

THE EXISTENTIAL THREAT OF COVID-19 IN SOMALIA

PDRC REPORT



FOCUS THEMES

 Health,

 Food Security

 Economy



Puntland
Development &
Research Center

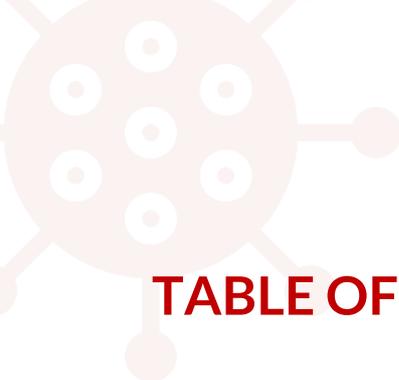


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The world is witnessing the worst Coronavirus pandemic ever in the history of mankind, which started in the late months of 2019 and is continuing to 2020. According to the World Health Organization (WHO), as of April 27 close to 3 million people are confirmed to have been infected, and nearly 200,000 people have died worldwide. Somalia confirmed the first case of coronavirus (COVID-19) on 16 March 2020. Since then more cases have been appearing, including cases with no travel history thereby suggesting human-to-human transmission. As of April 27, there have been 480 confirmed cases of COVID-19 with 26 deaths. A full-scale outbreak would have a devastating impact in Somalia given the weak capacity to prevent, detect and respond to such pandemic.

The COVID-19 is a pandemic with uncertain origin; which is devastating communities around the world, therefore it's of great importance to study the dynamics and the effects of this disease in a weak and fragile state like Somalia. COVID-19 could have a devastating impact in Somalia on many fronts including health, food security and economy.

It is against this backdrop that Puntland Research and Development Center (PDRC) - as an independent, nonpartisan, and non-profit Peace, State building and Economic Development Institution - with strong track record and reputation in Puntland, other regions of Somalia and beyond, began collaboration with experts in the fields of Epidemiology, Food Security, Economy and Public Health to give an expert outlook of the anticipated impact of the pandemic in Somalia. With the impact and the lives that will be effected in mind, PDRC mobilized different stakeholders at various levels of decision-making at both national and state levels, and Civil Society, seeking close collaboration in addressing this global health crisis. PDRC relied on its tools, expertise and networks to not only disseminate this information but also trigger meaningful discussions on core issues related to the current health crisis that are of interest to the general public and authorities.

Thus, this present report is the result of the meticulous work of reputable academicians in their fields of experience concerning the current COVID-19 pandemic. The in-depth report highlights the understanding of issues surrounding it. From the scientific understanding of the nature of the outbreak, its social and public impact and above all the food security and economic burden COVID-19 will have around the globe, particularly in Somalia. This report is expected to lay the foundation for a thorough, detailed and practical study of the effects, impacts and consequences of COVID-19 in Somalia.



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The novel Coronavirus pandemic known also as COVID-19 is a serious respiratory disease caused by a novel virus (SARS-Cov-2) that belongs to the coronavirus family.

It's believed the COVID-19 originated in China, which is home to a quarter of the human population on Earth and a center of the world's major factories that export products to the whole world. COVID-19 and its quick spread to every corner of the world have resulted in the total or partial closure of the major economic activities around the world. In a desperate attempt to control the disease, factories and other economic activities have been closed down, the workforce around the world have been asked to stay home causing financial market disturbance, and economic collapse. Most experts agree that there will be soon a global economic recession, apart from a few sectors that might expand further due to increased demand of their products and services (e.g. health sector and some technology niche markets that are helping the mandatory social distancing and remotely working teams), most companies are either already affected or will be hit by the ongoing crisis very soon.

Comparable to the last global financial crisis of 2007-8, the financial sector seems to be already at the center of the storm. Lowering the interest rate by major Central Banks like the FED and European Central Bank could not stop the financial panic, which started globally in the week beginning March 8th. Managing cash flow and liquidity shortage is a monumental challenge at the moment all over the world despite OECD countries' governments bumping a massive amount of economic and fiscal support to their hard-hit economies. Lack of consumer confidence and search for financial safety are among key factors driving the increasing financial panic.

In this context, as key global supply chains are either seriously disrupted or completely shut down by the consequence of the COVID-19, the supply chains of both the diaspora remittance towards Somalia and vital imports, including food and other essential goods, are feared to be already stressed and might soon be seriously jeopardized.

According to the World Health Organization (WHO), testing and contact tracing is very critical for the control of the Covid-19, it's also of paramount importance to adhere to the guidelines related to prevention measures which can reduce the COVID-19 fatalities around the globe and Somalia as well.

The ill-preparedness of the national health system to such pandemics indicate the need for the development of an integrated Somalia-wide health care emergency plan and policy. The proper and adequate use of existing facilities also need thorough investigation on how best they can be utilized nationally.



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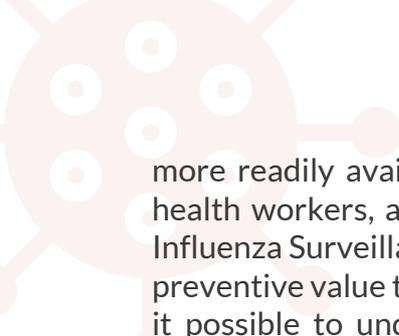
BACKGROUND

An unprecedented outbreak of pneumonia of unknown aetiology in Wuhan City, Hubei province in China emerged in December 2019. This emerging infectious syndrome is caused by the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). The causative agent was subsequently termed as COVID-19 by the World Health Organization (WHO). Patients with COVID-19 can progress from asymptomatic or mild illness to respiratory failure or multisystem organ failure, necessitating intubation and intensive care management. Despite rigorous global containment and quarantine efforts, the incidence of COVID-19 continues to rise.

Pandemic diseases are caused generally by highly infectious viruses for which the world has no sufficient defensive immunity and are hence susceptible to its speedy transmission worldwide. The high burden of morbidity and mortality rates of this pandemic are notable, in which by 23rd April 2020, there are 2,656,680 confirmed cases and 185,192 confirmed deaths from COVID-19, as reported by WHO. Yet the visible trend of mortality though tragic in many regions of the world is expected to be lower than most of the previous post-first world war recorded pandemics, wherein the Spanish flu influenza pandemic of 1918-1919 of subtype H1N1 appearing nearly simultaneously around the world killed about 40 million people; the influenza Pandemic of 1957-1958 subtype H2N2 originating from southern China, led to a global mortality of more than two million people, the third influenza pandemic subtype H3N2 of 1968-1969 first detected in Hong Kong led to about one million deaths, while the Swine flu 2009-2010 of subtype H1N1 first detected in Mexico led to 575,000 death.

The lower mortality rates in the post Spanish Flu pandemics were attributed to the improved medical care after the discovery of antibiotics that were effective in treating secondary killer bacterial pulmonary infections, and the speedy care provision that was made available by the health care services. Pandemics can occur in waves as was the case during the Spanish Flu in which the 1918 spring wave was followed by a summer wave that was much more deadly, indicating the need for a sustained and scaled up prevention and control measures to avert the immeasurable tragic impact of the disease.

Another opportunity gained was the advanced knowledge about virology of influenza viruses with the ability to develop vaccines for the large-scale protection of the world population. Regrettably, no effective vaccine against COVID-19 is envisaged at any time soon, though intense efforts are being widely pursued. Moreover, although there is a world-wide shortage of medical supplies and protective equipment, yet these resources are much



more readily available now than any time in the past, contributing to the protection of health workers, although the levels of success are yet highly wanting. The WHO Global Influenza Surveillance Network established in the early 1950s has added a great additional preventive value through the scaled up early detection and response interventions, making it possible to undertake such interventions that mitigate the gravity of the pandemic. Somalia witnessed the COVID-19 outbreak on 16th of March 2020 when the first case was confirmed in Mogadishu.

THE CURRENT OUTBREAK

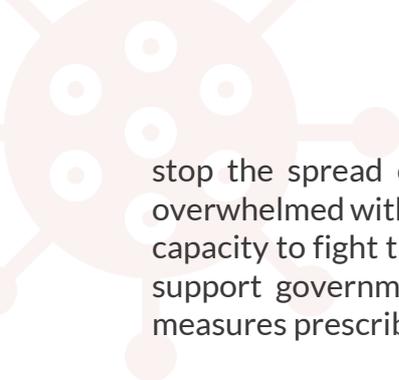
The global outbreak of the SARS-CoV-2 widely known as COVID-19 has until the 23rd of April 2020 led to a total of 2,656,680 confirmed cases and 185,192 deaths reported from all regions and countries of the world, reflecting the fast spreading nature of the pandemic. This new virus and disease became known only after its detection in Wuhan, China in December 2019.

On 7th January 2020, the virus was identified as a new strain of the Corona virus, the COVID-19, making it the 3rd Coronavirus outbreak following the SARS and the Middle East Respiratory Syndrome (MERS). The first case of COVID-19 was linked to Huanan city seafood wholesale market where animal meat was on sale, suggesting that the disease spreads through direct contact with animals.

After careful investigations, the WHO declared this quickly spreading viral infection as an emergency during the third week of January 2020. WHO scaled up its apprehension and declared it as a Public Health Emergency of International Concern (PHEIC) on 31st January 2020, and finally a pandemic on 11th March 2020. Countries in the Eastern Mediterranean Region (EMR) of which Somalia is a member state have a high vulnerability and variable capacity to respond to outbreaks, and several have addressed the need for increasing capacity in the areas of surveillance and rapid response to public health threats. Moreover, countries addressed the need for communication strategies that direct the public to actions for individual and community protection. The COVID-19 pandemic control strategies are assuming the “whole-of-government” approach advocated by WHO in pursuance of the absolute imperative to engage all the sectors, the wider community, and partners to effectively contain this disease.

DISEASE TRANSMISSION

The COVID-19 is transmitted from person to person through small droplets from the nose or mouth of an infected person while coughing, sneezing, or exhaling. It is also possible that the COVID-19 is transmitted by touching a surface or object that has the virus on it and then touching their mouth, nose, or eyes. Social distancing by at least one meter from a person who is sick or suspected to have the disease will reduce the risk of transmission. The disease transmission is also possible from a person with a mild cough but not feeling sick. The number of asymptomatic and mild cases with subclinical manifestations that do not seek hospital care are substantial. Moreover, there are few reports of laboratory-confirmed cases, who are truly asymptomatic. For Somalia to reduce the transmission of this new pandemic virus, the country has to rise at every administrative tier from federal, state, regional, to district and local levels and take all necessary preventive control measures to



stop the spread of the disease and avert a situation whereby the health systems are overwhelmed with critical care-seeking patients of COVID-19 while the country has limited capacity to fight the pandemic. Understanding the dynamics of transmission is essential to support government decisions and improve the community's adherence to preventive measures prescribed by the health system.

Recognizing the high transmissibility of the virus, many regions of the world have opted for the lockdown strategy and quarantined large population segments and confining them to stay at home. Population gatherings are also prohibited, and the movement of the people from-and-out of these outbreak zones restricted. In Somalia, the restrictions are limited to evening curfews; closure of schools; suspending international and domestic flights; prohibition of mass gatherings, and generally advising people, particularly the elderly and those with underlying chronic diseases to stay at home to the extent possible. The disease prevention and control strategies pursued by Somalia are soft, relative to the total and absolute lockdowns mostly pursued by countries that could address the economic fallout and the capacity to enforce strong mobility restrictions to curb the pandemic.

However, the Somali government-imposed curfew of about 10 hours a day will have a direct and positive impact on reducing the secondary infections that an affected household with an average size of 6 persons could produce over the 14 days of infectivity. The absence of a lockdown will however, spread the virus in the community, producing a large proportion of asymptomatic or mild cases that could also get immunity against the disease. This type of relatively high population immunity is labelled as “Herd Immunity,” where the immune individuals indirectly protect those not yet infected members of the population, a situation usually obtained when a large percentage of the population has become immune to and survived a communicable disease infection. The experience of Europe and Northern American countries, however, raise some uncertainty of this hypothesis of enhancing herd immunity about COVID-19, when factoring the fatality burden of the disease¹.

