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THE LEGAL DIMENSION OF GLOBAL HEALTH SECURITY: LESSONS FROM PANDEMICS AND INTERNATIONAL LAW

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Abstract

The problem of health security is very important in the world we live in today. The world is getting more connected. A sickness can spread across countries in just a few hours. This paper is about the laws that deal with health security. It observes at how international laws support countries get ready for and respond to health emergencies like pandemics. However the paper checks out some rules like the International Health Regulations and laws from the United Nations and other regions. Further it aims to discover what is good and what is bad about these laws. We have seen big health problems like COVID-19, Ebola and H1N1. These problems have shown us that countries do not always follow the rules they do not always share information. Some people do not have equal access to healthcare. International health protection is a contract and we need to look at how international laws can support us deal with health emergencies, like pandemics and international health protection. The research claims there is a need not only for good law but also for political will, institutional capability, and strong international collaboration in ensuring global health security. In order to create a genuinely robust global health system, countries should be focused on increasing accountability and collaborating by means of coordinated international efforts. It is only through such decisive actions that future outbreaks of public health can be well averted and dealt with so that nations are in a better position to handle the new outbreaks of health and to protect the populations of the world.

Introduction

Health security has become globalized due to the fact that diseases are progressing faster than the authorities can respond (Zidar & Zidar, 2024). The recent pandemics SARS, H1N1, Ebola, and COVID-19 proved the vulnerability of the national health system and the weakness of the legal systems that should prevent and respond to the cross-border threat (Falqui et al., 2024). These events provided a clear understanding of health crises as a medical and a complex challenge on the global level and necessitated a clear legal, political, and institutional response (Balkhy, 2024). The overwhelming role of international law was

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emphasized by the battles that countries fought to contain, monitor, and provide equal access to medical resources (Pavone, 2023). The International Health Regulations would also improve the health security of the world and, therefore, ensure early detection, publicity, and joint action (Kavanagh et al., 2023). However, varying amounts of state compliance, ineffective enforcement mechanisms, and gaps in health capabilities in countries indicated systematic weaknesses in the system (Halabi et al., 2024).

These failures were manifested during the COVID-19 pandemic in specific ways, such as the absence of information sharing, the absence of readiness, and uneven travel restrictions, which did not correspond to the WHO recommendations (Sheerah et al., 2024; Zaman, 2024). Through reviewing the law, institutional arrangements, and experience in the context of pandemics, the research will serve to demystify how law and international cooperation can boost preparedness and facilitate the international response.

Research Justification

The legal aspect of the health safety needs to be looked at very carefully because of the recent pandemics have shown some big problems. Even though international rules like the International Health Regulations IHR are in place to make sure that countries report problems quickly work together and share information we still see that countries are not following these rules in the way and this was true during the COVID-19 pandemic and other outbreaks. These changes mean we need laws that are stronger and more flexible to support countries work together and need to look at what went wrong during SARS, Ebola and COVID-19 to see where international law works well and where it does not so we can improve at being prepared and taking responsibility. The objective of this study is to contribute to the conversation about how to make the global health system significantly better when it comes to making sure everyone has access, to vaccines sharing data and working together across borders. However that enhancing our laws will be support us stop the pandemic and make sure that everyone, especially people who are most vulnerable is treated fairly and protected. So it is very important to look at the aspect of global health security now so we can build a health system that works well all over the world.

Literature Review

Global health security has become a subject of extensive legal analysis by the general population of public health, international relations, and legal studies, particularly after the significant world outbreaks (Sheerah et al., 2024). The current literature notes that the International Health Regulations are the cornerstone of global health governance, and they bring about the obligation to surveillance, reporting, and coordinated response to diseases (Zaman, 2024). IHR are considered an important development of earlier frameworks since they have shifted the value of state sovereignty to shared global responsibility (Villarreal et al., 2025). Nevertheless, various works indicate their deficiencies, especially the lack of enforcement mechanisms, as well as variable compliance with the states (Burci 2024).

COVID-19 triggered a broad literature review that questions the international health law (Zidar & Zidar, 2024). The crisis demonstrated the weaknesses of the system, such as delays in the notification of outbreaks, inconsistency in travel restrictions, and the inability to provide equal access to vaccines and medical supplies (Pavone, 2023). Such analyses highlight the necessity to have a more robust monitoring system, transparency, and legal changes (Halabi et al., 2024). The political and economic dimensions of managing the pandemic are discussed in other articles, in which the international commitments are frequently sacrificed to the demands of national interests and result in disorganized and slow reactions. Ebola and SARS are also examples of cases illustrating the pattern of difficulties in applying international legal norms (Kavanagh et al., 2023).

