CORONER DIVISION ANNUAL REPORT 2019

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Introduction

Divisional History

When the County of Orange was founded in 1889, I.D. Mills became the County's first Coroner/Public Administrator. The partnership between these two branches of government existed until 1965 when a county ordinance separated the Coroner and Public Administrator functions. Five years later in 1970, the Orange County Board of Supervisors voted to co-join the Office of Coroner and the Office of Sheriff, making it the 31st Sheriff-Coroner Department in California on January 4, 1971. Today, the majority of the 58 counties in the state are Sheriff-Coroner systems.

Coroner Division Mission Statement

The mission of the Orange County Coroner Division is to serve the citizens and visitors of Orange County by conducting thorough medicolegal death investigations with compassion and specialized expertise.

Value Statement

Service is our number one priority.

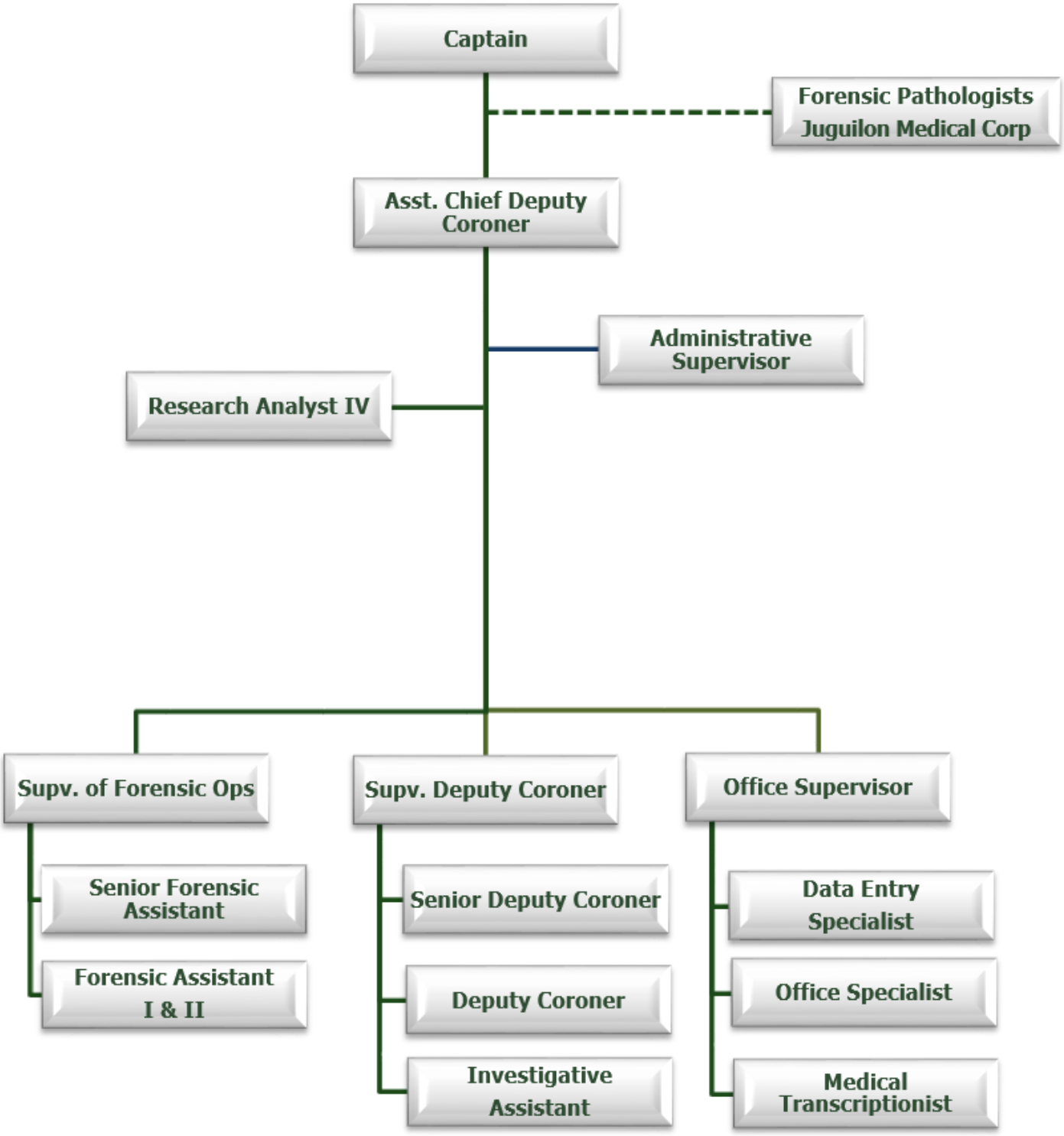
In recognition of the significant impact our actions have on those we serve, we strive collectively to provide prompt resolution to our investigations and deliver expert medicolegal services through genuinely compassionate people.

Our organizational culture and environment will promote high ethical standards, safety, collaboration, efficient and effective processes, innovative thinking, mutual respect, and caring.

Goals

1. Provide Exceptional Service
2. Ensure Safe Practices and Environment
3. Enhance and Maintain a Positive Divisional Culture
4. Embody Servant Leadership

Organizational Chart



Training and Education

1. California Coroner Training Center

In the year 2000, Governor Gray Davis and members of the State Assembly and Senate, recognizing the need for a statewide coroner training facility to provide education and training for coroners, pathologists and other professionals involved in death investigation, appropriated $10 million dollars to fund a new state of the art training center. The County of Orange contributed another $2 million dollars for a total of $12 million. As a result, the California Coroner Training Center opened its doors in March of 2004. Since then, countless Coroners, Deputy Coroners, and other law enforcement officials have attended training courses designed to meet the job specific needs of Coroners and other professionals involved in death investigations.

2. Resident and Medical Student Pathology Program

Since September of 1999, the Coroner Division has participated in the College of Medicine, University of California, Irvine approved residency training and medical student externship program in Pathology. This professional relationship allows residents and medical students to work either a two or four week rotation at the Coroner Division thereby gifting them with hands-on experience under the expert tutelage of the County's contracted Board Certified Forensic Pathologists.

3. Child Death Review Team

The Orange County Child Death Review Team (OCCDRT) was established in 1987 to provide a forum for the multi-disciplinary review of child deaths reported to the Coroner. Initially, the team's focus was on fetal deaths and deaths of children through 12 years of age, with particular focus on improving multi-agency communication on child homicides and unexplained child deaths. One year after the conception of the OCCDRT, the California Legislature authorized counties to officially establish interagency child death review teams. In 1993, the review process expanded to include children through 17 years of age. With the improved coordination and communication among the many agencies responsible for child health, safety, and protection achieved by the pioneering team, the primary objectives of the OCCDRT are now broadening to include prevention efforts.

Core members of this multi-disciplinary team are drawn from public agencies responsible for the investigation of child deaths and agencies responsible for protecting the health and welfare of children. These agencies include: the Coroner's Office, Health Care Agency, District Attorney's Office, County Counsel, Department of Education, Probation Department, Local Law Enforcement Agencies, Social Services, The Raise Foundation (a local child abuse prevention council), County Fire Authority, UCI Pediatric Injury Prevention Research Group, Visiting Nurses Association of Orange County, Child Abuse Services Team (Orange County's multi-disciplinary investigative team for child sexual abuse), and the County Emergency Medical Services.

Training and Education

4. Elder Death Review Team (EDRT)

The Orange County Elder Death Review Team was formed in 2003. Its purpose is to carefully examine cases involving decedents who are 65 or older in which there is suspected abuse by a caregiver or relative. Additionally, the team recognizes that a careful review of fatalities will provide the opportunity to develop education, prevention and if necessary prosecution strategies, that will lead to improved coordination of services for families and the elder population. The goals of the EDRT are to prevent elder abuse fatalities; examine deaths of elders with suspected elder abuse and/or neglect; identify patterns that lead to fatal outcomes; determine whether reviewed deaths could have been prevented; develop prevention strategies; increase awareness of the responsibility of each Health Care Provider to consider abuse or neglect as a contributing factor to death; increase awareness of the responsibility of each Health Care Provider to refer cases arising from abuse or neglect to the appropriate agencies including, but not limited to: Coroner, Adult Protective Services, State Licensing Department, Ombudsman, and Law Enforcement; improve system responses by identifying gaps in delivery services; prosecution of offenders; and develop intervention strategies to reduce fatalities and eliminate ongoing abuse and/or neglect.

5. Domestic Violence Death Review Team (DVDRT)

In 1995, the California Legislature passed a bill (Penal Code section 11163.3) authorizing counties to establish interagency DVDRT's to assist local agencies in identifying and reviewing domestic violence deaths, and facilitating communications among the various agencies involved in domestic violence cases. Its purpose is to review cases where domestic violence is either a major factor in the cause of death or a contributing factor. These cases are studied by the team in hopes of finding solutions to fill any gaps in the system, improving data collection, and recommending ways to prevent future tragedies. The Orange County DVDRT was formed in 2000.

Coroner Jurisdiction

The Coroner Division is an investigative unit responsible for carrying out the statutory duties of the Coroner. Those duties include conducting investigations into the circumstances surrounding all deaths falling within the Coroner's jurisdiction for the purpose of determining the identity of the deceased, the medical cause of death, the manner of death, and the date and time of death. Medicolegal death investigations are conducted countywide on all homicides, suicides, accidents, suspicious and unexplained deaths. Other duties include notifying the next of kin, safeguarding personal property, collection of evidence, and completion of mandatory records and documents. The Division is also proactive in the community, participating in programs geared towards preventing drunk driving and drug use; identifying consumer products causing fatal injury; domestic violence, child abuse and elder abuse; and providing educational services for medical, legal, and law enforcement professionals. Other contributions to the community include cooperative relationships with non-profit organ and tissue procurement agencies to enhance the quality of life and save lives. The Division also collaborates with research organizations pursuing medical science advancements.

Reportable Deaths

Pursuant to Government Code 27491, it shall be the duty of the Coroner to inquire into and determine the circumstances, manner, and cause of the following deaths:

- Without medical attendance which includes all deaths outside of hospitals or skilled nursing facilities.
- Wherein the deceased had not been attended by a physician in the 20 days prior to death or had not been attended by a hospice nurse within 30 days prior to death.
- The attending physician is unable to render a reasonable opinion as to the cause of death.
- When homicide is known or suspected.
- When suicide is known or suspected.
- When a criminal action is involved or suspected to be involved in the death.
- Related to, or following known or suspected self-induced or criminal abortion.
- Associated with a known or alleged rape or crime against nature.
- Known or suspected as resulting in whole or in part from an accident or injury, either old or recent.
- When aspiration, starvation, exposure, drug addiction or acute alcoholism is the known or suspected cause.
- When poisoning is known or suspected.
- When occupational disease or hazards are the known or suspected cause.
- When a contagious disease is the known or suspected cause.
- When death occurred while in-custody of a law enforcement agency or while in prison.
- All deaths of State Hospital patients.
- All Sudden Infant Death Syndrome (SIDS) deaths.
- Deaths during or related to surgery or surgical procedures, or following a surgery or surgical procedure if the deceased did not wake from the anesthetic.

Manner of Death Definitions

The deaths identified in this report are organized in five main categories; these are Natural, Accident, Homicide, Suicide, and Undetermined. Listed below are each of these categories and their definition.

Natural

Natural Deaths discussed in this report are those that were reported to the Coroner and determined to be caused by disease (morbid process) attributable to known or unknown cause, non-traumatic, and not a result of act or omission of another. If the cause of death is ascertained by autopsy, the death certificate is signed by the Coroner.

Accident

Unforeseen event, misfortune, loss, act or omission causing death; when death is caused by conduct of another human agency, not being intentional in nature, and free of gross negligence.

Suicide

Suicide Deaths are those where the death is the result of an intentional, self-inflicted act intended to commit self-harm or cause death to oneself. Methods may include asphyxia (via hanging or suffocation), gunshot, and overdose of medication or other drugs.

Homicide

Homicide Deaths are those where the death is caused by the hands of another, other than by accident. The intent to cause death is not required for classification as Homicide and deaths classified as Homicide do not indicate or imply criminal intent was determined.

Undetermined

Classified in the Undetermined Death category are those deaths where the designation of Natural, Accident, Suicide, or Homicide could not be determined. After thorough consideration of all available information, the classification of one manner of death may be no more compelling than the other competing manners.

Generally, these deaths have been thoroughly investigated by the Coroner, including an autopsy examination and related scientific tests. In many cases the cause of death may be known, however the external factors cannot be confidently established.

Sub-Classifications of Death Definitions

SONA, or Signed Out-No Autopsy

Those deaths which, prior to 2010, would normally require an autopsy, however, after being triaged the case was signed out without an autopsy.

In the latter part of December 2009, in order to better manage Coroner Division resources, the case triage process was implemented with the goal of effectively reducing the number of autopsies performed by the Coroner. The triage process required all cases normally receiving a post-mortem examination to undergo a thorough evaluation to determine whether an autopsy was essential for establishing the cause and manner of death. This evaluation included a detailed review of medical records, clinical tests, and interviews with informants and witnesses. The triage team determined if the extent of the investigation was adequate to establish the probable cause and manner of death without the benefit of an autopsy. In this manner, cases from the lowest end of the risk spectrum were signed out without an autopsy. This type of case is referred to as a SONA case (Signed Out - No Autopsy).

SONA cases are grouped in the Investigated Case Category. Per policy, Undetermined cases will not be signed out without autopsies, therefore a SONA designation can only be used on Natural, Accident, Suicide, and Homicide cases. The term "Clinical" is added to the Manner to identify the case as a SONA. There were 414 SONA cases in 2019.

NNA, or Natural-No Autopsy

Those deaths in which the Deputy Coroner authorized the treating physician to certify the medical cause of death after an investigation determined that the physician had sufficient knowledge of the patient's history and all unnatural circumstances were ruled out.

Declines

Those deaths in which the circumstances did not meet the Coroner's statutory jurisdictional requirements.

JI, or Jurisdictional Inquiry

Deaths either initially understood to meet jurisdictional criteria or the initially reported circumstances required significant investigation to determine jurisdiction.

