

Psychosocial Risk Assessment and Management for CBRN Terrorism : A Primer tool

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Research evidence clearly demonstrates that the psychosocial effects are the most widespread and long lasting impact of natural disasters, catastrophes and terrorism at the emotional, social, and behavioral levels. For example, bioterrorism in the form of a small sarin gas release in the Tokyo subway yielded a dozen deaths and a wave of 15,000 psychogenic casualties. These so called 'Worried-Well' clogged the health system. Anthrax letters in the US postal systems caused 6 deaths and a national frenzy with 30,000 individuals requesting antibiotics, plus a major union grievance against differential medical treatment of workers, coupled with general disbelief and mistrust of governmental decision making and action. A late and poorly coordinated evacuation order left New Orleans with thousands at risk on the streets and hundreds of thousands in despair in disorganised shelters. One cow in Alberta diagnosed with BSE caused the closure of international borders to Canada's beef trade and resulted in meat consumption plummeting, destabilization of farm life, bankruptcies, distress and suicide. From terrorism, to BSE, to SARS, to wild fires, floods and storms, all major crises and emergencies have identified that social factors were pivotal to the anticipation and resolution of these events. Yet social and psychological factors are poorly integrated in risk assessment and management frameworks. Risk perception, public confidence, behavioural compliance, preparedness, coping, community resilience constitute the Achilles' heel of our current national crisis response plans.



While government agencies have invested considerable resources in the development of hazard-oriented risk assessment frameworks to assist planners and decision-makers in managing various public issues, such as industrial accidents or natural disasters, the psychological, social, emotional and behavioral aspects of emergencies and crises have not been fully integrated into preparedness and planning efforts. Moreover if some systems and plans do exist at the community, regional, provincial and federal levels to manage natural hazards or major accidents, terrorism adds to the context unique features that merit focused risk management efforts, as they relate to high uncertainty, sustained pending threats, malicious intent. An evidence-based psychosocial risk assessment and management framework to assist in preparing for and responding to the psychosocial dimensions of terrorism currently does not exist.

To meet this need, our research project aims at developing an integrated Psychosocial Risk Assessment and Management framework (P-RAM) to prevent, assess and manage the psychosocial aspects of threats and incidents. The framework integrates the emerging body of literature describing the mental health aspects of terrorism and disaster, the risk perception and risk communication literature, and interventions to mitigate psychosocial impacts before, during and after an event. PRIMER, the Psychosocial Risk Manager for Emergency Response is the tool that we are developing to assist planners in integrating psychosocial considerations to their plans, exercises and responses.

A first part of our work has been to mine the literature for empirical evidence of psychosocial impacts of terrorism and disasters, short-term and long-term, clinical conditions to normal behaviors. Then, we held national consultations with first responders (police, firefighters, paramedics), public health planners, federal, provincial and municipal decision-makers, NGOs and community agencies to assess psychosocial needs and knowledge. Simultaneously we ran focus groups and a representative national survey with the public to evaluate Canadians' risk perception, information and preparedness. Integrating this data we have designed a Psychosocial Risk Assessment and Management framework (P-RAM) for CBRN terrorist events and threats. We are now in the process to transfer the framework into a web tool PRIMER that will assist in the planning of preparedness and response, and which will be tested as a training and exercise tool.

Our results have indicated the need for a broad evidence-based planning paradigm stressing the scope of psychosocial effects, resiliency, community dynamics, and risk of secondary psychosocial effects, in terms both of emotions and behaviors, with a special emphasis on target populations such as children, the elderly, refugee and migrant populations, homeless and workers, showing risk perception as an important determinant, and providing evidence-based best practices in psychosocial interventions from effective communication to social capital mobilization, public education, and organizational support.

The P-RAM Framework is in its most basic form comprised of three major elements (Situation, Population and Intervention) linked to positive and negative psychosocial effects (Effect). It is based on generic all-hazard principles articulating CBRN specificities, using a multi-level systemic approach featuring individuals, communities, societies, integrating bioenvironmental and psychosocial interventions, with a pre-post timeline perspective.

The P-RAM Framework and prototype PRIMER tool provide a mechanism to enhance the integration of psychosocial considerations into emergency planning efforts across a range of responder and planning agencies. It defines a structured approach for guiding strategic investment decisions to address critical information gaps and enhance CBRN terrorism responses.

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