

The Real Burden of Injuries in New Brunswick

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Introduction

- What's the issue?
- What it all means
- What we need to do about it

Leading Causes vs. Potential Years of Life Lost

- Leading causes = cause of death by number affected, regardless of age
- Potential Years of Life Lost (PYLL) = an estimate of the average years a person/group would have lived had they not died prematurely

Instrument #1: Leading Causes of Death in Canada

(Statistics Canada, 2004)

RANK	CAUSE OF DEATH
1	Cancer
2	Heart Disease
3	Stroke and other cerebrovascular disease
4	Chronic respiratory diseases
5	Unintentional Injuries
6	Diabetes
7	Influenza and Pneumonia
8	Alzheimer's Disease
9	Suicide
10	Kidney Diseases

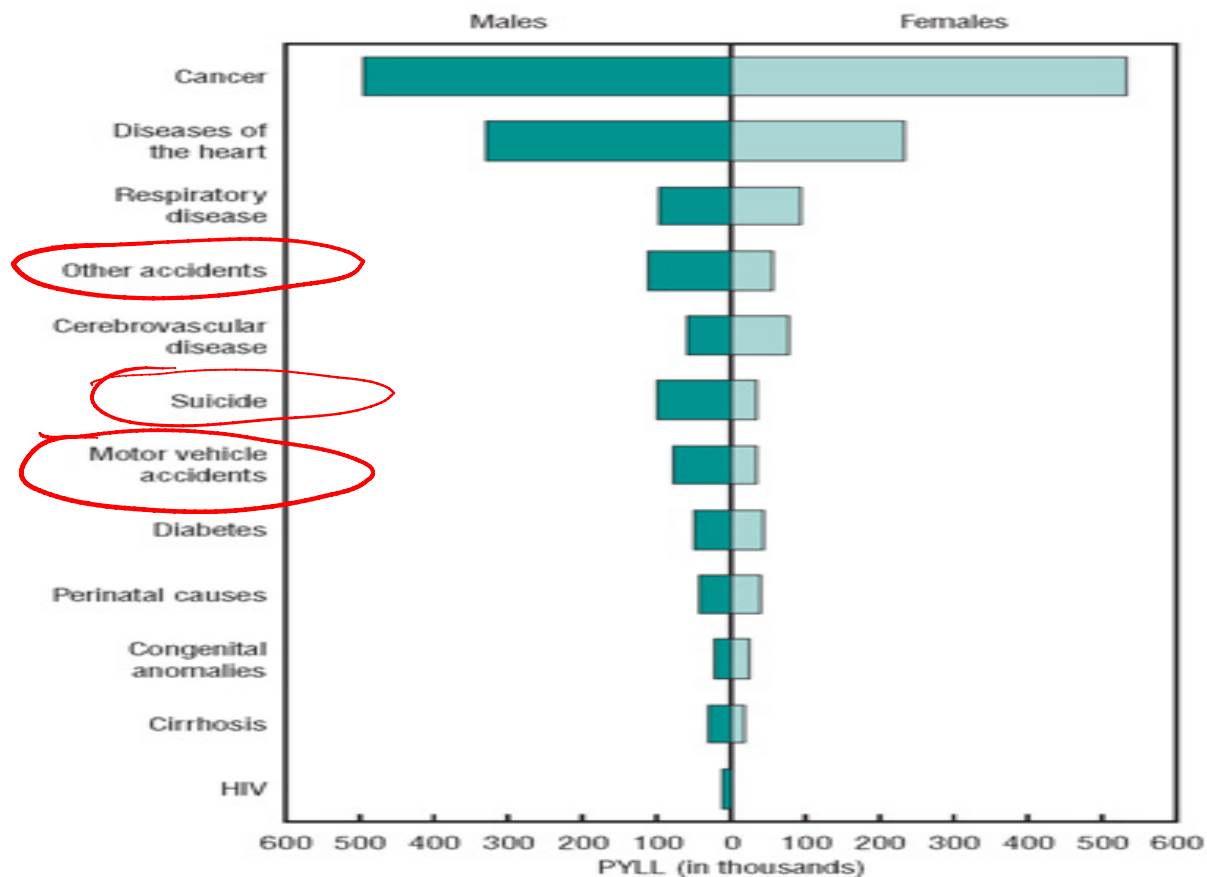
Leading Causes of Death in Canada, by age group

