



Increasing compliance with international pandemic law: international relations and new global health agreements

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Across multiple pandemics, global health governance institutions have struggled to secure the compliance of states with international legal and political commitments, ranging from data sharing to observing WHO guidance to sharing vaccines. In response, governments are negotiating a new pandemic treaty and revising the International Health Regulations. Achieving compliance remains challenging, but international relations and international law research in areas outside of health offers insights. This Health Policy analyses international relations research on the reasons why states comply with international law, even in the absence of sanctions. Drawing on human rights, trade, finance, tobacco, and environmental law, we categorise compliance mechanisms as police patrol, fire alarm, or community organiser models. We show that, to date, current and proposed global health law incorporates only a few of the mechanisms that have shown to be effective in other areas. We offer six specific, politically feasible mechanisms for new international agreements that, together, could create compliance pressures to shift state behaviour.

Introduction

In the aftermath of COVID-19, analyses have highlighted the failure of global health governance mechanisms, focusing on non-compliance with the legal regime under the International Health Regulations (IHR).¹⁻³ This failure to comply with international legal obligations rooted in public health evidence increases the risks of pathogen spread, of outbreaks becoming pandemics, and of associated negative externalities such as economic crisis.

In response to these failures, states have launched negotiations for a new convention, agreement, or other international instrument on pandemic prevention, preparedness, and response (known as CA+ and herein termed the pandemic treaty) and targeted amendments to the IHR. The success of both initiatives will depend on whether they include appropriate mechanisms to secure greater compliance by states in future health emergencies. This Health Policy draws on international relations literature to review compliance mechanisms and how they can be adapted to the current negotiations.

The IHR are legally binding international law, as would be the planned pandemic treaty. Yet compliance gaps—both in the letter and spirit of the regulations—have been commonplace in global health emergencies. As one review committee found,⁴ non-compliance “contributed to the COVID-19 pandemic becoming a protracted global health emergency”. During pandemics, these compliance gaps have included inadequate data sharing (Article 6 of the IHR), disregarding temporary recommendations to mitigate disease transmission (Article 15), imposing health measures beyond WHO recommendations without providing sufficient evidence (Article 43),⁵ and ignoring requirements for bilateral or multilateral collaboration and assistance (Article 44). Political pledges to equitably distribute vaccines and transfer pandemic-related medical technology were not fulfilled, highlighting the lack of clear international legal obligations.⁶ In addition, preparedness before the

outbreak of a pandemic is an important obligation under the regulations and, by most measures, state compliance has been and remains inadequate.⁷

Five main justifications have been offered for this pattern of non-compliance. First, the limited resources in low-income and middle-income states to adequately prevent, detect, and respond to emerging infectious diseases. Second, lack of awareness among governments of their precise obligations. Third, the existence of administrative, legal, or political obstacles.^{8,9} Fourth, the prioritisation of compliance with treaties regulating finance, trade, and intellectual property rights over international commitments relating to global health. Finally, the absence of a robust compliance mechanism within WHO.¹⁰

This Health Policy looks beyond global health to analyse what international relations research on compliance mechanisms reveals about why states comply with international law and to identify practical lessons for negotiators to improve compliance in global health. The international relations literature analyses various monitoring and review mechanisms—including in trade, human rights, environmental protection, and finance and investment—that induce states to comply with international commitments and non-binding pledges. Importantly, although most of these domains often have no third-party sanctioning or enforcement mechanism, such as a court, evidence shows that other types of monitoring and review mechanism can nonetheless be influential in shaping the behaviour of governments.¹¹ International relations research also reveals that compliance is not a binary—partial or variable compliance is common.¹² In short, although hard sanctions are unlikely in pandemic law, there are many other ways to induce states to follow their international commitments.¹³

We explore these issues theoretically and empirically, analysing the compliance models that exist across international law. We conclude by offering policy recom-

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mentations for improving the compliance mechanisms of the pandemic treaty and IHR amendments.

