FORUM:	World Health Assembly
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Introduction

It is a core responsibility and long-term aim of our human population to protect the entirety of the human population from threats, intending to provide a stable living standard and living environment. While national defense systems have continued to develop, helping with the security of citizens worldwide, the frequent epidemics and pandemics remind our population of the need to combat biological threats. The mitigation of global health emergencies should thus become one of our top priorities. The most recent pandemic of COVID-19 is an effective warning of the seriousness of global health emergencies. Concluding to the data provided by the World Health Organization, the number of cases resulting from the coronavirus accumulates to more than 767 million confirmed and reported cases, while the number of deaths reaches close to 7 million. In the short run, people around the globe experienced varying levels of pandemic management and control, going through stages of quarantine and the establishment of rules regarding how to behave safely in public areas. In the long run, as the pandemic period extends, the long-term impacts become more evident, permeating through many aspects of well-being. Physical, mental, and socioeconomic status could all become victims of an ongoing or recently ended global health event.

Disinfection during the Global Pandemic of COVID-19

The United Nations, more specifically the World Health Organization, have worked diligently for years with nations around the world, attempting to reduce impacts brought by instances of disease outbreaks. Through years of attempting to combat the issue, collaboration with member states as well as relevant organizations have definitely made a difference from the development of new and effective technologies to establishing international volunteer teams who can assist regions in need during times of emergency. However, the challenge that the world still faces today is the ability to respond to the outbreak promptly to mitigate the impact brought by health emergencies.

Considering the explicit global significance of this issue, resources, and procedures should be gathered and refined. Intending toward the optimal intention of helping the world to eliminate the development of diseases into epidemics and pandemics, it is only through the collaboration of nations worldwide that this goal can be achieved, a clear and explicitly written guideline for pandemic preparedness is thus crucial to establish at this point in time.

Background

The fight against diseases and global health emergencies has an extended underlying historical context. Spanning the time Before Common Era to the present day, people have been frequently impacted by occasions of health issues. Provided below is a timeline of major instances of global health emergencies, with the occurrence of epidemics, many of which were followed by the development into more severe levels of pandemics, impacting the population on a global scale:

Time	Disease	Causation and Outcome
1347	Black Death	The Black Death pandemic is the second plague, and it resulted in around 25 million deaths in Europe. The disease, first causing the decimation of Kipchak khan Janibeg's army upon their arrival at the Genoese trading port, and spread from the port's ships to ports across the Mediterranean region.
1520	Smallpox	Resulting in 50,000 to 300,000 deaths in total, small pox with the pathogen of variola virus is a widespread disease that began to spread with the Spanish troops entering the Aztec Empire.
1855	Third Plague	As a continuation of the Black Death in 1347, the plague carried on, this time taking place in the Yunnan, China. It then reached Hong Kong, and Bombay, eventually covering all continents and causing over 15 million deaths.

1889	The Russian Flu	The Russian Flu in 1989 is an influenza pandemic, peaking for the first time in Russia, but soon reached the United States in just two months of time, surprising the globe with its ability to rapidly travel across the continents.
1918	Influenza	The influenza pandemic occurred most severely during 1918. First occurring among one of the US military personnel, the disease soon developed to spread across the globe, resulting in high mortality rate among the young population.
1981	HIV/AIDS	AIDS, also known as Acquired Immune Deficiency Syndrome was first recognized by the scientific and medical field in 1981. Countries suffered from extremely high morbidity and mortality rates due to this pandemic.
2009	Swine Flu	The swine flu, first detected in the United States, soon spread across the globe, resulting in close to 500,000 deaths worldwide.
2019	COVID-19	The most recent pandemic was first detected in Wuhan, China, and it was declared a pandemic by the WHO on March 11, 2020.

Driven by reasons associated with our rapidly advancing society, such as the increased rate of travel, the frequency of pandemics has increased over the past few years. Therefore, it is an urgent need to call upon nations to establish a set of protocols and applying it to practice in order to minimize risks for global citizens.

