

Emergency Management Branch Newsletter

Ministry of Health Services

FEATURE ARTICLES

Climate Change and Health

Emily Nixon, Manager of Programs, Emergency Management Branch



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- Special Points of Interest:**
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Additional Climate Change Information

For further resources on Climate Change visit the Health Canada website, Climate Change and Health page at <http://www.hc-sc.gc.ca/ewh->

At the dawn of the 21st century, climate change is considered one of the most serious threats facing humanity today. Although plagued by unknowns and uncertainties, Canadians can expect a more variable climate with generally hotter summers and milder winters. As a direct result, most experts now agree that climate change will have far-reaching effects on human health. The United Nations Intergovernmental Panel on Climate Change has stated that “public health will be humanities ultimate sacrifice as a result of climate change”. The loss of sufficient food, safe drinking water, secure community settlement, shelter, and the environment and social control of various infections diseases are just a few of the ways in which health will be

impacted. As highlighted in table 1, Health Canada has identified eight categories of direct health impacts that may be expected as a result of climate change.

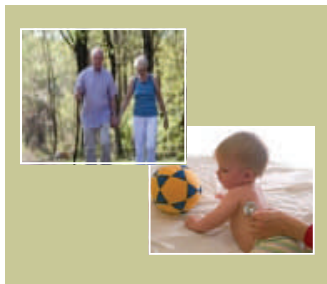
Practitioners in the field of health emergency management have begun to develop plans and practices that are reflective of the possible climate health impacts as identified by Health Canada. More specifically, some practitioners are taking this information and applying it to efforts in protecting the health of vulnerable populations. Health Canada has identified that “certain people in Canada are more vulnerable to climate-related health risks because of age, health status, gender or employment”. For example, seniors are especially vulnerable to extreme cold or hot weather, because

of their diminished ability to acclimatize to changing temperatures and higher prevalence of pre-existing health conditions and social isolation. The vulnerability of this population group was tragically revealed in the 2003 European heat wave which resulted in over 35,000 deaths, the vast majority of which were seniors.

Armed with the knowledge that climate change is happening, it is paramount that planning be undertaken to deal with the consequences. Given the vast research and interest being focused towards climate change and vulnerable populations, emergency management practitioners must work collaboratively with local, national and international partners to enhance the preparedness of populations exposed to these changing climatic threats.

The Health Impacts of Climate Change (Health Canada, 2005)

Health Impact Categories	Climate-related Causes	Typical Health Effects
Health impacts due to temperature extremes	<ul style="list-style-type: none"> ◆ More frequent and severe heat waves ◆ Colder weather in some areas ◆ Warmer weather in some areas 	<ul style="list-style-type: none"> ◆ Cold- and heat-related illnesses and deaths ◆ Increased occupational health risks ◆ Respiratory and cardiovascular disorders
Health impacts of extreme weather events and natural disasters	<ul style="list-style-type: none"> ◆ More frequent and more violent thunderstorms, hurricanes, tornadoes, and other kinds of severe weather ◆ Heavy rains causing mudslides and floods ◆ Rising sea levels due to the warming of oceans and melting of glaciers ◆ Increased drought in some areas, affecting water supplies and agricultural production, and causing forest fires 	<ul style="list-style-type: none"> ◆ Death, injury and illness from violent storms, floods, etc. ◆ Social and emotional injury and long-term mental harm from loss of loved ones, property and livelihoods ◆ Health impacts due to food and water shortages ◆ Illness related to drinking water contamination ◆ Effects of displacement of populations and crowding in emergency shelters ◆ Indirect health impacts from ecological changes and damage to community health and public health infrastructure ◆ Occupational health hazards



Vulnerable populations such as the young and elderly are at an increased risk of being effected by the health impacts of global climate change.

