**Surveillance for Violent Deaths — National Violent Death Reporting System, 42 States, the District of Columbia, and Puerto Rico, 2019**

**Supplementary Tables**

The National Violent Death Reporting System (NVDRS) is a state-based active surveillance system that collects data on the characteristics and circumstances associated with violence-related deaths in participating states, districts, and territories. NVDRS data are used to monitor the occurrence of violence-related fatal injuries and assist public health authorities in developing, implementing, and evaluating programs and policies that aim to reduce and prevent violent deaths.

NVDRS collects data on suicides, homicides, legal intervention deaths (i.e., deaths caused by law enforcement acting in the line of duty and other persons with legal authority to use deadly force, excluding legal executions), unintentional firearm deaths, and deaths of undetermined intent in which there was a possibility that force was used to inflict the fatal injury. (The term legal intervention is a classification from ICD-10 [Y-35.0] and does not denote the lawfulness or legality of the circumstances surrounding the death.) NVDRS defines a violent death as a death resulting from the intentional use of physical force or power, threatened or actual, against oneself, another person, or a group or community. The system compiles information from three primary data sources: 1) death certificates, 2) coroner or medical examiner reports, and 3) law enforcement reports, and links deaths that are related (e.g., multiple homicides, a homicide followed by a suicide, or multiple suicides) into a single incident. NVDRS has the capacity to collect over 600 unique variables for each death.

The following tables provide information to supplement the data presented in the 2019 NVDRS Surveillance Summary, Surveillance for Violent Deaths — National Violent Death Reporting System, 42 States, District of Columbia, and Puerto Rico, 2019. These tables provide information that was not presented or was not discussed in detail within the 2019 NVDRS Surveillance Summary, but which has been presented in previous NVDRS Surveillance Summaries and may therefore provide useful information for readers who would like further information related to specific manners of violent death or details regarding the circumstances and characteristics surrounding these deaths. The following tables include data on types of violent death incidents; methods used; location in which injury occurred; deaths of undetermined intent; toxicology results for deaths of undetermined intent, homicides, and legal intervention deaths; additional crime information associated with homicides and legal intervention deaths; types of recent crises associated with suicides, homicides, and legal intervention deaths; and homicides and suicides in Puerto Rico. California collected data from death certificates for all NVDRS cases in the state in 2019; data for violent deaths that occurred in 30 counties (Amador, Butte, Colusa, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lassen, Lake, Los Angeles, Marin, Modoc, Mono, Orange, Placer, Sacramento, San Benito, San Francisco, San Mateo, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Tehama, Trinity, Ventura, and Yolo) also include information from coroner or medical examiner reports and law enforcement reports. Tables S1 and S3–S14 include data (death certificate, coroner or medical examiner, and law enforcement) from the 30 California counties listed above. Table S2 includes statewide data (death certificate only) from California. Tables S15–S20 include data from Puerto Rico.

| **Table S1. Number,\* percentage,† and rate§ of deaths, by incident type and manner of death - National ViolentDeath Reporting System, 42 states and the District of Columbia,¶ 2019** |
| --- |
| **Characteristic** | **No. (%)** | **Rate** |
| **Incident Type** |
| Suicide, single | 32,560 (64.6) | 16.6 |
| Homicide, single | 11,331 (22.5) | 5.1 |
| Legal intervention,\*\* single | 690 (1.4) | 0.3 |
| Undetermined intent, single | 4,452 (8.8) | 2.0 |
| Unintentional firearm, single | 333 (<1.0) | 0.1 |
| Suicide, multiple | 36 (<1.0) | †† |
| Homicide, multiple | 468 (<1.0) | †† |
| Undetermined intent, multiple | 20 (<1.0) | †† |
| Legal intervention,\*\* multiple | 4 (<1.0) | †† |
| Homicide followed by suicide | 466 (<1.0) | †† |
| Other combinations of deaths§§ | 14 (<1.0) | †† |
| **Total** | **50,374 (100)** | **††** |
| **Manner of Death** |
| Suicide, or intentional self-harm | 33,109 (64.1) | 16.9 |
| Homicide | 12,980 (25.1) | 5.8 |
| Undetermined intent | 4,504 (8.7) | 2.0 |
| Legal intervention\*\* | 699 (1.4) | 0.3 |
| Unintentional firearm | 335 (<1.0) | 0.2 |
| **Total** | **51,627 (100)** | **¶¶** |
| \* The Incident Type section reports the number of incidents, including multiple deaths resulting from injuries that are clearly linked by source documents and occur within 24 hours of each other (e.g., multiple homicides perpetrated by the same suspect within a 24-hour period). The Manner of Death section reports the number of deaths. Number of incidents = 50,374. Number of decedents = 51,627 (51,105 were victims of violence and 522 were both a victim and suspect [e.g., the person killed someone else and then died by suicide]).† Percentages might not total 100% due to rounding.§ Per 100,000 population.¶ Alabama, Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa,Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, NewHampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina,Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Illinois and Pennsylvania collected data on ≥80% of violentdeaths in their state, in accordance with requirements under which these states were funded. Data for Illinois are for violent deaths that occurred in 47 counties (Adams, Alexander, Bond, Boone, Brown, Bureau, Champaign, Clay, Cook, DeKalb, Douglas, DuPage, Effingham, Fayette, Fulton, Grundy, Henry, Iroquois, Jackson, Jefferson, Kane, Kankakee, Kendall, Lake, Lasalle, Livingston, Logan, McDonough, McHenry, McLean, Macoupin, Madison, Menard, Peoria, Perry, Piatt, Putnam, Rock Island, St. Clair, Sangamon, Schuyler, Stark, Tazewell, Vermilion, Wayne, Will, and Winn). Data for Pennsylvania are for violent deaths that occurred in 40 counties (Adams, Allegheny, Armstrong, Berks, Blair, Bradford, Bucks, Cameron, Cambria, Carbon, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Dauphin, Delaware, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lackawanna, Lancaster, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Schuylkill, Somerset, Sullivan, Susquehanna, Union, Westmoreland, Wyoming, and York). Data for California are for violent deaths that occurred in 30 counties (Amador, Butte, Colusa, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lassen, Lake, Los Angeles, Marin, Modoc, Mono, Orange, Placer, Sacramento, San Benito, San Francisco, San Mateo, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Tehama, Trinity, Ventura, and Yolo). Denominators for the rates for these three states (Illinois, Pennsylvania, and California) represent only the populations of the counties from which the data were collected.\*\* The term legal intervention does not denote the lawfulness or legality of the circumstances surrounding the death.††  Because the number of decedents varies in incidents involving multiple deaths, numerators cannot be determined to compute rates.§§ Other combinations of deaths include any incident that does not fit into one of the other incident type categories (e.g., an incident withone suicide and one death of undetermined intent).¶¶ Total rates could not be computed because denominators vary by manner of death. Suicide uses population ≥10 years of age and allother manners use the total population. |

| **Table S2. Number,\* percentage,† and rate§ of deaths, by incident type and manner of death - National ViolentDeath Reporting System, 42 states (California statewide) and the District of Columbia,¶ 2019** |
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| **Characteristic** | **No. (%)** | **Rate** |
| **Incident Type** |
| Suicide, single | 34,581 (64.8) | 16.4 |
| Homicide, single | 12,144 (22.8) | 5.1 |
| Legal intervention,\*\* single | 728 (1.4) | 0.3 |
| Undetermined intent, single | 4,569 (8.6) | 1.9 |
| Unintentional firearm, single | 335 (<1.0) | 0.1 |
| Suicide, multiple | 36 (<1.0) | †† |
| Homicide, multiple | 468 (<1.0) | †† |
| Undetermined intent, multiple | 20 (<1.0) | †† |
| Legal intervention,\*\* multiple | 4 (<1.0) | †† |
| Homicide followed by suicide | 468 (<1.0) | †† |
| Other combinations of deaths§§ | 14 (<1.0) | †† |
| **Total** | **53,367 (100)** | **††** |
| **Manner of Death** |
| Suicide, or intentional self-harm | 35,132 (64.3) | 16.7 |
| Homicide | 13,793 (25.3) | 5.8 |
| Undetermined intent | 4,621 (8.5) | 1.9 |
| Legal intervention\*\* | 737 (1.3) | 0.3 |
| Unintentional firearm | 337 (<1.0) | 0.1 |
| **Total** | **54,620 (100)** | **¶¶** |
| \* The Incident Type section reports the number of incidents, including multiple deaths resulting from injuries that are clearly linked by source documents and occur within 24 hours of each other (e.g., multiple homicides perpetrated by the same suspect within a 24-hour period). The Manner of death section reports the number of deaths. Number of incidents = 53,367. Number of decedents = 54,620 (54,096 were victims of violence and 524 were both a victim and suspect [e.g., the person killed someone else and then died by suicide]).† Percentages might not total 100% due to rounding.§ Per 100,000 population.¶ Alabama, Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa,Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, NewHampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina,Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Illinois and Pennsylvania collected data on ≥80% of violentdeaths in their state, in accordance with requirements under which these states were funded. Data for Illinois are for violent deaths that occurred in 47 counties (Adams, Alexander, Bond, Boone, Brown, Bureau, Champaign, Clay, Cook, DeKalb, Douglas, DuPage, Effingham, Fayette, Fulton, Grundy, Henry, Iroquois, Jackson, Jefferson, Kane, Kankakee, Kendall, Lake, Lasalle, Livingston, Logan, McDonough, McHenry, McLean, Macoupin, Madison, Menard, Peoria, Perry, Piatt, Putnam, Rock Island, St. Clair, Sangamon, Schuyler, Stark, Tazewell, Vermilion, Wayne, Will, and Winn). Data for Pennsylvania are for violent deaths that occurred in 40 counties (Adams, Allegheny, Armstrong, Berks, Blair, Bradford, Bucks, Cameron, Cambria, Carbon, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Dauphin, Delaware, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lackawanna, Lancaster, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Schuylkill, Somerset, Sullivan, Susquehanna, Union, Westmoreland, Wyoming, and York). Denominators for the rates for Illinois and Pennsylvania represent only the populations of the counties from which the data were collected. Data for California represent counts of violent deaths that occurred statewide based on death certificate information only.\*\* The term legal intervention does not denote the lawfulness or legality of the circumstances surrounding the death. ††  Because the number of decedents varies in incidents involving multiple deaths, numerators cannot be determined to compute rates.§§ Other combinations of deaths include any incident that does not fit into one of the other incident type categories (e.g., an incident withone suicide and one death of undetermined intent).¶¶ Total rates could not be computed because denominators vary by manner of death. Suicide uses population ≥10 years of age and allother manners use the total population. |

