

1,690
Deaths (2009-2013)
39,372
Hospital Discharges
(2008-2012)
285,946
Emergency Department
Visits (2008-2012)

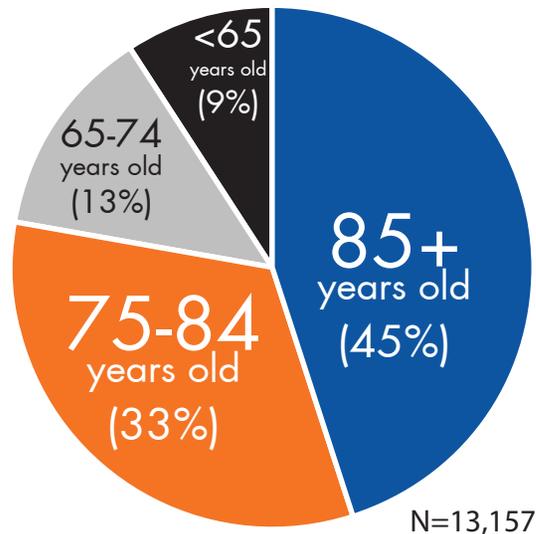
Hip Fractures

(Hospital Discharges 2008-2012)

Among falls injury HDs, one-third included a hip fracture while only 1% of falls injury EDVs included a hip fracture. More than three-quarters (78%) of falls injury HDs including a hip fracture were among those 75 years old and older.

Falls Injury Severity

The more than 1,600 deaths that resulted from unintentional falls between 2009 and 2013 represent only a fraction of falls injuries in Kansas. For every fall death in Kansas, during 2008 to 2012, there were approximately 23 times as many falls related hospital discharges (HD) and 169 times as many falls related emergency department visits (EDV).



How To Use this Document:

This document is intended to give readers an overview of falls injuries in Kansas. Most of the numbers used to create the charts and graphs can be found in data tables at the end of this document.

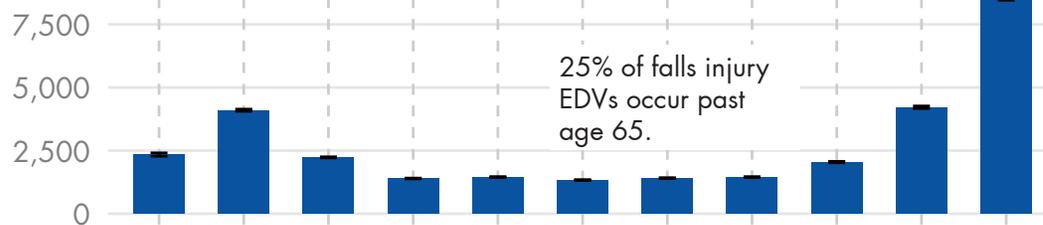
Data Sources:

This document uses three databases to describe different severities of falls injuries. The most serious is deaths. The two other databases reflect injuries that result in hospital care. The emergency department visit (EDV) database includes injuries that have a hospital stay of less than 24 hours, the least serious injuries. Hospital stays longer than 24 hours are hospital discharges (HD). All data for deaths refer to the 2009 to 2013 time period. All data for EDV and HD refer to the 2008 to 2012 time period.

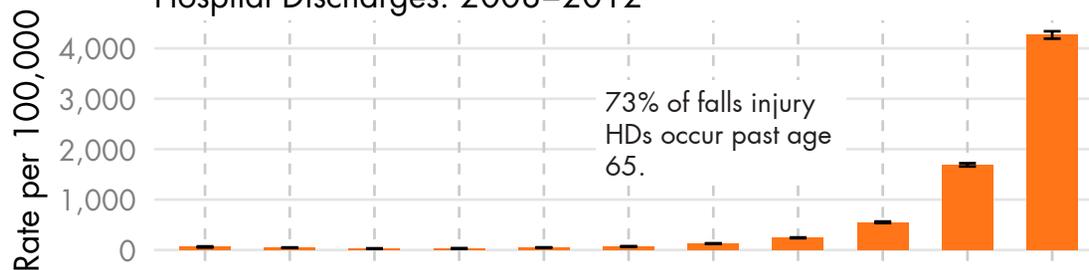
For more information, call: (785) 291-3742
 email: injury@kdheks.gov, visit: www.kdhe.ks.gov/idp

