

First Nations and Inuit Health Injury Indicators for Children and Youth

Prepared by:

Dr. Rose-Alma McDonald

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Injury Prevention Indicators in a First Nations Context

Injury Indicators are useful tools as measures of **outcome, risk factors and policy.**

This presentation is about conceptualizing **injury severity and consequences** in a First Nation context.

A Vision for Safe and Healthy First Nation communities:

To realize a vision of safe and healthy First Nation communities that are injury free there are two primary goals to achieving this vision.

They are **creating safe environments** and **achieving awareness** among First Nation communities about injury prevention and safe living practices.

Our goal is to use indicators to measure the problem of injury prevention in a First Nation context

In order to direct change, indicators give an indication of change over time. Our goal is to identify what those key indicators are. Once identified these indicators will help to **establish priorities** and provide information that **identify problems and issues which need to be addressed.**

First Nations and Injury Prevention: The Current Situation

- ◆ In First Nation communities injury is the **leading cause of death** for people under the age of 45 (Health Canada 2001)
- ◆ **Injuries kill at young ages** in First Nation communities.
- ◆ The biggest cause is **motor vehicle accidents, suicide and accidental drug poisoning.**
- ◆ Suicide rates in First Nation communities are the **highest among 15-24 year olds** at 3 times higher rates for First Nation males than females.

Injury is the Fourth Highest Burden to the Health Care System in Canada

- ◆ In First Nation communities **suicide rates are 5 times higher** than that of other Canadians.
- ◆ Aboriginal people are 8 times more likely to die as homicide victims as other Canadians.
- ◆ **Fire and flame related injuries are 4 to 8 times higher** than in the Canadian population.
- ◆ The rate of drowning in Aboriginal men is 25 to every 100,000 compared to 3 in every 100,000 for Canadian men.

The Burden of Injury Continued:

- ◆ **Car/truck/ATV/snowmobile accidents resulting in death** is a leading cause of death among all First Nation age groups.
- ◆ Only 50% of First Nation communities report seatbelt use compared to 80% seatbelt use for mainstream Canada
- ◆ Aboriginal **disability rates** are reported at **31% or double the national rate** - with a large number attributable to injuries

The Demographics of First Nation Injury:

- ◆ The First Nation population is characterized as the **youngest and fastest growing segment** of the overall Canadian population.
- ◆ The **age group of 5-9** represents the largest segment of the First Nations population.
- ◆ The **age group 20-24** represents the second largest population segment.

The Geographic Realities for First Nations:

- ◆ The average First Nation community **population is 500.**
- ◆ 112 First Nation communities have **no year round access.**
- ◆ 261 First Nation communities **are 50-350 kms from service centres.**
- ◆ There are 633 First Nation communities in Canada with the highest number located in Ontario (126) and BC (197)

The Burden of Injury is higher in First Nation communities because:

- ◆ Poor social conditions, low income and poverty create greater risks for violence and suicide.
- ◆ Wood frame construction, low presence of smoke detectors, and smoking increase risk of fire and flames.
- ◆ Many First Nation communities are in close proximity to water and in northern climates to frigid waters risking drowning and hypothermia.

The burden of Injury continued:

- ◆ Aboriginal people are at more risk to motor vehicle crashes due to greater distances they have to travel for regular activities, isolation from emergency facilities and frequent use of riskier vehicles such as ATVs, snowmobiles, etc.
- ◆ Poor housing conditions and poverty contribute to falls, especially for the Elderly and children

The Legacy of Injury Based on Social Policy

Treaties between First Nation and non-First Nation governments **were agreements to share the land**. They were replaced instead by policies intended to:

- ◆ remove First Nation/Aboriginal people from their homelands
- ◆ suppress First Nation/Aboriginal Nations and their governments
- ◆ undermine First Nation/Aboriginal cultures
- ◆ stifle First Nation/Aboriginal identity (RCAP)

Social conditions in First Nation Communities = Failed Federal Programs/Policy:

- ◆ **Aboriginal Diabetes rates are double and triple** the total rates in most provinces.
- ◆ **Morbidity rates** for intentional injuries are almost **5 times higher** in First Nation on-reserve populations than the total population in most provinces.
- ◆ Fewer First Nation children graduate from school 34% versus 70% for Canada.
- ◆ **First Nation houses are 10 times more likely to be crowded** . Only 54% have adequate water and 47% sewage disposal.

Social conditions in First Nation Communities = Failed Federal Programs/Policy:

- ◆ Four times as many Aboriginal people are **below the poverty line** than other citizens.
- ◆ **Incarceration rates are 5-6 times higher** for Aboriginal people than the national average.

