

Background: While emergency preparedness is a core public health function in Canada, public health emergency preparedness activities operate largely in the background until an event of concern raises their profile, as was observed during the Severe Acute Respiratory Syndrome (SARS) outbreak and recently, with Ebola Virus Disease. Despite the lessons learned from SARS, a persistent challenge for public health practitioners is defining what it means to be prepared for the Canadian public health system.

Methods: This research used a qualitative study design. Six focus groups were conducted across Canada, employing the Structured Interview Matrix technique. The purposive sample consisted of inter-disciplinary professionals with roles in or relevant to public health emergency preparedness. Rich qualitative data was analyzed using content analysis. Emergent themes were identified by incorporating empirical data from each phase of the Structured Interview Matrix. Integrated knowledge translation was incorporated throughout the study design and involved knowledge users in study design and analysis.

Results: will be presented for the essential elements of public health emergency preparedness across all-hazards emergencies. Emergent themes include the consideration of structures important to preparedness for emergencies, and the processes and resources found to be essential to preparedness in Canada. Detailed examination of elements will explore practice and experience; collaboration; communication; learning and recovery; and ethical considerations in planning and decision-making.

Conclusion: This study presents findings on the essential elements of public health emergency preparedness in Canada. These elements can guide practice in informing preparedness activities. Countries with health systems similar to Canada may use the findings in conceptualizing preparedness within public health systems globally.

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Improving Maternal, Newborn and Women's Reproductive Health in Crisis Settings: A Cochrane Systematic Review

Primus Che Chi¹, Henrik Urdal², Odidika Uj Umeora³, Johanne Sundby⁴, Paul Spiegel⁵, Declan Devane⁶

1. Public Health Science, Karolinska Institutet/ Peace Research Institute Oslo, Stockholm/Sweden
2. Conditions Of Violence And Peace (cvp), Peace Research Institute Oslo, Oslo/Norway
3. Department Of Obstetrics & Gynaecology, Ebonyi State University, Abakaliki/Nigeria
4. Institute Of Health And Society, University of Oslo, Oslo/Norway
5. Johns Hopkins University (JHU), Baltimore/MD/United States of America
6. School Of Nursing And Midwifery, National University of Ireland Galway, Galway/Ireland

Study/Objective: To identify, synthesize and evaluate the effects of a health system and other interventions aimed at improving Maternal, Newborn and Women's Reproductive Health (MNWRH) in crisis settings.

Background: Maternal, newborn and reproductive health is a major problem in humanitarian/crisis settings mainly due to disrupted health service delivery, with substantially higher levels of morbidity and mortality compared to stable settings. Improving maternal, newborn and reproductive health in crisis settings is a global priority, especially in the context of the UN sustainable development goals.

Methods: A Cochrane-based systematic review was carried out using the guidelines for Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA). We systematically searched seven databases, two trial registries, three specialized grey literature sources, hand-searching, reference lists and contact with experts in the field.

Results: Out of 10,998 records (10,391 from databases and 607 from other sources), only three studies met our strict inclusion criteria, including one study in-progress. An additional 17 'near miss' excluded studies were also explored in the analysis. The two included studies are part of a randomized trial involving female survivors of sexual violence with of high levels of post-traumatic stress disorder (PTSD) symptoms, and combined depression and anxiety symptoms in a post-conflict setting. The first study assessed the impact of cognitive processing therapy (a mental health intervention) provided by trained community-based paraprofessionals, compared to individual support on mental health outcomes. The second investigated the impact of Village Savings and Loans Associations (a group-based economic intervention) on economic, social and psychological functioning outcomes. The in-progress study is investigating the effect of an intervention package on the frequency of facility based births and perinatal mortality.

Conclusion: The evidence base for improving MNWRH in crisis setting remains relatively weak. More robust and well-designed studies are needed.

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The Progress from the Acute Phase to Subacute Phase in Disaster Medical Assistance at the Kumamoto Earthquake on April, 2016

Nakata Keiji

Social Studies of Disaster Management, Kobegakuin University, Kobe city/Japan

Study/Objective: We are going to investigate and review the smooth disaster medical relief activity to the Kumamoto earthquake on April, 2016; for the future, through this precedent, the acute phase to sub-acute phase.

Background: The Kumamoto earthquake occurred on April 14th and 16th, 2016. Based on Japanese the disaster medical relief system, DMAT (Disaster Medical Assistant Team) had dispatched under the Ministry of Health and Labor. After one week from the earthquake in the Aso area, we had initiated the medical coordination center, which was named Aso Disaster Recovery Organization (ADRO).

Methods: Investigate and review the process of establishment ADRO and its operations.

