

*INJURY
DATA
COLLECTION
PROGRAM
1999-2000*

CONDUCTED BY THE:

HOCKEY DEVELOPMENT CENTRE FOR ONTARIO



INJURY DATA COLLECTION PROGRAM

FACT SHEET

When a review of the Injury Data Collection Program (IDCP) is done, there are several factors that should be considered:

- The total number of players, registered and non-registered in Ontario.
- The total number of games played and therefore the exposure of each player to ice time over the entire hockey season.

Ontario Registration Figures for 1999-2000

Registered Players..... 225,442

- The Hockey Development Centre would like to acknowledge the support of the Dr. Tom Pashby Sports Safety Fund for providing assistance in the areas of education and prevention of hockey-related injuries.



INTRODUCTION

In 1987, the Hockey Development Centre for Ontario (HDCO) and the Ministry of Tourism and Recreation committed themselves to the long-term planning and implementation of safety programs for hockey. Research of various types has been completed over the past fourteen years with many recommendations either implemented already or included in the HDCO Safety Strategy. This Safety Strategy is the basic framework of planning for safety by the HDCO.

Over the past fifteen years it has become increasingly apparent that statistical information is essential for planning, monitoring and implementing programs for hockey in Ontario. Unless detailed injury data can be gathered, many misconceptions and opinions will enter into the decision making process. Therefore, it is the HDCO's mandate that hockey in Ontario requires an on-going, statistically sound Injury Data Collection Program (IDCP).

The HDCO Safety and Research and Trainers Committees developed an Injury Data Collection Program that has several advantages over previous studies:

- The IDCP is administered on a yearly basis.
- Involvement is province-wide, including all minor hockey associations.
- Yearly reports are produced, which are meaningful and comprehensive for the grassroots hockey association and volunteers.

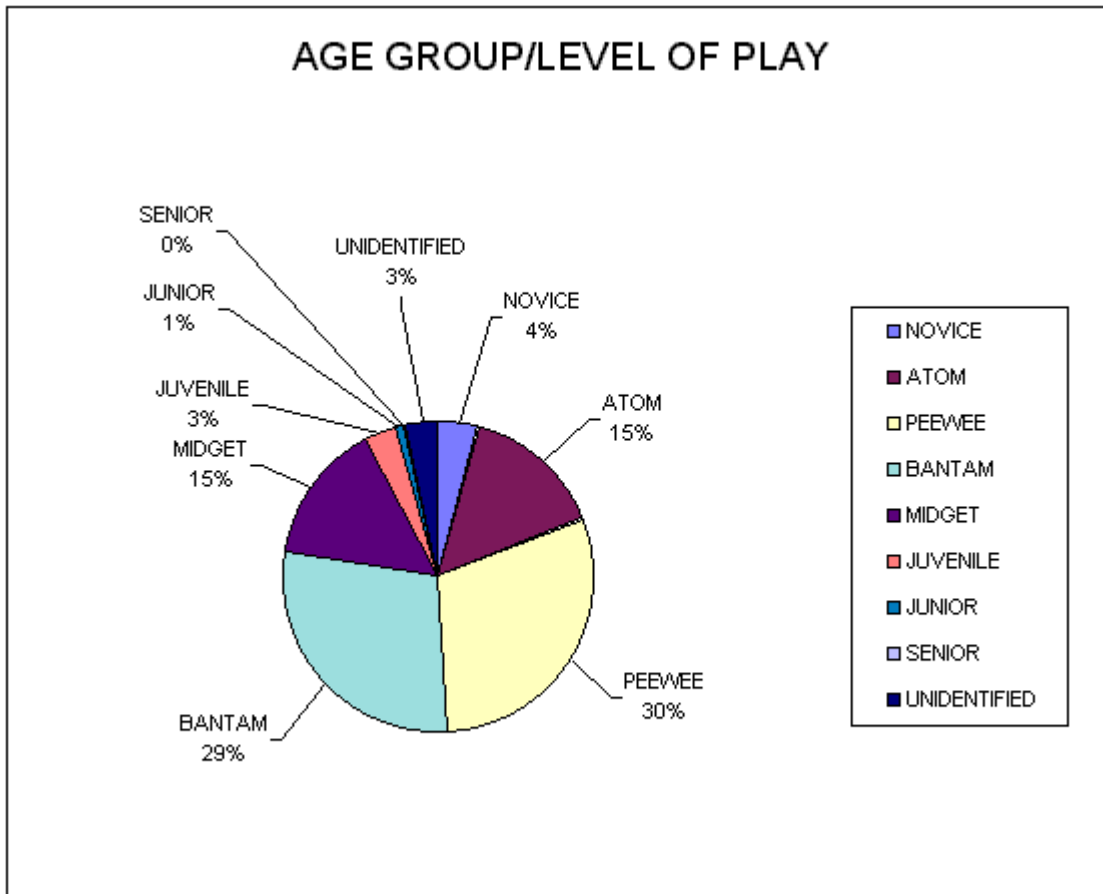
- The IDCP will assist in verifying other hockey-related studies.

