

Childhood Injury Report:

44601 Sub Report

**An analysis of Stark County Hospital Emergency
Department visits for children age 17 and under*
living in the 44601 zip code**

**2nd Annual Sub Report
January 1, 2009 - December 31, 2009**



REPORT PREPARED BY:

Safe Kids Stark County
Data & Research Committee
&

Stark County Health Department
Administration & Support Services Division



***Previous Sub-Report only included children 14 and under**

Funded by the Preventive Health and Health Services Block Grant from the Centers for Disease Control and Prevention (CDC) and administered by the Ohio Department of Health, Bureau of Health Promotion & Risk Reduction, Injury Prevention Program. Its contents are solely the responsibility of the Authors and do not necessarily represent the official views of CDC.

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Committee & Report Information

Data & Research Committee Members

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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 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, Alliance Community Hospital, Aultman Hospital** and **Mercy Medical Center** from January 1, 2009 through December 31, 2009 specifically 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 poisoning 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 17 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.

For this report, additional ages were reported (15-17). The 2007 Sub-Report included ages 14 and under.

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. With additional funding provided by the Ohio Department of Health, the age range for the report was increased to 17 and under to assist the Coalition's partners in their injury prevention programming. Race was also collected, however it is not included in this report due to the high percentage of missing information.

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. The committee has published annual reports for 2002-2008. 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 2003-2009 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. Additionally a 44601 Sub Report for 2007 was also published.

The reports are being distributed to community leaders and agencies for heightened awareness. Recommendations are being made to the Safe Kids Stark County Executive 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, 2009 through December 31, 2009. During that time, 1,501 children ages 17 and under were treated in the four Stark County Emergency Departments (ED) for injuries from the 44601 zip code.

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%.

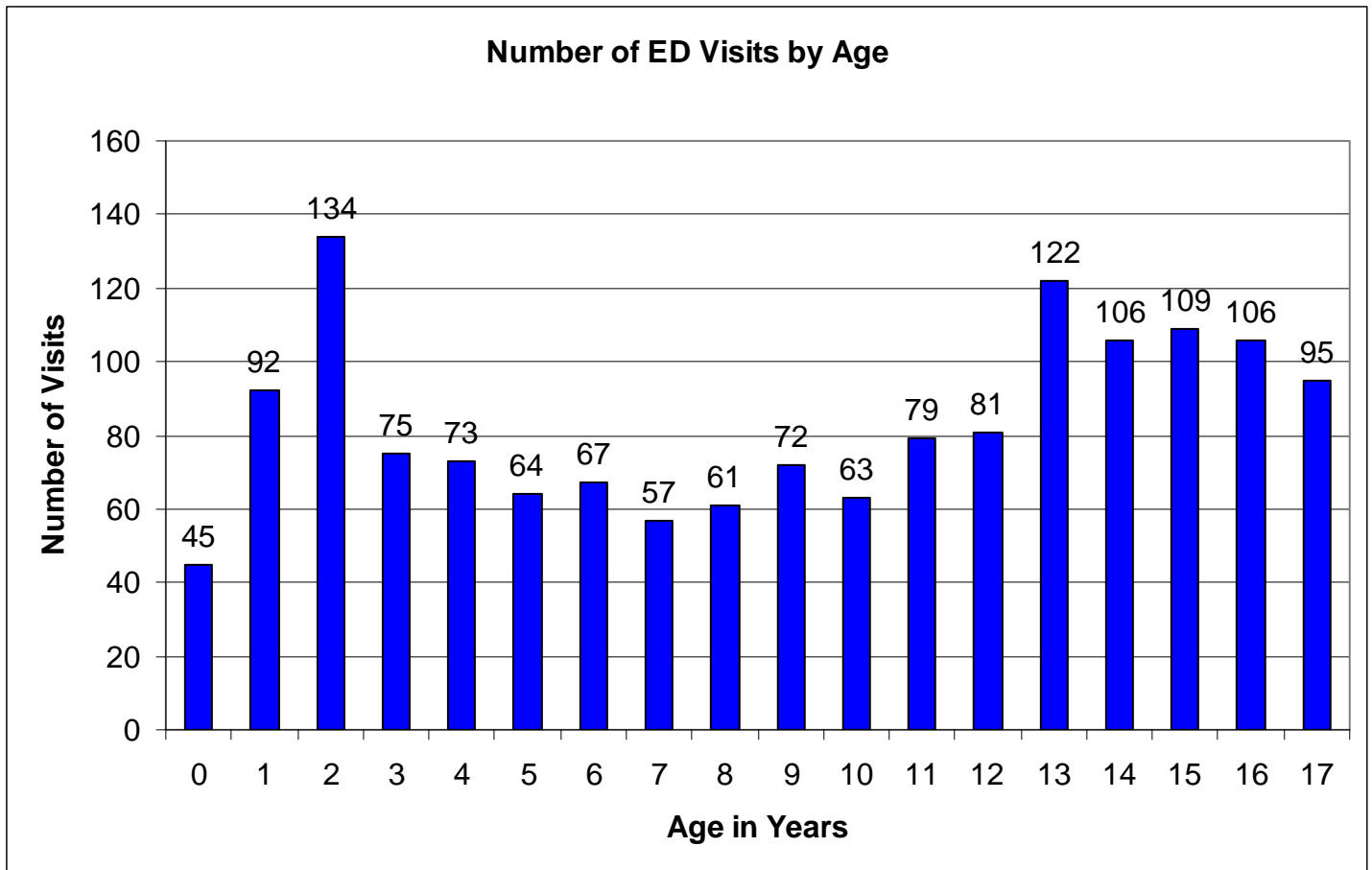
Demographic Analysis

- Two year old children were most often seen in the emergency departments, followed by thirteen and fifteen year olds. (Based on actual number of injuries—see page 6, column 2)
- Two year old children have the highest injury rate, followed by thirteen and fifteen year olds. (Based on population—see page 6, column 5)
- May was the most prevalent month for emergency department visits, followed by September and August.
- More male patients were treated for injuries than female patients.

Overall Demographic Information

TOTAL NUMBER OF CHILDREN TREATED

1,501



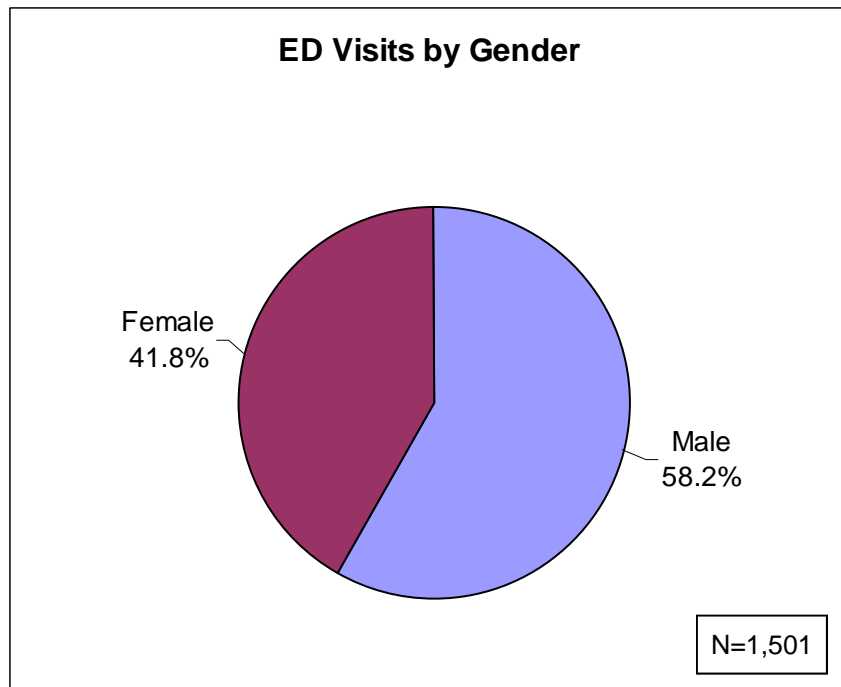
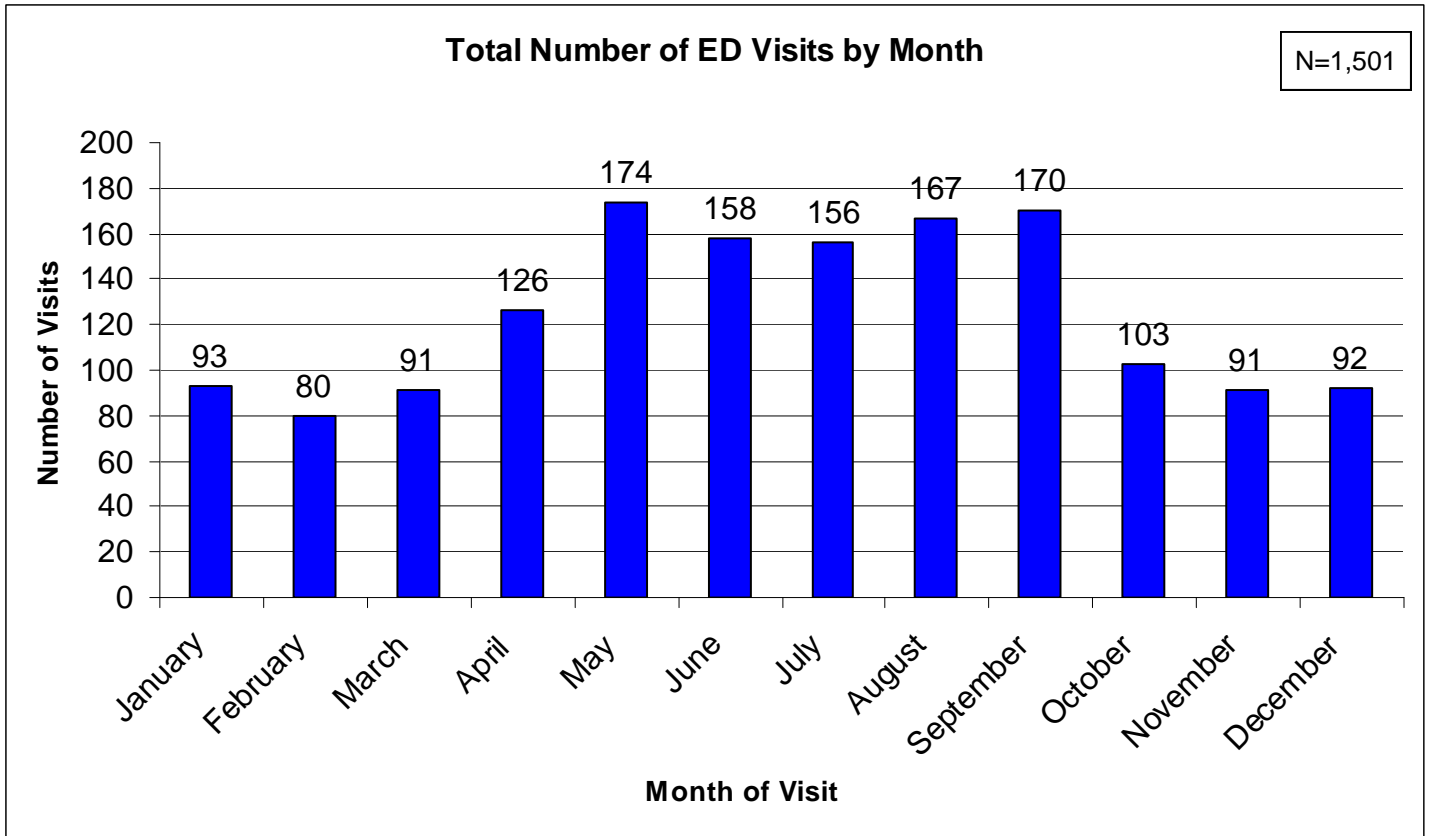
Overall Demographic Information

