SIMTEC NEWSLETTER

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Greetings!

Where has the time gone? The SIMTEC project is just now starting its third year. Summer is here and I am behind on our Newsletter but, so much has been happening I have a jam-packed newsletter for you and I know you'll be pleased to hear what we have been up to. Major progress has been made on the first three deliverables of the project: *Winter Blues*, *Exercise Green Cloud*, and our upcoming mass casualty incident (MCI) exercise.

As well, be sure to reserve the dates for our Expert Working Group meeting on October 2nd 2013 (see the end of this newsletter for additional information).

Winter Blues!

We were able to launch the EOC-focused *Winter Blues Exercise* in mid-January, once the Christmas holidays were behind us. I know you all received tweets and emails about the posting of *Winter Blues!* on our website but in case you haven't quite made it there yet, I hope you do visit it. Where else can communities get a terrific exercise, with audio-visual inputs, all of the maps, guides, plans, forms and training materials for free? As if that was not enough, we have provided a 17 minute training video that highlights the key themes, or "lessons to be learned" from running our pilot, test and final *Winter Blues!* exercise over the course of 10 months in 2012. If you haven't been there yet, check it out – **over 200 communities** from around the world, ranging from Europe to Australia, have done so. **SIMTEC website: http://simtec.jibc.ca/node/47.**

A research paper on decision making processes in the EOC has also been completed, undergone the JIBC internal review process and been submitted for publication to a peer-review journal. The paper, titled *Modeling Psychosocial Decision Making in Emergency Operation Centres* is authored by Andrea Javor and co-authored by Laurie Pearce, Alanna Thompson and Ciara Moran.

A second paper, authored by Alanna Thompson is also underway. The draft title for this paper is *How Emergency Operations Centres are affected by psychosocial training: A quasi experimental design*. Focusing on the lessons learned from *Winter Blues!,* Alanna is structuring her paper around two research questions: 1) what resources do EOC personnel need to recognize the psychosocial issues, and 2) does increasing the awareness of psychosocial issues through training alter the behaviour of EOC personnel? This paper will provide recommendations for best practices to addressing psychosocial concerns in the EOC. Initial findings suggest that having team support workers; leaders who recognize the need for psychosocial interventions; and effective training all play a role in reminding EOC staff to take care of themselves and others.

It was quite an achievement and thanks to all of you who provided such constructive feedback last fall and helped us produce such a quality product.

Exercise Green Cloud

Following on the footsteps of *Winter Blues,* we began our second exercise on decontamination. The primary focus for *Exercise Green Cloud* was to build protocols and practices in order to better respond to the psychosocial concerns that are often reported by persons who undergo decontamination. Experts identified a number of concerns which can lead to psychosocial trauma including: a lack of communication from first responders regarding the process for decontamination (i.e., people didn't know what to expect); the "scariness" of seeing HazMat team members show up fully equipped without knowing who

was behind the masks; the fear of permanent physical damage; and lack of an integrated, coordinated recovery plan to assist people post-event. *Exercise Green Cloud* was designed to fill existing knowledge gaps while addressing some of the psychosocial concerns. If those responders who are conducting the decontamination process can take steps to address psychosocial concerns during an incident, then it is hoped that trauma and long-term distress will be minimized. Thus, there were a number of issues that the SIMTEC Research Team would need to address.

In many documented cases where a number of people have been contaminated, a significant number of contaminated persons flee the scene before the HazMat Teams arrive. They then either contaminate local hospitals (leading to hospital lock-downs) or return home and may be unwittingly contaminating their own home/building and others. The protocols that were developed for SIMTEC, based on much of the research by our SIMTEC researcher and graduate student at Royal Roads University, Ray Monteith, were based on the principles of self-care or self-decontamination. These protocols could be started by any trained first responder who arrives on scene and before the arrival and set-up by a Haz Mat team.

A number of the articles we read commented on the amount of time it took for HazMat teams to arrive on site and to get set up. That time factor was a key reason why many people left the scene. We wanted to see if in fact that would continue to happen if we introduced a self-care decontamination process and began to instantly engage those who were contaminated in reducing their amount of exposure. It quickly became clear to us that in order to do this we would have to develop the protocols and test them in a full-scale exercise or drill.

