More Frequent and More Severe

Of the 253 hazardous events listed in the Canadian Disaster Database for the period between 1990 and 2004, 151 are weather-related. While not all weather-related events are due to climate change, in Canada climate change is expected to bring more weather-related natural hazards such as heat waves and cold snaps, heavy rain or snowfalls, prolonged drought, hurricanes, tornadoes and ice storms. As a result, Canadians will potentially be faced with health-related concerns that are more frequent and more severe, occurring in communities where they have not been experienced before.

Strengthening Mitigation and Preparedness

The mitigation and reduction of threats and vulnerabilities related to environmental health is now recognized as a multifaceted process. Although health emergency management has traditionally focused on responding to health casualties and impacts, there is now increased attention on helping individuals and communities become more resistant to the impacts of disasters. Increasingly, health emergency management is attempting to shift the threshold at which such threats affect a community by decreasing the damage caused by disasters and increasing the capacity of communities to cope with such damage. This type of multidisciplinary approach involves strengthening a community’s mitigation, preparedness, response and recovery capacities.
Extreme Weather Events: Facing the Challenges in Health Emergency Management

National Framework for Health Emergency Management

One of the challenges facing health emergency management in Canada is preparing for and responding to traditional, as well as emerging and re-emerging threats. The past decade has seen a growing number of natural disasters, the emergence of SARS, a higher probability of pandemic influenza and the continuing threat of terrorism. In 2001, the Federal, Provincial and Territorial Ministers of Health acknowledged the necessity of a comprehensive, integrated and coordinated strategic plan for managing health emergencies in Canada. In response, the National Framework for Health Emergency Management was developed to provide a consistent, interoperalational approach to health emergencies at a pan-Canadian level. This approach aims to enhance the capacity of local, provincial and federal authorities to prepare for and respond to emergencies by fostering operational bridges based on shared principles, guidelines and operating procedures.

Key principles of the National Framework include an all-hazards/consequences approach, resiliency and sustainability of programs and planning, and comprehensive management practices that balance mitigation, preparedness, response and recovery. This all-hazards approach examines the full range of threats and their implications for Canadians, not only in terms of their individual and public health impacts, but the community and societal effects as well. Although controlling infectious diseases and other health emergencies continues to be a priority, this new approach begins to bridge the gap between climate change and health emergency management policy and decision making.

Working from a population health perspective, the Framework recognizes that vulnerability to health risks, as well as the capacity to cope and adapt at all levels, is intricately linked to the basic determinants of health. With an increased emphasis on health promotion, health protection, and social and community development, this approach defines health not only as the capacity to cope with daily life, but to respond to challenges such as environmental threats and changes. The goal of maintaining and enhancing quality of life, and the capacity to respond to extreme environmental events, underlies the concept of sustainable mitigation. As shown in the text box, Miletti has identified six key principles of sustainable development.

In implementing the Framework, Health Canada and the Public Health Agency of Canada are working closely with partners across government. At the same time, the voluntary sector is being recognized as an important player in health emergency management and in addressing the challenges posed by climate change and extreme weather events. Voluntary organizations have a long history of delivering services during and after disasters, and enhancing communities’ capacity to prepare for and respond to health threats. The overall impacts of climate change will have an expanding effect on the type of and need for services in Canadian society. Governments have been increasingly relying on the voluntary sector in order to keep pace with needs, and to provide a strengthened capacity to support diverse communities and populations affected by disaster events.

Principles of Sustainable Development

- Maintain and, if possible, enhance people’s environmental quality.
- Maintain and, if possible, enhance people’s quality of life.
- Foster local resiliency and responsibility for disasters.
- Recognize that sustainable, vital local economies are essential.
- Identify and ensure intra- and intergenerational equity.
- Adopt a consensus-building approach, starting at the local level.
The Voluntary Sector — Partners in Response

Health Canada recognizes the voluntary sector as a key partner in strengthening the health of Canadians and their communities by developing and delivering emergency preparedness programs designed to build community resiliency and adaptive capacity. In the event of a disaster, humanitarian relief organizations provide emergency social services such as clothing, shelter, tracing and reunification services, and emotional support for affected communities. However, the voluntary sector’s contribution to disaster relief and mitigation also encompasses information exchange and public awareness, education and training, access to health care delivery and personal support, research and policy development, and data collection for operational and policy planning. Voluntary sector training programs and public education initiatives reach individuals of all ages, helping to build the community resiliency and adaptive capacity necessary to meet the ongoing challenges of climate change.