METHODOLOGY

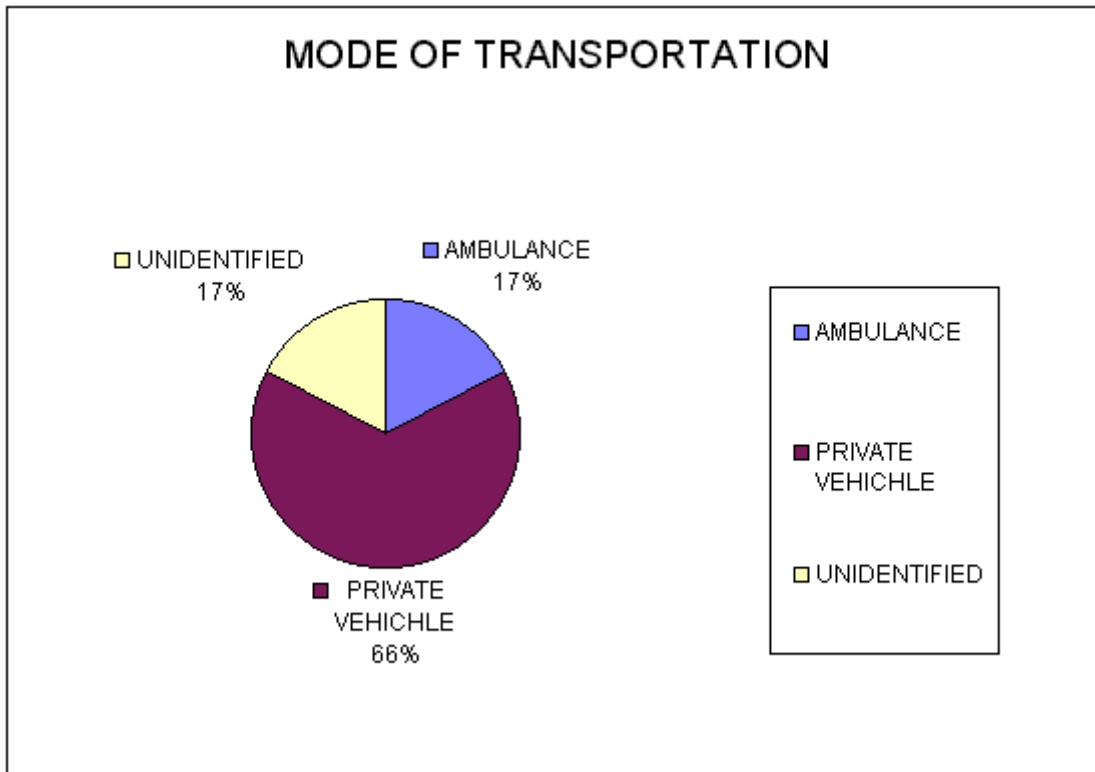
Through consultation with the HDCO Board of Directors, Safety Research Committee, Trainers Committee and the Ministry of Tourism, Culture and Recreation, a methodology was established. This methodology includes the mass distribution of injury data collection forms through the ten member association offices, development clinics specifically the Hockey Trainers Certification Program. Reporting periods are from September 1st to May 1st, with all reports being tabulated at the HDCO office.

All completed forms are date entered using a specific data entry screen developed in Microsoft Access and Excel database applications.

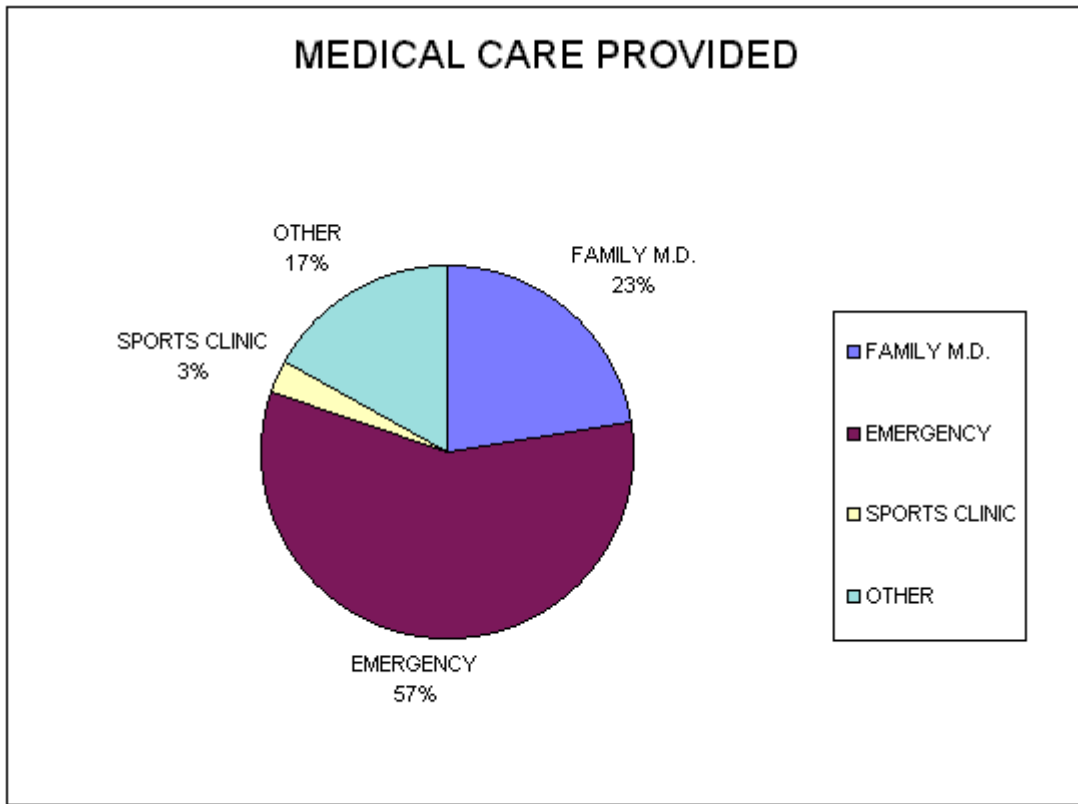
CATEGORY	NUMBER	PERCENTAGE
Age Group		
NOVICE	56	4.20%
ATOM	198	14.86%
PEEWEE	398	29.88%
BANTAM	381	28.60%
MIDGET	197	14.79%
JUVENILE	44	3.30%
JUNIOR	10	0.75%
SENIOR	2	0.15%
UNIDENTIFIED	46	3.45%
TOTAL	1332	



