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Psychosocial Risk Assessment and Management in Canada: Preparedness and Resilience

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The Canadian S&T initiative:

The Center for Security Science (DRDC CSS)

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- > The Centre for Security Science (CSS) is a joint endeavour between the Department of National Defence and Public Safety Canada that provides S&T services and support to address national public safety and security objectives.
- > The success of CSS programs lies in its collaborative model (MoU) involving 21 federal departments and agencies, as well as partners from other levels of government, industry and academia, in Canada and abroad.
- > CSS is managed by Defence R&D Canada (DRDC) and administers three programs:
 - Chemical, Biological, Radiological-Nuclear and Explosives Research and Technology Initiative (CRTI) – with competitive open calls;
 - Public Security Technical Program (PSTP) and;
 - Canadian Police Research Centre (CPRC)



The Canadian situation:

- > No major terrorist event
 - Role of threat (Risk paradigm)
 - Anticipation process, planning, motivation for preparedness behaviors
 - Event proxys : feature-based analysis, case studies
 - » Wild fires, floodings, SARS, BSE, pandemic flue
 - » Magnitude, traumatic, recurrence
 - » Maliciousness, contagious
 - » Built in All-Hazard platform (relevance, rehearsal, readiness)
- > Size, density
- > Seasonality
- > Federal - provincial relations, health system
- > Bilingualism: Qc vs. RoC
- > Social identity, role of values

....an interesting natural experiment

In the psychosocial domain:

> CRTI funded projects:

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Psychosocial Risk Assessment and Management Tools for CBRN Attacks and Threats, Lemyre et al. R&D 2003-2007

To develop a Canadian integrated psychosocial CBRN risk management framework articulating risk assessment with psychosocial dimensions and to develop practical field-based psychosocial RAM tools and training

Evidence-based literature reviews:

Psychosocial Impact, Psychosocial Interventions; Risk Communication

Series of 16 case studies (by feature):

Accidents & Disasters (Bhopal, Brazil, Oklahoma..) CBRN events, SARS, BSE

Consultation roundtables with key responders across Canada (needs assessment)

Consultations roundtables with Experts

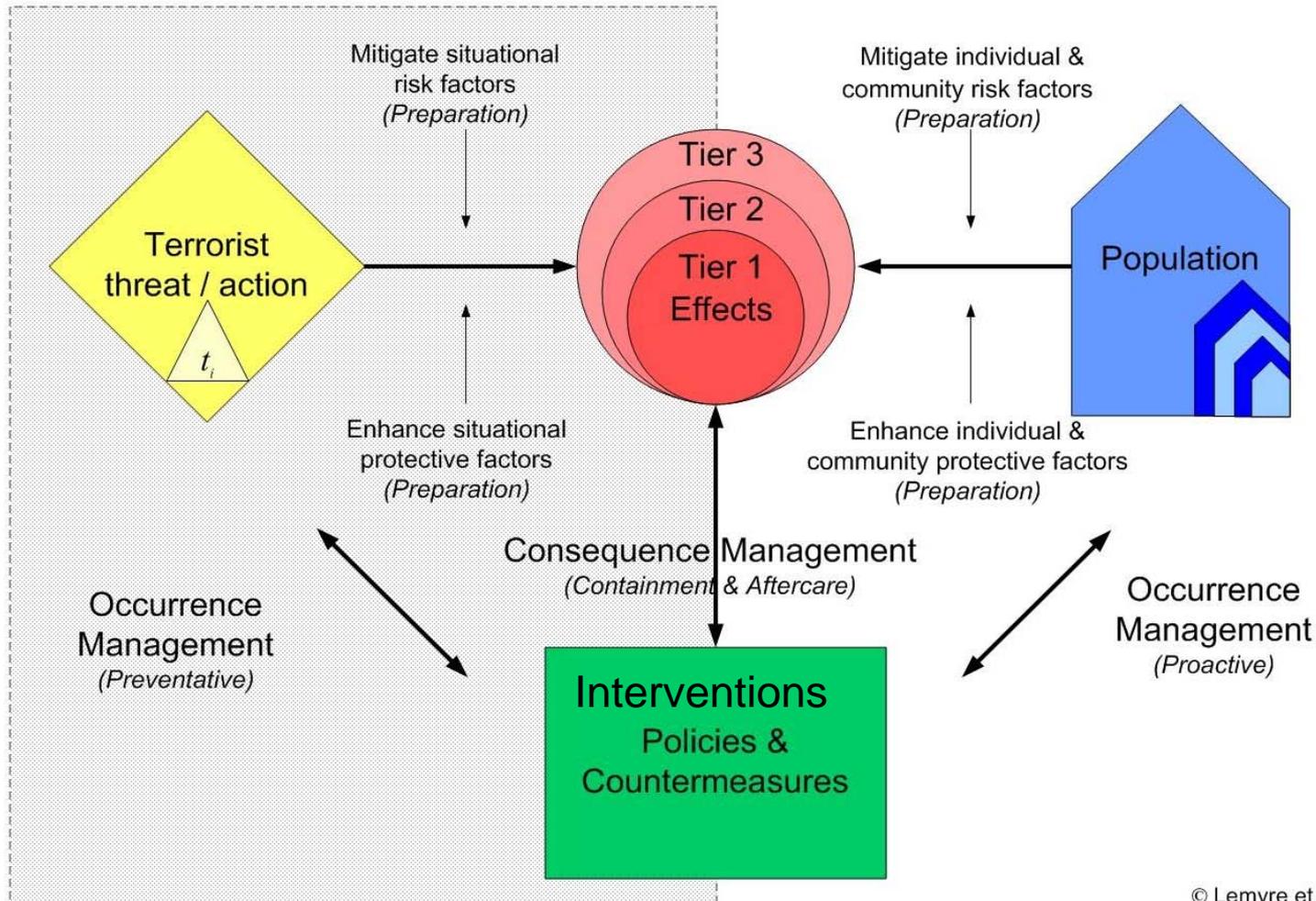
Focus groups with the Canadian Public: perception, trust, uncertainty, preparedness