In 2001, the Accord between the Government of Canada and the Voluntary Sector set out a blueprint for a strong and vibrant government/voluntary sector relationship, formally recognizing the significance of the sector. The importance of this relationship is illustrated in situations such as climate change and extreme weather events, where government relies on the voluntary sector for programs and services it cannot provide on its own. In crisis situations, the strength of the relationship between voluntary organizations and government is a critical success factor. Recognizing and committing energy to this effort is an important consideration in policy development.

Response and Planning Roles

Canadian voluntary organizations are essential partners, assisting all levels of governments by providing expertise and networks for emergency and disaster relief. As discussed in the article on page 22, the health challenges associated with climate change are expected to be more severe for vulnerable populations.

Myth?
The tsunami that devastated areas of southeast Asia on December 26, 2004, was caused by a changing climate.

False

A tsunami is actually a series of very long waves generated by any rapid, large-scale disturbance of the sea. Most are generated by large undersea earthquakes or other events, such as a landslide or sub-marine volcanic eruption. While not caused by a changing climate, tsunamis can result in great destruction and loss of life within minutes on the shores near their source; some also cause destruction within hours across an entire ocean basin. Although they do not occur frequently, tsunamis are a significant natural hazard that can only be dealt with effectively through programs of warning, adaptation and education. These same mechanisms are used to address the health impacts caused by extreme weather events, which are predicted to increase with climate change.
Children, seniors, people with disabilities, those living below the poverty line and people with special health needs often depend on voluntary sector capacity to help meet their needs. Voluntary organizations collaborate on health issues, and help plan and deliver emergency preparedness and response activities, such as feeding and hydration stations when there are interruptions in the food supply. They enhance access to health services for people with special health needs, for example, dialysis, chemotherapy and respiratory aids. They promote the delivery of health and social services in non-traditional settings by responding to individual and community needs, such as community outreach services during air quality alerts and culturally-appropriate program settings.14

From Policy to Practice
Voluntary organizations are instrumental in informing, persuading and changing public behaviour, and helping communities respond effectively to emergency situations. The school-based Expect the Unexpected program,15 developed by the Canadian Red Cross in response to the Saguenay floods, is one example of education and outreach. Since 1997, this program has delivered learning activities on natural disasters and extreme weather events to over 180,000 students in 11 provinces and territories. In 2005, the Public Health Agency of Canada funded two national planning and capacity-building projects16 — the first to develop an enhanced “episodic” volunteer base to meet the surge demand for qualified people necessary for timely responses during disasters, and the second to broaden the capacity of national voluntary organizations to effectively engage with all levels of government in implementing the National Framework for Emergency Health Management.

Voluntary organizations play an important role in health promotion and developing social capital by empowering people and communities to take action, and providing extensive networks of service at the community level. Key partners in the development of public policy, these organizations are uniquely positioned to address public health issues. In addressing the growing need for voluntary sector outreach posed by climate change, two broad policy areas merit attention: engaging citizens and communities, and making effective use of human resources. Related areas of health emergency management requiring further research include sustainable program delivery, volunteer recruitment and retention, organizational effectiveness and enhanced policy capacity.

A Multifaceted Approach
Framing climate change within a multidisciplinary perspective is important, both to capture its complexity and to ensure a more integrated and comprehensive approach to policy making and decision making. Effective mitigation and preparedness ultimately lie in the ability of communities to respond not only to emerging health threats and crises, but also to groups who are at increased risk. Successful interventions therefore require an integrated, comprehensive framework from which policy makers, researchers and practitioners across both government and voluntary sectors can respond effectively to the impacts of climate change.

Click here for references.
References for Extreme Weather Events: 
Facing the Challenges in Health Emergency Management (p. 31)


6. Public Health Agency of Canada, Office of the Voluntary Sector, voluntary sector definition. Retrieved May 2, 2005, from: <http://www.phac-aspc.gc.ca/vs-sb/voluntarysector/index.html>. The voluntary sector consists of private, non-profit organizations, devoted to the public good, whose activities are carried out by volunteers and paid staff, and whose existence depends on the engagement of citizens to donate their time, knowledge, skills, energy and resources to assist fellow citizens. Voluntary sector organizations are involved in activities designed to provide help to individuals, families, groups and communities.


References for Planning Our Future: Reducing the Health Impacts of Climate Change (p. 35)


