

On Thin Ice: Suggested Best Practices for Northern Emergency Planning

This document is intended as a resource for emergency planners in Canada's northern communities. It offers a collection of tools, strategies and suggestions to help ensure that emergency management policies and protocols address the needs of the whole community, including persons with disabilities.

*Strategies for
inclusive
emergency
planning in
Canada's North.*



On Thin Ice
ᑭᑭᑭᑭ ᑭᑭᑭᑭᑭᑭ
Sur un terrain glissant
tthení tèn dëᑭᑭᑭᑭ k'é ᑭᑭᑭᑭ ᑭᑭᑭᑭ



On Thin Ice
 ᑭᑦᑲᑦᑲᑦ ᑭᑦᑲᑦᑲᑦ
 Sur un terrain glissant
 tthení tèn dëᑲᑲᑲᑲᑲᑲ k'é ᑎᑲᑲᑲᑲᑲᑲ

Best Practices for Emergency Planning in Canada's North

Table of Contents

INTRODUCTION	3
COMMUNICATION.....	4
PREPARING FOR AN EMERGENCY	5
Encourage Self Sufficiency - Emergency Preparedness Guides and Materials	5
Community Partnerships	6
Community Networks	6
EMERGENCY NOTIFICATION	7
Multimedia Library of Emergency Messages	7
Voluntary Alert-Subscription Service	7
EMERGENCY COMMUNICATION	8
AM/FM Radio	8
Weather Radio	9
Television	9
Internet.....	10
Social Media.....	10
Telephones	11
Satellite phones.....	12
Smartphone Apps.....	12
In Person.....	13
Written Notices, Signage and Announcements.....	14
TRANSPORATION.....	14
MASS TRANSIT	15
Buses	15
Taxi.....	15
Air Travel.....	16
PRIVATE VEHICLES.....	16
Personal Vehicles.....	16
Snowmobiles and ATV's.....	17
SHELTER	17
Sheltering in Place	17
Sheltering in Place at Care and Day Program Facilities.....	18
Hotels.....	18
Voluntary Registry	19

SHELTER ACCESSIBILITY.....	19
Accessible Locations	19
Accessible Washrooms	20
Temporary Parking.....	20
Reception Area/Check-in Counter	20
Other Considerations.....	21
Maintenance Issues/Snow Removal.....	21

Abbreviations:

ASL	American Sign Language
CRTC	Canadian Radio-television and Telecommunications
EMO	Emergency Management Organization
ISL	Inuit Sign Language
MOU	Memorandum of Understanding
PWD	Persons With Disabilities
TDD	Telecommunications Device for the Deaf
TRS	Telecommunications Relay Service
TTY	Teletypewriter

Report Authors:

Editor: Marnie Peters

Authors: Stephen Higham, with contributions from Aqeel Qureshi, Nathaniel Leduc



The On Thin Ice project is funded by the Government of Canada's Social Development Partnerships Program, and is being delivered by the Global Alliance on Accessible Technologies and Environments.

INTRODUCTION

About the On Thin Ice Project

The objective of On Thin Ice is to protect lives and improve the security, well-being, and inclusion of persons with disabilities (physical, cognitive and sensory) and other vulnerable populations in emergency planning and preparedness in Canada's North.

While the potential of catastrophic events poses a danger to all members of Arctic society, it is persons with disabilities and other vulnerable groups who are at greatest risk. There are a number of challenges and obstacles to the active engagement, inclusion, and safety of persons with disabilities living in the far North.

What is This Document About?

The On Thin Ice Project team conducted research into international best practices on emergency management that are inclusive of persons with disabilities, paying special attention to success stories in communications, use of technology and low-technology methodologies that have proven beneficial for use in other isolated or underserved regions of the world and that are appropriate for adaptation or implementation in communities in the far North.

The best practices presented in this document are currently in use in other jurisdictions, including several that are in use in the Nordic countries, many of whom experience similar; weather and climate, issues related to geographical isolation of communities, and the use of multiple languages.

The best practices include information on the many ways to provide alternative means for the communication of information; strategies related to accessible sheltering; and the provision of accessible transportation to ensure the safety of persons with disabilities in an emergency or disaster situation.

Who Should Use This Document?

