



Falls Prevention Home Safety

Results from the Older Adults Falls Prevention Survey, 2012

Purpose

In 2012, Ottawa Public Health (OPH) conducted the Older Adults Falls Prevention Survey to meet a need for local data on older adults' falls prevention behaviours. It surveyed 1,050 non-institutionalized Ottawa adults aged 65 years and older by telephone.⁽¹⁾ This fact sheet summarizes results on the extent to which Ottawa seniors do the following falls prevention behaviour recommended by OPH^(2, 3):

- **Install and use home safety devices such as hand rails, grab bars and night lights;**

A description of OPH, partner and community falls prevention services are provided at the end of the fact sheet. The results are intended to help service providers who work with older adults to tailor awareness and education campaigns on preventing falls, to support client education, and to inform program priorities and policy development.

Highlights of survey results

- One in three (32%) seniors regularly or occasionally needs the help of another person or uses walking aids to move about. Dependence on walking aids increases with age and is more common among lower income seniors.
- Of seniors with stairs inside or leading into their homes, 87% have railings along the entire length of on one or both sides of the stairs.
- One-quarter (24%) of seniors with small mats or area rugs on the floors inside their homes do not have any of them secured to the floor.
- Three out of five (57%) seniors regularly or occasionally use extra lighting such as a night-light or flashlight to help them move about at night in their homes. Older seniors were more likely to use extra night-lights.
- Older seniors, females, lower income and lower educated seniors are more likely to need help to get in or out of the bathtub or shower.
- 28% of seniors do not have a rubber bath mat or non-slip surface on the floor of their bathtub or shower. Younger and higher income seniors are more likely to not have a rubber bath mat or non-slip surface in their bathtub or shower.
- Half (50%) of seniors have grab bars in their bathtub or shower. Men, higher income and higher educated seniors are less likely to have grab bars installed.
- One in five (19%) seniors has a raised toilet or raised toilet seat installed. It is more common among older seniors and women.

Background

Home safety devices are assistive devices that can facilitate daily activities such as moving around the home or bathing. Examples of these devices include walking aids (e.g., cane, wheelchair or walker), stair railings, night lighting, raised toilet seats and bathroom grab bars. Such devices can help seniors maintain independence as well as to reduce the risk for falling.

As reported in the *Perception of Falls Risk and Protective Behaviours Among Older Adults* fact sheet⁽⁴⁾, nine out of ten (90%) Ottawa seniors perceive that installing and using home safety devices such as hand rails, grab bars and night lights could reduce their risk of falling.⁽⁴⁾

Results

Table 1: Presence of home hazards and installation of home and bathroom safety devices among seniors by social determinants of health, Ottawa, 2012

Population breakdown	Proportion who have a home hazard or home safety devices (%)
Overall	<p>Walking aids</p> <ul style="list-style-type: none"> 22.7% (20.3%, 25.4%) of seniors regularly and 9.3% (7.6%, 11.4%) of seniors occasionally need the help of another person or use walking aids such as a handrail, wheelchair, walker or cane to move about. (Figure 1) Of these, over half (54.3% (48.9%, 59.6%)) use these aids both inside and outside their homes, 29.6% (24.9%, 34.9%) use them only inside their homes, and 14.6% (11.5%, 18.6%) use them only outside their homes. <p>Stair railings</p> <ul style="list-style-type: none"> Over three quarters (78.6% (75.9%, 81.0%)) of seniors have stairs inside their homes or leading into their homes. Of these, 87.1% (84.3%, 89.5%) have railings on one or both sides of the stairs and 7.6% (5.8%, 10.0%) have railings up some or part of the stairs and 5.2% (3.7%, 7.1%) do not have stair railings. (Figure 1) <p>Secured rugs or mats</p> <ul style="list-style-type: none"> 70.3% (67.3%, 73.1%) of seniors have small mats or area rugs on the floors inside their homes. Of these, approximately half (51.5% (47.6%, 55.4%)) of seniors reported that all of their mats and rugs are secured to the floor with rubber backing, under-padding or double sided-tape. One quarter (24.4% (21.2%, 27.9%)) reported that some of their mats or rugs are secured and close to one-quarter (23.9% (20.7%, 27.4%)) said that none of their mats or rugs are secured to the floor. (Figure 1) <p>Extra night lighting</p> <ul style="list-style-type: none"> 44.0% (40.8%, 47.2%) of seniors regularly and 13.1% (11.1%, 15.3%) occasionally use extra lighting such as a night-light or flashlight to help them move about at night in their homes. (Figure 1) Of the 42.8% (39.6%, 46.1%) who never use extra lighting at night, 44.0% (39.1%, 49.1%) reported that there are additional forms of lighting to help them move about at night to prevent a fall. <p>Help getting in or out of bathtub or shower</p> <ul style="list-style-type: none"> 95.0% (93.6%, 96.1%) of seniors reported that they never need help from another person to get in or out of the bathtub or shower, while 2.8%* (2.0%, 3.9%) reported that they regularly need help and 2.0% (1.4%, 3.0%) reported that they occasionally need help to get in or out of the bathtub or shower. (Figure 1) <p>Rubber bath mat or non-slip surface</p> <ul style="list-style-type: none"> 71.3% (68.2%, 74.2%) of seniors reported that they have a rubber bath mat or non-slip surface on the floor of their bathtub or shower. 28.4% (25.6%, 31.5%) reported that they do not have a rubber bath mat or non-slip surface on the floor of their bathtub or shower. (Figure 1) <p>Grab bars</p> <ul style="list-style-type: none"> Half (49.8% (46.6%, 53.1%)) of seniors reported that they have grab bars in their bathtub or shower. (Figure 1)

