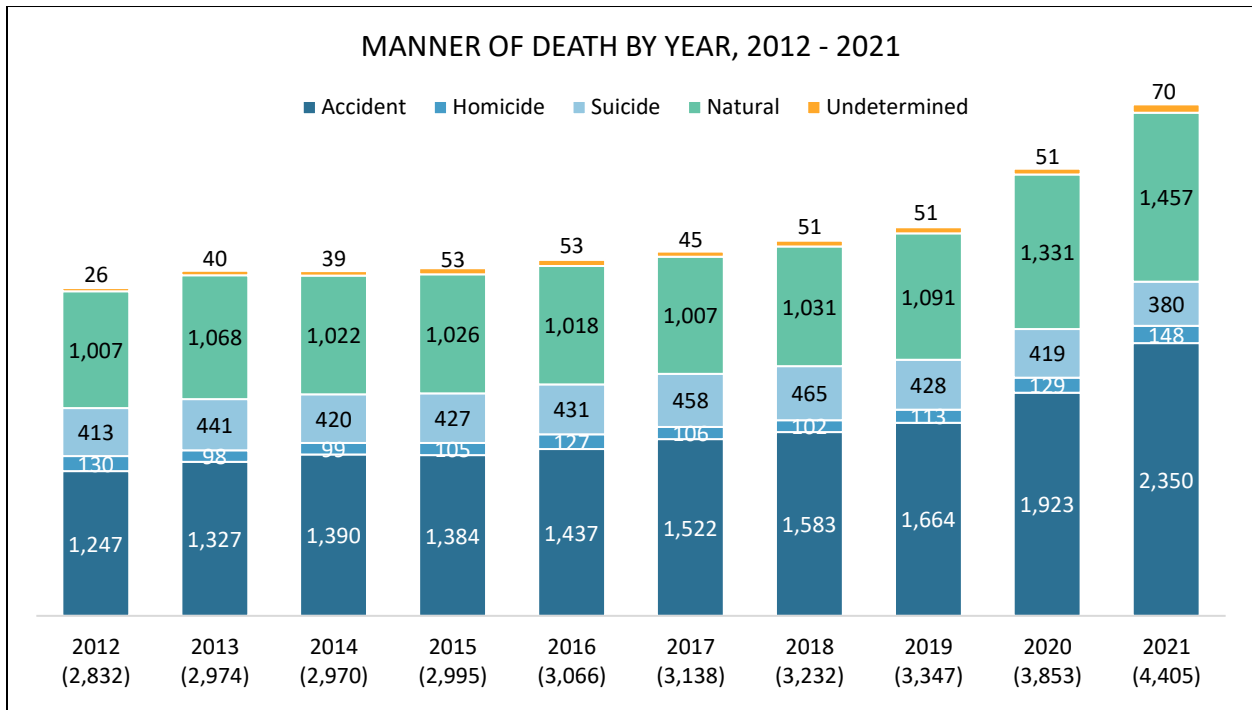




County of San Diego Department of the Medical Examiner

2021 Annual Report Executive Summary

On behalf of the Department of the Medical Examiner, thank you for your interest in this annual data summary. The information presented here and in the previous summaries this year, and that we make available through the County's [Open Data Portal](#)¹, represents an opportunity to learn about injuries and illnesses that cause sudden and unexpected deaths among the population of San Diego County. Our purpose for presenting this data is ultimately to help improve health and safety and save future lives through addressing risk factors, common issues, and trends that may be identified in the data or by comparison to the data of previous years.²



The information that we document for every decedent is important individually to the families of each person, others close to them, and insurance companies, but it is the collection and study of information from all the decedents that we see across the county that may allow for identification of patterns of illness or injury important to public health and safety, as well as risk factors for premature deaths. Current categories of study are child fatalities, elder and dependent adult abuse, domestic violence, deaths due to prescription and illicit substance use, repetitive brain injuries, sudden unexpected death associated with epilepsy, schizophrenia and bipolar disorder, and suicide.