This guide is intended to assist northern emergency planners and emergency management organizations (EMOs), as well as first responders and others who are responsible for the overall safety of Canada's northern communities, in developing emergency management strategies and plans that are inclusive of the needs of persons with disabilities. Recognizing that southern models of emergency management are not

always suited for communities in Canada's North, the Global Alliance on Accessible Technologies and Environments (GAATES) initiated the "On Thin Ice" project, with the goal of identifying the needs and best practices of inclusive emergency management in the north.

In addition, the On Thin Ice project team will continue working with the community of persons with disabilities, along with Aboriginal and Inuit communities, to provide information, tools and strategies to help prepare for and remain safe throughout an emergency.

COMMUNICATION

Communication is a vital component of emergency management planning. Ensuring that individuals have the information they need to effectively prepare for and safely respond to a disaster can mean the difference between life and death.

Many factors have the potential to disrupt communications infrastructure, including power outages, fire, flooding, storms, etc. Often, if the event itself does not impair communications systems, the sudden volume of users seeking information can compromise the flow of information via websites or phone networks.

For persons with disabilities, accessing timely information can be particularly challenging even when all communication systems are working properly. Unfortunately, the unique communication needs of persons with disabilities are often overlooked in general emergency communication plans. People who are Deaf or hard of hearing cannot hear radio, television, sirens, or other audible alerts. For people who are blind or have low vision, visual cues such as flashing lights or scrolling text will not be helpful.

To ensure that everyone has access to the information they require to make informed decisions, strategies for emergency preparation, notification and response must be developed which recognize and consider the needs and abilities of everyone in a given community. Doing so requires the use of multiple means of communication, which also serves to reduce dependence on any one system.

PREPARING FOR AN EMERGENCY

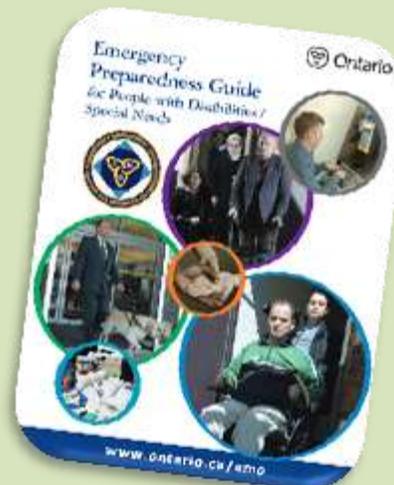
Faced with extreme weather conditions as well as the remoteness of many communities, it is a reality that it can take considerable amounts of time for outside help to reach many of Canada's northern communities. This makes it imperative that local responders be ready to manage an emergency response without depending on external support. By developing strategies to identify vulnerabilities and mitigate risk, planners can ensure that when there is an emergency, roles and responsibilities are well-defined, the response is well organized, and the needs of the whole community, including people with disabilities, are accounted for.

Encourage Self Sufficiency - Emergency Preparedness Guides and Materials

One simple and important step towards emergency preparedness is to provide materials that encourage and educate people on how to best prepare for disasters and encourage them to self-prepare. Such materials should be available in accessible formats (auditory, visual, Braille) and in the language(s) spoken in the community for which the materials are intended. Everyone in a community, with or without a disability, should be encouraged and assisted in preparing for an emergency. For persons with disabilities, their needs in an emergency can vary greatly, and they may not be aware of which strategies are suitable or which services or resources are available to them. Emergency preparedness guides and materials should include information for persons with disabilities, outlining the steps and strategies they might take during the different phases of an emergency.

Also important is educating emergency managers, first responders, relief workers, volunteers and community leaders on how best to assist a person with a disability (i.e. "do's and don'ts, communication tips, etc..."). In doing so, the safety, respect and comfort of everyone involved is maintained.

The Government of Ontario offers an [Emergency Preparedness Guide for People with Disabilities/Special Needs](#). It is available in six languages, and the site also includes videos on emergency planning in both ASL, LSQ, or with subtitles.



Other examples of online emergency preparedness resources include the websites of the [Red Cross of Canada](#), [FEMA](#), or the [Government of Canada's – Get Prepared](#).

Community Partnerships

Forging and maintaining community partnerships between stakeholders helps to ensure that the response to an emergency will be coordinated, timely and cooperative. EMO's, Planners and regional governments should actively consult and develop plans with disability advocacy and support groups, service providers, paratransit providers, home health care providers and others. This will allow greater insight into the resources that are available in a given community, and can identify the roles and responsibilities of different stakeholders if and when there is an emergency.

