

Resilience Compendium: Strategies to Reduce Communities' Risk to Disasters

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Introduction: The *Victorian Compendium of Community-Based Resilience Building Case Studies* supports place-based disaster risk reduction by promoting strategies to reduce communities' risk before, during, and after disasters or emergencies and by strengthening community resilience through shared learning. It grew from Community Resilience Forums at Monash University, where community resilience practitioners presented their programs, explained their evolution, how they solved challenges, and shared unforeseen learnings. Forum attendees expressed an urgency for a sharing platform to help build community expertise, save precious community resources, avoid program duplication to prevent communities from reinventing the wheel. These now represent key tenets of the Compendium.

Method: International exemplars inform the structure of the Compendium and a thematic analysis identified critical success factors for underpinning disaster risk reduction and resilience strategies.

Results: As an Australian first, the Compendium gathered 38 programs between 2012 and 2022, which were addressed before (29), during (7), and after (17) events. Programs addressed all hazards (23), bushfires (11), heat (2), fire safety (1), and house fires (1). Twenty programs used a framework. Thirty received funding, with nine receiving less than \$20,000 and five receiving more than \$100,000. Twenty-nine addressed a whole-of-community perspective.

Critical success factors included: strong governance and Board support; trust, partnerships, commitment, adaptability, stamina, and community leadership; paid facilitator, local government support, external funding; and celebrating often-neglected success.

Conclusion: Offering an innovative contribution to resilience practice and research, the Compendium supports and enables locally-led and owned place-based disaster risk reduction efforts. It supports the Sendai Framework and augments principles in the National Framework for Disaster Risk Reduction by connecting people from diverse sectors to deliver distinct, adaptable actions to help reduce communities' risk before, during, and after disasters or emergencies. The Compendium enables communities to preserve valuable community resources offering opportunities to extend to a national or international Compendium.

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Understanding Community Preparedness and Emergency Supply Kit Knowledge, Attitudes, and Practices Among the U.S. Population

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Introduction: During disasters households may experience lost communication and roads may become impassable; thus a

common recommendation is to prepare an emergency supply kit that can be used to shelter-in-place during evacuation. The decision to prepare for disasters becomes more challenging during pandemics because individuals may be hesitant to evacuate to shelters or may be unsure of items to include in emergency supply kits. Because of this, many preparedness estimates before 2020 may no longer reflect current levels of preparedness. The aim of this research was to provide information on what actions people take to prepare for disasters, determine whether households have supply kits, and help guide next steps to better prepare for and respond to disasters during a pandemic.

Method: We conducted descriptive statistics, chi-square analyses, and backward-step regressions on 10 questions collected through Porter Novelli's ConsumerStyles surveys in Fall 2020 (n=3,625), Spring 2021 (n=6,455), and Fall 2021 (n=3,553) to examine factors that contribute to overall household preparedness levels and supply kit ownership.

Results: Being married, having children in the home, and having a household income of \$150,000 or more are all associated with increased preparedness levels. Persons living in mobile homes, recreational vehicles (RVs), boats, or vans are half as likely to have preparedness plans compared to those living in single family homes. While there was a significant association between level of preparedness and supply kit ownership, overall kit ownership is also lacking. While most respondents believed a kit would help their chance of survival, only a third had one. Age, sex, education level, and region of the country were significant predictors of kit ownership.

Conclusion: This study helped close existing knowledge gaps surrounding preparedness and emergency supply kits to guide public health research and prevention strategies, including messaging, to help reduce adverse health impacts during multiple emergencies.

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Descriptive Analysis of Northern Triangle Disasters in the EM-DAT Database: 1900-2022.

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Introduction: Since 1900, disasters in the Northern Triangle of Central America—Guatemala, Honduras, and El Salvador—have caused over one-hundred-thousand deaths, affected millions of people, and caused billions of dollars of damages. As climate change causes increasingly frequent severe weather events, the catastrophic effects of disasters are likely to contribute to poverty and political and economic instability in the region leading to greater levels of migration out of the Northern Triangle.