More than 32,000 deaths were registered in San Diego County in 2021, but the Medical Examiner was not involved with investigating the majority of those deaths which resulted from natural causes. California Health and Safety Code Section 102850 and Government Code Section 27491 outline which deaths should be reported to the Medical Examiner for evaluation.³ Generally, the deaths that the Medical Examiner

¹ See <https://data.sandiegocounty.gov/Safety/Medical-Examiner-Cases/ikvb-n4p7>

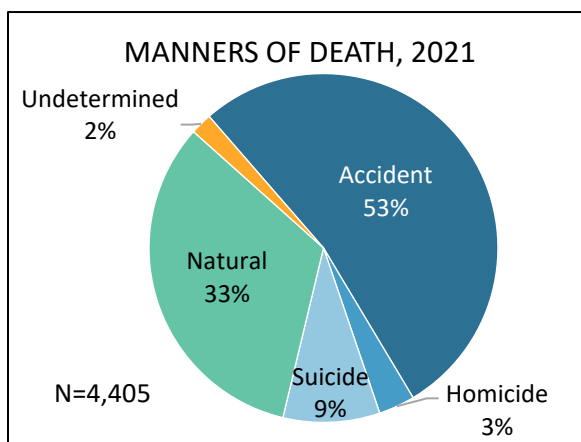
² Prior year annual reports and quarterly summaries may be accessed at <https://www.sandiegocounty.gov/content/sdc/me/press/stats.html>

³ 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.

has jurisdiction to investigate are those that are thought to have resulted from an injury, whether it be accidental, homicidal, or suicidal; due to trauma or an acute toxicity (“overdose”), or due to apparent undiagnosed natural causes, or other sudden, unexpected natural causes. In addition, if an injury or intoxication is thought to *contribute* to the death - even in a small way - the death falls under the jurisdiction of the Medical Examiner to investigate. This applies when an individual dies of complications of a prior injury, even if that injury occurred many years prior to the death.

In 2021, 12,292 deaths were reported to the Department, and initial evaluation by Medical Examiner’s Investigators determined that 7,887 of the people likely died natural deaths and that their own doctor could sign their death certificate. We further investigated 4,405 deaths in 2021, and it is information about those deaths that we are able to report.

This annual summary is designed to provide an overview of decedent characteristics, as well as the frequency, cause, and location of deaths in the county. As may be seen in the data that follow this summary, the San Diego County Medical Examiner works with many deaths of the types expected in any jurisdiction with a large urban and rural population—such deaths due to motor vehicle accidents, natural causes, alcohol or drug-related causes, or homicidal violence. In addition, the great variety of terrain, microclimates, and geography result in an even wider range of cases seen at our office, including deaths from exposure to hot and cold environmental conditions.



DEATH RATES PER 100,000 OF POPULATION

Based on San Diego population counts for 2021⁴, males represent a higher rate of deaths per 100,000 of the population in *all* manners of death investigated by the Medical Examiner.

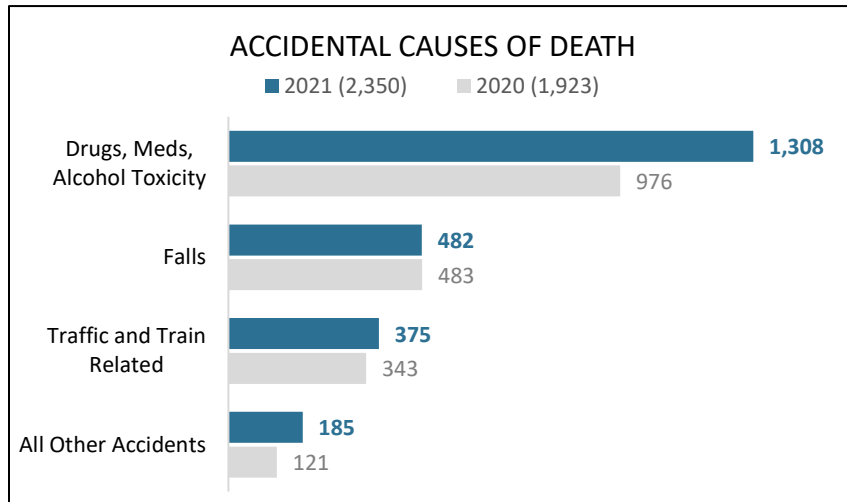
Manner and Most Common Manner Type	Rate per 100,000	
	Females	Males
Accidents	39.8	101.4
92% of all Accidents	Drugs, Meds, and/or Alcohol	60.3
	Falls	16.4
	Traffic/Train	17.3
Homicides	1.2	7.7
59% of all Homicides	Firearm	4.8
Suicides	5.8	17.1
69% of all Suicides	Firearm	7.1
	Asphyxia	5.6
Natural	25.2	62.4
60% of Natural	Cardiovascular	39.0

