



## **Elder Pedestrian Safety in Miami-Dade: An Overview**

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## INTRODUCTION

Despite extensive efforts in the State of Florida and Miami-Dade County to reduce pedestrian crashes, the Miami-Fort Lauderdale-Pompano Beach region was recently named the fourth most dangerous metropolitan area for pedestrians in the nation<sup>i</sup>, and local data indicates that Miami-Dade County has the highest number of elder pedestrian crashes in the state<sup>ii</sup>. In 2012, the Alliance for Aging convened an Elder Pedestrian Advisory Group to help inform the Safe Steps-Pasos Seguros elder pedestrian safety program. As our work with the advisory group grew, so did our understanding of this topic and the infrastructure that exists to address it. In January 2013, the group was convened for an Elder Pedestrian Safety Policy Forum to help guide the development of a policy agenda to drive change at the local level.

Over the past year, a number of key questions have been considered by the Elder Pedestrian Advisory Group, including:

- To what extent are the needs of elder pedestrians incorporated into broader pedestrian safety initiatives?
- How can collaboration and communication on elder pedestrian safety among policymakers, providers, advocates and the public be improved?
- What more needs to be done:
  - To move from planning to implementation?
  - To ensure that pedestrian safety countermeasures consider the needs of elders?
- What public policy changes could lead to greater progress?
- What more information do stakeholders need to move the elder pedestrian safety agenda forward?

These issues were revisited within the framework of the five E's of pedestrian safety (education, enforcement, engineering, emergency response, and evaluation) at an Elder Pedestrian Policy Forum held on January 25, 2013. This report includes a discussion of the challenges involved in addressing elder pedestrian safety; briefly sketches the history of elder pedestrian safety in the State of Florida and Miami-Dade County; and provides a synopsis of the discussions and potential solutions to concerns that were identified by the Elder Pedestrian Advisory Group. Next Steps in the process for more effectively addressing elder pedestrian safety in the Miami-Dade County region, including current and emerging opportunities, are also briefly described.

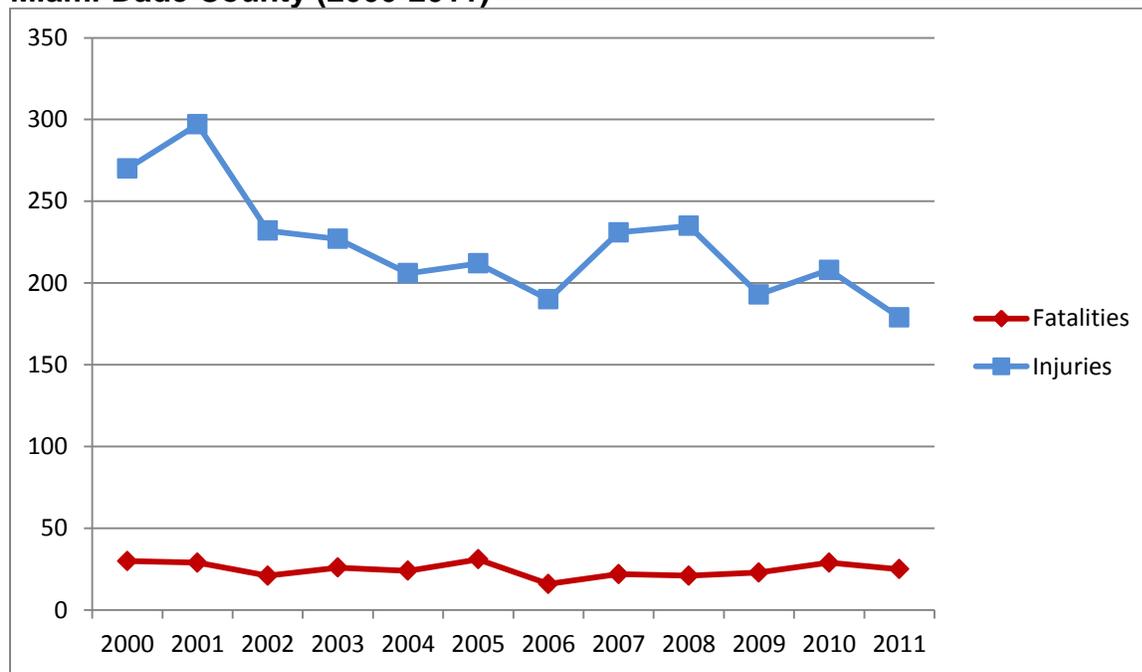
## I. ELDER PEDESTRIAN SAFETY

Americans are living longer and increasingly are choosing to live in their homes and communities as they age and experience mobility limitations. As the state with the highest proportion of elder residents, Florida has been ahead of the curve in experiencing, and developing responses to, the “graying of America.” In Miami-Dade, the age 60 and older population currently makes up 19.7 percent of the area’s total population (2012). The ethnic diversity of the county—more than one half (51.2%) of

