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## RESEARCH ARTICLE

### Africa: Lessons Learned from COVID-19 Pandemic

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#### ABSTRACT

This article is following on the previous paper published in the wake of COVID-19 Pandemic on “Africa: the most vulnerable continent to COVID-19 Pandemic.” The article highlights lessons Africa has learned in the fight against the pandemic in African context, hoping to understand challenges facing Africa and gathering best practices in handling future pandemics. Comprehensive research on relevant studies published between January 2020 and October 2022, on how Africa handled the pandemic, was used as method of the research. The findings illustrated that the pandemic presented a serious threat to human life and devastating to socio-economic life. African governments responded promptly and managed to disregard all the forecast worst-case scenarios predictions, but the approach used failed to take into consideration the community involvement seen as key priority in addressing the pandemic. Involvement of the community and community health workers are critical in fighting future pandemics. The lockdown measures ordered by African governments failed taking into consideration the preservation of livelihood resulting into economic hardship, rising levels of inequality and poverty especially the vulnerable population. The human rights and protection of civilians were under severe strain, restricting fundamental rights and freedom, perpetuating violence and Gender-Based-Violence. The adherence to COVID-19 health guidelines faced serious challenges due to household overcrowding in Sub-Sahara African settings leading to household transmission, physical and mental problems, worsening non-communicable diseases. Low level perceived severity and susceptibility of Coronavirus by majority of Africans has resulted to population engaging in unhealthy behaviors that could predispose them to future pandemics and increase vulnerability. The pandemic has disrupted education and impacted on psychosocial wellbeing of school children. Less governments enforcement of the pandemic measures instituted, circulation of fake news and unscientific misinformation and African cultural aspect of communal pattern of living have contributed to defying adherence to the Pandemic’s measures and viewing social distance as anti-cultural aspect. The emergence of Coronavirus has exposed deteriorating health structure and weak health system in Africa, with weak testing capacity, inadequate admission facilities, weak laboratory system and lack of medical equipment. Lack of political will identified as one of the major reasons for poor health structure in many African countries. In conclusion, it is fundamental that the Coronavirus measures be implemented together with introduction of economic safety as social protection system. Prioritizing Gender Based Violence and setting local network and community led organization to provide Gender based violence survival-centered service support and care remain indispensable. Critical for Sub-Sahara Africa to perceive the severity and susceptibility of engaging in risky behavior and promote engagement in health-related behavior to avoid the impact of future pandemics.

## Introduction

The Coronavirus, a new severe acute respiratory syndrome, first identified and reported from Wuhan, China in December 2019 is highly contagious, spreading globally in short period of time. It was declared a pandemic on March 11, 2020. Africa being the last continent to be hit by the pandemic with the first case of COVID-19 recorded in Egypt on 14<sup>th</sup> February, 2020. From Sub-Sahara Africa, the first case reported was in Nigeria on 27<sup>th</sup> February 2020 diagnosed in a foreigner traveling from Italy.<sup>1</sup>

Africa was expected to be the most vulnerable continent with major impacts. Under the circumstances of the continent weak health system and large immune-compromised population owing to high prevalence of malnutrition, anemia, malaria, HIV/AIDS, tuberculosis and poor economic conditions, the pandemic in Africa was expected to be challenging. The WHO Africa focusing on high disease burden in Africa estimated that there were 26 million people infected with HIV, 2.5 million with tuberculosis, 71 million with hepatitis B or C and 213 million with malaria in the African Region.<sup>2</sup> The principal unprecedented challenges posed by the pandemic for African Countries include poor health structure, weak health system, limited capacity for public health surveillance, inadequate trained medical personnel, overdependence nature of African countries on international community for assistance without taking first step and the challenge of the precautionary measures to contain the spread of the virus such as social distancing, isolation, quarantine and lockdown that could shutter African social and cultural life. According to the Infectious Disease Vulnerability Index (IDVI) 2016, out of 25 Countries most vulnerable to infectious diseases, 22 are in the African Region.<sup>3</sup> World Bank Africa forecasted the economic growth in the region to decelerate from 4.1% in 2021 to 3.3 in 2022.<sup>4</sup>