The Government of Yukon's Community Day Program provides support and assistance to persons with cognitive or physical disabilities and to their caregivers. This is a good example of an organization that will be well-connected and informed of the needs of PWD in their community. During a disaster, the volunteers and support workers of such organizations could be mobilized to call on the individuals they regularly support and assist. to ensure that they are safe.

Private businesses, corporations, government agencies, community organizations and the media can be helpful in disseminating information, providing funding, hosting meetings and activities, and aiding with the production of materials. Cooperative relationships with the media enables EMO's to disseminate public emergency preparedness messages to a wider audience. It is especially helpful when an emergency occurs if your relationship with the regional media is already established.

Community Networks

One of the greatest assets for emergency planners in Canada's north is the strong sense of community. For many people, the most obvious means of gathering information will be to go next door and talk to their neighbour. This sense of community is a strength that can and should be utilized. There may be an informal network already in place, through which community leaders and individuals can be identified.



For emergency planners, it is a best practice to identify and/or appoint community leaders who can be enlisted to participate in the planning process, and who can act as community liaisons during an emergency. This may involve going door-to-door, or organizing a telephone tree or community communication plan to ensure that others have the information they need to be safe. It is also important to include representatives of the

disabled community in this planning process to gain perspective on how best to consider and respond to the needs of persons with sensory, mobility or cognitive impairments in the event of an emergency.

EMERGENCY NOTIFICATION

Multimedia Library of Emergency Messages

In addition to publically available guides and information materials, it is important for Emergency Management Organizations (EMO's) and broadcasters to produce and maintain a multimedia library of emergency messages in multiple accessible formats. When an emergency occurs, there may be little time to develop accessible formats of communication.



Anticipating this, planners can prepare messages, alerts, or notifications in auditory, visual and Braille formats, and in the languages relevant to the community - this may include Inuit Sign Language (ISL) as well as American Sign Language (ASL). These emergency messages may then be delivered via mobile devices, on the internet, through broadcast media (TV, radio), shown in shelters, etc. By preparing an accessible multimedia library, planners ensure that in an emergency, information will be available to everyone in a timely and accessible manner.

Voluntary Alert-Subscription Service

EMO's at the community and territorial level may wish to develop a voluntary alert-subscription service. This allows individuals to register for alerts to be transmitted, (in accessible formats) directly to them in the event of an emergency. The service may be delivered via text, audio or video, provided that registrants have submitted their email address or mobile phone number. As part of Denmark's national emergency warning system, for example, a subscription-based service sends text messages to registered mobile numbers to provide warnings and information about widespread emergencies. This is not a fail-safe, catch-all



Text-alerts could notify users of impending storms, disruptions in supply lines, power/water outages, etc., These alerts are also downloadable to wireless Braille readers.

system however, as many persons regardless of if they have a disability, are reluctant to provide information or 'sign-up' for such a system. It should be remembered that an alert-subscription service is but one of many tools available to planners, with each one serving to increase overall community safety and preparedness.

EMERGENCY COMMUNICATION

The strategy for getting information out to affected individuals will depend on the size and scale of the emergency, as well as the size and location of the community. The best practice is to utilize multiple means of communication, with accessibility as a priority.

AM/FM Radio

For many northern communities, radio is the first place that residents turn to for information. While television programming is often based in the south, many communities throughout the territories have local community radio stations which residents rely on for timely information.

At the Territorial level, CBC North Radio provides daily aboriginal language programming in Dene Suline, Tlicho, North and South Slavey, Gwich'in, Inuvialuktun and Inuktitut, providing news, weather and entertainment, as a vital service to the many people in the North who do not speak English as a first language.

New accessible radios are capable of receiving text alerts, others can convert text using a refreshable Braille display. In this way, radio becomes accessible to persons who are Deaf or hard of hearing, or who are deafblind. In the United States, NPR Labs is developing a pilot project to deliver emergency alerts through local public radio stations and the Public Radio Satellite System to people who are Deaf or hard-of-hearing in the Gulf States. The results of this initiative may have practical relevance for emergency planners in Canada's North.