Population breakdown	Proportion who have a home hazard or home safety devices (%)
	<p>Raised toilet seat</p> <ul style="list-style-type: none"> One in five (19.0% (16.7%, 21.6%)) seniors reported that they have a raised toilet or raised toilet seat installed, while 80.1% (77.5%, 82.5%) do not have one installed. (Figure 1)

Social Determinants of Health

Population breakdown	Proportion who have a home hazard or home safety devices (%)
Sex	<p>Women (6.5% (4.9%, 8.6%)) were more likely to regularly or occasionally need help to get in or out of the bathtub or shower compared to men (2.6%* (1.5%, 4.6%)).</p> <p>Women were more likely than men to have the following home safety devices installed:</p> <ul style="list-style-type: none"> Grab bars in their bathtub or shower (Women: 56.5% (52.5%, 60.4%); Men: 41.1% (36.0%, 46.4%)) Raised toilet or raised toilet seat (Women: 22.7% (19.6%, 26.1%); Men: 14.3% (11.0%, 18.3%)).
Age	<p>Older seniors were more prepared to prevent falls with the installation of home and bathroom safety devices:</p> <ul style="list-style-type: none"> The proportion of seniors who regularly need the help of another person or use walking aids to move about increases with age: 14.0% (10.9%, 17.7%) of those aged 65 to 74 years, 27.9% (23.7%, 32.6%) of those aged 75 to 84 years, and 44.6% (38.6%, 50.8%) of those aged 85 or older. Seniors aged 65 to 74 (60.5% (50.2%, 69.9%)) and those aged 85 years and older (63.1% (54.6%, 70.9%)) were more likely to use these walking aids both inside and outside the home compared to seniors aged 75 to 84 years (42.4% (34.6%, 50.6%)). Seniors aged 85 years and older (63.2% (57.0%, 69.0%)) were least likely to have stairs inside their homes or leading into their homes compared to 83.0% (78.9%, 86.4%) of seniors aged 65 to 74 years, and 77.8% (73.5%, 81.7%) of seniors aged 75 to 84 years. There was no difference by age in the proportion of seniors who did not have any stair railings on their stairs; however, younger seniors aged 65 to 74 years (83.5% (79.0%, 87.1%)) were least likely compared to those aged 75 to 84 years (91.3% (87.4%, 94.1%)) and those aged 85 years and older (93.8% (88.8%, 96.6%)), to have stair railings on one or both sides of the stairs as opposed to partial stair railings. Seniors aged 85 years and older (53.8% (47.6%, 59.9%)) were least likely to have small mats or area rugs on the floors inside their home compared to 74.9% (70.4%, 78.9%) of those aged 65 to 74 years and 69.7% (64.9%, 74.0%) of those aged 75 to 84 years old. Seniors aged 65 to 74 years (46.6% (41.6%, 51.5%)) were more likely to never use extra night lighting to move about in their home at night compared to seniors aged 85 years and older (34.5% (28.8%, 40.6%)). Seniors aged 85 years and older were most likely to report regularly needing help to get in or out of the bathtub or shower (8.1%* (5.2%, 12.2%)) Seniors aged 65 to 74 years (66.7% (61.8%, 71.2%)) were least likely to report having a rubber mat or non-slip surface on the floor of their bathtub or shower compared to those aged 75 to 84 years (75.5% (70.9%, 79.5%)) and those 85 years or older (79.6% (74.2%, 84.2%)).

