Changes in Suicide Rates — United States, 2019 and 2020

Daniel C. Ehlman, ScD[1,2]; Ellen Yard, PhD[1]; Deborah M. Stone, ScD[1]; Christopher M. Jones, PharmD, DrPH[3]; Karin A. Mack, PhD[1]

Suicide was among the 10 leading causes of death in the United States in 2020 among persons aged 10–64 years, and the second leading cause of death among children and adolescents aged 10–14 and adults aged 25–34 years (*1*). During 1999–2020, nearly 840,000 lives were lost to suicide in the United States. During that period, the overall suicide rate peaked in 2018 and declined in 2019 and 2020 (*1*). Despite the recent decline in the suicide rate, factors such as social isolation, economic decline, family stressors, new or worsening mental health symptoms, and disruptions to work and school associated with the COVID-19 pandemic have raised concerns about suicide risk in the United States. During 2020, a total of 12.2 million U.S. adults reported serious thoughts of suicide and 1.2 million attempted suicide (*2*). To understand how changes in suicide death rates might have varied among subpopulations, CDC analyzed counts and age-adjusted suicide rates during 2019 and 2020 by demographic characteristics, mechanism of injury, county urbanization level, and state. From 2019 to 2020, the suicide rate declined by 3% overall, including 8% among females and 2% among males. Significant declines occurred in seven states but remained stable in the other states and the District of Columbia. Despite two consecutive years of declines, the overall suicide rate remains 30% higher compared with that in 2000 (*1*). A comprehensive approach to suicide prevention that uses data driven decision-making and implements prevention strategies with the best available evidence, especially among disproportionately affected populations (*3*), is critical to realizing further declines in suicide and reaching the national goal of reducing the suicide rate by 20% by 2025 (*4*).

Death certificate data from the 2019–2020 National Vital Statistics System multiple cause-of-death mortality files were analyzed. Suicide deaths were identified by using *International Classification of Diseases, Tenth Revision* underlying cause-of-death codes U03, X60–X84, and Y87.0. Age-adjusted death rates (per 100,000 population) and CIs were calculated by using the direct method and the 2000 U.S. standard population. Rates were suppressed for case counts <20 because they are unstable as a result of the small number of deaths (*1*); data were not presented for persons aged <10 years in age group analyses because determining suicidal intent in younger children is difficult (*5*). Urbanization level of the decedent's county of residence was categorized by using the 2013 National Center for Health Statistics Urban–Rural Classification Scheme for Counties.*

Changes in suicide rates from 2019 to 2020 were examined overall and by race/ethnicity, age, mechanism of injury, county urbanization level, sex, and state. Single-race estimates are presented and might not be comparable to estimates produced by bridging multiple races to a single race choice.† Hispanic and unknown ethnicity include persons of any race. Racial groups exclude persons of Hispanic or unknown ethnicity. Differences in rates between 2019 and 2020 were assessed using z-tests when the number of deaths was ≥100 and using nonoverlapping CIs based on a gamma distribution when the number was <100; p-values <0.05 were considered statistically significant.§ Absolute and relative changes in rates were calculated and are shown in the tables; however, only relative changes are presented in the text. This activity was reviewed by CDC and was conducted consistent with applicable federal law and CDC policy.¶

During 2020, a total of 45,979 deaths were attributable to suicide, a decrease of 1,532 from 47,511 suicide deaths in 2019 (Table). From 2019 to 2020, the overall suicide rate declined significantly by 3.0% (from 13.9 to 13.5 per 100,000 population). Among racial/ethnic groups, overall, suicide rates in 2020 were highest among persons who were non-Hispanic American Indian or Alaska Native (23.9 per 100,000), non-Hispanic White (16.9 per 100,000), and non-Hispanic Native Hawaiian or other Pacific Islander (12.5 per 100,000). Non-Hispanic White persons experienced a 4.5% decline in suicide rate; no other changes among racial/ethnic groups were significant. Rates in 2020 were highest among persons aged ≥85 years (20.9 per 100,000), followed by those aged 75–84 and 25–34 years (both 18.4 per 100,000).

* The classification levels for counties are as follows: 1) large central metropolitan: part of a metropolitan statistical area with ≥1 million population and covers a principal city; 2) large fringe metropolitan: part of a metropolitan statistical area with ≥1 million population but does not cover a principal city; 3) medium metropolitan: part of a metropolitan statistical area with ≥250,000 but <1 million population; 4) small metropolitan: part of a metropolitan statistical area with <250,000 population; 5) micropolitan (nonmetropolitan): part of a micropolitan statistical area (has an urban cluster of ≥10,000 but <50,000 population); and 6) noncore (nonmetropolitan): not part of a metropolitan or micropolitan statistical area. https://www.cdc.gov/nchs/data_access/urban_rural.htm

† https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-03-508.pdf

§ https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_09-508.pdf

¶ 45 C.F.R. part 46.102(l)(2); 21 C.F.R. part 56; 42 U.S.C. Sect. 241(d); 5 U.S.C. Sect. 552a; 44 U.S.C. Sect. 3501 et seq.

