

CHNET-Works!



Welcome to CHNET-Works! Fireside Chats

Friday April 7th, 2006 1:00 – 2:00 PM EST

Preventing falls in the community...Stair Safety A Panel discussion

**Building Codes: research, consultation, implementation,
perspectives and roles of various sectors involved in this field.**

Implications for professionals in community health who are working on this issue.

www.chnet-works.ca

Hosted by: University of Ottawa – Community Health Research Unit

Funded by: Ontario Ministry of Health and Long Term Care 2005 – 2006

Canadian Health Services Research Foundation 2004 – 2005

Before We Start.....

Housekeeping Items.....

Agenda: 1:00 – 2:00 PM EST (and open until 2:15 PM)

- ✓ Welcome, brief intro, questions/answers, discussions, wrap up

Trouble shooting your audio and visual connections:

- ✓ Keep your Fireside Chat information and PowerPoint presentation available
- ✓ If your telephone line is disconnected or 'bad' – hang up and call back into the conference (**613- 564-7754 - pass code 2659**)
- ✓ Use the PowerPoint presentation – if your link to Bridgit is disconnected, fragmented or has a delay.

Teleconference etiquette:

- ✓ Please put the mute function on until you have a question to ask, especially if you are on a speaker phone.
- ✓ If no mute function – ensure there is no background noise or conversations.....thank you!
- ✓ Don't put us on 'hold' (especially if you have background music on your telephone line)

Follow up:

- ✓ Feedback - help our research and future Fireside Chats
- ✓ Discussions 'on line' re: issues identified in this 'chat'.

Introducing today's 'Advisors on Tap'

Moderator: Donna Lockett PhD

National Research Council – John Archer

Canadian Home Builders Association – Don Johnston

Insurance Bureau of Canada – Denis Prouse

Canada Mortgage and Housing Corporation – Luis Rodriguez

Participants

Ann McLeod
Peterborough County-City Health Unit
Peterborough, Ontario

Carol Goodall
Hastings & Prince Edward Counties
Health Unit
Belleville, ON

Julie Lévesque and Ginette Asselin
Ottawa Public Health
Ottawa

Fulvia Baldassarre
VON and McMaster University
Hamilton, Ontario

Françoise Hubley
St.Catharines ON

Josh Marko
Capital Health
Edmonton, AB

Mahendra Wijayasinghe
Fire Commissioner's Office
Edmonton, AB

Evelyn Braun
RHA Central
Portage la Prairie, MB

Greta Doucet
Innovation Action Inc
Moncton, NB

Debra Peterson
South Sask. Canadian Red Cross
Regina, Saskatchewan

Marq Nelson
Osteoporosis Canada
Ottawa

Shirley Hill
Chinook Health Region
Coaldale, Alberta

Jane Holland
Haliburton, Kawartha, Pine Ridge District
Health Unit
Lindsay

Natalie Damiano
CIHI, Ottawa

Stephane Adams
Veterans Affairs Canada
Halifax

Tom Robinson
Para-Med Home Health
Pembroke, ON

Sepia Sharma
Vancouver Coastal Health
Vancouver, BC

Jodi Phillips
Saint Elizabeth Health Care
Toronto

Sandra Carpenter
Central Health
Lewisporte NL

David Tarasuk
VHA Lifeline Systems
Ottawa

Marjorie Weeden
ParaMed Home Health
Care
Guelph

Estrella Mercurio
ParaMed Home Health
Care
Toronto, ON

IT COULD HAPPEN TO YOU OR SOMEONE YOU LOVE

**In January, 2004, The StarPhoenix, Saskatoon,
reported the story of an 81-year old woman who
misstepped when going down a flight of stairs, fell,
broke a leg, an arm and a hip — and was trapped in
her basement for nine days before help arrived.**

CMHC <http://www.cmhc-chl.gc.ca/>

Pictures of stairs....



More stairs.....



SAFETY FIRST

- ❖ **1 in 4 of us will have a stair accident resulting in requiring medical attention**
- ❖ **Between April 1, 2001 and March 31, 2002, a total of 6,224 Canadians fell on or from stairs or steps in their homes and were injured seriously enough to require a hospital visit.**
- ❖ **In the US, 1,000,000 injuries from stair falls/yr**
- ❖ **61.4% of deaths related to falls are related to falls on stairs**

STAIRS SAFEY FOR SENIORS?

- ❖ **Between 10-15% of falls among seniors are on stairs.**
- ❖ **Stairs are leading site for serious injuries among older adults.**
- ❖ **The incidence of stair-related injuries, hospitalizations, and fatal falls increases with age - More than half of the 6,224 people hospitalized were seniors.**
- ❖ **In Canada, persons over 65 account for 70% of deaths resulting from stair accidents**

IT'S ALSO ABOUT QUALITY OF LIFE!!

