Unintentional Fall Deaths in Adults Age 65 and Older: United States, 2023

Matthew F. Garnett, M.P.H., Julie D. Weeks, Ph.D., and Anne M. Zehner, M.P.H.

Key findings

Data from the National Vital Statistics System

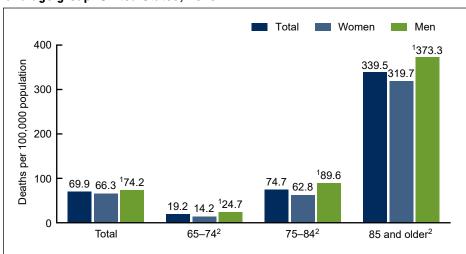
- In 2023, the unintentional fall death rate for adults age 65 and older was 69.9 per 100,000 population. Rates for both men and women increased with increasing age.
- The unintentional fall death rate for adults age 65 and older was higher for men (74.2) compared with women (66.3) overall, and for each age group.
- Among adults age 85 and older, White non-Hispanic adults had the highest rate of unintentional fall deaths, and Black non-Hispanic adults had the lowest rate, compared with other race and Hispanic-origin groups.
- Rates of unintentional fall deaths increased between 2003 and 2023 for men and women ages 65–74, 75–84, and 85 and older.
- In 2023, rates of unintentional fall deaths for adults age 65 and older ranged across states from 29.5 in Alabama to 158.4 in Wisconsin.

Falls are the leading cause of injury for adults age 65 and older (1). Older adults have higher death rates from unintentional falls than adults in other age groups. This Data Brief updates a previous report (2), presenting the most recent final data on older adult fall death rates along with trends starting from 2003.

Men age 65 and older had higher rates of unintentional fall deaths compared with women.

- In 2023, the unintentional fall death rate for adults age 65 and older was 69.9 per 100,000 population and was higher for men (74.2) compared with women (66.3) (Figure 1, Table 1).
- For each age group, men had higher rates than women.

Figure 1. Rate of unintentional fall deaths for adults age 65 and older, by sex and age group: United States, 2023



¹Significantly higher than women, p < 0.05.



²Significant increasing trend with increasing age, p < 0.05.

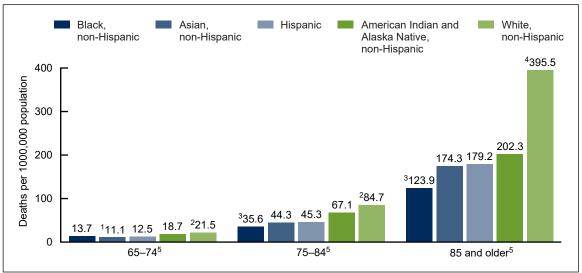
NOTES: The 2023 unintentional fall death rate for all adults age 65 and older was 69.9 deaths per 100,000 population. Unintentional fall deaths are identified using International Classification of Diseases, 10th Revision underlying cause-of-death codes WIOLD—M10

 Among adults age 65 and older, rates of unintentional fall deaths were lowest for those ages 65-74 (24.7 and 14.2 for men and women, respectively) and highest for those age 85 and older (373.3 and 319.7, respectively).

Rates of unintentional fall deaths among older adults increased with age for all race and Hispanic-origin groups.

- Among adults ages 65–74, Asian non-Hispanic (subsequently, Asian) people had a lower rate (11.1 per 100,000 population) than all other race and Hispanic-origin groups except for Hispanic people (12.5). White non-Hispanic (subsequently, White) people had the highest rate (21.5) of all race and Hispanic-origin groups except for American Indian and Alaska Native non-Hispanic (subsequently, American Indian and Alaska Native) people (18.7) (Figure 2, Table 2).
- Among adults ages 75–84, Black non-Hispanic (subsequently, Black) people had the lowest rate (35.6), and White (84.7) and American Indian and Alaska Native (67.1) people had the highest rates of unintentional fall deaths.
- Among adults age 85 and older, Black people had the lowest rate (123.9), and White people had the highest rate (395.5). Rates for Asian (174.3), Hispanic (179.2), and American Indian and Alaska Native (202.3) people were not significantly different from each other.
- Among older adults of all race and Hispanic-origin groups, rates of unintentional fall deaths were lowest for those ages 65–74 and greatest for those age 85 and older.

