

Suicide Rates for Females and Males by Race and Ethnicity: United States, 1999 and 2017

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The age-adjusted suicide rate in the United States in 2017 (14.0 per 100,000 standard population) was 33% higher than the rate in 1999 (10.5) (1). This *NCHS Health E-Stat* provides supplemental information on suicide rates by sex, age, and race and ethnicity.

For females, age-adjusted suicide rates increased significantly between 1999 and 2017 for all race and ethnicity groups except non-Hispanic Asian or Pacific Islander (API). The largest increase occurred for non-Hispanic American Indian or Alaska Native (AIAN) females (139%, from 4.6 to 11.0) (Figure 1, Table). In 2017, for the three age groups for which reliable rates could be computed for all race and ethnicity groups (15–24, 25–44, and 45–64), rates for females aged 15–24 and 25–44 were highest for non-Hispanic AIAN females (20.5 and 20.7, respectively). For females aged 45–64, the rate was highest for non-Hispanic white females (12.8).

For males, age-adjusted suicide rates increased significantly between 1999 and 2017 for all race and ethnicity groups except non-Hispanic API, with the largest increase observed among non-Hispanic AIAN males (71%, from 19.8 to 33.8) (Figure 2, Table). In 2017, for the three age groups for which reliable rates could be calculated for all race and ethnicity groups, rates for males aged 15–24 and 25–44 were highest for non-Hispanic AIAN males (53.7 and 58.1, respectively). For males aged 45–64, the rate was highest for non-Hispanic white males (38.2).

Studies have shown that deaths for all causes for non-Hispanic AIAN, non-Hispanic API, and Hispanic persons are sometimes misclassified to other race and ethnicity groups, resulting in an underestimation of deaths by about 33%, 3%, and 3%, respectively (2). The specific extent and direction of misclassification of suicide deaths is unknown; however, the number of suicide deaths for these race and ethnicity groups may also be underestimated. Nevertheless, non-Hispanic AIAN persons had the highest suicide rates for both females and males aged 15–24 and 25–44 in 2017.

Data source and methods

Data are from the National Vital Statistics System Multiple Cause of Death files for 1999 and 2017 (3). Suicides were classified using the *International Statistical Classification of Diseases, 10th Revision* (ICD–10) underlying cause of death codes U03, X60–X84, and Y87.0 (4).

Age-adjusted death rates were calculated using the direct method and the 2000 U.S. standard population (4). Age-specific death rates were computed for the groups in which the number of suicides was 20 or more, below which the rates are not considered statistically reliable. Population data for 1999 and 2017 are July 1 bridged-race estimates from the Vintage 2017 intercensal and postcensal series. Statistical significance of differences in rates was assessed using a *z* test. All differences mentioned were significant at the 0.05 level.

