Forum:	World Health Organization
Issue:	Giving Instructions to Manage Global Pandemics More Effectively in the Future
Student Officer:	Noah Delfs
Position:	Chair of the World Health Organization

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I. Introduction

On December 31st, 2019, the World Health Organization stated that a mysterious pneumonia was sickening dozens in China.[1] Since then, this mysterious form of pneumonia has confirmedly infected 134 million individuals. It has also taken the lives of over 2.9 million.[2] In a media briefing on COVID-19, the executive director of the World Health Organization estimated that roughly 760 million individuals have most likely been infected by COVID-19.[3] Despite this only representing about 10% of the world's population, COVID-19 has placed everyone around the world in a state of emergency. Since the 11th of March, 2020, when the director-general of the WHO declared COVID-19 a pandemic, the world has been suffering from the infectiousness and persistence of COVID-19. Due to the severity of the issue, local and international restrictions had to be implemented. Such as but not limited to "stay at home orders, travel bans, restrictions on meeting people from other households, and the closure of nonessential stores, as well as gyms, cinemas, museums, art

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[1] "Timeline: How coronavirus got started - ABC News." 22 Sept. 2020, https://abcnews.go.com/Health/timeline-coronavirus-started/story?id=69435165. Accessed 9 Apr. 2021.
[2] "Coronavirus (COVID-19) Cases - Statistics ...." https://ourworldindata.org/covid-cases. Accessed 9 Apr. 2021.
[3] "WHO Says 10 Percent of People Worldwide May've Been Infected ...." 5 Oct. 2020, https://www.complex.com/life/2020/10/who-says-10-percent-of-people-worldwide-may-have-been-infected-with-coronavirus. Accessed 9 Apr. 2021.

galleries, and even places of worship."[4] We have seen what can ensue if a potential pandemic is not addressed properly. Therefore, in collaboration with all member states, the WHO must assist and instruct the management of pandemics in the future.

II. Key Terms

A. Intensive Care Unit (ICU)

"A unit in a hospital providing intensive care for critically ill or injured patients that is staffed by specially trained medical personnel and has equipment that allows for continuous monitoring and life support."[5]

B. Zoonoses

"An infection or disease that is transmissible from animals to humans under natural conditions."[6]

C. Diagnosis

"The art or act of identifying a disease from its signs and symptoms."[7]

D. Superbugs

"A pathogenic microorganism and especially a bacterium that has developed resistance to the medications normally used against it."[8]

E. Personal Protective Equipment (PPE)

"Personal protective equipment, commonly referred to as "PPE", is equipment worn to minimize exposure to hazards that cause serious workplace injuries and illnesses. These injuries and illnesses may result from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards. Personal protective equipment may include items such as gloves, safety glasses and shoes, earplugs or muffs, hard hats, respirators, or coveralls, vests and full body suits."[9]

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[4] "COVID-19 at the 1-year mark: How the pandemic has affected the ...." 12 Mar. 2021, https://www.medicalnewstoday.com/articles/global-impact-of-the-covid-19-pandemic-1-year-on. Accessed 9 Apr. 2021.
[5] "Definition of Intensive Care Unit by Merriam-Webster." https://www.merriam-webster.com/dictionary/intensive%20care%20unit. Accessed 10 Apr. 2021.
[6] "Zoonoses - WHO | World Health Organization." 29 Jul. 2020, https://www.who.int/news-room/fact-sheets/detail/zoonoses. Accessed 10 Apr. 2021.
[7] "Diagnosis | Definition of Diagnosis by Merriam-Webster." https://www.merriam-webster.com/dictionary/diagnosis. Accessed 10 Apr. 2021.
[8] "Superbug | Definition of Superbug by Merriam-Webster." 11 Mar. 2021, https://www.merriam-webster.com/dictionary/superbug. Accessed 10 Apr. 2021.
[9] "Personal Protective Equipment - Overview | Occupational Safety and ...." https://www.osha.gov/personal-protective-equipment. Accessed 10 Apr. 2021.

III. General Overview

A. Pandemic Preparedness

The COVID-19 pandemic has led to hundreds of thousands of deaths and trillions of dollars in economic damage. To mitigate the impact of future infectious disease outbreaks, significant strategic effort must be undertaken locally, nationally, and globally to create more resilient systems across sectors of society.