| **Table S3. Number and percentage\* of deaths, by method used and location in which injury occurred - NationalViolent Death Reporting System, 42 states and the District of Columbia,† 2019** |
| --- |
| **Characteristic** | **No. (%)** |
| **Method** |
| Firearm | 27,318 (52.9) |
| Hanging/Strangulation/Suffocation | 10,119 (19.6) |
| Poisoning | 7,445 (14.4) |
| Sharp instrument | 2,001 (3.9) |
| Fall | 957 (1.9) |
| Motor vehicles (e.g., buses, motorcycles, other transport vehicles) | 764 (1.5) |
| Blunt instrument | 706 (1.4) |
| Drowning | 528 (1.0) |
| Personal weapons (e.g., hands, feet, fists) | 513 (<1.0) |
| Fire/Burns | 284 (<1.0) |
| Intentional neglect | 54 (<1.0) |
| Shaking (e.g., shaken baby syndrome) | 44 (<1.0) |
| Other (e.g., taser, electrocution, nail gun) | 131 (<1.0) |
| Unknown | 763 (1.5) |
| **Total** | **51,627 (100)** |
| **Injury Location** |
| House/Apartment | 33,416 (64.7) |
| Street/Highway | 4,037 (7.8) |
| Motor vehicle | 3,273 (6.3) |
| Natural area | 1,958 (3.8) |
| Parking lot/Public garage/Public transport | 1,194 (2.3) |
| Hotel/Motel | 1,071 (2.1) |
| Commercial/Retail area | 739 (1.4) |
| Park/Playground/Sports or athletic area | 686 (1.3) |
| Jail/Prison | 559 (1.1) |
| Railroad tracks | 324 (<1.0) |
| Supervised residential facility | 306 (<1.0) |
| Bridge | 278 (<1.0) |
| Bar/Nightclub | 223 (<1.0) |
| Hospital or medical facility | 194 (<1.0) |
| Abandoned house/Building/Warehouse | 189 (<1.0) |
| Industrial or construction area | 159 (<1.0) |
| Farm | 127 (<1.0) |
| Preschool/School/College/School bus | 122 (<1.0) |
| Office building | 113 (<1.0) |
| Cemetery/Graveyard/Other burial ground | 97 (<1.0) |
| Synagogue/Church/Temple | 54 (<1.0) |
| Other unspecified location | 645 (1.2) |
| Unknown | 1,863 (3.6) |
| **Total** | **51,627 (100)** |
| \* Percentages might not total 100% due to rounding.† Alabama, Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa,Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, NewHampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina,Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Illinois and Pennsylvania collected data on ≥80% of violentdeaths in their state, in accordance with requirements under which these states were funded. Data for Illinois are for violent deaths that occurred in 47 counties (Adams, Alexander, Bond, Boone, Brown, Bureau, Champaign, Clay, Cook, DeKalb, Douglas, DuPage, Effingham, Fayette, Fulton, Grundy, Henry, Iroquois, Jackson, Jefferson, Kane, Kankakee, Kendall, Lake, Lasalle, Livingston, Logan, McDonough, McHenry, McLean, Macoupin, Madison, Menard, Peoria, Perry, Piatt, Putnam, Rock Island, St. Clair, Sangamon, Schuyler, Stark, Tazewell, Vermilion, Wayne, Will, and Winn). Data for Pennsylvania are for violent deaths that occurred in 40 counties (Adams, Allegheny, Armstrong, Berks, Blair, Bradford, Bucks, Cameron, Cambria, Carbon, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Dauphin, Delaware, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lackawanna, Lancaster, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Schuylkill, Somerset, Sullivan, Susquehanna, Union, Westmoreland, Wyoming, and York). Data for California are for violent deaths that occurred in 30 counties (Amador, Butte, Colusa, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lassen, Lake, Los Angeles, Marin, Modoc, Mono, Orange, Placer, Sacramento, San Benito, San Francisco, San Mateo, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Tehama, Trinity, Ventura, and Yolo). |

| **Table S4. Number, percentage,\* and rate† of deaths of undetermined intent,§ by decedent sex, age group, race/ethnicity, method used, and location in which injury occurred - National Violent Death Reporting System, 42 states and the District of Columbia,¶ 2019** |
| --- |
|  | **Male** | **Female** | **Total** |
| **Characteristic** | **No. (%)** | **Rate** | **No. (%)** | **Rate** | **No. (%)** | **Rate** |
| **Age Group (years)** |
| <1 | 41 (1.4) | 3.2 | 31 (2.0) | 2.5 | 72 (1.6) | 2.8 |
| 1-4 | 20 (<1.0) | 0.4 | 15 (<1.0) | \*\* | 35 (<1.0) | 0.3 |
| 5-9 | 13 (<1.0) | \*\* | 3 (<1.0) | \*\* | 16 (<1.0) | \*\* |
| 10-14 | 12 (<1.0) | \*\* | 5 (<1.0) | \*\* | 17 (<1.0) | \*\* |
| 15-19 | 63 (2.1) | 0.9 | 24 (1.6) | 0.3 | 87 (1.9) | 0.6 |
| 20-24 | 179 (6.0) | 2.4 | 74 (4.9) | 1.0 | 253 (5.6) | 1.7 |
| 25-29 | 289 (9.7) | 3.6 | 114 (7.5) | 1.5 | 403 (8.9) | 2.5 |
| 30-34 | 332 (11.2) | 4.4 | 169 (11.1) | 2.3 | 501 (11.1) | 3.3 |
| 35-44 | 637 (21.4) | 4.5 | 283 (18.6) | 2.0 | 920 (20.4) | 3.3 |
| 45-54 | 561 (18.8) | 4.1 | 330 (21.7) | 2.4 | 891 (19.8) | 3.2 |
| 55-64 | 574 (19.3) | 4.1 | 310 (20.4) | 2.1 | 884 (19.6) | 3.0 |
| 65-74 | 185 (6.2) | 1.8 | 96 (6.3) | 0.8 | 281 (6.2) | 1.3 |
| 75-84 | 42 (1.4) | 0.9 | 43 (2.8) | 0.7 | 85 (1.9) | 0.8 |
| ≥85 | 26 (<1.0) | 1.6 | 26 (1.7) | 0.9 | 52 (1.2) | 1.2 |
| Unknown | 3 (<1.0) | \*\* | 0 (0.0) | \*\* | 7 (<1.0) | \*\* |
| **Race/Ethnicity** |
| White, non-Hispanic | 1,857 (62.4) | 2.6 | 1,082 (71.0) | 1.5 | 2,939 (65.3) | 2.0 |
| Black, non-Hispanic | 813 (27.3) | 5.8 | 331 (21.7) | 2.2 | 1,144 (25.4) | 3.9 |
| American Indian/Alaska Native, non-Hispanic | 49 (1.6) | 4.4 | 25 (1.6) | 2.2 | 74 (1.6) | 3.3 |
| Asian/Pacific Islander | 47 (1.6) | 0.7 | 25 (1.6) | 0.4 | 72 (1.6) | 0.5 |
| Hispanic†† | 198 (6.7) | 1.2 | 59 (3.9) | 0.4 | 257 (5.7) | 0.8 |
| Other | 11 (<1.0) | \*\* | 1 (<1.0) | \*\* | 16 (<1.0) | \*\* |
| Unknown | 2 (<1.0) | \*\* | 0 (0.0) | \*\* | 2 (<1.0) | \*\* |
| **Method** |
| Poisoning | 2,084 (70.0) | 1.9 | 1,142 (75.0) | 1.0 | 3,228 (71.7) | 1.5 |
| Drowning | 147 (4.9) | 0.1 | 40 (2.6) | <0.1 | 187 (4.2) | <0.1 |
| Firearm | 141 (4.7) | 0.1 | 44 (2.9) | <0.1 | 185 (4.1) | <0.1 |
| Fall | 79 (2.7) | <0.1 | 39 (2.6) | <0.1 | 118 (2.6) | <0.1 |
| Blunt instrument | 85 (2.9) | <0.1 | 30 (2.0) | <0.1 | 115 (2.6) | <0.1 |
| Motor vehicles (e.g., buses, motorcycles, other transport vehicles) | 73 (2.5) | <0.1 | 25 (1.6) | <0.1 | 98 (2.2) | <0.1 |
| Fire/Burns | 62 (2.1) | <0.1 | 24 (1.6) | <0.1 | 86 (1.9) | <0.1 |
| Hanging/Strangulation/Suffocation | 52 (1.7) | <0.1 | 26 (1.7) | <0.1 | 78 (1.7) | <0.1 |
| Sharp instrument | 22 (<1.0) | <0.1 | 3 (<1.0) | \*\* | 25 (<1.0) | <0.1 |
| Personal weapons (e.g., hands, feet, fists) | 13 (<1.0) | \*\* | 7 (<1.0) | \*\* | 20 (<1.0) | <0.1 |
| Intentional neglect | 5 (<1.0) | \*\* | 4 (<1.0) | \*\* | 9 (<1.0) | \*\* |
| Shaking (e.g., shaken baby syndrome) | 0 (0.0) | \*\* | 2 (<1.0) | \*\* | 2 (<1.0) | \*\* |
| Other (e.g., taser, electrocution, nail gun) | 38 (1.3) | \*\* | 17 (1.1) | \*\* | 55 (1.2) | \*\* |
| Unknown | 176 (5.9) | \*\* | 120 (7.9) | \*\* | 298 (6.6) | \*\* |
| **Location of Injury** |
| House/Apartment | 1,891 (63.5) | 1.7 | 1,126 (73.9) | 1.0 | 3,019 (67.0) | 1.4 |
| Natural area | 199 (6.7) | 0.2 | 37 (2.4) | <0.1 | 236 (5.2) | 0.1 |
| Street/Highway | 143 (4.8) | 0.1 | 45 (3.0) | <0.1 | 188 (4.2) | <0.1 |
| Motor vehicle | 117 (3.9) | 0.1 | 46 (3.0) | <0.1 | 163 (3.6) | <0.1 |
| Hotel/Motel | 104 (3.5) | <0.1 | 51 (3.3) | <0.1 | 155 (3.4) | <0.1 |
| Supervised residential facility | 61 (2.0) | <0.1 | 32 (2.1) | <0.1 | 93 (2.1) | <0.1 |
| Abandoned house/Building/ Warehouse | 55 (1.8) | <0.1 | 9 (<1.0) | \*\* | 64 (1.4) | <0.1 |
| Parking lot/Public garage/Public transport | 44 (1.5) | <0.1 | 3 (<1.0) | \*\* | 47 (1.0) | <0.1 |
| Hospital or medical facility | 21 (<1.0) | <0.1 | 23 (1.5) | <0.1 | 44 (<1.0) | <0.1 |
| Other location§§ | 160 (5.4) | \*\* | 44 (2.9) | \*\* | 204 (4.5) | \*\* |
| Unknown | 182 (6.1) | \*\* | 107 (7.0) | \*\* | 291 (6.5) | \*\* |
|  |
| **Total** | **2,977 (100)** | **2.7** | **1,523 (100)** | **1.4** | **4,504 (100)** | **2.0** |
| \* Percentages might not total 100% due to rounding. Sex was unknown for n = 4 decedents.† Per 100,000 population.§ Deaths that result from the use of force or power against oneself or another person for which evidence indicating one manner of death is no more compelling than evidence indicating another.¶ Alabama, Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa,Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, NewHampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina,Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Illinois and Pennsylvania collected data on ≥80% of violentdeaths in their state, in accordance with requirements under which these states were funded. Data for Illinois are for violent deaths that occurred in 47 counties (Adams, Alexander, Bond, Boone, Brown, Bureau, Champaign, Clay, Cook, DeKalb, Douglas, DuPage, Effingham, Fayette, Fulton, Grundy, Henry, Iroquois, Jackson, Jefferson, Kane, Kankakee, Kendall, Lake, Lasalle, Livingston, Logan, McDonough, McHenry, McLean, Macoupin, Madison, Menard, Peoria, Perry, Piatt, Putnam, Rock Island, St. Clair, Sangamon, Schuyler, Stark, Tazewell, Vermilion, Wayne, Will, and Winn). Data for Pennsylvania are for violent deaths that occurred in 40 counties (Adams, Allegheny, Armstrong, Berks, Blair, Bradford, Bucks, Cameron, Cambria, Carbon, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Dauphin, Delaware, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lackawanna, Lancaster, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Schuylkill, Somerset, Sullivan, Susquehanna, Union, Westmoreland, Wyoming, and York). Data for California are for violent deaths that occurred in 30 counties (Amador, Butte, Colusa, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lassen, Lake, Los Angeles, Marin, Modoc, Mono, Orange, Placer, Sacramento, San Benito, San Francisco, San Mateo, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Tehama, Trinity, Ventura, and Yolo). Denominators for the rates for these three states (Illinois, Pennsylvania, and California) represent only the populations of the counties from which the data were collected.\*\* Rates are not reported when number of decedents is <20 or when characteristic response is “Other” or “Unknown.”†† Includes persons of any race.§§ Other location includes (in descending order): commercial/retail area, railroad tracks, park/playground/sports or athletic area, jail/prison, industrial or construction area, bridge, bar/nightclub, farm, office building, preschool/school/college/school bus, synagogue/church/temple, cemetery/graveyard/other burial ground, and other unspecified location. |

