

# CANADIAN HOSPITALS INJURY REPORTING AND PREVENTION PROGRAM (CHIRPP): Intentional injury among children and youths at British Columbia Children's Hospital, 1997-2001

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Canadian Hospitals  
Injury Reporting &  
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## Introduction

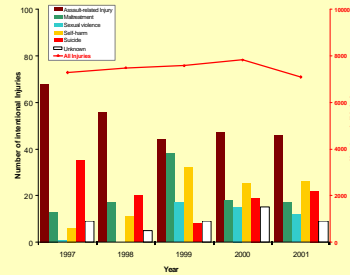
Intentional injury is a worldwide health problem. In 2000, an estimated 1.6 million people lost their lives to violence all over the world. Nearly half of these deaths were suicides and around one third were homicides - of whom 199,000 were youths and 57,000 children. For every death, many more are physically injured and/or psychological damaged. Affects on health may last years, even permanently. To describe the magnitude of intentional injury among children and youths in British Columbia, Canada, patients 18 years old and under who visited the emergency department of British Columbia Children's Hospital (BCCH), one surveillance spot of Canadian Hospital Injury Reporting and Prevention Program (CHIRPP), for intentional injury from 1997 to 2001 were abstracted from CHIRPP database. Intentional injury was identified by injury group and intent of injury codes. The narrative field, which recorded patient's description about the event, was used to extract extra information and to classify cases into the following intentional injury groups: assault-related injury, maltreatment, sexual violence, suicide and self-harm.

## Results

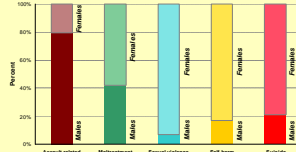
### 1. Overview

During 1997-2001 at emergency department of BCCH, there were 660 intentional injuries. This represented 1.8% of all injuries. Of them, there were 154 hospitalizations and 1 death.

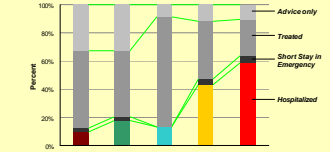
Intentional injuries among children and youths by year, BCCH, 1997-2001



Percent of intentional injury among children and youths by sex, BCCH, 1997-2001



Disposition of intentional injuries among children and youths, BCCH, 1997-2001



### 2. Assault-Related Injury

Assault-related injuries by age and sex, BCCH, 1997-2001

Age group	Male		Female		Total
	Class	%	Class	%	
0-4	2		0		2
5-9	9	81.8	2	18.2	11
10-14	88	71.0	36	29.0	124
15-18	104	88.9	13	11.1	117
Total	208	79.7	53	20.3	261

(Significantly more percentage of males for 15-19 years group than that for 10-14 years group,  $\chi^2 = 12.1, p < 0.01$ )

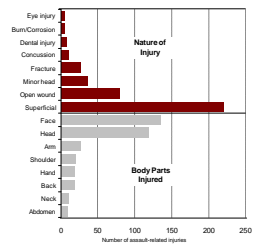
Assault-related injuries among children and youths by week and time, BCCH, 1997-2001

	School day (5 days)		Weekend (2 days)		Total
	Per day	Total	Per day	Total	
School time (7 hours) (8:00-15:00)	50	10	5	3	55
Labours time (9 hours) (16:00-23:00)	76	15	27	14	103
Sleep time (9 hours) (23:00-8:00)	13	3	7	4	20
Total	139	28	39	20	178

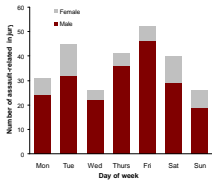
Leading place of occurrence for assault-related injury among children and youths, BCCH, 1997-2001

Rank	Sex		15-19 year-old (n=101)	15-19 year-old (n=101)
	Male (n=166)	Female (n=105)		
1	School (24.9%)	Road/Street (27.7%)	School (42.6%)	Road/Street (20.8%)
2	Road/Street (29.5%)	School (30.2%)	Road/Street (26.9%)	School (20.2%)
3	Sport/Recreation Area (12.0%)	Home (20.9%)	Home (11.1%)	Trade/Services Area (14.0%)

