

Discriminatory by Design

THIS SUMMER T.A.'S SAFE ROUTES for Seniors program worked with a doctoral candidate at Columbia's Mailman School of Public Health to conduct original research on how street design impacts senior health. Yearly crash statistics prove that New York City's streets and intersections expose elderly pedestrians to unacceptable risks. But how does the built environment, which includes streets and sidewalks, influence senior pedestrian behavior and driver behavior? There are currently 1.25 million people age 60 and over living in New York City. This number is expected to increase 18% by 2015. It is time to better understand the way our street and sidewalk design affect senior citizens and start making long overdue changes now.

The study focused on the Upper East Side, a senior-rich area where a significant number of drivers hit senior citizens each year. The research analyzed walking behavior and speeds of older pedestrians, including older adults with mobility impairments to determine what, if anything, was unique about senior citizen pedestrians as they crossed streets of 60 feet or over in width. This was compared to senior crossing behavior on streets of 30 feet in average width. The results indicate that streets of 60 feet or more in width are neither safe nor senior-friendly.

Researchers spent a total of 60 hours observing 360 older pedestrians at 18 intersections. Avenue intersections along 72nd and 79th Streets were of interest because they are 60 feet or over in width, and intersections at 71st, 73rd, 78th, and 80th Streets were considered "control" intersections as they are the more traditional cross street width of 30 feet. Information was also collected on signal timing, lane width, vehicular volumes and driver behavior.

Key Findings

- Senior citizens utilizing an assisted walking device such as a cane or a wheelchair walk at an average speed of less than three feet per second
- To bridge wide streets, seniors are forced to adopt dangerous crossing techniques
- 40% of seniors begin to cross the street before the walk signal changes
- 56% of senior citizens stand in the street rather than on the curb before crossing the street
- Almost 30% of seniors start crossing before the walk signal illuminated or after the caution hand started flashing
- The intersections of 72nd and 79th Streets at 2nd Avenue and 79th Street at 1st Avenue are the three most dangerous intersections for senior citizens within the 18 intersections in the study area
- 95% of all drivers at all intersections fail to yield to pedestrians in the crosswalk

This study presents a compelling picture of how the built environment should be improved for older adult pedestrians to reduce the dangers they face everyday. T.A., other senior advocates and senior citizens are asking the City to make streets safer for senior citizens.

The final study will be released to the public, elected officials and City agencies this fall to raise awareness about senior pedestrian safety and to build public support for improvements, especially in neighborhoods with large numbers of seniors. Please write to safeseniors@transalt.org if you are a senior citizen, have mobility impairments or related concerns and would like to get involved in this campaign. □

To fix the problem

Give pedestrians priority over motor vehicles at all intersections by:

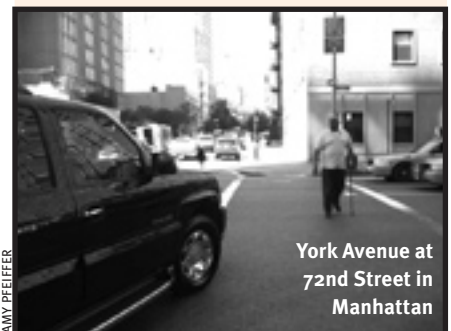
- Retiming traffic signals to a walking speed of 2.5 feet per second to allow people of all abilities to safely cross the street without rushing or prematurely leaving the curb.
- Installing leading pedestrian intervals (L.P.I.s) at all intersections. This system dedicates at least five additional seconds exclusively to pedestrians to begin their crossing before vehicles from any direction can make any movement.
- Installing pedestrian ramps flush with the street to make ascending and descending the curb safe and convenient for all street users including those with canes, walkers and in wheelchairs .
- Repairing street defects like potholes and utility cuts to prevent falls.

Slow vehicles down. Because the speed at which motorists drive is one of the most significant factors in the extent of injury from motor vehicle crashes it is essential to bring down vehicular speeds at all junctions by:

- Extending the curbs into the intersection to slow down motor vehicles and make pedestrians more visible. Place bollards at the edge of each of these curb extensions to prevent trucks and buses from driving up onto the sidewalk while turning. This prevents pedestrians from being overtaken by the rear wheels.
- Installing protected lanes—either protected bike lanes, protected bus lanes, or protected turn lanes or a combination—to narrow the vehicle travel lanes and reduce motorist speeds.

Modify unsafe driver behavior. 95% of motor vehicles drivers did not yield to pedestrians in the crosswalk. Placing flexible plastic bollards on the inside line of each crosswalk forces vehicles to slow down and make safer turns.

Create a public awareness campaign to educate drivers on what crossing a street looks and feels like to a senior pedestrian.



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