Injuries are caused by a complex interaction of a variety of factors:

- ◆ **From a community perspective**, some factors include poor safety standards in the workplace, unsafe roads, and easy access to firearms.
- ◆ **From a societal perspective** they include low socio-economic status, cultural norms that support violence to resolve conflict.
- ◆ **At the family level**, family relationships such as lack of care and supervision, physical abuse, and family dysfunction are factors that cause injuries.
- ◆ Factors such as aggression, alcohol and substance abuse by individuals contributes to injuries to **oneself and others**

The most *at risk* First Nation target populations are:

- ◆ Children aged 0-15 (eg. falls, poisoning, drowning)
- ◆ Youth Age 15-24 (eg. suicide and violence)
- ◆ Women (eg. domestic violence)
- ◆ Elders (eg. falls& fires)
- ◆ Men (eg. motor vehicle accidents, drowning, fires, and violence)
- ◆ Persons with Disabilities (eg. falls and fires)

Injuries are Preventable in First Nation communities:

What is required is prevention efforts that are characterized by:

- ◆ coordination
- ◆ collaboration
- ◆ education
- ◆ participation
- ◆ being social and physically supportive
- ◆ being adequately resourced, and
- ◆ addressing the self-government goals of the First Nation/Aboriginal populations of Canada

A Framework for First Nation Injury Data is Required to Prevent Injuries:

- ◆ Research and surveillance is required to organize, structure and standardize data.
- ◆ A framework is required because it gives a structure to the various components and how they relate to one another.

Based on our Research we Have Identified the Following Clusters of injury:

- ◆ *Motor Vehicle Crashes*
- ◆ *Drowning*
- ◆ *Fire and burns*
- ◆ *Violence and suicide*
- ◆ *Falls*
- ◆ *Fire Arms*

An International Injury Data Model: New Zealand

Source: New Zealand Injury Data Review April 2000-2001 Department of Labour Te Tari Mahi and Statistics New Zealand Te Tari Tatau

- ◆ Research was conducted on indicators of injury (which included an Indigenous perspective) and an Indicators of Injury model was identified.
- ◆ With this model indicators were developed to inform each of the elements of the framework for injury data based on key policy and injury prevention questions.

The New Zealand criteria for the indicators were that they must:

- ◆ Illuminate and support aspects of the framework for injury data.
- ◆ Represent an important and salient aspect of the public's health.
- ◆ Be valid and reliable for diverse population groups.
- ◆ Be readily comprehensible by people who need to act on their own behalf or that of others to improve the status of those indicators.

The New Zealand criteria for the indicators were that they must (continued):

- ◆ Galvanize action by individuals, as well as, organized groups and public and private agencies at the national, state, local and community levels.
- ◆ If measured over time, tangibly reflect the results of action to improve various aspects of the nation's health.
- ◆ Be developed from routinely or easily collected data that serves an operational purpose.
- ◆ Measure in an unbiased way the occurrence of injury.

Samples of New Zealand Injury Indicators:

- ◆ How many people die as a result of injury.
 - ◆ Number of deaths as a result of injury
 - ◆ injury related deaths as a proportion of all deaths
- ◆ How many people are injured.
 - ◆ Number of injuries
 - ◆ Number of injured persons
 - ◆ Injuries per 100,000 population
- ◆ The financial cost of injury,
 - ◆ total cost of treatment, compensation and rehabilitation for all injuries

Samples of New Zealand Injury Indicators:

- ◆ What is the sex of injured people?
 - ◆ The proportion of all new injuries that happen to males.
 - ◆ The proportion of all new injuries that happen to females.
- ◆ Where do people who are injured live?
 - ◆ Proportion of injuries that occur to people who live in a particular area.
- ◆ What are the most common injuries?
 - ◆ Proportion of injuries with a particular diagnosis.

Sample New Zealand Data Variables:

- ◆ Death
- ◆ Date of death
- ◆ Date of Incident
- ◆ Cost of Compensation
- ◆ Cost of Treatment
- ◆ Cost of Rehabilitation
- ◆ Permanent Disability
- ◆ Treatment
- ◆ Hospital Stay Date
- ◆ Hospital Discharge Date
- ◆ Number of Treatments
- ◆ Date of Birth
- ◆ Ethnicity
- ◆ Place of domicile

Sample New Zealand Data Variables (continued)

- ◆ Activity
- ◆ Geographical location
- ◆ Intent violent/self inflicted
- ◆ incident scene
- ◆ Diagnosis
- ◆ Body site
- ◆ Severity
- ◆ Work related primary/subsidiary
- ◆ Full/partial return to work date
- ◆ Incapacity until date
- ◆ Occupation at time of injury
- ◆ Name of organization
- ◆ Industry classification

The Benefits of Injury Data Collection to First Nation's:

- ◆ The benefits outweigh the cost of collecting data and results in information that assists agencies to align their policy making to meet the needs identified.
- ◆ Results in the need over time for agencies to align their data sets with the variables and definitions required to make data sets consistent between agencies.

Next Steps

There is a need to develop First Nation injury indicators based on:

- ◆ established goals and priorities;
- ◆ information on cluster areas of interest e.g. poverty/income;
- ◆ identification of problems and issues;
- ◆ anticipation of effects of initiatives.

Closing thought:

The greatest success stories are those of people who, having recognized a problem, transformed it into an opportunity.

We now have the opportunity to make a difference in our communities and that is our challenge today and for the days to follow....

For Additional Information Contact:

Dr. Rose-Alma J. McDonald
Katenies Research and Management Services
Akwesasne Mohawk Territory
P.O. Box 733
Cornwall, Ontario K6H 5T5
Phone: 613-575-2533
rosealmamcdonald@sympatico.ca
www.rosealmamcdonald.com