A text-alert radio, with a refreshable Braille display

Weather Radio

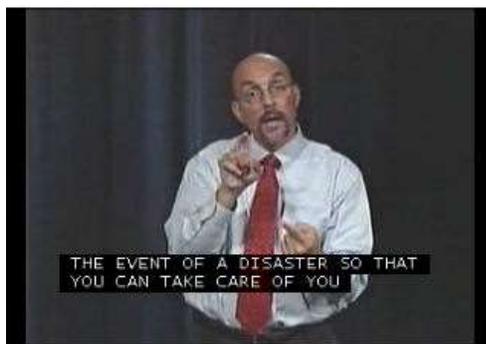


Environment Canada's Meteorological Service of Canada transmits important weather information over the Weatheradio Canada network (in French *Radiométéo Canada*). This information is transmitted over VHF frequency and is audible on Weatheradio receivers or FM radios capable of receiving 10 kHz bandwidth signals. When a weather alert is sent, the Weatheradio receives the signal and automatically activates, producing a loud tone followed by a description of the approaching weather. This information can be displayed visually for those who are deaf or hard of hearing. Also, some receivers are equipped with special output connectors that activate alerting devices such as vibrators, bed shakers, pillow vibrators, strobe lights and other alerting systems.

Environment Canada suggests that weather radios should be standard equipment in schools, hospitals and other public facilities, and Canadians should be encouraged to purchase receivers for their homes. Since many models include hand-crank, these radios do not depend upon electricity or batteries to function. Weatheradio coverage in the territories is not comprehensive, however, so planners should check to see if their communities are able to receive alerts.



Television



Example of an Accessible TV Broadcast, using sign, captions, and audio.

In the North, much of the television available to viewers is rebroadcasted from the territorial capitals or from urban centres in the south. For large-scale disasters or weather-related emergencies, TV is a common and practical way to access information. At the local level, the effectiveness of television will depend on whether local or regional broadcasts exist, and/or if they are available in a timely manner. When presenting important information via television broadcast, consider that those with low-vision may not be able to clearly see the images being shown. By describing what is shown, visual information can be made accessible. Conversely, those who are Deaf or hard of hearing require captioning or real-time ASL or ISL. Emergency planners may wish to discuss these tools with television providers, to see what they are currently doing to ensure accessibility in their broadcasts. The CRTC has requirements for broadcasters with regards to captioning and emergency messaging.

Internet

The internet is one of the first places that individuals may turn to for news and information in the event of an emergency. Local authorities or municipal governments should ensure that their official websites are accessible and meet requirements under the Web Content Accessibility Guidelines (WCAG) 2.0. In addition, news and information on official websites needs to be presented in means that are timely, accessible and regularly updated – especially in an emergency situation. A central webpage should be linked with any social media services that are being utilized as a component of the emergency communications plan. Part of preparing for an emergency may include developing a website with useful links, videos and information for people to turn to at the different phases of a disaster.

For many communities in the North, the usefulness of a website as an information source is mixed. Access to household internet may be limited, and depending on the nature of the emergency, connectivity could be an issue. Further, access to the internet generally requires access to electricity, limiting its usefulness during an extended power outage.

Social Media

The use of Social Media is increasingly one of the most common ways for people to access information, communicate with family and friends, and in some cases, seek help. In fact, one-third of Canadians report that their preferred method of gaining information during an emergency is electronically. Twitter, Facebook, and YouTube, (among other web services) should be considered important tools to assist stakeholders in managing emergencies.



The Red Cross of Canada (www.redcross.ca) report on the use of social media during emergencies found that 60% of respondents use social media regularly.

Many people now turn to sources such as Twitter or Facebook for information when an event takes place in their community, where rumours and misinformation can quickly spread. It is important actively engage in social media.

Former Mayor of Iqaluit, Madeleine Redfern explained; “If misinformation is not corrected and it spreads like wildfire, then suddenly people are angry and scared and act in ways not in their best interest.”

There are a number of benefits of using social media for local governments or emergency management organizations:

- *Increases access to audiences*
- *Provides a medium to correct misinformation*
- *Helps co-ordinate response efforts*
- *Permits instant transmission of messages directly to followers*
- *Provides a means of feedback for community*
- *Can allow for greater situational awareness for responders, as users upload photos, videos and comments*
- *Offers an opportunity to connect with specific groups (such as persons with disabilities)*

Where possible, messages should be shared in a variety of formats with the goal of providing information that can be accessed by everyone. If a multimedia library has been prepared, there may be videos and audio files in multiple languages and in accessible formats that are relevant to the situation.

