

## 6.0 Health Response Planning



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## 6.0 HEALTH RESPONSE PLANNING

### 6.1 INTRODUCTION

Flood events account for 35% of the global incidence of natural disasters recorded on the Center for Research on the Epidemiology of Disaster, International Disaster Database (EM-Dat) for the period between 1991 and 2000. In Canada for the period of record (1903 to 2004) there are 22 flood events registered, four of which were in the Red River basin (1950, 1974, 1979, and 1997). The EM-Dat is compiled from various sources including the United Nations agencies, insurance companies, and non-governmental relief organizations. For a disaster to be registered on the database at least one of the following four criteria must be met: at least 10 deaths, at least 100 persons affected, a call for international assistance, or a declaration of a state of emergency.

During a large flood (such as the one experienced in the Red River Valley in 1997), there can be considerable effects on the health and well-being of the affected population. These effects on health and well-being are generally categorized as either direct effects that occur during the flood itself and are caused by flood waters (such as mortality from drowning or flood-induced injuries) or indirect effects caused by damage to infrastructure or property (such as increased incidence of infectious diseases or post-traumatic stress disorder).

Flood related deaths in highly developed countries are usually attributed to flash floods or dam breaks. The floods in the Red River valley are typically slow-rise flood events. Only 1 death, in 1950, has been registered on the EM-Dat database during Manitoba floods.

With respect to other health and well being effects of flooding, Hahat, et al (2003) studied health consequences of flooding in Europe and concluded that "the biggest impacts occur as a result of the psychological distress experienced during flooding and in its aftermath." This conclusion is supported by information collected during the environmental studies for the Red River Floodway Expansion Project (the Project). The environmental assessment study team for the Project conducted key person interviews with staff of the Regional Health Authorities and a public involvement program of open houses and stakeholder workshops in the Red River valley. A common theme when people relayed their experience with previous large flood events was the stress and trauma effects of being evacuated, losing their home, and having to cope with the recovery after the flood event. It was frequently noted that these effects may continue for months or years after an event depending on the individual and their experiences. In addition, it was noted that people in flood prone areas often remain anxious due to the threat of future flooding and the prospect of having to deal with disaster assistance programs after a flood.

It was also noted during interviews that this level of mental stress is heightened when people feel that their risk is increased or not taken into account in order to provide security to another group. Individuals make a distinction between risks voluntarily accepted and the involuntary risks imposed upon them. As well, trust is lost when the affected persons feels that they were unnecessarily affected through error or

neglect by the officials responsible for flood management or that they were unfairly compensated for their loss. Once trust is lost, it is hard to regain. The loss of trust increases the sense of vulnerability of the population.

Activities undertaken before, during, and after a flood event can reduce the risk of health consequences. These activities need to be undertaken by individuals, policy makers, and emergency responders. Engineering and urban planning can reduce the adverse effects of a flood event on physical works and infrastructure but such mitigation measures will only reduce, not eliminate the impacts of extreme flood events. Action must be taken between floods to enable communities to effectively respond to the health consequences of the disaster and to organize local and central authorities' relief response. As well, interventions following a flood event are needed to support the affected population.

Since the 1997 flood event, emergency and health response planning in Manitoba has undergone and is continuing to undergo review, revision, and refinement. The Manitoba Emergency Plan has been amended. Manitoba Health issued its latest Emergency Response Plan in 2002 and the Municipalities within the area affected by Red River flooding are in the process of producing plans. The Regional Health Authorities, which were formed in 1997, approved the adoption of a standardized approach to disaster management in 2003.

## **6.2 MANITOBA EMERGENCY PLAN**

The stated aim of the Manitoba Emergency Plan is "to provide a prompt and co-coordinated response by the Government of Manitoba to any emergency or disaster within provincial jurisdiction or in support of a municipality that has requested provincial assistance". The Plan is approved and authorized by The Lieutenant Governor in Council in accordance with the provisions of *The Emergency Measures Act*. The emergency response concept is based upon a tier approach. Affected individuals are expected to have taken prudent precautionary measures beforehand and to provide the initial response. In an emergency that exceeds the individual's capabilities, the local authority is the next level to respond, and then provincial assistance may be requested or offered.

