

Theme Papers

International law and communicable diseases

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Abstract Historically, international law has played a key role in global communicable disease surveillance. Throughout the nineteenth century, international law played a dominant role in harmonizing the inconsistent national quarantine regulations of European nation-states; facilitating the exchange of epidemiological information on infectious diseases; establishing international health organizations; and standardization of surveillance.

Today, communicable diseases have continued to re-shape the boundaries of global health governance through legally binding and “soft-law” regimes negotiated and adopted within the mandate of multilateral institutions — the World Health Organization, the World Trade Organization, the Food and Agriculture Organization, and the Office International des Epizooties. The globalization of public health has employed international law as an indispensable tool in global health governance aimed at diminishing human vulnerability to the mortality and morbidity burdens of communicable diseases.

Keywords Communicable disease control/legislation; Public health practice/legislation; Epidemiologic surveillance; Disease outbreaks/legislation; International law; Treaties; Intersectoral cooperation; Interinstitutional relations; World Health Organization (*source: MeSH, NLM*).

Mots clés Lutte contre maladie contagieuse/législation; Exercice en santé publique/législation; Surveillance épidémiologique; Epidémie/législation; Droit international; Traités; Coopération intersectorielle; Relation interinstitutionnelle; Organisation mondiale de la Santé (*source: MeSH, INSERM*).

Palabras clave Control de enfermedades transmisibles/legislación; Práctica de salud pública/legislación; Vigilancia epidemiológica; Brotes de enfermedades/legislación; Derecho internacional; Tratados; Cooperación intersectorial; Relaciones interinstitucionales; Organización Mundial de la Salud (*fuentes: DeCS, BIREME*).

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Voir page 950 le résumé en français. En la página 950 figura un resumen en español.

Introduction

While most scholars trace the origin of international law to the Treaty of Westphalia of 1648, which ended the Thirty Years War, and led to the evolution of the nation-state concept, communicable diseases did not come within the normative confines of international law until the mid-nineteenth century.

The “transnationalization” of infectious diseases across geopolitical boundaries during the European cholera epidemics of 1830 and 1847 catalysed the evolution of the earliest multilateral governance of communicable diseases. Thus, the link between international law and communicable diseases is rooted in the mid-nineteenth century, more precisely in 1851, when France convened the first International Sanitary Conference. Notwithstanding more than the 150 years of subsequent multilateral linkage of law and communicable diseases, contemporary multilateral/global health governance continues to evoke debate in public health discourses. What then is the relevance, if any, of international law in global health governance today?

This article discusses the complexities of this question with respect to global communicable disease surveillance. The conceptual framework for the analysis focuses principally on the treaty-making powers of WHO and those parts of the

World Trade Organization (WTO) Agreements on Trade-related Aspects of Intellectual Property Rights (TRIPS) and Sanitary and Phytosanitary Measures (SPS) that deal with prevention and control of global communicable diseases. The challenges posed by the globalization of communicable diseases in an inter-dependent world are explored and it is argued that in the absence of sanctions there is a range of factors that could compel nation states to observe international rules/regulations on transboundary spread of emerging and re-emerging infectious diseases.

Globalization of public health and the challenge of governance

The term “globalization of public health” has emerged in policy discourses to express the transnational or globalized nature of public health threats (including the spread of communicable diseases) in an interdependent world (1–4) and de-emphasizes the “territorialization” or “nationalization” of diseases brought about by the process of globalization.⁴ Because communicable diseases do not respect the geopolitical boundaries of nation states, and state sovereignty is an alien concept in the microbial world, all of humanity is now vulnerable to the emerging and

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⁴ Lee K & Dodgson R (ref. 3) argue that the spatial dimension of globalization projects the world as a single place because of increased travel, communication and other shared experiences. Conversely, the “death of distance” has led to more localized, nationalized, and regionalized feelings of spatial identity.

re-emerging threats of communicable diseases. With the contemporary globalization of the world's political economy, as evidenced by the large volumes of goods, people, and services that cross national borders, the challenge of international law in global governance of communicable diseases is hardly recondite. Communicable diseases have emerged as an important topic in international law, and their ramifications traverse a range of multilateral regimes such as WHO's International Health Regulations (IHR), WTO's TRIPS and SPS Agreements, and the WHO–Food and Agriculture Organization (FAO) Codex Alimentarius Commission standards on food safety. Multilateral governance of communicable diseases implicates other sub-categories of international law: international human rights law; humanitarian law and laws of war; international environmental law; law of the sea and international maritime law; intellectual property law; and bioethics (5, 6). Communicable diseases present enormous transnational (and often global) challenges that are beyond the governance capabilities of individual nation states and require multilateral/global approaches. Historically, international law has played an important role in this dynamic because states have used bilateral treaties and multilateral conventions to solve problems that are transnational in nature.

