Pedestrian Safety in Delaware
African American Task Force
Infrastructure and Environment Subcommittee

Presented By:
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Delaware Department of Transportation
Chief of Traffic Engineering
September 15, 2021
Presentation Outline

• Delaware’s Strategic Highway Safety Plan

• Statewide Pedestrian Crash Statistics

• Pedestrian Safety Countermeasures in Action

• Strategies & Actions for Improving Pedestrian Safety

• Question & Answer Session
2021-2025

Delaware Strategic Highway Safety Plan

2021-2025 SHSP: deldot.gov/Programs/DSHSP/
What is an SHSP?

• Comprehensive, multi-year, **data driven** transportation safety plan with a goal of reducing highway fatalities and serious injuries on all public roads

• Establishes consistent statewide goals, objectives, emphasis areas, priorities, and countermeasures with stakeholders and other transportation plans

• Makes effective use of crash data to determine priorities

• Addresses **4 E’s of Highway Safety**
  • Engineering
  • Education
  • Enforcement
  • Emergency Medical Services
The Delaware Strategic Highway Safety Plan: Towards Zero Deaths aims to eliminate fatalities and serious injuries on Delaware’s roadways through a multi-agency approach that utilizes education, enforcement, engineering and emergency medical service strategies.

Delaware’s 2021-2025 SHSP objective is to reduce fatalities and serious injuries by 15% over the next five years to ultimately reach the goal of zero fatalities and serious injuries on Delaware’s roadways.
2021-2025 SHSP Emphasis Areas

- Intersection: 39.4%
- Distracted Driving: 19.1%
- Impaired Driving: 18.7%
- Roadway Departure: 18.4%
- Pedestrians: 12.5%
- Motorcycles: 12.5%
- Unrestrained Motorists: 11.5%
- Heavy Vehicles: 9.5%
- Older Drivers/Pedestrians: 9.4%
- Speeding: 7.6%
- Young Drivers: 5.7%
- Bicyclists: 3.0%
- Fatigued Driving: 1.9%
- Work Zones: 0.8%
- Trains: 0.0%

EMPHASIS AREA OBJECTIVE

REDUCE Pedestrian Fatalities & Serious Injuries by 15% from 76 to 64, over the next 5 years.

2021-2025 SHSP: deldot.gov/Programs/DSHSP/
Statewide Pedestrian Crash Statistics
Statewide Pedestrian Crash Statistics

- Jan. 16, 2016 – Dec. 31, 2020
- Source: DelDOT’s CARS Program
- All crash severities
  - Property Damage Only
  - Injury
  - Fatal
- Overall crash statistics
  - 1,721 pedestrian crashes
  - 1,796 pedestrians involved
  - 142 pedestrians killed
  - 221 pedestrians seriously injured
  - 759 pedestrians with minor injuries
  - 420 pedestrians with possible injuries
Statewide Pedestrian Crash Statistics

Statewide, pedestrian crashes accounted for 1.3% of all crashes and 24% of all fatalities from 2016 through 2020.
### DE Pedestrian Fatalities vs. Region

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**States in NHTSA’s Region 3**

Source: National Highway Traffic Safety Administration (NHTSA)
Statewide Pedestrian Crash Statistics – Where?

45% of pedestrian fatalities occurred on Principal Arterials

85% of pedestrian fatalities were non-intersection related

- Shoulder/Roadside: 18.7%
- Intersection - Marked Crosswalk: 15.4%
- Sidewalk: 13.6%
- Other: 6.6%
- Intersection - Unmarked Crosswalk: 5.9%
- Intersection - Other: 4.1%
- Field Blank: 3.7%
- Unknown: 3.3%
- Median/Crossing Island: 3.2%
- Non-Trafficway Area: 2.6%
- Midblock - Marked Crosswalk: 1.5%
- Driveway Access: 1.2%
- Bicycle Lane: 0.6%
- Shared-Use Path or Trail: 0.2%

% of Total Pedestrians Involved in Crashes

2021-2025 SHSP: deldot.gov/Programs/DSHSP/
Statewide Pedestrian Crash Statistics – When?

