

Childhood Injury Sub-Report 44601

**An analysis of 2007 Stark County
Hospital emergency department
visits for children 14 and under**



REPORT PREPARED BY:

Safe Kids Stark County
Data & Research Committee
&

Stark County Health Department
Administration & Support Services Division



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The Safe Kids Data and Research Committee includes: child safety advocates, health educators, trauma coordinators, public health professionals, universities and hospital representatives. The Stark County Health Department is the lead agency for Safe Kids Stark County. This department has an injury prevention grant and a child and family health services grant, which provides funding to conduct child safety and injury prevention programs. Safe Kids Worldwide and Safe Kids USA are the parent organizations.

Report Information

This report includes e-code (etiology) data collected from **Affinity Medical Center (Doctors Campus and Massillon Campus), Alliance Community Hospital, Aultman Hospital** and **Mercy Medical Center** from January 1, 2007 through December 31, 2007 for the 44601 zip code. E-codes permit the classification of environmental events, circumstances and conditions as the cause of the injury, poisoning, and other adverse effects. The use of e-codes together with the code identifying the injury or condition, provides additional information of a particular concern to industrial medicine, insurance carriers, national safety programs and public health agencies. External causes of injury and poisonings codes (e-codes) are intended to provide data for injury research and evaluation for injury prevention strategies. E-codes capture how the injury or poisoning happened (cause), the intent (unintentional or accidental or intentional, such as suicide or assault), and the place where the event occurred. E-codes are never to be reported as a principal diagnosis. The hospitals were asked to provide their e-code data for children ages 14 and under during the time frame. Date of treatment, patient's age, gender, zip code where the child lives and the e-code were reported for combined analysis.

If you have questions regarding the data collection or analysis process, if you would like to learn more about the Safe Kids Coalition or have comments or suggestions, please contact Safe Kids Stark County at 330-493-9904 x 282. Additional copies of this report are available at www.starkhealth.org/safekids.

Value to the Community

Safe Kids Stark County, founded in 1992, focuses on unintentional injury and death prevention for children 14 and under.

In 2002, the Stark County Health Department began researching a method to collect county wide data regarding childhood injuries. Prior to the work of this committee, no system existed for collecting all of the hospital information for a county-wide analysis. In 2004, a data & research committee was formed, as a part of Safe Kids Stark County, to analyze this data. In 2005, the Stark County Health Department was awarded an Injury Prevention Grant from the Ohio Department of Health to help with this initiative.

Once the data was analyzed, the committee published an annual report of the findings. For the 2002 pilot report, three out of the five local hospitals agreed to provide the department with their injury data (E-codes) for analysis. Data collection for all five hospitals began by the health department for the 2003-2008 reports. Data collection will continue and an annual report will be published each year for the previous year's data. A three year Trend Report was published in 2007 and additional Trend Reports will continue to be produced periodically.

The reports are being distributed to community leaders and agencies for heightened awareness. Recommendations are being made to Safe Kids Stark County board and the community regarding the need for additional injury prevention programming. The data will be used to develop new programs.

For this report, injury data was collected from January 1, 2007 through December 31, 2007 for the 44601 zip code only. During that time, 1,300 children ages 14 and under (living in the 44601 zip code) were treated in the five Stark County Emergency Departments (ED) for injuries.

Childhood Injuries

According to Safe Kids Worldwide, accidental injury kills one million children annually worldwide. Ninety-eight percent of these deaths occur in low-income countries, where injury is making significant gains on disease as the leading cause of death in young children. In the United States and most other industrialized nations, accidental injury has surpassed disease to become the number one cause of death among children ages 14 and under.

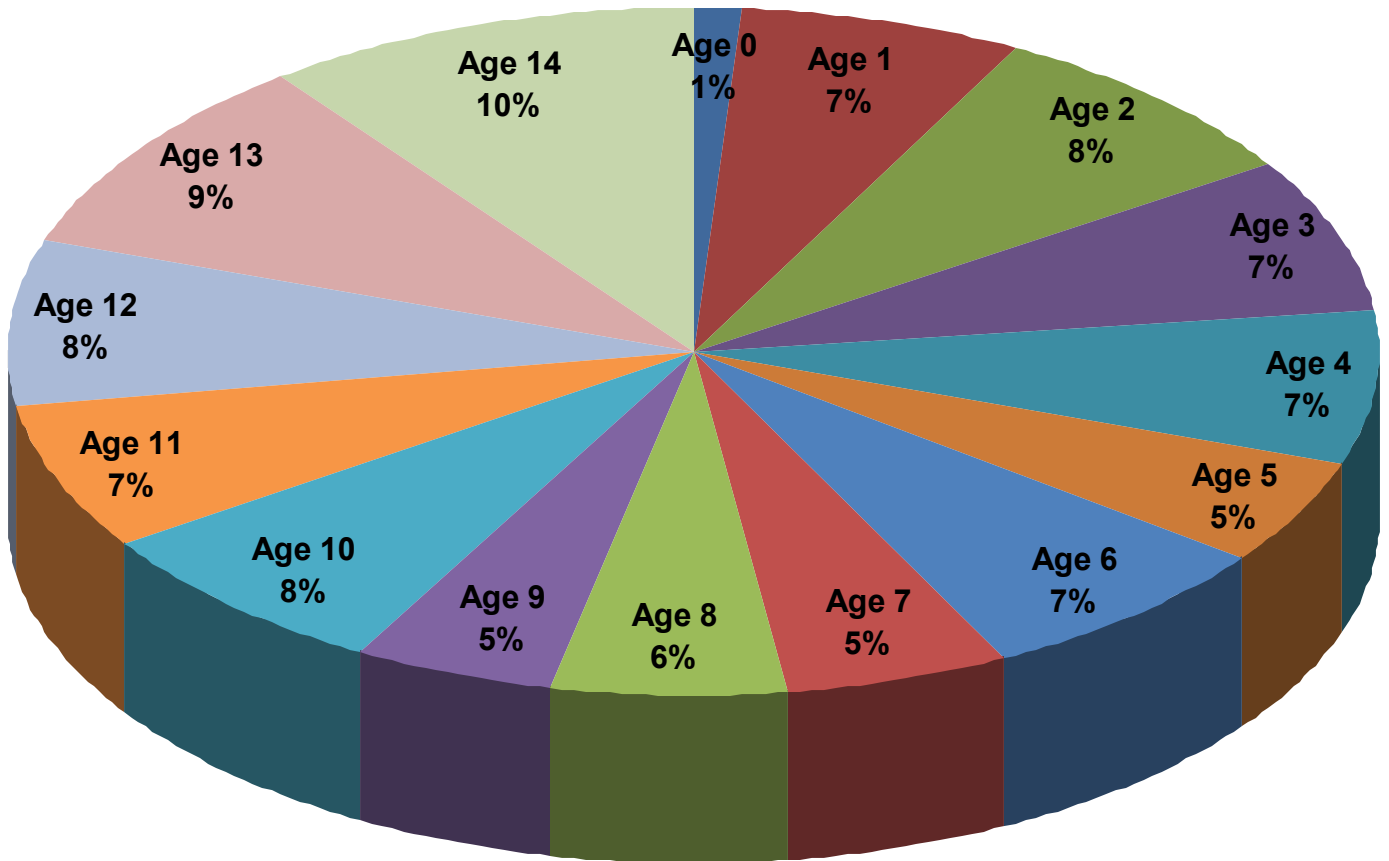
According to Safe Kids USA, injuries are the second leading cause of hospitalization and the leading cause of emergency department visits among children fourteen and under.

However, due to the work of nearly 650 Safe Kids Coalitions, Safe Kids USA reports the accidental death rate has dropped 43% from 1987 to 2004. They also report that in the last 20 years, the accidental injury rate has dropped over 45%.

Overall Demographic Information

TOTAL NUMBER OF CHILDREN TREATED: 1,300

Total Number of ED Visits by Age



N = 1300

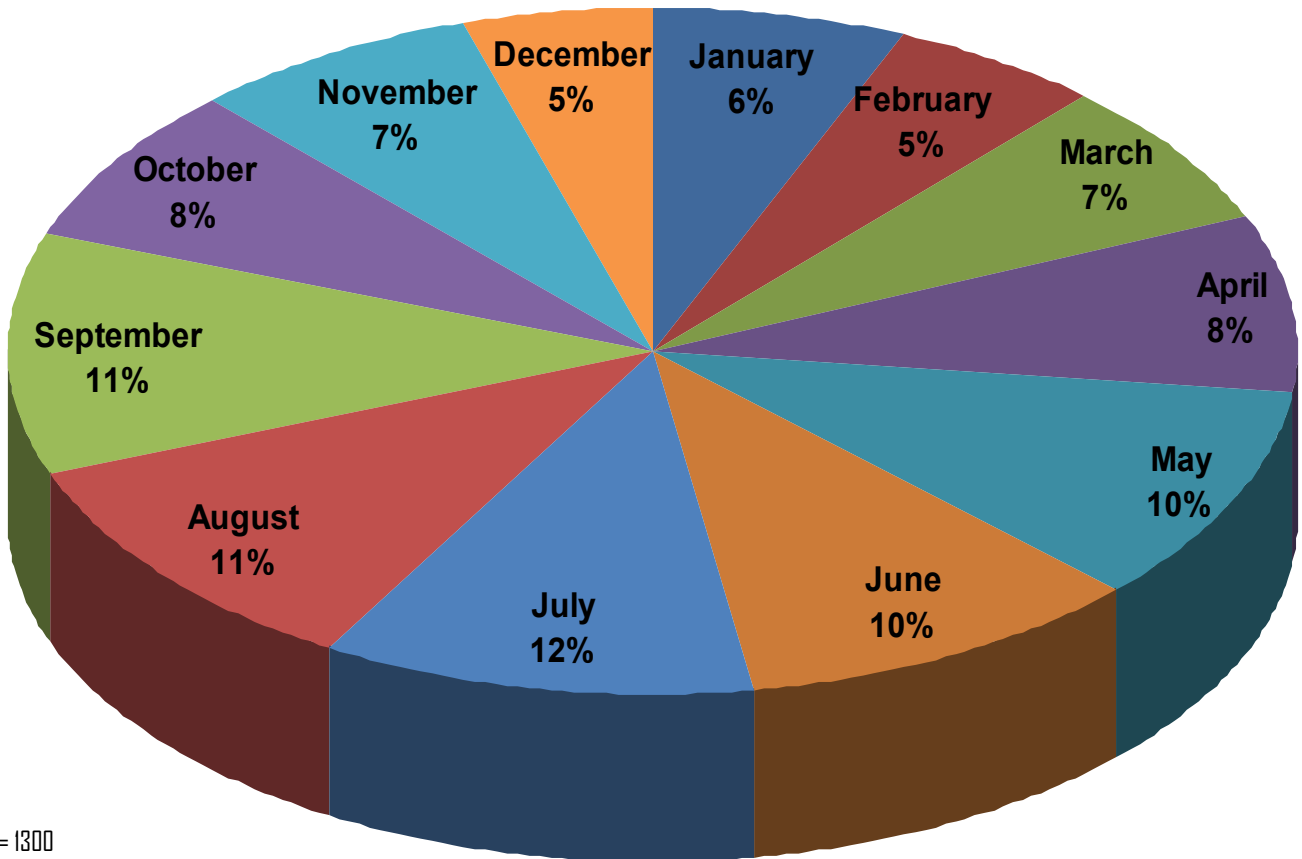
Overall Demographic Information

Age	# of Injuries	% of Total Injuries
0	15	1.2%
1	87	6.7%
2	105	8.1%
3	94	7.2%
4	92	7.1%
5	64	4.9%
6	95	7.3%
7	69	5.3%
8	72	5.5%
9	60	4.6%
10	101	7.8%
11	87	6.7%
12	103	7.9%
13	122	9.4%
14	134	10.3%