It has been demonstrated that the IHR are intended to foster international collaboration, but most low- and middle-income states are unable to afford core capacity needs because of the financial and infrastructural limitations (Balkhy, 2024).

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Recent literature also examines new suggestions to change the situation, such as the possibility of establishing a pandemic treaty, more powerful accountability tools, or increasing the power of the WHO (Falqui et al., 2024). On the whole, the literature highlights that although international law offers an essential background regarding international health security, its successes rely on the will of the political leadership, the allocation of resources, and the duration of international cooperation.

Historical Context of the Legal Dimension of Global Health Security

That the efforts required to contain the spread of cross-border diseases with a long history of a transmission and have a strong foundation in global health security (Pavone, 2023). In the mid-19th century, the first International Sanitary Conferences took place, as the pandemics of cholera in Europe marked the first measure in controlling the health regulation of border crossings and their legal implications (Sheerah et al., 2024). The following conferences aimed to agree on quarantine plans to limit the further transmission of the disease and break the trade, thereby preconditioning international health policy (Falqui et al., 2024). The global surveillance and collaboration was designed by the institutions and was the brainchild of the Office International d'Hygiene Publique and, afterward, the Health Organization of the League of Nations in the early 20th century (Burci, 2024). Nonetheless, it was not until 1948 that the world health began to be governed with an institutional structure through the establishment of the World Health Organization (WHO) (Zidar & Zidar, 2024). The original International Sanitary Regulations, which were later renamed to the International Health Regulations (IHR), targeted a few diseases, specifically cholera, plague, and yellow fever (Balkhy, 2024). HIV/AIDS, SARS, and H1N1 caused by the fact that the existing health threats were more intricate and had to be better covered by law (Villarreal et al., 2025). It resulted in the formulation of the IHR that enhanced the responsibilities to all the emergency cases in international health care of interest (Halabi et al., 2024). However, the changes were a sign of a new realization of the necessity to have the collaborative of legal frameworks and that was as adaptable as it sensitive to new and the unpredictable threat to global health security (Kavanagh et al., 2023) and as robust as it was to them.

Theoretical Context of the Legal Dimension of Global Health Security

The conceptual basis of health security in the world is based on several disciplines. There is another important perspective involves international law, global governance, and public health theory. In this context, collective action theory is particularly significant, however it suggests that concentrated efforts are needed from the international community and address global health threats, since no state can prevent or respond to a pandemic alone. The infectious diseases that's an issue that hit everyone, not one country. They make it hard for nation to work together particularly when whats good for one country isn't good for others. They think health security is a shared good that everyone should have. Another thing to think about is the global public. That the IC goods theory views health security as a communal good, necessitating collective production and equal distribution. In this prism, effective surveillance systems, quick reporting systems, and unrestricted access to vaccines may be viewed as the key shared goods that demand global long-term commitment. However this view is in line with the argument that international law must not only enable obligations but also equal sharing of resources. Further more the regime theory can also help in the analysis of global health governance in the sense that international norms, rules, and institutions, particularly the World Health Organization and the International Health Regulations (IHR), influence the behavior of the states. Last but not least is that the human security theory that expounds on the definition of health security on the matter of focusing on the well-being of individuals instead of protection by states alone.

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Laws Regarding the Legal Dimension of Global Health Security

1. International Legal Frameworks: The global health security relies on laws that help countries work together to tackle health threats. These laws are crucial. Include the International Health Regulations. This agreement is legally binding. Involves 196 countries. It requires countries to build surveillance, reporting, and response mechanisms and forces countries to report outbreaks to the WHO promptly in the event that outbreaks are a Public Health Emergency of International Concern (PHEIC). However, despite its importance, the IHR is susceptible to persistent challenges with regard to discrepancies in state compliance, lack of enforcement power, and a substantial disparity in the public health system. The COVID-19 pandemic has evidently shown that legal provisions are not enough and they have to be complemented with more effective accountability tools, sufficient funding, and honest working in other nations.