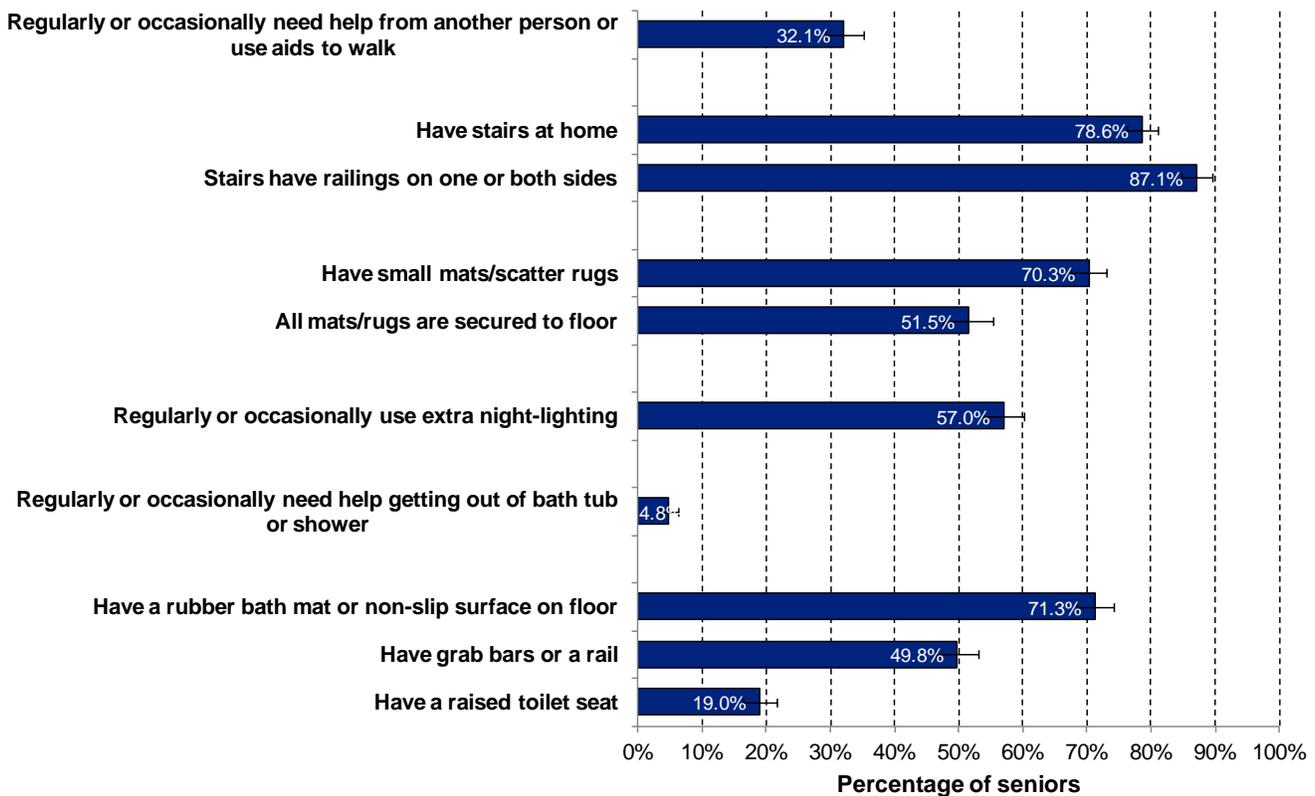
Population breakdown	Proportion who have a home hazard or home safety devices (%)
	<ul style="list-style-type: none"> Seniors aged 65 to 74 years (37.7% (33.0%, 42.6%)) were least likely to report having a grab bar in their bathtub or shower compared to those aged 75 to 84 years (61.5% (56.5%, 69.6%)) and those 85 years or older (69.6% (63.7%, 75.0%)). Seniors aged 85 years and older (31.7% (26.2%, 37.8%)) were most likely to report having a raised toilet or raised toilet seat installed, compared to those aged 75 to 84 years (16.6% (13.2%, 20.5%)) and those 85 years or older (17.6% (14.2%, 21.7%)).
Education	<p>Seniors with lower education status appear to be more prepared to prevent falls with the installation of certain home safety devices compared to seniors with higher education status:</p> <ul style="list-style-type: none"> Stairs inside their home or leading into their home: Seniors who did not graduate high school (61.6% (51.8%, 70.5%)); seniors who graduated high school (73.7% (66.7%, 79.6%)); those with a college or university diploma or degree (84.0% (80.7%, 86.7%)). Of those who have stairs, there was no difference in the proportion of seniors who have stair railings by education. Seniors with college or university diploma or degree (75.5% (71.8%, 78.9%)) were most likely to have small mats or area rugs on the floors inside their homes. There was no difference in the proportion of seniors reporting that their mats and rugs are secured by education. Seniors who did not graduate high school (87.9% (81.0%, 92.5%)) were less likely to report that they never need help from another person to get in or out of the bathtub or shower compared to those with a college or university diploma or degree (96.9% (95.3%, 98.0%)). Seniors who did not graduate high school (67.1% (57.5%, 75.4%)) and those who graduated high school (57.8% (50.1%, 65.1%)) were more likely than those with a college or university degree or diploma (43.9% (39.8%, 48.1%)) to report having grab bars in their bathtub or shower.
Household income	<p>Seniors with lower household income appear to be more prepared to prevent falls with the installation of certain home safety devices compared to seniors with higher household income:</p> <ul style="list-style-type: none"> Walking aids to move about: Seniors with lower household income <\$40K, regularly: 29.6% (23.3%, 36.8%); occasionally: 13.8% (9.1%, 20.4%). Stairs inside their home or leading into their homes: Seniors with lower household income <\$40K (63.1% (55.5%, 70.1%)); middle household income \$40K to <\$70K (80.8% (74.9%, 85.6%)); high household income ≥\$70K (87.1% (82.1%, 90.9%)). Small mats or area rugs on the floors inside their home: Seniors with lower household income <\$40K (61.3% (53.8%, 68.4%)); middle household income \$40K to <\$70K (75.9% (69.6%, 81.3%)); high household income ≥\$70K (75.2% (68.9%, 80.5%)). Never need help from another person to get in or out of the bathtub or shower: Seniors with lower household income <\$40K (90.3% (84.9%, 93.8%)); middle household income \$40K to <\$70K (96.3% (93.4%, 97.9%)); high household income ≥\$70K (97.7% (95.1%, 99.0%)). Rubber mat or non-slip surface on the floor of their bathtub or shower: Seniors with lower household income <\$40K (79.9% (73.3%, 85.3%)); middle household income \$40K to <\$70K (73.7% (66.7%, 79.6%)); high household income ≥\$70K (61.6% (54.6%, 68.0%)).

