

# Statement on Pandemic Response

## Preamble

*We wish to ensure every person's right to have the maximum possible and sustainable health in all countries, regardless of wealth, age, color, race, religion, or prior health condition. We should make the best effort to protect and care for all the people. A pandemic causes harm due to the risk and consequences of disease. The best outcomes minimize pandemic impact, saving both lives and economies.*

*The harm from the loss of life and health, and their cascading effects, is being underestimated, both for the economy, and for society. Every loss of life and loss of health also has direct impacts on others, the economy, education and society as a whole. The loss of health has long term consequences for the individual, those who are close to them and the society that provides for their care. The value of life is high, and we should commit ourselves to protecting life and health. An individual's life should not be sacrificed and the damage from allowing people's health and lives to be lost are incalculable.*

*Pandemics are an international and global problem that should be confronted locally while guided by international standards for action. The best practice and standards for action should be independent of political influence and its local implementation should be science based. It is helpful to think about the fight against a pandemic as like a fight against a wildfire.<sup>1</sup>*

*In a pandemic, as in other circumstances, there are both rights and responsibilities of individuals and society. Absent experience, in a pandemic, confusion may arise as to these rights and responsibilities. Society has a responsibility to protect individuals from harm. This societal responsibility arises through the combination of (emergently from) the responsibility of all individuals not to harm others, and particularly through individuals upholding their role in society whether as firemen to respond to and put out fires, physicians to treat and cure when possible, political leaders to respond to public needs, or scientists to contribute to knowledge. Individual rights also arise emergently from the responsibilities of members of the society. Thus, for example, the right to life arises from the responsibility of others not to kill, and the right to property arises from the responsibility of others not to steal. Similarly in this context, inalienable rights of all members of the human family to freedom, justice, peace and security arise emergently from acting toward one another in a spirit of brotherhood [1]. The ability to respond to a pandemic arises from the widespread understanding of both general and specific responsibilities of individuals so that they can meet those expectations.*

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<sup>1</sup> Firefighting is independent of political views and influence. Trained professional firefighters make use of long-term investments in tools, equipment, and facilities: fire stations, trucks, fire hydrants, planes, and personal protective equipment. Public education is crucial to teaching individuals how to avoid starting fires and how to respond when one occurs. There are extensive fire safety regulations and accountability for implementation of rules to prevent fires from starting in the first place. Controlling a fire is achieved by two strategies, reducing the magnitude of the fire in a particular location by various means, and confining the fire to a progressively smaller region. These aspects of firefighting can be generalized to fighting pandemics.

*Implementing an ability to respond effectively to the current pandemic should be understood as developing the capacity to respond to future pandemics. Preparing for future pandemics also enables us to respond better to the current one.*

## Why Action is Needed Now

Almost all countries are taking insufficient measures and delaying the investments needed to win the fight against the current “wildfire”. One of the downsides of this approach is that the pathogens not only spread rapidly like a fire, but also change by mutation to become more aggressive—more transmissible and more deadly—leading to progressively more damage, and becoming more difficult to suppress.

As with a fire, acting fast is the best way to prevent harm. Stopping transmission early is the best protection against both the initial as well as later variants. The best time to act is as soon as possible. Acting preventively and quickly to stop spread also helps to reduce the economic impacts of the pandemic.

For example, the Covid pandemic has given rise to a sequence of progressively more rapidly transmitting and deadlier variants, which undermine vaccine efficacy and can cause long-term disability in many of those infected (See Appendix).

Investing in public health infrastructure enables countries to achieve a much-improved outcome from the pandemic. Successful elimination means ongoing safety and security for health and robust economic conditions. Brief disruptions, as with fires, may be needed due to occasional outbreaks that must be suppressed. Minimizing such disruptions is a direct result of effective infrastructure.

## Setting Standards

Our experience with firefighting offers the best analogy for what we must do to fight pandemics: like pandemics, fires are harmful and deadly phenomena that grow more rapidly when they are larger. Fires must be put out early before they get out of control. Just as we do not accept a “wait and see” approach to fighting wildfires, we should not accept a “wait and see” approach to a deadly and rapidly mutating virus.

For this, we need to invest in new pandemic response institutions, launch effective public education campaigns, and dramatically improve our execution of current pandemic response strategies. Just as we make long-term investments we make in firefighting, we must make investments in pandemic response. Among the long-term investments in pandemic response are:

**Investing in People:** pandemic response requires well-trained pandemic responders who can implement world-class testing, tracing, and isolation.

