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Information Sharing during Complex Public Health Events: An Analysis of the Uganda COVID-19 Response Using D-DEMATEL Method

The complexity and rapidly changing environment of public health emergencies make it critically important that countries, and their supporting international partner organizations, possess the ability collaborate and communicate effectively during a response. As evidenced during the COVID-19 pandemic, the customary cooperative activities of responders using the incident management system - like resource management, situational updates, and operational planning - were complicated by the need to adhere to novel procedures like social distancing, or more significantly, relying exclusively on technology to work from remote locations.

In recent years, the utilization of information communication technologies (ICTs) in government and private sector systems have increased. With the advent of these new technologies, organizations have expanded their options for internal and external communication and facilitated the analysis and distribution of real-time information to partners through diverse channels. However, there is a lack of research on the value of these

technologies in emergency management, and limited studies on the actual utilization and roles these ICTs play in facilitating communication and coordination in emergency management.

This poster illustrates a mixed-methods research design to examine Uganda's use of information communication technologies (ICTs) in managing the COVID-19 response. Quantitative data is obtained using an electronic survey, while qualitative data is collected from interviews with emergency management and public health subject matter experts participating in the response. To address the subjectivity in expert evaluation and the fuzziness in linguistic assessment, a multi criteria decision making technique, the D-DEMATEL method, is used to evaluate the direct relations of influential factors and obtain the cause-effect classification.

Presentation Theme: The utilization of information communication technologies (ICTs) in emergency management. During the COVID-19, Uganda's public health emergency operations center (PHEOC) relied almost exclusively on ICTs to communicate and coordinate internally, and externally, with a host of international partners in response to the outbreak. There is limited research on the utilization patterns and if these ICTs added value to the response effort.

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