



Office of the Medical Examiner

2019 Annual Report



El Paso County, Texas





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PROLOGUE

The information found in this annual report has been gathered from the case management system of the El Paso County Office of the Medical Examiner in El Paso, Texas (EPOME). Our staff strives to serve the citizens of El Paso with empathy, competency, integrity, and professionalism.

The EPOME incorporates the scientific rigor of medicine and forensic science to investigate cases of sudden, unexpected deaths, or those that occur under violent or suspicious circumstances in El Paso County. Our mission statement is: *“We help the community be safer and healthier through efficient and timely medicolegal death investigation”*. This translates into an important public health role played by the EPOME, which included: to identify potential hazards in the community; to monitor trends in violence and injury; to be adequately prepared for a potential emergency response; and to evaluate areas of concern regarding the health, safety, and welfare of the community. It is our hope that this report helps identify trends in the community that allow public health and policy efforts to enhance death prevention and surveillance efforts that protect the lives of all El Pasoans.

The year 2019 brought indescribable challenges to our community as a whole; we saw the true spirit of this city by witnessing all sectors coming together in solidarity for those in need. The OME is proud to function as a helping hand for grieving families. We are continuously inspired by them and we vow to provide high-quality, compassionate, and timely service during the trying times these families face.



Mario A Rascon, MD, MHCM, D-ABP, D-NBPAS, D-ABMDI, F-CAP, F-NAME

Chief Medical Examiner

El Paso County Office of the Medical Examiner

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INTRODUCTION

The EPOME provides medicolegal death investigation for El Paso County. This includes autopsy services and certification of cause and manner of death in cases of homicides, suicides, accidents and otherwise sudden or unexpected natural deaths. Exceptions to this disposition are areas within the County that arrange for their own death investigations through their own governance bodies or with Federal assistance (*e.g.*, Fort Bliss, Ysleta del Sur Pueblo).

The cause of death is a disease, injury, toxic material, or combination of factors that causes a physiologic derangement severe enough to result in death. The manner of death refers to the circumstances surrounding how the death came about and is divided into five categories: natural, accident, suicide, homicide, and undetermined.

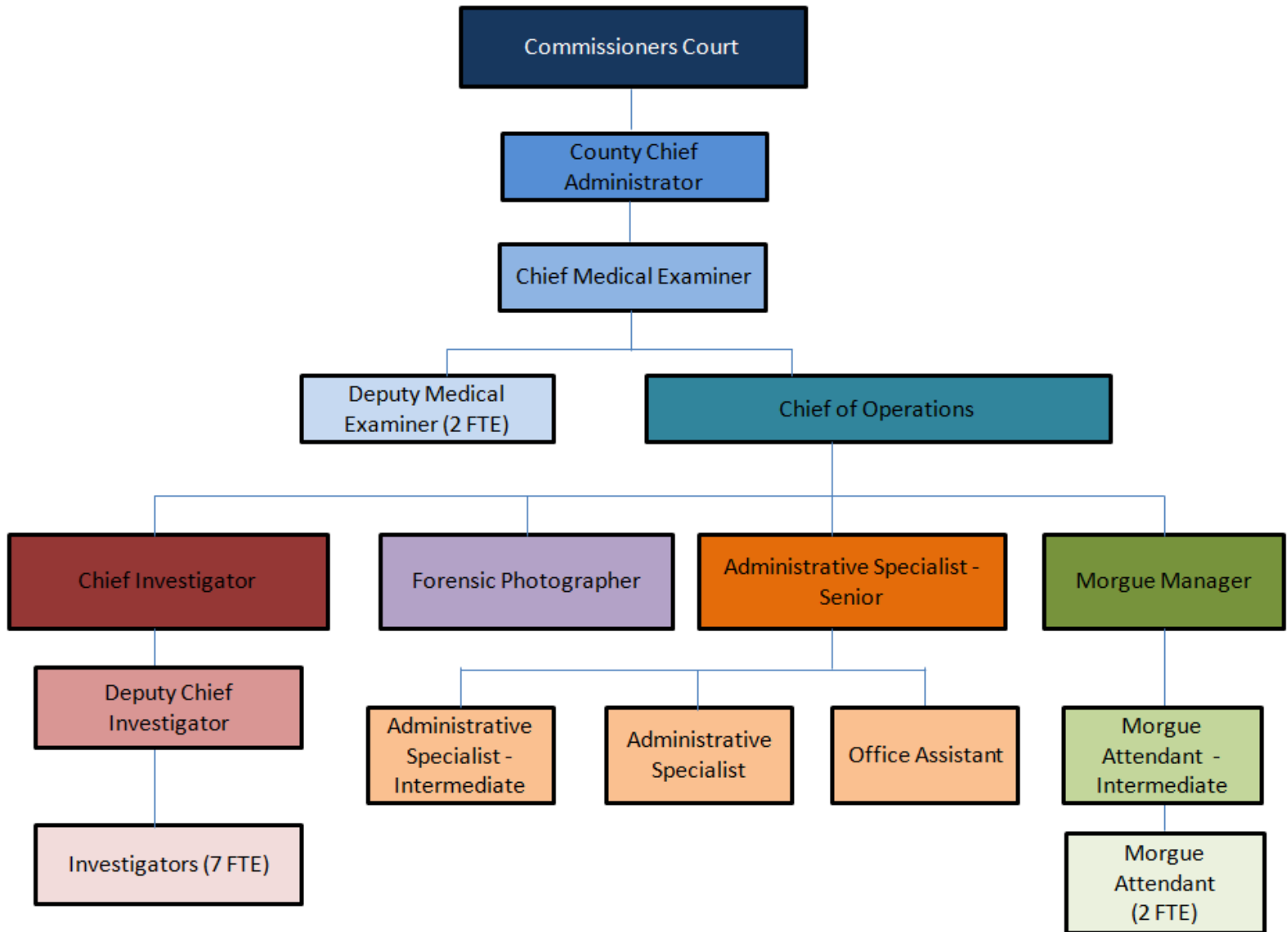
The Texas Code of Criminal Procedure (Chapter 49. 'Inquests Upon Dead Bodies'), stipulates that the EPOME shall conduct an inquest into the death of a person who dies in the County if:

- (1) the person dies in jail or in prison (except under circumstances different than described by Section 501.055(b);
- (2) the person dies an unnatural death from a cause other than a legal execution;
- (3) the body or a body part of a person is found, the cause or circumstances of death are unknown, whether the person is identified or unidentified;
- (4) the circumstances of the death indicate the death may have been caused by unlawful means;
- (5) the person commits suicide or the circumstances of the death indicate that the death may have been caused by suicide;
- (6) the person dies without having been attended by a physician;
- (7) the person dies while attended by a physician who is unable to certify the cause of death and who requests the justice of the peace to conduct an inquest; or
- (8) the person is a child younger than six years of age (few exceptions are part of this provision)

Decisions about autopsies are not mandated and are left to the discretion of the medical examiner. Furthermore, the laws are general enough that jurisdiction may be accepted in a wide variety of cases that are not otherwise specified in law.

In addition, the EPOME services the community by assisting families with funeral arrangements, authorizing cremations, signing death certificates, reporting viable candidates to the local tissue bank for postmortem altruistic donation, positively identifying decedents, preparing for a mass disaster, teaching Medical Students (Paul L Foster School of Medicine), and fostering community outreach through different institutions.

EPOME – ORGANIZATIONAL CHART



CASE JURISDICTION

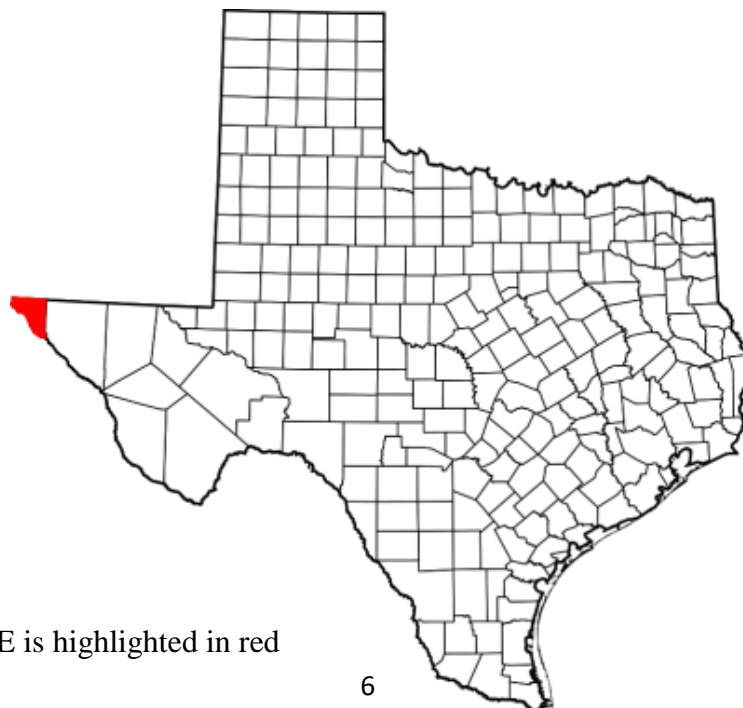
El Paso covers an area of about 256 square miles, and has an estimated population (2019 census estimate) of about 839,238. Countywide, the population is about 92% white (which includes 82% white-hispanic and 10% white non-hispanic), 4% black, 1% American Indian, 1.3% Asian, 1.5% two or more races.

When a local death (one that occurs within the boundaries of El Paso County) is reported to the EPOME, the case is either **accepted** or **released**. If a case is accepted, it means that the medical examiner will be signing the death certificate. A case is **released** when the death is natural (*e.g.*, non-natural contributing factors such as trauma have been ruled out), circumstances are known, the person has extensive and well documented comorbidities/medical history, and a community physician is willing and able to sign the death certificate.

Local deaths that fall under the EPOME jurisdiction are transported to the EPOME for examination by a contract body transport company. In the vast majority of cases, an EPOME investigator attends the death scene in person to perform a preliminary examination of the body and present a written field report to the medical examiner. EPOME investigators usually attend all homicides, suicides, and accidental deaths, and selected natural deaths. Investigators are on staff and available 24 hours/day, 365 days/year. EPOME investigators do not physically perform scene investigations on cases that are reported to them from outside of the physical boundaries of El Paso County.

