

PROBLEMS LEGAL IMPLEMENTATION OF *VIRUS SHARING OBLIGATIONS* IN THE INTERNATIONAL HEALTH REGULATIONS (IHR) SYSTEM IN INDONESIA

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Abstract

The global pandemic that has occurred over the past two decades has tested the ability of the international legal system to regulate solidarity and justice between countries. One of the most critical aspects is the implementation of the *virus sharing obligation*, which is the obligation of the state to share pathogen samples and genetic data with the international community to support early detection and vaccine development. The *International Health Regulations* (IHR) of 2005, as the main international health law instrument, have so far not explicitly regulated the mechanism for implementing *virus sharing* fairly. This creates a gap between the moral obligation of global solidarity and the reality of national interests, especially for developing countries such as Indonesia which have important biological resources but limited access to global research results

This research aims to reconstruct the law on the obligation of *virus sharing* in the IHR system so that it can be carried out fairly, both for WHO as the global health system management institution and for parties such as Indonesia. The approach used is normative juridical with qualitative analysis of international documents, implementation practices, and academic literature. The results show that IHR needs to be strengthened through the integration of *access and benefit sharing* (ABS) principles that ensure a fair distribution of benefits for the use of viruses or genetic data, as well as binding accountability mechanisms between countries. Thus, this legal reconstruction is expected to be a conceptual contribution to global health governance reform based on justice and equality.

Introduction

Global health is an issue that is closely related to justice between countries. The COVID-19 pandemic proves that no international legal system is fully prepared to deal with inequality in access to vaccines and medicines. In this context, *the International Health Regulations* (IHR) 2005 are a major milestone in regulating the reporting obligations and responses of parties to cross-border health threats. However, although the IHR regulates early detection, reporting, and coordination mechanisms, there is no explicit provision requiring countries to share virus samples and genetic data found in their territories. This ambiguity creates a gap between the principle of global health solidarity and the often protective national interest (Liu, 2024).

Indonesia was once one of the countries that highlighted this inequality, especially in the case of the refusal to share the H5N1 bird flu virus in 2007. The Indonesian government at that time refused to provide samples of the virus to the WHO because it was worried that the virus sent would be used by pharmaceutical companies in developed countries to make vaccines that would then be resold at high prices without fair access for virus contributing countries. The incident marked a crisis of trust in global health governance and gave rise to a new discourse on fairness in *virus sharing* (Fidler, 2008).

The problems that arise are not only about the unwillingness of the state to share data, but also related to the absence of a legal framework that guarantees equal reciprocity between the virus provider country and the virus user. Thus, the implementation of *virus sharing* has become a debate between the principle of national sovereignty over biological resources and the global need for the prevention of infectious diseases. In this context, the legal reconstruction of IHRs is an inevitable urgency so that the international health system can be more responsive to the principle of substantive justice (Abubakar, 2020).

This legal reform needs to be placed within the framework of the relationship between Indonesia and WHO, where Indonesia as a developing country with high biodiversity plays a role as a provider of biological resources, while the WHO as a global authority has the authority to regulate the distribution system of information and benefits. This relationship demands a balance between the *obligation to share* and *the right to benefit*, so that not only countries with large scientific capacities benefit from such global collaboration. Thus, the implementation of the obligation to *share* virus in a fair manner will be a moral and legal basis for the international health system in the future (Berman, 2025).

Problems

The main problem in the implementation of *the virus sharing* obligation in the IHR system is the unclear legal norms and the imbalance of benefits between the provider country and the virus user. First, the IHR does not expressly stipulate provisions regarding the obligation to share virus samples or genetic data. IHR articles regulate more reporting and coordination obligations, not specific exchange of biological resources (Gostin, 2016). This has led to differing interpretations between countries regarding the extent of their obligations to share sensitive information or samples.

Second, the implementation of *virus sharing* is often not accompanied by a guarantee of fairness in the distribution of benefits from research or vaccine development. Virus-producing countries, especially from the global south such as Indonesia, are often the first to bear the risk of spreading the disease, but do not have equal access to the results of scientific innovations developed by developed countries (Liu, 2024). This condition reinforces structural inequalities between developed and developing countries in the global health system.