the total population is foreign-born<sup>iii</sup>—is reflected in the make-up of the older population: 65.9 percent of older residents are Hispanic, and 43.1 percent have limited English proficiency. Poverty is also a challenge: 27.8 percent of older adults have incomes below 125% of the poverty line.<sup>iv</sup> It is estimated that 70,264 Miami-Dade residents aged 65 and older do not drive and about 25.6 percent of elders use public transportation.<sup>v</sup>

In 2010, after experiencing a decline for several years, pedestrian injuries in the United States rose by 4 percent over the previous year to 70,000 pedestrians injured due to traffic crashes, 11 percent of whom were elders. A total of 4,280 pedestrians of all ages were killed, 19 percent (813) of whom were older adults aged 65 and older, the highest for any age group.<sup>vi</sup> In Miami-Dade, there has been a downward trend in elder pedestrian injuries from 2001-2011, but elder pedestrian fatalities have remained relatively steady.

**Figure 1: Pedestrian Crashes (Injuries and Fatalities) Among Older Pedestrians in Miami-Dade County (2000-2011)**



**Table 1: Pedestrian Crashes (Injuries and Fatalities) Among Older Pedestrians in Miami-Dade County (2000-2011)**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Injuries</b>	270	297	303	296	263	212	190	236	237	193	210	178
<b>Fatalities</b>	30	29	21	26	24	31	16	22	21	23	29	25

Sources: (2000-2001) Prevention of Elderly Pedestrian Injury—A Comprehensive Approach and Analysis, Carl Schulman (2011), from data from Metropolitan Planning Organization of Miami-Dade; (2002-2011) FDOT State Safety Office Crash Analysis Reporting System (CARS), Special Data Requests, February 28, 2013 and April 16, 2013.

As shown below, the proportion of pedestrian fatalities among people age 65+ in Miami-Dade is more than twice that of their proportion in the population. This far exceeds the national statistic: only 19% of all pedestrian fatalities in 2010 were age 65+. <sup>vii</sup>

**Table 2: Elder Pedestrian Crashes and Elder Populations in Miami-Dade (2005-2011)**

Year	Fatalities Age 65+	Fatalities All Ages	65+ Fatalities as a Percentage of All Pedestrian Fatalities	65+ as Percentage of Total Population
2005	31	82	39.0%	13.7%
2006	16	96	18.8%	13.7%
2007	22	81	32.1%	13.6%
2008	21	67	32.8%	13.6%
2009	23	69	34.8%	14.0%
2010	29	73	39.7%	14.1%
2011	25	77	32.5%	14.2%

Sources: Pedestrian Fatalities, all ages: NHTSA Traffic Safety Facts Miami-Dade County, Florida (2006-2010, 2007-2011); Elder pedestrian fatalities: FDOT State Safety Office Crash Analysis Reporting System (CARS) special data request received February 28, 2013 and April 16, 2013; Elder Population: Florida Department of Elder Affairs County Profiles 2005-2011, <http://elderaffairs.state.fl.us/doea/previous.php>

Pedestrian safety covers a wide range of issues, encompassing both physical (e.g., safe roads and streets) and psychological (e.g., a sense of security) dimensions. It is a critical component of any community’s transportation system. Making it easier and safer for older adults to walk in their communities enables them to access nearby destinations as well as public transit services that could meet some of their transportation needs. Safe streets and good places to walk can play an important role in countering isolation and keeping elders connected to family, friends and services. Conversely, community design that “makes it difficult to walk...may factor into an older adult’s isolation.”<sup>viii</sup> Viewed within this context, it is obvious that pedestrian safety is an essential component of any community’s efforts to address the transportation and mobility needs of its citizens.

