





Consumer and Corporate Affairs Canada

Consommation et Corporations Canada

# Introduction

The Canadian Accident Injury Reporting and Evaluation (CAIRE) project was initiated by the Product Safety Branch of Consumer and Corporate Affairs Canada in January 1982. The objective of the project is to provide a data bank of information on accidents and injuries, which in turn will help organizations concerned with product safety to establish priorities and evaluate programs.

Reports are published twice a year, in April and October. The April report summarizes the data collected in the period from April to September of the previous year, and the October report summarizes the previous October to March.

## Methodology

Five hospitals are participating in the data collection:

- Isaac Walton Killam Hospital, Halifax, N.S. Montreal Children's Hospital, Montreal, Quebec
- Toronto Hospital for Sick Children, Toronto, Ontario
- Pasqua Hospital, Regina, Saskatchewan Prince George Hospital, Prince George, B.C.

As part of the patient registration procedure at the hospitals, all admissions for accidental injuries involving consumer products are specially coded. The product coding used is identical to that of the National Electronic Injury Surveillance System (NEISS) of the Consumer Product Safety Commission of the United States. At the same time, data including the nature of the injury (according to the ICD-9N code on international classification of diseases), the cause of injury (according to the ICD-9E code), and the age group of the casualty are collected. These data are collated and tabulated by the Hospital Medical Records Institute (HMRI) on a quarterly basis.

All admissions to the participating hospitals that result from accidents involving consumer products, including emergency cases, are reported to HMRI. Industrial and work-related accidents, and injuries that are not directly related to a consumer product, such as long-term exposure to toxic chemicals, are not included.

The small size of the sample (five hospitals out of more than 1,000 medical institutions in Canada) precludes any reliable extrapolation of the results, but is sufficient to provide a good indication of trends. Three of the five participating hospitals specialize in child care. This increases the bias of the sample from a statistical point of view, but is of particular interest to the Product Safety Branch, because of its commitment to the safety of children's products. The participating hospitals are representative of various community sizes and are strategically located geographically.

The NEISS code used to classify products divides the range of consumer products into some 1,000 classifications. Some of these are very specific, for example, waffle irons, and others much more general, such as stairs and steps. The codes referring to sports injuries are intended to be used only when sports equipment is involved, but, in practice, it is difficult to distinguish between injuries inherent to the sport and those related to the equipment used. In a more general sense, the mention of a product does not imply that the product caused the accident, but only that the product was associated with the accident. To define the cause of an accident requires a detailed investigation into its circumstances and environment, as well as the nature of the injury. Special investigations of this type are initiated whenever necessary to meet the requirements of the Product Safety Branch.

The tables and diagrams in this edition of the Report include the number of accidents by age group, those products or activities most frequently associated with accidents, and the most frequently occurring injuries by age group.

For further information, please contact:

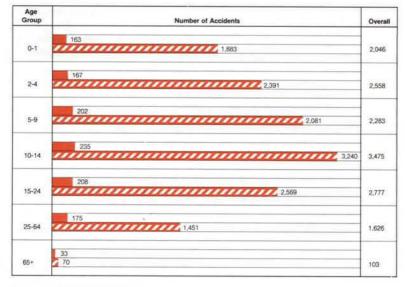
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## CAIRE Highlights – Winter 1983/84

- During the winter of 1982/83 it was observed that 19 per cent fewer cases were reported as compared to the previous summer. This tendency appears to be continuing with 11 per cent fewer cases reported during the winter of 1983/84 than the summer of 1983.
- Again, hockey is the product or activity most frequently involved in accidental injuries during the winter months. Eighty per cent of the 1,154 reported injuries involving all kinds of hockey occurred to persons within the 10-24 age group. Some of the more severe injuries included 24 skull fractures, 232 other fractures, 34 dislocations, 24 concussions, 29 intracranial injuries and 321 open wounds.
- Regardless of the season, stairs and steps is always the second most predominant item on the top-20 list. Young children and the elderly continue to be the most susceptible victims with 47 per cent of the 1,137 reported injuries occurring within the 0-4 age group. Injuries to the head dominated with 42 skull fractures, 156 intracranial injuries and 20 concussions. There were also 161 other fractures and 170 open wounds.
- Items of household furniture appear prominently on the top-20 list. Tables, beds and chairs are three products which are involved frequently in accidents and they account for nine per cent of all reported injuries. The 0-4 age group is again the most susceptible, being victims in 67 per cent of all cases. Injuries involving household furniture included 16 skull fractures, 22 concussions, 195 intracranial injuries and 770 open wounds to the head.

- Burns are a particular area of concern because of the extent of treatment involved and the physical and mental scars which often remain. There were 520 burns reported during the winter of 1983/84, of which 34 per cent of the victims were infants less than two years old. For this age group the principal cause (50 per cent of accidents) is scalding by hot substances or steam, but for children in the 2-4 age group the most frequent cause (38 per cent) is contact with a hot appliance. Accidents to children in the older age group tended to be more severe.
- Poisoning is another area of concern, mostly because of the age group involved. Seventyseven per cent of all cases involved children under the age of five. The source in more than two-thirds of all cases was drugs and medication.
- An open wound to the head or neck including the face and eyes continues to be the most frequently occurring injury. Heads were involved in 29 per cent of all injuries reported.
- Open wounds were reported in 28 per cent of all accidents. Fractures accounted for a further 12 per cent. Included in the 1,794 total fractures were 147 skull fractures and 25 fractures of the vertebral column.