| **Table S5. Number\* and percentage of decedents of deaths of undetermined intent† tested for alcohol and drugs and whose results were positive,§ by toxicology - National Violent Death Reporting System, 42 states and the District of Columbia,¶ 2019** |
| --- |
|  | **Tested** | **Positive** |
| **Toxicology** | **No. (%)** | **No. (%)** |
| Blood alcohol concentration\*\* | 3,449 (76.6) | 1,139 (33.0) |
|  Alcohol < 0.08 g/dL |  | 368 (32.3) |
|  Alcohol ≥ 0.08 g/dL |  | 562 (49.3) |
|  Alcohol positive - level unknown |  | 209 (18.3) |
| Amphetamines | 1,700 (37.7) | 487 (28.6) |
| Anticonvulsants | 1,280 (28.4) | 345 (27.0) |
| Antidepressants | 1,723 (38.3) | 902 (52.4) |
| Antipsychotics | 1,249 (27.7) | 273 (21.9) |
| Barbiturates | 1,397 (31.0) | 42 (3.0) |
| Benzodiazepines | 1,856 (41.2) | 770 (41.5) |
| Carbon monoxide | 315 (7.0) | 119 (37.8) |
| Cocaine | 2,256 (50.1) | 974 (43.2) |
| Cannabis††  | 1,482 (32.9) | 407 (27.5) |
| Muscle relaxants | 1,189 (26.4) | 147 (12.4) |
| Opioids | 3,331 (74.0) | 2,567 (77.1) |
| Other drugs/substances§§ | 623 (13.8) | 596 (95.7) |
| \*Number of decedents of undetermined intent = 4,504.† Deaths that result from the use of force or power against oneself or another person for which evidence indicating one manner of death is no more compelling than evidence indicating another.§ Percentage is of decedents tested for toxicology.¶ Alabama, Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa,Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, NewHampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina,Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Illinois and Pennsylvania collected data on ≥80% of violentdeaths in their state, in accordance with requirements under which these states were funded. Data for Illinois are for violent deaths that occurred in 47 counties (Adams, Alexander, Bond, Boone, Brown, Bureau, Champaign, Clay, Cook, DeKalb, Douglas, DuPage, Effingham, Fayette, Fulton, Grundy, Henry, Iroquois, Jackson, Jefferson, Kane, Kankakee, Kendall, Lake, Lasalle, Livingston, Logan, McDonough, McHenry, McLean, Macoupin, Madison, Menard, Peoria, Perry, Piatt, Putnam, Rock Island, St. Clair, Sangamon, Schuyler, Stark, Tazewell, Vermilion, Wayne, Will, and Winn). Data for Pennsylvania are for violent deaths that occurred in 40 counties (Adams, Allegheny, Armstrong, Berks, Blair, Bradford, Bucks, Cameron, Cambria, Carbon, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Dauphin, Delaware, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lackawanna, Lancaster, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Schuylkill, Somerset, Sullivan, Susquehanna, Union, Westmoreland, Wyoming, and York). Data for California are for violent deaths that occurred in 30 counties (Amador, Butte, Colusa, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lassen, Lake, Los Angeles, Marin, Modoc, Mono, Orange, Placer, Sacramento, San Benito, San Francisco, San Mateo, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Tehama, Trinity, Ventura, and Yolo).\*\* Blood alcohol concentration of ≥ 0.08 g/dL is over the legal limit in all states and the District of Columbia, and is used as the standard for intoxication.†† More commonly referred to as marijuana.§§ Other drugs/substances indicated if any results were positive; levels for these drugs/substances are not measured. |