Of all accidental deaths, those caused by drugs, medication, and/or alcohol account for the highest rate in both males and females for 2021. In males, the accidental overdose rate was 60.3 per 100,000. This is a 38% increase compared to a rate of 43.7 in 2020. For females, the accidental overdose rate was 18.2 per 100,000, a 26% increase from a rate of 14.4 in 2020. In both homicides and suicides, firearms continue to be the leading method of death for males at a rate of 4.8 and 7.1, respectively. For females, firearms are the leading method of death in homicides at a rate of <1 per 100,000; in suicides, asphyxia is the most common at a rate of 2.0. Although the Medical Examiner only investigates a small percentage of natural deaths occurring in San Diego County, of those that come under our jurisdiction, cardiovascular related deaths are the most common at a rate of 13.7 for women and 39.0 for men.

⁴ SANDAG, Current Population Estimates, 2021
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ACCIDENTAL CAUSES OF DEATH

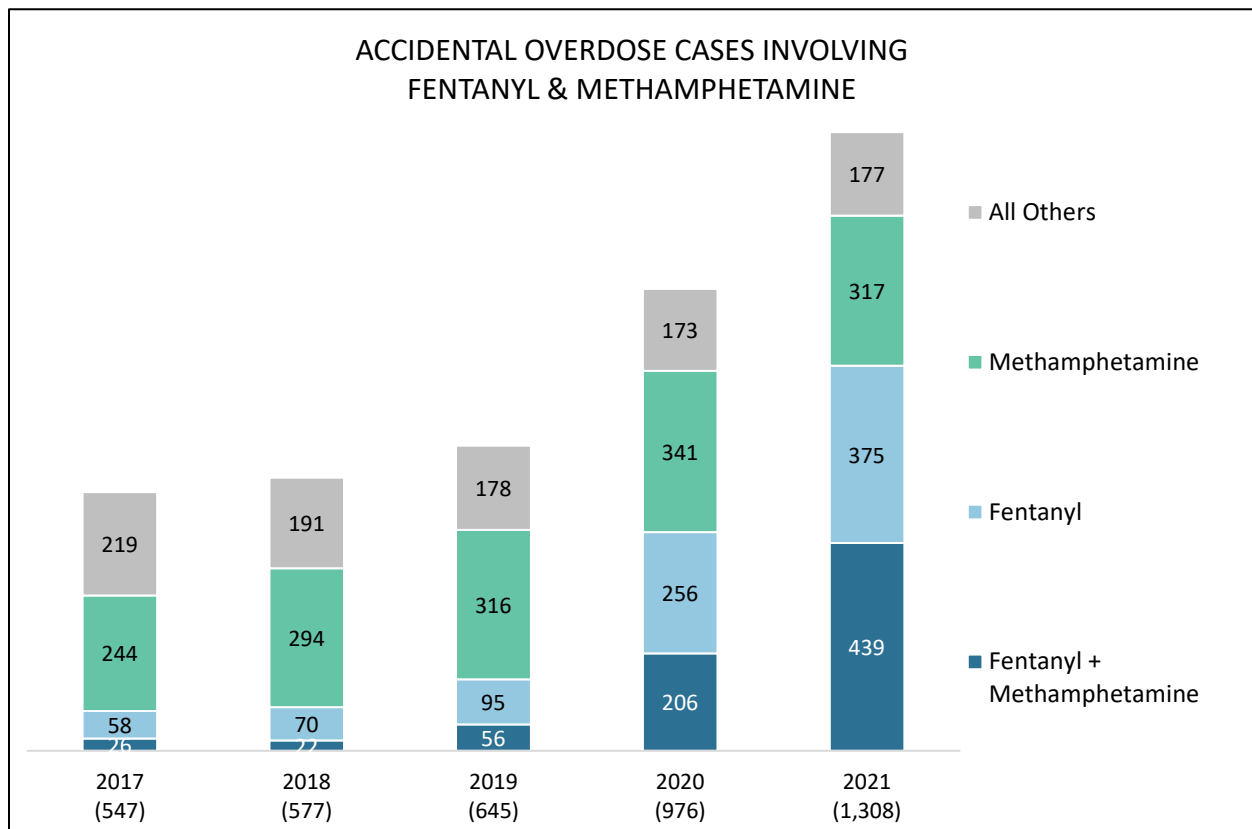
Abuse of illicit drugs, misuse of prescribed or illicitly obtained prescription medicines, and alcohol continue to represent a major proportion of the accidental deaths we investigate, accounting for 56% of



