



Data Linkage Results

Pedestrian-related Crashes, Oklahoma, 2009

According to National Highway Traffic Safety Administration data, 4,092 pedestrians were fatally injured in the U.S. in 2009. The Oklahoma Traffic Data Linkage Project (TDLP) is a joint effort between the Oklahoma State Department of Health and the Oklahoma Highway Safety Office to link statewide traffic crash and health outcome databases. This report describes the circumstances and outcomes of pedestrian-related crashes.

Inclusion of Cases

Pedestrian-related crashes were identified from the traffic crash database. Information was also gathered regarding drivers of vehicles that struck the pedestrians.

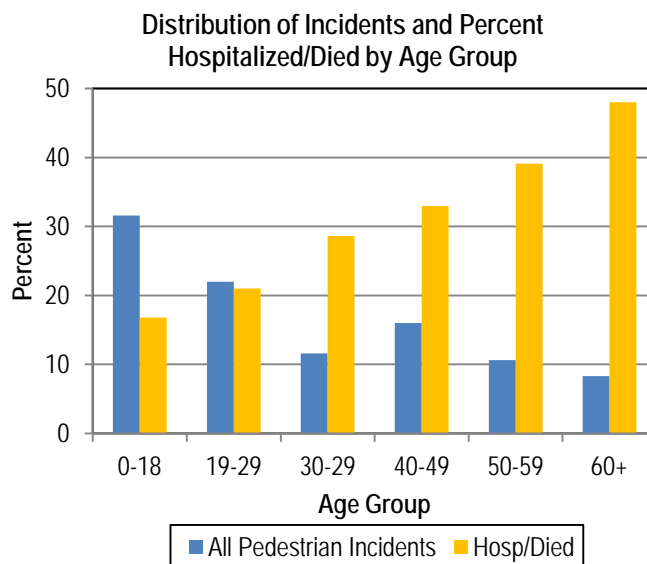
Introduction and Demographics

- There were 605 persons involved in 564 pedestrian-related crashes in 2009.
- 161 pedestrians were hospitalized (22%) or died (5.6%) as a result of the incidents.
- 67% of pedestrians were male. The proportions hospitalized were identical for males and females at 22%; however, a greater proportion of males (7%) died from the incident as compared to females (3%).
- 31.6% of the pedestrians involved were under 18 years of age and 16.8% of this group was either hospitalized (16%) or died (2%) – the lowest ‘rates’ among the age groups examined.
- The over-60 age group comprised the smallest proportion of the pedestrians, accounting for just 8%; however, this group had the highest percentage (48%) of either hospitalization (38%) or death (14%).

Circumstances

- 129 (23%) of the incidents were reportedly hit-and-run incidents. 19% of the hit-and-run victims were hospitalized; 4% died.
- 54% of the pedestrian incidents happened in daylight, 22% in the dark with no lighting, 18% in the dark with lighting, and the remainder were at dawn/dusk or in unknown light conditions.

- Unadjusted mortality was 4% for daylight incidents, 9% for dark/no lighting, and 7% for dark/with lighting. Rates of hospitalization were 20% for daylight, and for dark/no lighting and dark/with lighting, 24% and 24.6%, respectively.
- Though a city street was the most common location (74%) for pedestrian-related crashes, it was the least likely location to result in hospitalization or death (22%) – 21% hospitalized and 2.7% died.
- The pedestrian action was reported as unknown for 23% of the crashes. Among those that were known, crossing not at an intersection was the most frequent action (15%), followed by crossing at an intersection (11%) and walking with traffic (10%).
- 42% of persons struck crossing not at an intersection were either hospitalized or died. 40% of those walking with traffic were either hospitalized or died. 21.5% of those crossing at an intersection were hospitalized or died.
- Location was reported for 81% of the involved pedestrians. Among those with a known location, 48% were in the roadway, not at an intersection and not in a designated crosswalk.
- Among those in a crosswalk at an intersection, 8% were either hospitalized or died. Among those at an intersection with no crosswalk, 44% were either hospitalized or died. Among those in the roadway and not at an intersection or crosswalk, 32% were either



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- hospitalized or died; among those on a shoulder, 14% and among those on roadside, 29%.
- Rates of hospitalization or death were highest for pedestrians injured on a Friday (36%) or Saturday (32%) as compared to 16% to 26% for other days of the week.
- 43% of the pedestrian-related crashes happened between 3pm and 8pm. However, incidents happening between midnight and 3am were the most likely to result in hospitalization or death of the pedestrian (42%), as compared to 18% to a little over 30% for other times of day. 38% of the incidents occurring between midnight and 3am were fatal as compared to the next closest rate (24%) for events occurring between 3pm and 6pm.