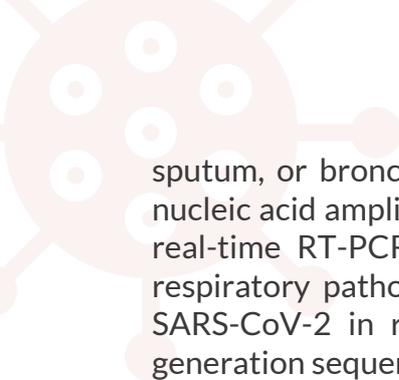
COMMON SIGNS AND SYMPTOMS OF THE DISEASE

Patients affected by COVID-19 often develop mild symptoms of fever, tiredness, and dry cough. They may also present with nasal congestion, running nose, sore throat, pains and/or diarrhoea, while some of the affected people do not show any symptoms and feel relatively well. About 80% recover from COVID-19 without requiring any specialized medical care. But as per WHO around 1 out of every 6 affected people develop a serious disease condition with difficulty in breathing, most frequently affecting older people, and those with chronic medical conditions such as hypertension, heart disease and diabetes.

DIAGNOSIS

The WHO currently recommends that all patient samples with suspected SARS-CoV-2 should be isolated from respiratory tract specimens (including nasal and pharyngeal swabs,

¹ Kin On Kwok,^a Florence Lai,^b Wan In Wei,^a Samuel Yeung Shan Wong,^a and Julian W.T. Tang^c, Herd immunity – estimating the level required to halt the COVID-19 epidemics in affected countries. *J Infect* 2020 Mar 21



sputum, or bronchoalveolar lavage fluid) then shipped to authoritative laboratories for nucleic acid amplification diagnostic testing. During international health emergencies, the real-time RT-PCR assay has shown to be a sensitive and specific method to detect respiratory pathogens in patients with an acute respiratory infection. The presence of SARS-CoV-2 in respiratory specimens was detected by real-time RT-PCR and next-generation sequencing.

MEASURES FOR DISEASE PREVENTION AND CONTROL

The available guidance and trainings are grouped in ten areas and are briefly outlined below:

National coordination

Although pandemic prevention and control is to be operationally led by the health sector, a nationwide preparedness should consider the establishment of a National Command and Operations Center to substantiate a whole-of-government and society approach in which the key public sectors should be closely coordinating their respective sectoral functions with the COVID-19 preparedness and response interventions at federal level, while coordinating with the state and regional governments virtually. Coordination mechanisms will also need to be established at state, region, district, and community level and jointly develop the preparedness and response plans at federal and state levels. Similarly, the Monitoring and Evaluation processes will be designed, in association with all the health partners and the private health sector as part of an integrated coordination process. The community will also be mobilized to actively engage in the coordinated prevention and control of the disease.

Risk communication and community engagement

Risk communication in COVID-19 is a great opportunity and vital step for ensuring the transfer of the most accurate information and communicating messages in a successful and unambiguous manner to the general public. This active information sharing through the genuine news channels will promote awareness and suppress misinformation at the level of the community. Risk communication is an essential measure in the COVID-19 pandemic in view of its high rates of infection, the observed high mortality and lack of any specific medications, which is facilitated in the Somali context by their shared language, the utilization of a large and diverse number of social media channels and the consistent media presence all provide reliable avenues for effective risk communication and community engagement. The key pandemic risk communication measures are further strengthened by mobility restrictions, social distancing, and hygienic measures, complemented by advancing the protective public health measures to control the disease.

Public health measures

The COVID-19 is a disease that has no vaccine for preventive purposes and those most at risk are senior citizens and those living with serious chronic medical conditions, who need to take all the necessary measures to prevent the disease such as:

- Staying at home to the extent possible

- 
- Washing hands properly with soap and water for at least 20 seconds when returning from a public place or after blowing the nose, coughing, or sneezing and avoiding touching the eyes, nose, and mouth with unwashed hands
 - Covering the nose and mouth with a bent elbow or tissue when you sneeze or cough and dispose of tissue immediately and washing hands
 - Maintaining the required social distance by keeping space from one another by more than one meter
 - If soap and water are not available, make sure one has hand sanitizers that contain at least 60% alcohol for rubbing all surfaces of the hands until they feel dry
 - Pursuing active case finding and contact tracing, while applying case isolation or quarantine, as indicated
 - The COVID-19 spread within countries has been associated with close contact and crowding, hence the need for temporarily banning public gatherings and the closure of schools are potentially seen as effective measures to undertake.

The public health measures outlined above have a substantial impact on interrupting the disease transmission and its effective control.

Case management and health services

During the COVID-19 pandemic, a considerable number of cases are predicted, hence the imperative for the public and private health sectors to prepare the essential care facilities required, while the demand for maintaining the provision of routine essential health services remains a priority. In this process, a triage of systems will be introduced to direct the severe COVID-19 cases to the critical care units where the necessary facilities including oxygen and other supplies are available, and well-trained staff is leading the service delivery. On the other hand, the provision of home care guidelines are offered for mild COVID-19 patients, with knowledge of where to seek referral support if their symptoms get worse. In pursuing the regular flow of medical and nutritional treatment for the admitted COVID-19 cases, efforts need to be made to organize in-service training activities to refresh the knowledge and skills of the care providing health workforce. Moreover, provision of essential management care to all quarantined and hospital admitted cases must be ensured by following the WHO treatment protocol and ensuring that the engaged health workers receive the Personal Protective Equipment (PPE) they functionally require. However, recognizing the shortage of PPE that even economically affluent countries are facing, Somali health authorities may consider the reuse of sterilized PPEs as a viable and strategic option.

The health authorities in coordination with the government and private sector institutions and business entities may explore the creative potential of the Somali entrepreneurs including designer tailors to prepare the gowns, masks and head coverage items that our health professionals direly need and whose import has become a real challenge.

On the other hand, the government may review the existing legal framework and allow the necessary reforms allowing the enforcement of all the priority pandemic prevention and control strategies thus filling the organization and legal gaps for effective pandemic control.

Infection prevention and control

Major components for the COVID-19 pandemic preparedness and response lie in the building of the health system capacity for infection prevention and control including chemical and radiation decontamination, with infection prevention and control at the community and healthcare facility level. Preventing infection among patients and health workers is a successful response that will improve patient survival and boost the confidence of the health workforce, acting as frontline soldiers in this war. The private health sector should be included in the management of COVID-19 patients and participate in the organized health professionals' training to collectively meet the envisaged high projected patient load. Moreover, a national plan needs to be made for ensuring PPE supplies management, especially for the staff caring for suspected or/and confirmed acute COVID-19 cases for care and support. The importance of WASH interventions in health facilities and public spaces with a special emphasis on hand hygiene compliance are key measures for disease containment of the COVID-19 pandemic in the country.

SURVEILLANCE AND RISK AND SEVERITY ASSESSMENTS

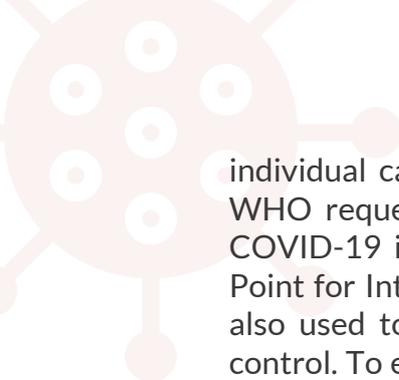
Case Definition for Surveillance

Based on the regularly updated available information, the following definitions are used in the pursuit of COVID-19 surveillance on the Somali country context:

- i) **Suspect case:** a patient with acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath), and a history of travel to or residence in a location reporting community transmission of COVID-19 illness during the 14 days before symptoms' onset; or a patient with acute respiratory disease and has been in contact with a confirmed or probable COVID-19 case in the last 14 days before symptom onset; or a patient with severe acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath; and requiring hospitalization) and in the absence of an alternative diagnosis that fully explains the clinical presentation.
- ii) **Probable Case:** A suspect case for whom testing for the COVID-19 virus is inconclusive; or a case for whom testing could not be performed for any reason.
- iii) **Confirmed case** A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.
- iv) **Contact:** A contact is a person who experiences any one of the following exposures during the two days before and the 14 days after the onset of symptoms of a probable or confirmed case: a) Face-to-face contact with a probable or confirmed case within 1 meter and for more than 15 minutes; b) Direct physical contact with a probable or confirmed case; c) Direct care for a patient with probable or confirmed COVID-19 disease without using proper PPE; d) Other situations as indicated by local risk assessments.

Surveillance for Preparedness and timely response

COVID-19 surveillance aims at identifying the first cases detected in the target community and to prevent secondary transmission, whether in the community or among healthcare workers. Surveillance may also evolve from the daily reporting of



individual cases towards the regular reporting of data to monitor disease trends. WHO requests that national authorities report probable and confirmed cases of COVID-19 infection within 48 hours of identification through the National Focal Point for International Health Regulations in the country. Surveillance analyses are also used to review the national preparedness and response plans for pandemic control. To enhance the surveillance system and effectively prevent and control this pandemic, the federal and state governments have to invest on health system strengthening, enhance the role of the local communities and build the health system preparedness and response capacity.²

COVID-19 TESTING

COVID-19 clinical diagnosis is currently available at the national public health laboratory (NPHL). At the same time, the government, with the help of WHO, will establish two other diagnostic sites, in the cities of Hargeisa in Somaliland and Garowe in Puntland for testing suspected COVID-19 cases. Additional surveillance sites can be used to collect samples for testing to generate nationwide information on COVID-19 disease trends, impact, and evolution. The NPHL will through the Federal Ministry of Health liaise with WHO on the necessary supplies, reagents, and protocols to sustain its critical coordination role in combating the pandemic. The established surveillance system will help monitor disease trends, impacts, and virus evolution; while allowing to share isolates with the WHO designated referral laboratories. The experience clearly testifies to the leading role of early detection, testing/identification and isolation, as a powerful strategy for the control and interruption of COVID-19 transmission.³

PANDEMIC RESPONSE LOGISTICS

Logistics for pandemic and disease outbreak response is a fundamental component of the response interventions and is critical for the implementation of the different interventions of pandemic control include the procurement, transportation, distribution, storage, and management of medical supplies and commodities. The deployment of a well-trained medical personnel, with the allocation and management of the necessary financial resources are also essential to contain the pandemic before it reaches critical proportions. The availability of sufficient vehicles for the transportation of essential medical supplies, undertaking of disease surveillance and response interventions, collection of data from the various operational sites, and bridging the severe shortage of ambulance services are essential pandemic response logistics. A critical logistic function is the collection and transportation of specimens and the building of laboratory cold-chain systems that store samples at the required temperature level. The security of the supply chain and that of the health workforce are also contextual measures of relevance. In managing the above logistics, regular assessment reviews need to be carried out to bridge the gaps at any level. It is self-evident that the above-stated coordination function offers significant

² Chatterjee P, Nagi N, Agarwal A, Das B, Banerjee S, Sarkar S, Gupta N, Gangakhedkar RR. The 2019 novel coronavirus disease (COVID-19) pandemic: A review of the current evidence. *Indian J Med Res.* 2020 Mar 30. doi: 10.4103/ijmr.IJMR_519_20. [Epub ahead of print]

³ Thomson GA. COVID-19: Leaving Lockdown - Of Schrodinger, Cats, Testing and Masks. *Int J Clin Pract.* 2020 Apr 21:e13519. doi: 10.1111/ijcp.13519. [Epub ahead of print]



opportunities to streamline the logistics of this multi-stakeholder and intersectoral pandemic response actions.

MAKING HOSPITALS READY FOR COVID-19

During disease outbreaks and pandemics, hospitals play a critical role within the health system as they uniquely provide a range of essential health care services that cannot not be readily delivered to the community at other health care provision levels. In the fragile context of Somalia, most hospitals at federal, state and regional level are struggling to perform basic lifesaving emergency functions. These weaknesses are often related to their governance capacity, limited skilled health workforce, poor supplies provision and many other critical functions that hospitals are expected to manage. In the context of COVID-19, all the acute critical cases that contribute to the serious morbidity and mortality of the disease are referred to the regional and federal level hospitals for effective care provision. To improve the performance of these hospitals and scale up their operational capacities, hospital managers and federal and state level Ministries of health have to urgently assess the preparedness of these hospitals to the COVID-19 expected patient load and bridge the gaps on a priority basis.

