

Conclusions The suggested approach provides consistent approach for identifying the critical CI interconnections and preparedness requirements. The benefits of the approach include the creation of common understanding of the interdependencies, establishing common concepts and introducing a systematic approach for identifying and managing the CI interconnections. The benefit of the approach for the CI service providers is the improved business continuity that is achieved by creating comprehensive understanding of the preparedness requirements.

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CHAIN OF RESILIENCE: AN INNOVATIVE, EMERGING APPROACH TO AN INTERNATIONAL CONUNDRUM

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Background The global emphasis on increasing capacity in all communities to meet the growing challenge of disasters threats, be they natural, technological, environmental or manmade hazards, continues to gain momentum. Disaster resilience, now a catch-cry to reduce the effects of disaster impacts on communities commonly, depicts conceptual ambiguity. The stimulus and momentum for building disaster resilience is demonstrated in the economic losses during the period July 2013-June 2014 which saw the fourth consecutive year where disaster losses exceeded \$100 billion; 16,300 people died and 358 internationally reported disasters affected 113 million people. International and national standards and frameworks, such as the UN's *Sendai Framework for Disaster Risk Reduction 2015–2030*; the United Kingdom's *Strategic National Framework on Community Resilience* (2011); the United States' *Disaster Resilience: A national imperative* (2012), and the Australian *National Strategy for Disaster Resilience* (2011) underpin concepts to build community resilience to disasters.

Method A recent review of community and disaster resilience in peer reviewed and selected grey literature identified multiple multidisciplinary definitions.

Results No consistent definition emerged from the review. 'Resilience' presents as a cross-disciplinary, definitional conundrum for those working to build and measure disaster resilience.

Conclusion This paper offers a unique recommendation to build resilience across all sectors of society and all phases of the disaster cycle by adopting and adapting the internationally recognised, successful, community-based 'Chain of Survival' for out-of-hospital cardiac arrest as a Chain of Resilience.

Developing a community-based *Chain of Resilience* holds enormous potential for providing a much needed framework to create a consistent approach to building resilience across all sectors of society while maintaining conceptual flexibility for situational differences.

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ADAPTING HADDON'S MATRIX AS AN INNOVATIVE FRAMEWORK FOR DISASTER RISK REDUCTION AND COMMUNITY SAFETY

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Background Frameworks for Disaster Health lack structure and require stronger evidence. Disaster Risk Reduction has become

an international imperative, now guided by the *2015 Sendai Framework (UNISDR)*. Haddon's Matrix has successfully defined injury prevention countermeasures in a range of community settings over the past 30 years. This paper outlines an evolving model to underpin our understanding of Disaster Health and explores both the current and potential use of Haddon's Matrix in the setting of disaster risk reduction.

Methods A literature review was undertaken to enhance the outcomes of the WADEM Education Committee's initial 2008 framework for *International Standards and Guidelines for Disaster Health Education*. A second literature review examined the use of Haddon's Matrix in the disaster domain. The *2015 Sendai Framework* was examined to identify elements potentially relating to Haddon's Matrix.

Results Four domains within Disaster Health were identified:

1. *Comprehensive* approach: the natural history of a disaster structured on the 3 phases of pre-event, event, and post event;
2. *All Agency, Shared Responsibility* approach: stakeholders and conceptual elements in disaster risk reduction;
3. *All Hazards* approach: reflecting both the traditional scope of disasters, and the contemporary scope of emergencies';
4. *Generic Personal Attributes* expected of the humanitarian professional.

Haddon's Matrix is rarely linked to the disaster domain, although a small number of case studies have recently reported adapting this approach to the emergency management setting. Elements identified within the *2015 Sendai Framework* provide an exciting opportunity to adapt Haddon's Matrix in this setting.

Conclusion Haddon's Matrix provides a framework for common communication and structuring the science and evidence-base of disaster risk reduction. It is adaptable to the contemporary concept of disaster resilience and to understanding disasters through the eyes of community safety.

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DISASTER PREPAREDNESS FROM THE ASPECT OF THREE HELPS (SELF-, MUTUAL- AND PUBLIC- HELP) IN JAPAN

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Background Japan is a country at the high risk of natural disasters. About 20% of the earthquakes over magnitude 6 in the world have occurred in Japan. More major earthquakes and related disasters such as tsunami and fire are also expected to hit the country in near future. Therefore, it is a very pressing issue to prepare for those emergent situations. Although governments are working for the preparation and risk management at the different levels, it is quite obvious that the public rescue would not always be available at the damaged sights right after the occurrence of disasters since public agencies could also be seriously damaged. Therefore, it is very important to make individuals and neighbourhood communities capable to rescue and survive by themselves until the public services become available. This study therefore tries to see how communities prepare for the disasters in terms of individuals (self-help) and neighbourhood community (mutual help) with the Safe Community (SC) model.