Consults

Those deaths in which the Coroner signed the death certificate based on consultation with the decedent's primary physician.

AOA, or Assist Outside Agency

Deaths that are cases brought to Orange County by either Inyo or Mono Counties for forensic services in accordance with protocol and contractual agreements. In 2019 there were three AOA cases but these cases are not a part of our caseload and as such do not appear in our graphs.

National Association of Medical Examiners Accreditation

The National Association of Medical Examiners (NAME) is the professional organization for physician medical examiners and coroners, medical death investigators and medicolegal system administrators who investigate deaths of public interest in the United States. NAME has developed an accreditation process to improve the quality of death investigation within medical examiner offices and systems. When an office is accredited by NAME, it is an endorsement that the office has provided an environment adequate for a medical examiner to practice his or her profession and that the office can adequately serve its jurisdiction. The accreditation process includes but is not limited to: inspection of facilities, review of facility and personnel safety, qualification of medical examiners, review of medical legal procedures, and review of reports and records. One requirement within the reports and records section is an annual statistical report, which the Orange County Coroner fulfills with this report although as of yet we are not NAME accredited. The following data is needed for the NAME requirement for the annual statistical report:

A. Deaths reported:	8,290
B. Cases accepted:	5,813
C. Manners of death:	
1. Accident	974
2. Homicide	58
3. Natural	857
4. Suicide	335
5. Undetermined	37
D. Field Responses:	2,201
E. Bodies received:	1,985
F. Autopsies:	1,858
G. Cases with toxicology:	1,511
H. Unidentified bodies after examination:	2
I. Unidentified Decedents Identified	190
J. Brain Donations:	39
K. Unclaimed bodies:	35
L. Exhumations:	0

Summary of Data

The data in this report reflects deaths reported to the Coroner during the 2019 calendar year. This includes both residents and non-residents whose deaths occurred within the borders of the County of Orange.

In 2019, 21,015 deaths were recorded by the Orange County Health Department, Birth and Death Registration. Of those deaths, 8,290 were reported to the Coroner, which is 39% of the total deaths. The Coroner investigated 5,813.

After investigating the 5,813 reported cases, 2,286 deaths, or 39%, resulted in the final cause of death being signed by the Coroner or his delegated authority.

Of the 2,286 deaths certified by the Coroner's Office, 1,858 or about 81%, required an autopsy to determine the cause of death. Of these 1,858 cases, 786 were found to be due to natural causes.

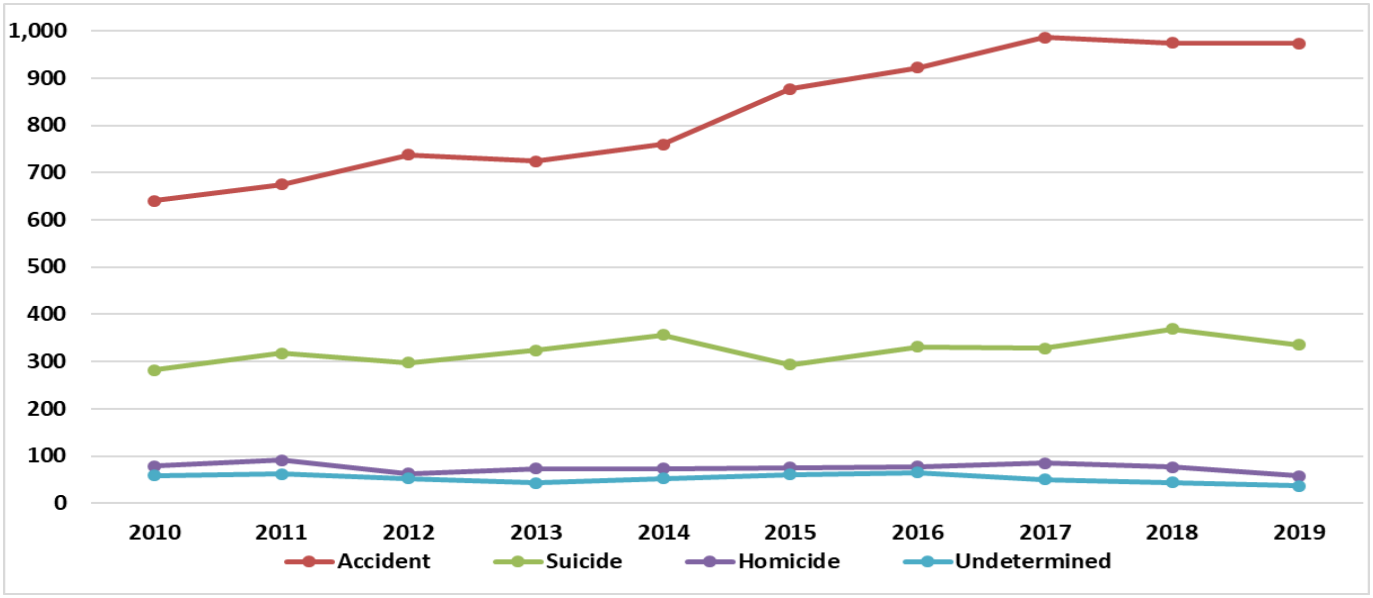
Accidental deaths totaled 974, with 24% of those involving falls. Overdoses accounted for 414 of the accidental deaths, which translates into 43% of all accidents occurring in 2019.

There were 58 Homicide deaths during the calendar year with most incidents involving gunshots (66%) and males (89%). Twenty-two percent of the total Homicide deaths occurred in the city of Santa Ana with an additional 17% occurring in the city of Anaheim.

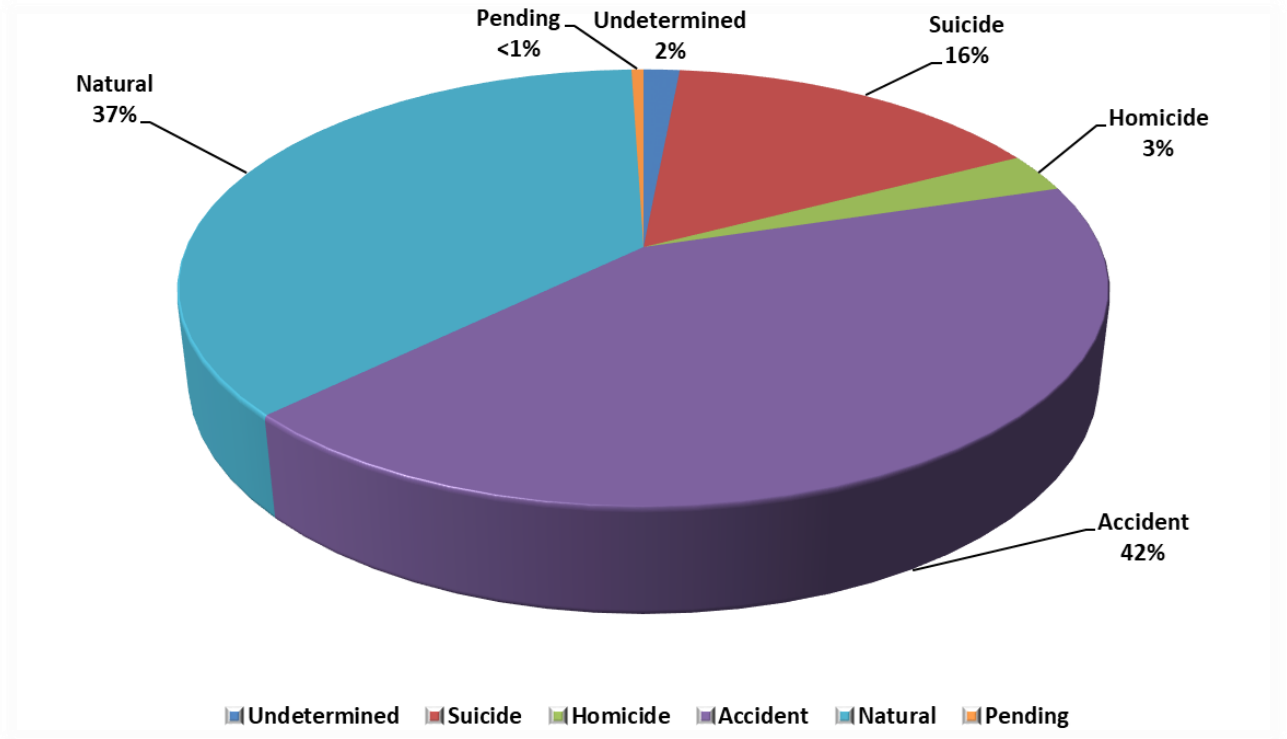
Suicides accounted for 15%, or 335 cases, in 2019, with asphyxia (40%) being the most favored type, followed by gunshots (30%). Fifty and sixty year olds made up the majority of decedents at 38% or 126 deaths, and males far exceeded females at 76% vs. 24% respectively. Interestingly, only 18% of decedents left a suicide note in 2019 which is the same as 2018.

Thirty-seven deaths were classified as Undetermined, with 17 (46%) of those having an unknown cause of death followed by 6 (16%) being the result of an overdose.

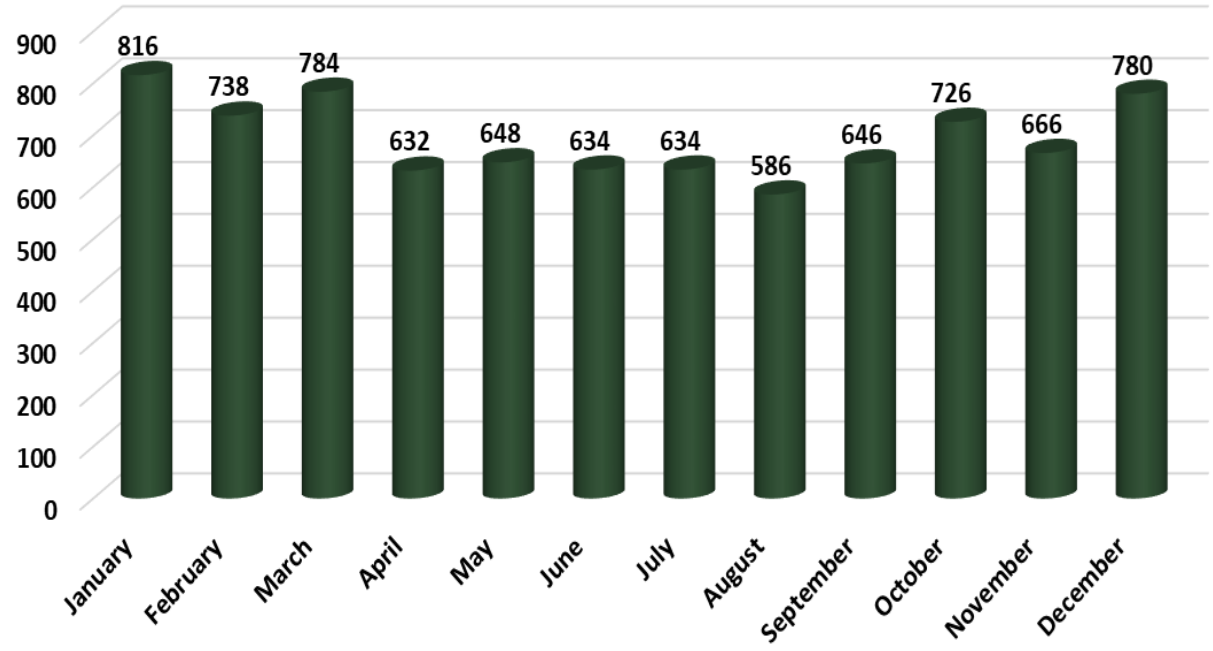
Total Non-Natural Cases by Year of Death by Manner, 2010—2019