The international health partners need to assist in such assessments as a prelude to upgrading these hospitals enabling them to cope with the COVID-19 situation under the leadership of the government. The assessment findings will then be translated into a plan of action for the rehabilitation of most critical functions in these hospitals that can effectively respond to the COVID-19 pandemic emergency. Some of the key management system functions to assessed include: the coordination role of these hospitals; their surge capacity in terms of space and service delivery; their ability to secure the necessary skilled workforce; the regular provision of medical supplies; the essential hospital support services; the infection prevention and control; the laboratory and blood transfusion services and the scaling up the number of intensive health care unit beds in these hospitals. For the success of this readiness mission, a collaborative programme of work may be established with the support and guidance of WHO and other health partners, followed by the requisite planning and implementation on an urgent basis.

MAINTAINING ESSENTIAL HEALTH SERVICES DURING THE COVID-19

The overwhelming nature of the COVID-19 pandemic will undoubtedly constrain the routine delivery of emergency and other health functions, mainly in the fragile states with weak health systems. Through this challenging period, the health system needs to balance the pandemic response interventions by maintaining essential health service delivery to the general population. The latter will include high priority intervention such as routine vaccination, reproductive, neonatal, and child health services, management of noncommunicable diseases and infectious diseases like HIV, malaria, and TB. The scope and prevalence of mental health conditions are likely to rise manifold in these stressful circumstances and need to be addressed. - In the delivery of these services, the health system has to comply with all the necessary hygiene practices and provide adequate supplies, including PPE, entailing robust planning and coordinated actions between



governments and its wider national and international health stakeholders and partners. Other functions that need to be collectively sustained include water and sanitation, fuel and energy; food; telecommunications/internet; finance; law and order, transportation, and the essential workforce capable of delivering both the routine and pandemic response service effectively. Several health partners operating in the camps of Internally Displaced Persons (IDPs) are reported to have reduced their field-level services, which could raise concerns among this underprivileged and marginalized population group. Coordination between the various partners being essential for collectively pursuing the strategy for maintaining continuity of care.⁴

SUPPORTING RESEARCH ON COVID-19

The ongoing intensive global efforts in COVID-19 Research and development, where scientists and nations are struggling to identify innovations in the public health areas of diagnostics, vaccines, and therapeutics, do offer endless opportunities for humanity. Moreover, operational and implementation research provide additional benefits by strengthening health pandemic response and improving the planning and implementation of response intervention on the ground, with the capacity of resolving significant implementation challenges and help to achieve the desired health outcomes.

The above described measures for Disease Prevention and Control covering a range of public health fields do provide the core necessary capacities to respond to major emergencies such as the COVID-19 pandemic. The figure below illustrates key technical areas and actions of high priority in the different stages of this emergency response process.

⁴ Barro K, Malone A, Mokede A, Chevance C. Management of the COVID-19 epidemic by public health establishments - Analysis by the Fédération Hospitalière de France]. *Journal de chirurgie viscerale*. 2020 Apr 18. doi: 10.1016/j.jchirv.2020.04.009. [Epub

Figure: Responding to the spread of COVID-19 in Somalia:
Technical Areas & actions of High Priority



COVID-19: OPPORTUNITIES AND CHALLENGES IN THE SOMALI CONTEXT

As the world community is confronting an unprecedented risk of the COVID-19 pandemic, several opportunities and challenges have emerged which need to be carefully addressed to make its prevention and control possible. A whole-of-government approach need to be applied in identifying and exploiting the opportunities and resolving the challenges to ultimately stop the chain of COVID-19 transmission. The most salient identified opportunities and challenges are outlined below:

Opportunities: Pandemic Factors of Advantage in the Somali Context

There is an urgent need to strengthen COVID-19 pandemic prevention and control measures by taking advantage of the following conditions.

Gaining Global Knowledge when COVID-19 Struck the Country

The pandemic fortunately reached the country at a later stage since its first outbreak in December 2019, and when many countries were already affected. During that period, sufficient global knowledge has been gained about the prevention and control of the disease, giving Somalia sufficient time to rationally apply all the lessons learned in its operational pandemic control interventions.



The Demographic Dividend of the Youth Bulge

The youth bulge in Somalia, like many other African countries, is resulting from the relative success in reducing infant mortality. In contrast, the fertility rate in the country is still high. In this regard, the proportion of the population groups that are most at-risk to the disease, such as elderly persons that are 65 years old or above are about 3% of the total population. In sharp contrast, Europe's proportion of the same age group is 18% and above. The low elderly population in the country constitutes a real demographic dividend, where a direct focus on the protection of the limited number of the elderly population constitutes a great opportunity to curb this pandemic and its observed high rates of mortality.

Sustained Health Partnerships

The fragile health system of Somalia has survived over the past decades through the strongly generated partnerships both at the national and international levels. We make this reflection because of the large number of national and international non-governmental organizations; dedicated and technically influential UN organizations and the generous donor partners, who have expressed their strong will to support and contribute to the national fight against this pandemic, offering a unique opportunity for genuine solidarity, while building competence, experience, and improve the country's health situation. The existing valuable coordination, cooperation, and solidarity that has existed for the past 30 years of the country's fragility will need to be consolidated to win the fight against the COVID-19 pandemic⁵.

The Evening Curfew Replacing the Lockdown Strategy

In several African countries, an evening curfew of 7 pm–5 am is imposed, when the local communities are most likely to go out and socialize after a relatively hot day. This approach will hopefully restrict population movements and contacts and limit the spread of the disease. Moreover, the rampant poverty and daily struggle of the vulnerable population groups for their families' livelihoods will not be affected. At the same time, the "Stay at Home Strategy" for the elderly and the sick is an effective disease control measure, just as "Social Distancing" is a beneficial strategy that citizens from all cultures can easily comply with effectively.

These restrictive strategies of "stay at home and imposed curfews of lockdowns have led in many countries to significant employment loss, particularly for daily wage earners, prompting government schemes to alleviate the observed income loss or entitlement of sickness leave pay. Somali Civil Society Organizations (CSOs), religious councils, and the business communities at the national level and in each administrative jurisdiction may explore resource mobilization strategies that would target a large proportion of the underprivileged households affected by the disease, where at least

⁵ Qian X, Ren R, Wang Y, Guo Y, Fang J, Wu ZD, Liu PL, Han TR; Members of Steering Committee, Society of Global Health, Chinese Preventive Medicine Association. Fighting against the common enemy of COVID-19: a practice of building a community with a shared future for mankind. *Infect Dis Poverty*. 2020 Apr 7;9(1):34. doi: 10.1186/s40249-020-00650-1



one member tests positive to COVID-19 or is clinically suspected where the testing is not promptly attainable.

Harnessing the Power of Civil Society

Harnessing the help of the CSOs, including the dominant religious groups, can significantly shape public opinion. Social media in Somalia is uniquely robust, since every individual can virtually communicate in the Somali language. Aid agencies use this excellent opportunity to raise awareness and resources during emergencies and disasters, such as the current COVID-19 pandemic. It is important to note that of the 100 languages that are supported by Google translation, 13 are from Africa, which includes the Somali language, in a continent where over 2000 languages or dialects are spoken. The rich Somali oral poetic culture and strong religion's outreach reflected widely in social media, i.e., Facebook, Instagram, Twitter, and YouTube are assets to harness. Partner agencies in their relief operations successfully use these potentials. The strong capacities to harness from CSOs include:

- Grass root community support for disease surveillance, case detection, tracing and self-isolation
- Participation in local advocacy and social mobilization and communication activities that regularly inform the community about the course of the pandemic and the rationale for undertaking the recommended measures for disease prevention⁶
- Creation of a strong cadre of community volunteers across the country and empowering them with the right information and guidance in disease surveillance, case detection, hygiene promotion, promotion of social distancing and support to self-isolation or quarantining as relevant⁶
- Encouraging the production of folklore socio-cultural public education programs of poetry, songs, Television clips, and Radio programmes and Soap Theatre shows being highly pragmatic and accessible means to convey messages in the Somali society
- Protecting the health workforce and supporting their compliance with the rational use of PPE against COVID-19 whenever necessary and support and follow their advice both at community and health facility level
- Actively engage in the mobilization of contingency funds for supporting the COVID-19 emergency affected members and families in the community for their necessary livelihood support
- Assist in eliminating misinformation and the commonly propagated conspiracy theories incriminating many public programs as “projects with hidden wrong intentions.” metaphorically known among the Somalis as “Project” or “Mashruuc”

The final aim is to mobilize CSOs for achieving the desired impact by extending every possible support to the robust public health and other social interventions that are necessary to bring COVID-19 to its end in the country.

⁶ Garg S, Bhatnagar N, Gangadharan N. A Case for Participatory Disease Surveillance of the COVID-19 Pandemic in India. *JMIR Public Health Surveill.* 2020 Apr 16;6(2):e18795. doi: 10.2196/18795



Intersectoral Approach to COVID-19 Control Interventions

Global public health security and the fight against COVID-19 is a collective responsibility that demands intersectoral cooperation (ISC) and action at all levels of the government. The global morbidity and mortality and the economic losses being witnessed around the world are sufficient reasons to mobilize multisectorality at all administrative levels pursuing the whole-of-Government and a whole-of-Society Approaches at the country level and partnerships at international level. Accordingly, the fight against COVID-19 interventions is not limited to the health sector alone. However, the success of this mission is achieved through the direct technical and operational leadership of the ministries of health at federal, state level, regional, and district networks of health services. The ISC will entail the following:

- Development of ISC operational plans for the fight against the pandemic with the training of health workers on the different tasks and organizational preparedness functions to undertake
- Introducing disease surveillance and monitoring system where different stakeholders including the private sector and local communities are actively engaged
- Advising on the self-isolation at home and the transfer of severe cases to the quarantine stations for disease containment and care
- Risk Communication by educating the community and ISC partners about the knowledge and behaviour change communication they have to adopt till the village level to prevent the disease and implement the measures including the curfew imposed
- Coordinate with the different health stakeholders at each operational level primarily national private sector entities and design ISC plans for their active participation in the fight against COVID-19
- Coordinate and build partnerships with National Islamic Advisory Group and other religious bodies at the federal level and the state, regional and district/local level religious organizations for advocacy and social mobilization in the prevention and control of COVID-19 and for prevention of misinformation
- Establish an ISC platform of information system led by the health sector coordinating the registration of all the suspected, detected, and tested cases and their respective outcomes and the deaths both at health facilities and at the community level.
- Initiate and maintain partnerships with religious leaders at every administrative level to actively participate in the COVID-19 prevention and control, introducing the registration of deaths in the burial grounds of each catchment area and the submission of weekly reports on these tragic outcomes.
- Establish technical partnerships with the private health sector and the international partners supporting the COVID-19 pandemic control interventions

Suspension of Khat Importation

Khat, or Qat (*Catha edulis*) leaves that people widely chew across the country are imported from Ethiopia and Kenya, which are both affected by the COVID-19 pandemic. Though a culturally accepted practice, its prolonged use could lead to dependence, psychosis, and other psychiatric disorders and physical ill-health



conditions. Research has shown that Corona viruses can survive in tested vegetables and fruits for between four to ten days. Khat is a product that is collected and transported without any hygienic standards of washing, disinfection, and/or protective packaging. Its leaves are transported, sold, and consumed within 48 hours from its original delivery. The suspension of Khat import is a powerful strategy to curb its risk of COVID-19 transmission, because of non-compliance with hand hygiene and other basic infection control policies.

ADDRESSING PRIORITY CHALLENGES IN PUBLIC HEALTH POLICY

In the Somali contextual framework, the fight against the pandemic will face the following challenges that may constrain the hardly gained preventive efforts against the disease and pose a far-reaching negative impact on a significant proportion of the country's population:

Limited public health awareness

The limited public health awareness in terms of knowledge concerning the COVID-19 preventive and control measures will contribute to the spread of the illness. The low literacy rate, the limited hygienic facilities in public places, including toilets and hand washing basins with clean water and soap, are conditions conducive to disease transmission. However, the information on raising awareness on personal hygienic measures of disease prevention complemented with actions that improve safe water and sanitation services in schools, offices, markets, restaurants, and tea shops in both urban and rural areas is of critical importance.