Methods The written materials such as the application reports to become a member of the international SC network, annual reports and meeting minutes of the taskforce for disaster safety

were examined to see the process of the organising the strategies for safety at disasters and their activities.

Participant observations to the taskforce meeting were also conducted to see how they organise the countermeasure to improve the self- and mutual helps in relation to the existing services.

Results While there are variety of programs organised by the governments as public help, it was pointed out that countermeasures at individuals (self-help) and neighbourhood levels (mutual-help) are not well prepared yet. Considering gaps between practices and awareness of importance of the preparations for disasters among citizens, preparation at individual and neighbourhood levels is the one of the most important challenges in the current situations. The citizens take much less actions of self-help and mutual-help although they are well informed its importance. Therefore, through the Safe Community programs, the communities have organised the strategies to improve the aspects of self-help and mutual-help with the existing programs such as evacuation drills.

Conclusions The well balanced preparation among three (self-, mutual-, and public-) helps is necessary. Improvement of self- and mutual- help is the common challenges in many Japanese communities.

To get the situation better, therefore it is expected to improve the capacity of the individuals and neighbourhood association on a day-to-day level by recruiting younger generations into the community management, since they are the generation which are causing deteriorating of community tie but can be the main forces of the mutual help at the disaster and can promote self-help to the great extent.

Child and Adolescent Safety

Parallel Mon 2.2

129 THE CHILD SAFETY GOOD PRACTICE GUIDE: WE DON'T NEED TO REINVENT THE WHEEL

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Background Despite child injury being the leading cause of death and hospital admissions among children over the age of one in Australia, there are scant resources available to guide child injury prevention planning. It is vital that practitioners and policy makers have ready access to the evidence about what works in injury prevention. However, in reality, strategies tend to be short-term and not necessarily optimally focused, with limited evaluation.

Methods To develop a resource that provides injury policy makers and practitioners with evidence from the literature and implementation points from the field, a group of Australian child safety researchers and practitioners turned to an existing resource, *The Child Safety Good Practice Guide*, developed by the European Child Safety Alliance and subsequently adapted for Canadian audiences by SafeKids Canada. The process of securing funds for the guide, collaboration with international partners and consultation with local practitioners, will be highlighted.

Results The guide updates current international evidence on effective strategies for 14 priority child injury topics together with local case studies that highlight implementation issues, partners and lessons learned. Building on the previous two iterations of the guide, further implementation and evaluation guidance has been included in the Australian version. Previous versions, utilised on two continents, have been reported to be an effective advocacy tool for injury resources, an impetus for evidence-based program planning and the foundation of inter-sectoral partnerships.

Conclusions The guide provides a valuable template for sharing and consolidating what works in the prevention of child injuries, without “reinventing the wheel”, so that precious resources in this area can be maximally effective.

130 A COLLABORATION BETWEEN 21 STATES AND TERRITORIES TO PREVENT CHILD AND ADOLESCENT INJURY IN THE US

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Background Over the past three decades, we have generated a strong evidence base of effective interventions to prevent child and adolescent injuries. Nevertheless, a gap persists in the broad implementation of these strategies, and, in the U.S., injury is still the leading cause of death among children and adolescents ages 1–19.

Description of the Initiative The U.S. Maternal and Child Health Bureau, in cooperation with the Children's Safety Network, has just launched the first cohort of 21 states and territories participating in the Child Safety Collaborative Innovation and Improvement Network (CS-CoIIN). In a CoIIN participants support, collaborate and learn from each other and recognised experts to collectively make improvements. With support of the CS-CoIIN, this cohort will apply a quality improvement methodology to pilot, test, and scale up evidence-based interventions at state, and local levels to achieve a measurable impact. Measurement is a critical part of the CoIIN and states will enter monthly data into a virtual data dashboard, including both real-time process and outcome measures.

Results The 21 states and territories participating in the CS-CoIIN represent 47% of the US 0–19 year-old population and account for 43% of their injury deaths. In fall 2015, a consensus process identified the following topic areas: injuries to child passengers and teen drivers; suicide and self-harm; interpersonal violence including bullying; and falls. In December, 2015, states will choose to address up to three of these topics. In September 2016 the CoIIN will be at the end of the first of two years. The proposed presentation will: 1) provide a detailed overview of the injury data that served as the impetus for the initiative; 2) describe the ways states have engaged in CoIIN efforts; 3) present the data collected to-date; and 4) discuss lessons learned.

Conclusions Other countries may benefit from the lessons learned from the groundbreaking work of the CS-CoIIN.