

Advancing Knowledge Translations to Contribute to Resilience in Emergency Preparedness, Response and Recovery: The Role of Evidence Aid

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Introduction: Policymakers, practitioners and the public all have a role in health emergency and disaster risk management (Health EDRM). They need to access, understand and use evidence from research to take actions to reduce health risks and harm. They need the best available evidence to maximize their ability to save lives and reduce suffering. Evidence Aid seeks to meet this need through collections of specially prepared plain-language summaries of systematic reviews, freely available online in multiple languages (www.EvidenceAid.org). The summaries and webpages can be linked to reference management software and embedded in other websites.

Method: Evidence Aid has added a substantial number of summaries to its collections since 2020, for example, adding a collection for reviews of relevance to the COVID-19 pandemic and its associated measures. From 2021, Evidence Aid built on its partnership with the Pan American Health Organization (PAHO/WHO) to identify and summarize reviews relevant to building resilience into health systems. This included enhancements enriching the content of each summary with the authors' implications for practice and research, equity considerations and funding sources.

Results: In November 2022, the Resilient Health Systems collection contained more than 200 summaries relevant to ensuring that health systems are resilient to emergencies, disasters and related challenges. There were also 600 summaries relevant to the COVID-19 pandemic, 150 on the health of refugees and asylum seekers, more than 100 on physical and mental health impacts of disasters and 110 on preventing and treating acute malnutrition.

Conclusion: Evidence Aid's 1000+ summaries of systematic reviews relevant to Health EDRM provide a unique gateway into this evidence base for policymakers, practitioners and the public wishing to ensure that disaster preparedness, response, recovery and rehabilitation are effective and efficient. It should be a key component in helping people and organizations to care, cope and overcome in an increasingly challenging world.

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Designing a Robust Methodology to Evaluate Emergency Health and Medical Responses to Disasters

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Introduction: Health and medical disciplines have traditionally preferred experimental and quasi-experimental methods to evaluate interventions. More recently, mathematical modeling was used to test intervention efficacy in the SARS-CoV-2 pandemic. The challenge for disaster researchers is neither approach suits examining phenomena about emergency health responses in disasters. This study applied an alternative methodology to examine questions of how and why emergency health and medical responses reduced mortality during six different natural hazard disaster events.

Method: The case study methodology is orientated by the researcher's perspective and 'not assigned a fixed ontological, epistemological or methodological position'. This flexibility allows alignment of the researcher's worldview with the methodology best fitting the research problem and its context, such as post-positivism. Qualitative case study design carefully links five key design elements and sequences, including research questions, propositions, a unit of analysis, data collection, and data analysis.

Results: Six holistic single case studies described how and why the emergency health response reduced mortality risk of people affected by different disasters. An evidenced-based theoretical emergency health program logic model compared and contrasted inputs, activities, outputs, and outcomes between theoretical and actual responses. Rival explanations were tested before data collection for each single case and applied to challenge the logic model. Each case applied four strategies to increase the validity and reliability of the holistic single case study findings.

Conclusion: Qualitative case study methodology provides a robust and flexible framework to examine complex questions about emergency health and medical responses, including questions about events, processes, activities, performance, and outcomes. The methodology is equally suited to real-time or retrospective studies. The strength of the approach is the high compatibility for examining phenomena within the context they occur, and linking program logic, data collection, and data analysis methods to the specific question being investigated.

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A National Survey of Hospital Cyber Attack Emergency Operation Preparedness

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