- ❖ **55% of Canadians 55 and older have difficulty climbing stairs – in the top 5 “hard to do” ADLs**
- ❖ **Stairs are leading reasons for needing to move or restricting use to a single floor in the home, yet... 89% of seniors want to **AGE IN PLACE****

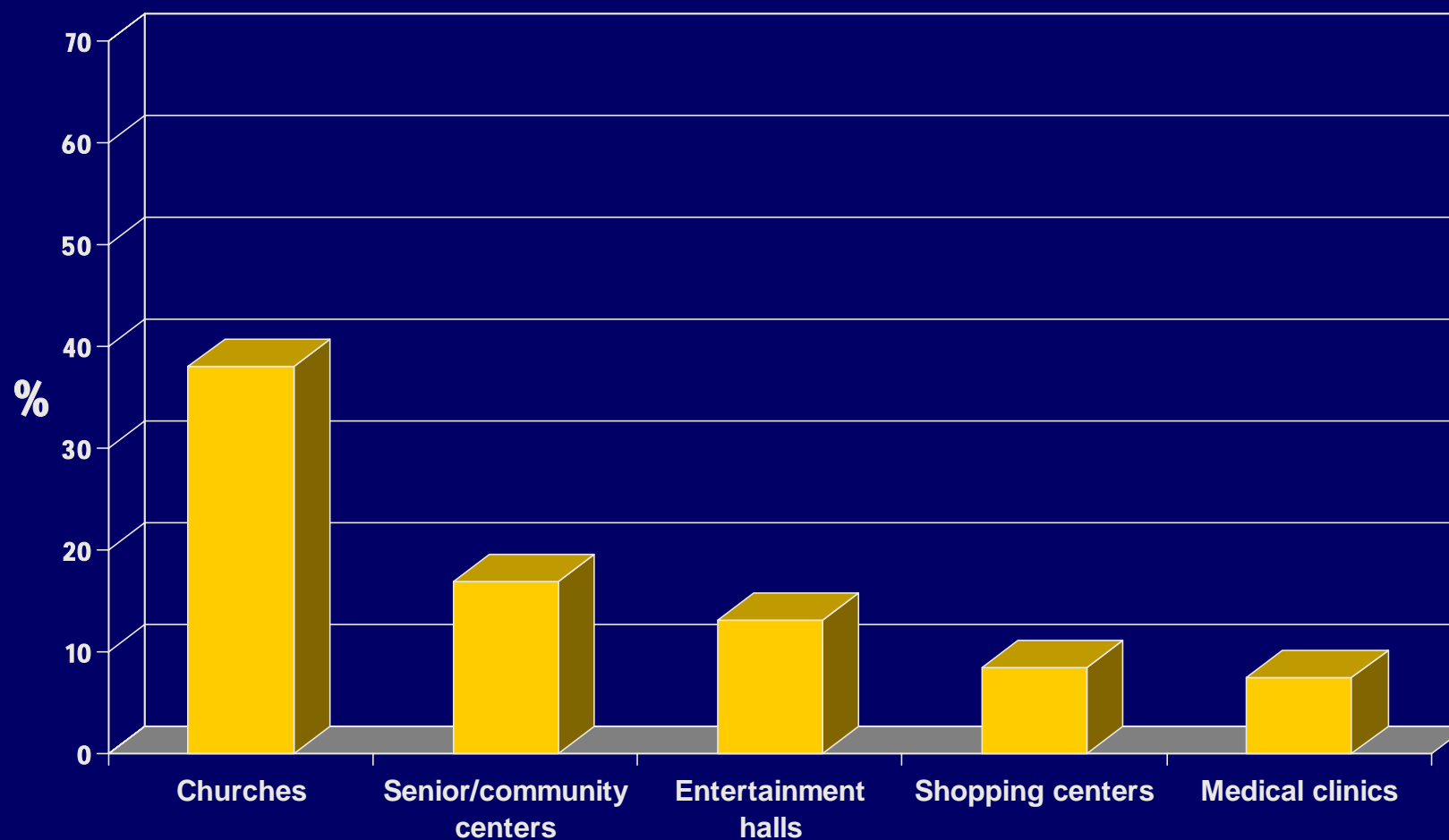


10 second Quiz for participants.....

Where do you think the most
problematic stairs are in
communities?