Third, there is no international accountability mechanism that can ensure the consistent implementation of *virus sharing* obligations. The IHR relies on the voluntary compliance of the parties without a legally binding instrument of sanctions or award. This situation creates uncertainty in the implementation and supervision of these obligations (Strobeyko, 2024).

Fourth, weak technical capacity and laboratory infrastructure in many developing countries hampered their ability to share virus samples quickly and safely. This creates inequalities in access to information and hampers the global collective response to infectious disease outbreaks. Therefore, the problem of *virus sharing* is not only juridical but also multidimensional, involving global political, economic, and ethical aspects (Berman, 2025).

Literature Review

1. Legal Framework of the *International Health Regulations (IHR) 2005*

The IHR 2005 is an international legal instrument designed to strengthen global preparedness and response to transboundary disease outbreaks. This regulation is binding on 196 countries under the coordination of WHO. The primary goal of the IHR is to prevent the spread of infectious diseases without disrupting international trade and travel. However, the IHR does not explicitly regulate the obligation to share viruses or genetic data between countries, resulting in a significant legal vacuum in the context of *virus sharing* (WHO, 2023). In practice, the implementation of these obligations is still highly dependent on the goodwill of the parties and bilateral agreements that are not legally binding.

In addition, some clauses such as Articles 6 and 44 of the IHR only affirm the importance of international cooperation and the exchange of public health information. However, the clause lacks an instrument that can guarantee benefit distribution or an effective supervisory mechanism. As a result, the implementation of *virus sharing* often does not have a strong legal basis in the context of global justice and accountability (Gostin, 2016).

2. The Principle of Access and Benefit Sharing (ABS) in International Law

The concept of *Access and Benefit Sharing* (ABS) was first regulated in the *Convention on Biological Diversity* (CBD) in 1992 and later strengthened through the *Nagoya Protocol* in 2010. This principle aims to ensure that the use of genetic resources is carried out fairly and balanced between the provider and user countries (Morgera, 2018). In the context of *virus sharing*, the ABS principle becomes relevant because it concerns the right of the provider country to the scientific and economic benefits of the use of the genetic data they provide.

However, the implementation of ABS principles in the global health realm still faces major challenges. The WHO does not yet have a legal instrument that formally integrates ABS into the IHR system. Most ABS initiatives still fall under the framework of CBD, which does not directly regulate human pathogens (Strobeyko, 2024). Therefore, legal synergy between CBD, Nagoya Protocol, and IHR is needed so that the implementation of *virus sharing* can run fairly and effectively.

3. Perspectives on Global Justice in International Health Law

Global justice in health is not only about access to medical services, but also about the distribution of risks and benefits of global scientific activity. In the context of *virus sharing*, fairness means that countries that first face the risk of spreading pathogens must benefit proportionately from global collaboration (Ruger, 2010). This principle is in line with the idea of *global solidarity* on which the WHO is based, but in practice it is often hampered by the economic and political interests of developed countries.

According to Gostin (2016), the structure of international health law still tends to reflect the power imbalance between north and south. Developed countries have the capacity to develop medical technologies from globally collected virus data, while developing countries remain the object of such global policies. Therefore, IHR reconstruction must integrate the principles of distributive justice so that every country has an equal position in the global health system.

4. Implementation Dynamics in Indonesia and WHO

In the Indonesian context, the implementation of *virus sharing obligations* is regulated through cooperation with WHO and international laboratory networks such as *the Global Influenza Surveillance and Response System* (GISRS). However, Indonesia's experience

in 2007 showed that without a guarantee of fair benefits, countries may choose to withhold virus samples as a form of protest against global inequality. This situation is an important lesson for WHO to strengthen trust and transparency mechanisms in sharing biological data (Fidler, 2008).

Indonesia then became a pioneer in encouraging the establishment of the *Pandemic Influenza Preparedness (PIP) Framework* system in 2011, which aims to regulate the mechanism of sharing influenza viruses and their benefit-sharing. Although not a direct part of the IHR, the PIP Framework provides a relevant model to be integrated into the IHR revision, so that *virus sharing* obligations can be implemented fairly and consistently in the future (WHO, 2023).

