



# County of San Diego Department of the Medical Examiner

## 2017 Annual Report Executive Summary

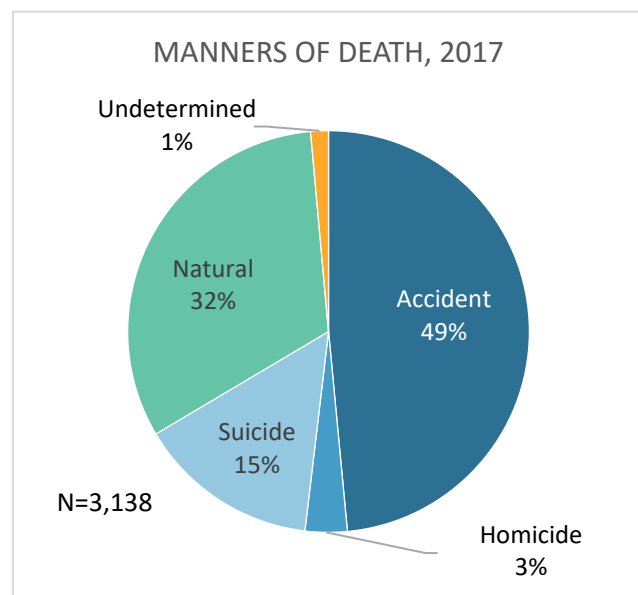
Thank you for your interest in the data collected by the San Diego County Department of the Medical Examiner. The statistics here reflect ever-changing patterns of disease and trauma in public health and safety within our community. Many people, other County agencies, citizens, medical researchers, those that make decisions regarding resource allocation regarding public safety and public health, and the media are among those that most commonly query the data that we summarize annually.

The work of the Department of the Medical Examiner is largely based on Government Code section 27491, which states that all unnatural deaths including homicides, suicides, accidents, and deaths in custody are under the coroner/medical examiner's jurisdiction to investigate. Also falling under our jurisdiction are infectious diseases reaching epidemic proportions, deaths in state or local institutions, and deaths believed to be natural but that occurred suddenly and unexpectedly where the decedent had not seen their health care provider in the last 20 days of life.<sup>1</sup>

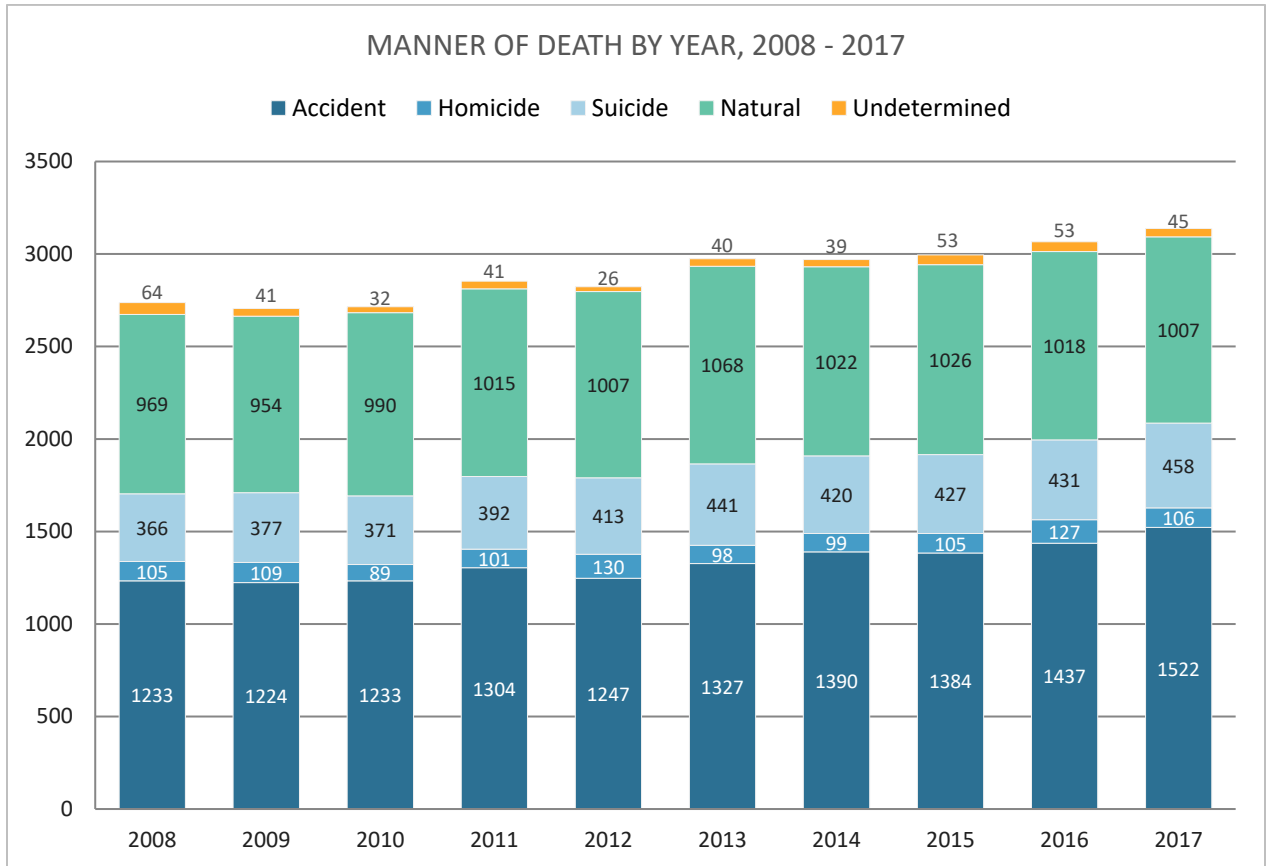
With San Diego County's land area of 4,261 square miles, 86 miles of border, 70 miles of coastline, and a diverse geography including deserts, mountains, forests, mesas and coastal areas, and an equally diverse population of more than 3.3 million residents and in 2017, more than 21,000 deaths. Generally, the Department investigates some 8,700 cases annually, or approximately 725 cases/month.

