Background

Since the first emergence of the novel viral strain of SARS-CoV-2 in late 2019 in Wuhan, the virus had undergone series of re-emergence through evolution: Alpha, Beta, Delta and most recently Omicron. Continued uncontrolled transmission of the virus in many parts of the world creates conditions for substantial evolutionary changes we are witnessing. Despite a serious concerted effort by the international institutions, governments and researchers for the timely development of vaccines, yet the pandemic seems to spread unabated.

The world, especially Africa, is experiencing an increase in the frequency and impact of emerging infectious diseases. About twenty five (25) reported outbreaks of Ebola disease have been reported since 1976 in sub-Saharan Africa with the 2014-2016 outbreaks in West Africa being the deadliest with about 28,000 infections and 13,000 mortality cases reported. The COVID-19 pandemic within two years (December 2019-November 2021) has infected over 258 million people, with over 5 million mortality cases reported.

The COVID-19 is also having a severe impact on the global economy and African countries were not spared in the COVID-19-induced economic challenge. The economy of the continent is badly hurt. This is demonstrated clearly by an astronomical surge of inflation in Nigeria and many other developing countries in Africa. The lockdown during the pandemic prevented trade and commerce between neighbouring African countries leading to serious social unrest in major cities in Africa. The devastating impact of this pandemic on global health and the economy has inspired international leaders and agencies to promptly mobilize resources and expertise to control the outbreak. Countries engage in aggressive genomic surveillance, rapid diagnostic testing and efficient border control. However, most African countries lack the capacity to deploy these measures. In an unprecedented manner, effective COVID-19 vaccines were developed by various biotechnology companies with adequate funding and support from governments in developed countries. In addition, research is ongoing to develop pharmaceutical therapy that may cure the infection.

In contrast, Africa has demonstrated little capacity for vaccine production and genomic surveillance. A single Nation like the United Kingdom sequenced thousands of strains of
SARS-CoV-2, way more than what the entire continent had sequenced. Also, no single indigenous research institute or pharmaceutical firm in Africa has developed the COVID-19 vaccine. The whole continent depends solely on hands out from the developed countries and sometimes jumps on the long queue for outright purchase, where we are rarely prioritized. It is obvious that African Leaders should pay more attention to addressing disease outbreaks. A late response to the outbreak, unsustainable fund mobilization for research and innovation, and corruption are some factors negating the fight against pandemics in Africa.

In recognition of these health security challenges in Africa, Global Emerging Pathogens Treatment Consortium (GET) organizes webinar series that bring together experts and stakeholders in relevant sectors. One of the webinars organized in December 2021 clearly highlighted the impacts and opportunities of COVID-19 and proposed some measures to mitigate the impacts of the pandemic in Africa.

**Strategies Proposed for African Leaders to Combat Infection Disease outbreaks in their Regions**

1. Removal of national and regional boundaries to foster cooperation and cross-innovation. It becomes imperative for African leaders to close ranks and foster a clear path to self-reliance on infection and all forms of biosecurity threats. The leaders should deepen regional cooperation and innovation amongst its researchers than perennial dependency on developed countries. Research collaboration and sharing of knowledge and information and collective funding amongst countries in the region is imperative to effectively tackle emerging biosecurity threats.

2. Africa should build up a resilient and efficient system that can better respond to any pandemic. Government should develop strategies for public health and economic threats mitigation measures. There is an urgent need for improved capacity for efficient diagnostic and effective genomic surveillance.

3. Embrace bold innovations like vaccine manufacture. It’s quite disturbing that the entire continent still lacks the capacity to manufacture vaccine. African governments individually and collectively should invest in research and provide an enabling environment for experts and investors to commit resources to research and produce vaccines in response to the challenges of emerging infectious diseases. This may be a capital intensive project; however, there can be opportunities for a collaborative partnership with already existing vaccine manufacturing firms to establish and manufacture vaccines in interested African countries. Rwanda and Senegal
government have engaged a vaccine producing company BioNTech to manufacture the vaccine in their respective country.

4. Deploy massive education and advocacy to drive adoption among the population. It is imperative to encourage a massive social system to drive vaccine acceptance among the population. Government, non-governmental stakeholders, including youth, faith-based organisations, CSOs, need to ramp up their involvement within sociocultural peculiarities of communities to conscientise and adequately enlighten towards the benefit of the vaccine.

5. Improvement in resources mobilization for healthcare. Amidst the paucity of funds predominant in the African region, the government should begin to encourage massive private sector investment in the health sector. The pandemic allows some governments globally to create COVID-19 investment by encouraging private sector investment in laboratory diagnostic and vaccine manufacturing while the government ensures strict regulation and policy compliance. This has stimulated jobs creation, increased tax (both company and personal).

Recommendations:

i. African policymakers and governments should support scientists and health professionals to strengthen biosecurity through collaboration and cooperation amongst researchers across the continents. Medical and epidemiological services must be strengthened to tackle emerging biosecurity threats effectively

ii. Consistent efforts towards building capacities to respond to emergencies and flattening the waves of infections should be at the core of the proactive strategies against adverse effects of emerging diseases.

iii. Local vaccine manufacturing should be at the centre of making vaccines available to Africans. Thus African governments individually and collectively should invest in research and provide enabling environment for experts and investors to commit resources into research and production of vaccines in response to the attendant challenges of emerging infectious diseases.

iv. African leaders must develop innovative methods to increase its resources mobilization for healthcare. Tax Reform, Procurement Reform, Public financial management reform, partnership with the private sector are some of the strategies advocated.
v. African countries should work closely with international partners to ensure adherence to common standards and compliance with binding Conventions, Protocols and international agreements.

About GET

**Global Emerging Pathogens Treatment Consortium (GET)** was established in 2014 as a direct response to the 2014-16 Ebola virus disease outbreak in West Africa and ongoing outbreaks of Lassa Fever, Meningitis, Multidrug resistance (MDR) enteric fevers and Yellow Fever across the sub region. There was clearly a need to create an African-led multidisciplinary forum of experts capable of working together with international partners to strengthen Africa’s preparedness and resilience in tackling such infectious disease outbreaks caused by emerging pathogens, public health emergencies and pandemics.

GET found the understanding of biosecurity to be a very underdeveloped area on the continent with clear opportunities for using biosecurity to dramatically improve on capacity for prevention and medical countermeasures during public health crises. GET now operates firmly in the African Biosecurity and pandemic preparedness, space and functions as a think tank, providing high level advocacy and operational and necessary expertise to support Countries and communities achieve improved resources to combat outbreaks and other public health emergencies that can threaten stability, peace and security thereby undermining economic growth and well being. The consortium is working with international collaborators with a goal of providing strategic recommendations and establishing infrastructure and research capacity to respond to highly infectious emerging Pathogens such Ebola, ongoing COVID-19 Pandemic.

The Consortium creates a rapid informed response strategy and provides advice and guidance to African countries, and a point of reference for international funding and aid agencies.