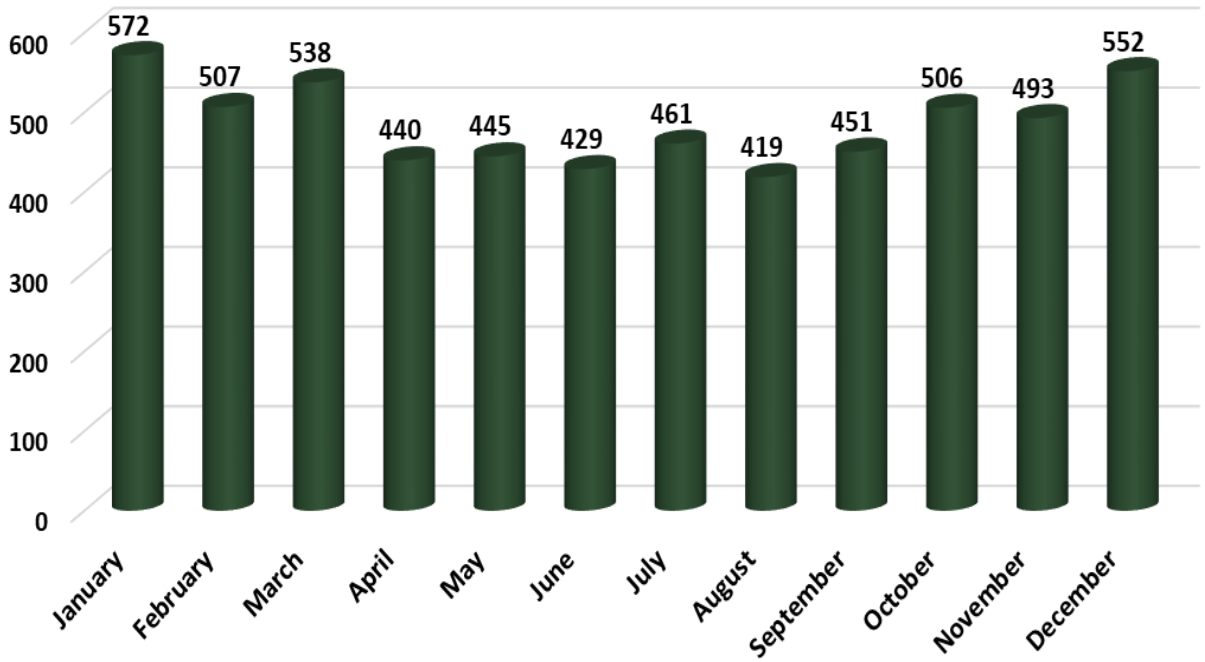
Total Cases by Manner, 2019



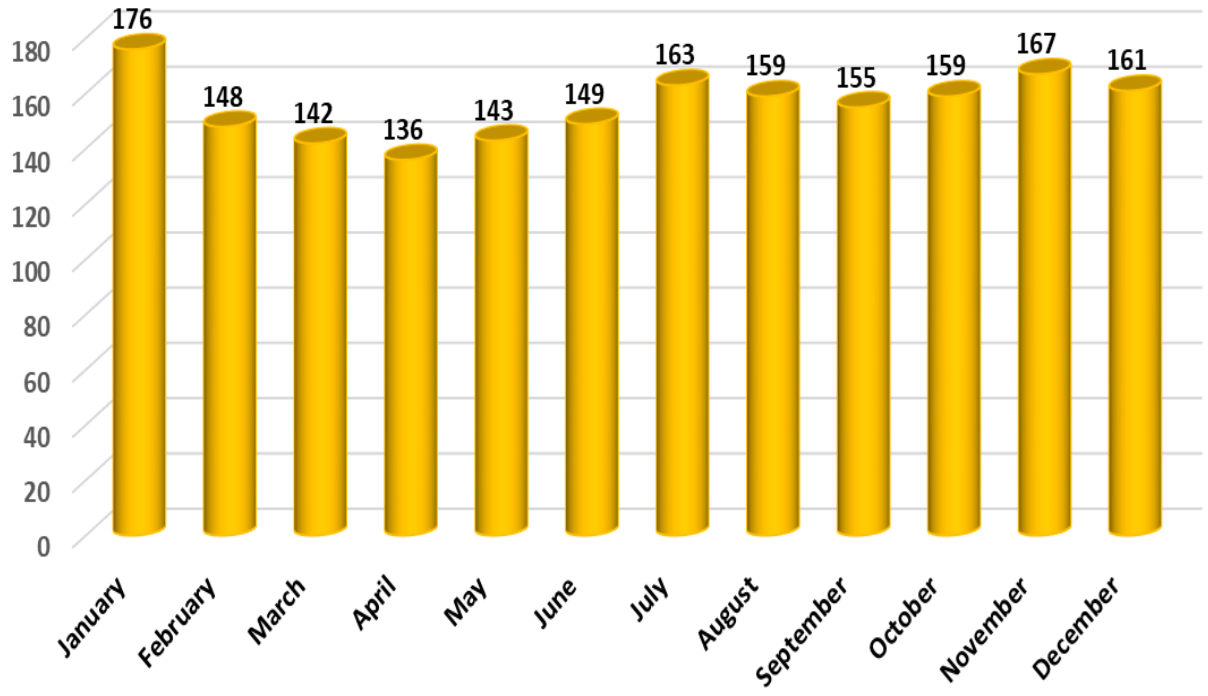
Total Caseload Including Declines by Month Reported, 2019



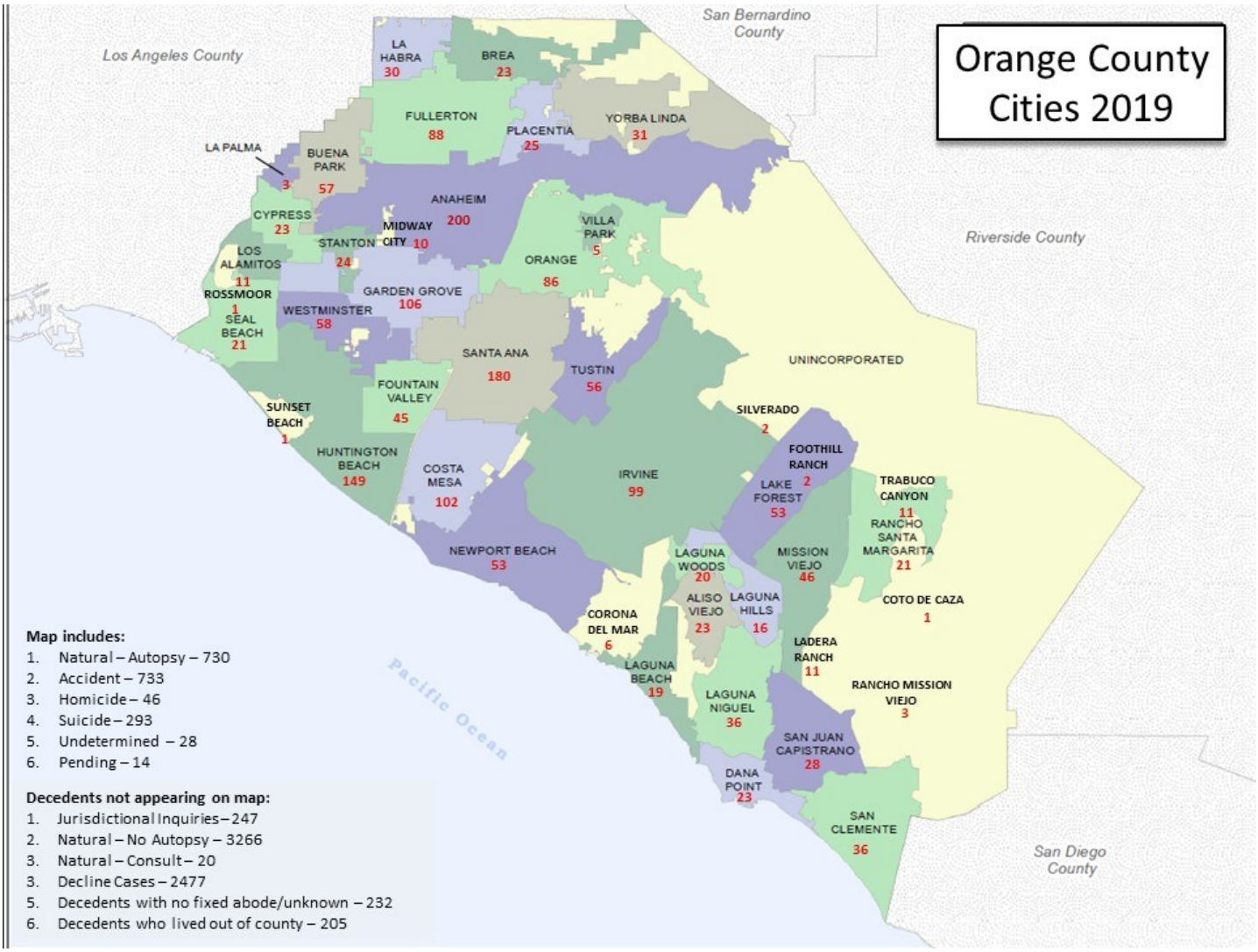
Total Investigated Cases by Month Reported, 2019



Total Autopsies By Month 2019



Cases by City of Residence, 2019



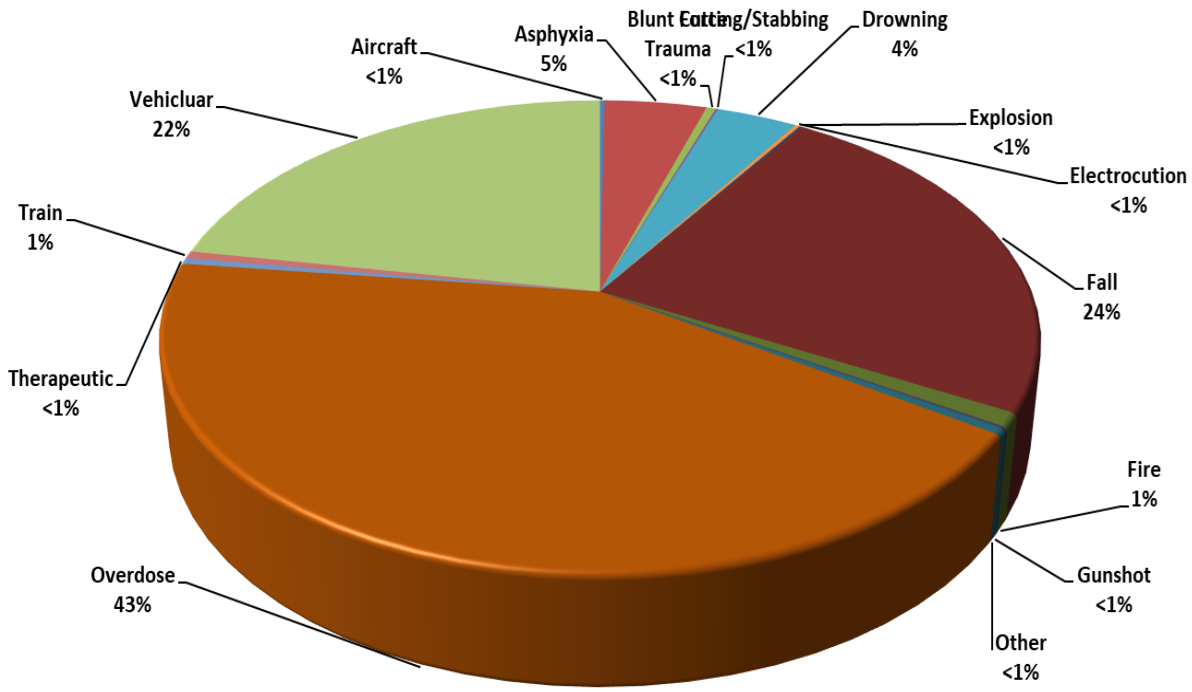
Accidental Deaths by Cause, 2019

AIRCRAFT	**2**
Operator	2
ASPHYXIA	**44**
Aspiration	32
Carbon Monoxide	1
Compression	7
Positional	2
Suffocation	2
BLUNT FORCE TRAUMA	**4**
Blunt Object	2
Crushing	1
Unknown	1
CUTTING/STABBING	**1**
Sharp Object	1
DROWNING	**35**
Bathtub	7
Ocean	9
Other	4
Pool	14
Spa	1
ELECTROCUTION	**2**
High voltage	2
EXPLOSION	**1**
Mechanical	1
FALL	**233**
Height	40
Other	1
Same Level	170
Unknown	22
FIRE	**9**
Residence	8
Other	1

Accidental Deaths by Cause, 2019 continued

GUNSHOT	**1**
Handgun	1
OTHER	**4**
Other (exposure to element, cold while intoxicated)	1
Other (Struck by falling trashcan)	1
Other (Severed medical apparatus)	1
Other (Ingestion of dishwasher soap)	1
OVERDOSE	**414**
Abuse (Illicit drugs only)	196
Drugs (Prescription drugs only)	77
Ethanol	29
Mixture (Combination of illicit and prescription drugs)	111
Other (inhalation of 1,1-difluoroethane)	1
THERAPEUTIC	**4**
Medical	3
Surgical	1
TRAIN	**5**
Pedestrian	5
VEHICULAR	**215**
Bicycle - Operator	18
Motorcycle - Operator	33
Motorcycle—passenger	2
Occupant	3
Operator	57
Other (One skateboarder vs. auto; Two motorized scooter vs. auto)	3
Passenger	33
Pedestrian	66
TOTAL	**974**

Accidental Deaths by Cause, 2019

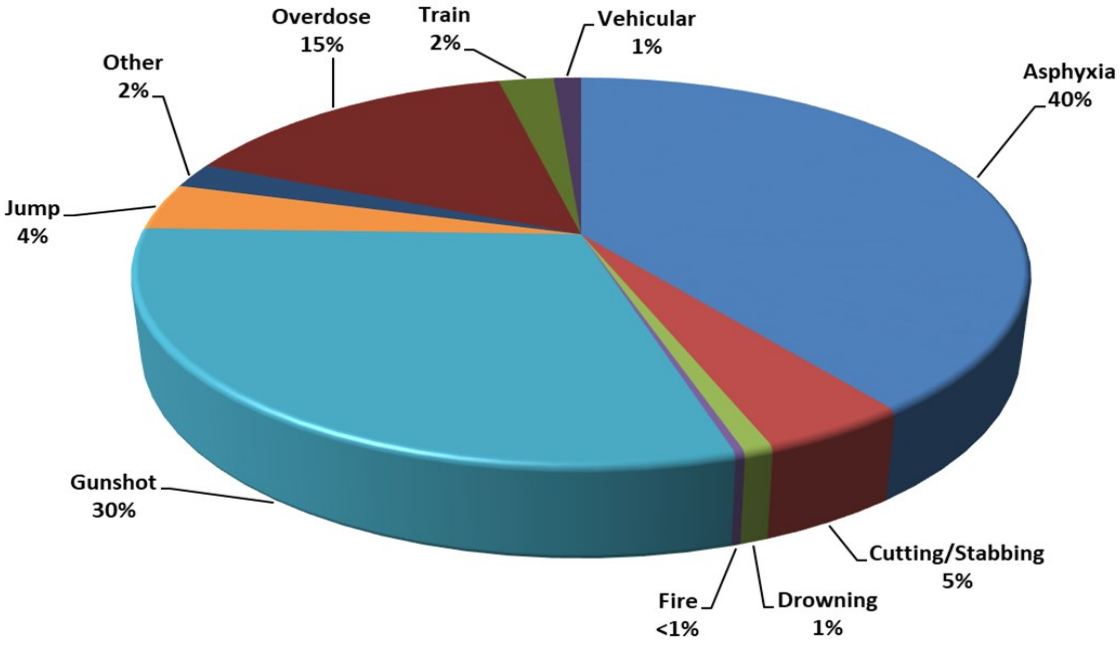


Type of Accident	Number of Cases
Aircraft	2
Asphyxia	44
Blunt Force Trauma	4
Cutting/Stabbing	1
Drowning	35
Electrocution	2
Explosion	1
Fall	233
Fire	9
Gunshot	1
Other	4
Overdose	414
Therapeutic	4
Train	5
Vehicluar	215

