



SHORT REVIEW ARTICLE

Investigating the Role of International Law in Controlling Communicable Diseases

Aliasghar Kheirkhah<sup>1</sup>, Manuchehr Kheirkhah<sup>2</sup>, Somayeh Zabihi-Mahmoodabadi<sup>3\*</sup>

<sup>1</sup>Resident of Internal Medicine, Faculty of Medicine, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

<sup>2</sup>Criminologist, Master of Criminal Law and Criminology, Faculty of Law, Bahonar University, Kerman, Iran

<sup>3</sup>Resident of Pathology, Faculty of Medicine, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

Corresponding Author: Somayeh Zabihi-Mahmoodabadi, E-mail: [s.zabihim@yahoo.com](mailto:s.zabihim@yahoo.com)

ARTICLE INFO

Article history

Received: Nov 18, 2016

Accepted: Nov 30, 2016

Published: Dec 15, 2016

Volume: 1

Issue: 2

Conflicts of interest: None

Funding: None

Key words

Disease Outbreak,

International Law,

World Health Organization,

Epidemiological Surveillance

ABSTRACT

International law globally plays a key role in the surveillance and control of communicable diseases. 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, due to changed forms of infectious diseases and individuals' lifestyles as well as individuals' proximity caused by increased air travels, communicable diseases are in an international and cross-border form. In this regard, binding regulations and inconsistent rules adopted in international multilateral institutions like the World Health Organization, World Trade Organization, Food and Agriculture Organization can be of great use in surveillance and control of communicable diseases. With the globalization of public health, international law can be used as an essential tool in monitoring global health and reducing human vulnerability and mortality.

INTRODUCTION

Since the inception of international law in the Treaty of Westphalia in 1648 until the mid-nineteenth century, it was widely believed that diseases did not come within the normative confines of international law; however, the rapid transmission of the cholera outbreak within 1830-1847 in Europe facilitated the formation of the first multilateral surveillance of communicable diseases (1). The first relationship between international law and communicable diseases was formed during the mid-nineteenth century and the first international conference on health explicitly formed in 1851 in France (2). 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 (3). This analysis focused on the treaty-making powers of the World Health Organization (WHO) and those parts of the World Trade Organization (WTO) Agreements on Trade-related Aspects of Intellectual Property Rights (TRIPS) (4). In short, the international law can be defined as the regulator of role and

behavior in the case of states included in an international system (1,5). In addition, the vital role of the international law in the control of infectious diseases is associated with the nature of the communicable diseases threat (5).

PUBLIC HEALTH GLOBALIZATION AND CHALLENGES OF GOVERNANCE

The term 'Public Health Globalization' has emerged in policy discourses to express the transnational and international nature of public health threats (including the spread of infectious diseases and globalization of diseases) (2). Communicable diseases do not respect the geopolitical boundaries of nation states, and state sovereignty is an alien concept in the microbial world and all of humanity is vulnerable to communicable diseases threats (1,2). The contemporary globalization of the world political economy (as evidenced by the large volumes of goods, people, and services that cross national borders) has complicated the international law challenge in the global control of communicable diseases (6). Contagious and transmissible diseases have emerged as an

important topic in the international law and their ramifications traverse a range of multilateral regimes including International Health Regulations (IHR) of the World Health Organization, Agreements of the WTO (TRIPS), Food and Agriculture Organization (FAO) and so on. Global and multilateral governance of communicable diseases implicates other sub-categories of international law, including International Human Rights Law, Humanitarian Law and the Laws of War, International Environmental law, Law of the Sea, International Maritime Law, and Intellectual Property Law and Bioethics (7,8). Communicable diseases present enormous international challenges that are currently beyond the governance capabilities of individual nation states and require multilateral and global interventions (8). Historically, it seems that international laws can significantly help the states solve this problem through making bilateral and multilateral conventions that are transnational in nature (2).

### **NINETEENTH-CENTURY INTERNATIONAL SANITARY CONFERENCES**

First International Conference on Health was convened in 1851 in France with the participation of 11 European countries (9,10). Subsequently, 8 health conventions on transboundary spread of cholera, yellow fever, and plague were formed and negotiated across European geographical borders. In most of these conferences, no legislative proposal was approved and no diplomatic efforts were also made in this regard (10). In these conferences, epidemiological information of diseases was further communicated (3). First conferences on cholera, yellow fever, and plague were held in America in 1905 (11). 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 (4).

