



FUTURISTIC WORLD HEALTH ORGANIZATION



MUNIST '17

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I. Letter from the Secretary-General

It is such an exquisite honour for me to welcome you all as the Secretary-General of Model United Nations Istanbul Conference 2017. I'm a proud member of Yeditepe Model United Nations club for the last three years and I'm grateful that I've learned so much from the people who had glorified the former editions of MUNIST. Inspired by the legacy of eight years, the family meets again where the continents meet.

Aroused by the passion to rewrite history, influence the future and bring solutions to today's problems of security, justice, human rights, and development, the MUNIST 2017 will simulate twelve committees, composed of crisis cabinets, special bodies and intergovernmental organizations. This year, we have challenged ourselves to excel the academic and organizational quality and we dare you to join us in this journey.

The delegates of the World Health Organization will face the future where the humanity is about to go extinct in 2020 by the pandemic flu. The committee will face updates and will take action to save the humanity. I'd like to thank the Under-Secretary-General Mr. Uğur Özbek for his efforts in the study guide.

I would like to conclude my letter by expressing my deepest gratitude to the people whom I feel lucky to call my team and particularly, a very special lady that is my companion in this journey, Ms. Ege Sürek. I also would like thank the dedicated operations team led by Director-General Mr. Onuralp Acar and his deputy Mr. Kadir Şentürk. We wish that you will have a unique experience.

For one more time, let's meet where the continents meet!

Sincerely,

Merve Noyan

Secretary-General of MUNIST 2017

II. Letter from the Under-Secretary-General

Esteemed participants,

I am delighted to welcome you to the Futuristic World Health Organization Committee in MUNIST 2017. My name is Uğur Özbek, I study Translation and Interpreting at Yeditepe University in Istanbul and I will proudly serve as the Under-Secretary-General of this committee in MUNIST 2017.

The simulation of WHO in MUNIST 2017 will take the participants to a WHO meeting on 6 January 2020, where they will be fighting against an extremely dangerous influenza pandemic. Throughout the conference, delegates will face constant updates, crises and news reports to inform them on the events of the committee. Delegates will be expected to actively participate and steer the discussion by writing directives and press releases to take actions such as raising the pandemic phase levels, developing vaccines and using social distancing strategies. In the end, the outcomes of the committee will be shaped by the efficiency and success of the delegates. To make all of this possible and ensure the smooth flow of the committee, it is critical that all participants to read this study guide carefully as it covers all the information needed to join the discussion.

I am looking forward to meet with you where the continents meet!

Best Wishes,

Uğur Özbek

III. World Health Organization

a. Key Definitions and Concepts

Pathogen: Pathogen is a very generic term used to refer pretty much anything that can cause disease in organisms. Usually it is used to refer infectious micro-organisms such as virus, bacterium or fungus that can start illnesses in humans.

Disease: Disease is a medical condition caused by a pathogen that presents itself by showing signs and symptoms and leads to internal or external abnormalities, disorders or total failures in the systems, structures or functions of an organism. Immune system is the main way of preventing and fighting diseases for organisms.

Immune System: Immune system is the organisms defense mechanism against a disease. It consists of complex structures and processes. The more types of pathogens and their different strains the immune system can recognize the better and vaccines are a great way to get the immune system acquainted with new pathogens.

Vaccine: Vaccine is essentially a preparation method to get ready for an actual disease. It usually contains either weakened or killed forms of a particular pathogen. When injected, human immune system responds to vaccine and learns how to combat that particular disease so that if and when an actual threat is recognized the person can be fully ready to fight it.

Epidemic: Epidemic is the unusually rapid spread of an infectious disease to a large amount of people in an area or a region. The reasons of an epidemic can vary from environmental changes to emergence of a new pathogen unknown to human immune system.

Pandemic: Pandemic occurs when a particular epidemic gets bigger and affects multiple countries, continents or even the entire globe. Influenza virus has immense potential to start pandemics. Some other big pandemics of the past include black death, smallpox and HIV.

Endemic: When used in the context of diseases, endemic means the particular diseases state of belonging to a certain area, community or a region. A great example for this would be malaria. Malaria can be observed anywhere in the world. However it is always present in Africa and the overwhelming majority of malaria cases are observed in Africa therefore malaria is considered a disease endemic to Africa.

