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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:

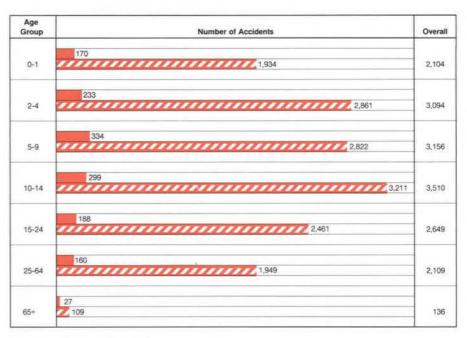
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CAIRE Highlights — Summer 1983

- Some changes were made to the NEISS coding in April 1983, which resulted in the elimination of the codes for foods, motor vehicles or parts, and glass parts or pieces, all three of which appeared in the top 20 products or activities in the summer of 1982. However, the codes for other associated products such as glass soft drink bottles have not been eliminated.
- Increases occurred in the number of accidents involving soccer, bicycles, slides, and stairs and steps. A decrease was reported in scalds from hot water.
- Bicycles were involved in 11.5 per cent of all the accidents reported; three out of every four bicycle accidents were to children in the 5-16 age group. Injuries included 39 skull fractures and 327 other fractures. There were also 578 open wounds, of which 298 were to the head, neck and face.
- Stairs and steps were associated with 8 per cent of accidents, and young children in the 0-4 age group were hurt in almost half of these. There were 31 skull fractures and 178 other fractures, 173 intracranial injuries, and 218 open wounds to the head, neck and face.

- Sports (excluding bicycling), when taken altogether, were mentioned in 19 per cent of all records collected. Of a total of 3,187 sports injuries, baseball (including softball and fastball) predominated, with 798 (25 per cent) of recorded injuries. In baseball, soccer and hockey, reports of 64 skull fractures, 51 intracranial injuries, 268 fractures other than to the skull, 154 open wounds to the head, and 12 concussions were received.
- Household furniture continues to be a cause of accidents and injuries. In particular, tables, beds and chairs accounted for 7 per cent of all accidents, and young children up to the age of 4 were involved in 72 per cent of these. More specifically, folding chairs were associated with the amputation of 8 fingers and 1 thumb in separate accidents.
- Playground apparatus accounted for a total of 934 reported injuries, which included 10 skull fractures, 65 intracranial injuries, 25 concussions, 219 fractures other than to the head, and 167 open wounds to the head.
- New to this publication is an overall summary of the most common injuries by age group (Table 2). Open wounds predominated, occurring 31 per cent of the time, with contusions and fractures occurring 14 and 13 per cent of the time respectively. While 88 per cent of all open wounds to the head, neck and face occurred to children in the 0-14 age group, it would appear that adults are more susceptible to open wounds of the upper limbs; 57 per cent of these injuries were to people in the 15-64 age group.

Figure 1 Number of Accidents by Age Group April — September 1983



Total number of accidents (N) = 16,758



Table 1 Top 20 Products or Activities Involved in Accidents by Age Group April 1983 — September 1983

