SAFE STREETS FOR SENIORS

New York City Department of Transportation
What is Vision Zero?

- Vision Zero goal: Protect the public, bring traffic fatalities to zero
- Based on Swedish model
- A shift in perception and values: Expect safe streets
- Design facilities with zero fatalities as goal
- Drive down fatalities and injuries, not necessarily crashes in total
- Fatalities and injuries not “accidents”, “crashes” that are preventable
VISION ZERO IN NYC

• Led by City Hall
• Prominent
• Multi-Agency
• Funded
• Comprehensive
  • Engineering
  • Enforcement
  • Education
  • Policy

Year 1-3 Accomplishments:
• 2016: Lowest year on record for traffic fatalities
• 1,145 new Speed Bumps
• 1,248 new Leading Pedestrian Intervals (LPIs)
• 25 mph new speed limit
• 140 Speed Cameras Deployed
• 242 Safety Engineering Projects
• 292% increase in failure to yield summonses
• 76% increase in speeding summonses
WHY FOCUS ON PEDESTRIANS?

- Pedestrians represent the majority of traffic fatalities citywide.
- Pedestrian fatalities have grown as a share of all traffic fatalities.
  - Between 2007 and 2013 pedestrian fatalities grew from 51% of all traffic fatalities to 58%.
  - Since 2007, fatalities of vulnerable road users increased by 1%, while fatalities of motor vehicle occupants fell by 37%.

### Fatalities by Mode: NYC 2011-2013 Average, Rounded

<table>
<thead>
<tr>
<th></th>
<th>Pedestrians</th>
<th>Bicyclists</th>
<th>Motorcyclists</th>
<th>Motor Vehicle Occupants</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>All NYC</td>
<td>157</td>
<td>17</td>
<td>37</td>
<td>61</td>
<td>272</td>
</tr>
</tbody>
</table>
WHY FOCUS ON SENIOR PEDESTRIANS?

The challenge of an aging city:

• Baby boomers are reaching retirement age

• Seniors in NYC walk much more than those elsewhere in the US

• Senior fatality rate 4x that of younger New Yorkers
BACKGROUND

- 13% of the NYC population are seniors, but 39% of NYC pedestrian traffic fatalities are seniors
- NYC senior population is increasing

**Pedestrian Fatalities per 100,000**

<table>
<thead>
<tr>
<th></th>
<th>USA 65+</th>
<th>NYC 65+</th>
<th>NYC &lt;65</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>2</td>
<td>5.4</td>
<td>1.4</td>
</tr>
</tbody>
</table>

**People Age 65+ in NYC**

<table>
<thead>
<tr>
<th>Year</th>
<th>NYC 65+</th>
<th>NYC &lt;65</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>895,000</td>
<td>1,300,000</td>
</tr>
<tr>
<td>2013</td>
<td>1,073,000</td>
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</tbody>
</table>

*Average of last 3 years available data (2014-2016)
**USA data excludes NYC, Average of last 3 years available data (2013-2015)
BACKGROUND

Program centers around defined Senior Pedestrian Focus Areas (SPFAs)

Initial 25 SPFAs (2008)
- Mapped pedestrians age 65+ killed and severely injured (KSI)
- Circled clustering on heat map to identify first focus areas

Remaining SPFAs
- Mapped pedestrians age 65+ killed and severely injured
- Mapped density of senior housing/population
- Also includes senior trip generators (e.g., NORCs, senior centers, nursing homes, etc.)
FOCUS AREAS

41 Senior Pedestrian Focus Areas to date

- Round I (2008): 25 Areas
- Round II (2012): 12 Areas
- Round III (2017): 4 New Areas
  - Bedford Stuyvesant
  - Brownsville
  - Corona-Elmhurst
  - Highbridge-Lower Concourse
VISION ZERO AND SENIOR SAFETY

