



The Children's Trust

Sep 2007

Pedestrian Injuries to Children Aged 0-17 Years Miami-Dade County, 2003-2005

MIAMI-DADE COUNTY INJURY FACTS

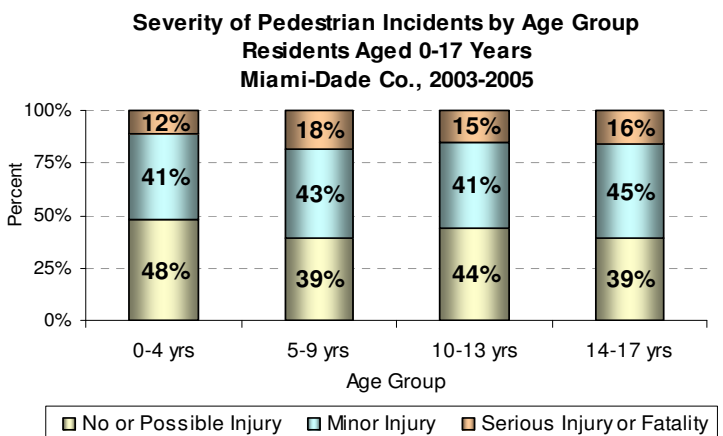


Although fewer children are walking and exposing themselves to the risks of traffic, pedestrian injury remains the 2nd leading cause of injury-related death and 4th leading cause of injury hospitalization among county children aged 5-14 years. Miami-Dade County experiences approximately 5 child pedestrian fatalities and another 70 hospitalizations for pedestrian injuries each year to children aged 0-17 years of age.

Children are at an increased risk for pedestrian injury and death because of their limited understanding of traffic laws and little sense of danger. In addition, parents and caregivers often overestimate their child's traffic skills. This fact sheet summarizes data from police traffic crash reports on the 920 traffic crashes that occurred between 2003-2005 which involved a pedestrian aged 17 years and younger and identifies areas of the county most at-risk for experiencing child pedestrian incidents.

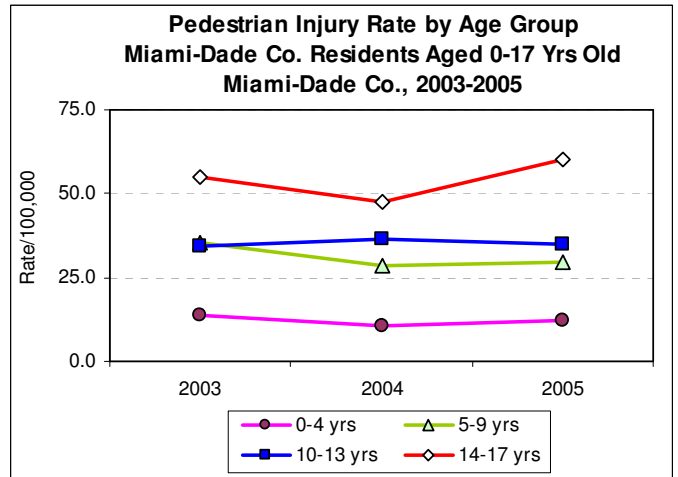
- Severity:** Between 2003-2005, 964 county children were involved in 920 traffic-related pedestrian crashes (45 events involved multiple persons). A total of 566 (59%) of these incidents resulted in some type of injury: 13 were fatalities, another 140 suffered incapacitating injuries and 413 experienced less severe injuries. Only 64 children escaped uninjured from these pedestrian crashes.
- Two definitions are used throughout this report: Pedestrian incidents represent all 964 cases and include injured and non-injured children. Pedestrian injuries represent the 566 cases classified as non-incapacitating injury through fatality.
- Severity by Age Group:** The distribution of injury severity was similar across 4 different age groups, with the percent injured ranging from 53% for children aged 0-4 to 61% for 5-9 and 14-17 year old children.

Injury Severity	N	%
No Indication of Injury	64	7%
Possible Injury (No Visible Signs of Injury; May Have Complained of Pain)	334	35%
Non-Incapacitating Injury (Bruising, Limping, Cuts)	413	43%
Incapacitating Injury (Person May Have Been Transported from Scene)	140	15%
Fatality	13	1%
Total	964	100%

