

LETTER TO THE EDITOR

COVID-19: UNRAVELING THE EVOLVING PANDEMIC

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ABSTRACT

The coronavirus disease (COVID-19), which originated at Wuhan, China in December 2019, has been named as a pandemic by the World Health Organization (WHO). According to the perspective of the author and many others, it is much more than a health crisis. In addition to its impact on human health, it also can be characterized as an issue having several aspects including social, political, economic, human rights, logistical and global peace and security. The outbreak affects all segments of the population and is particularly damaging to the vulnerable groups including poor, immunosuppressed, with terminal illnesses, pregnant women, people with chronic medical conditions, persons with disabilities, elderly living alone and displaced people. Evidence indicates that the health and economic impacts of the outbreak are being borne disproportionately by poor and many in middle class with their misery compounded by the strict actions taken by the governments in good faith. It is also becoming clear that the effect of COVID-19 upon systems brings an enormous challenge, since in many situations the systems do not have organized plan to face a pandemic of this nature, but it can be expected the resilient human race to come up with various innovations, mainly technological to face the current challenge despite apocalyptic predictions.

Keywords: *COVID-19 pandemic, Socioeconomic impact, Human rights, Healthcare and forensic services, Global peace and security*



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INTRODUCTION

Pandemics of infectious diseases have altered human history since the beginning of time. Spanish Flu, Ebola virus disease, SARS, and H1N1 influenza are examples of just a few of those pandemics. Present day human population face a threat of dissemination of novel coronavirus fueled by the ease of international travel which has become commonplace, with the pandemic continuing to grow exponentially infecting over 2,845,859 people and at least 197,846 fatalities globally, until now. Coronaviruses are enveloped RNA viruses belonging to the family of Coronaviridae, genus betacoronavirus. The human coronavirus types 229E, NL63, OC43, and HKU1 commonly infect the people around the world¹. Sometimes coronaviruses that infect animals can mutate and become a new human coronavirus. Though the coronaviruses generally cause mild respiratory infections in humans, over the past 18 years, three animal-derived coronaviruses have emerged namely, SARS-CoV (civet cat), MERS-CoV (dromedary camel) and SARS-CoV-2 (probably bat), causing much more severe acute and potentially fatal respiratory disease². Those emergent zoonotic viruses cause substantially higher death rates than common coronavirus infections and the current estimate of the overall case fatality proportion due to COVID-19 syndrome caused by SARS-CoV-2 appears to be closer to 3 %³. The human to human transmission in COVID-19 is most likely from the direct contact with the patient, by respiratory droplets and by contact with the contaminated surfaces and objects. The development of this new epidemic is largely due to the fact that the humans has no natural or acquired antibodies against this virus. Main challenges in addressing the new coronavirus-associated outbreaks are lack of suitable anti-viral medication to treat active disease and appropriate vaccines to prevent disease.

The initial symptoms of COVID-19 are fever, dry cough, sore throat, shortness of breath and breathing difficulties. For some patients, the disease can progress to pneumonia, acute respiratory distress syndrome, renal failure and even death⁴. Comorbidities like lung diseases, diabetes mellitus, hypertension and cardiovascular disease are potential risk factors to patients with severe COVID-19 infection compared with non-severe patients⁵. As of 7th May 2020, Sri Lanka has 800 confirmed cases with nine deaths.

Global timeline of the Pandemic

The first reports of an outbreak came on 31st December 2019 in Wuhan, capital of Hubei Province of China, a city of 11 million people. On 7th January 2020 the WHO confirmed a novel coronavirus (SARS-CoV-2) was spreading⁶. There had been no deaths linked to the virus, at that point; but by 11th January, China announced its first death from the virus, a 61-year-old man who had purchased goods from the Huanan Seafood Wholesale Market at Wuhan⁷. Within weeks, the number of fatalities was rising rapidly, and China became the epicenter of the new global epidemic. On 13th January, the WHO reported the first case outside China, a woman who had arrived from Wuhan to Thailand.

Officials in USA, Nepal, France, Australia, Malaysia, Singapore, South Korea, Vietnam and Taiwan confirmed cases over the following days. China placed Wuhan and 15 other cities in Hubei province under strict quarantine after the area was overwhelmed with the infection by 23rd January 2020. The Chinese government drafted healthcare workers from the whole country, and two hospitals were built in just over a week to care for the patients.