| **Table S6. Number\* and percentage† of deaths of undetermined intent,§ by decedent sex and precipitating circumstances - National Violent Death Reporting System, 42 states and the District of Columbia,¶ 2019** |
| --- |
|  | **Male** | **Female** | **Total** |
| **Precipitating Circumstances** | **No. (%)** | **No. (%)** | **No. (%)** |
| **Mental Health/Substance Use** |
| Current diagnosed mental health problem\*\* | 727 (29.7) | 594 (46.6) | 1,321 (35.5) |
|  Depression/Dysthymia | 403 (55.4) | 375 (63.1) | 778 (58.9) |
|  Anxiety disorder | 174 (23.9) | 200 (33.7) | 374 (28.3) |
|  Bipolar disorder | 138 (19.0) | 128 (21.5) | 266 (20.1) |
|  Schizophrenia | 86 (11.8) | 48 (8.1) | 134 (10.1) |
|  Posttraumatic stress disorder | 51 (7.0) | 24 (4.0) | 75 (5.7) |
|  Attention deficit disorder/attention deficit hyperactivity disorder  | 25 (3.4) | 14 (2.4) | 39 (3.0) |
|  Dementia | 8 (1.1) | 7 (1.2) | 15 (1.1) |
|  Autism spectrum | 3 (<1.0) | 2 (<1.0) | 5 (<1.0) |
|  Obsessive compulsive disorder | 2 (<1.0) | 1 (<1.0) | 3 (<1.0) |
|  Eating disorder | 1 (<1.0) | 1 (<1.0) | 2 (<1.0) |
|  Other | 49 (6.7) | 31 (5.2) | 80 (6.1) |
|  Unknown | 86 (11.8) | 65 (10.9) | 151 (11.4) |
| Substance use problem (excludes alcohol) | 1,790 (73.2) | 856 (67.1) | 2,646 (71.1) |
| History of ever being treated for a mental health problem | 714 (29.2) | 485 (38.0) | 1,199 (32.2) |
| Alcohol problem | 686 (28.0) | 274 (21.5) | 960 (25.8) |
| Current mental health treatment | 506 (20.7) | 396 (31.1) | 902 (24.2) |
| Current depressed mood | 173 (7.1) | 123 (9.6) | 296 (8.0) |
| Other addiction (e.g., gambling, sexual) | 22 (<1.0) | 22 (1.7) | 44 (1.2) |
| **Interpersonal** |
| Intimate partner problem | 112 (4.6) | 71 (5.6) | 183 (4.9) |
| Family relationship problem | 82 (3.4) | 59 (4.6) | 141 (3.8) |
| Other death of family member or friend | 61 (2.5) | 43 (3.4) | 104 (2.8) |
| Other relationship problem (non-intimate) | 41 (1.7) | 23 (1.8) | 64 (1.7) |
| Victim of interpersonal violence during past month | 11 (<1.0) | 35 (2.7) | 46 (1.2) |
| Perpetrator of interpersonal violence during past month | 25 (1.0) | 6 (<1.0) | 31 (<1.0) |
| Suicide of family member or friend | 9 (<1.0) | 5 (<1.0) | 14 (<1.0) |
| **Life Stressor** |
| Physical health problem | 228 (9.3) | 175 (13.7) | 403 (10.8) |
| Crisis during previous or upcoming 2 weeks | 204 (8.3) | 103 (8.1) | 307 (8.2) |
| Argument or conflict | 129 (5.3) | 86 (6.7) | 215 (5.8) |
| Recent criminal legal problem | 72 (2.9) | 13 (1.0) | 85 (2.3) |
| Job problem | 52 (2.1) | 14 (1.1) | 66 (1.8) |
| Financial problem | 41 (1.7) | 22 (1.7) | 63 (1.7) |
| Physical fight (2 people, not a brawl) | 47 (1.9) | 13 (1.0) | 60 (1.6) |
| Caretaker abuse/neglect led to suicide | 23 (<1.0) | 27 (2.1) | 50 (1.3) |
| Eviction or loss of home | 30 (1.2) | 13 (1.0) | 43 (1.2) |
| History of child abuse/neglect | 10 (<1.0) | 19 (1.5) | 29 (<1.0) |
| Non-criminal legal problem | 15 (<1.0) | 13 (1.0) | 28 (<1.0) |
| School problem | 6 (<1.0) | 1 (<1.0) | 7 (<1.0) |
| Traumatic anniversary | 3 (<1.0) | 4 (<1.0) | 7 (<1.0) |
| Exposure to disaster | 2 (<1.0) | 0 (0.0) | 2 (<1.0) |
| **Crime and Criminal Activity** |
| Precipitated by another crime | 52 (2.1) | 11 (<1.0) | 63 (1.7) |
|  Crime in progress†† | 24 (46.2) | 6 (54.5) | 30 (47.6) |
| **Suicide Event** |
| History of suicidal thoughts or plans | 254 (10.4) | 147 (11.5) | 401 (10.8) |
| History of suicide attempt(s) | 151 (6.2) | 130 (10.2) | 281 (7.5) |
| Left a suicide note | 28 (1.1) | 23 (1.8) | 51 (1.4) |
| **Suicide Disclosure** |
| Disclosed suicidal intent | 125 (5.1) | 57 (4.5) | 182 (4.9) |
| Disclosed intent to whom§§ |  |  |  |
|  Other family member | 42 (33.6) | 19 (33.3) | 61 (33.5) |
|  Previous or current intimate partner | 38 (30.4) | 14 (24.6) | 52 (28.6) |
|  Friend/colleague | 16 (12.8) | 8 (14.0) | 24 (13.2) |
|  Health care worker | 15 (12.0) | 3 (5.3) | 18 (9.9) |
|  Neighbor | 5 (4.0) | 3 (5.3) | 8 (4.4) |
|  Through social media or other electronic means | 1 (<1.0) | 1 (1.8) | 2 (1.1) |
|  Other | 12 (9.6) | 6 (10.5) | 18 (9.9) |
|  Unknown | 8 (6.4) | 6 (10.5) | 14 (7.7) |
|  |
| **Total¶¶** | **2,447 (82.2)** | **1,275 (83.7)** | **3,722 (82.6)** |
| \* Includes deaths of undetermined intent with one or more precipitating circumstances. More than one circumstance could have been present per decedent.† Denominator includes those deaths of undetermined intent with one or more precipitating circumstances. The sums of percentages in columns exceed 100% because more than one circumstance could have been present per decedent.§ Deaths that result from the use of force or power against oneself or another person for which evidence indicating one manner of death is no more compelling than evidence indicating another.¶ Alabama, Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa,Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, NewHampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina,Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Illinois and Pennsylvania collected data on ≥80% of violentdeaths in their state, in accordance with requirements under which these states were funded. Data for Illinois are for violent deaths that occurred in 47 counties (Adams, Alexander, Bond, Boone, Brown, Bureau, Champaign, Clay, Cook, DeKalb, Douglas, DuPage, Effingham, Fayette, Fulton, Grundy, Henry, Iroquois, Jackson, Jefferson, Kane, Kankakee, Kendall, Lake, Lasalle, Livingston, Logan, McDonough, McHenry, McLean, Macoupin, Madison, Menard, Peoria, Perry, Piatt, Putnam, Rock Island, St. Clair, Sangamon, Schuyler, Stark, Tazewell, Vermilion, Wayne, Will, and Winn). Data for Pennsylvania are for violent deaths that occurred in 40 counties (Adams, Allegheny, Armstrong, Berks, Blair, Bradford, Bucks, Cameron, Cambria, Carbon, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Dauphin, Delaware, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lackawanna, Lancaster, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Schuylkill, Somerset, Sullivan, Susquehanna, Union, Westmoreland, Wyoming, and York). Data for California are for violent deaths that occurred in 30 counties (Amador, Butte, Colusa, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lassen, Lake, Los Angeles, Marin, Modoc, Mono, Orange, Placer, Sacramento, San Benito, San Francisco, San Mateo, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Tehama, Trinity, Ventura, and Yolo).\*\* Includes decedents with one or more diagnosed current mental health problems; therefore, sums of percentages for the diagnosed conditions exceed 100%. Denominator in percentages is the number of decedents with one or more current diagnosed mental health problems.†† Denominator includes those decedents involved in an incident that was precipitated by another crime.§§ Denominator is decedents who disclosed intent. The sum of percentages exceed 100% because more than one response could have been present per decedent.¶¶ Circumstances were unknown for 782 decedents (530 males, 248 females, and 4 unknown). Total number of deaths of undetermined intent = 4,504 (2,977 males, 1,523 females, and 4 unknown). |

| **Table S7. Number\* and percentage† of decedents of deaths of undetermined intent§ who experienced a recent crisis, by decedent sex and type of crisis circumstance - National Violent Death Reporting System, 42 states and the District of Columbia,¶ 2019** |
| --- |
|  | **Male** | **Female** | **Total** |
| **Type of Crisis** | **No. (%)** | **No. (%)** | **No. (%)** |
| **Crisis during previous or upcoming 2 weeks** | **204 (100)** | **103 (100)** | **307 (100)** |
| Other substance use problem (excludes alcohol) | 46 (22.5) | 20 (19.4) | 66 (21.5) |
| Intimate partner problem | 40 (19.6) | 20 (19.4) | 60 (19.5) |
| Contributing physical health problem | 31 (15.2) | 28 (27.2) | 59 (19.2) |
| Alcohol problem | 26 (12.7) | 17 (16.5) | 43 (14.0) |
| Family relationship problem | 18 (8.8) | 8 (7.8) | 26 (8.5) |
| Contributing criminal legal problem | 21 (10.3) | 3 (2.9) | 24 (7.8) |
| Eviction or loss of home | 13 (6.4) | 7 (6.8) | 20 (6.5) |
| Current diagnosed mental health problem | 11 (5.4) | 5 (4.9) | 16 (5.2) |
| Other death of friend or family | 9 (4.4) | 6 (5.8) | 15 (4.9) |
| Other relationship problem (non-intimate) | 8 (3.9) | 3 (2.9) | 11 (3.6) |
| Job problem | 9 (4.4) | 1 (<1.0) | 10 (3.3) |
| Civil/Legal problems | 5 (2.5) | 3 (2.9) | 8 (2.6) |
| Financial problem | 4 (2.0) | 3 (2.9) | 7 (2.3) |
| Other addiction (e.g., gambling, sexual) | 0 (0.0) | 2 (1.9) | 2 (<1.0) |
| School problem | 1 (<1.0) | 0 (0.0) | 1 (<1.0) |
| Suicide of friend or family | 1 (<1.0) | 0 (0.0) | 1 (<1.0) |
| Disaster exposure | 1 (<1.0) | 0 (0.0) | 1 (<1.0) |
| Other crisis | 6 (2.9) | 2 (1.9) | 8 (2.6) |
| \* Includes decedents who experienced one or more crises during the previous or upcoming two weeks. Numbers will not equal the sums of the columns because more than one crisis could have been present per decedent.† Denominator includes only those decedents who experienced one or more crises during the previous or upcoming two weeks. Percentages do not sum to 100% because a decedent could have experienced more than one crisis.§ Deaths that result from the use of force or power against oneself or another person for which evidence indicating one manner of death is no more compelling than evidence indicating another.¶ Alabama, Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa,Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, NewHampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina,Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Illinois and Pennsylvania collected data on ≥80% of violentdeaths in their state, in accordance with requirements under which these states were funded. Data for Illinois are for violent deaths that occurred in 47 counties (Adams, Alexander, Bond, Boone, Brown, Bureau, Champaign, Clay, Cook, DeKalb, Douglas, DuPage, Effingham, Fayette, Fulton, Grundy, Henry, Iroquois, Jackson, Jefferson, Kane, Kankakee, Kendall, Lake, Lasalle, Livingston, Logan, McDonough, McHenry, McLean, Macoupin, Madison, Menard, Peoria, Perry, Piatt, Putnam, Rock Island, St. Clair, Sangamon, Schuyler, Stark, Tazewell, Vermilion, Wayne, Will, and Winn). Data for Pennsylvania are for violent deaths that occurred in 40 counties (Adams, Allegheny, Armstrong, Berks, Blair, Bradford, Bucks, Cameron, Cambria, Carbon, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Dauphin, Delaware, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lackawanna, Lancaster, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Schuylkill, Somerset, Sullivan, Susquehanna, Union, Westmoreland, Wyoming, and York). Data for California are for violent deaths that occurred in 30 counties (Amador, Butte, Colusa, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lassen, Lake, Los Angeles, Marin, Modoc, Mono, Orange, Placer, Sacramento, San Benito, San Francisco, San Mateo, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Tehama, Trinity, Ventura, and Yolo). |

