

Ethical Dilemma in Vaccination in Indonesia: Balance Between Public Health Obligations and Individual Autonomy Rights

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ARTICLE INFO	ABSTRACT
Manuscript Received: 6 Oct, 2024 Revised: 10 Dec, 2024 Accepted: 16 Dec, 2024 Date of Publication: 27 Dec, 2024 Volume: 14 Issue: 2 DOI: 10.56338/promotif.v14i2.6562	Background: Vaccination is a biological product containing antigens that actively stimulate specific immunity against certain diseases. Before the COVID-19 pandemic, high vaccination coverage among children in Indonesia played a critical role in reducing morbidity from vaccine-preventable diseases. However, the pandemic disrupted the national immunization program, as UNICEF reports highlighted a decline in vaccination coverage due to mobility restrictions and parental concerns over COVID-19 exposure. This decline increased the risk of outbreaks of preventable diseases such as measles and diphtheria. The ethical dilemma of vaccination arises between the public health obligation to prevent disease spread and the individual autonomy to make personal health decisions, including vaccination. This study aims to identify the ethical challenges of vaccination in Indonesia, analyze the factors influencing public attitudes toward vaccines, and provide policy recommendations. Method: A literature review methodology was employed, encompassing articles in both Indonesian and English languages, with keywords including "vaccination ethics," "individual autonomy," "public health obligations," and "Indonesia." Result: The study findings highlight the tension between government efforts to achieve herd immunity and individual rights, as well as challenges in vaccine distribution in remote areas. Conclusion: In conclusion, vaccination policies in Indonesia should prioritize balancing public health interests and individual rights, emphasizing public education and strengthening vaccine distribution infrastructure.

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INTRODUCTION

Vaccines are biological products containing antigens that will actively induce specific immunity against certain diseases. The high coverage of childhood vaccination in Indonesia before the COVID-19 pandemic played an important role in reducing morbidity rates from vaccine-preventable diseases (1). Diseases such as measles, diphtheria, and polio are some examples of diseases that have been successfully controlled through a comprehensive national immunization program. According to data from the Ministry of Health, before the pandemic, the coverage of complete basic immunization for children in Indonesia reached more than 85%, which contributed to the low rate of infectious diseases among children (2).

The COVID-19 pandemic has presented significant challenges to the immunization program. A report from UNICEF (2021) shows that school closures, mobility restrictions, and regional quarantines have caused major disruptions in routine immunization services. Many parents are hesitant to bring their children to health facilities due to concerns about the risk of exposure to COVID-19, resulting in a drastic decline in vaccination coverage (3). Data

from the Ministry of Health shows that in 2020, complete basic immunization coverage fell to below 50% in several areas.

This decline in coverage increases the risk of outbreaks of vaccine-preventable diseases. For example, several regions in Indonesia reported an increase in measles and diphtheria cases after immunization coverage declined during the pandemic. This situation reflects a pattern also seen in several other countries during global crises like this. This is due to increased doubts about vaccination during the post-Covid 19 pandemic. This phenomenon is known as vaccine hesitancy, which is triggered by various factors such as misinformation, distrust of the government, and concerns about vaccine safety (4).

World Health Organization (WHO) has identified vaccine hesitancy as one of the 10 global health threats, even before the COVID-19 pandemic occurred. In the Indonesian context, this challenge is further complicated by the diverse religious, cultural, and ideological reasons that influence parents' decisions regarding their children's vaccinations. Ethically, the debate between public health interests and individual autonomy becomes even more relevant in this context. In Indonesia, vaccination is voluntary and there is no legal obligation for parents to immunize their children. Therefore, finding a balance between safeguarding public health and respecting individual rights is a major challenge for policymakers (5).

This article aims to complement the shortcomings of previous studies on the polemic of the implementation of the vaccination program by the government. Specifically, this article will map and identify the form or shape of the pros and cons of vaccines in society. In addition, this study also explains the factors that cause the emergence of movements against vaccination.

METHOD

This study employs a systematic literature review methodology. The data sources utilized in this research include the Google Scholar database, comprising articles in both Indonesian and English. The search keywords were: "vaccination ethics," "individual autonomy," "public health obligations," and "Indonesia." Data were collected from articles published within the past five years (2020–2024) and screened based on inclusion and exclusion criteria to identify relevant studies. Studies addressing the ethical dilemmas of vaccination, vaccination decisions influenced by individual rights and public health obligations, and articles published in reputable international or national journals were included in the analysis. Conversely, studies irrelevant to the topic or failing to meet rigorous methodological standards were excluded. Qualitative analysis was conducted by identifying the main themes emerging in the relevant literature, such as vaccination policies in Indonesia, public perceptions of vaccination, and ethical dilemmas arising from the tension between individual rights and public health interests. Data synthesis was performed by summarizing these findings, which were subsequently utilized to construct arguments highlighting the balance between public health obligations and individual autonomy in vaccination decisions. Finally, the research report was structured following the systematic literature review format, encompassing an introduction, search methodology, main findings, discussion, and conclusion. In the discussion section, the findings were analysed to provide insights into the ethical dilemmas surrounding vaccination in Indonesia and to propose policy recommendations. The emphasis was placed on the critical need to balance public health obligations with respect for individual autonomy.