History of 1918 Influenza Pandemic (CDC)

Problems Raised

Widespread Increases in Morbidity and Mortality

Pandemics and epidemics, both possessing the capability to impact a large portion of the population, have the most evident impact of placing the biological conditions of citizens under severe vulnerabilities and risks. For diseases that have the potential of developing into one that impacts the wider population, they are likely associated with highly infectious characteristics. The more infectious they are, and the easier the transmission route is, the more detrimental the disease, as it indicates a higher transmission rate, covering a wider range of the population. Furthermore, another contributing factor is the severity of the disease when infected, decided by facts including but not limited to the bodily system that it attacks and the targeted age range. The occurrence of this issue is particularly prevalent among countries with a lower level of economic well-being, being referred to as Less Economically Developed Countries (LEDCs). Economics as a crucial factor contributing to the overall development of the nation could cause decisive differences for countries and the status of the entire nation. In many ways, economic well-being is directly relationship to the standard of living that the population experiences. For instance, in the occasion of global health emergencies, less economically developed countries may not have the advanced level of technology and R&D needed for the medical support needed to treat diseases. As a result, the infected population will not be treated efficiently, leading to both higher risks for continual infection and also the likelihood of an increased rate of morbidity and mortality as the symptoms worsen.

Lack of Medical Facilities Supply

The medical sector makes up the fundamental infrastructure for the recovery procedures of pandemics and epidemics. Medical facilities, including but not limited to medical institutions, medical staff, and equipment needed throughout the diagnosis and treatment process. The lack of medical facilities supply could come in two forms. On one hand, countries may not have enough storage of particular facilities, especially when the facility required is limited and targeted specifically to one or few diseases only. In this circumstance, the limited storage does not possess the capacity to be effectively responsible for the entire population. In a short amount of time, the medical supply will run out and will be unable to cover the immediate demand of the patients. This applies similarly to facilities and equipment that serve protection purposes, as the lack of supply will then lengthen the epidemic or pandemic period by leaving more people under the vulnerability of being infected. On the other hand, the shortage of medical supply could also be the result of the overwhelming demand as their medical needs surge in the special circumstance of epidemics or pandemics. Supply firms are unable to keep up with the widespread need, leaving a gap that needs to be filled with the support of governments, international organizations, and other relevant institutions. In the meantime, as the level of demand could surge to the point where the

price of medical goods and services could rise due to scarcity, the prices of these medical supplies, with lifesaving properties, may become unaffordable for portions of the population. Once again, as aforementioned, the impact of this issue on the population tends to be more significant among LEDCs, as they encounter insufficiency to a higher level. Without adequate economic supply, the nation does not have enough funds or a portion of its national expenditure toward the medical care sector. Hence, in those countries, the supply-demand gap will be widened and the population living in such economies will inevitably be further impacted.

Limited medical support in Hong Kong during the COVID pandemic

Limited International Assistance

International assistance is an effective way of responding to the outbreak of a disease on regional, national, and international scales. However, they are achieved with varying levels of difficulty. In epidemics, international assistance is definitely an effective way of addressing the need for more medical staff, intending to tackle diseases, and providing support to patients in order to reduce pain and improve the recovery rate. However, for pandemics, referring to the widespread impact extending to a global scale. The possibility to receive international assistance is comparatively smaller as the world population on an entirety faces the same issue, leaving minimal room for extra support while the countries themselves would have urgent needs as well. Additionally, even if some borderless organizations and groups may want to approach other regions of the world, it could possibly surge the infection rate instead. As travels and the inevitable social actions threaten to spread the disease to a further extent, their assistance is again not favored.

