

The Council  
on Aging  
of Ottawa



Le Conseil sur  
le vieillissement  
d'Ottawa



# Snow Mole Report 2021:

## Winter Walking in Ottawa

Produced by:

**Age-Friendly Pedestrian Safety and Walkability Committee**

A sub-committee of the Ottawa Seniors Transportation Committee

Age  
Friendly  
Ottawa



Ottawa  
ville - amie  
des aînés

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# Introduction

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*...Saw someone help an elderly woman with a walker through the water, slush, snow ridge that had ice on the side. They got through slowly by the time I got there but the elderly woman's balance was not good, and the intersection was very dangerous.*

*Snow Mole 2021*

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## Prologue

The Council on Aging of Ottawa (COA) serves as a leading community voice for Ottawa's older adults (50+) and seniors. Our aim is to help Ottawa become more Age-Friendly by identifying and addressing issues and services that impact the lives of seniors. Walkability and pedestrian safety are a key area of concern.

The COA Age-Friendly Pedestrian Safety & Walkability Sub-committee (of the Ottawa Seniors Transportation Committee – OSTC) was established to raise awareness in the Ottawa community for Age-Friendly pedestrian safety and accessibility including those using mobility aids. It advocates for positive improvements to infrastructure and changes to city operations and policies by discussion, partnering, developing bilingual reports, and presentations.

This Sub-committee plans and implements an annual winter walkability audit project, called the Snow Mole Campaign. This is a unique and extensive project that encourages seniors and residents to walk in winter and report on the safety and accessibility of conditions in their neighbourhoods. Data, resident comments, and photos are collected and analyzed for three months from January to the end of March.

***How walkable is Ottawa in the winter?***

***61%***

*of respondents said they sometimes did not go outside for fear of falling.*

***Snow Mole Campaign 2021***



Snow Mole  
Photo

This document is the fourth annual Snow Mole Campaign's Final Report for 2021 that summarizes the data collected and key findings, offers a comparison with data collected during the 2020 and gives a list of recommendations to improve winter walking for Ottawa's older adults and those using mobility aids. The findings in this Final Report reinforce recommendations from previous years Snow Mole Reports.

Walkability and pedestrian safety in winter has been a priority of the COA since 2016. In 2019, we focused on winter walking through the Snow Mole campaign and piloted the use of an online tool to collect the data in addition to paper-based audit tools. For more information on results and recommendations from previous years, go to:

[\*Snow Mole Report 2020: Winter Walking in Ottawa\*](#)

[\*Snow Mole Report 2019: Winter Walking in Ottawa\*](#)

[\*WALK ON! Age-Friendly Walkability Progress Report 2018: Safe Streets for Seniors and Other Valuable Pedestrians in Ottawa\*](#)

[\*Age-Friendly Walkability Progress Report 2017: Safe Streets for Seniors and other Valuable Pedestrians in Ottawa\*](#)

[\*An Age-Friendly Walkability Report 2016: Safe Streets for Seniors & Other Valuable People in Ottawa\*](#)

## **The Value of the Annual Snow Mole Campaign**

This annual project offers the voice of residents, particularly older adults, and other vulnerable pedestrians, on winter walkability based on "boots on the ground" information they themselves collect. The 2021 Snow Mole Campaign and Final Report once again alerts the City and community to how age-friendly and accessible the city truly is in the winter.

The City's Older Adult Plan, Action Plan 2020-2022 includes actions to apply an older adult lens to review of the City's Winter Maintenance Quality Standards (WMQS); improve the safety condition of sidewalks in areas highly frequented by older adults; and make improvements in accessibility to public transit and explore actions to improve mobility of older adults. The City's New Official Plan (due for Council vote in Fall 2021) promotes the concept of "15-minute neighbourhoods": inclusive, walkable neighbourhoods where daily and weekly needs can be accessed within a 15-minute walk.

These actions and objectives must be realized, and pedestrian barriers and safety hazards must be reduced during the winter months, to achieve an age-friendly city that puts pedestrians before vehicles and makes the city safe and accessible for seniors and other vulnerable pedestrians during all seasons.



## Campaign 2021 – Substantial Data and Academic Interest

Thanks to the dedicated volunteers and promotional support, resident participation in this year's Campaign was the highest ever, with 323 audits submitted by residents that captured approximately 1,200 open-ended comments and over 100 photos. Older adults really wanted to be heard this year – the 65 years of age or older group accounted for 64% of the audits that were submitted.

This year's Snow Mole Campaign was even more important as the City of Ottawa launched its public engagement in November 2020 on review of the City's Winter Maintenance Quality Standards (WMQS), a key recommendation in the [\*Age-Friendly Walkability Progress Report 2017: Safe Streets for Seniors and other Valuable Pedestrians in Ottawa\*](#). In support of this Review, the Campaign provided bi-weekly Snow Mole Campaign data findings and analysis summaries to the City of Ottawa's WMQS Review office.

The 2021 Snow Mole Campaign attracted significant academic interest this year:

- COA - Carleton University partnership: Carleton's School of Social Work, Advanced Community Practice Class Snow Mole class project that netted additional walkability audit data and student perspective on the impact of winter conditions on older adults and those using mobility devices
- Involvement in research carried out by students in the University of Guelph's Planning Foundations course, and featured in their report "Planning for Active Transportation in Aging Communities"
- Involvement in development of WalkRollMap.org, a crowd-sourced map of pedestrian barriers, a joint project between the University of Victoria, Simon Fraser University, and Memorial University that was supported by funding from the Public Health Agency of Canada

## Acknowledgements

Thank you to all the volunteer Snow Moles in Ottawa who participated and took the time to complete the audit questionnaires on their experiences. This year we had 22 volunteer Community Leaders from across urban, suburban, and rural areas of Ottawa who promoted the Campaign and encouraged neighbours, family, and friends to participate. A special thank you goes to all the Snow Mole Leaders.

Thank you to Ali Rezayee, Health Sciences student at Carleton University, who volunteered to work with the Sub-committee, recording and analyzing collected data. He created bi-weekly reports that included analysis of incoming data from the online audit survey, resident comments, photos and the location of completed audits. Thanks to Ali, these reports were shared with the WMQS Review on a timely basis to supplement the City's efforts to gather resident input for the Review. He also produced an excellent summary report at the end of the Campaign.

Thank you to the volunteer members of the Age-Friendly Pedestrian Safety & Walkability Committee for their continued enthusiasm for this project: Janet Luloff (Chair), Dianne Breton (Past Chair), John Woodhouse, Les Whitney, Alton Legault, Linda Paul, Mary Gick, Ali Rezayee, Bonnie Schroeder (Director, Age-Friendly Ottawa), and representatives from the City of Ottawa, Bryden Denyes (Public Works –Environmental Services), Anna Valliant and Sandra Majic (Planning, Infrastructure & Economic Development), Paula Bernal and Rob Wilkinson (Safer Roads Ottawa).

