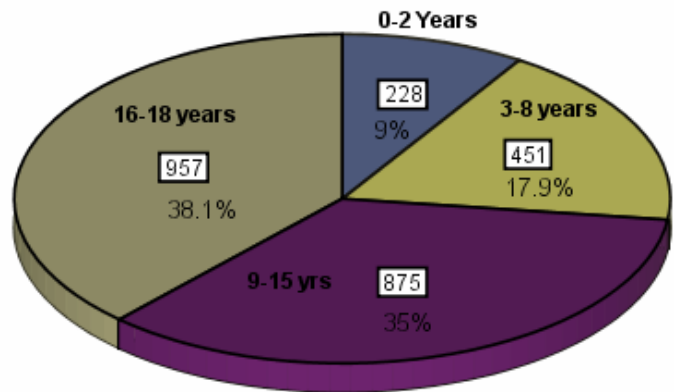


PEDIATRIC TRAUMA



Figure 55 shows the age groupings for the 2,511 pediatric trauma patients who used the services of the Oregon trauma system. Five percent were age one year or less, and 38.1% were in the driving years between 16-18 years of age.

Figure 55: Ages of Pediatric Trauma



N = 2,511

While the adult trauma injuries have been rising, Figure 56 demonstrates that pediatric trauma injuries have remained fairly steady over the past 10 years.

Figure 56: Trend of Pediatric and Adult Trauma Volume

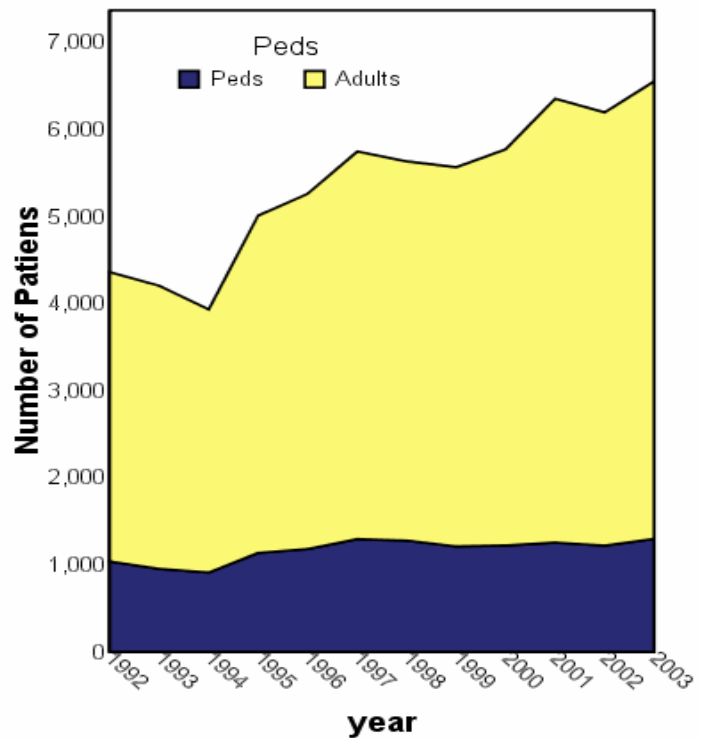
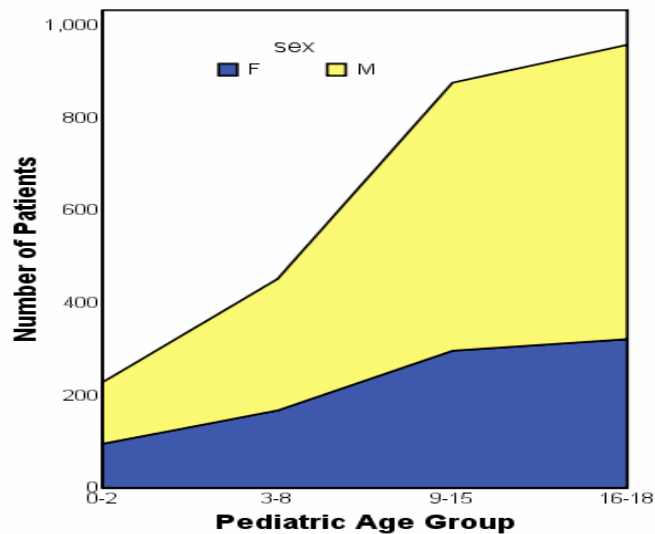


Figure 57 compares the volume of males to females in the pediatric trauma patient population. Males suffer traumatic injuries at a 2:1 rate until age 4, at which time the rate climbs to a 3:1 ratio. This increase in the male to female ratio continues to increase into young adulthood.