- Safe Streets for Seniors program predates Vision Zero
- Senior Areas provide another point of entry for traffic safety interventions for this vulnerable population
INPUT FROM SENIOR PEDESTRIANS

- Not enough time to cross the street
- Broken or missing pedestrian ramps
- Hard-to-see or faded markings
- Poor drainage or ponding in crosswalks
- Turning vehicles failing to yield
TOOLBOX OF TYPICAL SAFETY IMPROVEMENTS

**Daylighting**: better driver-pedestrian visibility

**Countdown signals**: tell pedestrians how much more time they have to cross

**Signal timing**: can add more time to cross where possible, LPIs, split phases, flashing amber turns

**Pedestrian safety islands**: shortens crossings on wide streets, provide safer crossings

**Road diet**: organizes traffic, less speeding

**Sidewalk extension**: shortens crossing distance, slows turning cars
TOOLBOX OF TYPICAL SAFETY IMPROVEMENTS

Accessible Pedestrian Signals (APS): provide audible signal in areas with persons with vision impairments

Repair pedestrian ramps: repair pedestrian ramps on intersections with safety projects

Close slips/normalize turns: creates safer turns and improves driver to pedestrian visibility

Bus Stop improvements: improve pedestrian and driver safety and enhance connections to public transit

Left Turn Traffic Calming: Modifies turning angle from cross street to create safer, slower left turn

Raised crosswalks/intersections: allows for pedestrians to cross at grade and reduces vehicle speeding
PARTNERING WITH NYCDOT CITY BENCH

- Working with DOT’s City Bench program

- Placement at strategic locations, e.g.:
  - Senior centers
  - Bus stops without shelters
  - Public libraries
  - Municipal facilities
SAFETY IMPROVEMENT PROJECTS

West 6th Street, Brooklyn – 2010

- 4 fatalities before and zero fatalities after implementation

Typical 4-to-3 lane road diet with pedestrian islands
SAFETY IMPROVEMENT PROJECTS

7th Ave and W 23 St, Manhattan – 2011
- Pedestrian injuries decreased by 68%

- Modified signal timing to add protected pedestrian crossing
- Constructed two pedestrian safety islands
- Created separated left turns
- Accessible Pedestrian Signal (APS) installed
SAFETY IMPROVEMENT PROJECTS

Prospect Ave, Bronx – 2015
• Pedestrian injuries decreased by 44%

Reconfigured traffic flow better organizes and calms traffic

Concrete pedestrian safety islands and painted curb extensions shortened crossing distances
SAFETY IMPROVEMENT PROJECTS

Sheepshead Bay Rd, Brooklyn – 2016
• Pedestrian injuries decreased by 21%

Kings Bay-Gerritsen Senior Area

Before

More predictable and organized traffic flow

After

Shortened pedestrian crossings and new ramps
SAFETY IMPROVEMENTS IN SENIOR AREAS

- Since 2009, 182 Street Improvement Projects (SIPs) have been implemented in Senior Areas.

- Of which, 121 SIPs have at least two years of post-implementation crash data available for analysis*:
  - 15% decrease in pedestrian injuries
  - 9% decrease in total injuries

*Based on before and after crash analysis of 121 SIPs from 2009-2015 with 2 years of after data which are within or on the border of a SPFA.
HOW ARE PROJECTS BUILT SO QUICKLY?

- SSFS projects are funded through Federal (FTA, FHWA) and local sources

- **Public Interest Finding**: Use federal funds for in-house construction

- In-house construction is faster and lower cost than capital construction
  - Temporary materials (e.g., paint)
  - In-house concrete construction

- PIF allows NYCDOT to respond to street safety locations faster

TAKING INPUT FROM NYC SENIORS

- Going into Senior Centers to get feedback
- Coordinating with NYCDOT’s Safety Education Team and Street Ambassador Unit
- Working with the NYC Department for the Aging
- Working in coordination with Age-Friendly NYC
Thank you!
Questions?
More at nyc.gov/dot