RANK	1-4 yrs	5-9 yrs	10-14 yrs	15-19 yrs	20-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65+ yrs
1	Unintentional injuries						Cancer (1,830)	Cancer (4,825)	Cancer (9,832)	Diseases of the circulatory system
2	Congenital anomalies (57)	Cancer (58)	Intentional Injuries (Suicide)				Diseases circulatory system	Diseases circ. system	Diseases circulatory system	Cancer (41,424)
3	Cancer (51)	Diseases of the nervous system	Cancer (50)	Cancer (86)	Cancer (94)	Cancer (432)			Respiratory diseases (998)	Respiratory diseases (18,387)
4	Diseases of the nervous system (40)	Congenital anomalies (20)	Diseases of the nervous system (26)	Diseases of the circulatory system (34)	Homicide (48)	Diseases of the circulatory system (213)			Diseases of the digestive system (870)	Diseases of the digestive system (5,909)

Instrument #2: Potential Years of Life Lost

(Public Health Agency of Canada, 2004)

Selected Causes of Potential Years of Life Lost (PYLL), Canada, 2004



Note: Figures are ranked in order of total PYLL for both males and females combined and are calculated based on life expectancy.

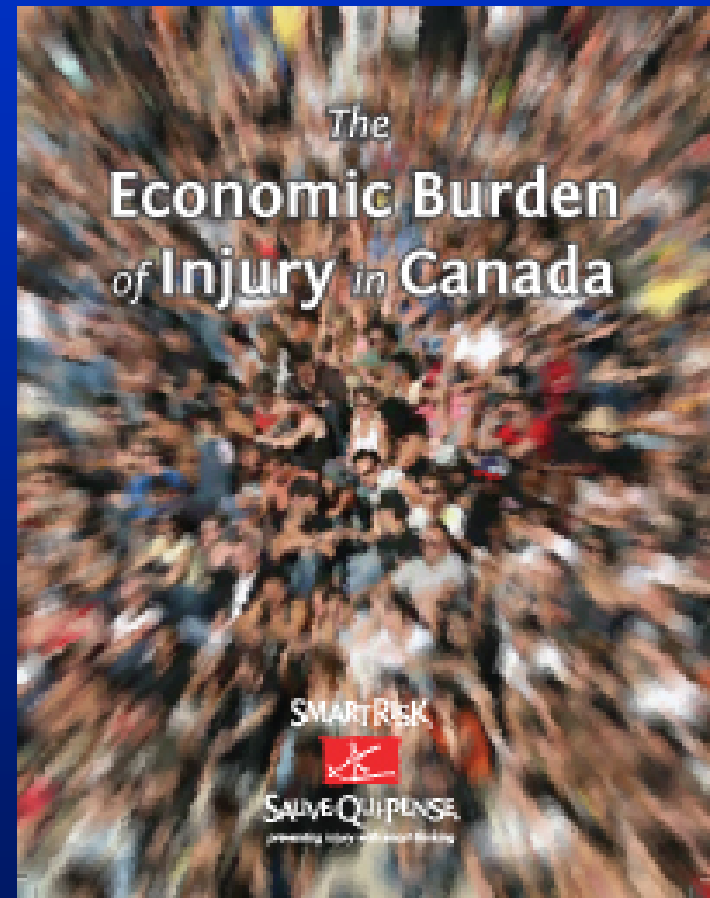
Source: Chronic Disease Surveillance Division, CCDPC, Public Health Agency of Canada

Instrument #2: Potential Years of Life Lost (cont'd)

- Across Canada, for those ages 1 through 34, injury is the highest contributor to potential years of life lost.
- For those aged 35-64, injury is the third highest contributor to potential years of life lost, after cancer and heart disease.