Telephones

Phones play an important but evolving role in emergency communication. The increasing use of smartphones and declining number of land lines, including in Canada's North, illustrate the importance of designing an emergency communications plan according to the needs of the whole community.

Emergency planners in the North are aware, for example, that aside from the city of Whitehorse, there is no standard 9-1-1 service in the territories. Instead, each community has a unique 10-digit number for emergency services.

Even where 9-1-1 services are available, however, people who have hearing or speech disabilities may have difficulty communicating over standard telephones with emergency operators. Many cities offer a dedicated **TTY (Teletypewriter)** emergency number that can be used to send and receive typed messages through a **Telecommunications Device for the Deaf (TDD)** or through a **Telecommunications Relay Service (TRS)**, allowing for non-auditory communication. Gradually, such systems are being replaced as newer



*As of March 2014, the 9-1-1 call centres in the cities of Calgary and the Metro Vancouver area allow Deaf or hard of hearing residents to register for a texting service that enables them to communicate with emergency responders using **text messages**.*

technologies such as email, texting and instant messaging become more common. Telephones can also be used as a tool to get information to residents. They are found in most households, and in the case of landlines do not necessarily require electricity. **Phone-trees**, for example, are one potential method for sharing and spreading information to members of a community, by which a network is formed of voluntary members who, when activated, will call a designated number of people with relayed information. In turn, those individuals then call their designated contacts, etc. Such tree methods are only as reliable as the members of the plan.

A further drawback to phones is that both landline and/or cellular infrastructure may be rendered inoperable by an emergency. In urban centres, there are many examples where cellular networks have been overwhelmed by demand on the system. Given such vulnerability, phone-trees are practical only in small communities. And of course, unless special arrangements are made, phone trees are not inclusive of persons who are Deaf or hard of hearing, or persons with other communications disabilities.

Satellite phones can be an invaluable communications tool. In communities with limited to no cellular service, satellite phones provide a reliable alternative. Without requiring a local cellular or landline service to function, satellite phones are ideal for remote and isolated communities. They are expensive compared to cellular phones, however, and much less common.

Smartphone Apps



There are a number of applications available to smartphone users which may be useful during an emergency. For individuals with visual or auditory disabilities, there are many tools that could help to make information accessible, such as apps that enable a smartphone to convert speech to text. Applications such as the Dragon Mobile Assistant, for example, allow a user to easily convert speech to text, which can then be stored in the phone, or sent as an SMS or email. Alternately, there are many IP Relay apps that can call and relay typed messages in a voice format.

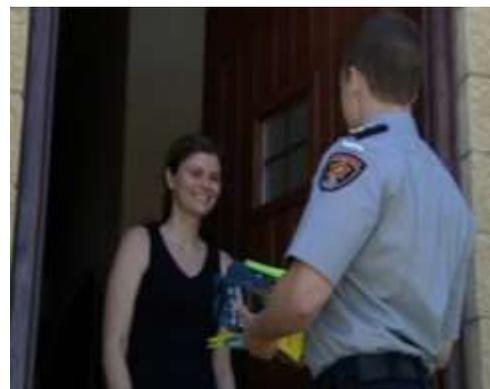
Applications are available to allow smartphones to receive Weatheradio alerts (although such apps continue to depend on cellular networks), or to receive data on active weather (or other) hazards in the user's region.

Depending on the specific needs of users, planners may wish to recommend the use of certain applications for persons with specific needs.

In Person

Direct, person-to-person communication is a primary means of acquiring information. In the moments during or after an emergency, people are likely to turn to their neighbours or community-leaders in order to seek out information or instructions.

If community-leaders have been included as part of an emergency management plan, these individuals should be promptly contacted so that they can relay information, and carry out any actions or responsibilities that have been agreed upon. This may involve knocking on doors and checking on people with disabilities or families, ensuring their safety, providing important information and instructions, and identifying specific needs of households.



Ideally, such a network is comprehensive and inclusive. The reality, however, is that although a strong sense of community is a major asset enjoyed by many northern communities, there are limitations. Not everyone lives within walking distance of their neighbour, and not everyone speaks the same language (the N.W.T. alone recognizes eleven official languages). An emergency might occur while community leaders are away on a hunt, or weather conditions might not permit door-to-door interactions. As such, these networks should be nurtured and utilized in conjunction with other more formalized methods of communication.

