Enhancing Resilience among High Risk Populations to Maximize Disaster Preparedness, Response and Recovery

Tracey O'Sullivan,
University of Ottawa

Patti Gorr,
Public Health Agency of Canada

Scientific Authority:
Paul Chouinard
DRDC Centre for Security Science

Defence Research and Development Canada – CSS

Contractor Report
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IMPORTANT INFORMATIVE STATEMENTS

This work was supported by Defence Research and Development Canada Centre for Security Science Chemical, Biological, Radiological/Nuclear, and Explosives Research and Technology Initiative (CRTI 08-0176RD). The governmental and community partners include the Public Health Agency of Canada (PHAC), Human Resource and Skills Development Canada (HRSDC), The Canadian Red Cross, Ville de Gatineau, City of Calgary Emergency Services, Quebec City 211, the Region of Waterloo Emergency Social Services (ESS) and University of Ottawa.

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Abstract

Introduction: The EnRiCH Project is a community-based participatory research project designed to address the need for more empirical evidence on interventions to enhance resilience among high risk populations, in preparation for, response to, and recovery from CBRNE and other types of disasters.

Methods: Asset-mapping interventions were implemented in partnership with industry stakeholders in 5 geographic communities in Canada to determine which resources were available to support high risk populations and engage community associations in activities to support contingency planning.

Results: Across all 5 communities there was recognition of the vast resources available which previously had not been identified as potential capacity which could be mobilized for preparedness, response and recovery initiatives. The asset-mapping activities provided an opportunity for intersectoral collaboration and building awareness, while supporting innovative strategies to enhance community resilience.

Discussion: The results from The EnRiCH Project highlight the importance of collaboration, community expertise and networks as critical social infrastructure to support high risk populations and enhance community resilience. Leadership is needed to ensure investment in intersectoral collaboration is prioritized, and recognized for its critical role in managing adverse events and supporting populations who are typically not involved in contingency planning activities.

Résumé

Introduction: Le projet EnRiCH est une recherche communautaire participative élaborée afin de répondre au besoin de données empiriques sur les interventions permettant le renforcement de la résilience des populations à haut risque en matière de préparation, d'intervention et de rétablissement aux incidents CBRNE et autre types de catastrophes.

Méthodes: En partenariat avec des intervenants de l'industrie, une activité de cartographie des atouts a été mise en œuvre dans 5 communautés géographiques au Canada afin de déterminer la disponibilité des ressources qui viennent en soutien aux populations à haut risque et qui facilitent l'engagement des organismes communautaires vis-à-vis les activités relatives à la planification des mesures d'urgence.

Résultats : L'ensemble des communautés a su reconnaitre l'existence d'un vaste répertoire de ressources qui jusqu'ici n'avait pas été perçu comme une capacité pouvant être mobilisée pour les initiatives de préparation, d'intervention et de rétablissement en situation d'urgence. L'activité de cartographie des atouts a fourni aux participants une occasion de collaboration intersectorielle et de sensibilisation, tout en soutenant des stratégies novatrices pour renforcer la résilience des collectivités.

Discussion : Les résultats du projet EnRiCH soulignent l'importance de la collaboration, l'expertise communautaire et les réseaux en tant qu'infrastructures sociales essentielles au soutien des populations à haut risque et au renforcement de la résilience des collectivités. Le leadership est nécessaire pour assurer que l'investissement dans la collaboration intersectorielle demeure une priorité et qu'elle soit reconnue pour son rôle critique dans la gestion des évènements indésirables ainsi que dans le soutien des populations qui ne sont pas habituellement impliquées dans les activités de planification des mesures d'urgence.

Table of contents

Acknowledgements

This work was supported by Defence Research and Development Canada Centre for Security Science Chemical, Biological, Radiological/Nuclear, and Explosives Research and Technology Initiative (CRTI 08-0176RD). The governmental and community partners include the Public Health Agency of Canada (PHAC), Human Resource and Skills Development Canada (HRSDC), The Canadian Red Cross, Ville de Gatineau, City of Calgary Emergency Services, Quebec City 211, and the Region of Waterloo Emergency Social Services (ESS).

