

# Vision Zero and Complete Streets

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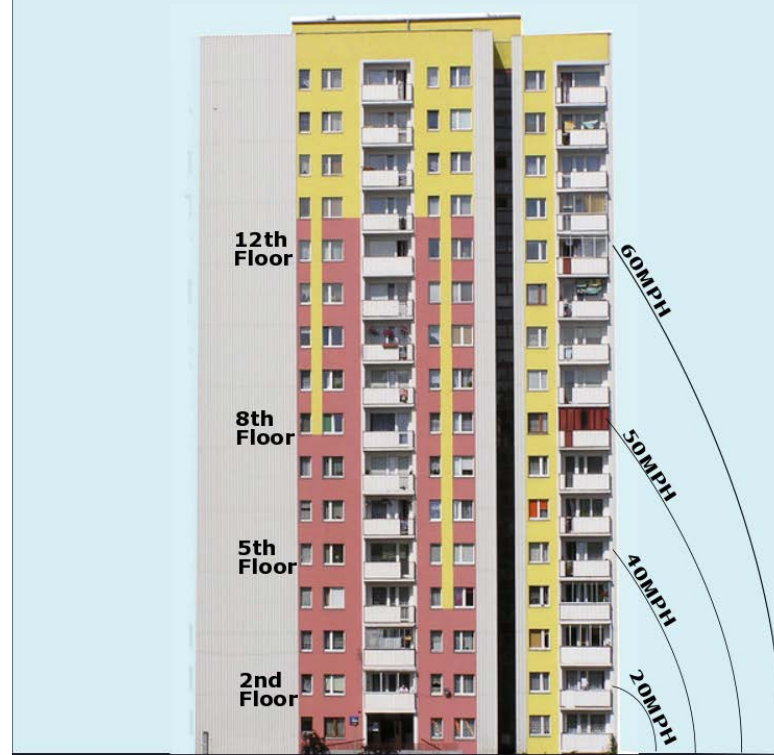


# What is Vision Zero

- Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all.
- First implemented in Sweden in the 1990s,
- Vision Zero has proved successful across Europe and now it's gaining momentum in major American cities



# Full speed crash impact on a pedestrian as compared to a free fall from a building



HIT BY A VEHICLE  
TRAVELING AT:

**20  
MPH**



9 out of 10 pedestrians survive

HIT BY A VEHICLE  
TRAVELING AT:

**30  
MPH**



5 out of 10 pedestrians survive

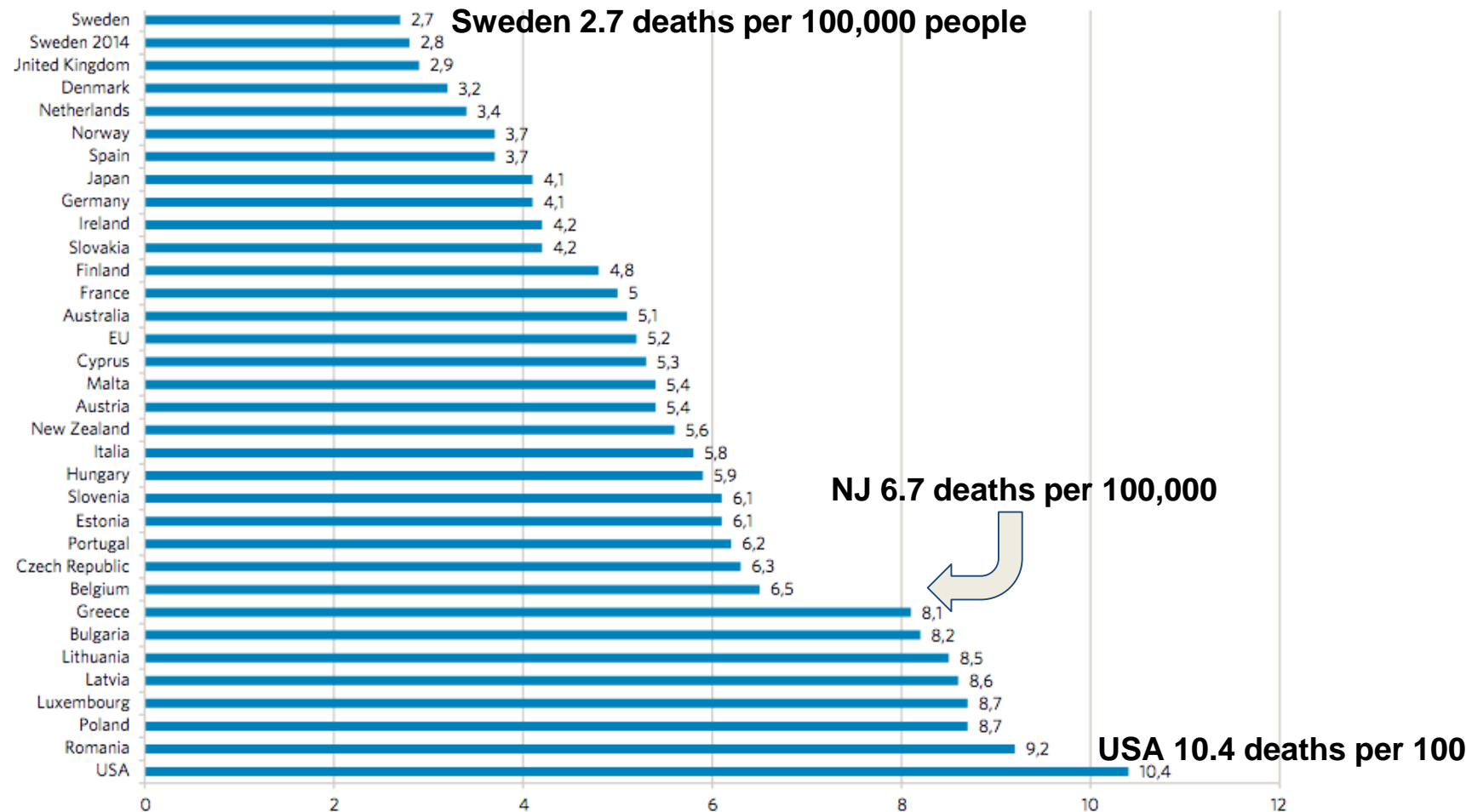
HIT BY A VEHICLE  
TRAVELING AT:

**40  
MPH**



Only 1 out of 10 pedestrians survives

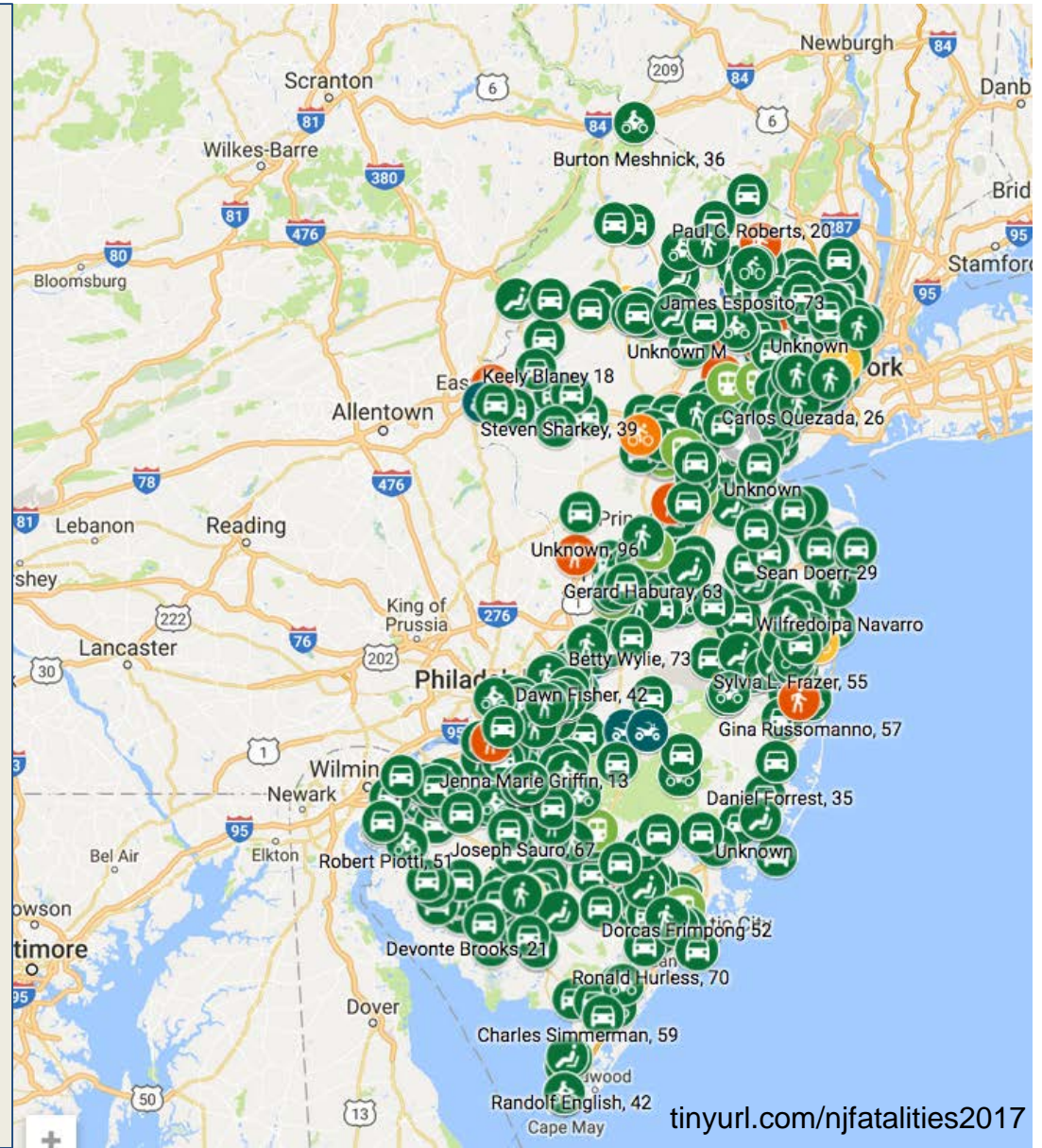
Sweden, the United Kingdom, Denmark and the Netherlands have the lowest number of fatalities per capita in the EU. Even though Sweden's proportion has increased from 2.7 to 2.8 between 2013 and 2014, Sweden is still well placed in comparison with the 2013 value for the other countries.