### **INTERNATIONAL LAW SOURCES AND THEIR HISTORICAL IMPORTANCE IN CONTROLLING COMMUNICABLE DISEASES**

#### **International Agreements**

According to international lawyers, international agreements and customary international law are generally two sources of international law (3,4). International agreements are an important historical source of international law in controlling infectious diseases (3). The laws on the control of infectious diseases are similar to international economic law and international environmental law, which are strongly developed based on treaties (12). Major International Health Regulations (IHR) show that the international agreements will be pursued as an important function in controlling infectious diseases (13). The IHR aims to ensure the maximum protection against the international spread of diseases with minimum interference with the world traffic (14). The IHR Framework developed by the health conventions contains the following objectives (14,15):

1. Notification of the outbreaks of special diseases

2. Restricting the reactions of other countries and being informed of the outbreak
3. Being led by an international health organization.

The World Health Organization has failed to meet the expectations of the WHO advocates in terms of protecting them against infectious diseases (16). Although the WHO is carrying out its activities, it is suffering from political and financial constraints imposed by the member states (17).

#### **Customary International**

Law there are customary international laws which are compatible with international laws like getting informed of outbreaks in other countries and adopting necessary measures to prevent the disease in other countries (18).

#### **General Principles of Laws Recognized by Civilized Nations**

These are not of paramount importance since the public health legislation applicable across these countries cannot be adopted for their inter-relationships (19).

#### **Judicial Decisions**

They are also of no importance because there is no judicial decision for infectious diseases in accordance with the international law (20).

#### **Soft Law**

Health regulations can be used as soft laws since they are non-binding commitments and the WHO applies their interpretation as recommendation but not binding commitments (20).

### **WHO, COMMUNICABLE DISEASES AND INTERNATIONAL HEALTH REGULATIONS**

International Health Regulations were adopted in 1951 by the WHO. The IHR is a set of regulations adopted under the auspices of the WHO and is one of the first multilateral monitoring mechanisms with a focus on global surveillance of infectious diseases (14).

The IHR became legally binding in 1997 for all member countries of the WHO except Australia (10). The IHR contains a set of regulations on controlling and sharing epidemiological information on cross-border spread of cholera, plague and yellow fever (18). The basic principle is to ensure the maximum protection against the international spread of diseases with minimum interference with the world traffic (4). In order to achieve this principle, some obligatory regulations were adopted for all member states of the WHO to inform the incidence of these three diseases within their territory (13). Evaluating the effectiveness of the IHR in controlling the global spread of cholera, yellow fever, and plague revealed that member states of the WHO have not fully observed the provisions (14). One of the major reasons is that these countries are afraid of excessive measures taken

by other countries to inform the WHO of those countries suffering from the diseases (9,14). For example, an outbreak of cholera in South America (Peru) in 1991 cost about 700 million dollars for the country in fields of trade, tourism and the like (17,19). Another cause of IHR inefficiency is associated with the fact that the WHO is relatively inexperienced in establishing and applying legal systems (4). The revision and modification process is mainly centralized in four key areas:

1. Global Health Security (epidemic alert and response)
2. Public health emergencies at a global level
3. Common preventive measures
4. The need for cooperation between the IHR and other relevant international regimes.

### **GLOBAL HEALTH SECURITY (EPIDEMIC ALERT AND RESPONSE)**

The WHO activities are to support member states. Implementation of the WHO strategy for the global health security (epidemic alert and response) is to link the IHR and activities at a global-local level (9). The WHO strategy on global health security (epidemic alert and response) consists of three categories:

1. Programs on the prevention and control of epidemic threats such as cholera and flu.
2. Identification of and response to health emergencies caused by unexpected situations and unknown causes.
3. Statistical consolidation through strengthening the national infrastructures to monitor and control diseases.

### **PUBLIC HEALTH EMERGENCIES AT A GLOBAL LEVEL**

The obligations of the member states to notify the WHO of the epidemic diseases must exceed plague, cholera, and yellow fever and include all public health emergencies worldwide (10). In collaboration with a Swedish Institute, the WHO proposed a specific definition of health-related regulations under the revised IHR with regard to infectious diseases. In the revised IHR, there is a national disease surveillance system defined to detect, assess, and respond to health emergencies (7).

