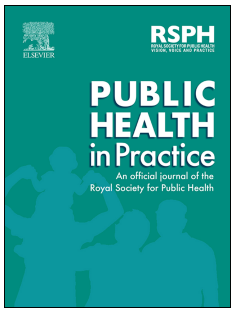

Enhancing SARS-CoV-2 surveillance at ports of entry between South Africa and Zimbabwe due to anticipated increased human mobility during the festive period

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Enhancing SARS-CoV-2 surveillance at ports of entry between South Africa and Zimbabwe due to anticipated increased human mobility during the festive period.

Dear Editor

The temporary labour migration of Zimbabwean citizens to South Africa (SA) is a long-standing practice. However, there has been an increased influx of Zimbabweans into SA (and other countries in the African region) over the past twenty years. A large proportion of Zimbabweans residing in SA are undocumented, making it difficult to establish their exact number, with estimates ranging from 2 to 5 million (1). In December 2020, an estimated daily average of 30,000 people crossed the Beitbridge border post from South Africa entering Zimbabwe during the festive period (2). Transmigration between South Africa and Zimbabwe is essential to enable individuals to maintain links and support for their families, especially during the festive periods.

In the current COVID-19 era, cross-border traffic has been noted to be a significant factor in COVID-19 transmission (3). After initial strict restrictive measures banning international travel, the reopening of borders was followed by a harsh second wave of the COVID-19 pandemic in Zimbabwe, characterised by an over 300% case burden increase from December 2020 to January 2021 (4) with serious public health strain. The drivers of transmission for this wave included human complacency, increased human mobility and weak surveillance at ports of entry (4). There are strong suggestions that the beta SARS-CoV-2 variant which was discovered in South Africa in November 2020 could have been transported into Zimbabwe over the Christmas period, when there was increased mobility between the two countries. It is critical to address gaps and challenges identified in the efforts to contain transmission between the two counties from spiralling out of control and therefore avert further catastrophic waves especially for Zimbabwe which has constrained public health sector capacity. We highlight some of the issues to focus on during these periods in this scope.

Proactive public health policy and practice involves anticipating periods of increased human mobility, which are mainly the Christmas, New Year and Easter holidays, and putting in place measures to effectively limit both import and export of SARS-CoV-2. This would have an impact as well on preventing transmission of both known and undetected variants of

concern (VOCs). VOCs can easily precipitate widespread community transmission and threaten the success of ongoing control programmes including vaccination campaigns, reducing vaccine effectiveness and shifting herd immunity thresholds. To address the COVID-19 prevention, treatment and mitigation needs for the large volume of individuals who travel between SA and Zimbabwe, there is need to enhance active surveillance and related services. This needs to take place at borders, by putting in place measures to limit border porosity before, during and after these periods.

In order to achieve increased surveillance and prevent further outbreaks, evidence-based screening and testing algorithms are needed to enable timely detection of SARS-CoV-2 infected individuals at port of entry (POE). Despite ongoing vaccination efforts, both Zimbabwe and South Africa are still far from attaining their herd immunity thresholds. Therefore, testing, treating and isolating confirmed cases, as well as quarantining of suspected contacts, remain important control strategies. In a country such as Zimbabwe, with limited capacity during periods of high transmission, prevention remains key. Periods of low transmission between the harsh waves are essential for optimising control strategies such as vaccination, while periods of increased mobility provide an opportunity to offer vaccination to people who are free of disease at POE. Therefore, infection prevention and control strategies, education material as well as key vaccination messages should be strategically planned to impact widely at POE by making sure that intended recipients are reached. Various pillars of the Ministry of Health and Child Care of Zimbabwe COVID-19 response, including surveillance, risk communication, community engagement, laboratory, case management and logistics should therefore be coordinated to work closely together to ensure efficiency, co-ordination, and rational utilisation of scarce resources.

Testing using the cheaper and more readily available rapid antigen tests that have acceptable sensitivity and specificity compared to the gold standard polymerase chain reaction, must be availed at POE to limit the length of time that travellers have to wait for their results. Given the emerging reports of COVID-19 vaccination card buying both in South Africa and Zimbabwe (5) both countries need to urgently put in place adequate ways of detecting false vaccination cards ahead of the predicted challenges of the festive season. Similarly, both countries will need to install and implement a shared system for verification of both COVID-19 negative test.

Furthermore, departments of health in both South Africa and Zimbabwe will need to enhance sequencing capacity in the border regions and put in place a mechanism to rapidly share information of variants in circulation in their respective countries.

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