



EPI MONTHLY REPORT

MIAMI-DADE COUNTY HEALTH DEPARTMENT

Unintentional Injury Related Emergency Department Visits, Hospitalizations and Deaths among Children 0-5 years in Miami-Dade County, 2010

Alazandria Cruze, MPH, CPH, Florida Epidemic Intelligence Fellow

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Overview

Injuries occur from both unintentional sources (such as motor vehicle crashes and fires) and intentional sources (such as violence and suicide). Many factors can help prevent injuries of both nature including changing of the environment, individual behavior, products, legislation and social norms. When looking specifically at childhood injuries, most are unintentional. Unintentional injuries are a leading cause of morbidity and mortality among children and adolescents in the United States. In 2010, unintentional injuries ranked fifth among infant deaths and first among cause of death for children 1-5 years of age. Nationally, the ten leading causes of unintentional injuries among children 0-5 include: falls, struck by or against an object, other bite or sting, foreign body, other specified, fire/burn, cut/pierce, inhalation/suffocation, overexertion and motor vehicle occupant. For both infants and children 1-5, the number one cause of unintentional injuries is falls. (1)

Fully understanding the demographics of the groups most at risk for common injuries may help direct research and programs that would reduce the burden. Injuries are among the most under-recognized public health problems in the United States today, with approximately 12,000 children dying annually from an avoidable injury. Injuries requiring medical attention or resulting in restricted activity cost roughly \$17 billion annually and affects approximately 20 million children and adolescents. (1)

The following summary provides an overview of childhood injury among children aged 0-5 years in Miami-Dade County (MDC). The data for hospital emergency department visits, inpatient stays and mortality was obtained from the Agency for Health Care Administration and the Vital Statistics Office. Injuries were classified by the international classification of diseases (ICD-9-CM/ICD-10) diagnosis codes. When determining the cause of injuries, the mechanism of injury (MOI) is used to describe the agent, instrument or activity that lead to the injury. Categories of unintentional injuries include: cut/pierce, drowning/submersion, falls (off/from), fire/burn, foreign body, natural/environmental (dog bites, other bites/stings/animal injuries, other), poisoning, struck by/against an object, suffocation, transport related (motor vehicle occupant, bicycle/tricycle, other), other unintentional causes. Also included in this report are assault/abuse and undetermined/other intentional injuries.

In 2010, there were 21,310 injury related emergency department (ED) visits among children aged 0-5 years in MDC. Of them, 21,240 (99.7%) were unintentional. Infants (<1 year) accounted for 11.8% of visits while children 1-5 years accounted for 88.2%. Twenty-one injury related deaths were reported in MDC in 2010, 17 (81%) were unintentional. (Figure 1)

Figure 1. Unintentional Injuries among Children 0-5 Years, Miami-Dade County Florida, 2010

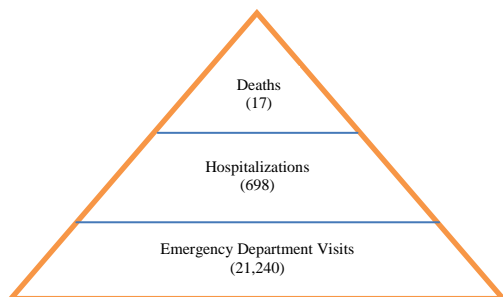


Table 1. Emergency Department Visits by Mechanism of Injury, 2010

Mechanism	Age Group		Total	Percent	Rank
	<1	1-5			
Falls	1494	8160	9654	45.3	1
Other Unintentional Causes	324	3094	3418	16.0	2
Struck-by, against	179	2681	2860	13.4	3
Natural/Environmental	198	1566	1764	8.3	4
Foreign Body	89	1116	1205	5.7	5
Transport Related	84	594	678	3.2	6
Cut/Pierce	28	627	655	3.1	7
Poisoning	60	505	565	2.7	8
Fire/Burn	45	358	403	1.9	9
Assault/Abuse	8	58	66	0.3	10
Drowning/Submersion	0	25	25	0.1	11
Suffocation	3	10	13	0.1	12
Undetermined/Other Intent	2	2	4	0.0	13
Total	2514	18796	21310	100	

