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Health E-Stat 107: Trends in Pedestrian and Pedal Cyclist Injury Deaths: United States, 2013–2023

by Anne M. Zehner, M.P.H., and Matthew F. Garnett, M.P.H.

Pedestrians and pedal cyclists are recognized as two classes of vulnerable road users, or those who travel on roads and highways without the physical protection provided by a motor vehicle, such as a car or truck (1). Pedestrian and pedal cyclist injury deaths include injuries sustained due to walking, running, standing, or otherwise being on foot on a public road or private property and cycling on a public road or private property, respectively, and include motor vehicle traffic-related and non-motor vehicle traffic-related injuries. This report describes trends in pedestrian and pedal cyclist injury deaths from 2013 to 2023 by census region, sex, and age group.

Between 2013 and 2023, the age-adjusted rate of pedestrian and pedal cyclist injury death in the United States rose from 2.1 deaths per 100,000 standard population to 2.9 (Figure 1, Table). During the period, rates increased in the Midwest, South, and West. No significant change was seen in rates for the Northeast between 2013 and 2023. In all years, rates were higher for the South and West compared with those for the Northeast and Midwest.

Among women ages 25–44 and 45–64, the rate of pedestrian and pedal cyclist injury death increased between 2013 and 2023 (Figure 2, Table). No significant trends were observed between 2013 and 2023 for females ages 0–14 and 15–24 and women age 65 and older.

Among men age 25 and older, the death rate for pedestrian and pedal cyclist injury increased between 2013 and 2023 (Figure 3, Table). The death rate decreased for males ages 0–14 in this same period, with no significant trend seen for males ages 15–24.

Data source and methods

Data are from the National Vital Statistics System mortality files for 2013 through 2023, as presented in CDC WONDER (2,3). Deaths were identified using *International Statistical Classification of Diseases, 10th Revision* (ICD–10) underlying cause-of-death codes V01–V09 for pedestrians and V10–V19 for pedal cyclists (4). Tests for trends in rates were performed in Joinpoint 5.0.2 (5–7). Age-adjusted death rates were calculated using the direct method and were adjusted to the 2000 U.S. standard population (6).

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NCHS reports can be downloaded from: https://www.cdc.gov/nchs/products/index.htm.