The 2009 SMARTRISK Report

- Who the heck is SMARTRISK?
- What is in the Economic Burden of Injury Report?
- What does it mean for New Brunswick?



Injuries in Canada... Good News and Bad

- Overall injury death rate down by 10.9%
- 13,667 deaths due to injury
- 993.3 potential years of life lost due to injury...per 100,000 population!



PYLL due to injuries across Canada, 2004

	PYLL per 100,000 population
CANADA	993.3
BC	989.7
Alberta	1479.2
Saskatchewan	1377.2
Manitoba	1396.2
Ontario	755.4
Quebec	1077.4
New Brunswick	1011.9
Nova Scotia	953.4
PEI	1106.9
Newfoundland and Labrador	856.8

(The Economic Burden of Unintentional Injury in Canada, SMARTRISK, 2009)

The burden of injury.... more than first appears

(The Economic Burden of Unintentional Injury in Canada, SMARTRISK, 2009)

So...it's a big deal

Need to understand more...

- What injuries are happening in NB?
- To whom are they happening?

What is Happening in New Brunswick?

Deaths

#1: Transport Incidents (12.5/100,000)

#2: Suicide (11.8/100,000)

#3: Falls (9.7/100,000)

Injuries:

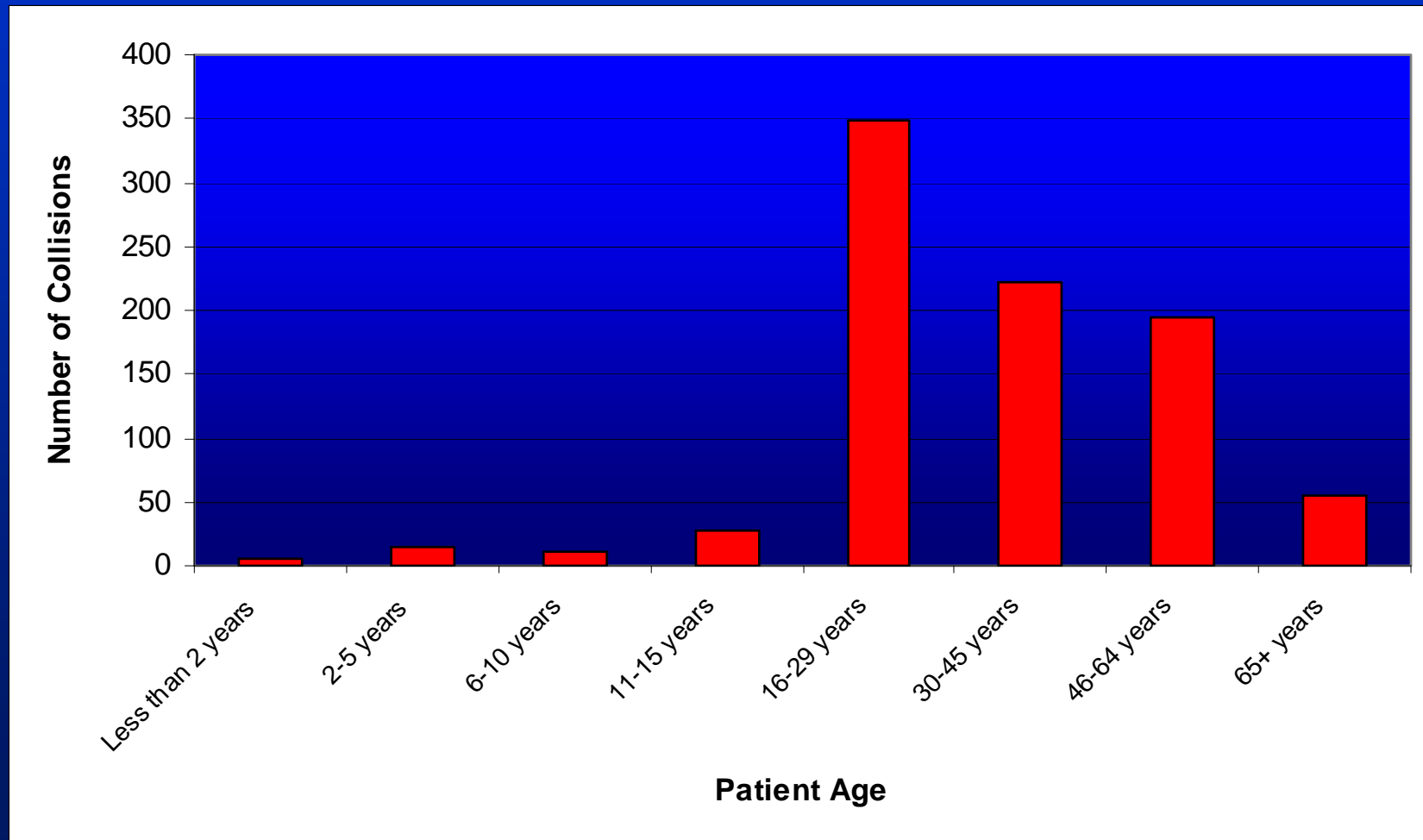
#1: Falls

#2: Transport Incidents

Transport Incidents	Deaths	Hospital Admissions	ED Visits	Permanent Partial disability	Permanent total disability
Pedestrian	12	48	355	12	<5
Pedal Cycle	<5	117	1397	32	<5
Motor Vehicle	41	538	3774	123	13
ATV or Snowmobile	6	195	418	43	<5
Other	33	49	545	13	<5

(The Economic Burden of Unintentional Injury in Canada, SMARTRISK, 2009)

Motor vehicle crashes: What NB age groups are most at risk?



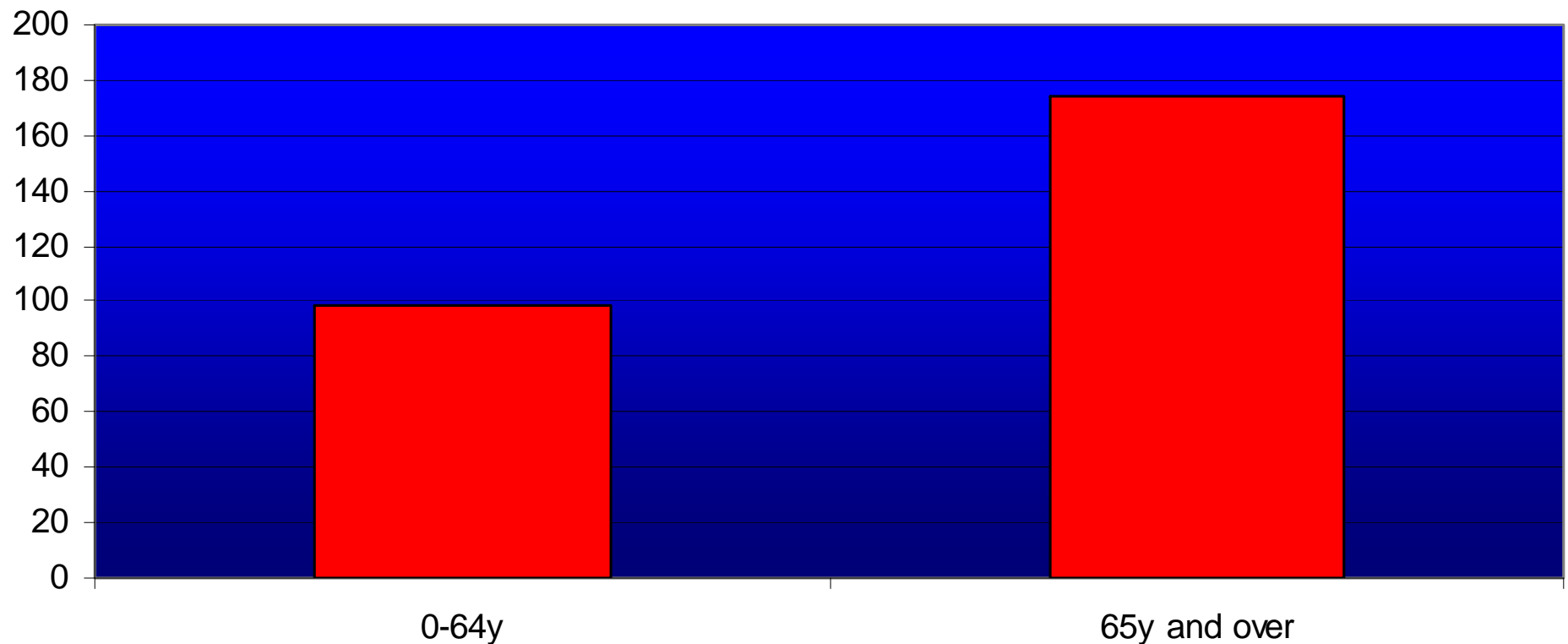
(Saint John Regional Hospital Trauma Registry, 2010)

