

Global Health Security: Can States Really Cope with a Pandemic?



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“Everything we do before a pandemic will seem alarmist. Everything we do after a pandemic will seem inadequate.” These are the words of Michael O. Leavitt, a former Secretary of the U.S. Department of Health and Human Services. Quite fitting for our current situation, as we struggle to survive through a new pandemic caused by the COVID-19 virus. Coronavirus, compared to its predecessor, the SARS virus, is said to be similar to common flu, and not quite seriously a health hazard for someone with a strong immune system, and yet, with a death toll rising every day, COVID-19 has successfully brought down the global economy, quarantined entire states, shut down industries, production, institutions, isolated people, stopped trade, travel and stagnated communication. Essentially, a microbe has brought the entire world on its knees as human civilization and the Earth are forced to “take a break”.

Concerns of Coronavirus began to take over the world since November last year, and now its news is all there is out there. Even forest fires and the threat of a world war was subdued. Up until last month, the COVID-19 was still thought to have been contained, and it was still an epidemic. But now, as the epicentre of the virus outbreak has shifted from China to Western Europe and isolated countries like China, Italy, Spain, Iran, South Korea, Germany, THE USA, France, Switzerland, Norway, Japan and many more, COVID-19 has become a global nightmare. The pandemic has given a devastating hit on the economic sector of the world.

According to the Global Health Council, in the United States, a severe pandemic could result in twice as many deaths as all U.S. battlefield fatalities since 1776. Despite all the advances in science and technology, the threat still exists. The risk of a catastrophic biological event has only increased and will continue to be magnified by advances in communication and technology, global travel and trade, urbanization and industrialisation, weather changes, terrorist interest and intention in

weapons of mass destruction, and rapid advances in science. Since 2014, there have been at least three outbreaks of Ebola in the Democratic Republic of the Congo (DRC), along with measles in Pakistan, outbreaks of cholera in Cameroon, yellow fever in Angola and Brazil and the plague in Mozambique. These threats have the potential to kill millions, can cost billions, and can exacerbate political instability.

Five years of the devastating Ebola virus killing more than 11,000 people and wreaking economic havoc in West Africa taught the world something it seemed. Through the efforts of former US President Barack Obama, the Global Health Security Agency came to life while the Ebola outbreak was unfolding in 2014. For an international organisation that had first world states and other organisations like WHO, the Food and Agriculture Organization of the United Nations, and the World Organisation for Animal Health collaborating, it seemed to be the answer to the epidemic questions. But it is not so easy. It seems that states are more concerned with investing in their traditional security aspects, which is in armament, enforcement and nuclear deterrent. States are more interested in investing in security against direct violence and imminent, immediate threat, threats that are again, highly unlikely due to nuclear deterrence, instead of investing in threats that are slow to develop and become dire. These stealth threats, may that be climate change or epidemics, are hence brushed off and left to be dealt with later, if ever. We have invested very little in systems that could stop an epidemic. And sooner or later, a disease outbreak takes place, turns to an epidemic, spreads quicker than contained, and becomes a pandemic. And this happens a lot more than it seems. To understand why states are failing at keeping up with epidemics and pandemics despite the medical advances and technological breakthroughs, considering the outbreak of the Coronavirus is not enough. We need to step back and observe the massive failures we have had throughout history, be it during the Ebola epidemic, the SARS epidemic, and go so far as to the Spanish Flu and Cholera pandemics. If anything, these past plagues and, sicknesses have taught us, is that we have not learned much from history.

This report will take a run through history with all the epidemics and pandemics that became threats to global security and point out why all states are ill-prepared to cope with pandemics. We will discuss the consequences and talk about the importance of realising the importance of investing in global health security the way states invest in their national security and try to figure out the responses needed to ensure such global devastation is not repeated.

MICROBES, THE AGE-OLD WEAPONS OF MASS DESTRUCTION:

Microbes weren't a threat to us 10,000 years before. Before, human beings were nomadic and never stayed in one place for long, and these nomadic groups were never big enough to be vulnerable to spreading diseases. However, with the advent of civilization and permanent settlements, agriculture and animal husbandry introduced the first advances of human habitation and with that came the outbreak of diseases. Bacteria and viruses of humans and animals at that point began to intermingle and exchange strains to develop new sicknesses that gave way to epidemics.