Figure 57: Pediatric Trauma Volume by Age Group



As seen in Table 4, the most frequent causes of pediatric trauma are motor vehicle crashes (40%) and falls (17%). The most lethal mechanism is firearms, with a 17% mortality rate.

Table 4: Pediatric Trauma Injuries by Highest Mechanism of Injury

Mechanism of Injury	Alive	Dead	Total
MV Occupant	985	21	1006
Fall	423	0	423
Transport, other	232	3	235
MV Pedestrian	163	10	173
Struck by, against	118	2	120
Pedal Cyclist, other	108	0	108
MV Pedal Cyclist	95	3	98
Firearm	49	10	59
Cut/Pierce	50	1	51
MV Motorcyclist	41	0	41
Other specified	32	2	34
Pedestrian, other	32	1	33
Natural/Environment	21	0	21
Drowning	15	4	19
MV NEC	17	0	17
MV Unspecified	12	0	12
Suffocation	9	1	10
Machinery	10	0	10
Bites & Stings	9	0	9
Fire	6	2	8
Unspecified	7	0	7
Overexertion	5	0	5
Hot Object	5	0	5
Motor Vehicle	2	0	2
Poisoning	1	0	1
Totals	2447	60	2507

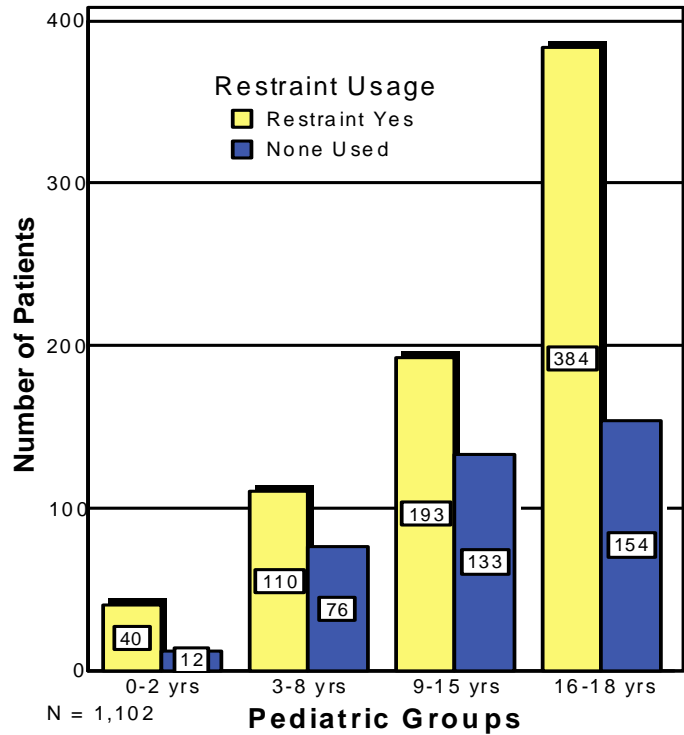
Table 5: Injury Detail for Pediatric Traumatic Falls