Epidemiology, Disease Control & Immunization Services
 8600 NW 17th Street Suite 200
 Miami, Florida 33126
 Tel: (305) 470-5660
 Fax: (305) 470-5533



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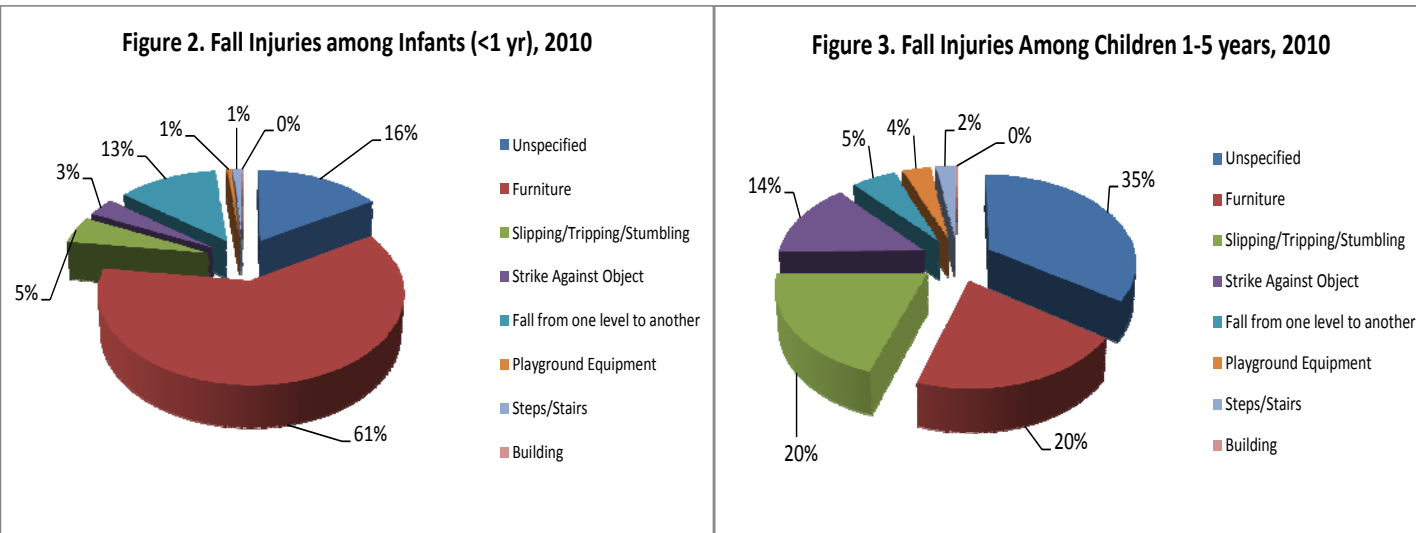
Injury-Related ED Visits

Of the more than 20,000 children who visited an ED for an injury in MDC in 2010, the leading MOI among both infants and children 1-5 years, was falls (9,654); accounting for 45.3% of all visits (Table 1). This is consistent with national trends. The majority of children visiting the ED for injuries were male (12,109, 56.8%) and Hispanic (13,490, 63.3%). Females made up 43.1% (n=9198) of all ED visits and other race and ethnicities of interest included Non-Hispanic Black (4,499, 21.1%) and Non-Hispanic White (2,250, 10.6%). The top three pay source categories were commercial insurance (5,560, 26.1%), Medicaid HMO (6,985, 32.8%) and Medicaid (7,022, 33.0%).