Kansas Age-specific Falls Injury Rates

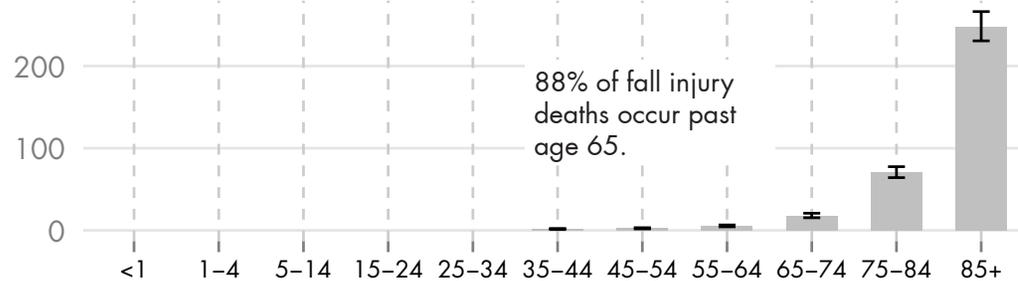
Emergency Dept. Visits: 2008–2012



Hospital Discharges: 2008–2012



Deaths: 2009–2013

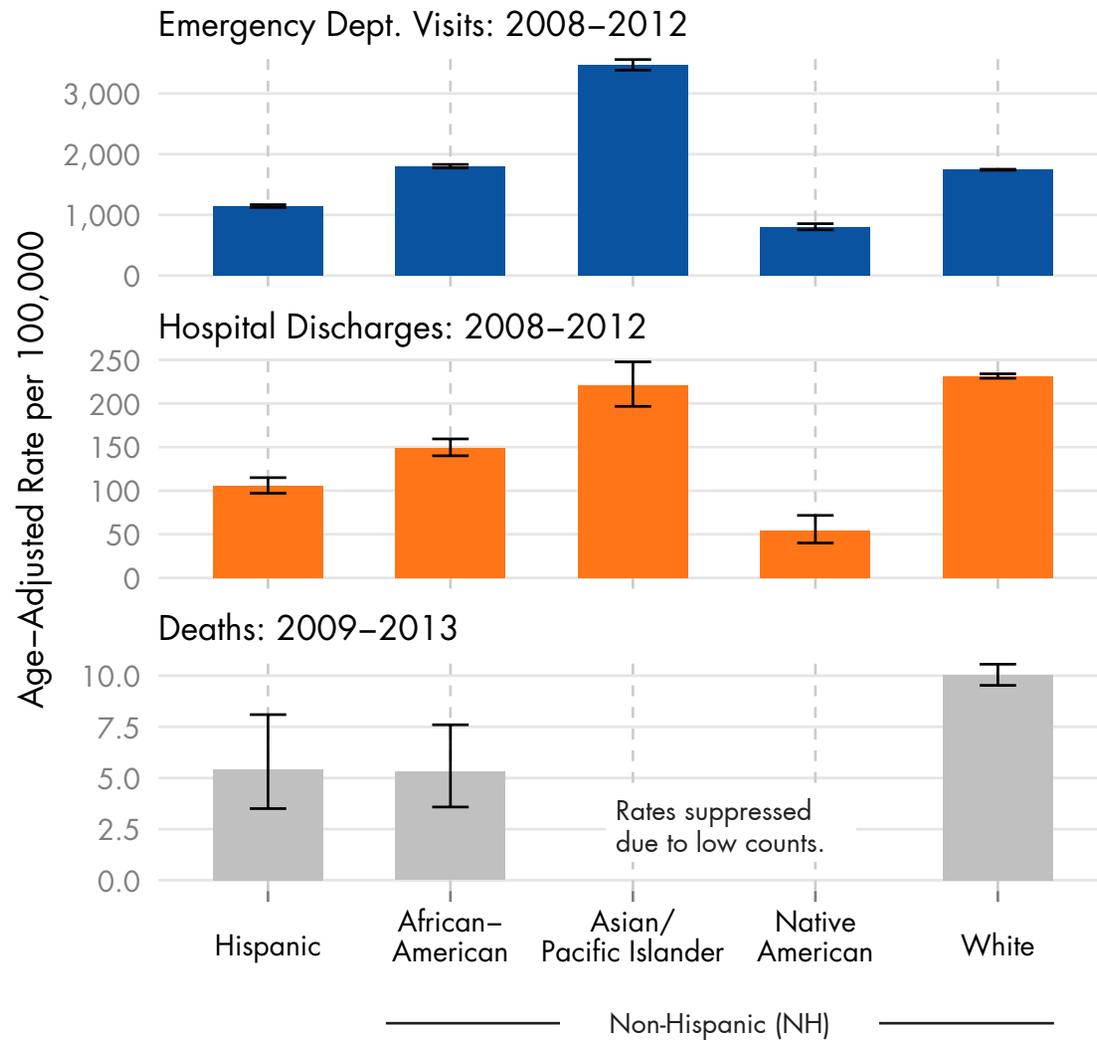


Age Groups (Years)

Falls injuries change over the lifespan. For hospital discharges and deaths the rate of falls injury greatly