The legacy of the nineteenth century International Sanitary Conferences

France convened the first International Sanitary Conference in 1851, which was attended by eleven European states. From 1851 to the end of the nineteenth century, ten such international sanitary conferences were convened,^b and eight sanitary conventions were negotiated on cross-border spread of cholera, plague, and yellow fever across the geopolitical boundaries of (European) nation states.

Most of the sanitary conventions negotiated at these conferences were never ratified by the participating countries, and thus never entered into force; nonetheless, the diplomatic efforts involved signified the necessity of tackling the cross-border spread of disease multilaterally through international conventions. The use of sanitary conventions and international institutions created a functional infectious disease surveillance system and the sharing of epidemiological information among countries.

Within the Americas, the 1905 Inter-American Sanitary Convention imposed notification duties for cases of cholera, plague, and yellow fever. In 1924, the Pan-American Sanitary Code provided for bi-weekly notification of ten specific diseases and any other diseases that the Pan-American Sanitary Bureau might add, and also for immediate notification of plague, cholera, yellow fever, smallpox, typhus, or any other dangerous contagion liable to spread through international commerce. The benefit of sharing epidemiological information, with the corresponding obligation on states to notify of outbreaks in their territories, was clearly within the scope of many of the sanitary regimes and also within the mandate of emergent multilateral health institutions. Surveillance was an important part of the mandate of the Pan-American Sanitary Bureau, Office International d'Hygiène Publique, Health Organisation of the League of Nations, and the Office International des Epizooties established in 1924.

The legacy of the nineteenth-century public health diplomacy still inspires the reach and grasp of contemporary international law to regulate the globalization of emerging and re-emerging communicable diseases within the mandates of WHO and other multilateral institutions.

WHO, communicable diseases, and the International Health Regulations

In 1951, WHO adopted the International Sanitary Regulations, the product of the nineteenth-century international sanitary conferences, which were re-named the International Health Regulations (IHR) in 1969, and modified slightly in 1973 and 1981. The IHR are a legally-binding set of regulations adopted under the auspices of WHO as an international organization, and are one of the earliest multilateral regulatory mechanisms strictly focusing on global surveillance for communicable diseases. As of 1997, the IHR were legally binding on all WHO's Member States except Australia. The IHR are a set of regulations for the control and sharing of epidemiological information on the transboundary spread of cholera, plague, and yellow fever; the fundamental principle is to ensure "maximum security against the international spread of diseases with a minimum interference with world traffic"⁽⁷⁾. To achieve this, the regulations provide for binding obligations on WHO Member States to notify WHO of any outbreaks of these three diseases in their territories. WHO then transmits this information to all the other Member States as part of its mandate on control and response to global outbreak and spread of infectious diseases.

The IHR list maximum public health measures applicable during outbreaks and provide for rules applicable to international traffic and travel. These measures cover the requirements of health and vaccination certificates for travellers from areas infected by the three diseases covered to non-infected areas; deratting, disinfecting, and disinsecting of ships and aircraft, as well as detailed health measures at airports and seaports in the territories of WHO Member States. The maximum health measures allowed in outbreak situations are applied in order to protect the country that suffers an outbreak against the risk of unnecessary economic and other embargoes, which could be imposed by contiguous neighbours, trading partners, and other countries.

An assessment of the effectiveness of the IHR in controlling the global spread of cholera, plague, and yellow fever reveals that WHO Member States have not observed the regulations. One major reason for this is the fear of excessive measures from other countries if a country that has suffered an outbreak of any of the three diseases notifies this fact to WHO. For example, cholera epidemics in South America (first reported in Peru in 1991) were estimated to have cost Peru over US\$ 700 million in trade and other losses. In 1994, a plague outbreak in India led to US\$ 1.7 billion losses in trade, tourism, and travel as a result of excessive embargoes imposed by other countries. In 1997, the European Community imposed a ban on importation of fresh fish from East Africa following the outbreak of cholera in certain countries there. Other reasons cited for the ineffectiveness of the IHR include WHO's relative inexperience in creating and enforcing legal regimes (8); the Regulations' inability to adapt to changing

^b Paris in 1851 and 1859, Constantinople in 1866, Vienna in 1874, Washington in 1881, Rome in 1885, Venice in 1892, Dresden in 1893, Paris in 1894, and Venice in 1897.

circumstances in international traffic, trade and public health; their coverage of only three diseases; and the lack of core surveillance capacity in many WHO Member States (9).