all accidental deaths (compared to 51% in 2020). Accidental deaths due to falls accounted for 21% (compared to 25% in 2020), with most occurring from injuries in the home, and traffic or train related accidental deaths represented 16% of these cases (compared to 18% in 2020). All other accidents, including drownings, environmental exposure, account for less than 8% of all accidental deaths.

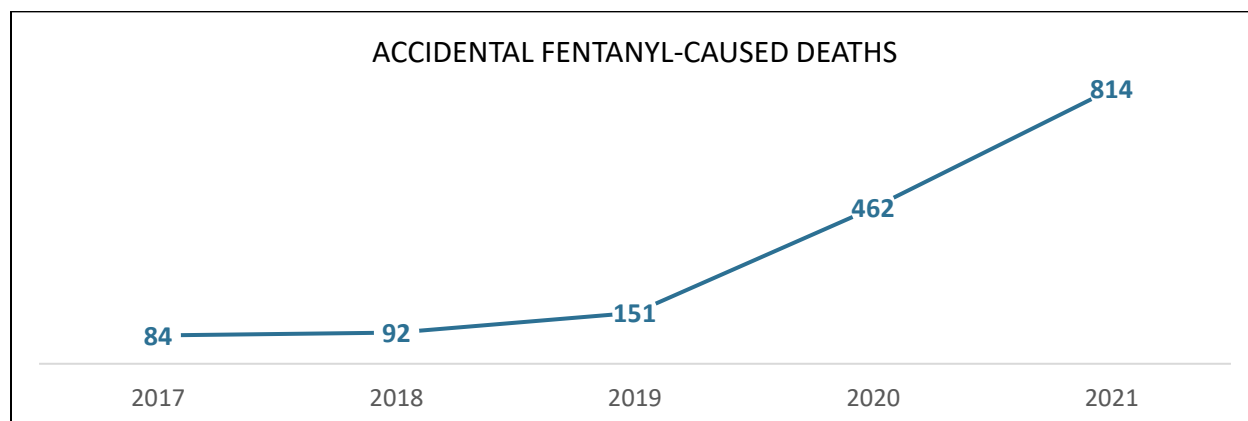
ACCIDENTAL DEATHS DUE TO DRUG, MEDICATION, AND ALCOHOL

Overall, accidental death cases involving drugs, medication, and/or alcohol have increased 139% in 5 years, going from 547 in 2017 to 1,308 in 2021. In addition, the number of accidental overdose cases involving fentanyl (814) surpassed the number of cases involving methamphetamine (756) for the first time. In total, accidental overdose cases where fentanyl and/or methamphetamine were a causative factor in death accounted for 85% (1,131 of 1,308) of all such cases, with 34% (439 of 1,308) involving a combination of both fentanyl and methamphetamine toxicity.



Fentanyl

In 2021, fentanyl was a causative factor of death in 62% (814 of 1,308) of accidental overdose cases. There was an 869% increase in accidental fentanyl-caused deaths from the five-year period of 2017 to 2021, with a 76% increase in the one-year period of 2020 to 2021. Fentanyl is an example of a prescription drug that is now more likely to have been illicitly manufactured and obtained when its use results in death; however, for consistency of our annual statistics, it is still grouped with prescription medicines. Most deaths due to fentanyl toxicity in recent years have resulted from the decedent using a counterfeit pill, often resembling oxycodone or alprazolam but containing a toxic amount of fentanyl instead, and increasingly fentanyl is being obtained by people as a powder.