(outside of the home)

MOST COMMON LOCATIONS OF PROBLEMATIC COMMUNITY STAIRS (n=213)



MOST COMMONLY REPORTED STAIR FEATURES IMPLICATED IN FALLS

- ❖ **Lack of functional handrails**
- ❖ **Poor visibility:**
 - **poor lighting, lack of contrast marking**
- ❖ **Risers and treads that do not fit human gait**
- ❖ **Inconsistencies in risers and tread sizes**

(Archea, 1985; Sjorgen & Bjornstig, 1991)

Fall profiles over 2 years

(1 year prior to study + year over which study ran)

Fall related variable	N (%)
<i>Number of fallers</i>	265 (48)
<i>Number of falls</i>	506
<i>Number of fallers who fell on stairs</i>	66 (25)
<i>Number of falls on stairs</i>	85 (17)
<u>Season of stair fall</u>	
Winter	14 (17)
Summer	41 (48)
Spring	12 (14)
Fall	9 (11)
Unknown	9 (11)

<u>Location of stair fall</u>	
At home	42 (49)
At family's/friends house	17 (20)
Church	6 (7)
Outside	2 (2.4)
Other (e.g. restaurant, hotel, bus)	12 (14)
Unknown	6 (7)
<u>Self-reported causes of stair fall</u>	
Stair features:^a	28 (32.9)
“Difficult stairs”	
No contrast marking	14 (50)
Poor lighting	8 (29)
Non-uniform	7 (25)
Slippery	3 (11)
Risers too high	2 (7)
Risky behaviours (e.g. rushing, carrying multiple objects)	1 (4)
Health	25 (29)
Unknown/unclear	15 (18)
	17 (20)

^a Some respondents identified more than one stair feature.

MINIMAL RECOMMENDATIONS FOR SAFE STAIRS

General recommendations

- Closed risers
- Uniform risers – $< 178\text{mm}$ (7")
- Run uniform - $> 279\text{ mm}$ (11")
- Contrast marking on riser
- No more than 10 steps per flight
- One handrail

(Archea et al., Pauls, 1981)

Recommendations for SENIORS

- Closed risers
- Uniform risers - $< 152\text{ mm}$ (6")
- Run between 250-265 mm (10.4")
- Contrast marking on riser
- No more than 6 steps per flight
- Two handrails

(Finlay & Taylor, 1985)

