Environmental Scan of Sheltering Policies and Programs

for People with Disabilities:

Policy Scan Report

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Authors:

Dr. Katie Aubrecht
Contact: kaubrech@stfx.ca
Sheltering Stream Lead Investigator
Sociology Department,
St. Francis Xavier University

Rosanne Burke
Contact: rburke@stfx.ca
Research Manager and Associate
Spatializing Care Lab,
St. Francis Xavier University

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Acknowledgements

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MacEachen Institute for Public Policy and Governance

The MacEachen Institute for Public Policy and Governance at Dalhousie University is a nationally focused, non-partisan, interdisciplinary institute designed to support the development of progressive public policy and to encourage greater citizen engagement. Founded in 2015, the Institute is governed by four Dalhousie University faculties (Health, Law, Management, Arts and Social Sciences) and the Vice President (Research and Innovation). The Institute aims to serve as the place provincially, regionally, and nationally for robust public policy debate, discussion, and research. The Institute engages scholars, students, and community members in the development of policy options and policy research. The Institute builds connections with the community, creates an impact with policy-focused research, and connects local issues to national discourse.

Spatializing Care Lab

Led by Director, Dr. Katie Aubrecht, the Spatializing Care Lab connects and crosses disciplinary and sectoral boundaries, bridging medical, social, and cultural approaches to mental health care. Dr. Aubrecht is an Assistant Professor in the Department of Sociology and Canada Research Chair Health Equity and Social Justice at St. Francis Xavier (St. F.X.) University in Antigonish, Nova Scotia. Her research program analyzes marginality and mental health, rurality, and resilience across the life span as health equity and social justice issues. The lab is home to a participatory arts-informed health research infrastructure that supports and enhances meaningful and ethical community engagement. Projects focus on structures and conditions that influence mental health and wellness inequities and disparities. The lab models accessible and inclusive research practice, training, and mentorship. We provide opportunities to engage with the research process, develop skills, and share experiential insights. The Spatializing Care Lab takes a collaborative approach, seeking input from all relevant stakeholders, including knowledge users and people with lived experience. We employ an intersectional lens and seek to understand program or policy's impact on health inequities and/or disadvantaged populations.

Definitions

"Access-based needs": According to the United States Department of Health and Human Services "all people must have access to certain resources such as social services, accommodations, information, transportation, medications to maintain health".

"Barrier": In the Accessible Canada Act, barrier "means anything—including anything physical, architectural, technological or attitudinal, anything that is based on information or communications or anything that is the result of a policy or a practice—that hinders the full and equal participation in society of persons with an impairment, including a physical, mental, intellectual, cognitive, learning, communication or sensory impairment or a functional limitation."

"Built environment": In the Accessibility Act of Nova Scotia, built environment means the human-made spaces in which people live, work, learn and play and includes buildings, rights-of-way, and outdoor spaces.

"Comfort Centre": According to the Municipal Emergency Plan, a comfort centre is a *"*facility that is primarily used for residents who are remaining in their homes but do not have full services such as electricity, heat, water, etc. Comfort centres are normally run by the municipality."

"*Communication*": According to the United Nations Convention of the Rights of Persons with Disability, communication includes languages, display of text, Braille, tactile communication, large print, accessible multimedia as well as written, audio, plain-language, human-reader, and augmentative and alternative modes, means and formats of communication, including accessible information and communication technology.

"deaf": According to the Canadian Association of the Deaf, deaf is a medical/audiological term referring to those people who have little or no functional hearing. May also be used as a collective noun ("the deaf") to refer to people who are medically deaf but who do not necessarily identify with the Deaf community.

"Deaf": According to the Canadian Association of the Deaf, Deaf (with a capital D) is a sociological term referring to those individuals who are medically deaf or hard of hearing who identify with and participate in the culture, society, and language of Deaf people, which is based on Sign language.

"Disability": In the Accessible Canada Act, disability "means any impairment, including a physical, mental, intellectual, cognitive, learning, communication or sensory impairment—or a functional limitation—whether permanent, temporary or episodic in nature, or evident or not, that, in interaction with a barrier, hinders a person's full and equal participation in society."

"Emergency": In the Municipal Emergency Plan emergency is defined as "a present or imminent event in respect of which the Regional Municipality believes prompt co-ordination of action or regulation of persons or property must be undertaken to protect property or the health, safety or welfare of people in Nova Scotia."

"Emergency Facility": In the Municipal Emergency Plan, emergency facility is defined as a "usable space that has been allocated for use by the municipality during an emergency as a comfort centre, reception

centre, evacuation centre or other emergency-related use as determined by the Emergency Management Organization (e.g., rest and feeding areas for responders, command areas, etc.)."

"Emergency services": In the Halifax Regional Municipality charter, emergency services mean "services related to the provision of emergency services, including fire services, emergency medical services, search and rescue, water rescue and assistance and protection for people and property in the event of disasters including, but not limited to, floods, hurricanes, motor vehicle accidents and chemical spills".

"Emergency shelter": A location chosen during a disaster by emergency management officials. These facilities provide temporary, short-term accommodation for actual or potential disaster victims evacuated in response to an emergency and fulfill basic needs (food, bed, medical care, etc.)

"Evacuation Centre": In the Municipal Emergency Plan, an evacuation centre is a "a location where evacuees are received, documented, personal needs are identified, and overnight shelter is provided. A type of emergency facility. In HRM, evacuation centres are operated by the Canadian Red Cross, under the direction of the provincial Department of Community Services."

"Function-based needs": According to the United States Department of Health and Human Services function-based needs refer "to restrictions or limitations an individual may have that requires assistance before, during, and/or after a disaster or public health emergency".

"*Reception Centre*": The Municipal Emergency Plan defines a reception centre as "a service facility where disaster or emergency evacuees are sent to receive basic health care, assistance for basic needs and information.

"Shelter-in-Place": The Municipal Emergency Plan defines shelter-in-place as "a protective measure whereby a population is instructed to stay inside their homes or the building where they are, and to take various other precautions, while waiting for the end of a threat."

Acronyms and Abbreviations

ACA	Accessible Canada Act
AFN	Access and functional needs
AMA	Accessibility for Manitobans Act
AODA	Accessibility for Ontarians with Disabilities act
ASC	Accessibility Standards Canada
COVID-19	Coronavirus disease of 2019
CMIST	Communication, Medical, Functional Independence, Supervision and Transportation
CNIB	Canadian National Institute of the Blind
CSD	Canadian Survey on Disability
DAWN	Disabled Women's Network of Canada
DPOs	Disabled people's organizations
DDBHH	Deaf, deaf-blind, and hard of hearing organizations
DRR	Disaster risk reduction
DOPS	Design of Public Spaces Standard
DEM-Net	Disability management network
EMO	Emergency Measures Organizations
ESS	Emergency Social Services
F-P/T	Federal, provincial, and territorial governments
HRM	Halifax Regional Municipality
HRA	Human Rights Act
JEM	Joint Emergency Management
NGO	Non-Governmental Organization
NSEMO	Nova Scotia emergency management organization
SIP	Shelter in place
UNCRPD	United Nations Convention of the Rights of Persons with Disabilities
UNDRR	United Nations Office for Disaster Risk Reduction
WHO	World Health Organization

Executive Summary

Sponsor and Purpose of the Study

The research project 'Evacuating Persons with Disabilities' at MacEachen Institute for Public Policy and Governance is sponsored by Accessibility Standards Canada. The overall goal of this project is to improve governance and practice of all phases of evacuation to ensure all access and functional needs for persons with disabilities are met. The project examines four phases of evacuation to meet the needs of people with disabilities including communication and alerts, transportation, sheltering and return to communities. The research question is: How can the governance of evacuation be improved?

This environmental scan is supported by the Spatializing Care Lab at Saint Francis Xavier University and is focused on the sheltering phase of evacuation. The purpose was to scan Canadian federal and selected provincial/territorial jurisdictions for legislation, policies, programs, services, action plans and publicly available information on emergency sheltering for persons with disabilities. The research objective of the shelter phase is to identify the most suitable facilities to use as shelters during an evacuation that meet the access and functional needs of all shelter residents, including persons with disabilities. The Centers for Disease Control and Prevention (CDC) (2021) states that "access and functional needs refers to individuals with and without disabilities, who may need additional assistance because of any condition (temporary or permanent) that may limit their ability to act in an emergency" including individuals with disabilities, older adults, and persons of various cultural and linguistic backgrounds or socioeconomic status.

The research questions are:

1. What are the most suitable facilities in Halifax, Nova Scotia to use as shelters during an evacuation?
2. How can we ensure shelters meet the access and functional needs of all shelter residents, including persons with disabilities?

A third question explored was: Where do people with disabilities live and how will they be located during a mass evacuation?

Scope and method

The environmental scan was completed between May to August 2021. It included: (1) a review of publicly available information on the sheltering phase of evacuations and analysis of how the access and functional needs of persons with disabilities are included in legislation, policies, programs, services, plans, and publicly available information including websites and brochures. (2) interviews with members of the research project. (3) mapping of likely shelter locations, and sites of vulnerable populations including nursing homes, hospitals, public housing, and community group/small options homes. The scan was intended to begin the process of collecting information relating to persons with disabilities during the sheltering phase of evacuations and is not meant to be a comprehensive review of all information or policies on sheltering.

The scope of the scan included the federal government, six provinces (BC, AB, MB, ON, NB, NS) and one territory (NWT). Only one municipal jurisdiction was included (Halifax Regional Municipality). The rationale for inclusion were provinces that had accessibility legislation (Nova Scotia, Ontario, Manitoba, and British Columbia); Alberta because of the historical context of evacuations due to forest fires; New Brunswick as an additional Atlantic province; and Northwest Territories because of their work with the 'On Thin Ice' project. Information from not-for-profits involved in emergency management preparedness or response (e.g., Red Cross, Salvation Army, St. John Ambulance) and disabled persons organizations (e.g., Disability Rights Coalition of Nova Scotia) was also included.

An adapted three phase, ten-step approach was used for the policy scan (Mullen, 2014). See Appendix A. For each jurisdiction, several government domains were searched (e.g., Department of Health, Department of Community Services, Department of Municipal Affairs etc.) using specific search terms (e.g., evacuation, sheltering, disabilities, older adults etc.) for information relating to emergency services and people with disabilities. Within each jurisdiction, an attempt was made to find information in six categories: legislation, policies, training, action plans, public awareness, and non-government/disabled persons organizations.

Context: Global attitudes and approaches to persons with disabilities

The United Nations has spent decades to change attitudes and approaches to persons with disabilities from viewing them as "objects" of charity to subjects with rights who can make decisions for their lives and are active members of society (United Nations, n.d.). The United Nations Convention on the Rights of Persons with Disabilities is a human rights instrument that reaffirms the human rights and fundamental freedoms of people with disabilities (United Nations, n.d.). It clarifies where adaptations must be made for persons with disabilities. Its' purpose is:

> to promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity. Persons with disabilities include those who have long-term physical, mental, intellectual, or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.

Canada is committed to working with other countries to support the rights of people with disabilities and ratified the United Nations Convention on the Rights of Persons with Disabilities (CRPD) in 2010 (Government of Canada, 2020).

The Sendai Framework, adopted at the Third UN World Conference on Disaster Risk Reduction in Sendai, Japan, on March 18, 2015, aims to reduce disaster risk in the economic, physical, social, cultural, and environmental assets of persons, businesses, communities and countries and loss of lives over the next fifteen years (United Nations Office for Disaster Risk Reduction, n.d.).

Context: COVID-19

China notified the World Health Organization (WHO) of a pneumonia outbreak of unknown etiology on December 31, 2019 (Canadian Public Health Association, 2021). The Public Health Agency of Canada activated the Emergency Operations Centre on January 15, 2020 (Canadian Public Health Association, 2021). The WHO declared COVID-19 a global pandemic on March 11, 2020 (WHO, 2020). The Canadian

government responded to the pandemic with unprecedented actions with the goals of minimizing illness and death, limiting societal disruption, and reducing the burden on health care resources (Canadian Public Health Association, 2021).

The pandemic has affected all aspects of life for nearly everyone, but people with disabilities have been differentially impacted with an increased risk of poor outcomes from the disease, reduced access to healthcare, and adverse social impacts intended to mitigate the pandemic (Shakespeare et al., 2021). A health equity impact assessment (HEIA) reviewed Canada's initial response to the COVID-19 pandemic and assessed if the initiative acknowledges that different individuals or groups are affected (Canadian Public Health Association, 2020). Results of the HEIA revealed that people living with functional limitations compared to the general population were not explicitly mentioned in the government initiatives and that limited information is available on adult populations with functional limitations (effect was noted for children with functional limitations) (Canadian Public Health Association, 2021).

Pandemics are considered one of the risks that require emergency preparedness and response from many actors including individuals, communities, government, NGOs, and corporations. An attempt was made to include any documents on COVID-19 and emergency preparedness and response relating to sheltering.

Context: People with disabilities

The Canadian Survey on Disability (CSD) stands as the primary source of data for Canadians with disabilities (Government of Canada, 2018). The CSD definition of disability consists of anyone who reported being "sometimes," "often" or "always" limited in their daily activities due to a long-term condition or health problem, as well as anyone who reported being "rarely" limited if they were unable to do certain tasks due to a level of difficulty (Government of Canada, 2018). The number of people living with a disability in Canada is expected to increase from 2.9 million to 3.6 million over the next 13 years outpacing the population (The Conference Board of Canada, 2018).

