

Injury Indicators for Children & Youth in Canada



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Dr. Ian Pike University of British Columbia Atlantic Collaborative on Injury Prevention ACIP 2010 Injury Prevention Conference St John's, Newfoundland June 17-18, 2010





Principals	Co-investigators	Collaborators		
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		Trauma Association of Canada		

Funding:





BC INJURY research and prevention unit





UBC







Overview of this Presentation

- 1. To review the development of Injury Indicators for Canadian Children and Youth
- 2. To obtain input on the look, feel and function of a Canadian Child and Youth Injury Indicators Dashboard











- Effective prevention and control of injuries requires a system of surveillance (Health Canada, 2003)
- Listening for Direction on Injury (2004) identified injury surveillance, capacitybuilding, and networking as national priorities
 - A set of national injury indicators that reflect and monitor identified prevention priorities

















 Injuries are the leading cause of death among Canadian children, youth and young adults, ages 1 to 34 years

(Statistics Canada, accessed 2009)

 Each year in Canada, 25,500 children are hospitalized—and nearly 400 die—because of unintentional injury

(Safe Kids Canada, 2006)

 In 2004, injuries cost approximately \$19.6 billion dollars in Canada, of which the cost of injuries to children and youth is estimated to be \$5.1B





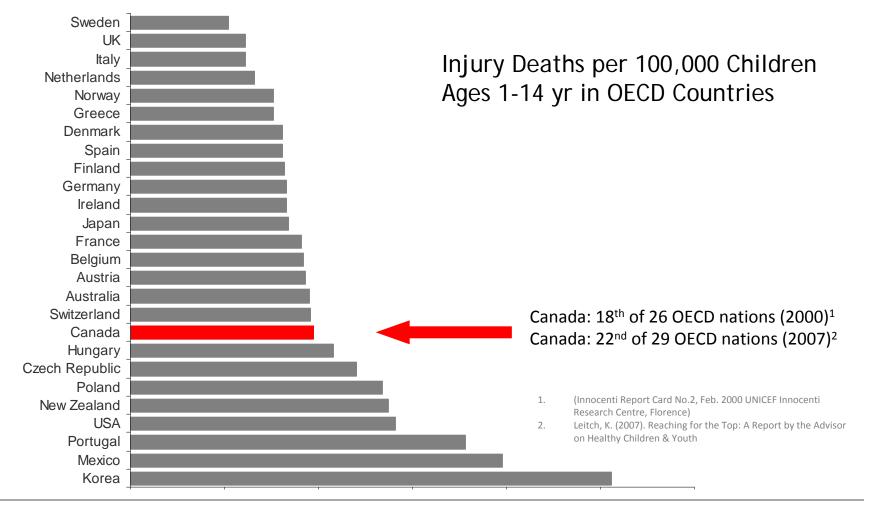
(SMARTRISK, 2005)



















- Form a multidisciplinary team/network and expert panels
- Establish national and international linkages
- Strengthen Canadian injury research and surveillance through capacity-building
- Establish national injury indicators within each of five domains
- Future applications to granting agencies













Definition:

 An injury indicator is a summary measure that denotes or reflects, directly or indirectly, variations and trends in injuries, or injuryrelated or injury control-related phenomena

(Cryer, et al., 2004)

 Indicators are succinct summary measures that describe as much about a system as possible

(Pencheon, 2008)

- Injury indicators provide a clear signal and help us understand what is happening; they allow us to compare the injury situation between groups and places, and over time
- Indicators are more than measures and signals; they must also drive decision and action (i.e. they inform policy, practice and research)









Indicators are Like a Dashboard

 Car Dashboard has several indicators that are measures that tell you your speed, how much gas you have, engine temp., what gear you are in, engine revs., etc.



Ready reference – easily understood ? Clear signal ? Prompt action ? Monitor the situation and any changes ?









There are hundreds of indicators - What ones are most useful?











- Evidence-based, underpinned by research
- Significant burden to society, the family and the individual
- Representative of significant population groups
- Data availability
- Topic amenable to effective action
- Understandable to broad audience
- Regularity and repeatability to enable trend analysis















- Phase I: Defining Criteria and Establishing Domains
- *Phase II:* Literature Review
- *Phase III:* Selection of existing indicators and creation of new ones: Expert panel meeting
- Phase IV: Modified-Delphi Process - Stage 1: Expert input
- Phase V: Specification of Indicators
- Phase VI: Modified-Delphi Process - Stage 2: Broader input through survey

