Evidence to Practice Backgrounder

Reducing Falls and Injury from Falls in Community-dwelling Older Adults

November 1, 2018

Purpose

The purpose of this document is to provide an overview of the current evidence with respect to falls and injury from falls in community-dwelling older adults > 65 years of age and living in the Winnipeg health region.

Introduction

Of all the types of injuries in Canada, falls are the leading cause of injury deaths, hospitalizations, permanent total disabilities, and permanent partial disabilities.[26] Approximately 30 percent of people over age 65, living in the community, fall at least once per year, and the risk increases the more risk factors an individual has (e.g. diagnosed history of falls, or cognitive impairment[1]). This number increases to 50 percent for those 80 years of age and older.[24] Many others will never be able to return to an independent lifestyle, with over one third of those having been hospitalized for a fall being discharged to a nursing home or long term care facility.[32]

About this Document

The document provides a summary of current evidence with respect to the prevention of falls and fall injuries, and outlines implementation strategies for practice across the health-care continuum.

Fall prevention education is an important quality improvement strategy in health-care organizations. Nurses and other health-care providers responsible for implementing practice recommendations require current knowledge of the factors most commonly associated with falls.[7,24,29,44]

This document:

- provides a summary of current evidence;
- addresses why reducing falls and injury from falls is a public health issue;
- highlights the burden of falls – frequency, outcomes and costs to the healthcare system; and
- lists risk factors and provides evidenced-informed multi-factorial interventions.

Fall Definitions

Fall: A fall is an event that results in a person coming to rest inadvertently on the ground or floor or other lower level, with or without injury.[43]

Near Fall: A near-fall is a slip, trip, stumble or loss of balance such that the individual starts to fall but is either able to recover (witnessed or unwitnessed) and remains upright because their balance recovery mechanisms were activated and/or caught by other persons, or they were eased to the ground or floor or other lower level, by other persons (e.g. could not stop or prevent falling to the ground, floor or lower surface).[30]

Fall Related Injury: A fall injury is defined as an injury that results from a fall, which may or may not require treatment. The injury can vary in severity of harm and be temporary or permanent.[31]

Guiding Principles

The guiding principles[28] adopted from the 2017 Registered Nurses' Association of Ontario (RNAO) Clinical Best Practice Guidelines and set out below, help inform this document.

- Many falls are predictable and preventable.
- Some falls cannot be prevented; in these cases, the focus should be on proactively preventing fall injuries and decreasing the frequency of falls.
- Fall prevention is a shared responsibility within health care.
- Person-and-family centered care is foundational to the care of people at risk for falls and fall injuries.
- The risk and benefits for the person should be considered when implementing interventions to prevent falls and minimize injuries.
- Competent adults have the right to take risks (i.e., make decisions or take actions that increase their risk for falls).

Reducing Falls and Injury from Falls: A Public Health Issue

Fall prevention is everybody's responsibility within a health-care organization. Fall prevention has become a health, safety, and quality improvement priority owing to the magnitude, detrimental effects, and economic impacts of falls.[28] In Canada, the public health approach to fall prevention/injury reduction is rapidly gaining traction for the design, implementation and evaluation of many fall prevention programs. Population health promotion initiatives contribute to fall prevention by promoting the condition's and environments that support healthy living and the adoption of health behaviours.[27]

Fall prevention is a shared responsibility

Reducing falls and injury from falls in community-dwelling older adults is a shared responsibility and a comprehensive approach to prevention is needed to address the multiple and compounding factors that put an older adult at risk for falling.[33] Because person and family-centered care is foundational to the care of people at risk for falls and fall injuries, falls are a growing concern within acute care, long term care, home health care and community settings.