The decision to quarantine Wuhan presented unprecedented challenges as it was dealing with a city about eight times bigger than Hong Kong and five times the

size of London. The lockdown of the province affected more than 50 million people. Public transport services were shut down, and in Wuhan, the airport, railway station and metro transit system were closed, and no one could leave the city without permission. Soon after, the factories, offices, and schools were also closed. Some of the most effective steps China has taken for reducing the transmission rate are, encouraging work from home, closing schools and prohibiting large gatherings.

On February 2, the Philippines reported the first death outside China, the victim being a Chinese man from Wuhan. With the infection spreading around the globe like a wildfire, the WHO on 11th March declared on the coronavirus outbreak a pandemic, as a long-anticipated move. By mid-March 2020, Italy and Spain became the epicenters of the pandemic, reporting thousands of infected cases and fatalities, with health, social and economic infrastructure of the countries overwhelmed by alarming levels of severity and spread of the infection and deaths. The USA, with approximately 1/3rd of the confirmed COVID-19 cases (1,263,142 as of 07th May 2020) worldwide, and a total death toll of 74,809 (28% of the world deaths), is now the global epicenter.

Sociopolitical and socioeconomic impact: Novel coronavirus versus the world

Throughout the human history, epidemics not only destroyed the lives but also had a devastating impact on countries affected by them. According to Prof. Frank M. Snowden, a professor emeritus of history and the history of medicine at Yale, the disease outbreaks have shaped politics, crushed revolutions, and entrenched racial and economic discrimination⁸. He mentions that, “stretching across centuries and continents, the epidemics have also altered the societies in which they have spread through, affecting personal relationships, the work of artists and intellectuals, and the

man-made and natural environments”. He also writes, “epidemic diseases are not random events that afflict societies capriciously and without warning. On the contrary, every society produces its own specific vulnerabilities. To study them is to understand that society’s structure, its standard of living, and its political priorities.”

Further research along the lines of his theory showed, when a six-month cholera outbreak, which was part of a widespread pandemic that affected parts of Asia, Europe, and the Americas struck Paris in 1832, eventually killing nearly 19,000 Parisians, a conspiracy theory spread that the unpopular government under King Louis Philippe was poisoning many kinds of food and wine⁹. The police and Municipal guard were barely able to contain the ensuing violence. The institutional memory of those events probably fueled the dread of the ‘dangerous classes’ or the poor people and violent crushing of 1848 revolution and Paris Commune. Napoleon Bonaparte’s colonial conquest in nineteenth-century across the Atlantic Ocean was halted by yellow fever¹⁰, which ravaged his army in France’s Caribbean colony of Saint-Domingue, the modern Haiti. His eastern ambitions were blunted by dysentery and typhus¹¹. The Spanish flu was one of the deadliest disasters in history, lasting for two years, between 1918 and 1920, killing estimated 50 million people¹². It was thought the early cases originated in the United States before spreading in an alarming rate to Europe. The rat-infested trenches of the First World War, with poor sanitation and squalid living conditions probably had affected the immune systems of soldiers and war affected populations, making them more vulnerable to illness. The COVID-19 outbreak also has capacity to unfold in a similar way to a worldwide calamity.

Parallel to the actions taken by China, more countries across the world have significantly curbed public life in order to

halt the spread of the COVID-19 outbreak. The Government of Sri Lanka also initiated several strict measures to help the country prevent, detect, and respond to the COVID-19 pandemic and strengthen its public health preparedness. Some key actions implemented include;

- Establishment of National Operation Centre for Prevention of COVID-19 Outbreak (NOCPCO), which has effectively coordinated with the health services in containment, quarantine and contact tracing efforts and appointing Acting Chief of Defence Staff and Commander of the Army Lt. Gen. Shavendra Silva as its Head.
- Implementing travel bans to other affected countries and closing of harbours and airports.
- Quarantining the sea and air passengers arriving in Sri Lanka at the quarantine centres managed by the Armed Services.
- Vigorous tracing of contacts and absconding returnees with the assistance of the Special Task Force and intelligence operatives of the Tri-services and police.
- Locking down entire towns and villages when it is impossible to move large number of people to quarantine facilities.
- Implementing strict island wide police curfews to facilitate aggressive “social distancing” process in the entire country with closing down educational establishments, public and private institutions, business premises etc.
- Taking legal action against those who break curfew, public health laws or attempt to spread fake news.