**Investing in Tools:** rapid pandemic response requires quarantine facilities, capacity for large scale testing, the ability to rapidly manufacture PPE and vaccines, and upgraded ventilation in buildings.

**Investing in Education:** pandemic response requires that the public be educated on how to stop outbreaks through social distancing, masking, ventilation, vaccination, and other tools.

**Improving Regulation:** preventing and containing pandemics requires building codes that ensure indoor air quality (clean air), as well as accountability for individuals responsible for implementing safety measures, including airborne precautions.

**Investing in Science and Its Communication:** Science provides key information for fighting pandemics, and the relevant research, development, and testing of guidelines, and communication and implementation of those guidelines should be strengthened.

These investments will lower the rate of transmission, which will, in turn, make the virus easier to control and eventually eliminate through vaccination and public health measures. The investments will also pay dividends during future pandemics.

## Elimination is the Goal

To maximize health, we must minimize transmission. Pursuing an early elimination approach at the community, provincial, country, and regional levels is the best way to protect health and ensure prosperity for current and future generations. This is apparent since the lower the rate of transmission the easier a pandemic is to control, just like with a fire.

For a pandemic response, reducing the transmission in a particular region, and confining a pandemic to progressively smaller areas is an essential response strategy. As the pandemic is transmitted from region to region, controlling the transmission between regions is a key aspect of the control of the pandemic. This also means that the chances of success for elimination are highest when there is coordination among localities as well as countries at the regional level.

## Governments

Governments must build institutions, train personnel, and update regulations to prepare for pandemics:

**Contact tracing:** Train and establish community door-to-door contact tracing teams that can be activated nationwide in the event of a pandemic, rather than relying on telephone-based contact tracing.

**Supported tests, isolation and quarantine:** Provide financial and other supports, including housing and employment security, generally and particularly for financially vulnerable individuals. Access should be provided to testing and safe isolation and quarantine spaces to minimize the burden of actions in response to the pandemic. The access to adequate testing and safe spaces provides assurance, reduces uncertainty, increases safety, and contributes to freedom for every individual.

**Testing infrastructure:** Create regulatory pathways for the speedy approval of tests during pandemics. Ideally, daily rapid tests should be available free of charge to the entire population for the duration of the pandemic. Governments should also invest in manufacturing to create tests locally in case of shortages or supply chain disruptions.

**Surveillance:** There should be plans for large scale local screening of locations with active transmission, as well as early warning systems such as wastewater testing. Capacity for DNA sequencing should be expanded to enable variant tracking.

**Preparation for supported lockdowns:** Pass “pandemic laws” that allow for lockdowns to eliminate transmission. Pandemic laws and government planning should ensure financial, social, and medical assistance to the most vulnerable members of society.

**Defining protected zones:** National governments should define sub-national “protected zones” to which mobility will be restricted in case of pandemics. Zones should be as self-sufficient as possible and be designed to minimize inconvenience in case of closure.

**Public education:** Government should partner with schools and higher educational institutions and advertising agencies to educate the public about the airborne transmission of viruses, vaccines, proper use of respirators, and the health risks posed by pandemics—such as COVID-19—especially to young people.

**Vaccination:** Governments should develop a vaccine distribution infrastructure to allow for rapid vaccination of the entire population. They should also consider investing in vaccine manufacturing capacity. If necessary, governments should update their legal frameworks to allow for more rapid vaccine rollouts.

**Building safety standards:** All buildings should have a safety standard by law. As we do for fire and smoke alarms, buildings should have virus alarms. Also, laws should prescribe the minimum air exchange for indoor spaces including ventilation and/or filtration to minimize the airborne spread of pathogens.

**PPE:** Governments should maintain a stockpile of respirators for the general public as well as PPE for medical personnel. Governments should invest in PPE manufacturing in case of supply chain issues.

**Quarantine and isolation facilities:** Governments should establish quarantine and isolation facilities where infected individuals can recover from illness under medical supervision. Facilities must meet stringent ventilation and infection control standards. “Quarantine hotels” should also be designated for travelers from high-risk areas.

**Essential services:** Police departments, fire departments, and social services should develop special pandemic plans.

**Electronic infrastructure:** Governments should adopt electronic data collection infrastructure to track the reporting of local cases and contact tracing information to identify so that resources can be focused on the specific locations and origins of transmission.

**Electronic contact tracing:** Governments should encourage the wide adoption of contact tracing mobile applications that protect user privacy.

**Science and communication capabilities:** Governments should promote the development of science for policy and science and medical communication capabilities.