2. Specialized Agreements and Rights-Based Instruments: In addition to the IHR, there are various thematic legal mechanisms that strengthen health governance across the world. The suggested WHO Pandemic Agreement (in negotiation) focuses on enhancing readiness by articulating the rules that apply in the sharing of pathogens and the exchange of genomic data, as well as equal allocation of medical countermeasures and coordination of global response in case of crisis. Likewise, the Pandemic Influenza Preparedness Framework also controls the distribution of the influenza viruses and ensures benefit-sharing through the provision of vaccines, treatments, and transfers of the technology. Also, international human rights law is critical in advising the states to make sure that emergency health actions are legal, acceptable, and free of discrimination. The rights to health, privacy, information, and freedom of movement are intrinsically linked with obligations supported by such instruments as the International Covenant on Economic, Social, and Cultural Rights in case of a public health emergency.

3. Regional and National Legal Systems: States work on the national level in order to implement global commitments through national legislation. They include the public health acts, epidemic control ordinances, biosafety and biosecurity laws, quarantine laws, and disease surveillance systems. These laws encompass the ones that govern travel restrictions, vaccination, laboratory safety, emergency powers, and risk communication. A domestic law that is efficient and suitably pursuant is pertinent in regard to translating international obligations into practice and responding to the emergent health challenges in a timely and integrated manner, in a manner that is both just and inclusive.

Challenges for the Legal Dimension of Global Health Security

The health security law aspect in the world faces various complex challenges that interfere with global preparedness and coordinated actions in the response to emerging health threats. One of the biggest challenges is also the poor implementation of international tools such as the International Health Regulations. The IHR is a document of law binding, but no punitive actions are imposed against non-compliance; hence, the document has lagged in reporting, incomplete surveillance, and countries have shown different degrees of implementation of the document. Many states, in particular low- and middle-income countries, are characterized by poor resources, political constraints, and a lack of technical expertise that limits their ability to make effective compliance with global health commitments.

The other significant issue is the lack of unity in international health governance, in which different international actors, the WHO, regional bodies, bilateral donors, and private foundations share similarities in their mandates. The effects of this disintegration include a lack of consistency in policies, redundancy, and power rivalry. The COVID-19 pandemic demonstrated that countries were inclined to prioritize national interests (when they were manifested as travel bans, importation bans, and hoarding of vaccines) instead of the international rules that preferred cooperation. This was a nationalist approach that

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demonstrated a legal and structural gap, a lack of enforceable laws to ensure equal access to vaccines, diagnostics, and treatment. These types of regimes, as in the case of TRIPS regarding intellectual property, only exacerbate fair allocation and restrict the exchange of technologies and slow the proliferation of medical countermeasures in developing countries. Human rights issues are another challenge to the legal environment of global health security. Implementation of emergency health measures such as lockdowns, digital surveillance, and mandatory isolation without adequate protection can infringe on the right to privacy, movement, and expression. The abuse of power was also committed in other countries by exercising it in order to suppress dissenting views, attack the less powerful members of society, or enhance the surveillance potential of the state to levels that were not required to protect health. The lack of clear legal provisions regarding the prioritization of health and the civil rights of individuals makes it more likely that it will be abused in case of an emergency. Overall, these problems suggest that more legal frameworks, more accountability tools, and more equal international cooperation to establish global health security are highly required.

Opportunities for the Legal Dimension of Global Health Security

The legal aspect of global health security also has a number of positive prospects in enhancing global preparedness, collaboration, and fairness in responding to threats of infectious diseases. A significant potential is the current reform of international structures, especially the International Health Regulations. The attempts to revise the IHR and enter into a new WHO Pandemic Agreement can provide an opportunity to define the state responsibilities, enhance early warning systems, and add new, more efficient tools of accountability. These reforms have the capacity to undertake the timely reporting of outbreaks, the sharing of information in an open manner, and a more coordinated international response in the case of public health emergencies.

The second opportunity arises due to the increased awareness of equal access to medical countermeasures as a priority in the law. The legal form of benefit-sharing arrangements discussed by the Pandemic Influenza Preparedness (PIP) Framework and the pandemic equity discussions in the new international deal indicate the necessity to have legally structured benefit-sharing arrangements. They can help in the equitable allocation of vaccines, diagnostics, and treatment through the enactment of technology transfer, voluntary licensing, and the security of manufacturing capacities in the region. This change can decrease the inequalities witnessed in times of crisis like COVID-19.

The other outstanding opportunity is to enhance the protection of human rights in the emergency health laws. The consideration of human rights principles in pandemic laws will make the actions of governments in curbing the pandemic proportional, legal, and non-discriminatory. This helps build trust among people and makes them want to follow rules, which is important for health programs to work well.