We would like to acknowledge the important contributions from many people, including Lynn McCrann, Wayne Corneil, Karen Chun, Elizabeth Gagnon, Darene Toal-Sullivan, Maxime Bourgoin, Craig Kuziemsky, Louise Lemyre, Linda Garcia, Jeff Jutai, Sanni Yaya, Behnam Behnia, John Webb, Mona O'Brien, Barry Aucoin, Karen Charles, Steve LaRochelle, Jacques Rathwell, Gilles Desjardin, Natalie Bourget, Claude Vanasse, Jacinthe Mathieu, and Ken Hoffer. As part of the design of this project, there were over 400 people involved in various capacities. We would like to thank the many students and staff from the University of Ottawa, the partners from the advisory panel and international research network, and the participants from the EnRiCH communities who devoted their time to the project and contributed their expertise to this initiative.

1 Introduction

Disasters present differential challenges for members of a community, depending on personal resilience and functional needs. Resiliency is influenced by a multitude of factors in the physical and social environment, as well as intrinsic personal characteristics (O'Sullivan et al., 2012). While there is prolific literature highlighting the need to address vulnerabilities in disaster, there is a paucity of empirical studies that provide evidence about the effectiveness, appropriateness and feasibility of resilience-oriented community interventions. This gap in the literature was addressed by The EnRiCH Project, which focused on resilience and emergency preparedness among high risk populations in Canada.

The EnRiCH Project began in January 2010 as a community-based participatory research project with 13 governmental, non-governmental and academic partners. Over the course of the project, it evolved to include community partners in Truro, Nova Scotia; The Region of Waterloo, Ontario; Gatineau and Québec City in Québec; and Calgary, Alberta. The project advisory panel, which was established in 2010, grew to approximately 45 people (a pan-Canadian, multi-sectoral, multidisciplinary network) who throughout the duration of the project met on an annual basis to discuss project activities and issues related to emergency management. The EnRiCH Project was divided into 5 phases, outlined in the logic model shown in Figure 1 below.

Following an environmental scan, extensive review of the available literature, interviews with key-informants across Canada, and asset / need assessments in each of the 5 communities, a Framework for Critical Social Infrastructure to Promote Population Health and Resilience was developed (O'Sullivan et al., 2012). The key components within the framework are collaboration, community capacity, situational awareness, and facilitating an adaptive response to changing contexts before, during, and after a disaster. This framework formed the theoretical basis for The EnRiCH Project Community Intervention (O'Sullivan et al, 2013), which focused on key components of social infrastructure to enhance resilience and preparedness among high risk populations across all phases of a disaster (prevention / mitigation, preparedness, response, recovery).

As noted in the logic model, engagement of community partners and the advisory panel provided the foundation for each phase of the project. Ongoing evaluation enabled the team to adjust the activities of the project to the priorities and needs of the communities and the emergent research questions from each phase of the project. In the sections that follow, we provide a description of the overarching goal and specific objectives for The EnRiCH Project, the methods used to achieve these objectives, and a summary of the findings and lessons learned.