References

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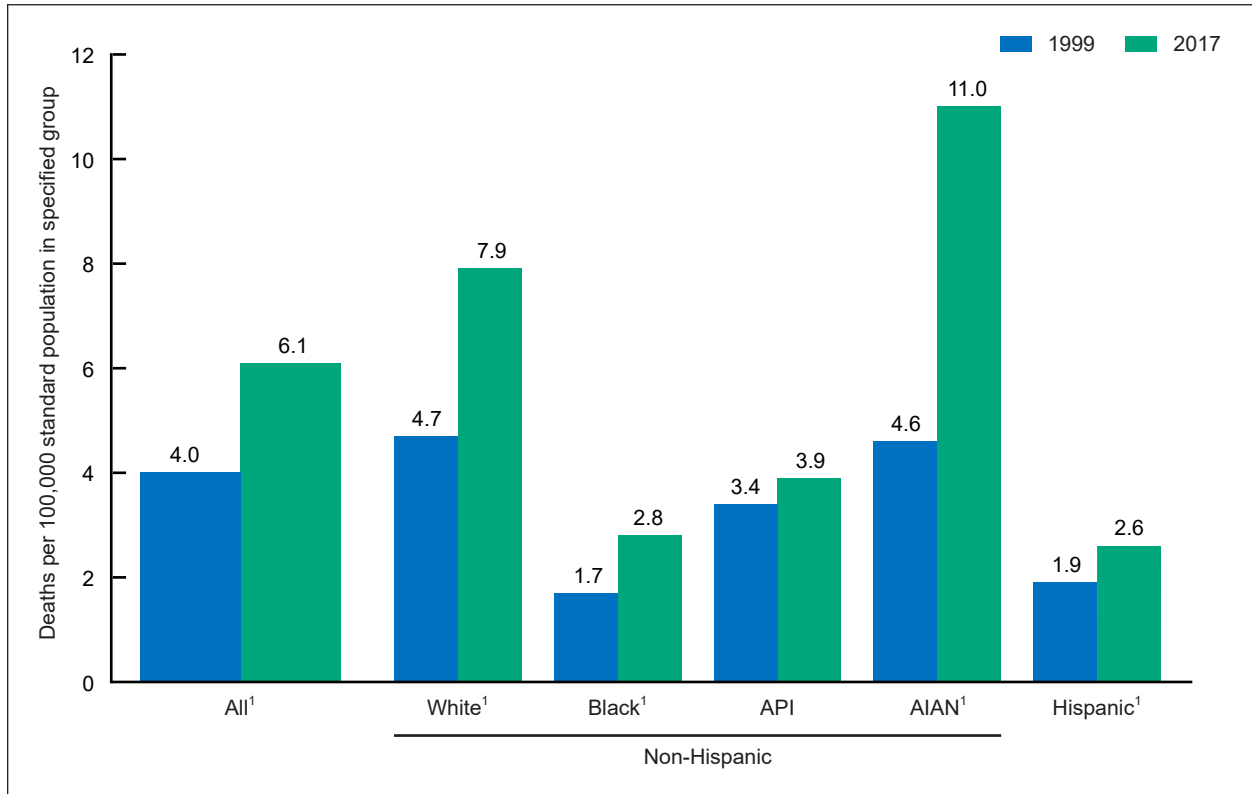
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Figure 1. Age-adjusted suicide rates for females, by race and ethnicity: United States, 1999 and 2017

