



***Transforming Everyday Life
into Extraordinary Ideas***



Consumer Product Related Senior Injury Risk Assessment in the CLSA

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Information Gaps

- ▶ **Use of consumer products to prevent injury**
 - e.g., night light
- ▶ **Avoid consumer product misuse**
 - e.g., ladder being used on uneven ground
- ▶ **Improve consumer product design**
 - e.g., use of self lighting paint in hallway

Partnership with PHAC

- **Environmental Scan** to identify literature on seniors' injuries caused by key consumer products
- Analysis of existing data from Canadian Community Health Survey (**CCHS**)
- Development and Pilot Testing of CLSA **Injury and Consumer Products Module**

Environmental Scan

Characteristic	N (%)	Notes
Type of Data Analysed		
Primary	1 (4.8)	Primary Data: Telephone survey, questionnaires
Secondary	18 (85.7)	Secondary Data: Hospital discharge data, Emergency Department data,
Both	2 (9.5)	Mortality Records, Retrospective chart review
Data Sources		
Mortality Data	8 (38.1)	Injury Surveillance Systems: Many injury surveillance databases
Hospital Discharged Data	17 (81.0)	included data from multiple administrative databases (mortality data,
Emergency Department Data	16 (76.2)	hospital discharge data, and emergency department data)Time off
Time off Work	1 (4.8)	work: self-reported questionnaire data

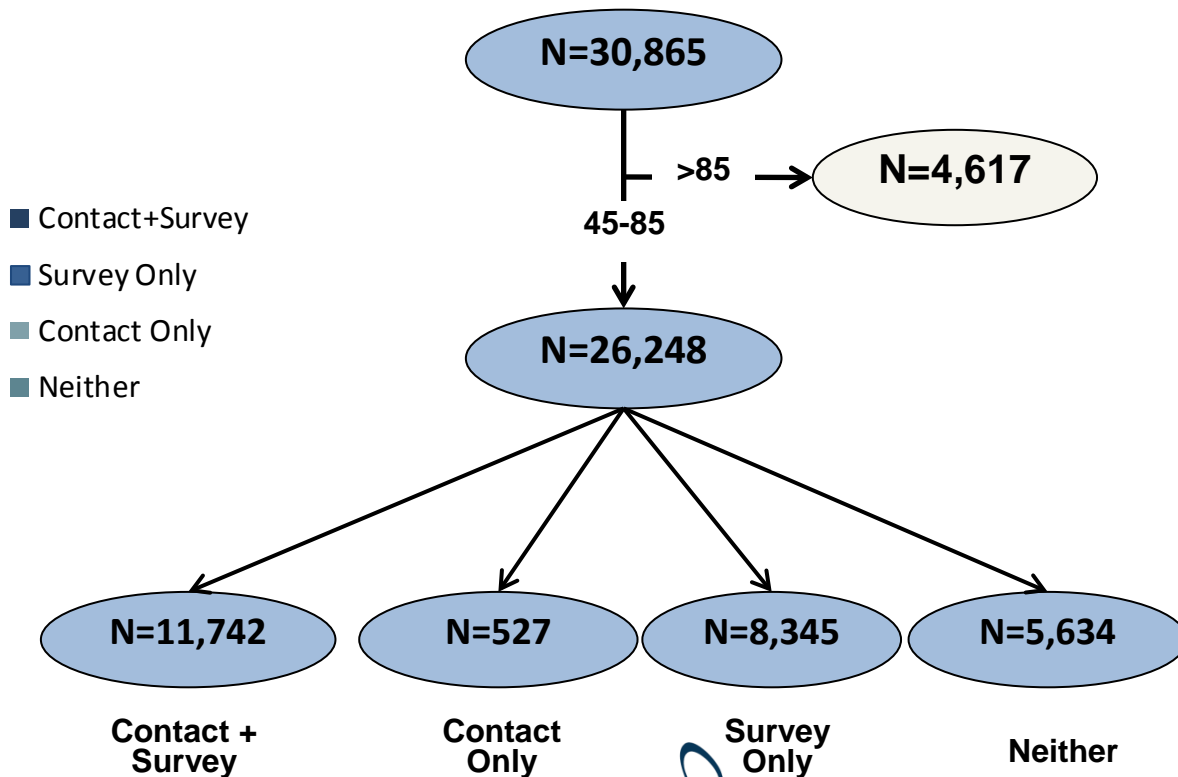
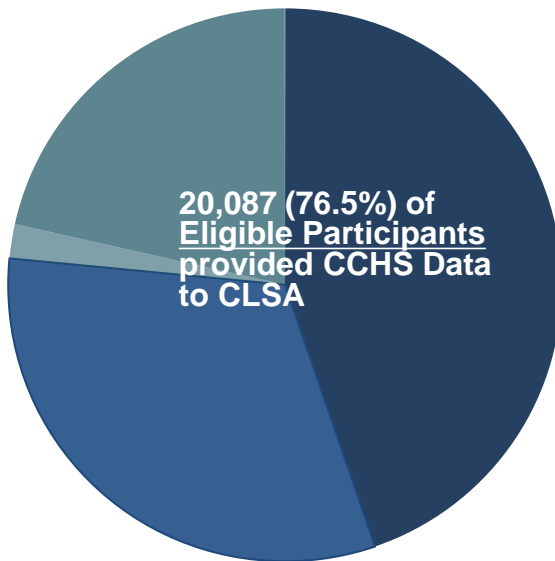
Environmental Scan