Alcohol Involvement

- 97 (16%) of the pedestrians were noted to be alcohol impaired at the time of the incident – alcohol involvement was most frequently noted in the 30-39 year old group (29%). Male pedestrians (17%) were more frequently alcohol impaired as compared to females (14%).
- Among pedestrians who were hospitalized, 23% were alcohol impaired and among the deaths, 32% were alcohol impaired.
- 16% of the drivers were reported to have been alcohol impaired. 39.4% of pedestrians struck by an alcohol impaired driver were either hospitalized (32%) or died (8.5%) as compared to 24.3% hospitalized (21%) or died (5%) among those where the driver was reportedly not alcohol impaired.

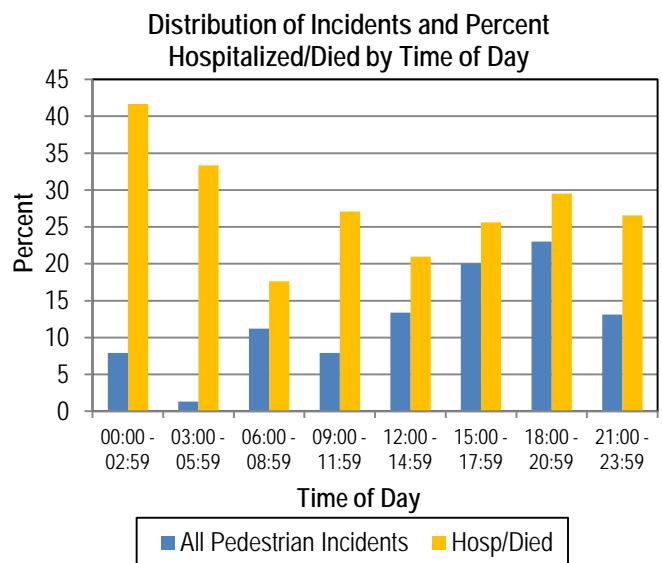
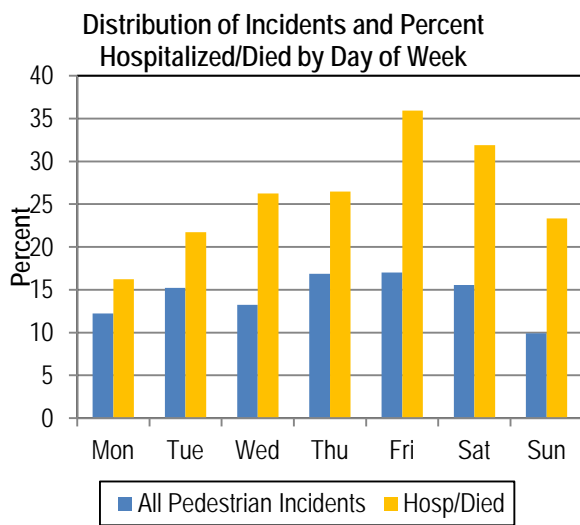
- Saturday had the highest percent of alcohol-related events (28%) as compared to 9.5% to 18% for other days of the week.

Hospital Charges and Primary Payer Source

- The median total charge for all hospitalized pedestrians was \$40,969. The median charge for alcohol impaired pedestrians (\$46,144) was considerably higher than those not impaired by alcohol (\$37,000).
- Median and mean length of stay was 5 days and 8 days, respectively, for the overall group (range 1-80 days), 4 days and 7 days for non-alcohol impaired (range 1-51 days), and 6 days and 12 days for alcohol impaired (range 1-80 days).
- Self-pay or Medicaid was indicated as the primary payer for 44% of the hospitalized pedestrians.

Type and Site of Injuries for Hospitalized Persons

- The most frequently recorded site of injury among the hospitalized was the head, face, neck (29%), torso (25%), and upper (14%) and lower (21%) extremities (25% combined). Individuals may have multiple injuries recorded for the same body region.
- The most frequently reported type of injury was fractures (44%), superficial injuries (18%), internal organs (15%), and open wounds (14%).
- Of the 133 hospitalized pedestrians, 56 (42%) had a traumatic brain injury (TBI) as one of their diagnoses.



TDLP Data Linkage Results is a publication of the Injury Prevention Service, Oklahoma State Department of Health and the Oklahoma Highway Safety Office. This and other reports may be obtained from the Injury Prevention Service, Oklahoma State Department of Health, 1000 N.E. 10th Street, Oklahoma City, OK 73117, 405-271-3430. IPS publications are also available at <http://ips.health.ok.gov>.