

CHIRPP INJURY BRIEF

Canadian Hospitals Injury Reporting and Prevention Program



Injuries associated with ... ICE AND SNOW SPORTS AND ACTIVITIES

2000-2002, Ages 5 years and older

SOURCE OF THE STATISTICS

Injury data were obtained from the database of the Canadian Hospitals Injury Reporting and Prevention Program. CHIRPP is an injury surveillance system operating in the emergency departments of 10 pediatric and 5 general hospitals in Canada. Data collection began in April 1990 at the pediatric hospitals and between 1991 and 1995 in the general hospitals. CHIRPP is a program of the Injury and Child Maltreatment Section of the Health Surveillance and Epidemiology Division, Public Health Agency of Canada.

Briefs and reports are updated when there is reason to believe the injuries or circumstances surrounding the injuries have changed. For example, the report of injuries associated with a specific product would be updated if the manufacturing regulations for the product are changed to include a new safety element. There is no need to update reports on a regular basis because the data collection sites are not a representative sample of all Canadian hospitals. Frequent updates would simply increase the number of records included in the report but not necessarily result in any change in the patterns and distributions found.

LIMITATIONS

It is important to note that the injuries described do not represent all injuries in Canada, but only those seen at the emergency departments of the 15 hospitals in the CHIRPP network. Since the bulk of the data comes from the pediatric hospitals, which are in major cities, injuries suffered by the following people are under-represented in the CHIRPP database: older teenagers and adults, who are seen at general hospitals; native people; and people who live in rural areas. Fatal injuries are also under-represented in the CHIRPP database because the emergency department data do not capture people who died before they could be taken to hospital or those who died after being admitted.

INCLUSION AND EXCLUSION CRITERIA

A search of the CHIRPP database for injuries related to ice and snow sports occurring in the years 2000-2002 was conducted (ages 5 years and older; 273,293 records total). Cases were identified using the CHIRPP factor and context codes for individual sports and activities as well as extensive bilingual (English and French) text string searches using stems, full words and phrases. Children's games and activities were included. Children's free play and incidental injuries involving sports equipment (e.g. "TRIPPED OVER HOCKEY STICK IN GARAGE") were excluded. Various automated searches and record-by-record reviewing of small random subsets was performed to ensure data quality.

RECOMMENDED CITATION

Injury briefs and reports and data from them may be copied and circulated freely provided that the source is acknowledged. The following citation is recommended:

Health Surveillance and Epidemiology Division (Public Health Agency of Canada). *Injuries Associated with Ice and Snow Sports and Activities*: Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP) database, 2000-2002, Ages 5 years and older, 25,057 records.

FOR MORE INFORMATION

Please contact the Injury and Child Maltreatment Section, Health Surveillance and Epidemiology Division, by PHONE at (613) 957-4689, by FAX at (613) 941-9927 or visit our website at <http://www.phac-aspc.gc.ca/inj-bles/>

Overview

Overall 25,057 cases of injuries related to ice and snow sports/activities were identified, which represents 9.2% of all cases in CHIRPP and 21.6% of all sports and recreation injuries in CHIRPP (ages 5 years and older).

Table 1. Injuries related to ice and snow sports and activities, ages 5 years and older, CHIRPP 2000-2002

Sport or Activity	# cases (%)
Ice Hockey	11,552 (46.1)
Snowboarding	4,413 (17.6)
Downhill Skiing	2,697 (10.8)
Ice Skating	2,599 (10.4)
Sledding	2,564 (10.2)
Snowmobiling	669 (2.7)
Snowball fight	263 (1.1)
Snowblading	104 (<1.0)
Cross-country skiing	102 (<1.0)
Curling	81 (<1.0)
Snowshoe	13 (<1.0)
Total	25,057 (100.0)

Table 2. Injuries related to ice and snow sports and activities, age and sex distribution, CHIRPP, 2000-2002

Age group (years)	# cases (%)	Number/100,000 CHIRPP cases ¹	% male	% male CHIRPP ²
5-9	3,859 (15.4)	5,274.1	59.6	58.2
10-14	12,700 (50.7)	13,528.9	76.2	61.9
15-19	5,699 (22.8)	12,967.3	81.7	63.3
20 +	2,798 (11.2)	4,493.4	77.3	58.8
Total	25,056* (100.0)	9,168.5	75.0	59.4

* in one case the age was missing

¹ The number of injuries per 100,000 CHIRPP injuries of all types within the age group indicated, over the same time period. Because CHIRPP collects information from ten children's hospitals and only four of the general hospitals, there is a high number of young children in the database. Using number per 100,000 within an age group (instead of overall percent by age group) adjusts for different age group distributions.

² Proportion of males in the CHIRPP database for that age group, over the same time period.

Table 3. Injuries related to ice and snow sports and activities, Sport/Activity by age CHIRPP 2000-2002; percentage of cases in the given age group

Sport or Activity	5-9	10-14	15-19	20+	Total
Ice Hockey	6.4	51.4	29.7	12.5	100.0
Snowboarding	4.7	61.3	29.6	4.5	100.0
Downhill Skiing	21.7	49.8	15.8	12.7	100.0
Ice Skating	41.4	42.6	7.8	8.3	100.0
Sledding	41.7	47.2	6.6	4.5	100.0
Snowmobiling	9.6	19.4	15.6	55.5	100.0
Snowball fight	37.3	51.7	9.9	1.1	100.0
Snowblading	8.7	64.4	22.1	4.8	100.0
Cross-country skiing	5.9	39.2	7.8	47.1	100.0
Curling	6.2	24.7	6.2	63.0	100.0
Snowshoe	23.1	53.9	0.0	23.1	100.0

Table 4. Injuries related to ice and snow sports and activities, Proportion of all cases which are fractures, closed head injuries or admission to hospital by sport/activity, CHIRPP, 2000-2002

Sport or Activity	% fractures	% closed head ¹	% admitted to hospital
Ice Hockey	23.6	12.2	3.6
Snowboarding	57.7	7.4	11.3
Downhill Skiing	41.8	7.8	12.6
Ice Skating	32.4	9.3	4.0
Sledding	37.7	11.5	9.2
Snowmobiling	39.3	5.7	39.0
Snowball fight	9.5	3.8	2.7
Snowblading	54.8	1.9	10.6
Cross-country skiing	34.3	2.9	12.8
Curling	24.7	19.8	9.9
Snowshoe	38.5	0.0	0.0

¹ Includes minor closed head injuries, concussions and intracranial injuries