

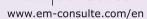
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### LETTER TO THE EDITOR

# The impact of COVID-19 on indigenous people in Africa

*Keywords* Africa; COVID-19; Indigenous people; Public health

#### Dear Editor,

The impact of COVID-19 on Indigenous people in Africa is of great concern. The risk poses danger on a lot of people in the continent. The Indigenous people in Africa have different cultures and languages, and deep relationships with the environment; like other vulnerable groups, indigenous people face many challenges amidst COVID-19, amongst which there are the language barriers, low knowledge about COVID-19 and vaccine hesitancy [1].

While some sources have stated that due to clinical difficulties and challenging logistics, the vaccine roll out in Africa has been slow, there have been other challenges as well [2]. Some of these include the lack of political representation, economic marginalization, and the lack of access to health, education, and social services among the Indigenous people in Africa. These thereby limit the vaccine distribution due to hesitancy and the risk of contracting COVID-19 in Africa (Fig. 1).

One of the main tools for suppressing COVID-19 community transmission is contact tracing. However the Indigenous communities have inadequate disease contact tracing and limited access to technology, which therefore restrict the detection and record of COVID-19 cases amidst indigenous people [3].

Conversely, rural African dwellers have higher degree of immune triggering and feedback juxtaposed to Africans urban areas, demonstrating the effect of lifestyle and exposure to the infectious agents on the immune system. Furthermore, the ''hygiene hypothesis'' proposes that constant immune oppositions in unfavorable abode are likely to set off more sufficient immune responses to a novel infection of SARS-CoV-2 [3].

Low knowledge, negative attitudes, lack of trust in the government and low awareness influence the trust in the COVID-19 vaccinations amongst indigenous people.

The lack of constant narrative about the societal impact of the COVID-19 pandemic in Africa has posed a challenge to the indigenous communities, who therefore tend to disproportionately experience higher rates of infection; women in particular are confronted with health crises emerging from modern pandemics. This has included gender-based violence, which has been reported to increase in indigenous communities due to the stay-at-home orders [4]. The higher rates of infection are overall linked to cultural factors, as well as weakened access to healthcare and linguistic differences which prevent people from accessing public health information.

The COVID-19 pandemic has impacted every community in Africa into a state of emergency by increasing the level of marginalization of indigenous communities, and in the most extreme situations, militarization of the communities. Therefore, this has increased the burden and impact of the COVID-19 pandemic in the continent.

The Indigenous communities in Africa are being denied their freedom of expression and association, while business interests are invading and destroying their lands, territories and resources; these injustice make them minorities that have low access to the proper healthcare system. This context within the COVID-19 pandemic in Africa further affects the state of universal health coverage among the Indigenous people in African communities.

For example, mostly the Mbuti and Efe, the Baka, similar to other forest-dependent populations in the Congo Basin have felt the impact of environmental pressures. Namely, they are being affected by the direct impacts from industries that specialize in extraction (logging, mining) which are infiltrating their regions. This happens both peacefully along roads or forcefully by rustlers and troopers and is coupled with the effects of relocation, migration and sedentarisation which affect their health and security of food [3,5,6].

Food security has overall being a growing problem before and during COVID-19 in the continent. Sources have said that food and water deliveries have been scarce during the pandemic thus endangering the wellbeing of indigenous populations [4].

Most of the indigenous people who have lost their lands and livelihoods especially during the COVID-19 pandemic are pushed further into poverty, higher rates of malnutrition, lack of access to clean water and sanitation, as well as exclusion from medical services, which in turn renders them particularly vulnerable to the COVID-19 pandemic.

Moreover, in the midst of COVID-19, the indigenous members of African communities that have managed to best resist the COVID-19 pandemic, are those that have achieved autonomy and self-government, which allows them to manage their lands, territories and resources, ensure food security through their traditional crops and traditional medicine.