| **Table S8. Number\* and percentage† of suicide decedents who experienced a recent crisis, by decedent sex and type of crisis circumstance - National Violent Death Reporting System, 42 states and the District of Columbia,§ 2019** |
| --- |
|  | **Male** | **Female** | **Total** |
| **Type of Crisis** | **No. (%)** | **No. (%)** | **No. (%)** |
| **Crisis during previous or upcoming 2 weeks** | **6,459 (100)** | **1,571 (100)** | **8,030 (100)** |
| Intimate partner problem | 2,745 (42.5) | 625 (39.8) | 3,370 (42.0) |
| Contributing physical health problem | 1,010 (15.6) | 211 (13.4) | 1,221 (15.2) |
| Contributing criminal legal problem | 928 (14.4) | 87 (5.5) | 1,015 (12.6) |
| Job problem | 521 (8.1) | 118 (7.5) | 639 (8.0) |
| Family relationship problem | 442 (6.8) | 152 (9.7) | 594 (7.4) |
| Alcohol problem | 453 (7.0) | 113 (7.2) | 566 (7.0) |
| Current diagnosed mental health problem | 398 (6.2) | 161 (10.2) | 559 (7.0) |
| Eviction or loss of home | 314 (4.9) | 105 (6.7) | 419 (5.2) |
| Financial problem | 322 (5.0) | 69 (4.4) | 391 (4.9) |
| Civil/Legal problems | 250 (3.9) | 71 (4.5) | 321 (4.0) |
| Other substance use problem (excludes alcohol) | 223 (3.5) | 67 (4.3) | 290 (3.6) |
| Other death of friend or family | 215 (3.3) | 73 (4.6) | 288 (3.6) |
| Other relationship problem (non-intimate) | 111 (1.7) | 33 (2.1) | 144 (1.8) |
| School problem | 81 (1.3) | 30 (1.9) | 111 (1.4) |
| Suicide of friend or family | 59 (<1.0) | 28 (1.8) | 87 (1.1) |
| Other addiction (e.g., gambling, sexual) | 15 (<1.0) | 7 (<1.0) | 22 (<1.0) |
| Disaster exposure | 3 (<1.0) | 1 (<1.0) | 4 (<1.0) |
| Other crisis | 76 (1.2) | 17 (1.1) | 93 (1.2) |
| \* Includes decedents who experienced one or more crises during the previous or upcoming two weeks. Numbers will not equal the sums of the columns because more than one crisis could have been present per decedent.† Denominator includes only those decedents who experienced one or more crises during the previous or upcoming two weeks. Percentages do not sum to 100% because a decedent could have experienced more than one crisis.§ Alabama, Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa,Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, NewHampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina,Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Illinois and Pennsylvania collected data on ≥80% of violentdeaths in their state, in accordance with requirements under which these states were funded. Data for Illinois are for violent deaths that occurred in 47 counties (Adams, Alexander, Bond, Boone, Brown, Bureau, Champaign, Clay, Cook, DeKalb, Douglas, DuPage, Effingham, Fayette, Fulton, Grundy, Henry, Iroquois, Jackson, Jefferson, Kane, Kankakee, Kendall, Lake, Lasalle, Livingston, Logan, McDonough, McHenry, McLean, Macoupin, Madison, Menard, Peoria, Perry, Piatt, Putnam, Rock Island, St. Clair, Sangamon, Schuyler, Stark, Tazewell, Vermilion, Wayne, Will, and Winn). Data for Pennsylvania are for violent deaths that occurred in 40 counties (Adams, Allegheny, Armstrong, Berks, Blair, Bradford, Bucks, Cameron, Cambria, Carbon, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Dauphin, Delaware, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lackawanna, Lancaster, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Schuylkill, Somerset, Sullivan, Susquehanna, Union, Westmoreland, Wyoming, and York). Data for California are for violent deaths that occurred in 30 counties (Amador, Butte, Colusa, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lassen, Lake, Los Angeles, Marin, Modoc, Mono, Orange, Placer, Sacramento, San Benito, San Francisco, San Mateo, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Tehama, Trinity, Ventura, and Yolo). |

| **Table S9. Number\* and percentage of homicide decedents tested for alcohol and drugs and whose results were positive,† by toxicology - National Violent Death Reporting System, 42 states and the District of Columbia,§ 2019** |
| --- |
|  | **Tested** | **Positive** |
| **Toxicology** | **No. (%)** | **No. (%)** |
| Blood alcohol concentration¶ | 8,370 (64.5) | 2,987 (35.7) |
|  Alcohol < 0.08 g/dL |  | 1,084 (36.3) |
|  Alcohol ≥ 0.08 g/dL |  | 1,642 (55.0) |
|  Alcohol positive - level unknown |  | 261 (8.7) |
| Amphetamines | 6,741 (51.9) | 1,689 (25.1) |
| Anticonvulsants | 2,752 (21.2) | 245 (8.9) |
| Antidepressants | 3,392 (26.1) | 265 (7.8) |
| Antipsychotics | 2,772 (21.4) | 71 (2.6) |
| Barbiturates | 5,527 (42.6) | 53 (1.0) |
| Benzodiazepines | 6,000 (46.2) | 675 (11.3) |
| Carbon monoxide | 416 (3.2) | 88 (21.2) |
| Cocaine | 6,692 (51.6) | 1,075 (16.1) |
| Cannabis\*\* | 6,570 (50.6) | 3,460 (52.7) |
| Muscle relaxants | 3,110 (24.0) | 57 (1.8) |
| Opioids | 6,946 (53.5) | 1,521 (21.9) |
| Other drugs/substances†† | 1,120 (8.6) | 1,057 (94.4) |
| \* Number of homicide decedents = 12,980.† Percentage is of decedents tested for toxicology.§ Alabama, Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa,Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, NewHampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina,Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Illinois and Pennsylvania collected data on ≥80% of violentdeaths in their state, in accordance with requirements under which these states were funded. Data for Illinois are for violent deaths that occurred in 47 counties (Adams, Alexander, Bond, Boone, Brown, Bureau, Champaign, Clay, Cook, DeKalb, Douglas, DuPage, Effingham, Fayette, Fulton, Grundy, Henry, Iroquois, Jackson, Jefferson, Kane, Kankakee, Kendall, Lake, Lasalle, Livingston, Logan, McDonough, McHenry, McLean, Macoupin, Madison, Menard, Peoria, Perry, Piatt, Putnam, Rock Island, St. Clair, Sangamon, Schuyler, Stark, Tazewell, Vermilion, Wayne, Will, and Winn). Data for Pennsylvania are for violent deaths that occurred in 40 counties (Adams, Allegheny, Armstrong, Berks, Blair, Bradford, Bucks, Cameron, Cambria, Carbon, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Dauphin, Delaware, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lackawanna, Lancaster, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Schuylkill, Somerset, Sullivan, Susquehanna, Union, Westmoreland, Wyoming, and York). Data for California are for violent deaths that occurred in 30 counties (Amador, Butte, Colusa, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lassen, Lake, Los Angeles, Marin, Modoc, Mono, Orange, Placer, Sacramento, San Benito, San Francisco, San Mateo, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Tehama, Trinity, Ventura, and Yolo).¶ Blood alcohol concentration of ≥ 0.08 g/dL is over the legal limit in all states and the District of Columbia, and is used as the standard for intoxication.\*\* More commonly referred to as marijuana.††Other drugs/substances indicated if any results were positive; levels for these drugs/substances are not measured. |

| **Table S10. Number\* and percentage† of homicides precipitated by another crime, by type of crime - National Violent Death Reporting System, 42 states and the District of Columbia,§ 2019** |
| --- |
| **Type of Crime** | **No. (%)** |
| **Precipitated by another crime** | **2,384 (100.0)** |
| Assault/Homicide | 955 (40.1) |
| Robbery | 861 (36.1) |
| Drug trade | 318 (13.3) |
| Burglary | 312 (13.1) |
| Motor vehicle theft | 111 (4.7) |
| Rape/Sexual assault | 77 (3.2) |
| Arson | 41 (1.7) |
| Witness intimidation/elimination | 15 (<1.0) |
| Gambling | 8 (<1.0) |
| Other crime | 242 (10.2) |
| Unknown | 34 (1.4) |
| \* Includes deaths precipitated by another crime. Number will not equal the sum of the column because a death could have been precipitated by more than one crime.† Denominator includes those decedents involved in an incident that was precipitated by another crime. Percentages do not sum to 100% because a decedent could have experienced more than one crime.§ Alabama, Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa,Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, NewHampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina,Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Illinois and Pennsylvania collected data on ≥80% of violentdeaths in their state, in accordance with requirements under which these states were funded. Data for Illinois are for violent deaths that occurred in 47 counties (Adams, Alexander, Bond, Boone, Brown, Bureau, Champaign, Clay, Cook, DeKalb, Douglas, DuPage, Effingham, Fayette, Fulton, Grundy, Henry, Iroquois, Jackson, Jefferson, Kane, Kankakee, Kendall, Lake, Lasalle, Livingston, Logan, McDonough, McHenry, McLean, Macoupin, Madison, Menard, Peoria, Perry, Piatt, Putnam, Rock Island, St. Clair, Sangamon, Schuyler, Stark, Tazewell, Vermilion, Wayne, Will, and Winn). Data for Pennsylvania are for violent deaths that occurred in 40 counties (Adams, Allegheny, Armstrong, Berks, Blair, Bradford, Bucks, Cameron, Cambria, Carbon, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Dauphin, Delaware, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lackawanna, Lancaster, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Schuylkill, Somerset, Sullivan, Susquehanna, Union, Westmoreland, Wyoming, and York). Data for California are for violent deaths that occurred in 30 counties (Amador, Butte, Colusa, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lassen, Lake, Los Angeles, Marin, Modoc, Mono, Orange, Placer, Sacramento, San Benito, San Francisco, San Mateo, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Tehama, Trinity, Ventura, and Yolo). |

