



Summary brief

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Significant gaps in infection prevention and control at points of entry in Sierra Leone, 2021: a wake-up call

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Assessment of Infection Prevention and Control Measures at Points of Entry in Sierra Leone in 2021: a cross-sectional study. *Int. J. Environ. Res. Public Health* 2022, 19.

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Key Messages

- Points of entry to countries play a significant role in the spread of infectious diseases.
- As people cross borders, they may also cross with infectious diseases including those caused by antimicrobial-resistant strains.
- Uncontrolled infections risk unnecessary antibiotic use and rising levels of antimicrobial resistance.
- Our study found significant gaps at these entry points in guidelines, isolation facilities, training, and monitoring of infection prevention and control (IPC) practices. This puts the country at risk for cross-border transmission of infectious diseases.

What is the problem and why is it important?

Antimicrobial resistance is a significant public health problem globally, driven mainly by the inappropriate use of antimicrobials. One of the most effective ways to reduce inappropriate antimicrobial use is to prevent the infection in the first place. Every infection prevented is one antibiotic treatment avoided.

Much attention has been placed on preventing and controlling infections at health facilities, but less on national border entry points. These are front-line facilities with potentially many exposures to infectious diseases. Sierra Leone has four high volume entry points which monitor people entering and exiting the country. Strengthening measures to control infections here can help prevent the cross-border spread of infectious diseases, which also reduces the inappropriate use of antibiotics that create antimicrobial resistance.

How did we measure it?

We adapted the World Health Organization IPC Assessment Framework tool to assess measures in Sierra Leone and identify gaps in their components at each point of entry through a cross-sectional study. In May 2021, we interviewed staff at all four entries and observed measures taken.

Infection prevention and control components

Guidelines

Training

Monitoring of practices

Screening station

Cleaning and sanitation

Isolation facility

Referral system

The adapted checklist is a structured, closed-ended questionnaire with a scoring system on seven infection and prevention components (sidebar). Each entry was scored as either inadequate (core components implementation is deficient), basic (some aspects are in place, but not sufficiently implemented), intermediate (most aspects are appropriately implemented), or advanced (core components are fully implemented according to WHO recommendations and appropriate to the needs of the facility).

What did we find?

- At all four entry points, there were no IPC guidelines, standard operating procedures, or routine monitoring.
- There were no documented procedures for referral of sick travelers or those suspected of having infectious diseases that could be transported across the borders and create problems.
- Two entries were scored as inadequate and the other two were at basic levels, lacking sufficient implementation of core practices.
- Staff at only two of the four entries had received basic orientation on IPC practices.
- Infrastructure and materials for screening stations were scored the lowest at Queen Elizabeth II Quay and highest at Gbalamuya ground crossing.
- Materials for environmental cleaning and sanitation were lowest at Jendema ground crossing and highest at Lungi International Airport.

Implications

- This was the first study in Sierra Leone to assess the implementation of IPC measures at the four point of entries. Port health staff are regularly exposed to travelers and goods that may carry infectious diseases, which makes this assessment critical.
- The low level of control measures observed at the four entries in our study is of utmost concern. Travelers with infectious diseases can cross these entries unnoticed, risking the health of both staff at these entry points and those the traveler comes into contact with later.
- Effective measures to prevent and monitor infections should be established at the entry point, including the development of guidelines and standard operating procedures. In addition, isolation and screening stations should be established/improved to prevent cross-border transmission of infectious diseases.