Age	# of Injuries	% of Total Injuries	Population*	Rate of Injury per 1,000 Population
0	45	3.0%	448	100.4
1	92	6.1%	463	198.7
2	134	8.9%	453	295.8
3	75	5.0%	438	171.2
4	73	4.9%	504	144.8
5	64	4.3%	470	136.2
6	67	4.5%	518	129.3
7	57	3.8%	481	118.5
8	61	4.1%	521	117.1
9	72	4.8%	563	127.9
10	63	4.2%	521	120.9
11	79	5.3%	498	158.6
12	81	5.4%	538	150.6
13	122	8.1%	495	246.5
14	106	7.1%	550	192.7
15	109	7.3%	458	238.0
16	106	7.1%	466	227.5
17	95	6.3%	500	190.0
TOTAL	1501	100%	8,885	168.9

*Source: 2000 Census—may include those residing outside of Stark County

Overall Demographic Information

TOTAL NUMBER OF CHILDREN TREATED: 1,501



E-Code Headings

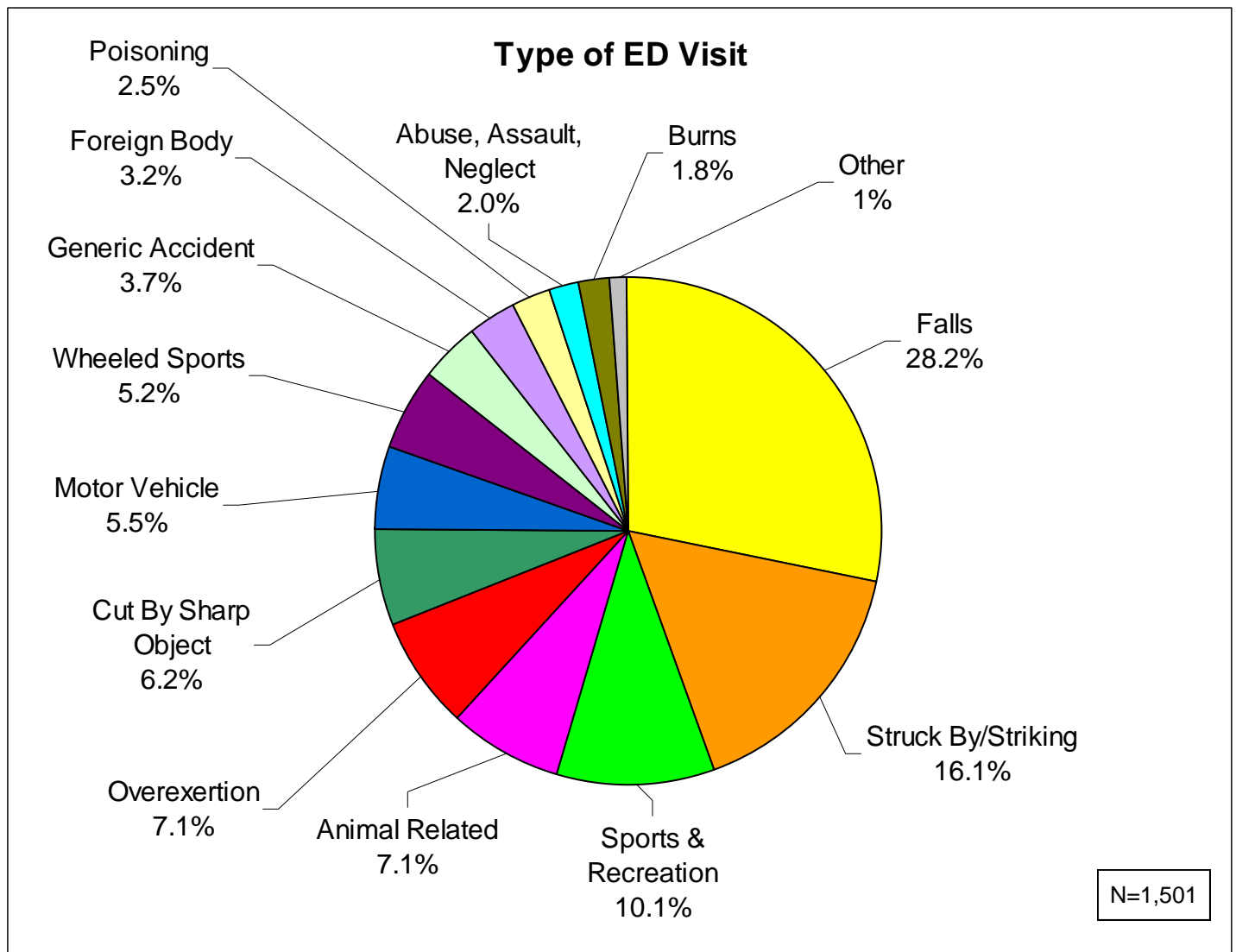
There are over 1,200 potential e-codes used in hospital emergency departments. For the purposes of this report, the committee assigned each e-code to a particular heading. The headings are listed below. The top 13 headings were further analyzed on the following pages. E-codes with no statistical significance were not analyzed, but are listed on page 27. Some e-codes will have multiple subheadings.

Abuse, Assault, Neglect
Animal Related
Burns (Not House Fire Related)
Choking/Suffocation
Cut By Sharp Object
Falls
Fire Arms
Fire Related
Foreign Body (Not Choking)
Generic Accident
Human Bites
Machinery
Motor Vehicle
Overexertion
Poisoning
Struck By/Striking Object
Sports & Recreation
Suicide
Water Related
Weather
Wheeled Sports

Top 13 Leading Causes of Injury

There were 1,501 children treated between January 1, 2009 and December 31, 2009.

Injury Type	#	%
Falls	424	28.2%
Struck By/Striking Object	242	16.1%
Sports & Recreation	152	10.1%
Overexertion	107	7.1%
Animal Related	107	7.1%
Cut by Sharp Object	93	6.2%
Motor Vehicle	82	5.5%
Wheeled Sports	78	5.2%
Generic Accident	56	3.7%
Foreign Body	48	3.1%
Poisoning	37	2.5%
Abuse/Assault/Neglect	30	2.0%
Burns (Not House Fire)	27	1.8%
All Other (not in top 13 - see page 23)	18	1.2%



Falls

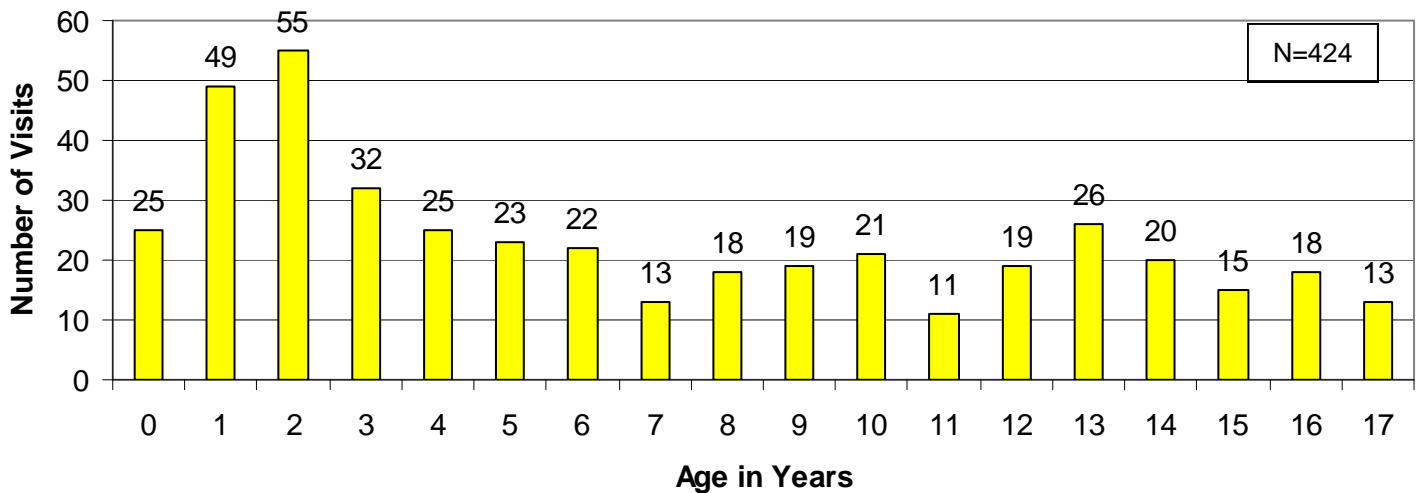
Falls were the leading cause of injury for children. There were 424 children treated for a fall related injury, accounting for 28.2% of the injuries during this report time frame.