The Weak Public Health Institutions and the Challenge of complying with infection prevention and control practices

The country's weak public health institutions pose governance challenges in enforcing compliance with the set recommendations across the country where people follow the disease preventive norms or face the civil penalties introduced like many other countries of the world. A lesson gained from other countries demands the formation of community volunteers in every city cluster and in rural villages that will propagate the disease prevention and control measures and bring about early case detection through their local surveillance activities. The volunteers will pursue the guidelines deliberated by the health authorities. The government may also establish intersectoral coordination committees at each administrative level. The formation of local coordination committees in the different residential quarters is of notable importance to oversee and promote the public compliance and their catchment areas' pandemic trend while supporting and monitoring also the performance of the community volunteers liaising with the health response coordinating authorities. There is also the need to harmonize the competing priorities between COVID-19 prevention and control intervention and other Public Health Emergencies. The COVID-19 nation-wide urgent response could potentially compete with other frequently occurring infectious disease outbreaks and other humanitarian emergencies that will undoubtedly rely on the same limited health workforce and the capacity of healthcare institutions on the ground.



COVID-19 Deaths' Registration

The registration of deaths resulting from the COVID-19 contributes to pandemic risk assessment; in planning the COVID-19 Disease prevention and preparedness actions and in pursuing the respective social actions necessary. In Somalia, national mortality registration systems are not fully implemented. Hence the reported COVID-19 deaths may not be accurate, necessitating the urgent need to officially introduce the pandemic deaths' registration, with a simple description of the process leading to death, allowing a credible counting of the COVID-19 related mortalities. The district and sub-district level authorities may initiate this process in conjunction with the health authorities to correctly estimate and report on the burden of this pandemic.

Case detection, testing, and Isolation

In many regions of the world, there is an extreme paucity of testing kits restricting the testing to people with symptoms or those having been in contact with patients diagnosed with COVID-19. Health workers providing support and care to COVID-19 patients are also given a similar priority. In Somalia, active case detection is a challenge because of shortage of health workers in many rural areas and due to the poor care seeking behaviour of the underprivileged communities. Local community volunteers may be selected in localities where the above gaps are noted. The volunteers are briefed about case detection and reporting to pave the way for the necessary health action. Access to testing is another major challenge where only 1-3 testing sites are planned in the whole country. In this situation, sample collection and transportation system to the testing laboratories may be pursued learning lessons from the well-established practice of transporting polio stool samples of suspected acute flaccid Paralysis (AFP) cases. Finally, the community level isolation of the suspected contacts is a challenge that need to be addressed following the stay-at-home strategy, where the local community volunteers are also assigned to monitor and maintain compliance with the set public health guidelines.

COVID-19 AND THE INTERNATIONAL HEALTH REGULATION

In 2005, the World Health Assembly representing the WHO Member States approved the International Health Regulation (IHR), that contain a series of 'hard-and-fast' obligations, i.e. those whose compliance can be attested in a practically immediate form. Article 6 IHR obliges states to notify the WHO within 24 hours after they identify any event that might constitute a public health emergency of international concern. For a WHO member state to promptly detect and report of any encountered event of international concern, the capacity of the national health system needs to be strengthened to develop a set of "core capacities" committed by the member states to accomplish within five years, extendable for two more years. To assess member states' compliance and progress, a Joint External Evaluation Tool was developed guiding the countries to improve their levels of compliance throughout the years. The table below illustrates the Indicators from the IHR reporting tools and their respective required capacities:

Table: Indicators from the International Health Regulations reporting tools and their respective required capacities

Indicators	Required functions and Capacities
Prevent	<ul style="list-style-type: none"> ● Collaborative capacity to address zoonoses ● Capacity for multisectoral efforts for disease prevention ● Collaborative capacity for preventing infectious disease outbreaks from gaps in food safety ● Capacity for infection prevention and control and chemical and radiation decontamination ● Infection prevention and control at the community and healthcare facility level ● Capacity for emergency risk communications at the national and local community level ● Capability to prevent at the points of entry (airports, ports and ground crossing) ● Capacity for-prevention and control of infectious disease outbreaks
Detect	<ul style="list-style-type: none"> ● Capacity for specimen referral and transport system ● Capacity to access laboratory testing for priority diseases including referral to outside located labs ● Capacity for event-based surveillance and reporting/early warning from communities & health care facilities, and points of entry that are crucial for detection of disease outbreaks ● Capacity for event management (verification, risk assessment, and analysis investigation)
Respond	<ul style="list-style-type: none"> ● Capacity to develop plans for emergency preparedness and response and ability for their reviewing, testing and updating on regular bases ● Capacity to manage health emergency response operations applying the incident management systems and capability for the effective implementation of emergency operations ● Capacity for resource mobilization during the response of financial, human resources, and logistics ● Capacity for case management to effectively respond to outbreaks and other health emergencies ● Capacity for infection prevention and control and chemical and radiation decontamination with effective case management and infection control ● Capacity of public health response at points of entry and its effective management to prevent the risk of disease transmission across borders
Enabling functions	<ul style="list-style-type: none"> ● Capacity for rapidly availing and accessing financing for the timely response to public health emergencies for the prevention, detection, and control of infectious disease outbreaks ● Capacity to organize multisectoral coordination and action to better manage public health events including infectious disease outbreaks

Indicators	Required functions and Capacities
	<ul style="list-style-type: none"> ● Availing the necessary human resources for the implementation of IHR skillsets, i.e., surge capacity, and timely mobilization of health-care workers to prevent, detect, and control events ● Capacity for emergency resource mobilization during the response to managing events effectively ● Capacity to avail access to essential health services that are required to prevent, detect, and control infectious disease outbreaks with ensured continuity of critical health services
Operational readiness	<ul style="list-style-type: none"> ● Legislation, laws, regulations, policy, administrative requirements or other government instruments to implement the IHR ● Multisectoral IHR coordination mechanisms ● Collaborative effort on activities to address zoonoses ● Multisectoral collaboration mechanism for food safety events ● Access to laboratory testing capacity for priority diseases ● The mechanisms for event management (verification, risk assessment analysis and investigation) ● Human resources for the implementation of IHR capacities ● Planning for emergency preparedness and response mechanism ● Management of health emergency response operations ● Emergency resource mobilization ● Case management capacity for IHR relevant hazards ● Capacity for infection prevention and control and chemical and radiation decontamination ● Access to essential health services ● Capacity for emergency risk communications ● Core capacity requirements at all times for designated airports, ports and ground crossings ● Effective public health response at points of entry

RECOMMENDATIONS

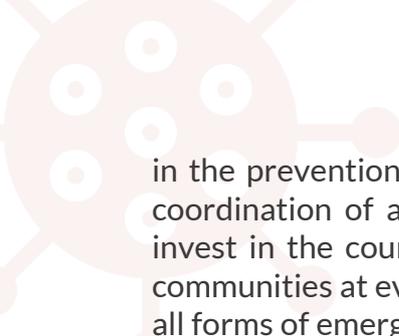
Considering the rapidly growing risks of COVID-19 in several regions of the country and its high transmissibility, recommendations on the prevention and control are put forward for reducing the transmission of infection from detectable and undetectable sources. These recommendations will help the public to understand the dynamics of transmission for better community adherence to preventive measures and help the government to effectively prevent and control this pandemic as outlined below:

- To regularly update the public awareness and understanding about the COVID-19 pandemic for the population to distinguish between rumours and facts regarding the response to the pandemic.
- To boost the health workforce skilled professionals in disease control and Prevention at federal, state, regional and district level to enhance the epidemic preparedness and response capacity of the health system

- 
- To sustain the endorsed and implemented public health measures such as social distancing, limited human gatherings, curfews, ban of khat importation, grounding domestic flights to restrict disease transmission across regions
 - Establishing a COVID-19 testing capacity at the state level to timely undertake the vital response interventions and develop strategic plans for their realization to enable early case detection, diagnosis, isolation, and contact tracing
 - Acknowledging the global demand for and shortage of the PPE, with the need to rationally and equitably distribute the available supplies to the staff operating in the COVID-19 high risk facilities and allow their sterilization and reuse, as deemed necessary
 - Inform the public communities and households across the country that COVID-19 infection is mainly transmitted through respiratory droplets generated by coughing and sneezing, and through contact with contaminated surfaces
 - Human coronaviruses can survive on inanimate objects and can remain viable for up to 5 days in all surfaces contaminated with the virus
 - Consider a whole-of-government and society approach in which the key public sectors should be closely coordinating their respective sectoral functions with the COVID-19 preparedness and response interventions
 - Introduce the community health volunteers that will operate at community level to disseminate the true and critical public health messages at the doorsteps of the urban and rural communities across the country
 - Strengthen the supervisory services in the disease hot spot areas and monitor the intensity, geographic spread, and the impact of COVID-19 on the healthcare system
 - Provide the essential management care to all quarantined and hospital admitted cases as per WHO treatment protocol and follow up the updates made in the global course of pandemic control
 - Provide the necessary logistic support for the implementation of the different interventions of pandemic control include the procurement, transportation, distribution, storage, and management of medical supplies and commodities
 - Ensure that all sectors are intensely engaged in COVID-19 prevention and control interventions, while, maintaining the scale and quality of the priority essential health service delivery to the general population provided in the different care provision levels of the health system

CONCLUSION AND THE WAY FORWARD

The COVID-19 has spread to all continents of the world and the virus has reached 55 African countries. With the declaration of the disease as pandemic by WHO on 11th March 2020, COVID-19 has become a global emergency, with significant impact on health at global level and on the economy. In the absence of tested medicines and vaccines, non-pharmaceutical interventions of public health measures will be the real way forward in mitigating the impact of the disease, where the health systems and the self-responsibility of the communities at every level is of essence. Central to this roadmap is the nation's compliance with the public health measures of hand washing practices, social distancing and "staying at home" for the sick and the elderly high-risk groups of the population. The success



in the prevention and control of COVID-19 pandemic will ultimately lie in the effective coordination of all the engaged partners; federal and state governments' capacities to invest in the country's health systems; the support and active engagement of the local communities at every operational level and the building of a nation-wide preparedness for all forms of emergency response. Simultaneously, fostering and maintaining the continuity of care in essential health services founded on the Primary Health Care strategic framework becomes an imperative to pursue



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COVID-19 is a respiratory illness caused by a novel virus (SARS-Cov-2) that belongs to the coronavirus family - a family of viruses ranging from the common cold virus to the current deadly SARS-Cov-2 virus which originated in late 2019 from Wuhan City, Hubei Province, China⁷. The World Health Organization (WHO) began receiving reports on this viral infection in December 2019. The world's health agency appears to have acted promptly and appropriately following the advice by the health experts around the globe and declared the COVID-19 disease outbreak as a global health emergency⁸ Unfortunately, the infection and its global transmission became widespread thus on March 11, 2020, the WHO finally declared COVID-19 disease a global pandemic⁹

The SARS-Cov-2 virus is one that is genetically made of a ribonucleic acid (RNA) and has a genome (*the entire genetic information of an organism which is encoded in its DNA or RNA - in some viruses*) of approximately 30 kilobases long (**Figure 1**). The most visible structure being the

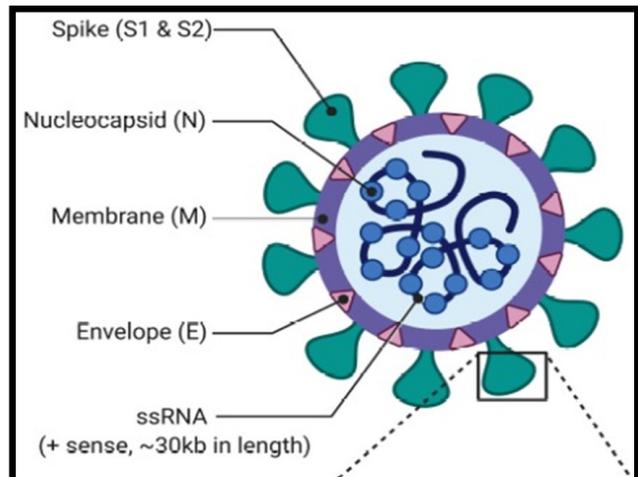


Figure 1: The Structure of SARS-Cov-2. Courtesy of Biorender.com and contribution of Rohan Singh, MD.

spike (S) glycoproteins which promote the viral entry into our human cells via angiotensin-converting enzyme 2 (ACE2) receptors and, indeed, are the main target of our human antibodies fighting against the virus.