*Figure 8. Number of road deaths per 100 000 inhabitants. Sweden (2013 and 2014) compared with other countries (2013). Source: IRTAD and CARE.*

# 2017 472 Deaths To Date

- 210  
CAR/TRUCK DRIVERS
- 126  
PEDESTRIANS
- 67  
CAR/TRUCK  
PASSENGERS
- 53  
MOTORCYCLISTS
- 13  
BICYCLISTS
- 3  
ATV RIDERS
- 14  
AGE 17 AND YOUNGER
- 60  
AGE 65 AND OLDER





# Vision Zero Goals

- **New York City**  
0 fatalities by 2024
- **Philadelphia**  
0 fatalities by 2030
- **NJ DOT**  
30% reduction in traffic deaths by 2030\*

\*NJ DOT's crash reduction goal is to reduce serious injuries and fatalities by 2.5 percent annually with the support of all safety partners.

**VISION  
ZERØ**

CITY OF PHILADELPHIA

# THREE-YEAR ACTION PLAN

SEPTEMBER 2017



## TURNING PRIORITY INTO PRACTICE

The Vision Zero Three-Year Action Plan outlines the projects and policy changes the City of Philadelphia plans to pursue in the next three years to build safety and livability into Philadelphia streets.

The Action Plan identifies a broad range of solutions to address traffic safety comprehensively while using data to identify and prioritize traffic safety projects.

Chaired by the Managing Director's Office of Transportation & Infrastructure Systems (OTIS), the Vision Zero Task Force (page 4) leads and provides feedback on Vision Zero priorities and strategies.

## VISION ZERO PRIORITIES

**EQUITY** Identify equitable solutions developed on behalf of all Philadelphians

**EVALUATION** Evaluate Vision Zero efforts to prioritize investments and ensure resources are being used effectively

**ENGINEERING** Engineer streets to reduce risk of crashes

**EDUCATION** Educate Philadelphians to promote a culture of safe driving, walking, and biking

**ENFORCEMENT** Enforce traffic laws to reduce and prevent unsafe roadway behaviors

## VISION ZERO SUBCOMMITTEES

Vision Zero subcommittees are comprised of City departments and external agencies. Subcommittees meet on a monthly or quarterly basis, and are responsible for implementing the strategies outlined in the Vision Zero Three-Year Action Plan.