1. Strengthening Hospitals

Hospitals must have the capabilities and facilities to endure extreme times during pandemics. Intensive Care Units (ICU) and acute care hospitals should be prioritized in preparedness. The readiness and responsiveness of hospitals also relies on the transparency of data.

2. Establishing Early Warning Systems

The establishment of innovative and effective early warning systems is imperative to the management of pandemics. Whether it be through ubiquitous, inexpensive diagnostic testing or through digital bio surveillance technologies and apps, the curation of these methods is necessary. Other options include “infectious disease forecasts”, which use data that relates to agricultural practices, human infringement and encroachment on nature to determine future starting points of zoonotic diseases.

3. National and Global Coordination

To achieve a manageable path through the pandemic, there must be complete transparency, cohesion and collaboration between individuals and state. Along with this, the collaboration must translate to global coordination. The passing on of information from small exclusive groups to the general public is necessary in the fight against pandemics.

4. Strategic Stockpiling and Resilient Supply Chains

From Personal Protective Equipment (PPE) and healthcare equipment (e.g., ventilators) to ingredients and materials for manufacturing diagnostics, therapies, and vaccines, these critical pandemic assets should be strategically stockpiled and a part of robust and resilient supply chains.

5. Identifying Future Pandemic Threats

In an attempt to prematurely identify future pandemic threats, action has to be taken. For instance, “superbugs,” or strains of bacteria, viruses, parasites, and fungi that are resistant to antibiotics and other medications commonly used to treat infections represent a significant future pandemic threat. These can then be preemptively researched in case these turn out to have any significance in future pandemics.

B. Viral Transmission Control and Monitoring

Beyond the utilization of therapies and vaccines to control the spread of COVID-19, numerous other strategies for reducing and controlling viral transmission are possible. Methodologies for widespread and rapid testing and disease surveillance, such as digital contact tracing, can play a crucial role in suppressing the pandemic.

1. Understanding Transmission Dynamics

In order to develop effective countermeasures to reduce viral spread, first transmission dynamics need to be characterized in detail. Understanding the intricacies of the pathogen makes it easier to determine the different methods of transmission. By knowing the various ways in which a virus can be transmitted, effective legislation and regulations can be implemented.

2. Making Diagnostic Tests Accessible and Scalable

The lack of sufficient COVID-19 diagnostic testing is still a significant problem around the world. It is critical to put an emphasis on the importance of massive-scale testing to enable the isolation of asymptomatic individuals and proposed several approaches to make viral testing more accessible and scalable.

One approach to scale the number of tests conducted is to pool samples from multiple patients in a single test. In such a scenario, a negative test result indicates that no viral RNA

was detected in any of the patient samples, thus returning valuable data on multiple patients with only a single test, thus enabling large-scale screening. If, however, a positive result was returned, subsequent rounds of pool testing or testing of individuals from within the pool would be required to determine who was infected. Pooling samples is particularly effective when rates of community transmission are low.[10]

3. Digital Contact Tracing (DCT)

One of the most promising technology solutions for suppressing the pandemic is digital contact tracing (DCT). Such technologies rely upon individuals having contact tracing applications installed on their smartphones that through, for example, blue-tooth technology, enable the logging of close proximity contacts. In the event of a positive test, all potentially exposed individuals could be instantly contacted so they can then be tested and potentially isolated. However, strong privacy protections would be required for adoption to succeed, particularly in liberal democracies where installing such applications would be largely voluntary.

C. Scientific Insights

As new scientific insights about the pandemic are generated, how do we ensure they can be effectively validated, confirmed, shared, and communicated to the public? These insights can span key aspects of virus biology, its impact on human health, and ways in which the virus spreads in a variety of settings and environments. Rapid research, validation, and communication of research to policy makers and the public is crucial for pandemic response.

1. Communication to the Public

To communicate effectively to the public, several strategies that borrow from approaches used for other types of information dissemination may be applied.

