



## The Urgent Need for Global Pandemic Legislation to Protect from Future Pathogens

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### ABSTRACT

Pandemics have profound implications for global health, economies, and social structures, requiring urgent reforms in global health governance. The COVID-19 pandemic highlighted significant gaps in preparedness, inequity in resource distribution, and the limitations of voluntary frameworks like the International Health Regulations (IHR). This paper explores the necessity of implementing binding global pandemic legislation that addresses early detection, rapid response, equitable resource allocation, and legal enforcement mechanisms. Case studies of previous pandemics, including COVID-19, Ebola, and HIV/AIDS, provide lessons for crafting this legislation. By analyzing the deficiencies in current systems and proposing actionable legal solutions, this paper outlines how pandemic legislation can serve as a safeguard against future global health crises.

**KEYWORDS:** Global pandemic legislation, global health governance, pandemic preparedness, International Health Regulations (IHR), equitable resource distribution, global health security, COVID-19, Ebola, HIV/AIDS, legal enforcement mechanisms, international cooperation, vaccine nationalism, intellectual property rights, global surveillance systems, public health response, global pandemic treaty.

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**1. Introduction.** The history of pandemics reveals that infectious diseases do not respect borders. As the world becomes increasingly interconnected, the potential for pathogens to spread rapidly has increased, creating global health emergencies. Factors like climate change, urbanization, and increased human-animal interaction have created a perfect storm for emerging infectious diseases. Given these dynamics, the world faces an unprecedented need for coordinated, enforceable pandemic legislation that can preemptively address these risks.

The COVID-19 pandemic has sparked significant academic and political debate regarding the need for stronger global health governance. Scholars such as Gostin and Katz (2020) argue that the existing International Health Regulations (IHR) are insufficient due to their voluntary nature and lack of enforcement mechanisms. This perspective is echoed in political discussions where leaders have called for more binding international agreements to ensure global health security (World Health Organization, 2021).

In academic circles, there is a growing consensus on the importance of global pandemic legislation. Fidler (2020) emphasizes the necessity of legal frameworks that go beyond the IHR, advocating for a global treaty that mandates preparedness and equitable resource distribution. This view is supported by Kickbusch et al. (2021), who argue that global health diplomacy must evolve to break down barriers to collective action and establish legally binding commitments.

Politically, the idea of a global pandemic treaty has gained traction, particularly in the wake of the COVID-19 pandemic. The World Health Organization (WHO) and several member states have begun discussions on the potential structure and content of such a treaty, with a focus on ensuring that all countries are better prepared for future pandemics (WHO, 2021). These discussions have highlighted the need for a more robust international legal framework that can compel countries to take necessary actions in pandemic preparedness and response.

The reactive nature of past global health responses has proven insufficient, as demonstrated by the disparities during the COVID-19 pandemic in terms of access to healthcare, medical supplies, and vaccines. Without legally binding frameworks, global solidarity cannot be guaranteed, leaving many low- and middle-income countries (LMICs) vulnerable. Pandemic preparedness driven by global legislation becomes critical, focusing on strengthening health systems globally, ensuring surveillance for early detection, and establishing legal frameworks that compel equitable resource distribution.

Global legislation is not only about health; it is also an economic and social imperative. The interconnected nature of modern economies means that the effects of a pandemic in one part of the world can reverberate globally. Therefore, a pandemic treaty would serve to protect global economic stability, preserve human life, and maintain social cohesion across nations.

## **2. Background: Global Health Governance and Existing Legal Instruments**

### **2.1. The International Health Regulations (IHR)**

The IHR, adopted in 2005, were designed to prevent the international spread of diseases by creating a legal framework for reporting and responding to public health threats. The regulations oblige member states to report unusual disease events to the WHO within 24 hours of assessment, facilitate coordinated international responses, and ensure transparency. However, compliance with the IHR is voluntary and largely dependent on national goodwill.

During the COVID-19 pandemic, many countries either delayed reporting or underreported the extent of their outbreaks, undermining the IHR's effectiveness. For example, although China reported the outbreak of a novel coronavirus, questions remain about the timeliness and transparency of their reporting. This delay allowed the virus to spread internationally, highlighting the limitations of relying on self-reporting mechanisms without legal enforcement.