As we dove further into the research literature we found that much of the knowledge in this domain has been conducted under summertime weather conditions and that the exercise participants tended to be able-bodied persons such as first responders and military personnel. Protocols and practices have, for the most part, neglected the role inclement weather plays in mass-decontamination protocols – especially significant in a country like Canada where cold weather occurs for much of the year. So, we needed to think about how to adapt protocols for cold weather (not freezing) situations.

As well, given that in most cases it is not first responders and military personnel who are being decontaminated in Canada, but rather various civilian populations, we also wanted to know how conducting an exercise with various different populations would affect the effectiveness of decontamination protocols. For example, the ORCHIDs study set a standard for technical decontamination (i.e., mobile shower units) of 90 seconds. While that standard may apply to young male military officers in buzz haircuts, it is impossible when you are a young mother with long hair and a toddler under one arm. Equally impossible for someone who is blind.

We also found that in most of the decontamination protocols that were available there was little mention of any at-risk populations (i.e., those persons who were paraplegic or blind, pregnant women, etc.). When the need to provide for at-risk populations was mentioned, the text usually acknowledged the need to plan for these populations, but provided little information on what to actually do – while also acknowledging the negative psychosocial consequences for failing to do so.

We were determined to include a host of at-risk populations and mainstream populations in our exercise. This was a challenge as, even participating in

an exercise, might prove traumatic to some and if we truly did want to test protocols in cold-weather situations we needed to make sure that no one who participated became hypothermic. Working with Karen Miller, from the BC Coalition of People with Disabilities, we were able to recruit many volunteers who recognized the weaknesses in existing protocols and wanted us to help us find solutions.

Additionally, the North Shore Emergency Management Office (NSEMO) was very helpful in finding volunteers to participate. For those persons who were at high-risk (e.g., infants, persons with autism) we hired professional actors to take part in the drill and we had those high-risk persons coach the actors regarding how they would behave during the drill so that the actors would have a better sense of how to portray those persons.

The SIMTEC Research Team worked hard to identify issues that would be faced by those participating in the exercise and also to work with our Exercise Development Team to develop solutions for both the physical factors and address psychosocial concerns. Working with F.A.S.T. we developed a series of self-decontamination kits for people to use prior to the arrival of the HazMat Teams, and pre- and post-showering.

All of the materials in the various kits were carefully chosen to ensure that the self-decontamination process would meet the criteria for safety and would address any psychosocial issues. So, in addition to the actual materials needed to carry out the self-decontamination we had pictographs demonstrating the procedures for those who might not be able to read English; we had sanitary pads for women who might be menstruating; we included a soother for infants, and our "Decon Doll or Action Figure."

We chose March 10th as the date, crossed our fingers that it would not snow (it didn't snow but it was a cold 10 C and it rained, and rained…) and held in the exercise in Mahon Park in North Vancouver. The scenario was that there was a disgruntled employee who had been recently fired and he had decided to get back at the pool manager by sabotaging the chlorination system in the pool. He started to do so and then became affected by the fumes as it occurred faster than he thought it would. He started to run out of the building, was noticed by some staff and a lifeguard in the staff room, pepper-sprayed them and then ended up running out of the pool, overcome like everyone else. The "crook" was also in the crowd when the police arrived. One of the things we wanted to test was how/when the police would decontaminate the crook and, if necessary, how the police would decontaminate themselves.

We had a lot of help - in collaboration with the North Shore Emergency Management Office (NSEMO), North Vancouver City Fire Department, the District of North Vancouver Fire Department, West Vancouver Fire Department, BC Ambulance Service, Vancouver Police Department, the Royal Canadian Mounted Police, BC Disaster Psychosocial Services, the BC Coalition of People with Disabilities, and the City of North Vancouver we were able to successfully complete the exercise.