All the above-mentioned factors, and more, have left many people worldwide wondering whether the Sub-Sahara Africa was ready for the pandemic. The preoccupation has led to the forecast worst-scenarios predictions from various experts. Africa was predicted to see 122 million infections, 2.3 million hospitalization and 300,000 deaths.<sup>5</sup> Bill Gates had alerted, "If left unchecked in the region of crowded slums and flimsy health systems, the disease could claim a horrifying 10 million African lives."<sup>6</sup>

Despite the fact that many outstanding research publications addressing the issues of the lessons Africa has learned from the pandemic, this paper seeks to contribute to the ongoing deliberation from the more sober and objective

view point. The aim of the article is to identify the extraordinary challenges Africa encountered in its fight against COVID-19 pandemic and draw a comprehensive and valuable lessons the African continent has learned from the uncompromising pandemic in the unique African context.

To achieve the aim and scope of the paper, the researcher reviewed articles published by scholars and experts, between January 2020 and October 2022, particularly, on the lessons Africa has learned from the pandemic. The results were grouped and systematically presented in this article.

The article is very significant because the crucial lessons learned could facilitate Africa to successfully tackle the future pandemics like Coronavirus and build resilience healthcare systems in Africa. The work could prove useful in addressing the continent's challenges in areas such as government responses, significant health infrastructure gaps, weak health systems, weak surveillance system, adherence to health guidelines, low level perceived severity and vulnerability to the pandemic, challenge to education, Sub-Sahara African setting of overcrowded house and economic challenge.

The main problems that the article seeks to address are the responses of African Governments and African people to the Coronavirus pandemics. The approach used was inadequate as governments in many African countries assume solitary responsibility to control the virus, taking less consideration involvement of community as key priority in addressing pandemics.<sup>7</sup> The lockdown measures, ordered by African Governments managed to slowdown the impacts of the virus. However, the preservation of the livelihood was less taken into consideration, without introducing economic safety net as social protection system, resulting into economic hardship, raising the levels of inequality, poverty especially for informal workers and vulnerable population.<sup>8</sup> The measures have also put human rights and protection of civilians under serious strain, restricting basic rights and fundamental freedoms and perpetuating violence and Gender-Based-Violence without providing access to survival-centered service support and care.<sup>9</sup>

The adherence to COVID-19 health guidelines also faced severe challenges due to household overcrowding in Sub-Sahara African settings, contributing to household transmission, physical and mental problems and worsening non-communicable diseases.<sup>10</sup> Low level perceived severity and vulnerability to COVID-19, combined with less governments' enforcement of instituted measures, circulations of fake news and unscientific

misinformation and African cultural aspects of communal or collective pattern of living have resulted into high level of defying adherence to Pandemic measure, viewing social distancing as anti-cultural and high level of vaccine hesitancy and skepticism among youth and women.

The emergence of COVID-19 Pandemic has exposed deteriorating health infrastructure and weak health systems principally in Sub-Saharan Africa. Most health facilities in the continent have weak testing capacity, inadequate admission facilities, weak laboratories system, lack of medical equipments such as ventilators necessary for administering oxygen therapy, combined with challenges of poor surveillance management and substandard transmission of Data.<sup>11</sup> Inadequate investment in health due to lack of political will together with corruption could worsen health crises response as they divert away resources needed to strengthening health system to fight the pandemic and future pandemics.<sup>12</sup>

Despite all the challenges, Africa has much less confirmed cases and related COVID-19 deaths cases. However, the figures reported are thought not to be corresponding to the real impact of COVID-19 in Africa given prevalent under testing and underreporting arising from weak health systems and weak COVID-19 surveillance system in Africa.

## Method

The research conducted a comprehensive study on peer-reviewed literatures relevant to the study published between January 2020 and October 2022 regarding how Africa, as a continent, handled the COVID-19 Pandemic. The search for the articles were focused on lessons Africa has learned from the pandemic such as African governments handling the situations, challenges of socio-economic impact, adherence to COVID-19 Pandemic guidelines, health structure and health systems in Africa, COVID-19 surveillance in Africa, etc. The data collected were managed using endnotes references.