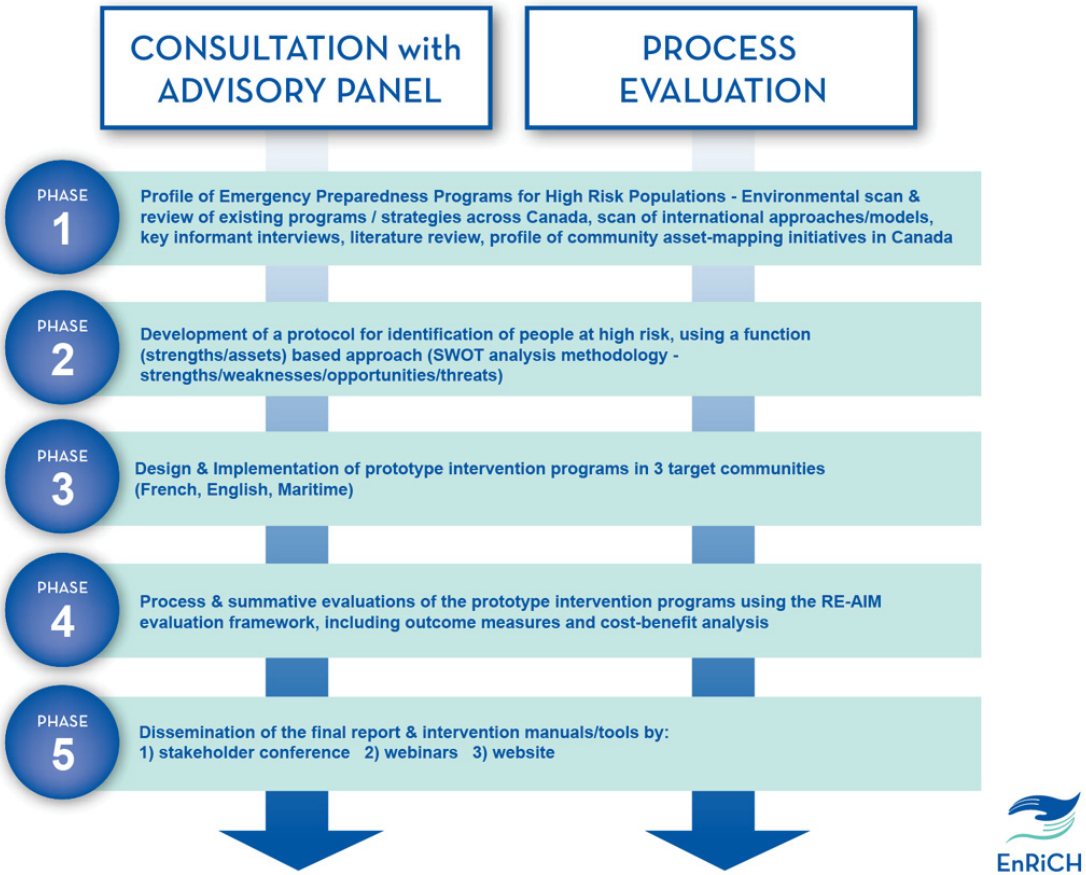

Figure 1. The EnRiCH Project Logic Model

2 Purpose

The overarching purpose of The EnRiCH Project was to develop new knowledge on essential elements of resilience-oriented intervention programs to enhance preparedness, response and recovery for Chemical, Biological, Radiological/Nuclear and Explosive (CBRNE) events or natural disasters. The project responded to a distinct need in the literature to have empirical evidence on the effectiveness, appropriateness, and feasibility of community mobilization interventions designed to mitigate social risk among high risk (or vulnerable) population groups.

The specific objectives were:

- To create a profile of Canadian and international preparedness / resilience building initiatives for high risk populations
- To determine which intervention programs have (and have not) been effective, and critically analyze current and past intervention initiatives for lessons learned
- To systematically review the existing literature on interventions for high risk populations
- To provide a common link and task-oriented opportunity for a Pan-Canadian Advisory Panel to be established, as a resource for the emergency management sector during and beyond the project period.
- To analyze the strengths, weaknesses, opportunities, and threats for 3 target communities and develop a prototype tool for communities to identify functional strengths/vulnerabilities.
- To design, implement and evaluate resilience-building interventions for high risk populations in 3 target communities
- To document and evaluate the use of a community based participatory research design for preparedness and resiliency-oriented interventions
- To disseminate findings and intervention materials to stakeholders from high risk groups, community organizations and emergency management sectors in Canada and internationally.

3 Methodology

A multiple case study design, employing a community-based participatory approach was used for The EnRiCH Project. Following ethics approval, and the review of literature and environmental scan phases of the project, an asset/need assessment was conducted in each community as the first part of the intervention. This phase of the study involved hosting 9 focus groups (n=143 participants) across 5 communities. The consultation sessions were facilitated using the Structured Interview Matrix (SIM) methodology (O'Sullivan et al., 2012). A full description/instructional video of this facilitation technique is available on the EnRiCH website (http://www.enrichproject.ca/publications-and-resources.html) (Corneil et al., 2011). During the consultation sessions, the participants were asked to reflect on the following questions:

1. What are the strengths / assets / resources within your community that contribute to preparedness for, response to, and recovery from a disaster?
2. What are the weaknesses / vulnerabilities within your community that hinder preparedness for, response to, and recovery from a disaster?
3. What external opportunities could your community take advantage of to enhance preparedness for, response to, and recovery from a disaster?
4. What external threats (challenges or barriers) could impact your community's preparedness for, response to, and recovery from a disaster?
5. Based on the results of the discussions in the first round, in a disaster in your community, what supports and challenges would appear for people who have limited ability to communicate (due to disabilities affecting communication, being socially isolated, or communication technology being down)?
6. Based on the results of the discussions in the first round, in a disaster in your community, what supports and challenges would appear for people who have complex medical needs (due to chronic conditions or injuries from the event)?
7. Based on the results of the discussions in the first round, in a disaster in your community, what supports and challenges would appear for people who cannot live independently without assistance (due to age, cognitive disabilities, physical disabilities, lack of financial resources)?
8. Based on the results of the discussions in the first round, in a disaster in your community, what supports and challenges would appear for people who need assistance with transportation (due disabilities, lack of transportation, inability to drive, lack of financial resources)?

The SWOT analysis was used to develop the CAMPSS Functional Capabilities Framework (O'Sullivan et al., 2011) as a prototype tool to identify high risk populations. The community partners from each of the target communities and the advisory panel were engaged extensively throughout the process of developing this tool and refining it in preparation for use in the collaborative asset-mapping component of the intervention.

The next part of The EnRiCH Community Intervention was implemented in 3 steps. The first was a full-day orientation session where participants were introduced to the CAMPSS framework (O'Sullivan et al., 2011) and an online collaborative asset-mapping tool, using Google Docs. During the orientation session, the participants had an opportunity to network, discuss the categories in the framework, and practice mapping the community assets into a spreadsheet, using Google Docs. The sessions were facilitated and laptops were provided to enable collaboration at each table while the participants tried out the tool.

Following the orientation session, participants were instructed to work together with the members of their EnRiCH group in their community to continue populating the spreadsheet to create a database of community assets over an 8-10 week period. At the end of this phase, another face-to-face session was held in each community to 'try out' the asset database using a table-top exercise tailored to the context of each community. The table-top exercise was designed as a pilot-test for the communities to determine the utility of the asset database to meet their needs in preparedness, response and recovery phases of a disaster. A full description of each part of the intervention is provided in The EnRiCH Community Intervention Manual, posted on the EnRiCH website as part of the community toolkit (O'Sullivan et al., 2013, http://www.enrichproject.ca/publications-and-resources.html).

The consultations for the asset/need assessment, orientation sessions, and the table-top exercise were all audio-recorded and transcribed verbatim. The transcripts were checked for accuracy and coded in preparation for content analysis. Emergent themes were identified and refined by consensus of the research team. As part of the evaluation, analyses were conducted to examine the costs and benefits of the intervention for one community that experienced severe flooding after the intervention phase. A follow-up consultation session enabled the community members to reflect on how their experience with EnRiCH influenced the response in their community. From this consultation, an investment-benefit model was developed. A summary of findings from the process and summative evaluation of the intervention are provided in section 4 (results).

4 Results

Outcomes and Lessons Learned

Two types of evaluation were conducted to assess a) the summative outcomes and b) the process outcomes for The EnRiCH Project. The summative evaluation focused on outcomes experienced by the communities as a result of the different parts of the intervention, while the process evaluation explored lessons learned from the implementation of the intervention. A summary of the findings is presented below.

One of the outcomes was the creation of a SWOT Analysis for each community that participated the asset/need assessment phase of the project. A few months after the consultations for the asset/need assessment, a member of the research team visited each of the communities to present a synthesis of the information for the communities. The findings were presented as a SWOT diagram, shown in Figure 2 below as a generic example.

