Commentary

COVID-19 in Africa: The nuances of social distancing and handwashing

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ABSTRACT

The implementation of interventions to minimize the Corona Virus 2019 (COVID-19) pandemic in Africa has been flurry and increasingly complicated in nature. This milieu engenders and heightens vulnerabilities of critical masses living in sociallycompromised situations and economically constrained communities in the current pandemic. The increasing spread of COVID-19 has necessitated enforcement of frequent hand washing, social distancing and lockdown measures as a recommended global strategy to curb communitybased spread of the disease. However, pre-existing conditions in Africa impede capacity to observe hand hygiene, social distancing and lockdown. Although past epidemics in Africa created foundations for planning for future occurrences, the enormity of the current COVID-19 pandemic has overwhelmed capacity to observe globally recommended interventions. The rising trends in morbidity and mortality has gained attention from

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community members, stakeholders, regulatory bodies and governments, however, implementation of hand hygiene practices and mobility restrictions has not been in tandem with sustainable approaches that assure compliance and resource availability to limit cross-transmission. The aim of our article is to unveil current challenges with handwashing and social distancing in Africa and propose innovative solutions to prevent community-based COVID-19 transmission. The issues pertaining to Africa are not only related to the magnitude of the problem, but the unique nature of African contexts and the paucity of documented evidence that impede a re-envisioning of interventions that promote community health. Therefore, gaining an understanding of the inherent nuances is important to implementing globally recommended interventions.

ESSAY

Africa is the world's second largest and second-most populous continent, after Asia. The historical and unpredictable trend of Africa's socio-economic, political and healthcare dynamics engenders mass vulnerability to the current COVID-19 pandemic. This contextual reality charts African community trajectories and impacts overall global health. In Africa, the first reported COVID-19 case was identified in a traveler from Italy to Algeria in

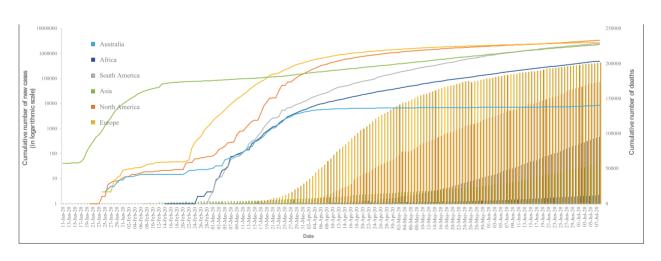
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February 2020. The subsequent increase in the incidence of COVID-19 in Africa raises the concern of a potential surge (Fig 1). This has necessitated strict implementation of hand hygiene, social distancing and lockdown measures in several African countries. Social distancing decreases virus transmission from infected persons in communal gatherings by requiring that people stay at least 6 feet (1.8 meters) from others, avoid large crowds, and close contact with symptomatic or individuals at high risk of poor outcomes.² Compliance with social distancing and handwashing is challenging in Africa due to poor urban planning in densely populated communities, food insecurity, water shortages, inadequate healthcare infrastructure, unemployment and lack of funding. The aim of our article is to unveil current challenges with social distancing and handwashing in Africa and propose innovative solutions to prevent community-based COVID-19 transmission.

The realities that confront Africa in the current COVID-19 pandemic are complex and nuanced. At the individual and family level, there is increasing fear, perceived helplessness, panic and a sense of stigmatization as governments seek to enforce home confinement, self-isolation and quarantine to combat the rising infection and death rates. Africa has unique risks and barriers that undermine efforts to fight the COVID-19 pandemic. Poor nutrition, untreated communicable diseases and overcrowded settlements suppress immunity and impact health outcomes of people whilst in self-isolation and lockdown. Societal anxiety has led to a flurry of urban-rural migration which increases the risk of community transmission. Public education and guidance on hand hygiene, cough etiquette, social distancing, and disease identification are communicated by the media which people in most remote parts cannot access. Language is also a major barrier to public education due to the different

Fig. 1: Cumulative number of new cases and death of COVID-19, from January 8th to July 8th, 2020, by continents (Panel A)

Panel A



Note: Number of cumulative new cases represented in logarithm scale on the left y-axis. Number of cumulative deaths on the right y-axis.

Abbreviations: COVID-19 – Coronavirus 2019. Source: WHO.

dialects. Religiosity and health behavior are tightly intertwined in many African countries.3 Consequently, many African people and communities view the COVID-19 pandemic through a religious or apocalyptic lens which potentially drives the lack of confidence in public healthcare guidance. In some African communities this contributes to noncompliance with social distancing and lockdown measures. Additionally, the police and military are engaged to enforce social distancing and lockdown measures which may further exacerbate community distrust and fear. It is important to note that African communities thrive on the principle of communal living and exist in shared spaces where 'We' and 'Them' meet to share knowledge and nurture a sense of belonging. In this shared space, close proximity, handshaking and hugging are social expectations. Durbars, festivals, baby naming, marriage ceremonies, tribal head enstoolment, market days and funerals are frequent and highly significant socio-cultural milestone events that bind communities together and fulfil existence in these societal expectations. Social distancing erodes the core cultural and psychosocial values of African communities and halts the work of thriving social entrepreneurs who produce and sell paraphernalia in such gatherings. These factors drive non-compliance, increase the risk of domestic violence, adversely impact mental health and precipitate social unrest.