International relations theories of why states comply with international law

The international relations literature begins from the premise that international law lacks the legislative, judicial, and executive institutions that domestic legal systems use to compel compliance. Compliance is the conformity between state behaviour and an international rule, whereas effectiveness is defined as “observable, desired changes in behaviour” attributable to that rule.¹⁴ International relations research has uncovered various explanations for when and why states change their behaviour in the absence of courts and other coercive law-enforcement institutions found in domestic law, and how these pressures can hopefully motivate not just formalistic compliance but also changes in behaviour.^{15–20}

First, states comply with international law to develop and maintain a positive international reputation and to be seen as a good ally or partner. Reputation can be especially important for states seeking leadership in multilateral or regional treaties and cooperation initiatives (such as the EU, the Association of Southeast Asian Nations, and the G7 [Group of Seven]) and for low-income and middle-income states seeking foreign investment and aid. Creating opportunities to publicise potential violations or enhance peer pressure can also increase the influence of reputation on state behaviour.²¹

Second, states comply with agreements because they want other countries to do the same. Many international agreements contain reciprocal commitments, creating a so-called shadow of the future in which a potential violating state follows international law today, even when not in its immediate interest, because it recognises that it will benefit from compliance by other treaty parties in the future, and in doing so will foster trust within the international community.^{22,23}

Third, states sometimes comply with international law because they fear retaliation or for material reasons. Economic sanctions, diplomatic isolation, or military intervention are examples, but softer forms of retaliation can include withholding the rewards of cooperation and compliance, including the sharing of benefits such as access to financing, preferential markets, or strategic information.²⁴ Conversely, states might comply because they are materially induced to do so.

A fourth explanation focuses on legitimacy, acculturation, and internalisation.^{25,26} Legalised agreements have a particular pull towards compliance.²⁷ Government officials who participate in international institutions might become acculturated to following the law as normatively appropriate behaviour among peers. States might also comply to avoid the cost and time of having their policies challenged via legal processes and publicly defending their actions.²⁸

Finally, domestic politics, constituents, and social movements can hold governments accountable for compliance, as seen in domestic campaigns to induce states to comply with the Paris Agreement on climate change since 2015.^{29–31}

Mechanisms for compliance: police patrols, fire alarms, and community organisers

Institutional design choices that trigger the forces discussed in the previous section can have a measurable effect on how and whether states comply with international law.¹⁸ The choice of mechanism often reflects the type of cooperation problem that an international agreement seeks to address. Multiple mechanisms can also be designed to trigger different types of compliance pressure (eg, reputation, retaliation, or reciprocity).

The international relations literature highlights two types of compliance mechanism, described by some as police patrols and fire alarms.^{32,33} Police patrols are trust-building review mechanisms in which a standing body systematically monitors compliance to detect violations. Periodic inspections by international central authorities under the Chemical Weapons Convention, for example, or in global health voluntary Joint External Evaluations are both police patrol mechanisms. Fire alarms, on the other hand, delegate the search for violations to other actors—such as a state, civil society group, or individual—who trigger an alert to indicate a violation. Examples include a country challenging unfair trade practices in the World Trade Organization (WTO), an individual complaining to the Inter-American Commission on Human Rights, and the (albeit unused) dispute resolution within the IHR (Article 56).

Continuing the analogy, we propose a third compliance mechanism that is especially relevant to contemporary global health challenges be termed the community organiser. A community organiser addresses challenges not by patrolling or waiting for individuals to raise an alarm but by creating platforms and calling together a community to identify problems and build power through sharing resources among themselves. By analogy, by building cooperation and resources, these international legal mechanisms identify, or enable states to self-identify, where they fall short on compliance because of capacity gaps and facilitate financial, technical, and other assistance to address those gaps. This mechanism is partly characterised by what scholars have called managerial compliance, but goes further by creating new bidirectional information relationships, and can also encompass non-binding pledges and other forms of soft law.³⁴ An example is the platform through which states can identify their need for help to preserve biological diversity under the Nagoya Protocol. Pandemic governance has a particular need to pair compliance obligations with the provision of resources for equity across high-income countries and low-income countries, which often face different compliance challenges.

Mechanisms in international law outside global health

We detail the key tenets of compliance mechanisms in spheres of international governance outside of global health. These mechanisms have useful lessons for the IHR and the pandemic treaty, and we consider them in light of the police patrol, fire alarm, and community organiser models previously reviewed. Table 1 summarises these mechanisms.

International human rights

UN, regional, and subregional human rights treaties ratified by numerous states protect the fundamental rights of individuals and groups. These treaties cover civil and political rights (eg, freedom from torture or discrimination) and economic, social, and cultural rights (including the right to the highest attainable standard of health). The numerous and diverse compliance mechanisms in human rights include police patrol, fire alarm, and community organiser approaches, sometimes mixing the three.