Given the data on pedestrian injuries and deaths, communities should recognize the need to take remedial action and consider the needs of pedestrians in roadway improvements. This recognition is a fairly new phenomenon and runs counter to approaches for planning streets and roads which traditionally have focused almost solely on the needs of motorists to get where they want to go as quickly as possible. It should also be noted that remedial actions intended to address pedestrian safety for the general population may not always consider the unique needs of older adults.

Since older adults are more apt to be injured or killed in pedestrian crashes, attention needs to be focused on those conditions that make pedestrian travel inherently more dangerous for them. The ability to move quickly, to judge distances and react to danger are all conditions that typically decline with age, but certainly may impact other segments of the population as well. Older people with mobility limitations may take longer to cross the street, dimly lit streets can present a challenge for people with visual impairments, and lack of clear signage and unmarked cross walks can be confusing to anyone. Allowing sufficient time to cross the street at intersections should be included on any list of countermeasures, as should pedestrian islands, placement of traffic

signals to address midblock crashes, lower curbs, proper lighting, sidewalks kept in good repair and the placement of benches at intervals to allow pedestrians to rest on the way to their destination.<sup>ix</sup> The advantage of a focus on elder pedestrians is that countermeasures adopted to address the challenges most likely to be faced by this group are also likely to benefit all roadway users.

After more than a decade of effort, concerns about elder pedestrian safety continue unabated and the numbers of older pedestrians injured or killed on Miami-Dade streets and roadways are still too high. What more can be done? Or perhaps more to the point, why haven't past efforts resulted in a safer community for elders and other pedestrians?

## **II. A BRIEF HISTORY OF ELDER PEDESTRIAN SAFETY**

Historically, pedestrian safety in Miami-Dade County has been supported by state, local, and regional plans and initiatives. Several technical reports addressing pedestrian safety have been written about or for Miami-Dade County, and plans addressing pedestrian safety have been developed and adopted at the city, county, and state level. The most popular strategies identified in these plans and reports are education and countermeasures.

### **Plans and Technical Reports**

#### ***State Level***

Florida is often recognized as a national leader in transportation planning, and pedestrians have been part of this planning for at least 15 years. In 1999, the Florida Department of Transportation engaged the University of North Carolina's Highway Safety Research Center to produce the Florida Pedestrian Planning and Design Handbook. This all-inclusive manual addressed a multitude of topics, such as crash statistics, pedestrian characteristics (older adults, children, people with disabilities), planning, countermeasures (signs, signals, crosswalks, intersections), funding sources, and traffic laws. This was followed in 2006 by the Pedestrian Safety at Mid-Block Locations,<sup>x</sup> a technical report written by the Center for Urban Transportation Research for the Florida Department of Transportation. In 2011, the Center for Urban Transportation Research at the University of South Florida prepared a Briefing Book on Pedestrian Safety for the Florida Department of Traffic Safety Office. This report provides a comprehensive overview of state-level crash data and provides recommendations to other states on establishing pedestrian safety programs based on Florida's experience.<sup>xi</sup>

The Florida Department of Transportation launched its Safe Mobility for Life Program in 2004 to improve safety, access and mobility for the state's aging population. In 2007, the project released their Safe Mobility for Life Strategic Plan, which included a number of strategies to improve elder pedestrian safety, including ongoing education of road users; effective, proven countermeasures; and increased information and tools for aging road users with visual, cognitive, or physical impairments.<sup>xii</sup> In 2011, the Department

released Florida's Aging Road User Strategic Safety Action Plan, which includes pedestrians as well as drivers. The plan specifies goals, objectives, and strategies to support the primary goal of improving safety and mobility by achieving a reduction in crashes while maintaining aging road users' mobility and independence.<sup>xiii</sup>

### ***County Level***

In 2001, the Miami-Dade Metropolitan Planning Organization and the Miami Downtown Development Authority released the first draft of a long-term (2001-2025) Bicycle/Pedestrian Mobility Plan for the Miami Downtown Development Authority Area. The plan, updated in 2010, offers a number of strategies to enhance "non-motorized transportation"<sup>xiv</sup> in the downtown business district. In 2009, Miami-Dade County was one of the demonstration sites exploring the combination of pedestrian safety engineering and intelligent transportation systems (ITS)-based countermeasures by the U.S. Department of Transportation. This report noted that in Miami, increased safe pedestrian behavior was strongly associated with the use of countdown crossing signals and leading pedestrian intervals.<sup>xv</sup> In 2011, the Miami-Dade County Public Works Department published a Traffic Safety Plan for Elderly Pedestrians<sup>xvi</sup> based on a report by the Florida International University.