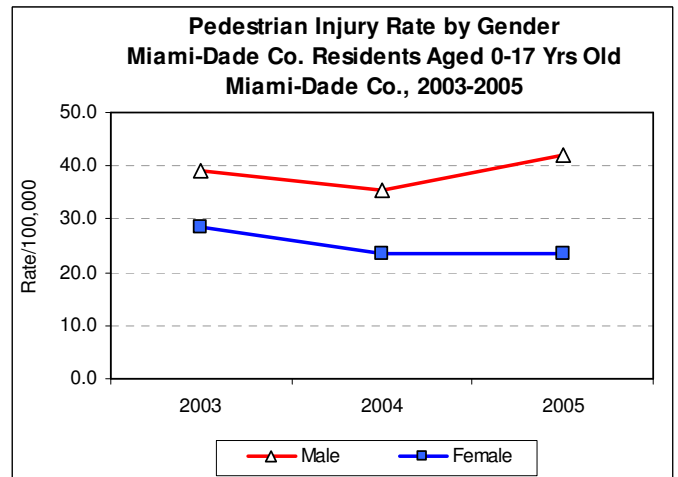


Groups at Risk

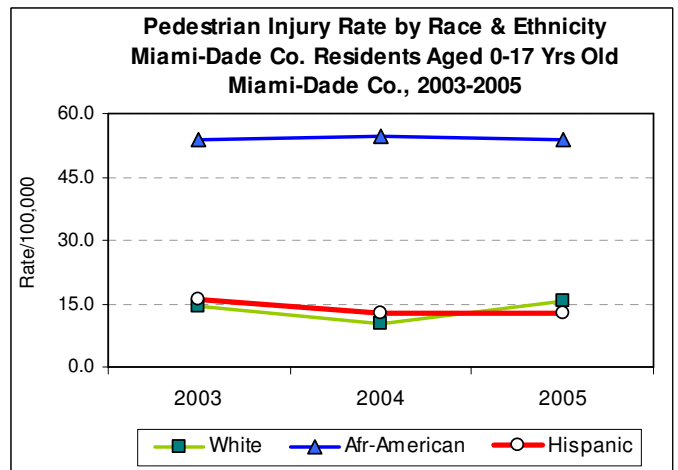
- Age Groups:** As children age, their risk to be injured in a pedestrian incident increased. Children aged 14-17 years old were most at-risk, accounting for 39% of all pedestrian injuries. The 2005 injury rate for the 14-17 year age group was the only rate that increased over 2004 and was nearly twice the rate of children aged 10-13 and 5-9 years.



- Males:** Sixty percent of child pedestrians injured in a crash were males. In 2005, the male pedestrian injury rate was 42.1/100,000, nearly double the female rate (23.4/100,000).



- African-Americans:** African-American children 18 years of age and under were disproportionately affected by pedestrian injuries, representing 47% of all child victims during this 3-year period. Furthermore, 8 of the 13 pedestrian fatalities occurred to African-American children.

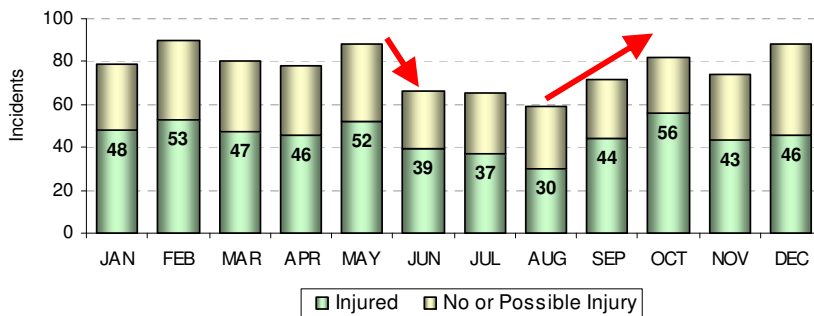


The 2005 injury rate for African-American children was more than 4 times higher than Hispanic children and 3.4 times greater than the rate for White children. The child pedestrian injury rate remained unchanged for all three racial and ethnic groups between the years 2003-2005.

Factors Involved in Child Pedestrian Incidents

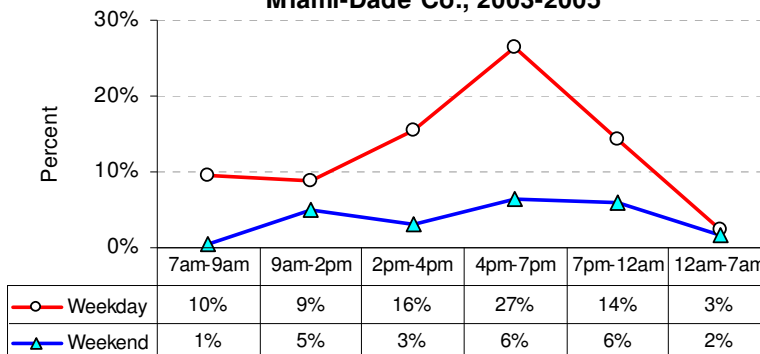
- Seasonality of Incidents:** Over this 3-year period, child pedestrian incidents demonstrated two variations throughout the year: a decline between May and June (52 injuries to 39 injuries) and an increase after August (30 injuries to 44 injuries). These two fluctuations correspond to the months children end and start back to school and emphasize the importance of conducting prevention programs prior to the start of the school year.

**Monthly Distribution of Pedestrian Incidents
Residents Aged 0-17 Yrs
Miami-Dade Co., 2003-2005**



- Time of Incident:** Weekday incidents steadily increased after 9am, reaching their peak in the hours between 4pm-7pm (27% of all incidents). Weekend incidents peaked between the hours of 4pm-midnight.

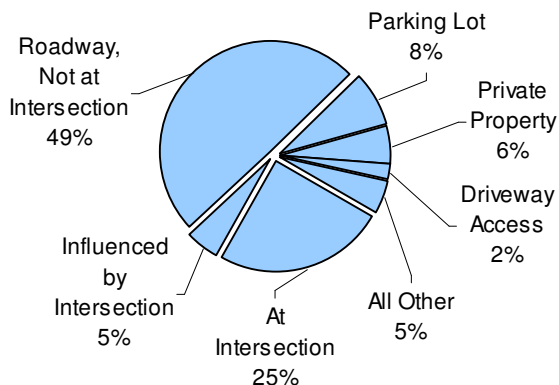
**Time of Pedestrian Incident by Day of Week
Residents Aged 0-17 Yrs
Miami-Dade Co., 2003-2005**



Overall, more than 1/3 of the incidents occurred on a weekday between the hours of 7am-4pm, which would correspond to the times when children would be either walking to, from or attending school.