Overall Demographic Information

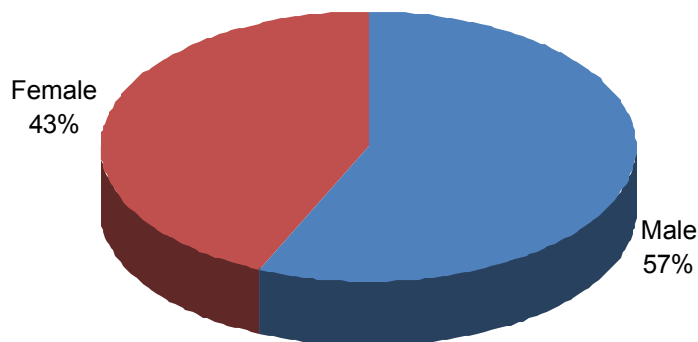
TOTAL NUMBER OF CHILDREN TREATED: 1,300

Number of ED Visits by Month



N = 1300

Number of Visits by Gender



N = 1300

E-Code Headings

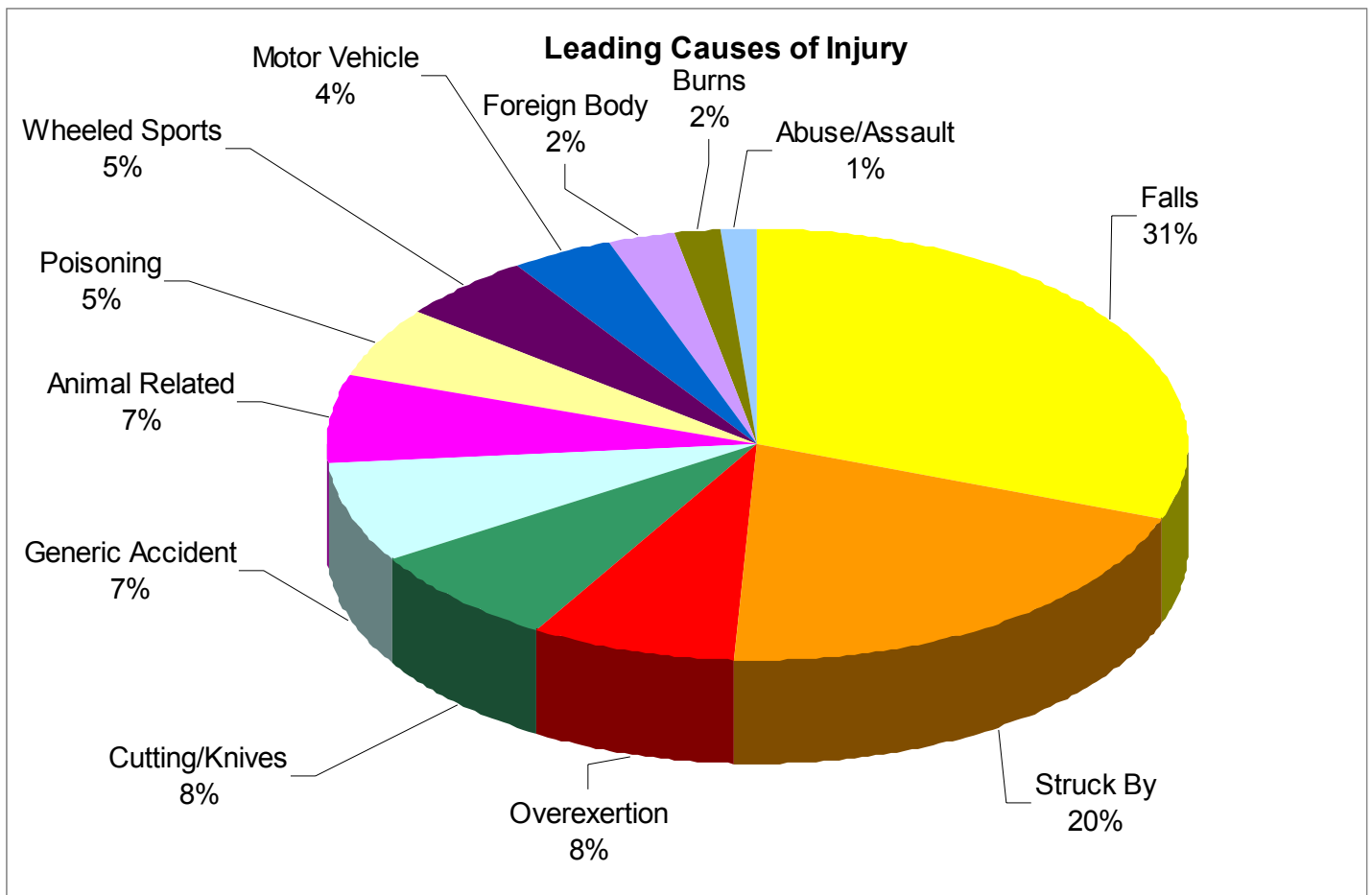
There are over 1,200 potential e-codes used in hospital emergency departments. For the purposes of this report, the committee assigned each e-code to a particular heading. E-codes with no statistical significance were not included in these headings. Some e-codes will have multiple subheadings. They will be described in the following pages.

A	Motor Vehicle	L	Choking/Suffocation
B	Wheeled Sports	M	Foreign Body (Not Choking)
C	Water Related	N	Struck By/Striking Object/Sports
D	Generic Accident	O	Machinery
E	Poisoning	P	Cutting/Knives
F	Medical Procedures	Q	Fire Arms
G	Falls	R	Suicide
H	Fire Related	S	Burns (Not Fire Related)
I	Weather	T	Human Bites
J	Abuse, Assault, Neglect	U	Overexertion & Strenuous Movement
K	Animal Related		

Top 12 Leading Causes of Injury

There were 1,300 children treated between January 1, 2007 and December 31, 2007.

Injury Type	#	%
Falls	394	30.3%
Struck By/Striking Object/Sports	259	19.9%
Overexertion	100	7.7%
Cutting/Knives	98	7.5%
Generic Accident	96	7.4%
Animal Related	84	6.5%
Poisoning	69	5.3%
Wheeled Sports	64	4.9%
Motor Vehicle	51	3.9%
Foreign Body (not choking)	30	2.3%
Burns (not house fire)	21	1.6%
Abuse, Assault, Neglect	19	1.5%
All other Causes of Injury	15	1.2%



Falls

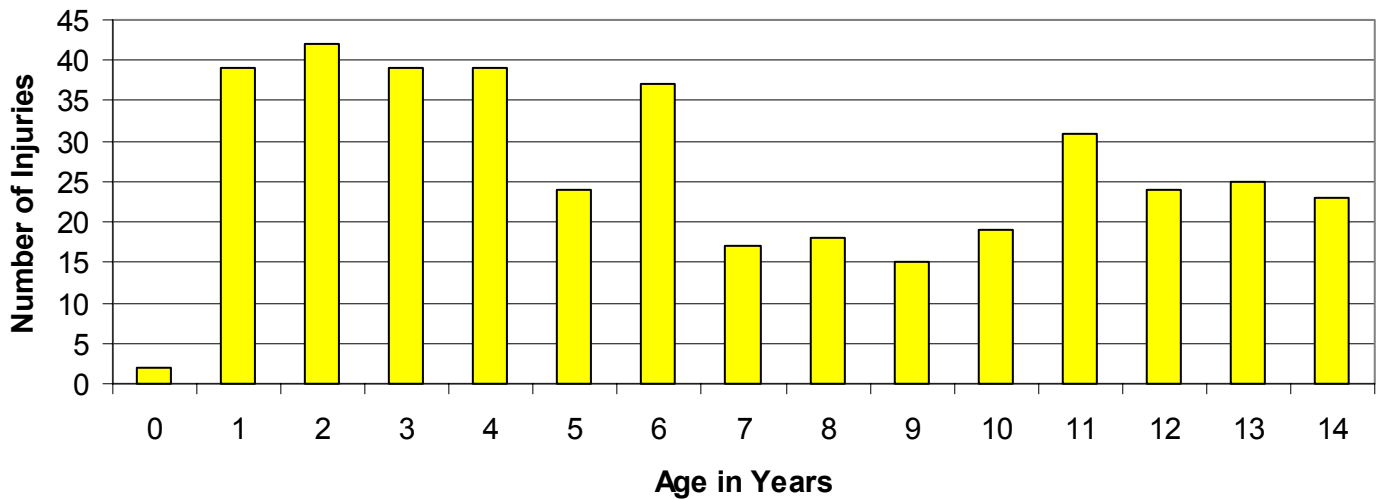
Falls were the leading cause of injury for children. There were 394 children treated for a fall related injuries, accounting for 31.0% of the injuries during this report time frame.