2. Evidence Based Journalism

One of the significant challenges of the pandemic has been the rapid cycle and release of unverified, conflicting information. . The scientific community can also vigorously debunk

[10] "Pooling Samples to Increase SARS-CoV-2 Testing | SpringerLink." 18 Oct. 2020, https://link.springer.com/article/10.1007/s41745-020-00204-2. Accessed 10 Apr. 2021.

conspiracy theories. Ideally with calm, professional, substantiated, and convincing explanations, potentially working with professional communicators.

IV. Major Parties Involved

A. World Health Organization

"The World Health Organization is a specialized agency of the United Nations. It was inaugurated following the second world war on 7 April 1948 – a date now celebrated as World Health Day. The organization grew out of the International Sanitary Conferences, which convened between 1851 and 1938 to combat diseases such as cholera, yellow fever and bubonic plague. Its self-proclaimed mission is the "attainment by all peoples of the highest possible level of health"." [11]

B. Individual Countries

Although the WHO is giving the instructions and suggestions to countries, it is the countries themselves that must decide whether or not to take this assistance and help from the WHO.

V. Timeline of Events[12] [13]

Dec. 31, 2019	WHO says mysterious pneumonia sickening dozens in China
Jan. 11, 2020	China reports 1st novel coronavirus death
Jan. 23, 2020	China imposes strict lockdown in Wuhan

[11] "WHO | Origin and development of health cooperation - WHO | World ...." https://www.who.int/global_health_histories/background/en/. Accessed 10 Apr. 2021.
[12] "The Coronavirus Pandemic: A Timeline ...." 17 Mar. 2021, https://www.nytimes.com/article/coronavirus-timeline.html. Accessed 10 Apr. 2021.
[13] "Timeline: How coronavirus got started - ABC News." 22 Sept. 2020, https://abcnews.go.com/Health/timeline-coronavirus-started/story?id=69435165. Accessed 10 Apr. 2021.

Jan. 30, 2020	WHO declares global health emergency
Feb. 11, 2020	Novel coronavirus renamed COVID-19
March 3, 2020	CDC lifts restrictions for virus testing
March 19, 2020	Italy's death toll surpasses China's
March 24, 2020	Japan postpones Olympics
March 26, 2020	United States leads the world in COVID-19 cases
April 2, 2020	Global cases hit 1 million
July 7, 2020	US submits formal notice that it will withdraw from the WHO
November 17, 2020	F.D.A. authorized the first at-home coronavirus test
December 2, 2020	The U.K. approved Pfizer's coronavirus vaccine
December 8, 2020	The U.K. began vaccinations

VI. Relevant UN Documents[14]

- Evolution of a pandemic A(H1N1) 2009
- Whole-of-Society Pandemic Readiness
- Pandemic Influenza Preparedness Framework

[14] "Pandemic preparedness - WHO." https://www.who.int/influenza/preparedness/pandemic/en/. Accessed 10 Apr. 2021.

- WHO pandemic influenza preparedness and response guidance

- Pandemic influenza risk management - A WHO guide to inform & harmonize national & international pandemic preparedness and response

- A checklist for pandemic influenza risk and impact management

VII. Previous and Possible Solutions

A. Previous Solutions

Although there are and would have been more effective and efficient ways to deal with this pandemic, it is the first time in a long time that the world has shown so much unity against a common enemy. This, once again, has proven the idea that together we are stronger.

B. Possible Future Solutions

As previously mentioned, through increased quantities of diagnostic tests, Digital Contact tracing, continual use of PPE and identifying pathogenic threats before they become threatening, future pandemics will be tackled more efficiently.

VIII. Questions to Consider

- How has your country dealt with COVID-19? Would your country change its strategy?
- How can the United Nations facilitate information sharing among scientists, governments, and corporations regarding the disease itself and potential therapies?
- What steps can the United Nations take to prevent transmission across international borders?
- Should the United Nations develop a stockpile of medical equipment? If so, how should it be distributed in the event of a pandemic?

IX. Conclusion

As we slowly start to see a glimpse of light at the end of this COVID-19 tunnel, we may reflect and learn from the mistakes we made throughout our battle with COVID-19. Despite having shown promising signs of unity throughout this pandemic, it remained extremely difficult to get through it. This is because of the countless number of misapplications of certain practices in various situations. To manage future pandemics more effectively, we must put into motion, an approach based on transparency and solidarity.

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