On accepted cases, the medical examiner uses one of two approaches to obtain information to complete the death certificate:

- **Inquest.** The death certificate is signed without examining the body (review of medical records and other pertinent reports).
- **Exams:** The body is physically transported to the EPOME, and a final written report is produced. There are two types of exam cases: 1) **External Examination.** Formal external examination, which may or may not include toxicology/chemical testing. 2) **Autopsy.** Complete autopsy, which may or may not include toxicology/chemical testing, histology, and/or other ancillary tests.



Area served by the EPOME is highlighted in red

EXECUTIVE SUMMARY – 2019

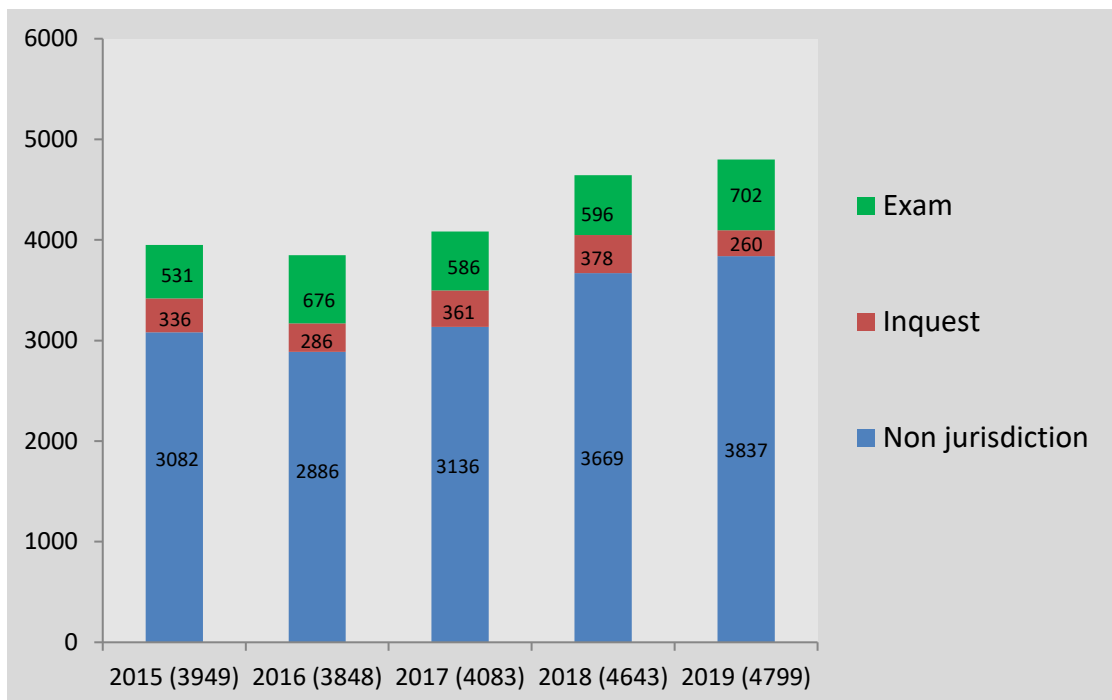
In 2019, the El Paso County had a total of 6182 deaths. Of these, 4799 were reported to the EPOME. Every reported case requires a preliminary screening by EPOME investigative staff to determine if it falls under the jurisdiction of the EPOME. Of those calls, a total of 3432 cases were **released**, with death certificates being signed by primary care physicians in the community. Additionally, 405 additional calls were related to cases that did not meet the guidelines as described above to be reported to the EPOME (**declined jurisdiction** cases). Jurisdiction was **accepted** on a total of 962 cases (260 inquests and 702 exam cases). A significant proportion [(38.3% (269))] of the exam cases came from local hospitals. In all the exam cases the bodies were physically examined at the EPOME. Full body autopsies were conducted on 645 cases and 57 underwent an *external examination* only. The EPOME does not perform partial autopsies.

There were a total of 1250 death scenes investigated. This represented an increase of 4.8% from those in 2017 (1192). A total of 898 bodies were transported to the EPOME facilities. Note that the number of transported bodies is greater than the exam cases; this is due to the fact that some *release* and some *inquest* cases are transported to the EPOME morgue as a courtesy to families in need of body storage while waiting to finalize funeral arrangements.

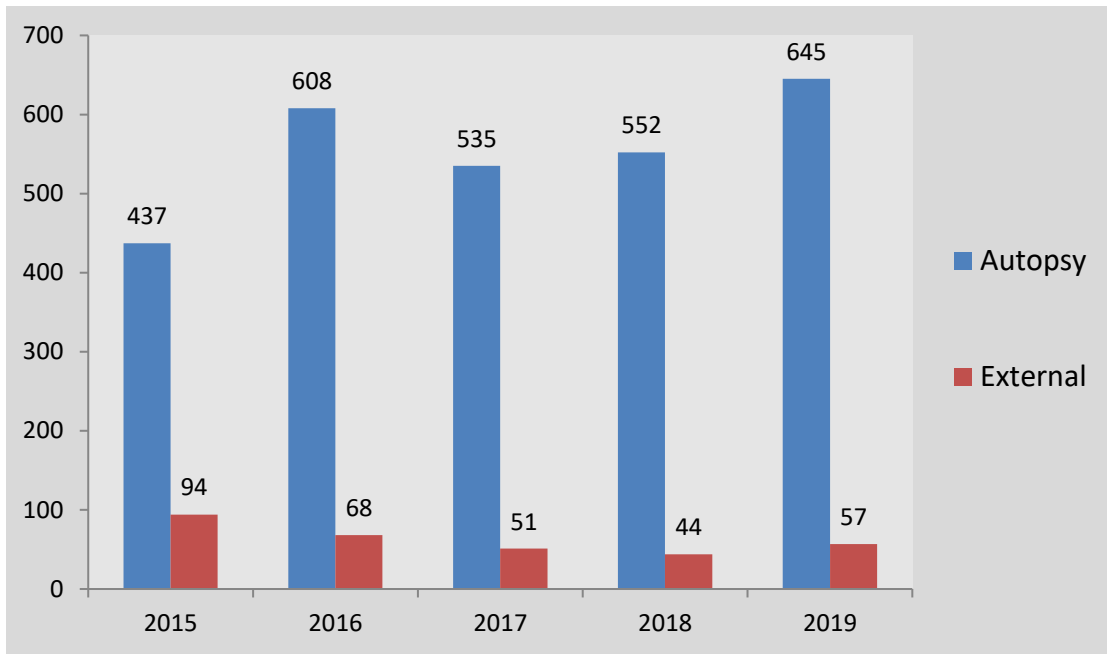
One case remained unidentified after examination (migrant found in water canal). There were no exhumations performed and no cases previously autopsied at local hospitals were retained by the EPOME in 2019.

EPOME DATA

TOTAL CASES HANDLED BY THE EPOME – 2015 to 2019

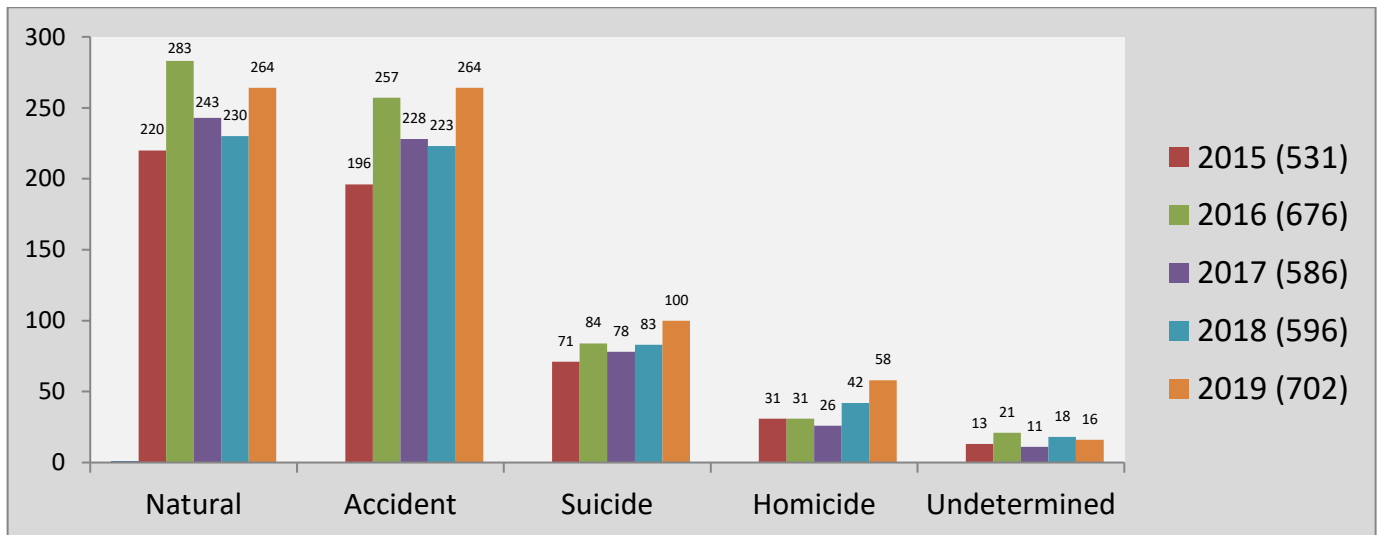


EXAM CASES 2015 to 2019– EXAMINATION TYPE

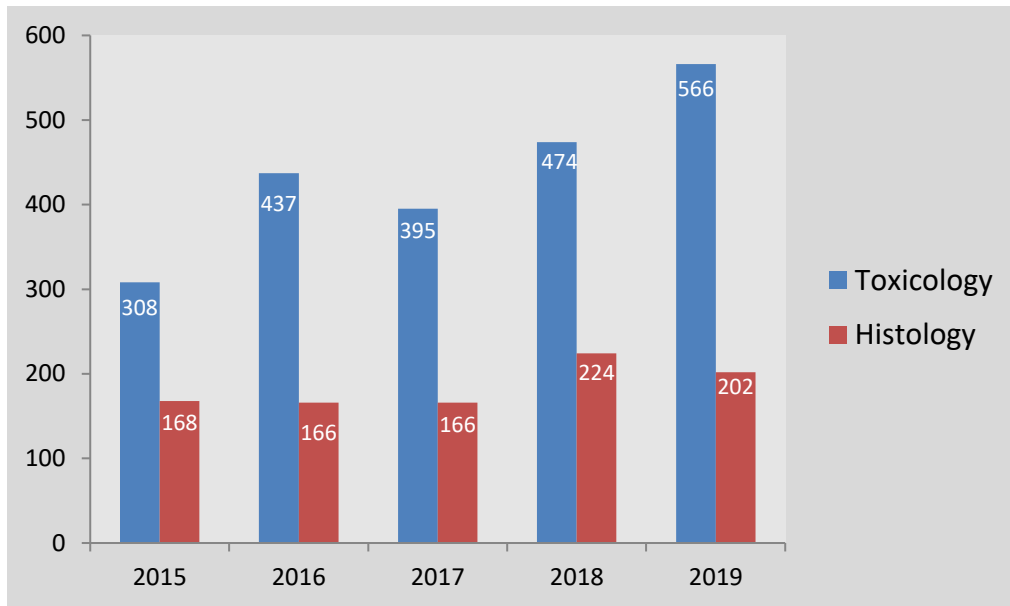


The autopsy to external examination ratio has gone from 4.6:1 in 2015 to 11.3:1 in 2019.