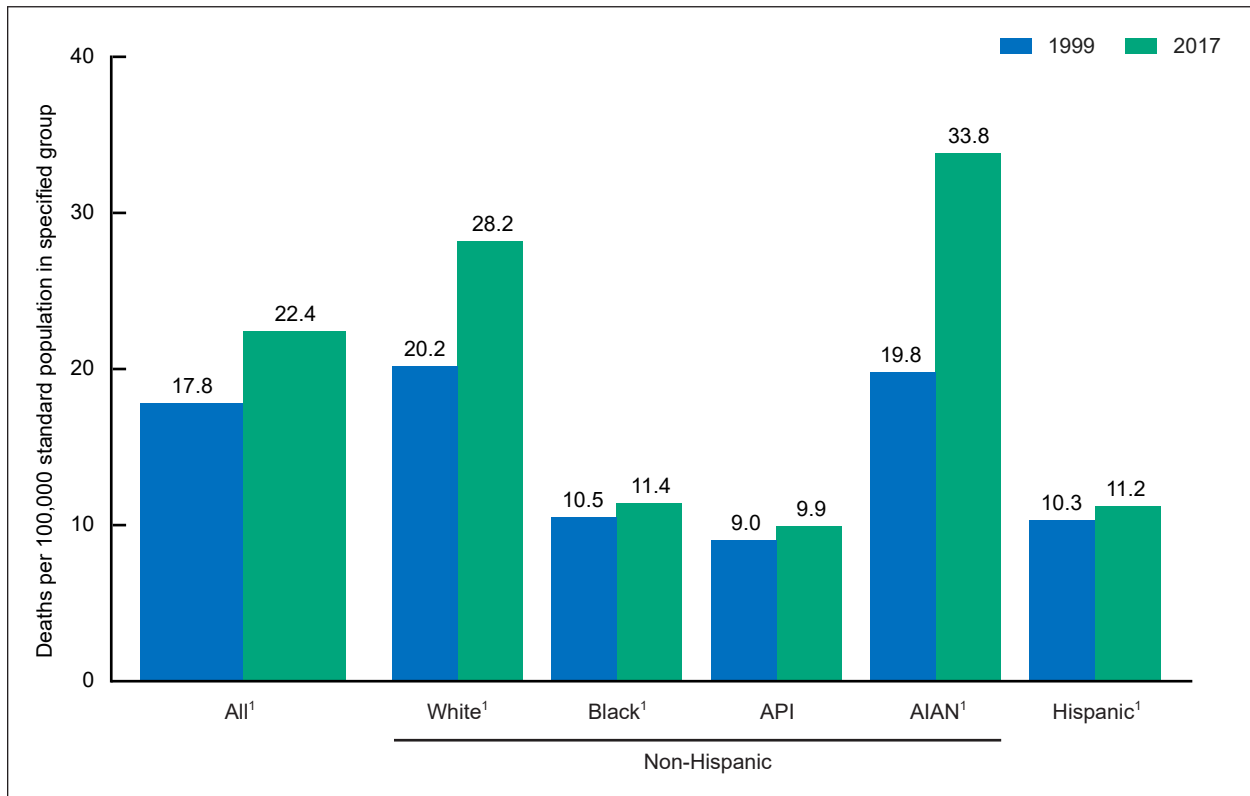


¹Significant difference in rates between 1999 and 2017 ($p < 0.05$).

NOTES: Suicides are identified with *International Classification of Diseases, 10th Revision (ICD-10)* codes U03, X60–X84, and Y87.0. Death rates for non-Hispanic Asian or Pacific Islander (API), non-Hispanic American Indian or Alaska Native (AIAN), and Hispanic persons may be underestimated and should be interpreted with caution. See Data source and methods.

SOURCE: NCHS, National Vital Statistics System, Mortality.

Figure 2. Age-adjusted suicide rates for males, by race and ethnicity: United States, 1999 and 2017



¹Significant difference in rates between 1999 and 2017 ($p < 0.05$).

NOTES: Suicides are identified with *International Classification of Diseases, 10th Revision (ICD-10)* codes U03, X60–X84, and Y87.0. Death rates for non-Hispanic Asian or Pacific Islander (API), non-Hispanic American Indian or Alaska Native (AIAN), and Hispanic persons may be underestimated and should be interpreted with caution. See Data source and methods.

SOURCE: NCHS, National Vital Statistics System, Mortality.

Table. Number of deaths, age-adjusted death rates, and age-specific death rates for suicide, by sex and race and ethnicity: United States, 1999 and 2017

[Rates per 100,000 population; populations used for computing death rates were estimated as of July 1]

Race, ethnicity, and age group (years)	Female					Male				
	1999		2017		Percent change in rate, 1999 and 2017	1999		2017		Percent change in rate, 1999 and 2017
	Number	Rate	Number	Rate		Number	Rate	Number	Rate	
All races¹										
All ages ²	5,741	4.0	10,391	6.1	†53	23,458	17.8	36,782	22.4	†26
10–14	50	0.5	169	1.7	†240	192	1.9	348	3.3	†74
15–24	575	3.0	1,225	5.8	†93	3,326	16.8	5,027	22.7	†35
25–44	2,359	5.5	3,339	7.8	†42	9,213	21.6	11,944	27.5	†27
45–64	1,868	6.0	4,172	9.7	†62	6,109	20.8	12,371	30.1	†45
65–74	420	4.1	982	6.2	†51	2,051	24.7	3,638	26.2	†6
75 and over	469	4.5	501	4.0	†–11	2,549	42.4	3,447	39.7	†–6
Not stated	–	*	2	*	*	16	*	3	*	*
Non-Hispanic white³										
All ages ²	4,914	4.7	8,398	7.9	†68	19,620	20.2	29,708	28.2	†40
10–14	33	0.5	101	1.9	†280	140	2.1	226	4.0	†90
15–24	414	3.4	746	6.4	†88	2,416	19.2	3,328	27.2	†42
25–44	1,981	6.8	2,538	10.4	†53	7,415	25.2	8,912	35.9	†42
45–64	1,678	7.0	3,689	12.8	†83	5,389	23.4	10,734	38.2	†63
65–74	380	4.6	880	7.4	†61	1,869	27.0	3,297	30.7	†14
75 and over	428	4.8	443	4.5	–6	2,384	45.7	3,209	46.2	†1
Not stated	–	*	1	*	*	6	*	1	*	*
Non-Hispanic black³										
All ages ²	294	1.7	616	2.8	†65	1,630	10.5	2,324	11.4	†9
10–14	7	*	19	*	*	22	1.4	44	2.8	†100
15–24	55	2.0	145	4.5	†125	408	14.8	565	16.8	†14
25–44	142	2.5	265	4.3	†72	785	15.5	1,043	18.2	†17
45–64	64	1.9	150	2.7	†42	278	9.8	504	10.6	†8
65–74	16	*	24	1.5	*	78	11.7	108	8.7	–26
75 and over	10	*	12	*	*	57	14.1	58	9.1	†–35
Not stated	–	*	–	*	*	2	*	–	*	*