The Province of Nova Scotia has a higher percentage of disabled citizens than any other province in Canada (Government of Nova Scotia, 2020). According to the Nova Scotia Accessibility Directorate (n.d.):

- 30% of Nova Scotians 15 years and older have at least one disability with the Canadian average being 22.3%
- 32.4% of female Nova Scotians have a disability, versus 28.1% of male Nova Scotians
- 29% of working-age adults aged 25-64 have at least one disability,
- 41% older adults aged 65 and up have at least one disability
- 29% of Nova Scotians with disabilities reside in Halifax
- The most common disability types in Nova Scotia are related to pain, flexibility, mental health, dexterity, hearing, seeing, memory, learning, and developmental
- 55.4% of people with disabilities in Nova Scotia are employed vs. 78.8% of people without disabilities

In Canada, persons with more severe disabilities aged 25 to 64 years were more likely to live in poverty than their counterparts without disabilities or with milder disabilities (Morris et al., 2018). Among those with disabilities aged 15 to 64 years, lone parents and those living alone were the most likely to be living in poverty among any type of household living arrangements. Since eight in ten lone parents were

women, the high risk of living in poverty in this group disproportionately affected women (Morris et al., 2018). Nearly 20% of persons with disabilities do not use the internet (Statistics Canada, 2021).

It is important to note that persons with disabilities are not a homogenous group. Individuals have complex identities and multiple intersecting characteristics including gender, race, class, sexual orientation, culture, ethnicity, religion, language, and physical and mental disabilities (Saxena, 2020). As such, persons with disabilities have diverse access and functional needs that must be taken into consideration in emergency planning and throughout all four phases of evacuation including sheltering.

Context: Independent and community-based living

Persons with intellectual disabilities have advocated for inclusion in the community since the 1960s (the Canadian Encyclopedia, 2015). In the 1970's, the Independent Living movement in the United States was established when persons with disabilities upheld their rights to have control over their lives (Kelly, Dansereau, et al., 2020). The Canadian Association of Independent Living Centres, (now called Independent Living Canada) created in 1986, is now in its' 35th year (Independent Living Canada, n.d.).

In 2013, the government committed to a roadmap that would lead to the closing of institutions and to the inclusion of persons with disabilities living in community-based options by 2023 (Disability Rights Coalition, 2021). Unfortunately, the vision has not been realized.

In 2018, 'No More Warehousing: The Nova Scotia Association for Inclusive Homes and Support' was formed. It is an advocacy group for persons with severe disabilities that is fighting against institutionalization and promoting the right for all individuals to live in community in co-housing units and have appropriate supports (No More Warehousing, n.d.). The founder of the group, Jen Powley, a disability rights advocate, along with 1,000 other people with disabilities, is waitlisted for a nursing home (No More Warehousing, n.d.).

Context: Aging population

The proportion of seniors in Canada is expected to reach one in five by 2024 (Statistics Canada, 2019a) largely due to the aging population of baby boomers (Statistics Canada, 2019b).

Nova Scotia has an aging population and by 2030, it is expected that one in four Nova Scotians will be over the age of sixty-five (Nova Scotia Department of Seniors, 2017). Currently, more than 17,000 Nova Scotians live with dementia (Alzheimer Society of Nova Scotia, 2021). People with dementia generally want to remain in their homes (Canadian Institute for Health Information, n.d.). There is an increased reliance on family and friend caregivers who provide more than two-thirds of the support for older adults in the community (Hango, 2020).

According to Statistics Canada (2021):

- Lower-income seniors were vulnerable to less social support than higher income seniors
- Seniors with mental health conditions had lower levels of social support

Context: Historical events

The Halifax Explosion occurred on December 6th, 1917, when the ship the Mont-Blanc carrying explosives collided with the ship the Imo triggering a catastrophic event that wiped out part of the city with the subsequent explosion and tsunami (Kernaghan & Foote, 2021). Thousands were injured or killed and more than 25,000 people were without shelter. Few social services were available at the time, and what was available was by private charities and not government. The military provided a response and cared for victims on board Canadian, American, and other ships in the harbour (Kernaghan & Foote, 2021).

Hurricane Juan considered a "once-in-a-century storm" made landfall in Nova Scotia on September 29, 2003, as a category 2 hurricane, leaving behind a wake of destruction (Government of Nova Scotia, 2003). September is prime hurricane season for Nova Scotia and EMO had warned people to prepare their property, choose a shelter inside their residence and to have an emergency kit ready (Government of Nova Scotia, 2003). The response effort following the storm was the largest mounted since the Halifax Explosion in 1917, involving federal, provincial, and municipal governments, agencies, organizations, individuals, NGOs, and the private sector (Government of Nova Scotia, 2003). A post response meeting one month after the hurricane with representatives from EMO, several provincial government departments, the Halifax Regional Municipality, the federal government, the RCMP, the Department of National Defence, Nova Scotia Power, Aliant, and the Nova Scotia Home Builders' Association revealed several recommendations that are included in the final report:

- Make emergency training opportunities more widely available to responders in various fields.
- Use emergency crisis simulations to prepare emergency personnel for the "real thing" for three primary health care agencies - the provincial Department of Health, Public Health Services, and Emergency Health Services.
- Identify, list, and continuously update contact and resource lists for deployment in an emergency including generators and emergency vehicles.
- Prepare simplified emergency information and safety tips in readily available and user-friendly formats such as fact sheets.

Hurricane Dorian struck Nova Scotia as a post tropical storm on September 7, 2019. While Hurricane Juan severely damaged Halifax, Hurricane Dorian was a larger storm with wind that had a greater impact on a wider path across the province (Snodden, 2019). Three shelters were opened in HRM at the Canada Games Centre, St. Margaret's Bay and Dartmouth East Community Centres and people in coastal communities were urged to evacuate in advance of the storm (Halifax today, 2019).

It would be remiss not to mention Hurricane Katrina, the largest natural disaster in American history that impacted thousands of people and caused immeasurable loss of life and suffering (Committee on Homeland Security and Governmental Affairs, 2006). The evacuation of the State of Louisiana was the largest ever to occur (Committee on Homeland Security and Governmental Affairs, 2006). The 737-page report "*Hurricane Katrina: A Nation Still Unprepared*" tells of the unimaginable tragedy that struck the population leaving many people stranded or drowned as waters rose. The report makes several references to the myriad of issues relating to inadequate shelter for evacuees in the aftermath of the storm. One of the problems was the lack of portable toilets that left the Superdome without working plumbing for over a week. Another shelter, the Morial Convention Centre lacked essential supplies

including food, water, security, and medical care (Committee on Homeland Security and Governmental Affairs, 2006). Many nursing homes lacked appropriate evacuation plans, hospitals lost power and generators were inoperable due to flooding, and field hospitals had to be set up to triage more than 70,000 evacuees (Committee on Homeland Security and Governmental Affairs, 2006).

It is particularly noteworthy that New Orleans is considered to have a large population of "special needs" individuals who require ongoing care at home (Committee on Homeland Security and Governmental Affairs, 2006). The City Health Department established a care facility within the Superdome and transported hundreds of people and their caregivers, but a shortage of supplies and security concerns were experienced within this facility (Committee on Homeland Security and Governmental Affairs, 2006). Although a complete summary of the shelter issues experienced during Hurricane Katrina is beyond the scope of this report, this natural tragedy shone a spotlight on the dangers and issues that can happen in shelters during evacuations with insufficient planning and lack of resources, especially for people with disabilities.

Emergency management is everyone's responsibility

Personal preparedness guides for persons with disabilities and older adults at the federal and provincial levels share similar advice: Plan to be self-sufficient for 72 hours; know the risks; create an emergency kit with extra medical supplies; develop a personal network of friends, family, neighbors, and coworkers who can assist in an emergency; and prepare a plan for service animals and pets. However, not everyone has the capacity to operationalize the steps to prepare and plan for an emergency. Individuals with intellectual disabilities, cognitive challenges, and mental health issues, as well as persons with disabilities who live in poverty have a range of abilities, skills, and resources, and may not be able to afford extra supplies. There is limited information directed to caregivers and the role they play in assisting persons with disabilities with emergency preparedness.

EMO plans account for people with disabilities to varying degrees. The federal cornerstone document, *An Emergency Management Framework for Canada* stresses the need for an all of society approach that requires strong public awareness and community involvement but does not include guidance relating to populations with special needs (Public Safety Canada, 2017). Some provincial plans include a statement that partnerships with NGOs are valuable in that they may be able to identify populations with special needs and that emergency social services may need to accommodate special needs of evacuees. The Northwest Territories Emergency Plan includes priority groups during an evacuation with factors for consideration including languages spoken, limitations on transportation and vulnerable persons who need assistance. Special populations are residents of long-term care (LTC) facilities, hospital in-patients and prison inmates (Government of Northwest Territories, 2018).

Meeting the access and functional needs of persons with disabilities in shelters

Four provinces have Accessibility Acts: Nova Scotia, Ontario, Manitoba, and British Columbia. In provinces without accessibility legislation (e.g., New Brunswick, Alberta), a myriad of laws exists (e.g., Human Rights Acts, Building Codes, Community Planning Act) to help advance the accessibility of buildings that may be used as shelters.

The access and functional needs (AFN) approach allows greater flexibility to address individual needs based on AFN characteristics irrespective of diagnosis rather than focusing on people with disabilities as a broad, homogenized category (CDC, 2021). To help operationalize the AFN approach, the framework

(CMIST) was developed based on five categories that should be addressed in emergency preparedness and response:

1. Communication
2. Maintaining health
3. Independence
4. Safety, support, self-determination
5. Transportation

The AFN framework and approach is widely used in emergency management in the United States but appears to be used less so within Canada. The Disability Alliance BC (2016a) created several functional needs frameworks for use by individuals and local authorities. The Red Cross in Nova Scotia, who has the contract to operate emergency shelters, uses the Sheltering Handbook by the American Red Cross which includes guidelines to meet access and functional needs of persons with disabilities in shelters.

The accessibility of buildings commonly used as shelters such as schools and universities will be improved as built standards are developed in provinces with accessibility legislation including Nova Scotia. Information is scarce on how functional needs are met in shelters and what persons with disabilities can expect in a shelter which may lead to reluctance to evacuate. Will people be able to communicate their needs to shelter staff? Will medical equipment and supplies be provided? Will my pet or service animal be allowed? Can my caregiver accompany me? There are many gaps in the information provided and uncertainty around the emergency social services that will be available.

Emergency Social Services depend heavily on volunteers

Volunteers are the backbone of emergency response across jurisdictions. Emergency social services depend on volunteers to operationalize shelters and to provide services including reception and registration of evacuees, food, shelter, clothing and to meet individual needs. While most jurisdictions provide opportunities for EMO training of staff and volunteers involved in emergency management, there was little information found on training specifically for the provision of ESS services in shelters that accommodate the access and functional needs of persons with disabilities. COVID-19 has also impacted the availability of volunteers for the delivery of ESS and this is a future consideration in the planning and management of emergency social services.

Introduction

Halifax, Nova Scotia is located on the east coast of Canada. Nova Scotia rests on Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq People. The municipal government acknowledges the Peace and Friendship Treaties signed in this territory and recognizes that we are all Treaty people (Halifax, n.d.). Halifax, also called the Halifax Regional Municipality (HRM), is the capital city of Nova Scotia with a population of over 400,000 (Halifax Partnership, n.d.). It is the second largest coastal city in Canada, after Vancouver (Wikipedia, 2021). English is the main language spoken and other languages include Arabic, Mi'kmaq, German, Chinese, Dutch, Spanish, Tagalog, Persian, Mandarin and Polish (Statistics Canada, 2011). Halifax has four seasons with varied weather patterns.

Both natural and human induced disasters are increasing in frequency around the world and in Canada (Public Safety Canada, 2018). Categories of hazards within the HRM include natural and human hazards. Natural hazards include those relating to severe weather (hurricanes, blizzards), tectonic plate movement (e.g., tsunami), wildfires and floods (Halifax, 2017). Floods are by far the most common natural disaster to occur in Halifax (Halifax, 2021). Human hazards can be unintentional (e.g., toxic chemical spill) or intentional (e.g., terrorist attacks) (Halifax, 2017). Climate change is responsible for creating an increase in extreme weather events such as heat waves, heavy rainfalls and related flooding, droughts, forest fires, serious winter storms, hurricanes, and tornados (Center for Climate and Energy Solutions, 2020).

Sheltering is one of four evacuation phases being examined by this project. We also included information on shelter-in-place during emergencies relating to persons with disabilities. The other three phases are communication and alerts, transportation, and transition back to communities.

Several different terms are used across jurisdictions for shelters including:

- Emergency shelters
- Temporary shelters
- Warming centers
- Disaster recovery centres
- Reception centres
- Evacuation centres
- Disaster recovery centres

For the purposes of this research, the sheltering team defined the following terms:

Emergency sheltering is an essential phase of evacuating actual or potential disaster victims and refers to the activity of staying in public facilities for short periods of time where daily routines are suspended.

An emergency shelter is a location chosen during a disaster by emergency management officials. These facilities provide temporary, short-term accommodation for actual or potential disaster victims evacuated in response to an emergency and fulfill basic needs (food, bed, medical care, etc.)

Sheltering-in-place is an instruction that may be given in an emergency. This is a precaution to keep people safe while remaining indoors. It may also refer to mass sheltering of many evacuees in public facilities.

Emergency Social Services

Emergency social services (ESS) are provided by provincial governments during an emergency and may be contracted to an NGO in advance of emergencies. A range of services may be provided depending on the emergency including shelters, registration and inquiry, lodging, food, clothing, and personal services (Government of Canada, 2008). Public Health Agency of Canada recommends that persons with special needs register in advance for evacuation assistance and to discuss their needs with their physician, home health care agency and EMO (Public Health Agency of Canada, 2007). This advice, however, was not located at the provincial level or within personal preparedness guides for people with disabilities.

In Nova Scotia, the Department of Community Services is responsible for the provision of ESS during an emergency. The Canadian Red Cross is contracted by the government to operate shelters. Services at a shelter may include food, lodging, clothing, evacuee registration, and other personal services (Government of Nova Scotia, 2013). EMO does not operate a registry of persons who need assistance during an evacuation.