TABLE. Annual number of suicides and age-adjusted* rates of suicide† per 100,000 population, by selected characteristics — National Vital Statistics System, United States, 2019 and 2020

Characteristic	2019		2020		Absolute change§	Relative change¶
	No.	Rate (95% CI)	No.	Rate (95% CI)		
Overall						
Total	**47,511**	**13.9 (13.8–14.1)**	**45,979**	**13.5 (13.4–13.6)**	**−0.4****	**−3.0****
Race/Ethnicity††						
American Indian or Alaska Native	546	22.5 (20.5–24.4)	588	23.9 (21.9–25.9)	1.4	6.5
Asian	1,342	6.7 (6.3–7.1)	1,302	6.4 (6.1–6.8)	−0.3	−4.3
Black or African American	3,115	7.5 (7.2–7.7)	3,286	7.8 (7.5–8.1)	0.3	4.1
Hispanic	4,331	7.3 (7.0–7.5)	4,571	7.5 (7.3–7.8)	0.2	4.0
Multiracial	527	8.8 (8.0–9.6)	599	9.6 (8.7–10.4)	0.8	8.3
Native Hawaiian or other Pacific Islander	90	14.4 (11.5–17.7)	79	12.5 (9.9–15.6)	−1.9	−13.2
White	37,428	17.7 (17.5–17.9)	35,442	16.9 (16.7–17.0)	−0.8**	−4.5**
Unknown	132	(—)§§	112	(—)§§	NA	NA
Age group, yrs¶¶						
10–14	534	2.6 (2.4–2.8)	581	2.8 (2.6–3.0)	0.2	9.0
15–24	5,954	13.9 (13.6–14.3)	6,062	14.2 (13.9–14.6)	0.3	2.1
25–34	8,059	17.5 (17.2–17.9)	8,454	18.4 (18.0–18.7)	0.9**	4.6**
35–44	7,525	18.1 (17.7–18.5)	7,314	17.4 (17.0–17.8)	−0.7**	−3.9**
45–54	8,012	19.6 (19.2–20.0)	7,249	18.0 (17.5–18.4)	−1.6**	−8.4**
55–64	8,238	19.4 (19.0–19.8)	7,160	16.9 (16.5–17.3)	−2.5**	−13.0**
65–74	4,867	15.5 (15.0–15.9)	4,716	14.5 (14.1–14.9)	−1.0**	−6.3**
75–84	2,977	18.6 (18.0–19.3)	3,032	18.4 (17.8–19.1)	−0.2	−1.1
≥85	1,329	20.1 (19.0–21.2)	1,389	20.9 (19.8–22.0)	0.8	3.7
Urbanization***						
Large central metro	11,762	11.2 (11.0–11.4)	11,058	10.5 (10.3–10.7)	−0.7**	−6.1**
Large fringe metro	10,840	12.6 (12.3–12.8)	10,347	12.0 (11.8–12.2)	−0.6**	−4.6**
Medium metro	10,789	15.2 (14.9–15.5)	10,574	14.9 (14.6–15.2)	−0.3	−2.2
Small metro	5,327	17.4 (16.9–17.9)	5,160	16.9 (16.4–17.4)	−0.5	−2.9
Micropolitan (nonmetro)	5,009	18.1 (17.6–18.6)	5,004	18.2 (17.7–18.7)	0.1	0.4
Noncore (nonmetro)	3,784	20.1 (19.5–20.8)	3,836	20.6 (19.9–21.3)	0.5	2.2
Mechanism of injury						
Cut or pierce	921	0.3 (0.2–0.3)	907	0.2 (0.2–0.3)	−0.1	−3.1
Drowning	506	0.2 (0.1–0.2)	498	0.2 (0.1–0.2)	0.0	0.0
Fall	1,183	0.4 (0.3–0.4)	1,074	0.3 (0.3–0.3)	−0.1	−9.8**
Fire or flame	187	0.1 (0.0–0.1)	175	0.1 (0.0–0.1)	0.0	0.0
Firearm	23,941	6.8 (6.8–6.9)	24,292	7.0 (6.9–7.0)	0.2	1.7
Poisoning	6,125	1.8 (1.7–1.8)	5,528	1.6 (1.5–1.6)	−0.2**	−10.7**
Suffocation	13,563	4.2 (4.1–4.3)	12,495	3.9 (3.8–3.9)	−0.3**	−7.4**
Other†††	1,085	0.3 (0.3–0.4)	1,010	0.3 (0.3–0.3)	0.0	0.0

See table footnotes on page 309.

Suicide rates were inversely related to county urbanization level, with the most rural (noncore) counties experiencing the highest rate (20.6 per 100,000). Rates decreased by 6.1% and 4.6% in large central metro and large fringe metro areas, respectively in 2020 and remained stable in all other county urbanization levels.

Firearms accounted for approximately one half (24,292; 53%) of suicides in 2020; the rate of suicide by firearm did not change significantly between 2019 and 2020. Rates of suicide by fall, poisoning, and suffocation declined significantly, with more than 100, nearly 600, and more than 1,000 fewer deaths by these means, respectively.