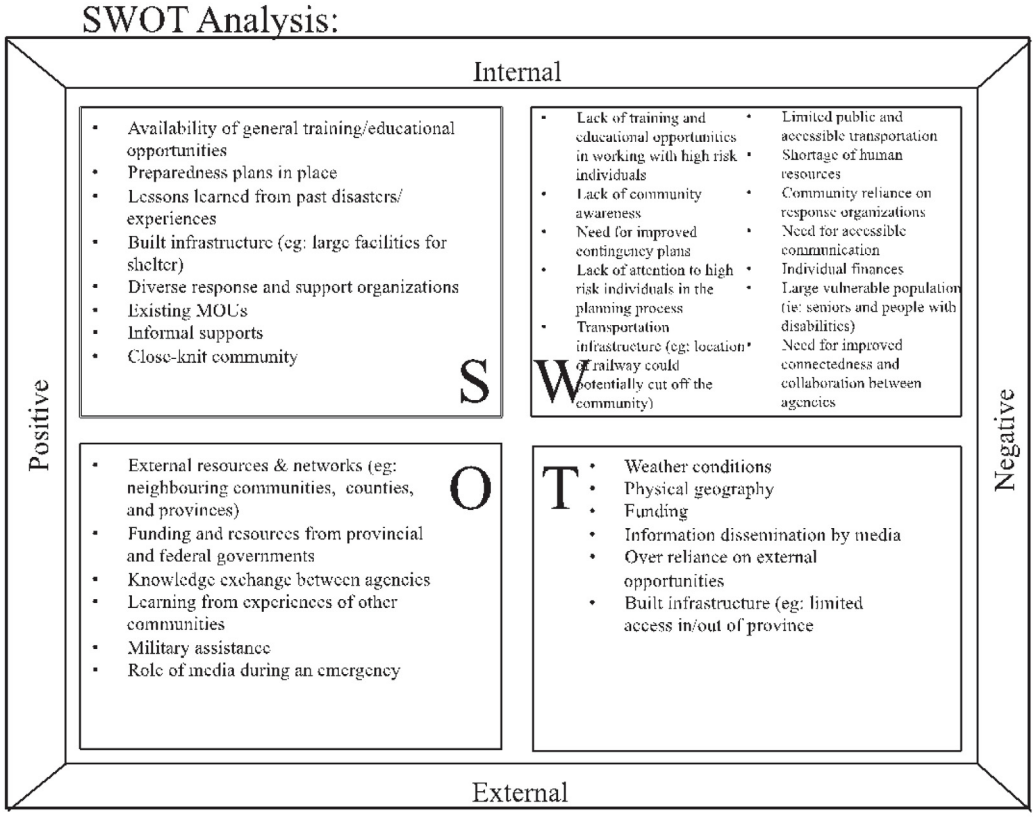

Figure 2. Sample Asset/Need Assessment Using SWOT Format

The creation of the CAMPSS Functional Capabilities Framework (O'Sullivan et al., 2011) was another outcome from the asset/need assessment phase. However, as the communities worked with the framework, it became apparent that it needed further refinement. Therefore, the feedback from the communities was incorporated into a revised version, which became CHAMPSS – with the addition of an additional category (housing). The revised document (O'Sullivan et al., 2013b) will be posted on the project website as an accompanying document to be used with intervention manual.

Below is a summary of the emergent themes from the collaborative asset-mapping exercise and table top exercise. The themes were divided into the categories of Leadership, Connectedness, Communication and Resource Management, which align with the categories of the resilience framework outlined by Norris et al. (2008).

Leadership

- Leaders emerged within each group
- EnRiCH was merged with other existing community initiatives
- Each EnRiCH community group developed a vision for how to use the asset-mapping tool and tailored it to their needs

Connectedness

- Engagement of organizations which had not participated in emergency planning activities before
- Expanded networks when EnRiCH was blended with existing community initiatives

Communication

- Information exchange provided a source of knowledge to enhance awareness and empower participants
- Electronic tools were perceived by some participants to be a barrier to information exchange

Resource Management

- EnRiCH provided an opportunity to build a database of resources in the community
- Google docs provided an accessible interface to access the community database created through the intervention period
- Social capital was enhanced as participants interacted and worked together on the asset-mapping task

Impact and relevance to the identified priority and gap addressed by the project

The following section highlights how The EnRiCH Project addressed the knowledge gaps outlined in the project proposal. Through all the activities implemented using a community-based participatory approach, EnRiCH provided opportunities for collaboration, momentum to carry activities forward over several years, a channel for empowerment of high risk populations and other community stakeholders, and leadership to bring people together to address the issue of community resilience.

Opportunity

- The structure of the project activities, the available resources to host meetings and support stakeholders to attend, and the expertise for synthesizing the knowledge co-generated by the groups provided opportunities for the participating communities to collaborate, build capacity and enhance resilience. The tools were tested during the Truro flooding in September 2013 and a consultation after the flooding provided an opportunity for the community partners to debrief and reflect on how their involvement in EnRiCH influenced the response during the flooding.