Not all of those cases are brought to the department's facility at the County Operations Center in Kearny Mesa. In 2017, 5,416 of the 8,554 deaths reported to and investigated by the Medical Examiner's Department, were ultimately waived as sudden, unexpected natural deaths. In those cases, the decedent's healthcare provider signed the death certificate.

Annually, some 3,000 cases are brought to the facility each year for further evaluation. Of the 3,138 cases for which we took jurisdiction and certified the cause and manner of death in 2017, 48.5 percent were determined to be accidents (such as prescription or illicit drug toxicity, motor vehicle and industrial/agriculture-related or home-based injuries), another 32 percent represented natural deaths (such as heart attacks, cancer, diabetes mellitus, strokes, or liver and kidney failure due to underlying disease), 14.5 percent were suicides, 3 percent were homicides and just over 1 percent were of undetermined manner of death. These percentages are generally similar to those in 2016 and prior years.

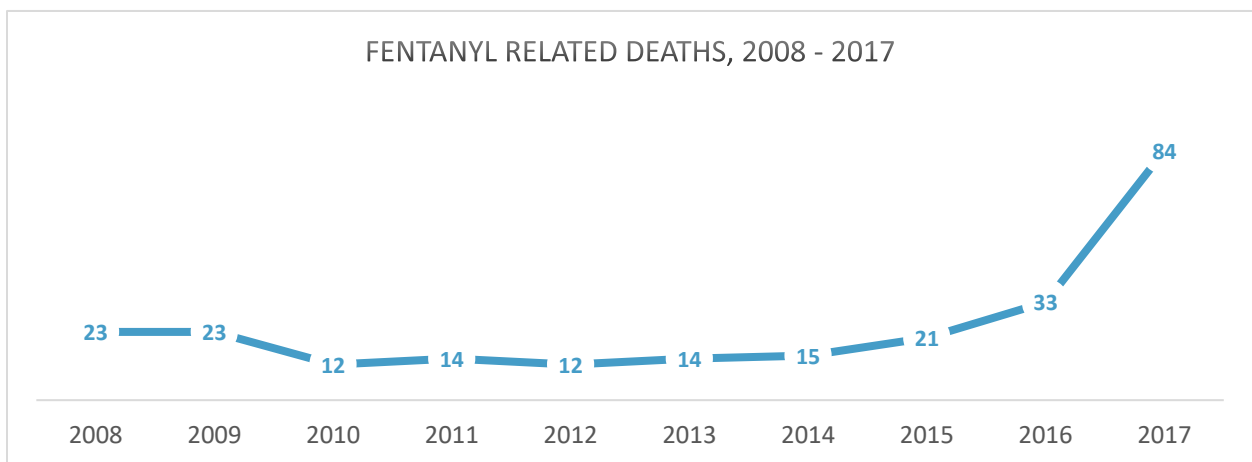


<sup>1</sup> All deaths that fall under section 27491 are also subject to whether the facts indicate the death occurred under natural circumstances and the physician of record has sufficient knowledge to reasonably state the cause of death occurred under natural circumstance. Therefore, not every death that falls under one of these categories will be investigated by the Department of the Medical Examiner. See Govt. Code § 27491.