Zoonosis: Zoonosis is the term used for the infectious diseases of animals that can spread to humans. Some examples of modern zoonotic diseases include Ebola and HIV. Some strains of influenza are also considered zoonotic as they can be transmitted to humans, combine with human influenza viruses, evolve and cause a pandemic.

b. Establishment, Structure and Financing of WHO

World Health Organization is one of the specialized bodies of the United Nations and it was established on April 7th. 1948 in Geneva, Switzerland. It works to improve and solve issues of public health. Instead of International Health Organization, World Health Organization was decided upon as the name of the organization as the word "world" represents the true global reach of WHO better, disregarding borders and upholding the principles of equality. WHO also publishes the annual "World Health Report" and organizes the "World Health Day" on April 7th of each year.ⁱ

Any state can become a full member of the WHO by ratifying the Constitution of the World Health Organization. As of today the organization has 194 full members in addition to several observer countries such as Palestine and some observer organizations like Red Cross. Member states send delegations led by their health ministers to Geneva every year to attend the "World Health Assembly". World Health Assembly is not just the supreme legislative and governing body of the WHO but also the highest health policy setting body in the world. It usually gathers in May each year to decide, discuss and vote upon major policy matters, budgeting and finance related issues and focus areas of WHO. It also appoints the Director-General of the organization which is currently Tedros Adhanom who was elected on July 1st, 2017 to serve for the next five years.ⁱⁱ

One of the biggest strengths of the WHO is its wide network of specialized offices that branch out all over the world. This network allows WHO to gather information as quickly as possible and also makes management of this huge organization easier. First comes the regional offices. Each WHO region has its own office that can function on its own. Many important decisions are made at the regional level and more importantly, each region can decide what to do according to their own specific needs as not every action WHO takes is global. There are total of six WHO regions which are as follows: Africa, Europe, South-East Asia, Eastern Mediterranean, Western Pacific and The Americas. In addition to regional offices, WHO has country level offices in 147 different countries across the world, that might deal with issues specific to that country. Lastly, WHO also has specialized liaison offices that

handle its relationships with other major organizations such as United Nations, World Bank and International Monetary Fund.ⁱⁱⁱ

To ensure the continuation of its worldwide programmes, WHO needs a big budget. The budget of WHO is made of "Assessed" and "Voluntary" contributions. Assessed contributions are basically membership fees that every member state pays. The exact amount is decided according to the economic prosperity of the country. Voluntary contributions make up more than three quarters of the whole budget. Countries can make voluntary contributions in addition to their assessed contributions. Non-State donors include many organizations and foundations that WHO has partnerships with.^{iv}

c. Main Focus Areas of WHO

WHO does not only try to treat and prevent illnesses but it also tries to handle other health related management, governing and policy matters. That is why it has six main focus areas that cover wide range of subjects. These are: Health Systems, Noncommunicable Diseases, Promoting Health Through the Life Course, Communicable Diseases, Preparedness Surveillance and Response and finally Corporate Services.

In regards to health systems, WHO's main goal is to achieve universal health care for everyone. To reach this goal WHO works closely with policy makers, academia, private sector and civil society in order to develop new and effective health plans so that everyone can benefit from health care services at an affordable price.

Noncommunicable diseases include stroke, cancer, heart and lung diseases, diabetes and mental health problems. %70 of all deaths worldwide are caused by noncommunicable diseases, 8 out of 10 of these deaths occurring in low and middle income countries. Clearly, this is a huge issue and WHO is closely working with its partners to improve the situation.

Promoting health through the life course focuses on environmental and social aspects of health in addition to tackling the issues of gender, equality and human rights in healthcare related matters. It is also a critical instrument in reducing the equality gap between countries.

Preventing and eradicating communicable diseases have always been one of the primary goals of WHO and they remain that way to this day. Some examples of communicable diseases are HIV, tuberculosis, malaria and influenza. To combat

communicable diseases WHO works with countries to provide easy access to vaccines as most of these diseases can be prevented with them.

In case of emergency WHO has the responsibility to lead, coordinate, determine strategies, set priorities and provide technical assistance, supplies and financial resources in any given region of the world. With the preparedness surveillance and response focus area, WHO aims to not just do that but also train and educate countries so that they themselves can respond better to possible future emergencies.