Special thanks to the following:

- Rene Bernklau, BCAS
- Dorit Mason, NSEMO
- Karen Martin, Coalition for People with Disabilities
- Heleen Sandvik, PHSA
- Karen Collins
- Bob Schreiner, NVC Fire
- Dave Nelmes/Mel Caparie, Vancouver Police
- Dave Reid, VCHA Lions Gate Hospital

and all of the many volunteers who came out and braved the weather to participate in the exercise!

We learned a lot. Most of what we had in place worked well, but there were a number of things, as one could expect, that we needed to do some additional work on. We conducted focus groups or held interviews with those who participated – both first responders and those involved in the decontamination.

What worked well? The use of "buddies" right at the start of the exercise was very effective in keeping people on track and actively participating in the exercise. Because we wanted to test, as best we could, whether or not people would leave during the process, we actively encouraged participants to leave during the exercise if they felt that they would genuinely leave had it been a real situation. We were very pleased, that despite the cold and poor weather conditions, no-one left the scene (except the "crook" who tried to escape but got caught!). People who didn't know each other before the exercise bonded in a very quick amount of time with their "buddy" and stayed with that person throughout. The use of a "buddy" was essential in getting through the process and in helping those who had physical disabilities (e.g., were blind).

We also managed to get all of the participants on to the warming bus before the HazMat team had the mobile showers ready to use. Our research indicated that 80%+ of the contaminants would be removed through the self-decontamination process and so we were very pleased that we were able to reduce exposure to contaminants so quickly and that the kits worked as well as they did.

We also learned that having a Disaster Psychosocial Services (DPS) volunteer was invaluable throughout the process. As mentioned, going through decontamination is stressful and our thought was that by having a DPS volunteer present, they could help decrease anxiety and reduce stress throughout the process. This concept was well supported in a variety of ways.

First, the DPS worker was able to assist on the scene in helping to calm down those family members and friends who arrived on/near the scene anxious about their loved one caught in the scenario. Second, having a DPS volunteer on the warming bus helped to calm people. Third, having a DPS volunteer to meet people as they came out of the showers (naked other than Tyvek overalls and flip flops) made all the difference in the world – a friendly face to help guide discharge planning was very much needed.

We learned that we needed to simplify our decontamination kits and to simplify the language read out to the participants to guide them through the process. We also learned that discharge protocols need to be developed – who pays for the $15,000 wheelchair that can't be decontaminated? What happens to those

who now are left without any identification, keys to their homes and/or cars?

We also discovered that gross decontamination, especially for those who are medically fragile needs to be rethought. Being sprayed by a fire hose, in cold weather, with cold water, several times – especially if one has heart-related problems is not a solution. We had hired an actor to simulate someone with angina pain, but he started to become hypothermic during the gross decontamination (the process was stopped during the exercise).

These are just some of our preliminary findings – but we are very excited with the results. We are now refining the lessons learned and making adjustments to the kits and protocols.

Our research team in now finalizing *Exercise Green Cloud* with JIBC staff Darren Blackburn and Bob Walker. We will be running this exercise in the same way that Winter Blues! was run – out of the simulation centre at JIBC with five pods: an EOC, an Incident Command Post, the RCMP Integrated National Security Enforcement Teams (INSET), Health Canada, and a hospital EOC. It will be exciting!

Please do let us know if you have any questions and look for our updates on our website.

Laurie Pearce

SIMTEC Research Chair

Research Team Updates

We continue to be delighted that we are able to attract such talented researchers.

Beth Larcombe

Beth Larcombe has proven expertise in management and leadership in emergency management. She has experienced various positions that have allowed a focus in risk management and emergency preparedness both in the government public sector and the private sector.

Her role as a presiding Coroner in BC Coroners Court with a jury verdict, allowed her to manage public reviews into matters of public safety which provided an opportunity to influence public policy in the areas of public safety and accountability. An interest in mass fatality management and disaster response developed and inspired her decision to pursue a Masters Degree in Disaster and Emergency Management at Royal Roads University.