### ACCIDENTAL DRUG RELATED DEATHS

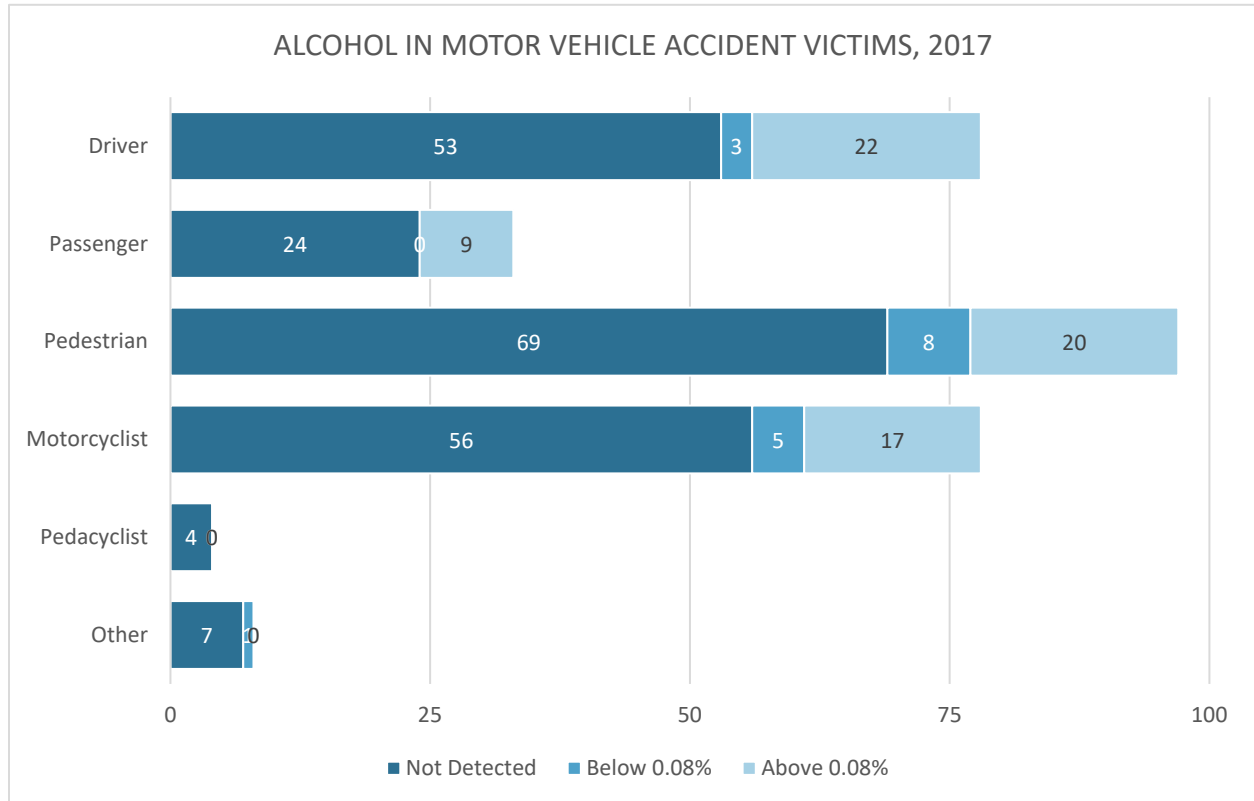
Unintentional deaths from drug toxicity (“overdoses”) represent a major portion of the accidental deaths in the county. In 2017 we investigated 547 deaths caused by drug or drug and alcohol overdoses, of which 50 percent (273) resulted from one or more prescription drugs; and of those, 76 percent (208) resulted from one or more opioids, alone or with another drug and/or alcohol.<sup>2</sup> The nationwide opioid epidemic has been seen in San Diego County primarily as a dramatic increase in deaths caused by fentanyl, with a total of 84 deaths in 2017 caused by fentanyl or a fentanyl analog (alone or with other drugs and/or alcohol), up 155 percent from 33 deaths in 2016.



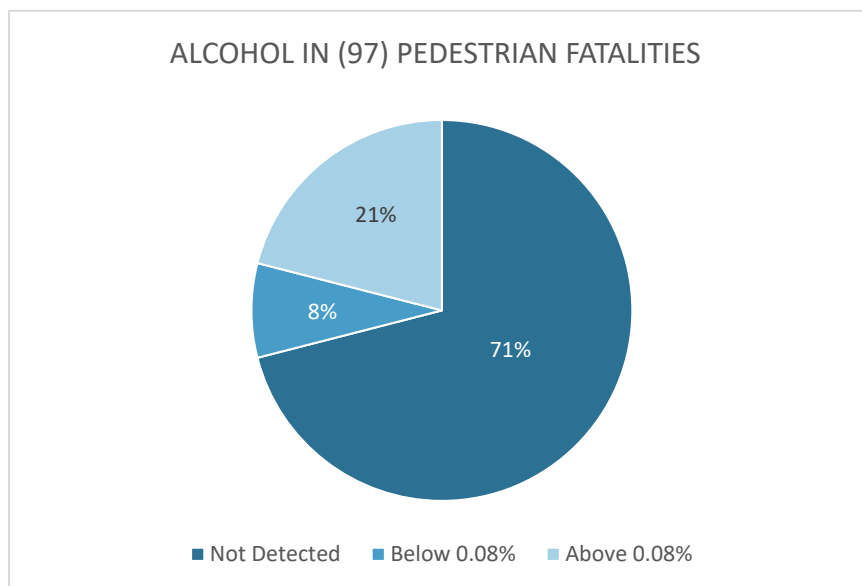
<sup>2</sup> Note that deaths determined to be *caused* by opioids, or opioids in combination with other drugs or alcohol, do not include cases where a decedent might have had opioids in their blood that were otherwise determined to be unrelated to their death.  
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**MOTOR VEHICLE FATALITIES**

The number of motor vehicle fatalities we investigated in 2017 was 299. In all classes of motor vehicle deaths (i.e. motor vehicle driver or passenger, motorcyclist, pedestrian, bicyclist, or other such as skateboard or push scooter), alcohol was the most commonly identified substance in the blood of victims, and when it was identified, the average concentration was 0.17%. Alcohol was found in 32 percent (25) of all driver fatalities and 27 percent (9) of all passenger fatalities.