Access and functional needs of persons with disabilities in shelters

Emergency management has historically neglected the needs of persons with disabilities (Robinson et al., 2011). A class action lawsuit found that the city of Los Angeles was guilty in discrimination of people with disabilities due to their lack of accommodation for functional needs in transportation and sheltering during emergencies and were ordered to do an assessment of shelters (Robison et al., 2011). In Canada, the BC Coalition of People with Disabilities (2009) stated that governments and agencies have not adequately planned for meeting the functional needs of people with disabilities and recommended that emergency planners move away from special needs planning and that Canada should adopt a functional needs framework approach.

A report published by the Canadian Red Cross (2007) advocated for a functional limitations approach to emergency planning with high-risk populations. The report identified ten socially vulnerable groups that should be at the centre of emergency plans including older adults, persons with disability, medically dependent persons, low-income residents, Aboriginal residents, children and youth, transient populations, immigrants, persons with low literacy levels and cultural minorities (Canadian Red Cross, 2007). Recommendations from the report urge greater partnerships and collaborative approaches between government and disabled persons organizations and the inclusion of people with disabilities as key stakeholders with significant skills and knowledge to contribute to community emergency plans.

The term access and functional needs (AFN) is widely used in emergency management in the United States. The Federal Emergency Management Agency (FEMA) adopted the functional needs approach and provided guidance to help overcome the challenges of meeting functional needs in shelters (Robinson et al., 2010). Shelters must be physically accessible and the services within must be available to persons with functional needs. The best way to learn about functional needs is through consultation

with community partners including persons with functional needs and agencies that provide services or advocate on behalf of people with functional needs (Robinson, 2010). Rather than focusing on a category of people with disabilities with perceived needs, the AFN approach allows greater flexibility to address individual needs irrespective of diagnosis based on AFN characteristics (CDC, 2021).

To help operationalize the AFN approach, a framework was developed (Centers for Disease Control and Prevention, 2021). Referred to as CMIST, it includes five categories that should be addressed in emergency preparedness and response:

1. Communication
2. Maintaining health
3. Independence
4. Safety, support, self-determination, and
5. Transportation

Methodology

The environmental scan was completed between May to August 2021. It includes: (1) a review and analysis of publicly available information on the sheltering phase of evacuations and how the access and functional needs of persons with disabilities are included in legislation, policies, programs, services, plans, and publicly available information including websites and brochures. (2) interviews with members of the research project. (3) mapping of likely shelter locations, and sites of vulnerable populations including nursing homes, hospitals, public housing, and community group/small options homes.

1) A review and analysis of publicly available information on the sheltering phase of evacuations

The scope of the scan included the federal government, six provinces (BC, AB, MB, ON, NB, NS) and one territory (NWT). Only one municipal jurisdiction was included (Halifax Regional Municipality). The websites of the United Nations and World Health Organization were scanned for insight into tools, best practices, reports, and programs. Information from not-for-profits involved in emergency management preparedness or response (e.g., Red Cross, Salvation Army, St. John Ambulance) and disabled persons organizations (e.g., Disability Rights Coalition of Nova Scotia) were included.

An adapted three phase, ten-step approach was used for the policy scan (Mullen, 2014). For each jurisdiction, several government domains were searched (e.g., Department of Health, Department of Community Services, Department of Municipal Affairs etc.) using specific search terms (e.g., evacuation, sheltering, disabilities, older adults etc.) for information relating to sheltering of people with disabilities during mass evacuations. Within each jurisdiction, an attempt was made to find information in seven categories:

- Legislation
- Policies/Standards/Guidelines
- Programs/Services/Training
- Strategies/Reports/Action Plans
- Brochures/Guides/Websites (publicly available)
- Government Bodies/Organizations (involved in accessibility, emergency management)
- Non-Government/Disabled Persons Organizations

A data tool was designed used an Excel spreadsheet to collect and aggregate the findings of the environmental scan. All searches were conducted in English.

2) Interviews with members of the research project

A semi-structured interview guide was developed on the topics of sheltering, disabilities, accessibility, and promising approaches. A complete list of interview questions is included in Appendix B. Ethics approval for the interviews was granted by St. Francis Xavier University and Dalhousie University. Members of the research team were approached via email with an invitation to participate in an interview related to sheltering. Participation was voluntary.

3) Mapping of likely shelter locations, and sites of vulnerable populations

Google maps was used to map the sites of possible shelter locations (e.g., community colleges, universities, schools) and locations of vulnerable populations in the Halifax Regional Municipality (e.g., nursing homes, hospitals, public housing units, and residential group homes/small options homes) using publicly available information.

There are limitations to this research due to time and resource constraints. The scope is limited to the federal level and a select number of provincial jurisdictions. It is intended to be an overview of information related to sheltering of persons with disabilities during a mass evacuation and not a complete review of all legislation, policies, and plans. It is possible that the scan missed information, but every effort was made to gather the most relevant and up-to-date documents and resources needed to inform the research and findings.

Results

Summaries of the federal and provincial findings of the environmental scan are presented below.

The number of entries per jurisdiction collated in the Excel data tool is shown in Table 1.

Table 1: Number of entries per Jurisdiction

Jurisdiction	Number of Entries in Data Tool
Federal	83
Nova Scotia	116
Halifax Regional Municipality	13
British Columbia	67
Alberta	34
Manitoba	38
Ontario	24
Northwest Territories	28
New Brunswick	37
United Nations/World Health Organization	23
Total	**463**

Canadian Policy Context

Federal

The Government of Canada is committed to implementing Gender-Based analysis plus (GBA+) as a process to ensure that legislation, policies, and programs consider the impacts on diverse groups of individuals (Government of Canada, 2021). GBA+ moves beyond gender and considers a wide range of identity factors such as sex, gender race, ethnicity, religion, age, and mental or physical disability that can impact how a person experiences a program or policy (Government of Canada, 2021).

Disability rights in Canada are upheld by the *Canadian Charter of Rights and Freedoms* as part of the Canadian Constitution and the *Canadian Human Rights Act* of 1977. Under the *Charter of Rights and Freedoms* (1982) every individual is considered equal regardless of race, religion, national or ethnic origin, colour, sex, age or physical or mental disability and cannot be discriminated against by government on any of these grounds.

The *Canadian Human Rights Act* prohibits discrimination on eleven grounds including:

- race
- national or ethnic origin
- color
- religion
- age

- sex
- sexual orientation
- marital status
- family status
- disability; and
- a conviction for which a pardon has been granted or a record suspended.

Further to the *Canadian Charter of Rights and Freedoms* and the *Canadian Human Rights Act*, the *Accessible Canada Act* was introduced in 2019 to achieve the government's goal to make Canada accessible by 2040 (Government of Canada, 2019). It provides an approach to identify, remove, and prevent barriers to accessibility. A barrier is "anything—including anything physical, architectural, technological or attitudinal, anything that is based on information or communications or anything that is the result of a policy or a practice—that hinders the full and equal participation in society of persons with an impairment, including a physical, mental, intellectual, cognitive, learning, communication or sensory impairment or a functional limitation" (Government of Canada, 2019). One of its' principles is that persons with disabilities must be included int eh development and design of laws, policies, programs, services and structures (Government of Canada, 2019).

The *National Building Code of Canada 2015* applies to the design of new buildings and alterations to existing buildings and includes new accessibility design requirements (National Research Council of Canada, 2015).

The *Emergency Management Framework for Canada* (Public Safety Canada, 2017) has at its' core the aim of strengthening partnerships across all levels of government and with multiple partners including individual citizens, communities, municipalities, and federal, provincial, territorial governments, Indigenous peoples, emergency first responders, the private sector, volunteer and non-governmental organizations, academia, as well as international organizations stating, *"Whole-of-society partnerships based on effective collaboration, coordination and communication are key components of FPT emergency management systems."* (Public Safety Canada, 2017). The framework includes four pillars: prevention and mitigation, preparedness, response, and recovery (Public Safety Canada, 2018). The aim of response is "*to act during or immediately before or after a disaster to manage its consequences through, for example, emergency public communication, search and rescue, emergency medical assistance and evacuation to minimize suffering and losses associated with disasters*" (Public Safety Canada, 2018). This cornerstone document provides an overview of emergency management philosophy and the 'all hazards approach' used in Canada which assesses the risks of all types of hazards. By doing so, efforts can be more effectively integrated to reduce the vulnerability of people, property, the environment, and the economy (Public Safety Canada, 2018). It includes the importance of communications, continuous improvement, and the governance structure.

Get Prepared is the national emergency preparedness website of the Government of Canada (2018). It includes several resources including the flagship publication '*Your Emergency Preparedness Guide*'. They also have a *'Emergency Preparedness Guide for People with Disabilities/Special Needs'* based on a similar guide developed by Ontario EMO (Government of Ontario, 2018).

Public information on local risks, how to prepare an emergency kit, and make an emergency plan are available. The section on risks links to provincial websites with specific risks noted for each province. In

Nova Scotia, the risks and hazards include floods, chemical releases, hurricanes, pandemics, landslides, power outages, severe storms, storm surges, tsunamis, and wildfires (Government of Canada, 2018).

An online planning template is available for individuals to complete with eight steps:

1. Identify escape routes.
2. Establish a meeting place.
3. Plan for children.
4. Address any special health needs.
5. Plan for pets.
6. Plan for specific risks.
7. Record emergency contact information.
8. Complete safe home instructions.

The plan recommends that you include details of your medical condition and establish a support network of friends, relatives, health-care providers, co-workers, and neighbors who understand your special needs. To plan for pets, it advises you to take them with you to someone else's home, or a hotel or emergency shelter that will allow pets as not all of them will.

'Self-Care for Caregivers Guide' is a publication directed to health care professionals who may work long hours helping others in natural or human-caused disasters. It reminds caregivers that a range of emotions is normal and to practice self-care (Public Health Agency of Canada, 2005).

'Taking care of older relatives' is a publication directed to people who may be caring for a loved one. It reminds people that the effects of catastrophic events may have a greater impact on older adults with depression, thinking and memory problems, those living alone or those with few social supports. Tips for how you can help include:

- Visiting older people: parents, friends, relatives, neighbors.
- Talking with them about their thoughts, feelings, and reactions.
- Including them in social and recreational activities.
- Reassuring them that you are available should they want to talk or need help.

An instruction to shelter-in-place and remain inside may be issued in the event of chemical, biological, or radiological contaminants being released into the environment. The following is a list of specific steps associated with shelter-in-place (Government of Canada, 2017):

- Close and lock all windows and exterior doors.
- Turn off all fans, heating, and air-conditioning systems to avoid drawing in air from the outside.
- Close the fireplace damper.
- Get your emergency kit and make sure the radio is working.
- Go to an interior room that's above ground level (if possible, one without windows). In the case of a chemical threat, an above-ground location is preferable because some chemicals are heavier than air and may seep into basements even if the windows are closed.
- Using duct or other wide tape, seal all cracks around the door and any vents into the room.
- Continue to monitor your radio or television until you are told all is safe or are advised to evacuate.

If authorities believe you are in danger by remaining at home, they will ask to you evacuate in which case you should take:

- your emergency kit and plan
- essential medications and copies of prescriptions
- a cell phone
- pets

Emergency social services to meet basic and personal needs of persons are implemented when a community is unable to cope during a disaster (Public Health Agency of Canada, 2007). Six services are considered essential: shelters, clothing, food, registration and inquiry, and personal services (e.g., care for unattended children and older adults; emotional support). The Council of Emergency Social Services Directors (CESSD) is composed of the provincial senior managers/directors, who are knowledgeable about Emergency Social Services (ESS) and lead ESS planning and management in their respective provinces (Government of Canada, 2008). The role of the Council is to provide leadership and guidance on emergency preparedness and response pertaining to ESS and ESS policies in the six categories of essential services.

Emergency Lodging Service publication is a guide to planning, organizing, and training staff involved in sheltering of evacuees (Public Health Agency of Canada, 2007). As desired skill sets of shelter staff, the guide recommends recruiting persons who can communicate with persons with functional needs such as the hearing impaired, blind person, persons of low literacy, and linguistic minorities. The registration process is essential in determining any health and/or special needs of evacuees. People with special needs are advised to register in advance for assistance and to discuss their needs with their physician, home health care agency and EMO.

The *National Emergency Strategic Stockpile* is managed by Public Health Canada with regional warehouses across the country (Government of Canada, 2019). It contains hospital supplies, ventilators, personal protective equipment, medications, beds, blankets, generators, mini medical clinics, mobile quarantine units and water decontamination facilities that may be needed during provincial or national emergencies. Supplies can be requested by provinces and deployed to temporary shelters.

MedicAlert Connect Protect is a subscription service that gives emergency responders access to a person's medical profile to help locate individuals who may become lost due to Alzheimer's disease or autism, or those with medical needs during in an emergency (MedicAlert Foundation Canada, 2021). The organization has partnered with police departments in various jurisdictions including British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Newfoundland, and Prince Edward Island. A partnership in Nova Scotia does not currently exist.

Northwest Territories

Under the *Emergency Management Act*, all communities must have a local emergency management organization, a coordinator, and an emergency plan (Government of Northwest Territories, n.d.). The department of Municipal and Community Affairs hosts training workshops to help communities fulfill their responsibilities and prepare for emergencies (Government of Northwest Territories, n.d.). Communities are encouraged to ensure that their plans include persons with disabilities (Government of Northwest Territories, 2020). There is also a basic emergency management online course available to government staff, volunteers and representatives involved in an emergency response.

A template of a community plan is available for use by community leaders. It states that objectives of emergency management are to identify vulnerable populations, to designate emergency shelters, and to plan for evacuations. One of the operational functions is Emergency Care:

> This involves efforts to provide care and for needs to victims of an emergency. This may mean arranging for assistance from the GNWT. These services could also include providing shelter, food, emergency first aid assistance and providing assistance to special needs people impacted by an emergency.

During evacuations, priority is given to older adults, children less than five years old, and people with mobility or special health needs. Consideration is given to various methods to communicate an evacuation including by radio, door-to-door, or community siren.

