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 humanity’s 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 extreme weather, disease and social and emotional impacts resulting from climate change. Most notably seniors, people with pre-existing health conditions, people living in poverty, people with disabilities, and vulnerable populations. Health Canada has identified the most vulnerable at-risk groups for climate and extreme weather impacts. By understanding climate change and its impacts on health and health services, health and emergency management practitioners must work collaboratively with local, national and international partners to enhance the preparedness of their communities to be able to respond to local climate change challenges”.

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)

<table>
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<tr>
<th>Health Impact Categories</th>
<th>Climate-related Causes</th>
<th>Typical Health Effects</th>
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| Heat impacts due to temperature extremes | • More frequent and severe heat waves  
• Colder weather in some areas  
• Warmer weather in some areas | • Cold- and heat-related illnesses and deaths  
• Increased occupational health risks  
• Respiratory and cardiovascular disorders |
| Heat impacts of extreme weather events and natural disasters | • 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 | • 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.

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-
应急管理局新闻

BC健康部门新闻

为北美洲土著运动会做准备

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

VIHA应急管理局继续在准备应对健康紧急情况和灾害的区域中占据主导地位，北美洲土著运动会（NAIG）便是如此。2008年5月14日至16日，VIHA与联邦、省和地区的应急管理局一起合作，与美国国家卫生服务局和华盛顿州卫生部一起，通过协调和重新连接，为运动会提供表和桌面演练，讨论公共健康事件的重要性。今年的活动是北美洲土著运动会和奥运会和平奥运动会的一个很好的机会，可以进一步讨论边境问题，以及国际卫生事件。VIHA在准备期间的应急通讯包括：

- VIHA应急管理局将在北美洲土著运动会开始前提前通知并安排应对措施。所有灾难响应措施已经到位，在8月11日之前，VIHA应急管理局将保持警戒状态。
- 准备工作计划将使用现有的应急和消防计划，如果有的话，以及北美洲土著运动会所要求的计划。
- 国家卫生服务局及边境健康联盟（GBHCA）和边境地区的同事将进一步加强国际协作。
- 北美洲土著运动会的紧急计划将使用提供专家支持并提供国际卫生事件的桥梁。
- 北美洲土著运动会为整个运动会期间提供一个完整的协调中心（GOCC）。

北美洲土著运动会准备

Kirsten Brown, Manager of Planning, Emergency Management Branch

VIHA应急管理局在北美洲土著运动会中继续发挥主导作用。最近在缅甸和中国发生的灾难表明，我们需要为任何可能的紧急情况做好准备。这就是为什么全危险策略是通过健康紧急情况管理计划实现的。

亮点包括：

- 直接参与VIHA与灾难管理小组，由Cowichan Valley Regional District（CVRD）领导。
- CVRD应急协调中心（ECC）和奥运会和残奥会操作中心（GOC）将被激活，以便在整个冬奥会和残奥会期间管理。

太平洋西北部跨境工作坊

Kirsten Brown, Manager of Planning, Emergency Management Branch

第5届太平洋西北部跨境工作坊在温哥华岛举行。2008年5月14日至16日，VIHA参加了今年的活动，几位BC代表与来自该地区的同事一起讨论了公共卫生事件。该工作坊提供了一个很好的机会，可以进一步讨论边境问题，以及国际卫生事件。该工作坊将为2010年奥运会和残奥会准备。
Emergency Preparedness Week in the BC Health Sector

Jennifer Bonkowski, 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.

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 approach 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.