



KEY POINT SUMMARY

OBJECTIVES

To describe the EHU model that was developed and implemented by MOHS and KSLP in Sierra Leone, and to discuss the role of EHU within hospitals and possible future uses of EHUs.

DESIGN IMPLICATIONS

When containing and managing certain outbreaks, separate facilities that are specially equipped for screening and initial treatment should be located near primary care facilities so that incoming patients can be triaged safely and efficiently.

Ebola Holding Units at government hospitals in Sierra Leone: Evidence for a flexible and effective model for safe isolation, early treatment initiation, hospital safety, and health system functioning

Johnson, O., Youkee, D., Brown, C. S., Lado, M., Wurie, A., Bash-Taqi, D., ... & Kamboz, A. 2016 | *BMJ Global Health* Volume 1, Issue 1, e000030

Key Concepts/Context

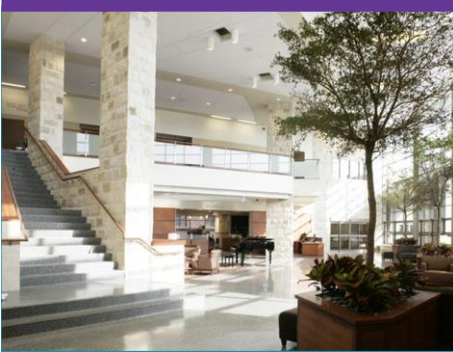
The outbreak of Ebola Virus Disease (EVD) in West Africa during 2014-2015 was an unprecedented modern crisis that required novel approaches to outbreak containment and management. In response, the Ministry of Health and Sanitation (MOHS) and the King's Sierra Leone Partnership (KSLP) in Freetown, Sierra Leone, worked to develop and implement five new Ebola Holding Units (EHUs) in government hospitals, which successfully isolated 37% of the 3,097 confirmed EVD cases within the country's Western Urban and Rural district.

Methods

The authors provide a general overview of the EHU model and the outcomes resulting from its implementation. A detailed history of the creation of the EHUs is also described, along with an outline of the main goals behind EHU development.

Findings

The four primary goals of the EHUs were: 1) Reduction of cases in the local community, 2) Improved survival of isolated patients, 3) Maintenance of general non-EVD healthcare, and 4) Reduction in healthcare worker infections. The MOHS maintained strategic leadership of the EHUs at all times. All EHUs were located either in newly built structures next to government hospitals or in repurposed existing buildings. All patients admitted were screened for EVD at the entrance and triaged accordingly. EHUs would isolate patients suspected to have EVD, provide initial clinical care, perform laboratory testing to confirm EVD status, and refer



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positive cases to an ETC or negative cases to general wards. Corpses were stored safely while awaiting collection from burial teams. Assessments of safety, quality of care, and efficiency were conducted regularly by the MOHS, KSLP, and independent specialty agencies such as WHO and the CDC. Nosocomial transmission of EVD was lower within EHUs as compared to other facilities that operated during the outbreak. The total construction cost of all sites was below \$50,000 for 79 beds.

Limitations

This article deals with a small number of facilities that were created for the specific purpose of EVD containment and management, therefore its implications for design outside of these purposes is limited. While the operating model and outcomes were thoroughly discussed, little information is provided regarding the physical design of the EHUs themselves.

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