EXAM CASES 2015 to 2019 – MANNER OF DEATH



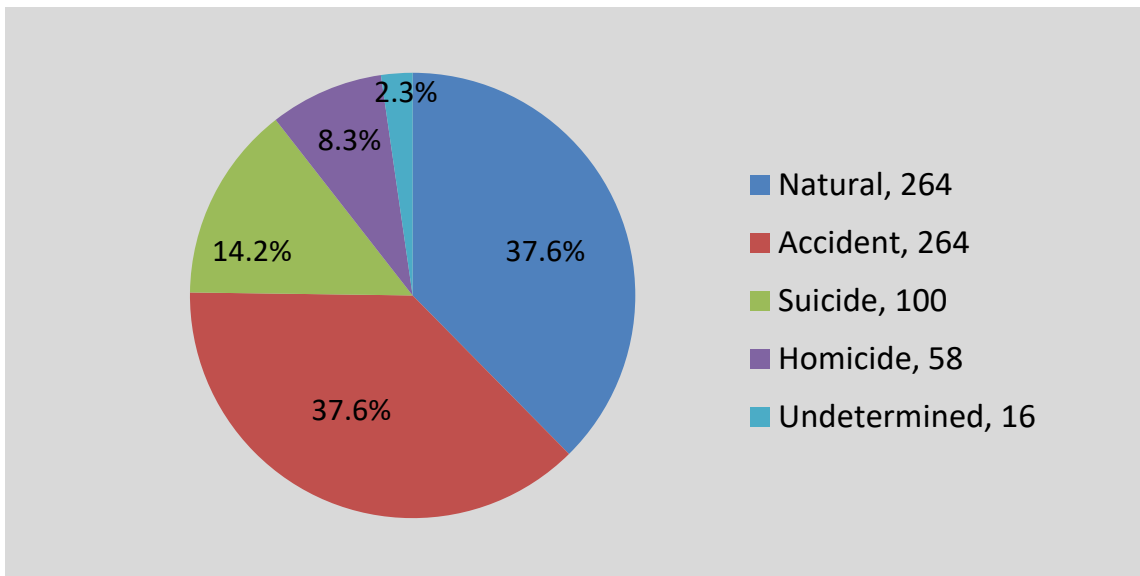
EXAM CASES 2015 to 2019– TOXICOLOGY & HISTOLOGY REQUESTS



Compared to 2018, there was an increase of 19% in toxicology studies in 2019.

EPOME 2019: EXAM CASES

2019 TOTAL EXAM CASES (702) – MANNER OF DEATH



2019 TOTAL EXAM CASES (702) – MANNER OF DEATH & AUTOPSY STATUS

	MANNER OF DEATH					TOTAL (%)
	NATURAL	ACCIDENT	SUICIDE	HOMICIDE	UNDETERMINED	
Full Autopsy (%)	230 (87%)	245 (93%)	96 (96%)	58 (100%)	16 (100%)	645 (92%)
Partial Autopsy (%)	0	0	0	0	0	0
External Exam (%)	34 (13%)	19 (7%)	6(4%)	0	0	57 (8%)
TOTAL	264	264	100	58	16	<u>702</u>

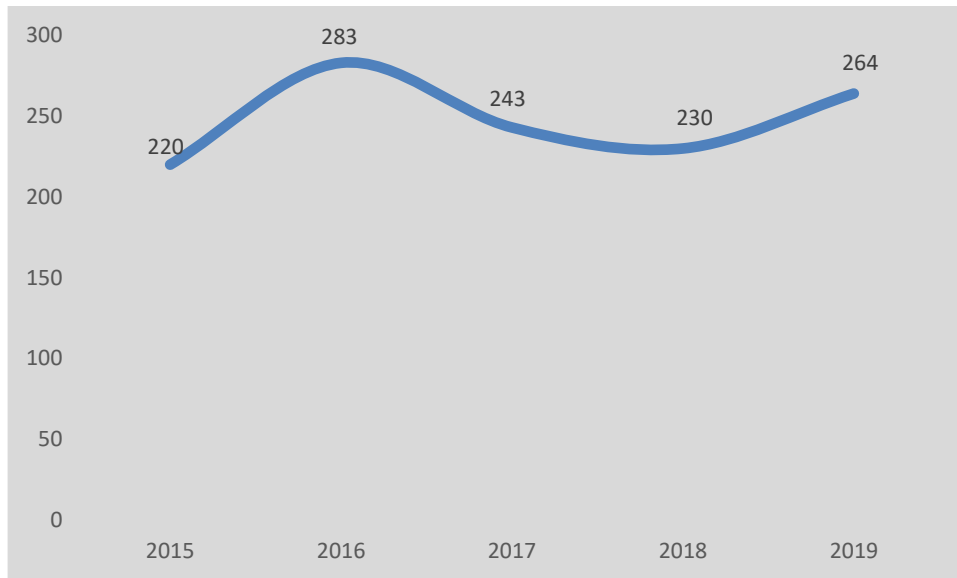
2019 TOTAL EXAM CASES (702) – SEX AND AGE GROUP

Age Group	MANNER OF DEATH									
	NATURAL		ACCIDENT		SUICIDE		HOMICIDE		UNDETERMINED	
	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀
Unknown	0	0	1*	0	0	0	0	0	0	0
<1	2	0	3	5	0	0	0	1	2	2
1-5	1	0	4	1	0	0	0	0	1	0
6-10	0	0	2	2	1	0	0	0	0	0
11-18	1	0	7	3	4	0	1	2	1	0
19-25	4	1	26	8	7	7	12	2	0	0
26-35	10	4	41	10	11	5	5	2	1	1
36-45	25	8	32	9	17	6	6	1	2	1
46-55	41	11	30	9	6	6	3	0	1	1
56-65	69	19	29	10	12	8	7	5	1	0
66-75	29	16	12	6	4	2	2	2	0	1
76-85	7	10	4	6	4	0	3	2	1	0
>85	1	5	3	1	0	0	1	1	0	0
TOTAL	190	74	194	70	66	34	40	18	10	6
♂: 500										
♀: 202										

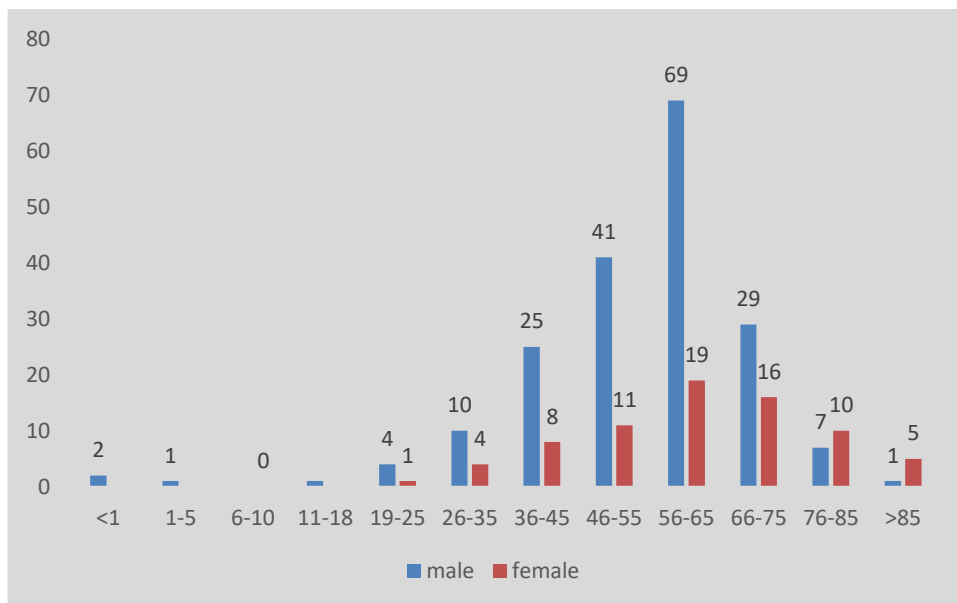
♂=male; ♀=female

*unidentified drowning victim

NATURAL DEATHS
NATURAL DEATHS: 2015 - 2019



2019 NATURAL DEATHS (264) – SEX AND AGE GROUP



Individuals aged 50 - 73 years comprised 62.5% of all people who succumbed to natural deaths in 2019. The male:female ratio for natural deaths investigated by the OME was 2.5:1 in 2019

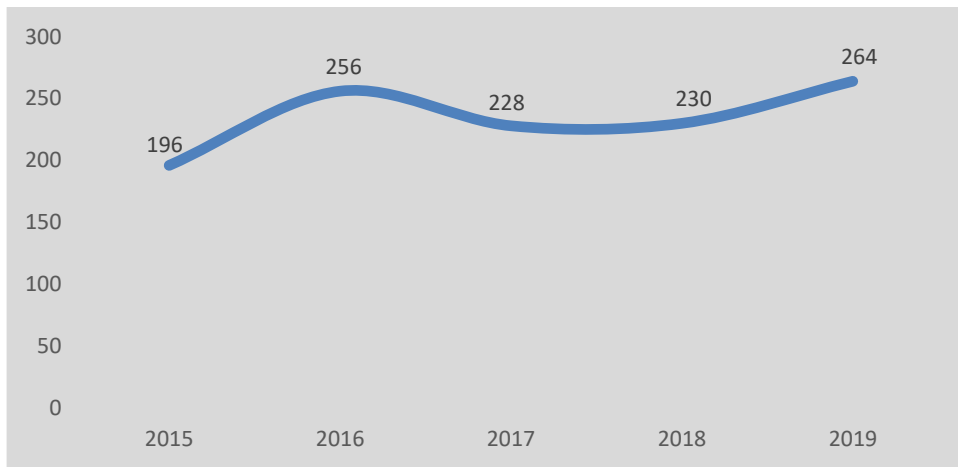
2019 NATURAL DEATHS (264) – CAUSE OF DEATH

