



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Can Nigeria contain the COVID-19 outbreak using lessons from recent epidemics?

News broke on Feb 27, 2020, that an Italian citizen was Nigeria's first case of coronavirus disease 2019 (COVID-19). The individual had landed at Lagos airport 2 days earlier on a flight from northern Italy, and had subsequently travelled from Lagos to Ogun State, western Nigeria, where he became ill and was promptly isolated. He is currently being treated for mild symptoms of COVID-19 in a hospital in Lagos. Upon identifying the index case, National Emergency Operations Centres were immediately activated to trace his contacts. By March 9, 2020, 27 suspected cases had been identified across five states (Edo, Lagos, Ogun, Federal Capital Territory, and Kano), of which two were confirmed to be positive (ie, the index case and a contact), with no deaths.¹ 216 contacts were linked to the index case, 136 of whom are being followed up.

Similar to COVID-19, the Ebola epidemic of 2014 was imported through Lagos airport. Within weeks, 19 people were diagnosed with Ebola across two states of Nigeria—Lagos and Rivers State—of whom eight died of Ebola.² The dense population of Lagos, its overstrained infrastructure, and the fact that it is a major regional transit hub for air, land, and sea transport created the perfect conditions for the spread of Ebola. Nevertheless, Nigeria's aggressive and coordinated response successfully controlled the Ebola epidemic.

Gilbert and colleagues' modelling study³ of the risk of COVID-19 importation from China indicates that the ability of African countries to manage local transmission of COVID-19 after importation hinges on implementing stringent measures of detection, prevention, and control. Nigeria demonstrated its ability

through intensifying its preparedness against COVID-19 importation, drawing on recent successes in controlling polio and Ebola epidemics.⁴ These experiences strengthened the health system's capacity to rapidly deploy high-quality surveillance and temperature screening at airports using equipment acquired during the Ebola epidemic; collect passengers' contact details and interview those arriving from COVID-19 hotspots; and issue travel bans.¹

However, unlike polio and Ebola, for which vaccines now exist,⁵ COVID-19 has neither a vaccine nor an approved treatment. Moreover, Gilbert and colleagues' modelling rated Nigeria as vulnerable to exposing huge populations to COVID-19 (potentially 200 million citizens), with a moderate capacity to control the outbreak.³ This assessment questions Nigeria's capacity to provide sufficient bed space and associated clinical care to support those who could need isolation and quarantine if local cycles of transmission of COVID-19 occur in the country.

We declare no competing interests.

Copyright © 2020 The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY 4.0 license.

***Bassey Ebenso, Akaninyene Otu**
b.e.ebenso@leeds.ac.uk

Leeds Institute of Health Sciences, University of Leeds, Leeds LS2 9NL, UK (BE); and Department of Infection and Travel Medicine, Leeds Teaching Hospitals NHS Trust, Leeds, UK (AO)

- 1 Nigeria Centre for Disease Control. COVID-19 outbreak in Nigeria: situation report. March 9, 2020. <https://ncdc.gov.ng/diseases/sitreps/?cat=14&name=An%20update%20of%20COVID-19%20outbreak%20in%20Nigeria> (accessed March 10, 2020).
- 2 Musa E, Nasidi A, Shuaib F, Nguku PM, Vaz RG. Nigeria's Ebola outbreak response: lessons for future epidemic preparedness. *Arch Med* 2016; **8**: 6.
- 3 Gilbert M, Pullano G, Pinotti F, et al. Preparedness and vulnerability of African countries against importations of COVID-19: a modelling study. *Lancet* 2020; published online Feb 20. [https://doi.org/10.1016/S0140-6736\(20\)30411-6](https://doi.org/10.1016/S0140-6736(20)30411-6).
- 4 Unah L. 'Nigeria will deal with this': high alert after coronavirus case. March 1, 2020. <https://www.aljazeera.com/news/2020/03/deal-high-alert-coronavirus-case-200301140838366.html> (accessed March 3, 2020).

- 5 Holmes C, Boyce M, Katz R. Africa is not starting from scratch on COVID-19. Feb 27, 2020. <https://www.thinkglobalhealth.org/article/africa-not-starting-scratch-covid-19> (accessed March 4, 2020).



Published Online
March 11, 2020
[https://doi.org/10.1016/S2214-109X\(20\)30101-7](https://doi.org/10.1016/S2214-109X(20)30101-7)