Corporate Services make up the backbone of tools and resources that make all of WHO's work possible. For instance it pressures governing bodies and member states for policy making and gives legal assistance during the drafting of international treaties regarding health. Additionally, communications and human resources departments work on gathering worlds best public health experts under the roof of WHO.^v

d. Previous Efforts of WHO

WHO is a relatively new organization and as a result it had not the chance of acting on some of the deadliest diseases humanity had to endure, even the ones in the near past such as the Spanish Flu in 1918 let alone the devastating outbreaks of the previous centuries. Right after its establishment in 1948 however, the organization started working on the major health problems of the time.

One of the earliest activities of the WHO involved Tuberculosis, a deadly communicable bacterial disease that mostly affects lungs. The organization had started studying the disease immediately after its establishment and at the dawn of the 50's, a mass vaccination project for tuberculosis had already begun. To this day tuberculosis continues to be a problem for humanity however since 2000, it is estimated that 49 million people were saved as a result of the developments in diagnosis and treatment of the disease.^{vi}

Later on, WHO shifted its attention to malaria and in 1955 started the Malaria Eradication Programme which is in motion still. Malaria is a deadly disease caused by a parasite that is found living in particular type of female mosquitoes. It can spread to a healthy person through a bite of the said mosquito and cause illness in 10 days. Malaria is mostly observed in Africa and according to WHO, in 2015 around 430000 people were killed due to malaria, a considerable amount of this being children. Malaria is preventable and as a result of the work of the WHO %21 decrease in new malaria cases has been observed since 2010.^{vii}

WHO's biggest accomplishment has been, without a doubt, the eradication of smallpox. Smallpox was a serious disease famously known for the rash and blisters it caused on skin. It was one of the oldest diseases known to mankind. Scientists believe it first spread to humans from an african rodent, somewhere between 16000 and 68000 years ago. Smallpox continued to be a huge disaster for a very long time. It is estimated that in the 20th century alone, it was responsible for 300 to 500 million deaths worldwide. WHO increased its efforts in combating smallpox in the second half of the 60's. At the time WHO's biggest challenge was the inadequate reporting of the smallpox cases. As a result, WHO came up with a new disease surveillance method consisting of a wide network of experts. These experts helped the countries to establish systems to monitor any smallpox activity and take necessary measures. The new surveillance system combined with the remarkable efforts on vaccination worked wonders. The last major smallpox outbreak took place in Yugoslavia in 1972. Fast response of the officials and the assistance of the WHO prevented a bigger outbreak. Finally in 1979, WHO officially declared that the smallpox disease was eradicated completely.^{viii}

e. Influenza

i. Introductory Information on Influenza

Influenza, commonly known as "flu", is a contagious disease that affects respiratory system in humans and some animals. Influenza is caused by the influenza virus and usually confused with "common cold". Flu generally comes very quickly and is more severe than a cold. Another difference is fever which is a common symptom of the flu but not the cold. The most efficient method of protection against influenza is getting a flu vaccine. However it is important to get vaccinated each year as the constant mutations of the influenza virus result in slight modifications to flu vaccines every year. Other methods of protection include wearing a surgical mask and frequent hand washing as the influenza virus is inactivated by soap.

The symptoms of influenza can range from very mild to very severe and can be observed one to two days after the initial infection. The symptoms include: fever and/or chills, cough, sore throat, runny or stuffy nose, muscle or body aches, headaches, fatigue and tiredness. In addition, children can also experience vomiting and diarrhea. These symptoms usually leave patients with no choice but to rest in bed for the duration of the illness, reducing the productivity and quality of life to almost zero.

At first glance influenza is a simple and common disease that gets little attention however it can cause serious problems and become very deadly. Each year influenza spreads around the globe in a yearly outbreak, known as the "flu season". Flu season generally begins in October and can last as late as May, with most active period being between December and February. During the flu season, hundreds of millions of people get affected by the influenza virus. Three to five million people get severely ill and somewhere between 250,000 and 500,000 people die as a result of the virus. However the real danger of the influenza is not the seasonal outbreaks, but the rare epidemics and pandemics which result in the death of millions of people.^{ix}

ii. Influenza Virus and its Types

Influenza is a virus which means unlike other pathogens, it can't replicate by itself. This forces influenza to infect other organisms and seek living cells in the infected organism to replicate. The replication of the influenza virus is a multi-step process and it involves the genetic material of the virus which is called RNA (Ribonucleic Acid). First, influenza binds itself to a living cell using the spikes on its surface and injects its RNA into the host cell. New copies of the RNA and viral proteins are created using the resources of the host cell. Later, these materials are assembled into a new virus inside the host cell. Lastly, new viruses exit the host cell to infect other cells, killing the host cell in the process.

