DOT Safety Goal

Strategic Plan:
Reduce Fatalities by 50% by 2030

From 274 (2007) to 137 (2030)
NYC is the safest large US city and is growing safer

- Traffic fatality rate per 100,000 residents was 3.5 in NYC vs. 7.75 in other 10 largest US Cities, and 12.2 in US in 2008
- Fatality rate lower than Copenhagen (3.9) and nearly equal to Amsterdam (3.4)
- Pedestrian fatality rate per 100,000 residents was 15% less than Peer Cities’ in 2008
- Pedestrian fatality rate decreased 41% to 2.0 (2000-2009) from 3.4 (1990-1999)
- Pedestrian severe injury rate decreased 40% from the decade of 1990-1999 to 2000-2009
The Cost of Crashes

• **Public Health**
  - Crashes are a leading cause of potential years lost, similar to stroke, hypertension and pneumonia

• **Economic**
  - Crashes cost NYC $4.29 billion annually

• **Equity**
  - Seniors comprise 38% of pedestrian fatalities, but only 12% of the population

• **Sustainability**
  - Safer streets promote walking, cycling and transit

• **Quality of Life**
  - Road safety, like reduced crime rates, is a key factor in attracting and retaining residents to the city
Study & Action Plan Fulfill...

1. NYC DOT Strategic Plan Goal: 50% reduction in fatalities by 2030

2. NYC Pedestrian Safety Act (LL 11 of 2008) mandate to study pedestrian fatalities and severe injuries and to develop a strategy and schedule for improving pedestrian safety

3. FHWA Focus City Program request for pedestrian safety plan
Focus on Vulnerable Road Users
(Pedestrians, Bicyclists, Motorcyclists)

Vulnerable Road Users:
71% of all fatalities
(2005-2009)

Pedestrians:
52% of all fatalities
(2005-2009)

33% of all severe injuries
(2004-2008)
Existing Safety Efforts Among Most Comprehensive in North America
Findings
Where:

Manhattan

- **Highest Crash Density**: Four times as many pedestrian KSI (Killed or Severely Injured) in Manhattan per mile of street (.73) as other four boroughs (.18)
- Other boroughs have higher KSI totals and higher rates per 100,000 residents and workers
- 43% of pedestrians killed in Manhattan resided in another borough or outside NYC
- In Manhattan, **Major Two-Way Streets** account for 47% of pedestrian fatalities but only 12% of the road network

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**Average Annual Pedestrian KSI 2004-2008**

<table>
<thead>
<tr>
<th>Borough</th>
<th>Bronx</th>
<th>Brooklyn</th>
<th>Manhattan</th>
<th>Queens</th>
<th>Staten Island</th>
<th>NYC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrian KSI per mile of street</td>
<td>0.26</td>
<td>0.30</td>
<td>0.73</td>
<td>0.12</td>
<td>0.05</td>
<td>0.23</td>
</tr>
<tr>
<td>Pedestrian KSI</td>
<td>233</td>
<td>481</td>
<td>420</td>
<td>289</td>
<td>49</td>
<td>1472</td>
</tr>
<tr>
<td>Street Miles</td>
<td>898</td>
<td>1592</td>
<td>576</td>
<td>2416</td>
<td>983</td>
<td>6465</td>
</tr>
<tr>
<td>Pedestrian KSI Rate (per 100,000 residential population)</td>
<td>17</td>
<td>19</td>
<td>26</td>
<td>13</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>Pedestrian KSI Rate (per 100,000 daytime population)</td>
<td>19</td>
<td>21</td>
<td>14</td>
<td>15</td>
<td>12</td>
<td>17</td>
</tr>
</tbody>
</table>
Where: (cont.)

- 74% of pedestrian crashes occur at **intersections** (2002-2006), but:

  - **Crashes are dispersed:** the 52 most common crash locations average one pedestrian KSI crash per year, and account for only 3.5% of all pedestrian KSI

  - **Arterial streets** account for ~60% of pedestrian fatalities but only 15% of the road network

  - Pedestrian KSI crashes on **arterial streets** are ~2/3 more deadly than crashes on non-arterial streets

  - Controlling for other factors, pedestrian KSI crashes on streets with bike lanes were ~40% less deadly as other streets
When:

- 40% of pedestrian KSI crashes occurred in the afternoon/evening (3-9pm)

- **Late night** (3-6am) pedestrian KSI crashes are nearly twice as deadly as other time periods

- Nearly 20% more Pedestrian KSI crashes occurred per month during the **Winter holiday season** (Nov. & Dec.)
How:

- Drivers that fail to yield account for 26% of pedestrian KSI crashes.
- Crossing against signal pedestrian KSI crashes are 56% more deadly than crossing with the signal.
- Controlling for other factors, pedestrian KSI crashes involving driver inattention are more than twice as deadly as others.
- Pedestrian KSI crashes involving unsafe vehicle speeds are nearly twice as deadly as others.
- Controlling for other factors, lane-changing pedestrian KSI crashes are more than twice as deadly as others.
- Left turning pedestrian KSI crashes outnumber right turning crashes 3 to 1.
Who: Pedestrians

- **Over age 65** - 12% of population but 28% of severe injuries, 38% of fatalities.
- **Asian Americans** over 65 had nearly twice the average fatality rate for seniors (7.8 vs. 4.3 per 100,000)
- Areas with higher proportions of Hispanic residents or Black residents, experienced higher crashes rates (Controlling for other factors, doubling the share of Black or Hispanic residents increased crashes by ~20%)
- **Males** - 58% of pedestrian KSI
Who: Pedestrians (cont.)