As a result, in 1995 the World Health Assembly adopted resolution WHA48.7 (Global health security: economic alert and response) which requested that the IHR be revised to take more effective account of the threat posed by the international spread of new and re-emerging diseases. This process of revision is currently being carried out by WHO, and regular updates on the progress made have been published in the *Weekly epidemiological record* (10–20). Although a range of proposals have been made, the revision process has focused mainly on five key areas: global health security (epidemic alert and response), public health emergencies of international concern, routine preventive measures, national IHR focal points, and the need for synergy between the IHR and other related international regimes.

Global health security: epidemic alert and response

In 2001, the World Health Assembly adopted resolution WHA54.14 (Global health security: epidemic alert and response), which expressly linked the revision of the IHR to WHO's activities to support its Member States in identifying, verifying and responding to health emergencies of international concern (20). The Assembly expressed support for two key elements of the IHR revision: development of criteria to define what constitutes a public health emergency of international concern; and identification by all WHO Member States of national focal points to collaborate with the revision team. The implementation of the WHO strategy on global health security (epidemic alert and response) will link the IHR with activities at the global, regional, and national levels. WHO's strategy on global health security has three main components: specific programmes for the prevention and control of known epidemic threats such as cholera and influenza; detection and response to health emergencies resulting from unexpected circumstances and unknown etiologies; and improving preparedness through strengthening national infrastructures for disease surveillance and control (20).

Public health emergencies of international concern

The obligation for Member States to notify WHO about disease outbreaks has to be expanded beyond plague, cholera, and yellow fever to include all public health emergencies of international concern. In 1998, a pilot study undertaken by the IHR revision team tested a proposal that sought to replace these diseases with reporting of disease syndromes but found that this was not feasible from a regulatory perspective. WHO has collaborated with the Swedish Institute of Infectious Diseases to define the type of health-related events that would be notified under the revised IHR. A tool for use at the national and global levels is currently being tested in some WHO Member States prior to its incorporation in the revised IHR. In addition, the revised IHR will define the capacities that a national disease surveillance system will require in order to detect, evaluate, and respond to such public health emergencies (20).

Routine preventive measures

The routine preventive measures in the current IHR will be updated in view of the dynamic nature of international trade, trade and commerce.

National IHR focal points

The revised IHR will include an obligation for Member States to collaborate with WHO through designated national focal points. WHO will also verify the content of reports or rumours of disease or health emergencies obtained from "unofficial" sources with these national focal points.

Synergy with other international regimes

WHO's definition of health as "a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity" and the link between trade liberalization and public health could easily result in conflict between the IHR and regimes within the mandate of multilateral trade organizations, especially WTO's SPS Agreement. The process of revising the IHR has taken this into consideration and collaboration is currently taking place with WTO to highlight the parallels and synergy between the two regimes (21, 22). Both the IHR and SPS are concerned with protecting public health with minimal interference with international trade. Nonetheless, the two regimes can potentially conflict because, while measures in the IHR are the maximum allowed in international traffic, the SPS allows WTO Member States to adopt sanitary and phytosanitary measures that exceed international standards so long as the measures are backed by scientific evidence and risk assessment. Since WHO and WTO share many Member States, the two organizations are collaborating to reduce any potential conflict between the two regimes (22).

The IHR revision process is building broad consensus with Member States as well as with other international organizations whose mandates either overlap or relate to the principles and purpose of the IHR. Examples include FAO, the International Air Transport Association (IATA), the International Civil Aviation Organization (ICAO), and the International Maritime Organization (IMO) (23). Most of the key proposals for the revised IHR are currently being evaluated by WHO Member States. The first non-regulatory text of the IHR will be sent out for discussion in early 2003 with a final version available in October 2003 to be adopted by the World Health Assembly in May 2004 (20).