### **Education and Countermeasures**

In 2001, the Metropolitan Planning Organization launched the Miami-Dade Pedestrian Safety Demonstration Project. The first project component conducted research in local "hot spots"—areas with high pedestrian crash rates—and found that children and elders were most at risk. The following year (2002), they began a program called Walking Through the Years, which included a Pedestrian Safety Workshop for Older Populations offered at senior centers, and a bilingual (English/Spanish) brochure that was distributed to elder serving organizations and public officials throughout the county. The project's Phase II Implementation Report and Executive Summary, published in August 2008, identified a full range of engineering safety improvements as countermeasures to address identified pedestrian safety concerns in the area, including a number of low to moderate-cost options as well as innovations such as video pedestrian detection. The 2008 evaluation of this project<sup>xvii</sup> concluded that a significant reduction in pedestrian crashes was achieved countywide. But while targeting pedestrians of a specific age (children and elders) and/or ethnic group was effective in Liberty City (a majority Black/African elder population) and South Beach (where enforcement and countermeasures were used), efforts were not as successful in Little Haiti and Little Havana, where education of older, non-English speakers and implementation of limited countermeasures yielded no significant reduction in pedestrian crashes.

Meanwhile, staff members at Ryder Trauma Center (Jackson Memorial Hospital/University of Miami Medical School) were looking at elder pedestrian crashes from a public health point of view, hoping to identify characteristics that place elders at increased risk for pedestrian injury and death. They found that elder pedestrian crashes causing injuries were more likely to lead to fatalities than injuries among younger

pedestrians. A Ryder Trauma surgeon, Dr. Carl Schulman, was inspired to write his dissertation in public health on this topic. He found that elder pedestrian behavior was a primary factor in crashes; elder Hispanics were “at increased risk of pedestrian fatality” compared to other groups; and alcohol use may be higher than the national statistic among local elder pedestrians involved in crashes (14% versus 9%).<sup>xviii</sup> Based on this research, he developed an elder pedestrian safety program called Safe Crossings. Funded by the Florida Department of Transportation from 2008-2010, this multi-lingual (English, Spanish, Haitian Creole) program offered educational workshops to elders, and included a public awareness raising component including posters and mass transit advertisements.

On November 17, 2008, the Alliance for Aging hosted a workshop entitled, Increasing Transportation and Mobility Options: Creating Livable Miami-Dade & Monroe Counties for All Ages. This was the seventh in a series of regional events supported by the Communities for a Lifetime/MetLife Foundation’s Aging in Place Initiative. Two of the key recommendations to come out of this workshop addressed pedestrian safety: 1) “transportation and land use planners must provide greater support to alternatives to driving, such as public transit and walkable streets;” and 2) “mixed-use, walkable communities with convenient access to stores, restaurants, entertainment and public transit, can satisfy many of the requirements of older adults for convenient mobility options.”<sup>xix</sup>

A report created by the Lehman Center for Transportation Research at Florida International University for the Miami-Dade County Public Works Department in 2010 identified the most dangerous locations for elder pedestrians. The report included a literature review, crash statistics, and a list of traffic laws pertaining to pedestrians, as well as photographs and detailed recommendations on pedestrian countermeasures at each of the 10 intersections in Miami-Dade County. In 2011, the Public Works Department added collision diagrams for 7 of the 10 intersections and re-issued the report as the Traffic Safety Plan for Elderly Pedestrians.<sup>xx</sup>

### **III. SAFE STEPS-PASOS SEGUROS**

The Alliance for Aging is the area agency on aging for Miami-Dade and Monroe Counties. With over one half million elders in our service area, we believe pedestrian safety is crucial to the success of initiatives encouraging healthy aging, aging in place, and livable communities. We see walking as an important component of elder transportation and mobility—it encourages both mental and physical health; is a natural means to move about the community; and connects people to public transportation.