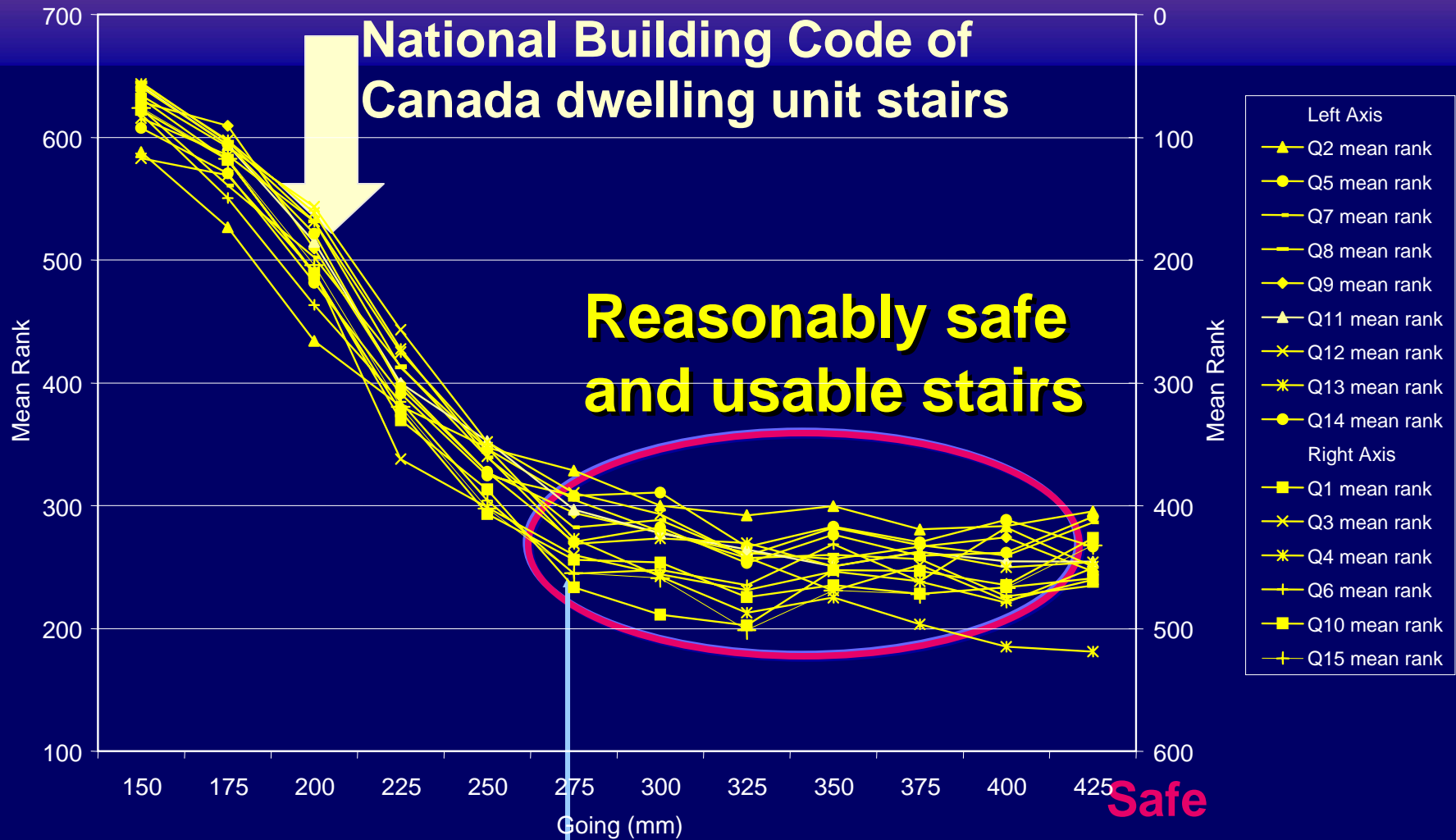
CURRENT CODES VS RECOMMENDATIONS

	Current Codes	General Recommendations	Recommendations for seniors
Maximum riser height	200 mm (7.9")	178 mm (7.0")	152 mm (6.0")
Minimum run Private homes	210 mm (8.3)	279 mm (11.0")	265 mm (10.4")
Minimum run Public Buildings	230 mm (9.1)	279 mm (11.0")	265 mm (10.4")

Mike Roys - UK Building Research Establishment

Results: *"I felt safe walking down..."*

Unsafe



Topic #1 - Sectors

Question #1:

What is the role of your organization/sector in research, consultation, development and implementation for building codes - in particular re: stair safety?

- National Research Council**
- Home Builders Association of Canada**
- Canadian Mortgage and Housing Corporation**
- Insurance Bureau of Canada**

Topic #2: The codes:

Question #1:

Are new stair codes (tread length in particular) reflecting the research recommendations with less discrepancy for private homes and public buildings?

Question #2:

How can people access the code information?

Answer:

- a) http://irc.nrc-cnrc.gc.ca/codes/home_E.shtml**
- b) see appendix: Building Codes - Stairs**

Topic #3: The consultation process:

Question #1:

How can professionals in community health:

- **Have input into building codes consultation**
- **What is the most important information they can provide?**
- **Become part of the decision making process related to public and residential building codes.**

Topic #4 - Implementation:

One participant commented:

“Building codes are developed nationally but their application is in the hands of the provinces. Because of this, codes are not applied in a similar way. In fact, in some provinces, application of the criteria is not well supervised, or practically not. “

Question #1:

How can community health professionals find out what their provincial/territorial codes are?

Question #2:

What can community health staff do in the community when they find unsafe stairs?

- **Who do community health professionals refer seniors to for improvements?**
- **Where can seniors find certified builders/renovators?**

Topic #5 Funding/Finances:

Question #1:

- Are there any policies or incentives in the insurance industry re: safer stairs in community buildings and private homes?**

Question #2:

- What funding sources are available for renovations or adaptations in homes or public places?**

Last thoughts from panelists?

1-2 minutes to add any 'last comments'?

- CBHA – Don Johnston
- CMHC – Luis Rodriguez
- NRC – John Archer
- IBC – Denis Prouse

So what is next?

Invitation to panelists and participants to ...

Ask more questions...

Identify areas of action/collaboration...

Identify who you need to hear from next....

Formal 'closure'

Thank you all!

Dot will follow up with a feedback form

And ... any next steps for you?