Cardiovascular Disease	172
Complications of Chronic Alcohol Abuse	8
Liver Cirrhosis	8
Pulmonary Embolism	8
Diabetes Mellitus	7
Upper Gastrointestinal Tract Bleeding	6
Pneumonia/Bronchopneumonia	6
Chronic Obstructive Pulmonary Disease	5
Seizure Disorder	5
Spontaneous Intracerebral Hemorrhage	5
Complications of Abdominal Hernia	3
Undetermined Natural Causes	3
Congenital Anomalies	2
Pyelonephritis	2
Peritonitis	2
Septic Complications Following Prostatitis	1
Morbid Obesity	1
Pulmonary Fibrosis	1
Asthma	1
Small Bowel Perforation	1
HIV/AIDS	1
Pancreatitis	1
Dementia	1
Peptic Ulcer Disease	1
Alcoholic Ketoacidosis	1
Spastic Paraplegia	1
Cellulitis	1
Endocarditis	1
Volvulus	1
Multiple Coinfections (GI and Lung)	1
Cancer:	
Retroperitoneal Liposarcoma	1
Renal Cell Carcinoma	1
Esophagus	1
Prostate	1
Melanoma	1
Pancreas	1
Undetermined primary	1
TOTAL	264

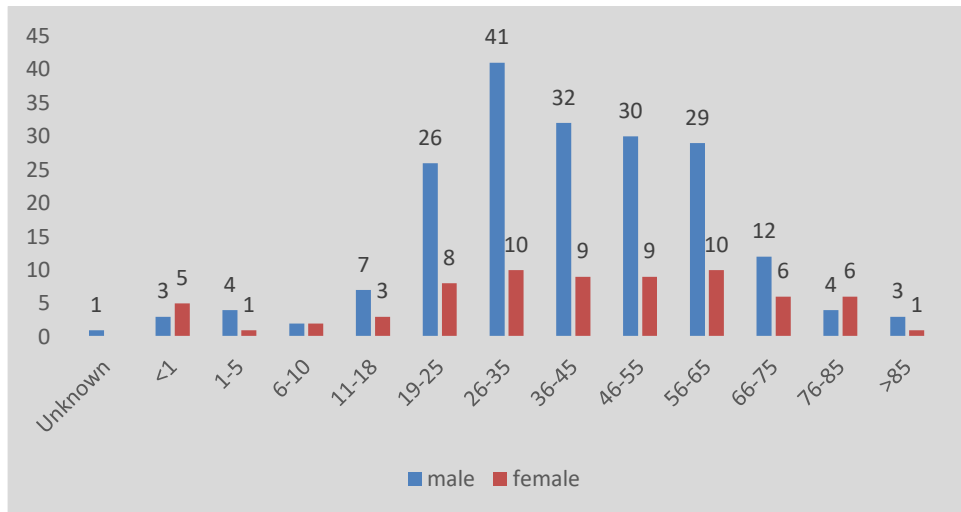
Cardiovascular Disease includes 172 cases with the following cause of death statements: *hypertensive and atherosclerotic cardiovascular disease (68), hypertensive heart disease (45), atherosclerotic cardiovascular disease (33), arteriosclerotic cardiovascular disease (4), ruptured aortic aneurysm (4), intracranial hemorrhage due to systemic hypertension (3), coronary artery thrombosis (3), acute myocardial infarction (2), dilated cardiomyopathy (2), aortic dissection (2), ruptured myocardial infarction (2), ruptured berry aneurysm (2), idiopathic cardiomyopathy (1), and Wolff-Parkinson-White syndrome (1).*

ACCIDENTS

ACCIDENTS: 2015 – 2019



2019 ACCIDENTS (264) – SEX AND AGE GROUP



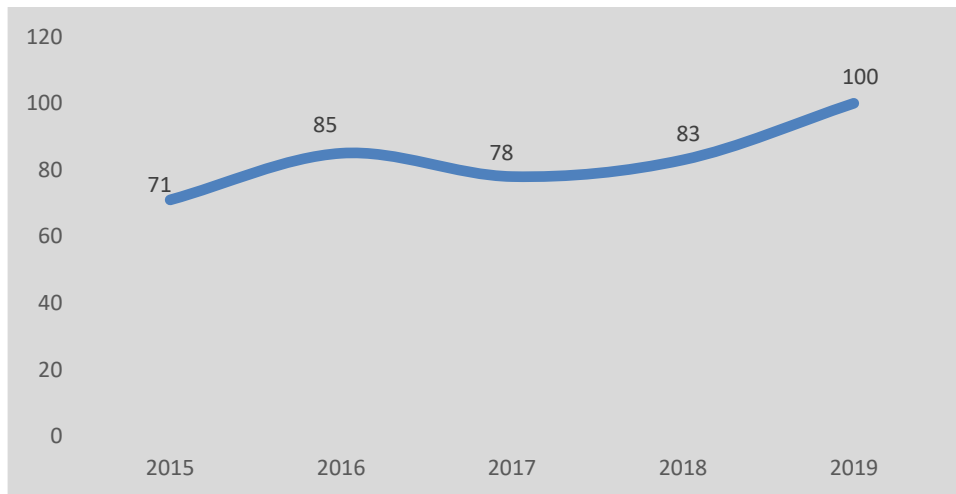
Accident victims were most frequently male (73%). Individuals between the ages of 23 – 50 years comprised 48.8% of all accidental fatalities.

2019 ACCIDENTS (264) – MECHANISM

Blunt Force Injuries	106
Acute Drug Toxicity	99
Drowning	19
Asphyxia – Choking	7
Asphyxia – Suffocation	6
Mixed Drug/Alcohol Toxicity	5
Environmental Heat Exposure	5
Carbon Monoxide Poisoning	5
Asphyxia – Traumatic	3
Alcohol Toxicity	3
Gunshot Wound	2
Environmental Cold Exposure	2
Thermal Injuries	1
Electrocution	1
TOTAL	264

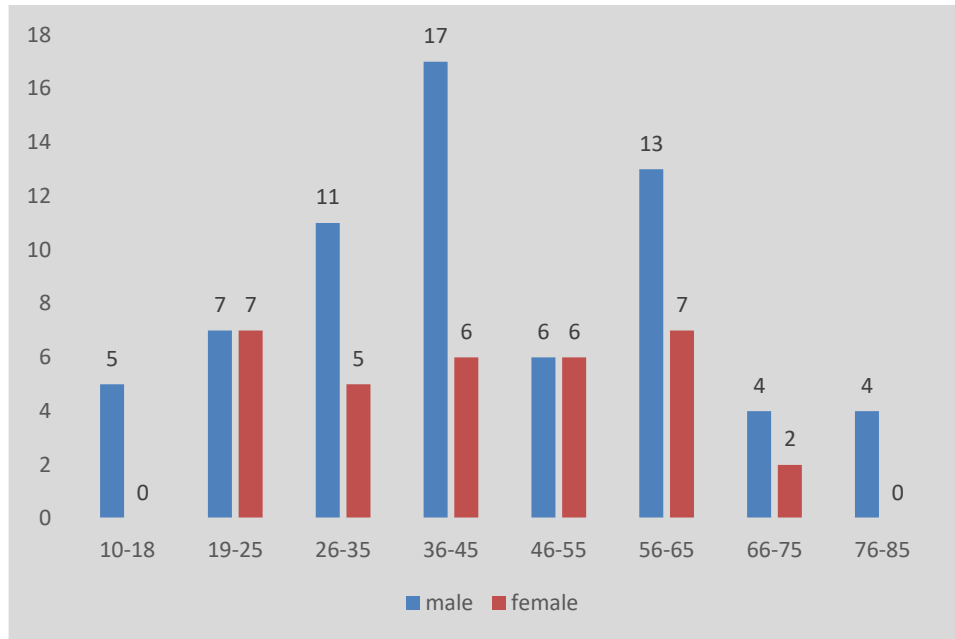
SUICIDES

SUICIDES: 2015 - 2019



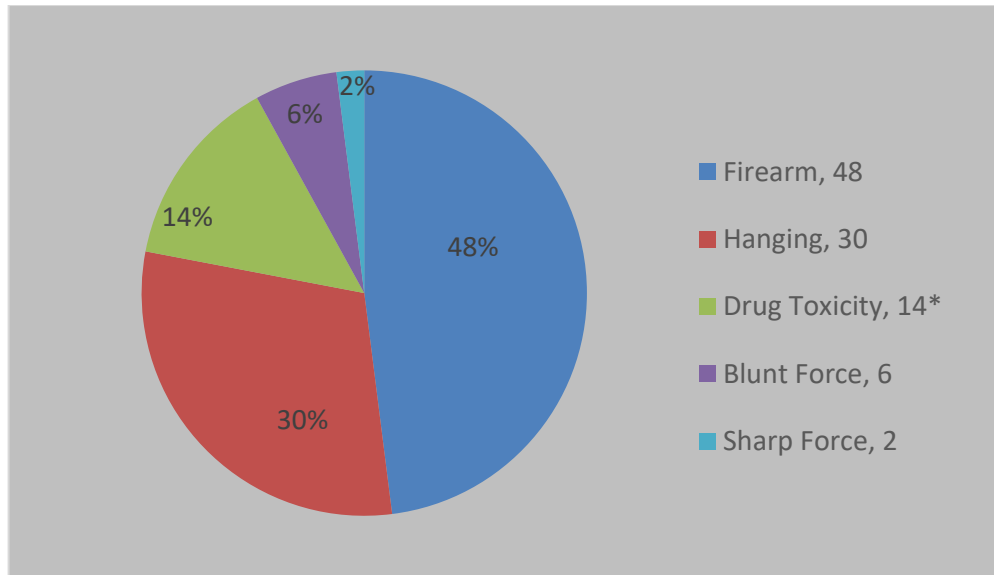
Compared to 2018, there was an increase of 20% in suicides in 2019

2019 SUICIDES (100) – SEX AND AGE GROUP



Suicide victims were most frequently male (67%). Individuals between the ages of 23 – 48 years comprised 49% of all suicides.