### **COMMON PREVENTIVE MEASURES**

Common preventive measures in the IHR have been updated according to the dynamic nature of trade and commerce (1).

### **THE NEED FOR COOPERATION BETWEEN THE IHR AND OTHER RELEVANT INTERNATIONAL REGIMES**

From the prospective of the WHO, complete well-being is mental, social, and physical, not merely the absence of disease or impairment (1,21). Regarding the relationship between trade liberalization and public health, it can be easily understood what leads to challenges between multilateral trade organizations and the IHR, especially regarding the WTO agreements (21). The IHR revision process considers the point that the cooperation between the WTO and

the health organizations should become more prominent and the IHR and the World Trade Organization shall consider the world trade minimum interference in the protection of public health (9). Since a majority of countries are members of WTO and WHO, both organizations are working to reduce conflict between these two organizations (14). The IHR revision process is to create broad consensus with other countries and international organizations considering the IHR principles and objectives. Some organizations are as follows: Food and Agriculture Organization (FAO), the International Air Transport Association (IATA), International Civil Aviation Organization (ICAO), and International Maritime Organization (IMO). The first draft of the IHR was sent in early 2003 to help the states and was adopted in 2004 (11).

### **WORLD TRADE ORGANIZATION AND COMMUNICABLE DISEASES**

The TRIPs Agreement offers a set of legal frameworks to provide the minimum standards for the intellectual property protection of achievements like pharmaceutical products (1). According to the World Health Organization regulations, access to medicine aims to promote access to medicines for all. In no field of world public health, no tension was explicitly observed between the TRIPs and access to essential medicines and the pressure of the AIDS epidemic in vulnerable populations in developing countries, especially in South Africa (22). There are, however, pitched battles against the intellectual property rights between the global economy and pharmaceutical company owners and human rights and civil society groups (2,15,16). This complexity can be observed in recognizing 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 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 (3,6,11,22). Hence, the TRIPs Agreement must be interpreted and implemented in such a way that the WTO members have the right to protect the public health and to promote access to medicine (12,17,19). Whether the Doha Declaration will make a contribution to ameliorating the communicable disease disaster in the developing world is at the very best debatable, depending on the presence of key players such as the World Trade Organization, the World Health Organization, pharmaceutical manufacturers, civil society and governments to transform the Declaration into practice within their legal limits (23). One certain necessity is a sustainable collaboration by the World Health Organization and the World Trade Organization in order to balance the public property, public health and mutual respect (9).

### **INTERNATIONAL LAWS AND CONTROL OF GLOBAL INFECTIOUS DISEASES**

The international law played a significant role in controlling infectious diseases during the nineteenth century. Now, the

legal frameworks of international organizations like FAO, WHO, and WTO can provide for international legal mechanisms in forging consensus on a range of issues overtly or covertly related to transboundary spread of communicable diseases (13). International Health Law, which encompasses human rights, food safety, international trade law, environmental law, war, weapons and human reproduction, and organ transplantation as well as a wide range of biological, economic and social factors, now constitute a core component of the global communicable disease architecture (11). Although most epidemiologists believe that the international law has limited resources in the case of global health challenges, this view is mistaken because the World Health Organization plays a non-significant role in monitoring infectious diseases at a global level and the World Health Organization does not possess either the army and the multinational power to sanction violators of the WHO health legislations (1).

## CONCLUSION

The international law played a critical role in the surveillance and treatment of communicable diseases in international health conferences held during the nineteenth century. The same role has not continued during the 21<sup>st</sup> century when the globalizations 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 because the International Health Regulations are not rigorously observed by the member countries. Furthermore, the international law is mostly used in monitoring global health. Exclusion of diseases from the international law suggests that legal interventional means in the global surveillance of communicable diseases is infinitely small. In contrast, the comprehensive definition of health shows that the global health protection and its promotion are not independent from human rights, conflict, food insecurity, hunger, poverty, underdevelopment, climate change, and other environmental challenges. This indicates that the effect of international law in international agreements is undeniable and integral. Maturity and sophistication of international laws are associated with discipline and the capacity to regulate each globally conceivable topic. Regarding international laws, concerns are related to its effectiveness and fairness. Effectiveness of international law is primarily assessed based on the reduced incidence of diseases and mortality across communities and the enforcement of these laws would result in global health security.