## Results

The results of the paper reveals that the pandemic presented a serious threat to human life and devastating to socio-economic life. African governments responded promptly and managed to disregard all the forecast worst-case scenarios predictions, but the approach used failed to take into consideration the community involvement seen as key priority in addressing the pandemic. The lockdown measures ordered by African governments not only neglected the preservation of livelihood resulting into economic hardship,

rising levels of inequality and poverty especially the vulnerable population but also putting human rights and protection of civilians were under severe strain, restricting fundamental rights and freedom, perpetuating violence and Gender-Based-Violence. The adherence to COVID-19 health guidelines faced serious challenges due to household overcrowding in Sub-Saharan African settings leading to household transmission, physical and mental problems, worsening non-communicable diseases. Low level perceived severity and susceptibility of Coronavirus by majority of Africans has resulted to population engaging in unhealthy behaviors that could predispose them to future pandemics and increase vulnerability. The pandemic has disrupted education and impacted on psychosocial wellbeing of school children. Less governments enforcement of the COVID-19 measures instituted, circulation of fake news and unscientific misinformation and African cultural aspect of communal pattern of living have contributed to defying adherence to the Pandemic's measures and viewing social distance as anti-cultural aspect. The emergence of Coronavirus has exposed deteriorating health structure and weak health system in Africa, with weak testing capacity, inadequate admission facilities, weak laboratory system and lack of medical equipments. Lack of political will identified as one of the major reasons for poor health structure in many African countries.

## Discussion

### Government Responses to COVID-19 Pandemic

The first lesson learned from Coronavirus is that African people saw the virus as a real threat. Although Africa was among the last regions Coronavirus touched with the first case reported in Egypt on February 14, 2020, the emergence of COVID-19 Pandemic was viewed as devastating to human lives and serious risk to socio-economic due to Africa's poor infrastructure, weak health system and poverty. The virus was a real test to the resilience of government systems and institutions. The fear was the reason for swift government responses, declaring emergency and issuing of executive orders to curbe the freedom of movement and peaceful assembly. Study published in the LANCET demonstrated that 72 percent of African countries implemented five strict COVID-19 control measures approximately 15 days before reposting the first case.<sup>13</sup> Governments in Africa issued strict control measures, including international restrictions, school closures, cancellation of public events, banning all public gatherings and safety protocols like

wearing of facemasks, social distancing, and lockdown measures among others.

African governments take recognition for the swift response of treating the virus as a national crisis and not a political issue because the threat and the subsequent control measures enable people to some extent adhered to the safety protocols. The fact that Africa managed to defy all the forecast worst-case scenarios predicting some 3.3 millions African yielding to the virus was accredited to African governments as a relative success in the fight against COVID-19 Pandemic.<sup>14</sup>

However, crucial lesson learned in the fight against the pandemic was the inadequacy of the approach used by most African governments. One of the major errors most African governments made was to presume that it was the government sole responsibility to manage the pandemic. The tasks played by the local community were less taken into consideration, failing to meet the grassroots needs. Government efforts were perceived as mournfully inadequate. Community empowerment and involvement of community leaders and increasing government-NGOs Collaboration were observed to be more effectual strategies in the war against pandemics. Community led informal response could emerge as key priority to address the pandemic. Pandemic preparedness should extend far beyond health sector and effective response be multisectoral and incomparably stronger grassroots participation. Community engagement and involvement be strongly encouraged as central to success of implementation of COVID-19 preventive measure in Africa. Peer support approach, public-private partnership are fundamental to reverse the current trends of non-adherence to preventive measures. E.g. Youth leaders, time and again volunteers developed initiative communication methods in Nairobi that resourcefully played crucial role in raising awareness on COVID-19 Pandemic. Residents developed a new-street-initiatives in collaboration with government. In Kampala, involvement of self-organized collectives, with horizontal governance structures were well received by residents.<sup>15</sup> Community health workers also plays important role in fighting COVID-19 Pandemic and serves as bridge between communities and health system especially in weak health system. Training and developing more community health workers and encouraging them through financial and non-financial incentives are critical in fighting future pandemics in Sub-Saharan Africa.<sup>16</sup> Developing community driven interventions to address menacing challenges would prepare, strengthen resilience to multiple socio-economic, environmental and other shocks.<sup>17</sup>

Effective governance is therefore considered crucial since any measures to fight the spread of virus will be ineffective if not implemented at the lowest levels of government.<sup>18</sup>