Type of Fall	Frequency	Percent	Valid Percent	Cumulative Percent
	7	1.7	1.7	1.7
ACCIDENT IN PLACE NEC	1	0.2	0.2	1.9
DIVING ACCIDENT	8	1.9	1.9	3.8
FALL-1 LEVEL TO OTHER NEC	99	23.4	23.4	27.2
FALL FROM BED	14	3.3	3.3	30.5
FALL FROM BUILDING	95	22.5	22.5	53
FALL FROM CHAIR	8	1.9	1.9	54.8
FALL FROM CLIFF	6	1.4	1.4	56.3
FALL FROM LADDER	6	1.4	1.4	57.7
FALL FROM NON-MOTOR SCOOTER	4	0.9	0.9	58.6
FALL FROM OTHER FURNITURE	3	0.7	0.7	59.3
FALL FROM PLAYGRND EQUIPMENT	28	6.6	6.6	66
FALL FROM ROLLER SKATES	4	0.9	0.9	66.9
FALL FROM SCAFFOLDING	1	0.2	0.2	67.1
FALL FROM SKATEBOARD	30	7.1	7.1	74.2
FALL FROM SKIS	3	0.7	0.7	74.9
FALL FROM SNOWBOARD	10	2.4	2.4	77.3
FALL IN SPORTS	21	5	5	82.3
FALL INTO OTHER HOLE	2	0.5	0.5	82.7
FALL ON ESCALATOR	1	0.2	0.2	83
FALL ON LEVEL NEC/NOS	4	0.9	0.9	83.9
FALL ON STAIR/STEP NEC	22	5.2	5.2	89.1
FALL STRIK HEAD ON OTH OBJECT	4	0.9	0.9	90.1
FALL STRIK HEAD ON SHARP OBJECT	4	0.9	0.9	91
OTHER FALL	1	0.2	0.2	91.3
SAME LEVEL FALL-SLIP/TRIP/STUMBLE	19	4.5	4.5	95.7
SUIC-JUMP FROM NATURAL SITE	1	0.2	0.2	96
UNDET FALL NATURAL SITE	1	0.2	0.2	96.2
UNDET FALL STRUCTURE NEC	1	0.2	0.2	96.5
UNSPECIFIED FALL	15	3.5	3.5	100
Total	423	100	100	

Table 5 provides specific detail for pediatric trauma patients who received hospital care for their fall injuries. The most common distance for children who fell was from one level to another (23.4%), which includes falls from playground equipment, chairs, beds and other furniture, or trees. Falls from a building (22.5%) are the second most frequent cause. This group includes falls from a balcony, window, roof, wall, bridge, or tower.

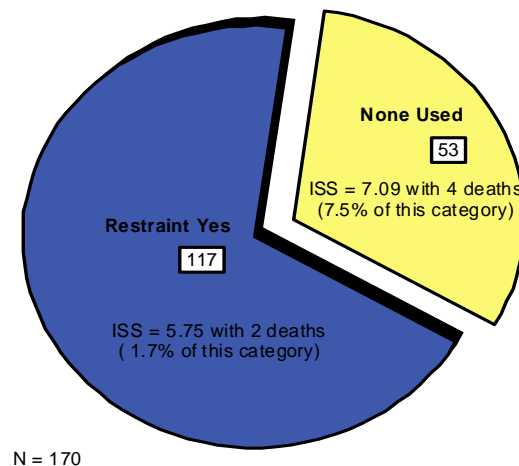
Data is collected on the use of safety devices (lap belts, shoulder harnesses, and child safety seats) for pediatric patients injured in motor vehicle crashes. Figure 58 demonstrates that overall restraint usage was 66%. The highest restraint use was in the 0-2 year age group of which 77% had restraints in place. Restraint use in the Toddler and School age groups fell to 60%. The teen years (15 to 18) saw restraint use increase to 71%.