When communicating with PWD, the wide range of physical, sensory or cognitive disabilities can present unique challenges. Regardless, people should always be treated respectfully. EMO's should adopt a communications policy that includes tips for first responders and volunteers on communicating with PWD.

Ensuring that the needs and safety of PWD are included in emergency management plans is more achievable through consultation with the community of persons with disabilities and seniors, *prior* to an emergency.

Written Notices, Signage and Announcements

Written notices and announcements can be posted in public areas where they will be widely seen and understood. They can be easily changed or updated as circumstances unfold, and can provide a rallying point for members of the community to congregate if posted in a central location (arena, school, church, etc.).

Announcements should be clearly written using plain language, in relevant languages, in large print, and using sans serif fonts (Arial, Verdana, Calibri). The text should also have a strong colour contrast with the background. If possible, pictograms can be used instead of text.



Written announcements are not accessible to individuals who are blind or have low-vision, and should never be the only available means of communication. Emerging technologies allow documents to be quickly translated into audio mp3's or Braille, which can then be easily listened to using a personal devices, or printed or emailed to individuals who have access to a Braille embosser.



If available, a public address system presents an opportunity to communicate auditory announcements. If possible, video announcements, which could include captioning and/or sign language, may also present an opportunity to communicate in an inclusive way.



Once again, there is no single, prescribed method to best communicate in an inclusive way. The needs and circumstances of the community, as well as the size and scale of the emergency will shape the best approach. Most often, a variety of methods will be utilized to communicate as broadly and inclusively as is possible.

TRANSPORTATION

Getting people out of danger is a challenging priority during an emergency. Every emergency is different, and every community has different needs and resources available. Developing a strategy to provide emergency transportation for everyone requires planners to assess what the needs and resources are. Too often, the needs of PWD are overlooked during the planning process, which could complicate an eventual

evacuation. It is a best practice to identify all of the transportation resources, both public and potential private vehicles that are available in a given community with a focus on accessibility. Planners can then discuss the possibility of their potential use in an emergency situation.

MASS TRANSIT

Buses

In urban centres, buses are a common means of transportation, and newer models of buses are designed to be accessible. In situations requiring the rapid movement of large numbers of people (i.e. an evacuation), buses with accessibility features can be invaluable resources. In the City of Ottawa, for example, the use of accessible buses in the event of an evacuation is outlined in the City's official emergency management plan.



In the City of Whitehorse, all of the buses are accessible, and the city offers the Handy-Bus service for PWD. Yellowknife too has accessible buses in their fleet, and offers a door-to-door service for PWD. In both cities, these fleets can be utilized in the event of an evacuation order. Iqaluit does not currently offer either a regularly scheduled bus service, nor an accessible bus service for PWD.

Where municipal transit systems do not exist, accessible-buses or vans may be privately owned by group-homes, retirement homes or community centres. EMO's should have an inventory of what is available, and then determine the potential usability of these resources in an emergency scenario. Such possibilities again underscore the need for partnerships when developing inclusive emergency management plans.

Taxi



Taxis are often the only form of public transportation in many northern communities. Usually these are not accessible, and a limited number of individuals can be transported at a given time. They are a realistic means of transporting people in an emergency scenario only for those who are able to safely and comfortably enter and exit a non-accessible vehicle. New taxi licensing requirements in every community should require a percentage of all taxis to have a lift or ramp and be accessible.

Air Travel

Air travel is often the only means of travelling between northern communities. In large-scale evacuations, securing travel by air may be the only option for moving large groups of people away from the affected area. Airlines such as Air Canada, Air North, First Air, Bearskin Airlines, and Buffalo Airways all operate regular flight services between northern communities, with varying levels of accessibility.



Stairlifts allow passengers using mobility aids to board and exit an aircraft in a safe and comfortable manner.

Although Whitehorse sometimes boards and disembarks aircraft through jet bridges, most often passengers at airports in Canada's North will board and disembark the aircraft with the use of a staircase, with those using mobility aids requiring assistance. Most airline crew members have some experience assisting passengers with disabilities and who require special assistance. Going forward, airports in northern communities should consider upgrades such as a stair lift, which allows passengers to ascend and descend staircases even in adverse conditions.