Unavailability of vaccines

The development of vaccines for any disease, especially those with pathogens that have yet to be fully investigated by the scientific field, could take an extremely long period of time. Diseases that are not infectious could handle the latency time as the risks of disease spreading is not dependent

on the time of receiving treatment. However, the opposite occurs for diseases that are unable to be controlled unless treated. Therefore, vaccines are in some cases the key to resolving global health issues. Unfortunately, vaccines require a large amount of investment, both in time and financial aspects. Hence, vaccines are often provided to citizens with a delayed timing, only becoming available after the outbreak develops into an epidemic or a pandemic.

Shortage of Daily Necessities

Other than the shortage of medical supplies as mentioned above, the inadequacy of daily necessities could impose a similar level of impact on the population, arguably even worse. When an outbreak occurs, citizens living in particular neighborhoods and communities could fall into deep stress and anxiety, worrying that the normal supply of necessities will become unavailable during times of global or regional health emergencies. Hence, people will begin to stock large quantities of goods from any and all forms of markets such as local markets, supermarkets, and even online platforms. When the coronavirus broke out, people in different countries began to clear out the supermarket racks, from vegetables and pure water to toilet paper. These public responses are understandable yet difficult to respond comprehensively for. Local supplies cleared out, additional supplies cannot be received due to the difficulties in transport across different regions as any form of transport carries risks of disease transmission. As a result, the shortage of necessary goods cannot be easily resolved.

Being affected by the reduced supply force and incentivized by the surged demand for these necessity goods, the original set price will potentially become distorted. Firms could push the price beyond their normal price for profit-maximizing purposes. However, consumers would automatically become the victim of such behavior. Particularly, for those receiving low income, the daily necessities will become unaffordable for them, reducing their standard of living, and in the worst-case scenario would not be able to survive.

Political Stress and Tension

The outbreak of diseases and the necessary responses taken by the government could bring stress to citizens. As citizens experience quarantines and are asked to take place in periodic examinations, their rejection could be reflected in behaviors that are unexpected or abrupt. Stress could take place in varying forms, it could be hard to recognize with individuals showing symptoms indicating psychological disorders, or it could be in the form of public protests, eventually placing the nation at risk of political instabilities, and raising concerns regarding security. Furthermore, the reduced or ceased international interactions could potentially lead to conflict between different nations. It could also be caused by the different perspectives attained

regarding the approaches to tackling pandemics and epidemics. This again raises political tensions and inevitably creates chances of warfare.

International Actions

Millennium Development Goals (MDGs)

The Millennium Development Goals are 8 targets set by the member states of the United Nations with the intention of achieving a better world through the eradication of issues. The intended year of completion was set to 2015, and its progress was initiated by the signing of the United Nations Millennium Declaration in September 2000. World leaders mainly focused on the issues of poverty, disease, environmental unsustainability, and discrimination. With several MDGs focusing on the health sector, Goal 6 targeted combatting HIV/AIDS, malaria, and other diseases, a goal with high relevancy to the mitigation of pandemics and epidemics and global health emergencies as a whole. Overall, the outcomes of the Millennium Development Goals do not indicate a complete success with numerous measures unachieved by nations around the world. More specifically on Goal 6, HIV, a disease that originally led to the occurrence of a pandemic, is now gradually improving, with the infection rate falling by 40 percent between 2000 and 2013, and managing to achieve an even more optimal result in the recent years. Although the MDGs helped to achieve a higher success rate for the treatment of infectious diseases, further efforts are definitely needed to achieve minimization of impacts by major infectious diseases, and the establishment of a pandemic preparedness protocol could definitely strengthen and assist with the achievement of this goal.

Millennium Goals Summary Sheet

International Day of Epidemic Preparedness – December 27

According to the United Nations, particularly the World Health Organization, international attention should be dedicated to such issues, as the entirety of the global community gets involved in the event of pandemics. Many purposes are associated with raising awareness, including

publicizing information and knowledge and enhancing the best practices to combat the disease. The usage of measures will be most effective when regional, national, and global levels can cooperate through the process of implementation. The proposal of an International Day dedicated to the preparation of epidemics hence addresses the purpose of education through awareness activities, promoting the importance of establishing preparedness protocols and partnerships. Working toward the mitigation of impacts brought by pandemics and epidemics, the dedication towards action taking, beginning with this international day, would play a significant role.