Characteristic	N (%)	Notes
Injury Type		
All Unintentional Injuries	8 (38.1)	Injuries: All reported injuries associated with a consumer product
Falls	12 (57.1)	Falls: All falls-related injuries associated with a consumer product
Both (comparison)	1 (4.8)	One study compared falls vs. other non-fall injuries
Consumer Products		
General	8 (38.1)	The most commonly identified consumer products related to injuries: floors/flooring, stairs/steps, beds, chairs, rugs/carpets, ladders, footwear, outdoor structures, and housing/building materials
Ladders and/or Stairs	10 (47.6)	
Sports Equipment	1 (4.8)	
Wheelchairs/Walkers	1 (4.8)	
Bathroom Products	1 (4.8)	

CCHS-CLSA Data.

CCHS Participants were asked to share:

- Their contact information with the CLSA (for recruitment)
- Their survey responses with the CLSA (for analysis)



CCHS-CLSA Data

- **Falls Module:** administered to those 65+
 - Fall in last 12 months that limited normal activities
 - Severity
 - Nature
 - Health care resource utilization
 - Fear of future falls
 - Using an assistive device at the time of the fall

AD Use and Consequences of Fall

	Unadjusted		Adjusted for Sociodemographic Factors ¹		Adjusted for Sociodemographic and Frailty Factors ²	
Outcome	OR (95% CI)	P-value	OR (95% CI)	P-value	OR (95% CI)	P-value
Received medical attention	1.6 (0.9, 3.0)	0.12	1.5 (0.8, 2.9)	0.18	1.2 (0.7, 2.4)	0.51
Hospitalized for injury	3.7 (1.5, 8.9)	0.003	3.4 (1.3, 8.9)	0.02	1.9 (0.7, 4.9)	0.20
Follow-up care from a health professional	1.0 (0.5, 2.2)	0.95	1.0 (0.5, 2.1)	0.96	0.6 (0.3, 1.5)	0.28
Worried about re-injury	2.8 (1.6, 5.1)	<0.001	2.4 (1.3, 4.5)	0.005	1.5 (0.7, 3.1)	0.27
Limit activities due to worry about re-injury	3.8 (2.1, 6.9)	<0.001	3.2 (1.7, 6.1)	<0.001	1.9 (0.9, 3.9)	0.07

¹Analyses adjusted for age, sex, income, marital status, education, income, >1 fall in past 12 months

²Analyses adjusted for age, sex, income, marital status, education, income, >1 fall in past 12 months, 5 or more chronic conditions, any ADL/IADL impairment, and physical activity level

Conclusions from Preliminary Work

- No single instrument could be directly adapted for our purposes
 - Although there were interesting associations, limitations with current CCHS data
- Develop CLSA-Injury and CP module

Instrument Development



Item selection (literature review and expert panel)

- **Pre-existing instruments with proven validity, reliability and responsiveness**
- **Appropriate for participants aged 45-85 years of age**
- **Administration by telephone or face-to-face**
- **Length (maximum 10 minutes)**



Final Instrument

- **Review by experts (face validity)**
- **Volunteers (ease of administration and clarity)**
- **Translation into Québécois French**

CLSA Falls and Injury Module:

Injuries that occurred in the past 12 months that were serious enough to limit normal activities

- Number of injuries
- Any **fall-related** injuries (then answer falls and CP module)
- Most serious injury
 - How it happened
 - Where happened
 - Type of activity at the time of injury
 - Type of injury
 - Any fractures

CLSA Falls and Injury Module:

In a prior question we asked:

During the past 12 months, have you used any of the following assistive devices?