Population breakdown	Proportion who have a home hazard or home safety devices (%)
	<ul style="list-style-type: none"> • Grab bars in their bathtub or shower: Seniors with lower household income <\$40K (61.3% (53.7%, 68.5%)); middle household income \$40K to <\$70K (49.7% (42.6%, 56.8%)); high household income ≥\$70K (39.2% (32.8%, 46.1%)).

Data source: Seniors Falls Prevention Survey, Ottawa Public Health 2012.

Data note: Only social determinants of health that showed a significant difference between categories are displayed in the table. There was no difference in the installation of home safety devices by mother tongue language or immigration status. K – thousand. * Indicates a high sampling variability in the responses from seniors to this category and the findings should be interpreted with caution. Based on self-reported data.

Figure 1: Percentage of seniors with home hazards or home safety devices, Ottawa, 2012



Data source: Seniors Falls Prevention Survey, Ottawa Public Health 2012. Based on self-reported data.

Implications for programs and practice

Everyone can play an active role in preventing falls, from the clinician and service provider to the planner and policy maker. For example, we can:

1. Encourage older adults to complete a home safety checklist and follow up on suggested recommendations;
2. Promote building design to consider assistive devices and mobility aids; and
3. Retrofit, design and build age-friendly spaces that improve accessibility, reduce hazards and incorporate safety devices for falls prevention.

What Ottawa Public Health does

Ottawa Public Health (OPH) carries out individual, group and community-level interventions to engage and support older adults in reducing their falls risks and adopting healthy living practices. OPH efforts in addressing seniors' issues are enhanced by our relationships with community agencies and other city departments, for example, the Aging in Place Project in Ottawa Community Housing buildings.

Some of OPH's key activities include:

- The "Taking Care of My Health" Campaign and Community Awareness. Using a multimedia approach, the campaign includes articles in local newspapers, interstitials and messages on social media – information and tips posted on OPH website and Tweets.
- Education. Falls prevention messages, tips and demonstrations are also integrated into ongoing group education sessions and community events. These activities are carried out at seniors' apartment buildings, churches, seniors' centres and in other settings where seniors congregate.
- Screening Clinics and Referrals. Public Health Nurses organize and conduct screening clinics targeting older adults. The screening includes:
 - history of falls
 - gait and balance testing
 - postural hypotension

Older adults identified at risk for falls are referred to appropriate community resources for further assessment.