Some of the genes that encode the viral proteins depicted in **Figure 1** are the very same genes used for the genetic testing of the presence of SARS-Cov-2 using a methodology known as Real-time Reverse Transcription Polymerase Chain Reaction (will be discussed later) – the genes are the

⁷ The Center for Disease Control and Prevention (USA). 2019 Novel Coronavirus, Wuhan, China. CDC. Available at

<https://www.cdc.gov/coronavirus/2019-ncov/about/index.html>. January 26, 2020.

⁸ Gallegos A. WHO Declares Public Health Emergency for Novel Coronavirus. Medscape

Medical News. Available at <https://www.medscape.com/viewarticle/924596>. January 30, 2020.

⁹ Ramzy A, McNeil DG. W.H.O. Declares Global Emergency as Wuhan Coronavirus Spreads. The New York Times. Available at <https://nyti.ms/2RER70M>. January 30, 2020.

envelope protein gene (E), membrane protein gene (M), nucleocapsid protein gene (N), and spike protein gene (S). Of course, there are other genes that are targeted as part of the molecular testing of SARS-Cov-2 that are not mentioned in this brief monograph.

The aim of this brief paper is to highlight the importance of the *testing* of SARS-Cov-2 in order to control and ultimately

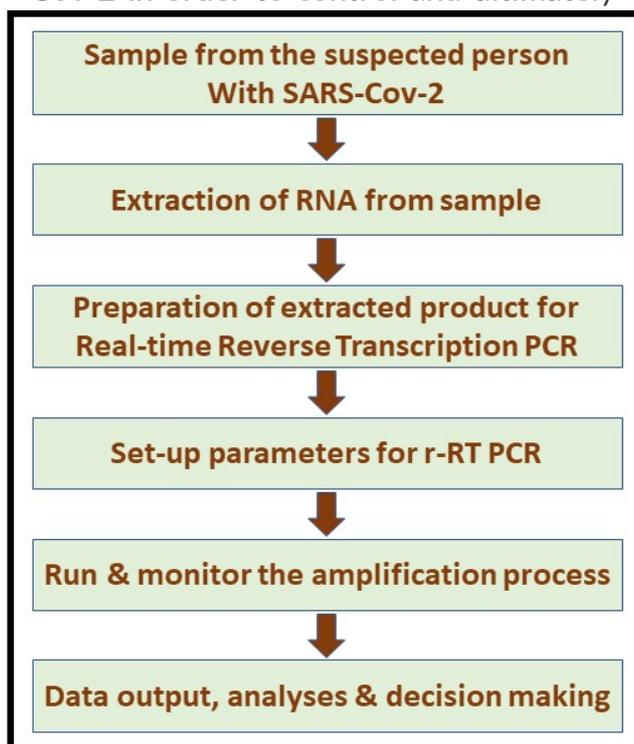


Figure 2: The r-RT PCR Workflow for SARS-Cov-2. Courtesy of the Bureau of Forensic Science, Puntland, Somalia.

stop the global spread of this highly contagious virus. The emphasis will be given to the genetic testing which is the current gold standard test – *the test producing the most accurate results*. According to the WHO, the routine confirmation of cases of COVID-19 is based on the detection of unique sequences (some sections of the above-mentioned genes) of the viral RNA by Nucleic Acid Amplification Test (NAAT)

such as **Real-time Reverse-transcription Polymerase Chain Reaction (rRT-PCR)** (Figure 2). The diagnostic procedure combines three important steps – 1) allowing the amplification of small amount of genetic material (DNA or RNA) into millions of copies; 2) converting the RNA of SARS-Cov-2 to a complementary DNA (cDNA) and being amplified as DNA; and 3) monitoring the amplification process of the targeted molecules in real time. The current kits for SARS-Cov-2 virus utilize this rRT-PCR procedure and considered as the benchmark diagnostic test.

REAL-TIME REVERSE TRANSCRIPTION PCR

Since this is the gold standard test (Figure 2) and the one recommended by the WHO, any laboratory that is undertaking NAAT for SARS-Cov-2 is then following the parameters stipulated below:

1. **Laboratory testing guiding principles for patients who meet the suspect case definition.** The decision to test someone should be made by clinicians or other medical personnel by following the clinical and epidemiological factors then linking the assessment of the likelihood of infection before recommending for testing. The criteria of who test must be regularly reviewed and updated.
2. **Specimen collection and shipment.** Safety procedures during specimen collection must be fully adhered to every step of the way. Nasal or throat swabs are collected for suspecting upper respiratory infection while sputum and other samples are collected when suspected of lower respiratory infection. Standard

operating procedures (SOPs) must be prepared and followed by the laboratory staff. The SOP can include in specimen collection, storage, packaging, and transport. All specimens being collected and sent for laboratory investigations should be regarded as highly infectious material. When collecting specimens from potentially infectious individuals one must be using all the required personal protective equipment and utilize it appropriately and sequentially as shown below (Box 1).

Box 1

Before Sample Collection: Wash hands → Gown → Mask → Eye Protection → Gloves

After Sample Collection: Gloves → Wash hands → Eye Protection → Gown → Wash hands → Mask → Wash hands

3. **The rRT-PCR for SARS-Cov-2 virus.** Laboratories undertaking NAAT for SARS-Cov-2 virus must adhere strictly to appropriate **biosafety** practices in order to make sure that they and their families are safe. The confirmation by rRT-PCR of the presence of SARS-Cov-2 in the specimen from a suspected

person depends on the detection of the unique viral genes (mentioned above such as) N, E, S and RNA-Dependent RNA Polymerase (RdRP) genes. A positive result means that the viral genes are being detected. In each experiment, it must be included positive and negative controls that typically come with the NAAT kits.

For instance, our Bureau of Forensic Science recently received from the Puntland Ministry of Health (Somalia) an rRT-PCR kit manufactured by a biotech company called BGI. We have tested the positive and negative samples using real-time PCR machine and produced expected results - positives yielded quantitative and detectable results and negatives were flat as no amplification took place (**Figure 3**). The bureau's Real-time PCR platform plus few more instruments have since been relocated to the new testing laboratory established by the Puntland Ministry of Health in Garowe. The bureau's scientists conducted at the new facility a brief training on the instruments and the kits involved such as the RNA extraction and Real-time Reverse Transcription kits. The laboratory personnel and its leaderships at the new facility, indeed, had picked up quickly the knowledge required for NAAT and even perfected the use of the technology by performing independent tests prior to dealing with test cases (see below). This is exactly the bureau's intention of spreading the scientific knowledge and when, necessary, go above and beyond the call of duty by relinquishing its needed instruments for the common good - i.e., the new facility has the fundamental tools for testing SARS-Cov-2. Of course, the instruments

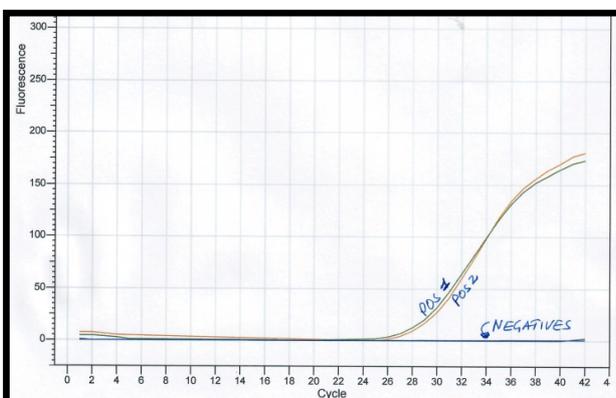


Figure 3: The r-RT PCR Result. Courtesy of the Bureau of Forensic Science,

relocated were initially procured through generous donations from donor countries (particularly Sweden) and international organizations such as the United Nations Population Fund.

CURRENT GLOBAL AND SOMALIA DATA ON COVID-19 (APRIL 26, 2020)

Since this is fast developing story and the number of individuals **globally** who have contracted the virus – SARS-Cov-2 – and tested positive as well as those who, unfortunately, succumbed to the disease it causes – COVID-19 – are indeed staggering (**Box 2**).

Box 2

Number of Global Confirmed Cases:
2,900,442
Death over Time: **203,055**
Percent of death/confirmed cases: **7%**

We pray and hope that, when all is done and dusted, the death by COVID-19 is NOT as deadly as the Spanish flu, or the 1918 flu pandemic, which was a pandemic caused by unusually lethal influenza and took the lives of nearly 100 million people for the three years the infection has persisted around the globe. At this moment (**April 26, 2020**), the global death rate of COVID-19 (according to John Hopkins University) stands as shown in Box 2 is very high which, in some ways, is reminiscent of the deadly 1918 flu – a century ago. The worldwide death rate (7%) of the people confirmed to have died of COVID-19 currently appears to be high and indeed few folds higher than the annual deaths being attributed to

symptoms associated with the annual seasonal flu in recent years.

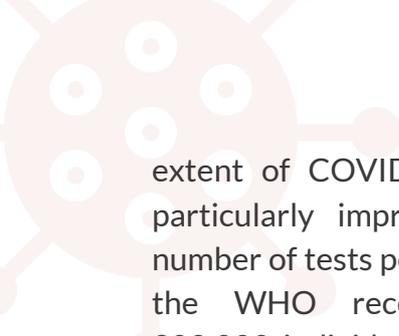
Equally, the sad story of COVID-19 in **Somalia** (according to the Ministry of Health, Somalia) stands as shown in Box 3:

Box 3

Number of Confirmed Cases: **390**
Number of deaths: **18**
Percent of death/confirmed cases:
~5%

Just very recently (**April 25, 2020**), the Ministry of Health of Puntland State of Somalia began NAAT for SARS-Cov-2 at the new testing facility in Garowe. The first samples tested were nine; of which, **five** were positive for SARS-Cov-2. In fact, as silver lining, is very pleasing to see that scientists in Somalia are utilizing as the same latest science and technology for SARS-Cov-2 as the rest of the world. Of course, Somalia is indebted too to all who assisted, including the World Health Organization, which delivered the scientific instruments and chemicals that are required for SARS-Cov-2 testing and put Somalia's scientists who are performing the tests at level par with other world scientists and helping Somalia.

One might ask, how these frightening numbers can be interpreted in terms of more fatalities by COVID-19 in Somalia? It is hard to answer as many variables are required to be factored in if we were to build statistical and epidemiological models that can inform the answer towards the danger the COVID-19 disease poses to Somalia. Of course, we must improve the data collection in Somalia in order to fully understand the



extent of COVID-19 disease; we must particularly improve the data on the number of tests performed. Nevertheless, the WHO recently estimated that 300,000 individuals in Africa may die of the COVID-19 diseases and that 30 million of Africans would likely face poverty. Of course, there is no certainty that these number will pan out as extrapolated but no doubt that the world is facing a risk that nothing like it had been witnessed previously – Somalia is no exception.

CONCLUSION

This brief article demonstrated the structure of SARS-Cov-2 as is very important in the understanding of the genetic testing of this deadly virus. Further, the article showed the necessary and safe steps that are involved in the handling of sample collection and preparation, RNA extraction, and eventually NAAT. Of course, we mentioned the utmost importance of following the WHO guidelines and principles to ensure the safety of the laboratory personnel who are at the forefront of the genetic testing of SARS-Cov-2. Therefore, the genetic testing performed safely and to the world standards is absolutely key to any country,

Somalia included, as we need to identify infected individuals, isolate and monitor while giving care, and ultimately releasing back to the public after becoming **negative** through rRT-PCR – at least twice within 24-48 hours.

Finally, it is fitting that we ended the article as we began “test, test, test” because it is all about testing in order to identify, isolate, treat when possible, monitor, and ultimately release the recovered individuals back to the public. We hope, and anticipate, that Somalia, with the help of everyone and anyone, to fully realize the danger of this virus as it has so far claimed the lives of over 200,000. Testing is very important towards the control of this virus, but the best recommendation is to follow every advice that relates to prevention – hand wash, covering cough and sneeze, social distancing, and more. These preventive measures and proper testing – for isolating and monitoring – can reduce and ultimately eliminate the COVID-19 fatalities around the globe and across Somalia.