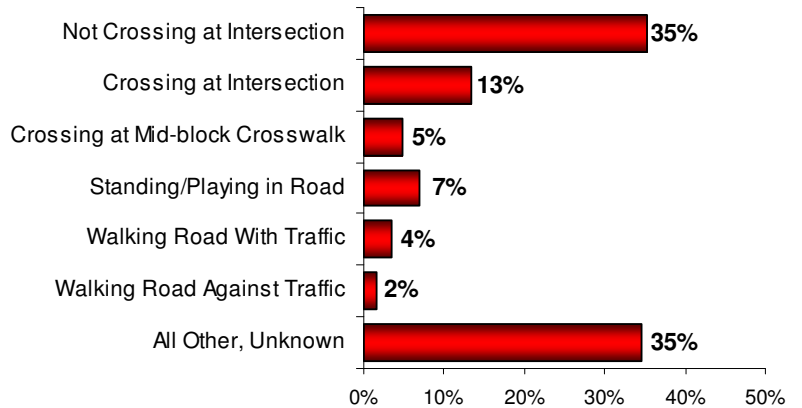
- Location of Incidents:** Most child pedestrian incidents occurred on a roadway at non-intersection locations (49%). Incidents that occurred at intersections or at locations influenced by an intersection accounted for another 30% of cases. Parking lots were the 3rd highest location with 8% of incidents.

**Location of Pedestrian Incidents
Residents Aged 0-17 Years
Miami-Dade Co., 2003-2005**



Factors Involved in Child Pedestrian Incidents

**Pedestrian Action in Incidents that Resulted in Injury or Death, Residents Aged 0-17 Years
Miami-Dade Co., 2003-2005**



• **Pedestrian Action:** Among only those incidents that resulted in an injury or death, the most frequent action by the child leading up to the crash was not crossing at the intersection (35%). Another 18% were properly crossing at either the intersection or at a mid-block crosswalk, 7% were standing or playing in the road and 6% were walking along the roadway. The pedestrian action was not recorded for more than 1/3 of the cases.

• **Driver & Vehicle Factors:** Most incidents involved passenger cars (61%), with the vehicle driving straight ahead (69%) and involved locations that had no traffic signals or controls at the site of the incident (64%). Sixty percent of incidents occurred in residential areas. These results were similar for injury-related incidents.

Pick-up trucks were the second most frequent vehicle involved in child pedestrian crashes (13% of incidents and 16% of injuries).

One in ten pedestrian injuries occurred as a result of the vehicle making a right or left turn prior to striking the victim.

Nearly 1/3 of the vehicles involved in the crash were not insured and 13% of the drivers were cited by police for a moving violation.

More than 1 in 5 child pedestrian incidents involved a hit-and-run incident. More than 1/2 of hit-and-run incidents involved cases where the child suffered no or only a possible injury. Among only injury-related incidents, 9% involved hit-and-run incidents.

Vehicle and Driver Factors	% of All Incidents	% of Injury-related Incidents
Type of Vehicle <ul style="list-style-type: none"> • Car • Pickup Truck • Van • All Other/Unknown 	61% 13% 8% 18%	64% 16% 8% 12%
Vehicle Movement <ul style="list-style-type: none"> • Driving Straight Ahead • Making Left or Right Turn • Backing Up • All Other 	69% 11% 4% 16%	69% 11% 4% 16%
Traffic Control at Scene <ul style="list-style-type: none"> • No Traffic Signals or Control • Traffic Light • Stop Sign • Speed Control Zone 	64% 16% 10% 8%	68% 15% 7% 5%
Type of Location <ul style="list-style-type: none"> • Primarily Residential • Primarily Business 	60% 40%	60% 40%
Vehicles that were Uninsured	31%	26%
Drivers Cited for Moving Violations	13%	14%
Hit and Run Incidents	23%	9%

