

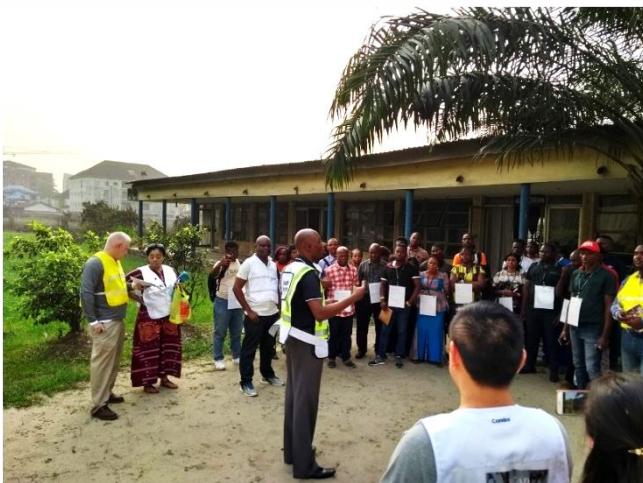
How can cities best prepare for disaster?

Building capacity to respond to mass casualty events is an important consideration for urban health authorities. This pilot of a new tool may enable city leaders to improve emergency response plans.

New tool to improve city emergency medical response

This study developed and tested the first tool—City's Assessment of Mass Casualty Emergency Response and Action (CAMERA)—designed to objectively measure and score the lifesaving capability of urban health systems in the aftermath of a mass casualty event. The tool can help city health authorities identify critical gaps and improve disaster response plans before a real disaster strikes.

Through testing CAMERA in two cities, the team show the tool effectively identified gaps in a city's medical response system, providing actionable recommendations to help authorities improve preparedness. The team aims to test the tool in more cities and raise awareness of the need for cities to prepare health systems to respond to disaster.



Briefing for participants (exercise players, controllers, evaluators) during MCI exercise at the College of Nursing of the Rivers State University, in Port Harcourt, Nigeria, 2020. Photo Credit: Craig Tower

Background

Most cities are vulnerable to at least one type of disaster, whether natural or man-made. Global commitments such as the Sustainable Development Goals and the Sendai Framework for disaster risk reduction provide clear direction and targets to significantly improve emergency response in cities worldwide. Critical to achieving these targets is augmentation of urban emergency health response systems which are responsible for delivering life-saving medical care during any mass casualty incident (MCI). However, few tools are available to city health authorities to enable comprehensive testing of emergency medical response plans. Guidelines or protocols may exist but gaps in capacity may not be identified until a real-life disaster strikes.

How the research was conducted

CAMERA was developed based on a literature review, in-depth interviews, and structured engagement with global and local experts. Drills to test and validate the tools were conducted in three cities in Pakistan, Nigeria, and Brazil. Cities were scored out of 100% across a range of relevant metrics at scene, ambulance, hospital and city authority level.

Key findings

- The drills provided initial encouraging results on the validity and reliability of the CAMERA tool in assessing the preparedness of cities to respond to mass casualties.
- It can help city authorities track and compare their own performance over time.
- The gaps identified by CAMERA enabled recommendations to policymakers on areas such as hospital preparedness, ambulance services and command/communications.
- All three cities showed critical gaps in 'city preparedness' –frameworks and management structures which oversee and coordinate emergency response.
- One city tested scored only 45%, indicating a critical lack of preparedness for a mass casualty event.

Implications for humanitarian practitioners and policymakers

- Early response from policymakers engaged in pilot testing shows the tool can be a helpful approach to systematically test, monitor and improve emergency response plans. The detailed scoring system enables targeted improvements to be made.
- The tool is only a diagnostic. Implementation of the recommendations will require sustained political will, strong governance, and funding. Open, transparent sharing of CAMERA results with the public may incentivise cities in implementing recommendations.
- Health systems around the world need to be adequately prepared for disaster especially as the risk of climate-related natural events increases. The pilot suggests that some cities, especially those in low-income countries, may have critical gaps in emergency response preparedness. A global picture of mass casualty preparedness could be developed to inform coordinated efforts.

Recommendations for further research

The study team is looking for partners to validate the tool in additional city settings. They hope to further adapt and improve the tool and the process of engaging policymakers in results.

About the study team

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The MCI exercise in Port Harcourt recreated the impact of a multi-story building collapse on the city's emergency medical systems. Exercise players from the Nigerian Red Cross simulate traumatic injuries, while evaluators record details of the hospital's response. 2020. Photo Credit: Agnes Usoro

Keywords

Natural disaster; emergency medicine; urban disaster; disaster risk reduction; disaster preparedness; city preparedness; disaster response; city response plans

Articles and further reading

More information on the Elrha website

<https://www.elrha.org/project/measuring-urban-capacity-humanitarian-crisis-piloting-urban-health-response/>



Research for health
in humanitarian crises

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<http://www.elrha.org/programme/research-for-health-in-humanitarian-crises/>