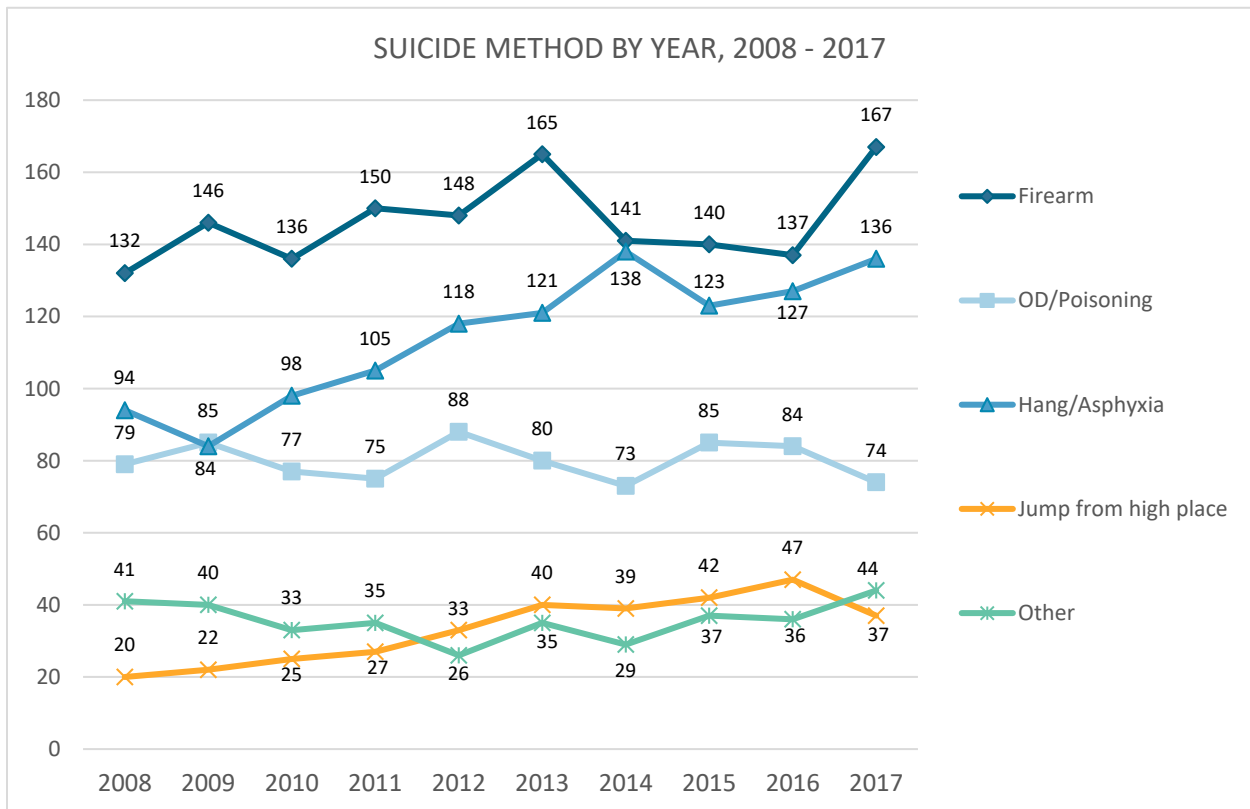
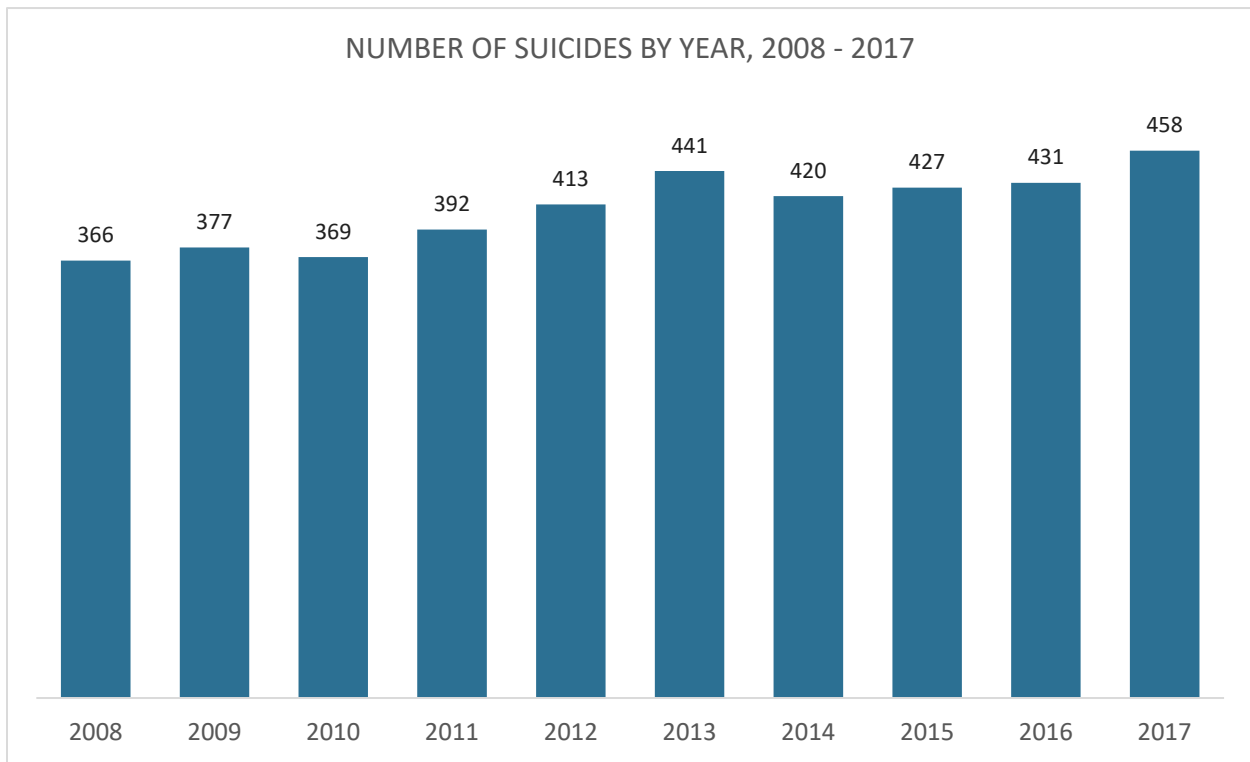


Pedestrians represented the largest group of accidental motor vehicle-related fatalities (above motor vehicle drivers, passengers, motorcyclists or bicyclists). Just under 29 percent (28) of all pedestrians killed had alcohol (ethanol) in their blood, and of those 71 percent (20) had blood concentrations over 0.08%, and 25 percent were also positive for cannabinoids. Also of note, is that over 63 percent of all methamphetamine-positive traffic-related deaths were pedestrians.