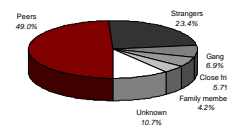
Nature of injury and body parts injured for assault-related injury among children and youths, BCCH, 1997-2001



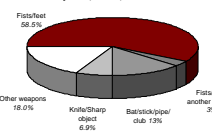
Assault-related injuries among children and youths by day of week and sex, BCCH, 1997-2001



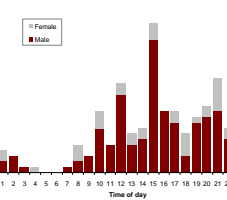
Relationship of victim and offender for assault-related injury among children and youths, BCCH, 1997-2001



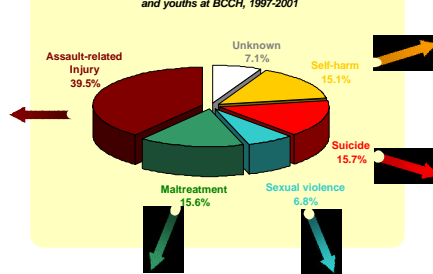
Weapons used in assault among children and youths, BCCH, 1997-2001



Assault-related injuries among children and youths by time of day and sex, BCCH, 1997-2001

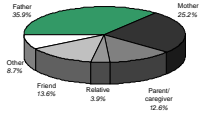


Intentional injuries among children and youths at BCCH, 1997-2001

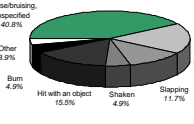


### 3. Maltreatment

Offenders of maltreatment, BCCH, 1997-2001



Means of maltreatment, BCCH, 1997-2001



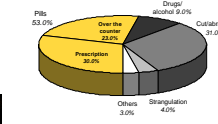
Maltreatment by age and sex, BCCH, 1997-2001

Age	Male	Female	Total
0-4	21	32	53
<1	8	10	18
1	1	7	8
2	3	6	9
3	5	6	11
4	4	3	7
5-9	11	13	24
10-14	7	12	19
15-18	4	3	7
Total	43	60	103

Of 79 cases specifying place of injury occurrence, 76 were at victim's home

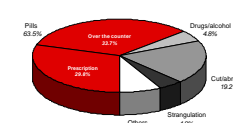
### 5. Self-harm

Methods of self-harm among children and youths, BCCH, 1997-2001

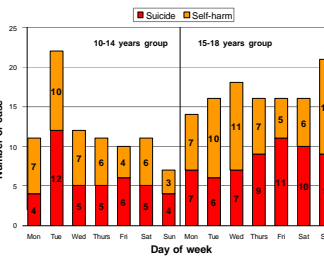


### 6. Suicide

Methods of suicide attempts and gestures among children and youths, BCCH, 1997-2001



Suicide and self-harm in 10-14 and 15-18 years group by day of week, BCCH, 1997-2001



Suicide attempts and gestures by age and sex, BCCH, 1997-2001

Age	Male	Female	Total
0-4	0	0	0
5-9	2	0	2
10-14	10	33	43
15-18	10	49	59
Total	22	82	104

83.3% occurred at victim's home

## Conclusions

During 1997-2001 at the emergency department of BCCH, among children and youths,

- Assault-related injuries were the most common intentional injuries and decreased from 1997 to 2001.
- Females suffered more intentional injuries than males, except for assault-related injuries, which had about four times more cases for male.
- Most assault-related injuries occurred on school days, between 15:00 to 23:00 and at school or road/street; more than half happened among peers; fists and feet were the most common weapons.
- Young children represented the majority of maltreatment victims and the cases decreased with age. Almost all maltreatments occurred in the victim's home.
- Victims of sexual violence were predominantly female and nearly half occurred in another's home and during the weekend. More than half were attributed to strangers.
- Self-harm injuries frequently occurred in their own home. Over half of self-harm injuries and nearly 2/3 of suicide were by ingestion.
- Forty-three percent of self-harm injuries and 61% of suicides were hospitalized. This was higher than the hospitalization of other intentional injuries.