The Public Health Agency of Canada (PHAC) has a history of playing a strong coordinating role with respect to fall prevention among seniors in Canada. Examples include numerous publications aimed at helping seniors and their families to reduce the occurrence and impact of falls. PHAC has also advanced the Age-Friendly Communities concept in Canada and internationally as a way to facilitate healthy and supportive environments for older adults. In an age-friendly community, the policies, services and structures related to the physical and social environment are designed to help seniors age actively. In other words, the community is set up to help seniors live safely, enjoy good health and stay involved.

For example, in an age-friendly community:

- sidewalks are well lit and kept in good shape;
- buildings have automatic door openers and elevators; and
- seniors take part in all sorts of community activities.

An age-friendly community:

- recognizes that seniors have a wide range of skills and abilities;
- understands and meets the age-related needs of seniors;
- respects the decisions and lifestyle choices of seniors; and
- protects those seniors who are vulnerable.[27]

Education

Fall prevention education is an important quality improvement strategy in health-care organizations. Education provided organization-wide for all health care providers regarding their role related to preventing falls, helps facilitate successful implementation of fall prevention initiatives and may contribute to a safety culture.[36] Nurses and other health-care providers responsible for implementing practice recommendations may require additional education (post-licensure) to support knowledge and skill attainment, and the implementation of best practices. The evidence does not outline specific content needed to prevent falls or fall injuries other than knowledge of the factors most commonly associated with falls.[7,24,29,44]

The Burden of Falls

The burden of a fall begins with the experiences of the older adult. Most fall injuries incurred among older Canadians are broken or fractured bones (35%), sprains and strains (30%), or scrapes, bruised or blisters (19%). Many individuals experience injury to the shoulder or upper arm (17%), or the knee or lower leg (15%). Falls are also the leading cause of head injury-related hospitalizations for older Canadians.[4]

Fall injuries are often significant as they are the leading cause for injury hospitalization among older adults residing in the Winnipeg health region. Two-thirds (68%) of all fall hospitalizations are accounted for by older adults. The average length of hospital stay for a fall is 25.4 days, which is 4.5 days longer than the average length of stay for other unintentional injuries.[41] Among older adults residing in the Winnipeg health region, falls are also the leading cause of injury-related deaths, responsible for two-thirds (68%) of unintentional injury deaths in their age group and 90% of fall deaths for Winnipeg residents of all ages.[41]

The personal burden of falling goes beyond the acute phase of incurring a fall injury, however. Overall quality of life is impacted as the older adult loses independence (e.g. walking accessibility to the store in winter) and become socially withdrawn and lonely.[16] Falling is also the catalyst for entering the fear of falling cycle, wherein, anxious of falling again, the older adult restricts his or her activities that results in loss of strength and balance. This, in turn, increases the risk for falling.[12]

Resource intensive, falls are also burdensome on our healthcare system. The most common trajectories for older Canadian adults hospitalized for a fall are from *their home to returning home with or without support* (40%), from *their home to continuing care* (15%), and from a *residential institution to continuing care* (10%).[5] Given the associated direct and indirect resource demands, fall injuries are costly. Almost one-third (30%) of Manitoba's $1.2 billion spent on injury was incurred due to fall injuries in 2010, and falls were the most expensive cause of injury in Manitoba with a total cost of $345 million and a per capita total cost of $283 million.[26]

Preventive strategies that reduce falls in older adults could lead to a substantial reduction in healthcare spending. Evidence-based strategies including medication management and strength and balance exercises (e.g., tai chi), have been associated with reductions in older adult falls. Strength and balance programs usually charge the participant, although some plans cover costs. Multifactorial interventions, often conducted in clinical settings, address multiple fall risk factors and have been shown to reduce falls as much as 24%. Screening and assessing for falls risk is one of the minimum requirements at fall prevention and wellness clinics with no beneficiary charge.[8]

Fall Risk Factors

Many falls are preventable and predictable. Some falls cannot be prevented and can be resistant to interventions if we don't look at a combination of factors that may be causing an older adult to fall.