May (60, 14.2%) was the most prevalent month for these injuries.

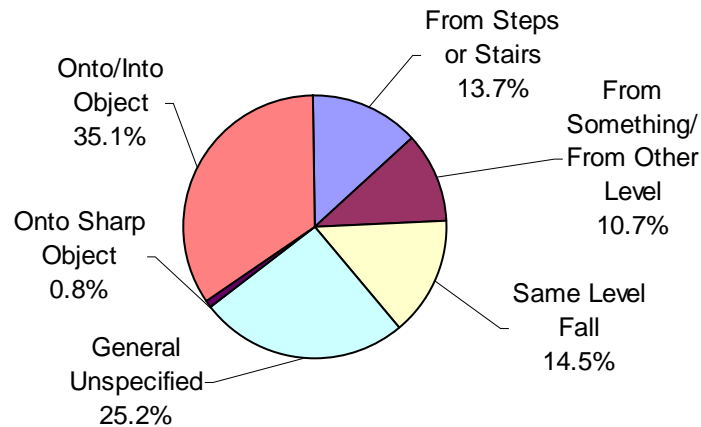
Number of Visits by Gender

Gender	#	%
Male	237	55.9%
Female	187	44.1%

Number of Fall Visits by Age



Type of Falls



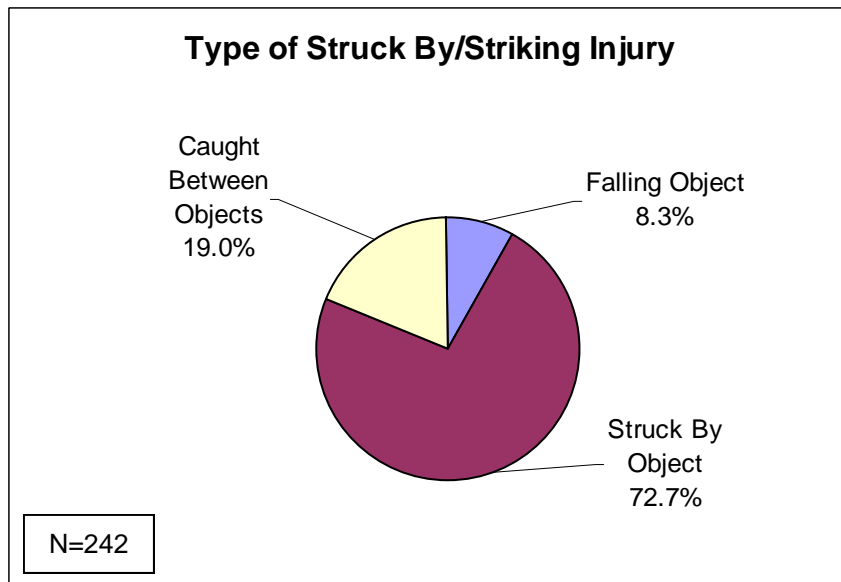
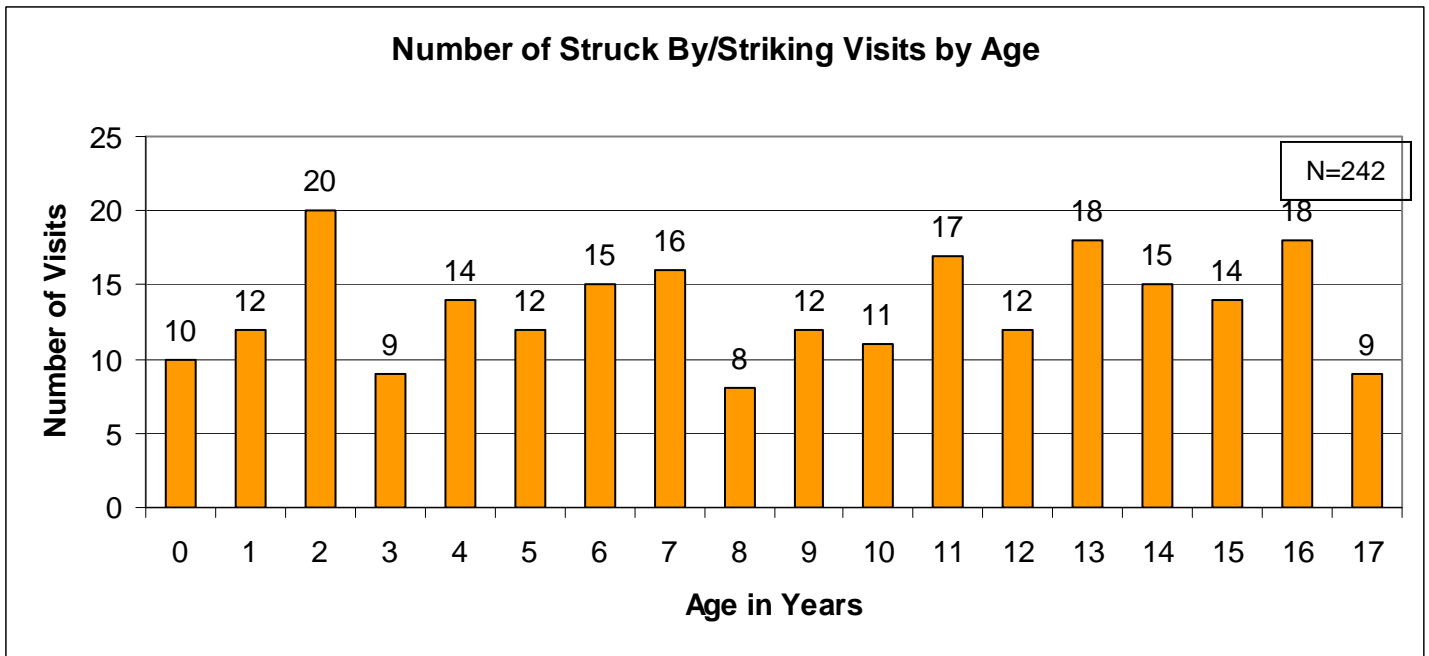
Struck By / Striking Object

There were 242 children treated for an injury caused by being struck by or striking an object. This was the second leading cause of injury, accounting for 16.1% of the injuries during this report time frame.

April (38, 15.7%) was the most prevalent month for these injuries.

Number of Visits by Gender

Gender	#	%
Male	137	56.5%
Female	105	43.4%



Sports & Recreation Related

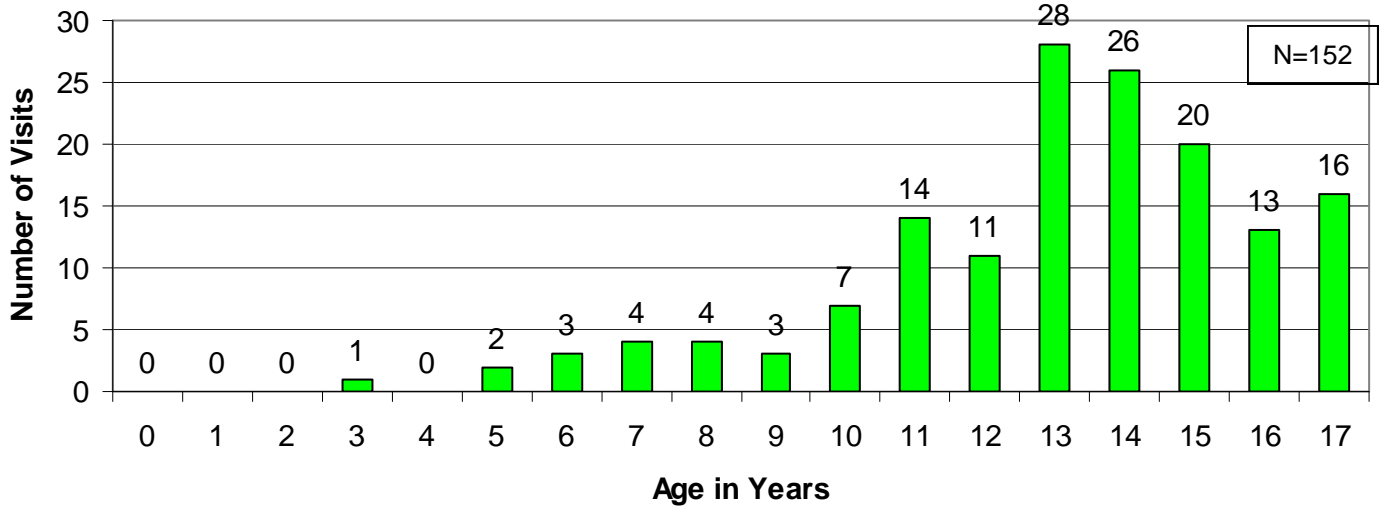
There were 152 children treated for an injury caused by being struck by or striking an object. This was the third leading cause of injury, accounting for 10.1% of the injuries during this report time frame.

September (36, 23.7%) was the most prevalent month for these injuries.