As part of our death investigations, we collect and inventory the decedent’s prescription medications that we locate at the death scene. This task serves three functions. First, by inventorying the remaining medications, including dosage and dates, we can gain an understanding as to whether medication overuse or non-compliance occurred. Second, medications can offer clues to an individual’s medical history and provide names of prescribing physicians who may know critical information about the person’s history. Lastly, we remove medications from the home, eliminating the possibility of inappropriate use by anyone else (especially children).

Demographics

Gender & Age – For accidental overdose cases where **fentanyl** was a causative factor in death, the rate for males was 38.9 deaths per 100,000 of the county population and for females the rate was 9.9. The highest rate based on age group was ages 25 to 34 at 88.7 per 100,000 for males and 28.3 for females. In accidental overdose cases involving **methamphetamine**, rates based on gender were similar to fentanyl at 35.1 per 100,000 for males and 10.3 for females. In contrast to fentanyl, the highest rates for methamphetamine deaths based on age group were seen in ages 55 to 64, with a rate of 81.3 per 100,000 males and 23.2 for females in that same age range.

Age Group	FENTANYL				METHAMPHETAMINE			
	Number of Deaths		Rate per 100,000		Number of Deaths		Rate per 100,000	
	Female	Male	Female	Male	Female	Male	Female	Male
0 – 14	1	1	0.3	0.3	0	0	-	-
15 – 24	12	71	5.3	26.5	9	27	4.0	10.1
25 – 34	55	189	28.3	88.7	33	106	17.0	49.8
35 – 44	28	159	13.2	71.0	32	123	15.1	54.9
45 - 54	30	115	15.1	57.3	40	128	20.1	63.8
55 – 64	25	101	12.4	51.6	47	159	23.2	81.3
65+	12	16	4.1	6.3	8	44	2.7	18.5
Total	163	651	9.9	38.9	169	587	10.3	35.1

Note: Fentanyl and Methamphetamine counts are not mutually exclusive; the same case may be counted in either of the above drug categories.

Race/Ethnicity – For accidental overdose cases where **fentanyl** was a causative factor, the highest rate of death based on race/ethnicity was for American Indian/Alaska Native individuals at 60.0 per 100,000 individuals in the county population. This was followed by Black/African American individuals at a rate of 51.8. The lowest rate was 4.0 per 100,00 for Asian individuals. For accidental overdose cases involving **methamphetamine**, the highest rate was also for American Indian/Alaska Native individuals at 106.7 per 100,000 of that population, followed by Black/African American individuals at a rate of 51.2. Asian individuals again saw the lowest rate at 3.7 per 100,000.

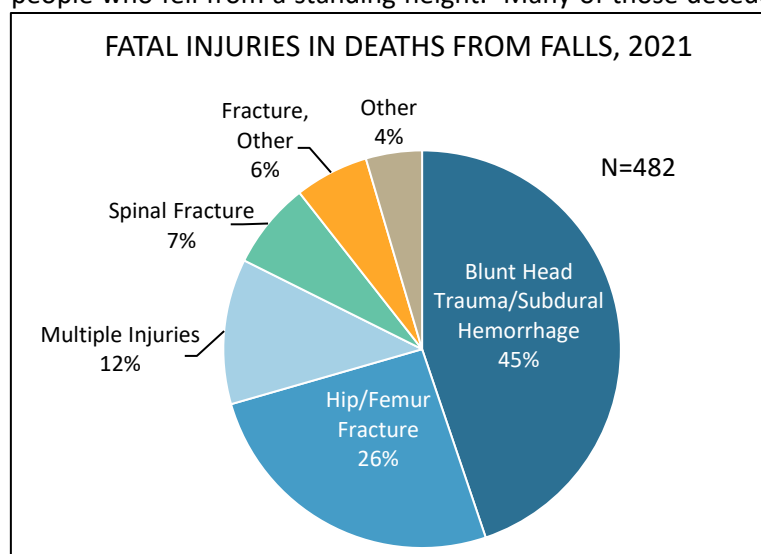
Race/Ethnicity	FENTANYL		METHAMPHETAMINE	
	Number of Deaths	Rate per 100,000	Number of Deaths	Rate per 100,000
American Indian/Alaska Native	9	60.0	16	106.7
Black/African American	82	51.8	81	51.2
White	457	30.1	434	28.6
Two or More Races	36	31.7	26	22.9
Native Hawaiian/Pacific Islander	3	20.8	2	13.9
Hispanic/Latino	206	18.1	178	15.6
Asian	14	4.0	13	3.7
Unknown	2	-	4	-
Other	5	-	2	-
Total	814	24.6	756	22.8