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THE IMPACT OF THE COVID-19 ON FOOD SECURITY IN SOMALIA

Conflict-affected, highly indebted, import-overdependent, fragile and highly vulnerable economies like is the case in Somalia are expected to be hit hardest by COVID-19 with serious consequences.

Somalia is known to already be suffering from chronic food insecurity exacerbated by decades of protracted conflict, forced displacement and the effects of the ongoing climate change. A dangerous combination of long-lasting violent conflict and natural hazards such as extreme weather events (e.g. drought, floods) and migratory pests like desert locust compounded by weak or inexistent institutional response and crisis management capacity are some of the key drivers of the chronic food insecurity in the country.

According to the UN OCHA, which has cited the post-Dayr food security assessment undertaken by FSNAU, as of February 2020, just before the full-blown global COVID-19 crisis, more than 4.1 million Somalis were food insecure¹⁰ including over 2.1 million Internally Displaced Persons (IDPs) whose already precarious livelihoods are further threatened by the consequences of the COVID-19.

Besides, Somalia is characterized by some unique features that make the country's economy and its population highly vulnerable to the global economic, financial and food security shocks. Particularly, several intertwined factors make Somalia extremely vulnerable, namely:

Firstly, following four decades of civil strife, state collapse, recurrent famines and severe droughts, Somalia has been over-dependent on massive imports to meet its necessities such as food, medicines, fuel and other merchandise. According to the World Bank, by 2015 the import of foodstuffs in Somalia had increased eighteen folds si

nce the 1980s¹¹. The driving factors of the massive increase of food imports have to do with such factors as a) rapidly growing population, b) dilapidated agricultural production

¹⁰ <https://reliefweb.int/report/somalia/somalia-humanitarian-bulletin-1-31-march-2020>

¹¹ <http://documents.worldbank.org/curated/en/781281522164647812/pdf/124651-REVISED-Somalia-CEM-Agriculture-Report-Main-Report-Revised-July-2018.pdf>



infrastructure as a result of the long-lasting conflict and lack of new investments and/or even maintenance;

Secondly, thanks to the global Somali diaspora, which has been sending back home around two billion USD per annum, the above-mentioned massive (food) imports have been and continue to be financed with remittance money;

Third, the specific supply chains of both the remittance from Somalis living abroad and the food (and other essential goods') imports are already or will soon be disrupted by the ongoing COVID-19 crisis. In fact, following the outbreak of the COVID-19, a sporadic panic-buying of food had been reported throughout Somalia. Prices for basic food items such as rice, flour, cooking oil, sugar and (filtered) drinking water have been

increasing significantly since mid-March 2020. For instance, based on a limited number of interviews conducted by the author, as of the first week of April 2020, local food groceries in Garowe reported a price increase of around 11% for rice and sugar,

more than 20% for flour and cooking oil, etc. Prices of prepared food items like bread and filtered drinking water have also increased.

Fourth, if the pandemic persists, the international (humanitarian) aid, on which Somalia has been so dependent over the last few decades, especially to fund basic public services and emergency response, will most likely be negatively affected by the COVID-19 pandemic as the expert staff who run the aid segment head back to their hard-hit home countries. Besides, the generous international donors, whose economies are now at the brink of collapse due to the COVID-19, will most likely prioritize their domestic emergencies and funding gaps;

Fifth, Somalia's other major source of significant hard currency source is represented by the meagre Somali export, mainly the agricultural export dominated historically by the livestock export whose seasonal peak coincides with the yearly Muslim pilgrimage (Hajj). This vital economic subsector is also highly threatened this year due to the coronavirus pandemic as the major Muslim holy sites of Mecca and Medina are at the moment closed while it is very difficult to predict how the situation will evolve. As matter of fact, under normal circumstances, with its typically multi-stage and multi-agent long supply chain, the bulk of the Somali export livestock trade destined to the Middle East starts throughout the Horn of Africa several months ahead of the Hajj. With the closure of the Muslim holy sites of Mecca and Medina following the Coronavirus pandemic at a time when the seasonal peak is of the Somali livestock export is just around the corner, the prospect average performance of this sector is quite poor this year;

Finally, following the absence of effective governmental institutions for over three decades, including the Central Bank, the Somali economy is mainly dollar-based. This is yet another important factor which increases the country's overdependence on external economic and financial factors that are beyond the control of Somalis and their institutions. As the American currency has reappreciated sharply against the other major world currencies including the Euro and British Sterling following the COVID19 outbreak, the concurrent

factors of dependency on imported food and highly depreciated Somali Shilling (used mainly by the poorest social sectors), which will most likely result in hyper-inflation, will inevitably impact negatively the food security of Somalis, particularly the vulnerable poor. In this respect, based on emerging anecdotal evidence, in the last few weeks, the US dollar has reappreciated against the Somali Shilling to around 11%. Poor households including internally displaced persons (IDPs) earn their meagre income (including daily casual labor and charitable donations), which is mainly spent on food items, in local currency.

Based on the foregoing analysis of likely scenarios, it is obvious that all key dimensions of the food security in Somalia will be affected including a) availability of food (e.g. production, processing, distribution), b) accessibility (e.g. affordability), c) utilization (e.g. possible negative health outcomes), and d) stability over time.

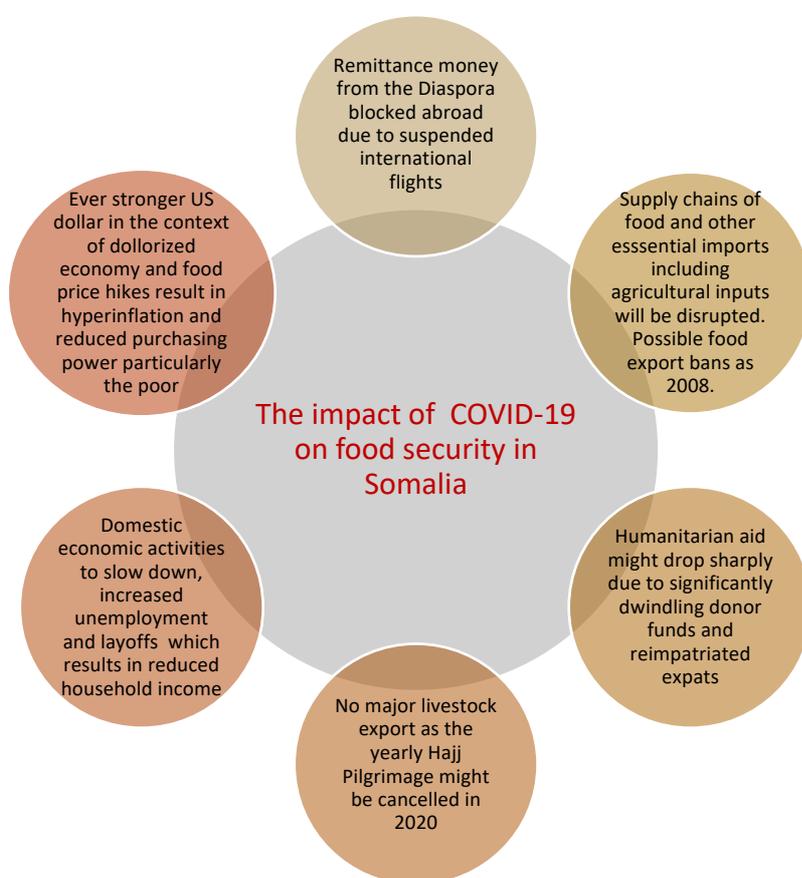
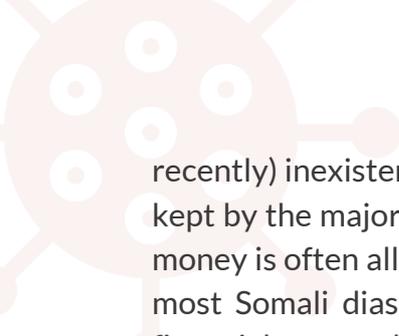


Figure 1. Some of the factors that might worsen the food insecurity in the context of COVID-19

The constrained financial sector in the context of the COVID-19 worsens food insecurity

Following the collapse of the Central government in Somalia in 1990, Somali diaspora, businesses and consumers alike have been relying heavily on the informal Somali Money Transfer Companies (MTCs) known also as Hawalas. However, with the advent of the war on terror and the global efforts to combat financing terrorism (CFT), due to its fragile or (until



recently) inexistent regulatory (financial) institutions, the Somali financial industry has been kept by the major world powers and financial hubs at the margins as the Somali remittance money is often allowed to be only transported physically from the western countries where most Somali diaspora is concentrated to the closest international commercial hubs and financial centers like Dubai where surrogate/alternative Somali trading markets have been established by Somalis. Over the years, many Somali MTCs, as well as many other Somali companies engaged in the import sector, have established their Headquarters or at least their operational basis in Dubai where a sizable amount of the supply and demand of the Somali trade meet.

With the reemergence of the Somali Federal institutions including the Central Bank of Somalia (CBS), Financial Reporting Centre (FRC) and other regulatory bodies, a lot has been accomplished in the recent years to reintegrate the Somali financial sector in the global economy in general and in the international payment circuits in particular.

While these commendable efforts have borne some fruits, it might take some time before the expected reintegration of the Somali financial sector in the global financial industry. The bulk of the remittance sent back home by the Somali diaspora via the Somali MTCs is still transported physically. This modus operandi, dictated by a combination of the war on terror, CFT and fragile Somali institutions, has been already costly, time-consuming and logistically cumbersome.

Although major Somali MTCs have now become commercial banks that are fully licensed and regulated by the CBS, most of these financial institutions are still at the seminal stage. For instance, most of the new Somali commercial banks have no access to international payment circuits and mechanisms as of yet as the CBS itself is not yet fully reintegrated into these either. Consequently, the traditional MTCs continue to shoulder the life-saving task of transferring (physically) the Somali remitted cash from the Somali diaspora to finance basic needs including food, education, health and other necessities.

Furthermore, before the COVID-19 pandemic struck, the Somali financial sector was already under huge pressure posed by some speculator forces disguised as financial brokers promising stratospheric profits under the fake pretext of FOREX, is visibly already in serious difficulty. These Ponzi schemes have dented significantly the liquidity at the nascent Somali financial institutions by taking huge amounts of cash from the local markets.

CONCLUDING REMARKS

Based on the foregoing preliminary analysis, due to its special peculiarities, it is obvious that the entire Somali economic and financial ecosystems are far more vulnerable to global shocks likes COVID-19 which exposes Somalis at more risk than most of the other fragile countries. An already fragile food security situation where over more than half of the population needs some sort of humanitarian aid is worsening rapidly due to the impact of the COVID-19 pandemic. Few other places in the world, if any, is the average citizen so dependent on the



globalized economy for income, food and other essential goods particularly on the currently heavily disrupted or altogether halted supply chains of the importation of food, cash to buy food (i.e. remittance which is physically transported by air as Somalia is cut off from the international payment circuits), medicine and other necessities.

In fact, at the backdrop of the above-cited real or potential “multiple shocks” (disrupted remittance, food imports, aid flow and livestock export coupled with a pre-COVID-19 liquidity crisis due to other internal financial stressors like the said Ponzi schemes), in the wider Somali context as one of the most complex protracted humanitarian emergencies, although the (food) markets have been generally calm as of the Mid-April 2020 it might be only matter of time before the prevailing global economic and financial crisis hits hard Somali markets too. Therefore, unless all relevant political, economic and social stakeholders come together under the leadership of the government institutions at all levels to devise an effective strategy it will be difficult to manage the ensuing crisis without significant external support.

The situation demands a concerted effort on the part of all key stakeholders including, Federal Government, Federal Member States, Somali private sector, civil society and Somalia’s international partners.

RECOMMENDATIONS

The Somali Federal Government (SFG) and its Federal Member States (FMS) should do whatever is in their power to avert a catastrophic impact of the COVID-19 crisis in Somalia. Urgent measures have to be put in place including highly competent, multidisciplinary and multistate crisis management and coordination committee.