WTO, communicable diseases, and TRIPS

The TRIPS Agreement sets out the legal framework that offers the minimum standards for protection of intellectual property, including patents on pharmaceuticals. Intellectual property right is a form of monopoly that protects an invention and compensates the inventor for the work and novelty of the invention. During the Uruguay round of multilateral trade negotiations, TRIPS was the subject of a charged North–South debate that ultimately reflected the views of industrialized countries. The complexity of striking a balance between intellectual property rights and access to essential medicines by vulnerable populations has placed TRIPS at the centre of global public health policy in recent years. According to WHO, access in this context means that policies pursued must aim to make drugs available for all who wish to have them, and at affordable prices (23). In no other sphere of global public health has the tension between TRIPS, access to essential drugs, and the burdens of communicable disease on vulnerable populations been so apparent than in the situation presented by HIV/AIDS in developing countries, especially South Africa.

In what may be termed “life versus profit”, TRIPS has pitched pharmaceutical patent holders against vulnerable populations who live with HIV/AIDS, human right to life against property rights in the global economy, and activist civil society groups against holders of pharmaceutical patents (24). Despite the exceptions in TRIPS (commercial licensing and parallel importation of generic drugs) that could be exploited to protect public health, the litigation by thirty-nine influential multinational pharmaceutical companies against the Government of South Africa in 1998 and the complaint filed by the USA against Brazil at the WTO in 2001, both challenging aspects of South African and Brazilian legislation as infringing TRIPS obligations reveal the complexity of balancing intellectual property right with access to drugs.

In November 2001, a WTO Ministerial Conference adopted the Doha Declaration, which recognized the gravity of the public health problems afflicting many developing countries, especially HIV/AIDS, tuberculosis, malaria, and other epidemics (25). The Declaration stressed the need for TRIPS to be part of the wider national and international action to address these problems, and stated that “the TRIPS Agreement does not and should not prevent Members from taking measures to protect public health. Accordingly, while reiterating our commitment to the TRIPS Agreement, we affirm that the Agreement can and should be interpreted and implemented in a manner supportive of WTO Members’ right to protect public health and, in particular, to promote access to medicines for all” (25). Whether the Doha Declaration will make a contribution to ameliorating the communicable disease disaster in the developing world is at the very best debatable. Much depends on the relevant global players (WTO, WHO, pharmaceutical manufacturers, civil society, and nation states) to transform the Declaration into concrete action within the normative boundaries of global health governance (26, 27). One certain necessity is a sustained collaboration by WHO and WTO to balance symbiotically the public health and intellectual property extremes of TRIPS in a way that mutually reinforces their respective mandates.

The relevance of international law in global communicable disease control

International law played a prominent role in the infectious disease diplomacy of the 19th century. In the modern era, the constitution, charters and legal framework of most international organizations (WHO, WTO, FAO) provide for international legal mechanisms in forging consensus on a range of issues overtly or covertly related to transboundary spread of communicable diseases. Public health is no longer the prerogative of physicians and epidemiologists. International health law, which encompasses human rights, food safety, international trade law, environmental law, war and weapons, human reproduction, organ transplantation, as well as a wide range of biological, economic, and sociocultural determinants of health, now constitutes a core component of global communicable disease architecture. Although most epidemiologists still view international law as having a limited utility in global health challenges, this view is mistaken because it relies on the premise that multilateral organizations such as WHO either do not have a history of enforcing legally-binding norms or that such norms are not important in global surveillance for infectious diseases. Since WHO, like many

other international organizations, has no multinational army to enforce sanctions on erring Member States, especially the powerful ones, how would the legitimacy of any legal regime adopted by WHO (such as the revised IHR) be enhanced? Sanctions, while relevant in assessing the validity and legitimacy of legal norms, are not the primary reason why nation states follow international rules. To paraphrase Thomas Franck, why do powerful countries obey powerless rules (28)? The view that WHO has no capacity to enforce sanctions if any of its Member States violates its regulations/treaty overlooks the realities of the present international system. As eloquently argued by Louis Henkin, the threat of sanctions is not always the primary reason why states observe or disobey international rules. States will comply with an international law or obligation if it is in their best interest to do so. They will disregard a law or obligation if the advantages of violation, on a scale of balance, outweigh the advantages of observance (29). There are other established bases of international obligation outside sanctions, including consent of states, customary practice, will/consensus of the international community, common purposes of the participants, effectiveness, shared expectations as to authority, social necessity, direct intuition, natural law and natural reason, and a sense of “rightness” (juridical conscience) (30).

