



The Cost of Falls Prevention

Canada's Patient Safety Virtual Forum, October 30, 2012

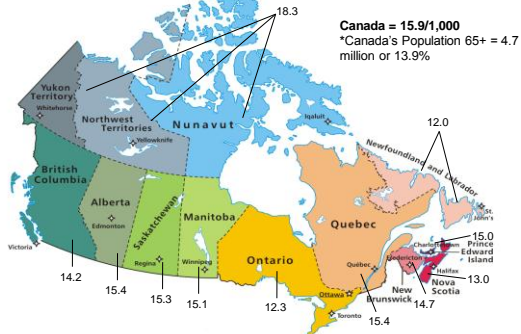


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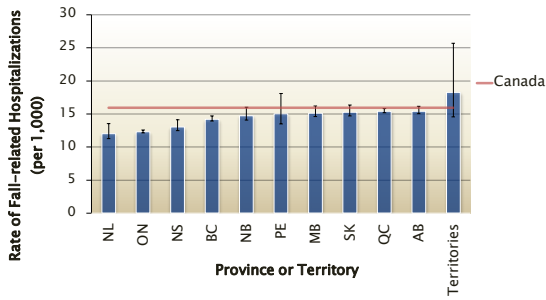
Presentation Overview

- 1. The cost of falls and fall-related injuries
- 2. Cost-effective Evidence
- 1. Sustainability through integration

Canadian Fall-related Hospitalization Rates 65+* by Province & Territory 2008/09

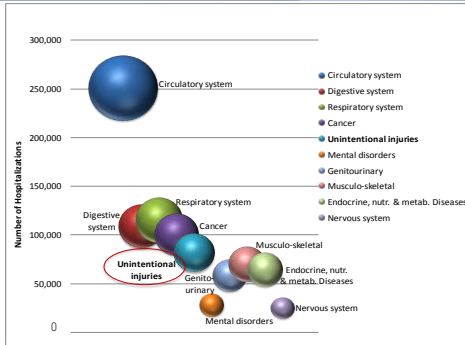


Canada: Age-standardized Rate of Fall-related Hospitalizations (65+), 2008/09



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Leading Causes of Hospitalization, 65+ years, Canada, 2005



BC Cost of Fall Injury 2009/2010

- 950 deaths
- 12,006 fall-related hospitalizations
- 162,562 fall related hospital days
- 4,750 fall related hip fractures
- Over \$195 million in direct health costs
- Approximately 33 seniors' fall-related hospitalizations daily
- Approximately twice as many treated and released in EDs



Hospital Discharge Abstract Database, BC Ministry of Health, 2011

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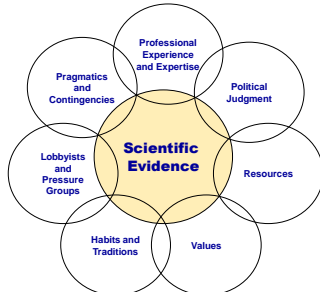
Context for Interventions

- Rapid growth in research in this field over the past decade
- Some intervention programs are best suited to specific settings
- Intervention programs should be matched with the scope of practice of those who deliver them
- Many will require partnerships

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Factors that influence the adoption of Evidence







Best practices

- Need to combine sound research evidence with practice experience and clinical judgment to create 'best practices'

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Levels of Evidence

Categories of Evidence	Strength of Recommendation
Class I: Evidence from systematic reviews and meta-analysis of randomised controlled trials.	A: Directly based on Class I evidence.
Class II: Evidence from at least one properly designed randomized controlled trial.	B: Directly based on Class II evidence or extrapolated recommendation from Class I evidence.
Class III: Evidence from comparative studies, correlation studies and case-control studies.	C: Directly based on Class III evidence or extrapolated recommendation from Class I or II evidence.
Class IV: Evidence from case studies or expert committee reports or opinions.	D: Directly based on Class IV evidence or extrapolated recommendation from Class I, II or III evidence.

Adapted from the Clinical practice guideline for the assessment and prevention of falls in older people, commissioned by the National Institute for Clinical Excellence (NICE)

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Community Interventions

- Multifactorial risk-factor assessment and management of assessment results (for cognitively intact persons) (A)
- Component of multifactorial approach include:
 - Environmental assessment and modification for individuals with a **high risk of falling** (A)
 - Exercise with balance training (A)
 - Appropriate use of assistive devices, especially an anti-slip shoe device worn in icy conditions (A)
 - Medication review and modification, particularly psychotropics
 - Managing visual concerns (A)
 - Appropriate treatment of medical conditions, including vision, cardiovascular disorders and hypotension and other cardiovascular considerations (A)
 - Treatment of postural hypotension (B)



Courtesy of Veterans Affairs Canada and John Snyder

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Cost Effectiveness Evidence

Most cost effective single interventions (Church et al. 2012; Colon-Emeric et al. 2003; Davis et al. 2011; Frick et al. 2012; Honkanen et al. 2006; Singh et al. 2004; Waldegger et al. 2003)

- Home modifications
- Vitamin D supplements
- Group Tai Chi exercises
- Resistance training
- Management of psychotropic medications
- Hip protectors (in residential LTC and very old in community)