Note: Fentanyl and Methamphetamine counts are not mutually exclusive; the same case may be counted in either of the above drug categories.

Additional information for deaths due to drugs and alcohol can be learned from case specific data on the County's [Open Data Portal](#)⁵, a website that allows the public to query data related to deaths handled by the Medical Examiner. The Medical Examiner also provides more detailed information through the County's Prescription Drug Abuse Task Force and Methamphetamine Strike Force.⁶

DEATHS FROM ACCIDENTAL FALLS

The majority of deaths associated with falls resulted from head injuries or fractured hips occurring in people who fell from a standing height. Many of those decedents were elderly, with an average age of



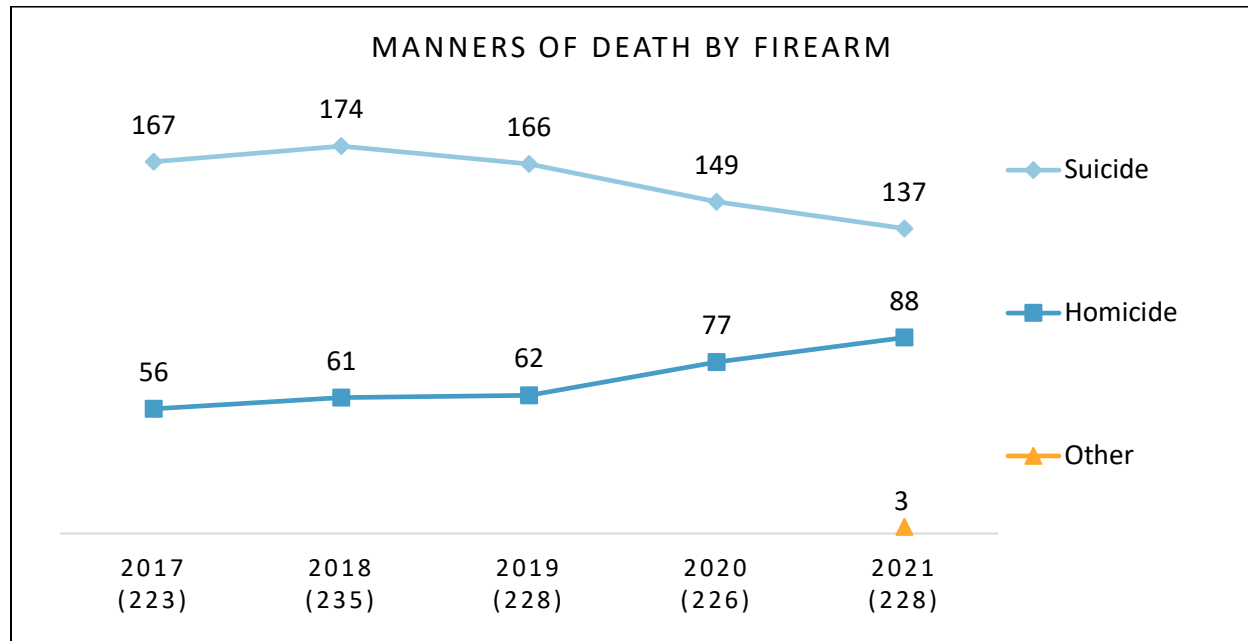
78.7 and they also usually had pre-existing natural diseases that were factors in the deaths, complicating the recovery from the injury. Approximately 61% (293 of 482) were found to have cardiovascular disease, diabetes, Alzheimer's, or dementia. In most of those cases, the injuries and natural diseases were well-documented by hospital physicians, such that the Medical Examiner's investigation and Cause of Death determination was based for the most part on that hospital documentation, and not on the postmortem examination of the body.