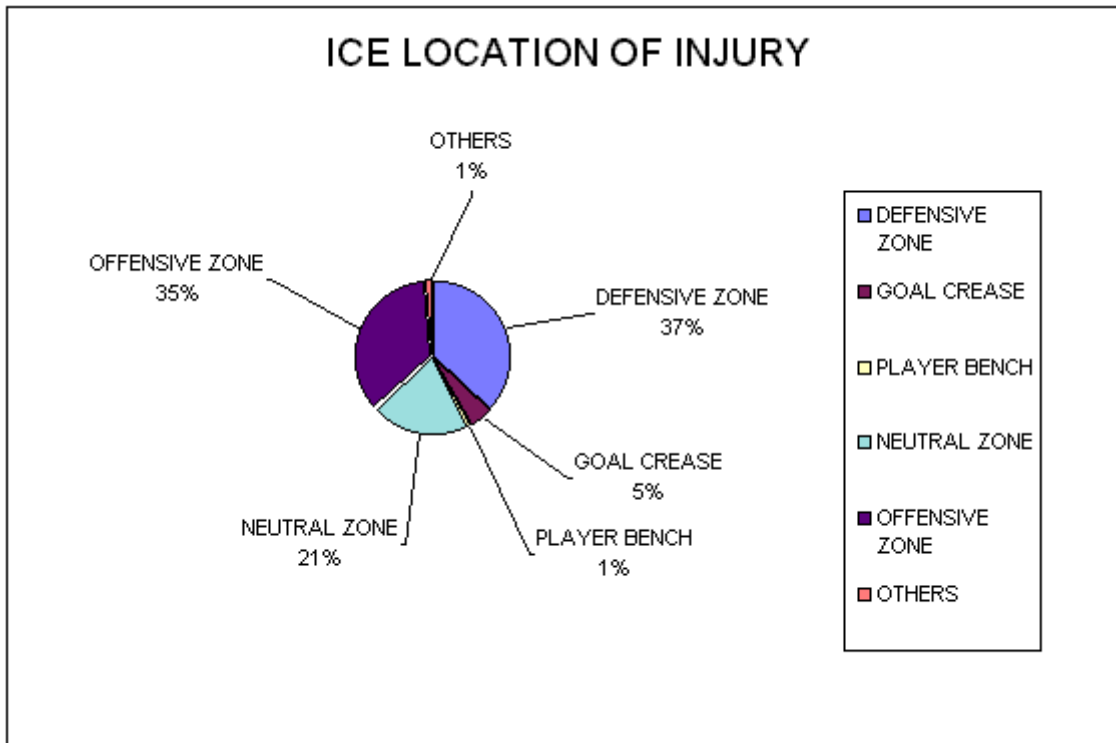
CATEGORY	NUMBER	PERCENTAGE
TRANSPORTED TO HOSPITAL	958	
Mode of Transportation		
AMBULANCE	164	17.12%
PRIVATE VEHICLHLE	628	65.55%
UNIDENTIFIED	166	17.33%
TOTAL	958	