Additionally, many countries lack the core capacities required by the IHR, particularly in LMICs where surveillance systems and healthcare infrastructures are underfunded. According to the WHO, as of 2020, less than half of the 196 member states had met the minimum requirements of the IHR. This shortfall demonstrates the need for legally binding commitments to ensure that all countries are adequately prepared for pandemics. Without enforcement mechanisms, the IHR remains a set of aspirational guidelines rather than an effective legal framework for pandemic preparedness.

### **2.2. Existing Global Health Security Mechanisms**

The GHSA has been a valuable initiative in promoting collaboration between nations to strengthen health security. However, as a voluntary initiative, the GHSA lacks the legal authority to compel member states to take necessary actions. While it provides a platform for collaboration, it relies heavily on the political will of individual countries.

The PIP Framework, similarly, has made strides in ensuring that vaccines and other critical resources are available to countries in need during influenza outbreaks. However, the focus on influenza limits its utility in addressing other pathogens. Furthermore, the framework has not successfully resolved issues surrounding equitable access, particularly in ensuring that vaccines reach the most vulnerable populations during global health crises.

Both the GHSA and PIP framework illustrate the benefits of cooperation but underscore the need for a legally binding global agreement that extends beyond voluntary commitments. Such an agreement would provide the necessary structure and authority to ensure that all countries participate in pandemic preparedness and response efforts. Legislation could also address the systemic inequities that prevent the most vulnerable countries from accessing essential resources during pandemics.

### **2.3 Analysis of international legislation of the WHO**

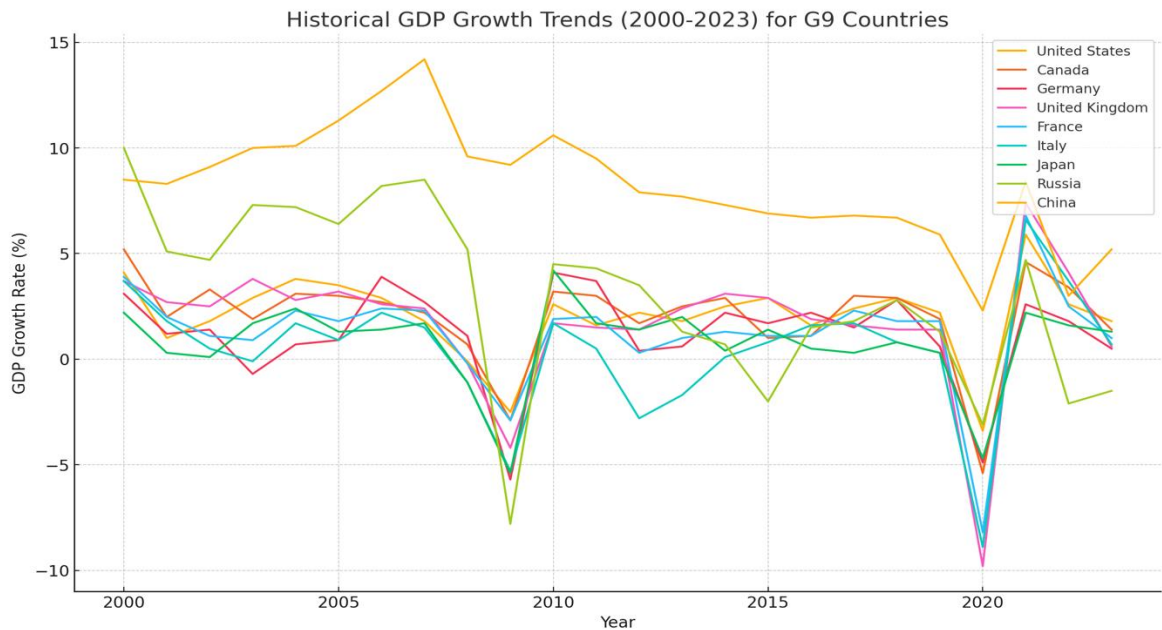
The World Health Organization (WHO) plays a critical role in shaping international health legislation, primarily through the development and implementation of legal frameworks such as the International Health Regulations (IHR). The IHR (2005) is a binding international agreement among 196 countries that establishes protocols for reporting public health emergencies of international concern (PHEIC) and aims to prevent the cross-border spread of infectious diseases while respecting human rights (Fidler, 2005). This legal framework strengthens global health security by requiring states to develop core public health capacities, particularly in surveillance, reporting, and response. However, enforcing compliance with the IHR remains a significant challenge due to variations in national interests, resource constraints, and geopolitical considerations (Gostin et al., 2020). Beyond the IHR, the WHO also facilitates the harmonization of national health laws with global standards, particularly in areas such as pandemic preparedness, antimicrobial resistance, and non-communicable diseases (Hoffman, 2010). The success of WHO's legislative influence depends on its ability to foster international collaboration, while addressing the legal and political complexities inherent in global health governance.