Police patrol approaches include ten UN treaty bodies (such as the Committee on the Elimination of

Discrimination against Women) comprising human rights experts who monitor implementation by evaluating state party reports, reviewing individual complaints, and adopting authoritative legal interpretations. This system runs in parallel to the Universal Periodic Review, a peer review process by which UN member states broadly assess each other's compliance with international human rights standards.

Fire alarm models are primarily found in the three regional human rights courts in Africa, the Americas, and Europe, and subregional courts in east and west Africa that issue legally binding judgments in response to complaints from individuals, non-governmental organisations, and states.

Hybrid mechanisms include more than 60 special rapporteurs, independent experts, and working groups elected by the UN Human Rights Council and regional systems. These individuals and working groups investigate and review thematic topics (such as human rights and climate change) or states where human rights violations are especially grave (such as Syria and North Korea) on their own initiative and in response to third-party complaints.

	Human rights	Finance and investment	Trade	Tobacco control	Environment
Key agreements	UN and regional treaties on civil, political, economic, social, and cultural rights, including those protecting various marginalised groups	Bilateral investment treaties; OECD Model Tax Convention; UN Model Double Taxation Convention	Marrakesh Agreement establishing the WTO; bilateral free trade agreements	Framework Convention on Tobacco Control; Protocol to Eliminate Illicit Trade in Tobacco Products	Kyoto Protocol; UN Framework Convention on Climate Change; Montreal Protocol; Convention on International Trade in Endangered Species of Wild Fauna and Flora
Police patrol mechanisms for compliance	Review of country reports by UN treaty bodies; Universal Periodic Review by the UN Human Rights Council; special rapporteurs, independent experts, and working groups; national human rights institutions; government agencies and ombudsman offices	Public white, grey, and black lists of states based on their compliance with the agreement	Regular, public review of countries' national policies and frameworks for compliance with agreements, requiring response from the member state; global COP and a peer-review system of more than 70 WTO councils, committees, working parties, and other groupings that review and report on aspects of compliance	Periodic reporting, generally every 2 years, of countries' implementation of measures required and recommended by the treaty text and guidelines issued by the COP; an Implementation Review Mechanism was initiated in 2019 but was disrupted by the COVID-19 pandemic	Annual reporting obligations, routine production of data, third-party verification; fact-finding missions and performance reviews; submission of research, laws, and policies implemented, environmental impact assessments, public awareness, statistical data on compliance, scientific data on environment, and information exchange; permanent Non-Compliance Procedures, Compliance and Implementation Committees, forums for negotiation and dispute resolution
Fire alarm mechanisms for compliance	Three regional human rights courts and two subregional courts in east and west Africa; review of individual complaints by UN treaty bodies; national apex courts	Investor-state dispute settlement with binding arbitration; dispute mechanism triggering mandatory bilateral negotiation in which states are required to give their best endeavours to resolve the issue	Complaint mechanism through which member states can formally identify violations by other states; formal venue for negotiations between member states to resolve issues when complaints are made, independent panel to adjudicate disputes; appellate body with binding authority	Dispute resolution via bilateral negotiations, conciliation, and voluntary, unilateral declaration accepting jurisdiction to arbitrate; external sources of advertising, promotion, or sponsorship of tobacco products in violation of domestic bans permitted to be equally sanctioned	Dispute resolution via bilateral negotiations, conciliation, voluntary arbitration, or compulsory jurisdiction to the International Court of Justice; regulation of import and export licences, powers to suspend rights and privileges related to production, consumption, and trade of regulated substances
Community organiser mechanisms for compliance	Advisory services and technical assistance facilitated by the High Commissioner for Human Rights	A global voluntary fund to support implementation has been contemplated but has not yet materialised	Incentive-based implementation assistance for non-compliance (technical assistance capacity building, cooperation in scientific endeavours, transfer of technology, financial assistance, and disbursement of trust funding)

COP=Conference of the Parties. OECD=Organisation for Economic Co-operation and Development. WTO=World Trade Organization.