⁵ See <https://data.sandiegocounty.gov/Safety/Medical-Examiner-Cases/jkvb-n4p7>

⁶ Prescription Drug Abuse Task Force reports and information may be found at <https://www.sandiegorexabusetaaskforce.org/> and Methamphetamine Strike Force reports and information may be found at <https://www.no2meth.org/>.

FIREARM RELATED DEATHS

In 2021, there was a continued decline in overall suicide deaths, including those by firearm. From 2017 to 2021, there was a 17% overall decrease (458 to 380) in deaths by suicide, and an 18% decrease (167 to 137) in those involving a firearm. In contrast to suicides, there has been an overall increase in homicides of 40% in the last 5 years (106 to 148). In 2021, homicides due to firearm represented 59% (88 of 148) of all such cases, which is a 57% increase (56 to 88) since 2017.



While this summary report presents aggregate numbers and statistics, we are very aware that every case represents an individual that is mourned by family and loved ones. That individuality can be seen in the [Open Data Portal](#)⁷ information as well. We know that the information we learn about the deaths of people is used for good, and we dedicate our work to their memory and to the people of the County of San Diego who we serve.

Steven C. Campman, M.D.
Chief Medical Examiner

⁷ See <https://data.sandiegocounty.gov/Safety/Medical-Examiner-Cases/jkvb-n4p7>

Manner Type	Manner of Death					Totals
	Accident	Homicide	Natural	Suicide	Undetermined	
Agricultural	1					1
Aircraft	6					6
Alcohol Related			162			162
Anaphylactic Reaction	1					1
Asphyxia	40	4		127		171
Assault		11				11
Bicycle	2					2
Blunt Force	9	15			5	29
Cancer			39			39
Carbon Monoxide	1			4		5
Cardiovascular			878			878
Central Nervous System			34			34
Chemical/Poison				5		5
Child Abuse		1				1
Chronic Drug Abuse			12			12
Cutting/Stabbing	1	22		10		33
Diabetes Related			50			50
Drowning	61			8		69
Drug - Medication - Alcohol	1,308			43	1	1,352
<i>Alcohol</i>	55					55
<i>Drugs & Alcohol</i>	139			3		142
<i>Drugs & Meds</i>	105			3		108
<i>Drugs of Abuse</i>	938			3		941
<i>Drugs, Meds, Alcohol</i>	18					18
<i>Medication</i>	41			27	1	69
<i>Meds & Alcohol</i>	12			7		19
Drug Related		1				1
Endocrine			3			3
Environmental Exposure	24					24
Explosion	1					1
Fall	482					482
<i>Abdominal Injuries</i>	1					1
<i>Blunt head trauma</i>	173					173
<i>Fracture, other</i>	29					29
<i>Hip/Femur Fracture</i>	124					124
<i>Multiple injuries</i>	58					57
<i>Other</i>	20					21
<i>Spinal fracture</i>	36					34
<i>Subdural hematoma</i>	41					43
Family Paid Autopsy			22			22
Fire	21	2		1		24
Firearm	1	88		137	2	228
Gastrointestinal			11			11
Hematologic			5			5
Homicidal Violence, NOS		1				1

Manner and Type of Death continued...

Manner Type	Manner of Death					Totals
	Accident	Homicide	Natural	Suicide	Undetermined	
Industrial	1					1
Infant/Perinatal (not SIDS)			2		2	4
Infectious			154			154
Inhalation	2			1		3
Intrauterine/Stillborn			6			6
Jumping				34		34
Liver Disease			4			4
Medical - Therapeutic	7					7
Motor Vehicle	366	2		2		370
Auto Rollover (solo)	38					38
Auto vs Auto	72					72
Auto vs Bicycle	14	2				16
Auto vs Fixed Object	54					54
Auto vs Motorcycle	18					18
Auto vs Pedestrian	123			2		125
Motorcycle	28					28
Off Road	5					5
Other	8					8
Unknown	6					6
Obesity Related			11			11
Other	6	1	10			17
Psychiatric Related			1			1
Pulmonary			30			30
Renal			2			2
Scuba	1					1
Seizures/Epilepsy			13			13
Skeletal Remains					5	5
Train	7			7		14
Undetermined	1		8	1	55	65
Totals	2,350	148	1,457	380	70	4,405
	53.3%	3.4%	33.1%	8.6%	1.6%	100%