<table>
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<tr>
<th>Time of Day (Hour Beginning)</th>
<th>Lower Frequency</th>
<th>Higher Frequency</th>
<th>XX Number of Pedestrians Involved in Crashes</th>
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<tr>
<td>Totals</td>
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</table>

Lower Frequency  Higher Frequency

35% of pedestrian fatalities occurred in November, December and January

% of Total Pedestrians Involved in Crashes

2021-2025 SHSP: deldot.gov/Programs/DSHSP/ Time of Day (Hour Beginning) 12
Statewide Pedestrian Crash Statistics – Who?

- **Female**: 40.6%
- **Male**: 59.2%
- **Unknown**: 0.2%

- **Black/African American**: 49.5%
- **Asian**: 1.1%
- **Unknown**: 1%

- **American Indian/Alaskan**: 0.4%
- **Hawaiian/Other Pacific Islander**: 0%
- **White**: 48%

- **% of Total Pedestrians Involved in Crashes**:
  - 0-9: 15.9%
  - 10-19: 6.8%
  - 20-29: 18.7%
  - 30-39: 19.3%
  - 40-49: 13.2%
  - 50-59: 12.9%
  - 60-69: 18.0%
  - 70-79: 3.8%
  - 80-89: 1.3%
  - 90+: 0.1%
Pedestrian Safety Countermeasures in Action
Pedestrian Safety Countermeasures

- Pedestrian Safety Audits
  - Better understand specific pedestrian crash trends
  - Multidisciplinary audit team to review corridors and make recommendations
  - Improvements are implemented as part of existing or future projects and programs
  - Since 2015, DelDOT has completed 10 audits/assessments and implemented various improvements
    - US 13 from Llangollen Boulevard to A Street
    - SR 273 from US 13 to SR 72
    - Kirkwood Highway from St. James Church Road to SR 141
    - US 13 Dover from Scarborough Road to Puncheon Run Connector
    - SR 1 from Lewes to Dewey Beach
    - US 202
    - SR 48 from SR 141 to DuPont Road
Pedestrian Safety Countermeasures

- Rectangular Rapid Flashing Beacon
  - Pedestrian-actuated warning device used at uncontrolled, marked crosswalks
  - Intended to improve compliance with motorists yielding to pedestrians in marked crosswalks
  - First installation in April 2016
  - 43 locations completed since 2016
  - 3 currently under construction
  - 12 planned for future construction
  - 25% average improvement in motorist yielding compliance across all sites
Pedestrian Safety Countermeasures

• Other Engineering Countermeasures
  • Painted crosswalks at signalized intersections
  • Pedestrian signalization
  • Marked crosswalks at appropriate mid-block crossing locations
  • Corner sight distance improvements
  • Curb bump outs to decrease crossing distances
  • Median refuge areas
  • Transit improvements
  • Sidewalk connectivity improvements
  • Traffic calming
  • Improved warning signage
  • Barriers to prevent undesired mid-block crossings
Pedestrian Safety Countermeasures

• Advisory Council on Walkability and Pedestrian Awareness (Pedestrian Council)
  • Established October 12, 2015, by Governor Markell
  • Appointed membership included state agencies, planning councils, advocacy groups and the public
  • Areas of focus:
    • Identifying gaps in the system of pedestrian paths and sidewalks
    • Provide advice regarding design standards for crosswalks, sidewalks, and pathways ensuring ADA compliance
    • Provide advice regarding implementation of DelDOT’s Sidewalk and Multi-Use Path Maintenance Policy
    • Review traffic rules to help support a safe pedestrian environment
    • Provide advice regarding accessibility and connectivity in an effort to make transit a more viable option
    • Developing strategies for pedestrian safety education and awareness
  • Subcommittees:
    • Built Environment
    • Legislative
    • Education and Enforcement

Pedestrian Council website: https://deldot.gov/Programs/pedestrian_council/index.shtml
Pedestrian Safety Countermeasures

• Pedestrian Education Countermeasures
  • Managed by Delaware Office of Highway Safety
  • Continued education outreach campaigns
    • Targeted media outreach
• Community outreach
  • Alliance Sports Marketing
    • Cross Country Races
    • Elementary school programs
  • Corporate/Public Partner Program
  • OHS Safety Conference
  • Banners for schools
  • Beach events: Partnership with Ocean City Pedestrian Task Force
  • Pedestrian Speed Demo