Table 1: Compliance mechanisms in international law

Community organiser-type advisory services and technical assistance are facilitated by the High Commissioner for Human Rights to bring national laws in line with international human rights standards, to assist in implementing the recommendations, and to develop national plans of action.

International mechanisms are complemented by various domestic institutions that protect human rights. These institutions include constitutional and supreme courts that adjudicate violations of rights protected in domesticated treaties, constitutions, and statutes; national human rights institutions (government-created independent bodies with a mandate to protect and promote human rights and gender within a particular country); and government agencies and ombudsman offices, such as the Office of the Health Ombud in South Africa, which investigate complaints and monitor adherence by public and private actors.

Trade

International trade law governs key rules and customs that shape economic activity between countries. Although countries have direct economic incentives to make substantial promises and not follow through on them, the international trade system has developed a robust set of measures to deal with this. This issue might be seen as irrelevant to pandemics, because countries are unlikely to apply economic and trade sanctions against one another to enforce the IHR or pandemic treaty; however, in reality the most important and frequently used compliance mechanisms to enforce trade rules do not rely on retaliation but instead on public reviews, complaint mechanisms, and state-to-state dialogue—all available to pandemic law making. Although there are many intersecting trade agreements between states,³⁵ for simplicity we focus here on the two major compliance mechanisms used by the WTO.

First is the police patrol-type Trade Policy Review Mechanism. All members of WTO are required to undergo a review, in which the biggest traders—such as the USA, China, and the EU—are examined approximately every 2 years and others less frequently. A team of WTO economists produces an independent report on the trade policies and practices of the country in relation to WTO agreements and the member also prepares its own report. All member states can ask the state extensive questions in open session and they are required to reply. In this way this review functions similarly to the human rights Universal Periodic Review. Summaries of the debate are public and published online. These reviews have no legal effect, and domestic action is entirely voluntary.³⁶ Although far from perfect, research on this mechanism shows that it has often triggered changes in policies, and is effective because of the interaction of member states and the peer pressure generated.³⁷

Second, in the fire alarm-type dispute settlement mechanism, any member state can bring a public

complaint, through a WTO-administered body, against another member state for not complying with its obligations under WTO law. States conduct formal discussions to see if the dispute can be resolved; if it cannot, then a panel of individuals who are well qualified in WTO law and are not citizens of either state is established to adjudicate the dispute. WTO members that are found to be non-compliant with WTO law are supposed to quickly change their policies or practices or otherwise compensate the complaining country. If this does not happen in a reasonable timeframe, the complaining state can then retaliate by temporarily suspending its own compliance with WTO law towards the member state concerned (eg, by imposing tariffs). Although this is a powerful tool for wealthy countries, less influential countries that cannot affect their terms of trade exercise much less pressure on high-income countries.^{38,39} But overall retaliation has only a small role in resolving even heated disputes. In most (55%) cases, the dispute is solved through negotiations between the members; only in 19 (3%) of 607 cases between 1995 and 2021 did the case reach the stage in which the complaining country sought retaliatory measures.⁴⁰ Much of the work this mechanism does in ensuring compliance comes from allowing individual states to bring complaints and a formal process of discussion, which is replicable in pandemic law.

Finance and investment

International investment law governs foreign direct investment and disputes between foreign investors and sovereign states. This includes a range of compliance mechanisms, including unique fire alarms. Most agreements in this area include a strong investor-state dispute settlement provision; this provides private parties (investors) or states the ability to file complaints, which are adjudicated not under the domestic law and judicial systems but in an ad hoc, neutral setting. Arbitration is compulsory after a claim is filed. Depending on the treaty, investors can choose from several arbitration venues, including the World Bank, UN, International Chamber of Commerce, and regional bodies. Many of the investment treaties from the past decade have sought to expand transparency as there have long been complaints that these mechanisms, although effective for investors, are opaque to the public and civil society.⁴¹

A softer form of dispute resolution is seen in international tax agreements. Most tax disputes between a taxpayer and a revenue authority are addressed by the domestic courts. However, international economic law includes double taxation agreements, which set out precise provisions on how taxpayers subject to two jurisdictions will be treated. Each country has an incentive to recoup as much tax as it can rather than cede to other countries, and so a fire alarm-type mechanism has been developed. Disputes are settled through a Mutual Agreement Procedure based on a 1963 Organisation for Economic Co-operation and Development

(OECD) Convention, in which representatives of each government engage in negotiation over both individual cases and interpretation. Importantly, the original article in which the Mutual Agreement Procedure is described does not compel governments to actually reach agreement or resolve the dispute—only to use their best endeavours to do so. It is the formal conversation structure itself that drives compliance.⁴² Although arbitration has been incorporated into some agreements, others have chosen to remain with this more cooperative and open form of holding each other accountable for compliance with agreements.⁴³ Both model conventions of double taxation treaties consider arbitration as a mere complement to the Mutual Agreement Procedure, the primary means of redress.