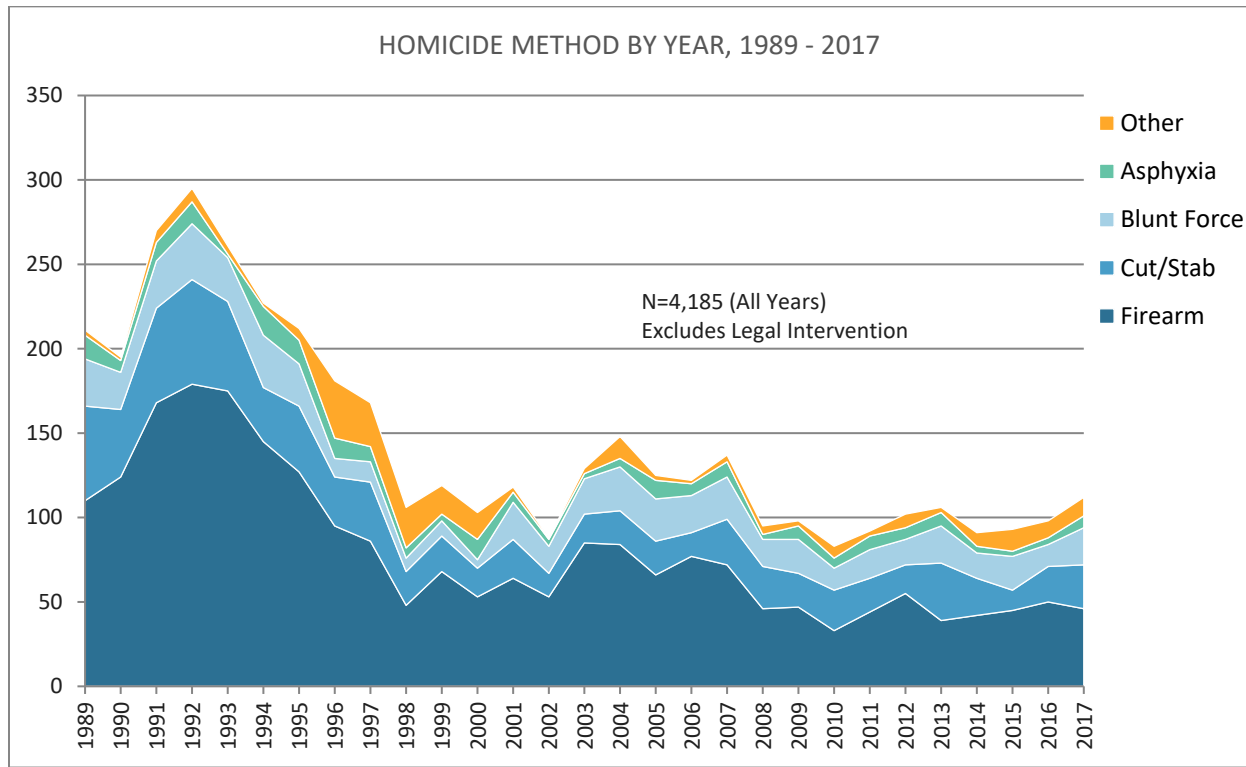
**SUICIDES**

The number of suicides was up for the fourth straight year (458 compared to 431 in 2016), continuing a generally increasing number for the last decade, and reaching a new high.



**HOMICIDES**

The number of homicides in the county in 2017 (106) was lower than it was in 2016 (127), a decrease of 16.5 percent.



**DATA SUMMARY AND DATA PORTAL**

For data spanning 2000 to 2009 we produced a tabular, “snapshot” summary of basic information regarding demographics and cause and manner of death. From 2010 to 2016 we produced a much longer narrative report that highlighted certain data and various functions of the Department of the Medical Examiner and provided additional specific data. Beginning with this 2017 Annual Report we are again providing the tabular summary of information (see pages 6-9). The department also provides case information using a software platform that allows the reader to perform their own data searches, data manipulation and data presentation. Please click on this link to browse the data: [Open Data Portal - Medical Examiner Cases](#)

Thank you again for your interest in these data. We feel strongly that this information, learned from the deaths that we’ve investigated, can be used to help the living and even change lives for the better.