**Military and intelligence capabilities:** Mobilize existing capabilities including the military for pandemic logistics, and intelligence for early warning systems.

**Local emergency plans:** Develop plans for local action in the case of emergency that can address contingencies over different times scales.

**Medical innovation:** Promote innovation as culture for rapid evaluation, approval and deployment of infrastructure such as temporary facilities, new technologies, new uses of existing technologies, services such as remote care, and rapid training and certification of specialized medical personnel.

**Enforcement of professional responsibilities:** The responsibilities of various professions, including scientists, public health workers, journalists, community leaders, and political leaders should be defined, encoded in law, and enforced.

**Ensuring that ongoing and long-term impacts are recognized and planned for:** During the pandemic there are short term, ongoing, and accumulating impacts associated to the disruption of normal activities and its effects on individual, societal and economic conditions. These include, among others,

individual mental health, family stresses, deferred medical care, debt accumulation, and supply chain effects that should be identified and addressed.

**Learning from the last pandemic and preparing for the next:** Historically infrequent pandemics, occurring at a rate of one every ten years or so, implies that many sector leaders have moved on. Governments need to review the experience of what worked and what didn't in a pandemic shortly after its effects have moderated and ensure that systems are built so that lessons learned are carried over to prepare for the next pandemic. It is worth recognizing that Increasing global transportation promotes more frequent pandemics and vulnerability to increased social and economic impacts.

## Non-Governmental Institutions

Responding to pandemics requires a whole-of-society approach. Institutions outside government must be prepared and held accountable for implementing pandemic response plans.

**Public Buildings:** including private sector offices and facilities, must implement enhanced ventilation and air cleaning protocols in all shared in-door spaces, including the use of CO2 monitors to measure ventilation. Building operators should implement pandemic preparation and response protocols.

**Companies:** must implement pandemic preparation and response standards. Just as we have smoke alarms, there should be virus alarms. If there are home office options, there should be essential action teams so that the necessary operations can continue, but others can work from home. Special precautions should be put in place for those who have to work in the office.

**All Educational Institutions:** similar to companies, must have a pandemic strategy for rapid implementation of distance/virtual/remote learning or effective mitigation of transmission. This will enable children, teachers, staff to be protected as are parents, family members, and the community.

**Residential “High Risk” Institutions:** including elder care facilities, prisons, military facilities, should have special protocols to protect residents from transmission from outside the institution.

**High Use Facilities:** should be prepared for pandemic response

## Travel

Human travel is a primary vehicle by which pathogens spread over long distances. Cities, provinces, countries, and regions must ensure safe travel that does not lead to transmission between communities or during travel due to the proximity of travelers.

**Travel Restrictions:** Legal frameworks should be updated to allow for the restriction of non-essential international and inter-regional travel, especially from areas with active transmission to areas without transmission, and reopening travel between areas when transmission is locally under control. Similarly, legal frameworks should allow for the imposition of travel restrictions on internal regions with ongoing transmission.

**Community to Community Transmission:** Regulations and protocols should prevent travel from bringing infection from one locality to another.

**Transmission During Transit:** Regulations and protocols must be developed to minimize infection during travel.

**Public Transit:** should have special guidelines regarding ventilation, air cleaning, masking, distancing, and maximum occupancy to prevent transmission during pandemics.

**Commuters:** both within a region and between regions should have special guidelines to prevent transmission from work to home and home to work.

**Quarantine:** Protocols should be established to ensure the quarantine of incoming travelers from areas of active transmission during pandemics.

**Testing:** Testing infrastructure and protocols should be established to minimize risks of long-range transportation of pathogens.

## Regional Organizations

Regional organizations such as the European Union, African Union, CARICOM, ASEAN, and others should develop regional strategies for elimination. Due to ongoing transmission within regions, intra-regional travel restrictions currently exist which cause economic harm and limit the freedom of movement of individuals.

Investments in temporary lockdowns, temporary travel restrictions, ventilation upgrades, mass testing, contact tracing will allow the free movement of people to be safely restored.

## Appendix

When countries take partial measures against the pandemic they are unable to defeat it. Pathogens not only spread rapidly like a fire, but also change by mutation to become more aggressive—more transmissible and more deadly—leading to progressively more damage, and becoming more difficult to suppress. Harm continues to accumulate and the challenge and cost of restoring social and economic activity grow.