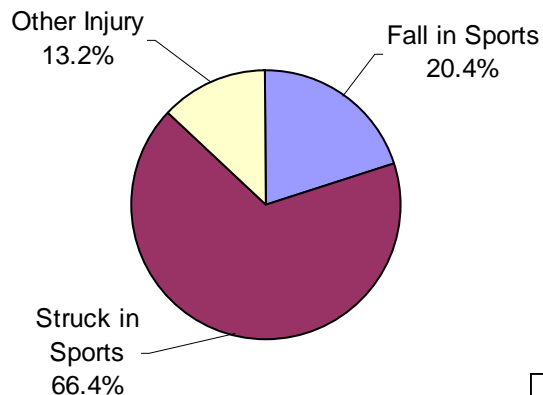
Number of Visits by Gender

Gender	#	%
Male	115	75.7%
Female	37	24.3%

Number of Sports & Recreation Visits by Age



Type of Sports & Recreation Injury



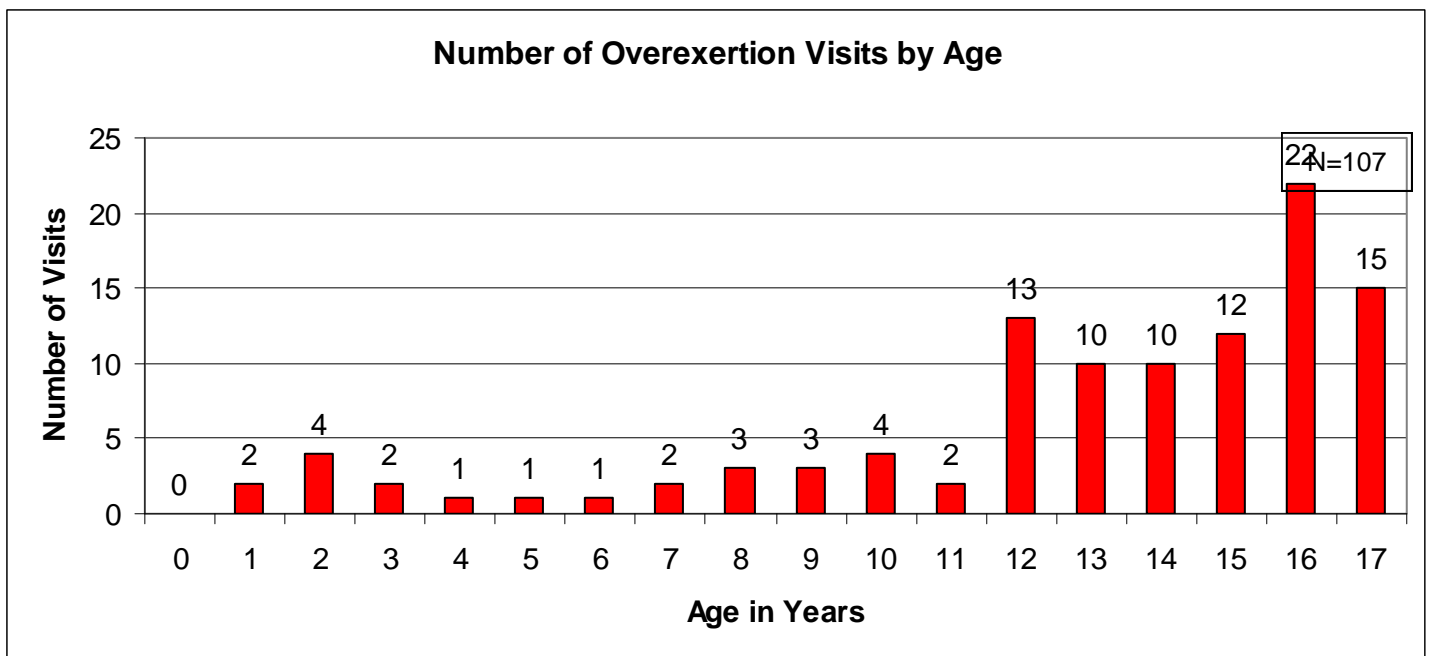
Overexertion

There were 107 children treated for an Overexertion/Strenuous Movement related injury. This was tied for the fourth leading cause of injury, accounting for 7.1% of the injuries during this report time frame.

September (18, 16.8%) was the most prevalent month for these injuries.

Number of Visits by Gender

Gender	#	%
Male	57	53.3%
Female	50	46.7%



An **Overexertion Injury** includes a type of injury or strenuous movement, where the body is stressed beyond normal capabilities causing injury. Examples could include sprained joints, strained muscles, broken bones, etc.

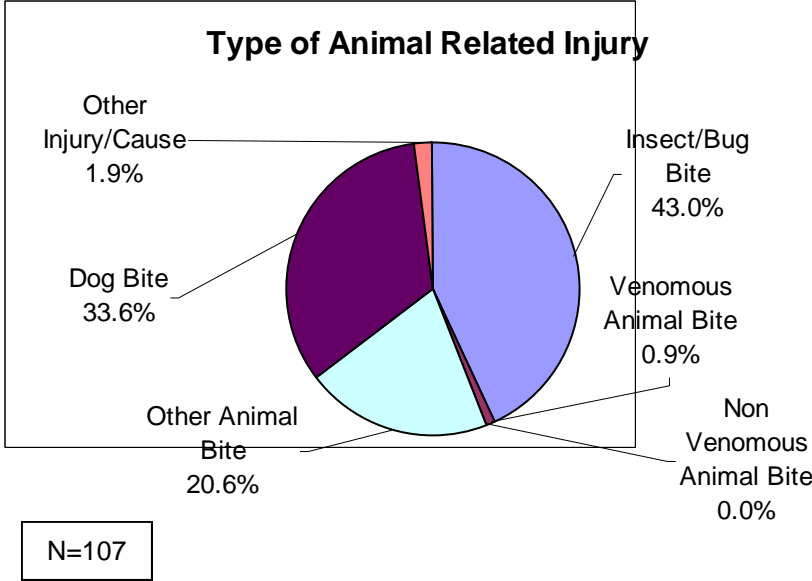
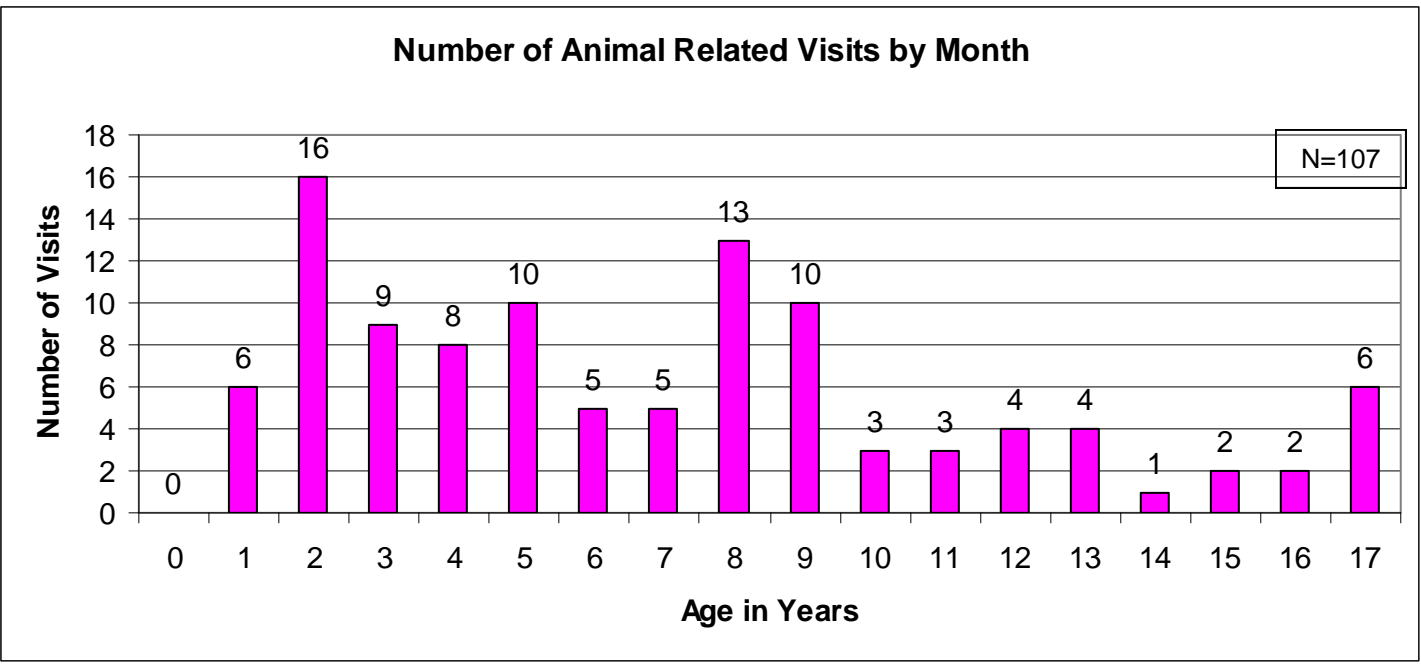
Animal Related

There were 107 children treated for animal related injuries. This was tied for the fourth leading cause of injury, accounting for 7.1% of the injuries during this report time frame.

August and September (21, 19.6%) were the most prevalent months for these injuries.

Number of Visits by Gender

Gender	#	%
Male	57	53.3%
Female	50	46.7%



Cut By Sharp Object

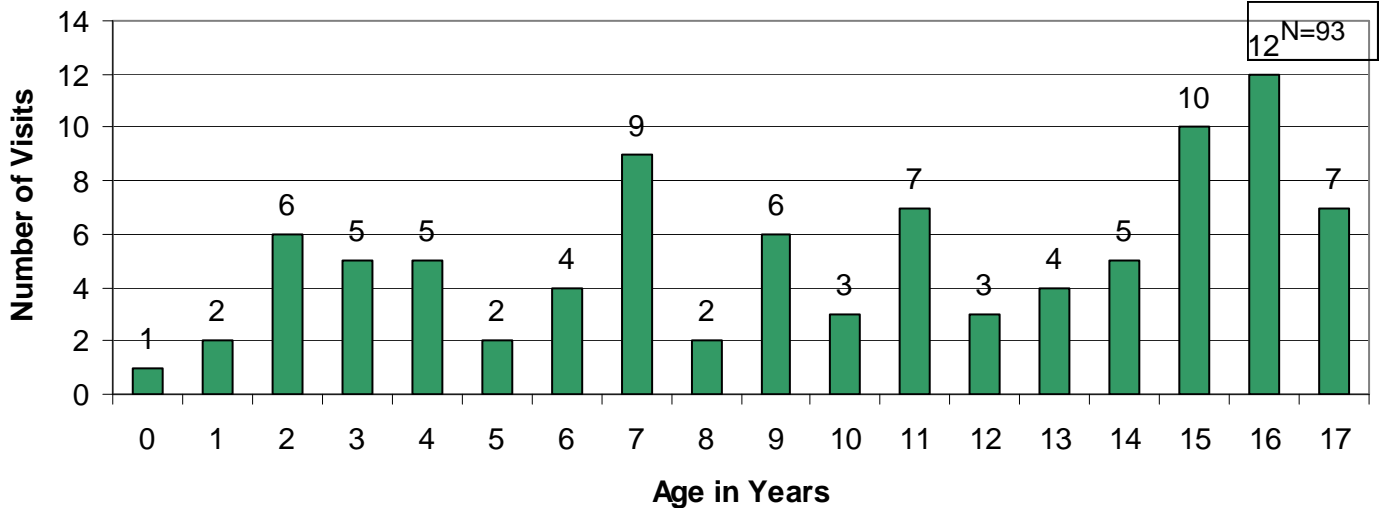
There were 93 children treated for an injury caused by sharp objects. This was the sixth leading cause of injury, accounting for 6.2% of the injuries during this report time frame.