Number of Falls By Gender

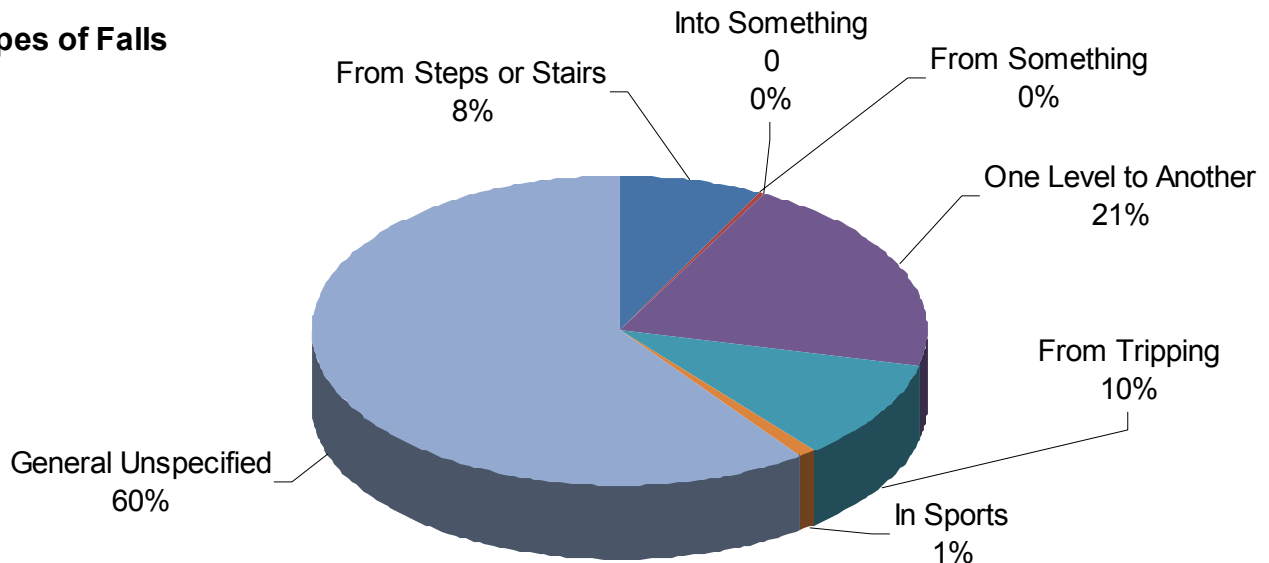
Gender	#	%
Male	221	56.1%
Female	173	43.9%

September (39) and March (39) are the most prevalent months for these injuries, followed by June (37).

Number of Fall Injuries by Age



Types of Falls



Struck By / Striking Object / Sports

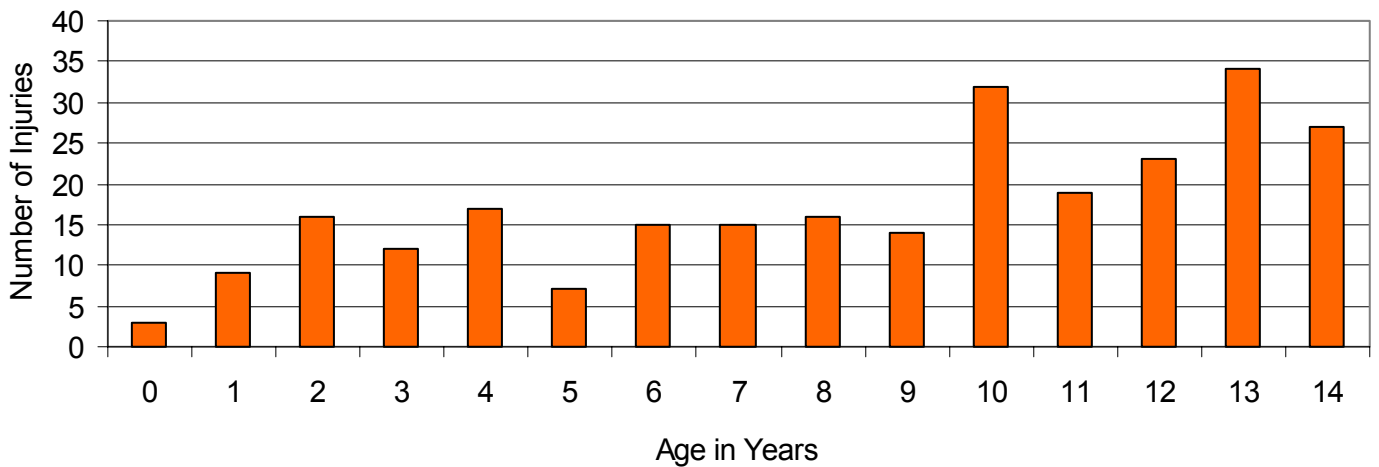
There were 259 children treated for an injury caused by being struck by or striking an object. This was the second leading cause of injury, accounting for 24.1% of the injuries during this report time frame.

Number of Struck By/Striking by Gender

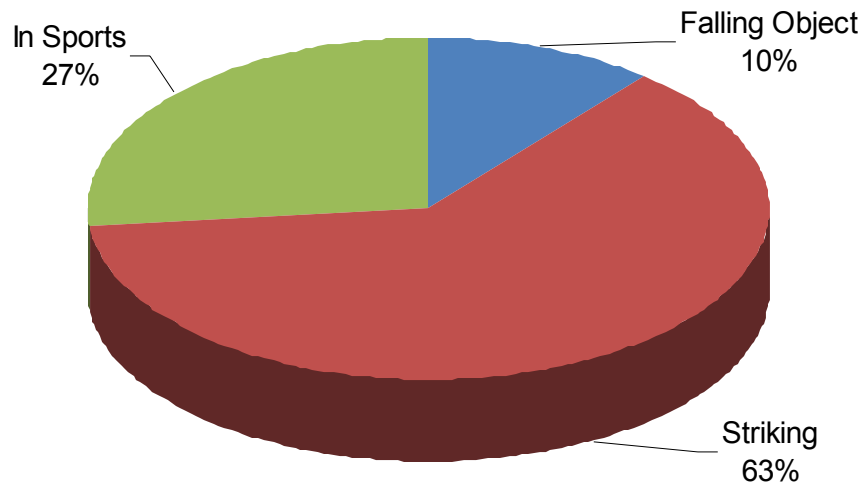
Gender	#	%
Male	171	66.0%
Female	88	34.0%

May (34) is the most prevalent month for these injuries, followed by September (28) and August (26).

Number of Struck By/Striking/Sports Injuries by Age



Number of Struck by/Striking Objects



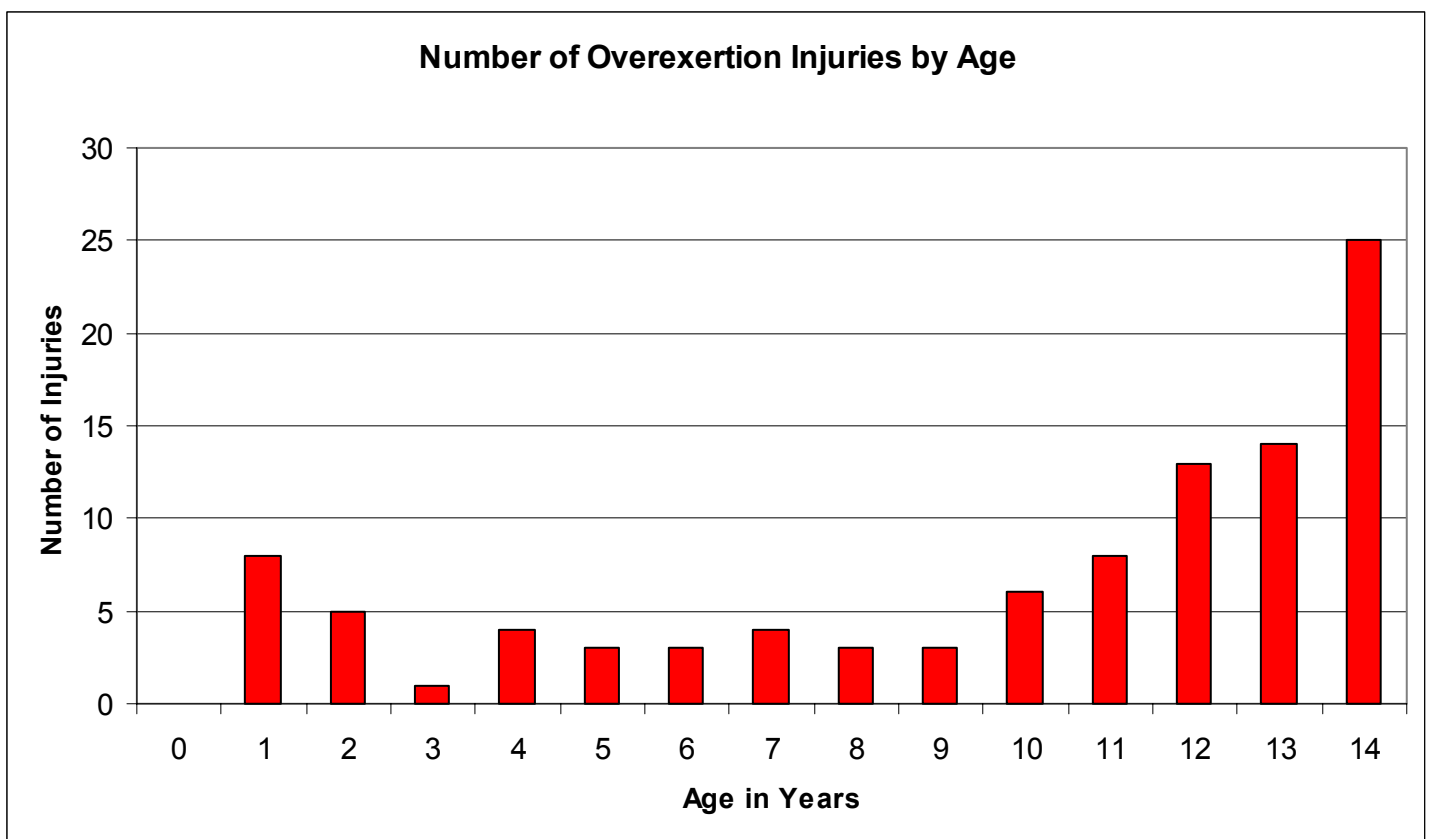
Overexertion/Strenuous Movements

There were 100 children treated for an Overexertion/Strenuous Movement related injury. This was the third leading cause of injury, accounting for 7.7% of the injuries during this report time frame.