- The Friendly Corner is a health information and activity centre for seniors, managed in partnership with St. Laurent Shopping Centre, Ottawa Public Health, and a group of dedicated volunteers. A public health nurse and volunteers coordinate activities that promote healthy living enhance safety and independence for participants. For information call: 613-580-9620.
- Supportive Environments. Ottawa Public Health participates in key regional and citywide coalitions and committees to support the development of programs and policies that help reduce falls risks and improve overall health of older adults in Ottawa.

OPH's key messages for seniors regarding falls prevention:

Have an annual check-up:

- Have a regular health exam with your doctor or nurse practitioner every year and report any falls
- Review your medications with your doctor or pharmacist every year
- Have your eyes checked every year for changes in their health and vision

Be active:

- Take part in at least 150 minutes (2.5 hours) of aerobic physical activity every week
- Minutes count-be active in blocks of 10 minutes at a time
- Do strength and balance activities like lifting weights and Tai chi at least twice a week

Eat for healthy bones:

- Eat 3 servings of foods high in calcium every day
- Take a daily vitamin D supplement of 400 IU

Make your home safe:

- Keep your home well lit and free of trip hazards
- Remove scatter rugs and loose carpets
- Add secure grab bars in bathroom
- Install sturdy handrails that extend to the bottom on both sides of your stairs

For more information on healthy aging programs offered by Ottawa Public Health, to book a group education session and to find out about screening clinic locations near you call:

- 613-580-6744
- 1-866-426-8885
- TTY: 613-580-9656
- www.ottawa.ca/health

Community resources

There are also many resources within our community that encourage older adults to adopt fall prevention behaviours.

Falls Prevention resources:

West End Integrated Falls Prevention Program

- Works with seniors, health service and community agencies to reduce the number of falls and their impact on seniors, their caregivers and the health care system through: assessment and intervention for high risk seniors, education, information and health promotion, and best practices education for practitioners.
- <http://www.pgchc.com/seniors/falls-prevention/>

Regional Geriatric Program of Eastern Ontario

- The program is a coordinated network of specialized assessment, treatment and rehabilitation services for elderly persons whose well being, independence, or functional ability is threatened by multiple health or social problems <http://www.rgpeo.com/en.aspx>

Community Care Access Center

- The program coordinates professional health and treatment program in residents' home. <http://www.ccac-ont.ca/>

Reference documents and supplementary resources can be found on:

- <http://www.champlainhin.on.ca/> Integrated Provincial Falls Prevention Framework & Toolkit
- <http://www.canadianfallprevention.ca/>
- <http://www.oninjuryresources.ca/>
- <http://www.findingbalancealberta.ca/>
- <http://www.preventfalls.ca/>
- <http://www.phac-aspc.gc.ca/seniors-aines/>

Visit www.champlainhealthline.ca for more information on additional community resources and programs.

Home Safety resources:

Healthy Homes Renovation Tax Credit: a tax credit to help with the cost of making a home safer and more accessible is available for senior 65 years or older in Ontario. For more information call: 1-866-ONT-TAXS (668-8297) <http://www.ontario.ca/taxes-and-benefits/healthy-homes-renovation-tax-credit>

The **Ontario Renovates Program** administered by the City's Housing Services Branch, provides limited funding to low income seniors who own their home and to persons with disabilities for necessary home repairs and accessibility modifications to support independent living.

<http://ottawa.ca/en/residents/social-services/housing/ontario-renovates-program>

Survey methods and data analysis

In this fact sheet, older adults or seniors are defined as adults aged 65 years and older.

Ninety-five percent confidence intervals (95% CI) are presented following the population estimates in smaller font and within brackets (e.g., 75.5% (72.4%, 78.3%)). 95% CI are used to describe the precision of the population estimate.

Only statistically significant findings are included for demographic breakdowns (sex, age, education, income, immigration, and mother tongue). 95% CI were not used to test for statistically significant differences; Chi-square tests ($p < 0.05$) were used first, followed by a Bonferroni correction ($p < 0.05$) to adjust for multiple comparisons.

The asterisk (*) indicates a high sampling variability in the responses from seniors to this category and the findings should be interpreted with caution.

See the Older Adults Falls Prevention Survey Methods Fact Sheet for more information.

Acknowledgements

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