Males accounted for approximately three quarters (36,551; 79%) of all suicides in 2020. From 2019 to 2020, the suicide rate among males declined by 1.9% (from 22.4 to 22.0 per 100,000). Significant rate changes included a 3.1% decrease among non-Hispanic White males and a 5.7% increase among Hispanic males. The highest rate overall was among males aged ≥85 years (52.0 per 100,000). From 2019 to 2020, rates increased by 5.0% in males aged 25–34 years and declined by 5%–12% among those aged 45–54, 55–64, and 65–74 years.

Among females, the suicide rate declined by 8.0% (from 6.0 to 5.5 per 100,000) from 2019 to 2020. The suicide rate among non-Hispanic White females decreased 9.9% but increased 29.2% among non-Hispanic multiracial females. The highest rate of suicide in females was among those aged 45–54 years (8.5 per 100,000). From 2019 to 2020, declines in suicide rates of 8%–19% occurred among females aged 35–44, 45–54, and 55–64 years.

Across all racial/ethnic and age group strata, males experienced higher suicide rates than did females during 2019–2020 (Figure 1). Among both male and female non-Hispanic

TABLE. (*Continued*) Annual number of suicides and age-adjusted* rates of suicide† per 100,000 population, by selected characteristics — National Vital Statistics System, United States, 2019 and 2020

Characteristic	2019		2020		Absolute change§	Relative change¶
	No.	Rate (95% CI)	No.	Rate (95% CI)		
Female						
Total	**10,255**	**6.0 (5.9–6.1)**	**9,428**	**5.5 (5.4–5.6)**	**−0.5****	**−8.0****
Race/Ethnicity††						
American Indian or Alaska Native	145	12.1 (10.1–14.1)	144	11.7 (9.8–13.6)	−0.4	−3.3
Asian	392	3.7 (3.3–4.0)	390	3.7 (3.3–4.0)	0.0	0.0
Black or African American	624	2.9 (2.7–3.2)	620	2.9 (2.6–3.1)	0.0	0.0
Hispanic	886	3.0 (2.8–3.1)	870	2.8 (2.6–3.0)	−0.2	−4.1
Multiracial	122	3.9 (3.2–4.7)	166	5.0 (4.2–5.9)	1.1**	29.2**
Native Hawaiian or other Pacific Islander	18	(—)§§	14	(—)§§	NA	NA
White	8,046	7.7 (7.5–7.9)	7,200	6.9 (6.8–7.1)	−0.8**	−9.9**
Unknown	22	(—)§§	24	(—)§§	NA	NA
Age group, yrs¶¶						
10–14	203	2.0 (1.7–2.3)	204	2.0 (1.7–2.3)	0.0	0.0
15–24	1,154	5.5 (5.2–5.8)	1,203	5.8 (5.4–6.1)	0.3	4.5
25–34	1,526	6.8 (6.4–7.1)	1,572	6.9 (6.6–7.3)	0.1	2.8
35–44	1,710	8.2 (7.8–8.6)	1,591	7.5 (7.2–7.9)	−0.7**	−7.9**
45–54	2,156	10.4 (10.0–10.9)	1,735	8.5 (8.1–8.9)	−1.9**	−18.5**
55–64	1,948	8.9 (8.5–9.3)	1,621	7.4 (7.0–7.8)	−1.5**	−16.7**
65–74	985	5.9 (5.5–6.2)	973	5.6 (5.3–6.0)	−0.3	−4.5
75–84	410	4.6 (4.1–5.0)	387	4.2 (3.8–4.6)	−0.4	−8.2
≥85	158	3.7 (3.2–4.3)	134	3.2 (2.6–3.7)	−0.5	−15.5
Urbanization***						
Large central metro	2,682	5.0 (4.8–5.2)	2,433	4.6 (4.4–4.7)	−0.4**	−8.8**
Large fringe metro	2,457	5.6 (5.4–5.8)	2,205	5.1 (4.9–5.3)	−0.5**	−9.8**
Medium metro	2,400	6.7 (6.4–7.0)	2,211	6.1 (5.9–6.4)	−0.6**	−8.7**
Small metro	1,106	7.3 (6.9–7.8)	1,060	7.1 (6.6–7.5)	−0.2	−4.0
Micropolitan (nonmetro)	918	6.9 (6.4–7.3)	888	6.7 (6.3–7.2)	−0.2	−2.1
Noncore (nonmetro)	692	7.9 (7.3–8.5)	631	7.1 (6.5–7.7)	−0.8	−9.6
Mechanism of injury						
Cut or pierce	152	0.1 (0.1–0.1)	156	0.1 (0.1–0.1)	0.0	0.0
Drowning	187	0.1 (0.1–0.1)	170	0.1 (0.1–0.1)	0.0	0.0
Fall	333	0.2 (0.2–0.2)	254	0.1 (0.1–0.2)	−0.1**	−27.3**
Fire or flame	59	0.0 (0.0–0.1)	50	0.0 (0.0–0.0)	0.0	0.0
Firearm	3,216	1.8 (1.8–1.9)	3,112	1.8 (1.7–1.9)	0.0	0.0
Poisoning	3,079	1.7 (1.7–1.8)	2,694	1.5 (1.4–1.6)	−0.2**	−14.0**
Suffocation	2,971	1.8 (1.8–1.9)	2,742	1.7 (1.6–1.8)	−0.1**	−6.6**
Other†††	258	0.1 (0.1–0.1)	250	0.1 (0.1–0.2)	0.0	0.0

See table footnotes on page 309.