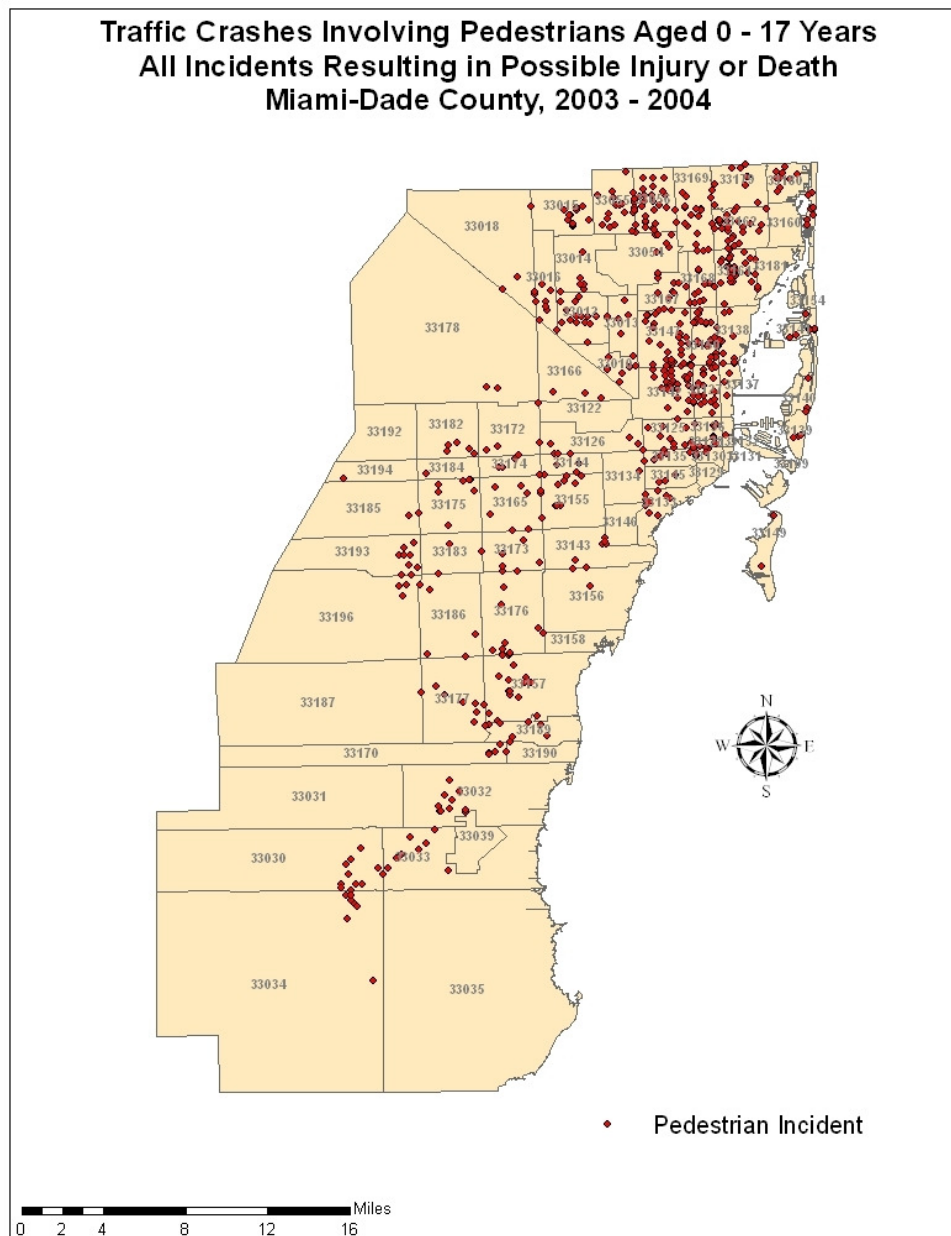
Where Pedestrian Incidents Occurred

The following maps present data on child pedestrian incidents that occurred between the years 2003-2004. Data for 2005 has not yet been geo-coded to allow locations to be displayed a map.

The vast majority of child pedestrian incidents were clustered in the northeast section of the county.

Other areas that demonstrated some clustering of pedestrian injury included:

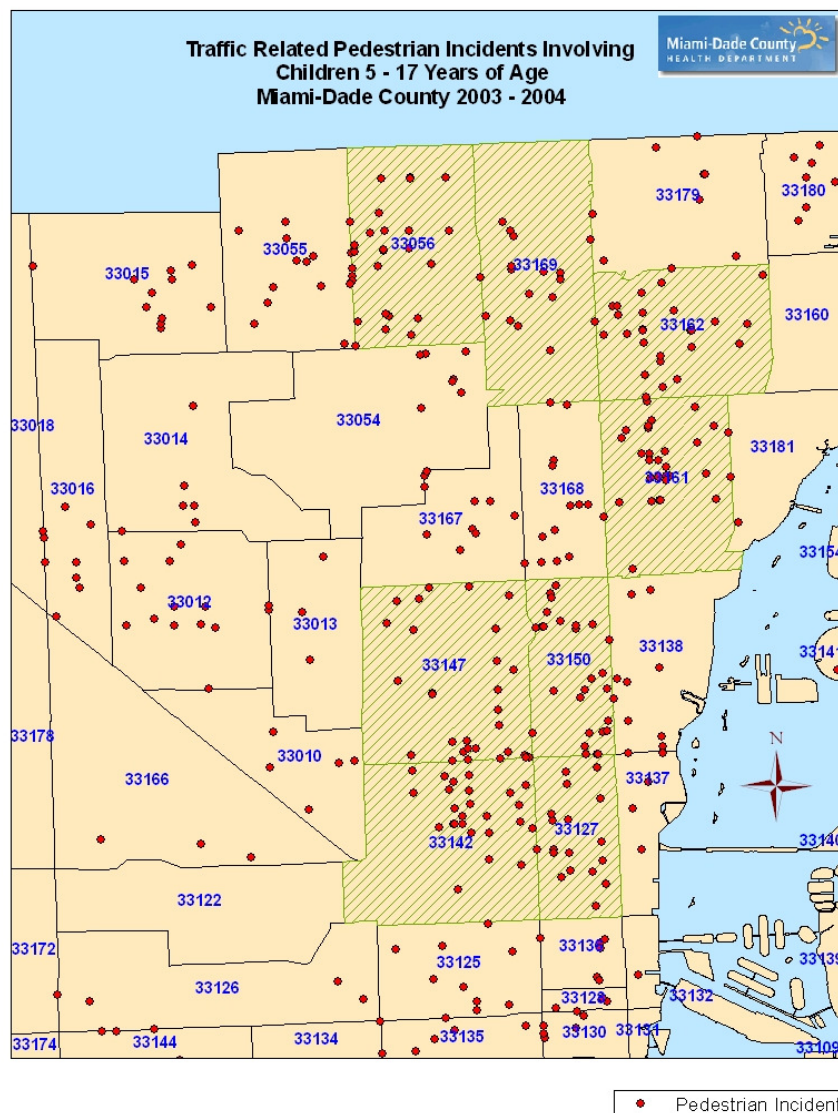
- Zip codes in the Homestead and Florida City area along the US 1 corridor.
- 33193 and 33196 zip codes which correspond to The Hammocks and Kendall West areas.
- 33170, 33177, 33189 zip codes which correspond to Goulds, S. Miami Hts. and Cutler Bay areas
- 33157 zip code which corresponds to Palmetto Bay and Cutler Bay areas