Figure 58: Pediatric Safety Device Use in Motor Vehicle Crashes



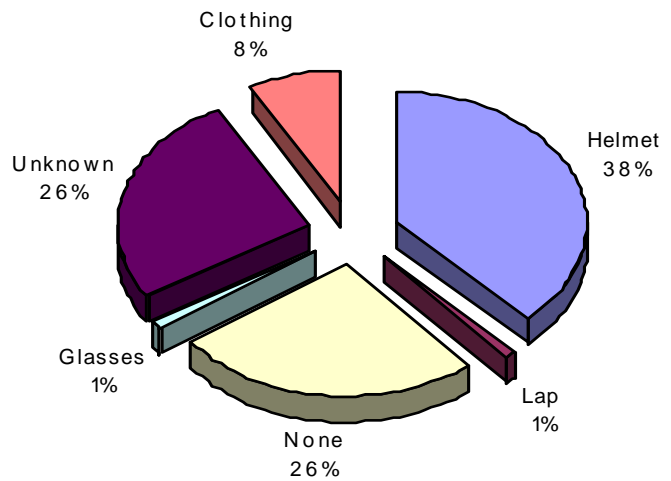
Children under 4 years of age and under 40 pounds are required by Oregon law to be properly secured with a child safety system. As of January 1, 2002, children between 4 and 6 years of age, or who weigh 40-60 pounds, are required to ride in booster seats. Of the 170 trauma patients under the age of 6 who required trauma center care after a motor vehicle crash, 69% were restrained in the vehicle. The restrained pediatric passengers suffered a lower injury severity and a lower death rate when compared to the patients who were not restrained (31%).

Figure 59: Pediatric Restraint Use for Children Under 6 Years of Age



All Terrain Vehicles (ATVs) are a growing recreational sport vehicle in Oregon. Figure 60 reveals that 38% of patients in this pediatric injury group were wearing helmets when the ATV they were driving or riding on crashed. Over half of the patients were not wearing any type of protective device or use of a protective device was unknown.

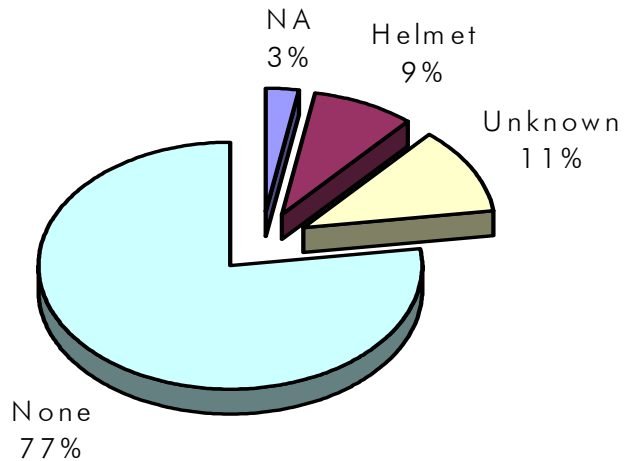
Figure 60: Helmet Use in Pediatric ATV Crashes



N=79

Figure 61 demonstrates that helmets were not used by 77% of pediatric patients who were injured while using roller skates, in-line skates, or skateboards and who required hospital care as a result.

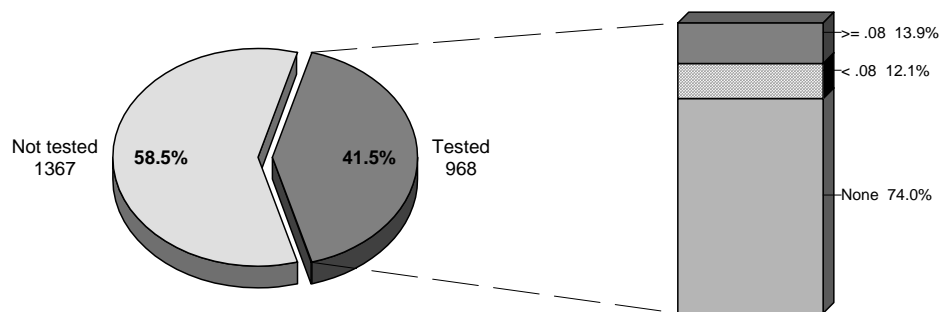
Figure 61: Helmet Use in Pediatric Skate and Skateboard Crashes



N = 35

Figure 62 shows that for 2,335 injured pediatric patients across the state, 42% were tested for alcohol use. Of those tested, 26% tested positive for blood alcohol levels: 12.1% had an alcohol level less than .08 gm/100cc, and 13.9% were positive at a level above the legal limit of .08 gm/100cc.