There are two types of "spikes" that influenza can use to attach itself to healthy cells which are: Haemagglutinin (H) and Neuraminidase (N). Additionally, there are 18 different variations of the Haemagglutinin, H1 to H18, and 11 different variations of the Neuraminidase, N1 to N11. This means there are many possible combinations to the influenza virus that are slightly different than each other. For instance the virus that caused the deadly Spanish Flu in 1918 was the H1N1 strain and the Hong Kong Flu in 1968 was caused by the H3N2 strain. It should also be noted that the strains also mutate constantly and the H1N1 virus today is vastly different compared to the H1N1 virus that caused the Spanish Flu a century ago.^x

As of today, there are four main types of the influenza virus, namely Influenza A, B, C and D.

Influenza A

Influenza A type is the most common and well known type of the influenza virus and it is found in many wild birds, mammals and humans. A type of influenza viruses are divided into different subtypes according to Haemagglutinin(H) and Neuraminidase(N) they possess.

Birds especially are great carriers of influenza A and can host almost all different strains of the virus, however most of the time they are only carriers, meaning that they don't get sick. Influenza viruses that infect birds are also called "Avian Influenza(AI)" and are further divided according to their pathogenicity levels, such as "Highly Pathogenic Avian Influenza(HPAI)" or "Low Pathogenic Avian Influenza(LPAI)".

It is believed that only H1N1 and H3N2 subtypes of the virus are currently circulating among humans, nonetheless they are not the only subtypes that affected humans before. Some of the most relevant subtypes that affected humans before are as follows:

H1N1: H1N1 is the most well known subtype of all category A influenza viruses as it is responsible for the 1918 Spanish Flu pandemic which killed 50 to 100 million people worldwide, making it not only the deadliest of all the influenza viruses but also one of the deadliest natural disasters ever. Additionally a different strain of H1N1, originating from swine, caused the 2009 swine flu outbreak which killed almost 20 thousand people

H2N2: Scientists believe that the H2N2 was responsible for the 1889 flu pandemic, also known as the Russian Flu, which is one of the earliest recorded pandemics. Later, H2N2 caused the Asian Flu in 1956. According to WHO, Asian Flu killed around two million people. Subsequently, H2N2 evolved into H3N2.

H3N2: H2N2 mutated into H3N2 by an antigenic shift and similar to the H2N2, H3N2 also caused a dangerous pandemic in Asia, namely the Hong Kong Flu in 1968. It is believed that the Hong Kong Flu killed around one million people. Currently, different strains of the H3N2 widely circulate among humans and they can be observed in many seasonal flu outbreaks ever year.

H5N1: H5N1 is another dangerous subtype of the influenza A and can be found on many species of birds. It can infect humans and it is known to cause serious illnesses and in some cases death. Many of the "bird flu" outbreaks since the beginning of the 2000's are caused by a

highly pathogenic strain of the H5N1 and it still remains a possible candidate for starting a pandemic.

H7N7: H7N7 is another subtype of the category A influenza and can cause "Horse Flu", a disease that only affects horses. Additionally, many different highly pathogenic(HP) and low pathogenic(LP) strains exist, some of these strains have the ability to infect humans. H7N7 has an immense capacity to affect wide range of animals such as birds, pigs, seals, horses, mice and more. This uncommon potential of the H7N7 makes it a highly dangerous virus that can start a deadly pandemic.

Influenza B

Influenza B is the second type of the Influenza virus family that can cause influenza disease. Category B viruses can only infect humans and seals. The naming system for the B strains is also different than the A viruses. As of today two separate kinds of the influenza B virus exist: B/Yamagata and B/Victoria. Similar to the A category, B viruses can also mutate and evolve into new strains but in category B, mutation rates are much slower compared to the category A.

Influenza B has caused serious illnesses before, however its limited scope of infecting different organisms and slow mutation rates makes it somewhat less dangerous than influenza A.

