

# VISION ZERØ

CITY OF PHILADELPHIA

## PEDESTRIAN SAFETY ACTION PLAN

### EXECUTIVE SUMMARY

May 2021

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## Philadelphia in Context

Walking in Philadelphia is often a wonderful experience, but it can also be challenging and sometimes even deadly. A pedestrian is injured or killed in the City every six hours. Compared to similar U.S. cities, Philadelphia has a higher number of pedestrian fatalities per resident. Figure 1. compares Philadelphia's pedestrian fatalities per resident in 2018 to similar cities. In 2018, Philadelphia had 2.6 pedestrian fatalities per 100,000 residents, twice the number of New York City (1.3).<sup>1</sup>

In Philadelphia, injury crashes of all kinds peaked in 2016 (following national trends<sup>2</sup>). Though pedestrian injury crashes have steadily decreased each year since then, pedestrian fatalities have remained stubbornly high, averaging 35 people killed while walking every year, with large variability over the past five years. The nation experienced about a 5% increase in pedestrian fatalities in 2018<sup>3</sup>, while Philadelphia saw a 20% increase.

With the City's commitment to reduce traffic fatalities to zero by 2030, the Key Findings, Key Actions, and Key Priorities outlined below will be critical to reaching that goal.

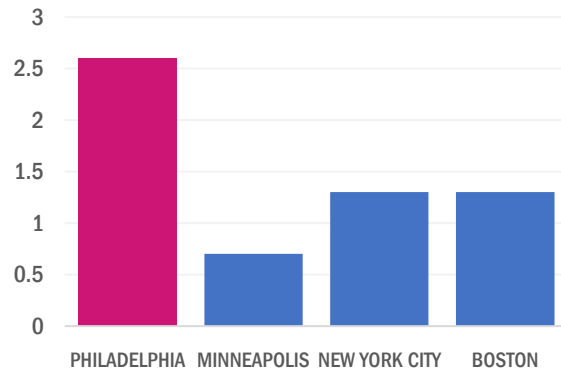
<sup>1</sup> National Highway Traffic Safety Administration. (2018). *Traffic Safety Facts: A Compilation of Motor Vehicle Crash Data*, Table 124: Persons Killed, Population, and Fatality Rates by City.

<sup>2</sup> National Highway Traffic Safety Administration. (2017). *Traffic Safety Facts*. Retrieved from <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812681>.

**FIGURE 1.**

PEDESTRIAN FATALITIES PER 100,000 RESIDENTS IN PHILADELPHIA AND SIMILAR CITIES IN 2018

*Philadelphia has a higher pedestrian fatality rate per resident than peer cities.*



Source: National Highway Traffic Safety Administration, 2018

## Key Findings

Comparative analysis of all injury crashes, pedestrian injury crashes and pedestrian fatality crashes from 2014-2018, revealed key findings, grouped into **Where**, **When**, **How**, and **Who**. Pedestrian injury crashes and pedestrian fatality crashes exhibit overrepresentation of somewhat different set of crash factors as listed below.

### WHERE

- **Urban Arterials & Auto-Oriented Commercial/Industrial Corridors:** Half of all pedestrian fatality crashes occurred on just 19% of street corridors (Urban Arterials &

<sup>3</sup> National Highway Traffic Safety Administration. (2017). *Traffic Safety Facts*. Retrieved from <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812681>.

Auto-Oriented Commercial/Industrial Corridors)

- **Near Transit:** Over 3/4 of all pedestrian fatality crashes occurred near transit stops and stations (within 300' feet)
- **Intersections:** About 2/3 of all pedestrian injury crashes occurred at intersection
- **Midblock:** Most crashes occurred at intersections, but pedestrian fatality crashes are overrepresented at the midblock (50.3%), compared to all injury (37%) and pedestrian injury crashes (35%).
- **Roosevelt Boulevard:** Almost a quarter of all pedestrians killed at intersections were crossing Roosevelt Boulevard or its cross-streets
- **High Pedestrian Activity:** Clusters of pedestrian fatalities occurred on North Broad Street, Lehigh Avenue, and Roosevelt Boulevard

## WHEN

- **Nights and Evenings:** Over half of all pedestrian fatality crashes occur between 7 PM – 6 AM, with almost a quarter of those occurring after midnight. However, pedestrian injury crashes tended to happen earlier. Over half of all pedestrian injury crashes occurred between 3 PM – 12 AM.