## **3. Case Studies: Lessons Learned from Past Pandemics**

### **3.1. COVID-19**

The COVID-19 pandemic exposed severe shortcomings in global health security, with the pandemic's impacts exacerbated by inequitable access to vaccines, lack of coordination in public health responses, and the politicization of health data. Countries with strong health systems were able to develop and distribute vaccines rapidly, while LMICs were left waiting for international aid or reliant on underfunded global initiatives like COVAX.

Vaccine nationalism became a significant obstacle to global equity. High-income countries (HICs) purchased vast quantities of vaccines, leaving LMICs with limited supplies. Despite the efforts of COVAX to distribute vaccines equitably, the initiative fell short of its goals due to underfunding and logistical challenges. Global legislation could have mandated a more equitable distribution of vaccines, preventing the hoarding of supplies by wealthier nations and ensuring that all countries had access to life-saving interventions. Data generated by Luminosity Consulting departemet of Global Helath .



Another lesson from COVID-19 is the need for transparency and rapid sharing of information. Early in the pandemic, conflicting information about the virus's transmission and severity led to inconsistent public health responses. A global pandemic treaty could mandate the sharing of epidemiological data and impose penalties for non-compliance, ensuring that all countries have access to the information needed to make informed decisions. Data from the office of global health, Luminosity Consulting.

### 3.2. Ebola Virus Outbreaks

The Ebola outbreaks in West Africa and the Democratic Republic of the Congo revealed significant gaps in global health systems, particularly in terms of the ability to mobilize resources quickly and coordinate international responses. The West African outbreak spread rapidly due to delayed detection and a lack of resources for early intervention. Moreover, the international response was hampered by logistical challenges, including the difficulty of deploying health workers to affected areas. One of the critical failures in the Ebola response was the lack of a global framework for deploying emergency aid and healthcare workers. Many countries imposed strict travel restrictions, limiting the ability of international organizations to send personnel to the affected regions. This delay contributed to the virus's spread and the high death toll.

A global pandemic treaty could address these issues by establishing legal frameworks for the rapid deployment of international aid during health crises. Such a treaty could also create protocols for easing visa restrictions and providing financial support to countries in need during pandemics. These provisions would ensure that resources can be mobilized quickly and effectively, preventing outbreaks from escalating into global health emergencies.

### 3.3. HIV/AIDS Pandemic

The global response to the HIV/AIDS pandemic provides valuable lessons for pandemic preparedness, particularly in terms of ensuring equitable access to treatments. In the early years of the HIV/AIDS crisis, ARVs were prohibitively expensive and inaccessible to most people in LMICs. This disparity in access led to millions of preventable deaths and prolonged the global impact of the pandemic. The establishment of the Global Fund and international trade agreements that allowed for the production of generic ARVs helped to bridge this gap, dramatically increasing access to life-saving treatments in low-resource settings. This response demonstrates the importance of legal frameworks in addressing global health inequities and ensuring that all countries have access to essential medicines.

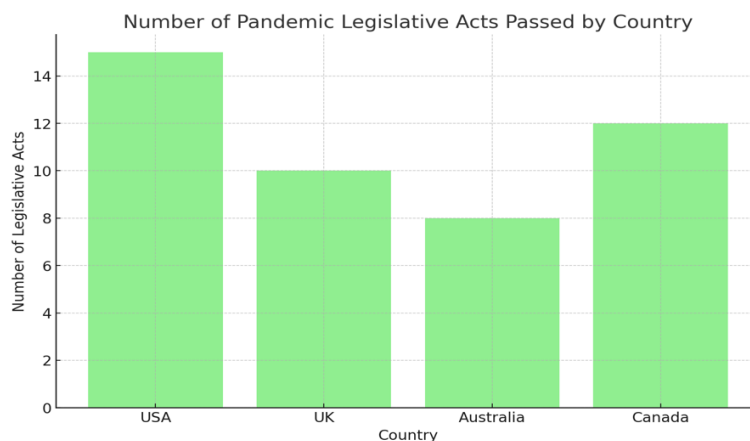
A global pandemic treaty could build on these lessons by including provisions for the equitable distribution of vaccines, treatments, and other medical resources during pandemics. It could also address issues related to intellectual property rights, ensuring that lifesaving interventions are available to all countries, regardless of their economic status.