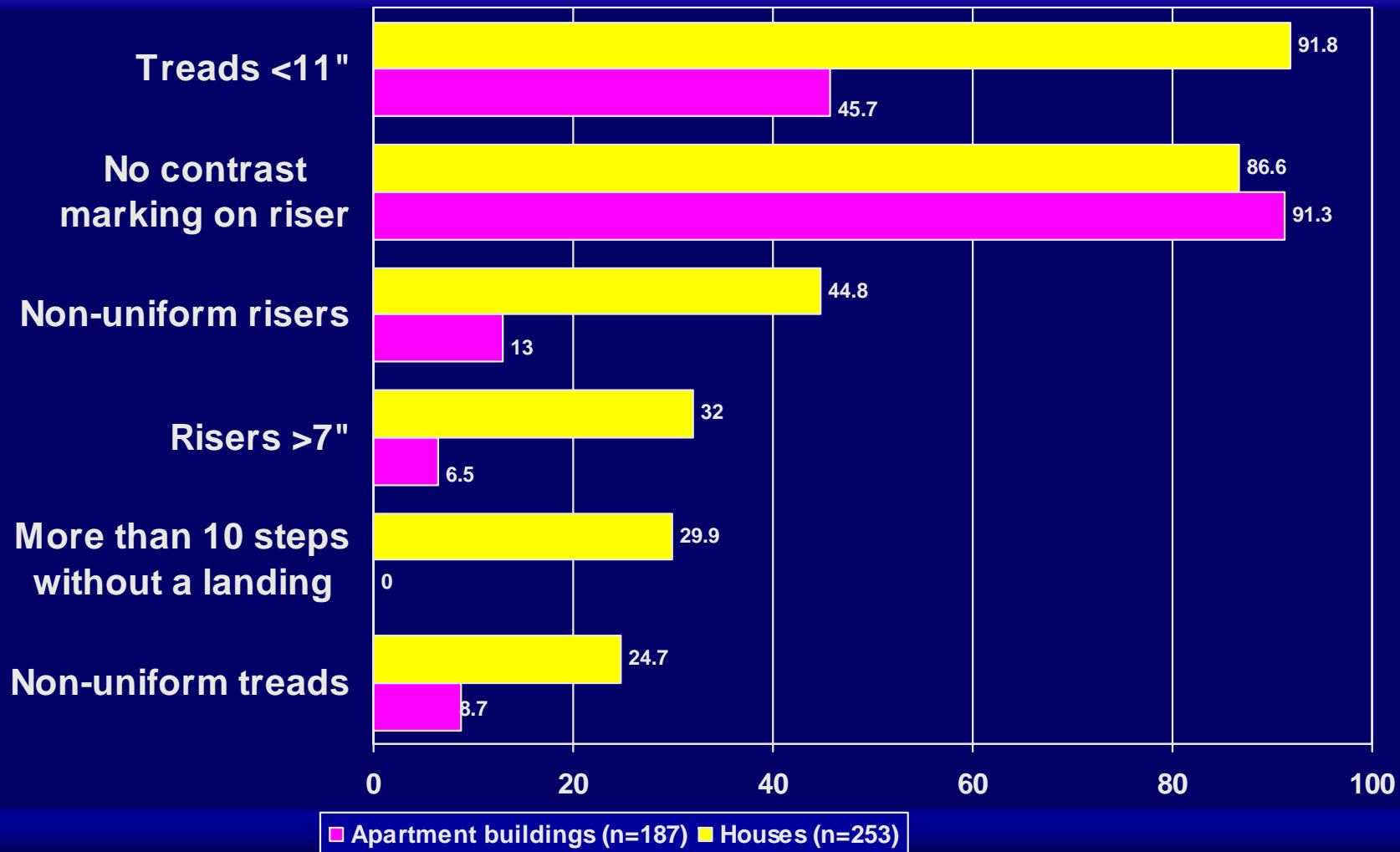


APPENDIX

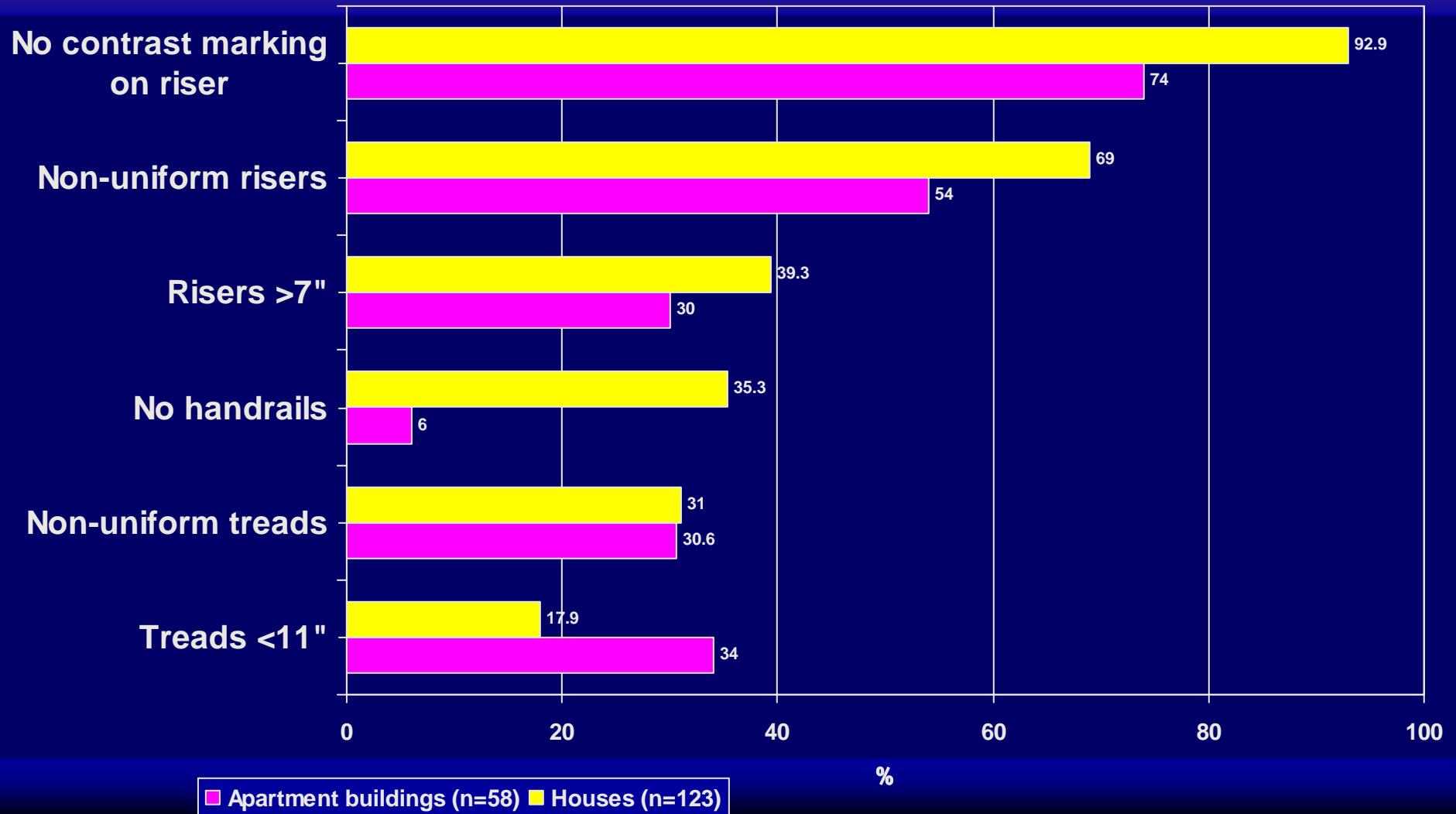
Other questions from participants...