<p>Health effects related to the contamination of food and water</p>	<ul style="list-style-type: none"> ◆ Contamination of drinking and recreational water by run-off from heavy rainfall ◆ Changes in marine environments that result in algal blooms and higher levels of toxins in fish and shellfish 	<ul style="list-style-type: none"> ◆ Outbreaks of toxic-producing strains of bacteria such as E. coli, Cryptosporidium, Giardia, Amoebiasis, typhoid and other water-borne infections ◆ Food poisoning ◆ Diarrhoeal and other intestinal infections
<p>Health effects related to infectious diseases transmitted by insects or other animals</p>	<ul style="list-style-type: none"> ◆ Changes in the biology and ecology of various animals (including geographical distributions) ◆ Changes in disease patterns ◆ Longer disease transmission season 	<ul style="list-style-type: none"> ◆ Increased incidence of vector-borne infectious diseases native to Canada (e.g., Eastern & Western equine encephalitis, Rocky Mountain spotted fever) ◆ Introduction of infectious diseases new to Canada (e.g., Lyme disease, West Nile virus) ◆ Emergence of entirely new diseases in Canada ◆ Re-emergence of previously eradicated diseases
<p>Health effects of stratospheric ozone depletion</p>	<ul style="list-style-type: none"> ◆ Depletion of stratospheric ozone by some of the same gases that are responsible for global warming (e.g., greenhouse gases) 	<ul style="list-style-type: none"> ◆ More cases of sunburn, skin cancer, cataracts and eye damage ◆ Various immune-related disorders
<p>Social and economic impacts on community health and well-being</p>	<ul style="list-style-type: none"> ◆ Climate-induced socio-economic disruption 	<ul style="list-style-type: none"> ◆ Various physical and psychological health effects



Fraser Health's Support Services Facility located in Langley, BC.

Leading the Way in Health Care Preparedness

Deirdre McLachlan, Manager Emergency Management and Business Continuity, Fraser Health
 Sandra Gee, Protection and Emergency Management Intern, Fraser Health

Fraser Health's Protection and Emergency Management team is helping Fraser Health (FH) to lead the way in health care preparedness. As the health authority that serves one third of BC's population business continuity in times of disaster is critical.

A unique building located off Highway 1 in Langley is a key component in the Authority's preparedness planning. The building, known as the Support Services Facility (SSF), is an emergency management centre of excellence within the health care field.

In addition to operating as a 24/7 warehouse and central pharmacy, the post seismic building was designed to support emergency response capabilities within FH. One of the building's significant features is an Emergency Operations Centre (EOC), equipped with extra network portals and backup communications capabilities, including satellite telephones, amateur radio and video conferencing. The EOC

was activated during the 2007 spring freshet to test its capabilities as a central coordination centre.

FH's \$1.7 million in pandemic supplies are stored at the facility on 360 pallets. These pallets contain stockpiles of essential patient care supplies such as IV solutions, syringes, bandages, oxygen masks and gloves. Supplementary to the pandemic supplies, is a stockpile of 245 hospital stretchers/beds stored in seven ventilated and heated trailers, along with mattresses and bedding.

General emergency supplies include sleeping bags, cots, portable toilets, portable generators and sufficient drinking water to supply all FH facilities over a 72 hour emergency period. There is an on site potable water well that can be activated in response to water contamination or public water system interruptions. All supplies are tracked and rotated to ensure that they remain current.

Additionally, Red Cross disaster supplies, and the National Emergency Services Stockpile System's (NESS) 200 bed emergency hospital and training hospital are stored and maintained at the SSF. Two fully equipped and mobile decontamination units and trailers are ready for deployment from the SSF.

FH's Director of Protection and Emergency Management is based at SSF, along with the Coordinator of Pandemic Influenza and Public Health Emergency, who is responsible for pandemic flu coordination for all of FH. The FH Emergency Management/Business Continuity Team works hard to provide consultation, education and subject matter expertise to guide compliance with legislative, regulatory and best practice standards in Emergency Management. The EM/BC team also coordinates and implements FH EM/BC plans according to identified priorities, and ensures integration with the British Columbia Emergency Re-



Photo of one of three shipping containers that house the 200 bed emergency hospital.



TIPS FOR RELAXATION DURING AN EMERGENCY

Tension and anxiety are common after disasters. Unfortunately, they can make it more difficult to cope with the many things that must be done to recover. There is no easy solution to coping with post-disaster problems, but taking time during the day to calm yourself through relaxation exercises may make it easier to sleep, concentrate, and have energy for coping with life. These can include muscular relaxation exercises, breathing exercises, meditation, swimming, stretching, yoga, prayer, exercise, listening to quiet music, spending time in nature, and so on. Here is a basic breathing exercise that may help:

1. Inhale slowly (one-thousand one; one-thousand two; one-thousand three) through your

nose and comfortably fill your lungs all the way down to your belly.