Number of Visits By Gender

Gender	#	%
Male	38	38.0%
Female	62	62.0%

September (13) and November (13) are the most prevalent months for these injuries, followed by June (11).



An **Overexertion/Strenuous Movement Injury** includes a type of injury or strenuous movement, where the body is stressed beyond normal capabilities causing injury.

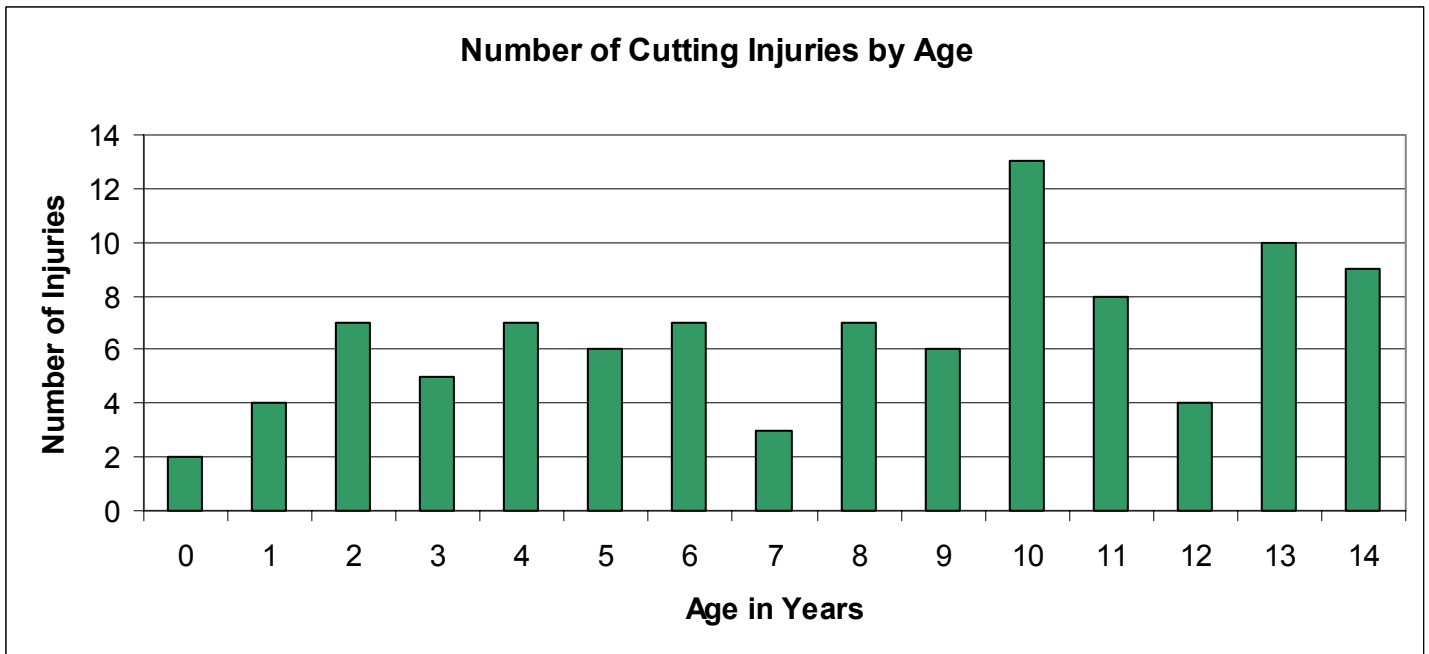
Cutting/Knives

There were 98 children treated for an injury caused by cutting instruments. This was the fourth leading cause of injury, accounting for 7.5% of the injuries during this report time frame.

Number of Visits By Gender

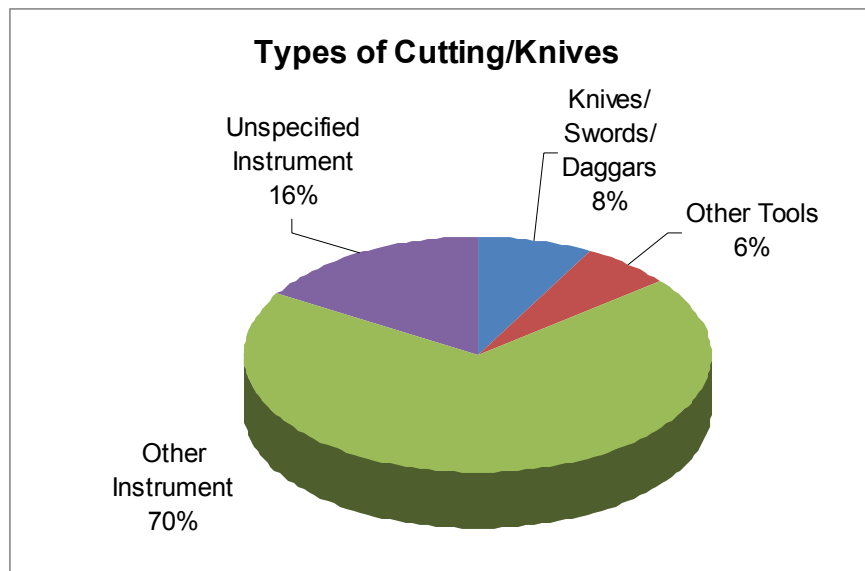
Gender	#	%
Male	58	59.0%
Female	40	41.0%

June (16) and July (16) are the most prevalent month for these injuries, followed by September (13).



Other specified instruments include non-specific items with no actual code to identify it (such as cutting your foot on a curtain rod).

Unspecified instruments include a cut with no known implement (such as a child running through the yard cutting their foot).



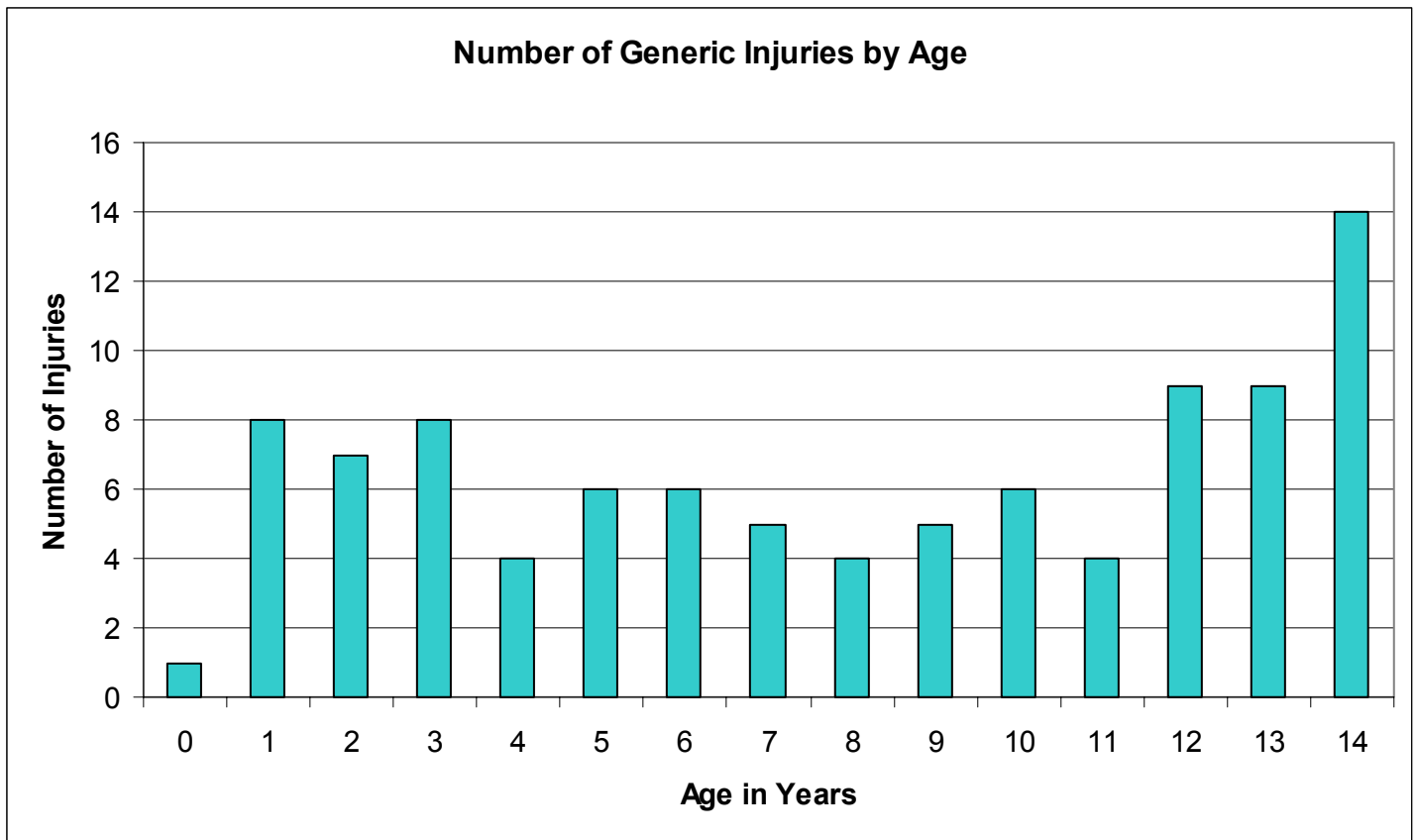
Generic Accident

There were 96 children treated for animal related injuries. This was the fifth leading cause of injury, accounting for 7.4% of the injuries during this report time frame.

Number of Visits by Gender

Gender	#	%
Male	52	54.2%
Female	44	45.8%

March (13) and May (13) are the most prevalent months for these injuries, followed by September (11).



A **Generic Accident** includes any injury not otherwise specified in the reporting process.

****Committee Note:** We have asked the hospitals to become more detailed in their reports to reduce the number of generic and unspecified types of injuries for future reports.

