Roll out of the Electronic Integrated Diseases Surveillance and Response System in Uganda, 2019-2022: The journey and Lessons Learned.

ABSTRACT

Authors:
Rodney Mugasha[1], Immaculate Ayebazimbe[2], Lydia Nakiire[1], Jonan Gasanani[1], Richard Bayo[1], Vivian Ntono[1], Andrew Kwiringira[1], Judith Nanyondo S[1], Prosper Behumbiize[2], Allan Muruta[4], Carol Kyozira[4], Mohammed Larmode[1]

Affiliations:
1. Infectious Disease Institute,
2. Health Information Systems Program-Uganda,
3. Makerere University,
4. Ministry of Health

Introduction:

Uganda implemented Integrated Disease Surveillance and Response guidelines since 2000 to strengthen disease surveillance systems. Despite challenges with manual paper-based systems. In 2017, Uganda implemented an electronic surveillance system (eIDSR) that had limited functionality and was implemented at a small scale.

The Ministry of Health (MOH) with support from the Infectious Disease Institute and other partners, upgraded the system functionality and expanded its geographical scope. We describe the upgrade of the eIDSR system, its role out, and its effect to inform programming and disease surveillance.

Methods:

The eIDSR system was upgraded to DHIS2 2.35 platform, featuring faster reading and writing tracker data, handling over 100 concurrent users, and enhanced case-based surveillance features on Android and web platforms. The eIDSR rollout followed a consultative workshop to create awareness of the system among stakeholders.

The project developed a curriculum and trained national trainers. These trainers cascaded the training to the district health teams, who later cascaded the training to health workers. The training adopted an on-site training approach, of training new users at their desks.

Results:

From October 2020 to September 2022, eIDSR was rolled out in 100 districts.
There was an improvement in districts and cities reporting cases through the eIDSR Android platform from 41% (28/146) in April 2021 to 49% (71/146) in September 2021. Additionally, the system permitted prompt reporting of alerts, which led to the eventual confirmation of anthrax outbreaks in the West Nile and Bugisu regions.

Conclusion:

Improving the functionality and the expanded geographical scope of the eIDSR system enhanced disease surveillance. Future programs should leverage political will and existing structures to scale up eIDSR on a large scale.