Figure 62: Alcohol Use Among Injured Pediatric Patients



N = 2,335 Excluded Unknown

Use of alcohol is found across the spectrum of pediatric injury types. Figure 63 demonstrates the volume of pediatric patients who tested positive for alcohol. The greatest number of pediatric patients testing positive were involved in a motor vehicle crash.

Figure 63: Positive Test for Alcohol in Pediatric Patients by Injury Group

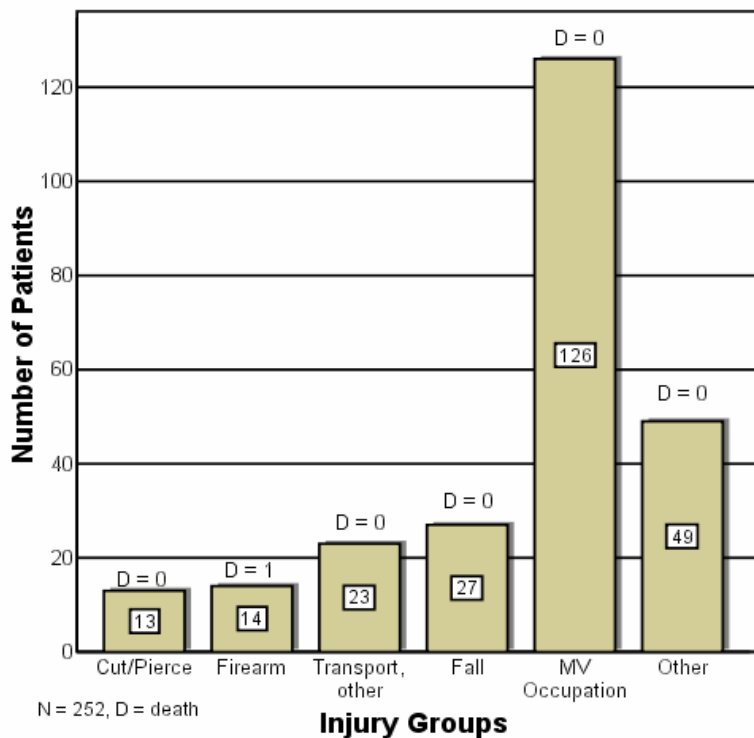
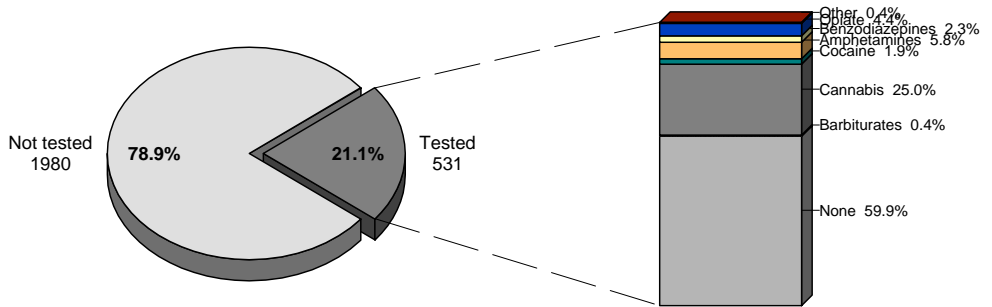


Figure 64 shows that for 2,511 injured pediatric patients, 21% underwent urine or blood testing for drug use. Of those tested, 40.1% tested positive for drugs of abuse. The most frequently reported drug was cannabis (25%). These tests are not mutually exclusive, and patients frequently have positive test results for more than one drug. In this group, 80% had one drug present; 18% had two drugs detected; and 2% tested positive for three or more drugs.

Figure 64: Drug Use Among Injured Pediatric Patients



N = 2,511. Excluded Unknown, not mutually exclusive

The use of drugs of abuse is found across the spectrum of injury types. Figure 65 indicates the number of patients who tested positive for drugs. The greatest number testing positive were involved in a motor vehicle crash.