Method: This study provides a descriptive analysis of all disasters recorded in the EM-DAT database affecting Guatemala,

Honduras, and El Salvador between 1900–2022. Disasters are analyzed by frequency, severity, financial cost, distribution by country, burden of death, affected and financial cost by country, and type of disasters most prevalent in each country. These trends are then graphed over the time period of the database.

Results: EM-DAT records 359 disasters in the Northern Triangle between 1900 and 2022. Meteorologic events (floods and storms) were the most common types of disaster (44%), followed by transport accidents (13%). Meteorologic events and earthquakes were the most severe, as measured by deaths (62% of total deaths caused by disasters), people affected (60%), and financial cost (86%). Guatemala had the greatest number of disasters (45%), deaths (68%), and affected people (52%). The financial costs of the disasters were evenly distributed between the three countries.

Conclusion: Meteorologic disasters are the most common and most severe type of disaster in the Northern Triangle. Earthquakes and transport accidents are also common. As climate change causes more severe storms in the region, disasters are likely to increase in severity as well. Governments and aid organizations should develop disaster preparedness and mitigation strategies to lessen the catastrophic effects of these coming disasters. Missing data in the EM-DAT dataset limits the conclusions of this study to general trends

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WHO Health EDRM Research Network and Health Data Management

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Introduction: The WHO Health Emergency and Disaster Risk Management (H-EDRM) Research Network has identified that health data collection during health emergencies and disasters is a key element to enable proper coordination and timely response, and research priorities of the network.

Method: Focus group discussion was performed to identify key challenges which hinder accomplishment of the data collection.

Results: It was concluded that the issue faces significant challenges including; (1) Access: Logistic issues including safety, transport and communication did not allow experts such as epidemiologists to access onsite and relevant stakeholders. It is also challenging for local public health stakeholders to accept new experts during emergencies. (2) Tools: forms or tools that are concise and operational to be accepted by frontline responders should be provided. (3) Standardization: to set standard forms or tools and its operational mechanism is essential to collect health data, otherwise collected data will be partial and fragmented. (4) Governance: overall governance of procedure and data ownership must be clarified before its implication administratively and legally. These should be endorsed by local health authorities. (5) Ethical procedure: Obtaining informed consent

and conducting timely procedures is difficult. Contextually, health data collection during emergencies and disasters in many cases is inappropriate. (6) Operation: Collected data should contribute to ongoing operation in a timely manner. The discussion also found the standard tool of the WHO; the Emergency Medical Teams Minimum Data Set, which has been already used in more than ten countries and has been providing leading examples for this topic.

Conclusion: Further research to fulfill the identified challenges and gaps will facilitate the collection and strengthen the health emergency and disaster risk management.

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Compliance of the Public with Governmental Regulations and Recommended Protective Health Behavior During COVID-19: Lessons Learned from Varied Waves of the Pandemic in Israel

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Introduction: Managing pandemics is dependent on the adherence of civil societies to directives and recommendations issued by governmental and public health authorities. In the context of the COVID-19 pandemic, hurdles were encountered by authorities regarding public compliance to orders and recommendations of protective health behavior. The objective is to investigate the factors that most powerfully enhance or impede compliance to varied measures—both regulations (i.e. lockdown, mask wearing, social distancing) and recommendations (i.e. vaccination etc.) in Israel.

Method: A longitudinal study, based on structured questionnaires was conducted to investigate factors that enhance or impede the uptake of protective health behavior throughout two years of COVID-19.

Results: Various factors throughout different phases of the pandemic have been identified as playing a significant role in compliance. During the initial phases of the pandemic, the most salient factors for enhanced compliance to non-pharmaceutical interventions (lockdown) were concern for family or self-health, while deterrence played little role. During the fourth wave, findings indicated that pandemic fatigue had begun to have cascading effects on vaccination efforts. Particularly at this stage, trust in authorities and even threat perception components were incapable of predicting uptake, while perceived importance of the vaccine and its effectiveness positively and significantly predicted uptake. Throughout the pandemic, a negative correlation between levels of resilience and distress symptoms and a positive correlation between resilience and enhanced compliance were identified.