

CANADIAN HOSPITALS INJURY REPORTING AND PREVENTION PROGRAM (CHIRPP): BRITISH COLUMBIA'S DATA

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Introduction

The Canadian Hospital's Injury Reporting & Prevention Program (CHIRPP) is an emergency department based injury surveillance program. There are fifteen participating hospitals throughout Canada, ten paediatric and five general from seven provinces and one territory. British Columbia's Children's Hospital is one of the participating sites. Technical and financial support are provided by the Child Injury Division (CID) of the Bureau of Reproductive and Child Health, Centre for Healthy Human Development, Population and Public Health Branch, Health Canada, Ottawa.

Background

CHIRPP was modelled on the Australian National Injury Surveillance and Prevention Program which has been successfully operating for several years. Directors from all children's hospitals were invited to a conference regarding the establishment of such a program in Canada where there was a need for better data. CHIRPP began in 1990 with ten paediatric hospitals, each with a director and a clerk, who obtained the relevant patient information, coded forms and entered data into the computer, sending a copy to the Child Injury Division, Ottawa. Since 1991, several changes have been slowly implemented to enhance the program. Between 1991 and 1994 five general hospitals asked to join the program. With this addition came adult injury data as well as injury data from northern and aboriginal communities.

Purpose

CHIRPP's aim is to:

- 1) identify emerging hazards,
- 2) obtain information for developing injury prevention programs and policies, and
- 3) provide the tools to evaluate these programs.

After ten years of operation it is felt that the program has been successful in achieving its aims. The ongoing challenge is to use the program more effectively in preventing injuries.

Method

The adult/parent accompanying the injured child or the child itself, if old enough, is given a CHIRPP questionnaire upon arrival at the emergency department. This form elicits demographic information, time of injury, location, activities undertaken preceding the injury, whether it occurred during sports (organised or recreational), any contributing factors leading up to the injury, and what caused the injury.

After the doctor has examined the patient the CHIRPP co-ordinator uses the doctor's notes to code the information. The co-ordinator obtains any information that is unavailable in the Emergency Department from the hospital charts. These forms are then sent to the Child Injury Division, Ottawa, and entered into the national database. Each participating hospital then receives a disk with its own statistics.

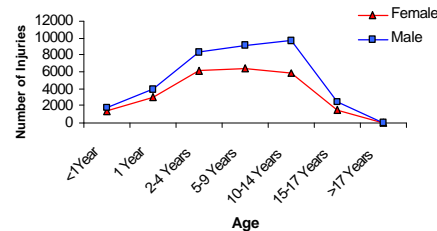
At British Columbia's Children's Hospital seriously ill patients bypassing emergency and admitted directly to Intensive Care are also recorded. Some of these are transfers from other hospitals or regions in B.C.

Data Information

The data are sorted into different categories. The following are examples:

- Date:** this can be broken down by year, month, day and time, if the information is available.
- Age:** < 1 year; 1 year; 2-4 years; 5-9 years; 10-14 years; 15-17 years; >17 years.
- Gender:** male or female
- Location injury occurred:** sports arena, public park, own home, daycare, school, etc.
- Event leading to injury:** slipped, quarrelled, fell, lost control, collided with an object, etc.
- Mechanism of injury:** contact with a still or moving object, foreign body, burn, etc.
- Contributing factors in injury:** chair, ball, swimming pool, bicycle, etc.
- Safety devices in use during injury:** if the information is available, up to three safety devices may be reported in each form; helmet, sports padding, protective eyewear, etc.
- Nature of injury:** up to three injuries may be reported in each form; fracture, cut, head injury, bruise, etc.
- Body part:** up to three may be reported in each form; head, upper arm, thorax, neck, toe, etc.
- Result of treatment received in the emergency department:** follow-up required, follow-up as necessary, admission to hospital, advice only, etc.