July (15, 16.1%) was the most prevalent month for these injuries.

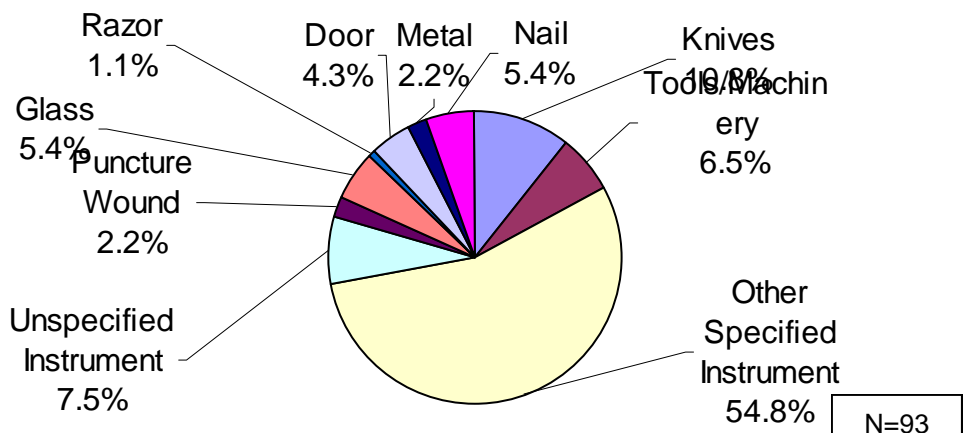
Number of Visits by Gender

Gender	#	%
Male	51	54.8%
Female	42	45.2%

Number of Cut By Sharp Object Visits by Age



Type of Cut By Sharp Object Injuries



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).

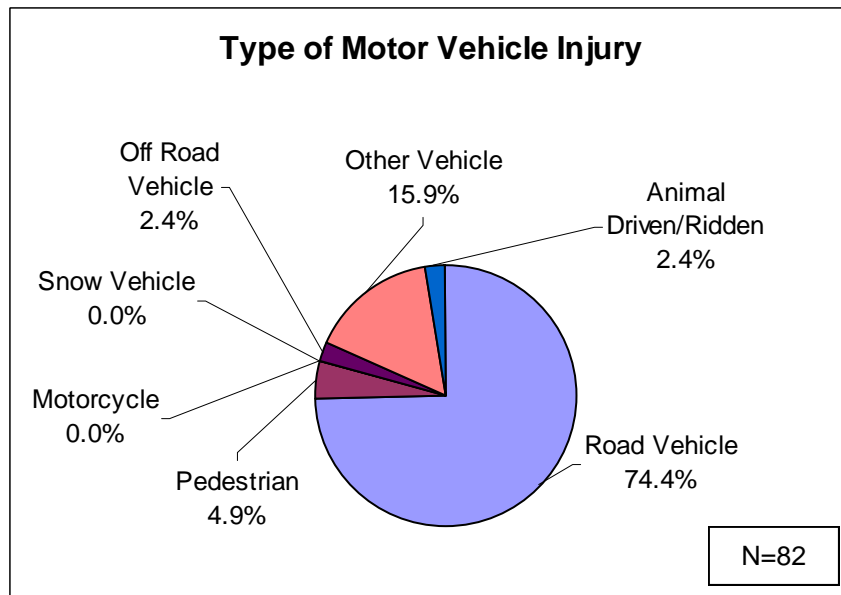
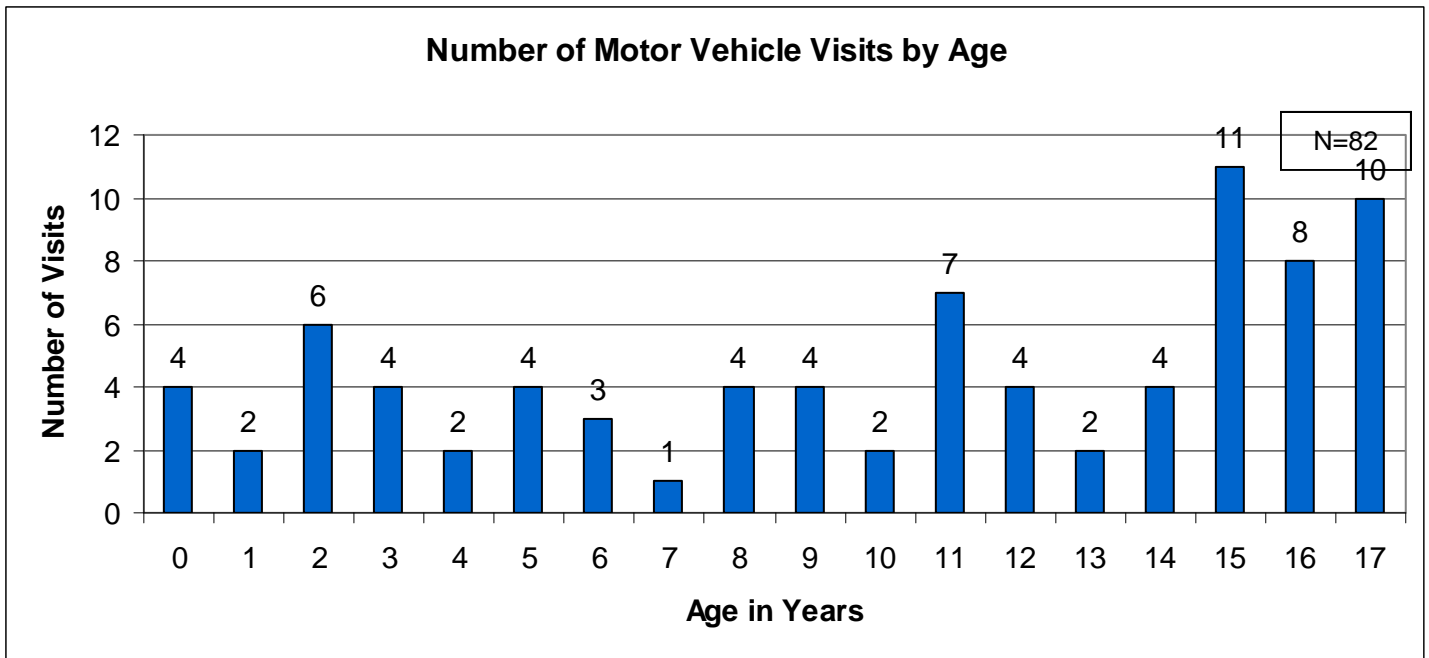
Motor Vehicle

There were 82 children treated for motor vehicle related injuries. This was the seventh leading cause of injury, accounting for 5.5% of the injuries during this report time frame.

May (13, 15.9%) was the most prevalent month for these injuries.

Number of Visits by Gender

Gender	#	%
Male	40	48.8%
Female	42	51.2%



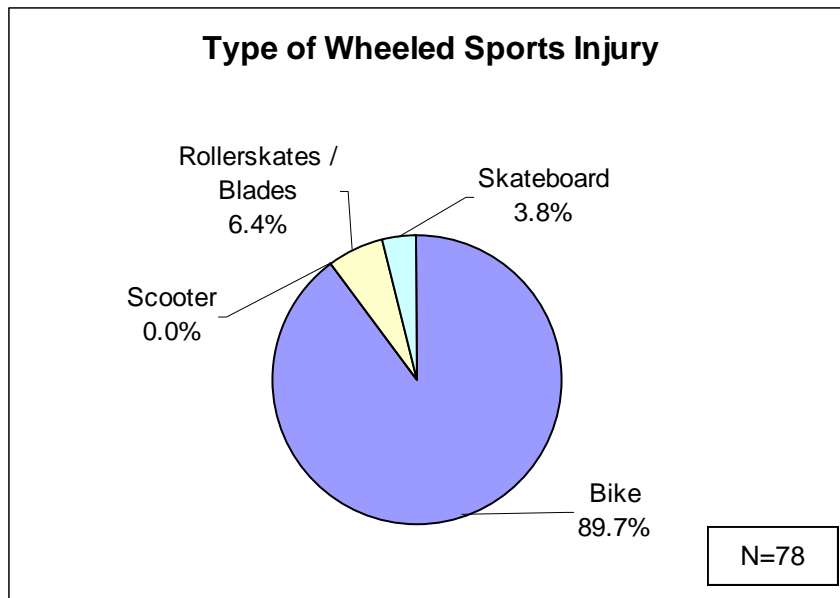
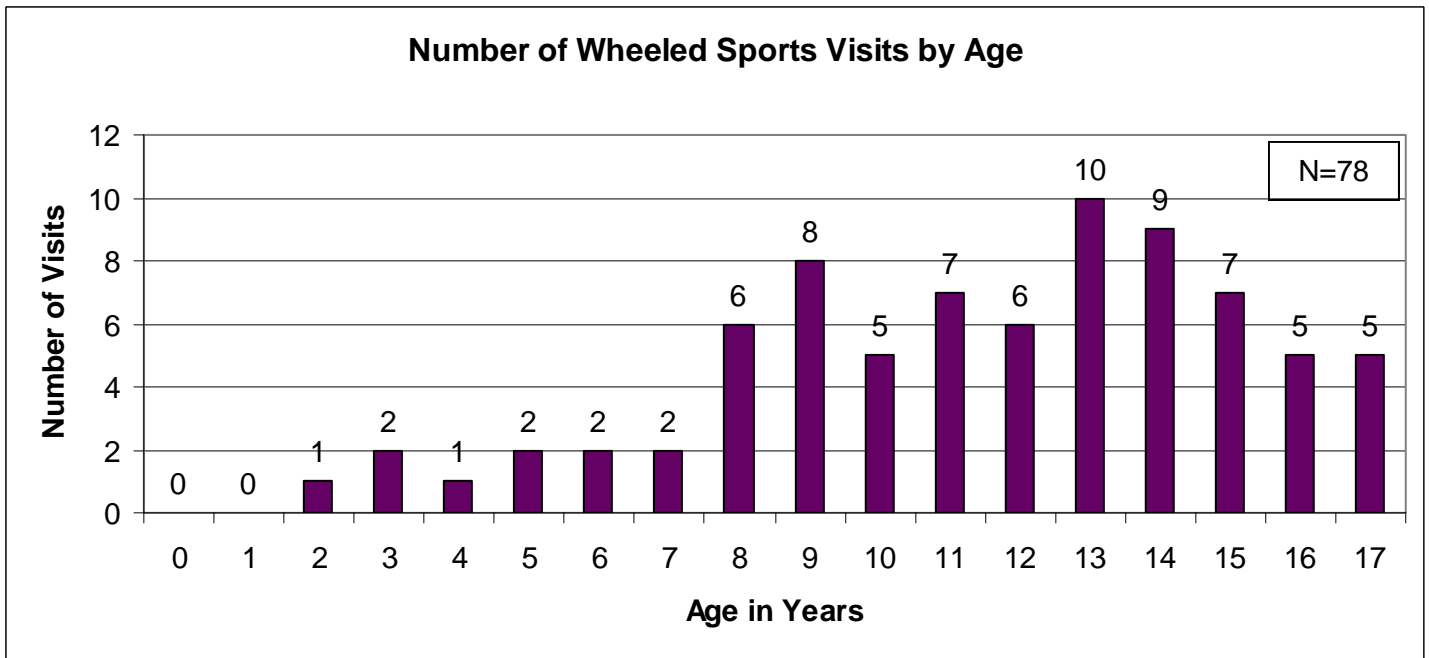
Wheeled Sports