The Alliance secured a Pedestrian/Bicycle Safety grant from the Florida Department of Transportation in 2011 to develop Safe Steps-Pasos Seguros, an elder pedestrian safety initiative. The Alliance worked with faculty from Florida International University to develop a one-hour workshop based on the University of North Carolina’s “Watch Out for Us” program. The Safe Steps-Pasos Seguros workshop is peer-led and utilizes principles of adult learning: it acknowledges prior knowledge and life experience;

stresses practicality and relevance; and encourages self-directed, goal-oriented behavior. The workshop engages elders in conversations about the walkability of their local community and offers information on how to report problems with signs, lights, and streets.

To date, more than 1,400 elders have attended workshops at 33 locations, including elder housing, senior centers, and healthcare providers. Over 75% of these elders live within walking distance of the 10 most dangerous intersections in Miami-Dade County. The rest live in areas that have both large elder populations and high elder pedestrian crash rates (e.g., Miami Beach, Little Havana, downtown Miami). Preliminary evaluation results, based on a pre-/post-workshop test containing 6 questions, shows great variation depending on the size and composition of the workshop audience. The best results came from smaller workshops, where 40-80% of participants improved their score.

The project also supports a public awareness campaign that airs original, locally-produced public service announcements throughout South Florida and the Florida Keys that address 1) health benefits of walking; 2) basic safety for elder pedestrians; 3) driver awareness of elder pedestrians; and 4) the effects of drinking and walking. These public service announcements were produced and edited at no cost by our local CBS affiliate, using Alliance for Aging staff, friends, and family as the talent and our President and CEO for the voiceover.

An advisory group of local stakeholders from transportation, public works, law enforcement, public transit, higher education, elder care providers, and healthcare organizations was convened to help guide program development. In 2012, a second year of funding was obtained to expand the program by offering workshops in Monroe County; develop a Train the Trainer component; translate program materials into Haitian Creole; and explore the policy implications of elder pedestrian safety. Additional funding for an Elder Pedestrian Safety Policy Forum was provided by Partners for Livable Communities/Met Life Foundation's City Leaders Institute to support an Elder Pedestrian Safety Policy Forum, held in January 2013.

The Elder Pedestrian Safety Forum was organized around the Five E's model. This model, used by the Safe Routes to School program includes: 1) Education, 2) Enforcement, 3) Engineering, 4) Encouragement, and 5) Evaluation. We felt the 4th E (encouragement) was really part of education (whether addressing individuals at workshops or the general public through public service announcements). Other models suggest the fourth E should be "environment," and we felt the built environment is what the engineers address. We chose "Emergency Response" as our 4th E because several initiatives by local academic researchers and clinicians from trauma centers in Miami-Dade have addressed elder pedestrian safety as a public health issue. All of the Es are important and necessary components for success. Our role to date has been centered on Education, but we have learned that in order to affect change in any of the other areas, we must ensure that the needs of elders are considered by planners and

policymakers. Finally, Evaluation helps us determine if we are having the desired impact of improving pedestrian safety, ultimately measured by reducing injuries and fatalities.

A panel consisting of representatives of the five E's—law enforcement, emergency response, public works, transportation and planning--discussed some of the challenges and potential solutions to address elder pedestrian safety concerns in Miami-Dade.

**Figure 2: The Five E's of Elder Pedestrian Safety in Miami-Dade County**



### Education

Although there have been a number of elder pedestrian safety programs in Miami-Dade in the past decade, and Eileen Higer of the Miami-Dade Police Department offers training sessions as well, efforts to educate elders on safe pedestrian behavior are uncoordinated and largely dependent on “soft money” funding. With over ½ million elders in Miami-Dade, the need to educate elder pedestrians on safe behavior is practically endless. Participants agreed that in order to be effective, however, education must translate into behavior change and be supported by enforcement and engineering.

### Enforcement

Using seat belts as an example, Lieutenant Tony Perez of Miami-Dade Police explained how legislation, education, and enforcement eventually brought about major behavioral change that resulted in fewer injuries and fatalities in vehicle crashes. He noted that both pedestrian and driver behavior cause crashes, but an officer must personally observe someone breaking the law in order to issue a ticket. He stressed that without consequences, there will be no behavior change, and encouraged law enforcement

agencies to use existing resources to both raise awareness and enforce existing pedestrian safety laws.

### Engineering

Misleidys Leon, from the Florida State Department of Transportation's District VI office, explained how crosswalk signals are installed, maintained, and upgraded. There is a mix of signals across the county, and although new signals will all include a countdown, there are no plans to upgrade existing signals. She noted that if there was a problem with a signal (e.g., broken, not enough time to cross) residents could report this to Public Works, the agency in charge of maintenance and repair. If residents wanted to request a new signal, however, Transportation must do a study and make a recommendation. She stressed that it is important to know whether the street in question is a state, county, or local municipality roadway, in order to determine which entity would address the issue.

