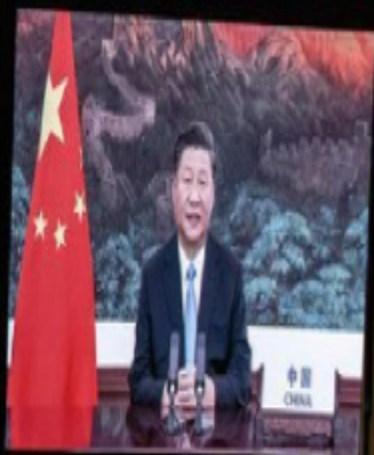


SPC 2

Evaluating the effectiveness of zero COVID policies as measures to prevent future pandemics



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Forum	Special Conference 2
Issue:	Evaluating the effectiveness of zero COVID policies as measures to prevent future pandemics
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Introduction

With 249 pandemics recorded since 1,200 BC, our world has been greatly shaped by global health crises having catastrophic consequences on our societies. Throughout history, different health strategies have been implemented to fight against these pandemics, all having their own benefits and disadvantages. Today, the chances of a major epidemic occurring are still very high.

The outbreak of COVID-19 in the last months of 2019 revealed how fragile the international community was against worldwide epidemics. Uneducated populations in regard to sanitary measures, dilapidated health systems; as well as poor level of cooperation between states. One of the only solutions that seemed viable and easy to implement for many countries were harsh health policies known as zero COVID measures.

Even though, since May 2023, the World Health Organization (WHO) has declared that COVID-19 was no longer a global threat, it would be illusory to believe that our world is definitively invulnerable from such catastrophes. On the contrary, they may even become more frequent. The main danger comes from zoonotic diseases. Most wild animals never encounter human beings during their existence, meaning that our species still has not been in contact with most animal diseases, thus, is not immune against them. The problem relies on the fact that each year, around 10 million hectares of rainforests are being cut down and replaced by diverse facilities, which considerably reduces the barriers between animal wildlife and human activities. As such, the chances for such diseases to be transmitted to humans are higher, and today, 75% of emerging infectious diseases are of animal origin, a proportion expected to increase.



Therefore, as more epidemics are expected to threaten the world's stability, by spreading across regions and continents, Member States must not ignore the risks of a new pandemic. Moreover, the United Nations (UN) has decided to add "Good health and well being" at the third place of the Sustainable Development Goals, a program composed of 17 Goals that should be achieved before 2030 to ensure a viable and continuous development in the world. Thenceforth, the Member States are engaged in a fight to protect the health of their citizens, which implies being able to react to the next pandemic with adequate measures.

Hence, evaluating the effectiveness of zero COVID policies is a top priority for Member States, as they will possibly need to impose similar measures for future health crises. They now must put in place a legal framework stating how, with which resources and to what extent, should countries instate a zero-disease policy.

Definition of Key Terms

Emerging Infectious Diseases (EIDs)

Infectious disease occurring, or reoccurring, in a population and rapidly increasing in incidence or geographic range. EIDs may happen for several reasons: a breakdown in public health measures, mutation of the virus or travellers bringing the disease to a country whose inhabitants have not been immune to it. For the vast majority of countries in the world, the SARS-CoV-2 was an EID, partly explaining the poor preparation of public authorities against it. Emerging or reemerging diseases include HIV infections, malaria or cholera. Zero-disease measures are sometimes recommended against EIDs, like quarantines for those who have contracted tuberculosis.

Pandemic

An epidemic taking place worldwide, or affecting a large area, and generally infecting an important amount of people. They have devastating impacts, especially on human life, economic activities and political stability. With globalization, pandemics may become more frequent. An example of how diseases spread faster thanks to global exchanges could be the Black Death in Europe (14th century). Brought by merchants travelling through the Silk Road, the virus expanded from China to Mediterranean ports, causing 200 million deaths (worst estimation) in Europe. Today, the state of a pandemic is often declared by the WHO.

Prophylaxis

Any decision taken to preserve the health of a group or an individual. Prophylaxis goes from adopting a simple behavior (avoiding large crowds, wearing a mask, washing hands frequently...) to large-scale policies implemented by states (vaccinating a population, general lockdown, population screening...). A prophylaxis not including vaccination or medical treatment is called a Non-Pharmaceutical Intervention (NPI).