The Manitoba Emergency Measures Organization has provided guidance and has been working cooperatively with the municipal governments to prepare local emergency plans. These plans include the immediate actions necessary to protect citizens and infrastructure and to organize evacuation if required. With respect to health and well-being issues associated with a flood, Manitoba Health is the provincial department that is responsible for maintaining and providing health services during a flood event.

## **6.3 MANITOBA HEALTH EMERGENCY RESPONSE PLAN**

Manitoba's health care system is a network of services and programs. Manitoba Health oversees the system, while most services are delivered by Regional Health Authorities. Manitoba Health's Disaster Management Services branch's mission is "to make sure the health care system is capable of providing a coordinated and effective response to the health needs of Manitobans during a disaster". The Disaster Management Services branch works closely with Regional Health Authorities to ensure that they have a

disaster management program in place and can respond effectively to a disaster. The *Manitoba Health Emergency Response Plan* documents responsibilities during various emergencies. Appendix E provides the guidelines for emergency health response to floods. In a flood event Manitoba Health Branches are responsible for the following:

- Coordinating activities between RHAs, Manitoba Health and Provincial and Federal agencies.
- Assisting with the identification of possible reception facilities for evacuated health facilities and home care patients.
- Assisting with planning the transfer and movement of patients to facilitate reception of evacuees.
- Preparing for possible Life Flight evacuations of patients from impacted communities
- Assisting the RHAs as required with planning for transportation disruption.
- Preparing to offer public advice on ground water contamination and mould.
- Preparing to evaluate public health considerations with respect to reception centres.
- Health liaison coordination between Manitoba Health and the RHAs.
- Ensuring mental health care for flood victims and responders.

In the Manitoba Health Emergency Response Plan, the RHAs have primary responsibility to deliver continued mental health support to flood victims and responders.

#### **6.4 REGIONAL HEALTH AUTHORITIES RESPONSE**

In the area potentially affected by flooding from the Red River there are five RHAs:

- Interlake Regional Health Authority
- North Eastman Regional Health Authority
- Winnipeg Regional Health Authority
- South Eastman Regional Health Authority, and
- Regional Health Authority – Central Manitoba

Each RHA has a degree of autonomy in determining and providing health care to the Manitobans within their region. Manitoba Health has provided the RHAs with the *Community Health Needs Assessment Guidelines* to help determine “the strengths and needs of the communities enable the community-wide establishment of health priorities and facilitate collaborative action planning directed at improving community health status and quality of life.” Manitoba Health Disaster Management Services has also provided a guideline for program development titled *Disaster Management Model for the Health Sector*. The first outcome of a successful disaster management program is that “Manitobans live in safer communities that suffer fewer deaths, physical injuries and psychosocial trauma as a result of disasters.”

Staff members of the RHAs were interviewed by the EA study team for the Red River Floodway Expansion Environmental Impact Assessment. All those interviewed noted an increased capacity to deal with a local or regional disaster since 1997. The primary reasons cited for this increased capacity were:

- Improved protection of personal and public property through the 1997 Red River Valley Flood Proofing and Dyke Enhancement program.
- Increased experience of the RHAs in health care service delivery during crises and development of emergency preparedness plans.
- Lessons learned from the 1997 Flood have been applied.
- Increased coordination between local municipalities and the RHAs emergency response systems.

Manitoba Health has approved an Incident Management System Policy and Guideline for the Regional Health Authorities, and is revising its internal Emergency Response and Management System documentation, to be in keeping with international best practice, national direction and provincial legislation regarding incident management systems. Regional Health Authorities are adopting incident management systems to meet the new policy and to ensure a coordinated response to all hazards. As well, the Winnipeg RHA will provide a trauma response team as was done in 1997.

The Manitoba Floodway Authority recognizes that it is important to ensure that health service providers and the RHAs have access to the information needed to understand how the proposed Floodway Expansion may affect public health and well-being in Manitoba (either positively or negatively). Therefore, the Manitoba Floodway Authority will hold an information workshop on the proposed Floodway Expansion with health service providers in the Flood Study Region. The purpose of the workshop will be to provide information about the project and to create an ongoing dialogue with health service providers so that any unexpected potential health and well-being effects of the project can be identified, monitored and mitigated.

## 6.5 REFERENCES

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