



Perspective

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Will Africa experience a spike in COVID–19 cases?

Terkuma Chia¹✉, Oluwatosin Imoleayo Oyeniran²

Departments of ¹Anatomy and ²Physiology, Faculty of Basic Medical Sciences, College of Health Sciences, Nile University of Nigeria, Abuja, Nigeria

Due to increase in trade and air travel between countries affected by the novel coronavirus disease 2019 (COVID-19) epidemic and Africa[1], Africa stands to be at a high risk of a possible surge in the number of COVID-19 cases. The biggest concern for the continent and public health experts is whether Africa will experience an uncontrollable spike in the spread of the disease, as it has recently been designated a pandemic by World Health Organization (WHO). This concern may be attributed to the deficiency in health systems in Africa. So far, the number of confirmed COVID-19 cases in Africa is relatively low. Altogether, 700 confirmed cases and 17 deaths have been reported on the continent[2].

Studies have highlighted a series of challenges in the African health sector, which are broadly classed into three: funding, manpower, and leadership[3,4]. Other authors included health legislation, community involvement, information and research as more challenges[5,6]. These challenges have been translated into poor health indices[7]. This situation has led to a lack of confidence in the healthcare systems of many African countries by the elites[8]. It is estimated that medical tourism drained over a billion United States dollars from Nigeria alone in 2016[9]. Previous disease outbreaks have further exposed the weakness of the health systems in Africa[10]. This was again demonstrated at the onset of the coronavirus outbreak where only two countries, Senegal and South Africa had a diagnostic capacity for the disease[11] though the numbers are gradually increasing. Yet, relative to the population, more laboratories are still required for sufficient diagnostic capacity on the continent.

Given the fluid situation of this public health emergency, authorities need to take proactive measures in preventing the spike in SARS-CoV-2 transmissions and infections. Valuable preventive and control measures can be enacted as learned from COVID-19 prevalent countries such as China, Italy, Korea, and Iran including movement restrictions, early detection followed by swift quarantine/isolation, enhanced diagnostic and treatment strategy, risk communication and education amongst others[12–14]. These countries enforced partial to total restrictions to movements and travels within the affected cities or regions *via* strict entry and exit screenings and cancellations of

mass gatherings[12–14]. Another proven control strategy employed by these countries, especially China, during the preliminary onset of the disease outbreak was early detection of SARS-CoV-2, which was followed by a swift self-quarantine, isolation and containment measures[12,15].

In Africa, self-quarantine should be strongly encouraged and possibly supervised for people coming from COVID-19 prevalent regions of the world. This is more important since even asymptomatic persons can transmit SARS-CoV-2[15,16]. Where an individual eventually tests positive, prompt isolation and treatment will mitigate further spread within the communities[17]. This has already proven to be effective in the third confirmed case of the disease in Nigeria, where the individual self-quarantined and subsequently developed symptoms, tested positive, and then was quickly isolated and therapy commenced at a purpose-built medical facility. Since authorities cannot guarantee that all travelers will self-quarantine, they may need to enforce quarantine measures for individuals. Measures like this will not only minimize transmission but will also prevent mortality.

The use of enhanced diagnostic and treatment strategies by most of the COVID-19 prevalent countries has shown to mitigate the spread of COVID-19[12,15], as supported by the massive medical support from home and abroad (especially the WHO). These have led to an increase in the Intensive Care Unit capacity of some of the affected countries[13,15]. Furthermore, the release of emergency funding by most affected countries helped to alleviate the rate of SARS-

✉To whom correspondence may be addressed. E-mail: terkumachia@hotmail.com

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CoV-2 transmission. For instance, China built and equipped two hospitals to curtail the spread of COVID-19 between 30 January and 11 February 2020, and also began the clinical trials of experimental drugs. Human and capital resources were also channeled to further exploration of effective therapeutic strategies[12].