2. Silently and gently say to yourself, "My body is filled with calmness." Exhale slowly (one-thousand one, one-thousand two, one-thousand three) through your mouth and

comfortably empty your lungs all the way down to your abdomen.

3. Silently and gently say to yourself, "My body is releasing the tension."

4. Repeat five times slowly and comfortably.

5. Do this as many times a day as needed.



sponse Management System, the Provincial Emergency Program, and the Ministry of Health. Overall, the operational capabilities of FH's Sup-

port Services Facility and the emergency supplies that are stored on site all help ensure that appropriate emergency response measures are in

place and ready for deployment in the event that disaster strikes British Columbia communities.

BC HEALTH SECTOR NEWS

Preparing for the North American Indigenous Games

Robert Bryan, Director of Emergency Management and Business Continuity, Vancouver Island Health Authority



VIHA Emergency Management is continuing to lead in the area of preparing for health emergency's and disasters as the North American Indigenous Games (NAIG) approach later this Summer in Vancouver Islands Cowichan Valley linking with Federal, Provincial and regional emergency preparedness colleagues.

As recent disasters in Burma and China have shown, we need to be prepared for any emergency which comes our way. This is why an All Hazards approach is taken through the health emergency

management program, and planning for the NAIG is no different.

Highlights of VIHA Emergency Management planning underway include:

- Direct participation by VIHA with the disaster planning group led by the Cowichan Valley Regional District (CVRD).

- The CVRD Emergency Coordination Centre (ECC) and the Games Operation Centre (GOC) will be activated for the entire Games period and VIHA will be represented at both.

- VIHA Emergency Management will be on alert from the arrival of the ocean going canoes on July 28th on through to the 11th of August.

- Emergency Plans will use existing emergency and fire plans where available and provide new plans where games venue require. All emergency plans to be complete by June 15th.

VIHA is involved in the preparation of emergency communications for the NAIG which included – Telephone, Cell Phone, FRS Radio, Hamm Radio, Internet connectivity.

Pacific Northwest Cross Border Workshop

Kirsten Brown, Manager of Planning, Emergency Management Branch

The 5th Annual Pacific Northwest Cross Border Workshop on Public Health took place May 14th-16th, 2008 in Bellingham, Washington and was co-sponsored by the BC Ministry of Health Services and Washington State Department of Health. These workshops brought together public health participants from Provinces and States throughout the Pacific Northwest to work together to fulfill the goal of es-

tablishing a seamless cross-jurisdictional public health system that can quickly and efficiently track and respond to national or international public health threats across domestic and international borders. Several BC representatives attended this year's event, which included an update on the creation of a Pacific Northwest Border Health Alliance, discussions on public health issues in mass gatherings

such as the upcoming 2010 Olympic and Paralympic Games as well as table top exercises that highlighted the importance of communication before, during and after public health events. The workshop was an excellent opportunity to connect and re-connect with colleagues on both sides of the border in an effort to further cross border collaboration.

Public Health Emergency Management

Natalia Skapski, Emergency Manager, BC Centre for Disease Control

Public Health Emergency Management is a new Division at the BC Centre for Disease Control (BCCDC) currently staffed by Dr. Bonnie Henry, Physician Director, and Natalia Skapski, Emergency Manager. The Division was created in the fall of 2007 in response to a newly signed

Memorandum of Understanding between the BCCDC as an agency of the Provincial Health Services Authority (PHSA), the Ministry of Health, and the Provincial Health Officer (PHO) that outlined for the first time specific expectations for the BCCDC in coordinating the public

health aspects of emergencies for BC and providing expert advice and support around public health emergency management to the PHO and Regional Health Authorities. We are currently consulting with the field to prioritize the work of the division as well as working with PHSA Emergency



Dodgey, Not the Shady Kind

In this Photo: (Left to Right) Jessica Young, Jen Bonkowsky, Christine Grist, Emily Nixon, Yoshimasa Ono, Rupert Benzon, Matt Herman, John Lavery, and Luke Galimberti.