2021-2025 SHSP: deldot.gov/Programs/DSHSP/
Strategies & Actions for Improving Pedestrian Safety
Strategies & Actions for Improving Pedestrian Safety

• Strategy 1: Develop and distribute consistent public information messages to educate the public about pedestrian safety
  • Increase targeted public outreach, based on specific data-driven trends
  • Increase awareness regarding pedestrian infrastructure improvements and incorporate educational outreach in conjunction with implementation of pedestrian improvement projects
  • Develop and distribute targeted public information messages to increase public awareness regarding safety issues during vehicle breakdowns

• Strategy 2: Develop educational training programs to improve pedestrian safety awareness
  • Incorporate pedestrian (and other road user) laws and rules of the road into Drivers Education and Defensive Driving curricula
  • Develop an educational outreach program for school children targeting pedestrian safety issues
  • Develop and implement formal crossing guard certification requirements, similar to programs for flaggers in highway work zones
• Strategy 3: Strengthen pedestrian safety laws and enforcement efforts
  • Utilize a strategic law enforcement and social services approach to address substance abuse related to pedestrian crashes and behaviors
  • Conduct high-visibility enforcement campaigns targeting both pedestrians and drivers to promote pedestrian safety
  • Support expansion of legislation permitting the use of automated speed enforcement in Delaware
  • Evaluate the need for a “Pedestrian Safety Behavior Modification” class and require those charged with various pedestrian safety violations to participate in the class
Strategies & Actions for Improving Pedestrian Safety

• Strategy 4: Install effective engineering countermeasures to improve pedestrian safety
  • Continue conducting pedestrian safety audits at high-crash locations and critical corridors and incorporate pedestrian behavioral surveys into the audits
  • Install infrastructure improvements to reduce pedestrian exposure, the potential for pedestrian/vehicle conflicts, and increase pedestrian visibility
  • Perform before/after studies to evaluate and identify the most effective pedestrian safety treatments
  • Research, and where appropriate, implement innovative pedestrian detection at signalized intersections and at other locations along high-risk corridors where driver feedback can be provided via signs and signals
• Strategy 5: Develop policies and/or guidelines to support pedestrian safety measures
  • Consider revising DelDOT’s design policies and guidelines to promote design practices that reduce vehicular speeds and promote pedestrian safety
  • Revise DelDOT’s Development Coordination Manual to require additional pedestrian infrastructure improvements related to new developments
  • Evaluate the need for revisions to DelDOT’s Complete Streets policy and implementation plan
  • Initiate a Pedestrian Safety Stakeholder group with membership from appropriate state agencies, advocacy groups and the public to identify pedestrian safety and connectivity improvements, policy updates and improved collaboration between state and local agencies, consistent with the objectives of the 2021-2025 SHSP
Strategies & Actions for Improving Pedestrian Safety

• **Strategy 6: Improve data collection of pedestrian crashes and monitor trends**
  - Working with the Division of Substance Abuse and Mental Health (DSAMH), share data to link mental health issues and substance abuse with traffic and pedestrian travel patterns to improve education outreach to vulnerable populations
  - Correlate pedestrian crashes with population changes associated with summer resort seasons, holiday shopping and other times that increase pedestrian activity and if necessary, identify appropriate pedestrian safety countermeasures
  - Correlate pedestrian crashes to income levels and homeless populations in Delaware and if necessary, identify appropriate pedestrian safety countermeasures
  - Implement best practices for the use of the new pedestrian origin-destination data to capture improved data about pedestrian travel patterns and crashes

• **Strategy 7: Improve emergency services and incident management to address pedestrian safety**
  - Evaluate the expansion of DelDOT’s Motorist Assistance Patrol (MAP) to increase services along interstates, freeways, and expressways to reduce pedestrian exposure during vehicle breakdowns
Thank you for your time and interest in safety on Delaware’s roadways.

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View the SHSP Here: deldot.gov/Programs/DSHSP/  
Pedestrian specific information can be found at:  
https://deldot.gov/Programs/DSHSP/index.shtml?dc=pedestrians

To Report a Road Condition: https://deldot.gov/Traffic/ReportRoadCondition/index.shtml