### Emergency Response

Cindy Magnole, from the Ryder Trauma Center, gave an overview of the aging-related changes that place older adults at risk as pedestrians, e.g., cognitive issues that affect judgment and decision-making; mobility limitations that slow their pace and place them at risk for falls; sensory changes that affect their ability to see and hear traffic, as well as their depth perception and ability to judge distance. Because the bodies of older adults are more fragile, pedestrian crashes are more likely to result in life-threatening injuries and fatalities. Mike Arias, of Miami Dade Fire Rescue, discussed some of the unsafe pedestrian behaviors that he has seen result in crashes, e.g., pausing in the middle of the street (turn lanes, on the double yellow line) if the light expires as well as the countermeasures that would improve pedestrian safety, e.g., longer crosswalk signals, pedestrian islands, restricted right turn on red, pedestrian lead time on light changes. He stressed that spending money on pedestrian safety enhancements not only saves lives but ultimately results in less public money spent on healthcare and emergency response at locations that are known to be dangerous.

### Evaluation

How do we know what we are doing is working? There are a number of local studies that identify proven and effective countermeasures, but it is often difficult for concerned citizens to find out what is being done, where, and when. Strategic plans that identify goals, objectives, and strategies are readily available to the public, but work plans that identify dates and resource allocation are not. There is also little data available to determine the effectiveness of education, from short term outcomes such as improved knowledge to intermediate outcomes such as behavior change. Making the connection between effort expended and results achieved is often very difficult, as changes in pedestrian crash rates may be affected by much larger forces.

## IV. Opportunities and Next Steps

There are a number of existing and emerging initiatives that represent opportunities to address elder pedestrian safety.

### State

#### *Safe Mobility for Life Coalition*

Currently including only one local representative (Currently including only one local member (Dr. Dennis McCarthy, of Florida International University's Lehman Center for Transportation Research), this state-wide coalition—which meets quarterly in Tallahassee—helped craft the Aging Road Users Strategic Plan, which addresses older driver and pedestrian safety. There are three emphasis areas that directly or indirectly address elder pedestrians: Aging in Place (promotes and encourages practices that support and enhance aging in place); Other Road Users (promotes the safe mobility of aging vulnerable road users, including pedestrians, transit riders, bicyclists, and other non-motorized vehicles); and Outreach and Education (provides information and resources regarding aging road user safety and mobility).

#### *Florida Bicycle/Pedestrian Initiative*

The 2012 Florida Strategic Highway Safety Plan identified bicycle and pedestrian safety as one of eight emphasis areas, and a separate Pedestrian Strategic Safety Plan was adopted in January 2013. Like previous plans, there is a heavy emphasis on younger populations (children and bicyclists) but there are a number of opportunities to incorporate elder pedestrian safety activities. For instance, the Comprehensive Impaired Driving Campaign targets the two groups most commonly involved in pedestrian crashes—drivers aged 65+ and aged 20-25—for an education campaign designed to correct behaviors. Miami-Dade was selected to one of the Initiative's July 2012 campaign pilots where, at 34 sites throughout the region, public opinion and observational surveys were conducted.<sup>xxi</sup> These "Pedestrian Road Safety Audits" look at how both pedestrians and drivers act and provide valuable insights into corrective behaviors that can be taught.

### County

#### *Miami-Dade Metropolitan Planning Organization (MPO)*

This county-wide planning body has two advisory committees that participate in the county's transportation planning process that would benefit from an elder pedestrian advocate's participation:

- ◆ Bicycle/Pedestrian Advisory Committee advises the MPO's Governing Board on issues related to
- ◆ Citizen's Transportation Advisory Committee works "to ensure that proposed transportation projects are responsive to the community's perceived needs and goals."

### *Commission on Disability Issues*

Members of this committee advise the Board of County Commissioners and the County Administration on issues affecting people with disabilities. Being responsive to the needs of pedestrians with disabilities (including those who use wheelchairs and scooters) would be an important service to community members of all ages.