Animal Related

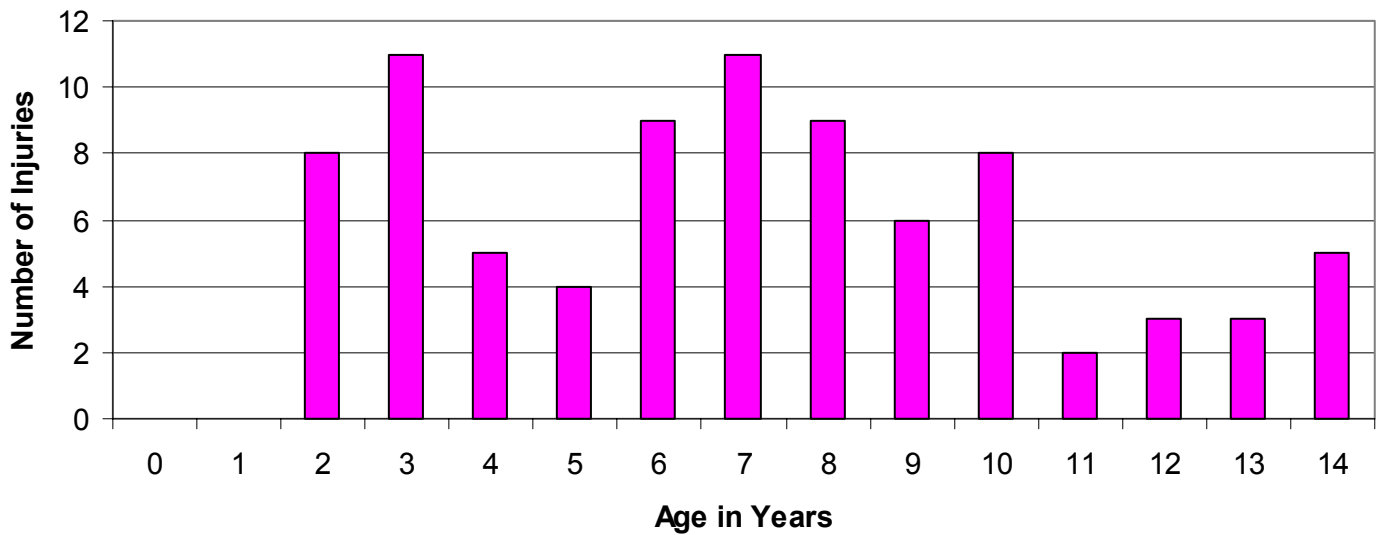
There were 84 children treated for animal related injuries. This was the fifth leading cause of injury, accounting for 6.5% of the injuries during this report time frame.

Number of Visits by Gender

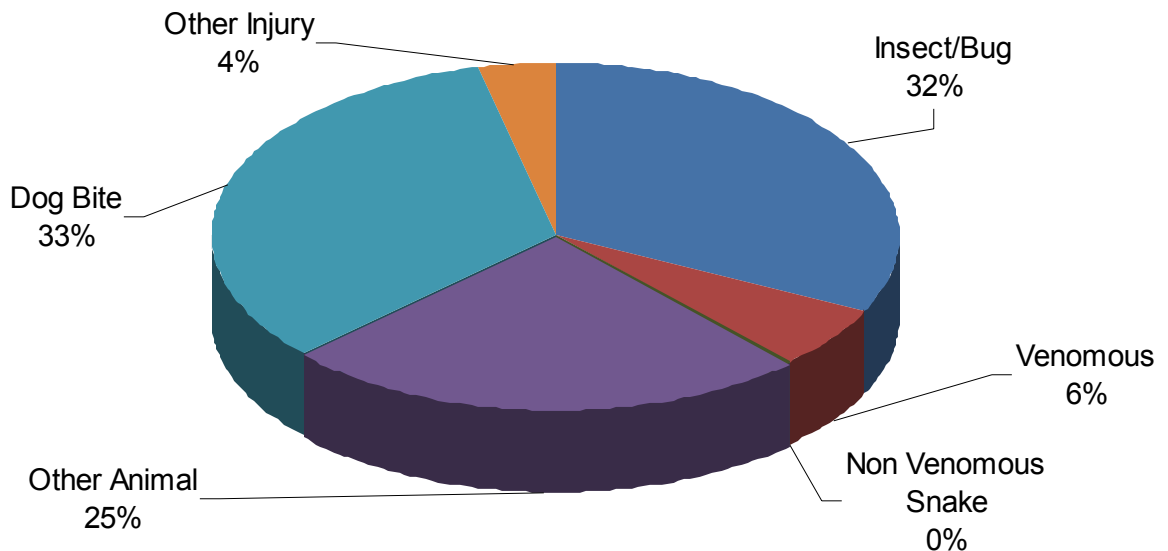
Gender	#	%
Male	39	46.4%
Female	45	53.6%

June (16) and July (16) are the most prevalent months for these injuries, followed by September (13).

Number of Animal Related Injuries by Age



Types of Animal Related Injuries



Poisoning

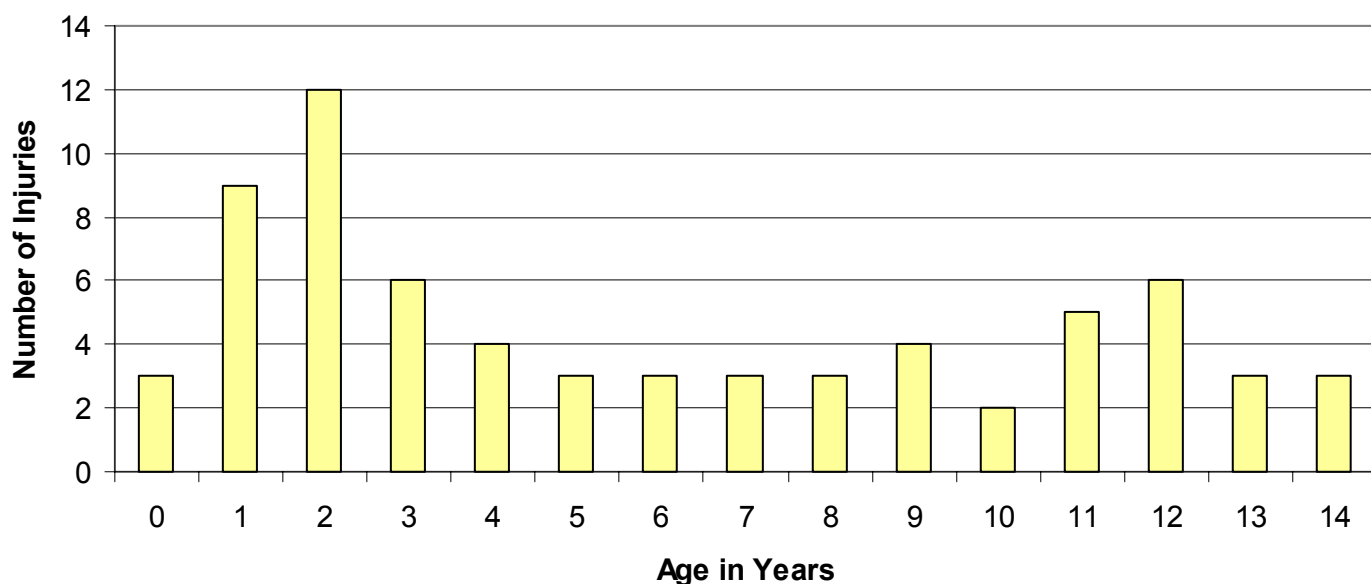
There were 69 children treated for poisoning injuries. This was the seventh leading cause of injury, accounting for 5.3% of the injuries during this report time frame.

Number of Visits by Gender

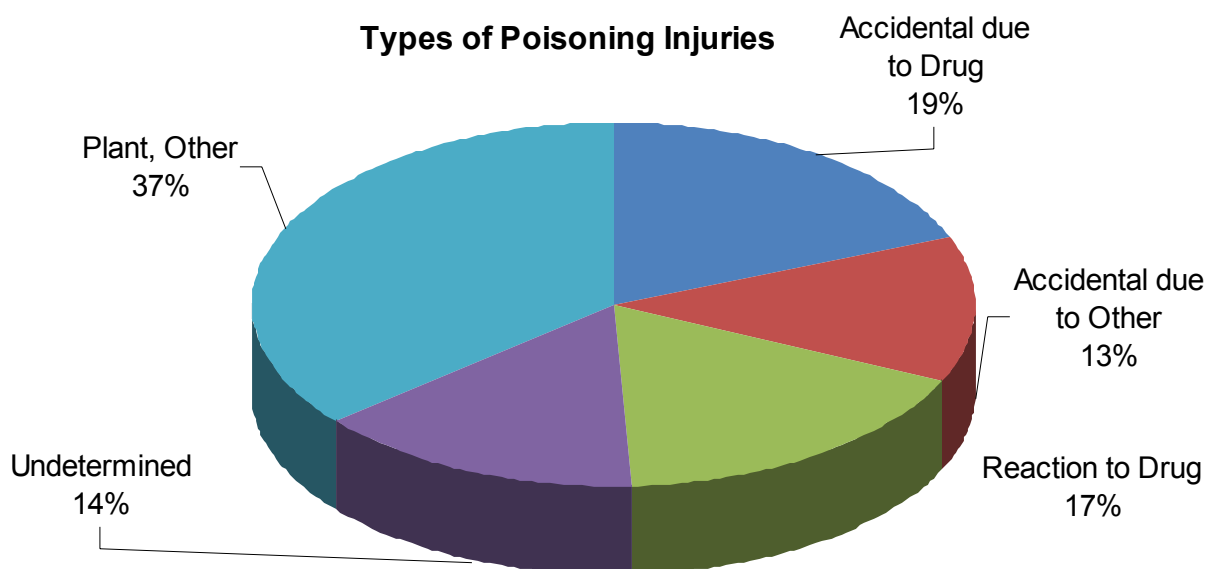
Gender	#	%
Male	41	59.0%
Female	28	41.0%

June (12) and August (12) are the most prevalent month for these injuries, followed by September (10) and November (10).