Figure 1. PRISM Flowch

RESULTS

Table 1. Challenges of the vaccination dilemma in the Indonesian region 2020-2024

Year	Vaccination Coverage	Challenges Faced	Government Strategy	Reference Source
2020	The COVID-19 vaccination program began in December 2020 with a target of 70% coverage for the first dose.	Cold chain limitations, vaccine distribution logistics in remote areas, vaccine hesitancy in some community groups.	Collaboration with the private sector, vaccine diplomacy through COVAX to gain equitable access to vaccines.	WHO (2023), Globalization and Health (2023), Tropical Medicine and Health (2021)
2021	62.45% of Jakarta residents have received the first dose of the COVID-19 vaccine as of May 2021.	Public doubts about vaccine safety, distrust of the government, concerns about the halalness of vaccines.	Launch of a public information campaign on vaccine safety and effectiveness through social media and support from religious leaders.	PLOS Global Public Health(2021)
2022	National first dose coverage reached 86.85%, second dose 74.51%. However, booster dose coverage was low (29.84%).	Declining interest in booster doses, uneven vaccine distribution logistics outside Java.	Integration of COVID-19 vaccination into routine immunization programs, focusing on increasing access for the elderly and remote areas.	WHO (2023), Ministry of Health of the Republic of Indonesia (2023)
2023	Declining public interest in the second booster, especially among the elderly.	Doubts about the need for booster vaccines due to the decline in COVID-19 cases and public perception of immunity.	Strengthening coordination between central and regional government agencies, increasing logistics capacity, and improving public communication.	WHO (2023), Globalization and Health (2023) BioMed Central World Health Organization (WHO)
2024	Focus on vaccination of vulnerable groups and integration of vaccination into primary health services.	Booster vaccination coverage is still low, especially among vulnerable groups such as the elderly.	Utilization of primary health facilities (Puskesmas) to increase vaccination coverage in vulnerable groups.	WHO COVID-19 Post-Introduction Evaluation (2024)

DISCUSSION

Vaccination Rate in Indonesia

Indonesia, as an archipelagic country with more than 17,000 islands, faces significant geographical challenges in terms of vaccine distribution, especially in remote areas and islands. Vaccine distribution in these areas is often hampered by limited transportation and logistics infrastructure. Complex distribution routes and difficult-to-reach terrain make vaccine delivery slow and expensive. This is especially true for areas such as Papua and Maluku, where distances between regions are very large and transportation is often dependent on weather and limited infrastructure (6).

A critical aspect of vaccine distribution is the cold chain, which ensures that vaccines are kept at the appropriate temperature throughout transportation and storage. In many remote areas, adequate vaccine storage facilities are often unavailable. This poses a risk of vaccine degradation due to not storing vaccines at the appropriate temperature. The lack of cold chain facilities is also a significant problem in areas with limited access to electricity, making storing vaccines at stable temperatures a challenge (6).

Indonesia as a country with a Muslim majority population, halal issues are often in the spotlight in vaccination. The controversy over non-halal components in some vaccines has sparked hesitancy among the Muslim community, leading to a long debate. Religious authorities, such as the Indonesian Ulema Council (MUI), have been actively involved in issuing fatwas regarding the halalness of vaccines to ensure that vaccination programs remain in

line with religious teachings (7).

The challenge of vaccination in Indonesia increased after the first wave of the pandemic subsided, there was a decline in interest in vaccines, especially for booster doses. Many people feel that the threat of COVID-19 has decreased, so they consider booster vaccines no longer necessary. To overcome this, the government is trying to integrate vaccination into primary health services such as Community Health Centers, with a focus on vulnerable elderly groups. (6)

Overall, the vaccination dilemma in Indonesia revolves around distribution challenges, vaccine hesitancy, the role of religion, and international vaccine diplomacy. While there has been progress in vaccination coverage, the challenge ahead is to ensure that vaccines are accessible to all levels of society, especially in remote areas and vulnerable groups. Therefore, a long-term strategy that focuses on improving infrastructure and adding health workers in these areas needs to continue to be encouraged to achieve equal vaccination across Indonesia.

Maintaining Public Health Vs Individual Autonomy Vaccination in Indonesia

In the context of public health, vaccination is an important tool to prevent the spread of infectious diseases and protect populations from outbreaks. However, in Indonesia, a dilemma has emerged between the need to protect collective public health and respect individual autonomy regarding the decision to receive a vaccine. This issue is increasingly relevant during the COVID-19 pandemic, as governments seek to accelerate vaccination programs to achieve herd immunity, while some individuals refuse vaccination on the basis of personal autonomy rights, religious beliefs, or fear of side effects. (6)

The government has a responsibility to maintain public health as a whole, and one way to do this is through mass vaccination. This approach is based on the principle of utilitarianism, namely that actions that provide the greatest benefit to society should be encouraged. In this case, vaccination aims to protect the population at large from the threat of infectious diseases that can result in death or serious complications (8).