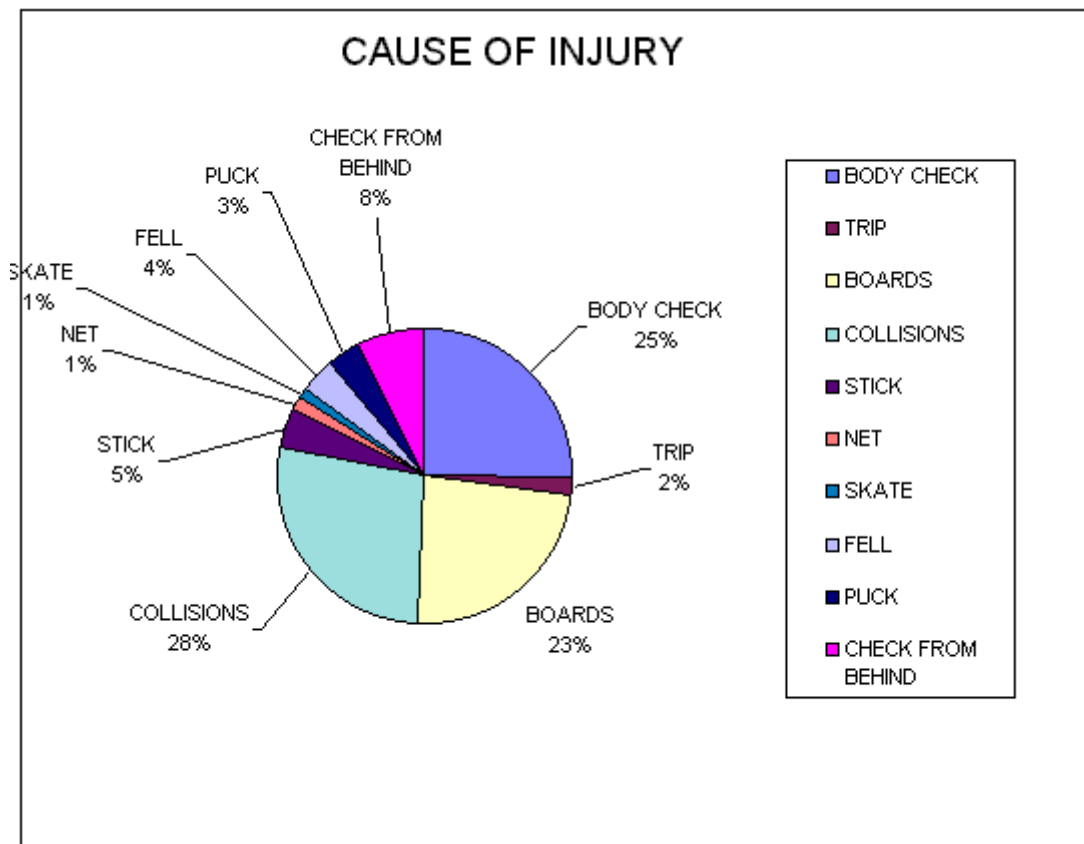
CATEGORY	NUMBER	PERCENTAGE
Medical Care Provided		
FAMILY M.D.	32	22.54%
EMERGENCY	82	57.75%
SPORTS CLINIC	4	2.82%
OTHER	24	16.90%
TOTAL	142	



CATEGORY	NUMBER	PERCENTAGE
Ice Location of Injury		
DEFENSIVE ZONE	386	36.55%
GOAL CREASE	52	4.92%
PLAYER BENCH	11	1.04%
NEUTRAL ZONE	221	20.93%
OFFENSIVE ZONE	374	35.42%
OTHERS	12	1.14%
TOTAL	1056	



CATEGORY	NUMBER	PERCENTAGE
Cause of Injury		
BODY CHECK	416	25.21%
TRIP	35	2.12%
BOARDS	381	23.09%
COLLISIONS	455	27.58%
STICK	75	4.55%
NET	21	1.27%
SKATE	18	1.09%
FELL	67	4.06%
PUCK	56	3.39%
CHECK FROM BEHIND	126	7.64%
TOTAL	1650	