Number of Poisoning Injuries by Age



Types of Poisoning Injuries



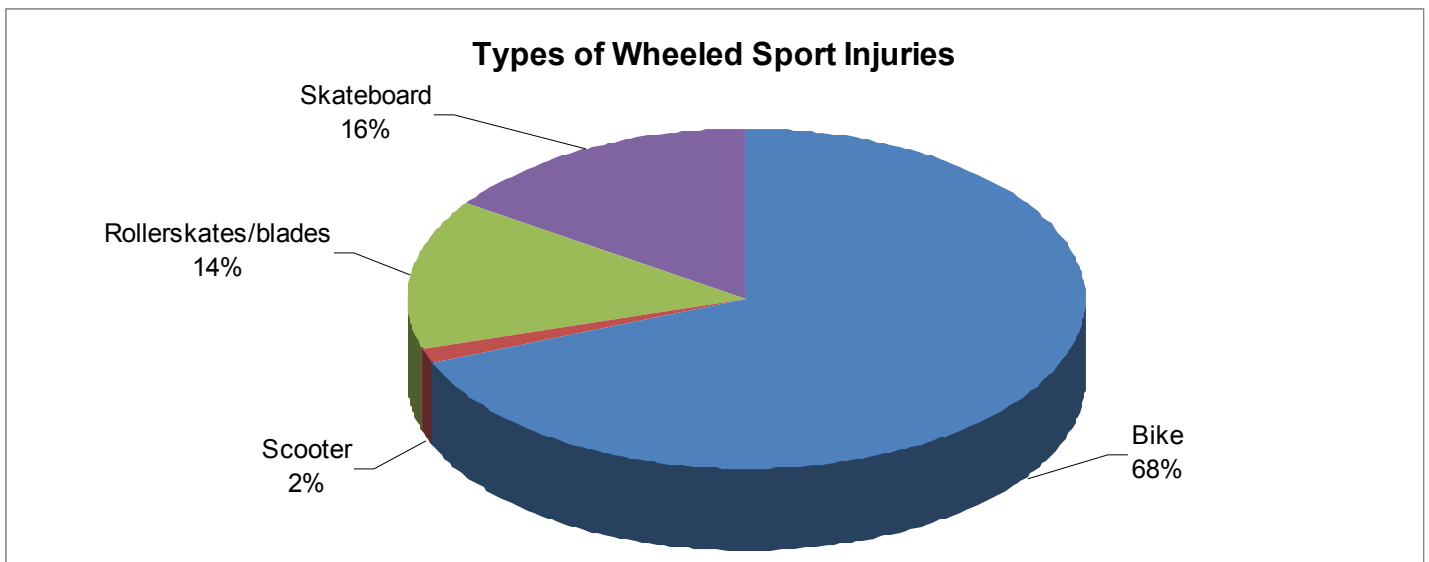
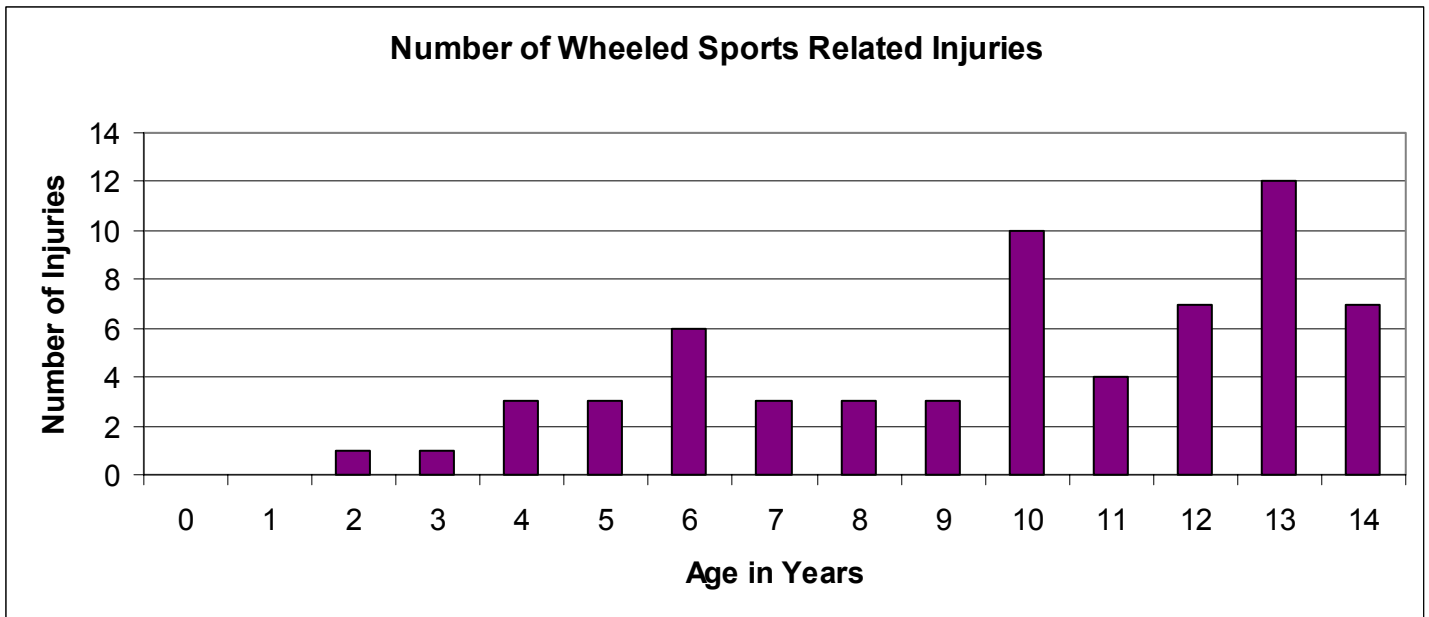
Wheeled Sports

There were 63 children treated for wheeled sports. This was the eighth leading cause of injury, accounting for 4.9% of the injuries during this report time frame.

Number of Visits By Gender

Gender	#	%
Male	38	56.3%
Female	26	43.7%

July (12) is the most prevalent month for these injuries, followed by May (11) and April (10).



Motor Vehicle

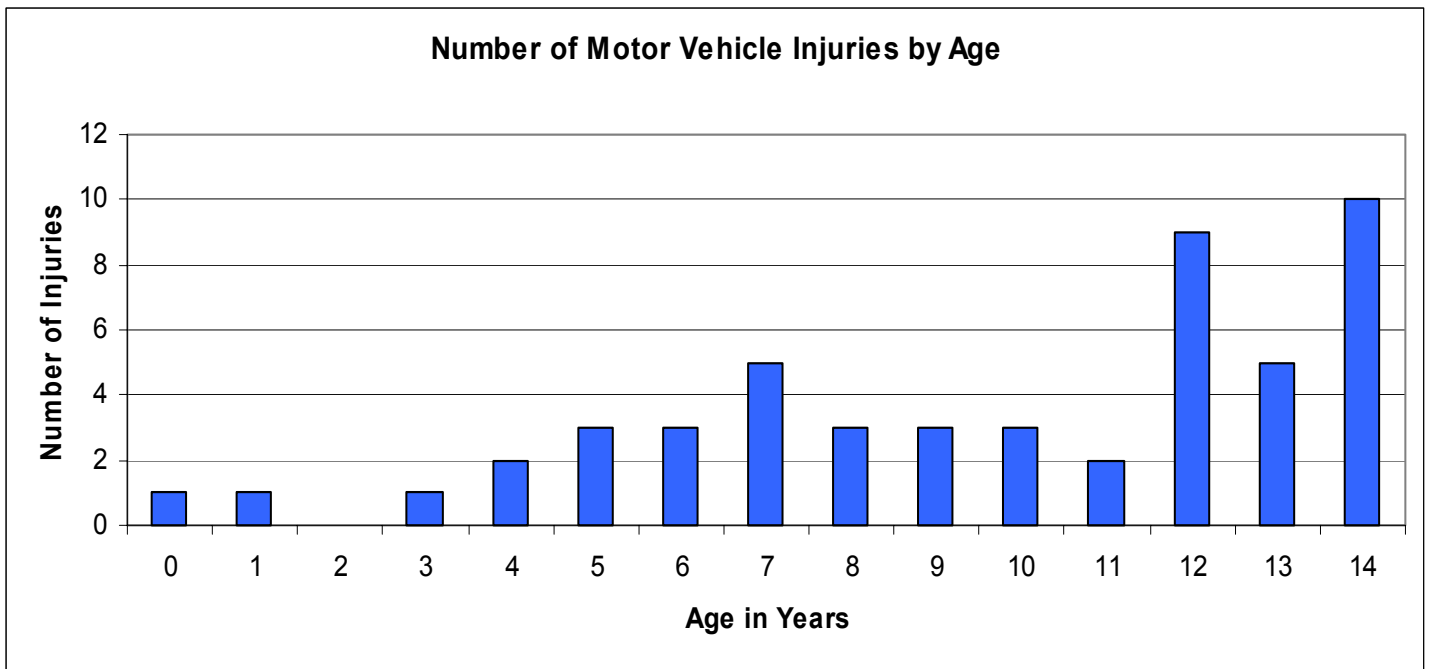
There were 51 children treated for motor vehicle injuries. This was the ninth leading cause of injury, accounting for 3.9% of the injuries during this report time frame.

Number of Visits By Gender

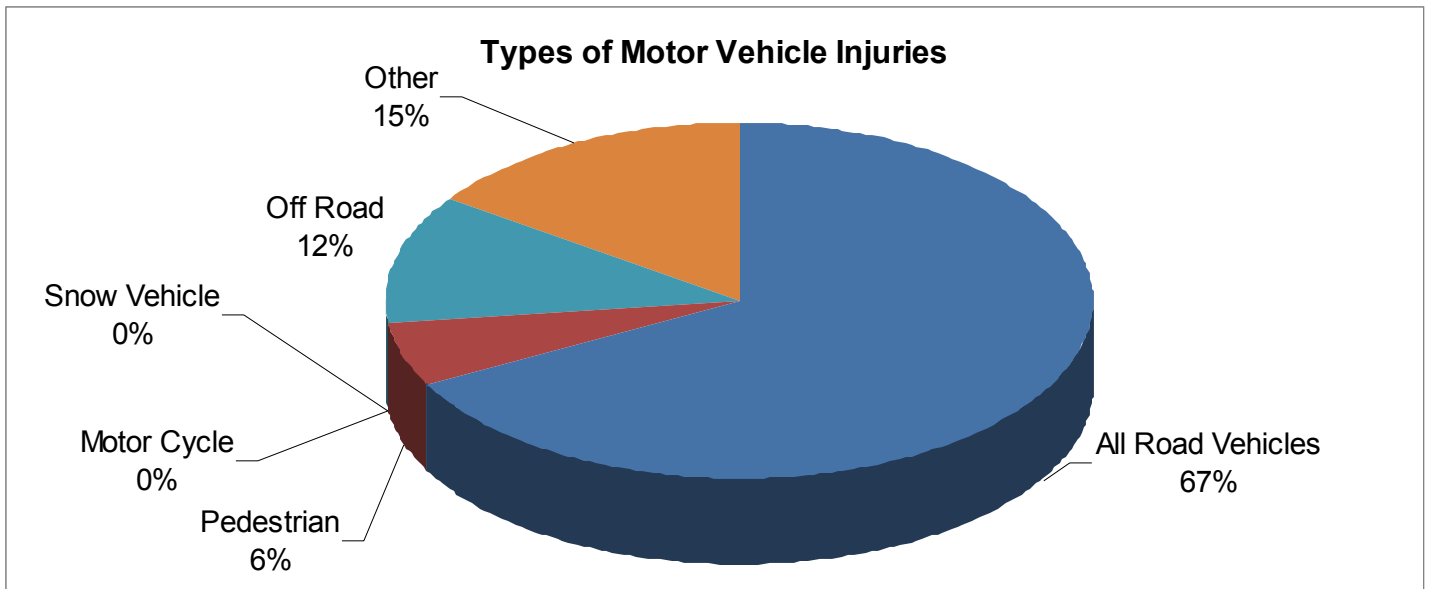
Gender	#	%
Male	24	48.0%
Female	27	52.0%

August (10) is the most prevalent month for these injuries, followed by July (7) and June (7).