American Indian or Alaska Native, non-Hispanic Asian, non-Hispanic Black or African American, non-Hispanic multiracial, and Hispanic persons, rates were highest in persons aged 15–24 or 25–34 years. Among non-Hispanic White females, rates peaked in those aged 45–54 years. Non-Hispanic White males experienced consistently high rates (35.1–37.4 per 100,000) in all age groups from 25–34 to ≥65 years. Subgroups with the highest suicide rates were non-Hispanic American Indian or Alaska Native males aged 25–34 years (71.1) and 15–24 years (59.7), and non-Hispanic Native Hawaiian or other Pacific Islander males aged 25–34 years (49.1).

The overall suicide rate declined significantly from 2019 to 2020 in seven states (California, Connecticut, Florida, New Jersey, Ohio, Oregon, and Pennsylvania) (Figure 2) and remained stable in all other states and the District of Columbia. In 2020, six states and the District of Columbia had rates <10 per 100,000; however, nine states had rates >20 per 100,000, with the highest rate of 30.5 per 100,000 in Wyoming (Figure 2).

Discussion

The second consecutive year of declining suicide rates in the United States is encouraging and is consistent with other high-income and upper-middle-income countries that experienced either unchanged or declining suicide rates during the early months of the COVID-19 pandemic (*6*). From 2019 to 2020, the U.S. suicide rate decreased by 3%, with significant declines among both females and males. Overall suicide rates declined in large metropolitan areas and in seven states and remained stable in other county urbanization levels and states. Rates of suicide by fall, poisoning, and suffocation declined significantly. Although, rates among non-Hispanic White

TABLE. (*Continued*) Annual number of suicides and age-adjusted* rates of suicide† per 100,000 population, by selected characteristics — National Vital Statistics System, United States, 2019 and 2020

Characteristic	2019		2020		Absolute change§	Relative change¶
	No.	Rate (95% CI)	No.	Rate (95% CI)		
Male						
Total	**37,256**	**22.4 (22.1–22.6)**	**36,551**	**22.0 (21.7–22.2)**	**−0.4****	**−1.9****
Race/Ethnicity††						
American Indian or Alaska Native	401	33.0 (29.7–36.3)	444	36.4 (32.9–39.8)	3.4	10.3
Asian	950	10.1 (9.4–10.7)	912	9.5 (8.9–10.2)	−0.6	−5.1
Black or African American	2,491	12.5 (12.0–13.0)	2,666	13.1 (12.6–13.6)	0.6	5.1
Hispanic	3,445	11.6 (11.2–12.0)	3,701	12.3 (11.9–12.7)	0.7**	5.7**
Multiracial	405	14.2 (12.7–15.7)	433	14.5 (13.0–16.0)	0.3	2.4
Native Hawaiian or other Pacific Islander	72	22.1 (17.3–28.0)	65	20.0 (15.4–25.6)	−2.1	−9.7
White	29,382	28.0 (27.7–28.4)	28,242	27.2 (26.8–27.5)	−0.8**	−3.1**
Unknown	110	(—)§§	88	(—)§§	NA	NA
Age group, yrs¶¶						
10–14	331	3.1 (2.8–3.5)	377	3.6 (3.2–3.9)	0.5	14.1
15–24	4,800	22.0 (21.4–22.6)	4,859	22.4 (21.7–23.0)	0.4	1.6
25–34	6,533	28.0 (27.3–28.6)	6,882	29.4 (28.7–30.0)	1.4**	5.0**
35–44	5,815	28.0 (27.2–28.7)	5,723	27.2 (26.5–27.9)	−0.8	−2.8
45–54	5,856	29.0 (28.3–29.8)	5,514	27.7 (26.9–28.4)	−1.3**	−4.7**
55–64	6,290	30.7 (29.9–31.4)	5,539	27.0 (26.3–27.7)	−3.7**	−11.9**
65–74	3,882	26.4 (25.6–27.2)	3,743	24.7 (23.9–25.4)	−1.7**	−6.7**
75–84	2,567	36.7 (35.3–38.1)	2,645	36.6 (35.2–38.0)	−0.1	−0.2
≥85	1,171	49.3 (46.5–52.1)	1,255	52.0 (49.1–54.8)	2.7	5.5
Urbanization***						
Large central metro	9,080	17.8 (17.5–18.2)	8,625	16.9 (16.6–17.3)	−0.9**	−5.0**
Large fringe metro	8,383	20.0 (19.6–20.5)	8,142	19.4 (19.0–19.9)	−0.6	−3.0
Medium metro	8,389	24.3 (23.7–24.8)	8,363	24.1 (23.6–24.6)	−0.2	−0.7
Small metro	4,221	27.9 (27.0–28.7)	4,100	27.2 (26.3–28.0)	−0.7	−2.5
Micropolitan (nonmetro)	4,091	29.5 (28.6–30.4)	4,116	29.8 (28.8–30.7)	0.3	0.9
Noncore (nonmetro)	3,092	32.1 (31.0–33.3)	3,205	33.7 (32.5–34.9)	1.6	4.9
Mechanism of injury						
Cut or pierce	769	0.4 (0.4–0.5)	751	0.5 (0.4–0.5)	0.1	1.6
Drowning	319	0.2 (0.2–0.2)	328	0.2 (0.2–0.2)	0.0	0.0
Fall	850	0.5 (0.5–0.5)	820	0.5 (0.5–0.5)	0.0	0.0
Fire or flame	128	0.1 (0.1–0.1)	125	0.1 (0.1–0.1)	0.0	0.0
Firearm	20,725	12.3 (12.1–12.4)	21,180	12.5 (12.3–12.7)	0.2	1.8
Poisoning	3,046	1.8 (1.7–1.9)	2,834	1.7 (1.6–1.7)	−0.1**	−6.4**
Suffocation	10,592	6.6 (6.5–6.7)	9,753	6.1 (6.0–6.2)	−0.5**	−7.5**
Other†††	827	0.5 (0.4–0.5)	760	0.5 (0.4–0.6)	0.0	0.0