## HOW

- **Turning:** Almost half of all pedestrians in injury crashes were struck by a vehicle turning left or right whereas only 8% of all injury crashes involved turning movement by the vehicle
- **Hit & Runs:** Over a quarter of all pedestrian injury and fatality crashes were a result of a hit-and-run

- **Speeding:** 1 in 10 pedestrian fatality crashes were speeding-related and are overrepresented as compared to pedestrian injury crashes where only 2% of crashes were speeding related.

## WHO

- **Over 50 Years Old:** Those over 50 represent 30% of Philadelphia's population, but almost 50% of pedestrians killed
- **Under 19 Years Old:** Those under 19 represent a quarter of Philadelphia's population, but 30% of pedestrians injured
- **Pedestrians Killed by a "Not Normal" Driver:** Ten times more pedestrians were killed by a "not normal" driver than passengers and other drivers combined. Crashes are considered "not normal" if they involve people who were under the influence of alcohol or drugs, having a medical emergency, or were fatigued.
- **"Not Normal" Pedestrians:** Pedestrians made up 40% of the "not normal" people killed in crashes

## Key Action

**Reduce Speeds:** The reduction of vehicle speed represents the action expected to result in the greatest safety benefits for two primary reasons: first, reduced speeds should result in lowered injury severity if a crash occurs; and second, speed reductions should reduce the likelihood of crashes occurring at all. Actions that can lower speeds include:

- Automated Enforcement
- Narrowed Lanes/Roadway Reallocation
- Speed Limit Reductions
- Raised Intersections/Crossings

- Gateways/In-Street Pedestrian Crossing Signs

**Increase Visibility:** Greater visibility helps everyone see each other and increases the time needed to react and avoid crashes. Actions that can increase visibility include:

- Roadway Lighting
- Hardened Centerlines and Turn Wedges
- High Visibility Crosswalks
- Raised Intersections/Crossing
- Curb Extensions
- Daylighting Intersections/Parking Restrictions

**Reduce Pedestrian Crossing Widths:** Shorter crossing distances mean shorter crossing times, reducing the amount of time a pedestrian is in the street at risk of a crash. Actions that can reduce pedestrian crossing widths include:

- Median Islands/Pedestrian Refuge Islands
- Corner Radius Reductions
- Narrowed Lanes/Roadway Reallocation
- Curb Extensions

**Reduce Conflicts Between Roadway Users:** Reducing the number of potential conflicts between roadway users means reducing the number of eventual crashes. Actions that can reduce conflicts between users and provide separation between users include:

- Distinct Signal Phases (Protected Left Turns, Leading Pedestrian Intervals)
- Median Islands/Pedestrian Refuge Islands
- Sidewalk Buffers
- No Turn on Red Restrictions
- Hardened Centerlines and Turn Wedges

Ultimately, these actions should result in more drivers seeing and stopping for pedestrians and preventing a crash from occurring in the first place. See *Chapter 3: Systemic Solutions* for a toolkit that details each of the different types of

improvements described above as well as policy recommendations.

## Key Priority Locations

Priority locations will help guide the strategic investment of the City’s resources, ensuring the maximum pedestrian safety benefits. Opportunities to improve pedestrian safety at locations not on this list, for example, as streets are identified for re-paving in the annual cycle, will still be reviewed for implementation of the key actions above. See Appendix B for lists and maps displaying the Top 50 Priority Corridors and Intersections.

## Area Priorities

Figure 2. shows pedestrian injury and fatality hot spots in Philadelphia between 2014 and 2018.