Cane or walking stick

Motorized scooter

Leg braces or supportive devices

Grab bars

Bath or bed lifts or other lifting devices

Special eating utensils

None

Wheelchair

Walker

Hand or arm brace

Bathroom aids

Grasping tools or reach extenders

Personal alarm

Other (please specify: _____)



CLSA Falls and Injury Module:

Were you using your assistive device at the time of your fall

Were you using or were the following a contributing factor to your fall:

- ladder, step stool, bed, chair, other furniture, rug/carpet, flooring, electrical cord, foot ware, clothing, toys, yard tools, bicycle, other sports equipment, anything else

CLSA Falls and Injury Module:

If so, which of the following best describes how it contributed to your fall:

- Poor design
- Assistive device not being used as designed
- Defective manufacturing
- Lack of servicing or maintenance
- Assistive device was worn out
- Inadequate instructions
- Did not read the instructions
- Human error
- Other → Specify

(Very) Preliminary CLSA Data

- Tracking Cohort (n=8,449)

	45-54				55-64				65-74				75-85			
	Female		Male		Female		Male		Female		Male		Female		Male	
Any Injury	163	16%	97	18%	259	14%	154	13%	143	10%	136	12%	76	10%	46	8%
1 injury	143	88%	79	81%	212	82%	128	83%	125	87%	113	83%	69	91%	41	89%
>1 injury	20	12%	18	19%	47	18%	26	17%	18	13%	23	17%	7	9%	5	11%
Any fall-related injury	54	5%	21	4%	111	6%	44	4%	86	6%	50	4%	46	6%	27	5%
1 fall	45	83%	14	67%	86	77%	35	80%	73	85%	40	80%	42	91%	23	85%
>1 fall	9	17%	7	33%	25	23%	9	20%	13	15%	10	20%	4	9%	4	15%

(Very) Preliminary CLSA Data

	45-54				55-64				65-74				75-85			
	Female		Male		Female		Male		Female		Male		Female		Male	
Required medical attention	35	66%	14	67%	70	65%	30	68%	59	70%	32	65%	38	84%	18	75%
Hospitalized	3	9%	3	21%	13	18%	9	30%	17	28%	9	28%	17	44%	7	37%

(Very) Preliminary CLSA Data

Where did fall happen	45-54				55-64				65-74				75-85			
	Female		Male		Female		Male		Female		Male		Female		Male	
Inside home	13	24%	3	14%	27	25%	8	18%	30	35%	9	18%	18	39%	9	35%
Outside home - in a building	7	13%	6	29%	20	18%	8	18%	16	19%	12	24%	7	15%	6	23%
Outdoors	34	63%	12	57%	62	57%	28	64%	39	46%	29	58%	21	46%	11	42%

(Very) Preliminary CLSA Data

Contributed to Fall	45-54				55-64				65-74				75-85			
	Female		Male		Female		Male		Female		Male		Female		Male	
AD	3	6%	1	5%	5	5%	2	5%	2	2%	2	4%	2	4%	0	0%
Stool	1	2%	1	5%	3	3%	2	5%	2	2%	0	0%	1	2%	1	4%
Chair	1	2%	0	0%	2	2%	0	0%	3	3%	0	0%	3	7%	1	4%
Rug	0	0%	0	0%	2	2%	0	0%	4	5%	0	0%	1	2%	0	0%
Flooring	2	4%	1	5%	8	7%	2	5%	4	5%	1	2%	0	0%	2	7%
Footwear	6	11%	3	14%	20	18%	5	11%	4	5%	1	2%	4	9%	2	7%

(Very) Preliminary CLSA Data

	45-54				55-64				65-74				75-85			
	Female		Male		Female		Male		Female		Male		Female		Male	
Cane or walking stick	50	5%	32	6%	158	9%	95	8%	152	11%	111	10%	185	24%	116	20%
wheelchair	17	2%	7	1%	35	2%	20	2%	28	2%	20	2%	31	4%	16	3%
Motorized scooter	9	1%	1	0%	13	1%	9	1%	15	1%	15	1%	10	1%	7	1%
Walker	13	1%	7	1%	62	3%	21	2%	65	5%	38	3%	114	15%	31	5%
Leg braces or supportive devices	36	4%	17	3%	57	3%	38	3%	25	2%	35	3%	9	1%	14	2%
Hand or arm brace	32	3%	8	2%	55	3%	23	2%	25	2%	9	1%	11	1%	1	0%
Grab bars	29	3%	11	2%	101	5%	40	3%	158	12%	65	6%	213	27%	74	13%
Bathroom aids	27	3%	11	2%	69	4%	23	2%	88	6%	39	3%	122	16%	36	6%
Bath or bed lifts or other lifting device	4	0%		0%	10	1%	3	0%	15	1%	5	0%	17	2%	5	1%
Grasping tools or reach extenders	18	2%	4	1%	38	2%	12	1%	54	4%	21	2%	49	6%	19	3%
Special eating utensils	2	0%		0%	3	0%	1	0%	5	0%	4	0%	3	0%	2	0%
Personal alarm	4	0%		0%	3	0%	1	0%	8	1%	12	1%	30	4%	4	1%
other	17	2%	9	2%	35	2%	27	2%	31	2%	14	1%	14	2%	15	3%



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