The SFG, in collaboration with the FMS and the private sector, have to exercise the highest pressure yet on its international partners to come to the rescue of Somalia and Somalis given the unique circumstances that make Somalia different from any other vulnerable country;

Somalia’s international partners should support Somalis to facilitate the smooth functioning of the Somali money transfer industry as the imports of food and medicines are mainly financed with remittance money;

Both FGS and FMS, in close cooperation with the private sector, the humanitarian community and the religious leaders, should put in place safety nets to enable the poorest sectors of the society to get access to food during the crisis;

To the extent possible, restrictions adopted to prevent widespread contagion of the COVID-19 should not hinder the logistics of the food supply chains both domestically (during the current Gu’ planting season) and internationally (food imports);

Well-targeted fiscal stimulus for the economy in general (particularly for the productive sector like agriculture) is highly desirable both at the federal and state level. However, the government should ensure that possible tax exemption for the food imports should not be



captured by speculators and wealthy food-importing cartels but it has instead to benefit the poorest and most vulnerable consumers;

To the extent possible, small scale farmers should be supported for they are both food insecure and also responsible for the food production;

The challenges of the global COVID-19 crisis should be possibly transformed into opportunities for Somalis to become less dependent on massive food imports. In addition to the crop farming, the neglected but potentially rich fishing sector should be wisely utilized with the government providing awareness-raising, training and equipment;

Continued public awareness-raising campaigns are needed not only on health and hygiene matters that are indeed crucial but also to prevent panic (food) purchasing and speculation.



Abdirahman M. Abdi Hashi, Ph.D.

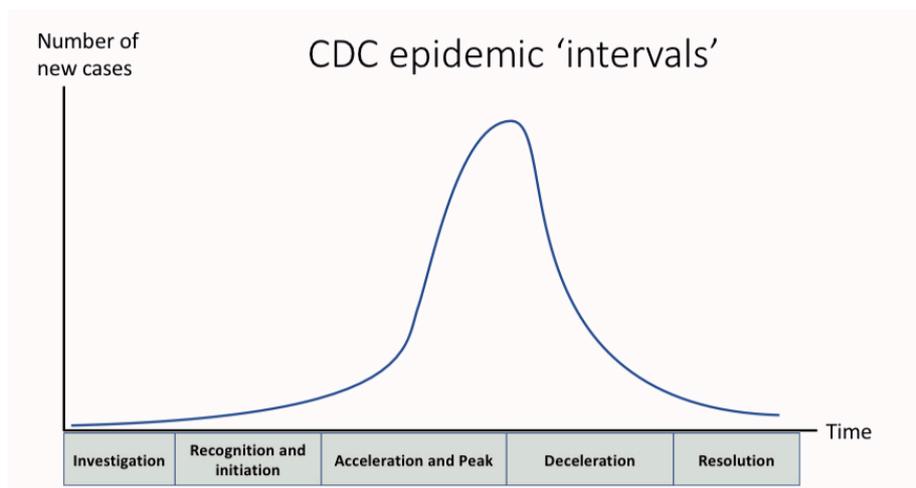
Former Minister of Fisheries and Marine Resources of the FGS

COVID-19 is the worst health crisis of our times. It is a particular disease. **It is highly infectious but not particularly deadly – especially for the healthy and the young.** Even though COVID-19 started in Wuhan, China it quickly spread to many other countries and has become a global pandemic; hitting particularly hard the developed economies of South Korea, Italy, Spain, the United Kingdom and the United States. The disease has affected more notably Iran in the Middle East; and to a small extent for the time being (as of April 2020) most of the countries in the World. We are still in the early stages of this pandemic infectious disease.

The last global pandemic disease is the Spanish influenza (Flu) of 1918. It started January 1918 and lasted up to December 1920. It was estimated to infect 500 million people. The death toll was estimated to be 17-50 million.

The **epidemiological curve** or the epi curve is widely used by public health officials to model medical shocks. Figure 1 plots the number of new cases per day against the time. The chart illustrates the typical phases epidemic diseases generally go through.

Figure 1: Intervals, or phases, in an archetypical epidemiological curve

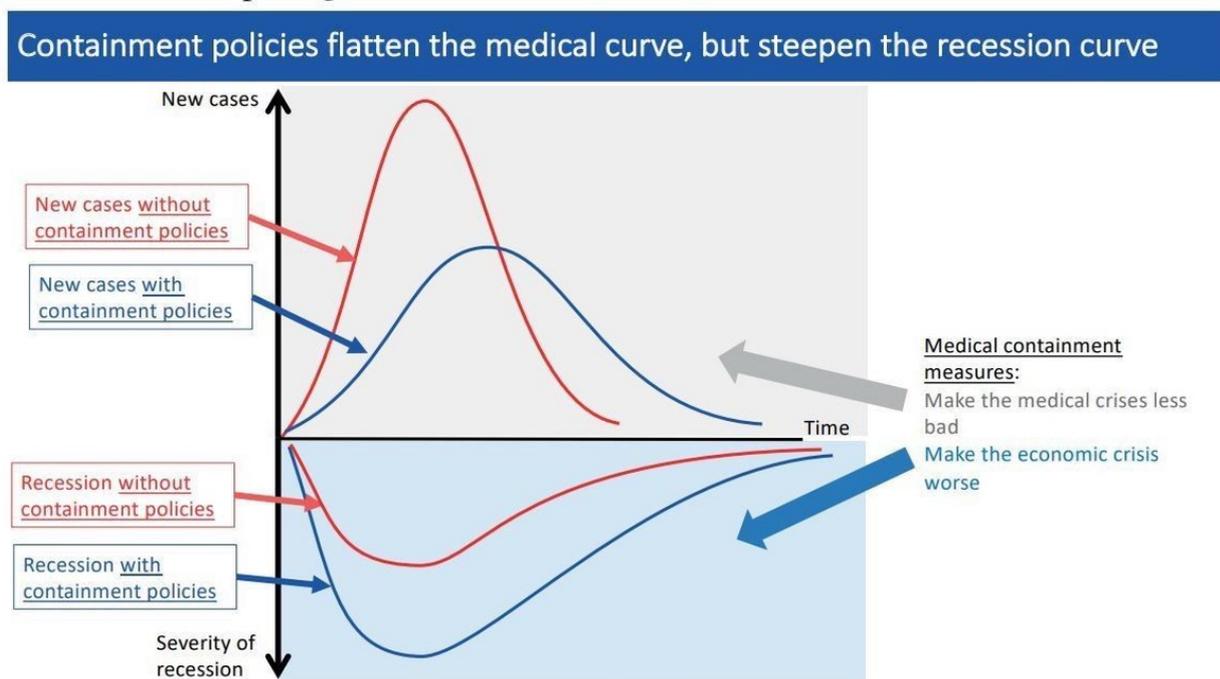


Source: CDC.gov, www.cdc.gov/flu/pandemic-resources/national-strategy/intervals-framework-508.html

Tradeoffs in Slowing the Spread of the Disease

To slow the rate of infection of the epidemic and hence flatten the epidemic curve involves containment measures such as reducing person-to-person contact in public through schools and workplaces closures, lockdowns, and travel bans (or social distancing). The result of these social distancing policies is a significant slowdown of economic activities, culminating in a recession or possibly a depression. Put it differently, the recession is the result of a necessary public health measure keeping workers and consumers away from consumption. This dynamic is graphically illustrated in figure 2.

Figure 2: Modeling the impact of containment polices and related economic effect



Source: "Flattening the pandemic and recession curves" Gourinchas, Pierre-Olivier, UC Berkeley 2020.

Upper half of figure 2 shows the **medical effect**. The red curve suggests what the epi curve would look like *without* containment policies. The blue curve indicates what the epi curve would be like *with* containment policies.

Lower half of the graph shows **the economic outcome**. The red curve shows the economic losses (negative growth) when no containment measures are undertaken. Conversely, the blue curve illustrates the recession progression when containment measures are enforced.

Economic Policies to Mitigate the Impact of Recessions

Countries generally use four major types of economic policies to mitigate the adverse impact of recessions or economic downturns:

Fiscal policies – use of tax breaks and money sent directly to majority of citizens to cover their living expenses, rents, mortgages etc. Governments finance these measures by borrowing and incurring large budget deficits.

Monetary policies – central banks reduce interest rates and purchase large volume of financial assets (in a process known as Quantitative Easing or QE) in the open markets; hundreds of billions of dollars' worth of treasury and corporate bonds, making credit available to financial institutions and corporations.

Financial regulation policies – governments significantly ease compliance with regulatory requirements for corporations which will increase their profitability and cashflows.

Social insurance policies – provision of unemployment insurance benefits to laid off workers and other social protection measures such as increase of food aid assistance to the poor and those that recently lost their jobs.

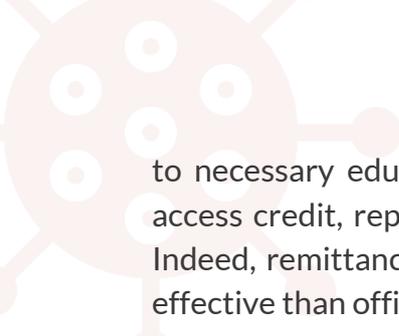
Major developed countries such as China, South Korea, Italy, Spain, United Kingdom and the United States hit hard by the Coronavirus have deployed a combination of these mitigating policies to 'flatten the recession curve' and to ease the economic hardship for those adversely affected. However, for many emerging and developing countries and more particularly fragile states stricken by droughts, famine, and protracted civil wars, such as Somalia, none of these economic policies are available to them.

ADVERSE ECONOMIC IMPACT OF THE CORONAVIRUS ON SOMALIA

As of this writing in mid-April 2020, COVID-19 afflicted severely most of the major economies in Europe and the United States where most of the Somali diaspora communities that send remittances to Somalia reside. As a consequence of the drastic containment measures, taken by the authorities in these countries, many Somalis lost their jobs; as well as others within the country who used to earn their daily living by performing variety of services in transportation, hotels, restaurants, and logistics to name a few. The impact of this misfortune has already been felt in some parts of the country and is likely to be severely felt the longer these containment measures stay in place.

Remittances from the diaspora sustain more than 40 percent of Somalis who mostly live in urban areas. Somali diaspora is estimated to be over one million and spread throughout the world. Remittances are estimated to be around US\$2 billion annually¹². According to assessments by the IMF and the World Bank, Somalia's GDP is approximately US\$6 billion which means nearly a third of the country's GDP is from these remittances. Somalia is a low-income food-deficit country, and remittances contribute to the payment of national food imports. At the household level, these funds also cover household essentials and contribute

¹² "How will Remittance Affect the Somali COVID-19 Response?", Research & Evidence Facility (EU Emergency Trust Fund for Africa), April 7, 2020.



to necessary education and health care expenses. Finally, remittances make it easier to access credit, repay debts and enables entrepreneurs to finance many business ventures. Indeed, remittances are essentially a shadow foreign aid that is larger and arguably more effective than official foreign aid.

Remittances are transmitted through Somalia's efficient Money Transfer Companies (MTC) or Hawalas that have offices in most countries of the world and throughout Somalia. Many of the international development agencies and NGOs also use these MTCs to pay their employees, cover operational expenses and fund the numerous projects they undertake. Large portion of remittances are electronically distributed through major telecom companies in the country very efficiently. Mobile phone penetration in Somalia is estimated to be over 70 percent. MTCs and Telecom are the two most successful sectors of the economy in Somalia.

The adverse economic impact of COVID-19 on Somalia will manifest in major reduction of consumption by the public due to the implementation of public health containment measures such as social distancing, travel bans, curfews, schools and workplaces closures, and urging people to stay home. Quarantine or longer-term closure of restaurants, hotels, transportation services in addition to higher food prices due to shortages will further exacerbate the economic hardships and food insecurities felt by the population since consumption makes seventy to eighty percent of the GDP.

UNFORESEEN CHALLENGES

The international banking and financial systems in the world are dominated and led by the major western countries particularly the United States and the United Kingdom. This privilege allows these countries to deny access to countries they want to sanction for a variety of reasons. The classical example is the imposition of banking and financial sanctions on the government of Iran for building nuclear reactors. The government of Somalia and more particularly the Central Bank of Somalia (CBS) has been denied the use of global payment and clearance systems because the country is deemed to be in non-compliance with anti-money laundering and terrorism financing protocols.