### Specific Initiatives and Programs

#### *Safe Steps-Pasos Seguros*

The Alliance for Aging has applied for a third year of funding (2014) to support this elder pedestrian safety program, with a focus on ensuring sustainability by offering Train the Trainer sessions to local elder-serving organizations and individuals interested in offering the workshops at other locations in the community. The Alliance intends to use the Policy Agenda to develop a Policy Outreach component targeting elected officials and other decision-makers that educates policymakers about 1) the benefits of “aging in place”; 2) how aging affects pedestrian abilities; 3) environmental factors that place older pedestrians at risk; and 4) recommendations for planning and policy elements that will enhance elder pedestrian safety.

#### *Miami-Dade Age Friendly Initiative*

In October 2012, the Health Foundation of South Florida received a “Community Agenda: Improving America for All Ages” grant from the Pfizer Foundation and Grantmakers in Aging as part of their Age Friendly Cities Initiative. This local initiative is building on groundwork already underway to accelerate local efforts to make the community more “age- friendly”, or in other words, “a great place to grow up and grow old.” One of the key elements of this project is the Safe Routes to Age in Place project. Urban Health Partnerships conducted a pilot project in Little Havana that identified community concerns related to pedestrian safety through a series of informal conversations with residents. Stakeholders were convened to review the results and offer recommendations and possible solutions. The project produced a “tool kit” of resources designed to help the community achieve their desired outcomes and improve pedestrian safety. The project is also reviewing all existing plans (e.g., transportation, community planning) to ascertain if and how they address the needs of older adults and support the goal of aging in place. The Miami-Dade County Department of Parks and Recreation is also developing programming to encourage elders to use the parks for healthy recreational activities, including walking.

**Table 3: Lessons Learned from the Elder Pedestrian Advisory Group**

	<b>Challenges</b>	<b>Potential Solutions</b>
<b>Education</b>	<ul style="list-style-type: none"> <li>• Short-term funding hampers efforts to educate elder pedestrians on safe behaviors</li> <li>• Educational programs must be on-going to reach new audiences among the ½ million elders in Miami-Dade and Monroe Counties</li> </ul>	<ul style="list-style-type: none"> <li>• Miami-Dade County should allocate funding for ongoing elder pedestrian safety education on an annual basis</li> <li>• Multiple programs should be implemented concurrently to reach multiple audiences (urban/rural, language/ethnicity, pedestrians/drivers)</li> </ul>
<b>Enforcement</b>	<ul style="list-style-type: none"> <li>• Enforcement of pedestrian laws is difficult because a violation must be observed by a law enforcement officer</li> <li>• Although distracted driving is believed to play a large role in pedestrian crashes, Florida does not currently have distracted driving legislation</li> </ul>	<ul style="list-style-type: none"> <li>• Increase visible enforcement at locations known for pedestrian crashes</li> <li>• Recently proposed distracted driving legislation lacks teeth (must be observed by law enforcement, must be in combination with another moving violation, \$30 fine)</li> </ul>
<b>Engineering</b>	<ul style="list-style-type: none"> <li>• Discussions about engineering a safer pedestrian environment often get mired in details concerning the relative merit of specific countermeasures or the entities responsible for specific locations (municipality, county road, state road)</li> <li>• It may take as long as 5 years after an engineering study is completed to make recommended changes to the pedestrian environment</li> <li>• Although plans for upgrades and new countermeasures exist, it is difficult for members of the public to access a timeline for implementation</li> </ul>	<ul style="list-style-type: none"> <li>• A more comprehensive, coordinated approach is needed to enhance pedestrian safety county-wide, across community boundaries and agency silos</li> <li>• More economical, immediate strategies (e.g., signal timing, signage) must be considered as part of the overall plan to improve safety</li> <li>• The community would benefit from having a full-time elder pedestrian advocate involved in multiple initiatives</li> </ul>
<b>Emergency Response</b>	<ul style="list-style-type: none"> <li>• Aging can affect visual, cognitive, and motor functions of older pedestrians</li> <li>• Emergency responders and clinical practitioners have useful information on pedestrian characteristics and specific locations in the community that are repeat problems</li> </ul>	<ul style="list-style-type: none"> <li>• Healthcare professionals should be engaged in increasing awareness of the increased risk among elder pedestrians</li> <li>• Elder pedestrian crash rates in South Florida should be viewed as a public health crisis for older adults; solutions should engage health-related resources to address this problem</li> </ul>
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>• Evidence linking education efforts to behavior change and reduced crash rates is sparse</li> <li>• The effectiveness of specific countermeasures has been proven (e.g., countdown signals &gt; 20 seconds)</li> </ul>	<ul style="list-style-type: none"> <li>• Educational programs should be required to evaluate outcomes, including behavior change</li> <li>• Plans should prioritize the implementation of proven countermeasures in areas of high pedestrian crash rates</li> </ul>