increases with increasing age. Falls injury EDVs are higher among children 1-4 years old and adults 75 years and older.

More falls occur in older ages due to a number of factors including medical issues, impairment of vision, gait and balance (1).

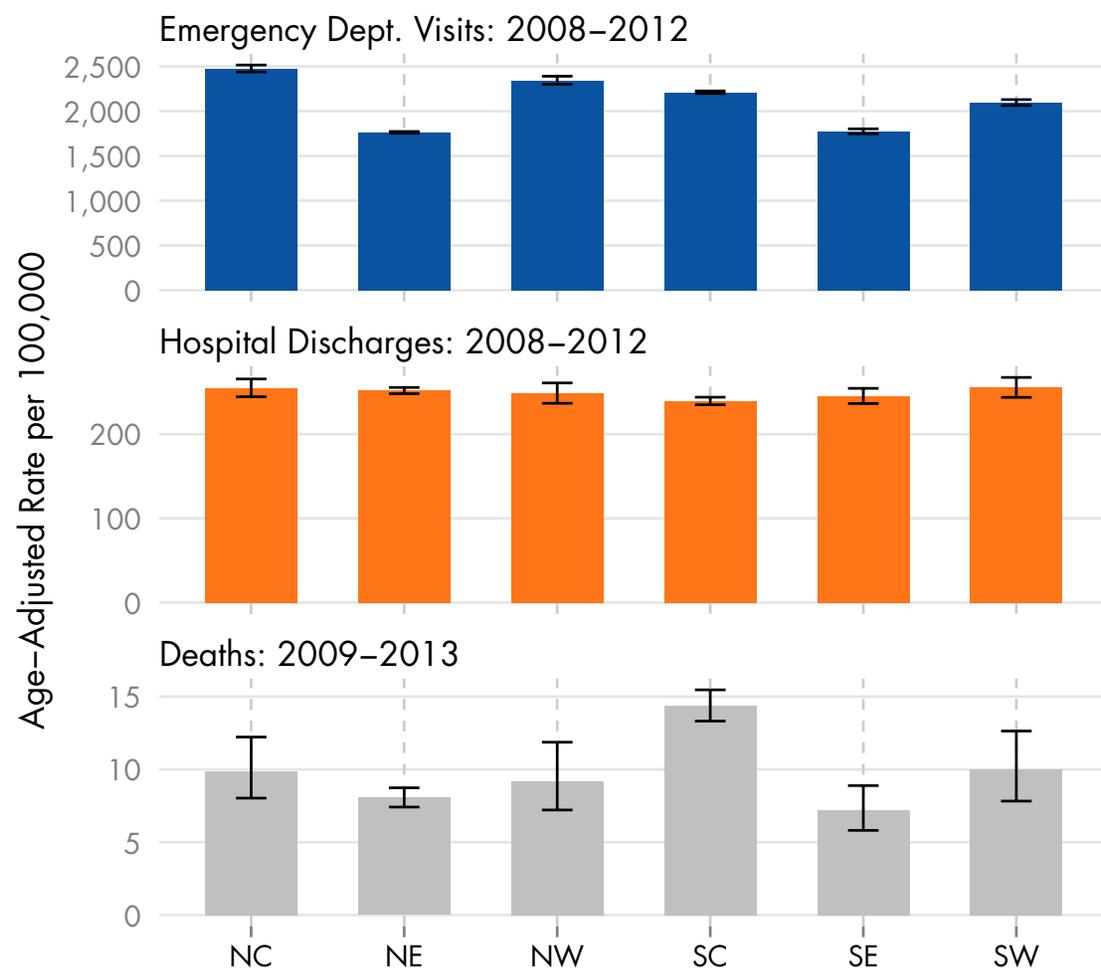
Kansas Falls Injury Rates by Race/Ethnicity