| **Table S11. Number\* and percentage† of homicide decedents who experienced a recent crisis, by decedent sex and type of crisis circumstance - National Violent Death Reporting System, 42 states and the District of Columbia,§ 2019** |
| --- |
|  | **Male** | **Female** | **Total** |
| **Type of Crisis** | **No. (%)** | **No. (%)** | **No. (%)** |
| **Crisis during previous or upcoming 2 weeks** | **339 (100)** | **175 (100)** | **514 (100)** |
| Family relationship problem | 138 (40.7) | 63 (36.0) | 201 (39.1) |
| Other relationship problem (non-intimate) | 116 (34.2) | 21 (12.0) | 137 (26.7) |
| Jealousy (lovers’ triangle) | 60 (17.7) | 33 (18.9) | 93 (18.1) |
| Intimate partner problem | 7 (2.1) | 25 (14.3) | 32 (6.2) |
| Other substance use problem (excludes alcohol) | 17 (5.0) | 9 (5.1) | 26 (5.1) |
| Stalking | 8 (2.4) | 16 (9.1) | 24 (4.7) |
| Alcohol problem | 9 (2.7) | 4 (2.3) | 13 (2.5) |
| Prostitution | 5 (1.5) | 6 (3.4) | 11 (2.1) |
| Current diagnosed mental health problem | 1 (<1.0) | 2 (1.1) | 3 (<1.0) |
| Other addiction (e.g., gambling, sexual) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Contributing criminal legal problem | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Other crisis | 4 (1.2) | 4 (2.3) | 8 (1.6) |
| \* Includes decedents who experienced one or more crises during the previous or upcoming two weeks. Numbers will not equal the sums of the columns because more than one crisis could have been present per decedent.† Denominator includes only those decedents who experienced one or more crises during the previous or upcoming two weeks. Percentages do not sum to 100% because a decedent could have experienced more than one crisis.§ Alabama, Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa,Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, NewHampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina,Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Illinois and Pennsylvania collected data on ≥80% of violentdeaths in their state, in accordance with requirements under which these states were funded. Data for Illinois are for violent deaths that occurred in 47 counties (Adams, Alexander, Bond, Boone, Brown, Bureau, Champaign, Clay, Cook, DeKalb, Douglas, DuPage, Effingham, Fayette, Fulton, Grundy, Henry, Iroquois, Jackson, Jefferson, Kane, Kankakee, Kendall, Lake, Lasalle, Livingston, Logan, McDonough, McHenry, McLean, Macoupin, Madison, Menard, Peoria, Perry, Piatt, Putnam, Rock Island, St. Clair, Sangamon, Schuyler, Stark, Tazewell, Vermilion, Wayne, Will, and Winn). Data for Pennsylvania are for violent deaths that occurred in 40 counties (Adams, Allegheny, Armstrong, Berks, Blair, Bradford, Bucks, Cameron, Cambria, Carbon, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Dauphin, Delaware, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lackawanna, Lancaster, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Schuylkill, Somerset, Sullivan, Susquehanna, Union, Westmoreland, Wyoming, and York). Data for California are for violent deaths that occurred in 30 counties (Amador, Butte, Colusa, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lassen, Lake, Los Angeles, Marin, Modoc, Mono, Orange, Placer, Sacramento, San Benito, San Francisco, San Mateo, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Tehama, Trinity, Ventura, and Yolo). |

| **Table S12. Number\* and percentage of legal intervention† decedents tested for alcohol and drugs and whose results were positive,§ by toxicology - National Violent Death Reporting System, 42 states and the District of Columbia,¶ 2019** |
| --- |
|  | **Tested** | **Positive** |
| **Toxicology** | **No. (%)** | **No. (%)** |
| Blood alcohol concentration\*\* | 494 (70.7) | 198 (40.1) |
|  Alcohol < 0.08 g/dL |  | 50 (25.3) |
|  Alcohol ≥ 0.08 g/dL |  | 129 (65.2) |
|  Alcohol positive - level unknown |  | 19 (9.6) |
| Amphetamines | 453 (64.8) | 233 (51.4) |
| Anticonvulsants | 205 (29.3) | 17 (8.3) |
| Antidepressants | 284 (40.6) | 46 (16.2) |
| Antipsychotics | 223 (31.9) | 11 (4.9) |
| Barbiturates | 345 (49.4) | 4 (1.2) |
| Benzodiazepines | 421 (60.2) | 59 (14.0) |
| Carbon monoxide | 18 (2.6) | 0 (0.0) |
| Cocaine | 426 (60.9) | 53 (12.4) |
| Cannabis†† | 385 (55.1) | 198 (51.4) |
| Muscle relaxants | 218 (31.2) | 9 (4.1) |
| Opioids | 439 (62.8) | 82 (18.7) |
| Other drugs/substances§§ | 96 (13.7) | 90 (93.8) |
| \* Number of legal intervention decedents = 699.† The term legal intervention does not denote the lawfulness or legality of the circumstances surrounding the death.§ Percentage is of decedents tested for toxicology.¶ Alabama, Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa,Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, NewHampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina,Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Illinois and Pennsylvania collected data on ≥80% of violentdeaths in their state, in accordance with requirements under which these states were funded. Data for Illinois are for violent deaths that occurred in 47 counties (Adams, Alexander, Bond, Boone, Brown, Bureau, Champaign, Clay, Cook, DeKalb, Douglas, DuPage, Effingham, Fayette, Fulton, Grundy, Henry, Iroquois, Jackson, Jefferson, Kane, Kankakee, Kendall, Lake, Lasalle, Livingston, Logan, McDonough, McHenry, McLean, Macoupin, Madison, Menard, Peoria, Perry, Piatt, Putnam, Rock Island, St. Clair, Sangamon, Schuyler, Stark, Tazewell, Vermilion, Wayne, Will, and Winn). Data for Pennsylvania are for violent deaths that occurred in 40 counties (Adams, Allegheny, Armstrong, Berks, Blair, Bradford, Bucks, Cameron, Cambria, Carbon, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Dauphin, Delaware, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lackawanna, Lancaster, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Schuylkill, Somerset, Sullivan, Susquehanna, Union, Westmoreland, Wyoming, and York). Data for California are for violent deaths that occurred in 30 counties (Amador, Butte, Colusa, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lassen, Lake, Los Angeles, Marin, Modoc, Mono, Orange, Placer, Sacramento, San Benito, San Francisco, San Mateo, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Tehama, Trinity, Ventura, and Yolo).\*\* Blood alcohol concentration of ≥ 0.08 g/dL is over the legal limit in all states and the District of Columbia, and is used as the standard for intoxication.†† More commonly referred to as marijuana.§§ Other drugs/substances indicated if any results were positive; levels for these drugs/substances are not measured. |

| **Table S13. Number and percentage\* of legal intervention† deaths precipitated by another crime, by type of crime - National Violent Death Reporting System, 42 states and the District of Columbia§, 2019** |
| --- |
| **Type of Crime** | **No. (%)** |
| **Precipitated by another crime** | **514 (100.0)** |
| Assault/Homicide | 325 (63.2) |
| Robbery | 56 (10.9) |
| Motor vehicle theft | 39 (7.6) |
| Burglary | 23 (4.5) |
| Rape/Sexual assault | 13 (2.5) |
| Drug trade | 9 (1.8) |
| Arson | 4 (<1.0) |
| Witness intimidation/elimination | 1 (<1.0) |
| Other crime | 177 (34.4) |
| Unknown | 29 (5.6) |
| \* Denominator includes those decedents involved in an incident that was precipitated by another crime. Percentages do not sum to 100% because a decedent could have experienced more than one other crime.† The term legal intervention does not denote the lawfulness or legality of the circumstances surrounding the death.§  Alabama, Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa,Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, NewHampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina,Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Illinois and Pennsylvania collected data on ≥80% of violentdeaths in their state, in accordance with requirements under which these states were funded. Data for Illinois are for violent deaths that occurred in 47 counties (Adams, Alexander, Bond, Boone, Brown, Bureau, Champaign, Clay, Cook, DeKalb, Douglas, DuPage, Effingham, Fayette, Fulton, Grundy, Henry, Iroquois, Jackson, Jefferson, Kane, Kankakee, Kendall, Lake, Lasalle, Livingston, Logan, McDonough, McHenry, McLean, Macoupin, Madison, Menard, Peoria, Perry, Piatt, Putnam, Rock Island, St. Clair, Sangamon, Schuyler, Stark, Tazewell, Vermilion, Wayne, Will, and Winn). Data for Pennsylvania are for violent deaths that occurred in 40 counties (Adams, Allegheny, Armstrong, Berks, Blair, Bradford, Bucks, Cameron, Cambria, Carbon, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Dauphin, Delaware, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lackawanna, Lancaster, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Schuylkill, Somerset, Sullivan, Susquehanna, Union, Westmoreland, Wyoming, and York). Data for California are for violent deaths that occurred in 30 counties (Amador, Butte, Colusa, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lassen, Lake, Los Angeles, Marin, Modoc, Mono, Orange, Placer, Sacramento, San Benito, San Francisco, San Mateo, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Tehama, Trinity, Ventura, and Yolo). |