Pandemics as said before isn't uncommon. The first pandemic to ever be recorded was in the 1580 and throughout the 18th and 19th centuries, more than six pandemics happened. During then pandemics and epidemics took months and years even to spread and become a health crisis across borders and overseas. But now, outbreaks become epidemics in a matter of weeks and it takes a few months for it to become a pandemic if not contained. In this part of the report, we will look through the different cases of epidemics and pandemics through history and observe how they transferred from one country to the next and dominated regions in the process. We will also look at how they affected the global economy, thereby becoming a national security threat, and discuss why the system (or their lack of) failed to cope with the epidemics and pandemics.

The Cholera Pandemic of 1817 and other Cholera Epidemics of the 1900s and early 2000s

The first cholera pandemic had an outbreak from the Ganges Delta in Jessore, India, in 1817, stemming from contaminated rice. The disease then quickly spread throughout most of India, modern-day Myanmar, and Sri Lanka by moving along trade routes established by the Europeans. Then by spreading through South East Asia, killing 100,000 people on the island of Java alone, British troops brought cholera to the Persian Gulf and reached till Southern Russia. The second cholera pandemic began around 1829, originating from India, and reached up to Great Britain this time.

Britain took several actions to help stop the spread of the disease, including implementing quarantines and establishing local boards of health. However, disinformation regarding the treatment of the disease led to Cholera Riots in Liverpool.

In addition to rising death tolls caused by cholera, outbreaks cause panic, disrupt the social and economic structure and can impede development in the affected communities. Unjustified panic-induced reactions by the rest of the world led to travel bans and import restrictions on certain foods. For example, the cholera outbreak in Peru in 1991 cost the country US\$ 770 million due to food trade embargoes and adverse effects on tourism. Later economic effects of outbreaks throughout the 1900s and 2000s led to disruption on labour supplies in Bangladesh and Mozambique, an estimated 10% reduction in air travel reduced total factor productivity (TFP) by 0.6% in the long term, and disruptions in transport and logistics could lead to a rise in production costs if spare capacity is scarce. Suarez & Bradford (1993) estimated a 72% fall in tourism revenue in Peru is of a similar order of magnitude to the fall in foreign tourist arrivals in Asia that was around 60%. The cholera outbreak also impacted on fixed investments and discretionary consumer spending.

The Spanish Flu Pandemic of 1918-1920

But nothing was as devastating as the great flu. Popularly known as the Spanish flu, this strain of influenza virus was responsible for the last true global pandemic in 1918, its potency exacerbated due to there being no international public health bodies such as the WHO. About one-third of the world's population caught this acute respiratory tract infection. By the time the pandemic had run the course in 1919, an estimated 230,000 Britons, 675,000 Americans, and over 10 million people in India alone were dead, and the death toll worldwide was 50 million. By comparison, nine million people died in combat during the entirety of the first world war.

The Spanish flu was such a devastating blow because of the timing of the outbreak, beginning at the end of World War I. Soldiers were demobilised, returning home from the battlefields were the ones carrying the virus with them. Outbreaks spread along major transportation routes, through railways and ships. Since the world's population was already weak and susceptible to disease because of wartime strains, especially in Germany, matters got worse when there was an absence of transparency and little policy coordination due to wartime media censorship and governments were preoccupied with planning for the peace.

The immediate economic consequences of 1918 stemmed from the panic surrounding the spread of the flu. Large US cities, including New York and Philadelphia, were essentially shut down as their people became bedridden. The economic consequences included labour shortages and wage increases, and the increased use of social security systems. It is difficult to tell the actual economic loss then since economic historians do not agree on a headline figure for lost GDP because the effects of the flu are hard to disentangle from the confounding impact of the first world war. These immediate and long-term consequences for the economy led to massive financial set-backs worldwide.