When preparing for the reception of evacuees from another community, it is recommended that the coordinator from the community sending the evacuees, communicate any special needs of evacuees and additional supplies needed to shelter, feed, and care for evacuees' basic needs. The nurse-in-charge is responsible for arranging use of the school or alternate facility for reception of volunteers, arranging staff and volunteers, identifying any special needs, and accessing medical resources and referrals.

Volunteers are identified as playing a critical role in the community plan template for Reception and Inquiry Services; emergency clothing, food and lodging services; social services and resolution of personal problems (Government of Northwest Territories, n.d.).

The webpage for emergency preparedness for individuals states that everyone including individuals, families, communities, and government has a responsibility to prepare for emergencies (Government of Northwest Territories, n.d.). Individuals are warned that they may not receive help for at least 72 hours and should have personal emergency plans that account for alternate accommodations of family and pets during an evacuation. A Family Emergency Preparedness brochure emphasizes including your children in planning for emergencies. During an emergency, text messaging, email or social media are recommended as preferred means of communicating with family members (Government of Northwest Territories, n.d.).

There is an emphasis on preparing for floods with a brochure available that details instructions for evacuation (Government of Northwest Territories, n.d.):

- Register at the evacuation center before evacuating, and at the reception center once you have arrived at your destination.

- Make preparations for your pets in case you are required to leave them behind.
- Host communities provide temporary accommodations for evacuees, this could mean staying in an evacuation shelter, a school or staying with friends or relatives.
- Meals may be catered, or evacuees may be provided with meal vouchers for the duration of their stay.
- Regular information sessions will be held for evacuees at a designated location, typically being the reception center or municipal offices.

'On Thin Ice' is a project that was funded by Government of Canada's Social Development Partnership Program in collaboration with the Global Alliance on Accessible Technologies & Environments (GAATES, 2014). The project's outputs included a Facilities Accessibility Checklist and plain language preparedness materials for individuals. The checklist based on the Canadian Standards Association Accessibility of the Built Environment Standard and the National Building Code of Canada provides practical suggestions for building accessibility in the northern context (GAATES, 2014).

British Columbia

In 2018, the BC government committed to using GBA+ analysis to advance gender equality (Government of British Columbia, n.d.). The government recognizes that different segments of the population are impacted differently by government programs, policies, and services and that analysis needs to go beyond sex and gender to include other identity factors (e.g., age, education, language, race, ability, class, etc.) (Government of British Columbia, n.d.).

The province of British Columbia passed the *Accessible British Columbia Act* in June 2021 (Government of British Columbia, 2021). The law aims to remove barriers that prevent people from disabilities from being included in communities including people's attitudes (Government of British Columbia, 2021). Under the new law, the B.C. government is responsible to build a tool to provide feedback to government, develop government's accessibility plan and establish the Provincial Accessibility Committee (Government of British Columbia, 2021). Several standards may be developed based on the advice of the Provincial Accessibility including service delivery and the built environment (Government of British Columbia, 2021). The legislation will include people with disabilities in the development of standards and through a feedback process.

Emergency Management BC is the lead agency responsible for coordinating provincial emergency management preparedness activities including planning, training, and testing in collaboration with municipal and federal government departments, industry, NGOs, and volunteers under the Emergency Program Act (EPA) (Government of British Columbia, n.d.). The EPA Act is currently being updated to address new standards and practices for how to manage pandemics, floods, and wildfires (Government of British Columbia, n.d.). EMBC policies include those relating to volunteers who may provide ESS (Government of British Columbia, 2016).

Prepared BC is the province's emergency preparedness education program for the public, local governments, Indigenous communities, and schools (Government of British Columbia, n.d.). It has information on:

- Know the hazards
- Build your kits
- Make your plan
- Guides and resources (circumstance specific)
- Evacuation and financial assistance
- Retail and community education programs and toolkits

In case of disaster, one of the tools provided for an emergency kit is a printable display OK/HELP sign for placement in a window to communicate that you DO or DO NOT need assistance.

The 'make your plan' section includes a fill in the blank emergency plan as well as guides for people living in apartments or condos, people with a disability, seniors, pets and animals, and neighborhoods. There is also a webpage for evacuee guidance for the public including information on where to go when evacuated and the types of supports that may be provided including ESS, accommodation and assessment of your needs (Government of British Columbia, n.d.). Specific instructions are provided if you have a confirmed COVID-19 diagnosis during an evacuation order. Another webpage is dedicated to

information on ESS support for people impacted by disasters, how it works, training of staff and volunteers, and contact information (Government of British Columbia, n.d.).

The '*Prepared BC: Resources for People with Disabilities'* guide includes a framework for emergency planning that uses five categories of functional needs (Communication, Medical, Independence, Supervision and Transportation or CMIST) with possible planning considerations for each one. It also includes information on how to prepare your home, build a kit, and create a personal support network.

Disability BC Alliance developed a series of emergency preparedness resources for people with disabilities and seniors and inclusive planning tools for local emergency programs (e.g., accessible reception centres, toilets, people with communication disabilities, including people with disabilities in emergency exercises, CMIST personal emergency planning, evacuees with mental illness) funded by Emergency Management BC (Disability Alliance BC, 2016b). The accessible shelters framework includes a checklist to increase access to all area of the reception centre (e.g., the washrooms, eating and sleeping areas) for people with mobility, visual, communication and other disabilities.

The *All-Hazard Plan* by Emergency Management British Columbia includes contextual information on threats to BC, governance, and roles and responsibilities of various stakeholders (Government of BC, 2012). The Ministry of Social Development and Social Innovation provides policy direction on disability assistance. Local authorities under the law must have emergency plans to prepare and respond to emergencies and work with volunteer groups to provide food, clothing, and shelter during a disaster (Government of BC, 2012). The involvement of NGOs with government is facilitated through the Integrated Disaster Council of British Council (Government of BC, 2012). EMBC has created Alternate Accommodation Support Guidelines for COVID-19 to assist local governments to address additional challenges and limited options for accommodations during the pandemic in the event of an evacuation order (Government of BC, 2020).

The Justice Institute of BC in partnership with EMBC offers free webinars on current practices and community experiences in emergency management on a variety of topics including animal and disaster management, provincial psychosocial services, ESS, disaster mental health and wellness recovery, gender and disaster (Justice Institute of British Columbia, n.d.). Autism Canada led a webinar on autism and emergency response to help planners understand neurodiverse populations including those with ADHD, TBI, Alzheimer's and other dementias, FAS and other conditions, and things taken for granted in planning and preparedness activities (Justice Institute of British Columbia, 2021).

Canadian Red Cross assists people affected by evacuations in BC with registration services, financial assistance, mental wellbeing resources, and ESS reception centres in collaboration with EMBC (Canadian Red Cross, 2021). Currently, a list of ESS reception centres is available for evacuated residents 'without access to other sources of support.' Referrals to suppliers of food, clothing and shelter is provided. Group lodging is a place where people can go to eat, sleep, shower and get access to specialized support.

Alberta

The *Alberta Human Rights Act* (2000) states that:

> no person shall (a) deny to any person or class of persons any goods, services, accommodation or facilities that are customarily available to the public, or (b) discriminate against any person or class of persons with respect to any goods, services, accommodation or facilities that are customarily available to the public, because of the race, religious beliefs, colour, gender, gender identity, gender expression, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status or sexual orientation of that person or class of persons or of any other person or class of persons.

As well, the *Alberta Building Code* (2014) establishes requirements to address objectives in five areas, including accessibility for persons with disabilities. The Barrier Free Design Guide interprets the accessibility requirements under the *Alberta Building Code* (Safety Codes Council, 2017). The accessibility standards under the *Safety Code* establishes requirements for the safe design of accessible and barrier-free buildings (Government of Alberta, 2000A. Municipal Affairs works in partnership with the Safety Codes Council to coordinate and encourage barrier-free design and access for any process or activity regulated under the act. The *Advocate for Persons with Disabilities Act* (2018) established the appointment of the Advocate. The role of the Office of the Advocate for Persons with Disabilities is to ensure that the rights and well-being of Albertans with disabilities are upheld, to connect them with supports and services and to build relationships with Albertans with disabilities, their families, and caregivers.

The government of Alberta (2021) promotes personal preparedness and recommends that everyone know the risks in their community, create a plan, and build an emergency kit with enough supplies to be self-sufficient for 72 hours. First responders provide the first level of response to emergencies and must prioritize individuals the most at risk. As a result, other impacted populations may not receive assistance for several hours (Government of Alberta, 2021).

The province's emergency plan was updated in 2021 (Government of Alberta, 2021). One notable change was the inclusion of ESS (e.g., food, shelter, psychosocial support). as it is now under the umbrella of Alberta Emergency Management Agency. Under the new *Local Authority Emergency Management Regulation* (2020) local authorities must include how they will provide emergency social services during a disaster in their emergency management plans. Alberta has implemented a registration system that individuals and families can use to self-identify their need for help in a state of emergency or shelter-in-place and to locate a shelter (CFCW, n.d.).

There has been a growth in charities and NGOs involved in emergency management. The Alberta government specifically notes the increased involvement of civil society organizations (CSOs) including environmental groups, cultural organizations, faith-based organizations, and others, and recommends that disaster management at all levels of government should consider advancing the role and participation of CSOs (Government of Alberta, 2021). The NGO Council of Alberta facilitates the involvement of many CSOs with the Provincial Operations Centre (POC) (Government of Alberta, 2021) including Canadian Red Cross, St. John Ambulance, the Salvation Army, Adventist Disaster Relief Agency,

Billy Graham Rapid Response Team Chaplaincy, Mennonite Disaster Service, Samaritan's Purse Canada, Team Rubicon Canada, World Anew, and Alberta SPCA

Manitoba

One in four Manitobans are affected by disability (Design of Public Spaces Standard, 2020). The government of Manitoba is committed to improving accessibility in the province by 2023. The *Accessibility for Manitobans Act* (AMA) enacted in 2013 affects all Manitobans and is dedicated to removing barriers for persons with disabilities. Representatives from DPOs, and private and public organizations have been consulted in the development of standards for customer service, employment, information and communication, design of public spaces and transportation.

The Accessibility Standard for the Design of Public Spaces (DOPS) supports the *Manitoba Building Code* (MBC) which includes accessibility standards. The DOPS addresses barriers in the design of exterior public spaces which is outside the scope of the MBC and incorporates accessibility considerations into the planning and design of the built environment to make spaces more inclusive for persons with physical, sensory, and cognitive disabilities. Design requirements include ramps, stairs, exterior signage, hearing assistance systems, lighting, service desks, seating, washrooms, play areas and sports facilities. Organizations including the Government of Manitoba, public sector organizations; and private and non-profit groups responsible for constructing or managing public spaces must comply with the DOPS standard.

Manitoba also has the *Vulnerable Persons Living with a Mental Disability Act* enacted in 1996. It recognizes adults living with a mental disability who need assistance to meet their basic needs as vulnerable persons and recognizes that all persons have a right to help that respects their independence and dignity (Mental Disability Act, 1996). Support services including residential assistance, counselling and life-skills may be available to vulnerable individuals from Manitoba Family Services in the development of individual care plans. The Act recognizes the importance of support networks consisting of friends, family, support workers and other service providers.

Manitoba Emergency management is guided by the '*An Emergency Management Framework for Canada'* based on the four pillars of prevention and mitigation, preparedness, response, and recovery. The Manitoba Emergency Plan (MEP) outlines the level of response expected of individuals and government. Individuals in Manitoba are advised to prepare to care for themselves and family members for the initial 72 hours after an emergency. There may be a disruption to government services which could take time to restore. The guide *'Emergency Preparedness for Persons with Special Needs'* provides information on commonly occurring emergencies in Manitoba, and tips for people of different categories on how to prepare (e.g., mobility, heating, vision impairments) as well as emergency preparedness tips for different residential settings (Manitoba Emergency Measures Organization, n.d.).

Non-government organizations including church or faith-based groups, service clubs, volunteer groups and agencies play a critical role in emergency response through the provision of skills, volunteers and equipment and recovery depends largely on available community resources. They may also be aware of vulnerable individuals living in the community. Schedule 3 of the Manitoba Emergency Plan lists the NGOs that the government works with and their role including Canadian Red Cross (social services), Manitoba Hotel Association (emergency shelter), Mennonite Disaster Services, Salvation Army (Emergency food, clothing, shelter, financial assistance), St. John Ambulance (medical services) and Winnipeg Humane Society (emergency pet shelter) (Schedule 3, n.d.). The MEP also includes a post

review process to document key learnings and best practices and gaps. NGOs who participated in the response are invited to submit a report for inclusion in the final review (Manitoba Emergency Plan, 2013).

Ontario

An estimated 1.5 million Ontarians live with disabilities and special needs (Government of Ontario, 2018). Ontario was the first province to enact accessibility legislation with the *Ontarians with Disabilities Act* that established standards for customer service, information and communications, transportation, employment, and design of public spaces (Government of Ontario, 2005). Future standards will include health care and education (Government of Ontario, 2021). The law requires the public sector (e.g., private businesses and charities with more than 50 employees), municipalities, school boards, hospitals, colleges, universities, and public transportation to comply with the law with accessibility policies and plans, staff and volunteer training, and the provision of accessible information, websites, and public spaces (Government of Ontario, 2021). A guide is available to help organizations understand the law and their commitment (Government of Ontario, 2012).