Product/Activity

Age Groups

| | | TOTAL | | 0-1 | | 2-4 | | 5-9 | | 10-14 | | 15-24 | | 25-64 | | 65+ | |
|--|--------|------------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| | | Number (n) | % of N | Freq. | % of r |
| Bicycles and accessories | | 1,937 | 11.5 | 24 | 1 | 228 | 12 | 707 | 37 | 715 | 36 | 226 | 12 | 36 | 2 | 1 | 0.05 |
| Stairs and steps | | 1,271 | 7.6 | 330 | 26 | 288 | 23 | 163 | 13 | 153 | 12 | 142 | 11 | 166 | 13 | 29 | 2 |
| Baseball | | 798 | 4.8 | 4 | 1 | 23 | 3 | 137 | 17 | 291 | 36 | 193 | 24 | 150 | 19 | - | 3=3 |
| Doors | | 604 | 3.6 | 89 | 15 | 164 | 27 | 140 | 23 | 95 | 16 | 71 | 12 | 40 | 7 | 5 | 1 |
| Tables | | 454 | 2.7 | 163 | 36 | 170 | 37 | 53 | 12 | 22 | 5 | 23 | 5 | 23 | 5 | = | = |
| Football | | 420 | 2.5 | - | = | 4 | 1 | 14 | 3 | 145 | 34 | 217 | 52 | 40 | 10 | = | = |
| Knives | | 397 | 2.4 | 5 | 1 | 13 | 3 | 39 | 10 | 64 | 16 | 126 | 32 | 146 | 37 | 4 | 1 |
| Beds | | 395 | 2.4 | 132 | 33 | 160 | 41 | 64 | 16 | 22 | 6 | 9 | 2 | 2 | 1 | 6 | 2 |
| Soccer | | 374 | 2.3 | 1-1 | - | · | | 51 | 14 | 199 | 53 | 98 | 26 | 25 | 7 | 1 | 0.5 |
| Nails, screws, carpet tacks | | 364 | 2.2 | 11 | 3 | 46 | 12 | 68 | 19 | 105 | 29 | 105 | 29 | 26 | 7 | 3 | 1 |
| Chairs | | 302 | 1.8 | 100 | 33 | 104 | 34 | 43 | 14 | 14 | 5 | 13 | 4 | 18 | 6 | 10 | 3 |
| Swings and swing sets | | 292 | 1.8 | 16 | 5 | 103 | 35 | 121 | 41 | 44 | 15 | 7 | 3 | 1 | 0.5 | == | - |
| Hockey | | 264 | 1.6 | - | = | 2 | 1 | 34 | 13 | 114 | 43 | 78 | 30 | 36 | 14 | = | - |
| Monkey bars/climbing apparatus | | 247 | 1.5 | 10 | 4 | 41 | 17 | 149 | 60 | 45 | 18 | 1 | 0.5 | 1 | 0.5 | == | - |
| Slides and/or sliding boards | | 241 | 1.5 | 15 | 6 | 103 | 43 | 94 | 39 | 24 | 10 | 3 | 1 | 2 | 1 | - | - |
| Walls | | 227 | 1.4 | 32 | 14 | 51 | 22 | 45 | 20 | 48 | 22 | 26 | 11 | 22 | 10 | 3 | 1 |
| Fences or fence posts | | 226 | 1.4 | 5 | 3 | 33 | 15 | 89 | 41 | 55 | 25 | 33 | 11 | 9 | 4 | 2 | 1 |
| Swimming pools and related apparatus | | 210 | 1.3 | 5 | 2 | 27 | 13 | 62 | 30 | 81 | 39 | 26 | 12 | 9 | 4 | 220 | 1 |
| Ball sports (not elsewhere classified) | | 200 | 1.2 | 1 | 1 | 2 | 1 | 25 | 13 | 92 | 46 | 37 | 19 | 43 | 22 | = | = |
| Floors | | 175 | 1.1 | 44 | 25 | 57 | 33 | 32 | 18 | 22 | 13 | 11 | 6 | 9 | 5 | = | - |
| | TOTALS | 9,398 | 56.0 | 986 | 10 | 1,619 | 17 | 2,130 | 23 | 2,350 | 25 | 1,445 | 15 | 804 | 9 | 64 | 1 |

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

| TOTALS | 9,398 | 56.0 | 986 | 6 | 1,619 | 10 | 2,130 | 13 | 2,350 | 14 | 1,445 | 9 | 804 | 5 | 64 | 5 | |
|--------|-------|------|-----|---|-------|----|-------|----|-------|----|-------|---|-----|---|----|---|--|
|--------|-------|------|-----|---|-------|----|-------|----|-------|----|-------|---|-----|---|----|---|--|

Total number of accidents (N) = 16,758

Table 2 Most Common Types of Injuries by Age Group April 1983 — September 1983

Number of Injuries

| | 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 | 2,777 | 495 | 953 | 709 | 284 | 184 | 136 | 16 | | | |
| Contusion with intact skin surface | 2,403 | 318 | 359 | 436 | 583 | 399 | 284 | 24 | | | |
| Open wound of upper limbs | 1,606 | 73 | 132 | 203 | 250 | 413 | 508 | 27 | | | |
| Sprains and strains | 1,430 | 22 | 66 | 122 | 457 | 476 | 275 | 12 | | | |
| Fracture of upper limbs | 1,412 | 56 | 211 | 364 | 492 | 178 | 100 | 11 | | | |
| Intracranial injury, excluding skull fractures | 1,159 | 357 | 275 | 270 | 188 | 50 | 16 | 3 | | | |
| Superficial injury | 947 | 108 | 147 | 206 | 211 | 160 | 111 | 4 | | | |
| Open wound of lower limbs | 842 | 25 | 84 | 203 | 218 | 171 | 136 | 5 | | | |
| Burns | 502 | 165 | 62 | 45 | 43 | 81 | 106 | - | | | |
| Fracture of lower limbs | 506 | 30 | 57 | 82 | 147 | 90 | 88 | 12 | | | |
| Poisonings | 434 | 68 | 208 | 47 | 31 | 51 | 55 | 4 | | | |
| Effects of foreign body entering through orifice | 379 | 93 | 143 | 56 | 17 | 30 | 40 | = | | | |
| Fracture of skull | 240 | 48 | 37 | 53 | 55 | 21 | 25 | 1 | | | |
| TOTALS | 14,637 | 1,858 | 2,734 | 2,796 | 2,976 | 2,304 | 1,850 | 119 | | | |

Total number of accidents (N) = 16,758

Figure 2
Graph Displaying Three Most
Common Types of Injuries
by Age Group
April — September 1983

