

Tackling the threat of COVID-19 in Africa: an urgent need for practical planning

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Dear Editor,

We have read with growing concern the COVID-19 situation reports of the World Health Organization (WHO), revealing the global propagation of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).¹ Although transmission is escalating in several European countries and the United States, there are currently relatively few confirmed COVID-19 cases in African countries.¹ Gilbert et al. used data on the volume of air travel to estimate the risk of importation of COVID-19 into Africa.² They estimated that Egypt, Algeria and South Africa may have the highest importation risk, and that Nigeria, Ethiopia, Sudan, Angola, Tanzania, Ghana and Kenya may have a moderate risk. The cumulative number of confirmed COVID-19 cases reached 1,170 in South Africa, 536 in Egypt, and 367 in Algeria, but remained less than 10 in several African countries.¹

The WHO has reported that the majority of African countries have imported cases only, and there is no local transmission.¹ While the number of African countries with laboratory capacity for testing for SARS-CoV-2 has increased from two to 42,³ the majority of African countries might not be sufficiently prepared⁴ to detect local transmission of SARS-CoV-2 and the extent of underdetection of COVID-19 is unknown. To tackle the threat of COVID-19, it will be crucial to quickly develop a practical national plan with clear objectives and strategic interventions.⁵

Countries with a small number of imported cases of COVID-19 may consider whether it is feasible to aim for containment by tight border and urban-to-rural control, scaling-up testing of SARS-CoV-2, isolation of infected individuals, and early and extensive contact examinations.⁶ On 21 March 2020, Cepheid (Sunnyvale, CA, USA) announced it had received emergency use authorisation from the US Food and Drug Administration for Xpert[®] Xpress SARS-CoV-2, a rapid molecular diagnostic test for qualitative detection of the virus causing COVID-19 with a detection time of approximately 45 min.⁷ The test has been designed to operate on Cepheid's automated GeneXpert[®] Systems, which have been used widely in national tuberculosis programmes in Africa. This may enhance the capacity of testing for SARS-CoV-2 and may make the testing-and-isolation strategy feasible.

Countries experiencing case clusters in time, geographic location and/or common exposure should assess whether community transmission is happening and take actions, including involving community leaders, to reduce the risk of ongoing

transmission. The infectiousness of SARS-CoV-2 is relatively high with an estimated basic reproduction number around 2.5.^{8,9} Studies have reported that approximately 80% of COVID-19 cases have mild symptoms or are asymptomatic.^{8,9} In resource-limited settings, infected people who have mild symptoms or no symptoms may not seek health care. The SARS-CoV-2 viral load is high at symptom onset, and infectiousness starts before the onset of symptoms, implying that a symptom-based approach may not be sufficient to stop ongoing transmission.⁹ The secondary attack rate is high among those who had exposure to index cases within 5 days of symptom onset.¹⁰ SARS-CoV-2 is transmitted by droplets and fomites, and human-to-human transmission largely occurs in families.^{8,10} Contact examinations will therefore be crucial, and precautions will be needed to be taken to avoid household transmission if it is not possible to isolate confirmed cases in health care facilities.

Countries with community transmission clearly need to emphasise physical distancing, hand washing, environmental cleaning and the rational use of masks. To avoid an abrupt surge in the number of critically ill patients overwhelming the health care system causing panic, African countries have to act quickly to flatten the epidemiological curve of COVID-19.

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