Suicide Deaths by Cause, 2019

ASPHYXIA	**133**
Carbon Monoxide	2
Hanging	119
Strangulation	1
Suffocation	11
CUTTING/STABBING	**15**
Sharp Object	15
DROWNING	**3**
Bathtub	1
Ocean	2
FIRE	**1**
Residence	1
GUNSHOT	**101**
Handgun	93
Rifle	5
Shotgun	3
JUMP	**13**
Height	13
OTHER	**7**
Other (Ingestion of ethylene glycol)	3
Other (Ingestion of oven cleaner)	1
Other (Ingestion of Instant Power Hair & Grease Remover)	1
Other (Ingestion of insecticide)	1
Other (Ingestion of acetone)	1
OVERDOSE	**50**
Abuse	7
Drugs (Prescription drugs only)	38
Mixture (Combination of illicit and prescription drugs)	5
TRAIN	**8**
Pedestrian	8
VEHICULAR	**4**
Pedestrian	4
TOTAL	**335**

Suicide Deaths by Cause, 2019

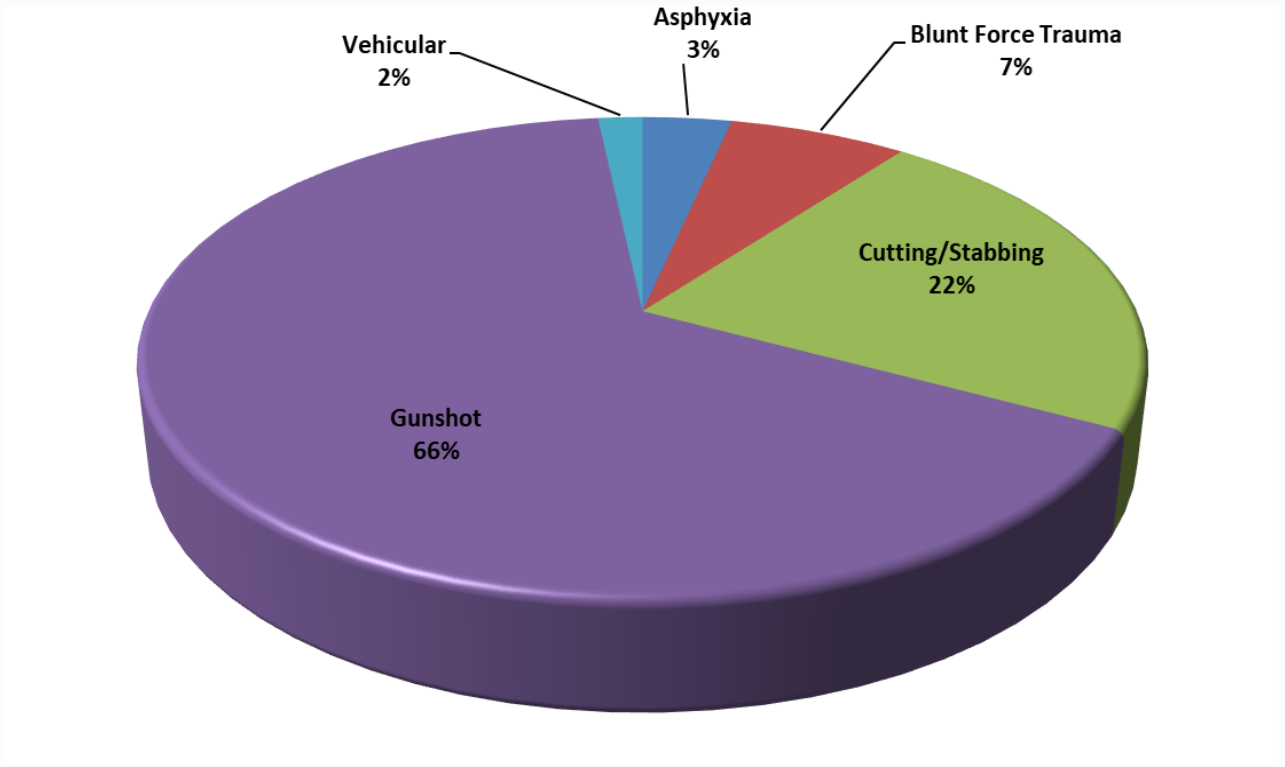


Type of Suicide	Number of Cases
Asphyxia	133
Cutting/Stabbing	15
Drowning	3
Fire	1
Gunshot	101
Jump	13
Other	7
Overdose	50
Train	8
Vehicular	4

Homicide Deaths by Cause, 2019

ASPHYXIA	**2**
Strangulation	2
BLUNT FORCE TRAUMA	**4**
Unknown	4
CUTTING/STABBING	**13**
Sharp Object	13
GUNSHOT	**38**
Handgun	30
Unknown	8
VEHICULAR	**1**
Pedestrian	1
TOTAL	**58**

Homicide Deaths by Cause, 2019

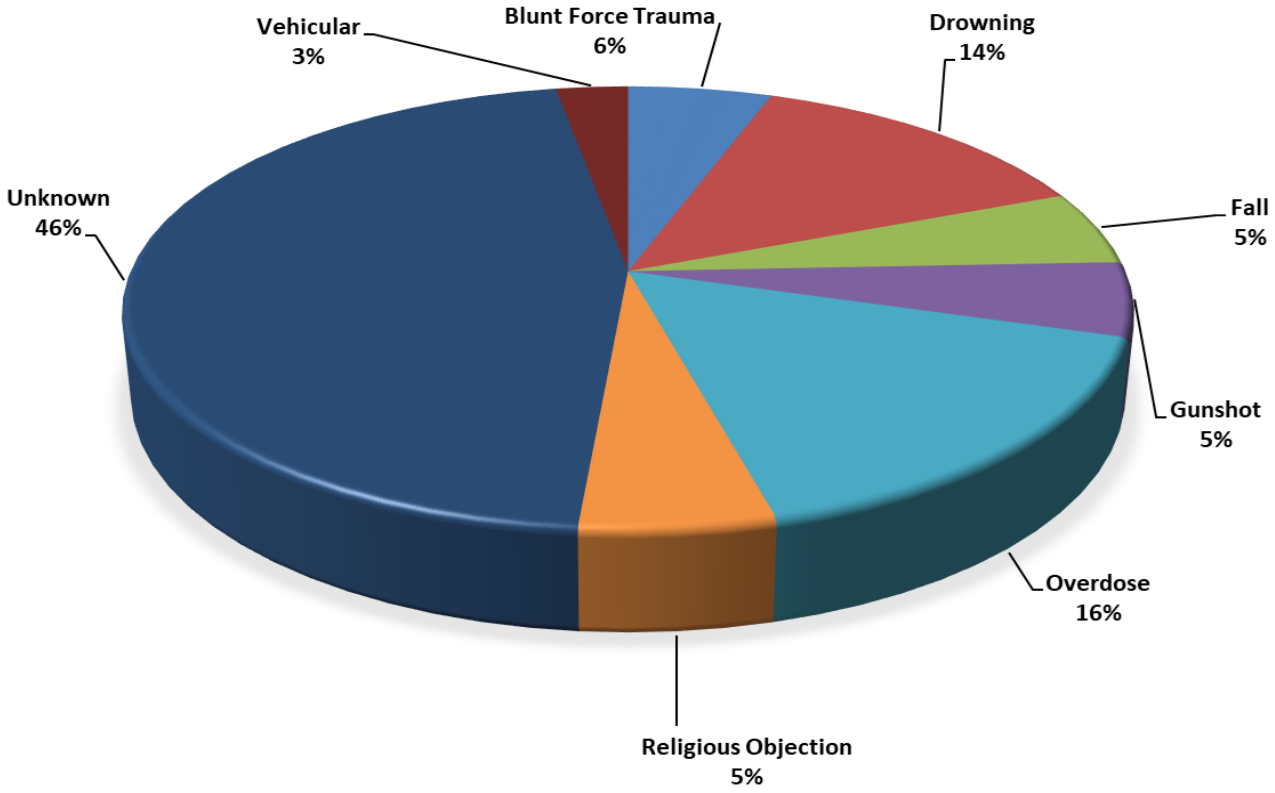


Type of Homicide	Number of Cases
Asphyxia	2
Blunt Force Trauma	4
Cutting/Stabbing	13
Gunshot	38
Vehicular	1

Undetermined Deaths by Cause, 2019

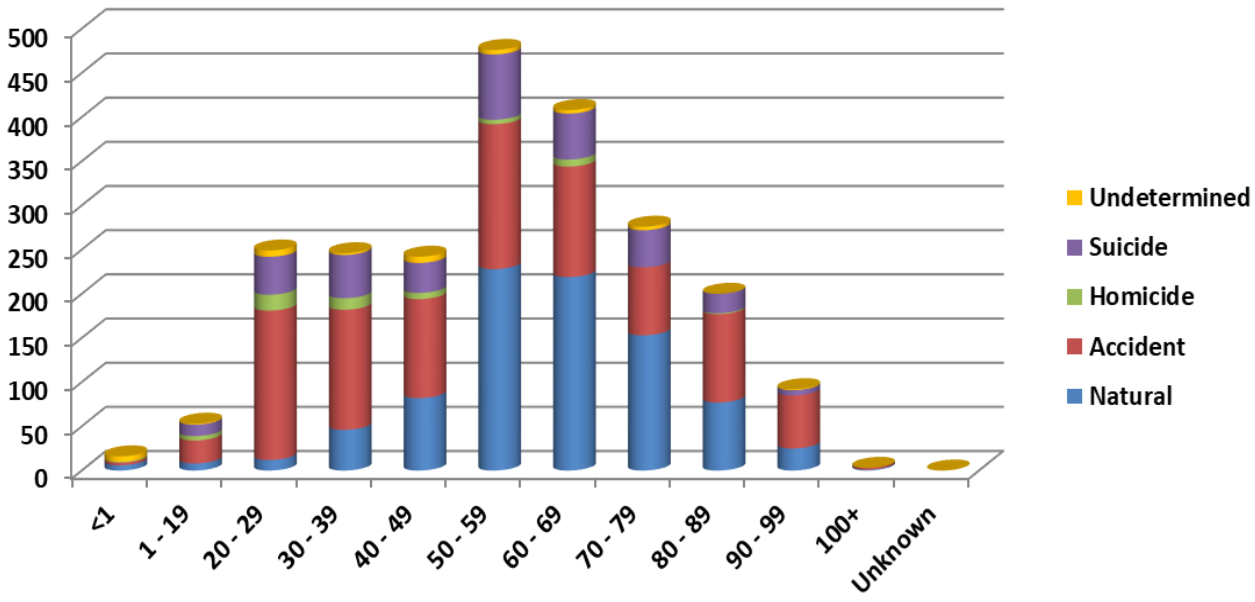
BLUNT FORCE TRAUMA	**2**
Unknown	2
DROWNING	**5**
Bathtub	1
Ocean	3
Other	1
FALL	**2**
Height	1
Unknown	1
GUNSHOT	**2**
Handgun	2
OVERDOSE	**6**
Abuse (Illicit drugs only)	1
Drugs (Prescription drugs only)	4
Mixture (Combination of illicit and prescription drugs)	1
RELIGIOUS OBJECTIONS	**2**
To Autopsy	2
UNKNOWN	**17**
Undetermined Cause of Death	17
VEHICULAR	**1**
Passenger	1
TOTAL	**37**

Undetermined Deaths by Cause, 2019



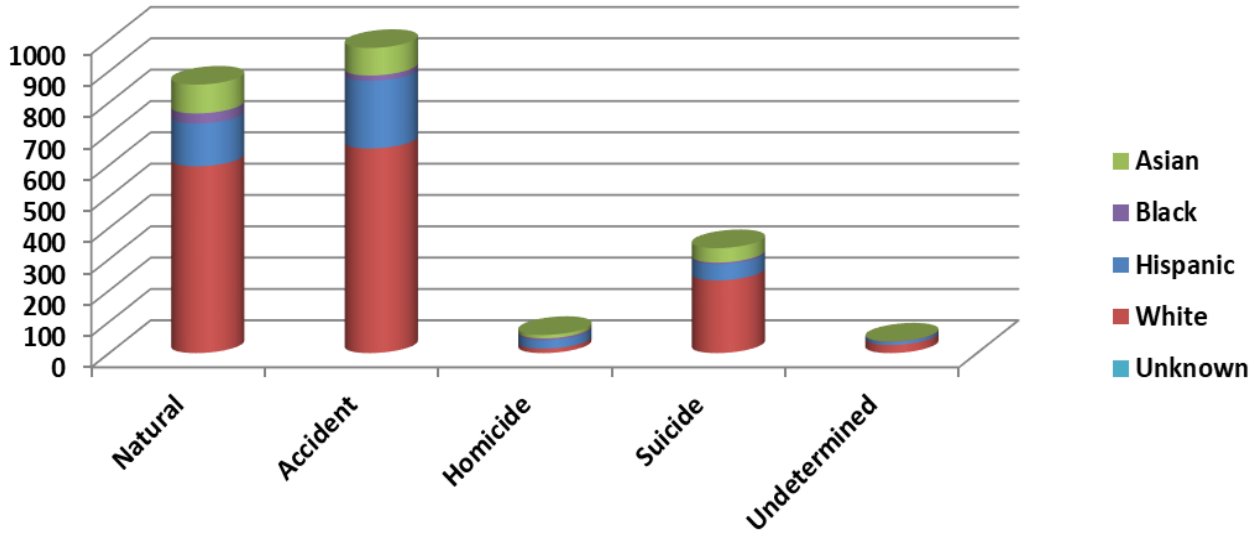
Type of Undetermined	Number of Cases
Blunt Force Trauma	2
Drowning	5
Fall	2
Gunshot	2
Overdose	6
Religious Objection	2
Unknown	17
Vehicular	1

Manner Distribution for Each Age Group, 2019



Age Group	Natural	Accident	Homicide	Suicide	Undetermined
<1	6	3	1	0	6
1 - 19	8	26	5	13	1
20 - 29	12	169	18	43	7
30 - 39	46	136	13	49	2
40 - 49	82	112	7	34	7
50 - 59	228	164	5	74	5
60 - 69	219	125	8	52	4
70 - 79	153	77	0	42	4
80 - 89	77	100	1	22	0
90 - 99	25	60	0	6	1
100+	1	2	0	0	0
Unknown	0	0	0	0	0

