

CORONAVIRUS: Resilient Nightmare of the COVID-19 Pandemic in Africa

Adedeji David Atere^{1,2*}, Olabisi A. Oduwole^{1*}, Henry Chijindu Okpoli¹, Abdulwasiu Oladele Hassan¹

¹*Department of Medical Laboratory Science, Achievers University, Owo, Ondo State, Nigeria*

²*Department of Medical Laboratory Science, Faculty of Basic Medical Sciences, Adeleke University, Ede, Osun State, Nigeria*

ABSTRACT

Coronaviruses (CoV) belong to a large family of RNA viruses that infect birds and some mammals. Rate of contagion and containment have mounted tons of pressure on health systems globally, thus making COVID-19 a serious public health concern. The World Health Organization (WHO) in an attempt to hamper the worldwide spread of the virus declared the outbreak, “A global public health emergency of international concern”. This minireview thus is an overview of COVID-19, its impact on developing countries’ fragile health care systems, and their preparedness for the COVID-19 outbreak.

Keywords: COVID-19, Coronaviruses, Outbreak, Pandemic, Developing countries

* **Corresponding Authors:** ateread@gmail.com; ORCID: 0000-0002-8802-3762, Tel.: +2348039501172

Olabisi A. Oduwole: ORCID: 0000-0003-3221-1139, email: olabisioduwole@achievers.edu.ng

Authors' contributions

ADA designed the study and drafted the first manuscript. OAO and AOH designed and reviewed the final manuscript for intellectual content. All authors contributed to the final version of the manuscript and are responsible for the integrity and accuracy of this review.

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INTRODUCTION

The cases of pneumonia in Wuhan, China caused by a novel coronavirus, currently known as COVID-19 or 2019-nCoV were reported to the World Health Organisation (WHO) on December 31, 2019 (1). Rate of contagion and containment have mounted a lot of pressure on health systems globally, thus making COVID-19 a major public health concern (2). Consequently, WHO declared COVID-19 outbreak as a public health emergency of international concern (PHEIC) on 30th January 2020 (3). Additionally, as a result of the widespread nature of this viral disease to at least 114 countries and the death of over 4,000 individuals, COVID-19 was officially declared as a pandemic by WHO Director-General Tedros Adhanom Ghebreyesus on Wednesday March 11, 2020 (4). It was the first time since the H1N1 "swine flu" in 2009, the WHO declared an outbreak as a pandemic.

Within about 12 weeks from the time COVID-19 was first detected in Wuhan China, the outbreak of COVID-19 has spread to about 195 countries and territories on the six continents, infecting more than 418,000 people and more than 18,700 deaths as at March 25, 2020 according to data from Johns Hopkins University. It is of importance to state that COVID-19 is neither the most contagious disease nor the most fatal. The real threat posed by COVID-19, lies more in its highly contagious nature and its ability to spread from one infected person to others, even from individuals without signs and symptoms and thus

unknowingly infect those around him or her (5).

Besides Antarctica, which remains the only continent without a confirmed case of coronavirus, Africa is the least affected continent by Coronavirus outbreak (6). The African continent is home to nearly 1.3 billion people. So far less than 2400 cases have been reported in more than double scores of its 54 countries with over 63 reported deaths as of March 25, 2020 (7). Nearly all the continent's confirmed cases originated from travelers from Europe, United States or East Asia. Research experts are puzzled by the numbers because of the fragility of medical services in many African countries. The WHO has said its biggest concern is the spread of COVID-19 in countries with weaker health systems. Epidemiologists have also warned of the risks of the spread of COVID-19 in Africa (6). Covid-19 confirmed cases and death tolls from affected countries are constantly changing as the outbreak rages, yet Africa had so far largely been spared in comparison with other continents with advanced and stronger health systems.

Scientists suggest different theories to explain the limited spread of the virus including climate factors and commercial routes. Even though, a team of scientists identified Algeria, Egypt and South Africa as the most likely to import new coronavirus cases into Africa, they also noted that these countries are the least vulnerable as they have the best prepared health systems in the continent to curtail the outbreak (8). Yet the highest records of COVID-19 were reported from these identified nations as it was shown in figure 1 (9)

learned from Ebola outbreak, so much, so that the response to the COVID-19 pandemic was swift and nothing was taken for granted. Nigeria Centers for Disease Control (NCDC) has been lauded for the level of detailed information it has been giving out to the public since Nigeria recorded its first case since late February 2020. In addition to this is the role of healthcare professionals like the epidemiologists, doctors, nurses and the Medical Laboratory Scientists (MLS), who play one of the most important roles howbeit behind the scene.