See footnotes at end of table.

Table. Number of deaths, age-adjusted death rates, and age-specific death rates for suicide, by sex and race and ethnicity: United States, 1999 and 2017—Con.

[Rates per 100,000 population; populations used for computing death rates were estimated as of July 1]

Race, ethnicity, and age group (years)	Female					Male				
	1999		2017		Percent change in rate, 1999 and 2017	1999		2017		Percent change in rate, 1999 and 2017
	Number	Rate	Number	Rate		Number	Rate	Number	Rate	
Non-Hispanic Asian or Pacific Islander^{3,4}										
All ages ²	188	3.4	424	3.9	15	457	9.0	990	9.9	10
10–14	1	*	11	*	*	6	*	11	*	*
15–24	35	4.1	87	6.6	†61	82	9.5	228	16.9	†78
25–44	76	3.8	145	4.2	11	203	10.8	366	11.5	6
45–64	46	3.9	110	4.2	8	118	11.5	254	11.2	–3
65–74	14	*	41	5.1	*	22	10.1	75	11.7	16
75 and over	16	*	30	5.4	*	25	19.4	56	14.2	–27
Not stated	–	*	–	*	*	1	*	–	*	*
Non-Hispanic American Indian or Alaska Native^{3,5}										
All ages ²	54	4.6	154	11.0	†139	222	19.8	448	33.8	†71
10–14	–	*	7	*	*	2	*	5	*	*
15–24	13	*	43	20.5	*	77	39.1	116	53.7	†37
25–44	29	8.2	77	20.7	†152	102	30.0	214	58.1	†94
45–64	12	*	25	7.3	*	30	14.9	92	29.5	†98
65–74	–	*	2	*	*	9	*	13	*	*
75 and over	–	*	–	*	*	2	*	8	*	*
Not stated	–	*	–	*	*	–	*	–	*	*
Hispanic⁶										
All ages ²	265	1.9	758	2.6	†37	1,430	10.3	3,175	11.2	†9
10–14	9	*	30	1.2	*	21	1.4	60	2.3	†64
15–24	53	1.8	200	4.2	†133	338	9.9	780	15.6	†58
25–44	121	2.3	303	3.5	†52	671	11.3	1,365	14.8	†31
45–64	59	2.5	184	3.2	28	263	11.8	726	12.6	7
65–74	10	*	27	1.9	*	63	13.8	133	11.5	–17
75 and over	13	*	14	*	*	72	30.2	109	16.4	†46
Not stated	–	*	–	*	*	2	*	1	*	*

† Difference in rates between 1999 and 2017 was significant at $p < 0.05$.

– Quantity zero.

* Rate or percent change in rate does not meet standards of reliability; based on fewer than 20 cases in the numerator.

¹Includes Hispanic origin not stated.²Age adjusted using the direct method and the 2000 standard U.S. population. Figures for age not stated are included in “All ages” but not distributed among age groups.³Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. In 2017, multiple race data were reported by 49 states and the District of Columbia. The multiple-race data for these reporting areas were bridged to the single-race categories of the 1977 OMB standards for comparability with other reporting areas.⁴Includes Aleut and Eskimo persons.⁵Includes Chinese, Filipino, Hawaiian, Japanese, and other Asian or Pacific Islander persons.⁶Persons of Hispanic origin may be of any race.

SOURCE: NCHS, National Vital Statistics System, Mortality, 1999 and 2017.