The top four fall related injuries among children 0-5 years were as follows:

- Unspecified (3,065, 31.6%)
- Furniture (2,578, 26.7%)
- Slipping/Tripping/Stumbling (1,699, 17.6%)
- Strike With/Against an Object (1,159, 12.0%)

Figures 2, 3: Fall Injuries by Age Group



Injury-Related Hospitalizations

There were 714 hospitalizations due to injuries among children aged 0-5 years. Of them, 698 (97.8%) were unintentional injuries. Falls (222, 31.1%) were the leading MOI for both infants and children 1-5. Falls dealing with furniture accounted for 17.2% (n=38) of infant hospitalizations and other/unspecified falls accounted for 19.4% (n=43) among children 1-5 years. The majority of hospitalizations were among males (405, 56.7%), predominately among the Hispanic race (360, 50.4%). Other leading causes of injury related hospitalizations included other unintentional causes (101, 14.1%), natural/environmental causes (93, 13.0%) and poisonings (68, 9.5%) (Table 2). Of the natural/environmental causes, 55.9% of hospitalizations occurred from bites, stings and animals other than dogs (n=52). The top three payer sources were Medicaid (244, 34.2%), Medicaid HMO (231, 32.4%) and commercial insurance (188, 26.3%).



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Table 2. Injury Related Hospitalizations among Children 0-5 years, 2010

Mechanism	Age Group		Total	Percent	Rank
	<1	1-5			
Falls	68	154	222	31.1	1
Other Unintentional Causes	54	47	101	14.1	2
Natural/Environmental	12	81	93	13.0	3
Poisoning	9	59	68	9.5	4
Transport Related	5	45	50	7.0	5
Fire/Burn	6	40	46	6.4	6
Foreign Body	12	27	39	5.5	7
Drowning/Submersion	0	30	30	4.2	8
Struck-by, against	5	21	26	3.6	9
Assault/Abuse	10	6	16	2.2	10
Cut/Pierce	2	12	14	2.0	11
Suffocation	3	6	9	1.3	12
Total	186	528	714	100.0	

Table 3. Unintentional Injury Related Deaths among Children 0-5, 2010

Cause	Children 0-5
Drowning	7
Suffocation	5
Hot Object/Scalding	1
Firearm	1
Motor Vehicle Traffic	1
Natural/Environmental	1
Poisoning	1
Not Specified	0
Total	17

Source: Florida Vital Statistics Office

Injury-Related Deaths

A total of 21 injury related deaths occurred among children 0-5 in MDC in 2010. Of them, 17 (81%) were unintentional injuries. The leading cause of death was from drowning's (7, 41.2%), followed by suffocation (5, 29.4%) (Table 3). Injury related deaths were more common among males (52.9%) than females (47%).

Summary

In summary, children 0-5 years of age are prone to accidental or unintentional injuries that can lead to emergency department visits, hospitalizations, or even death. The majority of these injuries can be prevented as the leading mechanisms of injury for both visits and hospitalizations are falls. In the US, approximately 8,000 children are treated per day in emergency departments for fall related injuries, adding up to almost 2.8 million children per year. Parents and care givers can play a vital role in protecting children from such avoidable accidents. Play grounds comprise one of the most common sites for fall related injuries. Parents should ensure that playground surfaces are soft and well maintained before allowing children to play. Home safe guards can also be put in place. Applying guards to windows that are above ground level, and utilizing stair gates and chair rails can help active children from taking a dangerous, sometimes life threatening fall. Many sports pose a risk to children as well. Proper protective gear such as helmets, wrist guards, and knee and elbow pads should be worn during sports and recreation. (2) Overall, supervision is key to protecting our youth from serious injuries that can inhibit their growth and their life. Help prevent avoidable injuries!

This summary report did not capture those injuries in which children sought care at private physicians' offices or outpatient clinics.