Research has helped guide practice when considering risk factors that are especially relevant to a particular population or setting. The evidence also helps identify which screening approaches should be used in hospital, long-term-care, and community settings for adults at risk for falls and or for injury due to falls. This is very helpful for health care professions as there are over 400 risk factors for falls.[7] These risk factors are described and classified in various ways, including as modifiable (i.e., amendable to interventions such as diet, exercise, muscle weakness, poor vision, and some factors for cognitive health) and non-modifiable (i.e., unchangeable, such as advanced age).

Other classifications include biological, physiological, behavioural, environmental, social and economic. (see Figure 1).[9]

Figure 1 – Risk factors for falling

Domain	Factors
Biological	• Chronic, acute or palliative health conditions (e.g. neurosensory impairment, drugs, and diseases such as Parkinson's, cerebrovascular disease, osteoarthritis, and diabetes).
Physiological	• Impaired gait, balance, and mobility • Muscle weakness
Behavioural	• Actions, emotions or choices that increase risk taking
Environmental	• Building design; • Furniture; • Weather (snow and ice); • Availability of devices to assist mobility (e.g. hand rails and grab bars); and • Other barriers to mobility in a physical space (e.g. clutter, floor rug).
Social and Economic	• Social isolation; • Poor support networks; • Socially deprived populations; • Culture and ethnicity; and • Low income (below $15,000)

Regardless of classification, it is important to note that risk factor determinants of fall, and fall-related injury interconnect, and the more risk factors an individual has, the greater the risk of falling. Identifying fall risk factors and understanding the relationships between these risk factors (e.g. early gait disturbances and early cognitive changes), may assist in identifying older adults at risk of experiencing mobility decline and falls and help in the creation of effective fall prevention/injury reduction programs to prevent or reduce falls and fall injuries.[22]

Practice Recommendations

Fall Risk Assessment

Fall Risk Assessment is an assessment that aims to identify a person's risk factors for falling. Full assessments, also known as a comprehensive assessment, are used to create individualized targeted fall prevention/injury reduction plans of care. For older adults at high risk for falls, a comprehensive assessment to identify factors contributing to risk should be conducted to help determine appropriate interventions. Multifactorial assessments are one element of a comprehensive assessment and include an in-depth exploration of the multiple factors or conditions contributing to the risk for falls.[2]

In most cases, the best approach to fall prevention among older adults includes a multifactorial fall risk assessment and a subsequent management program tailored to an individual's risk factors and setting.

Multifactorial assessments may be used for all older adults (65 years and older) who (1) present to a health-care provider or organization because of a fall; (2) have experienced recurrent falls in the past year; and (3) have abnormalities of gait and/or balance. In community settings, health-care providers and patients discuss whether a multifactorial risk assessment is appropriate, taking into consideration “the circumstances of prior falls, comorbid medical conditions, and patient values.”[24,39]

Older adults at higher risk for falling may have:

- A history of previous falls
- Dementia or mild to severe cognitive impairment. This could include Alzheimer’s, Parkinson’s and Traumatic Brain Injury
- Incontinence
- Comorbid medical conditions
- Mental health conditions
- Chronic health conditions (e.g. anemia, arthritis, stroke, osteoporosis & stroke), muscle weakness (decreased quadriceps strength, postural sway and limb paralysis) balance & gait impairments and low body mass
- Cancer
- Dual sensory loss, vision deficits (e.g. cataracts)
- Poor nutrition and hydration

The following factors may be considered:

- Gait, balance, and mobility;
- Muscle weakness;
- Osteoporosis risk;
- Functional ability;
- Fear of falling;
- Visual impairment;
- Cognitive impairment;
- Neurological examination;
- Urinary incontinence;
- Home hazards;
- Cardiovascular examination; and
- Medication review.

Spotlight: *WRHA Community and Ambulatory Care Fall Risk Screening Tool*

The screening tool and a corresponding *Your Fall Risk Factors* bilingual form was adapted by the Community and Ambulatory Care Fall Prevention Working Group of the Winnipeg Regional Health Authority (WRHA) to screen risk for falling in clients who visit WRHA community and ambulatory care sites. The tool was modified for use in our community-based settings to provide prevention and management strategies to reduce fall risks.