**Example #1:** The Covid pandemic has given rise to a sequence of progressively more rapidly transmitting and deadlier variants. The Alpha variant is deadlier and more transmissible than the original variant, and Delta is worse than Alpha on all counts. If SARS-CoV-2 can continue harnessing the “evolutionary power” of hundreds of thousands of daily infections, we do not know precisely how deadly it could eventually become. However, we do know that the SARS coronavirus of 2002-2004—which has strong biological similarities to SARS-CoV-2—was capable of killing roughly 10% of those infected. If coronavirus variants double in lethality a few more times, they could approach or match or even surpass the deadliness of SARS. A virus as transmissible as chickenpox that can kill 10% or more of those infected could cause unthinkable harm.

A distinction is often made between social actions (NPIs) and vaccination as tools of pandemic response. Historically, social action and vaccinations have been combined to achieve effective disease suppression, eradication, and outbreak response, including typhoid, plague, cholera, polio, measles, rabies, smallpox, tuberculosis, typhoid, and SARS. Just as individual firefighting capabilities—like using airplanes to douse wildfires—can be powerful methods, nevertheless, they are generally not standalone capabilities for stopping them. There is no doubt that vaccines are a powerful tool for combating pandemics. Still, as with wildfires, choosing only this one tool is likely to lead to failure. All of the available standard as well as non-standard tools should be employed for best outcomes. Effective response methods should also be implemented across geographies in standardized ways just as firefighting methods are standardized through an understanding of the maximally effective

implementations. This also enables effective collaboration among geographies and consistent expectations for what can be expected in the case of travelers from location to location.

Vaccines provide protection from multiple diseases but our experience of their strong efficacy is due to use when the pathogen is eliminated or near elimination. When the transmission is high, mutations of the pathogen as it replicates result in variants being different enough from the one that is targeted by the vaccine so that vaccine-derived immunity is degraded. Combining the strong ability of social action and vaccination to reduce transmission not only limits the harm to health immediately, but also prevents the vaccines from being undermined by variants.

**Example #2:** Vaccines are available for influenza but new variants consistently undermine vaccine efficacy. Social actions to minimize exposure are also regularly implemented, including avoiding contact with those who are sick, closing schools, mask-wearing for care providers, and other methods. For the Covid pandemic, powerful vaccines have been developed but variants have significantly undermined the immunity they provide. The hope that the vaccines by themselves would either adequately prevent transmission or adequately reduce disease severity has not been realized. The effect is particularly harmful when it is combined with more aggressive variants (as with the current Delta variant). This results in a combination of more aggressive and more vaccine-evading variants.

Pathogens including the current virus, often cause physical harm when they infect an individual leading to long-term health consequences. These effects can lead to long-term disability adding greatly to the harm caused by the initial severity of disease and deaths.

**Example #3:** SARS caused long-term disability in many of those infected. Studies of consequences 15 years after infections manifested ongoing physiological damage and inability to work. COVID is now known to have a powerful effect on many organs including lung, heart, and brain damage, and the range of symptoms often present after the acute phase is extensive. This ‘Long Covid’ condition is widespread worldwide with symptoms being reported in about 10 to 35% of adults who were infected, including asymptomatic, mild, and severe cases. Symptoms are present in children also reported in this range. Many studies indicate that organ damage to the brain, heart, and lungs occurs in an even higher percentage of individuals. Long Covid has also been documented in fully vaccinated individuals following breakthrough infections at a comparable rate to unvaccinated individuals following infection. Counter to expectations of immunity from infection, as the virus continues to mutate and reinfect individuals, the long-term damage of multiple infections can build on each other, as with prior conditions, leading to progressive disability and higher mortality.

Given these examples, for this and other pandemics, it is important to recognize that the social and economic cost of high levels of transmission is severe. Despite this observation, some countries are attempting to ignore the impacts of the disease. This “living with the virus” approach increases the risk of disease, threatening lives, health, and prosperity by degrading economic activity.

Countries with adequate investments in public health infrastructure can pursue the goal of elimination and be successful, albeit with occasional outbreaks that must be suppressed. Therefore, we call on governments, civil society organizations, and communities to make the immediate and long-term investments needed to achieve local elimination of viral transmission. Despite suggestions otherwise, the opportunity for elimination is not just for islands and authoritarian regimes: democracies have achieved elimination, as have parts of countries that share land borders with neighbors who have opted for different approaches. Still, the chances of success for elimination are highest when it is coordinated among geographical regions within countries and bordering countries at the regional level.

## References

- [1] UN General Assembly, *Universal Declaration of Human Rights*, 10 December 1948, 217 A (III), available at: <https://www.un.org/sites/un2.un.org/files/udhr.pdf>