### Pedestrian Injury Crashes:

- Northern Philadelphia
- West Philadelphia
- Greater Center City

### Pedestrian Fatality Crashes:

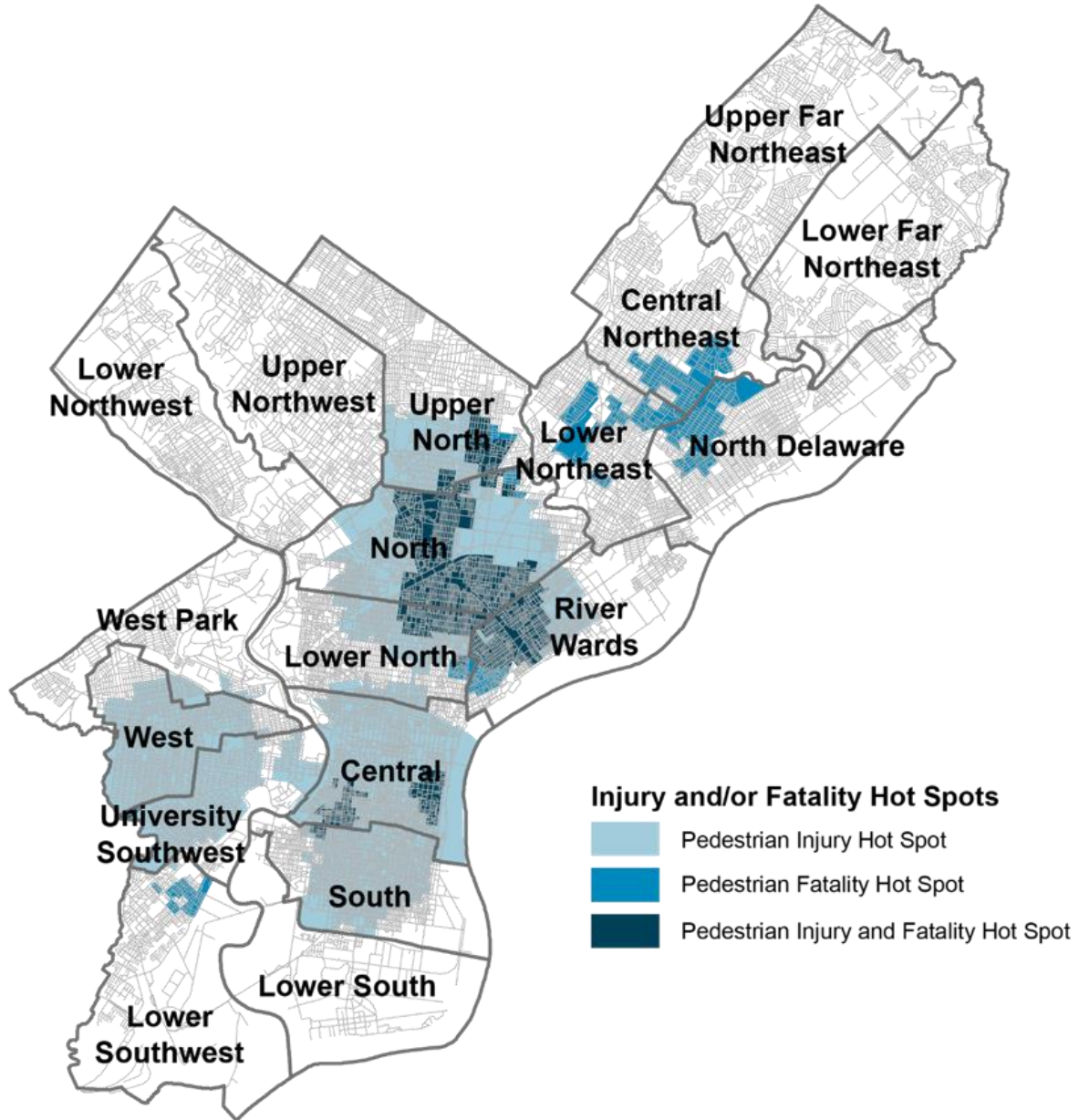
- Northeast Philadelphia (along Roosevelt Boulevard)
- Elmwood
- Kensington

### Both Pedestrian Injury and Fatality Crashes:

- Northern Philadelphia
- Kensington
- Portions of Greater Center City

**FIGURE 2.**  
PEDESTRIAN INJURY AND FATALITY CRASH HOT SPOT MAP OF PHILADELPHIA, 2014-2018

*Pedestrian injury and fatality hot spots were concentrated in North Philadelphia, Kensington, and portions of Greater Center City between 2014 and 2018.*



Source: PennDOT Crash Tables, 2014-2018; US Census Block Groups 2010