Falls	Deaths	Hospital Admissions	ED Visits	Permanent Partial disability	Permanent total disability
On the same level	9	1,078	6,630	294	22
From skates, skis, boards and blades	<5	123	1524	37	<5
From furniture	<5	181	1,126	48	<5
In playgrounds	<5	36	442	12	<5
On stairs	8	298	2,510	81	8
From ladders and scaffolding	<5	83	515	22	<5
Diving	<5	6	53	<5	<5
Other	53	1201	7,926	318	29

(The Economic Burden of Unintentional Injury in Canada, SMARTRISK, 2009)

Falls: What NB age groups are most at risk?

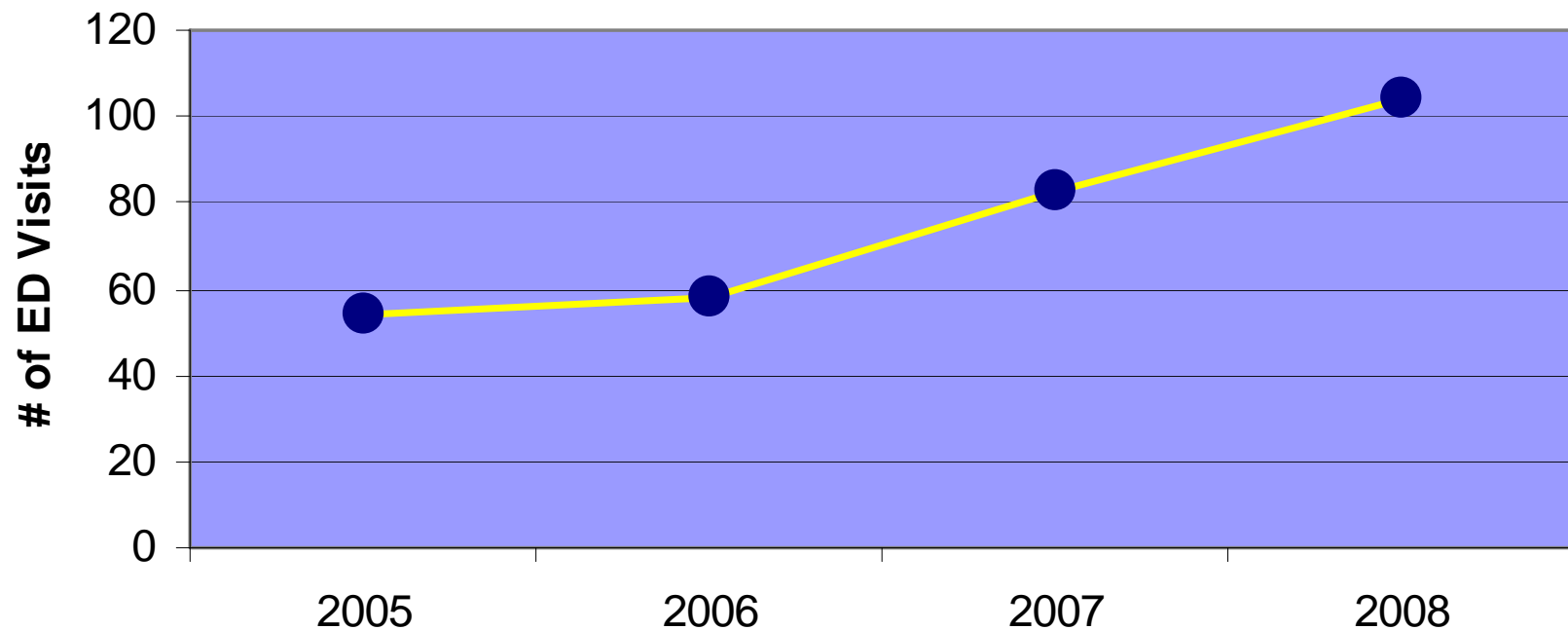
Number of Admitted Patients to SJRH as a Result of Fall - 2009



