Committee: World Health Organization

Topic: Protocols for mitigating future global pandemic and epidemics

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Introduction

Since history began, human beings have always fought against various kinds of germs and viruses which mainly cause lethal diseases such as Black Death, Spanish flu, SARS and COVID-19. Modern society is very mobile, has a wide range of movements and the number of livestock has also increased significantly due to large-scale livestock farm operations. Also, as globalization progresses, the movement of people between countries has become more frequent, leading to the spread of infectious diseases to occur more quickly. ‘Pandemics don’t respect international borders’, according to Lee Jong Wook, former director of the World Health Organization (WHO). In other words, they have potential to not only debilitate and cause lethal aftereffect, but also bring negative social, economic and political consequences.

Over the past 150 years, laws controlling contagious diseases have been developed mainly in the form of 'soft laws’ such as treaties, recommendations, resolutions or guidelines. This means that no international agreements or protocols have been made to control each country when a global pandemic emerges. The International Health Regulations (IHR) signed under the WHO, has played a central role in preventing and controlling infectious diseases. Effective control of infectious diseases that threaten the health of all mankind cannot be realized without international cooperation because of its characteristic. Therefore, an international framework for infectious disease control must be formed in accordance with international law.

Definition of Key Terms

Pandemic

An epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a substantial number of people. Widespread endemic disease such as seasonal influenza with a stable number of infected people is not pandemic.

Epidemic

An outbreak of disease that spreads quickly and affects many individuals in a certain community at the same time. Epidemics usually occur when the agent can be effectively conveyed from a source to the susceptible hosts.

Transmission

A delivery of a pathogen, main source of contagious disease from an infected individual or group to another, regardless of whether the other individual was previously infected. Transmission usually occurs when an infected person touches or exchanges body fluids with someone else.

Patient Zero

A person identified as the first to become infected with an illness or disease in an outbreak.

WHO Region

WHO member states are grouped into 6 WHO regions: African Region, Region of the Americas, South-East Asia Region, European Region, Eastern Mediterranean Region, and Western Pacific Region.

Vaccine

Vaccines are drugs that give animals, including humans, acquired immunity to certain diseases or pathogens. When vaccinated, the body's immune system will be activated, which will enable the body to quickly respond to pathogens that will invade the future.

Self Quarantine

Self Quarantine is a means to refrain from any contact with other individuals for a period of time when the person had contact between confirmed cases or during the outbreak of a contagious disease usually by remaining in one's home and watch for symptoms even if there are no symptoms yet.

Background Information

The WHO provides a pandemic alert system with a scale ranging from Phase 1 to Phase 6. Phase 1, 2 and 3 in order warn of when a virus in animals has caused no known infections in humans, an animal virus has caused infection in humans, and sporadic cases or small clusters of disease occur in humans but insufficient to cause community level outbreaks. Phase 4 is alerted once it is verified that human to human transmission has reached a certain point to cause community level outbreak. Phase 5 is then issued when the transmission of virus between human sustained community level outbreaks in at least two countries in one WHO region. The last stage, Phase 6 is informed when the virus has caused sustained community level outbreaks in at least one other country in two or more WHO regions.

The IHR, the sole global normative order for infectious disease control, underwent revision in 2005. The main changes were such things as: intensification of the WHO surveillance system and inclusion of human rights protection in their provisions. The IHR also specifies important legal regulations to define rights and duties which countries confronting health risks and emergencies potential to go abroad should implement. The regulations delineate the criteria for determining whether or not a particular event establishes a Public Health Emergency of International Concern (PHEIC): Situation is serious, unusual, and unexpected and has the possibility of affecting public health to other states through the international spread of disease.

The issue of infectious diseases has been directly or indirectly regulated in various areas of international law such as international economic law, international human rights law and international environmental law. First, in international economic law, the Sanitary and Phytosanitary Measures (SPS) Agreement allows World Trade Organization (WTO) member states to adopt and enforce measures to protect human, animal or plant life or health from infectious disease threats, and the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement sets the standards for international rules governing patents, including drugs essential to preventing infectious diseases. Furthermore, the Technical Barriers to Trade (TBT) Agreement and the General Agreement on Trade in Services (GATS) Agreement are related to the epidemic problem.