Figure 2. Rate of unintentional fall deaths for adults age 65 and older, by race and Hispanic origin and age group: United States, 2023



¹Rate lower than all other race and Hispanic-origin groups except Hispanic people. p < 0.05.

²Rate higher than all other race and Hispanic-origin groups except American Indian and Alaska Native non-Hispanic people, p < 0.05.

³Rate lower than all other race and Hispanic-origin groups, p < 0.05.

 $^{^{4}}$ Rate higher than all other race and Hispanic-origin groups, p < 0.05.

⁵Significant increasing trend by race and Hispanic origin with increasing age group, p < 0.05.

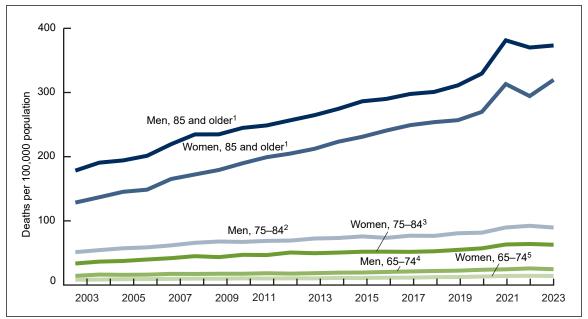
NOTES: Unintentional fall deaths were identified using International Classification of Diseases, 10th Revision underlying cause-of-death codes W00-W19. Rates for Native Hawaiian or Other Pacific Islander non-Hispanic people are not shown due to small numbers. Misclassification of race and Hispanic origin on death certificates results in underestimation of death rates by as much as 34% for American Indian and Alaska Native non-Hispanic people and 3% for Asian non-Hispanic and Hispanic people. Hispanic people may be of any race.

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

Unintentional fall death rates among older adults increased for both men and women from 2003 to 2023.

- Among men and women age 65 and older, death rates due to unintentional falls increased for all age groups between 2003 and 2023, with varying rates of change across each group (Figure 3, Table 3).
- Among adults ages 65–74, the rate for men increased from 14.3 per 100,000 population in 2003 to 24.7 in 2023, and the rate for women increased from 8.3 to 14.2.
- Among adults ages 75–84, the rate for men increased from 51.3 in 2003 to 89.6 in 2023, and the rate for women increased from 33.6 to 62.8.
- The greatest increases in rates from 2003 to 2023 for both men and women were among adults age 85 and older. Rates for this age group doubled for men (from 178.3 to 373.3) and increased 2.5 times for women (from 128.5 to 319.7).

Figure 3. Rate of unintentional fall deaths for adults age 65 and older, by year, sex, and age group: United States, 2003-2023



¹Significant increasing trend from 2003 to 2023, p < 0.05.

²Significant increasing trend from 2003 to 2008 and from 2018 to 2023 at varying rates of change, p < 0.05.

 $^{^3}$ Significant increasing trend from 2003 to 2012, p < 0.05

 $^{^{4}}$ Significant increasing trend from 2014 to 2023, p < 0.05.

Significant increasing trend from 2003 to 2007 and from 2017 to 2021 at varying rates of change, p < 0.05.

NOTE: Unintentional fall deaths are identified using International Classification of Diseases, 10th Revision underlying cause-of-death codes W00–W19.

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

In 2023, rates of unintentional fall deaths for adults age 65 and older varied by state.