Abbreviation: NA = not applicable.

* Age-adjusted rates (suicides per 100,000 population) were calculated using the direct method and the 2000 U.S. standard population. Rates and 95% CIs are rounded to one digit after the decimal, and, as a result, might not exactly match similar rates published elsewhere. Suicides for persons aged <10 years were included in the total numbers and age-adjusted rates but are suppressed for the analysis by age groups because determining suicidal intent in younger children can be difficult.

† Suicide deaths were identified by using *International Classification of Diseases, Tenth Revision* underlying cause-of-death codes U03, X60–X84, and Y87.0.

§ Absolute change was the rate in 2020 minus the rate in 2019.

¶ Relative change was calculated using the equation: (2020 rate−2019 rate)/2019 rate x 100. To improve precision, relative change was calculated using rates rounded to three digits after the decimal. However, if the absolute change was 0, the relative change was also listed as 0.

** P<0.05 for difference between 2019 and 2020. Z-tests were used if the number of deaths was ≥100 in both 2019 and 2020; nonoverlapping CIs based on the gamma method were used if the number of deaths was <100 in 2019 or 2020.

†† Data for Hispanic origin should be interpreted with caution; studies comparing Hispanic origin on death certificates and on U.S. Census surveys have shown inconsistent reporting on Hispanic ethnicity. Potential racial misclassification might lead to underestimates for certain categories, primarily American Indian, Alaska Native, Asian, and other Pacific Islander decedents. Single-race estimates are presented and might not be comparable to earlier years produced by bridging multiple races to a single race choice. Hispanic and unknown ethnicity include persons of any race. Racial groups exclude persons of Hispanic or unknown ethnicity. https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-03-508.pdf https://www.cdc.gov/nchs/data/series/sr_02/sr02_172.pdf