In African slums and densely populated communities, several families share housing amenities such as toilets, kitchens and bathrooms. The demand by a large number of people to access these amenities precludes effective social distancing, frequent handwashing and respiratory hygiene. The lack of potable water and inadequate ventilation in densely populated and poor communities further increases the risk of community transmission. Locally made hand washing amenities have supported handwashing in public places but the numbers are inadequate and hand sanitizers are expensive to purchase. In poor

communities, members queue for about 2 to 3 hours before securing a spot to receive portions of food rationing from community feeding programs and donors. Hand washing is not observed as access to water and soap or hand sanitizer is a challenge. Although proper hand hygiene is the simplest, costeffective and most important, means of reducing the spread of infection, it is least observed due to cultural, religious and economic issues.

Persons with early clinical features of COVID-19, and non-emergent health conditions are required to stay at home and access health care via telephone call to the hospital. This intervention is meant to prevent the collapse of the overwhelmed health systems. Hospitals lack skilled personnel, robust operational infrastructure, standardized infection control processes and personal protective equipment (PPEs). This adversely impacts the ability of many African healthcare systems to mitigate COVID-19 transmission. Unfortunately, telecommunication systems within most African healthcare systems have limited network capacity and cannot support efficient virtual healthcare models. 4 Mass testing for COVID-19 is precluded by supply chain barriers to procurement of testing kits. Contact tracing is also problematic due to lack of funding and unique identifiers for country nationals.

African economies are burdened with loan obligations that divert resources away from health spending to settle debt requirements. Sequential borrowing has reduced gross domestic products and adversely affected employment rates. In the face of COVID-19, these financial inadequacies will further erode the suboptimal African health systems and detract from the ability of African nations to mount robust disease surveillance systems and provide appropriate healthcare. 4,5 During the 2014-2015 Ebola outbreak, the increased mortality rate related to Measles, Malaria, HIV/AIDS, and Tuberculosis exceeded deaths from Ebola and were attributed to healthcare system failures.5 These lessons establish the need to strengthen the delivery of pre-existing essential healthcare services. We know from

previous outbreaks that when health systems are overwhelmed, mortality from vaccine-preventable and other treatable conditions increases dramatically.

It is important to fully protect frontline healthcare professionals (HCP) with Personal Protective Equipment (PPEs) and provide adequate socioeconomic, psychological and financial support. Many frontline healthcare workers in Africa are the sole providers for their extended families; hence HCP support should extend to include family members. Setting up Testing Centers at easily accessible vantage community points is critical, and timely contact tracing should be intensified to engage communities in ethical and equitable case identification. Quarantine facilities must be prepared to receive clients and fumigation of infected areas should be carried out with the expert guidance of public health officials. Sustainable access to constant clean, running water and effective sanitation measures are critical. Low-tech handwashing equipment can be manufactured locally, solar powered and scaled up to support frequent handwashing.⁶ Frequent and proper hand hygiene techniques should be taught in the local languages and communicated at the grassroots level using audio-visual demonstration. Due to the global shortage of facemasks, local manufacturing has begun, but the product cost may be prohibitive for community use. These initiatives should be subsidized by the government to reduce cost and maximize output. Using community elders, opinion and religious leaders to champion public health initiatives at the community level is a proven behavior-change technique in Africa that must be leveraged to drive community engagement in health education and public health efforts to combat COVID-19 spread.

Electronic cash transfers to people confined to their homes proffers a viable solution to economic hardship. Due to government funding constraints, priority focus must be placed on pregnant women, children and migrants in poor communities and people in the informal manual and trading labor sectors that rely on daily earned income for subsistence. Balancing the act between averting the COVID-19 health crisis and fueling widespread poverty across Africa must begin with government investment in sustainable local production of food, essential goods and creation of critical services. Finally, it is critical to collate accurate local data on COVID-19 infection rates, risk factors, and clinical outcomes. This will facilitate risk stratification, predictive modelling, proactive surge planning, implementation of evidence-driven interventions, and improved health outcomes.

In conclusion, the impact of COVID-19 on Africa will be potentially devastating if the COVID-19 pandemic worsens on the continent. As the search for vaccines and treatment for COVID-19 continues, culturally applicable strategies to mitigate the spread of COVID-19 transmission and strengthen the existing public health infrastructure in Africa are urgently needed.

Competing Interests

The authors declare they have no competing interests.

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REFERENCES

- WHO. Situation update for the WHO Africa R e g i o n .
 https://apps.who.int/iris/bitstream/handle/1066
 3 3 1 3 3 0 / S I T R E P C O V I D 19_WHOAFRO_20200304-eng.pdf
- 2. Social distancing, quarantine and isolation. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html.
- 3. Zimmer Z, Rojo F, Ofstedal MB, Chi-Tsun C, Saito Y, Jagger C. Religiosity and Health: A global comparative study. SSM-Population H e a l t h . 2 0 1 9; 7: 1 9 https://doi.org/10.1016/j.ssmph.2018.11.006

- 4. Porter G. Mobilities in Rural Africa: New Connections, New Challenges, Annals of the American Association of Geographers, 2016;106:2, 434-441, DOI: 10.1080/00045608. 2015.1100056
- 5. Elston JW, Cartwright C, Ndumbi P, Wright J. The health impact of the 2014–15 Ebola outbreak. Public Health, 2016; 143, 60-70. doi: 10.1016/j.puhe.2016.10.020
- 6. Hulland, K.R., Leontsini, E., Dreibelbis, R. et al. Designing a handwashing station for infrastructure-restricted communities in Bangladesh using the integrated behavioural model for water, sanitation and hygiene interventions (IBM-WASH). BMC Public Health 13, 877 (2013). https://doi.org/10.1186/1471-2458-13-877
- 7. WHO. Health Emergency Dashboard WHO (COVID-19) Homepage. https://who.sprinklr.com