

# Exercise **Outbreak Orange**

## Executive Summary



March 2015

<http://simtec.jibc.ca>



## Introduction

**Exercise Outbreak Orange** is the fourth of five planned exercises that will be conducted over a four year period to study the psychosocial factors involved in the decisions and actions performed during a disaster by responders over a number of scenarios. **Psychosocial** refers to the interaction between one's mind and body; in practical terms, the term refers to one's physical, psychological and social functioning.

The Simulation Training and Exercise and Collaboratory (SIMTEC) is a significant research project undertaken through the Office of Applied Research and the Emergency Management Division at the Justice Institute of BC (JIBC), Canada. Funding for this project is provided by the Canadian Safety and Security Program, Centre for Security Science, Defence Research and Development Canada; championed by Employee Assistance Services, Specialized Health Services Directorate RAPB/BRP Health Canada (EAS-HC); and conducted by JIBC and Royal Roads University.

Three primary research questions guide the SIMTEC project:

1. What resources and training do Emergency Operations Centre (EOC) personnel need to respond more effectively to the psychosocial consequences of disasters?
2. What resources and training would assist first responders, family physicians and other psychosocial practitioners to respond to the psychosocial consequences of disasters?
3. How can the knowledge and resources developed through this research most effectively be made available to EOC personnel, first responders, psychosocial practitioners, researchers and community members around the world?

SIMTEC is a “collaboratory”, or virtual laboratory of information, research, and expert dialogue focused on providing training and exercises for emergency responders in Emergency Operations Centres (EOC) and other senior decision makers with a specific emphasis on the psychosocial implications. This collaboratory includes a digital library of exercises, injects, scenarios, simulated news footage, and exercise manuals which serve as a central repository and evolving compendium of resources for training and research available on the internet, free of charge to any jurisdiction with access to high- speed internet. The protocols and guidelines will be of interest and applicable to any country.



## Exercise Outbreak Orange

**Exercise Outbreak Orange** is a hybrid tabletop exercise, intended to validate the participants' ability to complete common tasks at a Local Community Emergency Operations Centre (EOC), or Health Emergency Operations Centre (HEOC) during a pandemic. Additionally, the exercise prompts participants to consider the psychosocial impacts on individuals infected with a severe, transmissible illness, their families, first responders/receivers and the broader community.

**Exercise Outbreak Orange** sought to determine conditions relevant to optimizing the psychological and social well-being of individuals responding to a pandemic or infectious disease outbreak. It was designed with two purposes in mind:

1. To serve as an opportunity to exercise a potentially real communicable disease scenario;
2. To deliberately include inputs of psychosocial stressors.

The exercise scenario focuses on the management of impacts caused by the movement of students infected with a virulent disease. At the start of the exercise participants are provided with a series of news clips describing the activities of local university students performing fieldwork overseas. Participants learn that the students were involved in a series of historical grave excavations as part of their forensic anthropology program. As the exercise begins, participants are called into an emergency planning meeting, either at the EOC or the HEOC. Participants are informed that at least one of the returning students has been admitted to hospital displaying symptoms of smallpox. As the exercise unfolds, participants are confronted with a number of situations that they must decide how to manage, e.g., the movement of potentially infected students around the province, the need to maintain/enforce quarantine on "contacts," and the need to appropriately resource and train staff members. In each case, participants rely on their training, experience, and local emergency management plans to decide the most appropriate course of action.

The planning and design of **Exercise Outbreak Orange** began in April 2014 with a literature review that identified key psychosocial concerns that were not being addressed in EOCs and logistical, operational and psychosocial issues that might arise in an EOC. The literature review focused on the psychosocial consequences of pandemics and identified likely stressors for health care workers, patients who have been quarantined, the public, and decision makers, as well as strategies and interventions aimed at alleviating these stressors. The content of the training exercise was informed by the findings from the literature review, along with scenarios that would provide the EOC and HEOC with a meaningful exercise experience highlighting psychosocial stressors that may be encountered during a pandemic and best practices for addressing these stressors.



An international and local Pandemic Expert Working Group (EWG) was convened in June 2014 to help build complexity and realism into the storyline for the exercise. The EWG provided support and guidance in the further development of the scenario to ensure it would provide exercise participants with the opportunity to experience having to make high-stress, high-risk, high-consequence decisions, while also providing an opportunity for Team Support Workers to carry out a range of interventions to support the identification of successful psychosocial intervention strategies.

## Tabletop Exercise

The training exercise, a three hour hybrid tabletop exercise, was run on September 10, 2014 via Praxis simulation and was audio- and video-recorded. Praxis provides an immersive, interactive first-person perspective of an unfolding scenario or event. Critical thinking is required, as learners apply theories and lessons learned while encountering challenging decision points.

The exercise was conducted with participants from two local communities – Vancouver and Abbotsford and representatives from British Columbia Health Authorities. Participants were placed into one of two groups – a Local Community EOC, or a Health EOC. Prior to beginning the exercise, participants were shown a SIMTEC training video created in-house at JIBC. The video was based on the literature review and interviews with Expert Working Group members and other relevant stakeholders. The key points in the training video were designed to parallel the issues participants would encounter in the exercise scenario. The video was narrated by Dr. Bonnie Henry, now Deputy BC Medical Health Officer, and Dr. Perry Kendall, the BC Medical Health Officer.

The SIMTEC research team sought to observe the EOC and HEOC members' ability to devise plans and make decisions that address the psychosocial need of the community and their colleagues. Following the exercise, focus groups were conducted with the exercise participants. Transcripts of the exercise and follow-up focus groups for each responding pod were coded and thematically analyzed using NVivo Data Analysis Software, in order to pull out the main challenges and concerns emerged during the exercise. Exercise transcripts from each EOC and HEOC were also coded and analyzed. Refinements to the exercise were made based on feedback received from participants post-exercise.

## Findings

The data analysis process for **Exercise Outbreak Orange** led to the identification of several key themes:



1. A need to address communications with health staff in a timely manner. With widespread social media availability, information and rumours will quickly spread and messaging needs to be positive and quick.
2. News will quickly reach the community and messaging needs to be developed to handle growing concerns and fears.
3. Protocols for police officers and public health staff need to be developed to address best practices for persons who refuse to be quarantined and how to manage their possessions.
4. Health care organizations and first response organizations need to provide psychosocial support to their personnel during a disease outbreak.
5. Ensuring that health care providers and first responders and receivers are physically safe is of major importance. Information on Personal Protective Equipment (PPE) should be available quickly.

These findings highlight the fact that psychosocial concerns when managing a pandemic are not always top priority for those working in EOC's and health EOC's. This is understandable, given the fact that training for EOC and Health EOC members most often focuses on the logistical and tactical aspects of an emergency and less on the psychological and social wellbeing of individuals and groups. For this reason psychosocial training and education need to be integrated into EOC training and protocols, particularly when the physical health of a community is the priority during an emergency.

Information collected from the exercises, focus groups, and Subject Matter Expert interviews throughout the research process assisted in the development of training materials and guidelines for psychosocial interventions by senior EOC personnel. Training EOC personnel to respond to the psychosocial consequences of disasters will reduce stress levels and enhance strategic and tactical decision-making. The exercises and training protocols are publicly-available through the SIMTEC online collaboratory. Further research could include the following:

1. Exploring the effectiveness of a range of psychosocial training initiatives with first responders in EOCs and health EOCs
2. Examining the inclusion of a Team Support Worker in the EOC or health EOC



The final web based **Exercise Outbreak Orange** was uploaded to the JIBC website and is now available, along with the training video and resources, for access and download from <http://simtec.jibc.ca/node/117>