References

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Suggested citation

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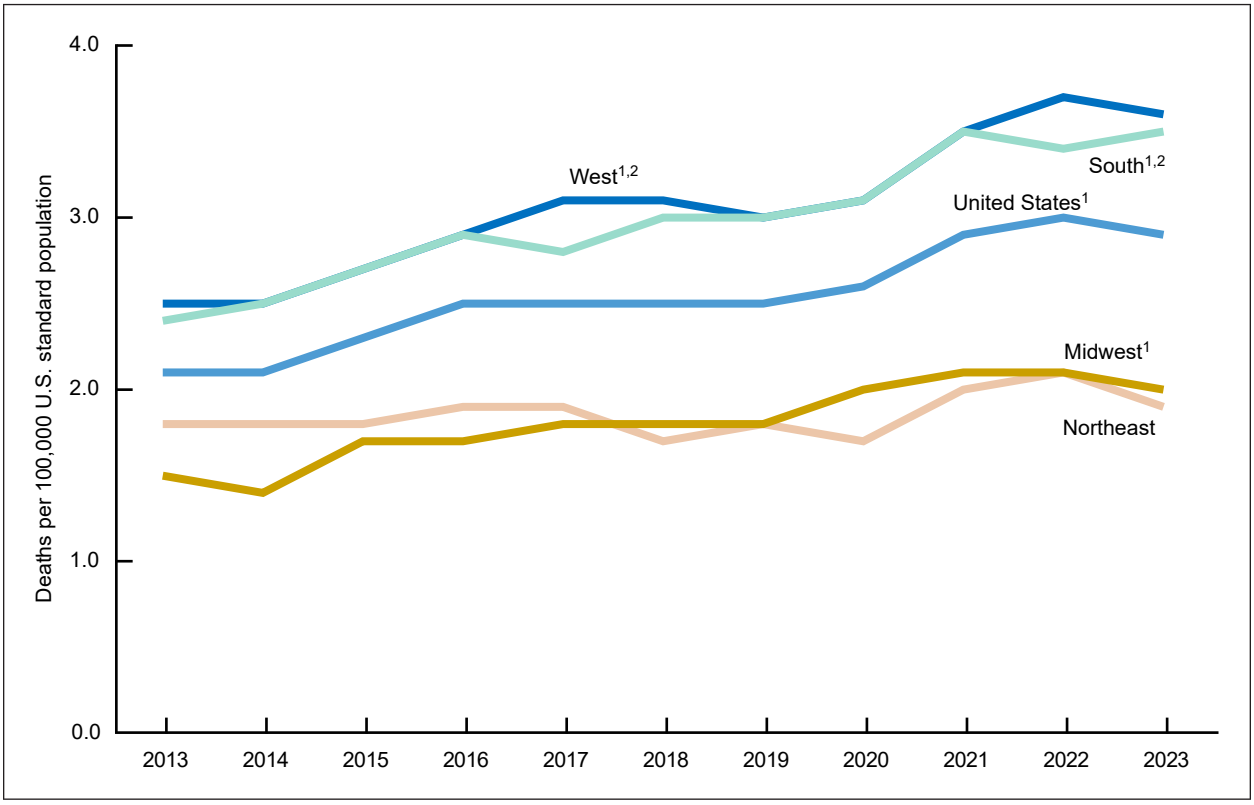
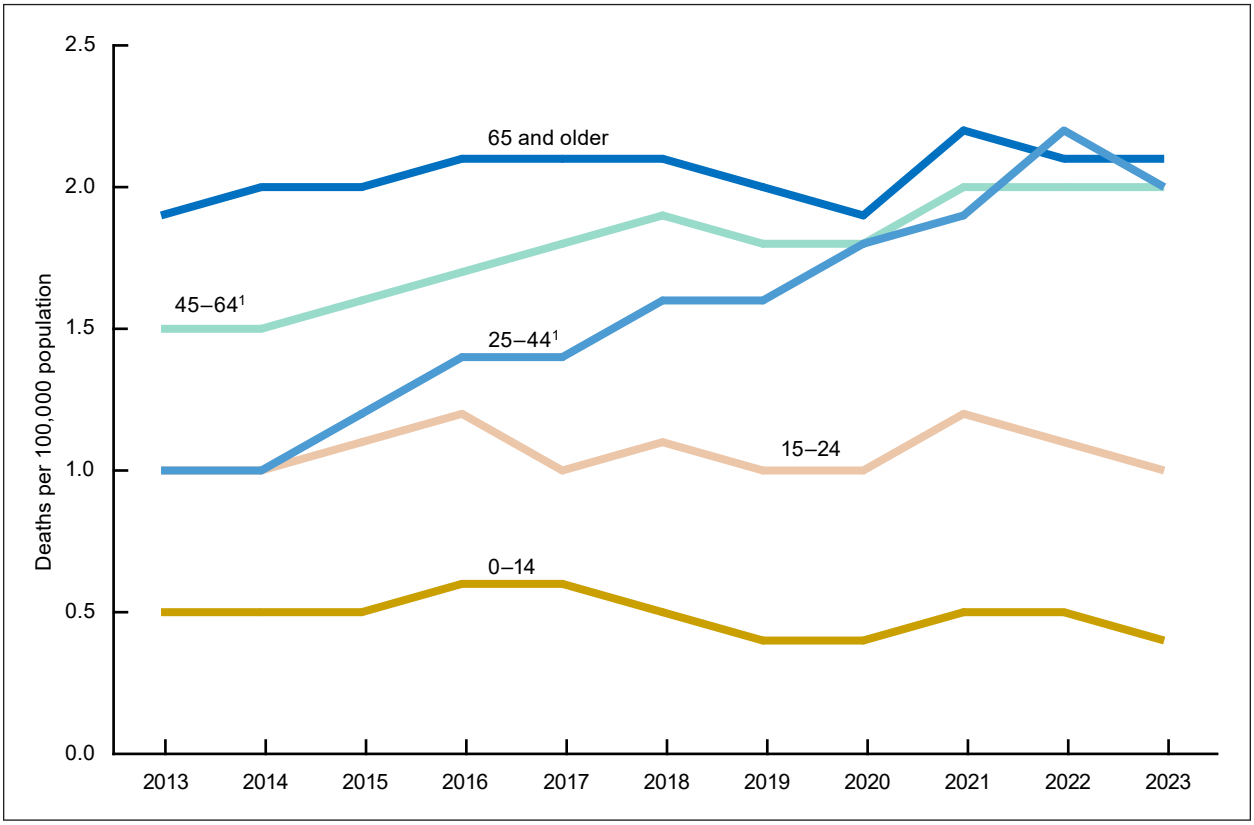
Figure 1. Age-adjusted pedestrian and pedal cyclist injury death rate, by census region: United States, 2013–2023