The screening tool includes recommended actions that will help WRHA teams meet the Fall Prevention Required Organizational Practice (ROP) as mandated by Accreditation Canada. The major tests for compliance for this ROP are:

1. A documented and coordinated approach to fall prevention is implemented;
2. The approach identifies the populations at risk for falls; and
3. The approach addresses the specific needs of the populations at risk for falls.

Each WRHA site has its own unique form with corresponding logo. To order forms, programs should follow the site's usual ordering process. For more information on ordering, please ask your administrative or managerial support team.

**The Community and Ambulatory Care Client Fall Risk Screening Tool has been developed from Russell et al's (2009) Falls Risk for Older People in the Community tool, Age and Ageing, 38(1), 40 – 46, by the Community and Ambulatory Care Fall Prevention Working Group.*

Interventions

Different interventions have been developed to help prevent falls in older people. They may involve a single type of intervention, such as exercise to increase muscle strength, or combinations of interventions, such as exercise and adjustment of a person's medication. A combination of two or more components can be delivered as either a multifactorial intervention based on an assessment of a person's risk factors for falling or as a multiple component intervention where the same combination of interventions is provided to all participants.[15]

Research suggests that falls and injuries from falls in the community can be reduced with the following evidenced-informed fall and injury reduction interventions:

Screen all adults to identify those at risk for falls

- Screen all adults to identify those at risk for falls. Conduct screening as part of admission processes, after any significant change in health status, or at least annually. Screening should include the following approaches: ν identifying a history of previous falls; identifying gait, balance, and/or mobility difficulties; and using clinical judgment.

- For adults at risk for falls, conduct a comprehensive assessment to identify factors contributing to risk and determine appropriate interventions. Use an approach and/or validated tool appropriate to the person and the health-care setting.

- Refer adults with recurrent falls, multiple risk factors, or complex needs to the appropriate clinician(s) or to the interprofessional team for further assessment and to identify appropriate interventions.

- Engage adults at risk for falls and fall injuries using the following actions: ν explore their knowledge and perceptions of risk, and their level of motivation to address risk; communicate sensitively about risk and use positive messaging; ν discuss options for interventions and support self-management; develop an individualized plan of care in collaboration with the person; engage family (as appropriate) and promote social support for interventions; and evaluate the plan of care together with the person (and family) and revise as needed.

Group and home-based exercise programs

Exercise to improve your balance is an effective and well-established intervention in community-dwelling populations. It is also one of the most common elements of both multifactorial and multiple component interventions, and is an effective single intervention.[15] Comprehensive exercise programs delivered in groups or at the person's home that focus on fall prevention, muscle strengthening, and provide a high challenge to balance have been shown to effectively address risk factors, prevent falls, and reduce injury from falls. The protective effects of exercise are most beneficial for severe fall injuries, such as fractures. Individuals with a history of recurrent falls and/or balance and gait deficits may benefit the most from exercise.[28,35,11,13,24,37,39] Choose exercises that involve safely:

- Reducing the base of support
- Moving the center of gravity and controlling body position while standing
- Standing without using the arms for support

Strength training may be included in addition to balance training. Tai Chi is an example that is proven to reduce the risk of falling. Walk training may be included in addition to balance training, but high-risk individuals should not be prescribed brisk walking programs.[35]

Increased physical activity

At least 3 hours of exercise should be undertaken per week or 30 minutes each day. Ongoing participation in exercise is necessary or the benefits will be lost.[35]

Exercise interventions and physical training improve strength and balance, and reduce falls and fall injuries, particularly fractures.[11] The majority of evidence focused on exercise interventions among older adults (or known high-risk populations, such as individuals with Parkinson's disease) in community settings. Health-care providers with knowledge of exercise and bone health can provide guidance and support for the appropriate types of exercise. This is important for those at high risk of fracture.[25] People with osteoporosis and other diseases that affect bone health, or those who have sustained a fracture, should be advised to consult a specialist for additional interventions or medications (e.g., bisphosphonates) appropriate for their particular heath condition.[28]