Syndemic

Developed by the American anthropologist Merrill Singer, a syndemic is the interaction of two diseases from diverse pathogens worsening health outcomes. For example, COVID-19 is a syndemic, as it is constituted of a virus impacting the respiratory system (SARS-CoV-2) and an arrangement of Non-Communicable Diseases (NCDs). The main issue is that people with weak immune systems are more threatened by syndemics than others, and these generally come from precarious social groups. Therefore, it is essential to bear in mind that epidemics mainly affect the health of individuals from low-income backgrounds. The syndemic approach highlights the importance of focusing on economic and social features when fighting a disease with zero-disease measures.

Zero COVID policies (or FTTIS)

Also known as the “Find, Test, Trace, Isolate and Support” (FTTIS) approach, this policy aims to keep the transmission of COVID-19 as low as possible in a limited geographical area, eventually completely eradicating the presence of the virus among the population. This maximum suppression policy differs from “living with the COVID” strategy, and does not seek group immunity. However, it does include vaccination programs, but those take some time before being fully developed.

General Overview

The effectiveness of zero COVID policies have been subject to long debates between experts. Such measures have many pros and cons that Member States should consider and take into consideration for the next global health crisis.

The benefits of maximum suppression policies at the beginning of a crisis

During an epidemic outbreak, when the transmission levels are high, lockdowns are often the only solution to effectively break contamination. In the absence of vaccines, treatments or knowledge of an EID, countries may be forced to instate the FTTIS approach to save as many lives as possible in the first moments of the epidemic. Therefore, the lack of information on a new lethal disease pushes governments to isolate their population, hence protecting the world from this outbreak.

It is crucial to slow the transmission of the disease at the beginning of the outbreak, to avoid any mutation of the virus. The more a virus spreads, the more it replicates, and the higher the chances for it to mutate. Variants are not necessarily more dangerous, but some may engender more lethal viruses. An all-alert plan policy not only limits the number of cases at the beginning of the health emergency, but it can also be a helpful tool to slow down the pace at which the virus mutates.

Concerning this topic, the members of the Special Conference should also be aware of the exposure of cities to disease, and how FTTIS measures may limit the effects of an epidemic in an urban space. Heavily dense areas tend to accelerate the propagation of viruses, as positive cases encounter more people. These locations are also more connected to other areas in the world and therefore more rapidly contaminated by EIDs. Screening urban populations and isolating cities having preoccupying levels of positive cases may be necessary to relieve the pressure on medical structures but also to limit the spread of the virus worldwide.



The particular case of pulmonary syndromes

Countries (such as New Zealand, the Republic of Korea, Singapore, Taiwan or Vietnam) already having experienced respiratory syndrome epidemics such as SARS or MERS emphasized the importance of keeping the number of cases very low. On that account, countries facing such diseases should seriously consider implementing a zero-disease policy. Also, wearing a mask and other prophylaxis measures blocking bacteria inside of the positive case are recommended.

Basic Non-Pharmaceutical Interventions (NPIs) to stop an epidemic from progressing to a pandemic

Letting a certain amount of autonomy to local authorities is necessary to instate functional all alert plans. Their ability to be in close contact with the inhabitants is a major advantage, and they often have a better overview of the sanitary situation than central authorities, which helps them implement the adapted health policies.

Educating the population on sanitary measures

Most studies show that a population who has been educated on sanitary measures is more likely to accept hygiene guidelines during a health crisis. It is, for example, the case in the Republic of Korea, where inhabitants have integrated in their culture high hygiene standards and have also experienced health policies during the epidemic outbreaks of SARS (2002) and MERS (2012). Being prepared for such events, South Korean society rapidly accepted and implemented zero COVID policies, ending with a relatively low number of casualties, although no general lockdown was instituted. Hence, an educated population upon health measures can be a great advantage for countries.