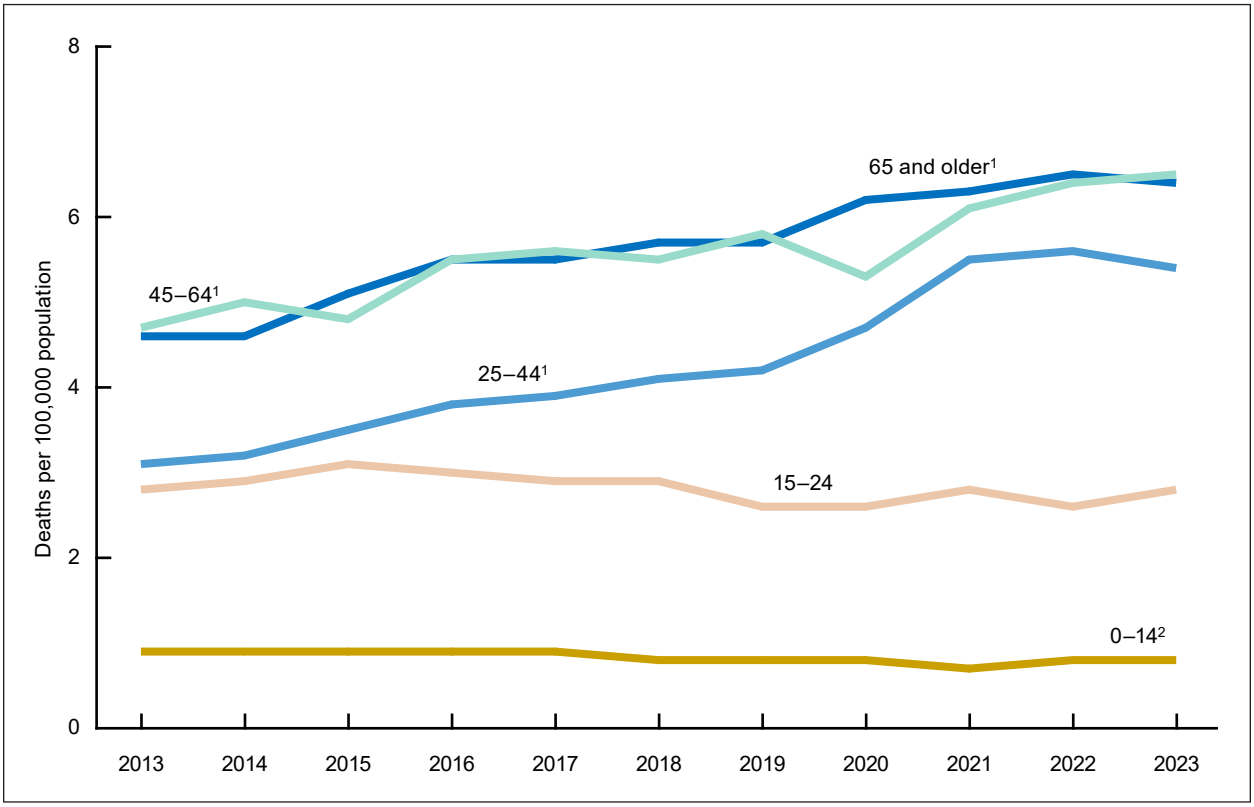
[1]Significant increase between 2013 and 2023 ($p < 0.05$).
[2]Rate significantly higher than Midwest and Northeast for all years ($p < 0.05$).
NOTES: Unintentional pedestrian and pedal cyclist injury deaths are identified using *International Classification of Diseases, 10th Revision* underlying cause-of-death codes V01–V19. Age-adjusted death rates were calculated using the direct method and the 2000 U.S. standard population.
SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Figure 2. Pedestrian and pedal cyclist injury death rate for females, by age group: United States, 2013–2023