Exercise and Physical Training Interventions (Page 104-106) summarizes a range of exercise and physical training interventions, including core strength, stepping, interactive cognitive–motor, and perturbation-based balance training, Pilates, exergaming, fall prevention exercise programs, foot and ankle exercises, individualized exercise, tai chi, and yoga.[28]

The following considerations should guide health-care providers when recommending exercise and physical training interventions:

1. The type of activity or exercise should be meaningful to the person, aligned with their preferences, and culturally appropriate.[7]
2. The activity or exercise should be adjusted to the person's abilities, including their cognitive abilities and fear of falling.
3. Caution should be taken when recommending exercise to those at high risk of fracture.[10] For some people, the value of exercising may outweigh the risk of falling.[25]
4. Exercise has numerous other benefits, such as reducing functional decline and fear of falling, and improving socialization, self-esteem, quality of life, and general physical and mental health.[40]
5. To promote adherence and effectiveness, exercise interventions should be individualized and supported by an exercise professional, such as a physical therapist. This is particularly evident for adults at high risk for falls with physical co-morbidities.[23]

Medication management

It has been demonstrated that certain classes of medication, higher doses, and use of multiple medications leads to greater risk for falling.[28] A 2018 systematic review and meta-analysis on Z-drugs and risk for falls and fractures in older adults found that hypnotic non-benzodiazepines (BZDs) (namely, zaleplon, zolpidem, zopiclone and eszopiclone), also known as 'Z-drugs', induced: drowsiness; gait impairments, adverse cognitive and psychomotor effects; falls, fractions, traffic accidents, daytime fatigue, addiction and increased mortality. The results of this study suggest that Z-drugs are associated with an increased risk for fractures, falls, and injuries in comparison to non-users.[38]

Conduct a medication review; refer to an appropriate health-care provider and/or the prescriber; and monitor for side effects of medications known to contribute to risk for falls. When collaborating with prescribers and the person at risk for falls, reduce, gradually withdraw, or discontinue medications that are associated with falling, when the person's health condition or change in status allows.

Vitamin D

A 2018 systematic review on interventions to prevent falls in older adults determined that vitamin D supplementation interventions had mixed results, with a high dose being associated with higher rates of fall-related outcomes.[15] Or that vitamin D supplementation did not appear to reduce falls, but may be effective in people who have lower vitamin D levels before treatment.[13] Other studies showed how dietary interventions such as optimizing calcium intake to achieve sufficient absorption of vitamin D,[28,35,25] significantly reduced falls and hip and non-vertebral fractures, especially in older women, as well as improved neuromuscular function. As results are mixed with respect to the benefits of vitamin D supplementation, refer older adults at risk for falls or fall injuries to the appropriate health-care provider for advice about supplementation.

Plan of care

The plan of care—that is, interventions implemented to prevent falls or reduce fall injuries—must be individualized for each adult to address risk factors for falls and fall injury. All plans of care should be developed in collaboration with the person (and family, if appropriate).[20] Engage family and promote social support for interventions; evaluate the plan of care together with the person (and family) and revise as needed. Include teaching strategies for family members on interventions known to modify risk factors. Communicate the person's risk for falls and related plan of care/interventions to the next responsible health-care provider and/or the interprofessional team at all care transitions to ensure continuity of care and to prevent falls or fall injuries. Implement a combination of interventions tailored to the person and the health-care setting to prevent falls or fall injuries. For people with dementia, it is important to acknowledge and accommodate individual differences and preferences (for example, acknowledging their personhood, recognizing existing capacity, and communicating effectively) to promote better engagement with fall prevention strategies.[20,28]