Influenza C

Influenza C is the third main type of the Influenza virus family. It can only infect pigs and humans. Diseases caused by the influenza C are both very mild and rare compared to the ones caused by the A and B categories. This means that influenza C poses very little threat to humans and it has near zero chance of starting an epidemic.

Influenza D

Influenza D is the fourth and last type of the influenza virus. Unlike A, B or C types, influenza D does not infect humans at all. Instead it can be found in cattle, leading to cattle diseases.^{xi}

iii. Prevention and Treatment of Influenza

Influenza virus can spread and infect individuals in three main ways: direct transmission, airborne transmission and contact transmission. Direct transmission occurs when an infected person directly sneezes into the eyes, mouth or nose of another person. A single sneeze of an infected adult can spread up to 40000 droplets that can carry half a million virus particles. These particles can remain alive in the air for a while by holding onto dust and other air particles which is exactly how airborne transmission works. When a person inhales a virus in air, that person can also get infected. Third way of transmission is by direct contact which can occur when a healthy person touches an infected person(handshake, hug) or a surface such as banknotes and light switches, and then touches his own eyes, mouth or nose. An infected person can spread the virus to others for up to one week after the symptoms show up on himself.^{xii}

The most efficient method of preventing influenza is vaccination. Vaccination is especially recommended for high risk groups such as children, elderly, healthcare workers and people with chronic illnesses like asthma and diabetes. However because influenza virus constantly mutates, new vaccines are needed every year. In line with this, WHO releases a list of influenza strains that are expected to be observed throughout that specific year and according to this information pharmaceutical companies produce the necessary vaccines. This production process is costly and to produce the required millions of doses can take up to six months. Nevertheless, vaccines are not perfect by any means as some people can show allergic reactions to them and the period of two weeks, which is the required time for a vaccine to become effective on a person, is easily enough for anyone to get sick. Also, sometimes a different strain than expected can become dominant that year, reducing the effectiveness of the vaccine greatly.^{xiii}

There are also many minor methods of protection against influenza available. Most of these methods rely on developing healthy habits such as washing hands regularly to kill the virus, avoiding to touch eyes, nose and mouth to prevent contact transmission and covering coughs and sneezes to reduce the chance of infecting others. Avoiding close contact with infected people and staying at home is also helpful. If close contact with others is necessary, wearing surgical masks can also be relatively helpful. Additionally, since influenza can spread through objects and surfaces, sanitizing can be beneficial. Sanitizers containing alcohol and bleach are especially great at destroying influenza virus.

Another method of protection is using what is called social distancing strategies. These focus on preventing the transmission of the disease rather than using medication to cure it in order to reduce death rates. First social distancing strategy that comes to mind is "Quarantine". Quarantine basically means isolating the infected people in a certain area to prevent them from spreading the disease to healthy people. "*Cordon sanitaire*"(Sanitary Cordon), a very similar process to quarantine, can also be implemented. Another method is called "Protective Sequestration", sometimes referred to as "Reverse Sanitary Cordon". Protective Sequestration is when a small, healthy community willingly isolates itself from the outside world by implementing a sanitary cordon in order to not get infected by the disease. All three of these methods are proven to yield positive results as long as they are implemented in a timely fashion.^{xiv}

Other sets of social distancing strategies involve shutting down public services and places that the disease activity is high. Examples of these are closing schools, workplaces and recreational centers, stopping mass transit network, canceling music, sports and culture events, implementing travel restrictions and so on. In short, when an extremely dangerous pandemic strikes, every non-essential place, activity or event can be shut down or canceled. These social distancing strategies can be very effective, however extreme caution is needed when implementing these as they can lead to huge panic, fear and unrest among the public.^{xv}

iv. Influenza Pandemics

Influenza virus is extremely dynamic and it mutates constantly in two distinct ways. These are called "Antigenic Drift" and "Antigenic Shift". Antigenic drift occurs regularly as the virus replicates. The changes to the virus through antigenic drift are very minor. Nevertheless, these constant minor changes to the virus can add up over time to the point where the virus is no longer recognizable to the human immune system. This process is the main reason behind regular epidemics and it is the main reason why people get influenza each year.