Special mention and thank you goes to Dianne Breton, Mary Gick, and Ali Rezayee on revising the 2020 questionnaire for 2021, and Alton Legault, for the translation of all Snow Mole documents for the Campaign including the 2021 online audit questionnaire and this report.

The Campaign's success can also be attributed to the Mayor and City Councillors' promotional support through their websites and social media, with special mention to Councillor Laura Dudas who carried out an audit.

## Walking in a Winter Blunderland

Ottawa is a beautiful city that enjoys four seasons, with winter being the longest and the most challenging for pedestrians. Navigating across, over and around snow, ice, slush, snow windrows and puddles can be difficult or impossible. Swings in temperatures cause freeze-thaw cycles and create ice buildup on sidewalks, pathways, and roads.

Winter conditions can make winter walking dangerous – particularly for older people and those using mobility aids. Older adults can become housebound and socially isolated in the winter months, fearful of falling on ice and unable to climb over high snowbanks. People using wheelchairs and walkers as well as mothers pushing strollers are challenged by narrow sloping sidewalks, snow windrows and curb cuts covered by ice.

In an average year, there may be as many as 500 to 600 emergency department visits per month due to falls on ice and snow. Older people are most likely to be hospitalized after a fall, with broken bones and other injuries that can lead to a loss of independence, increasing frailty, a fear of walking outside and increased isolation, moving to an assisted living facility and even death.

Uncleared areas around pedestrian crosswalk buttons at intersections and at bus stops/LTR stations pose additional mobility and accessibility barriers and hazards for pedestrians who need to use public transit. Inaccessible and uncleared benches, particularly at bus stops, further impact older adults and other vulnerable pedestrians.

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***There is too much snow  
and/or ice on the  
sidewalk to safety walk,  
or to push my stroller,  
walker or wheelchair.***

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***Snow Mole comment  
and photo 2021***



## Snow Mole Voices, 2017 - 2021

Going for a walk or getting to where you want to go in Ottawa's winter months can be a challenge, especially for older residents, those using mobility aids or young children. Climate change has increased the variability of temperatures, causing more frequent freeze-thaw cycles and ice build up on sidewalks, pathways, and streets. Pedestrian safety has become dependent on the ability of the city to keep walking surfaces clear, with the goal of bare pavement.

The Snow Mole Campaign was begun to accumulate on-the-ground real data on how Ottawa pedestrians were coping with regular winter walking in their neighbourhoods. To record those experiences, a short online and paper survey/audit was developed in 2016 and named the Snow Mole Campaign to identify with winter moles who burrow under the snow for safety, as well as 'mole' agents who work undercover to collect important evidence.

The most important part of the Campaign has always been the Snow Moles themselves. They are the volunteer winter walkers who complete the audits, add comments and photos, and tell the story of their experience getting around on a winter day. Their voices have been worth listening to.

An ongoing collaboration with the city's Public Works and Environmental Services Department meant that collected data would be shared with them to help improve snow clearing practices. There was a keen interest in advocating for changes to the longstanding policies governing snow clearance standards. The Winter Maintenance Quality Standards (WMQS), approved by City Council in 2003, was overdue for review and changes to emphasize putting pedestrians first.

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***The top priority is safety for pedestrians, especially the elderly and people who use mobility devices.***

***It's so important, particularly in this year with COVID, that people feel encouraged to go out and walk in the winter.***

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***Dianne Breton  
The Ottawa Citizen  
February 18<sup>th</sup>, 2021***



*Dianne Breton  
Snow Mole Community Leader  
Photo: Ottawa Citizen*



The Campaign had a slow start within the city core, but with each winter the Snow Mole capacity grew to include suburbs, rural areas as well as the urban centre. Community Leaders in different parts of the city encouraged local Snow Moles to complete audits and give voice to their experiences.

An annual *Snow Mole Report – Winter Walking in Ottawa*, with clear recommendations to the city, was published by The Council on Aging and available online.

Media coverage of Snow Mole activities was widespread and included community and local papers as well as interviews, magazines, and presentations at conferences. The 2020 Report showed cumulative data supporting putting “pedestrians first” in the city’s snow clearing policies.

In 2021, the city is completing the long-awaited review of the WMQS. Snow Moles hope that their accumulated winter walking data and recommendations will have a positive impact on the decisions that are proposed to City Council.



Snow Mole Photo 2020

# The Snow Mole Campaign 2021

## Methodology

The 2021 Snow Mole Campaign was launched at a well-attended **virtual community event** hosted by the Council on Aging (COA) on **December 4, 2020**, with presentations from the City of Ottawa on the winter maintenance and the WMQS Review; the health and mental benefits of walking and safe walking during COVID-19; COA's Safe Winter Walking Tips; the 2021 Snow Mole Campaign and how to participate; and the role of Snow Mole Community Leaders.



The Council on Aging of Ottawa

Le Conseil sur le vieillissement d'Ottawa

Worried about Winter Walking?  
Join the Snow Mole Patrol

Friday, December 4  
Presented by the COA Age-Friendly Pedestrian Safety and Walkability Sub-Committee

COA online

In conjunction with the launch, the **bilingual online survey audit questionnaire** consisting of 19 questions (using Survey Monkey for data and comment entry) was made available on the COA web site for use starting on January 1, 2021. This questionnaire was designed to be used in several ways: completion online directly on the COA's web site; downloadable to a smart phone for completion and submission; and, downloadable for paper printing, completion, and submission to the COA by Canada

Post mail. An option for submitting photos of conditions encountered during walkability audits was also made available.

Following the December 2020 launch outreach and **promotion** to spread awareness and spark participation was expanded, and included:

- outreach to the Mayor and City Councillors seeking promotional support through their websites and social media and newsletters and inviting them to participate
- presentation at Ward 2 Councillor Laura Dudas' virtual Town Hall meeting with residents in November 2020
- interviews and articles in news media including *Radio-Canada*, *The Buzz*, *Ottawa Citizen*, *New Edinburgh News* and *The Mainstreeter*
- presentations to community groups such as the *Federation of Citizen's Associations* and the *Sandy Hill Seniors Network*
- support from local associations who posted the information on their websites and social media networks, like MIFO and The Royal Canadian Legion Orleans Branch 632 who informed and invited their members to participate via their newsletter and website.

### ***Spreading the word!***



The COA promoted the Campaign and shout-out for volunteer Snow Moles through its **INFO-FLASH** newsletter and on **Facebook** ([www.facebook.com/coaottawa](https://www.facebook.com/coaottawa)) and promoted a Ground Hog Day Snow Mole Blitz for February 2, 2021.

## Snow Mole Community Leaders

A key pillar for encouraging resident participation across the City of Ottawa was a group of **22 Community Leaders**.