Engaging Older Adults

It is critical to engage older adults at risk for falls and fall injuries in all aspects of their care. Engaging the person's family and social networks may support fall prevention efforts. For persons with dementia living in the community, involving caregivers and health-care providers is key to support uptake of fall prevention interventions. Social support, such as advice and encouragement from health-care providers and family members, also helps promote adherence to interventions.[20,17,7]

Health care professionals are encouraged to keep the additional considerations in mind before reviewing the individualized care plan with community-dwelling older adult adults, family or caregiver:

- Recognize that some people do not have family, that others may not want or need their family to be involved, and that family members are not always willing to or able to help.
- Consider the risks and benefits for the older adult when implementing interventions to prevent falls and minimize injuries. Competent adults have the right to take risks, make decisions or take actions that increase their risk for falls.
- Provide education to the person at risk for falls and fall injuries and their family (as appropriate) in conjunction with other fall prevention interventions. This includes providing information about risk for falls, fall prevention, and interventions.
- Seek to understand a person's level of motivation, degree of engagement, and underlying beliefs about particular interventions in order to learn what changes the person is willing to make to prevent falls.
- Recognize that the community-dwelling older adult's recurrent falls, multiple risk factors, or complex needs may require a referral to a specialized healthcare provider or to the interprofessional team for further assessment and appropriate interventions.
- Refer adults with recurrent falls, multiple risk factors, or complex needs may require a referral to a specialized healthcare provider or to the interprofessional team for further assessment and appropriate interventions.
- Offer a falls clinic comprised of an interprofessional team for at-risk adults in community settings where appropriate.
- Explore whether organizations may provide access to particular health-care providers, such as a physiotherapist, physiatrist, dietician, pharmacist, gerontologist, neurologist, or other specialist. Additional examples include optometry, for visual disturbances; occupational therapy, to assess the person in their home; and social work, to assess the person's ability to afford equipment to prevent falls.[28]

Staying on Your Feet Resources

The Public Health Injury Prevention Program at the Winnipeg Regional Health Authority work with health organizations, groups and individuals in the community to develop evidenced-informed policy and programs, to increase public and professional knowledge about reducing fall-related injuries and fatalities. Knowledge products, resources and training can be found on the Staying on Your Feet website.

The Staying on Your Feet is intended for the public (primarily older adults and their caregivers), as well as health care providers. The website is located at: www.preventfalls.ca

Health Care Providers:

- Click Resources for a current listing of resources you can order for free
- Click Professionals for knowledge development resources specific to health care providers
- Click Community Presentations for tools specific for public education by health care providers
- Click Risk Assessment Tools for the Community and Ambulatory Care Fall Risk Screening Tool
- Click Training for training opportunities for health care providers.

Winnipeg Regional Health Authority Fall Prevention Committees

Committee	Description	Link
Regional Fall Prevention Leadership Committee	Injury Prevention is an active participant in the Fall Prevention Leadership Committee, a multi-disciplinary group from all sectors (acute, long-term care and community). This committee works to ensure there is consistency in fall prevention information, policies, resources and equipment standards across the region. A working group of this Committee developed the Fall Prevention and Management Clinical Practice Guidelines.	Not applicable
WRHA Home Care Falls Quality Committee	A new committee that includes health care providers from across the Winnipeg health region working in the area of fall prevention.	Not applicable
Regional Community and Ambulatory Care Working Group on Fall Prevention	This committee works to ensure that all Winning health region community and ambulatory care sites that work with the public have a consistent and evidence-based approach to fall prevention for clients receiving services in their home and those attending programs and sites.	Community and Ambulatory Care Fall Risk Screening Tool Environmental Checklists

Winnipeg Regional Health Authority *Caring for Health*

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Winnipeg Health Region Fall Prevention Resources