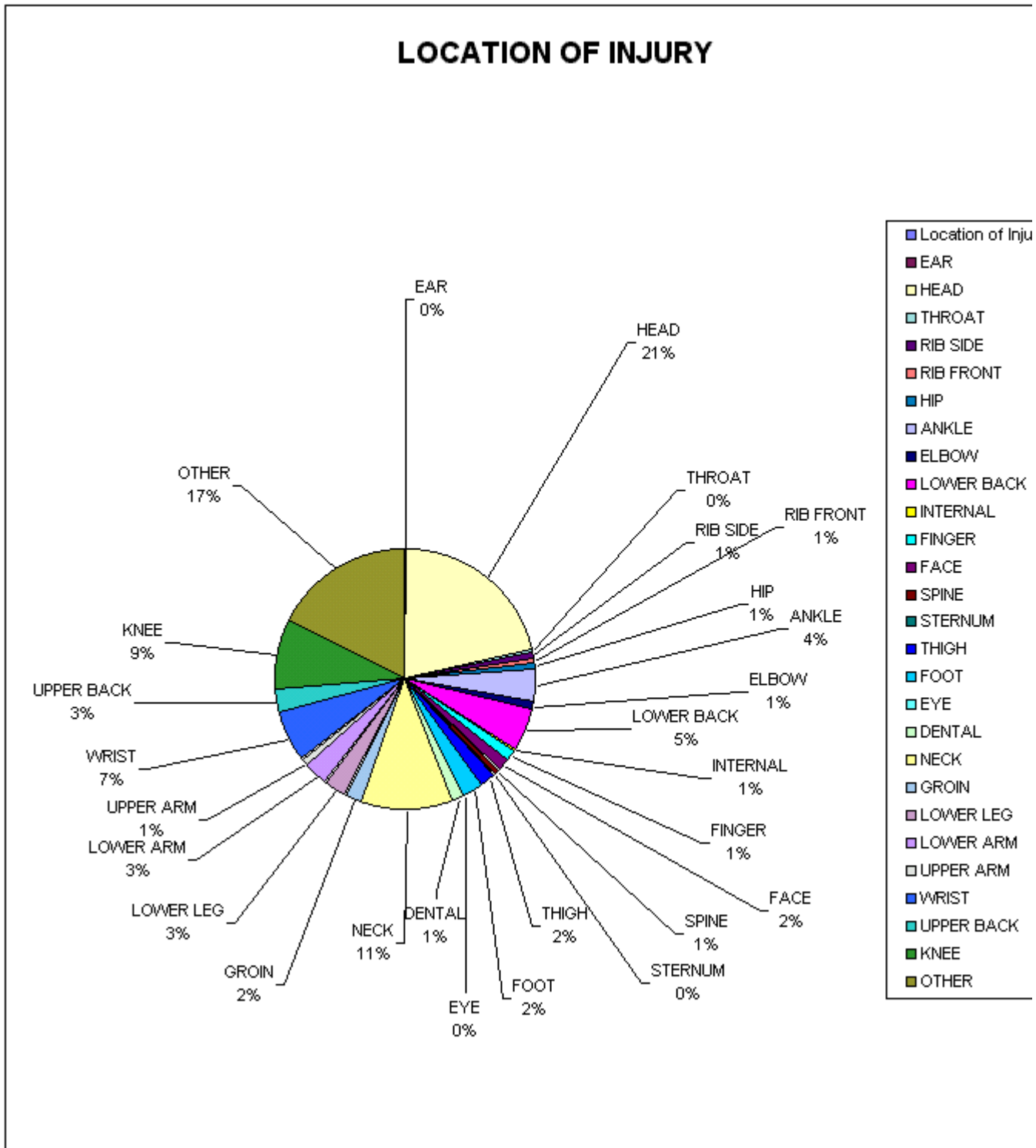


CATEGORY NUMBER PERCENTAGE

Location of Injury

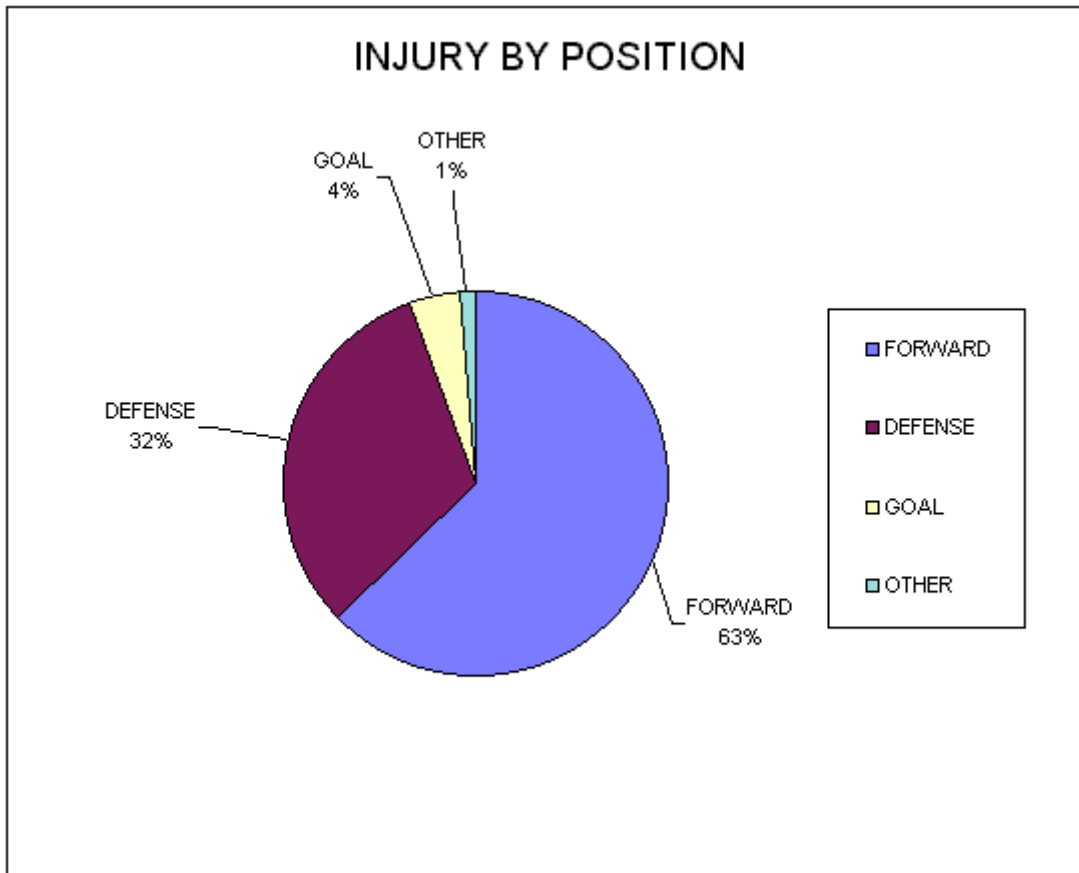
EAR	4	0.36%
HEAD	235	20.94%
THROAT	4	0.36%
RIB SIDE	9	0.80%
RIB FRONT	7	0.62%
HIP	8	0.71%
ANKLE	44	3.92%
ELBOW	12	1.07%
LOWER BACK	56	4.99%
INTERNAL	7	0.62%
FINGER	14	1.25%
FACE	19	1.69%
SPINE	7	0.62%
STERNUM	0	0.00%
THIGH	22	1.96%
FOOT	28	2.50%