The OECD and Financial Action Task Force (FATF) have created a unique police patrol system that lists countries that these intragovernmental organisations consider to be non-cooperative in the global cooperation on illicit financing. The FATF maintains a black list of countries that have substantial deficiencies in their policies to counter money laundering or terrorist financing; a grey list of those that have committed to addressing deficiencies; and a white list of countries that are compliant with the legal framework considered mandatory by the OECD and FATF. However, this listing has been controversial, as it affects the attractiveness of countries to investors and includes countries that are not members of the OECD.

Tobacco control

After litigation in the USA exposed the extent of global collusion between major tobacco companies to hide the risks of cigarette consumption, market tobacco products to young and vulnerable populations, and manipulate governments and international organisations, consensus built that only a coordinated, treaty-based response could address the threat posed by tobacco consumption. The resulting agreement, the Framework Convention on Tobacco Control, was the first public health convention to be adopted in accordance with WHO's formal treaty-making power. This convention holds important lessons for a pandemic agreement.

As a police patrol approach, compliance with the Framework Convention on Tobacco Control is accomplished through regular assessment by the WHO Convention Secretariat; through reporting by civil society organisations both within the structures of the agreement and through human rights bodies; and through published periodic reviews undertaken by States Parties in accordance with Articles 5 and 21 of the agreement. Civil society organisations were incorporated from the earliest negotiations of the agreement, and have had subsequent access and influence as guidelines have been issued by the Conference of the Parties (COP).

As this agreement provides a quasi-community organiser intervention, the relationship between the

strength of the evidence base underlying each intervention, the costs of recommended measures, and the number of states parties that have adopted such measures is important. Smoke-free laws, health warnings and education campaigns, youth access laws, and exchange of reporting and information are widely adopted and robustly implemented, whereas relatively few countries have adopted measures targeting tobacco industry interference.⁴⁴ Related to this, compliance is stronger for those Articles of the agreement for which guidelines have been issued.

International environmental law

The assortment of compliance mechanisms in international environmental law reflects the numerous approaches needed to build global cooperation in addressing environmental issues such as hazardous substance management or atmospheric emissions controls.

Although concerns have been raised regarding individual agreements, the effect of the overall regime together has led to real progress in regulating national conduct and mitigating transboundary environmental harm.⁴⁵ Treaty secretariats, compliance or standing enforcement committees, commissions, ad hoc working groups, and subsidiary organs are all channels used to facilitate and promote compliance.⁴⁶ Progress is monitored by institutional compliance mechanisms, which use police patrol approaches to assess implementation through the information provided from reporting requirements and subsequently formulate suggestions to the parties involved.⁴⁷

Non-Compliance Response Procedures (NCPs) identify compliance deficits and aim to facilitate better compliance. Often in a non-adversarial manner, cases of non-compliance can be brought to the attention of an NCP body by the Secretariat of the Agreement, by a state party, or through third-party monitoring—providing opportunities for both police patrol-type and fire alarm-type measures.

A leading example of a community organiser-type model is the self-triggered mechanism, through which the state party that is having compliance difficulties can request support. Many agreements set up an elected, stand-alone implementation committee or compliance committee (comprising party representatives or experts) to make recommendations or administer NCPs directly to the COP.

Response measures are triggered—either automatically or by an NCP—when non-compliance is identified. Measures can be punitive or incentive-based, and can include the requirement for compliance action plans, mandatory verification missions, fact-finding investigations, provision of technical support, transfer of information, financial support, warnings, suspension of privileges, imposition of trade sanctions, or liability for increased commitments.

Dispute resolution procedures provide fire alarm approaches that vary in sophistication. Resolutions range from requiring parties to negotiate bilaterally, to compulsory conciliation, to voluntary binding arbitration, with compulsory conciliation being the preferred compromise. Conciliation is invoked at the request of a party, but does not culminate in a binding determination; the important point here is that mechanisms for a fire alarm can exist without sanctioning interventions.