'*The Emergency Preparedness Guide for People with Disabilities/Special Needs'* (Government of Ontario, 2018) was developed by Ontario EMO and the Accessibility Directorate of Ontario to help people best prepare according to individual needs. It includes information for people with mobility, hearing, and vision disabilities as well as for people with non-visible disabilities, older adults, and high-rise safety and tips for how to help people with disabilities. It is noteworthy that twenty organizations were consulted in the development of this publication including:

- Canadian Diabetes Association
- Canadian Hearing Society
- Canadian MedicAlert® Foundation
- Canadian Red Cross
- Centre for Independent Living in Toronto (CILT) Inc.
- CNIB
- Global Affairs Canada
- Learning Disabilities Association of Ontario
- Ministry of Community and Social Services Emergency Management Unit
- Ministry of Government Services
- Multiple Sclerosis Society of Canada, Toronto Chapter and Ontario Division
- National (USA) Organization on Disability ¬ Headquarters
- Office of the Fire Marshal and Emergency Management
- Ontario March of Dimes Canada
- Ministry of Seniors Affairs
- Ontario SPCA (Ontario Society for the Prevention of Cruelty to Animals)
- SOS Emergency Response Technologies
- Spinal Cord Injury Ontario
- St. Demetrius Development Corporation
- The Canadian Hearing Society
- Toronto Rehabilitation Institute

Another guide is available specific to older adults and how they should prepare for an emergency with a kit tailored to their needs including assistive devices, prescription glasses, extra medications, copies of prescriptions and extra dentures, and a plan that lists a personal support network (Government of

Ontario, n.d.). The government website has an online tool where people can enter and update their emergency preparedness plan (Government of Ontario, 2016).

The Provincial Emergency Response Plan (PERP) addresses the shared responsibilities of emergency management by individuals, families, communities, municipalities, First Nations, NGOs, and provincial and federal government (Government of Ontario, 2019). The plan recognizes that some individuals including persons with disabilities are more vulnerable in emergencies and require special consideration. Priorities include providing for and meeting the immediate needs of evacuees for food, shelter and clothing, care of pets and livestock, and continuation of health care. Municipalities must have emergency management plans and conduct training exercises. Municipal plans should account for reception centres (where referrals to a shelter may be made), and for facilities that will provide shelter, food and ESS. Guidelines for the development of municipal plans provide information on how to set up shelters that meet the special needs of all shelter residents including those with visible and non-visible disabilities (Government of Ontario, 2013). 211 Ontario is another resource available to municipal planners and first responders (Ontario 211, 2021).

Further to the PERP, the Ontario Mass Evacuation Plan considers specific contextual factors in the evacuation of communities in Ontario's' far north (Government of Ontario, 2018). The plan lists vulnerable populations including persons with disabilities, older adults, and those with medical conditions as well as their caregivers as priority in an evacuation with attention needed for ESS. Host communities are advised to identify shelter facilities and accommodations for individuals with special needs.

New Brunswick

The *Human Rights Act* stipulates that businesses and government must make their facilities accessible and prevents discrimination on sixteen grounds including physical and mental disability (Government of New Brunswick, 2011b).

The *Premier's Council on Disabilities Act* established the Council to advise government on matters relating to persons with disabilities including but not limited to access by persons with disabilities to all services offered to the citizens of New Brunswick (Government of New Brunswick, 2011b). The Council published a report titled '*New Brunswick's Disability Action Plan for Persons with a Disability: Accountable Path Forward to an Equal Opportunity'* which puts forth 43 recommendations including that the government adopt a disability policy lens to assess policies and programs; put an Accessibility Act in place by the end of 2021; increase affordable and accessible housing support options; create a working group with the deaf community to develop a communication and awareness strategy; make the government website more accessible; and to consult with the disability community to ensure appropriate supports are in place during emergencies (Premier's Council on Disabilities, 2020).

The *Economic and Social Inclusion Act* established the New Brunswick Economic and Social Inclusion Corporation to ensure a collaborative approach and partnerships with businesses and non-profits in the development of a plan to address poverty so that all citizens can have basic needs met and the opportunity for social inclusion within communities (Government of New Brunswick, 2010).

The *Barrier-Free Design Building Code Regulation*, under the *Community Planning Act*, applies to the design of parking, entrances, paths, doorways, building controls including electrical switches, washrooms, signage, counters, and sleeping units in accommodations (Government of New Brunswick, 2011c).

EMO is responsible for overseeing emergency preparedness in the province (Government of New Brunswick, 2017). The EMO website includes several publications including:

- Emergency Preparedness Guide
- Seniors' guide to services and programs
- Older adults' wellness during COVID-19: a guide
- Caregiving to older adults during COVID-19: a guide

The Emergency Preparedness Guide states that you should be prepared to take care of yourself and your family for 72 hours, know the risks, make a plan, and get an emergency kit (Government of New Brunswick, n.d.). For people with special health needs, it recommends that they establish a personal support network of friends, family, neighbors, health care professionals and coworkers (Government of New Brunswick, n.d.). There is also a printable sign that reads 'If owner needs to be reached, please call' with a fill in the blank space for the phone number and instruction to place it in the window in case of an evacuation (Government of New Brunswick, n.d.). Other resources include how to prepare an evacuation plan before a flood and links to Government of Canada resources including the Emergency Preparedness Guide for People with Disabilities/Special Needs (Government of Canada, 2018).

New Brunswick is divided into twelve zones each with a regional emergency management coordinator responsible for emergency planning and response under the umbrella of NB EMO (Government of New Brunswick, n.d.). Under the *Emergency Management Act*, municipalities are required to have an emergency preparedness plan (Government of New Brunswick, n.d.). A list of municipalities with plans is available on the government website (Government of New Brunswick, n.d.). Also under the *Emergency Management Act* is the provincial all-hazards plan that designates departments and agencies involved in the response to an emergency (Government of New Brunswick, 2017). The Social Development Department (SDD) has the following tasks (including but not limited to):

- Plan, establish and operate the following emergency social services in the reception and care of evacuees or disaster victims a.
  - lodging
  - feeding in a reception centre or shelter
  - clothing
  - Registration and Inquiry
  - Personal Services
- Assist Long Term Care facilities and Nursing Homes in developing a disaster plan.
- Provision of emergency social services as required in support of survival operations; and the continuation of essential social programs and assistance as required in the rehabilitation of disaster victims.

SDD will coordinate ESS with organizations such as the Red Cross; assist municipalities with the delivery of ESS; maintain a list of temporary shelter options available; and identify animal care agencies (Government of New Brunswick, 2017). As well, the Department is to assess the need for special assistance for persons with disabilities (Government of New Brunswick, 2017). The SDD website includes a map of ESS regional offices.

Nova Scotia

The *Accessibility Act of Nova Scotia* (Government of Nova Scotia, 2017) exists to "achieve accessibility by preventing and removing barriers that disable people". Accessibility standards will be developed in six areas including goods and services, information and communication, transportation, employment, built environment and education. The first two sets of standards being developed are built environment and education.

The *Accessibility Act* created the Accessibility Directorate and the Accessibility Advisory Board. The Accessibility Directorate administers the Accessibility Act and works with a wide range of stakeholders to advance disability issues in Nova Scotia by making recommendations to government on policies, programs, and services. The Accessibility Advisory Board composed of members with disabilities is responsible for advising and making recommendations to the Minister of Justice about accessibility.

Under the *Accessibility Act* of Nova Scotia every public sector body (a public sector body means the government, a prescribed municipality, university, and organization) is required to have an accessibility plan within one year of the Act coming into being (Government of Nova Scotia, 2017). The Accessibility Plan for the government was developed with input from across departments, community engagement sessions and persons with disabilities and includes 23 commitments with respect to accessibility in awareness and capacity building; information and communications; buildings, infrastructure, and public spaces; employment; and delivery of goods and services (Government of Nova Scotia, 2018b). Training on accessibility and disability issues is one of the commitments as well as public awareness programs, a review of communication policies, revamping the government website, working with prescribed bodies on their accessibility plans, and exploring the role of accessibility navigators to help persons with disabilities find information on programs and services (Government of Nova Scotia, 2018b).

The Accessibility Advisory Board supported by the Built Environment Standard Development Committee submitted standards and 68 recommendations on how to prevent and remove barriers in the built environment in August 2020. Categories of standards include accessible parking, pedestrian walkways, entrances to buildings, emergency systems, site selection, wayfinding and signage, washroom, interiors, housing and residences, parks, and recreation (Government of Nova Scotia, 2021). The rules will ensure that people with disabilities will be able to safely access both new and renovated buildings (Accessibility Advisory Board, 2020).

Education Accessibility Standards under the *Accessibility Act* will be developed to make the education system accessible to students throughout all grades and will apply to public and private schools as well as universities and colleges (Government of Nova Scotia, 2020). Although focused more so on the delivery of education rather than the built environment of schools, one of the commitments is that learning spaces are inclusive, flexible, accessible, and responsive to everyone. The education standards also state that accessibility services including assistive technology will be in place (Government of Nova Scotia, 2020).

Another government initiative is the delivery of the Rick Hansen Foundation Accessible Building Certification program (RHFAC) in partnership with the NSCC (Government of Nova Scotia, 2020). Beyond the building code and minimum accessibility standards, the RHFAC measures meaningful access based

on holistic measures by people with mobility, vision, and hearing disabilities (Rick Hansen Foundation, 2021). Nova Scotia is one of only two provinces that offers the program.

The Council of Nova Scotia University Presidents and Nova Scotia Community College published an accessibility framework and as prescribed public sector bodies under the *Accessibility Act*, each institution will be required to establish their own implementation plans. The framework includes several commitments to the built environment to ensure buildings allow meaningful access that meet the Nova Scotia Building Code and the Accessibility Act's built environment standard as a minimum. Universities are encouraged to adopt the Rick Hansen Foundation certification for any newly constructed buildings. The newest building on Dalhousie's campus, the Collaborative Health Education Building was the first building in Atlantic Canada to receive the RHFAC (McNutt, 2019). Dalhousie University has outlined their approach to accessibility and steps forward toward the development of the university's accessibility plan (Dalhousie University, 2021) including an audit of all their buildings using a tool that accounts for people in wheelchairs; those with hearing or low vision issues; learning, developmental, and mental disabilities; and memory problems (McNutt, 2019). The tool was developed by a Dalhousie graduate and is considered a best practice being shared with government and other experts in the province (McNutt, 2019).

Two government programs, the Age Friendly Communities Grants Program and Community ACCESS-Ability Program, are available to help advance the inclusion of older adults and people with disabilities in communities throughout Nova Scotia. Age-Friendly Communities Grants are given to projects that support active living, help older adults stay connected to their community and increase social interaction (Government of Nova Scotia, n.d.). The objective of the Community ACCESS-Ability Program is "to assist non-profit community organizations and municipalities with the removal of barriers for persons with disabilities in public buildings and spaces (Government of Nova Scotia, 2020). Of interest to the research relating to possible shelter locations is that eligible facilities include community halls, non-profit shelters, and sport and recreation facilities (Government of Nova Scotia, 2020).

As a result of Hurricane Juan and in response to feedback from persons with disabilities that they needed more emergency preparedness information, the province published a brochure titled '*Are you ready? Nova Scotia's guide to Disaster preparedness: Tips for persons with disabilities and seniors with special needs'* (Government of Nova Scotia, n.d.). The brochure includes general information on how to prevent, prepare for, respond to, and recover from emergencies as well as specialized tips for people with mobility, speech, developmental or mental health disabilities, and for people who are deaf, blind, have autism spectrum disorders, or are frail and older. Several partners were involved in the development of the guide including CNIB, Canadian Mental Health Association (Nova Scotia), Canadian Paraplegic Association of Nova Scotia, Canadian Red Cross, Deafness Advocacy Association Nova Scotia,, Department of Community Services, Halifax Regional Emergency Measures Organization, Independent Living Resource Centre, Melissa McInnis (MSVU Co-op placement program), Nova Scotia Department of Seniors, Nova Scotia Disabled Persons Commission, Nova Scotia Emergency Management Office, Nova Scotia League for Equal Opportunities, People First, and the Nova Scotia Society of Deaf & Hard of Hearing Nova Scotians (Government of Nova Scotia, n.d.).

The Emergency Management Office (EMO) under the Department of Municipal Affairs is responsible for emergency planning and coordination of emergency responses in partnership with municipalities. They

play a leadership and coordination role and provide provincial resources to municipalities in need during an emergency (Government of Nova Scotia, n.d.).

The Department of Community Services is heavily involved in the planning and response to emergencies in Nova Scotia. Their mandate is "to help people live more independent and healthier lives by providing a range of social services". One of their priorities is to help individuals living with disabilities become more independent through a range of community programs (Government of Nova Scotia, n.d.).

Two types of funding are available for individuals who wish to live independently (Government of Nova Scotia, 2013):

1) Independent living support - a community-based option that provides funding for hours of support services from a Service Provider, based on the assessed needs and circumstances of an eligible participant who is semi-independent and requires support to live on their own.

2) Flex individualized funding -The Flex Individualized Funding program provides supports and services to adults with disabilities who live at home with their families or who live independently with support from their family or personal support network. The program provides self-directed and self-managed funding to eligible participants.

The Department of Community Living acknowledges that living in a community is aligned with the UN Convention on the Rights of Persons with Disabilities and is phasing out institutional settings (Government of Nova Scotia, n.d.). A brochure is available that details information for persons with disabilities who want to live in community and have more choices for where they live (Government of Nova Scotia, n.d.). In fact, the direction to move toward more choice in community living for persons with disabilities is not new in the province. A report in 2013 indicated that one of the key issues was the reliance on institutional care in Nova Scotia (Joint Community-Government Advisory Committee on Transforming the Services to Persons with Disabilities (SPD) Program, 2013). Their recommendations including transforming the community based residential service system into a person-directed and individualized approach to supported living arrangements and to make a full range of accessible housing options available with access to disability supports (Joint Community-Government Advisory Committee on Transforming the Services to Persons with Disabilities (SPD) Program, 2013).

During an emergency, the Department of Community Services is responsible for the provision of ESS. When an emergency happens that requires ESS, a reception centre or shelter may be set up and operated by Canadian Red Cross who is contracted by the government. Services at a shelter may include food, lodging, clothing, evacuee registration, and other personal services (Government of Nova Scotia, 2013).