SARS Epidemic of 2003

Here is an example of epidemic crossing borders through air-travel. Severe Acute Respiratory Syndrome (SARS) is one of the seven (the new one being COVID-19) diseases caused by viruses under the coronavirus family. It spread from China in 2003, when an unassuming doctor carrying the virus checked into Metropole Hotel in Hong Kong, and by the time he even checked into his room, he's infected 16 other people around him, out of whom, five took international flights within the following days. The virus then spread to Vietnam, Singapore, and Canada. Immediately, flights between Hong Kong and Toronto and other international cities were grounded, and other emergency measures abruptly stopped the spread of the epidemic. But by the time the outbreak was over four months later, SARS had infected 29 states worldwide and more than 1000 people died.

It was estimated that Asian states lost USD 12–18 billion as the SARS crisis depressed travel, tourism, and retail sales. SARS had a large impact on tourism and its related industries, and due to the spread of the outbreak, population movement in China and many countries decreased. There was a reduction in demand for food, clothes, travel, and entertainment, and the number of guests in hotels declined sharply. After WHO's announcement of Beijing as an epidemic area and issued more stringent advice to international travellers and airlines, international tourism, business sectors, and transport systems were seriously affected. According to Jing Wu et al. (2018), the global macroeconomic impact of SARS was estimated at USD 30–100 billion or around USD 3–10 million per case. The 2003 SARS outbreak caused losses of USD 12.3–28.4 billion and an estimated decrease of 1% in GDP in China and 0.5% in Southeast Asia. J. Wang (2009) in a research paper of the Chinese Journal of Public Health Management, mentioned that the social burden of SARS in Guangzhou meant less income and spending, with a rough estimate of the total economic burden of RMB 11 billion. The influence of SARS also spread to the manufacturing industry. It was reported that in Asia's largest manufacturing base, Dongguan in Guangdong province, the shipments from Dongguan to Hong Kong decreased by one-third. There was also

increased spending on prevention and healthcare, which had negative economic impacts on families.

Ebola Epidemic of 2014

The Ebola epidemic stayed within three states in West Africa for a few reasons. And that had nothing to do with proper measures and implementation of health systems, the problem being that there was no system. There were no epidemiologists who could go to the affected areas and respond after finding out the symptoms and studying the cases of the disease. All reports were done on paper and not uploaded online, and that led to misinformation. Despite great efforts by the Doctors Without Borders and their volunteers, the process of getting the thousands of health workers into the countries was slower. That caused a lack of workers present to look at treatment approaches to look at diagnostics and no one to figure out what tools should be used. And as said, the reasons Ebola did not turn into a pandemic was because of the nature of the virus: that is, it was not airborne, and by the time people got infected, they were too sick to move and were bed-ridden, and the outbreak remained isolated mostly in the rural areas.

Even before the epidemic had hit its peak, the economy has been deflated by 30% because of Ebola in Sierra Leone in August. The agricultural sector was the most impacted in terms of Ebola because the majority of the people of Sierra Leone, about 66%, were farmers. There was a severe food shortage and the UNDP has appealed for \$18 million to bolster Sierra Leone's health system while the World Food Programme informed that the total cost of its emergency operations in Sierra Leone, Guinea and Liberia was \$70 million. The World Bank said it was expecting GDP growth in Guinea to fall from 4.5% to 3.5% that year. The world's largest steelmaker ArcelorMittal got disrupted along with other major mines after contractors moved people out of the country. The prices of bauxite, iron ore and gold declined by 30 to 60 percent compared to previous years in the three West African countries hit by the virus.

According to the Africa Economic Brief, informal cross-border trade is a source of income for about 43 percent of Africa's population. In 2014, Sierra Leone declared a lockdown for three days. The country also placed quarantine restrictions on high-risk areas and set curfews, which lasted as long as several months. Tourist arrivals went down by half from 2013 to 2014. Countries such as Kenya, located the thousands of miles from the West Africa Ebola zone, had a drastic decrease in tourism due to fear of Ebola, even though according to the CDC, most travellers are at very low risk of getting Ebola.