Compliance provisions in current global health law drafts

Compliance has been championed as a crucial element in pandemic treaty negotiations. The most recent secretariat draft text of the pandemic accord—which was released on May 22, 2023, and is likely to change considerably in negotiations—is broad in scope, covering almost all aspects of pandemic prevention, preparedness, response, and recovery. This draft accord includes two primary compliance mechanisms: a COP will engage in a regular periodic review of national plans, accompanied by peer review and information sharing; and an Implementation and Compliance Committee, designated in Article 22 of the draft, will be empowered to receive written submissions from parties with respect to compliance and to issue recommendations in this area, although the committee is required to undertake its work in a non-adversarial manner. The form of this committee is not yet clear—it seems to have some police patrol aspects (such as reviewing written submissions) and some community organiser-type goals (such as making recommendations towards facilitating and providing support for implementation), but without a clear link to resources needed to enable that support. Notably absent from Article 22.6—and therefore reducing the likelihood that the committee will develop a fire alarm function—is the presence or participation of civil society. The membership of this committee is also unclear: independent experts are mentioned but in parentheses, suggesting that the committee might be a political body rather than independent, and therefore less effective as a compliance mechanism. Dispute settlement is mentioned, but only to state that governments who disagree “shall seek through diplomatic channels a settlement of the dispute”, with standard international language that does not establish a formal mechanism for complainants. Further compliance mechanisms might be established in the first meetings after adoption of the treaty. Negotiators are considering an opt-in/opt-out nature of the treaty, making it binding only for those who opt in. This could trigger a potential trade-off between an agreement that covers all WHO members by default and avoids states from benefiting without being party to the treaty but in which compliance mechanisms could be weakened to accommodate states with low preference for monitoring, versus a set of bolder, more concrete compliance mechanisms in an agreement to which key states are not part.⁴⁸

The IHR amendments contain three proposals to enhance compliance: a COP (new Article 53A), a compliance committee of six government experts from each WHO region that can gather information from any relevant source (new 53 bis quater), and a formal review mechanism at the World Health Assembly (54 bis).

These proposals reflect only a small subset of international compliance mechanisms. Given that negotiations over the pandemic treaty and IHR amendments are ongoing, this is a prime time to consider the range of police patrol, fire alarm, and community organiser structures that exist in other areas of international law and could enhance compliance.

Implications from international relations improving IHR and the pandemic treaty

On the basis of international relations theories of compliance and the mechanisms developed to promote compliance in other areas of international law, we propose six mechanisms for the pandemic treaty, amendments to the IHR, or both. These mechanisms aim to trigger different kinds of pressure that push states to comply (table 2).

Conference of the Parties

A global governance mechanism with oversight of compliance is important. A COP, proposed in the current draft of the treaty, could have a police patrol role if particular characteristics are built in from the start. COPs are mechanisms that emerged in agreements of the past approximately 20 years and provide peer-to-peer, universal governance for multilateral treaties, presiding over the Framework Convention on Tobacco Control and the UN Framework on Climate Change. Given the trend towards using COPs and their relative success, the proposed COP for the pandemic treaty is unsurprising. However, in contrast to COPs in other contexts, for the pandemic treaty we recommend that a legislative body makes the rules for compliance, and that this body has the authority to empower states to fulfil the object and purpose of the agreement; this can be done through providing direction on how to implement a treaty via regular review, through the multiple metrics that already exist in the global health governance space, or through a Universal Health Periodic Review, designed to allow governments to show their compliance voluntarily to enhance trust. The COP should also be able to order investigations where necessary. For a COP to function, it needs to have sufficient funding to undertake its mandate, including a well functioning secretariat to monitor compliance. Equitable participation from all states must be supported, noting the resource burden on low-income and middle-income countries for participation. Civil society representation should explicitly be included. We presume that, with the proposed amendments to the IHR, the WHO Director-General will continue to report on IHR compliance to the World Health Assembly (WHA) annually, making the WHA a key,

