# VISION ZERO A SYSTEMIC APPROACH TO SAFETY

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## **Areas of Opportunity**

- Intersections
- Roadway Departures
- Four Lane Undivided Roadways
- Pedestrians
- Bicycles
- Motorcycles
- New and Mature Drivers
- Aggressive Drivers
- Distracted Drivers
- Impaired Drivers
- Occupant Protection
- Environmental Justice Areas
- Streetlighting

A Systemic Approach to Safety

#### **Pedestrians**

Pedestrians are the most vulnerable users on Louisville's roadway system. Between 2013 and 2017, Louisville experienced a 68% increase in pedestrian fatal and serious injury crashes. In the U.S. during the same time period, the number of pedestrians killed in fatal crashes increased by 27%. On average, more than **FIVE** pedestrian fatal or serious injury crashes have occurred **per month** in Jefferson County over the five year study period.

In Louisville, over half of all pedestrian fatal crashes occurred in low income and minority neighborhoods. Although a majority of the pedestrian crashes were located in the urbanized downtown area, 43% of all pedestrian fatal crashes occurred on the following five routes:

- US 31W Dixie Hwy, South 22nd Street, West Market Street
- US 31E E Main Street, Baxter Avenue, Bardstown Road.
- KY 155 Taylorsville Road
- KY 1020 South 2nd Street, Southern Parkway, Southside Drive
- US 150 Broadway
- 59% of pedestrian fatal and serious injury crashes occurred at intersections
- 56% of pedestrian fatal crashes occurred at signalized intersections.

### Common pedestrian crash contributing factors

- Speeding
- Distraction
- Traffic Law Violation
- · Sight Distance
- · Lighting and Visibility

#### Key countermeasures to prevent pedestrian serious injuries and fatalities

- Exclusive pedestrian phasing
- Youth educational program (i.e. Pedestrian Safer Journey)
- · Pedestrian safety campaign
- · Traffic law enforcement
- · Community outreach program
- · Traffic calming
- Roadway narrowing or lane reduction
- · Signal timing improvements

- Gateway treatment for pedestrian crossings
- · Pedestrian countdown signal heads
- Raised median
- Leading pedestrian interval (LPI)
- · Raised refuge islands
- Remove previously warranted signals
- · Lighting improvements

#### **Pedestrian Crash Summary**

2% of all crashes

12% of serious injury crashes

26% of fatal crashes

A restricted crossing u-turn intersection can reduce pedestrian injury and fatal crashes by 54% 10

Leading pedestrian intervals (LPI) can reduce pedestrian crashes by 60% 11

Pedestrian refuge islands can reduce pedestrian crashes by 56% 12