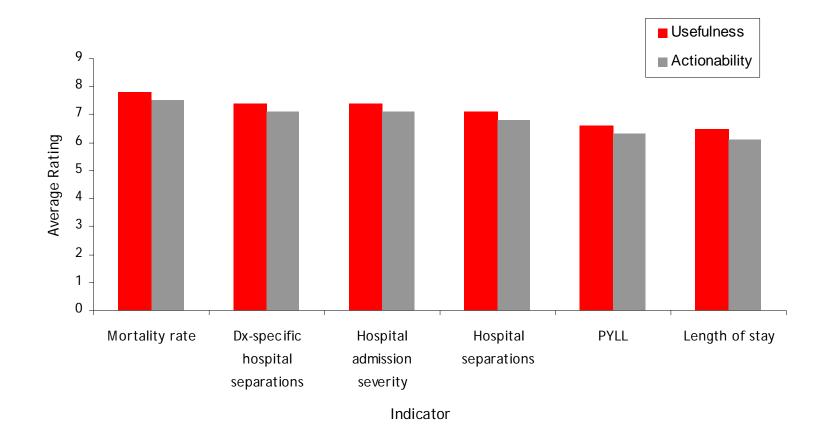
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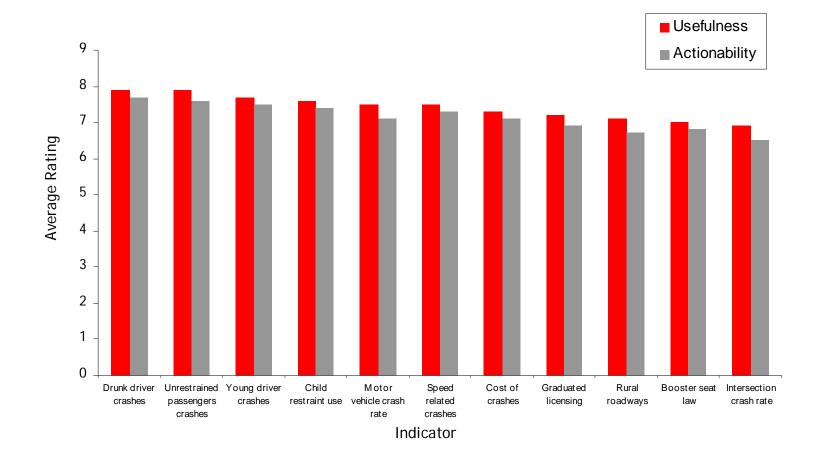








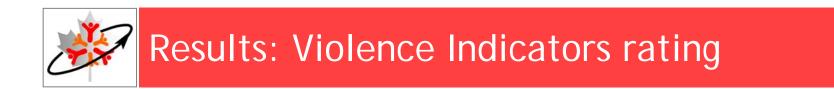


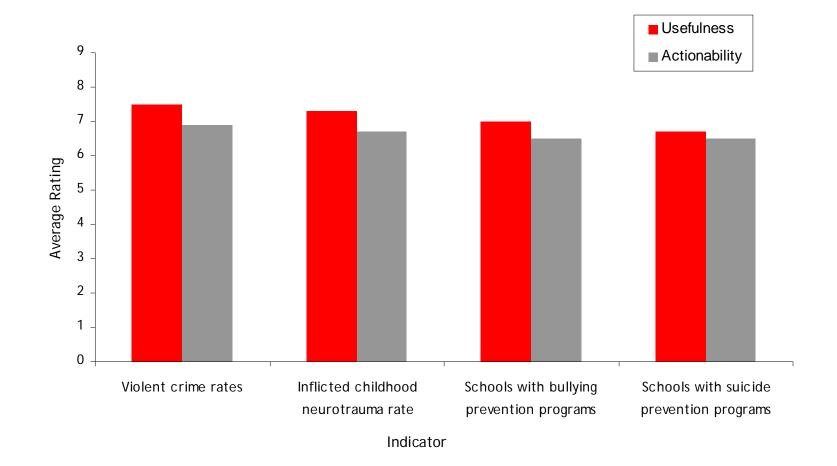










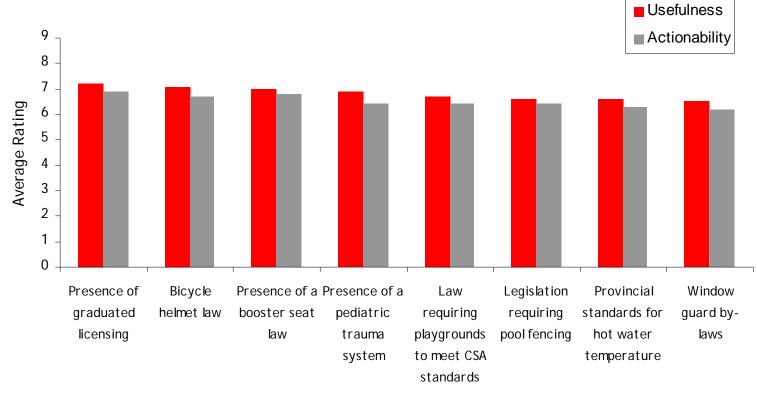












Indicator









- From the initial list of 51 indicators, a refined list of 34 indicators was established ▶
- Indicators were grouped into Policy Indicators, Risk Factor Indicators, and Outcome indicators
- In general, indicators related to motor vehicle crashes and overall injury indicators ranked the highest
- Indicators related to violence and trauma care were ranked somewhat lower for usefulness and ability to prompt action













1.