Lastly countries can improve their laws to prepare for health emergencies. They can update public health rules make clear quarantine and surveillance regulations and follow international biosafety and biosecurity standards. The integration of levels, like common surveillance systems, mutual aid agreements and emergency response systems can provide extra support to communities. All these chances show that global health laws can be updated to be fairer more responsible and work together better which can help respond to pandemics more effectively

Discussion

The last few years, there have been major changes in the laws governing health security, particularly in light of previous pandemics. However, there are still some gaps to fill for the haul. International systems, such as health regulations, facilitate the reporting, monitoring, and responding to outbreaks of diseases internationally. They are not without faults, especially in enforcing countries to respect the rules. During the COVID-19 Pandemic, it has shown how countries prioritize their interests, which resulted in the delay of reports and an imbalance in travel conditions and

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access to medical assistance. So it look like that laws are needed on countries' taking responsibility and cooperation. The laws of health security will have to strike the right balance between what countries can and can't do and cooperation across different nations. Preparing to reform laws in each country to handle health crises and working within and between countries is key to a better global health system. Finally, the legal component of international health security has its role to fill a gap between state sovereignty and international cooperation. A stronger international health system means stronger, more effective national legal systems, national preparedness legislation, and cooperation among the nations.

Conclusion

The international health protection relies on strong legal frameworks to support countries in preventing, detecting, and responding to infectious disease threats. Despite existing resources like the IHRs for cooperation, widespread issues of compliance, implementation, and equity remain in the current pandemic situation. These are the areas where there are powerful, easy, and more dependable legal solutions that can be harmonized with international health agendas and drive national action. Meanwhile, emerging prospects for change exist, such as the development of the WHO Pandemic Agreement, the inclusion of a human rights dimension, and strengthening national preparedness laws, among others, that can indicate possible pathways for change. Much more needs to be done regarding the rules for watching people and sharing information. Aiding individuals to get the help when they need it, as well. However, the ability to handle emergencies better needs to be developed.

Recommendations

We need to make the legal side of health security stronger. To do this we can make some suggestions. The response to health problems the way people work together and the fairness of it all can be made better. First we should change the International Health Regulations or IHR. The International Health Regulations should be changed to make sure countries have to report health problems when they happen. The International Health Regulations should also make sure that all countries are watching for health problems in the way. The International Health Regulations need to have ways to make sure countries are doing what they are supposed to do. This will make sure all member states of the International Health Regulations follow the rules on time. The International Health Regulations are very important, for health security.Second, the proposed WHO Pandemic Agreement must contain the legally binding provisions on equitable access to vaccines, diagnostics, and treatments backed with technology transfer, regional production centers, and equitable benefit-sharing schemes.

Third, human rights principles have to be introduced into all emergency health legislation by the states to avoid abuse of power, make sure that the limitations are proportional, and avoid discriminating against vulnerable populations. Rights-based approaches are the foundation of the legitimacy and effectiveness of public health actions. Fourth, by improving national public health legislation, such as revised quarantine legislation, biosafety laws, and digital surveillance laws, domestic capacities can be reinforced and national systems brought in line with global commitments.

Fifth, better regional cooperation structures can aid common surveillance systems, common responses to emergencies, and assistance systems, which means that one will not have to rely on ad hoc arrangements whenever a crisis arises. Finally, there will be a need to establish transparent information-sharing processes and confidence among states, institutions, and communities to ensure an effective and coordinated response in the future to pandemics.

Research Limitations

There are a number of limitations in this study on the legal aspects of global health security. To start with, international law is extremely broad in terms of covering various treaties, regulations, and

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customary practices and thus cannot be covered adequately in one research framework. Second, a good part of the information is based on secondary sources, such as academic literature, policy reports, and case studies, which can be biased or incomplete in reporting in countries with limited transparency.

Third, it is difficult to determine the usefulness of international legal tools like the IHR because of the confluence of political, economic, and social factors that determine the adherence of a state to legal tools, and it is hard to establish the effect of legal measures in the context of other variables. Moreover, the quick change in pandemics and other new health threats implies that the conclusions made based on past crises cannot be entirely applicable to challenges in the future. Lastly, there is a risk of being unable to review the current world preparedness and response systems due to the lack of access to real-time government and WHO-related data.