## ACKNOWLEDGMENTS

The authors thank all who helped to collect the data of this study.

## AUTHORS CONTRIBUTION

All the authors contributed in this study equally.

## REFERENCES

1. Beaglehole R, Yach D. Globalisation and the prevention and control of non-communicable disease: the neglected chronic diseases of adults. *The Lancet*. 2003;362(9387):903-8.
2. Fidler DP. Globalization, international law, and emerging infectious diseases. *Emerging infectious diseases*. 1996;2(2):77.
3. Fidler DP. Emerging trends in international law concerning global infectious disease control. *Emerging infectious diseases*. 2003;9(3):285.
4. Boutayeb A, Boutayeb S. The burden of non communicable diseases in developing countries. *International journal for equity in health*. 2005;4(1):2.
5. Aginam O. International law and communicable diseases. *Bulletin of the World Health Organization*. 2002;80(12):946-51.
6. Organization WH. Global action plan for the prevention and control of noncommunicable diseases 2013-2020. 2013.
7. Gostin LO, Bayer R, Fairchild AL. Ethical and legal challenges posed by severe acute respiratory syndrome: implications for the control of severe infectious disease threats. *Jama*. 2003;290(24):3229-37.
8. Plotkin BJ, Kimball AM. Designing an international policy and legal framework for the control of emerging infectious diseases: first steps. *Emerging infectious diseases*. 1997;3(1):1.
9. Aubry M, Cantu R, Dvorak J, Graf-Baumann T, Johnston K, Kelly J, et al. Summary and agreement statement of the first International Conference on Concussion in Sport, Vienna 2001. *British journal of sports medicine*. 2002;36(1):6-7.
10. Carr SE. The critical link: interpreters in the community: papers from the first International Conference on interpreting in legal, health, and social service settings (Geneva Park, Canada, June 1-4, 1995): John Benjamins Publishing; 1997.
11. Gensini GF, Yacoub MH, Conti AA. The concept of quarantine in history: from plague to SARS. *Journal of Infection*. 2004;49(4):257-61.
12. Merritt DJ. Communicable disease and constitutional law: controlling AIDS. *NYUL Rev*. 1986;61:739.
13. Boutayeb A. The double burden of communicable and non-communicable diseases in developing countries. *Transactions of the Royal society of Tropical Medicine and Hygiene*. 2006;100(3):191-9.
14. Baker MG, Fidler DP. Global public health surveillance under new international health regulations. *Emerging infectious diseases*. 2006;12(7):1058.
15. Fidler DP, Gostin LO. The new International Health Regulations: an historic development for international law and public health. *The Journal of Law, Medicine & Ethics*. 2006;34(1):85-94.
16. Fidler DP. From international sanitary conventions to global health security: the new International Health Regulations. *Chinese Journal of International Law*. 2005;4(2):325-92.

17. Mack E. The World Health Organization's new international health regulations: Incursion on state sovereignty and ill-fated response to global health issues. *Chi J Int'l L.* 2006;7:365.
18. Fidler DP. *International law and infectious diseases*: Oxford University Press; 1999.
19. Lammers JG. *General principles of law recognized by civilized nations* 1980.
20. Sokol DD. *International Law and Infectious Diseases*. *Chicago Journal of International Law.* 2000;1(2):487.
21. Van den Bossche P. *The law and policy of the World Trade Organization: text, cases and materials*: Cambridge University Press; 2008.
22. Peykari N, Hashemi H, Dinarvand R, Haji-Aghajani M, Malekzadeh R, Sadrolsadat A, et al. National action plan for non-communicable diseases prevention and control in Iran; a response to emerging epidemic. *Journal of Diabetes & Metabolic Disorders.* 2017;16(1):3.
23. Huddart S, Nash M, Abdelrasoul A, Baccarnicova I, Bourque K, Mishra L. The Doha declaration in action: An examination of patent law flexibilities in the South African acquired immunodeficiency syndrome epidemic. *Journal of Health Specialties.* 2017;5(1):30.