Injuries by Age and Gender, 1992-99, CHIRPP



Top 12 Events Leading to Injuries, 1992-99, CHIRPP

Event Leading to Injury	Freq	Percent
Collision	12791	21%
Inappropriate location	6512	11%
Fall up to 1 metre	5051	9%
Fall same level	4674	8%
Lost control	4618	8%
Tipped	3848	6%
Fall over 1 metre	3791	6%
Over exerted	3271	6%
Slipped	2889	5%
Fall unspecified height	2418	4%
Horseplay	2117	4%
Caught by something (body part/clothing etc)	1646	3%

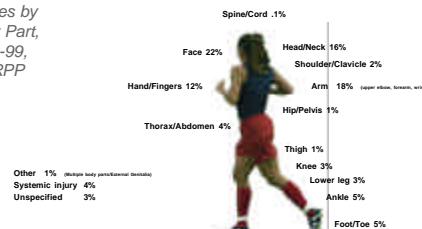
Location injury Occurred, 1992-99, CHIRPP

Location	Freq	Percent
Home (own, other)	27870	47%
School	9119	15%
Unspecified	6883	12%
Street/Highway/Public road	4459	7%
Sports/rec facility (park,sport field,equestrian centre,golf course, etc)	6684	11%
Trade/service area (shops,restaurants,gas station, etc)	2231	4%
Other institution (daycare,museum,courthouse, etc)	1667	3%
Other specified place (area for vehicle use,camp/trailer park,train, etc)	578	1%
Residential institution (group home,nursing home,prison, etc)	122	0%
Hospital/Health service	73	0%
Farm/Mine	33	0%
Industrial/Construction area	34	0%
Total	59753	100%

First Safety Device in Use During Injury, 1992-99, CHIRPP

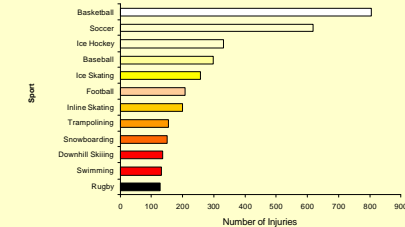
First Safety Device in Use	Freq	Percent
Unspecified	54722	92%
Helmet	1461	2%
None	1220	2%
Seat belt	912	2%
Sports padding	866	1%
Other safety device	257	0%
Car seat	140	0%
Not applicable	113	0%
Child restraint closure	27	0%
Protective eye wear	20	0%
Protective clothing	12	0%
Air bags	3	0%
Total	59753	100%

Injuries by Body Part, 1992-99, CHIRPP

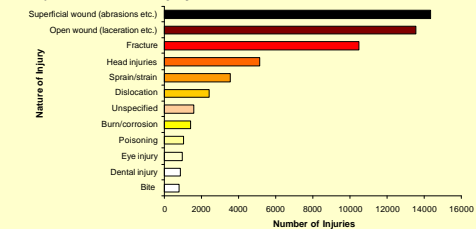


Canadian Hospitals Injury Reporting

Top 12 Sports by Frequency of Injury, 1992-99, CHIRPP



Top 12 Nature-of-Injury, 1992-99, CHIRPP



Tools Available to you from CHIRPP

Requests for Information

These are available by contacting the CHIRPP Co-ordinator at 604-875-3044 or by faxing a request to 604-875-3569 attention CHIRPP. When making a request it is essential that the required information be precise and clear to facilitate the analysis.

Reports

These are in table form and may require some knowledge of how to read them. They can also be prepared in a written form which is much more user friendly. Enough time should be allowed for the report to be generated before it is required.

Newsletter

CHIRPP News is printed three times a year. It contains reports on several types of injuries using the national database in Ottawa and is a good source of information. Copies are available at no charge by contacting: Adele Gelinas, Editor, CHIRPP News, Bureau of Reproductive and Child Health, Health Canada, HPB Building, Tunney's Pasture (AL 0701D), Ottawa, Ontario K1A 0L2. Subscribe to CHIRPPNews via e-mail: CHIRPPNews@hc-sc.gc.ca

Website

The website also has many reports on injuries, although not all are available on the website but may be obtained from Health Canada, Ottawa. www.hc-sc.gc.ca/hpb/lcdc/brch/injury/index.html

Limitations

CHIRPP data for British Columbia is based on information from the emergency department of British Columbia's Children's Hospital. It does not represent all injuries in British Columbia. The following groups are under-represented in terms of injuries suffered: older teenagers and adults seen at general hospitals or elsewhere, native people, and people living in rural areas. Fatal injuries, unless they occur in the emergency department, are also under-represented.

References

- 1: Susan G. MacKenzie, Ivan Barry Pless. CHIRPP: Canada's principal injury surveillance program, Injury and Prevention 1999; 5:208-213