- Residents with high school education only or less: 52% of adult residents but 70% of fatalities among adult residents.
- Foreign-born - 36% of residents but 51% of fatalities among residents.
Who: Drivers

- 80% of pedestrian KSI crashes involved male drivers (57% of NYC vehicles are registered to men)
- Private passenger cars account for 79% of all pedestrian KSI crashes
- 16% of Manhattan pedestrian KSI crashes involved a taxi or livery car
- 31% of pedestrian KSI involving trucks resulted from a right turn
- 8% of pedestrian fatalities involved a driver without a license (2006-2008)

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>% of Pedestrian KSI crashes (minus unknowns)</th>
<th>% of registrations (2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus</td>
<td>3%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Truck</td>
<td>4%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Taxi/Livery</td>
<td>13%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Passenger</td>
<td>79%</td>
<td>90%</td>
</tr>
</tbody>
</table>
1.1 Install **countdown pedestrian signals** at 1,500 intersections.

1.2 Aggressively redesign **20 miles of high-crash corridors**
Upgrade signals, markings and signage on 40 miles of high-crash corridors

1.3 Re-engineer 20 intersections on **major Manhattan two-way streets**.

1.4 Launch a pilot program to test the safety performance of **neighborhood 20 mph zone**.

1.5 Implement pilot program to **improve visibility at left turns** along avenues in Manhattan.
Enforcement

2.7 **Targeted Enforcement:** NYPD and DOT will coordinate a data-driven, citywide campaign against aggressive driving.

2.8 **Drivers Without a Valid License:** NYPD will continue their efforts to identify and apprehend unlicensed drivers.

2.9 **Data Collection & Sharing:**
NYPD and DOT will coordinate on geographic & crash severity analyses to enhance strategic resource deployment.

2.10 **Cellphone/Texting While Driving:** NYPD will continue to crack down on drivers using handheld cellphones or texting while driving.
Public Communication

Education

3.11 School Programs
- Target programs near high risk corridors
- Expand Spanish language education efforts

3.12 Parents
- Target low educational attainment populations
- Focus Safe Kids Coalition outreach to new immigrant groups
- Expand non-English outreach to include Haitian Creole, Chinese (Mandarin and Cantonese) and Urdu

3.13 Older Adults
- Provide Safe Streets for Seniors presentations near high risk corridors
- Expand multi-language outreach, focusing on older Asian residents
- Develop comprehensive active transportation program

3.14 Intergenerational Outreach
- Utilize children as “Safety Deputies” to share traffic safety information
- Work with communities to create pedestrian safety-themed signs and murals

3.15 Materials
- Update and create new print materials highlighting dangerous driving behavior
- Translate additional materials for high-risk non-English speaking populations
Public Communication

Marketing

3.16  ‘It’s 30 for a Reason’ Campaign
- Reinforce 30 mph speed limit
- TV spots and billboards
- Link:  

3.17  Use targeted tactics to further raise motorist awareness
- Work with NYS DMV to deliver materials
- Introduce materials / messages at motorist education events

3.18  Use targeted tactics to further raise pedestrian awareness
- Pedestrian countdown signals / crossing with the light outreach
- Multi-lingual “street teams”
- Focus on areas with high populations of foreign-born residents
- Introduce materials / messages at youth and senior outreach events
Policy and Legislation

4.19 **Expand Red Light Cameras**
Only 150 permitted in NYC; more needed

4.20 **Introduce Speed Cameras**
2007 NHTSA international review: injury crash reductions of 20% to 25%

4.21 **Require Truck Crossover Mirrors**
Eliminate blind spots at front of trucks; already mandatory on school buses

4.23 **Toughen Penalties for Unlicensed Drivers**
Work with Albany and NYC District Attorneys for tougher legislation and sentences
Interagency Coordination & Cooperation

5.24 Establish **NYPD/DOT Road Safety Task Force**
Coordinate campaigns & projects, share data, develop innovative responses to safety issues

5.25 Expand **DOT/DOHMH** collaboration on research & prevention activities

5.26 Work with New York State DMV to update **Driver’s Education Curriculum** to incorporate more pedestrian, biking and urban driving information
Design Treatments
Road Diets
Road Diets
Elimination of Right-Turn Slips

After

Before
Plazas
Plazas
Questions?
mroel.dot.nyc.gov
nyc.gov/dot - Visit “Current Projects” or “DOT Library” or