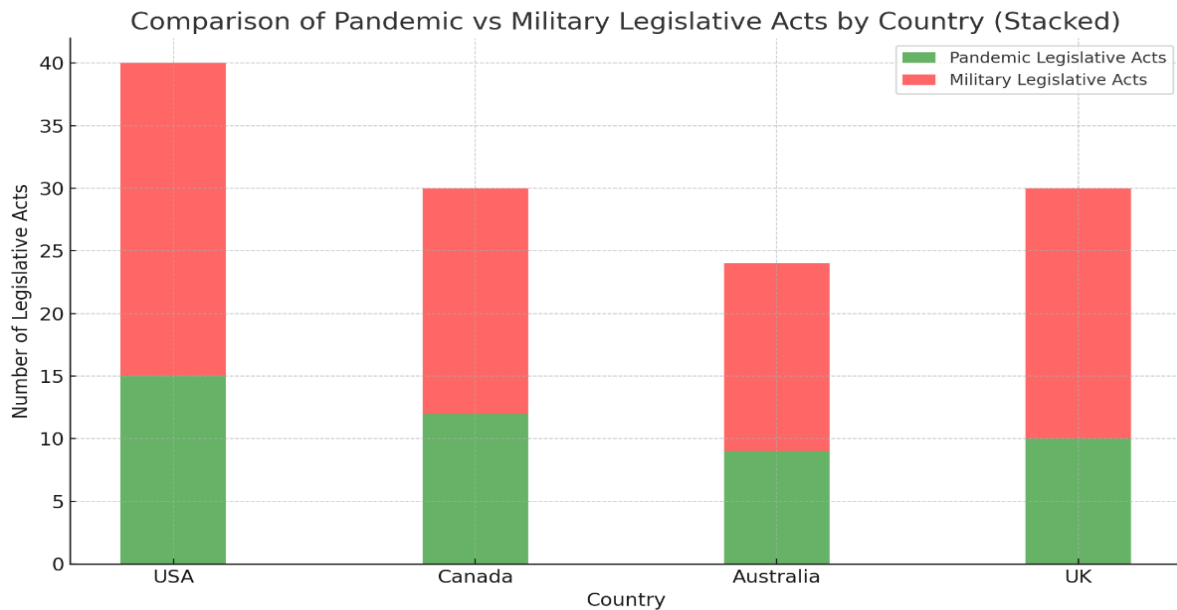
## 4. Rationale for Global Pandemic Legislation

### 4.1. Pandemic Preparedness

Preparedness is critical in preventing pandemics from spiraling out of control. Yet, the level of preparedness varies significantly between countries, with HICs generally having stronger health systems, while LMICs are often under-resourced and unprepared. Global pandemic legislation would require all countries to meet minimum standards for pandemic preparedness, including investments in healthcare infrastructure, training for healthcare workers, and the establishment of early warning systems.

The chart below illustrates the number of pandemic legislative acts passed by different countries. It shows that while countries like the USA have passed numerous legislative acts related to pandemic preparedness, other nations have not enacted as many, highlighting the disparities in legislative actions among countries. Data below in both graphs compiled by the office of Global Health, Luminosity Consulting,





#### 4.2. International Cooperation and Equity

International cooperation is the cornerstone of an effective pandemic response. Global pandemic legislation must mandate cooperation, ensuring that countries work together to develop vaccines, share epidemiological data, and coordinate public health responses. This cooperation must also be equitable, with resources distributed based on need rather than economic power.

Legal frameworks could be established to prevent vaccine nationalism and ensure that vaccines, treatments, and medical supplies are allocated according to criteria such as disease burden and population vulnerability. This would require binding commitments from wealthier nations to share resources with LMICs, ensuring that all countries can protect their populations during pandemics.