National surveys of public risk perception, preparedness, trust, (N=1500)

Tools: Training modules, Psychosocial-RAM framework



Psychosocial Risk Assessment & Management (P-RAM) Framework



Posing the problem as a multi-characterization: **Hazard**, **People**, **Effects**, **Intervention**



A Psychosocial and Population Health Interdisciplinary Approach

Traditional

Hazard

Mortality, Casualty

Individuals

Environment

Occurrence

Individual vulnerability

Response

Treatment

Command system

Population Health

+ Consequences

+ Social, Resilience

+ Systems/ Ecology (Family, Comm, Org)

+ Person X Environment Interaction

+ Long-term sustainability

+ Community capacity

+ Preparedness

+ Prevention

+ Distributive Shared Leadership

In the psychosocial domain:



CRTI funded projects:

- PRiMer: Psychosocial Risk Manager , Lemyre et al.TD 2008-10

To create a friendly user tool *computer-based Pre-Event multimedia training on evidence-based psychosocial factors*: study guide; multimedia; knowledge tool

- Healthcare Workers as Responders: Lessons from SARS, Amaratunga 2004-07

- Focus-groups with nurses exposed and non-exposed
- National Survey (n=1508)
- Analysis of Hospital Emergency plans

-Rural Health System Capability for Pre-Disaster Planning & Preparedness

To build networks of caregiving

Amaratunga et al 2008-11

- EU Collaboration (NL,UK,FR,ES,SW) Societal Vulnerabilities to CBRN

- EU Collaboration (UK, FR, TC) Socio-behavioral aspects of mass decontamination

Creation of a Psychosocial Cluster:

supplementing the C-B-RN-E existing clusters with a People perspective

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Goal: To regroup a community of practice from government, academia, responders, NGOs, and private sectors

- Research, Education, Network
- Evidence-based policy & best practices
- Interdisciplinary, interprofessional, intersectorial, inter-cluster
- Across/ Pan- hazards (build capabilities)
- Grow the capacity, interconnectedness: Mobilizing academia, services...

Stream 1 Preparedness and Resilience (Proactive Consequence Mngt)

- Responders (training, support, communication)
- Public (risk perception, communication, empowerment)
- Decision-makers & planners (organization leadership, interdependencies)

Stream 2 Prevention of radicalization & adversarial intent (Occurrence Mngt)

- Community development
- Forensic: Surveillance, Intelligence, Detection, Interdiction



Psychosocial Cluster

> Priority Themes

- Community Resilience
- Training, Preparedness
- Risk communication,
- Engagement of media
- Prevention of radicalization through social cohesion
- Knowledge transfer to Responders, Policy-makers, Public

> Activities

- Workshops
- Scan, mapping, sharing of resources
- Pre-established research protocol (standardization, common core)
- Psycho-social exercises, simulations, skill rehearsals
- Inter-Cluster projects (Psychosocial x CBRNE)
- Community and School programs for empowerment and preparedness



Psychosocial Cluster

- > S&T Technological needs (inter-cluster)
 - Knowledge Transfer Tools (friendly search engine)
 - Computerized individual measurement: wellbeing, distress
 - Ecological level measures
 - Mapping of community resources (+ real-time availability)
 - Risk communication tools for the public (2-way)
 - Communication tools for responders (inter-sector)
 - Computerized training tools
 - Computerized simulation with psychosocial modeling
 - Simulation of decision-making under uncertainty
 - Simulation of meta-organization decision-making



Psychosocial Cluster

- > Interest for international collaboration
 - Measurement (perception, trust, functioning, distress...)
 - Pre-established research protocols (comparative studies)
 - Databases
 - Population Wellbeing Monitoring
 - Training & Knowledge transfer
 - Psychosocial exercises, simulations
 - Community empowerment and preparedness programs
 - Best practices & services (F-P-T Interagency Psychosocial Group)
 - Network of networks
 - » Risk perception & communication
 - » Community development, resilience
 - » Radicalization
 - » Responders support



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Merci

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