### **Challenges of Adherence to Health Guidelines**

In an attempt to curb the spread of COVID-19 Pandemic, African countries have joined the rest of the continents in imposing a severe measure of stay-at-home orders. The order might have worked in other parts of the world but in Africa the order was defied not only for the fear of dying with hunger but also for various reasons:

Sub-Sahara African settings, especially the densely populated, made it difficult, if not impossible for urban settings observing social distancing. The levels of household overcrowding in Africa and the quality of housing have made social distancing very infective. COVID-19 has exposed the link between health and housing. Stay-at-home order is not possible for homeless individuals and social distancing is difficult to practice in overcrowded house. The orders have contributed to the household transmission of COVID-19, making housing become key site for the virus transmission. Extended lockdowns in poor quality housing has also resulted in physical and mental problems. It could worsen also non-communicable diseases such as anxiety, irritability, insomnia, depression and Post-Traumatic Stress Disorder (PTSD).<sup>19</sup>

Low level perceived severity and susceptibility of COVID-19 was another reason for unhealthy or risky health behavior. According to Health Belief Model (HBM), the likelihood of a person to adapt health related behavior is the function of person's belief in the personal threat and the effectiveness of the recommended health behavior or action. Individuals who perceived that they are at high risks of susceptibility to a particular health problem are more likely to engage in the health-related behavior to reduce the risk. Instead, those individuals with low perceived susceptibility may deny the existence of disease or that it will not infect them even if it exists. They are more likely to engage in unhealthy or risky behavior.<sup>20</sup> This could mean that people could only recognize threat of a disease if they perceive its severity and their susceptibility. Behaviors like social distancing is influenced by perceived benefit, which is individual assessment of the value or efficacy of engaging in such behavior to the decrease the risk and perceived barriers, which are individual assessment of the obstacle to behavior change that could include perceived inconveniences, expenses, danger and discomfort involved in the behavior.

This could explain the reason for defying the social distancing order by many Africans. Africans perceived low risk of getting infected with Coronavirus. They had a high self-efficiency in their perception to overcome the virus. The risk perception of acquiring the virus was low. People perceived most of the people infected were travelers from abroad and their associates. They believe that the virus does not kill a black man and that was visible in some Africans towards handling of corpses of people who died of the virus. Corpses were carried bare hands or in crowded environment. The belief in the availability of herbs and religious activities like prayer, fasting and miracles promoted unhealthy related behaviors, predisposing many Africans to the disease and increasing vulnerability.<sup>21</sup>

Initially, many people were frightened by COVID-19 Pandemic and were ready to hold on to the preventive measures. However, when people started noticing that deaths were not occurring as predicted, people became relax in observing the preventive measures. Governments' less restriction in reinforcing the measures instituted contributed to free movement of people.<sup>22</sup> In South Sudan, the low number of confirmed cases and deaths reported has seriously impacted the overall population perception risk of COVID-19 which has resulted to people reluctance to wear face masks, maintaining social distancing and getting vaccinated. It was further aggravated by lack of enforcement to adherence to public health measures.<sup>23</sup>

Circulation of fake news has created significant obstacle to observing COVID-19 health guidelines and resulted into high level of vaccine hesitancy and skepticism especially among young men and women. Some of the unscientific misinformation was responsible for defying adherence to COVID-19 measures. People say young people are immured to the pandemic, communities without soap believing in the use very hot water for washing hands and that masks are not meant for them but for particular class of people and race. People believing that COVID-19 for the rich and that God is annoyed with human beings because they have abandoned him by stopping to gather for worship among others.<sup>24</sup>

African cultural aspect has also contributed to resist social distancing order. African communal or collective pattern of living made social distancing anti-cultural as Africans prosper on the principle of communal life. Ubuntu philosophy that expresses that a person is a person through other persons considered human being not an island and believes that human being do badly when isolated from other. In such

environment of shared space, being together, handshaking and hugging, social expectation, festivals, baby naming, marriage ceremonies, funeral rites, tribal head installment are highly valued. They are social milestone events that bind communities together and fulfill existence in societal expectation. The social distancing obliterates the love cultural and psychosocial values of African communities.<sup>25</sup>