Number of Motor Vehicle Injuries by Age



Types of Motor Vehicle Injuries



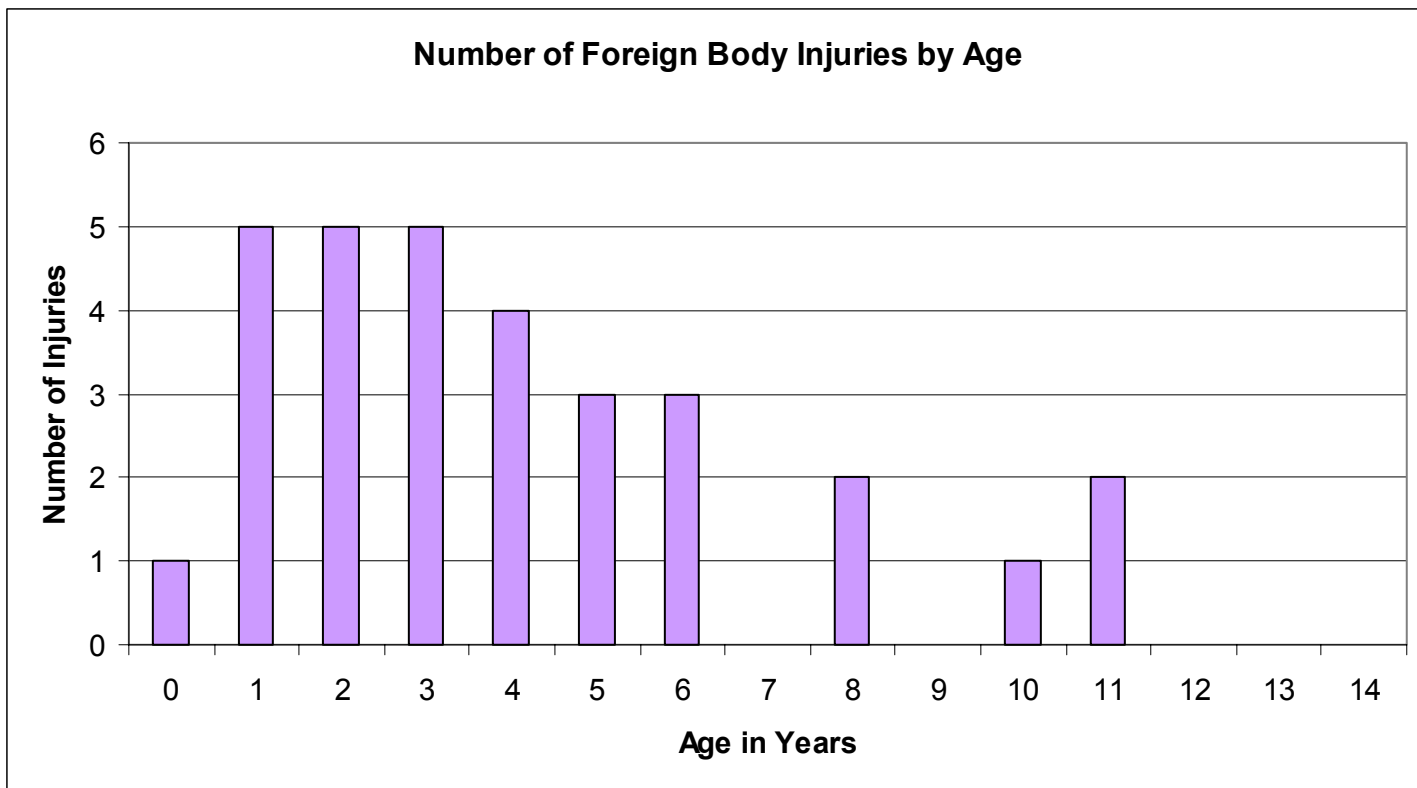
Foreign Body

There were 30 children treated for foreign body (not choking) related injuries. This was the tenth leading cause of injury, accounting for 2.3% of the injuries during this report time frame.

Number of Visits by Gender

Gender	#	%
Male	21	70.0%
Female	9	30.0%

July (8) was the most prevalent month for these injuries, followed by April (4) and May (4).



The foreign body injury includes any foreign body entering the eye or other orifice. Choking related injuries are not included here. Choking accounted for less than 1% of the injuries during the 2007 reporting year.

Burns

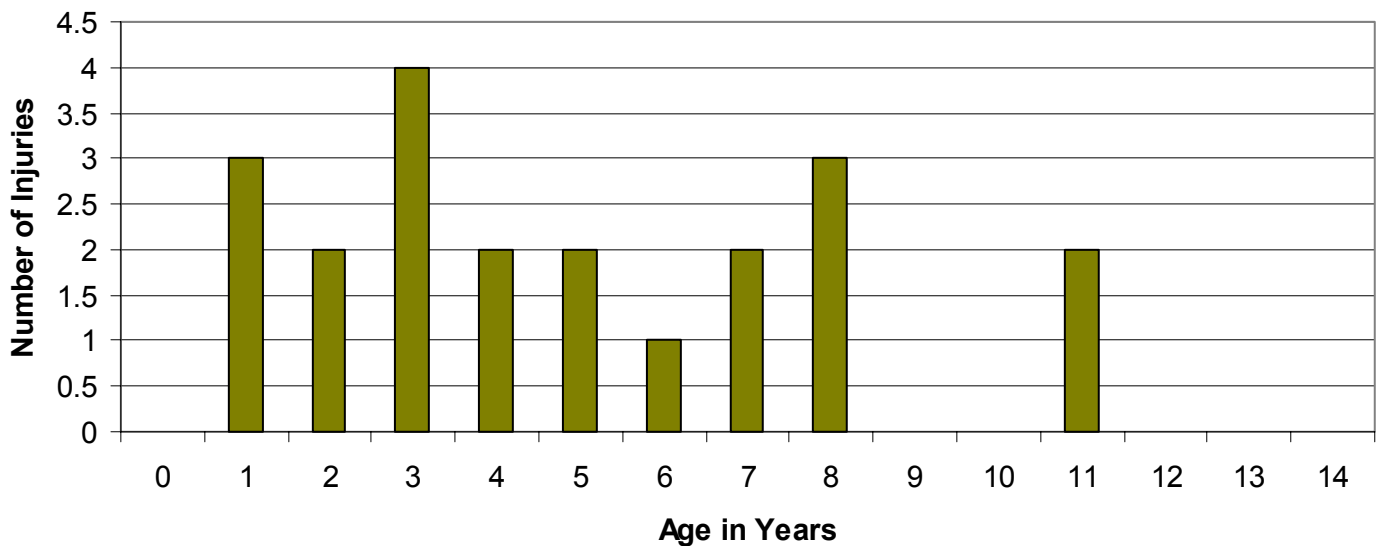
There were 21 children treated for burn related injuries. This was the eleventh leading cause of injury, accounting for 1.6% of the injuries during this report time frame.

Number of Visits By Gender

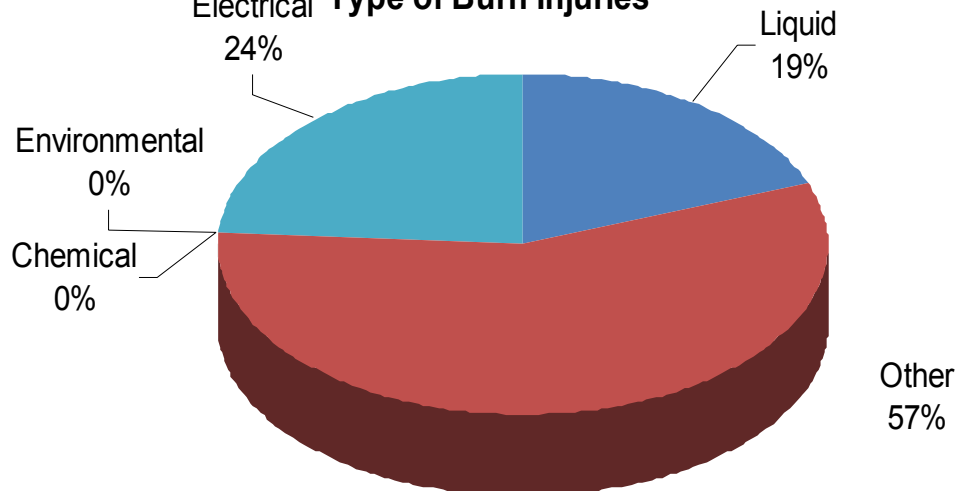
Gender	#	%
Male	14	66.7%
Female	7	33.3%

July (5) was the most prevalent month for these injuries, followed by January (3), September (3) and November (3).

Number of Burn Related Injuries by Age



Type of Burn Injuries



These burn injuries were not related to a home or dwelling fire.