- ❑ Where can community members and community health workers find information and assistance once they want to make their environment safer?**
- ❑ What has been done to disseminate the use of safety features of stairs in the community?**
- ❑ One of the characteristics of my clients, particularly the elderly is that, for a host of reasons, they resist changing their environment, even if this represents a risk for falls to them and even if health care professionals recommend changes. Are you aware of any program that has been implemented to facilitate changes in the environment of such clients?**
- ❑ What does the new NBC specify re: grab bars in bathrooms?**

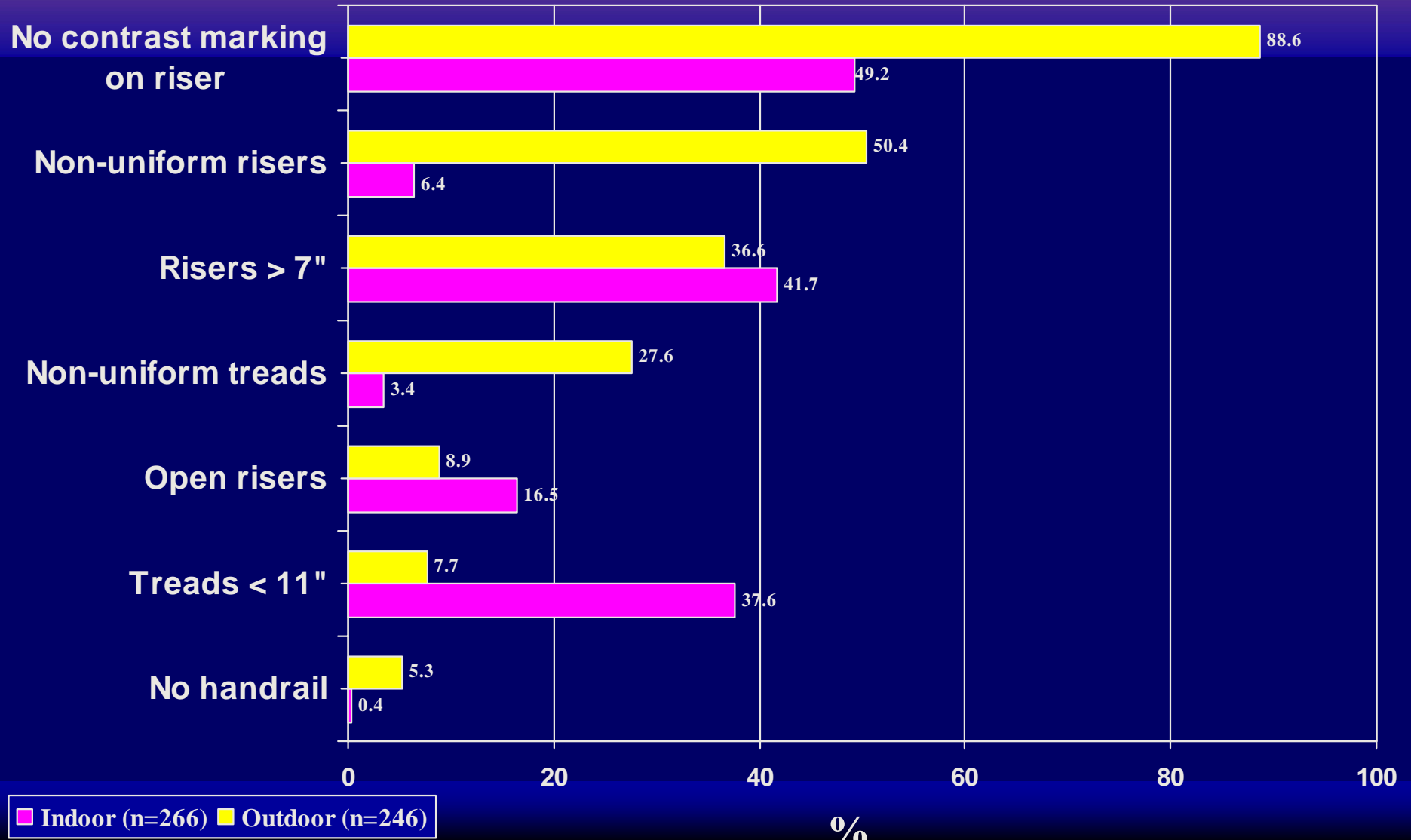
MOST COMMON STAIR HAZARDS INSIDE HOUSES AND APARTMENTS (n=440)