The Red Cross in Nova Scotia uses the Sheltering Handbook by American Red Cross (2012) and the guidelines within are adhered to as much as possible. The handbook uses an access and functional approach to sheltering to meet the needs of all shelter clients beginning with the planning phase and understanding community demographics before the shelter opens (American Red Cross, 2012). It was learned that Red Cross will not use a building that is not accessible. It works with government and other partners to identify accessible buildings prior to an emergency. The handbook covers all aspects of shelter operations including staffing, supplies, communication, safety, and services (reception, feeding, accommodations) and includes guidelines for providing services to people with access and functional

needs. The evacuee registration and intake assessment process has been identified as critical for understanding the shelter population and the access and functional needs of individuals. The Red Cross initial intake and assessment tool asks questions relating to support needs, mental health, medications, assistance from caregivers, hearing, vision, activities of daily living, and nutrition (American Red Cross, 2008).

The Department of Health and Wellness has a division called Health Services Emergency Management that create mitigation, preparedness, and response plans to help the health care system cope during a local, provincial, national, or international emergency or health crisis (Government of Nova Scotia, 2017). Several legislative acts govern emergency management in Nova Scotia and health services during an emergency including the Emergency Health Services Act, Emergency Management Act, Environment Act, Health Act, Health Authorities act, Heath Protection Act, Homes for Special Care Act, Hospitals Act, and Occupational Health and Safety Act.

The Department of Environmental Health includes information on emergencies and extreme weather events and provides links to the EMO website where people can learn more about the risks and how to prepare (Government of Nova Scotia, 2013). A page on the Environmental Health website has information for people with disabilities or medical conditions that are at higher risk during emergencies and how you can help reduce their risk. Specific tips are offered for people who are blind, deaf, or hard of hearing, or have mobility problems. As well, there is a fact sheet for how to manage diabetes during an emergency (Department of Health and Wellness, 2007). There is also information on medication management and the Critical Customer Care Program offered by Nova Scotia Power.

Several NGOs and DPOs play an active role in emergency management in Nova Scotia including Canadian Red Cross, Salvation Army, Canadian Paraplegic Association, Easter Seals, Disability Rights Coalition of Nova Scotia, Independent Living Nova Scotia, Inclusion Nova Scotia, and NS League for Equal Opportunity (NSLEO). The NSLEO has disability emergency preparedness as one of its' ongoing activities. As well, the Special Care Emergency Preparedness Association of NS exists with the goal of being a leader in the field of emergency preparedness for the continuing care sector (SCEPA, 2020).

Halifax Regional Municipality

The Emergency Management Division of Halifax Regional Fire and Emergency (Halifax, 2021) is responsible for:

- Preparing emergency plans
- Coordinating and managing emergency planning with first responders
- Conducting emergency training and exercises with other first responders and municipal staff
- Training volunteers to deliver essential services and shelters during a disaster (JEM teams)
- Providing basic services to those impacted by a disaster (e.g., comfort centres)

Citizens are advised to follow the @hfxgov Twitter account for updates during an emergency. The municipality also communicates via hfxALERT, a mass notification system (Halifax, 2021).

The purpose of the *Halifax Regional Municipality Charter Act* (2008) is to allow Council the right to govern the municipality as deemed appropriate and to pass relevant by-laws. Importantly, it also enables the Council to respond to present needs and acknowledge future challenges that may arise (Halifax Regional Municipal Charter, 2008). It is a very extensive Act comprised of several sections including By-laws, Planning and Development, Fire and Emergency Services, Electrical Services, and Streets and Highways.

At the Municipal level, the Council created the *Emergency Management By-law* which established a Municipal Emergency Management Organization, Coordinator and Planning Committee (Halifax Regional Municipality, 1990). The role of the coordinator is to prepare municipal emergency management plans, training, and exercises; and to deliver on-going public self-help education programs related to emergency preparedness.

The Planning Committee includes persons responsible during an emergency to coordinate income assistance, community services, and health care as well as several other departmental representatives. Each member must submit a plan for their department or area of responsibility including training and exercise procedures (Halifax Regional Municipality, 1990).

Emergency Preparedness Week was May 2-8, 2021 (Halifax, 2021). Individuals were encouraged to read preparedness tips, take a quiz, and enter a contest. Tips included creating an emergency plan and being self-sufficient for 72 hours with a household emergency kit. Specific information relating to the risk of floods and hurricanes is provided.

The most recent Municipal Emergency Plan (MEP) was approved in 2017 (Halifax, 2017). The plan allows for a coordinated response with a best practices approach among operational personnel and strategic planners (Halifax, 2017). The plan outlines the role of individuals, businesses, community organizations, HRM, EMO, Volunteers, Province of NS, and Government of Canada. It places the primary response to an emergency with the individuals affected stating that all individuals should be prepared to implement measures to protect their life and property. It acknowledges the important role and resources provided by service clubs and volunteers.

On evacuation, the plan states "The evacuation of persons and animals from an area will be conducted when the risk of sheltering in place becomes or is expected to become higher than the risk of evacuating" (Halifax, 2017). It defines different types of evacuations including voluntary or mandatory.

The Municipality is responsible for determining the locations of reception centres and temporary shelters; the Department of Community Services is responsible for provision of Emergency Social Services; and Canadian Red Cross is responsible for the operation of the shelters (Halifax, 2017). If an emergency does not require an evacuation, the Municipality may establish comfort centres that meet essential needs for residents like meals, hygiene facilities, charging stations, information, and social interaction.

The Fire and Emergency Management website states that in the event of an evacuation, residents will be notified of evacuation procedures (Halifax, 2021). Residents are advised to prepare before an evacuation by learning the types of disasters that may occur in their community, planning where they will go including shelter plans for specific disasters, and identifying places that will accepts pets (Halifax, 2021). During an evacuation, a list of shelters will be posted on the Emergency Management website. Furthermore, it states that if you are notified of an evacuation, residents will be asked to relocate to a comfort centre outside the affected zone or their own preferred safe location and to contact the Red Cross if you require assistance.

EMO volunteers play a key role in emergency management in HRM. Joint Emergency Management (JEM) teams are constructed to bring together multiple stakeholders including citizens, government agencies and community groups to prepare for and respond to emergencies. The MEP (Halifax, 2017) states that:

> The concept of operations of the JEM program is to involve local agencies and people from community groups within HRM, to participate in emergency planning and response from an EMO perspective. The JEM program does not interfere with the roles and responsibilities of existing emergency first response agencies, but rather can complement their efforts.

JEM teams may be involved in emergency preparedness exercises, provide public education sessions, maintain neighborhood evacuation profiles, coordinate humanitarian efforts during an emergency including comfort centres, and act as a link between the community and EMO (Halifax Regional Municipality, 2017). "*A JEM team is comprised from within the community(s), for the community(s), and managed by the community(s)*" (Halifax Regional Municipality, 2017).

As a prescribed public body, the municipality is required to have an Accessibility Strategy under the *Accessibility Act*. A strategy was put forth in 2021 outlining 30 action items for improving accessibility over a 10-year period to align with the *Accessibility Act* (Myers, 2021). The Accessibility Advisory Committee was established in 1996 and has acted since that time to make recommendations to council to improve accessibility for all residents (Myers, 2021). Recommendations from the 2018 Public Accessibility Consultations were organized into three themes of transportation, recreation, and buildings with specific recommendations to increase training of staff on accommodation of persons with disabilities and enforcing building codes to ensure they meet minimal standards (Myers, 2021).

Non-Government/Disabled Persons Organizations

The role of non-government organizations in emergency response has been growing over several decades providing critical social services in communities across the country (reference). A long history of their involvement in emergencies exists (Newton, 1999).

Today, the Canadian Red Cross, The Salvation Army and St. John Ambulance are three national non-government organizations acknowledged by the federal government for the role they play in the '*Get Prepared*' Campaign and emergency preparedness on an ongoing basis (Government of Canada, 2015). The government recommends that individuals visit their websites for more information on personal emergency preparedness.

The Salvation Army

The Salvation Army got its' start in emergency disaster services when it responded to relief efforts for the Halifax Explosion in 1917 (Salvation Army, n.d.). Today, the Salvation Army continues to provide social services through its' Emergency Disaster Services division of volunteers to more than 2 million people across Canada each year making it the largest non-government provisioner of social services in the country (Salvation Army, n.d.). The Army employs a holistic approach to meeting the needs of individuals experiencing an emergency focusing not only on physical, short term needs but also on longer term emotional and physical needs of evacuees (Salvation Army, n.d.). They train hundreds of volunteers each year on emergency response through their comprehensive National Disaster Training Program and only trained volunteers are permitted to respond to relief efforts. Their focus is community based and tailored to the specific needs of the community and evacuees during an emergency which may include food, emotional & spiritual care, evacuee registration and screening, meeting special needs, shelter operation, and distributing donated goods including clothing and medications.

In addition to the provision of immediate relief efforts during emergencies, the Salvation Army is also involved on several national and provincial committees and research projects where they advocate for the needs of vulnerable populations affected by emergencies.

The Canadian Red Cross

The Canadian Red Cross creates public awareness of the type of emergencies and risks facing communities including floods, hurricanes, heat waves, winter storms, tsunamis, and power outages (Canadian Red Cross, 2021). They encourage individuals to know the risks, make a plan, and get an emergency kit (Canadian Red Cross, 2021). A variety of guides are available for download on the website including a guide to coping with crisis, and a guide to recovery for parents and caregivers (Canadian Red Cross, 2021).

During a disaster, the Red Cross provides a range of services to help meet basic needs of evacuees including shelter, food, clothing, and family reunification of members who have become separated. As well, they offer personal services including temporary care of older adults and children, and emotional support (Canadian Red Cross, 2021). Emergency social services are provided by a trained network of volunteers in communities across the country. National training standards are in place.

The Red Cross partners with government and trains other voluntary organizations providing critical services to prevent interruption of these services during a major disaster (Canadian Red Cross, 2021).

St. John Ambulance

St. John Ambulance has an extensive network of more than 15,000 volunteers across Canada who provide services and programs including the Therapy Dog Program, First Aid Response Services, and Emergency Response Service. During a major emergency, volunteers may assist with transportation of evacuees to reception centres, first aid in reception centres, and elder care through a community approach (St. John Ambulance, 2021). St. John Ambulance also collaborates with other organizations on a national scale as a member of the Disaster Response Service Agencies which includes the Canadian Red Cross, Salvation Army, and others (St. John Ambulance, 2021).

Several other NGOs are involved in the inclusion of vulnerable populations in emergency preparedness, response and recovery in Canada including:

- CARP
- CNIB
- Canadian Association of the Deaf
- Canadian Council of the Blind
- March of Dimes
- Muscular Dystrophy Canada
- Communication Disabilities Access Canada
- Canadian Paraplegic Association
- SPCA
- Samaritan's Purse Canada

Rick Hansen Foundation

The Rick Hansen Foundation is a national organization whose mission is "to create and deliver innovative solutions that lead to a global movement to remove barriers and liberate the potential of people with disabilities" (Rick Hansen Foundation, 2021). They offer several programs including a Rick Hansen Foundation Accessibility Certification (RHFAC) which is a national rating system that measures access, identifies barriers, and offers ways to improve accessibility of buildings (Rick Hansen Foundation, 2021).

Council of Canadians with Disabilities

The Council of Canadians with Disabilities (CCD) is "a national human rights organization of people with disabilities working for an accessible and inclusive Canada" (Council of Canadians with Disabilities, 2013). Member organizations include:

- Disability Alliance BC
- Voice of Albertans with Disabilities
- Manitoba League of Persons with Disabilities
- Citizens with Disabilities – Ontario
- Nova Scotia League for Equal Opportunities

- NWT Disabilities Council
- Canadian Association of the Deaf
- Canadian Council of the Blind
- National Network for Mental Health
- National Coalition of People who use Guide and Service Dogs of Canada

Discussion

What are the most suitable facilities to use as shelters during an evacuation? How can we ensure that shelters meet the access and functional needs of all shelter residents including persons with disabilities? These are complex questions that the research attempted to answer.

Adding to the complexity is the fact that a variety of actors are involved and impacted by legislation, policies, programs, and services relating to sheltering of persons with disabilities during a mass evacuation including:

- individuals with disabilities (physical, mental, learning, intellectual, cognitive, communication, sensory)
- family and friends
- neighbours and other community members
- older adults
- caregivers
- community service agencies
- DPOs
- NGOs
- EMO leaders/teams
- municipal government leaders
- federal and provincial government
- volunteers
- academia
- private sector corporations and business leaders
- emergency first responders
- international organizations and allies

In the context of the COVID-19 pandemic, the issue of sheltering evacuees became an even greater challenge. We learned that some jurisdictions have opted to not open shelters during emergencies due to the high risk of exposure to COVID-19 for evacuees. Other jurisdictions may choose to open shelters with strict protocols in place. COVID-19 has also diminished volunteer resources needed to operate shelters. In BC, guidelines have been developed to help municipalities adapt their ESS program and to identify alternative accommodations to avoid potential exposure to COVID-19 (Government of British Columbia, 2020). Guidelines for individuals who have COVID-19 during an evacuation are also available (Government of BC, n.d.). In Nova Scotia, an emergency protocol for prescribing narcotics was issued to ensure that patients receiving monitored drugs do not experience issues to accessing their medication during the pandemic (Nova Scotia College of Pharmacists, 2020).

Shelter-in-place (SIP)

Shelter-in-place is a relatively new term. In the context of COVID-19, SIP was a directive issued by some states to help curb the spread of the virus. A few studies have examined the impacts of SIP on older adults, persons with multiple sclerosis and intellectual disabilities (Block et al., 2020; Ervin & Hobson-Garcia, 2020; Kotwal et al., 2021).

The scan found limited information on what SIP means for emergency planning and persons with disabilities. It is defined in the HRM municipal plan (2017) as "a protective measure whereby a population is instructed to stay inside their homes or the building where they are, and to take various other precautions, while waiting for the end of a threat." An information sheet is available on the Alberta government website for how to shelter-in-place if hazardous materials are released in the air (Government of Alberta, 2018). The Northwest Territories Emergency Plan (2018) indicates that shelter-in-place is a measure that may be used while toxic smoke dissipates and that residents need education on the concept. Social Supports New Brunswick (n.d.) created guides for older adults and their caregivers to promote wellness during COVID-19 with links to resources.