Racial Distribution for Each Manner, 2019

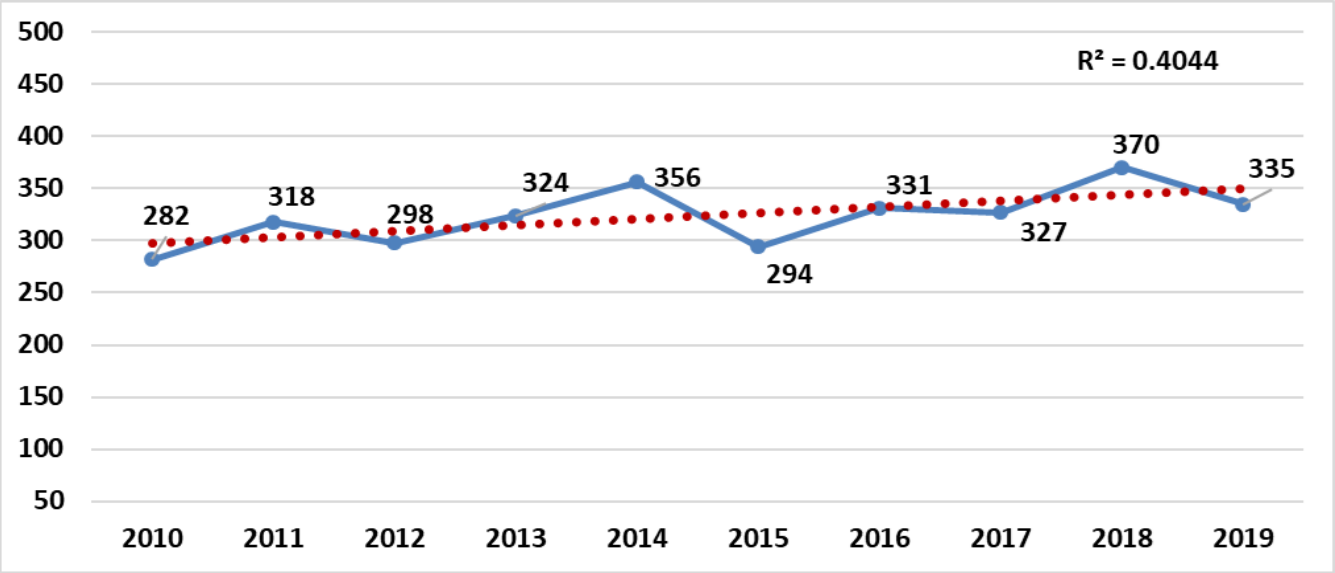


Ethnicity	Natural	Accident	Homicide	Suicide	Undetermined
Asian	92	88	11	46	0
Black	32	17	6	5	2
Hispanic	137	216	27	52	9
White	596	653	14	232	26
Unknown	0	0	0	0	0

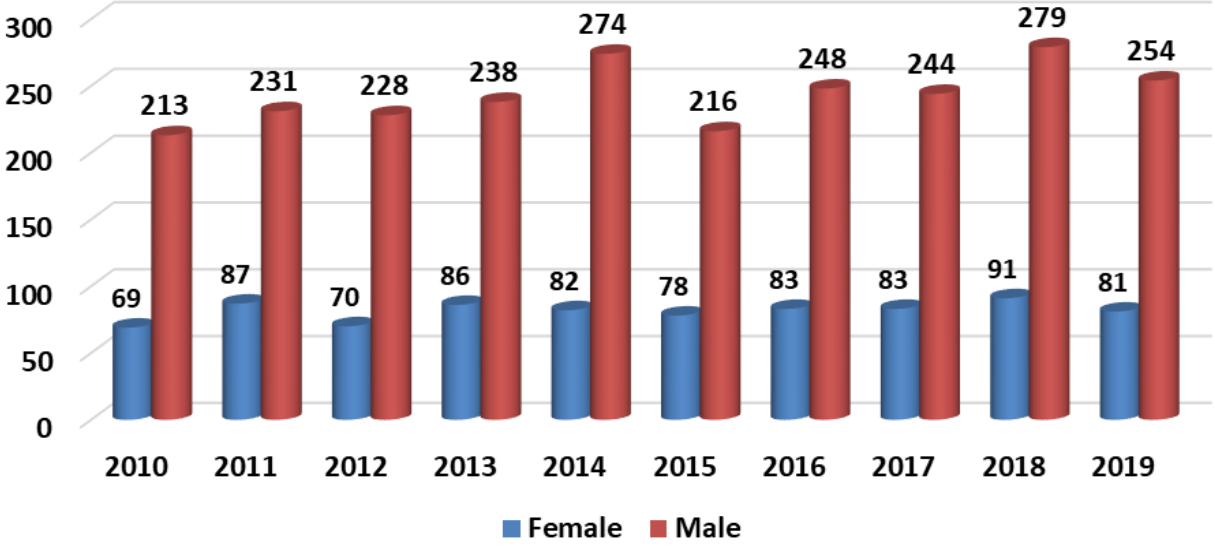
Special Report - Suicide Deaths in Orange County

In the year 2010, 282 suicidal deaths occurred within the borders of Orange County. Suicidal deaths rose to 370 in 2018 which is a 31% increase in the nine year span. In 2019 Suicidal deaths have decreased by 9% to 335. The following charts compare different aspects of ten years' worth of suicide death data.

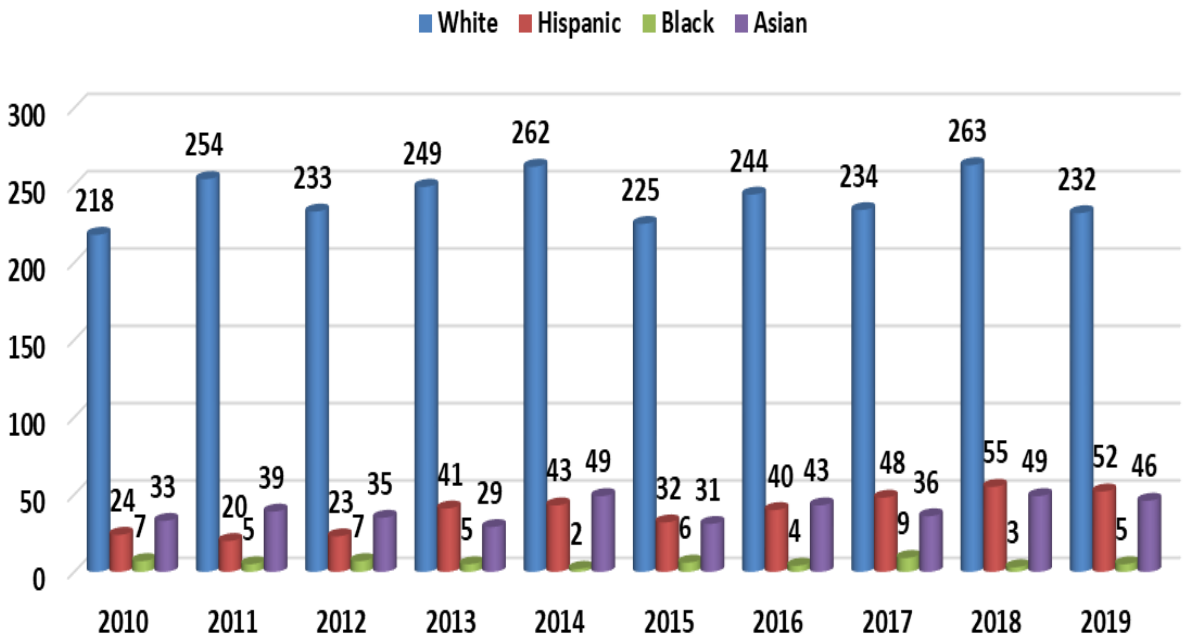
Suicide Deaths - A Ten Year Comparison



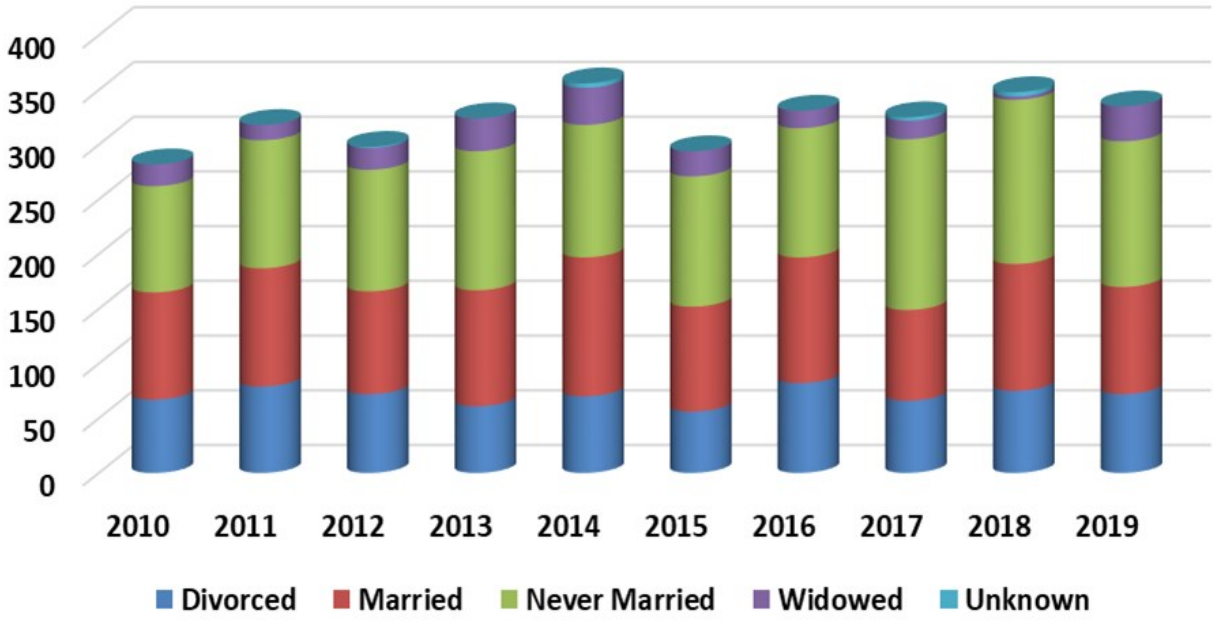
Suicide Deaths By Gender - A Ten Year Comparison



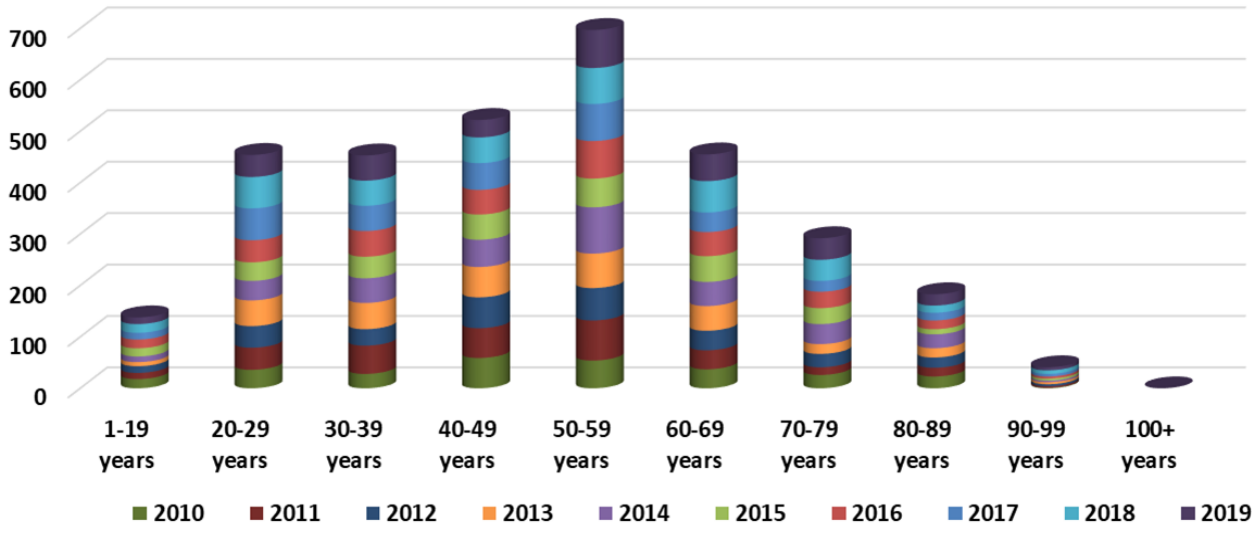
Suicide Deaths by Race - A Ten Year Comparison



Suicide Deaths by Marital Status - A Ten Year Comparison

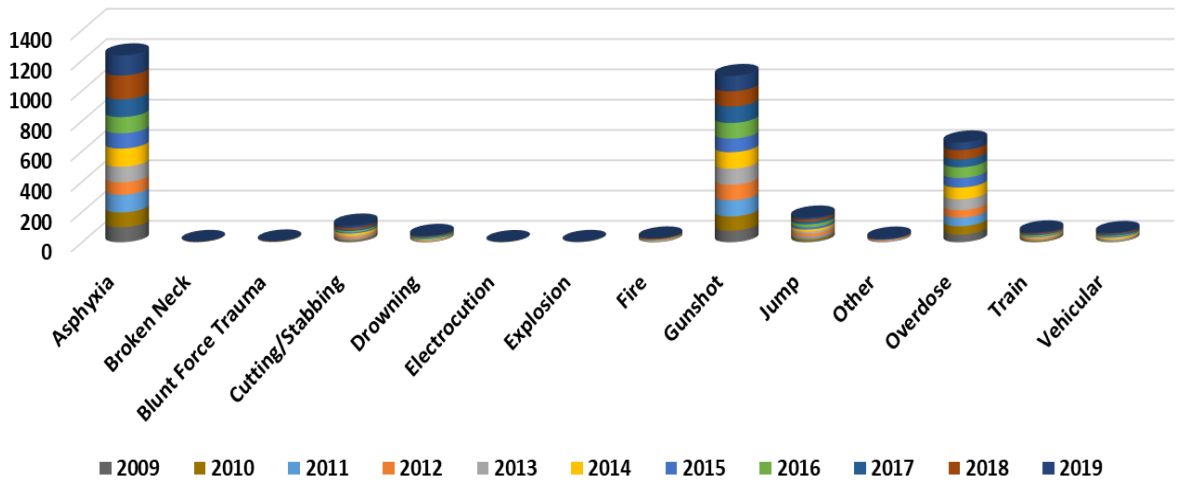


Suicide Deaths by Age - A Ten Year Comparison



	1-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	80-89 years	90-99 years	100+ years
2019	13	43	49	34	74	52	42	22	6	0
2018	17	61	49	50	70	61	41	14	7	0
2017	13	62	49	52	72	38	21	15	5	0
2016	17	43	50	48	73	47	32	17	4	0
2015	16	36	42	49	56	50	31	10	4	0
2014	11	38	48	53	90	47	39	27	3	0
2013	8	50	51	59	67	48	19	18	4	0
2012	13	42	32	60	63	38	26	20	4	0
2011	12	43	55	58	78	37	15	17	3	0
2010	18	36	28	59	54	37	26	23	1	0