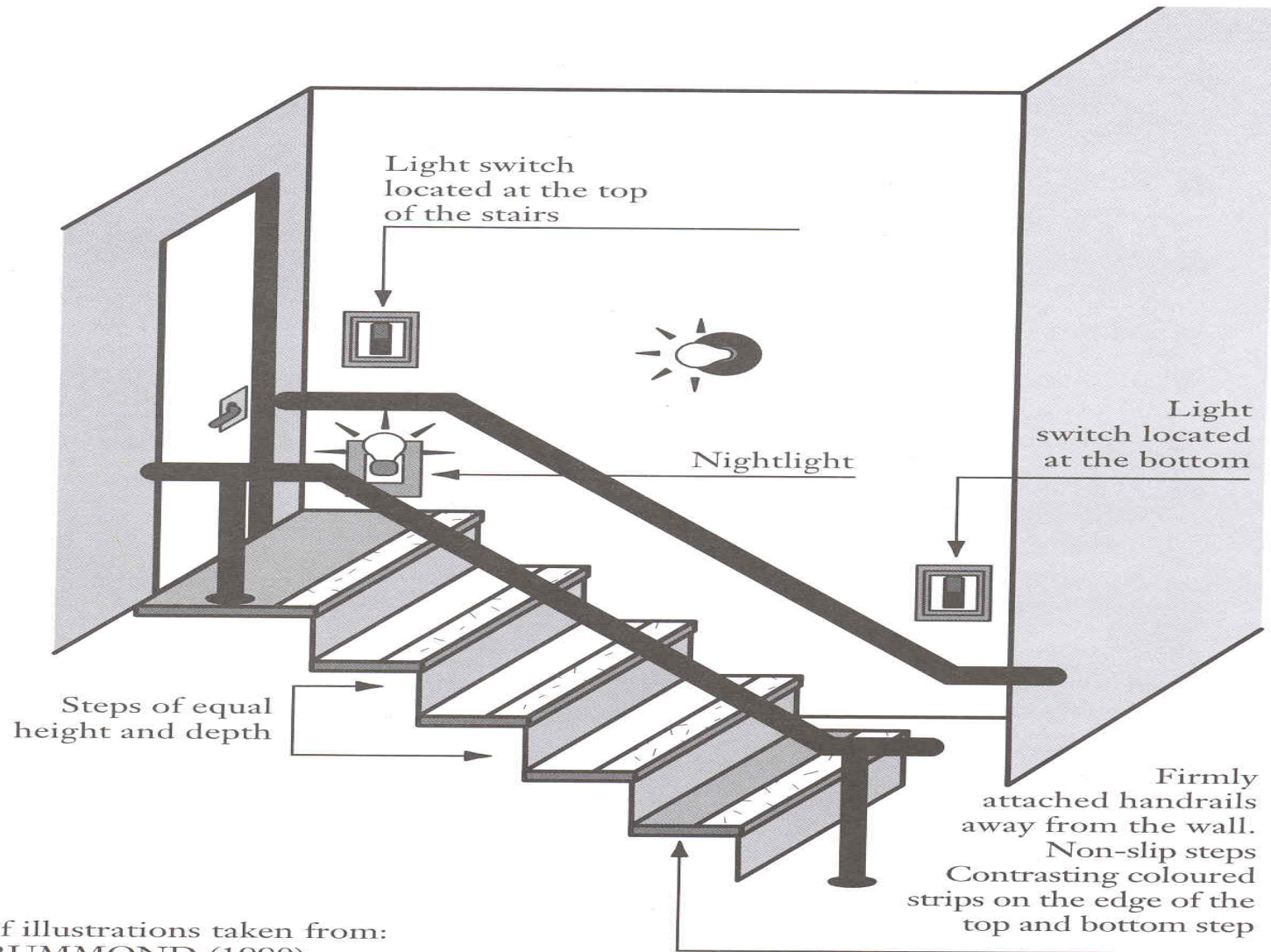
MOST COMMON (%) STAIR HAZARDS OUTSIDE HOUSES AND APARTMENTS (n=181)



