

Special Emphasis Report: Pedestrian Injuries

2021
California

Understanding Pedestrian Injuries

Pedestrians include people who are on foot, lying down, or on other small personal conveyances, such as a scooter or skateboard. Injuries to pedestrians struck by a motor vehicle traveling on a public roadway are referred to as “motor vehicle-traffic (MVT) related”. “Other” pedestrian injuries include those in which a person is struck by a motor vehicle not traveling on a public roadway (“motor vehicle non-traffic”) or by a non-motor vehicle, such as a bicycle or animal.



Impact and Magnitude of Pedestrian Injuries

During 2021, there were 1,388 deaths of California residents due to pedestrian injuries (3.4 per 100,000). There were an additional 4,312 hospitalizations (10.8 per 100,000) and 14,740 emergency department visits among California residents (37.5 per 100,000) due to nonfatal pedestrian injuries (Figure 1). Deaths and hospitalizations represent the most severe injuries and are the focus of this report. Between 2017 and 2021 the age-adjusted rate of deaths of California residents due to pedestrian injuries increased 22%, from 2.8 per 100,000 in 2017 to 3.4 per 100,000 in 2021 (Figure 2). Age-adjusted rates of pedestrian injury hospitalizations increased from 2017 to 2019, declined in 2020, then rebounded to 2017 levels in 2021 (10.8 per 100,000).

Causes of Pedestrian Injuries

The majority of pedestrian related deaths (90%), hospitalizations (86%), and emergency department visits (73%) in 2021 were due to MV-traffic injuries. The remaining injuries were due to “other” pedestrian injuries.

Figure 1: Burden of Pedestrian Injury-Related Deaths, Hospitalizations and Emergency Department Visits among California residents, 2021

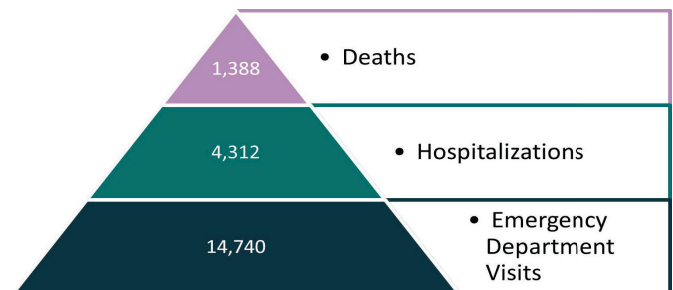
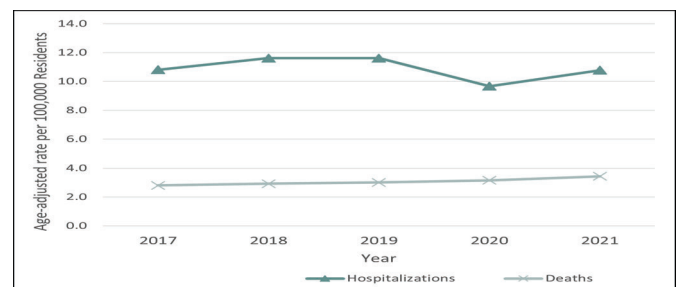


Figure 2: Five-Year Trend of Pedestrian Injury-Related Deaths and Hospitalizations among California residents, 2017 to 2021

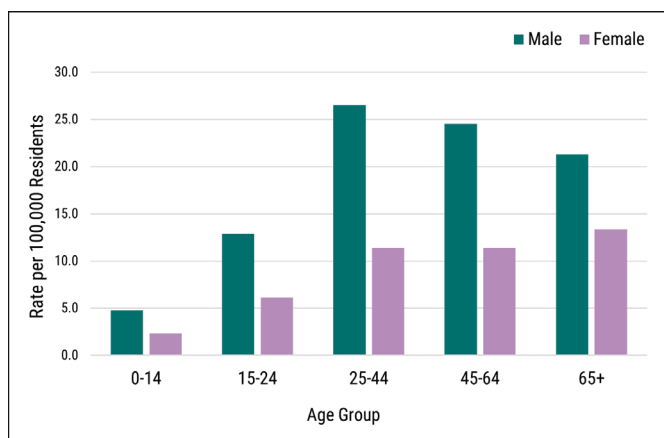


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Pedestrian Injuries by Age Group and Sex

Combined rates of pedestrian injury-related deaths and hospitalizations in California in 2021 were higher for males than females across all ages (Figure 3). Males had the highest combined rates in the 25-44 age group (26.5 per 100,000) whereas the highest rate among females was for ages 65+ (13.4 per 100,000).