On the other hand, individual autonomy is a fundamental principle in medical ethics that emphasizes the right of every individual to make decisions regarding their own health without coercion. This principle is recognized in international law as well as in the Indonesian legal system. Many individuals in Indonesia refuse vaccination for personal reasons, including fear of side effects, concerns about vaccine safety, and religious beliefs.

Individual autonomy can be seen in certain groups who refuse vaccines due to religious beliefs. In Indonesia, some Muslim populations doubt the halal status of certain vaccines, while some individuals in other communities have similar cultural or religious reasons. In addition, the right to refuse medical intervention, including vaccination, is recognized as part of human rights, which makes governments very careful in imposing policies that concern individual bodies (9).

Government policies on vaccination can be understood through legal and ethical frameworks. On the one hand, protecting public health requires collective measures, including a strong vaccination policy, while on the other hand, the individual's right to refuse vaccination must still be respected. Public health policies in Indonesia tend to try to balance these two aspects by implementing mandatory vaccination policies in some contexts, such as for health workers or essential sectors, but providing room for exceptions based on beliefs or medical conditions (Ryan, 2021).

Vaccination Policy and Law

Regulations related to vaccination are based on laws, government regulations, and policies of the Ministry of Health which aim to protect public health through immunization programs. Health Law No. 36 of 2009 Articles 12 and 13 of this Law state that the government is obliged to provide equitable and affordable health services for the entire community, including immunization services. Vaccination is considered part of the preventive efforts regulated in this article to avoid the spread of infectious diseases (10).

During the COVID-19 pandemic, the Indonesian government issued Presidential Regulation No. 99 of 2020 concerning the Procurement and Implementation of COVID-19 Vaccination. This regulation regulates the procurement of vaccines by the government and the implementation of vaccinations for the community. Under this regulation, COVID-19 vaccinations are provided free of charge to the community and are mandatory for certain categories, such as health workers and public officials (6).

Vaccination policies also include sanctions for those who refuse vaccination without a valid reason. For example, in the context of COVID-19, those who refuse vaccination may be subject to restrictions on access to certain

public facilities or travel. However, there are exceptions for individuals who have certain medical conditions or religious beliefs that do not permit vaccination (8).

Legal recommendations for public health protection and anti-vaccination

To address this dilemma, the Indonesian government has implemented several policies and strategies aimed at balancing the collective need to prevent the spread of infectious diseases with respecting the individual's right to make personal health decisions. Here are some recommendations proposed in this review:

Strengthening Evidence-Based Vaccination Policies

The government needs to continue to develop vaccination policies that are based on scientific evidence and strong epidemiological data. These policies should focus on effective prevention of infectious diseases, while still taking into account social, cultural, and religious factors that influence public acceptance of vaccines. The government can work with academics and research institutions to ensure that policy decisions are based on valid data and are in line with the current epidemiological situation.

Ongoing Public Education and Communication

One of the main obstacles in achieving optimal vaccination coverage is lack of public understanding about the benefits of vaccination and the existence of misinformation. To that end, the government must strengthen public education programs on an ongoing basis, which is carried out through evidence-based campaigns disseminated through various media, including social media, television, and radio. These campaigns must target undecided segments of the population regarding vaccination, including by involving trusted community leaders and religious leaders.

Strengthening Infrastructure and Vaccine Distribution

Another important recommendation is to strengthen the vaccine distribution infrastructure, especially in remote areas. This includes increasing cold chain capacity to ensure that vaccines can be stored safely throughout Indonesia. The government must also continue to ensure the availability of vaccines in local health facilities, such as community health centers, and ensure easy access for people in rural areas.

Incentives for Vaccination Participation

The government may consider providing incentives for the community who are willing to be vaccinated, such as social assistance or other economic incentives. This approach has proven effective in various countries to increase vaccination participation, especially among groups who are skeptical or vulnerable to misinformation. Incentives can be given in the form of priority access to certain public services or welfare programs.

Law Enforcement Against the Spread of Misinformation

To overcome the negative impacts of mis information Regarding vaccination, the government must strengthen law enforcement related to the spread of false information. Electronic Information and Transactions Law (UU ITE) can be the basis for taking action against hoax spreaders who have the potential to hinder the implementation of the vaccination program. In addition, it is important for the government to work with social media platforms to monitor and remove content containing misinformation about vaccines

Inclusive Policy Making

Finally, it is important for governments to develop policies that are inclusive and take into account the diversity of society. This includes recognizing the rights of individuals who refuse vaccination based on religious beliefs or certain medical conditions, while still emphasizing the importance of collective protection. These exceptions need to be clearly stated in national vaccination policies, creating a fair balance between the public interest and individual autonomy.

CONCLUSION

In facing the challenges of vaccination, the Indonesian government needs to continue to balance public health with individual rights. By strengthening evidence-based policies, increasing public education, improving distribution infrastructure, and taking decisive action against the spread of misinformation, the government can maximize the effectiveness of the vaccination program while still respecting individual rights in making personal health decisions.

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