| **Table S14. Number\* and percentage† of males§ who died by legal intervention¶ and experienced a recentcrisis, by type of crisis circumstance - National Violent Death Reporting System, 42 states and the District of Columbia,\*\* 2019** |
| --- |
| **Type of Crisis** | **No. (%)** |
| **Crisis during previous or upcoming 2 weeks** | **48 (100)** |
| Family relationship problem | 10 (20.8) |
| Intimate partner problem | 10 (20.8) |
| Alcohol problem | 8 (16.7) |
| Current diagnosed mental health problem | 6 (12.5) |
| Other relationship problem (non-intimate) | 5 (10.4) |
| Contributing criminal legal problem | 4 (8.3) |
| Stalking | 3 (6.3) |
| Other substance use problem (excludes alcohol) | 2 (4.2) |
| Jealousy (lovers’ triangle) | 1 (2.1) |
| \* Includes decedents who experienced one or more crises during the previous or upcoming two weeks. Number will not equal the sum of the column because more than one crisis could have been present per decedent.† Denominator includes only those decedents who experienced one or more crises during the previous or upcoming two weeks. Percentages do not sum to 100% because a decedent could have experienced more than one crisis.§ Number and percentage of female legal intervention decedents excluded due to low counts.¶ The term legal intervention does not denote the lawfulness or legality of the circumstances surrounding the death.\*\* Alabama, Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa,Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, NewHampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina,Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Illinois and Pennsylvania collected data on ≥80% of violentdeaths in their state, in accordance with requirements under which these states were funded. Data for Illinois are for violent deaths that occurred in 47 counties (Adams, Alexander, Bond, Boone, Brown, Bureau, Champaign, Clay, Cook, DeKalb, Douglas, DuPage, Effingham, Fayette, Fulton, Grundy, Henry, Iroquois, Jackson, Jefferson, Kane, Kankakee, Kendall, Lake, Lasalle, Livingston, Logan, McDonough, McHenry, McLean, Macoupin, Madison, Menard, Peoria, Perry, Piatt, Putnam, Rock Island, St. Clair, Sangamon, Schuyler, Stark, Tazewell, Vermilion, Wayne, Will, and Winn). Data for Pennsylvania are for violent deaths that occurred in 40 counties (Adams, Allegheny, Armstrong, Berks, Blair, Bradford, Bucks, Cameron, Cambria, Carbon, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Dauphin, Delaware, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lackawanna, Lancaster, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Schuylkill, Somerset, Sullivan, Susquehanna, Union, Westmoreland, Wyoming, and York). Data for California are for violent deaths that occurred in 30 counties (Amador, Butte, Colusa, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lassen, Lake, Los Angeles, Marin, Modoc, Mono, Orange, Placer, Sacramento, San Benito, San Francisco, San Mateo, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Tehama, Trinity, Ventura, and Yolo). |

| **Table S15. Number, percentage,\* and rate† of homicides, by decedent sex, age group, race/ethnicity, methodused, location in which injury occurred, and victim-to-suspect relationship - National Violent Death ReportingSystem, Puerto Rico, 2019** |
| --- |
|  | **Male** | **Female** | **Total** |
| **Characteristic** | **No. (%)** | **Rate** | **No. (%)** | **Rate** | **No. (%)** | **Rate** |
| **Age Group (years)** |
| <1-17 | 17 (2.9) | § | ¶ | § | ¶ | § |
| 18-29 | 265 (44.8) | 100.3 | 12 (29.3) | § | 277 (43.8) | 53.0 |
| 30-44 | 202 (34.2) | 73.9 | 20 (48.8) | 6.7 | 222 (35.1) | 38.7 |
| 45-64 | 89 (15.1) | 22.7 | ¶ | § | ¶ | § |
| ≥65 | 15 (2.5) | § | ¶ | § | ¶ | § |
| Unknown | ¶ | § | 0 (0.0) | § | ¶ | § |
| **Race/Ethnicity** |
| White, non-Hispanic | 17 (2.9) | \*\* | ¶ | \*\* | ¶ | \*\* |
| Black, non-Hispanic | ¶ | \*\* | 0 (0.0) | \*\* | ¶ | \*\* |
| American Indian/Alaska Native, non-Hispanic | 0 (0.0) | \*\* | 0 (0.0) | \*\* | 0 (0.0) | \*\* |
| Asian/Pacific Islander | 0 (0.0) | \*\* | 0 (0.0) | \*\* | ¶ | \*\* |
| Hispanic†† | 569 (96.3) | \*\* | 38 (92.7) | \*\* | 607 (96.0) | \*\* |
| Other | ¶ | \*\* | ¶ | \*\* | ¶ | \*\* |
| Unknown | 0 (0.0) | \*\* | 0 (0.0) | \*\* | 0 (0.0) | \*\* |
| **Method** |
| Firearm | 547 (92.6) | 36.1 | 28 (68.3) | 1.7 | 575 (91.0) | 18.0 |
| Sharp instrument | 18 (3.0) | § | ¶ | § | ¶ | § |
| Personal weapons (e.g., hands, feet, fists) | ¶ | § | ¶ | § | 11 (1.7) | § |
| Other method§§ | 14 (2.4) | § | ¶ | § | ¶ | § |
| Unknown | ¶ | § | ¶ | § | ¶ | § |
| **Location of Injury** |
| Street/Highway | 285 (48.2) | 18.8 | 10 (24.4) | § | 295 (46.7) | 9.2 |
| Motor vehicle | 141 (23.9) | 9.3 | ¶ | § | ¶ | § |
| House/Apartment | 58 (9.8) | 3.8 | 18 (43.9) | § | 76 (12.0) | 2.4 |
| Commercial/Retail area | 23 (3.9) | 1.5 | ¶ | § | ¶ | § |
| Bar/Nightclub | 15 (2.5) | § | ¶ | § | ¶ | § |
| Other location¶¶ | 64 (10.8) | 4.2 | ¶ | § | ¶ | § |
| Unknown | ¶ | § | 0 (0.0) | § | ¶ | § |
| **Relationship of Victim to Suspect\*\*\*** |
| Other person, known to victim | 116 (53.0) | § | ¶ | § | ¶ | § |
| Stranger | 35 (16.0) | 2.3 | ¶ | § | ¶ | § |
| Acquaintance/Friend | 29 (13.2) | 1.9 | 0 (0.0) | § | 29 (11.9) | 0.9 |
| Rival gang member | 26 (11.9) | 1.7 | ¶ | § | ¶ | § |
| Spouse/Intimate partner (current or former) | ¶ | § | 14 (58.3) | § | ¶ | § |
| Other relationship††† | 11 (5.0) | § | ¶ | § | ¶ | § |
|  |
| **Total** | **591 (100)** | **39.0** | **41 (100)** | **2.4** | **632 (100)** | **19.8** |
| \* Percentages might not total 100% due to rounding.† Per 100,000 population.§ Rates are not reported when number of decedents is <20 or when characteristic response is “Other” or “Unknown.”¶ Number of deaths <10; number is not reported to retain confidentiality.\*\* Rates by race/ethnicity are not provided because U.S. Census information for Puerto Rico is limited.†† Includes persons of any race.§§ Other method includes (in descending order): fire/burns, blunt instrument, hanging/strangulation/ suffocation, fall, other (single method).¶¶ Other location includes (in descending order): natural area, parking lot/public garage/public transport, park/playground/sports or athletic area, jail/prison, abandoned house/building/warehouse, bridge, farm, and other unspecified location.\*\*\* Percentage is based on the number of homicide decedents with a known victim-to-suspect relationship (n = 243 [38.4%]; 219 [37.1%]males and 24 [58.5%] females); victim-to-suspect relationship was unknown for 389 decedents.††† Other relationship includes (in descending order): parent, other relative, child, victim was law enforcement officer injured in the line of duty, victim injured by a law enforcement officer. |

| **Table S16. Number\* and percentage† of homicide decedents tested for alcohol and drugs and whose results were positive, by toxicology - National Violent Death Reporting System, Puerto Rico, 2019** |
| --- |
|  | **Tested** | **Positive** |
| **Toxicology variable** | **No. (%)** | **No. (%)** |
| Blood alcohol concentration§ | 628 (99.4) | 205 (32.6) |
|  Alcohol < 0.08 g/dL |  | 111 (54.1) |
|  Alcohol ≥ 0.08 g/dL |  | 94 (45.9) |
|  Alcohol positive - level unknown |  | 0 (0.0) |
| Barbiturates | ¶ | ¶ |
| Benzodiazepines | ¶ | ¶ |
| Carbon monoxide | 17 (2.7) | ¶ |
| Cocaine | 629 (99.5) | 79 (12.6) |
| Cannabis\*\* | 389 (61.6) | 86 (22.1) |
| Opioids | 628 (99.4) | 21 (3.3) |
| Other drugs/substances†† | ¶ | ¶ |
| \* Number of homicide decedents = 632.† Percentage is of decedents tested for toxicology.§ Blood alcohol concentration of ≥ 0.08 g/dL is over the legal limit in  Puerto Rico, and is used as the standard for intoxication.¶ Number of deaths <10; number is not reported to retain confidentiality.\*\* More commonly referred to as marijuana.†† Other drugs/substances indicated if any results were positive; levels for these drugs/substances are not measured. |

| **Table S17. Number\* and percentage† of homicides, by decedent sex and precipitating circumstances - NationalViolent Death Reporting System, Puerto Rico, 2019** |
| --- |
|  | **Male** | **Female** | **Total** |
| **Precipitating Circumstances** | **No. (%)** | **No. (%)** | **No. (%)** |
| **Mental Health/Substance Use** |
| Substance use problem (excludes alcohol) | 92 (16.8) | § | § |
| Current diagnosed mental health problem | 36 (6.6) | § | § |
| Current depressed mood | 27 (4.9) | § | § |
| Alcohol problem | 14 (2.6) | § | § |
| History of ever being treated for a mental health problem | 16 (2.9) | § | § |
| Current mental health treatment | 14 (2.6) | § | § |
| **Interpersonal** |
| Intimate partner violence-related | 25 (4.6) | 17 (42.5) | 42 (7.2) |
| Other relationship problem (non-intimate) | 26 (4.8) | § | § |
| Jealousy (lovers’ triangle) | 19 (3.5) | § | § |
| Family relationship problem | § | § | § |
| **Life Stressor** |
| Argument or conflict | 92 (16.8) | § | 101 (17.2) |
| Physical fight (2 people, not a brawl) | 24 (4.4) | § | § |
| **Crime and Criminal Activity** |
| Drug involvement | 295 (53.9) | § | § |
| Gang-related | 221 (40.4) | § | § |
| Precipitated by another crime | 58 (10.6) | § | § |
|  Crime in progress¶ | 33 (56.9) | § | § |
| **Homicide Event** |
| Drive-by shooting | 123 (22.5) | § | § |
| Victim was a bystander | 17 (3.1) | § | § |
| Walk by assault | § | 0 (0.0) | § |
| Justifiable self defense | § | 0 (0.0) | § |
|  |
| **Total\*\*** | **547 (92.6)** | **40 (97.6)** | **587 (92.9)** |
| \* Includes homicides with one or more precipitating circumstances. Total numbers do not equal the sums of the columns because more than one circumstance could have been present per decedent.† Denominator includes those homicides with one or more precipitating circumstances. The sums of percentages in columns exceed 100% because more than one circumstance could have been present per decedent.§ Number of deaths <10; number is not reported to retain confidentiality.¶ Denominator includes those decedents involved in an incident that was precipitated by another crime.\*\* Circumstances were unknown for 45 decedents (44 males); total number of homicide decedents = 632 (591 males and 41 females). |