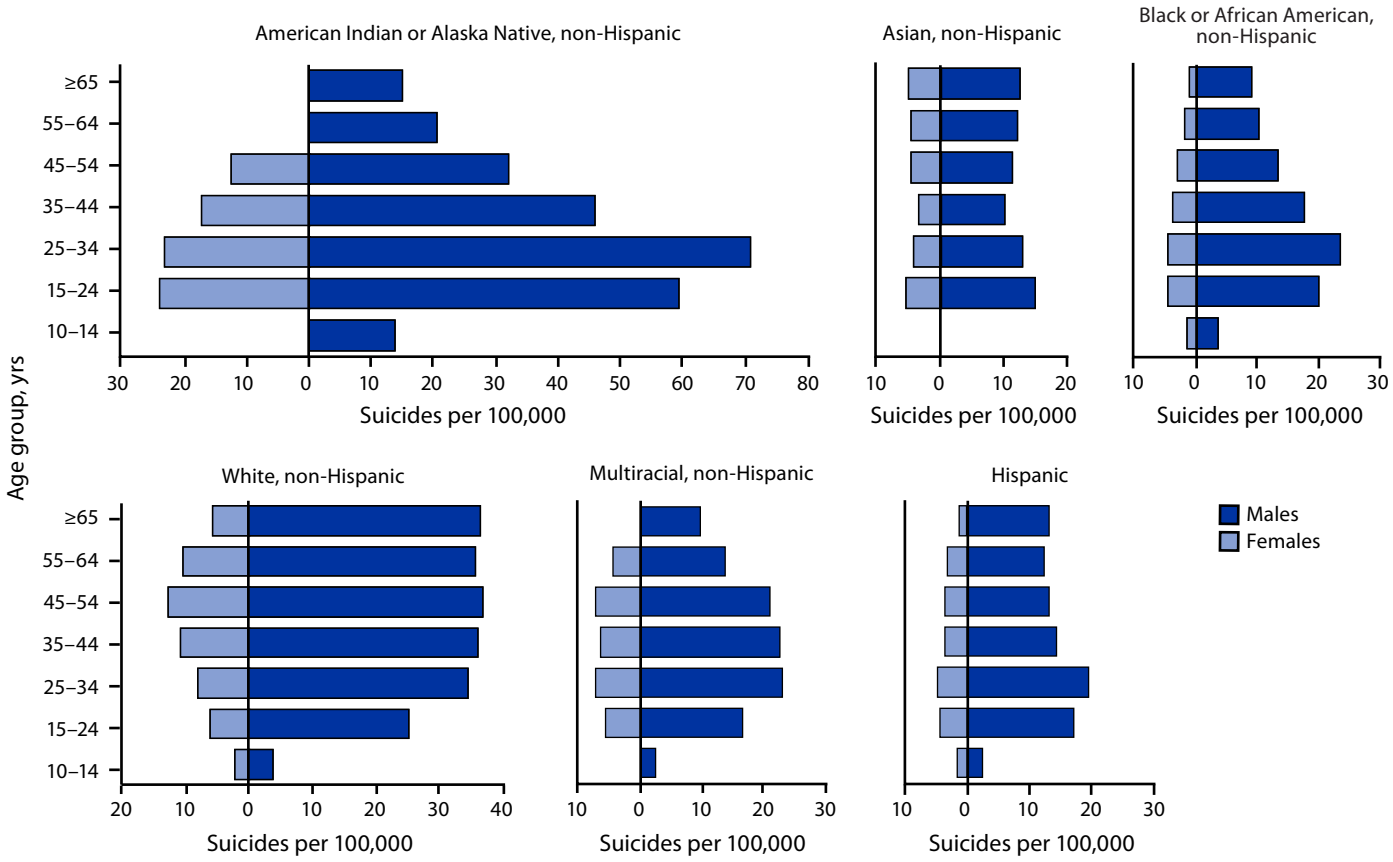
§§ Age-adjusted rates were suppressed for Native Hawaiian or other Pacific Islander females because of unstable rates due to small numbers of deaths (<20). Age-adjusted rates could not be calculated for persons of unknown race/ethnicity.

¶¶ Crude rates (deaths per 100,000) are presented for age groups.

*** Urbanization level of the decedent's county of residence was categorized using the 2013 National Center for Health Statistics Urban–Rural Classification Scheme for Counties (https://www.cdc.gov/nchs/data_access/urban_rural.htm). The classification levels for counties are as follows: 1) large central metropolitan (large central metro): part of a metropolitan statistical area with ≥1 million population and covers a principal city; 2) large fringe metropolitan (large fringe metro): part of a metropolitan statistical area with ≥1 million population but does not cover a principal city; 3) medium metropolitan (medium metro): part of a metropolitan statistical area with ≥250,000 but <1 million population; 4) small metropolitan (small metro): part of a metropolitan statistical area with <250,000 population; 5) micropolitan (nonmetro): part of a micropolitan statistical area (has an urban cluster of ≥10,000 but <50,000 population); and 6) noncore (nonmetro): not part of a metropolitan or micropolitan statistical area.

††† "Other" mechanisms of injury include other land transport, struck by or against, other specified, and unspecified.

FIGURE 1. Crude rate* of suicide,† stratified by race/ethnicity,§ sex, and age group¶ — National Vital Statistics System, United States, 2019–2020



* Death rates per 100,000 population.
† Suicide deaths were identified by using *International Classification of Diseases, Tenth Revision* underlying cause-of-death codes U03, X60–X84, and Y87.0.
§ Hispanic and unknown ethnicity included persons of any race. Racial groups excluded persons of Hispanic or unknown ethnicity.
¶ Rates are not provided for non-Hispanic Native Hawaiian or other Pacific Islander persons because of unstable rates in most strata resulting from small numbers of deaths. In addition, rates are not provided for the following strata because of unstable estimates resulting from small numbers of deaths: non-Hispanic American Indian or Alaska Native females aged 0–14 years, 55–64 years, and ≥65 years; non-Hispanic Asian females and males aged 10–14 years; and non-Hispanic multiracial females aged 10–14 years and ≥65 years.