EYE	4	0.36%
DENTAL	14	1.25%
NECK	127	11.32%
GROIN	23	2.05%
LOWER LEG	31	2.76%
LOWER ARM	36	3.21%
UPPER ARM	12	1.07%
WRIST	73	6.51%
UPPER BACK	29	2.58%
KNEE	102	9.09%
OTHER	195	17.38%
TOTAL	1122	

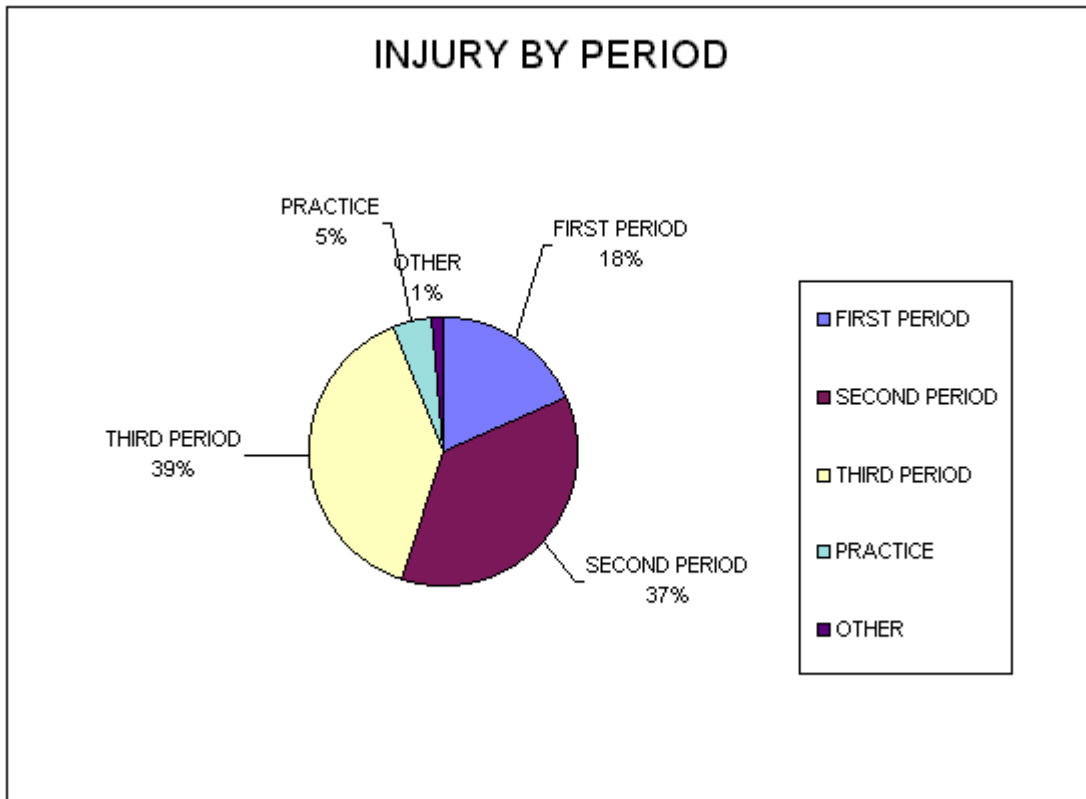


CATEGORY	NUMBER	PERCENTAGE
Injury by Position		
FORWARD	759	62.73%
DEFENSE	384	31.74%
GOAL	49	4.05%