In addition to carrying out audits themselves, these Leaders volunteered their time to promote participation in the Campaign widely across **City of Ottawa urban, suburban, and rural areas** through their networks of community contacts, neighbours, family, and friends.

Older adults, children and those using mobility aids were especially encouraged to become Snow Moles.

Dianne Breton, member of the Age-Friendly Pedestrian Safety & Walkability Sub-committee was the Community Leader champion, keeping them supported and informed on data results and specific issues raised in their communities throughout the Campaign.

Community	Leader
Glebe	Mary Gick
Carp	Margaret Dunn
Centrepont (Nepean)	Les Witney
Centretown	Miriam Levitt & Sandra Stec
Crystal Bay	Kathy Riley
Cumberland	Ardyth Riley
Fisher Heights	Jayne Belanger
Glebe	Mary Gick
Hintonburg	Cheryl Parrott
Kanata North (Beaverbrook)	Julie Gourley
Kanata South (Bridlewood)	Annette Keough
Kinburn (West Carleton)	Mary Porritt
Lowertown	John Woodhouse
New Edinburgh	Ann Moore
Old Ottawa East	Dianne Breton
Old Ottawa South	Anna Cuylits
Orléans	Alton Legault & Janet Luloff
Overbrook	Carole Larose
South Keys	Jennifer Brooks
Westboro	Sally Scott



**Bilingual guidance material** was developed for Community Leaders to support their role, and a bilingual Fact Sheet on participating in the Campaign was made available on the COA's website for anyone wishing to carry out walkability audits. This material included information on how to complete and submit audits, contact information for questions or additional translation needs, and information on safe walking during the pandemic.

**The Campaign ran from January 1 to March 31, 2021.** Throughout the Campaign data coming into the COA was summarized and analyzed into weekly reports that included the location of audits, comments, and photos. Bi-weekly summaries were provided to the WMQS Review office.

A cumulative **data analysis** report was completed in early April 2021 that showed common trends, numerical data, photos, and personal experiences demonstrating the impact of winter weather and snow clearing on pedestrians from across the city. This was also shared with the WMQS Review office and forms the basis of the findings and recommendations outlined in this report.

### **COA – Carleton University Partnership**

The 2021 Campaign benefited from a partnership organized by Bonnie Schroder, Director Age-Friendly Ottawa and Associate Professor Dennis Kao from Carleton University's School of Social Work. Dennis Kao assigned the 2021 Campaign to his Advanced Community Practice Class as a project. The goal of this class is to introduce students to public policies, advanced theories, methods, techniques, and skills for engaging in community-based practice. Special mention to Alton Legault, a member of the Age-Friendly Pedestrian Safety & Walkability Sub-committee and Ali Rezayee who helped launch the work of Associate Professor Kao's class with a presentation and discussion event.

The Snow Mole Campaign gave students the opportunity to be directly involved in community engagement and advocacy and use of a community practice tool. In turn, the 2021 Campaign benefited from insight from students on data visualization, geo mapping and presentation of community issues. Students carried out 99 audits using the COA's survey audit questionnaire wherever they were physically located for remote learning, including some locations in other cities outside of Ontario. These audits were not included in the Snow Mole Campaign data analysis because of difference in methodology, timing, and geographic scope.

Nonetheless, this partnership set the stage for future collaboration between the COA and Carleton University. The COA and Age-Friendly Pedestrian Safety & Walkability Sub-committee greatly appreciate the students' work and contribution to identifying the impact of winter conditions on older adults and those using mobility devices.



## 2021 Snow Mole Findings

### Overview

This section outlines the data analysis and key barriers and safety hazards identified during the 2021 Campaign.

The 2021 Campaign results underscore that certain barriers and safety hazards to pedestrians persist from previous Campaigns. To stress this, the next section on page 23 provides a comparison of 2020 versus 2021 Campaign data.

### Key barriers and safety hazards identified in 2021:

- Too much ice/snow to walk safely to reach destinations
- High snowbanks and poor clearing at intersections and where walkway areas connect to streets and roads
- The need to walk on streets and roads due to lack of sidewalks or uncleared sidewalks
- Ice accumulation from thaw-freeze cycles
- Inaccessible bench seating and lack of benches
- Poorly cleared public transit stops and shelters
- Fear of falling continues to cause people to stay inside



Photos submitted by  
Snow Moles, 2021

## Key Findings – 2021: Audit Questionnaire Results

### *Demographics of Snow Moles*

- 64% were over the age of 65
- 8% used a mobility aid
- 67% identified as female and 31% as male
- 39% used ice grips on their boots and 19% used walking poles

### *Overall Conditions:*

- 52% reported too much snow or ice to walk safely on a sidewalk, path or road
- 34% stated they were not able to walk to and from their destination easily and safely
- 69% walked on a street or road
  - Reasons:
    - 50% - no sidewalk or pedestrian path
    - 38% - more space for social distancing
    - 33% - too much snow/ice on the sidewalk
    - 29% - street or road had been plowed and was safer to walk on
- 46% state there was NO available bench seating to rest

This year's campaign also highlighted the impact of infrastructure design and winter maintenance on safe walking and maintaining physical distancing during the **COVID-19 pandemic**. This year, there were more comments from audit respondents on the need to walk on the road or move into deeper snow to maintain safe distance from other pedestrians.

**323**

*snow mole audits submitted*

**1,256**

*open-ended comments received with audits*

**104**

*photos submitted with audits*

*Snow Mole Campaign 2021*

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***“When we had to move off the sidewalk or pathway to allow another person to pass because it was too narrow, we were forced to walk into deeper snow on the sides of the sidewalk and path.”***

*Snow Mole 2021*

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## Audit Routes with LRT/Bus Stops:

- 22% stated there was snow/ice blocking the LTR/bus stop
- 19% stated the bus would NOT be able to lower a ramp for people with mobility aids
- 61% stated that the bench seating at the LRT/bus stop was NOT clear of ice/snow

## Intersections:

- 29% stated they could NOT reach the pedestrian walk button
- 33% of those using intersections reported that the curb and street were not clear enough to cross the street safely



*Photo submitted by  
Snow Mole 2021*

## Falls:

- 61% stated that fear of falling keeps them from going out to walk
- 4% stated that they fell during their audit
  - Some reasons & results reported:
    - *"The sidewalk looked okay but was covered with light snow. I walked on it and discovered it was pure ice, fell and broke my ankle in 2 places" ... "When my husband came to meet me, he fell as well, but was okay. We called the ambulance from there."*
    - *"Myself and two children all fell at least once during the walk."*
    - *"Could not climb the snowbank easily – too slippery. Had to climb in on my hands and knees after I fell."*

## Overview

**323** audits

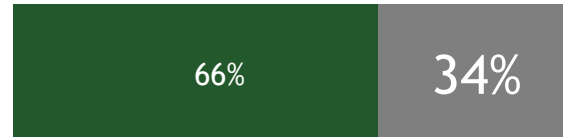
**320** reported locations divided into  
**11** greater regions