*Glenn N. Wagner*  
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 GLENN N. WAGNER, D.O.  
 Chief Medical Examiner

| Manner Type                         | Manner of Death |          |         |         |              | Totals |
|-------------------------------------|-----------------|----------|---------|---------|--------------|--------|
|                                     | Accident        | Homicide | Natural | Suicide | Undetermined |        |
| Aircraft                            | 5               |          |         |         |              | 5      |
| AIDS Related                        |                 |          | 1       |         |              | 1      |
| Alcohol Related                     | 8               |          | 109     | 1       |              | 118    |
| Alzheimer's Disease                 |                 |          | 1       |         |              | 1      |
| Asphyxia: Airway Obstruction        | 14              |          |         |         |              | 14     |
| Asphyxia: Hanging                   |                 |          |         | 118     |              | 118    |
| Asphyxia: Other                     | 2               |          |         | 2       |              | 4      |
| Asphyxia: Positional                | 9               |          |         |         |              | 9      |
| Asphyxia: Strangulation             |                 | 1        |         | 1       |              | 2      |
| Asphyxia: Suffocation               | 1               |          |         | 16      |              | 17     |
| Asphyxia: Traumatic                 | 4               |          |         |         |              | 4      |
| Assault                             |                 | 17       |         |         |              | 17     |
| Asthma                              |                 |          | 2       |         |              | 2      |
| Autoimmune/Systemic                 |                 |          | 2       |         |              | 2      |
| Bicycle                             | 6               |          |         |         |              | 6      |
| Blunt Force                         | 9               | 6        |         | 1       |              | 16     |
| Burns/ Thermal, Chemical            |                 |          |         | 2       |              | 2      |
| Cancer                              |                 |          | 35      |         |              | 35     |
| Carbon Monoxide                     |                 |          |         | 4       |              | 4      |
| Cardiovascular                      |                 |          | 639     |         |              | 639    |
| Central Nervous Sytem               |                 |          | 32      |         |              | 32     |
| Chemical/Poison                     | 2               |          |         | 1       |              | 3      |
| Chronic Drug Abuse                  |                 |          | 2       |         |              | 2      |
| Cutting/Stabbing                    | 1               | 19       |         | 14      |              | 34     |
| Diabetes related                    |                 |          | 31      |         |              | 31     |
| Drowning                            | 39              |          |         | 3       |              | 42     |
| Drug-Medication: Drugs & Alcohol    | 38              |          |         |         |              | 38     |
| Drug-Medication: Drugs & Meds       | 59              |          |         | 5       |              | 64     |
| Drug-Medication: Drugs, Meds, Alcoh | 23              |          |         |         |              | 23     |
| Drug-Medication: Drugs of Abuse     | 278             |          |         | 1       |              | 279    |
| Drug-Medication: Medications        | 119             |          |         | 53      | 1            | 173    |
| Drug-Medication: Meds & Alcohol     | 30              |          |         | 9       |              | 39     |
| Electrocution                       | 2               |          |         |         |              | 2      |
| Endocrine                           |                 |          | 2       |         |              | 2      |
| Exposure                            | 15              |          |         |         |              | 15     |
| Failure to Thrive                   |                 |          | 1       |         |              | 1      |
| Fall: Blunt Head Trauma             | 198             |          |         |         |              | 198    |
| Fall: Fracture, Other               | 32              |          |         |         |              | 32     |
| Fall: Hip/Femur Fracutre            | 131             | 1        |         |         |              | 132    |
| Fall: Multiple Injuries             | 42              |          |         |         |              | 42     |
| Fall: Other                         | 21              |          |         |         |              | 21     |
| Fall: Spinal Fracture               | 36              |          |         |         |              | 36     |
| Fall: Subdural Hematoma             | 47              |          |         |         |              | 47     |
| Family Paid Autopsy                 |                 |          | 14      |         |              | 14     |
| Fire                                | 14              | 1        |         | 3       |              | 18     |
| Firearm                             |                 | 56       |         | 167     |              | 223    |
| Gastrointestinal                    |                 |          | 14      |         |              | 14     |
| Hematologic                         |                 |          | 1       |         |              | 1      |
| Homicidal Violence, NOS             |                 | 1        |         |         |              | 1      |

| Manner Type, <i>cont'd</i>       | Manner of Death |             |              |              |              | Totals        |
|----------------------------------|-----------------|-------------|--------------|--------------|--------------|---------------|
|                                  | Accident        | Homicide    | Natural      | Suicide      | Undetermined |               |
| Industrial                       | 2               |             |              |              |              | 2             |
| Infant/Perinatal (not SIDS)      |                 |             | 3            |              |              | 3             |
| Infectious                       |                 |             | 29           |              |              | 29            |
| Ingested Foreign Object(s)       | 9               |             |              |              |              | 9             |
| Inhalation                       | 4               |             |              | 1            |              | 5             |
| Intrauterine/Stillborn           |                 |             | 1            |              |              | 1             |
| Jumping                          |                 |             |              | 37           |              | 37            |
| Liver disease (non-alcoholic)    |                 |             | 5            |              |              | 5             |
| Medical/Therapeutic              | 16              |             |              |              |              | 16            |
| <i>Motor Vehicle:</i>            |                 |             |              |              |              |               |
| <i>Auto Rollover (Solo)</i>      | 33              |             |              | 1            |              | 34            |
| <i>Auto vs. Auto</i>             | 46              |             |              |              |              | 46            |
| <i>Auto vs. Bicycle</i>          | 3               |             |              | 1            |              | 4             |
| <i>Auto vs. Fixed Object</i>     | 30              |             |              | 1            |              | 31            |
| <i>Auto vs. Motorcycle</i>       | 29              |             |              |              |              | 29            |
| <i>Auto vs. Pedestrian</i>       | 93              | 1           |              | 3            |              | 97            |
| <i>Motorcycle</i>                | 49              |             |              |              |              | 49            |
| <i>Off Road</i>                  | 3               |             |              |              |              | 3             |
| <i>Other</i>                     | 1               |             |              |              |              | 1             |
| <i>Unknown</i>                   | 5               |             |              |              |              | 5             |
| Total Motor Vehicle              | 292             | 1           |              | 6            |              | 299           |
| Obesity Related                  |                 |             | 7            |              |              | 7             |
| Organ Failure - Multiple Systems |                 |             | 1            |              |              | 1             |
| Other                            | 7               | 2           | 24           |              |              | 33            |
| Psychiatric Related              |                 |             | 2            |              |              | 2             |
| Pulmonary Disease                |                 |             | 38           |              |              | 38            |
| Restraint Related                |                 | 1           |              |              |              | 1             |
| Scalding                         | 1               |             |              |              |              | 1             |
| Seizures/Epilepsy                |                 |             | 7            |              |              | 7             |
| SIDS                             |                 |             | 4            |              |              | 4             |
| Train                            | 6               |             |              | 11           |              | 17            |
| Undetermined                     |                 |             |              | 2            | 44           | 46            |
| <b>Totals</b>                    | <b>1522</b>     | <b>106</b>  | <b>1007</b>  | <b>458</b>   | <b>45</b>    | <b>3138</b>   |
|                                  | <b>48.5%</b>    | <b>3.4%</b> | <b>32.1%</b> | <b>14.6%</b> | <b>1.4%</b>  | <b>100.0%</b> |

