick spread of disinformation on the internet. As a result, "accessible" events can lead to an overestimation of frequency. The "compression" heuristic leads to an overestimation of rare risks such as vaccine adverse responses and an underestimation of common hazards such as those from many vaccine-preventable diseases when weighing the risks and benefits of vaccination. These biases increase the difficulty of establishing public trust in vaccines.

VACCINE HESITANCY MODEL

Vaccination acceptance is a behaviour that results from a complicated decision-making process that can be impacted by a variety of variables. The "3 Cs" model is currently the most comprehensive vaccine hesitancy model available.

In the "3 Cs" model, Confidence is defined as trust in - the effectiveness and safety of vaccines, the platform that administers them, including the reliability and expertise of health services and health experts, and the incentives of legislators who decide that vaccines are required.

Vaccination complacency occurs when the risk of vaccine-preventable diseases is minimal and vaccination is not considered a required preventive measure. Complacency about a specific vaccine, or vaccination in general, is influenced by a variety of circumstances, including other life/health duties that are perceived to be more important at the moment. As individuals weigh the risks of vaccination with a particular

vaccine against the risks of the disease that the vaccine prevents, vaccination programme success may paradoxically lead to complacency and, ultimately, hesitancy, as individuals weigh the risks of vaccination with a particular vaccine against the risks of the disease that the vaccine prevents that disease is no longer common. The degree to which complacency dictates hesitancy is also influenced by self-efficacy (an individual's self-perceived or real ability to take action to be vaccinated).

Convenience is a crucial determinant of vaccine hesitancy. Physical availability, price and willingness-to-pay, geographical proximity, awareness (language and health literacy), and attraction of immunisation services affect vaccine acceptance. The degree to which vaccination services are offered at a time and place that is convenient and comfortable, as well as in a cultural environment that is convenient and pleasant, affects the decision to be vaccinated and may lead to vaccine hesitancy.

CONCLUSION

The reasons for COVID-19 vaccination acceptance and hesitancy are still unclear. As additional SARS-CoV-2 variations emerge, adding to the complexity (Karim et al., 2021), and new vaccines enter the market, it will be critical to strike a fine balance between sharing what is known and acknowledging the unknowns. Researchers and pharmaceutical companies should be as open as possible, with research data on COVID-19 vaccinations publicly accessible. International medical journals should ensure that the use of 'expedited reviews' does not jeopardise the peer-review process for important articles on vaccination safety and efficacy, as well as associated research findings. Governments should be open about their COVID-19 response initiatives and vaccine availability, as well as the processes used to make crucial choices. Reporting of adverse events following vaccination is an important part of evaluating vaccination programme implementation, and while it's necessary to document and report these incidents, excessive media coverage may deter people from becoming vaccinated. As a result, the media should report in a responsible and honest manner, presenting viewers with clear and balanced information. Finally, anyone who use the internet and social media (including scientists and clinicians) should do so responsibly to avoid distributing erroneous information or using language that could be misunderstood, potentially increasing vaccine hesitancy.

Although issues of vaccination distribution equity remain a significant challenge for LMICs in need of immediate assistance, the latency in the implementation of COVID-19 vaccines in these countries does provide a window of opportunity for overcoming hesitancy. Prioritising vaccine delivery to LMICs is justified not just on the basis of equality, but also on the anticipation of higher marginal returns in maximising global coverage at a faster rate (Solis Arce et al., 2021). Continued research on COVID-19 vaccine acceptance and hesitancy should be a priority in the battle against this pandemic because the globe shares a joint responsibility in battling this pandemic. Such research should then be used to develop contextualised advertising and information exchange, which will lead to an increase in vaccine trust and uptake.



With the establishment of immunisation regulations in the United States, which ensure that all children are protected by routine childhood vaccines, significant progress has been made in the fight against infectious illnesses. However, these successes in lowering vaccine-preventable diseases are jeopardised by a shift in disease beliefs and increased vaccination safety concerns. Several factors can influence vaccine uptake, including vaccine hesitancy. To build and preserve public trust in vaccines, more effort is required. Tools to aid clinicians in efficiently working with parents who have vaccine concerns would be very useful. Because there is great heterogeneity in the precise concerns of concern as well as the types of messages that might be helpful, messaging to parents must be personalised to match individual requirements. Furthermore, vaccine education tools, as well as support from professional organisations such as the ACIP and AAP, can assist providers in overcoming their personal reservations about the safety and efficacy of routine paediatric vaccinations. This is critical because a unified message from healthcare providers to parents about the benefits of immunizations and their prompt uptake in children is required. Surveillance of vaccination hesitancy trends can provide useful insights into effective interventions and inform the deployment of new preventive measures.

REFERENCES

1. Abdool Karim, S. S., & de Oliveira, T. (2021). New SARS-CoV-2 variants—clinical, public health, and vaccine implications. *New England Journal of Medicine*, 384(19), 1866-1868.
2. Ball, L. K., Evans, G., & Bostrom, A. (1998). Risky business: challenges in vaccine risk communication. *Pediatrics*, 101(3), 453-458.
3. Chen, R. T., & Hibbs, B. (1998). Vaccine safety: current and future challenges. *Pediatric annals*, 27(7), 445-455.
4. Cooper, L. Z., Larson, H. J., & Katz, S. L. (2008). Protecting public trust in immunization. *Pediatrics*, 122(1), 149-153.
5. Omer, S. B., Salmon, D. A., Orenstein, W. A., Dehart, M. P., & Halsey, N. (2009). Vaccine refusal, mandatory immunization, and the risks of vaccine-preventable diseases. *New England Journal of Medicine*, 360(19), 1981-1988.
6. Poland, G. A., Jacobson, R. M., & Ovsyannikova, I. G. (2009). Trends affecting the future of vaccine development and delivery: the role of demographics, regulatory science, the anti-vaccine movement, and vaccinomics. *Vaccine*, 27(25-26), 3240-3244.
7. Smith, P. J., Kennedy, A. M., Wooten, K., Gust, D. A., & Pickering, L. K. (2006). Association between health care providers' influence on parents who have concerns about vaccine safety and vaccination coverage. *Pediatrics*, 118(5), e1287-e1292.