Tracing systems and screening

‘Test and Trace’ are essential steps to isolate positive cases and to evaluate how serious the health crisis is. They require important logistics and a certain degree of surveillance of the citizens to figure out with whom they have been in contact. A common example is the United

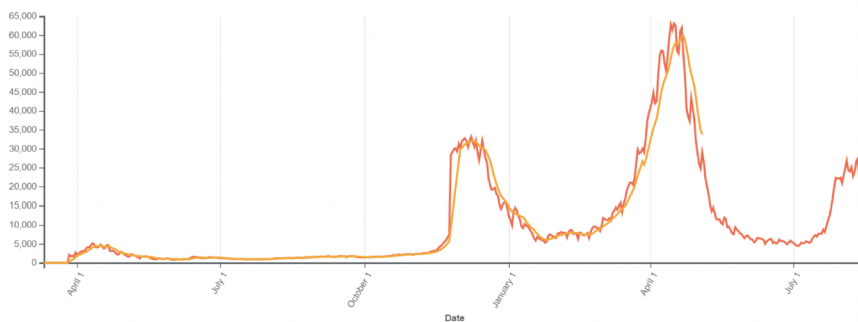


Kingdom (under the second Johnson ministry, 2019-22) which launched the National Health Service Test and Trace program, one of the most ambitious initiatives to detect positive cases. Most experts consider that this policy was successful in breaking contamination chains, however, its cost was extremely high (£37 billion).

Stay-at-home orders

When medical items are missing or when the health system is overwhelmed, lockdowns appear to be the only effective measure to stop the increasing number of cases in the area and block a contaminated population in a defined zone. For example, the Turkish government imposed a general lockdown of the country during the second wave (April to May 2021) which greatly helped as all the positive cases, even those still not detected, were isolated, as can be seen from the below graph.

Therefore, imposing drastic measures rapidly, even though the socio-economic impacts of such measures should always attentively be taken into consideration, appears to be one of the best ways to limit the gravity of an epidemic in the first moments of the crisis. Another advantage is that lockdowns do not require any particular logistics, which is the case for vaccines or population screening.



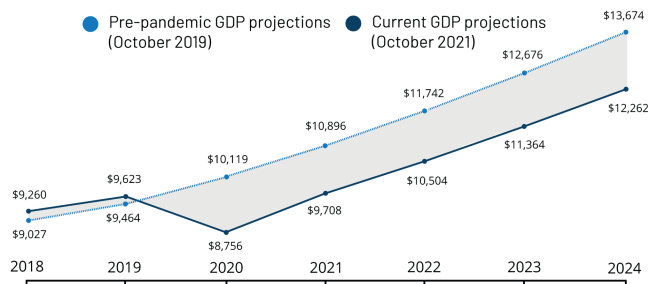
Effects of lockdown in Turkey

Negative aspects of zero-disease measures

The economic repercussions of zero COVID policies across the world were disastrous. By shutting down businesses and isolating positive cases, global production and consumption of goods

have been impacted. Also, to be socially fair and acceptable, such policies demand states substantial financial effort to support their population and economic organizations. Unfortunately, not all countries can fully aid their inhabitants, nor do they have the funds to efficiently instate all the measures of the FTTIS system. Thus, the COVID crisis resulted in a dramatic increase in public debt, fragilized already precarious social groups, or significant drops in the gross domestic product worldwide (-3.1% globally in 2020 according to the World Bank), especially staggering the economies of countries in development (see the graph below on PEPFAR countries). This contraction is partly due to the zero COVID policies that have been implemented across the world. As we see, these policies are not economically sustainable.

**Comparison of GDP Projections for PEPFAR Countries,
Pre-pandemic vs. Current**



A relevant graph on the economical effects of the crisis in PEPFAR countries.

As the syndemic approach reminds us, the social impacts of zero-disease policies must be taken into consideration, as they tend to increase inequalities. Undeniably, the maximum suppression strategy has disastrous repercussions on low-income social groups. Having precarious employment, people in vulnerable economic situations are more likely to lose their jobs. Their ability to protect their health during a health emergency is also lower than other groups (e.g., during the pandemic, in the European Union, the lowest income quintile had 5.4 more chances to face an unmet medical need than those in the top 20%).

Moreover, all alert plans are a serious interference with people's freedom and can lead to authoritarian drifts. Some governments have used the "war" against COVID-19 as a pretext for liberticide measures reinforcing their power. For instance, in the People's Republic of China, the police forces were allowed to storm into houses without a warrant, arrest the inhabitant, and send them to a quarantine camp. Such policies are excessive and contradict basic Human rights.