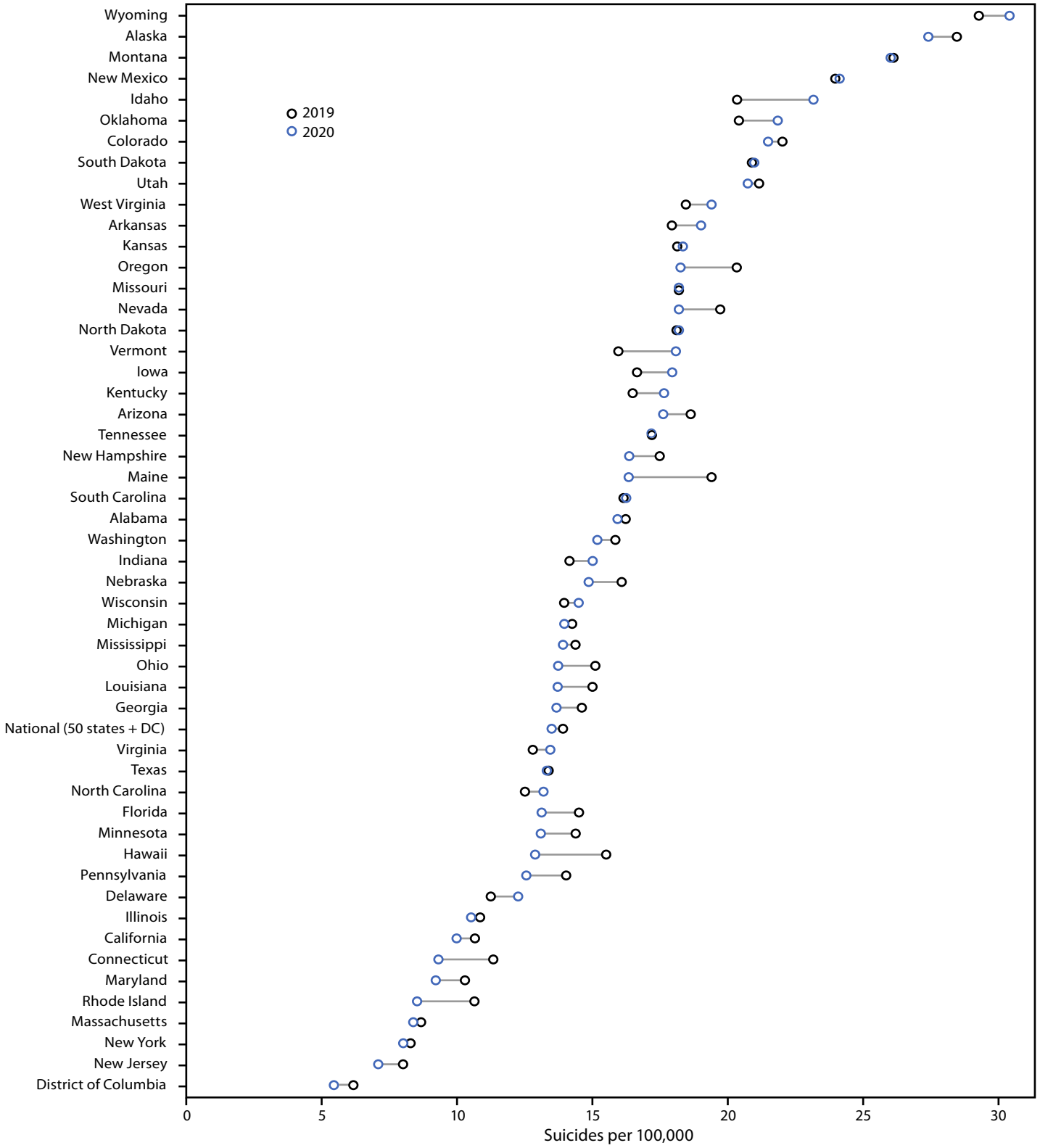
females and males declined from 2019 to 2020, the suicide rate among Hispanic males and non-Hispanic multiracial females increased. Although many age groups experienced a decline in rates, rates increased among persons aged 25–34 years; rates were highest among persons aged ≥85 years, followed by those aged 75–84 and 25–34 years. Moreover, whereas rates were stable among most racial/ethnic groups, and in most states and county urbanization levels, some subgroups experienced increases, underscoring that persistent health disparities remain. Provisional data indicate similar case counts in the first half of 2021 compared with the first half of 2020 (*1*).

As the nation continues to respond to the COVID-19 pandemic and its long-term effects on isolation, stress, economic insecurity, and worsening substance use, mental health, and well-being, prevention is critical. Existing data suggest that suicide rates might be stable or decline during a disaster, only to rise afterwards as the longer-term sequelae unfold in persons, families, and communities, as was the case in New Orleans 2 years after Hurricane Katrina (*7*).

Suicide is preventable. A comprehensive approach to suicide prevention is urgently needed in all states to continue to build on the progress that began in 2019. A comprehensive approach relies on the use of data to drive decision-making and robust implementation and evaluation of prevention strategies (*3*) that address the range of factors associated with suicide, especially among disproportionately affected populations.** Such strategies, as laid out in CDC's Suicide Prevention Technical Package (*3*) are especially relevant during the COVID-19 pandemic and should include community partners, such as public health, education, health care, and employers, coming together to enhance resilience and improve well-being by strengthening

** https://www.cdc.gov/suicide/facts/disparities-in-suicide.html

FIGURE 2. Age-adjusted rate*,† of suicide,§ by state — National Vital Statistics System, United States, 2019 and 2020



Abbreviation: DC = District of Columbia.

* Age-adjusted death rates per 100,000 population were calculated by using the direct method and the 2000 U.S. standard population.