2019 SUICIDES (100) – METHOD

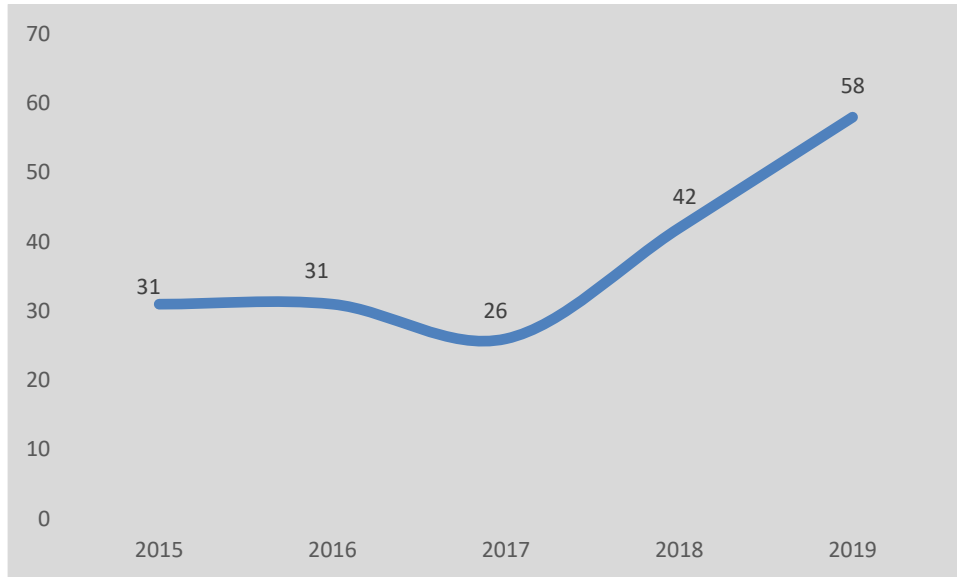


The vast majority (42 out of 48 [87.5%]) of suicide by firearm involved wounds to the head.

*Drug toxicity includes 14 cases with the following cause of death statements: Multiple drug toxicity (7), ethylene glycol poisoning (2), acetaminophen toxicity (1), carbon monoxide poisoning (1), paroxetine toxicity (1), olanzapine toxicity (1), and quetiapine toxicity (1).

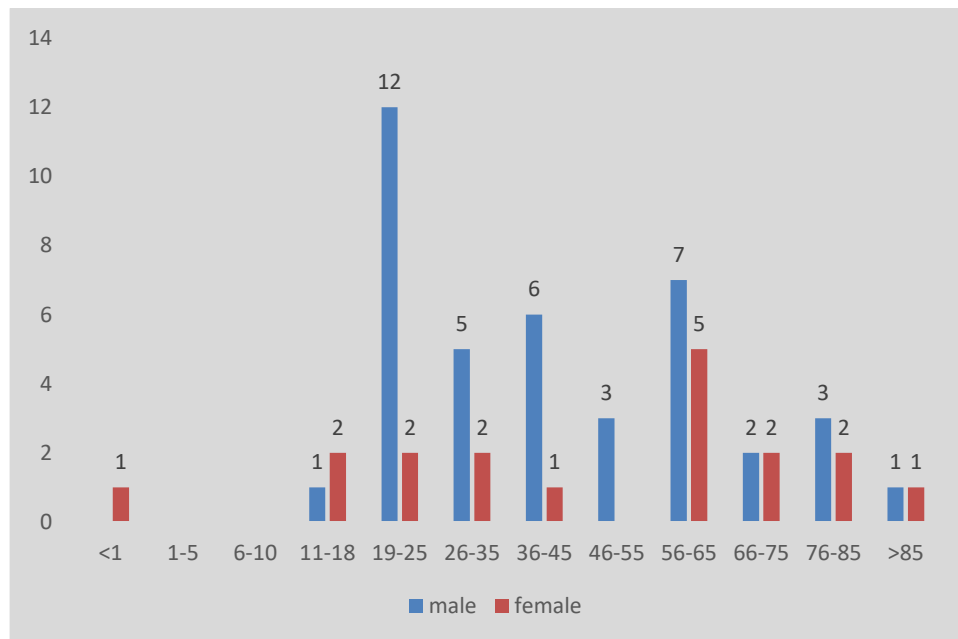
HOMICIDES

HOMICIDES: 2015 - 2019



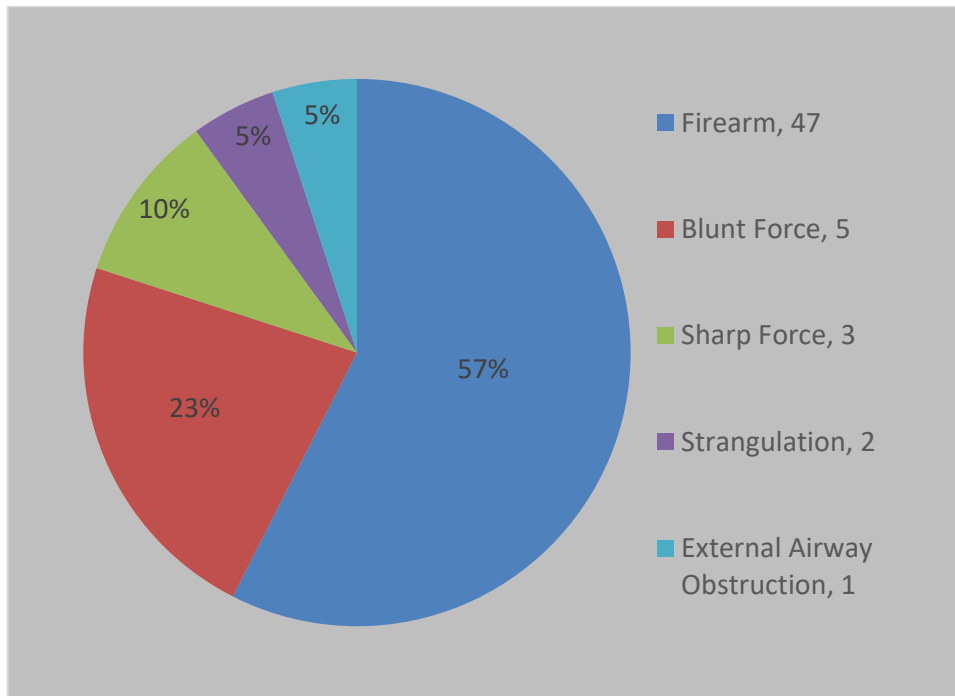
There was a 38% increase in homicides from 2018 (42 cases) to 2019 (58 cases). The August 3rd attack brought the homicide rate for El Paso County in 2019 to 8.5 per 100,000 people (compared to 5 per 100,000 in 2018).

2019 HOMICIDES (58) – SEX AND AGE GROUP



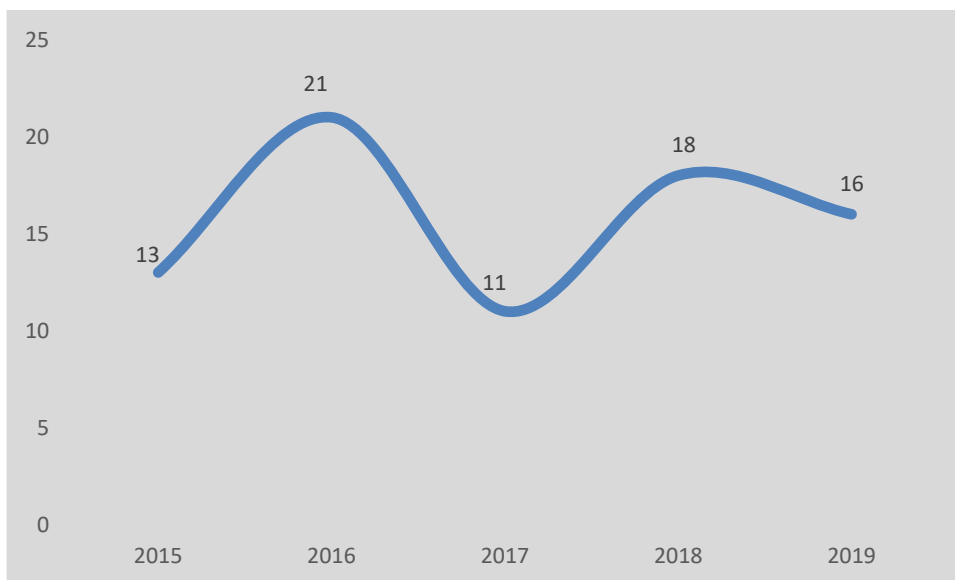
Homicide victims were most frequently male (68.9%).

2019 HOMICIDES (58) – MODE OF INFLICTION

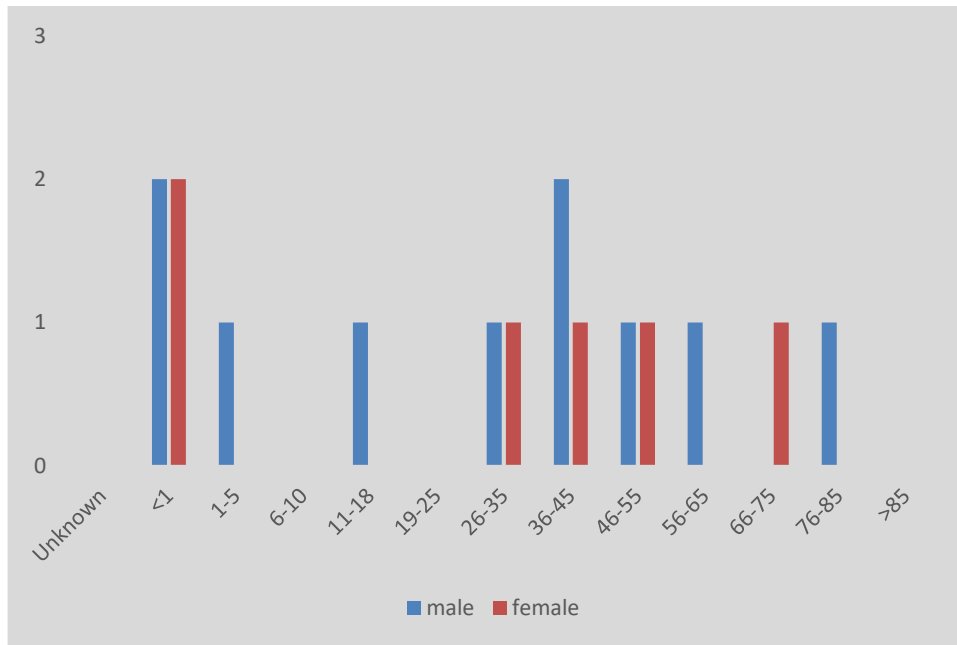


UNDETERMINED

UNDETERMINED MANNER OF DEATH: 2015 - 2019



2019 UNDETERMINED MANNER OF DEATH (16) – SEX AND AGE GROUP



CHILD FATALITY

In 2019, there were 46 deaths of individuals 18 years or age or younger, which included the deaths of 14 infants (a child in the first year of life).