Following that work she led a special province wide research project in the training needs for first responders; and shortly thereafter took advantage of a brief opportunity to be part of a special unit positioned as an interagency security and emergency preparedness team during the Vancouver 2010 Olympic Games. As that work ended, Beth moved into a position in the private sector that allowed her to maintain a public safety focus by influencing and engaging the oil and gas industry in BC and Alberta in the need to pursue proactive emergency preparedness and capability. This included developing and delivering training programs covering the Incident Command Process, Emergency

Operations Centre management and emergency response exercises including Seminars, Workshops, Tabletop, Functional and Full Scale Exercises.

Beth Larcombe is now an integral member of our research team with a balance of extensive practical experience and academic skills.

Jennifer Pinette

Jennifer Pinette holds a Master of Arts in Disaster and Risk Management Planning from the School of Community and Regional Planning at the University of British Columbia (UBC). Jennifer's thesis, Fostering Social Capital and Building Community Resilience Using a Neighbour-to-neighbour Approach, explored shortcomings and best practices as they relate to the Hazard Management Cycle and proposed a neighbourhood-based model that maximizes community resilience during each phase. She also holds a Bachelor of Arts in Geography and Psychology from UBC.

Jennifer is guided by a community-based participatory approach with experience in risk transfer research, capacity building, community engagement, emergency management, community resilience, international development, participatory action research, and strategic and regional planning. She has worked in Canada, Grenada, and Mozambique and studied emergency management in North America, Japan and Costa Rica extensively. She is particularly interested in exploring ways to increase the general public's level of participation across all aspects of emergency management.

Rachel Friederichsen

Rachel Friederichsen is entering her second year of the UBC MA in Counselling Psychology. She is grateful for the multiple opportunities, both educational and practical, that her program has afforded her. Favourite avenues of study and research have included group therapeutic processes, countertransference in the therapeutic relationship, morals and ethics of clinical practice, education, and research, program design and evaluation, interventions for posttraumatic stress disorder, family, couple, and adolescent counselling, and research methods in applied psychology. She is thrilled to be coming aboard the SIMTEC project which will undoubtedly expand her research skills exponentially.

Next Step: our Mass Casualty Incident exercise

Our third exercise is also keeping us busy these days. To get a better understanding of the psychosocial challenges in mass casualty events, Ciara Moran and Laurie Pearce observed a simulated exercise at YVR, the Vancouver International Airport. Laurie and Ciara were able to provide feedback on the psychosocial elements of an accident involving the crash of a commercial airliner – a crash where passengers and airline staff had incurred significant casualties. Much like the other projects in SIMTEC, Ciara and Laurie focused their attention on the various interactions between first responders and victims and how tools like a "buddy system," eye contact, and better verbal communication can aid in reducing catastrophe-related trauma.

As we start to develop the exercise, we welcome your comments – feel free to post any suggestions to our Forum on the SIMTEC website. We will also be developing a Guide for Forensic Psychosocial Interveners – a framework for alleviating trauma and anxiety in situations where there are numerous victims while also respecting issues confidentiality, possible witness contamination and police investigations of a potential crime scene.

There are a number of confidentiality issues that face survivors of a major incident – especially those who seek some group supports and we hope to develop some recommendations to assist in the reunification of persons who have been traumatized in a multi-casualty exercise for supportive therapy.

Important Dates Planned for October 2013

Exercise Green Cloud will be held on **October 1st** and we will be running five different pods involving two remote locations. This will be the first time the JIBC PRAXIS system will be used in such a major exercise and we are looking forward to evaluating the additional degree of complexity this brings to the exercise.

We will be hosting our annual, all-day, Expert Working Group (EWG) meeting on **October 2nd** and invitations are being sent out as you read this. We are really looking forward to having all of our Subject Matter Experts attend and give us some feedback and guidance as we move towards the our third exercise.

As always, to ensure we are meeting our deliverables and deadlines we will be hosting our Project Review Committee on October 3rd. It is also a great opportunity to check in with François Legault from Health Canada and Paul Chouinard from the Canadian Safety and Security Program and benefit from their experience and guidance.

Funding Partners

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Project Partner

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