#### 4.3. Enforcement Mechanisms and Accountability

A key challenge in global health governance is the lack of enforceable mechanisms to ensure compliance. Global pandemic legislation must include robust enforcement mechanisms, such as international courts or arbitration panels, that can hold countries accountable for failing to meet their obligations. Penalties for non-compliance could range from financial sanctions to trade restrictions, depending on the severity of the violation.

Accountability mechanisms must also include transparent reporting and monitoring systems. Independent bodies could be established to audit countries' compliance with pandemic preparedness and response obligations, publishing regular reports that hold governments accountable to their commitments. These reports could be used to trigger penalties or rewards, encouraging countries to adhere to global standards.



## **5. Different Schools of Thought in Global Health Governance**

### **5.1. Realist Approach**

The realist school of thought emphasizes the importance of state sovereignty and national interests in global health governance. Realists argue that international cooperation is often hindered by states prioritizing their own security and economic interests over collective global health goals. This perspective highlights the challenges in implementing binding global pandemic legislation, as states may be reluctant to cede sovereignty to international bodies (Kamradt-Scott, 2018). The realist approach would suggest that any global pandemic legislation should include strong incentives for compliance and respect for state sovereignty to ensure broad adoption (Kickbusch et al., 2021).

### **5.2. Liberal Institutionalism**

Liberal institutionalism, in contrast, posits that international cooperation can be achieved through the establishment of institutions that foster cooperation and reduce the likelihood of conflict between states. From this perspective, global health governance can be strengthened through the creation of robust international institutions like a global pandemic treaty that enforces compliance and ensures equitable resource distribution (Fidler, 2020). Proponents of this view argue that international law and agreements, such as the proposed global pandemic treaty, are essential tools for managing global health crises effectively (Gostin & Katz, 2020).

### **5.3. Constructivist Approach**

The constructivist approach emphasizes the role of international norms, values, and identities in shaping state behavior. Constructivists argue that global health governance can be improved by fostering a shared understanding of the importance of pandemic preparedness and response (Moon et al., 2015). They advocate for the creation of global norms around health equity and solidarity, which can drive states to cooperate more effectively during pandemics. This school of thought would support the integration of these norms into global pandemic legislation, making equitable resource distribution and transparency key components of international cooperation (Horton, 2021).

### **5.4. Critical Theories**

Critical theories, including those informed by post-colonial and feminist perspectives, critique existing global health governance frameworks for perpetuating inequalities and marginalizing vulnerable populations. Advocates of this approach argue that global pandemic legislation must address the systemic inequities in global health systems, which have been highlighted during crises like COVID-19 and Ebola (Kamradt-Scott, 2018). This school of thought would call for the inclusion of provisions in the global pandemic treaty that specifically address the needs of low- and middle-income countries (LMICs) and marginalized communities, ensuring that global health governance is not just about control but also about justice and equity (United Nations General Assembly, 2020).



## **6. Proposed Elements of Global Pandemic Legislation**

### **6.1. Establishment of a Global Pandemic Treaty**

A global pandemic treaty should build on existing frameworks like the IHR and GHSA but go further by incorporating binding legal obligations and strong enforcement mechanisms. This treaty would address all aspects of pandemic preparedness, from surveillance and early detection to equitable resource distribution and response coordination.

One key element of the treaty should be the establishment of a global health security fund, supported by contributions from HICs, international financial institutions, and private sector partners. This fund would be used to support pandemic preparedness efforts in LMICs, ensuring that all countries have the resources they need to meet global health standards.

The treaty should also include provisions for regular review and revision to ensure that it remains relevant in the face of evolving health threats. This could include mechanisms for updating the treaty in response to new scientific developments or emerging pathogens, ensuring that it remains a dynamic and responsive legal framework.

### **6.2. Surveillance and Early Warning Systems**

Global pandemic legislation must mandate the establishment of standardized global surveillance systems that monitor potential health threats in real-time. These systems should be capable of detecting emerging pathogens quickly, allowing for rapid response and containment.

A key component of these systems would be the development of global databases that track outbreaks, enabling countries to share data on new and emerging pathogens. These databases would be managed by international bodies like the WHO, which would be empowered to coordinate global responses based on real-time data.

