

PEDESTRIANS IN MOTOR VEHICLE TRAFFIC CRASHES: HOW DO THEY FARE IN LOS ANGELES COUNTY?

Pedestrian deaths and injuries due to motor vehicle traffic crashes (MVTCs) are a serious problem in Los Angeles County (LAC). In 2016, Los Angeles County had more pedestrian fatalities than any other county in the United States.¹ Vehicle speed at the time of the crash plays a major role in the extent of pedestrian injury and likelihood of death.

Local law enforcement data is typically used to analyze outcomes of crashes involving pedestrians. However, medical data available through local hospitals and emergency responders offer a more granular view of motor vehicle traffic crashes and victim outcomes. The Los Angeles County Department of Public Health (DPH) used this data to describe the injury burden and the relationship between vehicle speed and injury outcomes for pedestrians involved in traffic collisions in Los Angeles County; results are described below.

In 2016, Los Angeles County had more pedestrian fatalities than any other county in the United States.¹

Approach

From the Los Angeles County Emergency Medical Services (EMS) Agency trauma database², DPH selected patients who were involved in a MVTC in LAC as a pedestrian only and arrived at a LAC trauma center during a two-year period (2013-2014). Approximate vehicle speed in miles per hour (mph) at time of collision impact was categorized by the "mechanism of injury" variable: 1) Less than 20 mph (<20 mph or low speed) and 2) 20 mph or greater (>=20 mph or high speed). A total of 4,713 people arrived at a LAC trauma center after being involved in a MVTC while walking.

WHO ARE THE PEDESTRIAN VICTIMS OF MOTOR VEHICLE CRASHES?



60% were men



20% were under 18 years of age and **2%** in this age group died of their injuries

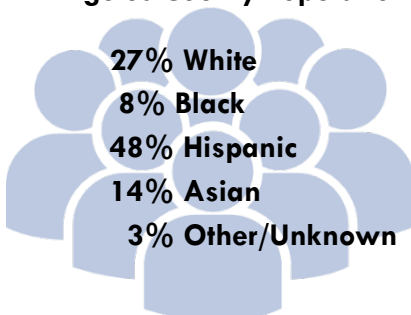


14% were 65 years or older and **14%** in this age group died of their injuries

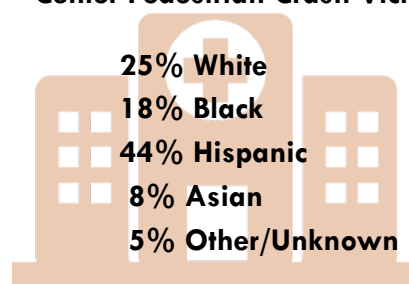


Half of the victims were hit at 20 mph or greater

Racial/Ethnic Distribution of Los Angeles County Population³



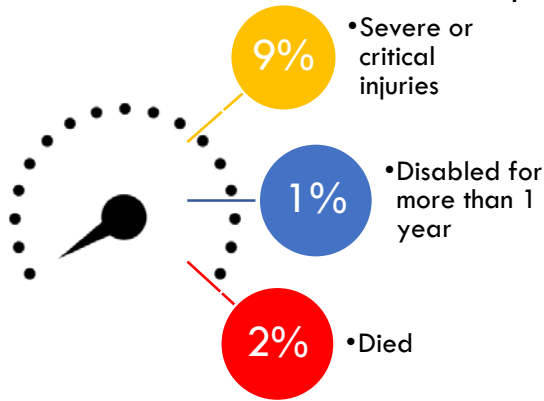
Racial/Ethnic Distribution of Trauma Center Pedestrian Crash Victims



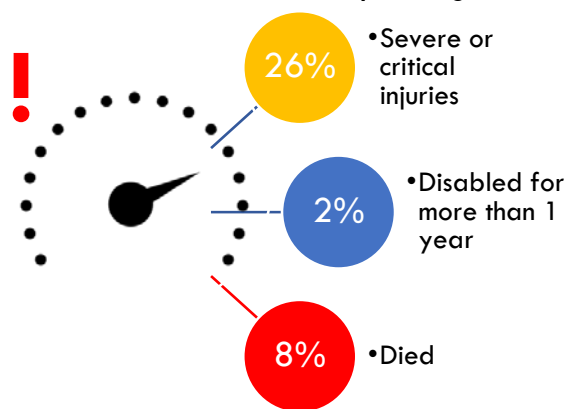
Blacks are overrepresented among pedestrian crash victims – they represent only 8% of the county population, but 18% of victims

HOW DO THE PEDESTRIAN INJURIES DIFFER BETWEEN HIGH SPEED AND LOW SPEED MOTOR VEHICLE CRASHES?

Pedestrians hit at less than 20 mph



Pedestrians hit at 20 mph or greater



Pedestrians hit at speeds greater than 20 miles per hour are more likely to be injured, disabled, or die. BUT pedestrians hit at low speeds still face death, disability, and injury.

WHAT CAN BE DONE TO KEEP PEDESTRIANS SAFE?

Promote Pedestrian Safety

Promoting pedestrian safety among all roadway users can increase empathy and ensure that everyone knows the rules of the road and are more likely to follow them. Media campaigns, driving classes, and pedestrian safety classes are all ways to promote pedestrian safety.



Promote Pedestrian Safety

Build Streets that Slow Cars Down and Increase Visibility

Street designs that include wide sidewalks, street trees, curb extensions, lighting, speed humps, and other interventions can promote slower vehicle speeds (“traffic calming”) and increase the visibility of people walking to drivers, and vice versa. These interventions help prevent crashes from happening and/or reduce crash severity.



Build Streets that Slow Cars Down and Increase Visibility

Collect Quality Data and Conduct Better Surveillance

Without comprehensive data about who is using our streets (like how many people are walking) and what is happening on our streets (like sidewalk condition) it’s hard to know what to change to increase the safety of people walking. Gaining access to quality data and conducting better surveillance can help facilitate long-term, sustainable change.



Collect Quality Data and Conduct Better Surveillance

References

- Retting R. (Sam Schwartz Consulting) Governors Highway Safety Association. Pedestrian traffic fatalities by state: 2017 preliminary data.
- Los Angeles County Department of Health Services, EMS Agency, Trauma database, 2013-2014.
- U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates.

Images

Freepik – www.flaticon.com/
 “Speedometer icon” by designvector. “Data icon” by sofi. Both icons from the Noun Project – www.thenounproject.com

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Suggested Citation

Porter K, Singh C, Armbruster J. Pedestrians in Motor Vehicle Traffic Crashes: How Do They Fare in Los Angeles County? Los Angeles County Department of Public Health, Division of Chronic Disease and Injury Prevention, PLACE Program. Issue Brief. October 2018.