Given the weather conditions in the north, air travel is not always possible. Planning for large-scale evacuations should not depend on the full time availability of aircraft.

PRIVATE VEHICLES

Personal Vehicles

Privately-owned, personal vehicles can seat only a few people, and are unlikely to play a major role as part of community wide evacuation. However, there may be situations where individuals with disabilities will be more safely and comfortably transported with assistance via a personal vehicle.

Snowmobiles and ATV's

Snowmobiles and ATV's are common in northern communities. In some communities, they may be more common than cars. When developing plans for the use of emergency facilities, planners may wish to provide dedicated parking areas for these vehicles.

Recreational vehicles can be equipped with special seats that allow persons with a variety of disabilities to safely operate them. More relevant to emergency transportation is the range of sleds and toboggans which can be used to transport persons with mobility-impairments or persons with injuries.

The so-called "Snowbulance," for example, allows for a patient and up to two attendants to be pulled by a snowmobile or ATV.

Acquiring a toboggan such as the Snowbulance can be expensive, requiring the involvement of municipal and/or territorial governments, fundraising efforts, and/or partnerships between regional stakeholders.



The Snowbulance, as depicted on the Equinox Company website: www.eqnx.biz

SHELTER

Evacuating to a public shelter is always a last resort, and will typically only be ordered under extreme circumstances. Even then, it will likely only include the most affected areas. It is far more preferable for individuals to shelter-in-place, unless doing so puts them at greater risk than evacuating to a public shelter.

Sheltering in Place

Sheltering-in-place is a strategy whereby a building occupant remains in their current location or place of residence until notified of further action. Ideally, people will be able to shelter-in-place in their own homes or with family or friends. However, for individuals who do not have access to a safe place to shelter-in-place (having lost their home to fire, for example), there may be a need for hotels or other community facilities to be made available. Emergency planners should evaluate the accessibility of such facilities

in order to determine the feasibility of their use in an emergency. Planners can also assist these facilities in preparing for this potential use.

When a shelter-in-place order is in effect, it is essential that people be provided with the information that they need to be safe. This may include updates on the duration and intensity of the event, availability of shelter, or access to food, fuel and supplies. This communication should occur through multiple, accessible means.

Sheltering in Place at Care and Day Program Facilities

There will be situations in which vulnerable members of the community such as elderly persons, or persons with physical, sensory or cognitive disabilities will be safer and more comfortable sheltering-in-place than being relocated.

A continuing care facility, for example, will be better equipped to accommodate the needs of its residents than a shelter is likely to be. Facilities must be prepared for this possibility. Caregivers need to understand the clinical priorities for the patients in their care prior to, during, and following a disaster. Facilities should maintain enough food and medical supplies to last for at least seven days with no outside assistance.

Every facility should have a disaster plan that outlines the response it will take at all phases of an emergency, and the roles and responsibilities of staff members should be clearly outlined.

For their part, EMO's should ensure that long-term care facilities are awarded the same priority status as hospitals with regard to the restoration of power and other essential services. Communications between these facilities and emergency operation centres are to be closely maintained.

Hotels

EMOs across all three territories indicated that sheltering selected individuals and/or PWDs in hotels is frequently used as an option whenever limited community sheltering is required. However, there are a very limited number of wheelchair accessible hotel rooms that are properly equipped with a roll in-shower – and very few (if any) rooms are



Emergency drill in an Elder's Care Facility.

accessible to persons with hearing impairments (i.e. equipped with strobe alarms). EMOs should urgently take an inventory of this private resource, and work with the service providers to increase the number of accessible rooms.

Voluntary Registry

Before an emergency occurs, it is advisable for EMO's and disability support organizations to create a voluntary and confidential registry of persons with disabilities who may need evacuation assistance or alternate notification and communication of information. In the event of a disaster, shelters should keep a registry of everyone (including non-disabled persons) who is sheltering in the facility. These may help to reunite families who have been separated, or to identify missing persons. A registry may not necessarily identify everyone who will require individual assistance, as many individuals may be reluctant to participate. Where a registry is developed, it should not be considered comprehensive or complete. There may be individuals with disabilities who are visiting from out of town, or conversely, there may be individuals who are on the list but who are away travelling or hunting. The OTI Project Team can work with stakeholders on developing a registry intake form.