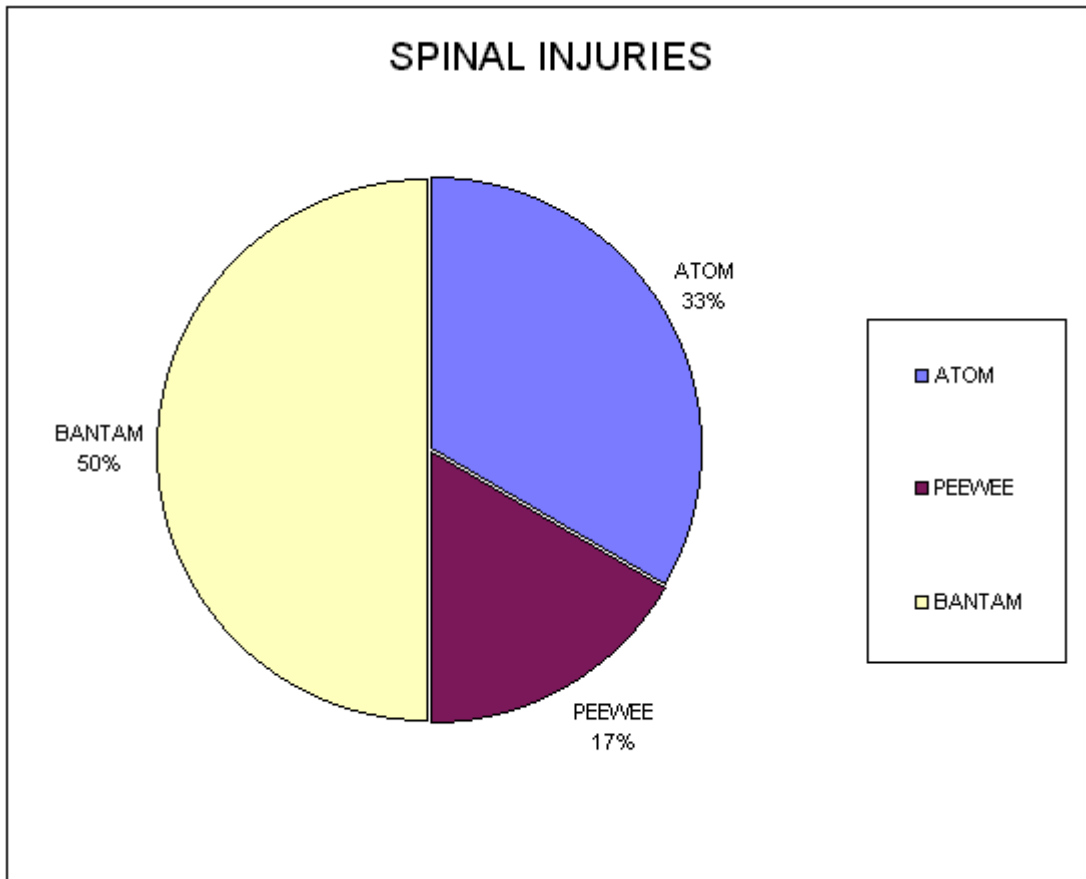
OTHER	18	1.49%
TOTAL	1210	



CATEGORY	NUMBER	PERCENTAGE
Injury by Period		
FIRST PERIOD	207	18.45%
SECOND PERIOD	411	36.63%
THIRD PERIOD	434	38.68%
PRACTICE	55	4.90%
OTHER	15	1.34%
TOTAL	1122	



CATEGORY	NUMBER	PERCENTAGE
Spinal Injuries		
NOVICE	1	14.29%
ATOM	2	28.57%
PEEWEE	1	14.29%
BANTAM	3	42.86%
TOTAL	7	



SPINAL PROFILE	1999-00	1998-99	(+/-)
7 Total Injuries Reported	7	4	75%

AGE GROUP

Novice	1	14.29%
Atom	2	28.57%
Pee Wee	1	14.29%
Bantam	3	42.86%
TOTAL	7	

POSITION PLAYED

Forward	6	85.71%
Goaltender	1	14.29%
TOTAL	7	

PERIOD

1st	3	42.86%
2nd	1	14.29%
3rd	3	42.86%
TOTAL	7	

OTHER RELATED INJURIES

Lower Back	3	42.86%
Neck	2	28.57%
Unidentified	2	28.57%
TOTAL	7	

TYPE OF INJURY

Bruise	2	28.57%
Sprain	1	14.29%
Unidentified	4	57.14%
TOTAL	7	

SYMPTOMS

Pain	2	28.57%
Unidentified	5	71.43%
TOTAL	7	

MECHANISM/CAUSE OF INJURY

Body Check	1	14.29%
Collision	3	42.86%
Fell on Ice	1	14.29%
Net	1	14.29%
Stick	1	14.29%
TOTAL	7	

POSITION ON ICE

Offensive Zone	3	42.86%
Goal Crease	1	14.29%
Unidentified	3	42.86%
TOTAL	7	

SPINAL PROFILE

TRANSPORTED TO HOSPITAL	7	
-------------------------	---	--

MODE OF TRANSPORTATION

Ambulance	5	71.43%
Private Vehicle	2	28.57%
TOTAL	7	

TIME LOST DUE TO INJURY

3 specified - 5 weeks

Previous Injury: Not specified

REVIEW

Increase of number of injuries reported

Forwards received 86% of this type of injury

43% of injuries received in 1st and 3rd periods

42.86% of injuries caused from on-ice collision

DENTAL PROFILE	1999-00	1998-99	(+/-)
14 Total Injuries Reported	14	30	-53%

AGE GROUP

Novice	1	7.14%
Atom	1	7.14%
PeeWee	4	28.57%
Bantam	5	35.71%
Midget	2	14.29%
Unidentified	1	7.14%
TOTAL	14	

POSITION PLAYED

Forward	9	64.29%
Defense	4	28.57%
Unidentified	1	7.14%
TOTAL	14	

PERIOD

1st	2	14.29%
2nd	5	35.71%
3rd	4	28.57%
Unidentified	3	21.43%
TOTAL	14	

OTHER RELATED INJURIES

Head/Face Area	4	80.00%
Neck	1	20.00%
TOTAL	5	

ACTIVITY

Game	5	35.71%
Tournament/Exhibition/Playoff	9	64.29%
TOTAL	14	

TYPE OF INJURY

Other	13	100.00%
TOTAL	13	

MECHANISM/CAUSE OF INJURY

Body Check	3	21.43%
Boards	2	14.29%
Collision	6	42.86%
Stick	3	21.43%
TOTAL	14	

DENTAL PROFILE

POSITION ON ICE

Defensive Zone	3
Neutral Zone	3
Offensive Zone	
Goal Crease	
Unidentified	8
TOTAL	14

TRANSPORTED TO HOSPITAL

13 did not specify

MODE OF TRANSPORTATION

Private Vehicle	1
Ambulance	

REVIEW

Decrease of 53% over 1998-99 total of 30
Peewee and Bantam combined for 64.28% of total

