13.3: Disaster Mitigation

Disaster mitigation measures are those that eliminate or reduce the impacts and risks of hazards through proactive measures taken before an emergency or disaster occurs. It begins with identifying the risks. Health care leaders need to evaluate potential emergencies or disasters that could impact the demand for their services and supplies, then develop a plan that will address those needs. Public Safety Canada describes the Red River Floodway as an example of disaster mitigation.

The building of the Floodway was a joint provincial/federal undertaking to protect the City of Winnipeg and reduce the impact of flooding in the Red River Basin. It cost $60 million to build in the 1960s. Since then, the floodway has been used over 20 times. Its use during the 1997 Red River Flood alone saved an estimated $6 billion. The Floodway was expanded in 2006 as a joint provincial/federal initiative. (2015)

Hendrickson & Horowitz, (2016) explain that hospital facility planners and health leaders should address those disasters that are most likely to occur in their community and geographic area and perform a hazard vulnerability analysis to determine the likely vulnerabilities that may arise in their facility from those disasters.

A hazard vulnerability analysis (HVA) is defined as a systematic approach that:

- identifies all hazards that may affect a community;
- determines the probability of the hazard;
- determines the consequences of the hazard; and
- analyzes the findings to determine what hazards are of priority (Saunderson Cohen, 2013; Hendrickson & Horowitz, 2016).

For example, industrial sites that store large volumes of potentially harmful chemicals pose a hazardous material threat.
that could require mass decontamination. Area hospitals would need to have functional decontamination units, as well as an abundant supply of ventilators, oxygen, and specific antidotes that are not typically available in large quantities. Natural disasters often result in increased numbers of homeless or displaced persons whose everyday medical needs may be exacerbated by limited access to routine health care. This may result in emergency departments experiencing an influx of patients seeking medication, treatments, and assessments.

The results of an HVA can be used to develop and streamline disaster plans. These plans should be designed using an interdisciplinary approach, including partners from local police, emergency, and fire services. HVAs should be conducted on an annual basis, or whenever there are demographic or infrastructural changes that may impact the potential of a disaster.