A note on comfort centres

The research found an important distinction between comfort centers and shelters in Nova Scotia. Comfort centres have grown as a necessity over the last several years due to the increasing dependence and need for people to be able to charge digital devices. Typically operated by a municipality, a comfort centre will provide a place for charging devices and a hot beverage while people otherwise remain at home during an emergency (Halifax, 2019). Comfort centres are opened more frequently than emergency shelters, therefore, the accessibility of buildings used as comfort centres should also be considered by municipal and emergency planners.

Emergency preparedness

The messaging in all jurisdictions is consistent: Everyone must play a role in emergency preparedness. All individuals should prepare an emergency plan and kit and should be prepared to be self-sufficient for 72 hours. Individuals with disabilities should also include medications and supplies within their kits and develop a support network of friends, family, neighbors, and coworkers to aid them in an emergency. This advice assumes that everyone has the knowledge, skills, and resources to assemble a plan and kit and does not necessarily consider a wide segment of the population such as people with intellectual disabilities, cognitive issues, mental illness, or neurodiverse individuals. There was also very little information directed to caregivers who are caring for persons with functional needs. The intersectionality of disability and poverty also needs to be considered in that assembling a kit requires financial resources that not everyone has.

The scan found several documents including legislative acts and accessibility plans that address the accessibility of buildings that may be used for shelters in emergency evacuations. Four provinces have Accessibility Acts that aim to improve accessibility, to remove and prevent barriers, and make the province inclusive for all citizens The *Accessibility for Ontarians with Disabilities Act* was enacted in 2005; *Accessibility for Manitobans Act* Manitoba's became law in 2013; followed by the *Act Respecting Accessibility in Nova Scotia* in 2019 and the *British Columbia Accessibility Act* in 2021. In provinces without accessibility legislation, building codes ensure a minimum standard for accessibility.

Local emergencies are managed by municipalities and communities (Public Safety Canada, 2018). Most municipalities in jurisdictions across the country are required to have emergency management plans and coordinators in place under the provincial Emergency Management acts. Many of the reports

reviewed in this scan call for the need for better collaboration at all levels and among stakeholders. In particular, the need for persons with disabilities to be involved in emergency preparedness plans, exercises and post-event reviews is paramount to learn of best practices in all phases of evacuation, including the shelter phase. There was little information on the inclusion of persons with disabilities in post-event reviews.

Locating persons with disabilities during an evacuation

It was decided for the purposes of this project that a population approach would be used to identify and map possible locations of persons with disabilities (e.g., nursing homes, hospitals, public housing, group homes, and homeless shelters). Given the limited resources of the project, it was not possible to use an individual approach. However, as noted earlier, persons with disabilities have a human right to choose where they live and to live independently in the community with adequate disability supports. As this vision is realized (hopefully) over the years to come, persons with disabilities will no longer be institutionalized, but included in various housing options within their communities. Supporting persons with disabilities during an evacuation and assisting them to relocate to accessible shelters will need to be part of every municipal emergency management plan.

Registries or voluntary databases, of people with specific needs who meet eligibility requirements, are sometimes used by emergency responders (Centers for Disease Control and Prevention, 2015). In the United States, some jurisdictions maintain access and functional needs registries (Saint Louis County Missouri, n.d.). Alberta recently established a registration system that individuals and families can use to self-identify their need for help in a state of emergency or shelter-in-place and to locate a shelter (CFCW, n.d.). The government of Nova Scotia does not have the resources within EMO to establish a registry.

In the absence of a registry how can persons with disabilities be identified and located during an emergency evacuation? No one solution appears to exist. The scan identified the following programs or sources that would assist in the identification of individuals who have special needs:

- MedicAlert Connect
- Nova Scotia Power
- Disability Support Program in Department of Community Services
- Continuing Care services in the Department of Health and Wellness
- Social services agencies
- NGOs
- Advocates and DPOs
- Building managers
- Access-a-Bus/community transportation services

As well, some jurisdictions include low-tech ways of how people can identify that they need help during an emergency including printable Help/OK signs that can be placed in a window (Government of British Columbia, n.d.).

Municipalities will increasingly need resources and training to accommodate persons with functional needs in all aspects of emergency planning from preparation, mitigation, response, and recovery. The

Centers for Disease Control and Prevention created resources for emergency managers to help with this task. They identify three phases of community outreach including defining, locating, and reaching at-risk groups (Centers for Disease Control and Prevention, 2015). The first step is to use demographic and statistical information to better understand your population and the range of people who may be at-risk during an emergency; the next step is to identify, communicate and collaborate with organizations and key contacts who can play a role during emergencies; and the last step is to reach at-risk groups before and during emergencies with various communication methods (Centers for Disease Control and Prevention, 2015). Some emergency planning resources, training and templates for Canadian municipalities included information on how to identify special needs populations.

Suitable facilities to use as shelters during an evacuation

Municipal and provincial bodies often advise individuals to prepare evacuation routes and know in advance the location of their nearest shelter. Although this seems like helpful advice, the locations of shelters, usually predetermined by municipalities, are not always made public until the time of an emergency. Throughout the scan, very little information was found on the types of facilities or locations of possible shelters in the various jurisdictions. In HRM, the residents will be notified of open shelters during an active disaster on the Emergency Management website (Halifax Regional Municipality, 2021). In BC a list of reception centres was available for evacuees of current wildfires (Government of BC, 2021).

During Hurricane Dorian, three shelters were opened for evacuees including the Canada Games Centre, St. Margaret's Centre, and East Dartmouth Community Centre (Halifax Today, 2019). The Canada Games Centre website states, "We want to accommodate everyone, and we've made every effort to ensure that we're inclusive to our entire community. That's why the CGC was designed with a barrier-free approach" (Canada Games Centre, 2021). The East Dartmouth Community Centre is described as a "state-of-the-art Community Centre, located in the heart of our community, serving as a focal point for community programs and services inclusive to all ages, abilities and cultures" (East Dartmouth Community Centre, n.d.). St. Margaret's Centre is newly renovated but no information on accessibility is available on their website.

The government, and prescribed municipalities, universities, and organizations (including a sole proprietorship, corporation, society, association, partnership and limited liability partnership, any association of individuals and any similar body) are public sector bodies under the NS Accessibility Act. These public bodies must have accessibility plans in place within one year of being prescribed as a public sector body. Accessibility standards developed under the Act (including Built environment standards) must first be adhered to by the government of Nova Scotia, followed by the public and private sectors (Government of Nova Scotia, 2018a).

It was learned through the research that the preferred locations of shelters in Halifax, Nova Scotia are community colleges, universities, and schools. Nova Scotia Community Colleges are owned by the province and as such, can be used as shelters without any permission or negotiations required. There are seventeen campuses located in the province. Amenities vary between the campuses with cafeterias, gymnasiums, residences, and childcare centres available in some but not all locations. As well, some campuses are near waterfront (e.g., Ivany Campus) which may render them unusable during a flood.

Community colleges and universities are required to have accessibility plans developed in consultation with persons with disabilities. As a collective group, university presidents and NSCC published a framework to assist universities with their accessibility plans. Dalhousie university has committed to exceeding basic standards and requirements under the law and was the first institution in Atlantic Canada to have a new building certified with the Rick Hansen Foundation. As ongoing work toward becoming accessible, Dalhousie is conducting an audit of all their buildings using a tool that incorporates the Accessibility Act built environment standards.

Although focused more so on the delivery of education rather than the built environment of schools, one of the commitments of the Education Standards is to ensure that learning spaces are inclusive, flexible, accessible, and responsive to everyone. The education standards also state that accessibility services including assistive technology will be in place (Government of Nova Scotia, 2020). Thus, it seems that both the built environment and education standards will support schools as being suitable shelters moving forward. It was also learned that new schools built over the next decade will include wiring for generators so that a generator can easily be put in place as needed during an emergency, a condition that does not currently exist in most municipal buildings.

Other common facilities that may be used as shelters during an evacuation include ice facilities, aquatic centres, multi-purpose facilities, churches, and community centres. Data from Statistics Canada (2021) indicates that ice facilities are deemed to be the most accessible type of facility in Canada. In Nova Scotia, accessibility of various facilities is shown in Table 2.

Table 2. Accessibility of facilities in Nova Scotia

Geography	Ice Facilities	Aquatics	Multi-purpose facilities	Arts and culture facilities	Other facilities
Nova Scotia	89	67.3	--	75.9	72.6

Ice, aquatics, and multi-purpose facilities in HRM include the Canada Games Centre, Zatzman Sportsplex, Dalplex, Saint Mary's Homburg Centre for Health & Wellness, Centennial Arena, Cole Harbour Place, Halifax Forum, Scotiabank Centre, Sackville Sports Stadium, and RBC Centres. As well, the municipality owns and operates nearly 70 recreation centres (Halifax, 2021). Arenas in other parts of the province include the Membertou Sport & Wellness Centre, East Hants Sportsplex, Rath Eastlink Community Centre, Clearwater Seafoods Arena (LCLC), Queens Place Emera Centre, Sandy Wickens Memorial Arena, and Andrew H. McCain Arena at Acadia University (Recreation Facility Association of Nova Scotia, 2020).

HRM has adopted the Rick Hansen Foundation Accessibility Certification standards to advance accessibility of the built environment (Halifax, 2021). The recently renovated Zatzman Sportsplex had new accessible features added as per the recommendations of the Accessibility Advisory Committee (Halifax, 2021). Future objectives of the HRM Accessibility Plan include using RHFAC standards for current and future infrastructure; developing a review system to audit buildings and public facilities; ensuring that signage is accessible; and increasing training for municipal staff including fire and police (Myers, 2021). Also of importance is the objective to improve collaboration with DPOs, including CNIB and Autism Nova Scotia, to improve accessibility in the municipality that is aligned with the Accessibility

Act and to update the municipal website for information that is accessible, in plain language and in accordance with Web Content Accessibility Guidelines (Myers, 2021).

In conclusion, the most suitable locations to use as shelters during an evacuation include buildings operated by prescribed public bodies under the Accessibility Act including colleges, universities, and schools; ice rinks; and buildings certified by the Rick Hansen Foundation and operated by public and private bodies that choose to go "above and beyond" the minimum accessibility standards.

How to meet the access and functional needs of persons with disabilities in shelters

The term access and functional needs (AFN) is widely used in emergency management in the United States. The CDC (2021) states that "access and functional needs refers to individuals with and without disabilities, who may need additional assistance because of any condition (temporary or permanent) that may limit their ability to act in an emergency" including individuals with disabilities, older adults, and persons of various cultural and linguistic backgrounds or socioeconomic status. Rather than focusing on a category of people with disabilities with perceived needs, the AFN approach allows greater flexibility to address individual needs irrespective of diagnosis based on AFN characteristics (CDC, 2021).

To help operationalize the AFN approach, a framework has been developed. Referred to as CMIST, it includes five categories that should be addressed in emergency preparedness and response:

1. Communication
2. Maintaining health
3. Independence
4. Safety, support, self-determination, and
5. Transportation

The CMIST framework includes examples of individuals with access and functional needs within each of the five categories (CDC, 2021) (Appendix C). For example:

Communication – Individuals who speak sign language or have limited English proficiency.

Maintaining health – Individuals who require specific medications, supplies, services, equipment, or electricity.

Independence – Individuals who function independently with assistance from mobility devices, assistive technology, service animals.

Safety, support, self-determination – Individuals who become separated from caregivers or experience higher levels of distress and need support for anxiety or behavioral needs.

Transportation – individuals who lack transportation or are unable to drive due to mobility limitations from age or disability.

The importance of advanced planning to meet the access and functional needs of individuals in a shelter cannot be overstated. There is no cookie cutter approach to shelters and the operation of shelters depends on the population being serviced. Functional needs planning should begin with coordinating stakeholders, identifying shelter sites, evaluating the shelter, equipping and supplying the shelter,

locating services including power generation and medical providers, staffing, assessment and intake processes (FEMA, 2010). Other considerations include dietary, service animals, communication, bathing, and toileting needs, a quiet area, mental health services, medical services, and medication. The CDC has developed a comprehensive toolkit to address planning and communication categories for individuals in each category as well as a framework for how to integrate community partners and their knowledge on populations with AFN into an all-of-community approach to emergency planning (CDC, 2021). As well, FEMA developed guidelines for how to plan for and integrate functional needs in shelters (FEMA, 2010)

In Canada, the Disability Alliance of BC partnered with Emergency Management BC to create functional needs frameworks (FNF) using an adapted CMIST framework (*Communication, Medical, Functional Independence, Supervision and Transportation* categories) for personal emergency planning, accessible reception centres, ESS, planning for people with disabilities in emergencies, and communicating with people with communication disabilities (Disability Alliance BC, 2016).

The framework for planning for people with disabilities in emergencies provides a template for emergency managers and local authorities to consider alternate communication methods; plans for storage and replacement of evacuee's medical equipment and supplies; plans for the evacuation and sheltering of people with equipment and animals; procedures for how to help people who are separated from caregivers or need additional supervision; and transportation for those who need it (Disability Alliance BC, 2016). As well, the workbook includes tips for accessible shelters and how to collaborate with community partners. The FNF for accessible shelters is a checklist based on a guide developed in Ontario to meet standards of the Ontarians with Disabilities Act (Disability Alliance BC, n.d.).

Medical

Meeting the medical needs of individuals in a shelter can be challenging as individuals may leave home without their medication and may not have a doctor (Government of BC, n.d.) A program such as MedicAlert Connect Protect can help identify individuals with medical needs in an emergency shelter. The program provides emergency responders and healthcare providers access to a subscriber's medical profile (MedicAlert Connect Protect). Partnerships with police exist in many jurisdictions across Canada but not in Nova Scotia.