Research Implications

Global health security has a tremendous implication on the research in the area of public health, law, and policy. Increasing the effectiveness of international law, such as the IHR and the proposed WHO Pandemic Agreement, is one of the grounds on which the influence of legally binding obligations on the response of the state, the reporting of outbreaks, and international cooperation is researched. The research can identify whether accountability systems are effective, whether human rights are taken into account in emergency laws, and how legalization could affect equitable vaccine and medical countermeasures accessibility. Moreover, there is a possibility to make a legal analysis of the interaction between national and international laws and the way in which the emergency law and national preparedness consider the international responsibilities. The comparative studies of regional legal frameworks and their potential contribution to coordinated responses can be used to establish the best practices of cross-border health security. All in all, policy changes, creation of more fair means of responding to pandemics, and evidence-based decision-making can be implemented with the help of the legal underpinnings of global health governance to minimize future outbreaks of public health.

Future Research Directions

Future studies on the legal aspect of global health security ought to dwell on various crucial issues as a way of improving preparedness and resilience. First, the research can measure the impact of the suggested legal changes, including the WHO Pandemic Agreement, to enhance compliance, accountability, and equal access to medical countermeasures. Second, a study can be held on how human rights concepts can be incorporated into the legal framework of emergency health and how the legal protection has an impact on the level of trust in following the health guidelines and protecting the vulnerable groups.

Third, cross-national and regional studies of legal systems can establish good practices in engaging domestic law with international commitment and emerging models that can increase cross border collaboration. Fourth, the law of intellectual property, technology transfer, and vaccine equity can be investigated to give insights into the aspects of law to minimize disparities in global health emergencies. Lastly, the interdisciplinary research on law, public health, and policy studies can provide evidence-based solutions to enhance global legal frameworks, which are more coordinated and effective in facing the future pandemic.

REFERENCES

Balkhy, H. (2024). Unpacking the package of amendments to the international health regulations at country level. *Eastern Mediterranean Health Journal*, *30*(9), 597-600. https://doi.org/10.26719/2024.30.9.597

Burci, G. L. (2024). The COVID-19 pandemic and the development of global health law: Managing crises or achieving structural changes? *Journal of Global Health Law*, *1*(1), 8-25. https://doi.org/10.4337/jghl.2024.01.01.

Frontier in Medical & Health Research

ISSN: (e) 3007-1607 (p) 3007-1593

Falqui, L., Li, F., & Xue, Y. (2024). Global health diplomacy in humanitarian action. *Conflict and Health*, *18*(1), 46. https://doi.org/10.1186/s13031-024-00605-5

Halabi, S., Gostin, L. O., Egbokhare, O., & Kavanagh, M. M. (2024). Global health law for a safer and fairer world. *New England Journal of Medicine*, *390*(20), 1925-1931. https://doi.org/10.1056/NEJMms2403267

Kavanagh, M. M., Wenham, C., da Fonseca, E. M., Helfer, L. R., Nyukuri, E., Maleche, A & Waris, A. (2023). Increasing compliance with international pandemic law: international relations and new global health agreements. *The Lancet*, *402*(10407), 1097-1106. https://doi.org/10.1016/S0140-6736(23)01527-1

Pavone, I. (2023). *Global pandemics and international law: An analysis in the age of Covid-19*. Routledge. https://doi.org/10.4324/9781003100645.

Sheerah, H. A., Alzaaqi, S. M., Arafa, A., AlSalamah, S., Muriungi, N. G., Sampaio, B. F. C & Al-Jedai, A. (2024). Navigating hurdles: A review of the obstacles facing the development of the pandemic treaty. *Journal of Epidemiology and Global Health*, *14*(3), 580-585. https://doi.org/10.1007/s44197-024-00233-5

Villarreal, P. A., Gross, A., & Phelan, A. (2025). The proposed Pandemic Agreement: a pivotal moment for global health law. *Journal of Law, Medicine & Ethics*, *53*(S1), 55-58. https://doi.org/10.1017/jme.2025.22.

Zaman, K. (2024). Decolonizing human rights law in global health-The impacts of intellectual property law on access to essential medicines: A perspective from the COVID-19 pandemic. *Asian Journal of International Law*, *14*(2), 386-403. https://doi.org/10.1017/S2044251323000747

Zidar, A., & Zidar, Z. C. (2024). Amended WHO international health regulations for better global pandemic governance? *Medical Law International*, *24*(4), 297-312. https://doi.org/10.1177/09685332241297353