**61%** stated the fear of falling keeps them  
from going out to walk

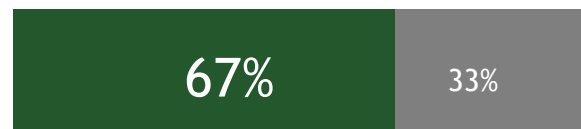
**34%** were not able to reach their  
destination safely

**104** submitted photos and **1254**  
open-ended comments

I was able to walk easily and safely:



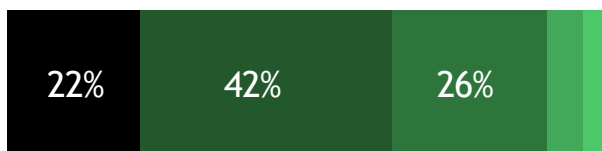
There were high snowbanks:



■ Yes ■ No

## Demographics

**64%** were over the age of **65**



■ 75+ ■ 65-74 ■ 45-64 ■ 21-44 ■ 13-20 ■ 1-12



**67%** were female



**6%** walked with children  
**3%** used a stroller



**71%** walked alone

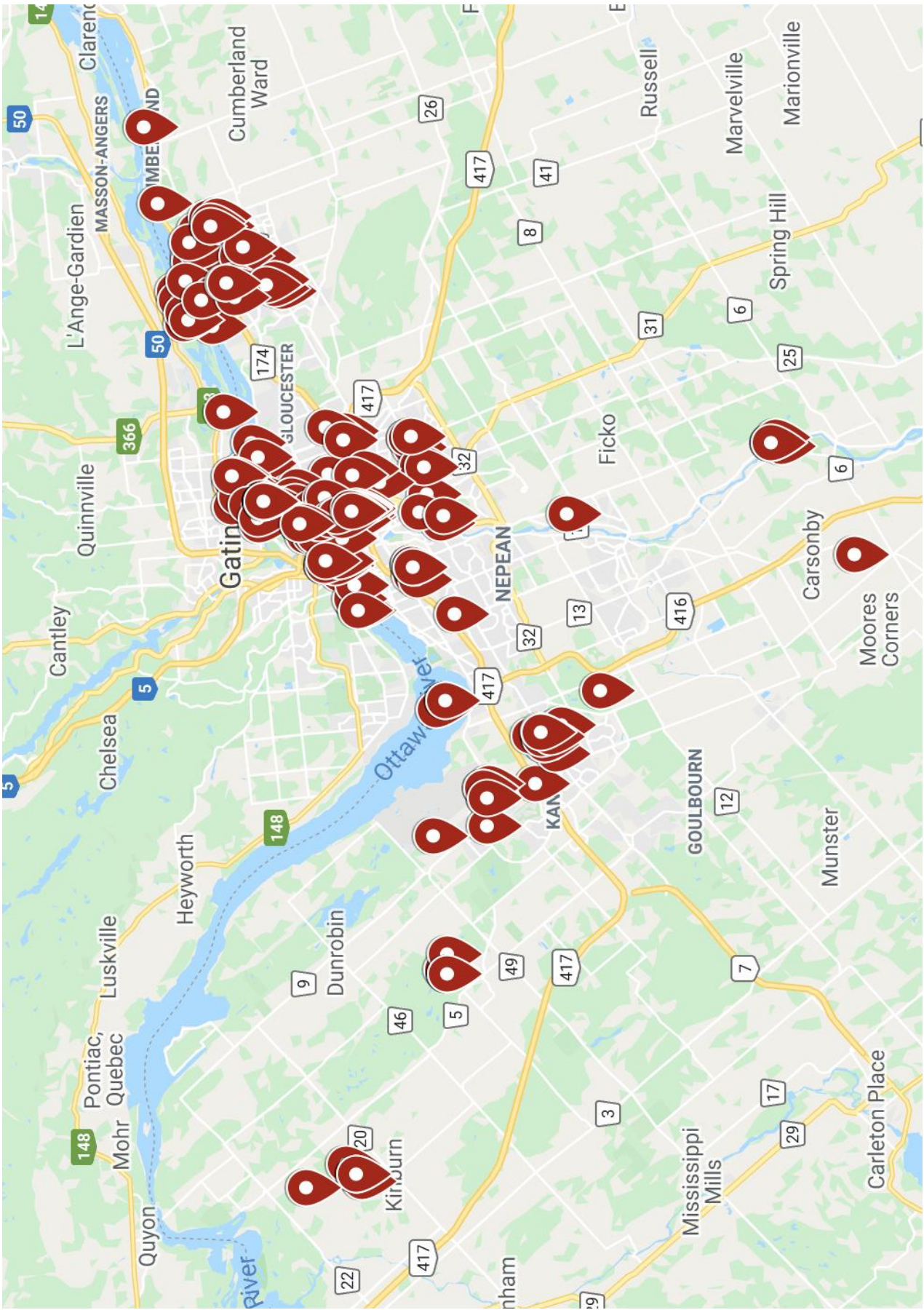


**8%** used a mobility aid  
**39%** used ice grips  
**19%** used walking poles





Reported Locations:





## Timing of Most Recent Weather Event

**32%** stated that the most recent winter weather event occurred *yesterday*  
**25%** stated *more than 2 days ago*

Specify the timing of the most recent weather event:



■ Now ■ Earlier today ■ Yesterday ■ 2 days ago ■ More than 2 days ago

## Type of Path

**88%** walked on sidewalks  
**69%** walked on a street/road

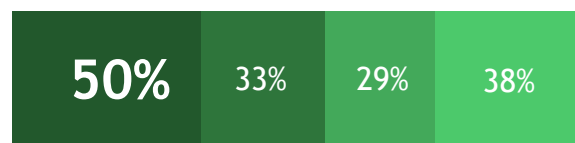
Type of path:



■ a sidewalk ■ a street or road ■ a pathway

**50%** walked on a street/road because  
*there was no sidewalk  
or pedestrian path*

Reason for walking on a street/road:



■ No sidewalk or pedestrian path  
 ■ Too much snow/ice to walk safely  
 ■ Road/street has been plowed and is safer to walk on  
 ■ More space for COVID distancing

