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The Global Vaccine Mandate: Ethics, Science, and Policy

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The Global Vaccine Mandate: Ethics, Science, and Policy

Immunization is considered one of the most remarkable achievements in terms of medicine and public health in the modern era. Through immunization, several infectious diseases have been prevented and even eradicated from existence, as they were causing a considerable number of fatalities and disabilities among human populations all across the globe. The fundamental principle involved in vaccination is to develop immunity against infectious organisms in a way that mimics natural infections but without causing any severe illness. Vaccinations help reduce the risks of becoming infected, developing complications, getting admitted to hospitals, and even death by stimulating an immune response when encountering infections (Canoe & Launay, 2019).

In the past, vaccination campaigns have been used to manage and eradicate diseases such as smallpox, polio, measles, tetanus, diphtheria, and hepatitis. Eradication of the disease of smallpox has been among the greatest public health successes attributed to global vaccination programs conducted in partnership with international health organizations such as WHO (MacDonald et al., 2018). Vaccines are not only important for protecting individual members from a disease, but they play an important role in ensuring that communities are protected. Herd immunity refers to immunity provided to a community as a result of vaccination of enough individuals within a community such that they do not spread the disease (Bachini et al., 2019).

The significance of vaccinations became even more apparent due to the emergence of the Coronavirus Disease 2019 (COVID-19) outbreak, which quickly turned out to be one of the most impactful public health emergencies in the recent past. This disease caused millions of cases and deaths globally while at the same time creating chaos regarding the economy, healthcare infrastructure, education, work, and socialization processes. All countries around the world adopted different measures to contain the spread of the disease including vaccination (Rahman & Islam, 2021).

It is safe to state that the development of coronavirus vaccines was a significant scientific milestone. Scientists around the world worked together in order to ensure accelerated research, clinical testing, and production of vaccines. In less than a year following the discovery of SARS-CoV-2, numerous vaccines had already been produced, clinically tested, and approved for emergency use (Rahman & Islam, 2021). The administration of these vaccines played an important role in decreasing morbidity and mortality among those who have contracted the virus.

Education has been highlighted as one of the main determinants of vaccine acceptance. As found in the study carried out by Li et al. (2022), more education means less vaccine hesitancy since highly-educated people showed acceptance of vaccines at a level of about 65.24%, while low levels of education correlated positively with vaccine hesitancy of about 66%. In addition, the Health Belief Model (HBM), which is commonly applied in public health studies, helps to explain how the beliefs of people affect their actions and decisions. As stated by Li et al. (2022), During the ongoing coronavirus pandemic, misleading and fake information concerning vaccines such as their safety, ability to make women infertile, microchipping people, and many other conspiracy theories spread widely across the Internet, affecting attitudes towards vaccination negatively. It has been suggested

that such misinformation played an important role in promoting vaccine hesitancy and mistrust in science (Koaita et al., 2020)

Pros of vaccine becoming mandatory

Vaccine mandates have been widely debated as a public health strategy for improving immunization coverage and controlling the spread of infectious diseases. Although voluntary vaccination programs have achieved considerable success globally, vaccination rates in many countries remain insufficient to effectively prevent outbreaks of vaccine-preventable diseases. Consequently, governments and healthcare authorities have increasingly considered mandatory vaccination policies as a means of protecting public health and achieving herd immunity (MacDonald et al., 2018).

Historically, three major factors have contributed to the implementation of vaccine mandates. The first factor is the limited success of non-coercive public health interventions. Governments and healthcare institutions have implemented numerous strategies aimed at encouraging vaccination uptake, including awareness campaigns, public education programs, reminder systems, school-entry vaccination documentation requirements, and behavioral “nudge” strategies. While these interventions have improved vaccine acceptance in certain populations, they have not always been sufficient to achieve the vaccination coverage required to prevent disease transmission and outbreaks (MacDonald et al., 2018).

The proponents of mandatory vaccination suggest that the policies do not protect the vaccinated people only; they can also ensure that vulnerable groups of people, who cannot get vaccinated due to various reasons, such as immune deficiency, allergies, and chronic diseases, are safe. By preventing the spread of contagious diseases, mandatory vaccination protects the more vulnerable people from complications. Thus, in addition to being a health-related issue, vaccination can also be seen as social responsibility (Bachini et al., 2019).

Moreover, mandatory vaccinations can help prevent the increase in healthcare expenses connected with epidemics. The prevention of illnesses through vaccinations will reduce hospitalization cases and decrease the cost of expensive medications; besides, the economy will not incur losses as a result of low productivity. As seen from the example of the pandemic, vaccinations decreased cases of severe complications (Rahman & Islam, 2021).

Furthermore, the implementation of such laws can help protect the healthcare system during a public health crisis. In pandemics, the higher rate of vaccinations will ensure that the healthcare system does not become overcrowded with severe cases that require hospital admission and intensive care. This will enable hospitals to deliver healthcare services to patients suffering from other diseases (Rahman & Islam, 2021).

Vaccines not becoming mandatory

The development of anti-vaccination campaigns has seen an increase within recent times through the use of internet-based social media sites. Most arguments against vaccines have been scientifically proven to be incorrect and have involved misinformation concerning the safety of vaccines, side effects, and effectiveness. Some arguments also emerge due to the lack of trust in the government, pharmaceutical firms, healthcare facilities, and science itself (Koaita et al., 2020).

