ASSESSING THE DISABILITY FRIENDLINESS OF WINTER SIDEWALKS IN WINNIPEG, MANITOBA

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BACKGROUND

Safe and convenient mobility is a key aspect of freedom, but harsh winter conditions in cities like Winnipeg make it challenging, especially for people with disabilities (PWDs). PWDs, who are the largest minority group worldwide, represent over 15% of the global population. In Canada, 27% of people aged 15 and above have a disability, and 29% of Manitobans are affected. These figures highlight the need for infrastructure and services that addresses the needs of PWDs. Winnipeg has implemented a Snow Clearing and Ice Control policy for winter street and sidewalk maintenance. However, this policy has not yet made sidewalks fully accessible for PWDs. Making sidewalks disability-friendly is crucial for ensuring inclusive social and economic participation for all.

RESEARCH QUESTIONS

1. How accessible are sidewalks in Winnipeg during winter, specifically for PWDs?
2. What are the challenges PWDs face when using sidewalks in the winter?

METHODS

Data collection Methods, Tools and Analysis

1. The first research question was answered using a structured accessibility audit with an audit checklist. Four neighborhoods were selected according to the following criteria:
   a. Presence of sidewalks
   b. Access to Public Transit, and
   c. Population Density

Audit data was analyzed using the process in figure 1 below.

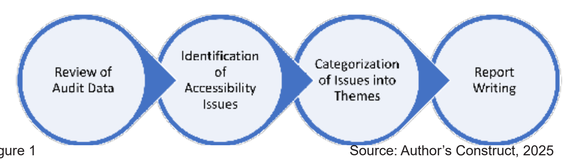

Figure 1 Source: Author's Construct, 2025

2. The second research question was answered using semi-structured interviews with and interview guide. A total of 8 particpants were interviewed.

In terms of data analysis, Braun and clarke (2006) Thematic Analysis (TA) approach was adopted. Figure 2 below shows the steps involved in the process.

Figure 2 Source: Braun and Clarke (2006)

FINDINGS & DISCUSSIONS

PHYSICAL BARRIERS AND MOBILITY CHALLENGES

> **Widespread Obstructions:** 64% of sidewalks were blocked by snow piles and 77% had icy, slippery conditions, making pedestrian navigation hazardous; tactile surfaces and curb ramps were often buried under snow, severely limiting accessibility for visually impaired and mobility device users.

Figure 3: Sidewalk covered with snow with sand applied - Edmonton Street

Figure 4: Sidewalk with Slippery Conditions - Lakewood Boulevard

> **Infrastructure & Mobility Support:** Pedestrian buttons were mostly inaccessible (86%), and sidewalk slopes became too steep due to snow buildup (68%), further complicating movement for those using wheelchairs or walkers.

Figure 5: Snow Pile at the Foot of a Pedestrian Crossing Pole - Lindenwood

Figure 6: Steep curb cut due to snow pile - York Street

> **Low Access to Key Destinations:** Only 27% of sidewalks to building entrances were cleared, and just 9% of bus stops and shelters were fairly accessible indicating major challenges for reaching essential services and transit.

Figure 7: Snow-free sidewalk at a Building Entrance - Broadway

Figure 8: Snow-free Bus Stop - Lakewood Boulevardd

> **Disproportionate Impact on PWDs:** People with disabilities are especially affected, facing heightened risks of injury from slips and falls due to snow and ice conditions widely recognized in research as key mobility barriers in winter environments.

IMPACT ON SOCIAL AND ECONOMIC PARTICIPATION

> **Mobility as a Right:** The ability to move freely is essential for social and economic inclusion, but winter conditions often strip this right from people with disabilities (PWDs).

> **Routine Disruption:** Many PWDs alter their routines in winter, becoming isolated to avoid unsafe sidewalks, which limits access to work, education, shopping, and social engagement.

> **Costly Alternatives:** Those who continue daily activities often rely on taxis, ride-hailing, or paratransit services that are frequently expensive, unreliable, or inaccessible.

> **Loss of Independence:** Winter imposes both a financial burden and a loss of personal autonomy, forcing many PWDs to depend on online services for basic needs.

Well, they go anywhere and everywhere. I mean, like anybody else in the community, they want to get out and be active so they can go anywhere from the gym to restaurants to malls...if they're unable to go there through walking or conventional transit. They would use the paratransit system or taxi which sometimes can be unreliable. (Interview Participant)

EMOTIONAL AND MENTAL HEALTH IMPACTS

> **Mental Health Strain:** Winter mobility challenges contribute to emotional distress among PWDs, including anxiety, fear, and depression linked to prolonged indoor confinement.

> **Isolation Risks:** Social isolation due to inaccessible sidewalks can lead to serious mental health issues and even increased mortality, as noted by research.

> **Sense of Neglect:** Many PWDs feel overlooked by city authorities, which reinforces feelings of abandonment and exclusion.

> **Fear of Injury:** Frequent slip-and-fall incidents among users of mobility aids and strollers discourage outdoor activity, adding to psychological stress.

Oh, absolutely. Like, I mean if blindness isn't your only concern than if you have mobility issues, there's fear and anxiety, risk of falling, depression, isolation, the inability to leave your house when you want to do the activities you want to do all of those things. (Interview Participant)

ADVOCACY WORK/EFFORTS

> **Active Advocacy:** Half of the participants are engaged in advocacy through the "Snow-plow Campaign," which promotes public reporting of poor sidewalk conditions via social media (Facebook and Instagram).

> **Limited City Response:** While the City of Winnipeg has taken some steps in response, ongoing budget constraints hinder more effective action.

RECOMMENDATIONS

» **Enforce Snow Clearing Policies:** Stricter enforcement of existing bylaws (e.g., 36-hour snow clearing rule) is essential to reduce prolonged sidewalk hazards and improve safety for PWDs, seniors, and caregivers.

» **Prioritize Bus Stops and Shelters:** Regular snow removal at bus stops and shelters is crucial to ensure safe, equitable transit access, particularly for people with mobility limitations.

» **Expand Downtown Skywalks:** Extending the skywalk system would provide safe, weather-protected walkways in winter, improving accessibility and connectivity in the city center.

» **Invest in Snow Melting Technologies:** Installing heated sidewalk systems offers a long-term, efficient solution to prevent snow and ice buildup, enhancing pedestrian safety and access in high-traffic areas.

CONCLUSION

What may seem like a minor inconvenience to some people such as an improperly cleared sidewalk becomes a daily barrier to PWDs, denying them independence, dignity, participation and connection.

This is a humble call to city authorities, advocacy groups, policy makers and the public on the need to start thinking and acting on making winter sidewalks disability friendly.