For behavior to change, the perceived benefit must outweigh the perceived barriers. For Africans, the benefit of engaging in social distancing, merely, to prevent the spread of the pandemic does not outweigh the social benefits, which are lose of social activities, revenue, job, personal relationship, recreation and the like. Modifying demographic variable (age, sex, race, ethnicity and education), psychosocial (personality, social class, peer and reference group pressure) and structural variables (Knowledge about the disease and prior contact with the disease) are required to affect health related behavior to enable individuals perceived the seriousness, susceptibility, benefits and barriers to social distancing.<sup>26</sup>

Despite the challenges of Sub-Sahara settings of overcrowded house, economic hardship, the low-level perceived severity and susceptibility, social distancing as the fundamental non-pharmaceuticals measure of controlling the spread of the virus remains indispensable if Africa has successfully handle future pandemics such as COVID-19 Pandemic. It is crucial for Africa to promote engagement in health-related behavior such as social distancing. It is possible and hopeful that Africa can come to a decision to adapting health-related behavior to avoid impacts of future pandemics. According to Precaution Adaption Process Mode(I PAPM) change occur as dynamic, over time through process of adaptation that comes in seven stages: Being unaware of the issue, like COVID-19; becoming aware but still does not take it as a problem; becoming aware and start engaging in decision making, searching for solution; deciding not to take change like social distancing or rethinking the decision-making process again; and finally, the decision is accepted that there is an issue and beginning new health related behavior.<sup>27</sup> Protection Motivation Theory stresses that people protect themselves from infectious disease based on two appraisal systems: The "threat appraisal" which is the assessment of severity and vulnerability people face due to harm from unhealthy behavior and "Coping Appraisal" which is the assessment of how to respond to the situation.<sup>28</sup>



Science has shown the path that the only way preventing contamination is for people to stay at home. However, to reduce susceptibility to future pandemics and improve health and lives of all citizens, African governments have to adapt strategies to prevent the spread of COVID-19 without neglecting communities experiencing household overcrowding. They have to improve the existing inequitable structures.<sup>29</sup>

The control measures implemented by African Governments have also put human rights and protection of civilians under severe strain, restricting fundamental rights and freedoms. It has perpetuated increase in violence. In Harare, people in dense neighborhood were confronted with profound health risks and the risk of pandemic was exploited to justify demolition and eviction and the displacement led to higher density. In Nairobi, the pandemic led to police brutality.<sup>30</sup> A 2020 report found that 73 percent of forcefully displaced women interviewed across 15 African Countries reported lofty cases of domestic violence or intimate violence due to the pandemic. 15 percent reported sexual violence and 32 percent observed rise in early and forced marriages. Indeed Social isolation was witnessed as a foremost menace feature of aggression. It gave rise to women and girls becoming susceptible to sexual coercion, manipulation and cruelty, leaving them without any protection and perpetuating the ongoing circle of violence. The United Nations Population Fund (UNFPA) had estimated the pandemic could cause up to 13 million girls becoming child bride over the next decade.<sup>31</sup>

Confinement measures imposed by African Governments to restrain the spread of COVID-19 were necessary. However, it failed to provide preventive programming to raise awareness of Gender-Based Violence (GBV). Promotion of gender equitable behaviors and norms among children and adults is fundamental to avoid situations of abuse and exploitation of women and girls. Tackling Gender Based Violence is becoming a priority health care need in crises settings carried out through responsive policies and interventions. It is fundamental that governments prioritize Gender Based Violence in emergency preparedness and response plan. Local networks and community led organization is deemed indispensable to provide “accessible survival-centered services, support and care”<sup>32</sup> for women undergoing brutality during pandemics.

### **Significant Infrastructure Gaps and Weak Health System**

It is worth recognizing that African Union launched the African Centres for Disease Control and Prevention (ACDC) to help prepare the continent for epidemics and pandemics following 2014-16 Ebola outbreak and millions of dollars invested by the African Development Bank and organizations such as the World Bank, Partners nations and foundations to boasted the capacity of the Centres and the regional collaborating Centres to handle disease outbreak.<sup>33</sup> It has resulted COVID-19 testing capacity increasing from two national laboratories in February 2020 to about one thousand laboratories in early 2021 across African regions and availability of rapid antigen diagnostic testing.<sup>34</sup>