There were 78 children treated for wheeled sports related injuries. This was the eighth leading cause of injury, accounting for 5.2% of the injuries during this report time frame.

July (16, 20.5%) was the most prevalent month for these injuries.

Number of Visits by Gender

Gender	#	%
Male	56	71.8%
Female	22	28.2%



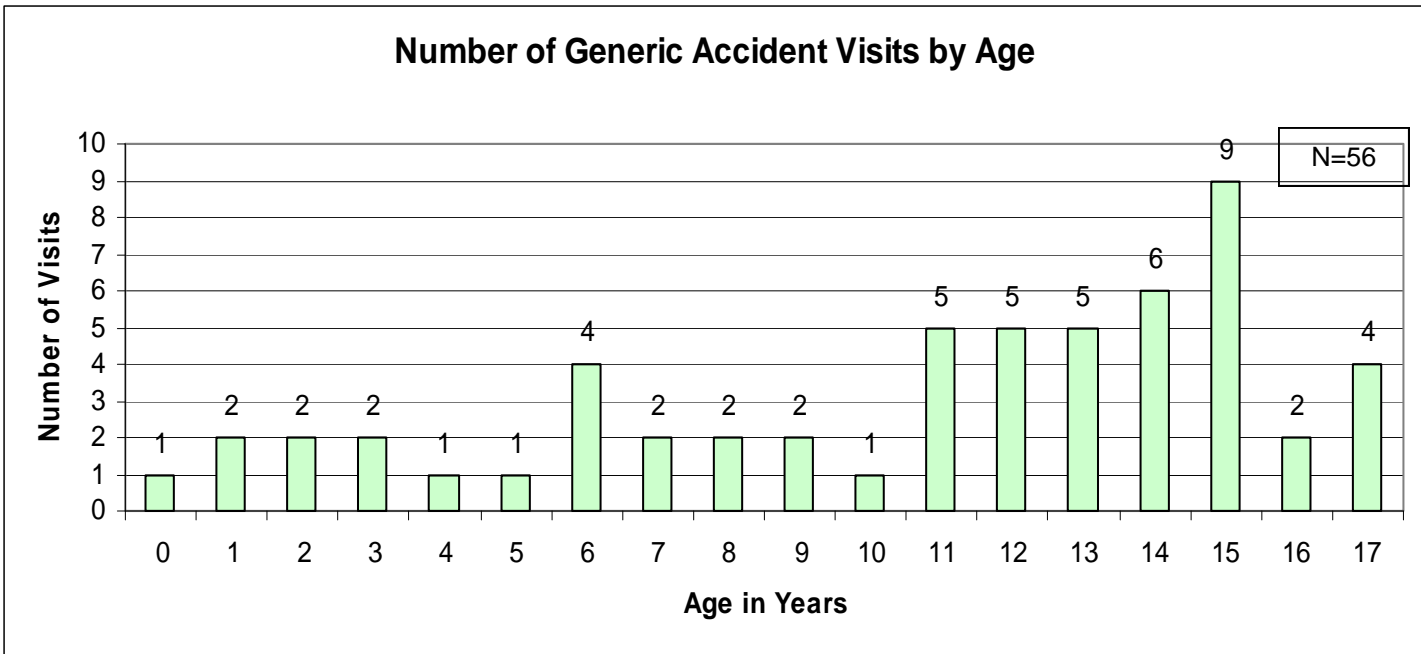
Generic Accident

There were 56 children treated for generic accidents. This was the ninth leading cause of injury, accounting for 3.7% of the injuries during this report time frame.

January and April (7, 12.5%) were the most prevalent months for these injuries.

Number of Visits by Gender

Gender	#	%
Male	35	62.5%
Female	21	37.5%



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.

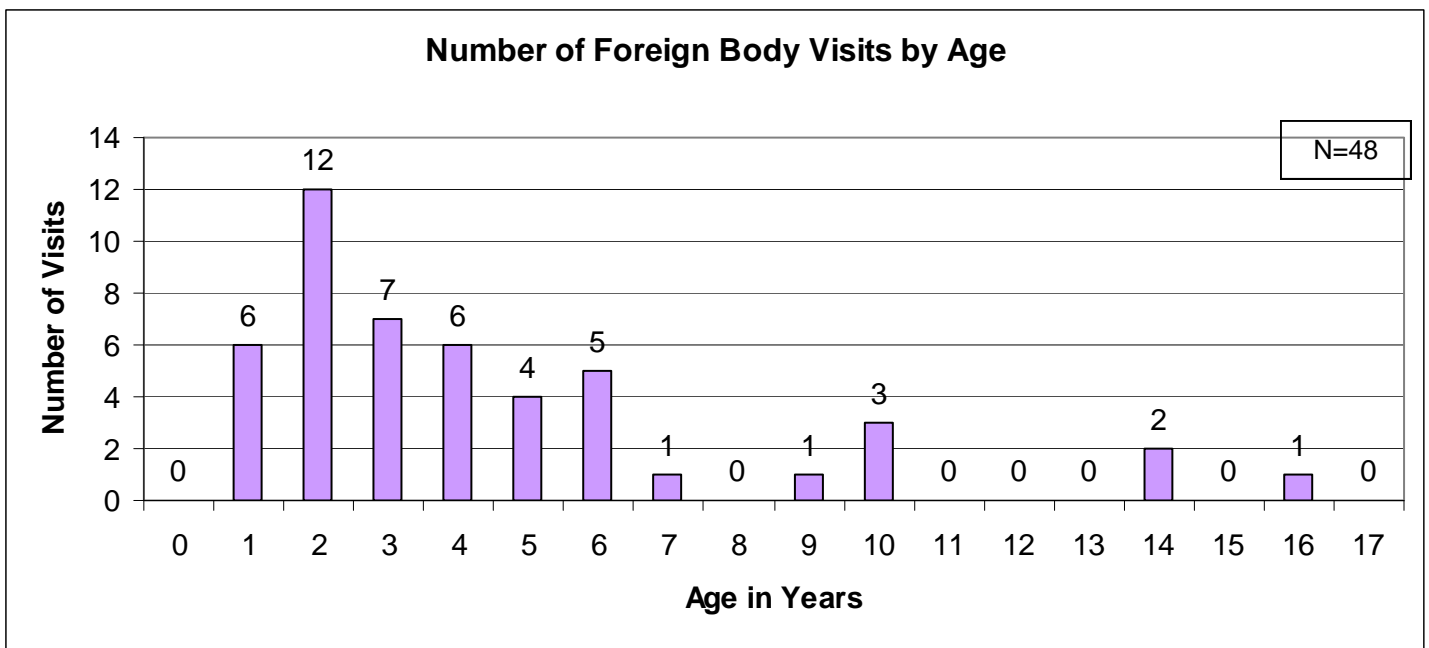
Foreign Body

There were 48 children treated for foreign body (not choking) related injuries. This was the tenth leading cause of injury, accounting for 3.2% of the injuries during this report time frame.

November (9, 18.8%) was the most prevalent month for these injuries.

Number of Visits by Gender

Gender	#	%
Male	26	54.2%
Female	22	45.8%



The foreign body injury includes any foreign body entering the eye or other orifice. Choking related injuries are not included here. Choking accounted for no injuries during the 2009 reporting year.