The WHO Pandemic Preparedness Treaty

Among the United Kingdom, a few national leaders took the initiative to establish a pandemic-specific treaty with the negotiation and approval responsibilities given to the World Health. The intention of this treaty is dedicated to establishing an international treaty that is beyond the International Health regulations which only serve to build the fundamental layer towards addressing this issue, but with a more explicit purpose, the mitigation of the pandemic is likely to have a more effective outcome. The proposed treaty aims to empower all governments and societies in order to allow better resilience against future pandemics. The goals mentioned include but certainly do not confine to enhancing international-wise cooperation through data-sharing and distribution of health counter-measures, all of which emphasize the importance of communication and collaboration.

United Nations Special Session on Global Recovery from the Covid-19 Pandemic

The United Nations is highly involved in matters related to the well-being of global citizens. Special sessions are therefore used on rare occasions, usually taking place every two to three years. The most recent special session that took place in the UN was convoked by the Secretary-General to discuss one of the greatest challenges in our modern era, the pandemic causing deaths and countless confirmed cases from around the globe. Bridging together multiple sectors including the World Health Assembly and the World Health Organization as a parliamentary body, the session intended to develop a comprehensive approach to responding to epidemic and pandemic issues. Upon reviewing and reflecting on the pandemic information and the UN action in response, the session concluded with a series of proposals for further action. For instance, the session indicated the need to establish an early warning system and calls upon all nations to provide better and more transparent information helping with appropriate actions to be in place.

World Health Assembly in session

Key Players

World Health Organization (WHO)

The World Health Organization is one of the United Nations agencies, and its constitution was established in July 1946, and began to establish in 1948. Up to the present day, the WHO is constituted of 194 member states that came together with the common goal of "connecting nations, partners, and people to promote health, while keeping the world safe and serving the venerable so that everyone can attain the highest level of health" (WHO).

Centers for Disease Control and Prevention (CDC)

The Centers for Disease Control and Prevention is a leading organization intending to maintain people's health and save lives. It is a leading organization that roots in science-based and data-driven principles. It has been established for more than 70 years and has helped to protect public health while providing specific support to families, businesses, and communities. The safety and security of people's health have always been kept as the priority through the actions taken by CDC.

International Federation of Red Cross and Red Crescent Societies (IFRC)

IFRC is the largest international humanitarian network, contributed by 191 National Red Cross and Red Crescent Societies based around the world aiming to rescue and save lives, establish communities with the help of leaders, and raise global humanitarian standards. With a network established with more than 16 million volunteers and close to 200,000 local branches, this large-scale organization has had a long history of supporting people in times of health emergencies.

Possible Solutions

Advancing medical defenses

The transformation of the medical defenses is a broad direction that can be narrowed down to separate but interconnecting sectors of vaccines, therapeutics, and diagnostics, the improvement in any or all of these aspects could significantly support the pandemic response protocols. The vaccine production process, beginning from research and processing to the testing and authorizing process, should be made more efficient and effective by enabling the prioritizing protocol, focusing on the development of the vaccine needed by the disease. Once the vaccine is ready, approaches to distribution should also be smart and planned accordingly. For instance, countries should work with government individuals to prioritize the delivery of vaccines, hence attempting to quicken the pace of distribution and therefore meet the demands of the population as fully as possible. Therapeutics should be the next aspect to target, aiming to have an adequate range of treatments in place ready to combat any disease. The effective intersection will be able to mitigate global emergencies to a successful extent.