- The rate of unintentional fall deaths among adults age 65 and older ranged across states from a low of 29.5 in Alabama to a high of 158.4 in Wisconsin per 100,000 population (Figure 4, Table 4).
- The five states with the highest rates were Wisconsin (158.4), Minnesota (132.6), Maine (126.5), Oklahoma (122.2), and Vermont (120.9).
- The five states with the lowest rates were Alabama (29.5), New Jersey (34.6), California, (40.0), Louisiana (45.6), and Geor

W/A ND MT MN OR SD WY IΑ NE NV UT CO MD KS МО **₽** DC ΤN OK ΑZ NM AR AL LA ΤX 88.5-158.4 71.8-88.4 58.0-71.7 U.S. rate is 69.9 per 100,000 population 29 5-57 9 НΙ

Figure 4. Rate of unintentional fall deaths for adults age 65 and older, by state of residence: United States, 2023

NOTE: Unintentional fall deaths are identified using International Classification of Diseases, 10th Revision underlying cause-of-death codes W00–W19. SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Summary

In 2023, the national rate of unintentional fall deaths for adults age 65 and older was 69.9 deaths per 100,000 population. Men had higher death rates than women across all older adult age groups, and rates increased with age for both sexes in 2023. The ratio of rates for men compared with women was largest for adults ages 65–74 and narrowed with increasing age, even as overall rates increased by age group for both men and women.

Fall death rates varied by race and Hispanic origin in 2023. Among adults ages 65–74, Asian people had the lowest rates, although the difference between Hispanic and Asian people was not statistically significant, and for adults ages 75–84 and 85 and older, Black people had the lowest

rates. The highest rates among people ages 65–74, 75–84, and 85 and older were for White people, although the difference in rates between White and American Indian and Alaska Native people were not statistically significant for the 65–74 and 75–84 age groups.

Rates of unintentional fall deaths increased for all older adult age groups between 2003 and 2023 and were highest among those age 85 and older. Both men and women experienced increasing rates in this period, although at varying rates of change. Rates varied widely across the United States: Wisconsin had the highest rate (158.4), five times greater than Alabama (29.5), which had the lowest rate.

Data source and methods

National Vital Statistics System underlying cause-of-death mortality data for 2003–2023 were used to study unintentional fall deaths for adults age 65 and older by sex, age group, and race and Hispanic origin (3,4). Unintentional fall deaths were identified using *International Classification of Diseases*, 10th Revision underlying cause-of-death codes W00–W19 (5). Rates for Native Hawaiian or Other Pacific Islander non-Hispanic people are not reported because of small numbers and unstable rates.

Crude rates (deaths per 100,000 population) were calculated. Pairwise comparisons of rates (such as crude rates for men compared with those for women) were conducted using a z test with an alpha level of 0.05 (two-sided) (6). Statistically significant differences between rates based on fewer than 100 deaths and other rates were determined by comparing 95% confidence intervals of the rates for the two groups. Trends in death rates were evaluated using the Joinpoint Regression Program (Version 5.0.2) (7). Joinpoint software fitted weighted least-squares regression models to the rates on the log-transformation scale. The permutation tests for model (number of joinpoints) significance were set at an overall alpha level of 0.05 (8).

Race and Hispanic origin were categorized based on the Office of Management and Budget's 1997 standards for federal statistical and administrative reporting (9). All race categories are single race, meaning that only one race was reported on the death certificate. Data shown for Hispanic people include people of any race. Misclassification of race and Hispanic origin on death certificates results in the underestimation of death rates by as much as 34% for American Indian and Alaska Native people and 3% for Asian and Hispanic people (10,11).

About the authors

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Figure Tables

Data table for Figure 1. Rate of unintentional fall deaths for adults age 65 and older, by sex and age group: United States, 2023

	Total		65	-74 ¹	75	-84 ¹	85 and older ¹		
Sex	Number	Deaths per 100,000	Number	Deaths per 100,000	Number	Deaths per 100,000	Number	Deaths per 100,000	
Total	41,400 21,523	69.9 66.3	6,650 2,612	19.2 14.2	13,719 6,407	74.7 62.8	21,031 12,504	339.5 319.7	
Men	19,877	² 74.2	4,038	² 24.7	7,312	² 89.6	8,527	² 373.3	

 $^{^{1}}$ Significant increasing trend with increasing age, p < 0.05.