Racial/ethnic differences exist when looking at falls injuries. Non-Hispanic (NH) Asian/Pacific Islanders had the highest rates of falls injury EDVs. This group, along with NH whites had the highest falls HD rates. Non-Hispanic African-Americans and Hispanics had lower rates of falls injury as compared to NH whites among EDVs, HDs and deaths.

Note: Falls injury rates by race/ethnicity are per 100,000 population and are age-adjusted to the 2000 U.S. Standard population using the direct method.

Kansas Falls Injury Rates by Trauma Region



Falls injury rates differ by trauma region in Kansas. Among emergency department visits the highest rates were seen in the north central and northwest regions as compared with the rest of the state, but for hospital discharges the rates for most regions are much more similar. The south central region had the highest falls death rate.

Abbreviations: NC= North central, NE=Northeast, NW=Northwest, SC=South central, SE=Southeast and SW=Southwest.

Note: Fall injury rates by trauma region are per 100,000 population and are age-adjusted to the 2000 U.S. Standard population using the direct method.

| Category | #Deaths | Death Rate per 100k* | 95% CI | #HD | HD Rate per 100k* | 95% CI | #EDV | EDV Rate per 100k* | 95% CI |
|---------------------------------|---------|----------------------|---------------|--------|-------------------|-------------------|--------|--------------------|-----------------|
| Age Group (age specific) | | | | | | | | | |
| <1 | ... | ... | ... | 123 | 60.1 | 50.0 - 71.7 | 4,791 | 2,409.6 | 2,276.5-2,409.6 |
| 1-4 | ... | ... | ... | 377 | 46.2 | 41.7 - 51.1 | 33,432 | 4,142.3 | 4,054.3-4,142.3 |
| 5-14 | ... | ... | ... | 594 | 30.2 | 27.8 - 32.7 | 43,948 | 2,252.6 | 2,210.8-2,252.6 |
| 15-24 | 11 | ... | ... | 660 | 31.9 | 29.5 - 34.4 | 28,860 | 1,410.6 | 1,378.4-1,410.6 |
| 25-34 | 16 | ... | ... | 933 | 49.5 | 46.4 - 52.8 | 27,375 | 1,469.4 | 1,435.0-1,469.4 |
| 35-44 | 26 | 1.5 | 1.0 - 2.2 | 1,243 | 71.4 | 67.4 - 75.4 | 23,217 | 1,350.1 | 1,315.8-1,350.1 |
| 45-54 | 51 | 2.6 | 1.9 - 3.4 | 2,581 | 128.6 | 123.7 - 133.7 | 28,295 | 1,426.8 | 1,393.9-1,426.8 |
| 55-64 | 101 | 5.9 | 4.8 - 7.2 | 3,994 | 241.9 | 234.5 - 249.5 | 23,934 | 1,468.0 | 1,431.3-1,468.0 |
| 65-74 | 180 | 18.1 | 15.6 - 21.0 | 5,255 | 550.0 | 535.2 - 565.1 | 19,535 | 2,073.4 | 2,016.0-2,073.4 |
| 75-84 | 470 | 75.0 | 68.3 - 82.1 | 10,574 | 1,688.80 | 1,656.7 - 1,721.3 | 26,389 | 4,265.8 | 4,163.9-4,265.8 |
| 85+ | 829 | 270.6 | 252.5 - 289.6 | 13,038 | 4,264.80 | 4,191.9 - 4,338.7 | 26,170 | 8,664.8 | 8,457.0-8,664.8 |