| **Table S18. Number, percentage,\* and rate† of suicides among persons aged ≥10 years,§ by decedent sex, age group, race/ethnicity, method used, and location in which injury occurred - National Violent Death ReportingSystem, Puerto Rico, 2019** |
| --- |
|  | **Male** | **Female** | **Total** |
| **Characteristic** | **No. (%)** | **Rate** | **No. (%)** | **Rate** | **No. (%)** | **Rate** |
| **Age Group (years)** |
| 10-17 | ¶ | \*\* | ¶ | \*\* | ¶ | \*\* |
| 18-29 | 19 (10.3) | \*\* | ¶ | \*\* | ¶ | \*\* |
| 30-44 | 38 (20.5) | 13.9 | 13 (29.5) | \*\* | 51 (22.3) | 8.9 |
| 45-64 | 75 (40.5) | 19.2 | 17 (38.6) | \*\* | 92 (40.2) | 10.9 |
| ≥65 | 51 (27.6) | 17.3 | ¶ | \*\* | ¶ | \*\* |
| Unknown | 0 (0.0) | \*\* | 0 (0.0) | \*\* | 0 (0.0) | \*\* |
| **Race/Ethnicity** |
| White, non-Hispanic | ¶ | †† | ¶ | †† | ¶ | †† |
| Black, non-Hispanic | ¶ | †† | 0 (0.0) | †† | ¶ | †† |
| American Indian/Alaska Native, non-Hispanic | 0 (0.0) | †† | 0 (0.0) | †† | 0 (0.0) | †† |
| Asian/Pacific Islander | 0 (0.0) | †† | 0 (0.0) | †† | 0 (0.0) | †† |
| Hispanic§§ | 177 (95.7) | †† | 39 (88.6) | †† | 216 (94.3) | †† |
| Other | ¶ | †† | 0 (0.0) | †† | ¶ | †† |
| Unknown | 0 (0.0) | †† | 0 (0.0) | †† | 0 (0.0) | †† |
| **Method** |
| Hanging/Strangulation/Suffocation | 129 (69.7) | 9.4 | 27 (61.4) | 1.8 | 156 (68.1) | 5.4 |
| Firearm | 32 (17.3) | 2.3 | ¶ | \*\* | ¶ | \*\* |
| Poisoning | 10 (5.4) | \*\* | 11 (25.0) | \*\* | ¶ | \*\* |
| Fall | ¶ | \*\* | ¶ | \*\* | ¶ | \*\* |
| Other method¶¶ | ¶ | \*\* | ¶ | \*\* | ¶ | \*\* |
| Unknown | ¶ | \*\* | 0 (0.0) | \*\* | ¶ | \*\* |
| **Location of Injury** |
| House/Apartment | 153 (82.7) | 11.1 | 39 (88.6) | 2.5 | 192 (83.8) | 6.6 |
| Natural area | ¶ | \*\* | ¶ | \*\* | 10 (4.4) | \*\* |
| Other location\*\*\* | 24 (13.0) | 1.7 | ¶ | \*\* | ¶ | \*\* |
| Unknown | 0 (0.0) | \*\* | ¶ | \*\* | ¶ | \*\* |
|  |
| **Total** | **185 (100)** | **13.5** | **44 (100)** | **2.9** | **229 (100)** | **7.9** |
| \* Percentages might not total 100% due to rounding.† Per 100,000 population.§ Suicide is not reported for decedents aged <10 years, as per standard in the suicide prevention literature. Denominators for the suicide rates represent the total population aged ≥10 years.¶ Number of deaths <10; number is not reported to retain confidentiality.\*\* Rate is not reported when number of decedents is <20 or when characteristic response is “Other” or “Unknown.”†† Rates by race/ethnicity are not provided because U.S. Census information for Puerto Rico is limited.§§ Includes persons of any race.¶¶ Other method includes (in descending order): sharp instrument, drowning, fire/burns, other (single method).\*\*\* Other location includes (in descending order): motor vehicle, street/highway, jail/prison, supervised residential facility, bridge, park/playground/sports or athletic area, commercial/retail area, farm, hospital or medical facility, hotel/motel, parking lot/public garage/public transport, and other unspecified location. |

| **Table S19. Number\* and percentage† of suicide decedents tested for alcohol and drugs and whose resultswere positive, by toxicology - National Violent Death Reporting System, Puerto Rico, 2019** |
| --- |
|  | **Tested** | **Positive** |
| **Toxicology variable** | **No. (%)** | **No. (%)** |
| Blood alcohol concentration§ | 226 (98.7) | 70 (31.0) |
|  Alcohol < 0.08 g/dL |  | 37 (52.9) |
|  Alcohol ≥ 0.08 g/dL |  | 31 (44.3) |
|  Alcohol positive - level unknown |  | ¶ |
| Barbiturates | ¶ | ¶ |
| Benzodiazepines | 15 (6.6) | ¶ |
| Carbon monoxide | ¶ | ¶ |
| Cocaine | 227 (99.1) | 23 (10.1) |
| Cannabis\*\* | 116 (50.7) | ¶ |
| Muscle relaxants | ¶ | ¶ |
| Opioids | 227 (99.1) | ¶ |
| Other drugs/substances†† | ¶ | ¶ |
| \* Number of suicide decedents = 229.† Percentage is of decedents tested for toxicology.§ Blood alcohol concentration of ≥ 0.08 g/dL is over the legal limit in  Puerto Rico, and is used as the standard for intoxication.¶ Number of deaths <10; number is not reported to retain confidentiality.\*\* More commonly referred to as marijuana.†† Other drugs/substances indicated if any results were positive; levels for these drugs/substances are not measured. |

| **Table S20. Number\* and percentage† of suicides among persons aged ≥10 years,§ by decedent sex andprecipitating circumstances - National Violent Death Reporting System, Puerto Rico, 2019** |
| --- |
|  | **Male** | **Female** | **Total** |
| **Precipitating Circumstances** | **No. (%)** | **No. (%)** | **No. (%)** |
| **Mental Health/Substance Use** |
| Current depressed mood | 67 (40.4) | 15 (35.7) | 82 (39.4) |
| Current diagnosed mental health problem¶ | 84 (50.6) | 33 (78.6) | 117 (56.3) |
|  Depression/Dysthymia | 58 (69.0) | 26 (78.8) | 84 (71.8) |
|  Schizophrenia | 20 (23.8) | \*\* | \*\* |
|  Bipolar disorder | 11 (13.1) | \*\* | \*\* |
|  Anxiety disorder | \*\* | \*\* | \*\* |
|  Posttraumatic stress disorder | \*\* | \*\* | \*\* |
|  Other | \*\* | \*\* | \*\* |
|  Unknown | \*\* | \*\* | \*\* |
| History of ever being treated for a mental health problem | 58 (34.9) | 24 (57.1) | 82 (39.4) |
| Current mental health treatment | 47 (28.3) | 20 (47.6) | 67 (32.2) |
| Alcohol problem | 24 (14.5) | \*\* | \*\* |
| Substance use problem (excludes alcohol) | 21 (12.7) | \*\* | \*\* |
| **Interpersonal** |
| Intimate partner problem | 24 (14.5) | \*\* | \*\* |
| Family relationship problem | \*\* | \*\* | \*\* |
| Other death of family member or friend | \*\* | \*\* | \*\* |
| Suicide of family member or friend | \*\* | \*\* | \*\* |
| **Life Stressor** |
| Physical health problem | 23 (13.9) | \*\* | \*\* |
| Financial problem | 11 (6.6) | \*\* | \*\* |
| Crisis during previous or upcoming 2 weeks | \*\* | \*\* | 11 (5.3) |
| Argument or conflict | \*\* | \*\* | 11 (5.3) |
| Job problem | \*\* | \*\* | \*\* |
| Exposure to disaster | \*\* | \*\* | \*\* |
| **Crime and Criminal Activity** |
| Precipitated by another crime | \*\* | 0 (0.0) | \*\* |
| **Suicide Event** |
| History of suicide attempt(s) | 62 (37.3) | 13 (31.0) | 75 (36.1) |
| History of suicidal thoughts or plans | 48 (28.9) | 11 (26.2) | 59 (28.4) |
| Left a suicide note | 25 (15.1) | \*\* | \*\* |
| **Suicide Disclosure** |
| Disclosed suicidal intent | 17 (10.2) | \*\* | \*\* |
| Disclosed intent to whom†† |  |  |  |
|  Other family member | 10 (58.8) | \*\* | \*\* |
|  Previous or current intimate partner | \*\* | \*\* | \*\* |
|  |
| **Total§§** | **166 (89.7)** | **42 (95.5)** | **208 (90.8)** |
| \* Includes suicides with one or more precipitating circumstances. More than one circumstance could have been present per decedent.† Denominator includes those suicides with one or more precipitating circumstances. The sums of percentages in columns exceed 100% because more than one circumstance could have been present per decedent.§ Suicide is not reported for decedents aged <10 years, as per standard in the suicide prevention literature.¶ Includes decedents with one or more diagnosed current mental health problems; therefore, sums of percentages for the diagnosed conditions exceed 100%. Denominator includes the number of decedents with one or more current diagnosed mental health problems.\*\* Number of deaths <10; number is not reported to retain confidentiality.†† Denominator includes decedents who disclosed intent.§§ Circumstances were unknown for 21 decedents (19 male, 2 female); total number of suicide decedents = 229 (185 males and 44 females). |