| Examinations                | Manner of Death |            |             |            |              | Totals      |
|-----------------------------|-----------------|------------|-------------|------------|--------------|-------------|
|                             | Accident        | Homicide   | Natural     | Suicide    | Undetermined |             |
| Autopsy                     | 832             | 106        | 553         | 296        | 41           | 1828        |
| External                    | 690             |            | 454         | 162        | 4            | 1310        |
| Jurisdiction Waived by M.E. |                 |            | 5416        |            |              | 5416        |
| <b>Totals</b>               | <b>1522</b>     | <b>106</b> | <b>6423</b> | <b>458</b> | <b>45</b>    | <b>8554</b> |

| Gender        | Manner of Death |            |             |            |              | Totals      |
|---------------|-----------------|------------|-------------|------------|--------------|-------------|
|               | Accident        | Homicide   | Natural     | Suicide    | Undetermined |             |
| Female        | 537             | 25         | 294         | 103        | 10           | 969         |
| Male          | 985             | 81         | 712         | 355        | 35           | 2168        |
| Unknown       |                 |            | 1           |            |              | 1           |
| <b>Totals</b> | <b>1522</b>     | <b>106</b> | <b>1007</b> | <b>458</b> | <b>45</b>    | <b>3138</b> |

| Age Group     | Manner of Death |            |             |            |              | Totals      |
|---------------|-----------------|------------|-------------|------------|--------------|-------------|
|               | Accident        | Homicide   | Natural     | Suicide    | Undetermined |             |
| 0-12 months   | 8               | 1          | 11          |            | 6            | 26          |
| 1-5 years     | 8               |            | 2           |            |              | 10          |
| 6-12 years    | 4               | 1          |             |            |              | 5           |
| 13-16 years   | 3               | 3          | 4           | 6          |              | 16          |
| 17-19 years   | 17              | 5          | 6           | 12         |              | 40          |
| 20-29 years   | 165             | 22         | 13          | 72         | 2            | 274         |
| 30-39 years   | 180             | 23         | 52          | 62         | 3            | 320         |
| 40-49 years   | 149             | 17         | 119         | 64         | 10           | 359         |
| 50-59 years   | 271             | 18         | 259         | 90         | 8            | 646         |
| 60-69 years   | 214             | 11         | 274         | 71         | 5            | 575         |
| 70-79 years   | 149             | 3          | 147         | 49         | 3            | 351         |
| 80-89 years   | 210             | 2          | 79          | 25         | 3            | 319         |
| 90+ years     | 143             |            | 40          | 7          |              | 190         |
| Unknown       | 1               |            | 1           |            | 5            | 7           |
| <b>Totals</b> | <b>1522</b>     | <b>106</b> | <b>1007</b> | <b>458</b> | <b>45</b>    | <b>3138</b> |