Despite the efforts made, the emergence of COVID-19 Pandemic has exposed the crumble in health infrastructure and weak health system in Africa, especially in Sub-Sahara Africa. The continent has some of the world weakest health systems and most dilapidated healthcare infrastructure.<sup>35</sup> In African context, dilapidation in health infrastructure was manifested in the inability of existing hospitals to manage COVID-19 patients. Most health facilities in Sub-Sahara Africa could not test for Coronavirus and lack admission facilities for critical care of patients with late stages. The admission space to accommodate the then rising daily number of COVID-19 cases were limited and lack of equipment remain major challenges in fighting the pandemic. Shortage of ventilators exists in majority of Sub-Sahara African countries. Most countries in Sub-Sahara Africa face insufficient oxygen concentrators necessary to administering oxygen therapy. Worst still the exorbitant cost of delivering oxygen per minute to critically ill patient is barely affordable by majority of Sub-Sahara African countries.<sup>36</sup> In April 2020, WHO revealed that there were only 2,000 ventilators across 41 Sub-Sahara African countries and 5,000 intensive care beds across 43 Sub-Sahara African Countries.<sup>37</sup> South Sudan had just one Centre for severe and critical COVID-19 based in capital Juba fully equipped in line with WHO International standard with 4 ventilators and 24 ICU beds for its 12 million population<sup>38</sup> This calls for improvement of health infrastructure which requires creation of more health isolation facilities and provision of medical equipment, improved laboratory capacity to increase testing and training and motivation of health workers through remuneration and provision of protective equipment.<sup>39</sup>

Due to weak laboratory systems and ineffective data transmission in Africa surveillance,

there were widespread underreporting of COVID-19 cases in many African countries. By April 2022, Africa had 11.5 million confirmed cases and 252,000 COVID-19 related deaths, though World Health Organization estimated number of infections to be as much as 97 times greater than the reported cases.<sup>40</sup> Although cases of infections and mortality surveillance reporting and monitoring the number of infection and deaths were recorded daily or within a week, many African countries continue to implement COVID-19 surveillance with many challenges identified which include limited skilled staff to ensure effective response contributing to poor surveillance data management and substandard transmission of data.<sup>41</sup> COVID-19 response activities are limited in rural Sub-Sahara Africa due to lack of resources and poor road network among others. Sample collection and transportation from countryside presented significant challenges not only for contact tracing, case isolation and finding but also for the fight against the pandemic.<sup>42</sup> Tailoring the use of mobile laboratories to ensure surveillance in remote areas is critical as the majority of the African population live in rural areas. Strengthening surveillance capacity in Africa to quickly identify, trace, quarantine and monitoring the trend of pandemic overtime remain a priority in the fight against future pandemics.

The poor level of health-infrastructure in many African Countries is attributed to lack of investment in health. Lack of investment in medical and diagnostic supplies has made it harder for African nations to effectively response to COVID-19 Pandemic. Lack of political will is responsible for shortage of investment in health system. Many African governments expenditures on health always fall short of the Abuja Declaration demanding at least 15% of the total budget be allocated to health. Many African countries rely on donors for test kits and other laboratory requirements which results to limited health facilities and low health workforce.<sup>43</sup> Stronger health system governance is critical for boasting health system resilience. Strong political will by African governments is therefore mandatory to strengthen health system by providing more resources to health sector. Generating domestic resources for emergency health responses is essential to create resilience and sustainability without heavily relying on external sources. Health financing is critical in the fight against the pandemic disease and future pandemics.

COVID-19 Pandemic is also viewed as an opportunity for international cooperation that acts to speed up innovation and structural transformation in health. Strengthening global

health cooperation is obligatory if Africa has to surmount future health crises like Coronavirus. International organizations such as the Gates Foundation, States and most capable suppliers need to work together to strengthen health system for the survival of the world poorest countries.<sup>44</sup> Collaboration in expansion of competency for disease prevention and control is fundamental to creating resilience healthcare system. Dr. Rebecca Katz, Director of Georgetown's Centre for Global Health Science and Security observed that international collaboration is more than just one-off funding for laboratory equipment and staff. International collaboration has to aim at strengthening developing countries laboratories and health system to quickly detect, track and response to infectious disease threats, address lack of testing and surveillance capacity. Dr. Tom Inglesby, Director of the Centre for Health Security at the Johns Hopkins Bloomberg School of Public Health also stated that the response to the novel emerging infections all depend on labs being able to get the diagnosis right and the ability to scale up diagnostic efforts in the community.<sup>45</sup>