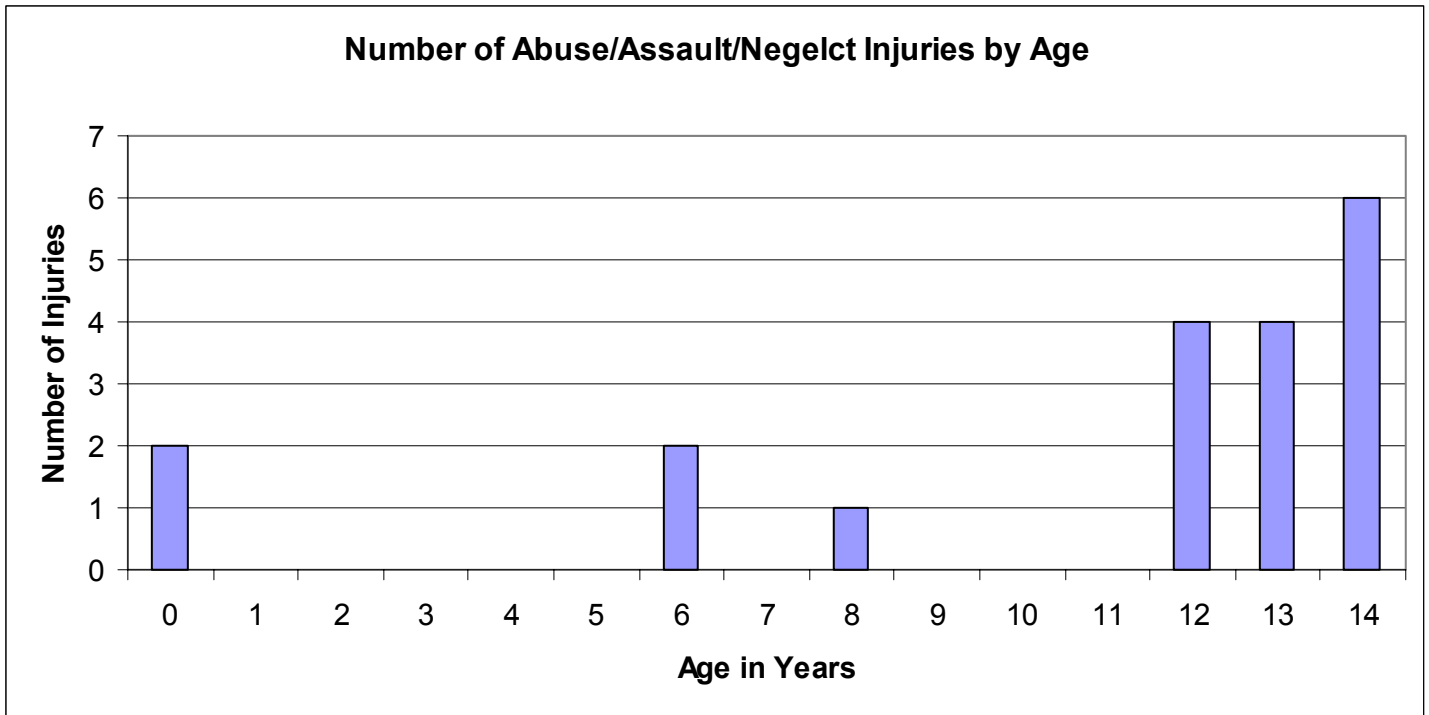
Abuse, Assault and Neglect

There were 19 children treated for abuse, assault and neglect related injuries. This was the twelfth leading cause of injury, accounting for 1.4% of the injuries during this report time frame.

Number of Visits By Gender

Gender	#	%
Male	12	63.2%
Female	7	36.8%

May (3), July (3), August (3), September (3), and October (3) were the most prevalent month for these injuries.



Other Types of Injury

While these injuries were not in the top 12 nor analyzed in the report, it is important to note them in this report.

Type of Injury	Number of Injuries
Fire Related	5
Attempted Suicide	3
Weather Related	2
Medical Procedures	2
Water Related	1
Choking/Suffocation	1
Machinery	1
Fire Arm	0

Leading Cause of Injuries per Age

Age	Total Number of Patients Treated	Leading Cause of Injury Number/Percent	Second Leading Cause of Injury Number/Percent	Third Leading Cause of Injury Number/Percent
0	15	Struck By/Sports and Poisoning 3 or 20%	Falls, Abuse/Assault/Neglect and Cutting/Knives 2 or 13.3%	Choking, Generic Accident and Motor Vehicle 1 or 6.7%
1	87	Falls 39 or 44.8%	Struck By/Striking Object and Poisoning 9 or 10.3%	Overexertion and Generic Accident 8 or 9.2%
2	105	Falls 42 or 40%	Struck By/Striking Object 16 or 15.2%	Poisoning 12 or 11.4%
3	94	Falls 39 or 41.5%	Struck By/Striking Object 12 or 12.8%	Animal Related 11 or 11.7%
4	92	Falls 39 or 42.4%	Struck By/Striking Object 17 or 18.5%	Cutting/Knives 7 or 7.6%
5	64	Falls 24 or 37.5%	Struck By/Striking Object 7 or 10.9%	Cutting/Knives and Generic Accident 6 or 9.4%
6	95	Falls 37 or 38.9%	Struck By/Striking Object 15 or 15.8%	Animal Related 9 or 9.5%
7	69	Falls 17 or 24.6%	Struck By/Striking Object 15 or 21.7%	Animal Related 11 or 15.9%
8	72	Falls 18 or 25%	Struck By/Striking Object 16 or 22.2%	Animal Related 9 or 12.5%
9	60	Falls 15 or 25%	Struck By/Striking Object 14 or 23.3%	Cutting/Knives and Animal Related 6 or 10%
10	101	Struck By/Striking Object 32 or 31.7%	Falls 19 or 18.8%	Cutting/Knives 13 or 12.9%
11	87	Falls 31 or 35.6%	Struck By/Striking Object 19 or 21.8%	Overexertion and Cutting/Knives 8 or 9.2%
12	103	Falls 24 or 23.3%	Struck By/Striking Object 23 or 22.3%	Motor Vehicle 9 or 8.7%
13	122	Struck By/Striking Object 34 or 27.9%	Falls 25 or 20.5%	Overexertion 14 or 11.5%
14	134	Struck By/Striking Object 27 or 20.1%	Overexertion 25 or 18.7%	Falls 23 or 17.2%

Significant Findings

- 37 percent of *poisonings* were plant and other related injury.
- Two year olds suffered the most *falls*.
- 10 year olds suffered the most *Cutting/Knife* injuries, followed by 13 and 14 year olds.
- Males suffered more injuries than females in all categories except *Overexertion*, *Animal Related* and *Motor Vehicle*.

Injury Specific Recommendations

- Research why *Overexertion* Injuries spiked at age 14.
- Research why *Abuse/Neglect/Assault* appears more prevalently in ages 12-14.
- Research why *Motor Vehicle* injuries spiked at age 12.

Overall Recommendations

- Work with organizations (hospitals, school districts, etc) in the 44601 zip code to identify possible interventions to decrease the injury rate.
- Incorporate injury prevention strategies into existing community programs, pediatrician offices and clinics, schools, preschools and child care centers.
- Present findings to Safe Kids Stark County, Stark County Health Department, local hospitals, the Stark County Child Fatality Review Board and other community 44601 groups and agencies—such as the Alliance City Health, Police and Fire Departments, child care centers, etc.
- Provide this report to local elementary and middle schools, as well as parent education programs.
- Focus efforts on parental education, using creative ways (media campaign) to reach parents at creative venues (library, etc)
- Review current injury prevention program timelines to target efforts in months prior to the highest injury months.
- Develop a mechanism to document all types of injury prevention occurring, aside from work done through the Injury Prevention Grant (Stark County Health Department) and Safe Kids Stark County.

Current Safe Kids Injury Prevention Programs

Safe Kids Stark County was established in 1992 to reduce unintentional injuries and death among children 14 and under in Stark County. The Coalition is comprised of child safety advocates who support this mission. The Coalition conducts safety events throughout the county year round. Members of the Coalition also conduct their own safety programs in their communities.

Child Passenger Safety/Car Seat Safety

- **Car Seat Distribution Program:** Safe Kids provides low-cost child safety seats to families on the WIC (Women, Infant and Children's) Food Supplement Program through the local health departments. Safe Kids has distributed over 2,000 car seats through this program.
- **Child Safety Seat Inspections:** The coalition offers free car seat check-ups in the community throughout the year. Over 40 members are Certified Child Passenger Safety Technicians. Over 2,500 seats have been checked by the Coalition.
- **Fitting Stations:** The Coalition has organized weekly car seat fitting stations at 4 locations, as well as other agencies that take appointments as needed. These check-ups are free to the public. The fitting stations have checked over 1,500 seats.

Fire Safety

- **Instilling Positive Fire Safety Reaction:** In 2002, the coalition produced a fire safety video that teaches adults and children how to escape a burning building. This video has been disseminated to all county fire departments, and is being used in other counties across the state. Over 7,500 smoke detectors and over 15,000 batteries have been distributed through Coalition programs.

Bike Safety

- **Use Your Head, Wear A Helmet:** Helmets are sold at cost to the community. Helmets and educational materials are distributed at community events. The Coalition also offers free helmets to the county Emergency Departments for children treated with a head injury or wheel related incident. Over 1,000 bike helmets have been sold or donated by the Coalition.
- In bicycling safety classes, bicycles are considered vehicles, like cars, not toys. Children are taught age appropriate bicycle driving information to prevent injury. The importance of helmet use is emphasized.

Pedestrian Safety

- **Safe Kids Walk This Way:** In conjunction with International Walk To School Day, the coalition selects an elementary school each year for an educational program – including an assembly and safety walk. Nine elementary schools have participated since 2001. Following these programs, the Coalition reviews the data from the pedestrian safety surveys and attempts to make safety changes surrounding the schools. Over 4,000 students have been reached by this program.

Safe Kids Day

- Each year, a free interactive safety fair is held in a selected community. This event is in conjunction with National Safe Kids Week. Children have the opportunity to participate in safety activities (provided by community organizations) and receive educational resources. Over 3,000 children have been reached by this program.

Other Areas

- The Coalition is a clearinghouse for other injury risk areas. Information is provided at health fairs and community events. Parents, caregivers and community members are able to call and request information from the Coalition and partner agencies.

Safe Kids Stark County
c/o Stark County Health Department
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