COVID-19: A THREAT TO GLOBAL SECURITY AND ECONOMY:

COVID-19 outbreak had destabilised the global economy even before it became a pandemic because it had successfully disrupted China, one of the largest chain supplies of the world. Disruption of mills and factories for a few weeks had made major international industries and global companies weak and travel bans both by air and sea disrupted commerce immensely. But if we as an international community were prepared enough, if we had premeditated and well-structured health systems to fall back to and had faster emergency response against the outbreak,

it would not have been this grave. The outbreak of Cholera initially and Spanish Flu is understandable, as, during those times, international health system organs could not intervene and take proper measures, and the outbreak was not possible to contain, but epidemics of SARS and Ebola, in particular, should have given us a vision of how epidemic and pandemics would spread and disrupt the world. But sadly, it didn't. and a pandemic like COVID-19 is not the last of it. There will be more outbreaks; it is not a maybe, it is a given.

The economy has plummeted and supply chains disrupted as COVID-19 has isolated high-income countries. With China (world's leading supply chain and top-most importer of oil) becoming the first to fall, with its stock market plummeting, the economy crashing down, travel bans and supply chains disrupted, millions of its people stranded within the state and abroad, it was apparent that if China fell due to the virus, so would the rest of the world. The economic fallout could include recessions in the U.S., euro-area and Japan, the slowest growth on record in China. An estimated total of \$2.7 trillion in lost output is predicted to hit the global economy. We are yet to witness South Korea, Italy, Japan, France and Germany—the major economies other than China that have seen the most virus cases—take a hit. Automobile industries, air-travel and international hospitality industries, production lines, agricultural industries, trade and commerce, banking and insurance, consumer industries, etc have come to a stand-still. Stock markets all over the world are crashing. There is a sharp decline in price of oil as China, the largest importer of oil, has had a major setback, and this repercussion will be felt in the energy industry too. Estimates of the global impact vary: early last week, the Organisation for Economic Co-operation and Development (OECD) predicted that COVID-19 will lower global GDP growth by one-half a percentage point for 2020 (from 2.9 to 2.4 percent), while Bloomberg Economics warns that full-year GDP growth could fall to zero in a worst-case pandemic scenario.

In the year 2015, Bill Gates in his Ted Talks monologue spoke about how we need to prepare for epidemics and why it is imperative that we take these steps seriously. Gates said, "If anything kills over 10 million people in the next few decades, it's most likely to be a highly infectious virus rather than a war. Not missiles but microbes." It is not a matter of when the next epidemic is going to come for us that should get us worried, it is a matter of "if" we are ready for it or not.

GLOBAL HEALTH SECURITY AND NATIONAL SECURITY:

Global health security has been a pleading subject for a long time. Generally, when policymakers spoke of Health security, they implied humanitarian emergencies, including, but not limited to, natural and man-made disasters, conflicts, war and complex emergencies, etc. With the changing global atmosphere, the traditional health threats, such as epidemic causing diseases, or technological health hazards, began to change and epidemics developing through new strains of influenzas viruses, or deliberate use or accidental releasing of biological or chemical agents and even radio-nuclear materials, started to become a growing concern for state health security systems. It particularly became a concern during the Ebola epidemic and with the advent of Global Health Security Agenda, health security has been trying to get some attention from policymakers and investors. Global health security is the existence of strong and resilient public health systems

that can prevent, detect, and respond to infectious disease threats, wherever they occur in the world. This is a strong and well-structured system of ensuring public health for all throughout the world, ensuring funding for researches done on disease, microbes and epidemiology, funding for emergency global health insecurity, access to healthcare, remedies, medicines and vaccines, as well as training and mobilisation of health workers, volunteers, and accumulation of support from local and foreign governing bodies.

Despite having such basic preparatory and preventive measures, the concept of global health security is taken for granted as states are more concerned with investing in other security concerns. National security must never be compromised, which is understandable, only, health security, if not ensured, can eventually lead to national security threats and global security threats as well. And no other example cuts deeper than the truth of how COVID-19 pandemic is being handled.

Disease as a source of insecurity is unpredictable. With intercontinental jet-setters and overseas travel, diseases spread faster than there can be measures to contain it. Diseases spread by viruses, such as the COVID-19, is a more difficult strain to deal with, particularly since, it takes days for the symptoms to surface, by the time which the carriers and infected would have infected others. But it doesn't make it less detectable, or epidemics harder to contain, as proper implementation of global health security ensures countries being capable of securing the infected, creating protocols that alert global public health organisations.