Momentum

- Through the demonstrations of how the EnRiCH intervention works in 5 Canadian communities, the initiative gathered momentum, which spread to other Canadian and international communities who are adopting this approach.

Empowerment

- EnRiCH is a social movement which empowers populations typically regarded as 'vulnerable'. By advocating for change in language, inclusion and participation, community groups typically not involved in contingency planning were empowered to collaborate with response communities to build capacity within their communities.

Leadership

- EnRiCH provided leadership and a vision which captured the interest and engaged 60+ organizations across Canada and the world to collaborate and mobilize through *The EnRICH Collaboration*.

New capabilities, partnerships and networks created

Numerous capability advancements have been made through The EnRiCH Project. The resources which were created through the project have been posted in the form of a community toolkit available on the project website (www.enrichproject.ca) including:

- An instructional video to provide guidance on how to facilitate consultation sessions using the Structured Interview Matrix (SIM) format (Corneil et al., 2011)

- The EnRiCH Community Intervention Manual which explains step by step how to do asset-mapping with a community, using the same approach used in The EnRiCH Project (O'Sullivan et al., 2013)
- An overview of the CHAMPSS Functional Capabilities Framework, explaining how community assets can be categorized according to the type of function they support (O'Sullivan et al., 2013b)
- Webinar about community resilience, presented by Dr. Wayne Corneil, May 2012
- Webinar (French and English) of The EnRiCH International Conference on Whole-of-Society Approach to Community Engagement, held in Ottawa, November 2012

In addition to the toolkit, The EnRiCH Project provided evidence and momentum which has driven changes in infrastructure in the participating communities. For example, in Nova Scotia, The EnRiCH group used their experience to apply to the local government for $20,000 to create an EnRiCH Coordinator position. The proposal was approved and EnRiCH will now be expanded to a neighbouring community. In Quebec City, EnRiCH was merged with another initiative supported by Ville de Quebec and re-named K-EnRiCH. The city has taken on the leadership and continued the momentum developed through EnRiCH, investing substantial resources to continue the initiative.

The EnRiCH International Network for Collaborative Practice and Community Engagement was another outcome of the project. This network now consists of 40 academic researchers from 9 countries who provided expertise during the evaluation phase of EnRiCH. The collaborative activities of the network have expanded and include hosting/supervising graduate students for internship placements (eg. 2 students completed their internships in The Netherlands and another student completed her internship in Wales; and in the next year 2 students from The Netherlands will be coming to UOttawa to work with The EnRiCH team). The researchers affiliated with this new international network are co-authoring papers, conducting collaborative studies building on EnRiCH, and within the past year several EnRiCH network meetings have been hosted in other countries (eg. Arkansas, US; Utrecht, The Netherlands; and an upcoming meeting in Wisconsin, US).

5 Transition and Exploitation

The EnRiCH Project with its community-based participatory foundation involved transition to end-users throughout the duration of the project. The community partners were involved in each phase of the project from design and implementation, to evaluation and dissemination. They had ownership of the project from the beginning, which is one of the principles of CBPR research (Israel et al., 2005). The creation of the Pan-Canadian project advisory panel was one of the critical elements of success for the project, as the collaborators within the panel have assisted with sharing the results of the project to all parts of Canada.

The EnRiCH International Conference on Whole-of-Society Engagement was a successful initiative to raise awareness about the need to focus on resilience for high risk populations, and the importance of diverse engagement within and between communities. One outcome of the conference was the recommendation from the stakeholder participants that EnRiCH 'keep going' and not lose its momentum beyond the life of the funding from CSS. This recommendation has been taken seriously and the project team and advisory panel have developed what we call '*The EnRiCH Collaboration*' to sustain the momentum and activities of the project and collaborate with stakeholders from across Canada and internationally.

Several decisions for publishing the work from The EnRiCH Project have been based on efforts to ensure public accessibility. For instance, a keystone paper from the asset/need assessment phase of the project was published in Social Science & Medicine as an 'open access' article. The EnRiCH Community Intervention Manual and the CHAMPSS Functional Capabilities Framework have been published online on the EnRiCH website for universal access, as part of the Community Toolkit.