Antigenic shift on the other hand leads to major transformation in the gene combination of the virus. Animals, especially pigs, are great hosts for antigenic shifts, although it can take place in humans as well. As a result of an antigenic shift, an influenza virus may even obtain a different set of Haemagglutinin(H) and Neuraminidase(N) proteins. If somehow a new antigenically shifted virus spreads to humans, since the new virus is completely unknown to the human immune system, it is likely that a new influenza pandemic will

emerge. In such case, the virus would spread globally in a very short period of time and literally everyone would be susceptible to it and this is the exact reason why pandemics are so very dangerous.^{xvi}

One of the earliest recorded influenza pandemics is the 1889-1890 flu pandemic also known as the "Russian Flu", which took place between October 1889 and December 1890. Smaller recurrences were observed well until 1894 however. Initially, scientists believed that the H2N2 strain was responsible for the Russian Flu however later evidences suggest that H3N8 virus is more likely to be the cause of it. Developments in the transportation technology had allowed Europe to connect on a scale never seen before during the time of the outbreak and scientists believe that this might be one of the main reasons why the Russian Flu killed around one million people.^{xvii}

The deadliest influenza outbreak ever is by far the Spanish Flu that took place between January 1918 and December 1920. It was caused by the H1N1 virus, however the exact starting location of the pandemic is unknown. Spanish Flu infected around 500 million people and it was so infectious that even in remote places such as the arctic and Pacific Islands Spanish Flu cases were observed. The disease struck in two major waves, the second one being much deadlier than the first. In total, somewhere between 50 to 100 million people died as a result of it and considering the fact the world population was less than 2 billion at the time, the death count becomes even more alarming. Unlike most other influenza pandemics, Spanish Flu killed mostly young adults instead of children and elderly. There are multiple theories regarding why the Spanish Flu was unusually deadlier than other pandemics. Some scientists believe that the particular strain that caused the outbreak had an especially aggressive disposition. Others suggested that "Cytokine Storm" was the cause of death for many people. Cytokine Storm occurs when the overreaction of the immune system totally backfires and kills the individual instead of eliminating disease. This reasoning would also explain the high young adult deaths as they have the strongest immune systems. It should also be noted that World War I was taking place during the outbreak and high flow of movement due to war combined with the conditions of the time such as malnourishment, overcrowded medical camps and poor general hygiene may have amplified the effects of the disease.^{xviii}

The most recent influenza pandemic is the 2009 Flu Pandemic, famously known as the "Swine Flu". This pandemic was also caused by the infamous H1N1 virus however it was a substantially different strain of H1N1. Scientists believe that the virus was a combination of

bird, human and swine flu viruses. Although the origin of the virus is unclear first cases were observed in April 2009 in Veracruz, Mexico. Mexican officials tried to contain the virus by shutting down public places in the area but the attempts were unsuccessful. The disease spread globally and by June 2009 the WHO had already officially announced it a phase 6 pandemic. WHO also advised against closing borders and putting travel restrictions as it was too late. Disease activity started to decrease around November 2009 and in August 2010, WHO announced that the pandemic moved to the post-pandemic period, signaling the end of the disease. In the end swine flu only killed around 20000 people, although the number is likely to be higher due to unconfirmed and unreported cases. There was also some controversy surrounding the 2009 pandemic. Some people claimed that WHO caused panic and fear among public by declaring it a pandemic very early instead of assessing the situation thoroughly. Some experts even claimed that big pharmaceutical companies had started "campaign of panic" and pressured WHO to declare early pandemic in order to sell vaccines.^{xix}

v. WHO Influenza Pandemic Phases

Since 1999 the WHO has been working on a system to categorize pandemics in order to communicate pandemic severity levels easily to anyone and to make the fight against a possible pandemic more efficient. These efforts were finalized in 2009 and as a result WHO Pandemic Phases System emerged. The system aims to monitor any pandemic activity and proposes action plans and recommendations to governments and other involved parties. It has six distinctive phases and additional post-peak and post-pandemic periods. In the event of a possible pandemic, these phases should play a critical role in assessing the situation and taking appropriate measures.

Phase 1: Influenza viruses constantly circulate among animals in nature, especially birds. There is always the possibility of these viruses evolving into a different subtype and starting a pandemic, however in phase 1 no animal viruses are reported to cause disease in humans.

Phase 2: In phase 2, a particular strain of animal influenza is reported to have infected and caused disease in humans in at least one occasion, making it a possible pandemic threat, nevertheless danger levels are still pretty low.