The actions taken by the governments may lead to unnecessary social and economic disruption. Millions of under-paid, daily wage earners like laborers who hold supply and sanitary chains which are critical to everyday life and many in the middle class, all over the world may get affected by the strict measures taken in good faith to contain the infection. Both public and

private sector organizations are challenged by the need to promote health and health practices among their employees while, at the same time, maintaining their operations. An economic slowdown as the result of the pandemic, may result in worldwide recession with wider repercussions on the Global economy and security. Predictions of the global impact vary: Bloomberg hypothesizing \$2.7 trillion in lost output, the Asian Development Bank releasing scenarios from \$77 billion to \$347 billion, and an Organisation for Economic Co-operation and Development (OECD) report talking about a halving of global economic growth^{13,14,15}. Similar to the desolate situation predicted at the global level, the outbreak is likely to worsen the economic situation in Sri Lanka further with wider repercussions due to severe blow sustained by major income generators like tourism, apparel, foreign employment, construction, retail, banking and finance sectors, due to global economic turmoil combined with local public health concerns and economic vulnerabilities.

Human Rights Perspective of containment

The ‘lockdowns’ can sometimes result in inappropriate, excessive and counterproductive measures that may sometimes hinder coordination of outbreak response. As public health authorities increase efforts to address the COVID-19 pandemic, rumours, misinformation, racism and xenophobic theories appear to be spreading world over faster than the virus. Fear, stigma and misinformation have direct implication on the implementation of effective public health measures to control the pandemic. Respecting human rights and protecting public health have to go hand-in-hand as those measures are taken in everyone’s best interest in mind.

Office of the United Nations High Commissioner for Human Rights has emphasized the need to respect for human rights across the spectrum, including

economic, social, and cultural rights, and civil and political rights as fundamental to the success of the public health response and recovery from the pandemic¹⁶. It is of paramount importance to introduce person/family centric care for the health and well-being of the wider community and especially for the vulnerable groups like those with COVID-19 or other respiratory conditions, immunosuppressed, with terminal illnesses, pregnant women, people with chronic medical conditions, persons with disabilities, elderly living alone and displaced people, in time of a challenge to the established system, which is taxed maximally during the pandemic outbreak. It is of particular significance to address the situation of prisoners and others in detention institutions as they are at a heightened risk of infection due to the inability to achieve physical distancing and poor standards of hygiene at prisons and detention centres^{17,18}.

The World Health Organization (WHO) declaration of the COVID-19 outbreak as a public health emergency of international concern (PHEIC) included recommended, evidence-based measures for detection, containment and control, based on available data¹⁹. These measures adhere to International Health Regulations (IHR) principles concerning human rights, proportionality, and unnecessary interference with trade and travel²⁰.

Burden on Healthcare systems including Forensic services

As health workers around the world put their lives on the line to save others in the fight against the pandemic, many have died and some of the others have tested positive²¹. A global shortage of personal protective equipment (PPE) has also added a huge toll on their physical and mental wellbeing. It is becoming clear that the effect of COVID-19 upon healthcare systems brings an enormous challenge, since in many situations the systems do not have organized plan to face a pandemic of

this nature and cannot cope with the volume of patients needing care, especially combined or even without calls to manage disorders associated with cardiovascular, pulmonary, metabolic and malignant conditions. During an infectious disease outbreak, public and other health leaders have to work diligently to contain its spread, manage the medical and social impact, and try to counter misinformation and prevent discrimination. In an event of ‘explosion’ of the number of cases, the under-resourced and under-staffed health services may not be able to cope up with the challenge as it was seen in the early period of the infection in China, Iran, Italy, Spain and now in USA. The health workers may get exhausted due to continuous work or may simply go down with the infection. There is a high likelihood of health staff workers not reporting to work at all. A new guidance issued by Royal College of Nursing²² states, that if sufficient PPE cannot be supplied and treatment cannot be delayed or carried out in another format, nurses should decline to work. COVID-19 is taking a significant toll on front-line healthcare providers²³. In addition to the stress and anxiety the doctors may have to make the despondent choice of deciding who is going to survive and who is going to die, who is going to get a monitor, a ventilator and the medical attention they need, when the system is overwhelmed²⁴.

In addition to above, the supply chain disruptions and shortages that medical/pharmaceutical industries may have to face in the near future due to the strategic hoarding by suppliers and panic buying by consumers are a major concern.