The Emergency Management Branch along with two other Ministry employees took part in the Vancouver Island Lager Dodge Ball Championships on June 21st at the Save on Foods Memorial Centre in Victoria. Although the team did not come out on top they won two games and were awarded points for good Sportsmanship finishing only one point away from the Fair Play Championships. The team has already begun to strategize for next year's tournament and will continue to work towards a healthy workplace by playing dodge ball and various team sports once a week.



IS YOUR FAMILY PREPARED?

Valuable Emergency Preparedness information can be found on the **Emergency Management Branch** Website at <http://www.health.gov.bc.ca/emergency/index.html> and the **Provincial Emergency Program** website at <http://www.pep.bc.ca/index.html>



Management to start our own BCCDC business continuity planning.

The division is a full member of the BC HEM Council led by the BC Ministry of Health Service's Emergency Management Branch (EMB) and will work closely with the EMB

other Divisions of the BCCDC, our PHSA partners, as well as the PHO, Medical Health Officers, BC Ambulance Services, Health Authority Emergency Management Coordinators and with our national and international counterparts to help ensure BC is as prepared

as possible for the public health aspects of emergencies. For more information about the programme, please do not hesitate to contact either Dr. Bonnie Henry, bonnie.henry@bccdc.ca, or Natalia Skapski, natalia.skapski@bccdc.ca

Emergency Preparedness Week in the BC Health Sector

Jennifer Bonkowsky, Emergency Management Assistant, Emergency Management Branch

Emergency Preparedness week is an annual event held the first week of May to educate communities and individuals on how to prepare for all types of emergencies. Organizations that participate in EP week include emergency planning and response organizations, community centres, first responders, government, and schools among others.

Ministry of Health Services

This year at the Ministry of Health Services the EMB held a variety of activities for Ministry staff to help improve their personal preparedness both at home and in the workplace. An information booth was displayed in the lobby for the week that provided staff with a

variety of resources including sample emergency food rations, literature on personal preparedness, first aid and preparedness kits for the home and office, a personal preparedness video, and helpful tips for everyday emergency preparedness. An information session was also held which included a personal preparedness presentation from the Red Cross and a talk from EMB Manager of Planning, Kirsten Brown on her experiences in New Orleans following Hurricane Katrina. The session was well received by staff and offered valuable insight and education to the importance of being well prepared for a disaster or emergency.

Provincial Health Services Authority

Emergency Preparedness week rolled into two weeks for staff at PHSA facilities. Awareness displays were set up at numerous facilities including Children's and Women's hospital, Sunny Hill Health Centre, and the BC Cancer Agency. EP Week also saw the roll-out of an employee payroll deduction program for personal preparedness kits, and the kick off of BC Children's and Women's Volunteer Emergency Preparedness Program, where volunteers are trained to deliver personal preparedness training to staff, patients and their families.

Special Events Preparedness—2010 Update

Dave Burgess, Director of Operational Readiness, Emergency Management Branch

While we expect the 2010 games will go smoothly, it is important to plan for the small measure of incremental risk that goes along with holding this event.

The Emergency Management Branch (EMB) is participating with the Integrated Public Safety (IPS) section of Emergency Management BC to assure integration of Health Emergency Management (HEM) with the overall Olympic planning process. The EMB has located Dave Burgess, Director of Operational Readiness, at IPS to facilitate integration of all HEM partners, all levels of government, agencies, British Columbia Ambulance Service,

and VANOC. While all games venues are located within Vancouver Coastal Health and Providence Healthcare areas of operations; Fraser Health, Provincial Health Services Authority, other health authorities and agencies may play a significant supporting role in the unlikely event of a disaster or other untoward event occurring during the games. Therefore the current work by the EMB revolves around ensuring that these various health agencies are involved in integrated planning, have a central point of contact for 2010 HEM related planning, assessing incremental risk, and developing a tactical ap-

proach to risk reduction. On June 11th, a 2010 HEM planning day was held which brought together over 40 people from 14 regional, provincial, federal, and cross border health sector agencies. Through a facilitated discussion of a number of emergency scenarios, the group identified key issues and gaps that will inform a report and work plan which will be released this summer. The work plan will guide provincial HEM activities leading up to the Games and will increase the health system's all-hazards emergency preparedness beyond 2010.