## Surface Conditions

**52%** of participants stated of participants stated *there is too much ice/snow to walk safely*



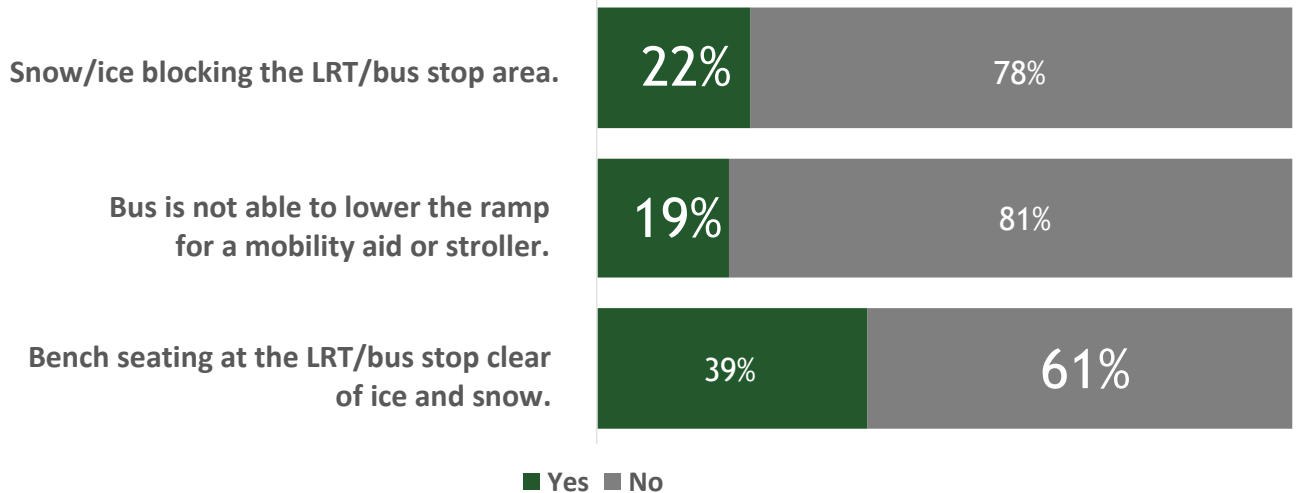
## Intersections and Crosswalks

Of the **80%** who used a crosswalk or intersection, there were the following *challenges*



## LRT/Bus Stops

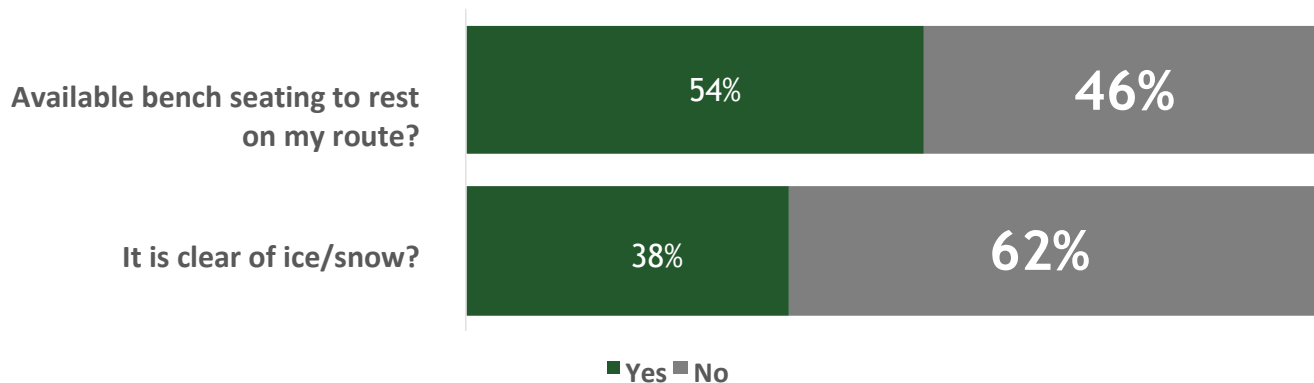
Of the **70%** who had an LRT/bus stop on their route, there were the following *challenges*



## Bench Seating

**46%** stated there was *no available bench seating on their route*

**62%** stated that their bench seating was *not clear of ice/snow*

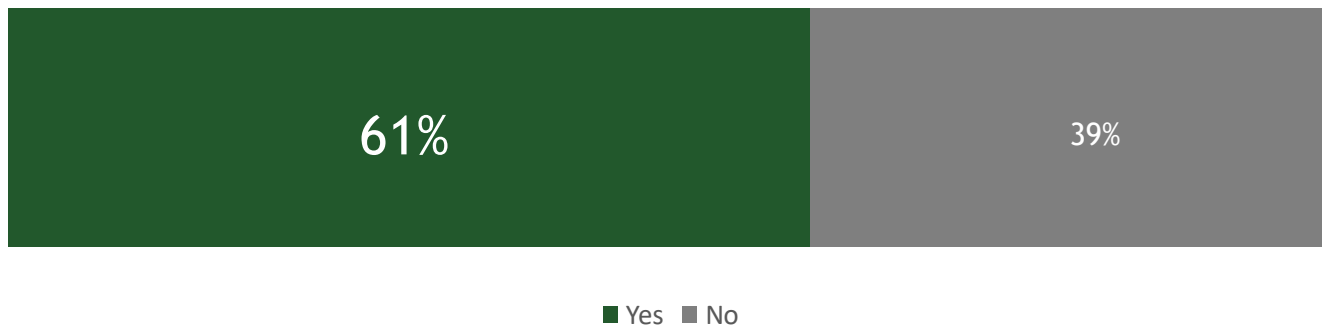


## Falls

**61%** stated *the fear of falling keeps them from going out to walk*

**4%** fell while completing their audits  
**1** participant visited the emergency room

Does the fear of falling keep you from going out to walk?



### Health and Cost Impacts of Snow and Ice

(Extracts from: Acting Medical Officer of Health Staff Report for Action on Preventing Injuries from Wintertime Slips and Falls in Toronto, October 14, 2016)

***“The presence of snow and ice can reduce the known health benefits associated with walking.”***

***“As well as reducing opportunities for physical activity, low walkability can lead to social isolation for people who cannot go out.”***

***“In addition to older adults, there may be other groups who also experience isolation when snow and ice make walking more difficult...”***

***“For the fiscal year 2014/2015, the Ontario Case Costing database indicates that acute inpatient costs from falls on snow or ice averaged about \$10,000 per hospitalization.”***

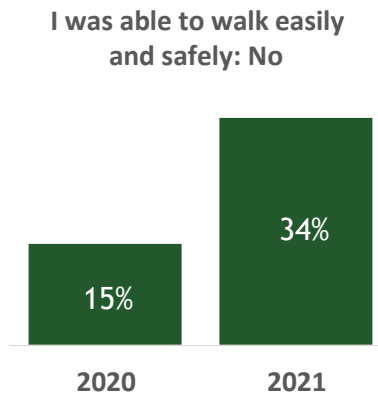
## 2020 versus 2021 Snow Mole Campaign

**65%**

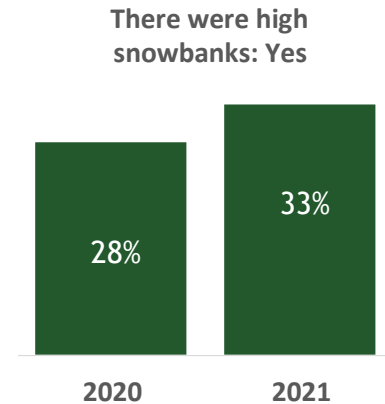
increase in audits in 2021



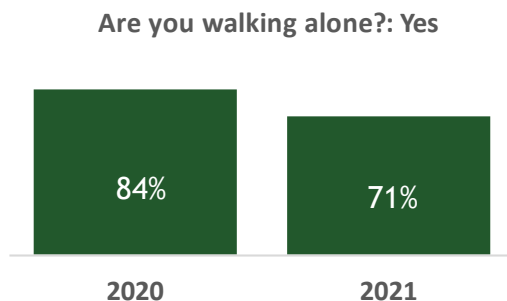
More participants were *unable to walk easily and safely* in 2021