Compliance triggers from international relations research	
Conference of the Parties, currently included in drafts, can be effective if it has particular characteristics and authorities (police patrol type)	Positive opportunities for reputation as well as negative; peer pressure; desire for reciprocity
Independent rapporteurs with investigatory missions charged with both thematic reporting and responding to complaints from states and individuals (both fire alarm and police patrol functions)	Positive and negative reputation pressures; triggering domestic politics
Formal dispute settlement mechanism with standing to individual countries and potential for soft retaliation (fire alarm type)	Desire for reciprocity, fear of retaliation; legitimacy of legalised processes
Formal structure for civil society reporting and accountability that goes beyond just observer status to include shadow reporting by academic and civil society sources (fire alarm type)	Positive and negative reputation pressures; triggering domestic politics
Platform for assistance requests, by which countries with intent to comply but lacking capacity can link compliance to technical or financial assistance (community organiser type)	Positive reputation; reciprocity according to differentiated needs to fill capacity gaps
Formal activities meant to build trust, built into law for consistent practice directly linked to trust-building and compliance (community organiser type)	Positive reputation; reciprocity

Table 2: Compliance mechanisms recommended for incorporation in the pandemic treaty and International Health Regulations

continuing part of the compliance loop. Whether the COP should function as a committee of the WHA, as the current text suggests, should depend on whether the conditions we describe can be met.

Independent rapporteurs with investigatory missions

Research has shown that self-monitoring of compliance alone is insufficient.⁴⁹ Creating a combined fire alarm and police patrol role for independent rapporteurs with investigatory missions could help compliance and be an important augmentation to the proposed compliance committee. The currently proposed panel of experts is not likely to meet these criteria without a clearer structure and mandate written into the text. Learning from special rapporteurs in the human rights regime, such experts can take on missions to explore key aspects of the agreement, issue thematic reports on areas of concern to the COP, and accept and review complaints, including from individuals and entities that are not part of a dispute body (ie, non-state actors). These mechanisms are subject to the consent of the country and can be controversial, but nonetheless add important aspects to a web of compliance. Other mechanisms could be strengthened or combined with these, such as international monitoring efforts that have made contributions at the global level.⁷ Placed explicitly within an international legal mandate and framework, these other monitoring efforts could be better linked to country-focused mechanisms generating independent reporting, investigatory missions, and other insights into the behaviour of states.

Dispute settlement with standing for individual countries and potential for soft retaliation

Individual states should be able to initiate a fire alarm mechanism by filing disputes not only on interpretation of the agreement but also on the behaviour of other states. Such a mechanism goes well beyond a compliance committee that receives reports and beyond the current

text's references to using diplomatic channels to resolve disputes. Learning from the trade context, a dispute settlement that starts with formal consultations observed by all other parties triggers peer pressure and reputational incentives to comply. Formation of a panel of experts, similar to the Dispute Settlement Body of the WTO, could enable interpretation of the dispute to be outsourced, with a final report of recommendations. Even without a formal sanctions structure, this approach would create an important platform for diplomacy and negotiation over issues such as the imposition of border restrictions or the sharing of data or technology. Explicit opportunities for politically feasible retaliation should also be considered. Although economic and military sanctions are inconceivable, softer forms of retaliation through withdrawing cooperation or benefits within the treaty, COP, or WHO could shift behaviour. One proposal suggested that countries whose citizens are facing travel restrictions that are not based in evidence—as South Africa did after the emergence of the omicron (B.1.1.529) variant of COVID-19—might consider withdrawing cooperation regarding data sharing and specimen sharing with countries that impose such bans.⁵⁰

Formal structure for civil society reporting and accountability

Learning from the human rights and environment regimes, a formal structure that enables academic and civil society sources to act not only as observers but also as shadow reporters to the COP could be a fire alarm approach to trigger compliance, triggering threats to reputation and with the potential to engage domestic activists. Efforts should also include public communication and engagement in the outcomes of the treaty, so that the public knows what their government is committed to and might therefore be more willing to hold them to account.