Leading Zip Codes for Child Pedestrian Incidents

The eight zip codes that experienced the most child pedestrian incidents between 2003-2004 were all located in the northeast section of the county:

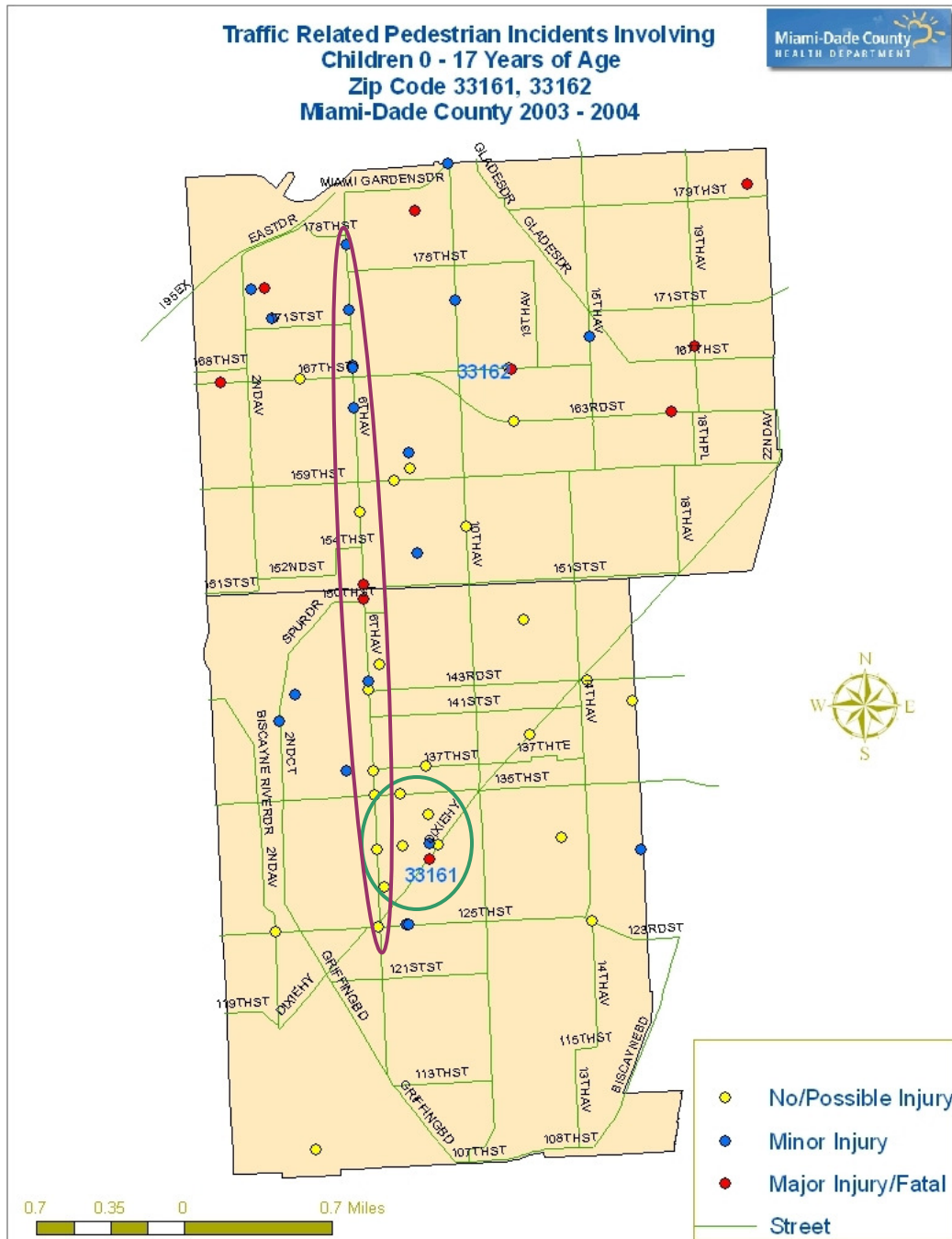
- 33056 (Miami Gardens area: 37 incidents with 22 non-fatal injuries)
- 33169 (Miami Gardens area: 20 incidents with 12 non-fatal injuries)
- 33061 (North Miami area; 34 incidents with 11 non-fatal injuries)
- 33162 (North Miami Beach area: 27 incidents with 21 non-fatal injuries)
- 33127 (Little Haiti, Model City areas: 32 incidents with 22 non-fatal injuries)
- 33142 (Allapattah, Brownsville area: 30 incidents with 1 fatality and 12 non-fatal injuries)
- 33147 (W. Little River, Brownsville areas: 36 incidents with 3 fatalities, 13 non-fatal injuries)
- 33150 (Pinewood, Model City, Little Haiti areas: 32 incidents with 14 non-fatal injuries)