Method

This study uses a normative juridical approach with the support of qualitative analysis. A normative juridical approach is used to analyze the legal substance of IHR and its relationship with the principle of *access and benefit sharing* (ABS) in international law. Meanwhile, qualitative analysis is used to understand the empirical context of the implementation of *virus sharing* through Indonesian and WHO case studies. Primary data is in the form of international legal texts such as the 2005 IHR, the *Pandemic Influenza Preparedness (PIP) Framework*, and the *Convention on Biological Diversity (CBD)*. Secondary data include scientific journals, books, and WHO reports that discuss the mechanism of virus sharing and global benefits (Morgera, 2018).

The analytical technique used is descriptive-analytical analysis by examining the compatibility between the principles of global justice and existing international legal practices. The first stage is the identification of norms in the IHR and ABS, the second stage is the evaluation of implementation by WHO and Indonesia, and the third stage is legal reconstruction based on the principle of distributive justice. This approach allows research to generate normative arguments that are relevant to international health law reform (Gostin, 2016).

Results and Discussion

1. Normative Void in IHR on *Virus Sharing Obligations*

The 2005 IHR only regulates reporting and coordination obligations in public health emergency situations, without explicitly mentioning the state's obligation to share viruses or genetic data. As a result, these obligations are only implemented based on customs and moral agreements between countries, not based on binding international legal obligations (WHO, 2023). This leads to weak accountability and uncertainty in the implementation of *global virus sharing*, which ultimately impacts the speed of response to the pandemic (Liu, 2024).

2. Inequality of Justice between Virus Provider and User Countries

Virus-providing countries such as Indonesia are often victims of structural inequities in the global health system. Despite playing an important role in the early detection of new pathogens, developing countries rarely gain equal access to vaccines or research technologies. International health systems that depend on market mechanisms exacerbate these inequalities (Fidler, 2008). The principle of *access and benefit sharing* should be adopted to balance the relationship between the provider country and the user through technology transfer, joint research financing, and preferential access to research results (Morgera, 2018).

3. IHR Legal Reconstruction through ABS Principle Integration

To address these gaps, IHRs need to be reformulated by adding norms that govern benefit-sharing mechanisms. WHO can adopt the *Pandemic Influenza Preparedness (PIP) Framework model* that has successfully regulated benefit schemes for influenza virus host countries. In the context of international law, this reconstruction can be carried out through the amendment of the IHR or the adoption of additional protocols that bind the parties to ensure fairness in the distribution of benefits (Strobeyko, 2024).

In addition, the establishment of a global funding mechanism is a must for developing countries to have adequate laboratory capacity to detect and share pathogens quickly and safely. The funding can be arranged through a global solidarity fund jointly developed between WHO, the World Bank, and donor countries (Berman, 2025).

4. Harmonization of National and International Implementation

IHR reform will not be effective without harmonization at the national level. Indonesia needs to strengthen domestic regulations on the management of genetic resources and the sharing of public health data. This harmonization is important so that national policies are in line with international norms regulated by WHO (Abubakar, 2020). By strengthening coordination between the Ministry of Health, the Ministry of Foreign Affairs, and research institutions, Indonesia can play a more active role in international negotiations and the implementation of *fair virus sharing* obligations.

Conclusion

The implementation of *virus sharing obligations in the International Health Regulations (IHR) system* still faces significant normative and justice challenges. Although the IHR is the main instrument of global health law, it has not regulated the mechanism for sharing the virus fairly. Indonesia, through its experience with the WHO, has demonstrated the importance of a balance between the obligation to share and the right to benefit. Legal reconstruction that integrates the principles of *access and benefit sharing* is a solution to ensure that the global health system runs more fairly, transparently, and sustainably.

Limitation

The limitation of this research lies in its normative and conceptual nature, so it does not include empirical verification in the field. In addition, as international negotiations on amendments to the IHR and the *Pathogen Access and Benefit Sharing (PABS)* system are still ongoing, some of the recommendations in this study are predictive and may change according to future global legal dynamics.

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