Forwards received 9 or 64.29% of injuries

On-ice collision cited in 42.86% of cases reported

*chipped, lost, broken,
multiple teeth

1.26% of all injuries reported

mild concussion

NECK PROFILE	1999-00	1998-99	(+/-)
	127	143	-11%

127 Injuries Reported

AGE GROUP

Novice	3	2.36%
Atom	28	22.05%
PeeWee	37	29.13%
Bantam	40	31.50%
Midget	12	9.45%
Junior	1	0.79%
Juvenile	2	1.57%
Unidentified	4	3.15%
TOTAL	127	

POSITION PLAYED

Forward	79	62.20%
Defense	32	25.20%
Goaltender	6	4.72%
Unidentified	10	7.87%
TOTAL	127	

PERIOD

1st	12	9.45%
2nd	39	30.71%
3rd	55	43.31%
Practice	1	0.79%
Unidentified	20	15.75%
TOTAL	127	

OTHER RELATED INJURIES

Head	40	54.05%
Throat	1	1.35%
Dental	1	1.35%
Upper/Lower Back	20	27.03%
Ribside	1	1.35%
Other	11	14.86%
TOTAL	74	

TYPE OF INJURY

Strain	18	18.95%
Fracture	5	5.26%
Sprain	24	25.26%
Dislocation	1	3.45%
Bruise	15	15.79%
Laceration	3	3.16%
Others	29	30.53%
TOTAL	95	

NECK PROFILE

SYMPTOMS

Pain	26	78.79%
Loss of Feeling	1	3.03%
Others	6	18.18%
TOTAL	33	

MECHANISM/CAUSE OF INJURY

Body Check	30	20.55%
Trip	1	0.68%
Boards	29	19.86%
Collision	32	21.92%
Stick	8	5.48%
Net	2	1.37%
Fell	6	4.11%
Check from Behind	38	26.03%
Skate	2	1.37%
Puck	1	0.68%
TOTAL	146	

POSITION ON ICE

Defensive Zone	35	33.33%
Offensive Zone	44	41.90%
Neutral Zone	19	18.10%
Goal Crease	6	5.71%
Other	1	0.95%
TOTAL	105	

*Shoulder, collar bone,
stomach

TRANSPORTED TO HOSPITAL	82		
MODE OF TRANSPORTATION			*concussion, muscle spasms,
Ambulance	48	58.54%	severe bruising,whiplash,
Private Vehicle	34	41.46%	soft tissue damage
TOTAL	82		

REVIEW

Forwards received 62.20% of this type of injury

The offensive zone was the site of 41.90% of injuries

55 or 43.31% occurred in the 3rd period

Atom, PeeWee and Bantam age group combined for 82.68% of injuries *dizziness, nausea, swelling,

Head injuries represented 54.05 % of related injuries headache, tingling, stiffness

Collisions, Board and Checking From Behind highest mechanism of injury - 67.81%

HEAD PROFILE	1999-00	1998-99	(+/_)
235 Injuries Reported	235	236	0%

AGE GROUP	NUMBER	AGE %
Novice	13	5.53%
Atom	44	18.72%
PeeWee	59	25.11%
Bantam	73	31.06%
Midget	34	14.47%
Juvenile	7	2.98%
Junior	1	0.43%
Senior	2	0.85%
Unidentified	2	0.85%
TOTAL	235	

POSITION PLAYED

Forward	130	55.32%
Defense	72	30.64%
Goaltender	10	4.26%
Other	4	1.70%
Unidentified	19	8.09%
TOTAL	235	

PERIOD

1st	28	11.91%
2nd	79	33.62%
3rd	87	37.02%
Unidentified	41	17.45%
TOTAL	235	

OTHER RELATED INJURIES

Neck	40	83.33%
Dental	2	4.17%
Upper Back	5	10.42%
Upper Arm	1	2.08%
TOTAL	48	

TYPE OF INJURY

Strain	6	4.55%
Fracture	2	1.52%
Sprain	8	6.06%
Bruise	7	5.30%
Laceration	8	6.06%
Other	101	76.52%
TOTAL	132	

HEAD PROFILE

SYMPTOMS

Pain	26	72.22%
Heavy Bleeding	1	2.78%
Other	9	25.00%
TOTAL	36	

* team staff, referee

MECHANISM/CAUSE OF INJURY

Body Check	67	22.64%
Boards	73	24.66%
Collision	72	24.32%
Stick	9	3.04%
Net	7	2.36%
Fell on Ice	18	6.08%
Puck	4	1.35%

Check from Behind	46	15.54%
TOTAL	296	

POSITION ON ICE

Defensive Zone	64	34.78%
Offensive Zone	67	36.41%
Neutral Zone	36	19.57%
Goal Crease	11	5.98%
Players Bench	2	1.09%
Other	4	2.17%
TOTAL	184	

TRANSPORTED TO HOSPITAL	137	74.46%
-------------------------	-----	--------

*concussion, whiplash, headache

MODE OF TRANSPORTATION

Ambulance	33	24.09%
Private Vehicle	104	75.91%
TOTAL	137	

nausea, loss of consciousness

REVIEW

No change in number of injuries from previous year

PeeWee, Bantam and Midget age players represented 74.89% of injuries

Forwards were most injured 55.32%

Concussions were recorded as a related injury in 146 reports filed ranging from possible, slight, mild and 1st degree

*disoriented, tingling sensation
headache, blurred vision, dizziness