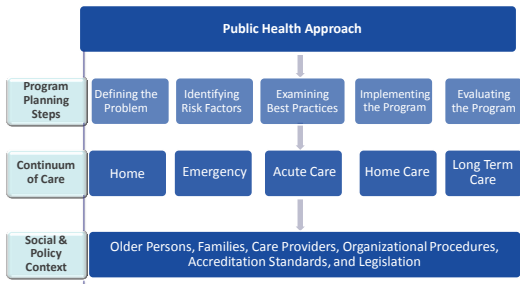
Cost Effectiveness Evidence

Multifactorial interventions (Jenkyn et al. 2012; Markle-Reid et al.; Sach et al. 2012):

- No savings shown for general population of community-dwelling seniors
- Cost effectiveness shown for high-risk community seniors and institutionalized seniors

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Sustainability Framework for Fall Prevention in Canada



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A Public Health Approach to Fall Prevention Among Older Persons in Canada

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KEYWORDS
• Seniors • Fall • Prevention • Canada • Aging • Injury

Experiencing a fall can have a devastating physical and psychological effect on an older person, resulting in disability, chronic pain, loss of independence, reduced quality of life, and even death. The risk of falling is complex and multifactorial. Reducing the incidence and severity of falls among a rapidly aging population demands a proactive, systematic, and multifactorial approach to prevention. In Canada, many policy makers, researchers, and practitioners are applying a public health approach to fall prevention, which relies on a careful analysis of the problem

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Canadian Falls Prevention Curriculum

For health professionals and community leaders to learn how to design, implement and evaluate a fall prevention program

Facilitated 2-day Workshop or On-line Course

Workshops offered through provincial leads

E-learning offered through:

- U. Victoria Continuing Education - in English
- Campus St. Jean at U. Alberta - in French

Project lead: Dr. Vicky Scott

Coordinator: Sarah Metcalfe (spph.cfpc@ubc.ca)

URL: www.canadianfallprevention.ca



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B.C. Fall Prevention Programs and Products

Community



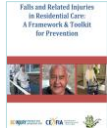
Home Care



Assisted Living



Residential Care



Primary Care



Aboriginal Communities



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Primary Care Fall Prevention Multimedia Package

- Provider resources
- Assessment tools
- Patient education



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Provider Resources

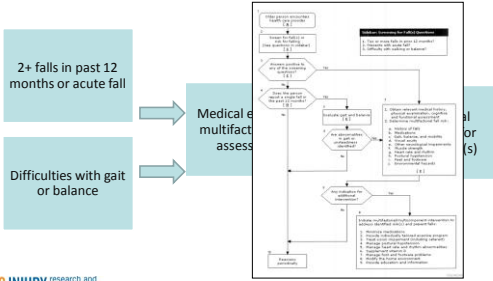
Fact Sheets

1. Defining the Problem
2. Identifying Fall Risk Factors
3. Fall Assessment & Interventions
4. Medication review
5. Revised ABS BGS Guidelines
6. Case study video



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American/British Geriatric Society Guidelines, 2010



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Primary Care Fall Prevention Training Video

Case Study



Balance and Mobility Tests



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Purpose

- Evaluate the effectiveness of the resources to increase knowledge and/or bring about changes in practice
- Develop and implement a marketing plan for disseminating the Primary Care Fall Prevention resources to physicians and other primary care providers across B.C.

Sample

- 24 family practice physicians with a large portion of elderly patients expressed interest in participating in the review and evaluation of the PCFP Multimedia Package over 6-8 weeks
 - 17 completed the Initial Survey and were sent the fall prevention package to review
 - 11 completed the Final Interview and Survey

Feedback on Clinician Resources

- Physicians indicated that the materials raised and/or reinforced their awareness of fall risks and prevention strategies
- Indicated that the materials were clear, useful and comprehensive
- Assisted in initiating conversation about fall risk
- Primary criticism was the volume of material



Feedback on Patient Education Resources

Physicians felt that they could be used to:

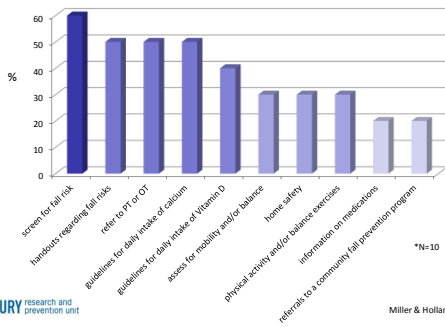
- Start conversations with patients regarding their risk of falling
- Reinforce concepts discussed with the physician or an allied health professional (e.g., PT/PT, dietitian, pharmacist, etc.)
- Serve as a resource for seniors regarding fall risks and prevention strategies
- Recommended that some of the materials be available electronically for patients



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Miller & Hollander, 2012

Likelihood for Changes in Practice*



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Miller & Hollander, 2012

Delivery

Chronic Disease Management Module
Practice Support Program
General Practice Services Committee
www.pspbc.ca



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BC Fall & Injury Prevention

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Thank you!

www.seniorsbc.ca
(-> Fall Prevention > Are you at risk?)

www.health.gov.bc.ca/prevention/fallprevention.html

www.injuryresearch.bc.ca

www.hiphealth.ca/CEMFIA