Suicide Deaths by Injury Type - A Ten Year Comparison

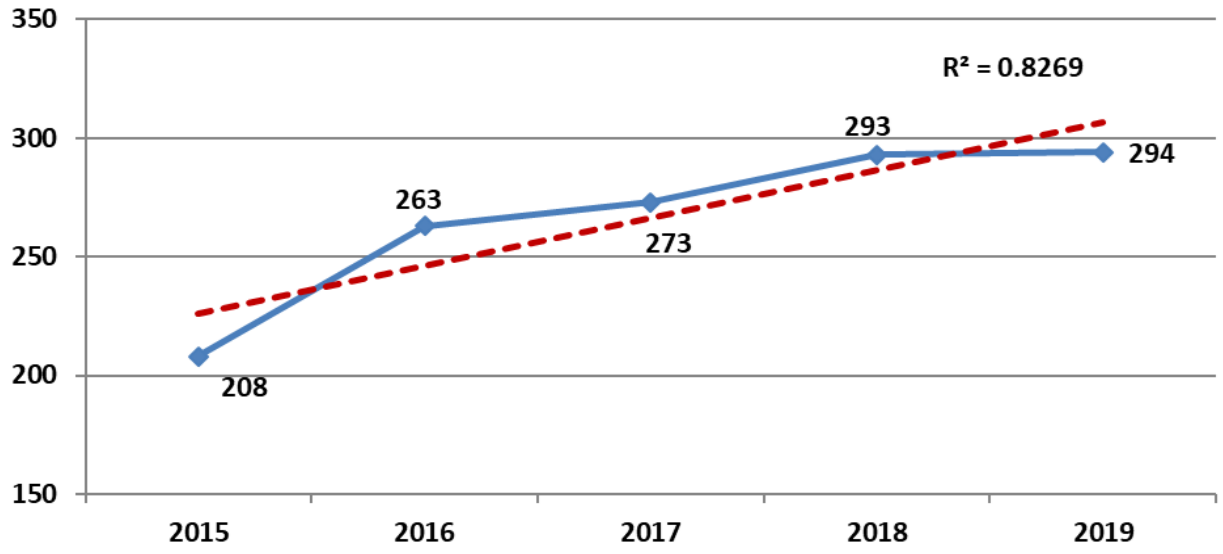


	Asphyxia	Broken Neck	Blunt Force Trauma	Cutting/Stabbing	Drowning	Electrocution
2019	133	0	0	15	3	0
2018	157	0	1	12	4	0
2017	117	0	0	9	7	0
2016	107	0	0	9	7	0
2015	101	0	0	8	4	0
2014	120	1	2	13	4	1
2013	102	0	1	9	3	0
2012	83	1	0	13	4	0
2011	116	0	1	7	2	0
2010	98	0	0	6	2	0

	Explosion	Fire	Gunshot	Jump	Other	Overdose	Train	Vehicular
2019	0	1	101	13	7	50	8	4
2018	0	7	100	15	1	61	7	5
2017	0	1	109	16	1	52	5	10
2016	0	1	103	20	0	71	8	5
2015	0	1	90	15	0	63	5	7
2014	1	1	108	14	1	77	4	9
2013	1	4	106	14	2	72	4	6
2012	0	2	103	22	7	50	8	5
2011	0	3	107	12	4	56	5	5
2010	0	2	94	13	0	56	7	4

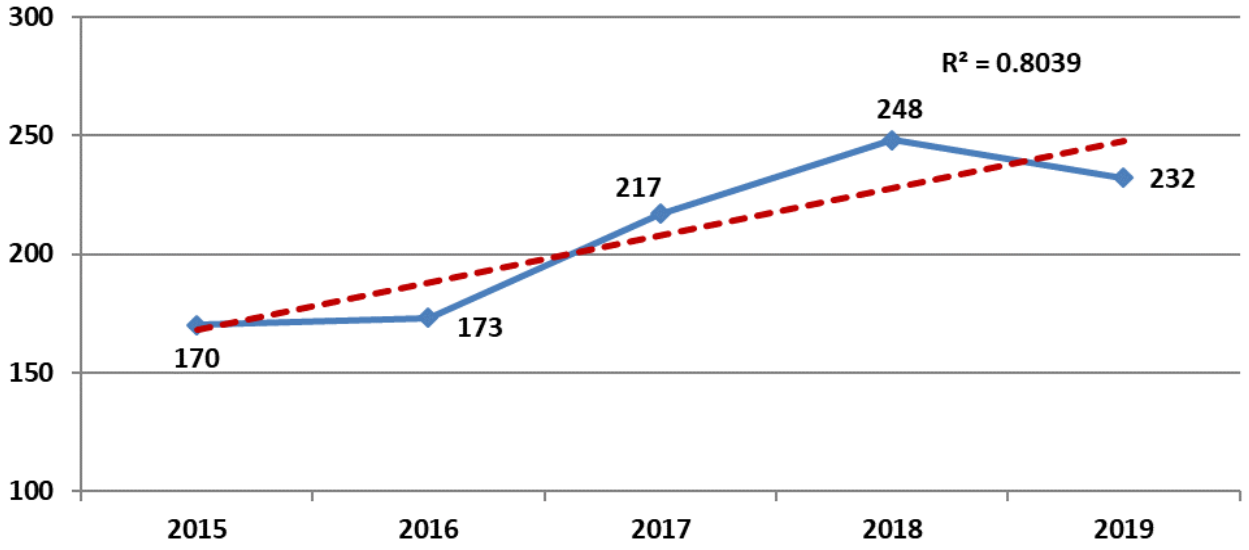
In 2013, we referenced some noticeable trends in specific drugs. Although these are merely trends they were worth monitoring with each passing year. As a result, in the charts below we have again illustrated the number of deaths where methamphetamine appears in the toxicology results and noted the number has increased by 28% since 2014 (228) but is less than 1% higher than in 2018. We will continue to monitor these drugs in future reports.

Deaths with Methamphetamine in Toxicology Results



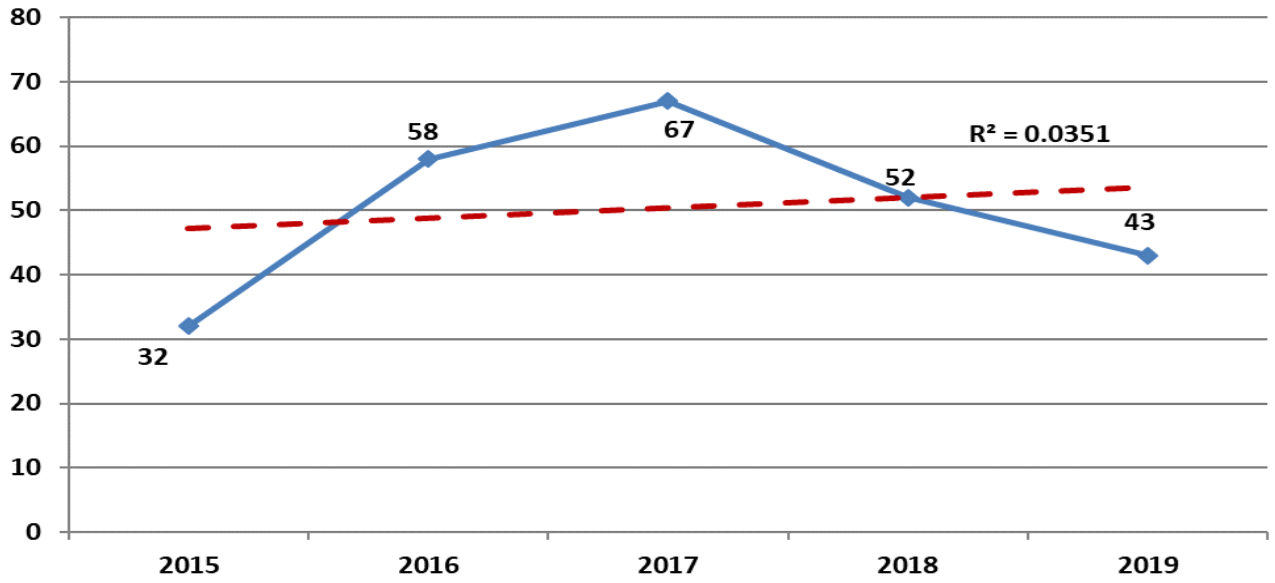
Along with that statistic is the fact that deaths with THC, the active ingredient in marijuana, has seen a 36% increase since 2015, as seen in the chart below.

Deaths with THC in Toxicology Results



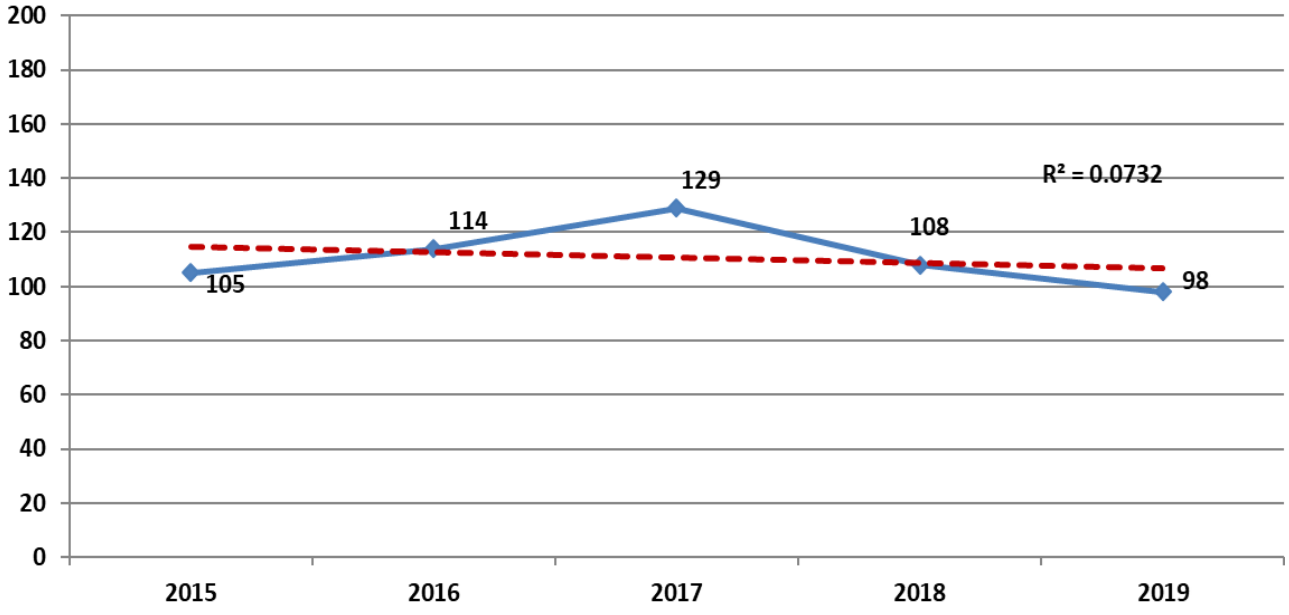
In 2012, deaths with cocaine in the toxicology results had declined by 34% since 2011. Unexpectedly, 2016 saw a 81% increase over 2015 but surprisingly, in 2019 there was an decrease of 17% over 2018.

Deaths with Cocaine in Toxicology Results



The chart below shows the number of deaths over a five year period caused by heroin usage. Heroin overdose data has been problematic because not until late 2011 did the Coroner Division test for an important metabolite, 6-MAM. The presence of 6-MAM forensically proves heroin was used. Therefore, the data is a combination of cases where the cause of death stated "heroin" and those cases where the cause of death was morphine/codeine or morphine overdose, and there was strong evidence they came from heroin. Unexpectedly, there has been an 9% decrease in heroin deaths since 2018.