Therefore, there is an urgent need for the African governments to support indigenous people to implement their health framework that will help to protect their communities and participate in the elaboration of nationwide health

## THE IMPACT OF COVID-19 ON INDIGENOUS PEOPLE IN AFRICA

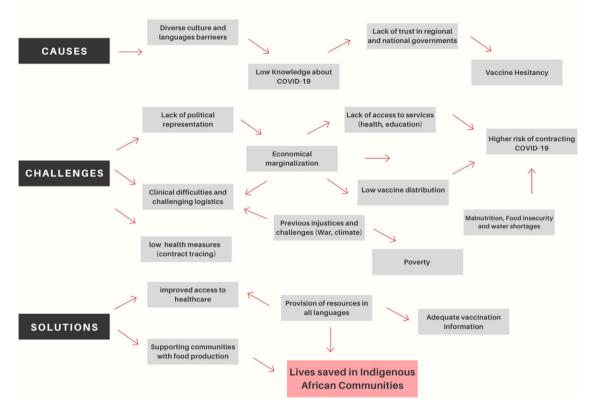


Figure 1. The impact of Covid-19 on indigenous people in Africa.

initiatives; this would ensure that people are not discriminated against as well as ensuring that proper COVID-19 interventions are put in place.

Furthermore, it is fundamental to assist the communities of producers, fishers, shepherds and all indigenous individuals with food production. As the above mentioned workers are responsible for the food production and sustenance of their whole communities, supporting them would mean supporting their communities in fighting the economic consequences of COVID-19. Some communities have been successfully doing this like the Namibian government; governments should follow the same idea to help their indigenous communities [4].

African governments and other NGOs must ensure that the indigenous peoples have access to information about COVID-19 in their languages; urgent special measures need to be taken to ensure availability and access to culturally appropriate medical services. It is a major challenge that public health facilities are often scarce in indigenous communities and funds should be allocated to improve this situation. Some governments in Botswana, Chad, Kenya and more have encouraged healthcare workers to move between communities thus providing services in the places of most need [5].While this can work as a short-term solution, in the long-term more funds should be allocated to train local indigenous people to provide healthcare in their own communities. This would help indigenous communities to become more self-sufficient.

The African Indigenous people should be aware and have adequate knowledge on why they need to take the vaccine and why they should avoid COVID-19 vaccine hesitancy. In contrast, the COVID-19 pandemic is teaching people that we need to change, that we need to value the collective work, that the individual need to respond to build inclusive societies that would respect and protect everyone. It is not only about protecting our health. No matter how bad the situation, there is always hope; with strong leadership, community engagement, and a comprehensive strategy to suppress COVID-19 transmission, lives can be saved among Indigenous people in Africa.

#### Human and animal rights

The authors declare that the work described has not involved experimentation on humans or animals.

#### Informed consent and patient details

The authors declare that the work described does not involve patients or volunteers.

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#### Author contributions

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#### **Disclosure of interest**

The authors declare that they have no competing interest.

#### References

- [1] Vanguard. WHO expresses concern over impact of COVID-19 on indigenous people; 2020 [https://www.vanguardngr.com/2020/07/who-expressesconcern-over-impact-of-covid-19-on-indigenouspeople/amp/Accessed 2 August, 2021].
- [2] United Nations of Human Rights, office of the high commission. COVID-19 is devastating indigenous communities worldwide, and it's not only about health'. Available at: https://www.ohchr. org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=25893 &LangID=E.
- [3] Fa JE, Nasi R, Funk SM. The COVID-19 pandemic endangers africa's indigenous pygmy populations. Ecohealth 2021:1–3, http://dx.doi.org/10.1007/s10393-021-01528-w. Epub ahead of print. PMID: 34041645; PMCID: PMC8154106.
- [4] Freedom House. The Impact of COVID-19 on Indigenous Peoples in Southern Africa; 2020. Available at: https://freedomhouse. org/article/impact-covid-19-indigenous-peoples-southern-africa Accessed on 21 July, 2021.
- [5] Down to Earth. How indigenous communities faced off against COVID-19 globally; 2021. Available at: https://www.

downtoearth.org.in/blog/health/how-indigenous-communitiesfaced-off-against-covid-19-globally-75046 Accessed on 2 August, 2021.

[6] Mukiibi E. COVID-19 and the state of food security in Africa. Agric Human Values 2020:1-2, http://dx.doi.org/10.1007/s10460-020-10079-9 [Epub ahead of print. PMID: 32412531; PMCID: PMC7221226].

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