People receiving vaccines during the pandemic

Raising population and community situational awareness

Education and awareness raising should be done on both the primary level and the secondary levels. Primarily, education should be provided directly to the population undergoing health crisis during pandemics and epidemics, particularly those groups of individuals in a vulnerable position towards the risk of disease infection such as children and elders. Taking into consideration of the urgent situation of global health emergencies which potentially leads to unpreparedness and

insufficient resources, education could be provided in measures such as announcements made over educational sessions, preferably online for infection prevention purposes. Simultaneously, coordinating with the usage of offline mediums such as posters and radios. Content of education on this primary level should be focused on the ways and importance of maintaining personal hygiene, both for the benefit of self and others. Statistics from the Centers for Disease Control (CDC) show that at least 3.6 billion people, making up half of the global population, does not have access to and thus have never had the experience of using sanitation equipment, demonstrating the necessity of providing guidance on the usage of such equipment and procedures, increasing the range of population that will be able to attempt measures to minimize disease transmission.

On the secondary or community level, it is of the same level of importance to raise awareness regarding the issue of disease control in times of global health emergencies as well as for other times. In times of emergencies, it requires a sense of responsibility and effort to be taken from all citizens. Contents of education should include challenges and measures of disease control, as well as past and present examples of populations under humanitarian emergencies. Compared to the primary level, education on this level could be achieved through a wider range of mediums. On one hand, education could be achieved through online mediums via social media platforms, websites, and commercials. On the other hand, to ensure the information reaches those without internet access, educational content should also be included in radio, newspapers, in-person workshops, and content taught in schools. With the cooperation of the entire society, activities such as fundraising campaigns could be achieved with a larger extent of success, reflected in larger support for the populations in need.

Glossary

Pandemic

A pandemic is an incidence of a widespread infectious disease on a global scale, influencing populations of an entire country or multiple continents of the world. Examples of a pandemic include the recent COVID-19 coronavirus where the respiratory system experienced unprecedented pressure. The pandemic differs from an epidemic in that it also affects a large number of people however within the range of a community or region, making epidemics smaller-scale disease outbreaks.

Epidemic

Epidemics refer to the abrupt surge of a particular illness that occurs within the scale of a community or region. Imposing negative impacts on livelihoods and societies, the spread of the disease could be detrimental in numerous possible ways. Although finer details could vary based on a case-by-case scenario, an example identification of an epidemic for an infectious disease, where there are two consecutive weeks with the occurrence of 15 cases out of a population of 100,000 people on a daily frequency.

Disease control

Disease control refers to the prevention of transmission of infectious diseases within a population or local setting. The efficiency of disease control could be demonstrated in outcomes including but not limited to reducing the number of newly existing infection cases, the number of cases currently under infection, the number of deaths as a result of the infectious disease, and the size of the population under risk for infection and potential death. Common control measures are taken through the management and close monitoring of plausible infectious factors such as people, animals, physical goods, and activities that would increase the risk of infection.

Humanitarian emergency

Humanitarian emergencies, defined similarly to the humanitarian crisis, refer to events either occur singularly or in series that places the overall physical and emotional well-being of a certain population in regard to health, security, and safety. Common examples of humanitarian emergencies are natural disasters, large-scale hunger, as well as political conflicts and unrest. The possibility for acute humanitarian emergencies to arise increases when impacts brought by such events hit vulnerable populations who are unable to cope with the life-threatening conditions.

Surveillance

Surveillance in the broad sense refers to the careful watching and monitoring of a specific person, good, or physical setting. In healthcare and medicine, surveillance refers to the continuous evaluation of patients experiencing diseases with the potency to develop, interfering with patients' state of well-being. Surveillance could take place in the form of continuous data collection, documenting and analyzing the direction of disease development, thus leading to decisions on diagnosis and/or treatment. It is extremely important for medical research, early intervention of diseases, and disease control.

Epidemiology

Epidemiology is a specific brand in the discipline of medicine, with analysis and research conducted on a certain population regarding the distribution, trends, causes, and consequences of

diseases, closely monitoring health and well-being. Epidemiology is crucial for maintaining public health and drives the establishment and alteration of policies to achieve preventive healthcare.

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