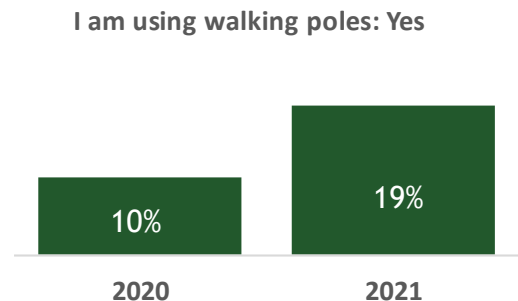
A similar percentage reported *high snowbanks* in 2020 and 2021



**Fewer** participants *walked alone* in 2021



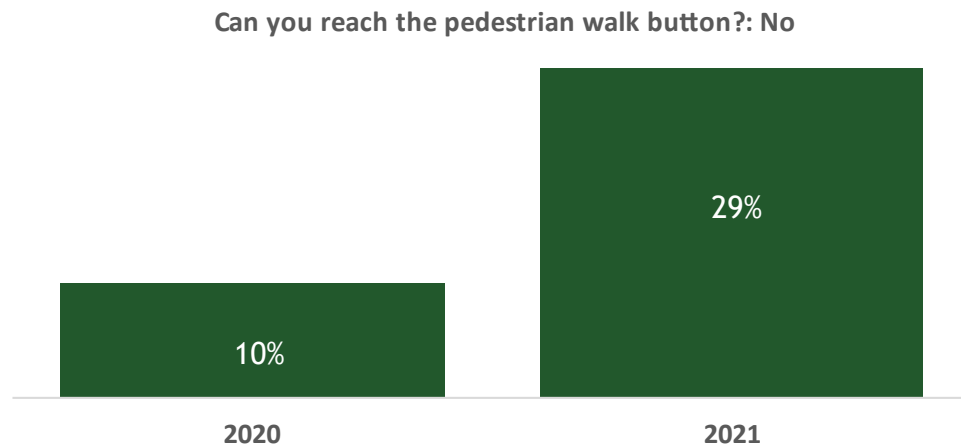
**More** participants completed their audits *using walking poles* in 2021



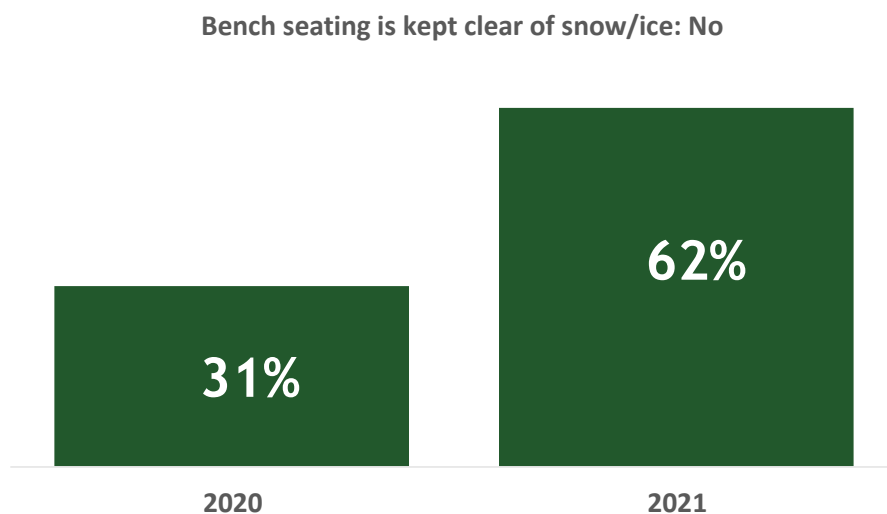
The following remained relatively unchanged: language of completion, age, gender, walking with children, use of a stroller, timing of the most recent weather event, use of mobility aid, use of ice grips



**More** participants *could not reach the pedestrian walk button* in 2021



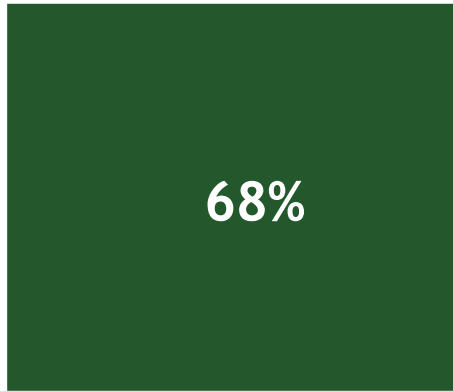
**More** participants stated bench seating was  
*Not kept clear of snow and ice* in 2021



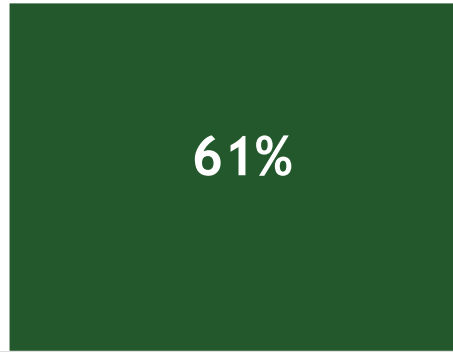
A similar percentage reported

## ***fear of falling keeps them from going out to walk***

Does the fear of falling keep you from going out to walk?: Yes



2020



2021



## Recommendations

The following recommendations are based on based on the data, comments and photos submitted during the 2021 Snow Mole Campaign and a comparison to the 2020 Snow Mole Campaign, providing direction for increasing mobility, reducing barriers and safety hazards, enhancing inclusivity, and reducing falls and injuries.

While some audits noted an improvement in sidewalk clearing in some areas compared to the 2019/2020 winter, it was evident even half-way through the 2021 Campaign that certain barriers and safety hazards persist in 2021. For this reason, five recommendations from the Snow Mole Report 2020 (<https://coaottawa.ca/snow-mole-report-2020-winter-walking-in-ottawa>) are repeated.