Technological innovation should also be a central focus of global pandemic legislation. The use of genomic sequencing, AI, and big data analytics could enhance the detection and monitoring of health threats, allowing for more targeted interventions. Legal frameworks should support the development and deployment of these technologies, ensuring that they are available to all countries, regardless of their economic status.

### **6.3. Global Supply Chain and Resource Allocation Mechanisms**

One of the most critical elements of global pandemic legislation is ensuring the equitable distribution of resources during health crises. This could include the creation of global stockpiles of vaccines, treatments, and medical supplies, with legally binding commitments from countries to contribute to these stockpiles.

Global pandemic legislation should also address intellectual property rights, particularly during health emergencies. Temporary waivers of IP rights could be mandated, allowing for the production of generic versions of vaccines and treatments to meet global demand. This would prevent the bottlenecks seen during the COVID-19 pandemic, where patent protections limited the availability of life-saving interventions in LMICs.

In addition, global legislation could establish protocols for the fair allocation of resources based on epidemiological data. This would ensure that resources are distributed according to need, rather than economic power, preventing vaccine nationalism and ensuring that all countries can protect their populations during pandemics.

## **7. Challenges to Implementation of Global Pandemic Legislation**

### **7.1. Sovereignty and National Interests**

The issue of national sovereignty is one of the most significant obstacles to implementing global pandemic legislation. Many countries are reluctant to cede control over their health policies to international bodies, particularly when these policies may conflict with national interests or political priorities.

One potential solution to this challenge is to frame global pandemic legislation as a mutual benefit for all nations. By ensuring that all countries are prepared for health crises, global legislation can protect the global economy and reduce the overall impact of pandemics. Countries that invest in pandemic preparedness are less likely to experience the economic disruptions caused by pandemics, making the case for international cooperation more compelling.

Incentives for compliance could also play a role in overcoming resistance to global pandemic legislation. Countries that comply with the legislation could be rewarded with access to funding, technical assistance, and other resources, while those that fail to comply could face penalties or other consequences.

### **7.2. Compliance and Enforcement**

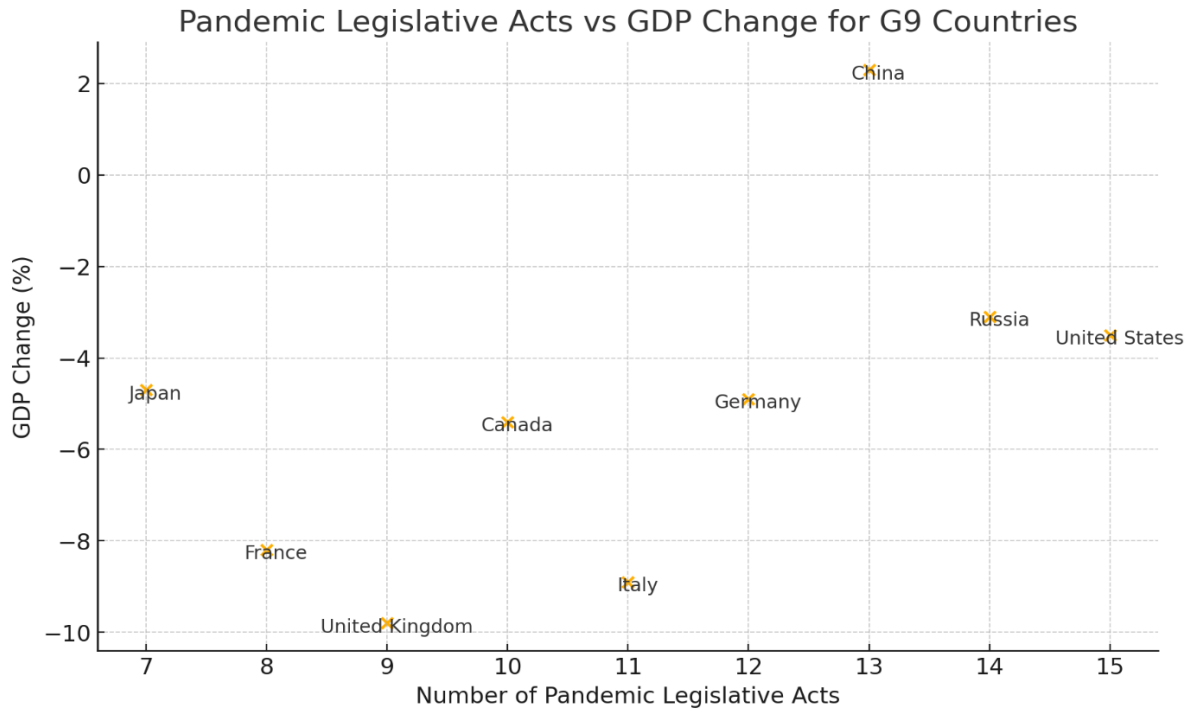
Ensuring compliance with global pandemic legislation is another significant challenge. Countries may be unwilling or unable to meet the requirements of global pandemic legislation, particularly if they lack the necessary financial resources or political will.