For the IHR or any legal mechanism to be adopted by WHO or other multilateral organizations on communicable disease control, it is a matter of argument whether the advantages of observance — the formulation of maximum health measures by WHO — outweigh the disadvantages; trade and other economic embargoes that could cost a country billions of dollars. What is critically important therefore is to elevate public health to a pedestal of a “global public good” where, for example, it meets the common purposes of the participants — the Member States (30). Ultimately, the legitimacy of global health governance will be boosted significantly if states begin to feel that by following international health rules/regulations they will be protecting their own populations from communicable disease threats. This is because the process of globalization has continued to erode the geopolitical boundaries of nation states, facilitating their permeation by infectious agents from distant places.

Conclusion

Historically, international law has played an important role in communicable disease surveillance since the nineteenth century international sanitary conferences. There is no reason why it should not continue to play a similar role in the twenty-first century when the globalization of the world’s political economy and of infectious diseases are accelerating inseparably. International law has been at the margins of communicable disease surveillance, especially within the mandate of WHO since the IHR are not rigorously observed by its Member States. Also, international law is grossly underutilized in global health governance. Communicable diseases are no more complex than a range of other issues that have effectively been the subjects of global governance in the past years. The sustained exclusion of such diseases from international law and global governance suggests either that law is too political to play any important role or that the utility of legal interventions in global communicable disease surveillance is infinitesimal.

Contrasting this view with the WHO's broad definition of health indicates that global health protection and promotion are inseparable from human rights, conflicts and wars, food insecurity and hunger, poverty and under-development, climate change and other environmental challenges. On all of these issues, the indelible fingerprints of international law are forging global accords. Franck has rightly argued that the maturity and complexity of international law equips the discipline with the capacity to regulate every conceivable contemporary global issue (31). In this endeavour, the concern

of contemporary international law is its effectiveness and fairness. Applied to transnational infectious disease threats, the fairness of the law as an "intermediate public good" must be measured by an effective delivery of radically reduced disease morbidity and mortality burdens across societies in a globalized world. These dividends are the fundamentals of global health security. ■

Conflicts of interest: none declared.

Résumé

Droit international et maladies transmissibles

Le droit international occupe depuis très longtemps une place importante dans la surveillance mondiale des maladies transmissibles. Tout au long du dix-neuvième siècle, son rôle a été prédominant, que ce soit pour harmoniser les réglementations peu cohérentes adoptées par les Etats-nations de l'Europe en matière de quarantaine, pour faciliter l'échange d'information épidémiologique sur les maladies infectieuses ou encore pour créer des organisations sanitaires internationales et normaliser la surveillance.

Aujourd'hui, la lutte contre les maladies transmissibles continue de redessiner les frontières de l'administration de la santé

au niveau planétaire par le biais de systèmes – légalement contraignants ou non – qui ont été négociés et adoptés sous l'égide d'institutions multilatérales comme l'Organisation mondiale de la Santé, l'Organisation mondiale du Commerce, l'Organisation des Nations Unies pour l'Alimentation et l'Agriculture ou l'Office international des Epizooties. Avec la mondialisation de la santé publique, le droit international est devenu un instrument indispensable de la gouvernance mondiale en matière de santé pour atténuer la vulnérabilité de l'être humain à la menace que font peser les maladies transmissibles en termes de morbidité et de mortalité.

Resumen

Derecho internacional y enfermedades transmisibles

El derecho internacional ha sido tradicionalmente un instrumento fundamental para la vigilancia mundial de las enfermedades transmisibles. A lo largo del siglo XIX, fue decisivo para armonizar los reglamentos de cuarentena de los Estados-nación europeos, poco coherentes entre sí, facilitar el intercambio de información epidemiológica sobre las enfermedades infecciosas, establecer organizaciones internacionales de salud y normalizar la vigilancia.

Hoy día, las enfermedades transmisibles siguen reconfigurando los límites de la gobernanza mundial de la salud a través de

instrumentos jurídicamente vinculantes y normas sin fuerza obligatoria negociados y adoptados en el marco del mandato de instituciones multilaterales como la OMS, la Organización Mundial del Comercio, la Organización para la Agricultura y la Alimentación y la Oficina Internacional de Epizootias. La globalización de la salud pública se ha servido del derecho internacional como una herramienta imprescindible para la gobernanza sanitaria mundial encaminada a reducir la vulnerabilidad humana a la mortalidad y morbilidad asociadas a las enfermedades transmisibles.

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