It has been noticed that Africa has huge potential to manufacture vaccines as visible in countries like South Africa, Nigeria, Senegal, Egypt, etc. Vaccine production on the continent is fundamental if the populations' vaccine's hesitancy and skepticism against vaccines originating from the West has to be eradicated. However, it will take time before Africa achieves its full potential in vaccine manufacturing and will involve technology transfer and training. Since vaccines manufacturing is tightly managed and controlled, companies and governments be subjected to stringent regulations set by the World Health Organizations, partnership between African Institutions and Western Institutions is critical. Western Institutions could build the capacity of African Institutions to do research and manufacture vaccines in the continent.<sup>46</sup>

COVID-19, may also be used as a flat form for corruption which could become detrimental to the crises response. Corruption could be detrimental to advancement in emergency response management, as it diverts the valuable much needed resources away from national health system indispensable to combating COVID-19 Pandemic and future pandemics. It is noted that "the extend and impact of fraud and corruption in health sector is causing estimated losses of more than 455 billion out of approximate USD 7.3 Trillion spent annually on healthcare worldwide, leaving health sector ill-equipped to deal with current crises. It is estimated that approximately

USD 2 Trillion of procurement expenditure are lost to corruption globally per year. The vast amount of resources to pandemic response and recovery offer significant opportunities for abuse, increase potential for illicit gains and corruption.<sup>47</sup> In regard to Africa as a continent, several donor agencies supported African governments with various financial packages. The International Monetary Fund (IMF) and the World Bank together provided about USD 57 billion to help Africa in response to the pandemic. Most of the medical items were said to be procured under a certificate of emergency, evading public scrutiny and accountability and corruption related to COVID-19 has been reported from all over Africa, mainly in procurement.<sup>48</sup>

This calls for member states to exercise integrity, transparency and remain accountable on how resources are spent as well as avoiding instances of inferior equipment and supplies being delivered to reduce mismanagement, waste and corruption. Prioritizing anti-corruption measures with strong legal regulatory and policy framework and enforcement measures is essential to guarantee that authorities are spending resources wisely.<sup>49</sup>

### **Devastating Socio-Economic, and Political Impact**

Despite the tribute given to African governments for accelerating the slowdown of impacts of the COVID-19, the lockdowns and curfews has resulted into economic hardship. It has increased the living cost and led to the rising level of poverty especially for informal workers and vulnerable population. The control measures were taken only in the urgency of saving lives, completely undermining the aspect of livelihood which has impacted on vulnerable communities the hardest and increasing levels of inequalities which could affect the ability to eradicate extreme poverty by 2030 in accordance with Sustainable Development Goals. It was estimated that nearly 70 million additional people to 600 million people already in extreme poverty, could fall into extreme poverty worldwide worsening the growing inequality. "If inequality decreases or increases by 1 percent in term of the Gini Index, a standard measure of inequality, the number of additional extreme poor could be 55 or 85 million respectively. Such percentage changes in the distribution of income which are within the range of what is common within a year for any given country. The number would widen to approximately 40-100 million people if changes in inequality were of the order of 2 percent."<sup>50</sup> Many of the low income earners could see much of

their income wiped out and be disproportionately impacted. The increase in the number of poor people could lead to greater spread of future pandemics as low-income households have fewer means of protecting themselves and avoiding becoming infected or infecting others.<sup>51</sup>