Poisoning

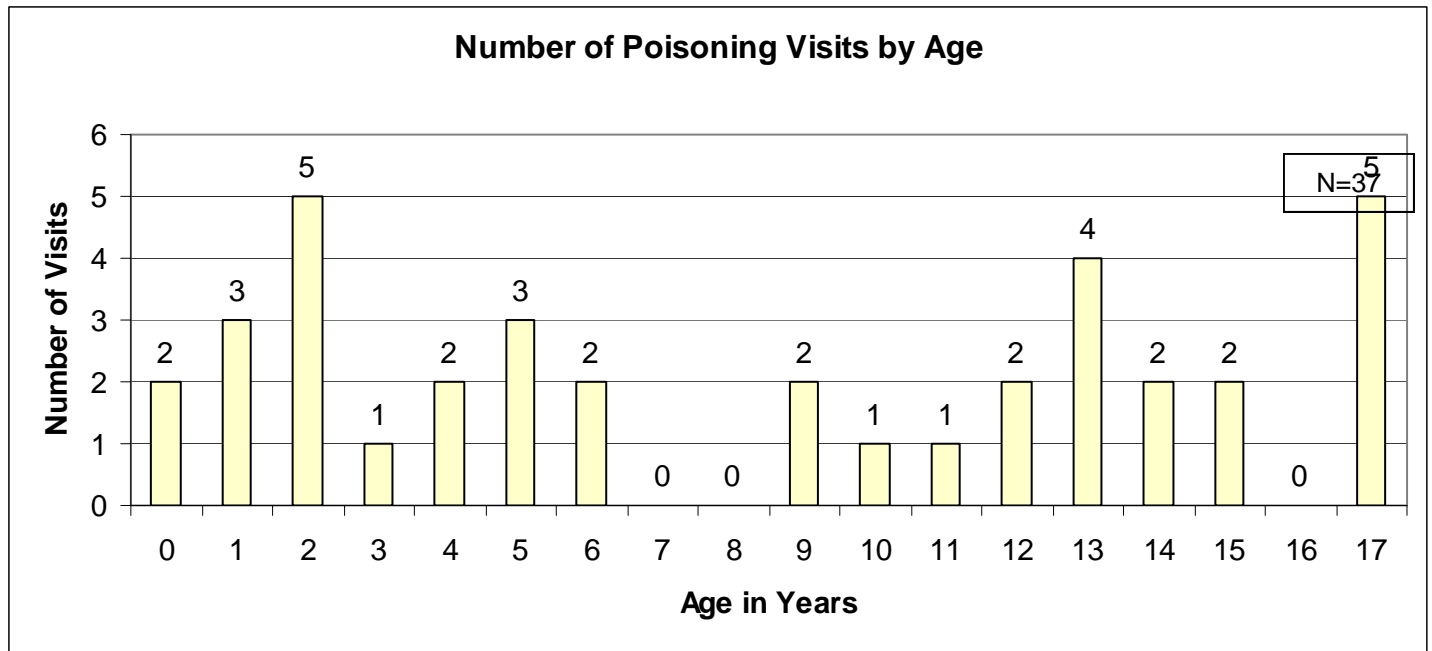
There were 37 children treated for poisoning injuries. This was the eleventh leading cause of injury, accounting for 2.5% of the injuries during this report time frame.

August (6, 16.2%) was the most prevalent month for these injuries.

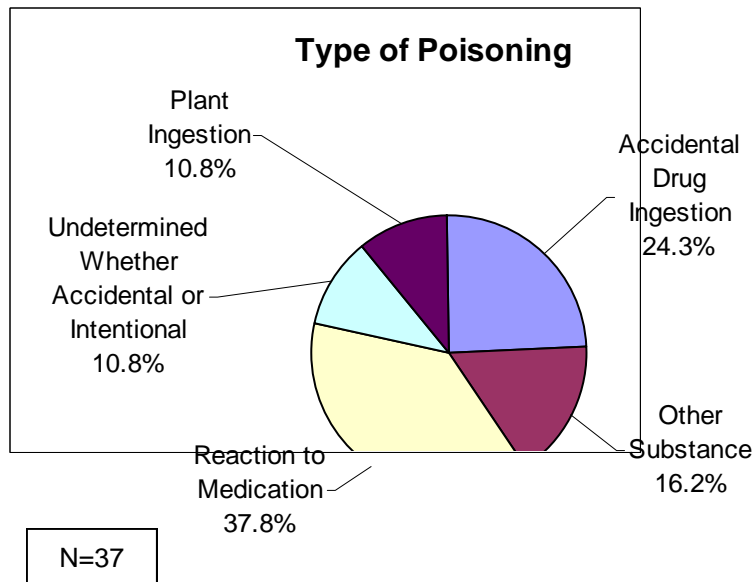
Number of Visits by Gender

Gender	#	%
Male	19	51.4%
Female	18	48.6%

Number of Poisoning Visits by Age



Type of Poisoning



Abuse, Assault and Neglect

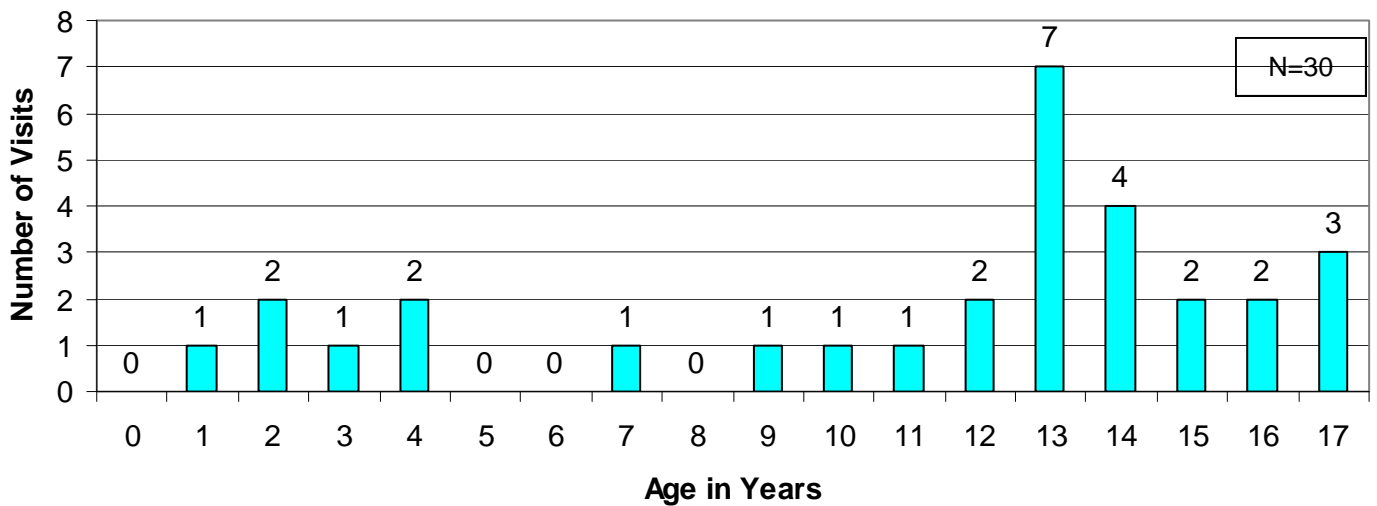
There were 30 children treated for abuse, assault and neglect related injuries. This was the twelfth leading cause of injury, accounting for 2.0% of the injuries during this report time frame.

February (8, 26.7%) was the most prevalent month for these injuries.