2.





- A broad-based modified Delphi method can be used to generate useful and actionable child and youth injury indicators
- All 34 indicators were considered useful. This suggests that the modified Delphi approach was successful in highlighting indicators that will track the progress of injuries in Canadian children and youth.









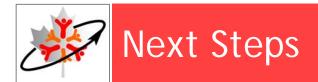
- Journal article in press: *Injury Prevention*
- Conference presentations
- Measuring Injury Matters
 2 Volume Technical Report
- Develop Injury Indicator dashboards and information portals
- Workshops and meetings



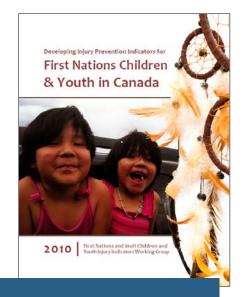








- First Nations and Inuit Child and Youth
 Injury Indicators Technical Reports
- French Translation of *Measuring Injury Matters*
- French and Inuktitut translations of First Nations and Inuit Reports
- Journal article First Nations and Inuit Injury Indicators for Children and Youth
- Conference presentations
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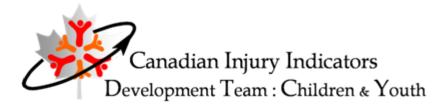
Injury Prevention Indicators for Inuit Children and Youth











Injury Indicators for Children & Youth in Canada: Developing an Indicators Dashboard

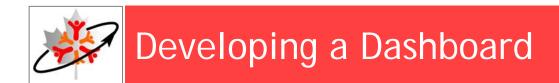


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- What does an injury dashboard look like?
- What information does it provide?
- How does it work?
- Where is it located / How doe you access it?

 At your tables work together to design an injury indicators dashboard. Please provide a design mock up and a list of the key points related to the look, function, feel and location of the dashboard









Developing a Dashboard

	d Inuit Child & Youth Injury Das			
Indicators Measured Ac 5-year average	cross All Injury Areas Indicator	Current Year	Title changes with Indicator selected	🗌 Girls 📕 Boys
<u>3-year average</u>	Mortality Rate Number of Hospitalizations Self-reported Alcohol Use		Good Above Average Canadian Average	British Columbia Alberta Saskatchewan
Community Training/Re	esponse System		Below Average	Ontario
5-year average	Indicator Proportion of Community Members with Injury Prevention Training Presence of a Community Emergency Preparedness Plan Availability of Community Fire & Ambulance Services	Current Year	Por	Quebec New Brunswick Nova Scotia Prince Edward Island CANADA 470 490 510 530 550 570
Animal Bites			19-	
5-year average Hypothermia/Frostbite 5-year average Violent/Inflicted Injury 5-year average	Indicator Rate of Hypothermia or Frostbite Cases	Current Year Current Year Current Year	20 Porticial wreage (191)* 150 150 150 150 150 150 150 150 150 150	6.59 Alberta/Task 6.09 Territo-Conductor 5.09 Territo-Conductor 5.00 Territ
Drowning 5-year average	Indicator Availability of Emergency Response Teams Number of Communities with Access to Water Safety Education/Programs Number of Drowning Cases in each Type of Water Type (pool, bath, lake, etc.)	Current Year	Title changes with Indicator selected	Title changes with Indicator selected



Injury Indicators for Children and Youth

All Domains Indicators	Mortality Rate
	Years of Life Lost
	Hospital Separations Rate
Overall Health Service Implications Indicators	Diagnosis-Specific Hospital Separations
	Hospital Admission, Injury Severity 1
	Hospital Admission, Injury Severity 2
	Length of Stay in Hospital
Motor Vehicle Injury Indicators	Cost of Motor Vehicle Injuries
	Crash Rate
	Intersection Crash Rate
	Rural Roadways
	Drunk Driving
	Speed
	Young Drivers
	Graduated Driver Licensing
	Child Restraints
	Unrestrained Injuries
	Child Restraint Laws

Sport, Recreation, and Leisure Injury Indicators	Bicycle Helmet Laws
	Cost of Sport and Recreation Injuries
	Percentage of Sport Specific Injuries (Participation Rates)
	Requirements that Playgrounds Meet CSA Standards
	Legislation Requiring Pool Fencing
Other Policy Indicators	Window Guard By-Iaw
	Provincial Stand for Hot Water Tap Temp
	Violent Crime Rate
	Inflicted Childhood Neurotrauma Rate
	Suicide Prevention
	Anti-Violence/Anti-Bullying Policies
Trauma Care, Quality and Outcomes Indicators	Access to Pediatric Level I Trauma Care/Centre (PTC)
	Appropriate Use of Pediatric Level I Trauma Care/Centre (PTC)
	Quality of Trauma System
	Pre-hospital Transport Time
	Presence of a Coordinated Pediatric Trauma System







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