### ***Previous recommendations that remain relevant in 2021:***

1. **Prioritize** safety and put pedestrians first in city snow clearance from Class B (snow packed) to Class A (bare pavement) on high density residential sidewalks.
2. **Ensure** that annual training of sidewalk plow operators includes awareness of the high importance of key issues related to safety (especially for senior pedestrians, those using mobility aids, and children).
3. **Remove** snowbanks on residential streets before they become hazardous to pedestrians; and before thawing and freezing into ice buildup that is difficult to remove and dangerous to walk on.
4. **Plow** to connect sidewalks to transit stops, corners and curbs to pedestrian crossings and residential streets to pathways.
5. **Implement** solutions to ice build-up problems due to plowing and freeze-thaw cycles (i.e.: mapping of residential street drain locations by Ward and ensure that drains are kept clear).

### ***Additional recommendations:***

6. **Improve** safety and accessibility at public transit stops and shelters by clearing them of snow and ice, including bench seating at transit stops.
7. **Ensure** that benches along sidewalks and pathways are accessible and cleared of snow and ice.
8. **Increase** the frequency of applying salt, grit, and sand to streets and sidewalks, especially during thaw-freeze cycles.
9. **Repair** damaged sidewalk and intersection infrastructure during non-winter months to reduce pedestrian hazards during all seasons and support winter maintenance efforts.
10. **Improve** safe, walkable access in the winter to day-to-day needs, including community amenities, public transit stops, through timely and improved maintenance with specific attention to areas connecting seniors' residences, medical facilities, and schools.



11. **Improve opportunities for safe, healthy activity by clearing** more pathways to and through city parks and pathways during the winter months.
12. **Assess the performance** of winter maintenance standards, on an on-going basis, in improving pedestrian safety and increasing walkability during the winter months:
  - a. by using pedestrian-related walkability metrics and other safety indicators such as injuries, vehicle and pedestrian collisions and claims, and
  - b. through improved data collection, sharing and collaboration amongst City departments and agencies.



## Conclusion

The COA Snow Mole Project and the 2021 Campaign have given a clear voice to Ottawa pedestrians, mostly older adults, who are seldom heard about the barriers and safety hazards they face in getting around in the winter.

The barriers and safety hazards described in the 2021 Campaign are consistent with those identified in the past four Snow Mole Campaigns. These include inaccessible crosswalks, pedestrian walk buttons and bus stops, impassable intersections and routes to parks and community centres, ice hazards and fear of falling. The data collected during the 2021 Campaign from across Ottawa clearly shows that specific changes are needed to the current winter maintenance operations and standards, with adequate budgeting, if the city expects to achieve its goals for older adults, walkability, and accessibility.

The challenges and serious impacts of winter weather on Ottawa pedestrians, especially on older populations and those using mobility aids, must be recognized and action taken.

The COA is pleased that the City of Ottawa initiated the Winter Maintenance Quality Standards (WMQS) Review. The COA hopes that the City of Ottawa will use the bi-weekly data analysis of 2021 snow mole audits that was provided to the Winter Maintenance Quality Standards (WMQS) Review. Moreover, the COA encourages the City to address the recommendations in this Final Report in developing changes to winter maintenance standards.

The older adult demographic has been forecasted for continued growth over the period covered by the City's New Official Plan. The climate is changing more quickly than expected with unknown consequences for extremes in winter weather patterns, resulting in increasing difficulties for pedestrians. Ottawa is a winter city, and priority must be given to the safety of pedestrians, particularly the most vulnerable, who are often fearful of leaving their homes and falling on icy streets.

There is work to be done for Ottawa to truly be an age-friendly city that makes winter walking safe and inclusive. Action on the recommendations in this report would ensure positive changes that will make our winter city both safe and accessible for pedestrians in all seasons.





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• ————— •  
**THANK YOU!**  
**SNOW MOLES 2020**  
• ————— •





# SNOW MOLE Questionnaire 2021

## Age-Friendly Winter Walkability and Pedestrian Safety Audits for Seniors and Other Valuable Vulnerable Pedestrians

**SNOW MOLES** are volunteers who report on what it is like to walk outside on a winter day. You are invited to ensure healthy, accessible, and safe winter walking conditions in Ottawa, by becoming a **SNOW MOLE** and completing a Winter Walkability and Pedestrian Safety Audit.

Your answers will be part of a **2021 Winter Walking in Ottawa – Snow Mole Report** shared with the City of Ottawa for their review of the city's Winter Maintenance Standards.

### A. Instructions for Age-Friendly Ottawa SNOW MOLES

1. **Pick a time of day** when you are going out for an errand, for exercise or enjoyment, preferably a day or two after winter weather (e.g., snow, freezing rain).
2. **Pick a typical destination** (e.g., school, grocery or drug store, bank, transit stop), **or route for exercise or enjoyment**. If possible, walk with someone to be safe and respect social distancing during the pandemic.
3. **Use the Snow Mole questionnaire** to audit your walk. **Feel free to take and submit photos**.
4. **Complete the questionnaire** online ([www.coaottawa.ca/snowmoles](http://www.coaottawa.ca/snowmoles)) or mail it to: The Council on Aging of Ottawa, boul. 217 – 815 St. Laurent Blvd., Ottawa, Ontario K1K 3A7.
5. Your completed questionnaire is most useful to us if you choose one of the responses given for each question. If none of the responses fit perfectly for you, please choose the response that most closely matches your answer and add comments to clarify.

### B. Questions about your winter walk and conditions (Please check and complete as appropriate)

Date (day/month/year): \_\_\_\_\_ Time of day: \_\_\_\_ a.m. \_\_\_\_ p.m. \_\_\_\_\_

Are you walking alone?: Yes \_\_\_\_ No \_\_\_\_

Are there children with you? Yes \_\_\_\_ No \_\_\_\_ If yes, do you have a stroller? Yes \_\_\_\_ No \_\_\_\_

Specify the timing of the most recent winter weather event (e.g., snow, freezing rain):

A) Now \_\_\_\_ B) Earlier today \_\_\_\_ C) Yesterday \_\_\_\_ D) 2 days ago \_\_\_\_ E) More than 2 days ago \_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Neighbourhood of walk audit (e.g., Glebe, Kanata, Orleans) \_\_\_\_\_

Names of any main streets on your route: \_\_\_\_\_

Names of any residential/side streets on your route: \_\_\_\_\_

**C. Snow Mole Checklist: (Please check as appropriate and feel free to add comments)**

1. I was able to walk to and from my destination easily and safely. Yes \_\_\_ No \_\_\_

2. On your walk today, are you walking on (please check all that apply):

a) a sidewalk \_\_\_ b) a pathway (e.g., multi-use pathway, or a footbridge) \_\_\_ c) a street or road \_\_\_

Comments: \_\_\_\_\_

3. If you are walking on a street or road, it is because (please check all that apply):

a) there is no sidewalk or pedestrian path \_\_\_\_\_

b) there is too much snow and/or ice on the sidewalk to safely walk, or to push my stroller, walker, or wheelchair \_\_\_\_\_

c) the road/street has been plowed and is safer to walk on \_\_\_

d) there is more space for COVID distancing on the road/street \_\_\_\_\_

Comments: \_\_\_\_\_

4. Please answer the following:

a) As part of your walk, are you using a crosswalk or intersection to cross the street? Yes \_\_\_ No \_\_\_

b) If **yes**, if there is a pedestrian walk button, can you reach it easily? Yes \_\_\_ No \_\_\_

c) If **yes**, do you have enough time to cross the street safely? Yes \_\_\_ No \_\_\_

d) If **yes**, are the **curb and street** clear enough of snow and ice that you can cross the street safely?