Figure 65: Positive Test for Drug Use in Pediatric Patients by Injury Group

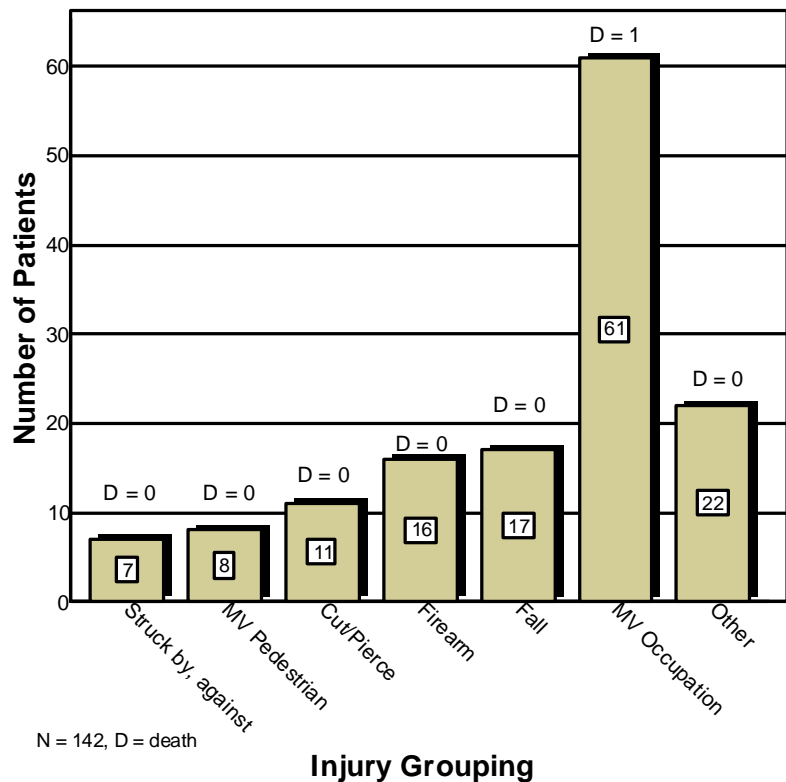


Figure 66 identifies the average Injury Severity Score (ISS) for pediatric patients suffering Major Trauma and Minor Trauma injury.

Figure 66: Major and Minor Pediatric Trauma by Age Group

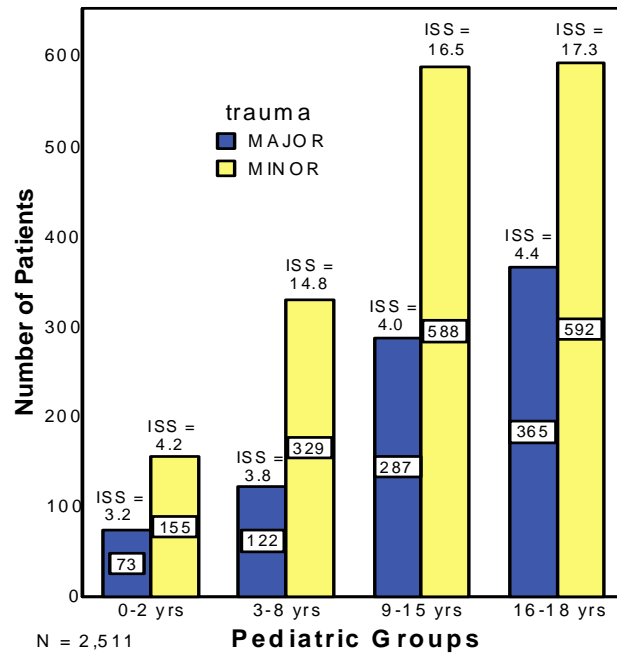


Figure 67 displays the disposition of pediatric trauma patients who were hospitalized for definitive care of their injuries. Eighty-six percent of patients were able to return home, with an additional 2.4% requiring home health services. Nearly 5% continued their recovery in a rehabilitation center, while 2.1% died during their hospital stay. Almost 2% continued their trauma care in transfer to another acute care facility. The Other category (1.7%) includes discharges to a psychiatric facility and patients who were returned to law enforcement custody.

Figure 67: Pediatric Patient Disposition Following Hospitalization