† States with statistically significant changes ($p<0.05$); z-tests were used if the number of deaths was ≥100 in both 2019 and 2020; nonoverlapping CIs based on the gamma method were used if the number of deaths was <100 in 2019 or 2020. States with statistically significant declines were California, Connecticut, Florida, New Jersey, Ohio, Oregon, and Pennsylvania.

§ Suicide deaths were identified by using *International Classification of Diseases, Tenth Revision* underlying cause-of-death codes U03, X60–X84, and Y87.0.

Summary

What is already known about this topic?

After peaking in 2018, suicide rates declined in 2019 and 2020; however, nearly 46,000 lives were lost in 2020.

What is added by this report?

From 2019 to 2020, the suicide rate declined overall by 3%, including 8% among females and 2% among males. Rates declined in large metropolitan areas and seven states; rates by fall, poisoning, and suffocation also declined. Demographic disparities in suicide persist, as evidenced by increasing rates among persons aged 25–34 years, Hispanic males, and non-Hispanic multiracial females.

What are the implications for public health practice?

A comprehensive approach to suicide prevention is critical to realizing further declines in suicide and to reaching the national goal of reducing the suicide rate by 20% by 2025.

economic supports (e.g., unemployment benefits), expanding access to and delivery of care (e.g., telehealth), promoting social connectedness, creating protective environments (e.g., safely securing medications and firearms), teaching coping and problem-solving skills, identifying and supporting persons at risk, and lessening harms and preventing future risk (e.g., safe media reporting on suicide) (*3*).

The findings in this report are subject to at least two limitations. First, caution should be used when interpreting rate decreases from one year to the next because rates might be unstable, especially in smaller segments of the population. Second, suicides might be undercounted on death certificates for a variety of reasons, including the higher burden of proof to classify a death as a suicide (versus that needed to classify other manners of death), stigma, misclassification, and lack of autopsies or thorough investigations (*8*).

CDC's Suicide Prevention Technical Package and its Comprehensive Suicide Prevention Program,[††] which currently funds 10 states and one university, are helping states and communities prioritize prevention strategies with the best available evidence to save lives. Expansion and adoption of these resources are critical to realizing further declines in suicide and reaching the national goal of reducing the suicide rate by 20% by 2025 set by the American Foundation for Suicide Prevention and the National Action Alliance for Suicide Prevention (*4*).

[††] https://www.cdc.gov/suicide/programs/csp/index.html

Corresponding author: Daniel C. Ehlman, dehlman@cdc.gov, 404-639-8224.

[1]Division of Injury Prevention, National Center for Injury Prevention and Control, CDC; [2]Epidemic Intelligence Service, CDC; [3]Office of the Director, National Center for Injury Prevention and Control, CDC.

All authors have completed and submitted the International Committee of Medical Journal Editors form for disclosure of potential conflicts of interest. No potential conflicts of interest were disclosed.

References

1. National Center for Health Statistics. About multiple cause of death, 1999–2020. Hyattsville, MD: US Department of Health and Human Services, CDC, National Center for Health Statistics; 2021. Accessed December 27, 2021. https://wonder.cdc.gov/mcd.html
2. Substance Abuse and Mental Health Services Administration. Key substance use and mental health indicators in the United States: results from the 2020 national survey on drug use and health. Rockville, MD: US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration; 2021. https://www.samhsa.gov/data/sites/default/files/reports/rpt35325/NSDUHFFRPDFWHTMLFiles2020/2020NSDUHFFR1PDFW102121.pdf
3. CDC. Preventing suicide: a technical package of policy, programs, and practices. Atlanta, GA: US Department of Health and Human Services, CDC; 2017. https://www.cdc.gov/suicide/pdf/suicideTechnicalPackage.pdf
4. Torguson K, O'Brien A. Leading suicide prevention efforts unite to address rising national suicide rate. Washington, DC: American Foundation for Suicide Prevention; 2017. https://afsp.org/story/leading-suicide-prevention-efforts-unite-to-address-rising-national-suicide-rate
5. Crepeau-Hobson F. The psychological autopsy and determination of child suicides: a survey of medical examiners. Arch Suicide Res 2010;14:24–34. PMID:20112141 https://doi.org/10.1080/13811110903479011
6. Pirkis J, John A, Shin S, et al. Suicide trends in the early months of the COVID-19 pandemic: an interrupted time-series analysis of preliminary data from 21 countries. Lancet Psychiatry 2021;8:579–88. PMID:33862016 https://doi.org/10.1016/S2215-0366(21)00091-2
7. Kessler RC, Galea S, Gruber MJ, Sampson NA, Ursano RJ, Wessely S. Trends in mental illness and suicidality after Hurricane Katrina. Mol Psychiatry 2008;13:374–84. PMID:18180768 https://doi.org/10.1038/sj.mp.4002119
8. Snowdon J, Choi NG. Undercounting of suicides: where suicide data lie hidden. Glob Public Health 2020;15:1894–901. PMID:32744898 https://doi.org/10.1080/17441692.2020.1801789