²Significantly higher than women, p < 0.05.

NOTE: Unintentional fall deaths are identified using *International Classification of Diseases*, 10th Revision underlying cause-of-death codes W00–W19. SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Data table for Figure 2. Rate of unintentional fall deaths for adults age 65 and older, by race and Hispanic origin and age group: United States, 2023

	Overall (65 and older)		65–74 ¹		75–84 ¹		85 and older ¹	
Race and Hispanic origin	Number	Deaths per 100,000	Number	Deaths per 100,000	Number	Deaths per 100,000	Number	Deaths per 100,000
Black, non-Hispanic.	1,666	29.3	495	13.7	557	² 35.6	614	² 123.9
Asian, non-Hispanic	1,176 2,101	39.3 37.6	197 435	³ 11.1 12.5	393 711	44.3 45.3	586 955	174.3 179.2
American Indian and Alaska Native, non-Hispanic	183	50.2	42	18.7	71	67.1	70	202.3
White, non-Hispanic	36,062	81.9	5,427	⁴ 21.5	11,910	⁴ 84.7	18,725	⁵ 395.5

¹Significant increasing trend by race and Hispanic origin with increasing age group, p < 0.05.

NOTES: Unintentional fall deaths are identified using *International Classification of Diseases*, 10th Revision underlying cause-of-death codes W00–W19. Rates for Native Hawaiian or Other Pacific Islander non-Hispanic people are not shown due to small numbers. Misclassification of race and Hispanic origin on death certificates results in the underestimation of death rates by as much as 34% for American Indian and Alaska Native non-Hispanic people and 3% for Asian non-Hispanic and Hispanic people. Hispanic people may be of any race.

²Lower than all other race and Hispanic-origin groups, p < 0.05.

³Lower than all other race and Hispanic-origin groups except Hispanic people, p < 0.05.

⁴Higher than all other race and Hispanic-origin groups except American Indian and Alaska Native non-Hispanic people, p < 0.05.

⁵Higher than all other race and Hispanic-origin groups, p < 0.05.

Data table for Figure 3. Rate of unintentional fall deaths for adults age 65 and older, by year, sex, and age group: United States, 2003-2023

Year	Women						Men					
	65–74 ¹		75–84 ²		85 and older ³		65–74 ⁴		75–84 ⁵		85 and older ³	
	Number	Deaths per 100,000	Number	Deaths per 100,000	Number	Deaths per 100,000	Number	Deaths per 100,000	Number	Deaths per 100,000	Number	Deaths per 100,000
2003	839	8.3	2,588	33.6	4,018	128.5	1,209	14.3	2,661	51.3	2,386	178.3
2004	861	8.5	2,824	36.5	4,332	136.8	1,394	16.3	2,858	54.4	2,630	190.7
2005	935	9.2	2,906	37.5	4,722	145.3	1,384	15.9	3,051	57.3	2,804	194.2
2006	961	9.3	3,080	39.8	4,973	148.6	1,431	16.2	3,147	58.7	3,058	201.4
2007	1,012	9.6	3,221	41.9	5,693	165.2	1,582	17.4	3,331	61.8	3,495	219.4
2008	1,101	10.0	3,443	45.0	6,088	172.3	1,644	17.3	3,564	65.8	3,902	234.7
2009	1,119	9.8	3,304	43.5	6,512	179.3	1,731	17.6	3,682	67.8	4,074	234.8
2010	1,212	10.4	3,570	47.1	7,029	189.8	1,776	17.6	3,679	67.2	4,383	244.9
2011	1,223	10.2	3,552	46.7	7,655	199.2	1,926	18.4	3,835	68.8	4,710	248.7
2012	1,336	10.5	3,864	50.7	8,039	204.9	1,996	17.8	3,912	69.3	5,043	256.8
2013	1,402	10.4	3,811	49.6	8,488	212.3	2,184	18.5	4,175	72.5	5,404	264.7
2014	1,556	11.1	3,940	50.6	9,057	223.4	2,382	19.3	4,317	73.3	5,792	274.6
2015	1,577	10.8	4,102	51.9	9,501	231.0	2,514	19.5	4,566	75.8	6,226	286.3
2016	1,752	11.5	4,193	52.0	10,002	240.7	2,727	20.4	4,542	73.5	6,452	290.0
2017	1,815	11.5	4,292	51.7	10,433	249.1	2,937	21.2	4,926	76.9	6,787	297.7
2018	1,992	12.3	4,551	52.6	10,706	253.8	3,118	21.9	5,158	76.6	6,997	300.9
2019	2,102	12.5	4,915	54.8	10,864	256.9	3,286	22.4	5,650	80.7	7,395	311.2
2020	2,318	13.3	5,280	57.2	11,449	269.8	3,607	23.8	5,896	81.6	7,958	329.6
2021	2,520	14.2	5,708	63.2	11,900	313.2	3,889	24.5	6,428	89.7	8,297	381.3
2022	2,570	14.4	6,258	64.0	12,372	294.4	4,128	25.9	7,138	92.3	8,453	370.1
2023	2,612	14.2	6,407	62.8	12,504	319.7	4,038	24.7	7,312	89.6	8,527	373.3