2019 INFANT, AND CHILD DEATHS (46) – SUMMARY TABLE

	MANNER OF DEATH					TOTAL (%)
	NATURAL	ACCIDENT	SUICIDE	HOMICIDE	UNDETERMINED	
Full Autopsy (%)	3 (75%)	27(100%)	5 (100%)	4 (100%)	6 (100%)	98%
Partial Autopsy (%)	0	0	0	0	0	0
External Exam (%)	1 (25%)	0	0	0	0	2%
TOTAL	4	27	5	4	6	100%

2019 CHILD (<18 YEARS) FATALITY CASES (46) – MANNER OF DEATH & AUTOPSY STATUS

Age Group	MANNER OF DEATH									
	NATURAL		ACCIDENT		HOMICIDE		SUICIDE		UNDETERMINED	
	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀
<1	1	0	3	5	0	1	0	0	2	2
1-3	1	0	3	0	0	0	0	0	0	0
4-6	0	0	2	2	0	0	0	0	1	0
7-10	0	0	1	1	0	0	1	0	0	0
11-15	0	1	2	1	1	0	3	0	1	0
16-18	1	0	5	2	0	2	1	0	0	0
TOTAL	3	1	16	11	1	3	5	0	4	2
♂ : 29										
♀ : 17										
total: 46										

♂=male; ♀=female

2019 CHILD DEATHS (AGE: 1-18) – CAUSE OF DEATH (32)

Blunt Force Injury*	12
Firearm**	6
Drowning	4
Hanging	2
Choking	2
Diabetes Mellitus	1
Undetermined	1
Asthma	1
Environmental Heat Exposure	1
Strangulation	1
Intestinal and Lung Infections	1
TOTAL	32

*includes: multiple injuries (6), injuries of head (4), and injuries of torso (2).

** includes suicides (3), homicides (2) and undetermined manner (1)

2019 INFANT (<1Y) DEATHS (14) – CAUSE OF DEATH

Asphyxia – Suffocation	6
Undetermined	4
Blunt Head Trauma	1
Maternal Trauma - Placental Abruption	1
External Airway Obstruction	1
Congenital Anomalies	1
TOTAL	14

CHILD FATALITY – SUMMARY

Childhood deaths represented 6.5 % of all the exam cases investigated by the EPOME in 2019. Male decedents comprised 63% of the total deaths in children. The most common manner of death among children was accident (80%).

TOXICOLOGY-RELATED DEATHS

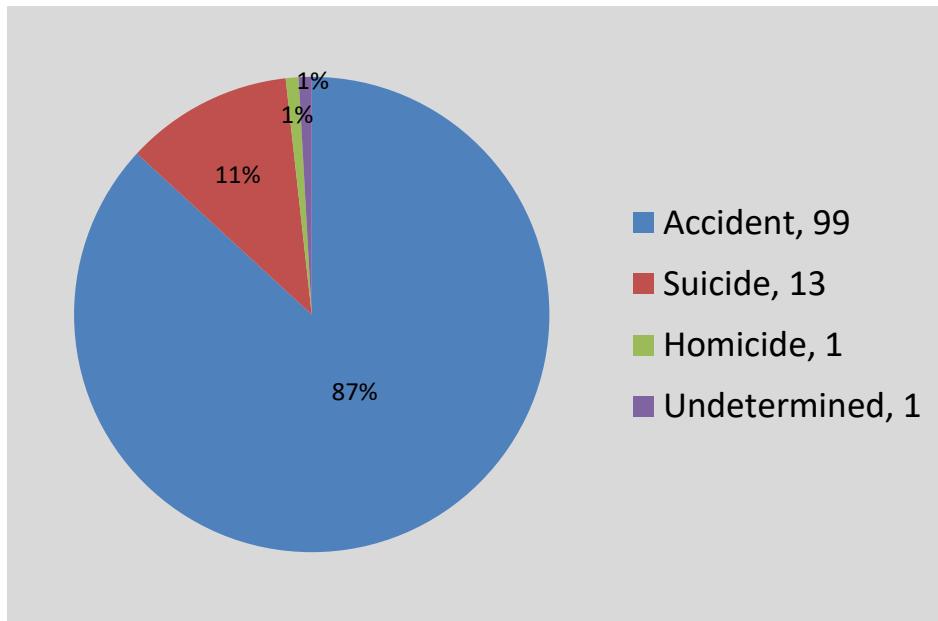
2019 TOXICOLOGY-RELATED DEATHS (88) – SUMMARY

Age Group	MANNER OF DEATH							
	ACCIDENT		HOMICIDE		SUICIDE		UNDETERMINED	
	♂	♀	♂	♀	♂	♀	♂	♀
20-29	14	5	0	0	0	1	0	0
30-39	18	8	0	0	0	2	0	0
40-49	11	6	0	0	0	2	0	1
50-59	20	4	1	0	1	4	0	0
60-69	6	6	0	0	0	3	0	0
70-79	1	0	0	0	0	0	0	0
TOTAL	70	29	1	0	1	12	0	1
♂ : 72								
♀ : 42								
total: 114								

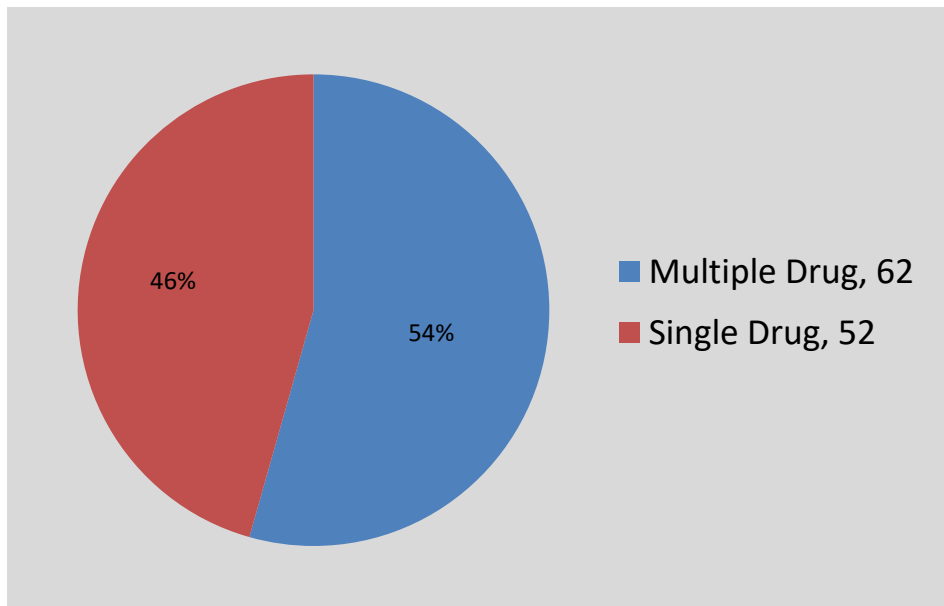
♂=male; ♀=female

By definition, toxicology-related deaths cannot be natural in manner. Accidents comprised 86% of all toxicology-related deaths. Half of the decedents who succumbed to drug toxicity were 44 years old or younger. Regarding accidental toxicology-related deaths, the male-to-female ratio is 2.4:1, while the ratio for toxicology-related suicides had a 12:1 female-to-male ratio.

2019 TOXICOLOGY-RELATED DEATHS (114) – Manner of Death



2019 TOXICOLOGY-RELATED DEATHS (114) – Single vs. Multiple Drugs



2019 SINGLE DRUG-RELATED DEATHS (52) – Drug Involved

Drug Mentioned	#cases*
Cocaine	16
Heroin	9
Fentanyl	6
Methamphetamine	4
Ethanol	4
Morphine	3
Hydrocodone	6
Isopropanol	2
Ethylene glycol	2

**only drugs involved in ≥2 cases are mentioned*

2019 MULTIPLE DRUG-RELATED DEATHS (62) –Most Frequently Involved Drugs

Drug Involved	#cases
Heroin	21
Methamphetamine	17
Cocaine	13
Fentanyl	12
Alprazolam	11
Ethanol	9
Diphenhydramine	8
Zolpidem	7
Morphine	7
Hydrocodone	6
Trazodone	6
Amitriptyline	5
Tramadol	5
Citalopram	5
Gabapentin	5
Codeine	4
Cyclobenzaprine	4
Quetiapine	4

2019 TOXICOLOGY-RELATED DEATHS – Multiple-Drug-Related Deaths (62): Drugs Involved

MANNER	Number of Drugs					
	2	3	4	5	6	>7
SUICIDE						
1	23, 80					
2			14, 42, 80, 85			
3						3, 8, 15, 23, 30, 58
4		23, 66, 81				
5						3, 5, 18, 33, 58, 64, 65, 82
6			4, 57, 75, 85			
7					30, 35, 38, 57, 79, 85	
8				5, 15, 17, 21, 35		
ACCIDENT						
1		4, 47, 71				
2		14, 19, 32, 64				
3		17, 37, 50				
4	17, 32					
5	58, 79					
6		22, 30, 37				
7	3, 65					
8	37, 51					
9			3, 4, 78, 82			
10						10, 30, 45, 72, 79, 81, 82
11		5, 30, 51				
12	37, 51					
13	37, 51					
14				8, 23, 30, 54, 85		
15			19, 32, 42, 58			
16	37, 51					
17	17, 37					
18		17, 50, 51				
19		6, 38, 85				
20	37, 51					
21						14, 23, 35, 45, 58, 68, 70
22	3, 17					
23					3, 5, 37, 51, 79, 82	
24		23, 33, 42				
25						22, 23, 32, 41, 65, 66, 81
26		17, 32, 37				
27	37, 51					
28			17, 18, 32, 38			
29	32, 51					
30	3, 32					
31	17, 37					
32	32, 37					
33		17, 37, 51				
34	37, 51					
35	37, 51					
36	5, 51					
37			18, 37, 38, 41			
38	5, 51					
39	37, 38					
40	8, 30					