(Saint John Regional Hospital Trauma Registry, 2010)

A special concern: Suicidal behaviour in youth

**Self Harm Injury Visits SJRH ED
20 years old and Younger**



(Saint John Regional Hospital Trauma Registry, 2008)

What about everything else?

	Deaths	Hospital Admissions	ED Visits	Permanent Partial disability	Permanent total disability
Drowning	9	10	21	<5	<5
Fire/Burns	9	60	1,014	25	<5
Unintentional Poisoning	21	194	1,142	43	<5
Struck by or against sports equipment	<5	30	1,477	14	<5
Other unintentional injuries	53	984	37,832	388	28
Violence	8	141	1,939	35	<5
Undetermined	<5	156	536	33	<5

Other Highlights from the Level 1 Trauma Centre 2008-2009

- Total of 7431 patients treated for injury in the ED
- Total number of injury admissions 575
- 88 patients had an ISS greater than 12
- Average age of all patients was 56.8 years
- Average age for those with serious/critical injuries was 41 years
- “Fall” was the most common mechanism of injury for all hospitalizations
- “Motor vehicle collision” was the most common mechanism of injury for patients hospitalized with serious/critical injuries.

What about the economics of all of this?

2 Points before going further:

- “The greatest burden is clearly borne by those whose health or lives are diminished or destroyed by injury”
- “The costs that emerge from this analysis are the costs of inaction - the price we all pay for failing to address injuries that are largely predictable and preventable”

Economic Burden of Injury:

- Direct Costs:
 - Cost of hospitalization, outpatient services, nursing home care, home care, services of physicians and other health professionals, pharmaceuticals, rehabilitation
- Indirect Costs:
 - Value of time lost from work or homecare
- What's not included:
 - Pain and suffering, economic dependence, social isolation

Economic Burden of Injury

- Canada: \$19.8 Billion Annually
 - \$10.7 Billion in Direct Costs
 - \$9.1 Billion in Indirect Costs

- NB: \$463 Million Annually
 - \$96 Million on Transport Incidents
 - \$149 Million on Falls

Economic Burden: NB's Top 3

	Direct Costs	Indirect Costs	Total Costs	Total Cost per capita
Transport Incidents	\$47M	\$50M	\$97M	\$128
Falls	\$115M	\$33M	\$148M	\$199
Suicide and Self-harm	\$21M	\$32M	\$53M	\$70

(The Economic Burden of Unintentional Injury in Canada, SMARTRISK, 2009)

Economic Burden: NB's other

	Total Costs (\$ millions)	Direct costs (Millions)	Indirect Costs (Millions)
Drowning	\$3	\$0.3	\$2
Fire/Burns	\$7	\$3	\$5
Unintentional Poisoning	\$17	\$8	\$9
Struck by or against sports equipment	\$4	\$2	\$2
Other unintentional injuries	\$112	\$77	\$35
Violence	\$13	\$7	\$6
Undetermined	\$9	\$6	\$3

(The Economic Burden of Unintentional Injury in Canada, SMARTRISK, 2009)

So What Should We Do?

1. Focus on Falls:
 - Among seniors first, then youth
2. Focus on Transport Incidents:
 - Motor vehicles, ATV/Snowmobiles, pedestrians
3. Focus on suicide and self-harm among youth

Injury Prevention: Everyone's Responsibility