According to the Emergence committee on the COVID-19, proactive measures for containment should include early disease detection mechanism, effective treatment of cases, intensive contact tracing, and promotion of physical distancing measures proportionate with the risk (6, 13). Asymptomatic COVID-19 patients have been recently reported to actively shed the virus to people in their community almost more with some asymptomatic discovered to stay as long as 27 days before showing symptoms (6). A robust accurate testing is the cornerstone for the quick containment and eradication of this pandemic in Nigeria if we are to quickly identify, isolate and effectively curb the virus before we hit the raining season fully.

Scaling up of the diagnosis of COVID-19 will help to identify both asymptomatic and active cases of the diseases. However, the diagnostic technique that is the most reliable and recommended method for diagnosis of COVID-19 is the real-time reverse-transcription polymerase chain reaction (RT-PCR) (7). The PCR requires a well equipped level-3 Laboratory that is manned by a well trained Medical Laboratory Scientist. Unfortunately the inadequate testing kits and that of well trained and licensed

Medical Laboratory personnel in Nigeria and other developing nations mean that not all infected cases would be detected promptly. Thus increasing the risk of community transmission of COVID-19. No gainsaying that COVID-19 is already amongst us, Nigeria and other African countries must, however, develop clearly articulated policy on how to upscale our testing all over the country to be more encompassing to curb the virus spread. The current approach of targeted/selective testing may cost us more in the long run. The more drastic and aggressive our testing approach is, the less time it will take us to curtail the spread of this virus and open up our economy. African governments are bound to spend more resources on the long run when they refuse to adopt the right approaches to solving problems!

Another school of thought was that Africans probably have some level of resistance to the COVID-19 virus. However, there is no available evidence to support this assumption. The COVID-19 outbreak is now a reality in Africa as more and more countries on the continent are reporting confirmed cases; most of the confirmed cases involved travellers from Europe, East Asia and North America. Nonetheless, since the outbreak of COVID-19, many countries in Africa are responding aggressively to the pandemic to curtail the spread. Ghana, Kenya, Nigeria and South Africa announced new measures prohibiting travelers from high-risk countries affected by COVID-19. The Democratic Republic of Congo, Uganda and Nigeria imposed quarantine measures on travelers from Italy, France, China, Germany, South Korea, United Kingdom, United States, and Spain. More so, authorities in most of the African countries have banned all major public events and closed down schools. These measures may

be a little too late for Nigeria, as there are indications of community transmission of COVID-19 by the Nigeria Centre for Disease Control. Other countries in the continent of Africa like Ethiopia urged citizens to avoid close personal contact but the health minister said there were no plans to cancel flights. The outbreak has prompted air travel restrictions and cancellations of high-level conferences and businesses across the continent (14).

Regional experts say a widespread pandemic in Africa could be devastating economically besides crippling the continent's fragile health care systems (8). The risk of currency devaluation is very elevated among oil-producing countries like Nigeria because of their sole dependence on crude oil, the cost of which has crashed to its lowest level at the international market since the beginning of the 21st century. The island nation of Mauritius, whose economy is dependent on tourism and financial services, said it was seeking to mitigate the effects of the virus by offering liquidity to banks to support struggling firms and cutting the cash reserve requirements for banks (15). In nutshell, COVID-19 outbreak could lead to economic recession and drop of property market rates if its containment is not promptly achieved.

CONCLUSIONS

As it is now, the global community "needs to make hay while the sun shines". Failure to curtail COVID-19 successfully on time would certainly cost Africa a lot. Thus it is highly necessary to be more proactive and put all the necessary safety measures in place to avert any unforeseen occurrences. Research should be carried out to understand why the rate of spread of COVID-19 is still minima in Africa. We have an opportunity to learn a great deal about health hygiene and limiting the spread of innumerable

transmissible diseases in our society. The battle against COVID-19 pandemic is a collective effort and all must come together to overcome this challenge in the spirit of 'One health'. The governments at all levels and the public to listen to and obey directives from the experts and constituted authorities. Additionally, social/physical distancing and regular disinfection of hands by using alcohol-based sanitizers and washing of hands with water and soap will go along way to breaking the transmission of COVID-19.

Conflict of interest statement

The authors declare that there are no conflicts of interest.

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