MANNER	Number of Drugs					
	2	3	4	5	6	>7
ACCIDENT						
41	23, 36					
42					3, 4, 18, 38, 41, 72	
43						18, 19, 22, 72, 79, 80, 81, 85
44						3, 9, 14, 35, 38, 58, 81
45	37, 51					
46			8, 17, 30, 62			
47			14, 22, 50, 72			
48	3, 32					
49		17, 30, 37				
50	33, 51					
51						4, 19, 35, 48, 58, 80, 81
52		3, 17, 32				
53		17, 37, 51				
UNDETERMINED						
1	16, 34					

2019 TOXICOLOGY-RELATED DEATHS – Multiple-Drug-Related Deaths: Medication/Drug Key

Acetaminophen	1	Ethanol	30	Mirtazapine	59
Acetone	2	Ethylene Glycol	31	Naproxen	60
Alprazolam	3	Fentanyl	32	Olanzapine	61
Amitriptyline	4	Fluoxetine	33	Opiates (NOS)	62
Amphetamine	5	Fluvoxamine	34	Oxazepam	63
Aripiprazole	6	Gabapentin	35	Oxycodone	64
Bath Salts	7	Haloperidol	36	Oxymorphone	65
Benzodiazepine (NOS)	8	Heroin	37	Paroxetine	66
Bupropion	9	Hydrocodone	38	Phenylpropanolamine	67
Butalbital	10	Hydroxychloroquine	39	Phentermine	68
Buspirone	11	Hydrogen Sulfide	40	Pentobarbital	69
Carisoprodol	12	Hydromorphone	41	Promethazine	70
Chlorphenamine	13	Hydroxyzine	42	Pseudoephedrine	71
Citalopram	14	Inhalants (NOS)	43	Quetiapine	72
Clonazepam	15	Isopropanol	44	Risperidone	73
Clozapine	16	Lamotrigine	45	Salicylates	74
Cocaine	17	Levamisole	46	Sertraline	75
Codeine	18	Loperamide	47	Synth. Cannabinoid	76
Cyclobenzaprine	19	Lorazepam	48	Temazepam	77
Desipramine	20	Meclizine	49	Tetrafluoroethane	78
Dextromethorphan	21	Methadone	50	Topiramate	79
Diazepam	22	Methamphetamine	51	Tramadol	80
Diphenhydramine	23	Methane	52	Trazodone	81
Difluoroethane	24	Methanol	53	Venlafaxine	82
Donepezil	25	Methylphenidate	54	Verapamil	83
Doxepine	26	Metroprolol	55	Ziprasidone	84
Doxylamine	27	Midazolam	56	Zolpidem	85
Duloxetine	28	Mirtazapine	57	Zopiclone	86
Ethane	29	Morphine	58		

MOTOR VEHICLE RELATED DEATHS

2019 MOTOR VEHICLE RELATED DEATHS (103) – SUMMARY TABLE

Age Group	♂	♀
<1	0	1
1-5	2	0
6-10	1	1
11-18	6	2
19-25	19	5
26-35	17	0
36-45	8	2
46-55	10	1
56-65	11	1
66-75	6	5
76-85	2	2
>85	0	1
TOTAL	82	21

♂=male; ♀=female

There were 103 motor vehicle related fatalities in 2019. All but five consisted of accidents (four suicides [3.8%]; one homicide [0.9%]). Males comprised 79.6% of all motor vehicle related deaths in 2019.

2019 MOTOR VEHICLE RELATED DEATHS (103) – STATUS OF DECEDENT

Pedestrian struck by motor vehicle	42
Motor vehicle – driver	30
Motorcyclist – operator	13
Motor Vehicle – Passenger*	9
All-terrain vehicle - driver	3
Pedestrian struck by train**	2
Accident involving forklift	2
Motor vehicle crashing into residence	1
Motorcycle passenger	1
TOTAL	103

*includes one decedent hit by train while on a motor vehicle and one fetal demise due to maternal trauma following motor vehicle crash.

**includes one accident and one suicide

FORENSIC CONSULTATIONS

On occasion, a detailed forensic neuropathology consultation is required to further characterize important anatomic findings in selected cases. Likewise, forensic cardiovascular pathology, forensic anthropology, and forensic odontology consultations are readily available to the EPOME.

YEAR	Neuropathology	Cardiovascular	Anthropology
2015	14	0	3
2016	12	0	2
2017	7	0	0
2018	13	0	1
2019	17	0	1

ORGAN AND TISSUE DONATION

The EPOME allows an organ procurement organization (OPO) to approach families who wish to donate tissues from the deceased. These donations include skin, musculoskeletal tissue, and cardiovascular tissue (heart valves). Similarly, the EPOME also works with another OPO, fostering in-hospital postmortem organ donation. In 2019, there were **49 donors**, who impacting the lives of local patients in several El Paso Hospitals, including: University Medical Center, Del Sol Medical Center, El Paso Children’s Hospital, Sierra Providence East, and Las Palmas Medical Center. Furthermore, the EPOME started working in coordination with the Southwest Brain Bank (SWBB), a brain tissue repository for research in mental illness, for altruistic postmortem donation. In 2019, there were 7 generous families that donated tissue for this laudable endeavor.

CREMATION AUTHORIZATIONS

In Texas, Medical Examiners are required by law to sign an authorization before a body is cremated. The forensic pathologists at the EPOME review each cremation authorization form and the respective death certificate before authorizing cremation. The table below shows the number of cremation authorizations signed by our forensic pathologists over the recent years.

YEAR	Cremations
2015	3025
2016	3084
2017	3113
2018	3278
2019	3392

UNIDENTIFIED BODIES

The EPOME interacts with law enforcement agencies to positively identify individuals. A commonly used technique for identification is fingerprint comparison. Other scientific methods of identification (ID) include: radiograph comparison (dental or body), medical devices, and DNA extraction. Over the past 5 years, 314 decedents have been positively identified using fingerprints.

YEAR	Fingerprint ID
2015	24
2016	49
2017	51
2018	85
2019	105

UNCLAIMED BODIES

El Paso County General Assistance Program provides financial aid to help families who have lost a loved one pay for the funeral and cremation of the individual's remains. Over the past 5 years, 104 cases have been referred to this program.

YEAR	Unclaimed Bodies
2015	26
2016	25
2017	17
2018	14
2019	22

MEDICAL EXAMINER PERFORMANCE AUDIT

TURNAROUND TIME FOR FINAL AUTOPSY REPORT

The EPOME adopts national standards as set forth by the National Association of Medical Examiners (NAME). Regarding final written autopsy reports, NAME recommends that 90% of all exam cases are finalized within 60 calendar days in order to avoid a phase II (minor) deficiency, and that 90% of all exam cases are finalized within 90 calendar days in order to avoid a phase I (major) deficiency.

2019 EPOME EXAM CASES (702) – TIME FROM AUTOPSY TO FINAL WRITTEN AUTOPSY REPORT

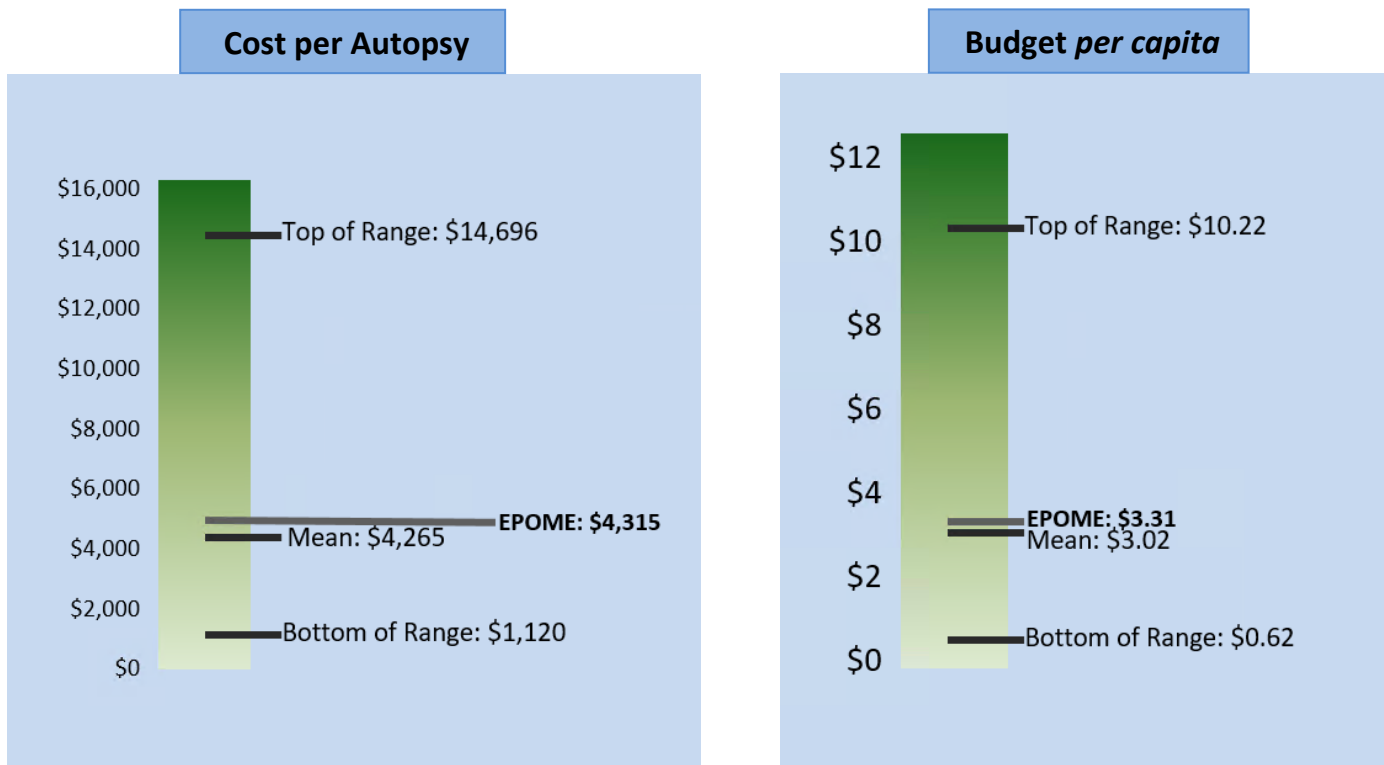
Time for final report	No. of cases (%)
Within 60 days	688 (98)
Within 90 days	695 (99)
>90 days	7 (1)

THE COST OF MEDICOLEGAL DEATH INVESTIGATION

A rule-of-thumb figure for providing quality medicolegal death investigation has been said to be about \$3 per person per year, according to a study that included nearly 60 NAME-accredited offices (*J Forensic Sci, September 2013, Vol. 58, No. 5*). In this study, the average **cost per autopsy** (total budget/total number of autopsies) had a mean of \$4265 per autopsy and ranged from \$1120 to \$14,696. The **budget per capita** (total budget/total number of inhabitants of jurisdiction) had a mean of \$3.02, although there was a very wide range (\$0.62–\$10.22). Another study conducted in the State of Colorado (available at www.denvergov.org/auditor) calculated the **cost per death reported** (total budget/total reported deaths) and found an average cost per death reported of \$755 for the NAME accredited medical examiner offices in their jurisdiction.