In Poland, anti-vaccination campaigns have grown immensely, leading to negative sentiments towards vaccination among its citizens, according to Koaita et al. (2020). These actions may threaten the epidemiological stability of Poland by discouraging people from accepting vaccinations. The

analysis of anti-vaccination arguments reveals that most of their beliefs originate from a poor understanding of science, the influence of religion on those with fundamentalist values, or misinformation by the anti-vaccine movement (Koaita et al., 2020).

Another significant problem linked to vaccine mandates includes the quick evolution of new technologies in the realm of vaccines, including DNA and messenger RNA (mRNA) vaccines. Contrary to common vaccines where attenuated or killed viruses may be used, genetic material is introduced in nucleic acid vaccines in order to induce immune responses by causing cells to manufacture antigens (Rahman & Islam, 2021).

The reason why DNA vaccines became a popular choice was their high stability, easy construction, and simplicity of manufacturing. Nonetheless, before the emergence of COVID-19, no DNA vaccine ever managed to pass Phase III clinical trials and gain commercial approval. There is also a risk that the plasmid DNA could integrate itself into the human genome, as well as possible ineffectiveness of DNA vaccines and risks of autoimmunity (Rahman & Islam, 2021).

The inequitable distribution of vaccines around the world has led to the establishment of COVAX, which helps distribute vaccines among poorer nations. However, the differences in access to vaccines also raised some ethical issues such as inequality in medical facilities, resource distribution, and global coordination in dealing with a global emergency (Rahman & Islam, 2021).

Moreover, it is argued by some authors that coercive vaccination programs can lead to increased distrust in government institutions and reduce the willingness of people to work with healthcare organizations in future public health measures (Koaita et al., 2020).

Conclusion and implication

On the basis of the presented facts, vaccination could be regarded as one of the most promising and evidence-based approaches in preventing various infectious diseases as well as reducing morbidity and mortality in the international community. Vaccinations have already been proven to contribute to enhancing life expectancy and preventing different kinds of diseases across the world. Nevertheless, there are a number of barriers such as vaccine hesitancy, misinformation, ethics, politics, and mistrust in science that hinder the development of effective vaccination programs.

The authorities should strive to increase the level of awareness concerning the safety, efficacy, and advantages of vaccinations among the population. The policymakers should encourage educational activities in order to disseminate information concerning the benefits and risks associated with vaccinations that might help reduce mistrust and increase vaccine literacy among the citizens. Politicians should not abuse their power by imposing politically driven policies that conflict with scientific principles and are ethically dubious.

The pharmaceutical companies should continue conducting research into innovations in vaccine production and manufacturing. Vaccines should be thoroughly tested on the grounds of specific criteria in order to guarantee their safety and readiness for consumption (Rahman & Islam, 2021).

Moreover, healthcare professionals are critical in vaccine acceptance since they have the capacity to counter any misinformation about vaccines, educate their clients, and promote informed healthcare decision-making. Healthcare professionals can help improve public health through combating myths and misbeliefs, social stigma associated with vaccinations, among other interventions (Li et al., 2022).

In conclusion, debates on vaccine mandates present some broader ethical, scientific, and social aspects about individual autonomy versus the responsibilities that come along with living in society. Although compulsory vaccines can help increase immunity and control epidemics of infectious diseases, these policies need careful consideration of cultural values and ethical considerations as well as societal perspectives. The importance of cooperation among nations, transparent communication, scientific integrity, and informed policymaking cannot be undermined in maintaining vaccination programs for the sake of global public health in the coming days.

References

- Badua, A. R., CA Raquel, K. J., Cruz, M., & Narvaez, R. A. (2022). Vaccine literacy: A concept analysis. *International Journal of Mental Health Nursing*, 31(4), 857–867. <https://doi.org/10.1111/inm.12988>
- Bechini, A., Boccalini, S., Ninci, A., Zanobini, P., Sartor, G., Bonaccorsi, G., Grazzini, M., & Bonanni, P. (2019). Childhood vaccination coverage in Europe: impact of different public health policies. *Expert Review of Vaccines*, 18(7), 693–701. <https://doi.org/10.1080/14760584.2019.1639502>
- Canoui, E., & Launay, O. (2019). History and Principles of Vaccination. *Revue Des Maladies Respiratoires*, 36(1), 74–81. <https://doi.org/10.1016/j.rmr.2018.02.015>
- Koźłataj, W., Koźłataj, B., Panasiuk, L., Sobieszcański, J., & Karwat, I. (2020). Anti-vaccine movements – a form of social activity for health care, ignorance or diversion aimed at destabilizing the health situation? Part 1. Epidemiological safety. Vaccinations – pros and cons. *Annals of Agricultural and Environmental Medicine*. <https://doi.org/10.26444/aaem/126013>
- Li, Z., Ji, Y., & Sun, X. (2022). The impact of vaccine hesitation on the intentions to get COVID-19 vaccines: The use of the health belief model and the theory of planned behavior model. *Frontiers in Public Health*, 10. <https://doi.org/10.3389/fpubh.2022.882909>
- MacDonald, N. E., Harmon, S., Dube, E., Steenbeek, A., Crowcroft, N., Opel, D. J., Faour, D., Leask, J., & Butler, R. (2018). Mandatory infant & childhood immunization: Rationales, issues and knowledge gaps. *Vaccine*, 36(39), 5811–5818. <https://doi.org/10.1016/j.vaccine.2018.08.042>
- Rahman, M. A., & Islam, M. S. (2021). Early approval of COVID-19 vaccines: Pros and cons. *Human Vaccines & Immunotherapeutics*, 17(10), 1–9. <https://doi.org/10.1080/21645515.2021.1944742>



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