Vaccines, the most viable solution to end a pandemic

If FTTIS measures were sufficient to end a few diseases (like for the MERS in 2002), vaccines are still the best solution to put an epidemic under control. The COVAX initiative launched by the UN delivered 1 billion vaccines in the world and helped many countries in their fight against COVID-19. For most pandemics, disregarding whether zero-disease policies are implemented or not, developing a vaccine is necessary.



Major Parties Involved

Coalition for Epidemic Preparedness Initiative (CEPI)

Founded in 2017, the organization played a crucial role in developing vaccines during the COVID-19 crisis and collaborated with diverse organizations (including Moderna, Inovio Pharmaceuticals and the University of Queensland) for that purpose. The CEPI's objective is also to be able to respond to the next 'Disease X' by creating a vaccine in one hundred days. With eleven diseases identified by the WHO as potential pandemics, this program is being taken very seriously by some Member States who are its main contributors. In case of a new pandemic, their expertise could be very useful to limit the duration of zero-disease measures.

Gavi Vaccine Alliance

Based in Geneva (Switzerland), the Gavi Vaccine Alliance aims to improve access to vaccines worldwide, especially in the Least Economically Developed Countries (LEDCs). The organization has helped deliver almost one billion vaccines and demonstrated its effectiveness during the COVID crisis by assisting the UN in its task to immunize the world. It is funded by private foundations (mostly the Bill and Melinda Gate Foundation) and states (United Kingdom, United States and Norway for the most important donors).

People's Republic of China (PRC)

Continental China is, in many ways, an important Member State in this topic. First, the country has been very exposed to recent pandemics, like the SARS (2002-04), and especially to the COVID-19 (2020-23) which initially began in Wuhan. Being the first nation exposed to the epidemic, the PRC initiated the concept of zero COVID policies at the beginning of the crisis, influencing other health policies worldwide. Despite the economic and social troubles created by repeated lockdowns, the government maintained its policy until November 2022. On the international stage, Beijing managed to use the crisis to its advantage, by implementing a 'COVID diplomacy', which consisted in massively producing diverse medical items and distributing them to the world.

United States of America (USA)

Despite tumultuous relationships between the WHO and the Trump administration (2016-20), the USA seems to be back on stage with health diplomacy. The country is the most important contributor to the World Health Organization (220 million USD) and hosts some of the most powerful pharmaceutical companies in the world which are crucial actors in vaccination programs. Concerning health policies, due to the federal organization of the country, the different States had the option to decide which sanitary measures they should impose. This led to various answers across the USA, from general lockdowns (e.g., in California) to almost no restrictions (e.g., Wyoming). However, the current federal administration has expressed its concerns about maximum suppression policies on Human rights. The USA has even proposed an amendment to this issue in the draft resolution that will be submitted to the UN General Assembly on “Scope, modalities, format, and organization of the high-level meeting on pandemic preparedness and response” in September 2023.

World Bank

With a special program entitled the PEF (Pandemic Emergency Financing Facility, now closed), this organization has been able to give substantial funds to Member States during the pandemic, helping more than \$200 billion in diverse countries that suffered from the effects of maximum suppression measures. It has also made \$20 billion accessible for financing vaccination programs. It is a significant actor in financial contributions to World Health and a key actor in financially supporting countries facing zero-disease policies.

World Health Organization (WHO)

The WHO is a UN agency mandated to lead global health matters, organize health research agenda, implement standards and norms and provide support to countries. During the last pandemic, the WHO declared that it understood the benefits of zero-disease measures, but considered that such policies were not sustainable in the long term. The WHO stresses the importance of vaccination programs and human solidarity during a pandemic at a local and international level. Having a worldwide perspective on the international health situation, the WHO is a key organization in determining which epidemics require all-alert plans.