GLOBAL HEALTH SECURITY AND GEOPOLITICAL IMPACT:

COVID-19 has, under the mist of global health emergency and economic decline, brought in a major shift in global power. While the faltering of THE USA as a global power can be seen through the short-comings of Trump administration, this has been highlighted in recent events since COVID-19 has become a pandemic and threatened the whole world. THE USA failing to contribute any direction for the rest of the world to cope with the pandemic, has led it to fall short in terms of domestic governance, provision for public goods and ability and willingness to muster and coordinate a global response to crises, three elements that formerly led US to become a global leader. China however is stepping in to fill these shoes and succeeding. Despite its initial slowness of responding to the outbreak, Beijing has bounced back from the hit and China now guides the states and their governments on how to deal with the pandemic. The way China is responding to this emergency shows the effectiveness of its model of domestic governance, and in contrast, makes Trump's infrastructure that much questionable.

Xi's attempts at pushing China's foreign policy apparatus and reforming "global governance" has paid off with this pandemic. With its displays of material assistance to states that need the most, like Italy, Iran and Serbia, promising support to the South Asian countries like Bangladesh, China has also promised to send test kits and masks to the United States. Even with addressing the emerging secondary infections of coronavirus, the United States in contrast cannot fulfill its own domestic demands of medical and emergency supplies.

This isn't only materialistic, as we see reluctance of THE USA taking charge during this time of crises the way it did during the Ebola outbreak when it assembled and led a coalition of dozens of countries to counter and contain the disease. China is doing that now, by undertaking robust diplomatic campaigns to direct countries and sharing information and lessons learned about the pandemic, and even calling for conferences in the future.

This is China's own way of establishing 'soft power' to the countries in Europe, Middle East, Africa and Asia. There is no doubt of the nobility that is the medical help China is providing everyone, but this, along with the Belt and Road Initiative, may very well be a confirmed placement for China to be the next global leader and a shift of unipolarity.

GLOBAL HEALTH SECURITY AND INADEQUACIES:

Global Health Security Agenda (GHSA) is a first step in mobilizing the international community around a shared set of global health principles; it offers a roadmap for countries to improve their capacity to prevent, identify and respond to health threats. Member States have established 11 GHSA Action Packages designed to turn political support into practical measures towards health protection. More than 80 countries have voluntarily undertaken a Joint External Assessment (JEE) to assess their capacity for health protection, define and prioritize their key areas of need, and engage with potential supporting partners. GHSA demonstrates an international commitment to global health protection and a framework, along with public investors, by which related US investments will attract additional investment.

However, for several reasons, GHSA failed at its functions. GHSA currently serves as a 'soft power' tool for the US to reinforce its image as global power. The Trump administration's failure to seek renewed funding to sustain CDC and THE USAID's post-Ebola investments in infectious disease preparedness overseas led to the lack of basic systems to prevent, detect, and respond to outbreaks in of Ebola. This led the new CDC and THE USAID investments to be rectified this in 49 at-risk countries around the world. These budget choices stand in stark contrast to the administration's other rhetoric on the GHSA, and suggest a serious internal disconnect between policy and budget priorities.

COVID-19 has already found many weaknesses in our global health supply chains. If we had been perfectly prepared for COVID-19, China would have identified the outbreak faster, dealt with the outbreak better, they would have been ready to provide care to the infected people without having to build new buildings. They would have been more transparent with the citizens regarding information sharing, so that we didn't see these crazy rumours spreading on social media in China. And they would have shared information with global health authorities so that they could start reporting to national health systems and getting ready for when the virus spread. National health systems would have been able to stockpile the protective equipment they needed and train health care providers on treatment and infection control. We would have science-based protocols for what to do when things happen, and we would have real information going out to people everywhere, so we wouldn't see embarrassing shameful incidents as xenophobia and racism, like people of

Asian descent being verbally and physically attacked on streets. But even with all that in place, we would still have outbreaks.