Phase 3: Phase 3 means that a particular animal or a combination of an animal/human influenza virus has caused illnesses in a small number of people in specific communities. In

phase 3, the virus may have very little ability to cause human to human transmission but only by direct contact. This small human to human transmission capabilities of the virus means that, at this stage, the chances for a pandemic are still relatively low.

Phase 4: In phase 4, the virus has increased its human to human transmission capabilities significantly and now is able to start and sustain community level outbreaks. At this point, any country that has observed similar virus activity should immediately communicate with WHO and decide if a WHO intervention is possible and/or needed. The improved human to human transmission abilities of the virus greatly increases the risk of a pandemic, but a full on pandemic can still be prevented in phase 4, if the necessary measures are taken.

Phase 5: Phase 5 occurs when the community level outbreaks of phase 4 are observed in at least two different countries in one WHO region. Even though most countries are still safe at this stage, initiation of phase 5 means that a global pandemic can start at any minute now and the time for finalizing preparations for fighting against a pandemic is narrowing every hour.

Phase 6: The final pandemic phase starts when the community level outbreaks mentioned in phase 5 are discovered in at least one other country belonging to a different WHO region than of phase 5. Phase 6 indicates that a full on global pandemic is taking place and communication and taking collective action is key for the eradication of the virus.

Post-Peak Period: Hopefully, the effective measures taken in phase 6 will trigger the initiation of the post-peak period which signals that the activity of the virus has decreased. However the key in this period is to remain vigilant and continue the surveillance efforts. Because almost all of the previous pandemics have struck in multiple waves and the fact that disease activity is dropping does not mean it will completely end soon as secondary waves can strike months after the initial pandemic and they can prove even deadlier than the first wave.

Post-Pandemic Period: Post-pandemic period suggests that the virus activity has returned to regular seasonal influenza levels and the world is safe. At this stage it would be beneficial to recover and prepare detailed evaluations and reports of the disease in order to respond more efficiently to possible future pandemics.^{xx}

f. Timeline Leading to Events in 2020

14 October 2019 - An unknown strain of the H7N7 virus was found in a horse ranch just outside the city center of Almaty, Kazakhstan. After conducting their research on the horses of the ranch, scientists stated that the virus is Highly Pathogenic(HP).

2 November 2019 - A Highly Pathogenic(HP) H7N7 virus, similar to the one found in Kazakhstan, is discovered in a pig farm in Tbilisi, Georgia. All of the 3000 pigs in the farm were culled to prevent further spread of the virus. Farm workers that directly interact with pigs showed signs of mild influenza.

25 November 2019 - A Highly Pathogenic(HP) strain of the H7N7 virus was found in chickens in a poultry farm in Yekaterinburg, Russia. As a precautionary measure, 8000 chickens were culled. The same virus was also discovered in most of the workers of the farm. Two farm workers died as a result of severe influenza.

7 December 2019 - Following the recent H7N7 activity in Central Asia and its surrounding regions, WHO concluded its research and officially stated that a completely new strain of the H7N7 is discovered. The organization also stated that, because of its extremely low human to human transmission capabilities, the virus poses very little pandemic threat. WHO classified this new virus to be a Phase 2 pandemic and assured the public that there is no reason to panic.

31 December 2019 - The world wildly celebrated the new year. Cases of H7N7 were observed in at least four different cities in Central Asia and its surrounding regions throughout December. Nevertheless, almost all of the H7N7 cases were observed in animals such as birds, horses and pigs and only nine people died as a result H7N7 in December 2019.

6 January 2020 - Alarmed by the increasing activity of the H7N7 virus, WHO decided to hold a meeting on health minister level to discuss about the H7N7 influenza threat...

g. Points that a Resolution Should Cover

- What actions can the WHO take in each Influenza Pandemic Phase to protect people in an event of a possible influenza pandemic?
- What can the WHO do to increase the speed of vaccine development and production in case of an influenza pandemic?
- What are the social distancing strategies that WHO can employ to prevent rapid transmission of the virus during a possible influenza pandemic?
- What precautions can the WHO take in order to prevent animals such as birds, pigs and horses from spreading the virus during a possible influenza outbreak?
- What surveillance methods can the WHO use to observe the activity of an influenza virus in the event of an influenza pandemic?
- What can the WHO do to solve any financing issues that might arise during a struggle against a possible influenza outbreak?
- What can the WHO do to raise awareness and educate people for protection against the virus in the event of an influenza pandemic?

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