 $^{^{1}}$ Significant increasing trend from 2003 to 2007 and from 2017 to 2021 at varying rates of change, p < 0.05.

NOTE: Unintentional fall deaths are identified using International Classification of Diseases, 10th Revision underlying cause-of-death codes W00-W19.

²Significant increasing trend from 2003 to 2012, p < 0.05. ³Significant increasing trend from 2003 to 2023, p < 0.05.

⁴Significant increasing trend from 2014 to 2023, p < 0.05.

⁵Significant increasing trend from 2003 to 2008, and from 2018 to 2023 at varying rates of change, p < 0.05.

Data table for Figure 4. Rate of unintentional fall deaths for adults age 65 and older, by state of residence: United States, 2023

United States Alabama Alaska Arizona Arkansas California Colorado	41,400 275 59 1,136 314 2,523 936	69.9 29.5 56.0 79.2 57.0
AlaskaArizonaArizonaArkansasCalifornia	59 1,136 314 2,523	56.0 79.2
Arizona	1,136 314 2,523	79.2
Arkansas	314 2,523	
California	2,523	57.0
California	2,523	
		40.0
	330	99.3
Connecticut	423	61.2
Delaware	108	49.2
District of Columbia	56	63.1
Florida	4,045	82.3
Georgia	778	45.9
Hawaii	158	52.2
ldaho	341	100.0
Illinois	1,252	56.8
Indiana	687	58.3
lowa	677	113.6
Kansas	425	82.8
Kentucky	415	51.4
Louisiana	362	45.6
Maine	406	126.5
Maryland	756	70.9
Massachusetts	1,091	84.3
Michigan	1,392	72.2
Minnesota	1,357	132.6
Mississippi	337	65.1
Missouri	731	64.3
Montana	183	78.9
Nebraska	200	58.9
Nevada	378	68.0
New Hampshire	303	103.9
Now Jorgan	570	34.6
New Jersey		
New Mexico	253	60.4
New York	1,759	48.4
North Carolina	1,776	93.1
North Dakota	98	73.5
Ohio	1,920	86.9
Oklahoma	823	122.2
Oregon	884	106.6
Pennsylvania	2,054	79.1
Rhode Island	233	110.1
South Carolina	725	69.9
South Dakota	165	97.7
Tennessee	1,008	81.2
Texas	2,192	52.3
Utah	331	79.4
Vermont	173	120.9
Virginia	1,009	67.3
Washington	1,147	85.7
West Virginia	306	80.4
Wisconsin	1,790	158.4
Wyoming	80	71.5

NOTE: Unintentional fall deaths are identified using *International Classification of Diseases, 10th Revision* underlying cause-of-death codes W00–W19.

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