One potential solution to this challenge is the establishment of a system of incentives and penalties to encourage compliance. Countries that meet the requirements of the legislation could be rewarded with access to funding, technical assistance, and other resources, while those that fail to comply could face sanctions or other penalties.

International bodies like the WHO could also play a role in ensuring compliance by monitoring countries' progress and providing support where needed. This could include technical assistance to help countries strengthen their healthcare systems and meet the requirements of global pandemic legislation.

### **7.3. Financial and Logistical Barriers**

The implementation of global pandemic legislation will require significant financial and logistical resources. Countries will need to invest in strengthening their healthcare infrastructure, improving their surveillance systems, and building their capacity to respond to health crises.



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International financial institutions and high-income countries will need to play a critical role in supporting these efforts, providing the necessary funding and technical assistance to ensure that all countries can meet the requirements of global pandemic legislation.

One potential solution to this challenge is the establishment of a global pandemic preparedness fund, which could be used to provide financial support to low-resource countries. This fund could be supported by contributions from high-income countries, international financial institutions, and private sector partners, ensuring that all countries have the resources they need to comply with global pandemic legislation.

**8. Conclusion.** The COVID-19 pandemic has exposed the urgent need for global pandemic legislation that can ensure a coordinated, equitable, and effective response to future health crises. While existing frameworks like the IHR and the GHSA provide valuable tools for addressing global health threats, they lack the legal binding force and enforcement mechanisms needed to ensure that countries are adequately prepared for and can respond to pandemics.

A global pandemic treaty that mandates preparedness, ensures equitable access to resources, and includes enforceable compliance mechanisms is essential for protecting global health security. Such a treaty could help prevent future pandemics from causing the widespread devastation seen during COVID-19, saving lives and safeguarding the global economy.

The international community must act now to establish this framework, building on the lessons learned from past pandemics and addressing the challenges of sovereignty, compliance, and funding. By embedding these principles in a global pandemic treaty, the world will be better positioned to respond swiftly and effectively to future health emergencies.

The World Health Organization (WHO) operates within the framework of the **International Health Regulations (IHR)**, a legally binding instrument adopted by 196 countries to address and mitigate public health risks that have the potential to transcend national boundaries. Initially revised in 2005, the IHR constitutes the primary legal mechanism for coordinating international efforts to prevent and respond to global health emergencies. The regulations obligate member states to develop and maintain core public health capacities, ensure prompt reporting of public health events, and cooperate with the WHO in risk assessment and response. The WHO, in its capacity as the leading global public health authority, provides guidance, disseminates information, and supports the capacity-building efforts of member states in the management of transboundary health threats, including infectious disease outbreaks.

In the context of the COVID-19 pandemic, the IHR served as the legal foundation for the WHO's response efforts. Upon the emergence of the virus, the WHO declared COVID-19 a **Public Health Emergency of International Concern (PHEIC)**, thereby activating specific international legal mechanisms and obligations under the IHR. However, the pandemic highlighted several deficiencies in the current legal framework, particularly in areas such as timely reporting, enforcement of recommendations, and global preparedness. In light of these challenges, the WHO has initiated discussions on a **pandemic treaty**, aimed at addressing gaps in international law by enhancing global cooperation, improving transparency, and ensuring equitable access to medical resources in future pandemics. Such a treaty could serve to strengthen international legal frameworks and facilitate more effective and coordinated global responses to public health crises.

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