Timeline of Key Events

Date	Description of event
April 7 th 1947	The WHO is created to produce tools and guidelines for the international community in order to help countries improve their health systems, or in their fight against any disease.
2002-2004	SARS outbreak in more than 30 countries worldwide. The WHO issued a global alert in May 2003. Coordinated by the WHO, an international response implying cooperation and coordination between states successfully contained the spread of the virus in only four months, even though new cases will be detected sporadically until 2004.
May 23 rd 2005 2012	The legally binding International Health Regulations (IHR) is implemented (replacing the already existing IHR of 1969) strengthening the international community's capacity to detect and report any health emergency.
December 2019	MERS outbreak in 27 countries, even though most cases were located in Saudi Arabia. Countries implemented travelling restrictions and put in place specific health centers.
January 12 th 2020	First cases of COVID-19 were detected in Wuhan (PRC).
April 2 nd 2020	A comprehensive package of guidance for countries concerning COVID-19 is released by the WHO, which may also help against other pandemics.
April 27 th 2020	Half of the world's population is enduring a more or less strict lockdown.
December 2020	The WHO publishes a document entitled "Strengthening Preparedness for COVID-19 in Cities and Urban Settings"
May 10 th 2021	The United Kingdom is the first country to authorize commercialization of a vaccine against COVID-19 (Oxford-AstraZeneca), despite the concerns due to how quickly the vaccine was developed.
July 15 th 2021	WHO declares that the PRC's zero COVID policy is not 'sustainable'.
November 2 nd 2022	The COVAX initiative is launched by the UN, aiming to aid more than 150 countries in their vaccination program against COVID 19.
September 20 th 2023	Beginning of COVID-19 protests in the PRC against repeated measures of general lockdowns, leading to a brutal repression and the end of the 'zero COVID policy'.
	A UN General Assembly on "Scope, modalities, format, and organization of the high-level meeting on pandemic preparedness and response" is held, in order to prepare the international community for a future pandemic.

UN involvement, Relevant Resolutions, Treaties, and Events

- Global health and foreign policy: strengthening the management of international health crisis; 18 February 2016 (A/RES/70/183)
- International cooperation to ensure access to medicines, vaccines and medical equipment to face COVID 19; 21 April 2020 (A/RES/74/274)
- Scope, modalities, format, and organization of the high-level meeting on pandemic prevention, preparedness, and response; 21 February 2023 (A/77/L.54)
- International Health Regulations; 23 May 2005 (WHA58/2005/REC/1)
- COVID-19 response; 19 May 2020 (WHA73.1)

Possible Solutions

Although these may not be sustainable and are extremely expensive, zero-disease policies are effective tools to prevent an epidemic from becoming a pandemic. The resolution could demand the creation of an *adhoc* (meaning “for this situation”, the function of the new organization is clearly limited to the evoked task) WHO office to decide which EID requires an all-alert plan. To make it fair, the international community should assist Member States falling under such a regime, by sending funds (like the World Bank did), medical items or health workers. Providing aid in less economically developed countries is particularly important, as they are more vulnerable to major epidemics. For instance, if the Sub-Saharan countries represent 11% of the world’s population, the region only has 3% of the global health workforce. Therefore, an EID outbreak in those countries would be difficult to stop if no help was given. As we see, international solidarity is essential. Member States could perhaps create an international fund dedicated to health emergencies. Such funds could be financed by diverse organizations, either public, private or international, according to their abilities. Thenceforth, countries implementing FTTIS measures would be allowed to use those funds in order to finance health policies. Some funds could also be sent to the CEPI to rapidly develop a vaccine.

Developing a vaccine rapidly should also be evoked in the resolution. The COVID crisis has shown that in-depth cooperation between public and private sectors was extremely efficient to put in place effective inoculation products. Also, in the perspective of sharing medical technologies to end the crisis, Member States could be more inclined to place at the benefit of all the scientific advances that would help against a disease. From that perspective, the World Trade Organization called to adopt a more ‘flexible’ approach to Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreements, which would allow countries to use some patented medical items in the case of an emergency crisis. Companies losing the propriety over the patent could receive some compensation that could be paid by diverse organizations (UN, WHO, World Bank, New Development Bank, etc.).

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Appendices

Appendix I

Time to act: Tackling Epidemics and Pandemics Together; 12 December 2019 (33IC/19/12.3)

https://rcrcconference.org/app/uploads/2019/10/33IC_12.3-Epidemic_Pandemic-background-doc-FINAL-EN.pdf

Appendix II

WHO COVID-19 Preparedness and Response Progress Report - 1

<https://www.who.int/publications/m/item/who-covid-19-preparedness-and-response-progress-report---1-february-to-30-june-2020>

Appendix III

“COVID-19: Make it the Last Pandemic”, The Independent Panel

https://theindependentpanel.org/wp-content/uploads/2021/05/COVID-19-Make-it-the-Last-Pandemic_final.pdf