MOST COMMON STAIR HAZARDS IN THE COMMUNITY (n=512)



RECOMMENDATIONS FOR SAFE STAIRS



Adaptation of illustrations taken from:
1) CLSC DRUMMOND (1990).
«*Mieux vivre à domicile sans chute.*»
2) CLSC VALLEE DES FORTS
and HÔPITAL DU HAUT-RICHELIEU (1994).
«*Laissez-vous guider pour ne pas tomber.*»

MULTIPLE INTERVENTIONS FOR SAFE STAIRS

WHO?

- Public health
- Media
- Primary care
- Coalitions
- Seniors interest groups
- Insurance
- Homebuilders
- NBCC
- Municipal planners

WHAT? HOW?



Building code: stairs

- The minimum requirements for interior stairs in private dwellings can be found in Section 9.8 of the National Building Code.
- Section 9.8 covers stairs, ramps, handrails and guards.
- The requirements for exterior stairs that are a means of egress are covered by Sections 9.9 and 9.10.
- These two Sections are primarily concerned with protecting people from fire when leaving a dwelling and ensuring that the exit is not obstructed.
- The minimum requirements for stairs in all buildings that are not private dwellings can be found in Section 3.4 of the National Building Code with treads and risers addressed in Article 3.4.6.7 and curved stairs in Article 3.4.6.8.
- Except for the stairs that exit from a building, the National Building Code does not cover stairs in the built environment around the building. These are typically covered by municipal bylaws.

Where can they be accessed?

- The National Building Code is a model code only. The Constitution Act gives the provinces and territories the authority to regulate buildings.
- Therefore, to access the jurisdiction's building code one should approach the provincial and territorial government.
- The three territories adopt the National Building Code as their provincial building code, as do Saskatchewan, Manitoba, New Brunswick, Quebec and Nova Scotia. However, each of these jurisdictions make minor changes to the National Building Code in their adoption process. None change the stair requirements.
- British Columbia and Alberta have their own building codes, but they are essentially the National Building Code with a different cover,
- Ontario is the only jurisdiction that publishes its own building code. Ontario's building code is about 85% the same as the National Building Code (they most likely do not change the stair requirements).
- Prince Edward Island and Newfoundland/Labrador do not have province-wide building codes, although they require their incorporated municipalities to use the National Building Code.

Resources available

- ❖ National Research Centre: www.nrc-cnrc.gc.ca
- Building Codes Centre: http://irc.nrc-cnrc.gc.ca/codes/home_E.shtml
- ❖ Canadian Home Builders Association www.chba.ca/
- ❖ Canada Mortgage and Housing Corporation <http://www.cmhc-schl.gc.ca>
- ❖ About Your House: Preventing Falls on Stairs
<http://www.cmhc.ca/od/?pid=63637>
- Maintaining Seniors Independence Through Home Adaptations: A Self-Assessment Guide
<http://www.cmhc.ca/od/?pid=61087>
- ❖ Designing Flexible Housing - How The Strategy Works
http://www.cmhc-schl.gc.ca/en/inpr/imhoaf/afhoid/cohode/deflho/deflho_001.cfm
- ❖ At Home with Alzheimer's Disease: Useful Adaptations to the Home Environment
<http://www.cmhc.ca/od/?pid=60849>
- Information on all CMHC renovation programs
<http://www.cmhc-schl.gc.ca/en/co/prfinas/>
- RRAP-D (Residential Rehabilitation Assistance Program for people with Disabilities) program
http://www.cmhc-schl.gc.ca/en/co/prfinas/prfinas_003.cfm
- CMHC's HASI (Home Adaptations for Seniors Independence) program
http://www.cmhc-schl.gc.ca/en/co/prfinas/prfinas_004.cfm

Resources available

- ❖ **Ontario Assistive Device Program: 1-800-2686021
www.health.gov.on.ca/english/public/program/adp/adp_mn.html**
- ❖ **Veterans Affairs: 998-9460 <http://www.vac-acc.gc.ca/>**
- ❖ **Canada Safety Council: www.safety-council.org**
- ❖ **Advocacy kit: www.aix1.uottawa.ca/~nedwards/chru/**
- ❖ **Community Health Research Unit: <http://www.falls-chutes.com/>**
- ❖ **Health Canada: <http://www.hc-sc.gc.ca/seniors-aines>**

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