| Race                  | Manner of Death |            |             |            |              | Totals      |
|-----------------------|-----------------|------------|-------------|------------|--------------|-------------|
|                       | Accident        | Homicide   | Natural     | Suicide    | Undetermined |             |
| Am Indian - Central   | 1               |            |             |            |              | 1           |
| Am Indian - North     | 1               |            |             |            |              | 1           |
| Am Indian - South     |                 | 1          |             | 1          |              | 2           |
| Asian Indian          | 2               |            | 2           | 2          |              | 6           |
| Biracial/Multiracial  | 8               |            | 1           | 3          |              | 12          |
| Black                 | 95              | 16         | 84          | 25         | 5            | 225         |
| Cambodian             | 1               | 1          | 3           | 3          |              | 8           |
| Chinese               | 13              |            | 9           | 3          | 1            | 26          |
| Filipino              | 41              | 3          | 26          | 7          | 1            | 78          |
| Guamanian             | 3               |            |             |            |              | 3           |
| Hawaiian              |                 |            | 2           |            |              | 2           |
| Hispanic Cuban        |                 |            |             |            |              | 0           |
| Hispanic Mexican      | 260             | 30         | 137         | 49         | 16           | 492         |
| Hispanic Other        | 18              | 2          | 10          | 2          |              | 32          |
| Hispanic Puerto Rican | 5               |            | 1           | 1          |              | 7           |
| Hmong                 | 2               |            |             |            |              | 2           |
| Japanese              | 7               | 2          | 11          | 2          |              | 22          |
| Korean                | 2               |            | 2           | 4          |              | 8           |
| Laotian               | 1               | 1          | 2           |            |              | 4           |
| Native American       | 8               | 4          | 5           | 3          | 1            | 21          |
| Other                 | 25              | 3          | 10          | 5          | 2            | 45          |
| Pacific Islander      | 2               |            | 8           |            |              | 10          |
| Samoan                | 2               |            |             |            |              | 2           |
| Unknown               |                 |            | 4           |            |              | 4           |
| Vietnamese            | 4               |            | 8           | 5          |              | 17          |
| White                 | 1021            | 43         | 682         | 343        | 19           | 2108        |
| <b>Totals</b>         | <b>1522</b>     | <b>106</b> | <b>1007</b> | <b>458</b> | <b>45</b>    | <b>3138</b> |



| Death City         | Manner of Death |            |             |            |              | Totals      |
|--------------------|-----------------|------------|-------------|------------|--------------|-------------|
|                    | Accident        | Homicide   | Natural     | Suicide    | Undetermined |             |
| Alpine             | 7               | 1          | 3           | 8          |              | 19          |
| Bonita             | 4               | 1          | 3           | 2          | 1            | 11          |
| Bonsall            | 2               |            | 1           | 1          | 1            | 5           |
| Borrego Springs    | 6               |            | 3           | 1          | 1            | 11          |
| Boulevard          |                 |            | 2           |            | 1            | 3           |
| Camp Pendleton     |                 |            | 1           |            |              | 1           |
| Campo              | 4               | 1          | 1           | 1          |              | 7           |
| Cardiff by the Sea | 1               |            | 1           |            |              | 2           |
| Carlsbad           | 33              |            | 24          | 22         | 1            | 80          |
| Chula Vista        | 72              | 3          | 80          | 14         | 5            | 174         |
| Coronado           | 9               |            | 8           | 4          |              | 21          |
| Del Mar            | 7               |            | 2           | 1          |              | 10          |
| Descanso           | 2               | 1          | 2           | 3          |              | 8           |
| Dulzura            | 3               |            |             |            |              | 3           |
| El Cajon           | 37              | 2          | 47          | 21         |              | 107         |
| Encinitas          | 17              |            | 20          | 9          | 1            | 47          |
| Escondido          | 138             | 6          | 62          | 25         | 1            | 232         |
| Fallbrook          | 21              |            | 10          | 6          |              | 37          |
| Guatay             |                 |            | 1           | 1          |              | 2           |
| Imperial Beach     | 7               | 1          | 10          | 8          |              | 26          |
| Jacumba            | 3               |            | 2           |            |              | 5           |
| Jamul              | 5               | 1          | 2           |            |              | 8           |
| Julian             | 2               |            | 5           | 2          |              | 9           |
| Kaya               |                 |            | 1           |            |              | 1           |
| La Jolla           | 61              | 8          | 28          | 16         | 1            | 114         |
| La Mesa            | 95              | 5          | 47          | 9          | 3            | 159         |
| Lakeside           | 15              | 1          | 14          | 7          | 1            | 38          |
| Lemon Grove        | 9               | 2          | 7           | 4          |              | 22          |
| Mount Laguna       | 1               |            |             |            |              | 1           |
| National City      | 21              | 2          | 14          |            | 1            | 38          |
| Oceanside          | 130             | 8          | 56          | 22         | 3            | 219         |
| Pala               | 1               | 2          | 1           | 1          |              | 5           |
| Palomar Mountain   |                 |            | 1           |            |              | 1           |
| Pauma Valley       |                 | 1          | 3           |            |              | 4           |
| Pine Valley        | 1               |            | 1           | 3          |              | 5           |
| Potrero            | 1               |            |             | 1          | 1            | 3           |
| Poway              | 20              |            | 11          | 8          |              | 39          |
| Ramona             | 13              |            | 7           | 5          | 1            | 26          |
| Ranchita           | 1               |            | 1           |            |              | 2           |
| Rancho Santa Fe    | 1               | 2          |             | 2          |              | 5           |
| San Diego          | 572             | 28         | 385         | 178        | 16           | 1179        |
| San Marcos         | 11              | 1          | 16          | 12         | 1            | 41          |
| San Ysidro         | 26              | 1          | 13          | 3          |              | 43          |
| Santa Ysabel       | 2               |            | 1           | 1          |              | 4           |
| Santee             | 10              | 1          | 27          | 10         |              | 48          |
| Solana Beach       | 3               |            |             | 1          |              | 4           |
| Spring Valley      | 17              | 2          | 12          | 6          |              | 37          |
| Tecate             |                 |            | 1           |            |              | 1           |
| Unknown            | 48              | 12         | 27          | 12         | 1            | 100         |
| Valley Center      | 19              | 3          | 13          | 8          | 1            | 44          |
| Vista              | 64              | 10         | 30          | 20         | 3            | 127         |
| <b>Totals</b>      | <b>1522</b>     | <b>106</b> | <b>1007</b> | <b>458</b> | <b>45</b>    | <b>3138</b> |