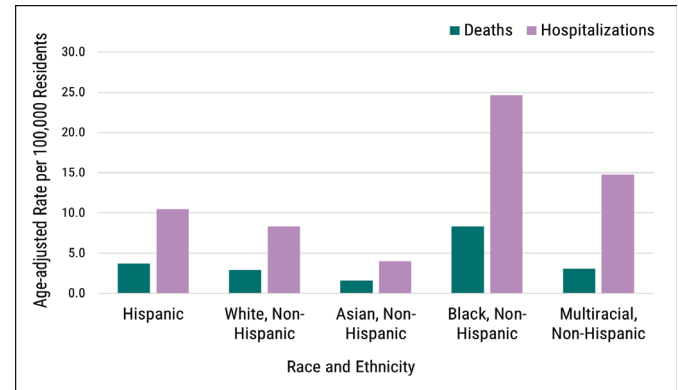
Figure 3: Combined Rate of Pedestrian Injury-related Deaths and Hospitalizations among California residents by Sex and Age, 2021



Pedestrian Injuries by Race and Ethnicity

Age-adjusted rates of pedestrian injury-related deaths in 2021 were substantially higher among non-Hispanic Black California residents (8.4 per 100,000) than among other race and ethnicity groups (Figure 4). Non-Hispanic Black Californians also had the highest age-adjusted rates of pedestrian injury-related hospitalizations (24.6 per 100,000). Non-Hispanic Asian Californians had the lowest age-adjusted rates of pedestrian injury-related deaths (1.6 per 100,000) and hospitalizations (4.0 per 100,000) in 2021.

Figure 4: Age-adjusted rate of Pedestrian Injury-Related Deaths and Hospitalizations among California residents by Race and Ethnicity, 2021



Pedestrian Injuries Prevention Resources

- [Centers for Disease Control and Prevention](#)
- [National Highway Traffic Safety Administration](#)
- [Federal Highway Administration](#)
- [Safe Routes to Schools](#)
- [Vision Zero](#)

Data Sources and Methods

Pedestrian injury-related deaths were identified from the CDPH California Comprehensive Master Death File. Hospital and ED visits were identified from the California Department of Health Care Access and Information Patient Discharge Data and ED data, respectively. Rates were calculated using California Department of Finance, Demographic Research Unit, Report P-3: Population Projections, California, 2010-2060 Baseline 2019 Population Projections; Vintage 2020 Release). Report template and methods provided by the [Council of State and Territorial Epidemiologists](#) (CSTE).

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California Pedestrian Injury Prevention Activities

The California Department of Public Health's Injury and Violence Prevention Branch (CDPH-IVPB) is responsible for developing and implementing policies, programs, and surveillance systems to prevent deaths and disability from injury across California, including those involving active transportation. CDPH-IVPB is involved in the following statewide pedestrian safety-related activities and programs:

The Strategic Highway Safety Plan (SHSP) Collaboration – managed by Caltrans, California's State Department of Transportation and involving more than 400 stakeholders statewide – reflects a multi-disciplinary effort to eliminate fatal and serious injuries for all road users through the Safe System approach, which recognizes several interconnected elements to achieving a vision of zero fatalities and serious injuries – safe road users, safe roads, safe speeds, safe vehicles, and post-crash care. SHSP involvement is open to all Californians who wish to participate in state-level collective impact.

The Active Transportation Resource Center (ATRC) – managed by Caltrans and funded by the California Transportation Commission's Active Transportation Program (ATP) - provides trainings, tools, and technical assistance for ATP applicants and implementing agencies. The ATRC also provides resources intended to enhance pedestrian and bicyclist safety and promote increased walking and bicycling.

Kids Plates, a competitive grant program open to childhood unintentional injury prevention coalitions in California that can choose to focus on pedestrian safety activities.

Crash Medical Outcomes Data Project (CMOD), funded through the Office of Traffic Safety, develops transportation injury related resources to describe California traffic injury trends and disparities using health and transportation data (e.g., data on injury-related fatalities, hospitalizations, and emergency department visits).

Core State Injury Prevention Program, funded through the Centers for Disease Control and Prevention, looks to enhance state injury prevention surveillance and partnership related to transportation safety, traumatic brain injury, and adverse childhood experiences.

For more information about CDPH-IVPB programs, please visit the [IVPB homepage](#) or email IVPB@cdph.ca.gov

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