Platform for assistance and resource request

Available financing at the outbreak of a pandemic, as well as ahead of emergencies to build capacity in the long term, is an important economic incentive for compliance and is recognised in discussions about common but differentiated responsibilities for preparedness. Adapting from environmental agreements, language in the pandemic treaty text should explicitly provide a community organiser-type platform to enable countries that intend to comply with obligations under the agreement but lack capacity to request assistance—technical or financial—to address collective action in a crisis. These requests could be either initiated by self-reporting or triggered by the previous four mechanisms discussed, including issues identified through regular simulation efforts to understand compliance gaps that remain. The global health financing architecture is deeply fragmented, which can often lead to clear capacity gaps remaining unfilled and barely visible. An effective mechanism would need to include concrete ways to match needs with financing and would therefore include the major global health funding institutions or a pooled financial pot for which the COP has oversight, with a commitment to fill further capacity gaps through bilateral or multilateral solidarity of high-income countries as part of their treaty obligations. A strengthened WHO, multilateral or regional banks and funding mechanisms, and the UN could play a key part. New lines of credit and financing are likely to be needed to ensure predictable rather than a periodic infusion of resources.

Formal trust-building activities

The pandemic treaty could further develop trust as a means of enhancing compliance, supporting joint activities, or encouraging unified action between states as a mechanism for socialising compliance, noting that trusting relationships are delicate and need fostering. Although preparedness exercises and other joint activities are mentioned to some extent in the treaty, the text could go further to ensure the purpose of such exercises. Although infrequent and subject to unpredictable funding availability, occasions when the National IHR Focal Points had the opportunity to convene regionally or multilaterally provided not only a more informed sense of their role, but also a community for support or information.

Finally, we note that the new agreement is an important opportunity to link funding and agreement obligations. In this area we conceive the community organiser understanding to be crucial, as described in the previous section. Currently the Pandemic Fund housed at the World Bank deals only with preparedness, whereas the Global Fund's pandemic mission is unclear. This surprising lack of clear resources could disable response in the next pandemic, because for many countries access to serious emergency resources is crucial to their ability to comply in a pandemic crisis. When WHO declares a

Public Health Emergency of International Concern (or a pandemic event as currently being discussed) access should immediately be triggered to pooled funding—perhaps with a mix of contributions from member states, private donors, and multilateral development and regional banks—to enable compliance.

Conclusion

In a pandemic, lives and economies depend on cooperation between states. At this time of intense global health law making to improve the precision and effectiveness of international rules and institutions to achieve this cooperation, important insights from topics outside of health could be incorporated to increase the likelihood of compliance by states with ambitious text, even when doing so might not be in their immediate interest. Current and proposed global health law incorporates only a few of the mechanisms shown in international relations research from non-health areas to be effective. States comply with international law for a range of reasons that have been explored widely in international relations research—most of which do not depend on sanctions. In particular, international legal mechanisms that are designed to enhance the interest of states in their reputations, a desire for reciprocity, a fear of retaliation, the legitimacy of legalised agreements, pressures from domestic constituencies, or ideally a mix of these motivations can increase the pressure for state compliance. Attention to using a mix of what we label police patrol, fire alarm, and community organiser-type mechanisms can help to achieve this goal. We detailed the range of mechanisms used in human rights, trade, finance, tobacco, and environmental law, and from this we propose six specific mechanisms that could be incorporated into the new pandemic treaty and revisions to the IHR currently being negotiated.

After an agreement has been signed, the likelihood of adopting better compliance mechanisms is substantially reduced. We therefore propose an amendment to the text that replaces the current article focused on a COP, periodic reporting, and implementation and compliance committees with a provision that explicitly sets out the COP's parameters and establishes independent rapporteurs with a clear mandate (not just experts to be consulted), a formal dispute settlement mechanism, structure for civil society reporting and accountability, and a platform for assistance requests alongside text committing states to regularly engage in trust-building activities. Given that states comply with international law for various reasons and motivations, no single perfect mechanism exists. The combination of each of these mechanisms in a web of compliance provides the best chance of realising the ambitions of international pandemic law making. Ambitious global commitments to prevent and stop pandemics are urgently necessary, and should include deploying a range of mechanisms

that can help to translate commitments into action before and during the next public health emergency.

Contributors

All authors contributed to the conceptualisation of this Health Policy, contributed text, and reviewed each draft submitted.

Declaration of interests

CW served on the IHR Review Committee for Amendments to IHR, and subsequently has acted as a consultant for the WHO Regional Office for Europe. MMK serves as a special advisor to the UN Joint Programme on HIV/AIDS. LRH is a member of the UN Human Rights Committee, but this Health Policy is written in his personal capacity. All other authors declare no competing interests.

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