The involvement of stakeholders across micro, meso and macro levels of society in The EnRiCH Collaboration creates an opportunity to disseminate the lessons learned from EnRiCH to a broad audience. The project team has received numerous invitations to meet with different organizations within Canada and other countries to share recommendations for how to enhance community resilience. Of particular note is the presentation given by Dr. Tracey O'Sullivan at the national meeting of 211 organizations in Quebec City in October 2012, and a recent invitation to present at the Public Health England conference in September 2013.

6 Conclusion

The outcomes from the EnRiCH Community Intervention demonstrate how asset-mapping and investment in collaborative relationship-building activities can contribute to resilience in a community. In closing, the EnRiCH Community Intervention met its overarching goals by demonstrating its effectiveness, feasibility and appropriateness for use as a resilience-oriented intervention. The community-based participatory approach used in this study was instrumental in achieving expansive reach, strong partnerships which provided a foundation for adopting the intervention into four communities, and solid engagement at the grass roots level in each community. These factors are critical in any resilience-oriented community intervention and have been identified by the academic research team and community partners as key ingredients for the success of The EnRiCH Project to date. Future policy development should focus on opportunities for diverse sectors within communities to invest time in exchanging knowledge about other organizations and the activities being planned, to enhance awareness, common ground, and preparedness at the community level.

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Annex A Project Team

University of Ottawa
- Lead Scientist: Tracey O'Sullivan
- Co-investigators: Wayne Corneil, Craig Kuziemsky, Louise Lemyre, Sanni Yaya, Linda Garcia, Jeff Jutai

Public Health Agency of Canada (Centre for Health Promotion,Division of Children, Seniors and Healthy Development)
- Project Champion: Margaret Gillis
- Project Manager: Patti Gorr

Human Resource and Skills Development Canada (Office of Disability Issues)
- Project Partner: Erik Lapalme

Canadian Red Cross
- Lead Partner: Louise Geoffrion
- Community partner (Truro): Mona O'Brien
- Community partner (Waterloo): Karen Charles

Carleton University
- Co-investigator: Behnam Behnia

Nova Scotia Department of Community and Social Services
- Community Partner: John Webb (retired)

Ville de Quebec
- Community Partner: Nicole Pare

211 Quebec City
- Community Partner: Claude Vanasse

Ville de Gatineau
- Community Partner: Jacques Rathwell

CSSS
- Community Partner: Nathalie Bourget

Region of Waterloo Emergency and Social Services
- Community Partner: Steve LaRochelle

Annex B PROJECT PERFORMANCE SUMMARY

PROJECT PERFORMANCE SUMMARY

Technical Performance Summary:

Technology Readiness Level of Deliverable (TRL)

The technology associated with this project has been proven to work under its expected conditions and is therefore assessed at a Level 8.

The areas of science and technology expertise most applicable to this project are:

a) "Human Systems Integration" (monitoring and predicting psycho-physiological readiness and design of systems that effectively train and prepare humans) and

b) "Behavioural effects" (understanding motivation, communication, cultural effects, leadership and cooperation in order to develop strategies for promoting collaborative behaviours among teams, agencies, organizations, and societies).

Schedule Performance Summary:

This project was completed on time and all deliverables were submitted consistently on time throughout the project. When deliverable dates required slight modifications (this occurred for two deliverables throughout the life of the project and allowed for more robust deliverables), the Project Team allowed sufficient notice and time for approval by the Project Review Committee.

Cost Performance Summary:

The University of Ottawa expended its entire budget each year. Project funds allocated to PHAC were not fully spent in years 2 and 3, resulting in a total of $6,268 returned to DRDC. The primary reason for PHAC's inability to spend the full amount was increased limitations on travel. The charts below show planned and actual expenditures for the four fiscal years of the project.