SHELTER ACCESSIBILITY

Accessible Locations

In selecting shelters, preference should be given to facilities that already have accessibility features and are centrally located within the community. Accessibility needs to be considered for locations where food, fuel and emergency supplies are distributed, eating areas, sleeping areas, washroom facilities, etc. Accessible sheltering options can include community centres, schools, arenas, churches, hotels, airports, military facilities or elsewhere.



Wheelchair user in a public shelter.

Accessible Washrooms

If the washrooms (and other areas, including showers) of a potential shelter are not fully accessible, there are a number of modifications that can be made to increase the overall safety and comfort of individuals who have physical or cognitive impairments. Grab bars, lever handles (which can be easily installed over doorknobs), toilet risers, transfer benches, and handheld shower heads are a few examples of features that can be installed at relatively low cost.



Temporary Parking

Where accessible parking is not available or numbers are insufficient, temporary accessible parking can be created using standard traffic cones. Three standard parking spaces can be made into two accessible spaces with a shared access aisle. Accessible parking should be created as close to the accessible entrance as possible.

Reception Area/Check-in Counter

When reception tables or check-in areas are provided, at least one check in location should be accessible, and marked as such by signage. The top of a counter, table or work surface should have a maximum height between 730 and 860 mm from the floor, with a clear knee space underneath of at least 680 mm in height, with 480 mm in depth.



An accessible reception counter.

Other Considerations

Given the wide range of disabilities, there are many considerations to be made in order to ensure that a shelter is prepared to accommodate as wide a range of persons. One priority includes ensuring that a refrigerator (or ice cooler) be available for persons who may require medication (such as insulin) that must remain cold. Back-up generators are also important in the event of a power outage, not only for lighting and refrigeration, but also to allow individuals to charge battery operated devices such as cell-phone, or certain mobility-aids or to accommodate people reliant on oxygen. This also offers a degree of comfort and normalcy for people who may be stressed by their displacement.

While the use of service dogs is not common in northern communities, in the event that a person who is blind or has low-vision is accompanied by a service dog, procedures and policies must ensure that they are not separated. During an evacuation and sheltering, for example, the person and their service dog should be provided with adequate space and positioned close to a shelter exit to facilitate the needs of the animal.

If available, a portable patient lift (i.e. Hoyer lift) can be used at a shelter for transferring persons who lack strength or muscle control between a wheelchair and a bed. EMO's could arrange for Memorandums of Understanding (MOU's) with medical companies, the community hospital or health care facilities, or long-term care facilities the possibility of utilizing such equipment should the need for a shelter arise.

Maintenance Issues/Snow Removal

Access routes to shelters and other community resources must be clear of snow, debris, temporary signage, etc. Unimpeded access to facilities is important for the safety and well-being of the whole community. However, such hazards can prevent even minimal access for persons with disabilities.

In the winter, the windrows created by snow plows and sidewalk plows are hazardous for persons with mobility and wayfinding disabilities, and can impede their ability to make their way independently on public rights of way, and to access the transit system.



The On Thin Ice project team looks forward to continuing to work with EMOs and emergency managers across Canada's north, to ensure that territorial and community emergency preparedness plans are inclusive of everyone, including persons with disabilities.

Website:	www.OnThinIceProject.ca
Twitter:	@_OnThinIce
Facebook:	facebook.com/onthiniceproject
Phone:	613-725-0566
Email:	GAATES.marnie.peters@gmail.com
Mail:	GAATES 620 – 1600 Carling Ave Ottawa, ON K1Z 7M4 CANADA

About GAATES

The Global Alliance on Accessible Technologies and Environments (GAATES) is the leading international not-for-profit organization that brings together individuals and organizations dedicated to promoting accessibility of the built and virtual environments. GAATES was incorporated in Canada in 2007 by an international consortium dedicated to promoting accessibility worldwide.

GAATES' mission is to promote the understanding and implementation of accessibility of the sustainable built, social and virtual environments, including architectural, infrastructural design, transportation systems, emergency preparedness protocols, habitat, and electronic information and communication technologies so that everyone, including people with disabilities and older persons are able to fully participate and contribute to society.

For more information on GAATES, please visit www.gaates.org or contact the office at info@gaates.org