This burden imposed on Somalia practically reveals itself when the country wants to collect the tens or hundreds of millions of dollars it receives as a development aid. The only available avenue is for the dollar cash to physically be delivered to a vault at the CBS in Mogadishu. This sanctioning also burdens the MTCs by compelling them to transport the excess cash they accumulate during the normal course of their business to be carried in sacks flown to Dubai for deposit at their bank accounts with commercial banks in Dubai. The bulk of the cash deposits these MTCs have in Dubai is used for the purchase of food imports, construction materials, vehicles, machineries and other types of goods. The rest is used to manage the MTCs cash flow needs depending on the dynamics of their business operations worldwide.



At present, the MTCs are running low on their cash in dollars in Somalia because of the global travel ban due to COVID-19. This means, it is difficult for the MTCs to pay all the cash remittances their customers in the diaspora want to make in Somalia. This **unforeseen problem** forced MTCs to limit the amount of cash their customers in the diaspora can send to their relatives in Somalia. As of this writing, major MTCs have started rationing the amount their diaspora customers particularly in North America and Europe can send to their relatives to \$300 - 400. If the travel ban stays in effect few more weeks, the MTCs will have a severe crisis on their hands that will further aggravate and compound the major reduction in remittances from the Somalis in the diaspora who lost their jobs because of the containment policies to stop the spread of COVID-19.

To alleviate this critical problem, the Somali government must engage the authorities of the United States and the United Kingdom and find a way for MTCs to access their dollar deposits in Dubai. This challenge can preferably be resolved if the Somali government requests or pleads with the American and British authorities to lift the sanctions on the use of the international payments **temporarily** for the duration of the COVID-19 pandemic crisis on a humanitarian grounds; to avoid a catastrophe. Alternatively, the Somali government can seek the assistance of the IMF and World Bank to establish a liquidity facility that will provide credit financing to the MTCs during the period of COVID-19 pandemic.

RECOMMENDATIONS

Now that we are in the middle of a global pandemic with vast consequences, much remains unclear. Somalia's success in developing a strategy to manage this crisis will to a large extent be contingent on how effectively and efficiently it leverages the financial and material resources available in the country, and to a greater extent on how it uses resources provided by the global community. More particularly, effective response to COVID-19 pandemic will depend on how well the government handles these four areas:

Controlling and lessening the spread of COVID-19; and reducing the mortality associated with it;

Forming a national Coronavirus task force;

Transparently account for all the financial and material resources the country receives as assistance in response to COVID-19;

Implementing economic measures to mitigate the economic hardships resulting from the public health and containment policies applied to control the spread of the Coronavirus pandemic.

The management and control of the public health threat is covered elsewhere in the paper. Therefore, recommendations offered here will focus on the other three issues.

National Coronavirus Task Force

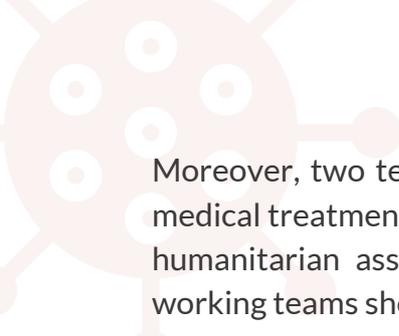
One important uncertainty is whether the leaders of the federal government will demonstrate the indispensable leadership required to weather this pandemic crisis by mobilizing resources, and bringing all people together along with a clear, coherent and comprehensive strategy. Managing and controlling the COVID-19 outbreak in the country and minimizing the associated economic recession will be a difficult test for our people.

As all nations throughout the world have done, the best way to control and manage this pandemic crisis is to form a National Coronavirus Task Force (NCTF); which must be led by the president who is the leader of the nation (in the president's absence the prime minister could chair the task force). For this task force to be considered credible and gain the trust and confidence of the Somali people, it must be **inclusive** and reach out to **all** regional governments of the country, as well as invite other crucial stakeholders such as business and religious communities, civil society organizations, and academia to mention a few. To elaborate, the NCTF should be comprised of key federal ministers and relevant federal agencies across government such as ministers of finance, health, emergencies and natural disasters, and the governor of the central bank. The NCTF should also include representatives from the federal member states, and the abovementioned stakeholders who are deemed important influencers. **Unfortunately, this has not yet been done.**

Further, the mandate of the task force must be clearly defined in a presidential decree to avoid misunderstandings, confusion and prevent the usurpation of the task force's authority and responsibilities by other governmental entities whether federal or regional. In addition, the national task force should thoroughly coordinate and work with the international community on the status of COVID-19 outbreak in the country, and convey its assessment of the financial, medical as well as humanitarian assistance needed to control the spread of Coronavirus pandemic, taking into account the considerable social impact and economic costs of the global containment measures on Somalia.

The minister of finance, central bank governor and the minister of health must very closely work with the World Bank, IMF, WHO, UN aid agencies, EU, international development aid agencies for example USAID, Dfid, and other international partners such as Turkey and China, and advocate for their country to get its fair share of the billions of dollars made available by these entities to contain the pandemic and mitigate its economic downturn¹³. More specifically; obtained resources should be effectively and efficiently used to build health facilities, secure critical medical supplies such as personal protection equipment (PPE) for health workers and breathing ventilators for ICU centers, train health care professionals, and provide food assistance for the millions of people pushed to the brink of starvation by the COVID-19 crisis.

¹³ At the opening of the annual meeting of the IMF/World Bank on April 15, 2020, the IMF Managing Director Kristalina Georgieva announced her institution increased its emergency lending capacity from USD 100 billion to USD 100 billion resources earmarked for countries to fight COVID-19 pandemic crisis to health care systems and mitigate devastation from the related severe economic contraction. According to Ms. Georgieva special attention will be paid to the twenty most fragile countries because their health system has much lower capacity and have meager resource to mitigate economic recessions.



Moreover, two technical working teams need to be formed – one for the prevention and medical treatment of Coronavirus patients; and the other for the provision of economic and humanitarian assistance to those adversely impacted by the pandemic. Both technical working teams should frequently report to the NCTF.

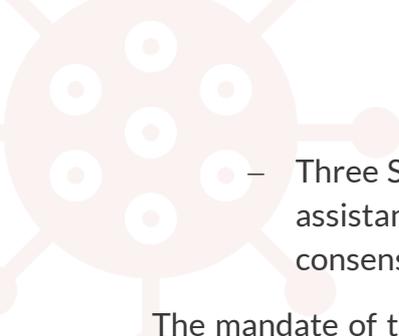
Finally, the NCTF must fully inform the Somali public by sharing regular updates about vital intervention and response plans to contain the COVID-19 outbreak such as: the number of new infection cases, deaths and recovery rates for patients infected with the COVID-19, locations of health care facilities, food and humanitarian aid received and delivered, availability of financial resources and medical supplies, and other material resources received from the global community. In these difficult times, Somali public needs to be engaged and enabled in order to gain their voluntary compliance to authorities' containment measures.

Accountability and Transparency

Financial, medical and other material support provided to Somalia to fight the Coronavirus pandemic from the IMF, World Bank, African Development Bank, EU, USAID, Dfid, other international development aid agencies, WHO, other UN humanitarian and development agencies, as well as bilateral aid from international development partner countries must be transparently and fully accounted for. To safeguard these critical resources from corruption and fraud; it is of utmost urgency that an *independent* and *credible* **Coronavirus Oversight Committee** (COC) be created in conjunction with the NCTF¹⁴. The structure and goals of the oversight committee will be similar to that of the **Financial Governance Committee** (FGC) currently in place in Somalia; which is to ensure that the country's meager resources are transparently accounted for, used efficiently and effectively, and not misappropriated during this unprecedented global event. The COC will be chaired by the Minister of Justice with the following members:

- Minister of Finance;
- Minister of Health;
- Governor of the Central Bank;
- A representative from each of these multilateral international development organizations - the IMF, World Bank, African Development Bank and the EU;
- A representative from both chambers of the federal parliament nominated by its respective speaker;
- A representative from the business community and civil society;

¹⁴ The G20 leaders are considering a stimulus package for sub-Saharan called "Initiative for Africa" equivalent to the financial stimulus developed economies undertook through fiscal and monetary policies to mitigate adverse economic effect triggered by the public health containment measures to stop the spreading of the Coronavirus pandemic. This initiative is led by France and Germany and is likely to raise significant financial resources for African countries to bolster their public health infrastructure and provide food aid and humanitarian assistance to alleviate sufferings from economic calamity.

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- Three Somali technical experts in auditing, healthcare systems and humanitarian assistance operations nominated by the federal member states (selected through consensus).

The mandate of this **fifteen members** committee must be clearly defined in a presidential decree giving the oversight committee full authority, and requiring the full cooperation of all relevant ministries and agencies of the federal and regional governments in order to fulfill its responsibilities. The committee will report regularly to the NCTF and the Somali public¹⁵.

Measures to Mitigate the Adverse Economic Consequences of COVID-19

The adverse economic impact of COVID-19 arrived very fast in most parts of the world including Somalia. The major effect in Somalia has been in money transfer and remittance industry as I have explained earlier. Last year, Somalia's economic growth rate was 3.4%. At this early stage, we don't have data yet of this year's growth rate; however, according to Hafez Ghanem, the World Bank vice president for the Africa region, the economic growth of Africa will be negative this year and will range from minus 2 to 5%, depending on how long the Coronavirus pandemic lasts¹⁶.

Over ninety percent of Somalia's economy is informal. This means most people earn their daily living by providing services in transportation, hotels, restaurants, construction work, retail trading, farming and other activities. Because of the health containment measures such as social distancing, and encouraging people to stay home or lockdowns measures; large segments of the population is facing serious difficulties in securing food for their families, and paying for other essential household expenses such as rent, utilities and transport. Many farmers are also unable to sell their produce, since most restaurants and hotels have fewer customers due to these preventative health measures. Farmers were already brutally impacted by the recent locusts' invasion that decimated their livelihoods in the process; and its swarms are still widely spreading in the region.

MEASURES TO RELIEF ECONOMIC DISTRESS AND FOOD INSECTARIES

As large numbers of people are unable to earn their daily living in many sectors of the informal economy due to COVID-19 containment and lockdown measures, and further compounded by the significant reduction in the remittances level explained earlier; the state of food insecurity throughout the country has drastically worsened, and further deterioration is expected thus pushing millions to the brink of starvation.

¹⁵ It is critical the COC cooperate and hold regular meetings with the Somali press. The committee should heed reporting in the media pointing to possible corruption, fraud and other problems relating to the activities and projects of the COVID-19 operations.

¹⁶ A virtual Chatham House Africa Programme event held on April 21, 2020 titled "Implications of the COVID-19 Pandemic for Africa and Development". The keynote speaker was Mr. Hafez Ghanem, Vice President for the African Region of the World Bank Group.



The Somali government and the international community can take these measures:

- Provide more liquidity to the formal companies through the banking system.
- Support small business enterprises through credit schemes and grants.
- Lower taxation rate, and provide tax credit
- Keep borders open to facilitate food exports and imports to address food insecurities
- Provide credit to food importing businesses to increase food availability, prevent shortages and price increases
- Support transport and logistics sector to ease delivery of food and goods
- All money transfer companies operating in Somalia should reduce their transaction fees to assist flow of remittances
- Provide credit and grants to farmers to deal with locust infestation
- Offer Cash for food to those who are very vulnerable
- Offer Food for work to those who are physically able to do so

CONCLUDING REMARKS

At this early stage there are a lot of uncertainties that make it hard to predict accurately how the Somali government will handle this pandemic. And yet, answers to the following questions; will determine if the country will be successful in overcoming this challenge: To what extent the NCTF will successfully live up to its mandate and execute its plan and strategy to fight COVID-19? Will the government fully and transparently account for **all** the financial and other resources the world community provided to effectively deal with the pandemic? Would the president rise to the challenge and bring all the country together in these difficult times?

Other uncertainties that will determine the scope of devastation of this pandemic disease at the global level will depend on the answers to these questions: How long will it take to completely contain the spread and human transmission of COVID-19 pandemic? What is the likelihood that there will be recurring epidemic waves? And how long will it take to find a vaccine for COVID-19?