Planned Expenditures

	FY 1 2009/2010	FY 2 2010/2011	FY 3 2011/2012	FY 4 2012/2013	TOTAL
CSS PROGRAM	**$101,000**	**$569,924**	**$654,189**	**$597,137**	**$1,922,250**
In-Kind	**$230,005**	**$295,405**	**$306,295**	**$303,295**	**$1,135,000**
Total	**$331,005**	**$865,329**	**$960,484**	**$900,432**	**$3,057,250**

Actual Expenditures

	FY 1 2009/2010	FY 2 2010/2011	FY 3 2011/2012	FY 4 2012/2013	TOTAL	Variance
CSS PROGRAM	$101,000	$569,924	$648,760	$596,298	$1,915,982	-$6,268
In-Kind	$192,273	$309,980	$675,712	$353,240	$1,531,205	+ $396,205
Total	$293,273	$879,904	$1,324,472	$949,538	$3,447,187	

Annex C Publications, Presentations, Patents

Community Toolkit:
http://www.enrichproject.ca/publications-and-resources.html

- Instructional video for the Structured Interview Matrix (Corneil et al., 2011)
- The EnRiCH Community Intervention Manual (O'Sullivan et al., 2013)
- The CHAMPSS Functional Capabilities Framework (O'Sullivan et al., 2013b)
- Webinar on Resilience – Dr. Wayne Corneil
- Webinar of the EnRiCH International Conference on Whole-of-Society Engagement

Journal Articles:

1. O'Sullivan, T.L., Kuziemsky, C.E., Toal-Sullivan, D. & Corneil, W. (2012) Unraveling the complexities of disaster management: A framework for social infrastructure to promote population health and resilience, *Social Science & Medicine*, http://dx.doi.org/10.1016/j.socscimed.2012.07.040

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Presentations:

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13. ABSTRACT

The EnRiCH Project is a community-based participatory research project designed to address the need for more empirical evidence on interventions to enhance resilience among high risk populations, in preparation for, response to, and recovery from CBRNE and other types of disasters. Methods: Asset-mapping interventions were implemented in partnership with industry stakeholders in 5 geographic communities in Canada to determine which resources were available to support high risk populations and engage community associations in activities to support contingency planning. Results:

Across all 5 communities there was recognition of the vast resources available which previously had not been identified as potential capacity which could be mobilized for preparedness, response and recovery initiatives. The asset-mapping activities provided an opportunity for intersectoral collaboration and building awareness, while supporting innovative strategies to enhance community resilience. Discussion: The results from The EnRiCH Project highlight the importance of collaboration, community expertise and networks as critical social infrastructure to support high risk populations and enhance community resilience. Leadership is needed to ensure investment in intersectoral collaboration is prioritized, and recognized for its critical role in managing adverse events and supporting populations who are typically not involved in contingency planning activities.

Introduction: Le projet EnRiCH est une recherche communautaire participative élaborée afin de répondre au besoin de données empiriques sur les interventions permettant le renforcement de la résilience des populations à haut risque en matière de préparation, d'intervention et de rétablissement aux incidents CBRNE et autre types de catastrophes. Méthodes: En partenariat avec des intervenants de l'industrie, une activité de cartographie des atouts a été mise en œuvre dans 5 communautés géographiques au Canada afin de déterminer la disponibilité des ressources qui viennent en soutien aux populations à haut risque et qui facilitent l'engagement des organismes communautaires vis-à-vis les activités relatives à la planification des mesures d'urgence. Résultats : L'ensemble des communautés a su reconnaitre l'existence d'un vaste répertoire de ressources qui jusqu'ici n'avait pas été perçu comme une capacité pouvant être mobilisée pour les initiatives de préparation, d'intervention et de rétablissement en situation d'urgence. L'activité de cartographie des atouts a fourni aux participants une occasion de collaboration intersectorielle et de sensibilisation, tout en soutenant des stratégies novatrices pour renforcer la résilience des collectivités. Discussion : Les résultats du projet EnRiCH soulignent l'importance de la collaboration, l'expertise communautaire et les réseaux en tant qu'infrastructures sociales essentielles au soutien des populations à haut risque et au renforcement de la résilience des collectivités. Le leadership est nécessaire pour assurer que l'investissement dans la collaboration intersectorielle demeure une priorité et qu'elle soit reconnue pour son rôle critique dans la gestion des évènements indésirables ainsi que dans le soutien des populations qui ne sont pas habituellement impliquées dans les activités de planification des mesures d'urgence.

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Community Resilience; CBRNE:: High Risk Populations; Intersectoral Collaboration