Organization	Description	Link
WRHA Healthy Aging Resource Teams	Healthy Aging Resource Teams work in the community to promote health, increase awareness about injury and illness prevention, provide primary care and manage chronic diseases for adults age 55+. The Healthy Aging Resource Teams are committed to: • Promote health; • Manage chronic disease; • Prevent injury and illness; • Provide health programs • Promote independent living; and • Work with communities • The teams are made up of two health care professionals such as a nurse, occupational therapist, or dietitian. They provide health services and community support for those 55+ living in the River East/Transcona, St. James/Assiniboia/Assiniboine South and Downtown/Point Douglas community areas.	http://www.wrha.mb.ca/community/seniors/services-hart.php
WRHA Geriatric Day Hospitals	The day hospital program provides access to a whole health care team. We work with people 65 and older to keep them healthy so that they can be independent, safe and happy. Services provided by Geriatric Day Hospital may include: • Health Assessment • Education • Walking and balance programs	http://home.wrha.mb.ca/rehab/files/dayhospitalbrochureupdate2018.pdf

Organization	Description	Link
	• Connecting to resources • Support after hospital discharge • Medication assessment • Functional assessment • Physiotherapy • Occupational therapy • Recreation Therapy • Caregiver support The Day Hospitals are located: • **Deer Lodge Centre** 2109 Portage Ave 204 831-2583 • **Riverview Health Centre** 1 Morley Ave 204 478-6262 • **Seven Oaks Hospital** 2300 McPhillips St 204 632-3106 • **St Boniface Hospital** 69B Goulet St 204 953-6400 • **Health Services on Elgin** 425 Elgin Ave 204-940-1637	
Community Therapy Services Inc.	Community Therapy Services is a private, nonprofit Agency that leverages its expertise in **occupational therapy** and **physiotherapy** to meet the rehabilitation service needs of individuals, care providers and care organizations in Manitoba.	http://www.ctsinc.mb.ca/ **Referral Forms:** • **Community Living Disability Services Referral Form** • **CTS Referral** • **PCH Referral for Physiotherapy** • **SCIL Referral Form**
Misericordia Health Centre focuses on Fall Prevention and Vision Screening.	The Vision Screening Kit contains: • An instruction booklet, • The vision screening tool, and • A referral algorithm.	https://misericordia.mb.ca/eye-care-centre-of-excellence/

Organization	Description	Link
Osteoporosis Canada Region 2 – Manitoba/Saskatchewan	Osteoporosis screening and intervention are imperative to prevent fractures. All men and women over the age of 50 years, and men or women with one or more risk factors for fragility fractures should have a Bone Mineral Density (BMD) test.	https://osteoporosis.ca/ Phone: 204-772-3498
Active Living Coalition for Older Adults (ALCOA, Manitoba)	A partnership of 40 partner organizations and 13 supporting partners that are committed to encouraging and promoting active aging in Manitoba. Well trained older Manitobans lead exercise classes, walking programs and make presentations to educate in all walks of life and all age ranges. Programs/resources available: Rural Program, Active Living Gear Kit, Healthy Lifestyles Bingo, Speakers Bureau, Steppin' up with Confidence, Steppin' out with confidence and Active Aging Week.	http://www.alcoamb.org/ Phone 204-444-5120
A&O: Support Services for Older Adults	Safety Aid presentation on home safety assessment and fall prevention assessment and provide supplies for older adults to make their homes safer.	https://www.aosupportservices.ca/
Manitoba Association of Senior Centres	Senior centers are open to all individuals 55 years and older, or retired. The Association is a provincial focal point to facilitate communication, networking and planning among senior centers.	https://www.manitobaseniorcentres.com/ Age-Friendly Manitoba Initiative
Manitoba Fitness Council	The Manitoba Fitness Council Inc. is a non-profit organization dedicated to promoting	https://manitobafitnesscouncil.ca/about-us/our-history/

Organization	Description	Link
	quality in fitness leadership in order to provide Manitobans with safe, effective and enjoyable physical activity programs. The Manitoba Fitness Council has certifiable training available for the Active Older Adult, Individual Fitness Leader, Resistance Training and Group Fitness among others.	

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