## CONCLUSION

The January 25, 2013 Policy Forum was successful in identifying a number of issues—both concerns and opportunities—affecting elder pedestrian safety. Ensuring that the elders who live in Miami-Dade County are safely able to reach essential services, stay connected to family and friends, and participate in the vibrant life of the community should be of concern to all its citizens. Finding remedies to reduce the number of elder pedestrian deaths and injuries should be a goal that everyone can support. There is widespread recognition that this recalcitrant problem cannot be remedied without coordination and collaboration across program and jurisdictional boundaries. The challenge now is to identify priorities and implement strategies that are most likely to lead to success.

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<sup>i</sup> Transportation America, [Dangerous by Design](#) (2011)

<sup>ii</sup> U.S. Department of Transportation/National Highway Traffic Safety Administration, Traffic Safety Facts Florida 2005-2009

<sup>iii</sup> U.S. Census, 2010

<sup>iv</sup> Department of Elder Affairs, Florida County Profiles: Miami-Dade County (2012)

<sup>v</sup> City Leaders Institute on Aging in Place, [Miami Issue Backgrounder](#) (2012).

<sup>vi</sup> NHTSA, Traffic Safety Facts, 2010.

<sup>vii</sup> FDOT State Safety Office Crash Analysis Reporting System (CARS), Special Data Request, February 28, 2013.

<sup>viii</sup> National Association of Area Agencies on Aging, [A Blueprint for Action: Developing a Livable Community for All Ages](#) (2007)

<sup>ix</sup> Lehman Center for Transportation Research, [Traffic Safety Plan for Elderly Pedestrians: Final Report for Public Works Department, Miami-Dade County](#) (June 2009-March 2011), pp. 5-8.

<sup>x</sup> Center for Urban Transportation Research and Florida Department of Transportation, [Pedestrian Safety at Mid-Block Locations](#) (2006)

<sup>xi</sup> Center for Urban Transportation Research, University of South Florida/Florida Department of Transportation Safety Office, [Briefing Book: 2012 Pedestrian Safety](#) (2011)

<sup>xii</sup> Florida Department of Transportation, [A Brighter Future for Florida's Mature Drivers and Pedestrians: The Florida Department of Transportation Safe Mobility for Life Strategic Plan](#) (2007)

<sup>xiii</sup> Florida Department of Transportation, [Florida's Aging Road User Strategic Safety Action Plan](#) (2011)

<sup>xiv</sup> Miami-Dade Metropolitan Planning Organization/Miami Downtown Development Authority, [Bicycle/Pedestrian Mobility Plan for the Miami-Downtown Development Authority Area](#) (2001)

<sup>xv</sup> Science Applications International Corporation (SAIC)/United States Department of Transportation, [Pedestrian Safety Engineering and ITS-Based Countermeasures Program for Reducing Pedestrian Fatalities, Injury Conflicts, and Other Surrogate Measures: Final System Impact Report](#) (2009)

<sup>xvi</sup> Lehman Center for Transportation Research, Florida International University/Miami-Dade Department of Public Works, [Traffic Safety Plan for Elderly Pedestrians](#) (2011)

<sup>xvii</sup> National Highway Traffic Safety Administration, [Evaluation of the Miami-Dade Pedestrian Safety Demonstration Project](#) (2008)

<sup>xviii</sup> Carl I. Schulman, Prevention of Elder Pedestrian Injury: A Comprehensive Approach and Analysis

<sup>xix</sup> Partners for Livable Communities and National Association of Area Agencies on Aging, [Creating Livable Miami-Dade & Monroe Counties for All Ages, Workshop Report Seven: Increasing Transportation and Mobility Options](#) (March 2009).

<sup>xx</sup> Lehman Center for Transportation Research, Florida International University/Miami-Dade County Public Works Department, [Traffic Safety Plan for Elderly Pedestrians](#) (2011)

<sup>xxi</sup> Based on review of web site.