

Rapid Scale-Up of Screening for Early Detection of Sudan Virus Disease (SVD) in Healthcare Facilities (HCFs) during the 2022 Outbreak in Uganda



ABSTRACT

Authors: Shillah Nakato¹, Martin Esagala¹, Andrew Kwiringira¹, Judith Nanyondo S.¹, Abdullah Wailagala¹, Maureen Kesande¹, Ahumuza Noelyn Komugisha¹, Morris Seth Aheebwa¹, Rebecca Suubi¹, Prisca Tibenda¹, Mary Namuli¹, Ndagire Angella¹, Akankwatsa Dickson¹, Elizabeth Katwesigye², Diriisa Musisi³, Juliet N. Kasule³, Isabella Fabens³, Benedict Nsana³, Amy Boore³, Lisa P. Oakley⁴, Elizabeth Bancroft⁴, Janelle Kibler⁴, Doreen Nabawanuka⁵, Paul Katongole⁶, Mohammed Lamorde¹

Affiliations:

1. Infectious Diseases Institute, College of Health Sciences, Makerere University, Kampala, Uganda
2. The Ministry of Health, Uganda
3. United States Centers for Disease Control and Prevention Uganda Country Office, Kampala, Uganda
4. United States Centers for Disease Control and Prevention, Atlanta, Georgia
5. World Health Organization (WHO), Uganda Country Office
6. Makerere University School of Public Health, Monitoring and Evaluation Technical Support Program (METS) program, Kampala, Uganda

Introduction:

The Uganda Ministry of Health (MoH) and implementing partners instituted an infection prevention and control (IPC) response strategy during the Uganda SVD outbreak in 2022 that involved rapid enhancement of screening capacity at HCFs. Rapid scale-up of screening for infectious diseases, such as SVD, is critical for early identification and triage of suspected or confirmed cases in HCFs.

We describe the rapid deployment of a multimodal IPC strategy implemented in response to the SVD outbreak and the resulting impact on screening measures at HCFs.

Methods:

We implemented a multimodal IPC strategy in HCFs from five high risk districts to improve screening practices from November 2022–January 2023. The strategy included training health workers (HCWs) identified as IPC mentors; establishing screening areas; and providing screening supplies and communication materials.

The three-day training utilized an MoH standardized training package with didactic and practice sessions. The mentors then cascaded screening information and skills to other HCWs through onsite trainings and mentorships and established screening areas. Baseline and endline (3 months after baseline) cross-sectional assessments were conducted using the MoH IPC Assessment Tool adapted from the WHO Ebola IPC Scorecard.

The five main screening parameters assessed included presence of ≥ 1 meter distance between screener and the person screened, availability of a functional handwashing facility and infrared thermometer, correct record of each person's temperature, and appropriate referral process for those suspected of having SVD to holding areas.

IPC capacity was measured through the summation of each of these parameter results and calculated as an overall percentage. IBM SPSS Statistics 20 software was used for data analysis and a paired t-test done to determine any significant findings between mean scores (percentage) at baseline and endpoint.

Results:

A total of 296 IPC mentors were trained, screening information was cascaded to 3,899 HCWs, and screening areas were established in 1,135 HCFs. Based on the screening results from the MoH IPC assessment tool, capacity improved from 44% (SD=37) at baseline to 67% (SD=34) at endpoint. Screening capacity improved from baseline to endpoint among level II and public HCFs from 33% (SD=35) to 60% (SD=35) ($p<0.05$) and from 54% (SD=38) to 76% (SD=31) ($p<0.05$), respectively.

Conclusion/Relevance to WASH Sector Trends:

Rapid implementation of a multimodal IPC strategy was successful in enhancing screening capacity across Uganda's HCFs during a SVD response, which is critical for early identification of infected patients to interrupt transmission. This multimodal approach should be recommended for future response actions.