Also notable among the deployed preventive measures put in place by these countries was the establishment of collaborative emergency networks[12,13]. These networks help to organize and coordinate the emergency response work within a specified administrative area as decided by the province, state, region or country. The functions of the network include but not limited to: setting up observation rooms at strategic places such as airports and stations, ensuring the supply of living resources and protective articles, supporting public health monitoring, publicity of hygiene knowledge, and supervision of public places. The dynamics of the current coronavirus pandemic call for a coordinated continental response. This is especially important since African nations share borders and with the large volume of trade between them, transboundary movement is high, sometimes through unofficial crossing points. Therefore, in responding to the pandemic, African health ministers issued a communiqué following their meeting in Addis Ababa, Ethiopia on February 22, 2020. They resolved to set up a task force whose mandate is to coordinate surveillance, prevention, case management, risk communication, community engagement, logistics, and supply as well as laboratory testing[18].

The lessons learned from the previous Ebola virus are also essential in the face of this new pandemic. These include international partnerships which have been reechoed by the Chinese Shanghai Institutes for International Studies[19,20]. Others are an enhanced practice of personal hygiene especially free hand washing which was acclaimed to have assisted in minimizing spread during the Ebola outbreak[19]. Education of health workers is central as they are active participants without forgetting the availability of resources at health facilities and community integration. These measures facilitated immensely in stemming the spread of the Ebola virus disease[19].

So long as these measures are effectively implemented and monitored in Africa, the rate of transmission and the number of new cases will remain relatively low. China has demonstrated a commendable effective containment and mitigation strategy towards curbing the continuous spread of the disease using the above-mentioned measures[21]. However, the tendency for a spike of the disease increases once there are possibilities for local transmission within the populace. Recent findings reveal that spikes in infection rates are occasioned by local transmission[22]. Considering the weak healthcare system occasioned with poor surveillance and laboratory capacity of many African nations, authorities must ensure that local transmission is prevented at all costs by taking immediate and prompt preventive measures and actions. Hellewelle *et al*,

have hypothesized that very effective contact tracing and isolation have the potential to end the coronavirus pandemic within three months[23]. Putting together these lessons, Africa can guard against a spike in the infection, keeping the few cases to a manageable level.

Conflict of interest statement

The authors declare that there are no conflicts of interest.

Authors' contributions

T.C. conceptualized the work. Both T.C. and O.I.O. drafted the manuscript, revised and approved the final version of the manuscript.

References

- [1] Nkengasong J. China's response to a novel coronavirus stands in stark contrast to the 2002 SARS outbreak response. *Nat Med* 2020; **1–2**: 310–311.
- [2] Inyang I. *COVID-19: Coronavirus now in 36 African countries as Niger records index case—Daily Post Nigeria*. 2020. [Online]. Available from: <https://dailypost.ng/2020/03/20/covid-19-coronavirus-now-in-36-african-countries-as-niger-records-index-case/> [Accessed on 20th March 2020].
- [3] Oleribe OO, Momoh J, Uzochukwu BS, Mbofana F, Adebisi A, Barbera T, et al. Identifying key challenges facing healthcare systems in Africa and potential solutions. *Int J Gen Med* 2019; **12**: 395–403.
- [4] Malakoane B, Heunis JC, Chikobvu P, Kigozi NG, Kruger WH. Public health system challenges in the Free State, South Africa: A situation appraisal to inform health system strengthening. *BMC Health Serv Res* 2020; **20**(1): 58.
- [5] Kirigia JM, Wambebe C. Status of national health research systems in ten countries of the WHO African Region. *BMC Health Serv Res* 2006; **6**(1): 135.
- [6] McIntyre D, Mooney G, editors. *The economics of health equity*. Cambridge: Cambridge University Press; 2007.
- [7] WHO. *The African regional health report: The health of the people*. 2006. [Online]. Available from: <https://www.who.int/bulletin/africanhealth/en/> [Accessed on 8th April 2020].
- [8] Abubakar M, Basiru S, Oluyemi J, Abdulateef R, Atolagbe E, Adejoke J, et al. Medical tourism in Nigeria: Challenges and remedies to health care system development. *Int J Dev Manag Rev* 2018; **13**(1): 223–228.
- [9] Olatunji G. *Advisory outlook: Restoring trust to Nigeria's healthcare system*. 2020. [Online]. Available from: <https://www.pwc.com/ng/en/assets/pdf/advisory-outlook-may-2016-restoring-trust-to-nigeria-healthcare-system.pdf> [Accessed on 20th March 2020].