Figure 1 Number of Accidents by Age Group October 1983 — March 1984



Total number of accidents (N) = 14,868

Inpatients

#### Table 1 Top 20 Products or Activities Involved in Accidents by Age Group October 1983 — March 1984

Age Groups

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		TOTA	L	(	)-1	2	-4	5	i-9	10	-14	15	-24	25	5-64		65+
		Number (n)	% of N	Freq.	% of n	Freq.	% of n	Freq.	% of n	Freq.	% of n	Freq.	% of n	Freq.	% of n	Freq.	% of n
Hockey		1,514	10.2	4	0.5	6	0.5	121	8	636	42	581	38	165	11	1	0.5
Stairs or steps		1,137	7.6	298	26	234	22	146	13	188	16	140	12	118	10	13	1
Doors		568	3.8	97	17	135	24	133	23	128	22	51	9	21	4	3	0.5
Tables		567	3.8	173	31	233	41	93	16	30	5	24	4	13	2	1	0.5
Basketball		552	3.7	$\approx$	-	1	0.5	14	2	270	49	252	46	15	3	-	-
Beds		408	2.7	102	25	176	43	91	22	26	6	5	1	6	1	2	0.5
Skiing		390	2.6	-	-	8	2	62	16	166	42	115	29	38	10	1	0.5
Chairs		384	2.6	108	28	140	36	60	16	35	9	14	4	19	5	8	2
Knives		361	2.4	2	0.5	10	3	21	6	54	15	121	33	151	42	2	0.5
Gymnastics		349	2.3	2	1	12	3	91	26	189	54	55	16	-	-	-	-
Football		317	2.1	-	-	-	-	9	3	133	42	162	51	13	4	-	-
Ice skating		294	2.0	1	0.5	17	6	94	32	140	48	27	9	15	5	-	-
Ceilings and walls		262	1.8	27	10	46	18	62	24	85	32	39	15	3	1	-	-
Bicycles		241	1.6	5	2	38	16	82	34	74	31	35	14	7	3	-	-
Floors		239	1.6	61	25	66	28	48	20	45	19	10	4	4	2	5	2
Toboggans		210	1.4	3	1	19	9	90	43	69	33	19	9	10	5	$\sim$	-
Hot water		174	1.2	95	55	27	15	19	11	8	5	14	8	11	6	-	-
Soccer		170	1.1	1	0.5	2	1	22	13	80	47	56	33	9	5	-	-
Desks, chests, bureaus		151	1.0	26	17	41	27	41	27	32	21	7	5	4	3	-	-
Sofas, couches, davenports		130	80.0	48	37	56	43	14	11	3	2	6	5	3	2	-	-
	TOTALS	8,418	55.6	1,053	12	1,267	15	1,313	16	2,391	28	1,733	21	625	7	36	0.5

Relative percentage by age group as compared to the total number of accidents (N):

TOTALS	8,418	55.6	1,053	7	1,267	9	1,313	9	2,391	16	1,733	12	625	4	36	0.5
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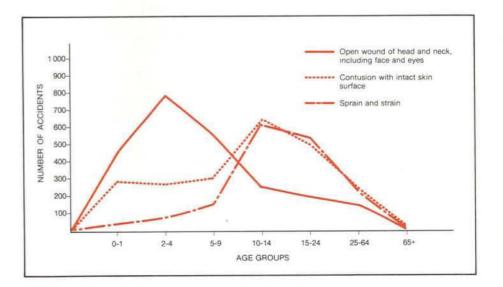
#### Product/Activity

### Table 2 Most Common Types of Injuries By Age Group October 1983 — March 1984

	Number of Injunes										
	Age Groups										
Injury Type	TOTAL	0-1	2-4	5-9	10-14	15-24	25-64	65+			
Open wound of head and neck, including face and eyes	2,340	446	778	544	235	195	136	6			
Contusion with intact skin surface	2,125	275	253	281	610	486	210	10			
Sprain and strain	1,556	20	54	138	600	533	206	5			
Open wound of upper limb(s)	1,174	65	77	126	175	334	386	11			
Fracture of upper limb(s)	922	36	64	156	385	180	82	19			
Intracranial injury, excluding skull fractures	840	341	167	168	123	30	11	-			
Burn	520	177	88	48	34	75	94	4			
Superficial injury	497	70	104	104	87	67	62	3			
Fracture of lower limb(s)	478	39	52	73	153	81	74	6			
Poisoning (drugs, medication)	459	88	255	34	28	31	18	5			
Foreign body injury	406	90	165	58	33	30	29	1			
Open wound of lower limb(s)	379	8	44	75	110	76	63	3			
Fracture of ribs/pelvis/trunk/collarbone	222	15	55	8	80	38	19	7			
Toxic effect injury (non-medicinal source)	194	98	62	8	4	8	13	1			
TOTALS	12,112	1,768	2,218	1,821	2,657	2,164	1,403	81			

Total number of accidents (N) = 14,868

Figure 2 Three Most Common Types of Injuries by Age Group October 1983 — March 1984



Number of Injuries