Learning from the impacts of Spanish flu that has claimed not only up to 50 million lives worldwide in history between 1918 and 1919 but also unleashed a global economic shocks that led to massive increase poverty and inequality in many countries, it was observed that countries with basic social protection systems coped better.<sup>52</sup> Stringent measures taken by African governments were found to be counter-productive unless sustained by measures to create and preserve livelihood to the poorest segments of the population.<sup>53</sup> This could mean that introduction of social protection system in Africa could prevent their population becoming impoverished than they fair at the moment. It is therefore critical for many African Countries with inadequate social protection implement the measure to protect their poor citizen from extreme poverty in the challenge of another pandemic. Africa could establish comprehensive social cash transfer programmes to hold back economic burden and cover more beneficiaries at short time in event of tragedies and transfer large cash transfer to poor population groupings.<sup>54</sup> Economic safety net as social protection policy beyond just saving groups is crucial for those who lost their incomes because of COVID-19. Recent COVID collective working papers in three East African capital cities identified five key entry points for COVID-19 responses. Among them are a) Emergency relief distribution which includes cash and food assistance provided by government, NGOs, private Sectors and Community groups, b) Service delivery which is effort to enhance WASH and inspire health sector robustness and c) livelihood strengthening which is giving skills and diversification with longer term potential to enhance grassroots organizations.<sup>55</sup>

### **Challenge to Education**

KIX OBSERVATORY Project Researchers merged policies and practices responses to COVID-19 in 40 Partner Countries in Africa converging on operation of education system and wellbeing of Children. The project's findings illustrated that education in Africa has gone through unexpected challenges. The pandemic compelled partner countries close schools and higher institutions of learning for over 200 days, with some exception closing for a shorter period, to curb the spread of pandemic and avoiding schools becoming centers for transmission of the



virus. The pandemic seriously impacted on the psychosocial wellbeing of school children that could be one of the longest, lasting effects of COVID-19 Pandemic disruption of educational system. "Sexual and Gender Based Violence increased by almost half in partner countries in Africa during the pandemic. 57% and 71% of countries in Eastern and Southern Africa respectively reported one form of violence."<sup>56</sup>

Despite disruption in learning process, the pandemic offers an opportunity for institution to think outside the box. When coerced by the quest for learning to reopen schools, government responses were first focused on developing frameworks and health guideline and promoting adherence to health guidelines for mitigating the impact of COVID-19 through maintaining social distance, notwithstanding large schools and class sizes, frequent hand washing, wearing of facemask, temperature checks and isolating staff and students infected or exposed to the virus.<sup>57</sup>

The practice of distant learning was found appropriate response to education disruptions triggered by the pandemic. This has obliged all countries in Africa to implement at least one teacher training activity on training on development of lesson plans, teaching plans and guides and instructional model through distant learning solutions and delivery of distant learning through radio, television and on-line-teaching and enhanced digital library. However, the funding of the supplementary and special program budget to prepare these resources heavily relied on external sources such as GPE, World Bank, UNICEF and Education Cannot Wait.<sup>58</sup>

All these challenges in education become a wakeup call to develop education system that reinvigorate monitoring system for sexual and Gender Based Violence; generating domestic resources for emergency responses in education to create sustainability; strengthening contingency planning to better response to future education disruption and more resources to be invested in training teachers to enhance pandemic coping.<sup>59</sup>

## Conclusion

Although African governments have defied all the forecast worst-case-scenarios predictions, Africa remain very vulnerable to COVID-19 Pandemic and future pandemic due to devastating socio-economic situation, deteriorating health infrastructure and weak health system, limited skilled staff combined with unhealthy and risky behavior of the population defying the pandemic guidelines.

It is critical that African becoming aware of the severity and vulnerability of their risky

behaviors and adapting health related behavior to avoid the impacts of future pandemics. It is fundamental that African adapt strategies preventing spread of virus. However, the involvement of community and community health workers is indispensable because the local net work and community-led initiatives is vital in creating and raising awareness on the threat, severity and vulnerability to COVID-19 and helping communities adhere to COVID-19 guidelines and do away with fake news and unscientific misinformation being circulated and reduce the high level of vaccine hesitancy and skepticism. They are vital in changing the individual perceptions and mindset of their communities. Addressing the existing inequitable structures, the issue of extreme poverty and extension of COVID-19 activities to rural areas remain real challenge in the fight against future pandemics. Strengthening health system and surveillance capacities are significant if Africa has to triumph over health crises. Stronger political will by African governments in health financing and generating domestic resources is important to create resilience in health system. Strengthening global collaboration between African institutions and western institutions is obligatory and critical in building resilient health system and capacity of African institutions to do research and manufacture vaccines in the continent. Further researches are recommended to investigate why some African countries are doing better than others or preparedness for pandemics shocks and increasing health and economic resilience or capacity of African nations in vaccines production.

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