[1]Significant increase between 2013 and 2023 ($p < 0.05$).
NOTES: Unintentional pedestrian and pedal cyclist injury deaths are identified using *International Classification of Diseases, 10th Revision* underlying cause-of-death codes V01–V19. Age group-specific rates are deaths per 100,000 population.
SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Figure 3. Pedestrian and pedal cyclist injury death rate for males, by age group: United States, 2013–2023



[1]Significant increase between 2013 and 2023 ($p < 0.05$).
[2]Significant decrease between 2013 and 2023 ($p < 0.05$).
NOTES: Unintentional pedestrian and pedal cyclist injury deaths are identified using *International Classification of Diseases, 10th Revision* underlying cause-of-death codes V01–V19. Age-group specific rates are deaths per 100,000 population.
SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table. Pedestrian and pedal cyclist injury death rate, by census region, sex, and age group: United States, 2013–2023

Characteristic	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
United States[1]	2.1	2.1	2.3	2.5	2.5	2.5	2.5	2.6	2.9	3.0	2.9
Census region											
Midwest[1]	1.5	1.4	1.7	1.7	1.8	1.8	1.8	2.0	2.1	2.1	2.0
Northeast	1.8	1.8	1.8	1.9	1.9	1.7	1.8	1.7	2.0	2.1	1.9
South[1,2]	2.4	2.5	2.7	2.9	2.8	3.0	3.0	3.1	3.5	3.4	3.5
West[1,2]	2.5	2.5	2.7	2.9	3.1	3.1	3.0	3.1	3.5	3.7	3.6
Sex and age group											
Female:											
0–14	0.5	0.5	0.5	0.6	0.6	0.5	0.4	0.4	0.5	0.5	0.4
15–24	1.0	1.0	1.1	1.2	1.0	1.1	1.0	1.0	1.2	1.1	1.0
25–44[1]	1.0	1.0	1.2	1.4	1.4	1.6	1.6	1.8	1.9	2.2	2.0
45–64[1]	1.5	1.5	1.6	1.7	1.8	1.9	1.8	1.8	2.0	2.0	2.0
65 and older	1.9	2.0	2.0	2.1	2.1	2.1	2.0	1.9	2.2	2.1	2.1
Male:											
0–14[3]	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.8	0.8
15–24	2.8	2.9	3.1	3.0	2.9	2.9	2.6	2.6	2.8	2.6	2.8
25–44[1]	3.1	3.2	3.5	3.8	3.9	4.1	4.2	4.7	5.5	5.6	5.4
45–64[1]	4.6	4.6	5.1	5.5	5.5	5.7	5.7	6.2	6.3	6.5	6.4
65 and older[1]	4.7	5.0	4.8	5.5	5.6	5.5	5.8	5.3	6.1	6.4	6.5

[1]Significant increase between 2013 and 2023 ($p < 0.05$).
[2]Rate significantly higher than Midwest and Northeast for all years ($p < 0.05$).
[3]Significant decrease between 2013 and 2023 ($p < 0.05$).

NOTES: Unintentional pedestrian and pedal cyclist injury deaths are identified using *International Classification of Diseases, 10th Revision* underlying cause-of-death codes V01–V19. Age-adjusted death rates were calculated per 100,000 using the direct method and the 2000 U.S. standard population. Age group-specific rates are deaths per 100,000 population. Midwest includes Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota; Northeast includes Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, and Pennsylvania; South includes Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Alabama, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, and Texas; and West includes Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, Alaska, California, Hawaii, Oregon, and Washington.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.