The Vial of Life Program stores medical information in a vial in the refrigerator (VON, 2021). The Nova Scotia VON promotes the program as a tool to communicate important medical information in an emergency and individuals are instructed to bring the vial with them during an evacuation (Government of Nova Scotia, 2007).

The shelter intake process is critical to the identification of individuals' needs within all CMIST categories including medical considerations. The Red Cross intake form assesses medical needs including medicine, equipment, or electricity for daily living, when they last took their medication, if they have the medication with them and when the next dose is due (American Red Cross, 2008). Shelter plans must account for medical, and medication needs in advance and have appropriate supplies on hand.

Functional independence

Assisting people with disabilities to maintain functional independence in a shelter can involve providing or storing assistive devices and sheltering of animals.

Different types of animal sheltering may operate during an emergency including hotel, cohabitated shelter, collocated shelter, and animal-only shelters (National Animal Rescue and Sheltering Coalition, 2020). In cohabitated shelters, animals live in the same space as their owners whereas in collocated shelters animals live in a separate area from the people (National Animal Rescue and Sheltering Coalition, 2020). The Louisiana Department of Agriculture and Forestry (2018) has published a comprehensive toolkit to provide functional guidance in the operation of cohabitated human/household pet shelters in recognition that some people will not evacuate without their pets.

According to HRM (2019), some comfort centers or emergency shelters will allow pets. It is recommended that you call ahead. Other general tips for pet owners or persons with service animals are:

- Prepare an emergency kit for animals in your household with enough supplies for 3-7 days. Include water, food, kennel, newspaper, litter, toys and treats, extra medication, muzzle, leashes and ID tags, photos of pets with note on the back of the photo, age, breed, sex, and spayed or neutered information, veterinary contact information, and copies of medical records, especially current vaccinations.
- Find places that can accommodate pets if you evacuate; consider pet-friendly hotels, kennels and/or loved ones.
- Take photos of and with your pets for later identification and proof of ownership.

In Nova Scotia, under the *Service Dog Act* (2016), certified dogs who assist individuals with disabilities can access any public location and penalties apply to anyone who denies access (Government of Nova Scotia, n.d.). You must apply for certification and will be issued a provincial identification card. This Act does not recognize or protect pets, emotional support, or therapy animals (Government of Nova Scotia, n.d.). Guide dogs for blind persons have other standards and are protected under the Nova Scotia's Blind Persons' Rights Act (Government of Nova Scotia, n.d.) According to the American Red Cross (2021), service animals are allowed in shelters but not pets due to health and safety concerns. Shelter staff, however, appreciate the important role of pets in families and should attempt to help owners find community resources for their pets during an emergency (American Red Cross, 2012).

Supervision

People who require additional supervision in a shelter may include individuals with Alzheimer's or other types of dementia, mental illness, cognitive or developmental disabilities, autism or other neurodivergent individuals. Almost all people affected by emergencies will experience adverse effects on mental health (WHO, 2019). The World Health Organization is the leader on providing advice on mental health in emergencies (WHO, 2019). Their tools and guidelines are used by most humanitarian agencies involved in emergency response (WHO, 2019). Despite the widespread prevalence of the need for mental health support in shelters, the research found limited information relating to mental health or other issues of supervision. Similar to other medical needs, advanced planning to accommodate mental health needs of shelter residents should be done in advance.

The BC Coalition of People with Disabilities (2009) published a road map for an inclusive approach to emergency planning for people with disabilities and recognized that people may become separated from caregivers or formal supports. Several recommendations were made including that Emergency Social Services need to plan for individuals requiring supervision at shelters including individuals with

dementia; Individuals with disabilities and functional limitations who live independently in the community should not be segregated; and shelters should be prepared to meet a range of AFN of evacuees from the community (BC Coalition of People with Disabilities, 2009). On the topic of segregation, the research found that in some cases, a person with dementia and their caregiver may be sheltered in a hotel to reduce confusion for the person and provide a more calming environment. Accommodating the supervision needs of individuals may require identifying home care agencies or other attendants in ESS plans who could be available to staff shelters and provide supervision as needed.

The American Red Cross assessment form asks:

Do you normally need a caregiver, personal assistant to service animal?
Is your caregiver, personal assistant or service animal inaccessible?

As volunteers are relied on for social services in shelters, volunteers could benefit from training on the functional needs of persons who may need supervision. Training also needs to address attitudinal barriers and stigma that often accompany mental illness, disabilities, and dementia. Only one training program was found that explicitly included neurodiverse populations (Justice Institute of British Columbia, 2021).

Locations of Shelters

The locations of persons with functional needs and sites of possible shelters in HRM have been mapped using Google Maps.

https://www.google.com/maps/d/u/0/edit?mid=17YYTLrnpyOvvT4wbFn927REaUv3SxqI&usp=sharing

Conclusion

The accessibility of buildings commonly used as shelters such as schools and universities will be improved as built standards are developed in provinces with accessibility legislation including Nova Scotia. Information is currently scarce on how functional needs are met in shelters and what persons with disabilities can expect in a shelter which may lead to reluctance to evacuate. Will people be able to communicate their needs to shelter staff? Will medical equipment and supplies be provided? Will pets or service animals be allowed? There are many gaps in the information provided and uncertainty around the emergency social services that will be available.

The access and functional needs (AFN) approach allows greater flexibility to address individual needs based on AFN characteristics irrespective of diagnosis rather than focusing on people with disabilities as a broad, homogenized category (CDC, 2021). To help operationalize the AFN approach, the framework (CMIST) was developed based on five categories that should be addressed in emergency preparedness and response:

1. Communication
2. Maintaining health
3. Independence
4. Safety, support, self-determination
5. Transportation

The AFN framework and approach is widely used in emergency management in the United States but less so in Canada except for the province of British Columbia. The Disability Alliance BC (2016a) created several functional needs frameworks which could be used by other jurisdictions who wish to adopt the functional needs approach. The Red Cross in Nova Scotia, who has the contract to operate emergency shelters, uses the Sheltering Handbook by the American Red Cross which includes guidelines to meet access and functional needs of persons with disabilities in shelters.

Volunteers are the backbone of emergency response across jurisdictions. Emergency social services depend on volunteers to operationalize shelters and to provide services including reception and registration of evacuees, food, shelter, clothing and to meet individual needs. While most jurisdictions provide opportunities for EMO training of staff and volunteers involved in emergency management, there was little information found on training specifically for the provision of ESS services in shelters that accommodate the access and functional needs of persons with disabilities. COVID-19 has also impacted the availability of volunteers for the delivery of ESS and this is a future consideration in the planning and management of emergency social services.

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Appendix A: The Policy Scan in 10 Steps

The Policy Scan in 10 Steps

Preparation

1) Define explicitly the policy scan objective(s) and the scope.
2) Identify variables for analysis and potential data sources.
3) Design the data tool (with headers aligned with selected variables).
4) Identify common social determinants of health and vulnerable population categories for the area of interest; and create predetermined reference lists for review.
5) Design a search flow diagram (or other tracking method) to facilitate documentation and continuity of the search process.
6) Identify search terms.

Search

7) Maintain consistency between searches (i.e. same search protocol for each search term) and between data sources (i.e. same inclusion/exclusion parameters for policies found in different data sources). Keep careful and methodical documentation.

Review

8) Review policies for appropriateness and accuracy. Include different reviewers and subject matter experts.
9) Perform analysis based on the type of information desired.

10) Refine, review, share and identify a system for updating.

Mullen, J. (2014). *The policy scan in 10 steps: A 10 step guide based on the Connecticut chronic disease policy scan*. Connecticut Department of Public Health. https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/hems/chronic_dis/PolicyScanGuideFINAL2pdf.pdf

Interview Guide (Stakeholders)

Name of the Study: Working across Disciplines to Understand and Improve Mass Evacuations: Examining Different Types of Risk and Contextual Pressures (Sheltering)

A. Background

1. Can you describe what your organization does in your own words?

2. What is your title, role, and main responsibilities within the organization?

    a. How long have you worked within this role?
    b. What brought you to this work?

3. How does the work you do relate to emergency sheltering?

4. Can you describe the demographics of the groups your organization serves?
    a. Are there any hard-to-reach populations? What makes them hard to reach?

B. Sheltering

5. How would you define emergency sheltering?
    a. What is the difference between evacuation sheltering and sheltering-in-place?

    b. What are the best practices that help determine when it is best for persons with disabilities to shelter-in-place or when to evacuate to a shelter?

6. What authorities and groups (public, private and NGOs) would be involved in coordinating and administering emergency sheltering during a mass evacuation? What are their roles?

    a. Before, during or after an emergency? (e.g., advocates/social workers, interpreters, care aides)?

7. How are people with disabilities included in the development and administration of shelter plans?

8. What post-shelter review processes take place that you are aware of? Are people with disabilities involved in that process?

9. How is safety and security managed in emergency shelters?

10. Do you know where existing emergency shelters are in Halifax Regional Municipality?
   a. If you don't know where the shelters are, where would you look? Who would you contact to find out where to go or to direct people to?

11. If Halifax Regional Municipality had to be evacuated, where do you think people would/should people go? Why?
   a. Surrounding municipalities, communities, and counties (which ones?)
   b. Existing spaces - churches, hospitals, schools (most likely to be converted?)
   c. Open spaces used as emergency shelters (possibility here?)

12. Can you describe what may be distinct about emergency sheltering in Halifax Regional Municipality and surrounding communities, compared to other places?

C. **Disability and Accessibility**
   13. What are the key issues related to emergency sheltering for people with disabilities?

   14. How do people get to shelters, or to places where their access to transportation to shelters would be facilitated?
      a. How are people with disabilities identified, located, or supported? Who is responsible for locating them and using what methods (e.g., a pre-registration process)?

   15. What barriers exist to emergency sheltering for people with disabilities in Halifax Regional Municipality?

   16. What opportunities exist to emergency sheltering for people with disabilities in Halifax Regional Municipality?

   17. Who are the people that staff shelters during an emergency? How are they trained to meet the needs of persons with disabilities?
      a) Do you feel that you are personally well equipped to provide support for people with disabilities during the sheltering phase of an evacuation?
      b) If not, what would you need to feel more confident?
      c) Do you feel your organization is prepared and able to support people with disabilities during sheltering?

18. What emergency preparedness advice do you give people with disabilities should they ever need to evacuate to a shelter?

19. What resources or supports are available to help people with disabilities prepare for: Shelter in Place? Relocation to a shelter?

20. How are essential resources (food, water, etc.) typically distributed and allocated in emergency sheltering situations? Is resource distribution and allocation tailored to meet the access and functional needs of people with disabilities?

21. How are the medical needs of people with disabilities provided for in shelters?

   a. Who are the healthcare professionals that must be on-site?

   b. What medications or types of equipment are likely to be in short supply and how do you prepare for that?

   c. How do people with disabilities access essential medications while in a shelter?

22. How are the needs of service animals met in shelters? How are they included in shelter plans for people with disabilities?

23. How can people with disabilities and their families and/or care supports be prioritized in emergency sheltering planning and administration? What would that look like/involve?

24. What populations of people with disabilities are most at risk of neglect or harm in emergency sheltering? Why?

25. What are the characteristics of accessible emergency shelters?
   a. Characteristics that meet access needs?
   b. Characteristics that meet functional needs? (Communication, medical, independence)

D. **Promising Approaches and Practices**
   26. What legislation do you know of that exists to ensure that the needs of people with disabilities are met in shelters?

   27. Are there any examples of promising approaches and practices in emergency sheltering for people with disabilities? What makes them promising?
      a. i.e., examples of practices, policies, programs or services or places and spaces

   28. Are there any groups that you think should be engaged in sheltering decision-making that are currently left out? Who are they? Why should they be included?

29. Is there anything else related to emergency sheltering for people with disabilities you would like to share?

Appendix C

Table 1: CMIST Framework Examples of Individuals with Access and Functional Needs[12]

Use the CMIST framework as a tool for to meet the functional needs of the whole community that must be planned for, irrespective of specific diagnoses or status. These needs can and do overlap.

CMIST Framework	Examples of Individuals with Access and Functional Needs
Communication	Individuals who speak sign language, have limited English proficiency (LEP), or have limited ability to speak, see, hear, or understand. People with communication needs may have limited ability to hear announcements, see signs, understand messages, or verbalize their concerns.
Maintaining health	Individuals who require specific medications, supplies, services, durable medical equipment, electricity for life-maintaining equipment, breastfeeding, infant and child care, nutrition, etc. Early identification and planning for access and functional needs can help to reduce the negative impacts of a disaster on individuals' health, including the following: ■ Managing chronic health conditions ■ Minimizing preventable medical conditions ■ Avoiding worsening health status
Independence	Individuals who function independently with assistance from mobility devices or assistive technology, vision and communication aids, service animals, etc. Independence is the outcome of ensuring that a person's access and functional needs are addressed as long as they are not separated from their devices, assistive technology, service animals, etc.
Safety, support, self-determination[13]	Some individuals may ■ become separated from their caregivers and need additional personal care assistance; ■ experience higher levels of distress and need support for anxiety, psychological, or behavioral health needs; or ■ require a trauma-informed approach or support for personal safety. Early identification and planning for access and functional needs can help to reduce the negative impacts of a disaster on individuals' wellbeing. Some people may have lost caregiver assistance and require additional support; some may find difficulty with coping in a new or strange environment or with understanding or remembering; and some individuals may have experienced trauma or be victims of abuse.
Transportation	Individuals lack access to personal transportation or are unable to drive due to decreased or impaired mobility that may come with age and/or disability, temporary conditions, injury, or legal restriction. Disasters can significantly reduce transportation options, inhibiting individuals from accessing services, staying connected, seeking safe shelter, etc. Disaster planning requires coordination with mass transit and accessible transportation services providers.

Centers for Disease Control and Prevention (CDC). (2021). Access and Functional Needs Toolkit: Integrating a Community Partner Network to Inform Risk Communication Strategies. Atlanta, GA: U.S. Department of Health and Human Services (HHS).