Examinations	Manner of Death					Totals
	Accident	Homicide	Natural	Suicide	Undetermined	
Autopsy	1,146	143	408	67	46	1,809
Autopsy (Partial/Limited)	19	1	42	35	1	98
External Exam	780	4	946	277	23	2,030
Medical Review	406		61	1		468
Subtotal	2,350	148	1,457	380	70	4,405
Jurisdiction Waived by ME						7,887
Totals	2,350	148	1,457	380	70	12,292

Gender	Manner of Death					Totals
	Accident	Homicide	Natural	Suicide	Undetermined	
Female	655	19	414	95	19	1,202
Male	1,695	129	1,043	285	50	3,202
Unknown					1	1
Totals	2,350	148	1,457	380	70	4,405

Race/Ethnicity	Manner of Death					Totals
	Accident	Homicide	Natural	Suicide	Undetermined	
American Indian/Alaska Native	31	1	8	1		41
Asian	97	7	84	23	1	212
Biracial/Multiracial	72	5	27	8	3	115
Black/African American	180	34	123	16	5	358
Hispanic/Latino	590	57	334	69	24	1,074
Native Hawaiian/Pacific Islander	10		22	1	1	34
White	1,353	41	847	260	28	2,529
Other	14	2	5	2		23
Unknown	3	1	7		8	19
Totals	2,350	148	1,457	380	70	4,405

Death City	Manner of Death					Totals
	Accident	Homicide	Natural	Suicide	Undetermined	
Alpine	11		5	1		17
Bonita	2	1	5	1	1	10
Bonsall	5		1			6
Borrego Springs	6		2	2		10
Boulevard	6		6			12
Camp Pendleton	2					2
Campo	6	1	4			11
Cardiff by the Sea			1	2	1	4
Carlsbad	56	2	32	10		100
Chula Vista	130	1	105	9	11	256
Coronado	15		9	3		27
Del Mar	3		4	4		11
Descanso			1			1
Dulzura	4		2	1	4	11
El Cajon	75	1	66	9	2	153
El Centro			1			1
Encinitas	36		31	8	2	77
Ensenada			1			1
Escondido	202	8	103	26	1	340
Fallbrook	26	1	16	8	2	53
Guatay	1					1
Imperial Beach	7	1	7			15
Jacumba	2		4		1	7
Jamul	11		4	3	2	20
Julian	5				1	6
La Jolla	126	6	37	9	3	181
La Mesa	134	6	99	14	4	257

Death City continued...

Death City	Manner of Death					Totals
	Accident	Homicide	Natural	Suicide	Undetermined	
Lakeside	21	1	21	6		49
Lemon Grove	17		9	5	1	32
Mount Laguna					1	1
National City	43	3	28	5		79
Oceanside	148	5	112	25	3	293
Pala	1		2	1		4
Palomar Mountain			1			1
Pauma Valley	2		2			4
Pine Valley	2			1		3
Potrero	2					2
Poway	26		25	5	1	57
Ramona	14	1	11	6		32
Ranchita			1			1
Rancho Santa Fe	3			2		5
San Clemente	4		1			5
San Diego	1021	100	568	166	23	1878
San Marcos	25	2	19	4		50
San Ysidro	24	2	11	3	1	41
Santa Ysabel	1		2	1		4
Santee	22	1	28	9	1	61
Solana Beach	5	1	3	1		10
Spring Valley	24	2	14	3	1	44
Tecate			1			1
Valley Center	9		8	5	1	23
Vista	63	2	42	20	2	129
Warner Springs	2		2	2		6
Totals	2,350	148	1,457	380	70	4,405