North Miami (33161) and North Miami Beach (33162)

The map below shows the locations of 61 child pedestrian incidents that occurred in the zip codes 33161 (N. Miami) and 33162 (N. Miami Beach). Incidents are color-coded to show fatal and severe injuries (red), minor injury (blue) and cases that had no or possible injuries (yellow). Several area are highlighted:

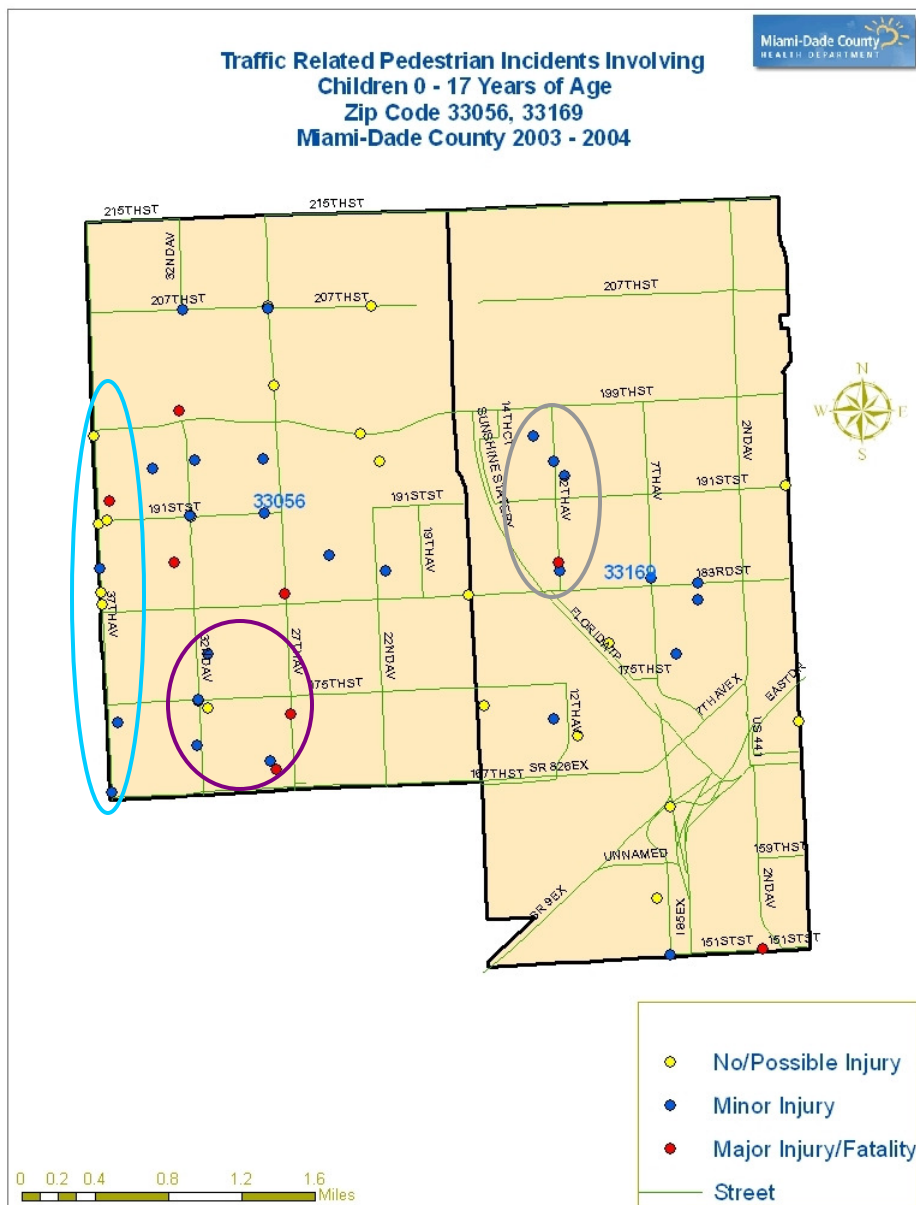
- The entire NW 6th Ave. corridor that traverses both zip codes experienced 15 incidents with four injuries occurring in the northern end of 33162 and two severe injuries occurring at the intersection of NW 6th Ave and NW 151st St.
- The triangular area within the green circle with 6th Ave to its west, 135 St. to its north and S Dixie Hwy. to the south had a high concentration of incidents, though most involved no injuries.



Miami Gardens (33056) (33169)

The map below shows the locations of 57 child pedestrian incidents that occurred in the zip codes 33056 and 33169. The incidents are color-coded to show fatal and severe injuries (red), minor injury (blue) and cases that had no or possible injuries (yellow). Several areas are highlighted:

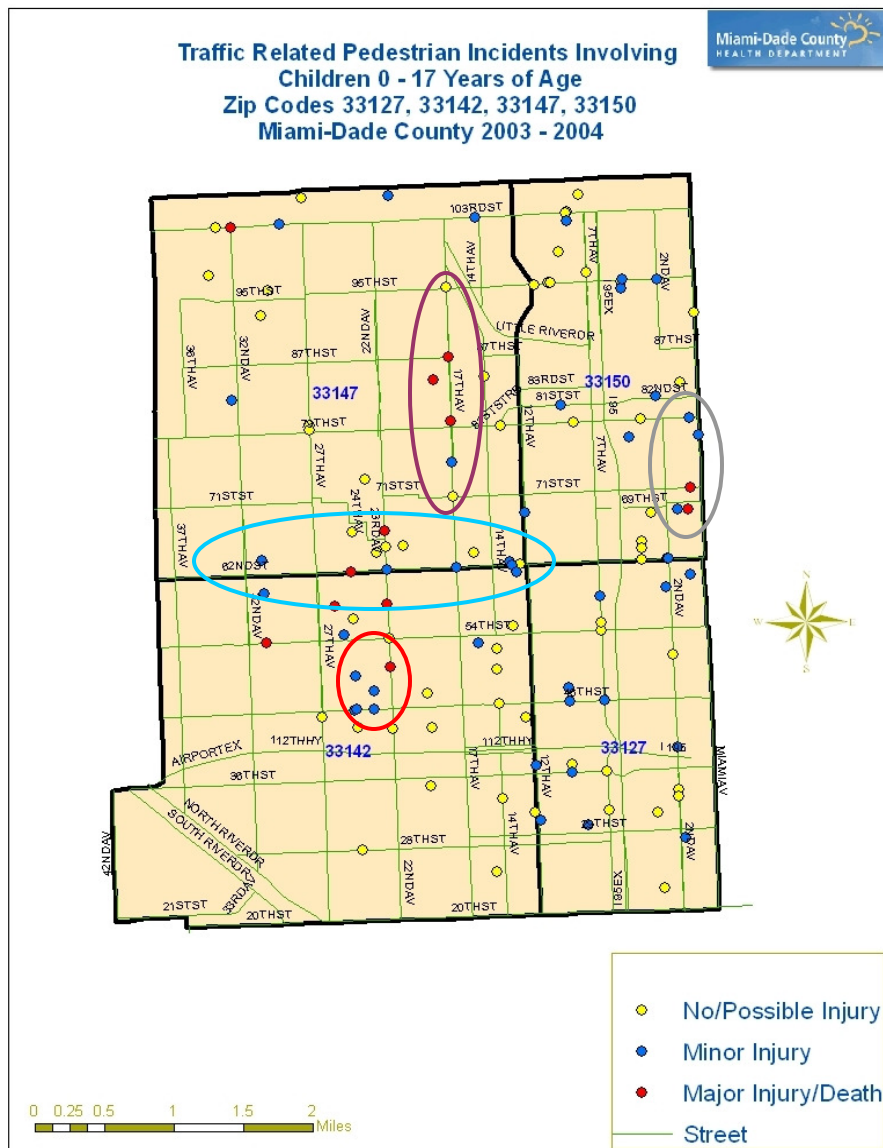
- The region south of NW 183rd St. between NW 27th Ave. and NW 32nd Ave. (circled in purple) was the scene of 6 injuries, 2 of which were serious.
- NW 37th Ave. on the western border of 33056 (circled in blue) was the scene of 4 injuries, 1 of which was serious, and 5 other incidents that resulted in no or possible injury.
- 12th Ave., between NW 183rd St and NW 199 St. (circled in gray) was the scene of 5 injuries, 1 serious.



Model City, Little Haiti, Allapattah, West Little River, Brownsville areas (33127) (33142) (33147) (33150)

The map below shows the locations of 120 child pedestrian incidents that occurred in the zip codes 33127, 33142, 33147 and 33150. The incidents are color-coded to show fatal and severe injuries (red), minor injury (blue) and cases with no or possible injuries (yellow). Several areas are highlighted:

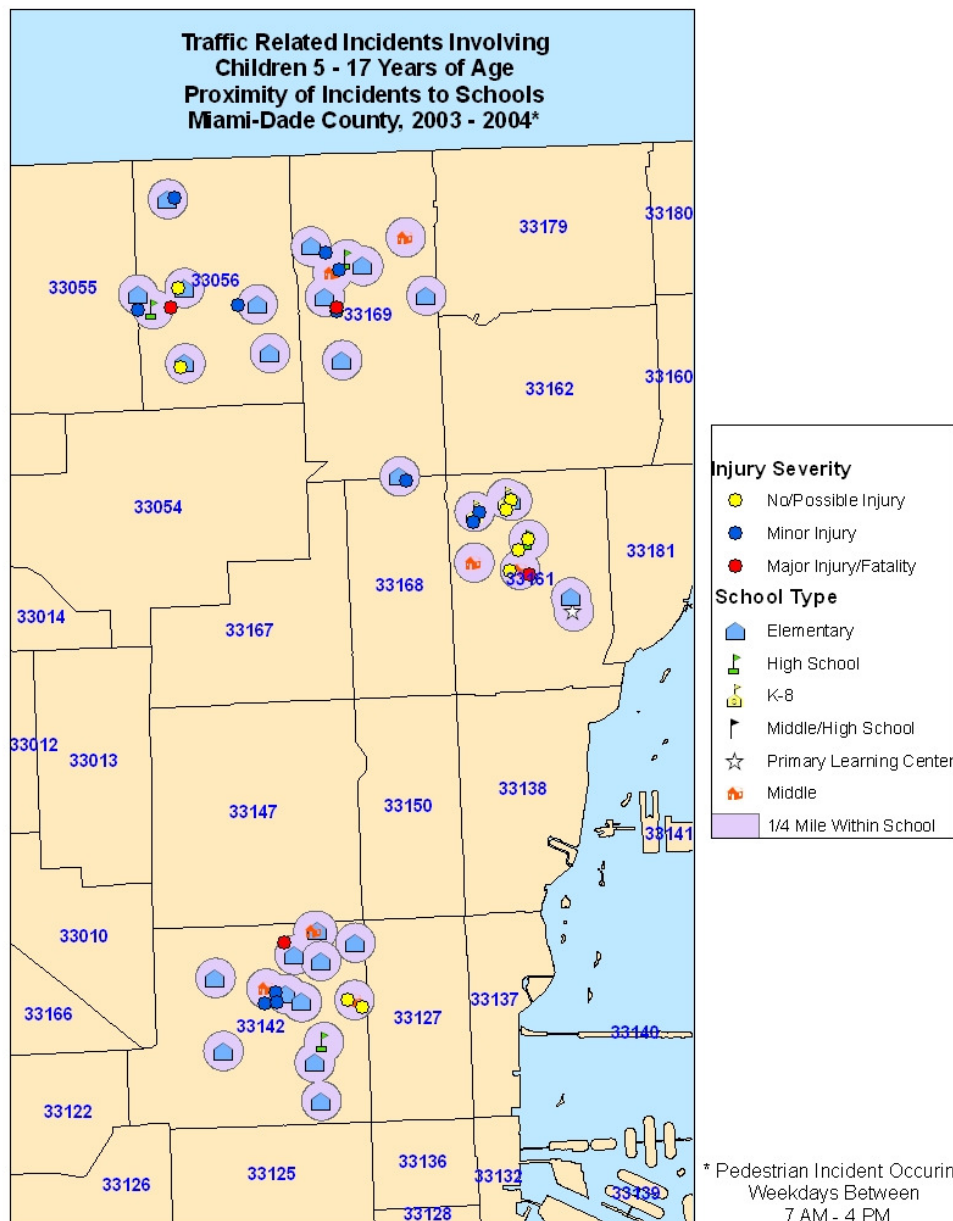
- The section of NW 62nd St. that forms a border between 33127 and 33142 (circled in blue) was one of the more lethal areas in the county, with 3 fatalities, 8 nonfatal injuries and numerous other possible injuries in this 2-year period.
- The section of NW 17th Ave. north of NW 71st St. (circled in purple) was the scene of 3 nonfatal injuries and 1 fatality).
- Another cluster of incidents is seen in the area south of NW 71st St. around NW 2nd Ave. (circled in gray) where six injuries occurred, two of which were serious.
- The section between NW 22nd Ave and NW 27th Ave. south of NW 54th St. (red circle) experienced five injuries, one serious.



Proximity of Weekday Pedestrian Incidents to Schools

The map below attempts to estimate how frequently pedestrian incidents and injuries occurred while children walked to and from school. Only pedestrian incidents that occurred during a weekday between the hours of 7am-4pm are shown. All elementary, middle and high schools located within each zip code were identified on the map with the purple circle that surrounds each school representing a quarter-mile radius from each school. Four zip codes experienced at least six daytime pedestrian incidents within a ¼ mile of a school during 2003 and 2004.

- 33169 (Miami Gardens area: 6 incidents, 5 non-fatal injuries);
- 33056 (Miami Gardens area: 6 incidents, 4 non-fatal injuries);
- 33142 (Allapattah, Model City, Brownsville areas: 6 incidents, 3 non-fatal injuries, 1 fatality);
- 33161 (North Miami area: 8 incidents, 3 non-fatal injuries)



Pedestrian Safety

Where Do Most Child Pedestrian Injuries and Deaths Occur?

Many child pedestrian deaths occur in the evenings when visibility may be reduced. Areas that pose an increased risk of injury or death as a child pedestrian, according to the National SAFE KIDS Campaign, include the following:

- High traffic areas
- Areas with a high number of parked vehicles on street
- Areas with higher posted speed limits
- Areas with no divided highways
- Areas with few pedestrian-control devices, such as crosswalk signals
- Areas that lack clear pedestrian pavement markings
- Locations that lack designated play areas
- Residential areas

How to Keep Your Child Safe as a Pedestrian?

To help prevent your child from getting hurt as a pedestrian, the National SAFE KIDS Campaign recommends the following tips:

- Children under age 10 should not be allowed to cross streets by themselves.
- Teach proper pedestrian behavior by modeling pedestrian behavior, such as crossing at street corners, using traffic signals and crosswalks when available, and making eye contact with drivers before crossing.
- Teach children to look LEFT, RIGHT, and then LEFT again when crossing a street, and to continue looking around when crossing.
- Teach children that seeing the driver in a vehicle does not mean that the driver can see them.
- Never allow children to run into the street.
- Do not allow children to play in driveways, unfenced yards, streets, or parking lots.
- When walking along a street with no sidewalks, teach children to walk facing oncoming traffic, as far left as possible.
- Teach children to cross the street at least 10 feet in front of a school bus.
- Children should wait for adults on the same side of the street where the school bus loads and unloads.

Other preventive measures to take may include insisting on safer traffic measures, pedestrian walkways that separate pedestrians from the traffic, and lower speed limits.

Produced by the Miami-Dade County Injury Surveillance System

Data Sources: Motor Vehicle Traffic Crash Reports from
Miami-Dade County Metropolitan Planning Organization &
Dept. of Highway Safety & Motor Vehicles
PHONE (IFCK): 305-804-7212 (MDCHD): 305-470-5649
E-MAIL: sdearwater@med.miami.edu
<http://dadehealth.org/injury/INJURYintro.asp>