And it is not just China. According to the Global Health Security Index 2019, the average overall GHS Index score is 40.2 out of a possible 100. While high-income countries have an average score of 51.9, the Index shows that collectively, international preparedness for epidemics and pandemics remains very weak. national health security is fundamentally weak around the world. None of the countries are fully prepared for epidemics or pandemics, and every country has important gaps to address. There is little evidence that most countries have tested important health security capacities or shown that they would be functional in a crisis. In fact, most countries are not prepared to deal with globally catastrophic biological events. 81% of countries score in the bottom tier for indicators related to deliberate risks, indicating lack of biosecurity. Fewer than 5% of countries provide oversight for dual-use research and no country has legislation or regulations in place that require companies to screen DNA synthesis. Most countries have not allocated funding from national budgets to fill identified preparedness gaps. Most countries lack foundational health systems capacities vital for epidemic and pandemic response and coordination and training are inadequate among veterinary, wildlife, and public health professionals and policymakers.

PREVENTION IS BETTER THAN CURE

Will GHSA, WHO and CDC's efforts help create a world stronger and safer from infectious disease threats and elevate global health security as a priority? Can the international public health community effectively ensure prevention, detection, and response to human and animal infectious disease threats in time? These programs help advance the global agenda for infectious disease prevention and control, but we still need to garner greater political will for additional progress. The only way we can answer these questions and ensure health security for all is by taking in a few measures seriously.

- There needs to be funding set aside for not just short-term goals such as emergency medical response and health security measures (Like the Global Health Security Challenge Fund), but also for long term implementations like for research and advancement in health security sectors. Funding for response to pandemics and epidemics should go by existing emergency financing mechanisms through the World Health Organization, the United Nations and the World Bank. Funding should be prioritized for countries with the greatest need and who have undertaken a rigorous assessment of their preparedness gaps, matched by recipients at different levels depending on country need, prioritize technical assistance and resources to prioritize and fill gaps. The fund should create clear incentives and benchmarks for progress based on agreed measures of preparedness. The GHS Challenge Fund could help spur country demand by linking to World Bank IDA funds for preparedness.
- The Global Preparedness Monitoring Board needs to be empowered with a stronger mandate and ability to monitor progress and promote accountability for action. There should be support for the Coalition for Epidemic Preparedness Innovations and Gavi, the

Vaccine Alliance, to develop, purchase, and equitably deliver affordable countermeasures for diseases and other emerging pandemic threats.

- Gendered impact of outbreaks: The extent to which disease outbreaks affect women and men differently is a fundamental step to understanding the primary and secondary effects of a health emergency on different individuals and communities, and for creating effective, equitable policies and interventions. The gendered perspective is often a miss when it comes to disease prevention, cure and control, and need to be counted.
- There needs to be a medical corps appointed, trained and ready for mobilisation at the ready. These corps need to be trained according to the common indications of pandemics and epidemics, and there needs to be collaboration and pairing of these medical corps with the military for faster, precise response.
- There also needs to be a step up in research sectors and development in epidemiology, microbiology, virology, etc. and there needs to be established and regularly practised “Germ Games”, simulations that train experts, analysts and medical officials to engage in interactive games for prevention and containment of disease outbreak.
- There need to be international conclaves and global health security responses immediately after the COVID-19 thread subsides. Before or during the 2020 G-7 meeting that would take place in June, leaders should launch a Global Health Security Challenge Fund that will incentivize countries to make capital investments to close their preparedness gaps. Whether through traditional global health investments or those specifically targeting global health security, the establishment of strong, well-staffed health systems is essential for preventing local outbreaks and keeping them from becoming global pandemics.

Michael O. Leavitt, a former Secretary of the U.S. Department of Health and Human Services, at the end of his warning about pandemics said,

“...but it should not stop us from doing what we can to prepare. We need to reach out to everyone with words that inform, but not inflame. We need to reach out to everyone with words that inform, but not inflame. We need to encourage everyone to prepare, but not panic.”

Individual country governments cannot succeed in fighting biological threats on their own. Threats like this require a collaborative, cooperation, cohesive, and comprehensive effort across multiple sectors, made by donor and recipient governments, the private sector, multilateral organizations, academia, and civil society all working toward measurable targets and goals. Strong health systems with comprehensive capabilities in identification, response and prevention, including ongoing research and development of new medicines, vaccines and diagnostics, are not only essential for preventing and managing health emergencies, but also for performing routine health care functions that promote stable, productive communities.

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