



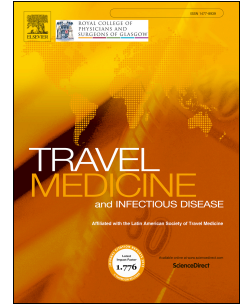
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# Journal Pre-proof

COVID-19: Travel health and the implications for sub-Saharan Africa

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**CRedit Authorship statement**

All authors contributed to the conceptualization, development, writing, editing, proofreading and approval of all the drafts that produced this document.

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Journal Pre-proof

**COVID-19: Travel health and the implications for Sub-Saharan Africa****Dear Editor**

The global health response to COVID-19, coordinated by the World Health Organization which led to its eventual classification as a public health emergency of international concern has inadvertently affected global travel (1). With ongoing debates for/against travel restrictions, some countries have implemented these restrictions to protect their citizens in response to the global rise in cases(2). Conversely, in countries with many confirmed cases, it appears more people are trying to travel out of those cities, whether from panic, legitimate reasons or ignorance(1). Travel may be necessitated for planned, legitimate or emergency reasons which may include: conferences, family, work or vacation, which did not factor in the occurrence of a global outbreak. Contacts of cases may not be self-aware of the risk they portend, especially when they are not symptomatic, putting many more people at risk.

COVID-19 has affected not just travelers, but also airlines, some of which have experienced dips in their revenues with the possibility of their staff being at risk and has also affected global trade/stock markets. In some countries, gatherings of over a thousand people, conferences, festivals have all been cancelled due to this outbreak which is still spreading and expected to peak in a few weeks(3). The losses to travel agencies, families who may have delayed reunions, conference organizers, airline investors and the huge burden on the health care system, including morbidities and mortalities among health care personnel has necessitated some focus on travel health.

In the response to such global outbreaks, like the COVID-19, the majority of the attention is focused on building on the pre-existent preparedness measures, response, and mitigation; however, due to the ease of travel, a country that previously had no cases, can within a week begin to manage hundreds of cases. While information regarding the outbreak is being disseminated via credible public health organizations, social media and rumors in communities during this outbreak also provide sometimes, unverified and untrue information(4). This becomes more important for low- and middle-income

countries, many of which are in sub-Saharan Africa, who may for the first time need to issue travel advisories and provide travel health services, sometimes in cities or countries where they may have been previously non-existent. The COVID-19 outbreak has shown that travel health and medicine are vital in supporting the outbreak response, and more needs to be done in sub-Saharan Africa for capacity building and infrastructure not just for the present but in preparing for any potential outbreaks in the future. From academics to traders in the sub - region, updated, evidence - based information regarding what countries not to travel to, how to travel safely, symptoms to look out for, self-quarantine, their country embassies at the travel destination and a fair estimate of their risk if they decide to travel. Knowledge regarding the disease is evolving, and citizens need to be constantly informed to make safe travels.

For several reasons including limited resources for competing priorities especially across Africa, travel health is not given required attention, the recent Covid-19 outbreak shows this status quo is untenable. The International Society of Travel Medicine appears to have no country in sub-Saharan Africa listed as a member(5), while many countries in the sub- region continue to have very few trained and licensed professionals, much less than required to address global outbreaks in the places where they are most needed.

We need to re-examine the scientific basis of prescriptions around travel during communicable disease outbreak. When is travel restriction justified and to what extent? What is the minimum evidence threshold that justify travel restriction? How do we incorporate available evidence into preparedness and response in order to minimize contagion during travel in the face of infections like SARS-CoV2 with many unknowns? Most importantly how do we get individual countries to align global health interest along with national interests for travel health decision making.

Furthermore, what should we be telling travelers to and from regions like Africa – with limited capacity - either as a preparedness or response measure? How do we fit the communications related to travel into the overall risk communication strategies? These are relevant scientific and operational questions that will enhance global health security as it pertains to travel health. While we may not have answers to some of these questions, it is a good starting point to inform public health actions now and in the foreseeable future in a contextually relevant manner. This information can be deployed in crafting travel health information ( which can be tailored to specific demographics and disseminated via the appropriate media to those groups).

A synergy between a travel health infrastructure and risk communication structures already in place for Covid-19 can ensure that evidence-based information reaches a wider audience across communities in sub-Saharan Africa. In addition, we recommend capacity building for travel health in the sub - region as this will greatly enhance the management of the current COVID-19 outbreak and assist with potential outbreaks in the future.

In conclusion, there is a need to enhance travel health practice and infrastructure, and its integration into all structures and processes of disease preparedness and response including risk communication.

#### **Competing interests**

We declare that there are none

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Views and opinions in this represent those of the authors writing in their personal and independent academic roles without any direction from their governments or institutions.

#### **References**

1. Public health preparedness towards COVID-19 outbreak in Nigeria Mustapha JO, Adedokun KA, Abdullahi IN, - Asian Pac J Trop Med [Internet]. [cited 2020 Mar 9]. Available from: <http://www.apjtm.org/preprintarticle.asp?id=279650>
2. Habibi R, Burci GL, de Campos TC, Chirwa D, Cinà M, Dagrón S, et al. Do not violate the International Health Regulations during the COVID-19 outbreak. *Lancet*. 2020 Feb 29;395(10225):664–6.
3. Chen S, Yang J, Yang W, Wang C, Bärnighausen T. COVID-19 control in China during mass population movements at New Year. *Lancet (London, England)* [Internet]. 2020 Feb 24 [cited 2020 Mar 9];395(10226):764–6. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/32105609>
4. Song P, Karako T. COVID-19: Real-time dissemination of scientific information to fight a public health emergency of international concern. *Biosci Trends* [Internet]. 2020 Feb 25 [cited 2020 Mar 9];2020.01056. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/32092748>
5. The International Society of Travel Medicine [Internet]. [cited 2020 Mar 9]. Available from: <https://www.istm.org/regionalandnational>

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