In 2019, the EPOME has a *cost per death reported* of **\$580**; a *cost per autopsy* of **\$4315**; and a *budget per capita* of **\$3.31/year**.

EL PASO COUNTY COST OF MEDICOLEGAL DEATH INVESTIGATION
(AS COMPARED WITH OTHER 60 NAME-ACCREDITED OFFICES).



ACADEMIC OUTREACH, COMMUNITY INVOLVEMENT, AND PROFESSIONAL DEVELOPMENT

The EPOME regularly interacts with the community in a variety of ways such as academic outreach (lectures in academic institutions such as local High Schools, Colleges and Universities), inter-agency outreach (local Law enforcement agencies, fire department) and cooperative efforts (invited lectures, County Child Fatality Review Team). The EPOME also provides teaching in forensic pathology for students at the Paul L Foster School of Medicine, Texas Tech University Health Sciences Center and fulfills, through courtroom testimony as expert witness, the legal obligations related to its involvement in medicolegal death investigation.

ACADEMIC OUTREACH AND COMMUNITY INVOLVEMENT

I. LECTURES AND PRESENTATIONS

Lorenzo Flores – Forensic Photographer

- 01/09/2019 120th DC Judge Maria Salas-Mendoza-Presentation.
- 02/27/2019 Eastwood Middle School-Presentation.
- 04/26/2019 J. M. Hanks H.S.-Presentations.
- 07/31/2019 Juvenile Probation Department-Presentation.
- 10/24/2019 John Drugan School-Career Day.

Mario A Rascon, MD – Chief Medical Examiner

- 11/04/19 Cutaneous Conditions that Simulate Trauma. XIX FEDPATMEX National Meeting.
- 11/04/19 Pitfalls in Postmortem Neck Dissection. XIX FEDPATMEX National Meeting.
- 11/04/19 Histopathology of Recreational Drug Abuse. XIX FEDPATMEX National Meeting.
- 10/08/19 A Career in Pathology. Pathology interest group TTUHSC PLFSOM.
- 09/24/19 A Quality Improvement Project for Autopsy Photography. CAP annual meeting.
- 06/19/19 A Primer on Death Certification. Internal Medicine Grand Rounds. UMC.
- 05/16/19 Forensic Pathology for healthcare professionals. Surgery/Trauma Grand Rounds. UMC.
- 04/17/19 Forensic Science Club. UTEP.

Janice Diaz-Cavallieri – Deputy Medical Examiner

- Cause and manner of death determination. EPOME.

II. INTERNSHIP PROGRAM

Spring

- Karla Olivas , Morgue, Biology Bio Med
- Gabriela Macias, Investigations, UTEP
- Gema Espinoza, Investigations, UTEP
- Monica Arroyo, Investigations, UTEP

Summer

- Ashlee Burkett, Morgue, UTEP Forensic Science
- Cecil Guardado, Morgue, Biology Bio Med
- Brandon Vecchio, Investigations, West Virginia University
- Taylor Hogan, Investigations, NMSU
- Juan Ramirez, Investigations, UTEP

Fall

- Vihaney Vale, Morgue, UTEP American Medical Student Association , Collegiate TT
- Sarah Arvizu, Morgue, St. Edwards Univ., Forensic Science
- Adriana Rivera, Morgue, National Univ. college, CJ with Forensic Investigation
- Crystal Barraza, Investigations, UTEP
- Rachel Chavez, Investigations, Trinity University

PROFESSIONAL DEVELOPMENT

I. INVESTIGATIVE STAFF

A. Seminars

- Gabriela Macias. Night time photography. El Paso OME.
- Jose Romero. Death and homicide investigations. Public agency training council.
- Miguel Aguirre. Creating resiliency in vulnerable populations.
- Christina Enriquez, Morgan Riddle, Kathy Martinez, Gabby Macias, Ashley Rios, Miguel Aguirre, Jorge Ordaz, Jose Romero, Annabel Salazar. Gang identification training. El Paso Sheriff's Office.
- Christina Enriquez, Morgan Riddle, Kathy Martinez, Gabby Macias, Ashley Rios, Miguel Aguirre, Jorge Ordaz, Jose Romero, Annabel Salazar. Active shooter training. El Paso Sheriff's Office.
- Morgan Riddle, Ashley Rios. El Paso international airport tabletop. El Paso International airport.
- Christina Enriques, Morgan Riddle. El Paso County leaders training: transitioning to supervisor. El Paso County Human Resources.
- Miguel Aguirre. Medicolegal Death Investigation. Death Investigation Training Academy.
- Annabel Salazar. Dealing effectively with unacceptable employee behavior. El Paso County Human Resources.
- Jose Romero, Gabriela Macias, Kathy Martinez, Annabel Salazar. FBI/Union Pacific training.

B. Certifications

American Board of Medicolegal Death Investigators (ABDMI) Registry Certification attained in 2019

- Ashley Rios, D-ABMDI

II. PATHOLOGY FACULTY

Juan U Contin, MD

- Mid-Winter Medicine Update Conference in Ruidoso. 02/19. Ruidoso, NM.

Janice Diaz-Cavallieri, MD

- 43rd annual review and recent practical advances in pathology. 02/19. Miami, FL
- National Association of Medical Examiners (NAME) 2019 Annual Meeting. 10/19 Kansas City, MO

Mario A Rascon, MD

- Moderator: Pathology/Biology Section (Radiology), during American Academy of Forensic Sciences (AAFS) Annual meeting. 02/19. Baltimore, MD
- College of American Pathologists annual meeting. 09/19. Orlando, FL
- Masters in Health Care Management Alumni weekend. 04/19. Boston, MA

GLOSSARY

Abortion - the premature exit of the products of conception (fetus, fetal membranes, or placenta) from the uterus.

Accident – the *manner of death* used when, in other than *natural deaths*, there is no evidence of intent to harm

Autopsy – a detailed postmortem external and internal examination of a body to determine cause of death, collect evidence, determine the presence or absence of injury. The autopsy includes examination of the internal organs and structures after dissection.

Cause of Death – a disease, injury, or poison resulting in a physiological derangement or biochemical disturbance that is incompatible with life. The result of post-mortem examination, including autopsy and toxicological findings, combined with information about the medical history of the decedent serves to establish the *cause of death*. The cause of death can result from different circumstances and *manner of death*. For example, the same cause of death, gunshot wound, can result under suicidal, homicidal, or accidental manners.

Children – individuals 18 years of age and younger.

Ethanol – an alcohol, which is the principal toxicant in beer, liquor, and wine.

External Examination– a detailed postmortem external examination of a body, conducted when a full autopsy is determined to not be required.

Homicide – the *manner of death* in which death results from the harm of one person by another.

Infant - a child in the first year of life

Inquest - an investigation into the cause and circumstances of the death of a person, and a determination, made with or without a formal court hearing, as to whether the death was caused by an unlawful act or omission.

Physician: a practicing doctor of medicine or doctor of osteopathic medicine who is licensed by the Texas State Board of Medical Examiners under Subtitle B, Title 3, Occupations Code.

Jurisdiction – the extent of the Office of the Medical Examiner’s authority over deaths. The EPOME authority covers every death which is due or which might reasonably have been due to a violent or traumatic injury or accident, or is of public health interest and will be investigated by the Medical Examiner.

Manner of Death – the general category of the circumstances of the event which causes the death. The categories are *accident, homicide, natural, suicide, and undetermined*.

Natural – the *manner of death* used when solely a disease causes death. If death is hastened by an injury, the *manner of death* is not considered natural.

Office of the Medical Examiner – the office within the El Paso County that is responsible for the investigation of sudden, violent, or unexpected death.

Opiate – a class of drugs, including morphine, codeine, and heroin, derived from the opium poppy plant (*Papaver somniferum*).

Pending – the *cause of death* and *manner of death* are to be determined pending further investigation (such as toxicological, histological and/or neuropathological testing).

Stillbirth – the death of a fetus after the 20th week of pregnancy. Also known as Intrauterine Fetal Demise (IUFD)

Stimulant: a class of drugs, including cocaine and oral amphetamines, whose principal action is the stimulation of the central nervous system.

Sudden Unexpected Infant Death - the death of an infant less than one year of age in which investigation, autopsy, medical history review and appropriate laboratory testing fail to identify a specific cause of death.

Sudden Infant Death Syndrome – (SIDS) a broad, heterogeneous group of unknown causes of death in infants which, since its creation in 1969, evolved from a descriptor into a diagnosis as if it were a singular disease or disorder. Forensic pathologists are migrating away and abandoning the use of SIDS as a diagnostic phrase.

Suicide – the *manner of death* in which death results from the purposeful attempt to hurt oneself.

Undetermined – the *manner of death* for deaths in which there is insufficient information to assign another manner. An undetermined death may have an undetermined cause and manner of death; an undetermined cause of death and a known manner; or a known cause of death and an undetermined manner.

2019 El Paso County Office of the Medical Examiner Annual Report

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Cover Photo: Therapy dogs outside OME building following the August 3rd, 2019 attack.

Created by:

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