Results: We have concluded the DMAT operation office placed in ASO Medical Center Hospital, subsequently, the Aso area disaster health care revival liaison conference, had inaugurated officially - which was named ADRO [Aso Disaster Recovery Organization]. We have estimated, and expected to be proceeded by the next phase of disaster medical relief coordination. We also had been establishing relationships with the local relevant sector or institute. We received permission from the Kumamoto authorized institutes, and attempted to share the concept of this organization's establishment among us, through out the activities follows: 1) we established an outline, including goals, structure, and contents of the functions of this organization; enrolled institutions/organizations, and 2) we created the operation manual of ADRO, to clarify the detail of operation such as meeting schedules, places, handout documents, and manuals of the Minutes.

Conclusion: We are deeply considering that this process has a high potential to be a model case of the procedures, from an acute phase to subacute phase, to handle the disaster medical relief activity in the affected area. It is indispensable and an essential element to establish the coordination or conference body in a disaster affected area for handling effective medical relief activity.

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Efficacy of Mass Graves for Management of the Dead in Mass Disasters - A Retrospective Multi-Center Study

Clifford P. Perera¹, Christopher Briggs², Anjana Daya³

1. Dept. Of Forensic Medicine, Faculty of Medicine University of Ruhuna, Galle/Sri Lanka
2. Dept. Of Anatomy and Neuroscience, University of Melbourne, Melbourne/VIC/Australia
3. formerly at ICRC Regional Delegation, New Delhi/India

Study/Objective: To reassess the effectiveness of mass graves in managing the dead during post Asian tsunami period in Sri Lanka and India, to identify minimum standards and best practices for conduct of such graves.

Background: The unexpected high numbers of deceased, witnessed during a mass disaster, lead to the critical question of management of the dead including finding effective ways of disposal within a short period.

Methods: The data available for five selected mass gravesites located in tsunami affected southern Sri Lanka and south India, were perused and geographical locations of them were observed periodically since mid-2005, to assess the nature of the site and associated human action. The data was gathered on the criteria for selecting mass grave sites, burial procedure, members of the mass grave team, identification and documentation of deceased, involvement of first responders, strategies for maintenance of the mass grave, etc. The directions for locations and translators for interviews in south India were provided by the ICRC regional delegation in India and local Red Cross societies.

Results: The criteria for selecting mass burial sites were not uniform throughout the selected areas. Some were located

just opposite the community habitats. The depths of these sites were also varied, and some burials were just few feet deep. The boundaries of most of the mass burial sites were indistinct. Many burial sites were utilized for reburials, and some burials were done during the evening or in the night. The services of untrained personnel were obtained to dispose of the dead, and the deceased were not tagged with permanent identification codes prior to disposal in almost all the sites.

Conclusion: Although the disposal method can be differed according to the disaster situation, mass gravesites are a potentially safe and appropriate method for disposing of the dead in developing countries, if followed with the proper guidelines.

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Post-Disaster Recovery, Mental Health and Resiliency: The Role of Public Health Organizations

Melissa Genereux¹, Danielle Maltais², Mathieu Roy³, Marie-Claude Maillet⁴, Janot Gosselin⁴, Geneviève Petit⁴

1. Département Des Sciences De La Santé Communautaire, Université de Sherbrooke, Sherbrooke/QC/Canada
2. Département Des Sciences Humaines Et Sociales, Université du Québec à Chicoutimi, Chicoutimi/QC/Canada
3. Direction Générale Adjointe, Eastern Townships integrated university center for health and social services - Sherbrooke hospital university center, Sherbrooke/QC/Canada
4. Direction De Santé Publique, Eastern Townships integrated university center for health and social services - Sherbrooke hospital university center, Lac-Mégantic/QC/Canada

Study/Objective: This case study aims to describe the role of public health in the long-term recovery of communities heavily affected by a disaster.

Background: In 2013, a train carrying 72 cars of oil derailed in Lac-Mégantic in the Estrie region (Québec, Canada), provoking a major conflagration and explosions. This disaster caused 47 deaths, the destruction of 44 buildings, the evacuation of 2,000 citizens (ie, one-third of local population), and an unparalleled oil spill.

Methods: The Public Health Department of the Estrie region examined the mental health consequences in the years following the disaster, using repeated cross-sectional studies (T1:2014; T2:2015) among large random samples of adults. Results from these two studies served as a powerful lever for community mobilization.

Results: Overall, seven in 10 adults living in Lac-Mégantic and surrounding areas reported human (eg, loss of a loved one) or material losses (eg, home damage) related to the train derailment. Two years after the event (T2), three-quarters of these "direct victims" showed moderate to severe signs of posttraumatic stress. Following the publication of these results, a multi-sectoral action plan, funded by the Québec health and social services ministry, was developed with community partners and citizens in order to increase resiliency. Through a wide range of actions, this plan pursued several objectives: to maintain and adapt psychosocial services (bringing them closer to people), to stay connected with the