Possible Solutions

Organize global scientific research and development

The coordination would ensure new medicine development such as pandemic vaccines and antiviral drugs to be put into practice more rapidly and widely right away after the outbreak of a pandemic. Acceleration on the research and development for new vaccines providing long-lasting protection against various virus strains. It can be operated by establishing partnerships between or with governments, industries, or academic institutions to find ways and increase vaccine manufacturing ability.

Intensify early warning system

The purpose is to make the affected countries quickly recognize and handle cases and the international communities have the necessary data and medical samples for precise risk evaluation. The enhancement can also make it possible for each government or community to quickly detect suspicious human cases and assure immediate and reliable laboratory identification.

Reinforce rapid containment operations

It is to establish prompt detection and investigation of a series of closely related events at the time and place, and to assure immediate international intervention targeted at preventing the emergence of a fully contagious infectious epidemic virus and delaying worldwide spread.

Timeline of Events

Date	Description of event
2000	**Gavi, the Vaccine Alliance** Gavi is an international vaccine alliance which both private and public come together to accomplish a common goal: creation of equal and fair

	access toward vaccines for children living in low economically developed countries (LEDCs).
2000 (April)	**The Global Outbreak Alert and Response Network (GOARN)** GOARN is a key mechanism created by the WHO to obtain resources of technical institutions for quick identification and to respond to international public health emergencies.
2003	**Severe Acute Respiratory Syndrome (SARS)** Severe acute respiratory syndrome, officially confirmed after months of cases in 2003, is presumed to have been transmitted to bats, cats and then humans in China, followed by 26 countries with 8,096 infections and 774 deaths. SARS was considered a wake-up call by global health experts to improve the response to the outbreak.
2005	**International Health Regulations (IHR) Revision** The purpose of international health regulations is to 'prevent, protect, control and provide public health responses to the spread of international infectious diseases in a way that responds to the risks of public health and avoid unnecessary interference in international transportation and trade'. The IHR states that it is essential for member states to respond to the emergence and spread of illness since the regulations are not limited to certain diseases but are applied to novel and constantly changing public health risks.
2005	**Pandemic Influenza Plan** The Health and Human Services Department of the United States composed the 'Pandemic Influenza Plan' to not only contain and respond to Influenza A (H5N1) which the world was facing but also prevent and prepare for future novel viruses.
2009	**H1N1 Influenza** As a new type of virus, it occurred in Mexico and the United States in April 2009 and spread to various countries by

	continent. The treatment is reported to be effective in Oseltamivir (Tamiflu) and Janamibir (Lelerenza). Since the outbreak, there have been 9,830 confirmed cases in 40 countries around the world. On April 29, 2009, the WHO raised the influenza pandemic stage to five levels, warning of an imminent pandemic and urging all countries to immediately activate their anti-influenza preparedness plans and to be on high alert against influenza-like diseases and severe pneumonia.
2011	**The Pandemic Influenza Preparedness Framework** The PIP Framework brings member states and WHO together to implement an approach to fight against global inflation. Its main goals are to improve human transmission potential, to strengthen the sharing of influenza viruses and to increase MEDC's access toward vaccines and other pandemic related supplies. Being effective on 24 May 2011, it was unanimously adopted at the 64th World Health Assembly.
2012	**Middle East Respiratory Syndrome (MERS)** MERS is an illness caused by a virus named MERS-CoV. Patient zero was first reported in Saudi Arabia in September 2012. Since the first outbreak in 2012, there have been 1,167 infections in 25 countries around the world. WHO did not make any declarations PHEIC or pandemic for MERS.
2019	**COVID-19** COVID-19 is the most recently discovered infectious respiratory disease caused by the novel coronavirus found with the outbreak which began in Wuhan, China in December 2019. The WHO declared PHEIC on January 1 and pandemic for the COVID-19 on March 11.

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