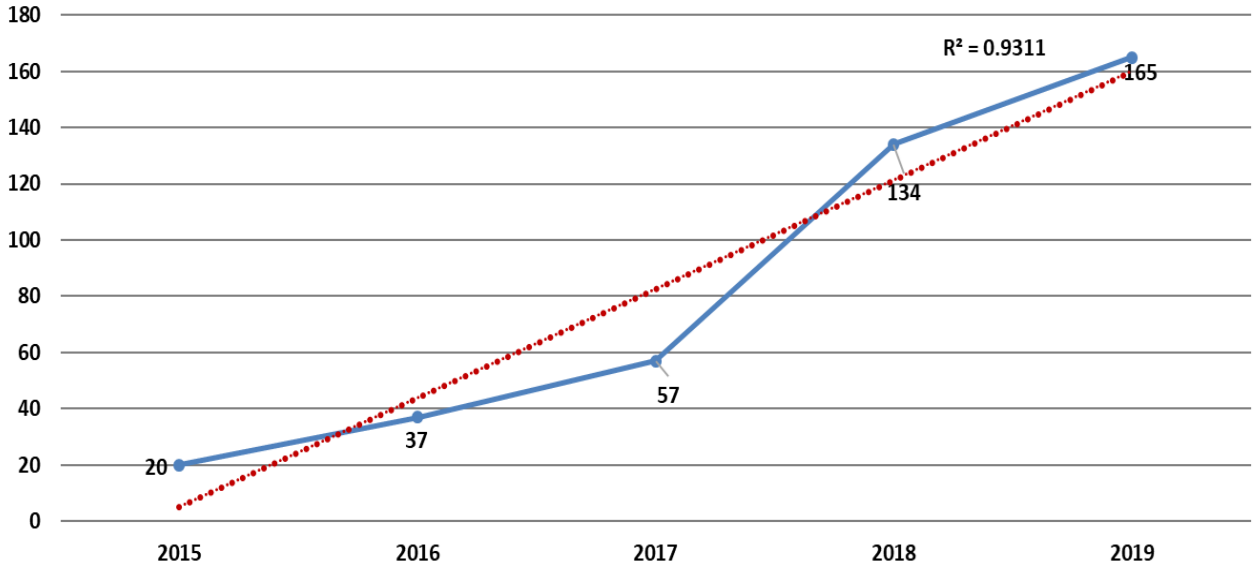
Deaths Caused by Heroin Usage



Deaths caused by Fentanyl

Fentanyl is a powerful Schedule II synthetic opiate painkiller that can be lethal and is deadly at very low doses. It is produced clandestinely in Mexico, and comes directly from China but is also prescribed by physicians. Fentanyl is up to 50 times more potent than heroin. The dosage of fentanyl is a microgram, one millionth of a gram – similar to just a few granules of table salt. A very small amount ingested, or absorbed through the skin, can kill a person. In addition to fentanyl, the US Drug Enforcement Agency has identified at least 15 other deadly, fentanyl-related compounds, known as analogues. Analogues are slight chemical variations of the parent drug and can be even more potent than fentanyl. Because of the extreme inherent danger of these chemicals, the Coroner Division and the Forensic Chemistry section of the Orange County Crime Lab have been aggressively targeting the analysis of these compounds.

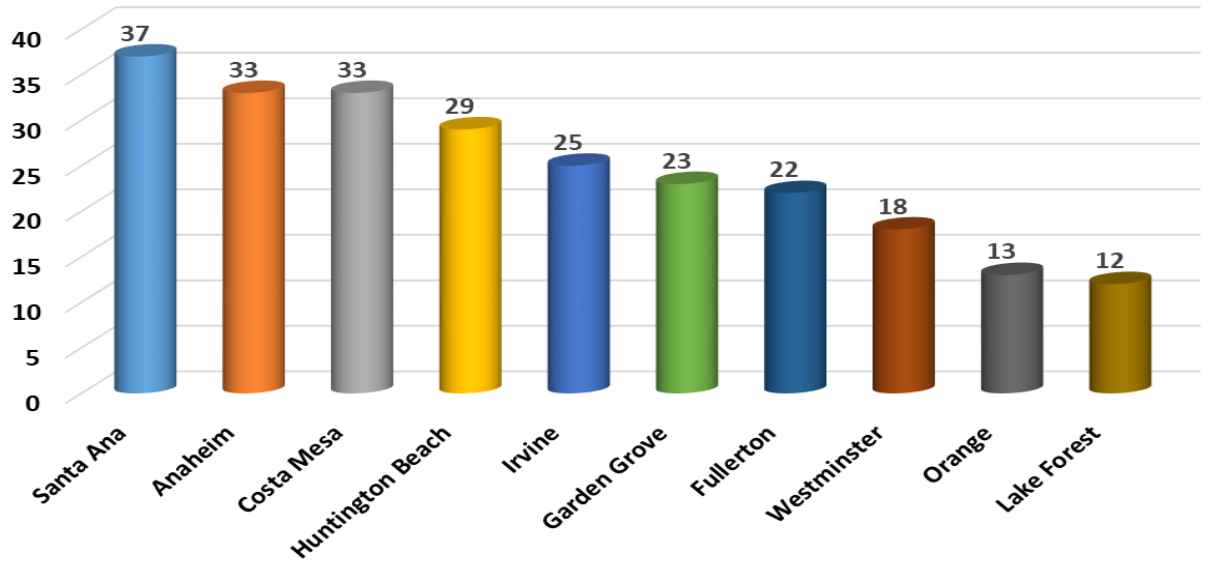
As with heroin we have been showing the progression of fentanyl deaths by building a base in previous years and continuing to track the numbers. The chart below shows the number of fentanyl deaths over a five year period and combines the analog (illicit) and prescription related deaths. The number of fentanyl related deaths saw an enormous increase of 725% between 2015 and 2019.



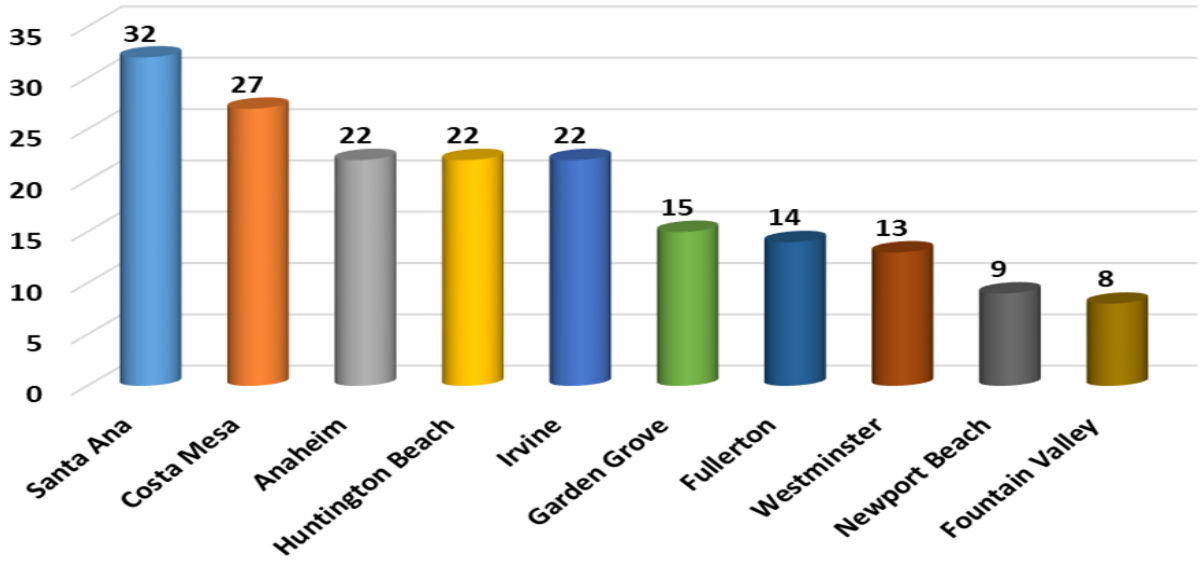
Deaths Caused by Drug Overdose By Event City

There have been many inquiries over the past years as to the cities in which drug overdoses are occurring. In order to answer this question we will now include in this report a chart showing the top ten event cities for drug overdoses and the top ten event cities for opioid drug overdoses.

Top 10 Event Cities—Drug Overdoses



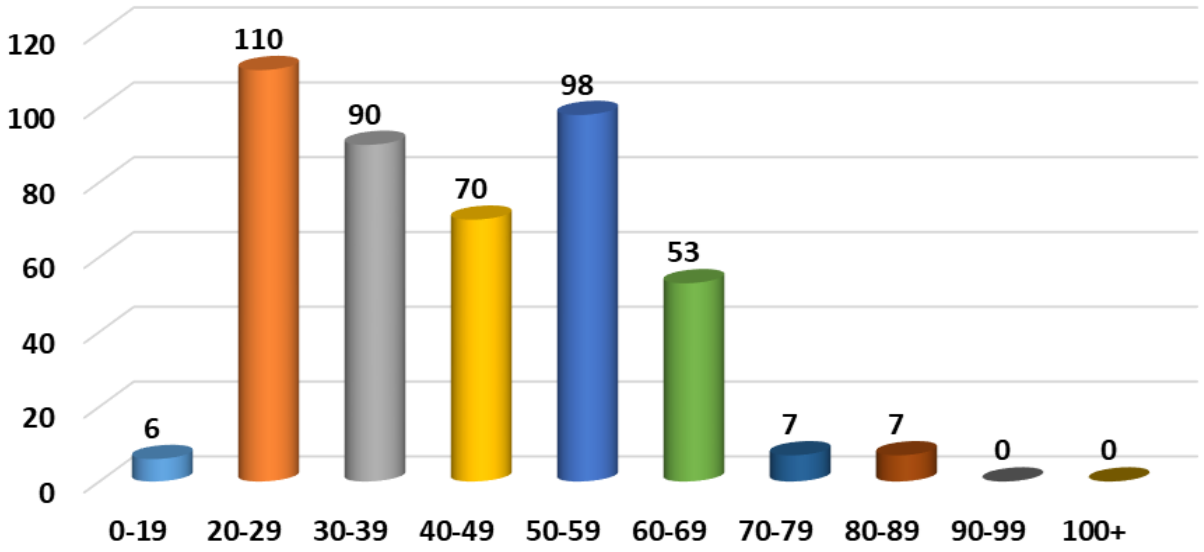
Top 10 Event Cities—Opioid Overdoses



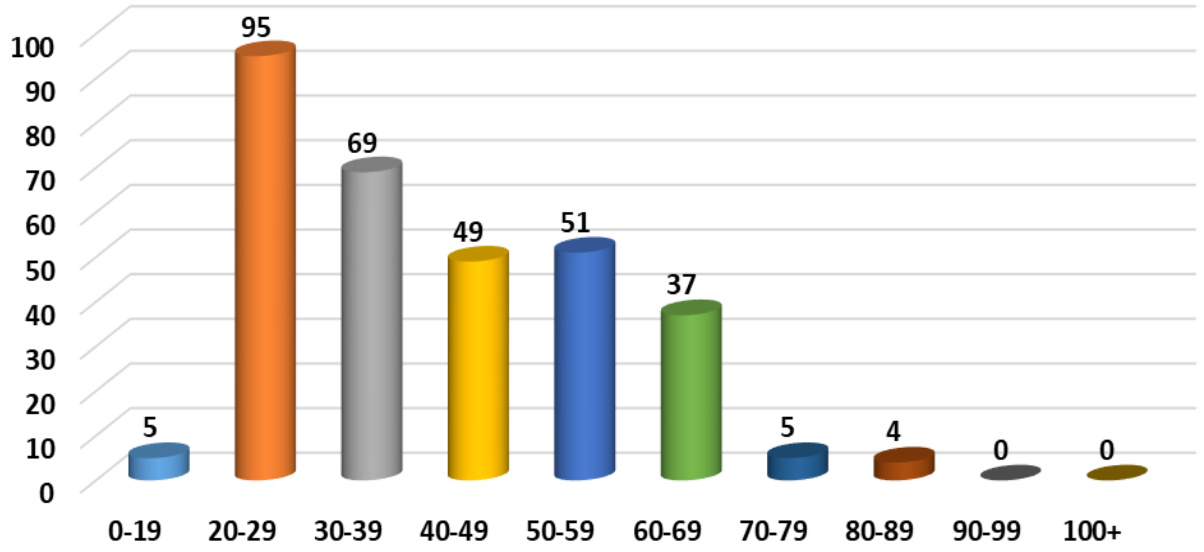
Deaths Caused by Drug Overdose By Age

Along with the interest in where the drug overdose deaths are occurring is an interest in the ages of the decedents. To assist with that the charts below show the number of drug overdose deaths by age and the number of opioid overdose deaths by age.