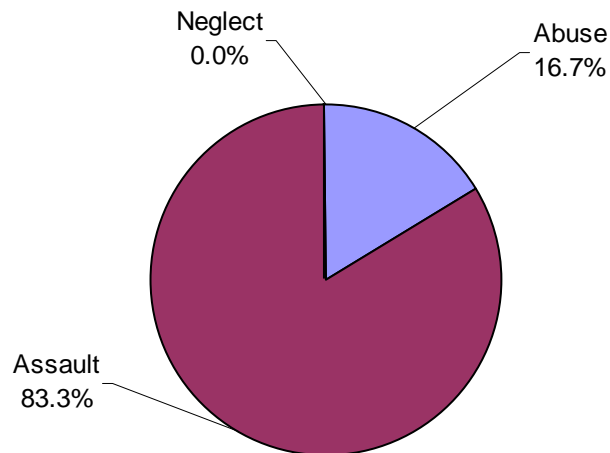
Number of Visits by Gender

Gender	#	%
Male	16	53.3%
Female	14	46.7%

Number of Abuse, Assault, Neglect Visits by Age



Type of Abuse, Assault, Neglect Injury



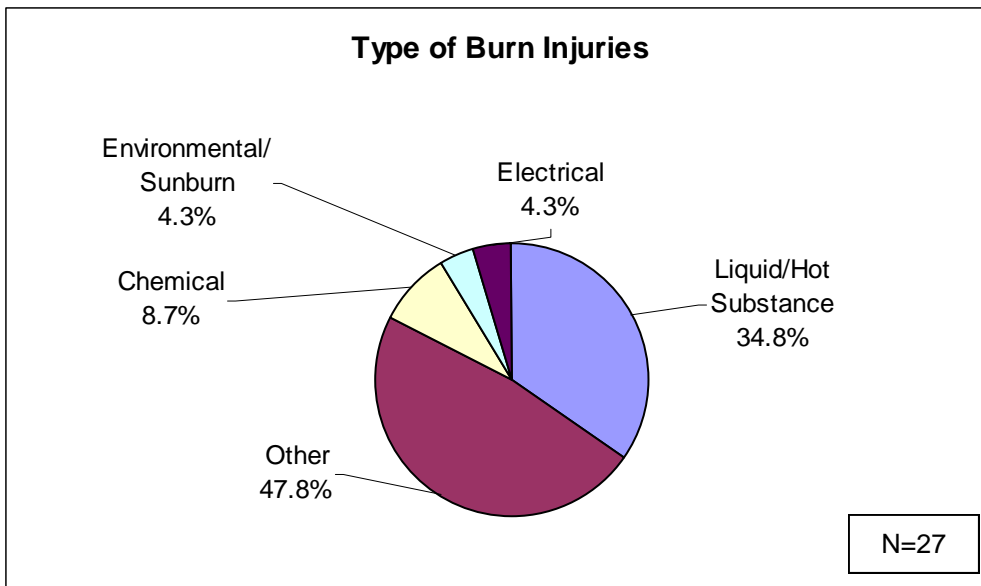
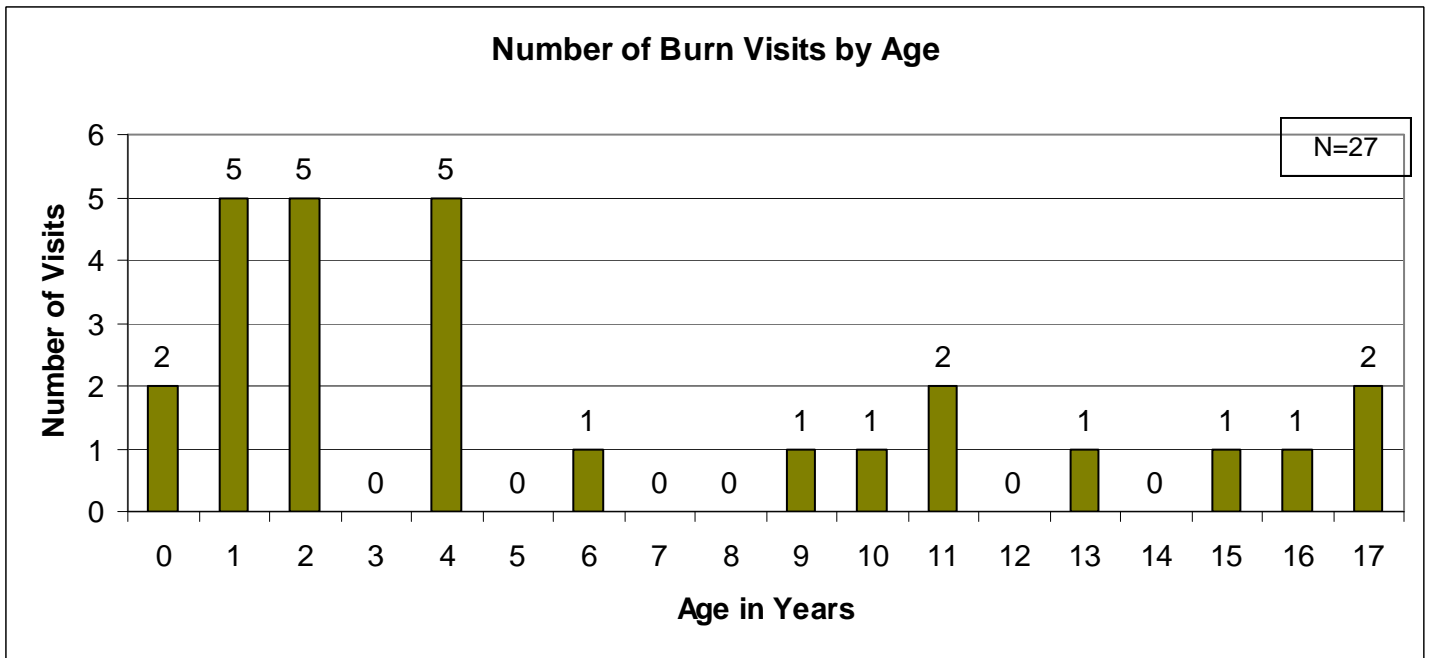
Burns (not house fire related)

There were 27 children treated for burn related injuries. This was the thirteenth leading cause of injury, accounting for 1.8% of the injuries during this report time frame.

July and August (5, 18.5%) were the most prevalent months for these injuries.

Number of Visits by Gender

Gender	#	%
Male	18	66.7%
Female	9	33.3%



These burn injuries were not related to a home or dwelling fire. Those injuries accounted for less than 1% of all of the injuries during the 2009 reporting year.

Other Types of Injury

While these injuries were not in the top 13 nor analyzed in the report, it is important to note them in this report because they are injuries that are occurring in the 44601 zip code.

Type of Injury	Number of Injuries
Attempted Suicide	10
House Fire Related	3
Fire Arms	2
Water Related	1
Human Bite	1
Weather Related	1
Machinery	0
Choking/Suffocation	0
TOTAL OTHER INJURIES	18

2009 Childhood Deaths

Cause of Death	Number of Deaths
Homicide	2
Suicide	2
Motor Vehicle	1
TOTAL DEATHS	5

Data may change based on findings of the Stark County Child Fatality Review Board.

The Stark County Child Fatality Review Board only reviews Stark County deaths. There may be additional deaths in the 44601 zip code if the child resided in another county.

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	45	Falls 25 or 55.6%	Struck By/Striking 10 or 22.2%	Motor Vehicle 4 or 8.9%
1	92	Falls 49 or 53.3%	Struck By/Striking 12 or 13.0%	Animal Related & Foreign Body 6 or 6.5%
2	134	Falls 55 or 41.0%	Struck By/Striking 20 or 14.9%	Animal Related 16 or 11.9%
3	75	Falls 21 or 42.7%	Animal & Struck By/Striking 9 or 12.0%	Foreign Body 7 or 9.3%
4	73	Falls 25 or 34.3%	Struck By/Striking 14 or 19.2%	Animal Related 8 or 11.0%
5	64	Falls 23 or 35.9%	Struck By/Striking 12 or 18.8%	Animal Related 10 or 15.6%
6	67	Falls 22 or 32.8%	Struck By/Striking 15 or 22.4%	Animal Related & Foreign Body 5 or 7.5%
7	57	Struck By/Striking 16 or 28.1%	Falls 13 or 22.8%	Cut By Sharp Object 9 or 15.8%
8	61	Falls 18 or 29.5%	Animal Related 13 or 21.3%	Struck By/Striking 8 or 13.1%
9	72	Falls 19 or 26.4%	Struck By/Striking 12 or 16.7%	Animal Related 10 or 13.9%
10	63	Falls 21 or 33.3%	Struck By/Striking 11 or 17.5%	Sports & Recreation 7 or 11.1%
11	79	Struck By/Striking 17 or 21.5%	Sports & Recreation 14 or 17.7%	Falls 11 or 13.9%
12	81	Falls 19 or 23.5%	Overexertion 13 or 16.1%	Struck By/Striking 12 or 14.8%
13	122	Sports & Recreation 28 or 23.0%	Falls 26 or 21.3%	Struck By/Striking 18 or 14.8%
14	106	Sports & Recreation 26 or 24.5%	Falls 20 or 18.9%	Struck By/Striking 15 or 14.2%
15	109	Sports & Recreation 20 or 18.4%	Falls 15 or 13.8%	Struck By/Striking 14 or 12.8%
16	106	Overexertion 22 or 20.8%	Falls & Struck By/Striking 18 or 17.0%	Sports & Recreation 13 or 12.3%
17	95	Sports & Recreation 16 or 16.8%	Overexertion 15 or 15.8%	Falls 13 or 13.7%

Significant Findings

- The following ages have a lower rate of injury than the zip codes average: 0, 4, 5, 6, 7, 8, 9, 10, 11 and 12.
- Bug & Insect Bites accounted for 43% of all *Animal Related* injuries. Dog Bites accounted for 36%. For the entire county, Dog Bites were the leading cause of *Animal Related*.
- *Foreign Body* injuries declined significantly after age 7.
- *Sports & Recreation* injuries increased significantly after age 13. The following were the identified activities for the *Sports & Recreation* category: Football, Basketball, Wrestling, Baseball, Soccer, Gymnastics, Softball, Snowboarding, Kickball, Track, Trampoline, Volleyball and Water Skiing.
- When comparing this Sub-Report to the full County Report, the following were noted:
 - Injury Specific Findings:
 - *Animal Related* was higher in the 44601 than the county
 - *Motor Vehicle* was lower in the 44601 than the county
 - *Foreign Body* was higher in the 44601 than the county
 - *Generic Accident* was higher in the 44601 than the county
 - *Falls* were lower in the 44601 than the county
 - Demographic Findings:
 - In the 44601, the 2 year olds were the highest age group (8.9%), which is not the case for the overall county report (7.4%, 3rd)
 - In the 44601, the 13 year olds were second highest age group (8.1%), which is not the case for the overall county report (6.8%, 5th)
- Males suffered more injuries than females in all injury types except for *Motor Vehicle*.
- Males suffered significantly more *Sports & Recreation*, *Wheeled Sports & Burns* than females.
- The majority (89%) of the *Wheeled Sports* injuries were bicycle related. Approximately 69% of the *Wheeled Sport* injuries were suffered by children ages 10 to 14 (middle school age).
- The top 2 (of 13) most occurring injuries, *Falls* and *Struck By/Striking*, accounted for approximately 44% of all injuries.
- The rate of injury for the 44601 zip code is 168.9 per 1,000 population. This was the second highest rate for injury in Stark County in 2009.

Recommendations

- Work with organizations (hospitals, school districts, etc) in the 44601 zip code to identify possible interventions to decrease the injury rate.
- Work with media outlets in the 44601 (The Alliance Review) to increase awareness of childhood injuries occurring in the zip code.
- Continue to work with the hospitals to obtain more detailed data on specific injury types (what types of things are classified as falls? What are examples of striking against/struck by object?)
- Incorporate injury prevention strategies into existing community programs, pediatrician offices and clinics, schools, preschools and daycares.
- Present findings to Safe Kids Stark County, Stark County Health Department, local hospitals, the Stark County Child Fatality Review Board and other community groups and agencies, specifically in the 44601 zip code.
- Post this document on the Safe Kids Stark County website.
- Provide this information to Safe Kids Worldwide and Safe Kids USA.
- Provide this report to local elementary and middle schools, as well as parent education programs.
- Survey Coalition members to determine what injury prevention is going on in the community, what curricula are being used and what recommendations they have for innovative injury prevention 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.
- Develop and provide more information to new parents when leaving the hospital on safety measures for developmental stages AND by the pediatricians and in the physician offices may aid in this.

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 2,400 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 3,000 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 2,300 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 16,000 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.
- 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.
- Over 1,500 bike helmets have been sold or donated by the Coalition.

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. Children have the opportunity to participate in safety activities (provided by community organizations) and receive educational resources.
- Over 4,000 children have been reached by this program.

Sports Safety

- Provides free training to youth league coaches regarding injury prevention and treatment.

Injury Prevention Seminar

- Host annual Injury Prevention Seminar for Physicians, Nurses, EMS Providers, Athletic Trainers & Health Educators. Topics have included general injury prevention and sports safety.

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.

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