Yes \_\_\_ No \_\_\_

Comments: \_\_\_\_\_

5. Indicate the state of the surface of the sidewalk, path or road you are walking on:

a) it is clear of snow/ice down to bare pavement Yes \_\_\_ No \_\_\_

b) the surface has been plowed, there is packed snow and it is safe to walk on Yes \_\_\_ No \_\_\_

c) there is too much snow or ice to walk safely on it Yes \_\_\_ No \_\_\_

Comments: \_\_\_\_\_

6. Please answer the following:

a) There is an LRT/Bus Stop on my route today. Yes \_\_\_ No \_\_\_

b) If **yes**, there is snow/ice blocking the LRT/bus stop area or connecting street. Yes \_\_\_ No \_\_\_

c) If **yes**, the bus is not able to lower the ramp for people using a mobility aid or stroller. Yes \_\_\_ No \_\_\_

d) If **yes**, there is bench seating at the LRT/Bus Stop clear of ice and snow. Yes \_\_\_ No \_\_\_

Comments: \_\_\_\_\_

7. Please answer the following:

a) There is available bench seating to rest on my route? Yes \_\_\_ No \_\_\_

b) It is clear of ice/snow. Yes \_\_\_ No \_\_\_

8. There was high snow banks that made my walk more difficult today. Yes \_\_\_ No\_\_\_

Comments: \_\_\_\_\_

9. Please answer the following:

a) I fell during my Snow Mole walk audit today? Yes \_\_\_ No \_\_\_

b) If **yes**, did you go to the hospital emergency? Yes \_\_\_ No \_\_\_

c) If **yes**, what was the reason for your fall? \_\_\_\_\_

10. Does fear of falling in winter sometimes keep you from going out to walk? Yes \_\_\_ No \_\_\_

Comments: \_\_\_\_\_

11. Do you have any other safety concerns not mentioned already, or any other comments?

Comments: \_\_\_\_\_

**Important questions about you (Please check and complete as appropriate)**

Age: 75 and over \_\_\_ 65-74 \_\_\_ 45-64 \_\_\_ 21-44 \_\_\_ 13-20 \_\_\_ 1-12 \_\_\_\_\_

Female \_\_\_ Male \_\_\_ Other \_\_\_\_\_ Prefer not to answer \_\_\_\_\_

I use a mobility aid (e.g. cane, walker, wheelchair): Yes \_\_\_ No \_\_\_

I use ice grips/cleats on my boots: Yes \_\_\_ No \_\_\_ Walking poles Yes \_\_\_ No \_\_\_

Comments: \_\_\_\_\_

Photos are encouraged. Please send to: [snowmoles@coaottawa.ca](mailto:snowmoles@coaottawa.ca)

**Please report any hazards or problems needing immediate attention to 311.**

**Thank you for being a snow mole. Please complete and enter the results of this Winter Walkability and Pedestrian Safety Audit at [www.coaottawa.ca/snowmoles](http://www.coaottawa.ca/snowmoles)**

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### TIPS SHEETS

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# Tips for Winter Walking

**There is nothing like taking a walk to enjoy the beauty of the season — and walking is one of the best ways to keep healthy. On the other hand, winter can be a challenging time of year to get out and about.** Icy surfaces and snow can pose a hazard for pedestrians, especially for seniors and people using a mobility device. A fall can mean a painful injury and sometimes long-term consequences, including chronic pain or a disabling condition that may mean loss of independence. Fear of another fall discourages an active lifestyle and can lead to isolation and a fear of going out.

Whether you are walking for pleasure or with a dog or to get to a needed destination, here are some tips for safer walking outdoors in winter.

## 1 Plan ahead.

Check the weather before you go. Give yourself extra travel time so you can walk without being rushed.



## 2 Choose a good pair of winter boots.

For warmth and stability look for these features: well-insulated, waterproof, thick non-slip tread sole made of natural rubber, wide low heels, light-weight.



**3 Consider wearing ice grippers** when walking on packed snow and ice. Before buying the grippers, be sure that you can easily attach and remove them from your boots (or keep them on a pair you only use for outdoor walking). Most grippers become dangerously slippery when you step indoors and must be removed before walking on smooth surfaces such as stone, tile and ceramic.





## Appendix B: Winter Walking Tip Sheet

- 4 Use supports to increase stability.** Use handrails when available and steady yourself on the door frame of a vehicle when getting in and out. Nordic (urban) walking poles with tips that dig in on icy surfaces can also help. Take some instruction on how to use these poles.



- 5 Be cautious in all temperatures.** In cold temperatures, assume that all wet, dark areas on pavements are slippery and icy.

- 6 Look for good traction.** If you encounter a snow- or ice-covered sidewalk or driveway, especially on a hill, travel along its edge for traction.



- 7 Increase your centre of gravity and stability.** Do the Penguin Shuffle: point your feet out slightly like a penguin and take small steps while walking on slippery surfaces. Keep your knees loose — let them bend a bit. Place your whole foot down at once—this breaks through a crusty surface and also slows your walking speed.



- 8 Keep your balance.** Walk with your arms swinging at your sides. Keep your hands out of your pockets (remember your gloves).



- 9 Stay on maintained routes.** Walk on walkways, paths and sidewalks that receive winter maintenance. Taking shortcuts over snow piles and other frozen areas can be hazardous.



- 10 Salt or sand** your stairs, driveway or walkway. Make use of grit boxes in public places.

**Call 3-1-1 to report hazardous pedestrian conditions.**

Be a snow mole and help us report on winter walking conditions.



Go to [www.coaottawa.ca/snowmoles](http://www.coaottawa.ca/snowmoles) for full information and the snow mole audit questionnaire.

 [www.coaottawa.ca](http://www.coaottawa.ca)  [/COA\\_Ottawa](https://twitter.com/COA_Ottawa)  
 [/coaottawa](https://www.facebook.com/coaottawa)  613-789-3577  
 [snowmoles@coaottawa.ca](mailto:snowmoles@coaottawa.ca)



For additional copies of the ***Snow Mole Report 2021: Winter Walking in Ottawa***

or further information contact:

**The Council  
on Aging  
of Ottawa**



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