References:

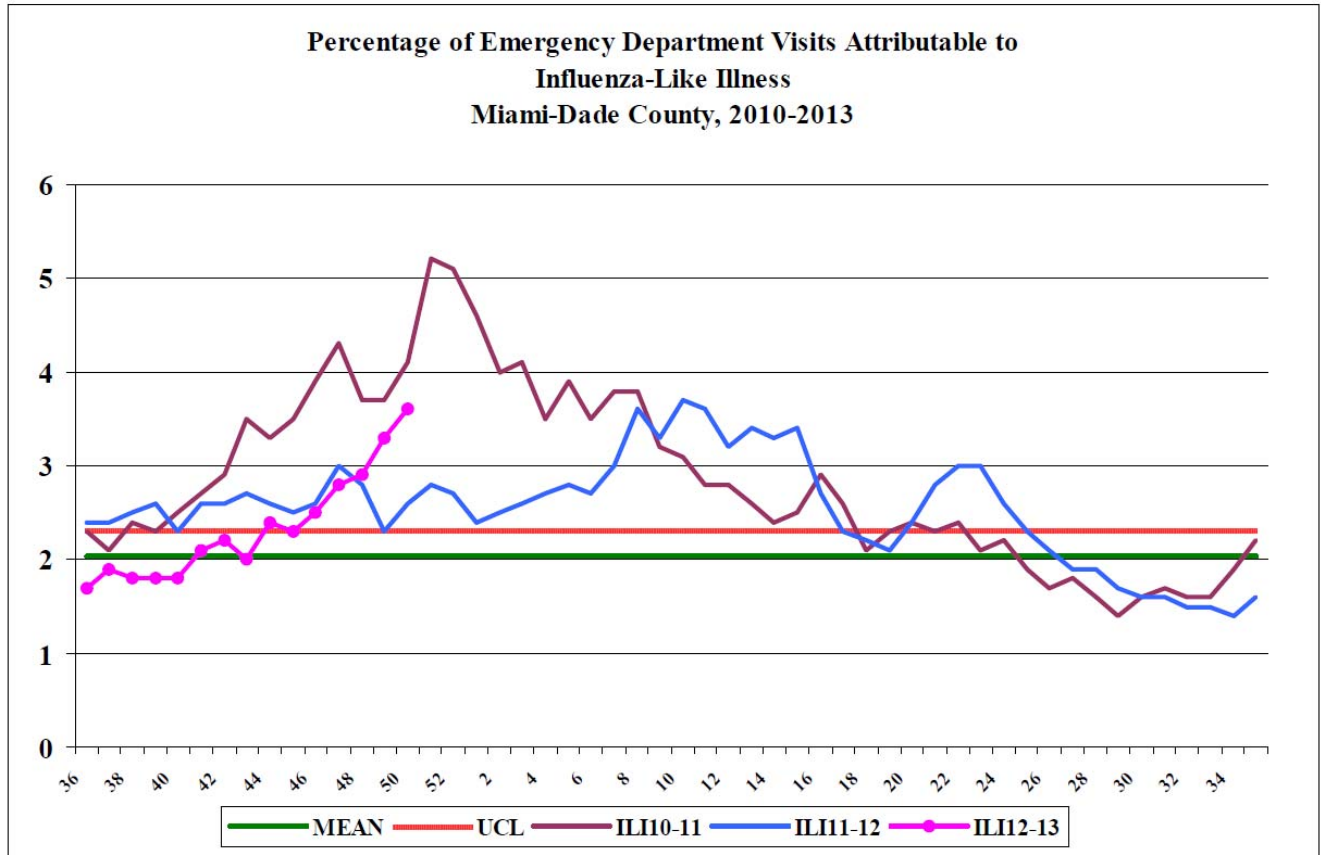
1. CDC. Childhood Injury Report: Patterns of Unintentional Injuries among 0-19 Year Olds in the US, 2000-2006. www.cdc.gov/safecild/images/CDC-childhoodinjury.pdf [Accessed: December, 5, 2012].
2. CDC. Protect the Ones You Love: Child Injuries are Preventable. <http://www.cdc.gov/SafeChild/Falls/index.html> [Accessed: December 17, 2012].



