Emergency food management sector ill-prepared for digital disaster management

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In the last several years, digital strategies, like mobile applications, the Internet of Things, wearable technology, machine learning, and websites, have become critical tools for disaster management. These technologies have been shown to improve situational awareness, increase response efficiency in disasters, and are essential for overcoming challenges like

low literacy, limited connectivity, and lack of phone ownership.

In a recent study published in the journal *Disaster Medicine and Public Health Preparedness*, authors from Johns Hopkins University found that the emergency food distribution sector is lagging behind in this evolution towards digital emergency management, as evidenced by clients' complaints regarding lack of information on resource distribution, lack of trained volunteers and support staff, poor communication between sectors, and spikes in food insecurity during the COVID-19 pandemic. The Johns Hopkins team reviewed existing digital tools, and found that all were in the early phases of research and/or development, or have never been proven effective or tested through scientific study or evaluation. Emergency management personnel have no guidance, therefore, on potential best practices, effectiveness, or the potential impact of digital tools for emergency food provision, distribution and other logistical considerations in the context of food security in disasters.

According to lead author Dr. Nina Martin, one reason for this lack of digital support is that "food assistance programs may have outdated opinions on the ability of low-income, disaster-impacted people to access and use digital tools, like smartphones and wearable technology. A recent Pew Center study supports that over 85% of Americans have access to smartphones; 97% have access to a cellphone."

Dr. Joel Gittelsohn, senior author, reports that "a key challenge where digital tools could contribute greatly is in terms of identifying and training of volunteers and other support staff for food pantries and food banks. In emergency or disaster situations, there is an absence of digital systems for situational awareness and communications between food pantries, food banks, and government emergency operations."

Co-author Dr. Daniel Barnett also notes that "The findings from our literature review point to a significant and timely need for identifying

evidence-based approaches to leveraging digital technologies for reducing food insecurity in public health emergencies and disasters."

  More information: Nina M. Martin et al, Digital Strategies to Improve Food Assistance in Disasters: A Scoping Review, *Disaster Medicine and Public Health Preparedness* (2021). DOI: 10.1017/dmp.2021.281

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