The Vision Zero subcommittees are:

- Evaluation & data
- Engineering
- Education & engagement
- Traffic safety enforcement
- Fleet management
- Policy

# 0

## TRAFFIC DEATHS BY 2030.

#VISIONZEROPHL



# Data Driven Priorities

## VISION ZERO

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HIGH INJURY NETWORK

TOTAL TRAFFIC CRASHES

PEOPLE WALKING

PEOPLE BIKING

PEOPLE IN VEHICLES

METHODOLOGY

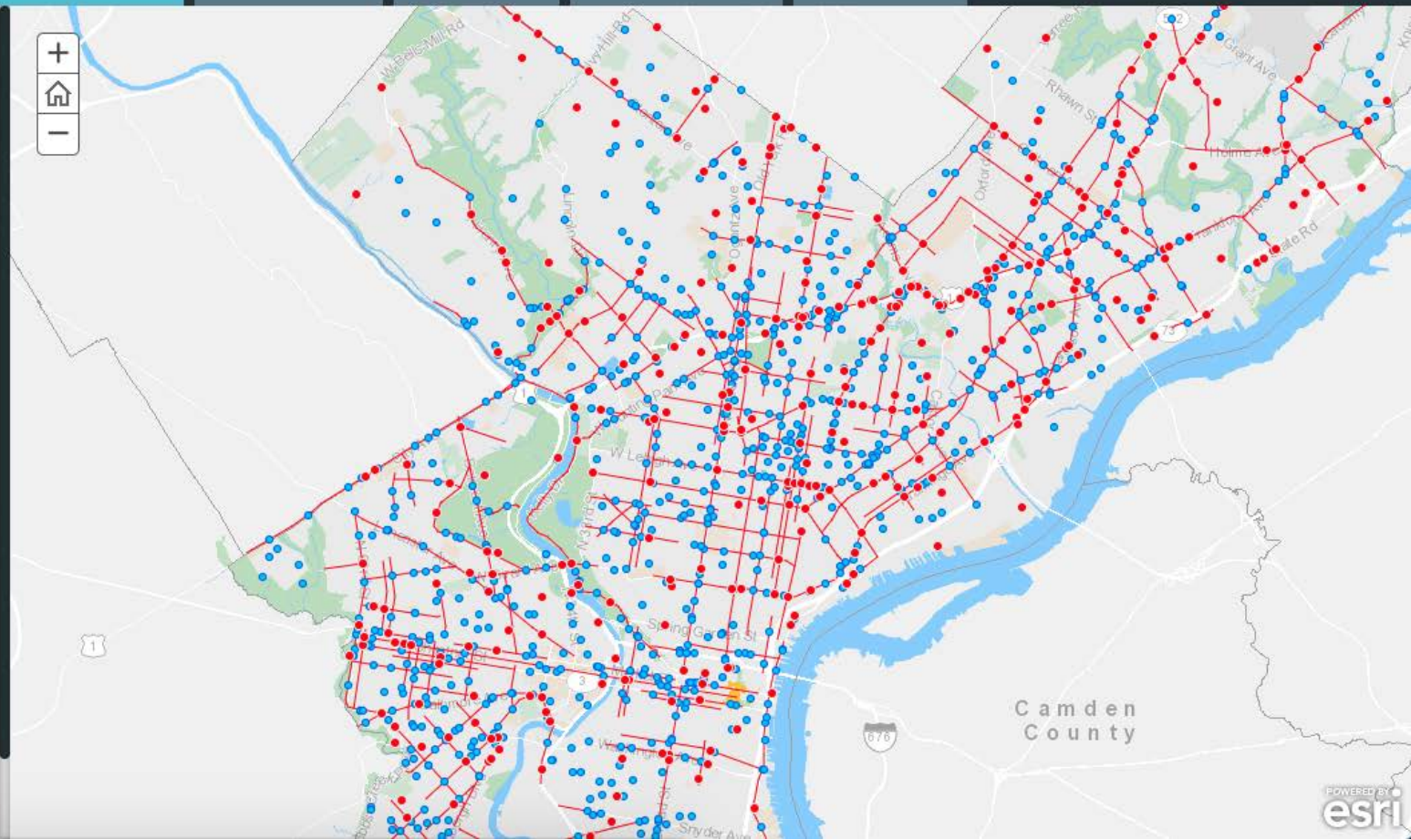
### MAP LEGEND

- Traffic-related deaths
- Severe injuries
- ✕ High Injury Network

### Total traffic-related deaths and severe injuries



Crash data source:  
PennDOT (2012-2016); excludes



POWERED BY  
esri

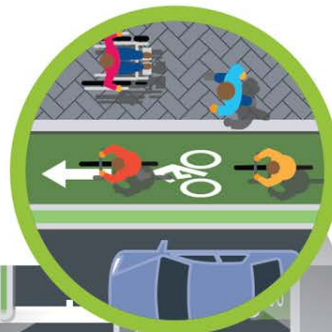
# COMPLETE URBAN STREETS

The majority of Canadians live in urban settings and collisions commonly occur at city intersections. Vision Zero calls for changes in road design and the following strategies are proven ways to increase safety and mobility for urban road users.



## ADVANCE STOP LINES

can increase the likelihood of drivers yielding to pedestrians crossing by approximately **60%**



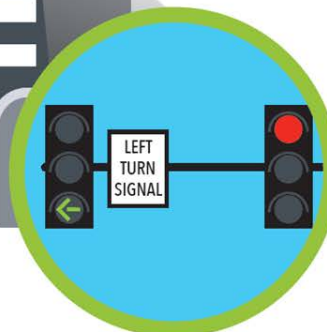
## PROTECTED BIKE LANES

can reduce vehicle-bicycle crashes resulting in injuries by as much as **90%**