According to the ‘Briefing on COVID-19’ by The Royal College of Pathologists, UK²⁵, SARS-CoV-2 is categorized under hazard group 3 agents (HG3). HG3 are defined as “agents which can cause severe human disease and may be a serious hazard to employees”. It is considered that agents categorized in HG3 can spread to the community, but there is usually effective

prophylaxis or treatment available (though it is not so in COVID-19). SARS, MERS, Rabies, Dengue, Japanese Encephalitis, HIV and Hepatitis B, C, D and E viruses are some of the infectious biological agents included under HG3. The briefing further mentions that, the HG3 infections can be acquired in the mortuary via, percutaneous inoculation, skin contamination without inoculation, ingestion, inhalation and contamination of mucosal surfaces. It underscores the importance of the preparation for the possible presence of an infection in a deceased, drafting of appropriate protocols on what to do, the proper state of the mortuary and its equipment, universal precautions, appropriate PPE and preventive prophylaxis through vaccination of staff, in managing HG3 infections in mortuary.

In Sri Lankan context²⁶ and in most of the other countries, if a death is due to confirmed COVID-19 infection, there is no need to do a post-mortem examination and the Medical Certificate of Cause of Death can be issued for the disposal of body. However, in the cases of deaths due to suspected or possible corona viral infections which needs laboratory confirmation, inquests and limited autopsy examinations are required exposing the forensic pathologists and ancillary staff for potential infection. Unlike in the case of developed countries, some of the medico-legal morgues in Sri Lanka lack basic facilities like adequate ventilation, lighting, running water, refrigerators and proper autopsy instruments in addition to the shortage of PPE and properly trained mortuary attendants with knowledge in mortuary maintenance and health and safety, heightening the concerns of the forensic community.

Threat to Global Peace and Security

In a close video-conference with the members of the Security Council, the UN Secretary-General António Guterres mentioned²⁷, “while the COVID-19

pandemic is first and foremost a health crisis, its implications are more far-reaching and could threaten global peace and security”. He outlined his concerns calling the crisis as the “gravest test since the founding of this Organization”.

He indicated eight potential ways COVID-19 could undermine global peace and security;

- Erosion of trust in public institutions if people perceive that their authorities had mishandled response or were not transparent.
- Impact of pandemic in fragile societies or less developed countries, leading to economic instability and discrimination in accessing health services with devastating consequences for vulnerable groups.
- Rise in political tensions and undermining of legitimacy due to postponing or proceeding with electoral processes.
- Escalation of violence which could further entrench ongoing wars in some conflict settings which may complicate efforts in fighting the pandemic leading to further division and turmoil.
- Terrorist groups could see “a window of opportunity to strike” with most Governments focused on managing the pandemic.
- The risk of bioterrorist attack to countries by non-state groups who could gain access to virulent strains of microorganisms.
- Stalling of many peace processes and conflict resolution efforts in countries with conflict situations, triggering or worsening numerous human rights challenges and growing manifestations of authoritarianism, including limits on the media, civic space and freedom of expression.
- Rise of hate speech and stigma with white supremacists and other extremists seeking to exploit the situation.

CONCLUSION

Since a sudden, large-scale pandemic like COVID-19 poses substantial threats to human lives and the world order, how to mitigate such impacts is a key issue which needs serious consideration. It is of utmost importance to note that effective epidemic/pandemic logistical response and planning is vital to secure health, economy, social security, peace and prosperity, for now and the future. The challenges posed by the outbreak should invigorate the governments and private sector to investigate and develop the appropriate logistical strategies and solutions, since there is a serious scarcity of knowledge on how the logistical system can adapt and tackle the impacts in an epidemic/pandemic outbreak.

True to the idiom ‘every cloud has a silver lining’ it can be expected the resilient human race to come up with various innovations, mainly technological to face the current challenge despite apocalyptic predictions. The pandemic is compelling the societies to turn toward digital technologies to respond to the crisis and in the medical field, the post-COVID-19 world is likely to be remembered as the time when the provision of primary care or the management of non-communicable diseases shifted to digital modalities. It can be expected that, the most impactful innovations in technologies to come from developments related to artificial intelligence (AI) as well as to health technologies. In developed nations like UK and USA, the strategy of forward triaging of patients suspected of COVID-19 or other disorders has been already firmly established with the assistance of telemedicine and online screening before they are directed to the emergency departments.

Sri Lanka will also likely to get benefitted by global developments in addition to technological advancements made by her own professionals. Recently, the Director

General of the World Health Organization, praised the actions taken by the Government of Sri Lanka so far to contain the pandemic and offered continued support to fight against the outbreak. Additionally, the nation should commend and appreciate the efforts taken by the State, and the dedication, commitment and high level of responsiveness of the healthcare workers, government officials, the armed forces and police in carrying out their duties to manage the present crisis.

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