- [10]Marston BJ, Dokubo EK, van Steelandt A, Martel L, Williams D, Hersey S, et al. Ebola response impact on public health programs, West Africa, 2014–2017. *Emerg Infect Dis* 2017; **23**(Suppl 1): S25.
- [11]Owoseye A. *Coronavirus: Nigeria, five other African nations have capacity to diagnose disease*. *Premium Times Nigeria*. 2020. [Online]. Available from: <https://www.premiumtimesng.com/health/health-news/376009-coronavirus-nigeria-five-other-african-nations-have-capacity-to-diagnose-disease.html> [Accessed on 20th March 2020].
- [12]Deng SQ, Peng HJ. Characteristics of and public health responses to the coronavirus disease 2019 outbreak in China. *J Clin Med* 2020; **9**(2): 575.
- [13]Grasselli G, Pesenti A. Critical care utilization for the COVID-19 outbreak in Lombardy, Italy: Early experience and forecast during an emergency response. *JAMA* 2020. doi:10.1001/jama.2020.4031.
- [14]Remuzzi A, Remuzzi G. COVID-19 and Italy: What next? *Lancet* 2020. doi:10.1016/S0140-6736(20)30627-9.
- [15]Han Y, Yang H. The transmission and diagnosis of 2019 novel coronavirus infection disease (COVID-19): A Chinese perspective. *J Med Virol* 2020. doi: 10.1002/jmv.25749.
- [16]Bai Y, Yao L, Wei T, Tian F, Jin DY, Chen L, et al. Presumed asymptomatic carrier transmission of COVID-19. *JAMA* 2020. doi: 10.1001/jama.2020.2565.
- [17]WHO. *Statement on the second meeting of the international health regulations (2005) emergency committee regarding the outbreak of novel coronavirus (2019-ncov)*. 2020. [Online] Available from: [https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-\(2019-ncov\)](https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov)) [Accessed on 8th April 2020].
- [18]Africa CDC. *Communiqué by the emergency meeting of African ministers of health on the coronavirus disease outbreak "Coordinated actions to prepare and respond to COVID-19 infection in Africa"*. 2020. [Online]. Available from: <http://www.africacdc.org/covid-19-and-resources/press-briefing/covid-19-and-resources/press-briefing/communique-from-ministerial-meeting-on-covid19-english-pdf/detail> [Accessed on 20th March 2020].
- [19]Withington C. *We learned four valuable lessons from Ebola. They can help us fight the coronavirus*. 2020. [Online]. Available from: <https://www.theguardian.com/commentisfree/2020/mar/07/we-learned-four-valuable-lessons-from-ebola-they-can-help-us-fight-the-coronavirus> [Accessed on 20th March 2020].
- [20]Shanghai Institutes for International Studies. *International cooperation for the coronavirus combat: Results, lessons, and way ahead*. 2020. [Online]. Available from: https://www.fmprc.gov.cn/mfa_eng/topics_665678/kjgzbdffyq/P020200310355462655277.pdf [Accessed on 20th March 2020].
- [21]WHO. *Coronavirus disease 2019 (COVID-19) situation report-44. March 4, 2020*. [Online]. Available from: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200304-sitrep-44-covid-19.pdf?sfvrsn=783b4c9d_2 [Accessed on 18th March 2020].
- [22]WHO. *Coronavirus disease 2019 (COVID-19) situation report-57. 2020*. [Online]. Available from: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200317-sitrep-57-covid-19.pdf?sfvrsn=a26922f2_4 [Accessed on 18th March 2020].
- [23]Hellewell J, Abbott S, Gimma A, Bosse NI, Jarvis CI, Russell TW, et al. Feasibility of controlling COVID-19 outbreaks by isolation of cases and contacts. *Lancet Glob Health* 2020. doi: 10.1016/S2214-109X(20)30074-7.