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Influenza-Like-Illness, All Age



During this period, there were 23,764 ED visits; among them 855 (3.6%) were ILI. At the same week of last year, 2.6% of ED visits were ILI.

TO REPORT ANY DISEASE AND FOR INFORMATION CALL:
Epidemiology, Disease Control & Immunization Services

- Childhood Lead Poisoning
- Prevention Program305-470-6877
- Hepatitis305-470-5536
- Immunizations or outbreaks305-470-5660
- HIV/AIDS Program305-470-6999
- STD Program305-575-5430
- Tuberculosis Program305-575-5415
- Immunization Service305-470-5660

PARTICIPATE IN INFLUENZA SENTINEL PROVIDER SURVEILLANCE

The Miami-Dade County Health Department NEEDS Influenza Sentinel Providers!!

Sentinel providers are key to the success of the Florida Department of Health's Influenza Surveillance System. Data reported by sentinel providers gives a picture of the influenza virus and ILI activity in the U.S. and Florida which can be used to guide prevention and control activities, vaccine strain selection, and patient care.

- Providers of any specialty, in any type of practice, are eligible to be sentinel providers.
- Most providers report that it takes **less than 30 minutes a week** to compile and

About the Epi Monthly Report

The Epi Monthly Report is a publication of the Miami-Dade County Health Department, Epidemiology, Disease Control & Immunization Services. The publication serves a primary audience of physicians, nurses, and public health professionals. Articles published in the Epi Monthly Report may focus on quantitative research and analysis, program updates, field investigations, or provider education. For more information or to submit an article, contact Esther Bell at (305) 470-6918.



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Miami-Dade County Monthly Report Select Reportable Disease/Conditions November 2012

Diseases/Conditions	2012 Current Month	2012 Year to Date	2011 Year to Date	2010 Year to Date
HIV/AIDS				
AIDS*	49	549	670	612
HIV	84	1095	1190	1126
STD				
Infectious Syphilis*	29	282	279	318
Chlamydia*	787	8632	7898	7960
Gonorrhea*	181	2117	2150	2268
TB				
Tuberculosis**	8	98	117	139
Epidemiology, Disease Control & Immunization Services				
Epidemiology				
Campylobacteriosis	22	319	382	175
Ciguatera Poisoning	0	19	17	13
Cryptosporidiosis	2	21	21	21
Cyclosporiasis	0	1	5	1
Dengue Fever	4	41	17	46
E. coli, O157:H7	0	2	15	10
E. coli, Non-O157	0	0	0	0
Encephalitis, West Nile Virus	0	0	0	0
Giardiasis, Acute	19	218	269	723
Influenza Novel Strain	0	0	0	20
Influenza, Pediatric Death	0	2	0	0
Legionellosis	2	18	16	11
Leptospirosis	0	0	0	1
Listeriosis	0	1	4	14
Lyme disease	1	12	3	5
Malaria	0	6	18	26
Meningitis (except aseptic)	3	22	30	18
Meningococcal Disease	3	16	15	18
Salmonellosis	59	561	545	454
Shigellosis	8	74	106	191
Streptococcus pneumoniae, Drug Resistant	2	64	80	124
Toxoplasmosis	1	4	0	1
Typhoid Fever	1	2	3	3
Vibriosis	3	3	2	2
West Nile Fever	1	1	1	0
Immunization Preventable Diseases				
Measles	0	0	0	0
Mumps	0	1	0	4
Pertussis	5	62	27	26
Rubella	0	0	0	0
Tetanus	0	0	0	0
Varicella	3	42	46	70
Hepatitis				
Hepatitis A	2	24	22	42
Hepatitis B (Acute)	0	18	6	25
Lead				
Lead Poisoning	20	95	120	214

*Data is provisional at the county level and is subject to edit checks by state and federal agencies.

** Data on tuberculosis are provisional at the county level.