Drug Overdose Deaths by Age



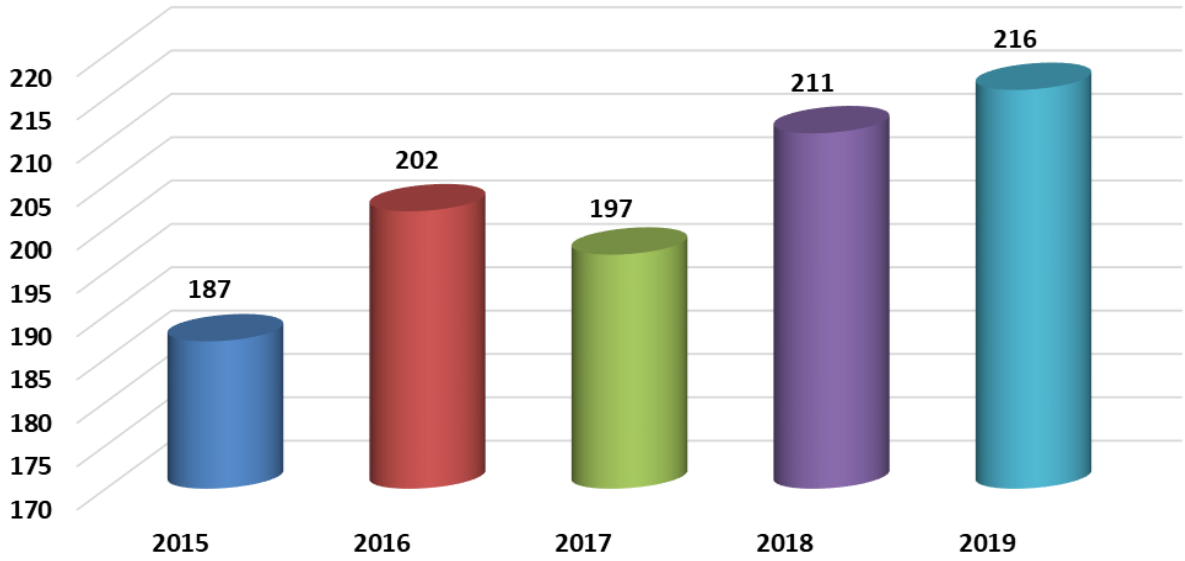
Opioid Overdose Deaths by Age



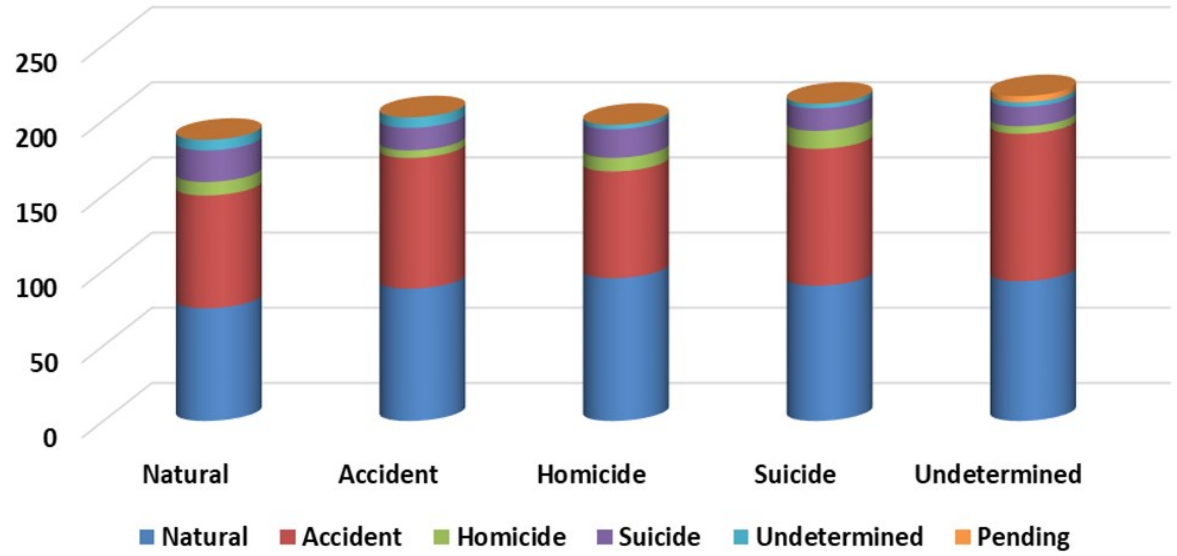
Homeless Deaths

Since 2016 the Coroner Division has seen an increase in requests for information regarding deaths of homeless people. Because not all deaths are reported to the Coroner, the following information is not the complete picture, but a piece. Homeless is defined as no fixed abode as reported by the decedent prior to death, evidence or next of kin.

Homeless Deaths By Year—5 Years

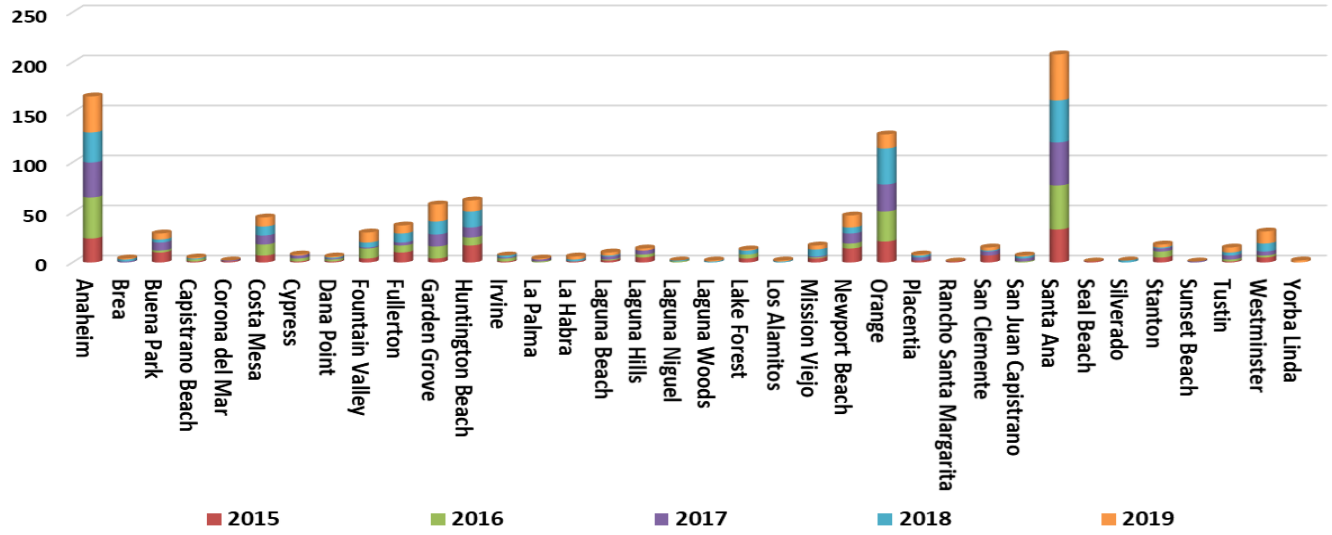


Homeless Deaths By Manner By Year—5 Years



Homeless Deaths

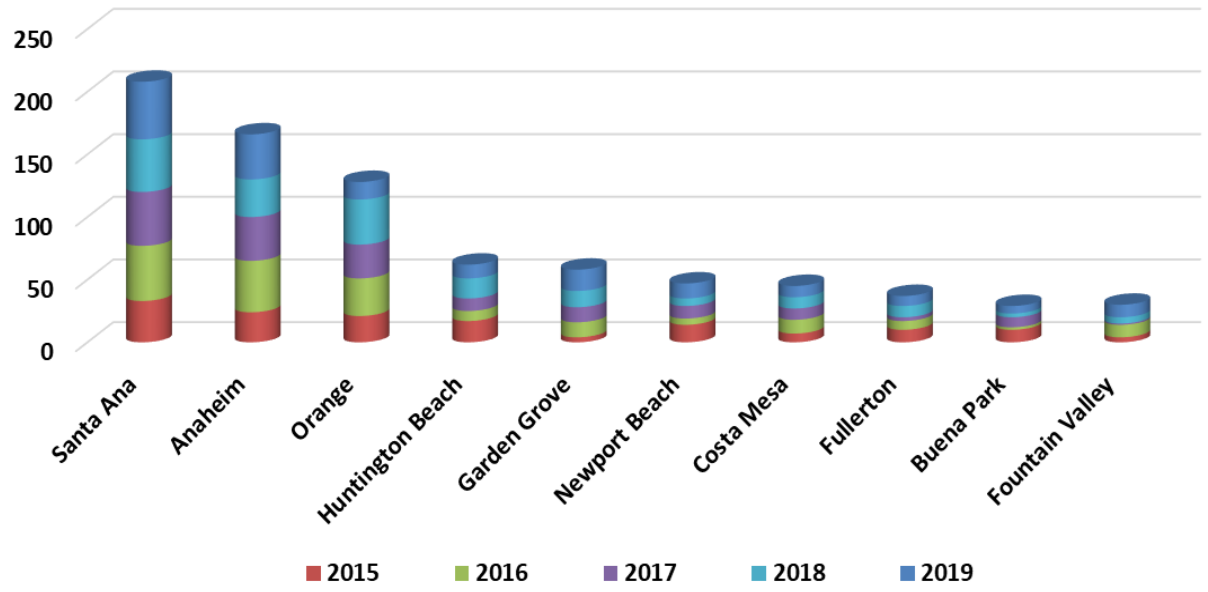
Homeless Deaths By City—5 Years



Homeless Deaths By City—5 Years

	2015	2016	2017	2018	2019
Anaheim	24	41	35	30	36
Brea	0	0	1	2	1
Buena Park	10	2	8	3	6
Capistrano Beach	1	2	0	1	1
Corona del Mar	1	0	1	0	0
Costa Mesa	7	11	9	9	9
Cypress	1	3	3	0	1
Dana Point	1	2	1	1	1
Fountain Valley	4	10	1	5	10
Fullerton	10	7	3	9	8
Garden Grove	4	12	12	13	17
Huntington Beach	17	8	10	16	11
Irvine	1	3	1	2	0
La Palma	0	1	2	0	1
La Habra	1	0	0	2	3
Laguna Beach	2	1	3	1	3
Laguna Hills	5	3	4	0	2
Laguna Niguel	0	1	0	1	0
Laguna Woods	0	0	0	1	1
Lake Forest	4	4	0	4	1
Los Alamitos	0	0	0	1	1
Mission Viejo	4	1	1	7	4
Newport Beach	14	5	10	6	12
Orange	21	30	27	36	14
Placentia	2	0	3	2	1
Rancho Santa Margarita	1	0	0	0	0
San Clemente	7	0	4	1	3
San Juan Capistrano	0	1	3	2	1
Santa Ana	33	44	43	42	46
Seal Beach	1	0	0	0	0
Silverado	0	0	0	2	0
Stanton	5	6	3	1	3
Sunset Beach	0	0	1	0	0
Tustin	1	2	4	3	5
Westminster	5	2	4	8	12
Yorba Linda	0	0	0	0	2

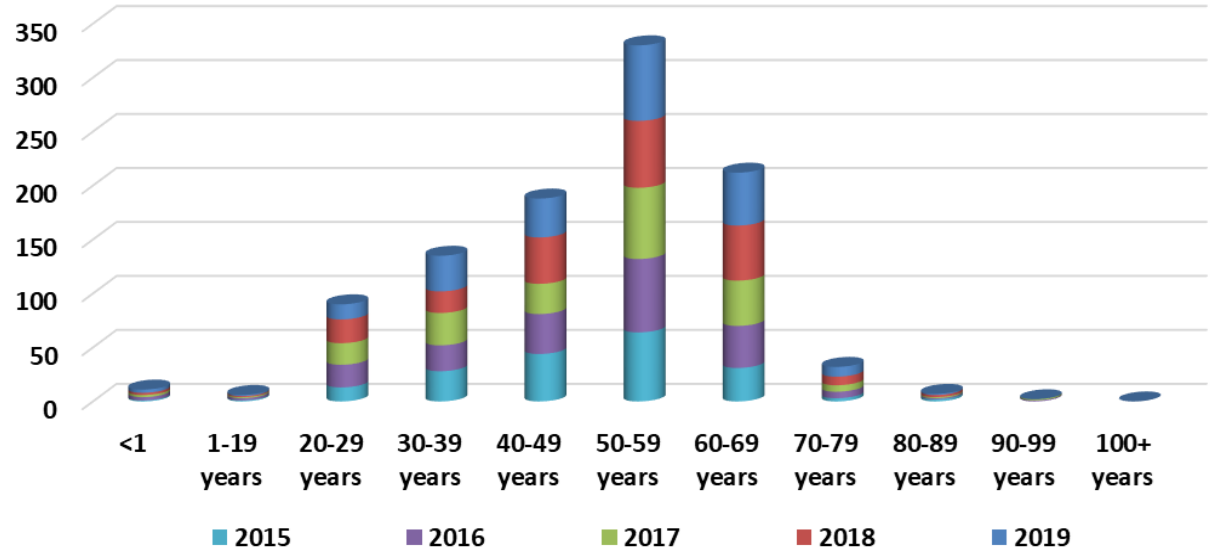
Homeless Deaths—Top 10 Cities—5 Years



	Santa Ana	Anaheim	Orange	Huntington Beach	Garden Grove
2015	33	24	21	17	4
2016	44	41	30	8	12
2017	43	35	27	10	12
2018	42	30	36	16	13
2019	46	36	14	11	17

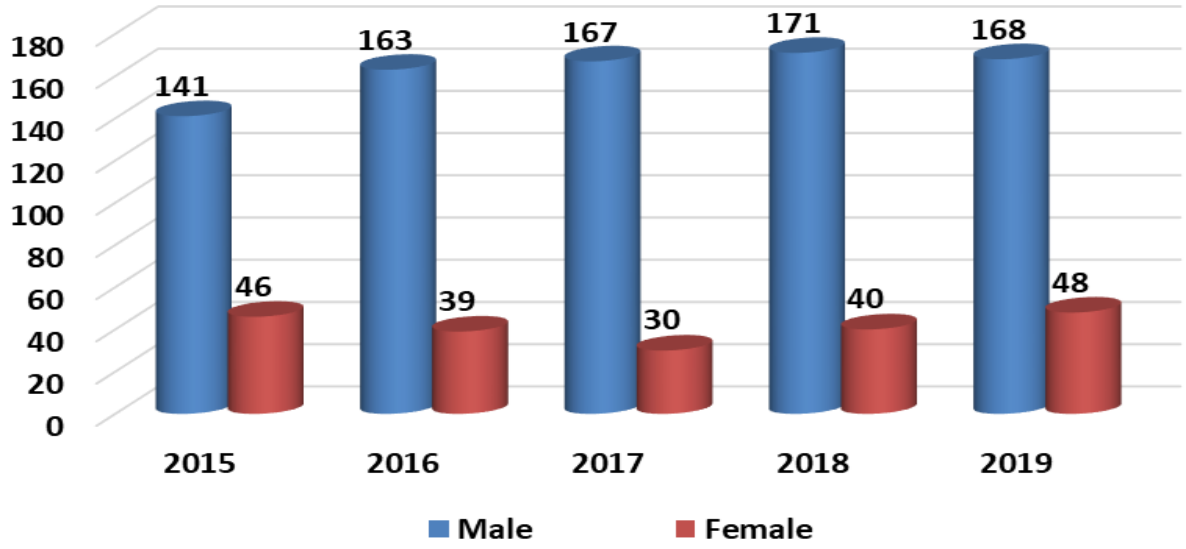
	Newport Beach	Costa Mesa	Fullerton	Buena Park	Fountain Valley
2015	14	7	10	10	4
2016	5	11	7	2	10
2017	10	9	3	8	1
2018	6	9	9	3	5
2019	12	9	8	6	10

Homeless Deaths By Age—5 Years



	<1	1-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	80-89 years	90-99 years	100+ years
2019	3	1	14	33	36	70	49	9	1	0	0
2018	2	1	22	20	43	62	51	8	2	0	0
2017	2	1	20	30	28	66	42	6	1	1	0
2016	3	2	21	24	37	68	39	6	1	1	0
2015	1	1	13	28	44	64	31	3	2	0	0
2014	0	0	11	16	18	51	27	3	0	0	0

Homeless Deaths By Gender—5 Years



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