| Category | #Deaths | Death Rate per 100k* | 95% CI | #HD | HD Rate per 100k* | 95% CI | #EDV | EDV Rate per 100k* | 95% CI |
|----------------------------|---------|----------------------|------------|--------|-------------------|---------------|---------|--------------------|-----------------|
| Racial/Ethnic Group | | | | | | | | | |
| Hispanic | 29 | 5.4 | 3.5 - 8.1 | 787 | 105.7 | 97.1 - 115.0 | 15,355 | 1,144.60 | 1,121.5-1,168.2 |
| NH African-American | 32 | 5.3 | 3.6 - 7.6 | 1,025 | 149.4 | 140.0 - 159.4 | 16,341 | 1,802.00 | 1,773.1-1,831.2 |
| NH Asian/Pacific Islander | ... | ... | ... | 353 | 221 | 196.7 - 247.7 | 8,506 | 3,471.30 | 3,385.1-3,559.6 |
| NH Native American | ... | ... | ... | 59 | 53.9 | 40.0 - 71.7 | 1,099 | 802.7 | 753.8- 854.9 |
| NH White | 1,547 | 10.0 | 9.5 - 10.6 | 33,241 | 231.4 | 228.9 - 234.0 | 203,710 | 1,743.60 | 1,735.8-1,751.3 |

NH: Non-Hispanic

...: Suppressed due to low counts

| Category | #Deaths | Death Rate per 100k* | 95% CI | #HD | HD Rate per 100k* | 95% CI | #EDV | EDV Rate per 100k* | 95% CI |
|----------------------|---------|----------------------|-------------|--------|-------------------|---------------|---------|--------------------|-----------------|
| Gender | | | | | | | | | |
| Female | 884 | 8.4 | 7.9 - 9.0 | 25,551 | 271.5 | 268.1 - 275.0 | 161,341 | 2,123.90 | 2,113.3-2,134.6 |
| Males | 806 | 12.2 | 11.4 - 13.1 | 13,821 | 207.1 | 203.6 - 210.6 | 124,599 | 1,776.20 | 1,766.3-1,786.2 |
| Trauma Region | | | | | | | | | |
| NC | 105 | 10.0 | 8.1 - 12.3 | 2,510 | 254.8 | 244.5 - 265.5 | 17,300 | 2,476.50 | 2,438.1-2,515.5 |
| NE | 600 | 7.9 | 7.3 - 8.6 | 18,447 | 251.8 | 248.1 - 255.5 | 127,117 | 1,762.90 | 1,753.2-1,772.8 |
| NW | 78 | 9.3 | 7.3 - 11.9 | 1,872 | 248.4 | 236.7 - 260.8 | 12,223 | 2,345.10 | 2,300.9-2,390.0 |
| SC | 731 | 14.3 | 13.2 - 15.4 | 11,547 | 239.4 | 235.0 - 243.9 | 95,576 | 2,211.50 | 2,197.3-2,225.7 |
| SE | 102 | 7.3 | 5.9 - 9.0 | 3,135 | 245.2 | 236.4 - 254.4 | 17,481 | 1,774.50 | 1,747.4-1,802.0 |
| SW | 74 | 10.0 | 7.8 - 12.6 | 1,861 | 255.3 | 243.7 - 267.4 | 16,249 | 2,096.10 | 2,063.5-2,129.0 |
| Total | 1,690 | 10.1 | 9.6-10.6 | 39,372 | 247.2 | 244.7-249.7 | 285,946 | 1,964.30 | 1,957-1,971.6 |

Technical Notes:

All fall injuries in this analysis are unintentional. Falls EDVs and HDs were defined as cases with the following ICD-9CM E-codes: E880.0-E886.9, E888. Fall deaths were defined as death with following ICD-10 codes: W00-W19

95% CI: 95% Confidence Interval

*Fall rates are per 100,000 population and are age-adjusted to the 2000 U.S. Standard population using the direct method (unless noted as age specific).

Source: 2008-2012 Kansas Emergency Department and Hospital Discharge Database, Kansas Hospital Association, 2009-2013 Kansas Vital Statistics, Bureau of Epidemiology and Public Health Informatics.

Trauma Region: Abbreviations: NC= North Central, NE=Northeast, NW=Northwest, SC=South Central, SE=Southeast and SW=Southwest. Trauma regions are defined by the Kansas Trauma Program. For more information on the current boundaries please visit www.kstrauma.org.

References

1. Baker S, O'Neill B, Ginsburg M. *The Injury Fact Book. 2nd ed.* New York: Oxford University Press; 1992.