## PEDESTRIAN/RAISED REFUGE ISLANDS

can reduce vehicle-pedestrian crashes by **46%**



## PROTECTED LEFT-TURNS

can reduce left-turn collisions by up to **99%**

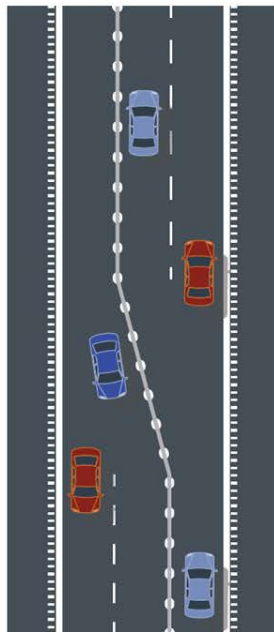
# COMPLETE RURAL ROADS

The majority of fatal crashes occur in rural locations. Vision Zero calls for changes in road design and the following strategies are proven ways to increase safety and mobility for rural road users.



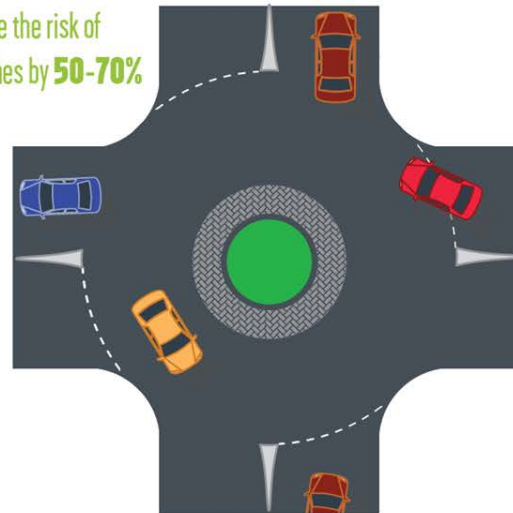
## 2+1 ROADS

with a central cable barrier  
can reduce fatal collisions and  
serious injuries by **55%**



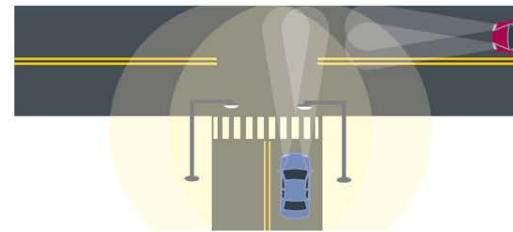
## ROUNDABOUTS

can reduce the risk of  
fatal crashes by **50-70%**



## STREET LIGHTING

at rural intersections can reduce  
night-time crashes by **25-40%**



Bicycle Compatible

## RUMBLE STRIPS

can reduce off-road collisions  
by up to **36%**



# Route 38 and Briggs Rd Mt. Laurel



# Sweden's Approach

“...in Vision Zero, the accident is not the major problem. The problem is that people get killed or seriously injured. And the reason that people get serious injuries is mainly because people have a certain threshold where we can tolerate external violence, kinetic energy....”

*Matts-Åke Belin - Citylab.com Nov 2014*