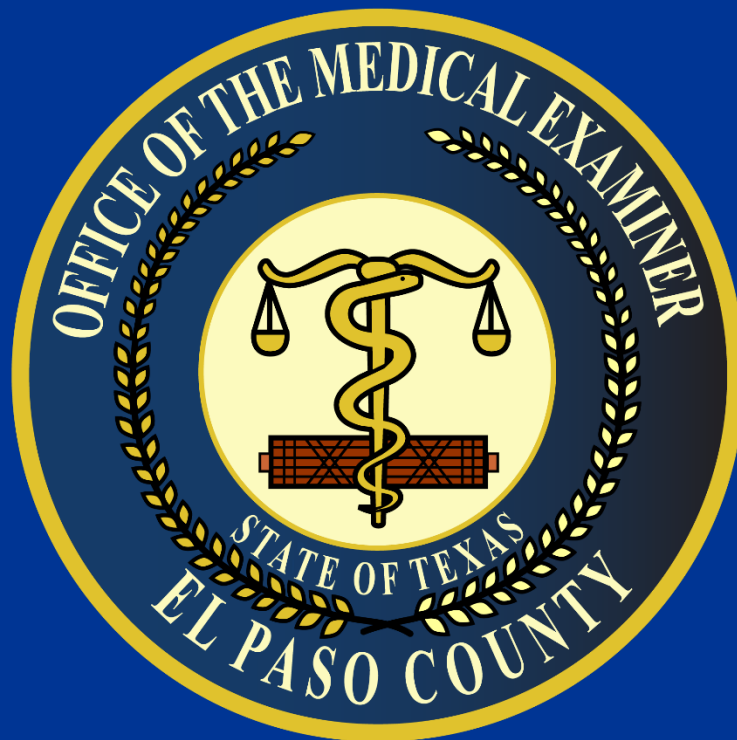




# Office of the Medical Examiner

## 2021 Annual Report



El Paso County, Texas





**Office of the Medical Examiner**

Mario A Rascon, MD, MHCM  
*Chief Medical Examiner*

Juan U Contin, MD  
Janice Diaz-Cavallieri, MD  
*Deputy Medical Examiners*

Irene Santiago  
*Chief of Operations*

Annabel Salazar, D-ABMDI  
*Chief Investigator*

Jose "Louie" Romero, D-ABMDI  
*Deputy Chief Investigator*

Miguel Aguirre, D-ABMDI  
Christina Enriquez, D-ABMDI  
Kathy Martinez, D-ABMDI  
Jorge Ordaz, D-ABMDI  
Morgan Riddle, D-ABMDI  
Ashley Rios, D-ABMDI  
Brandon Vecchio  
*Investigators*

Lorenzo Flores  
*Forensic Photographer*

Concepcion Grajeda  
*Administrative Specialist - Intermediate*

David Medina  
*Administrative Specialist*

Hilda Amador  
*Office Assistant*

Olga Chavez  
*Morgue Manager*

Sal Tellez  
*Morgue Attendant - Intermediate*

Alfredo Vazquez-Goche  
Arturo Velasquez  
*Morgue Attendants*

**Commissioners Court**

Ricardo A Samaniego  
*County Judge*

Carlos Leon  
*Commissioner, Precinct 1*

David Stout  
*Commissioner, Precinct 2*

Iliana Holguin  
*Commissioner, Precinct 3*

Carl L Robinson  
*Commissioner, Precinct 4*

El Paso County Office of the Medical Examiner  
4505 Alberta Drive  
El Paso, TX. 79905  
Telephone: (915) 532-1447 Fax: (915) 532-6630  
[epcounty.com/medicalexaminer](http://epcounty.com/medicalexaminer)

## 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 includes: 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 OME remains committed to helping grieving families through high-quality, compassionate, and timely service during the most trying of times – the sudden loss of a loved one.



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

Chief Medical Examiner

El Paso County Office of the Medical Examiner

## TABLE OF CONTENTS

Prologue	2
Introduction	4
Organizational Chart	5
Case Jurisdiction	6
Executive Summary – 2021	7
EPOME Data (2017 – 2021)	7
Total Cases	7
Examination Type	8
Manner of Death	8
Toxicology & Histology Requests	9
EPOME Exam Cases: 2021	9
Manner of Death & Autopsy Status; Gender & Age Group	10
<i>Natural Deaths</i>	11
<i>COVID-19 Deaths</i>	13
<i>Accidents</i>	14
<i>Suicides</i>	15
<i>Homicides</i>	17
<i>Undetermined</i>	18
Child Fatality	19
Infant and Child Deaths Summary Tables	20
Manner of Death	20
Infant and Child Deaths: Cause of Death	21
Toxicology related deaths	22
Summary Table	22
Manner of Death; Single vs. Multiple Drug	23
Commonly Involved Drugs	24
Multiple Drug-Related Deaths: Number of Drugs Involved	25
Multiple Drug-Related Deaths: Medication Key	27
Motor Vehicle Related Death	28
Miscellaneous EPOME Data	29
Forensic Consultations	29
Organ & Tissue Donation	29
Cremation Authorizations	30
Unidentified Bodies	30
Unclaimed Bodies	30
Medical Examiner Performance Audit	31
Turnaround Time for Final Autopsy Reports	31
Cost of Medicolegal Death Investigation	31
Academic Outreach, Community Involvement, and Professional Development	32
Glossary	35

## 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.

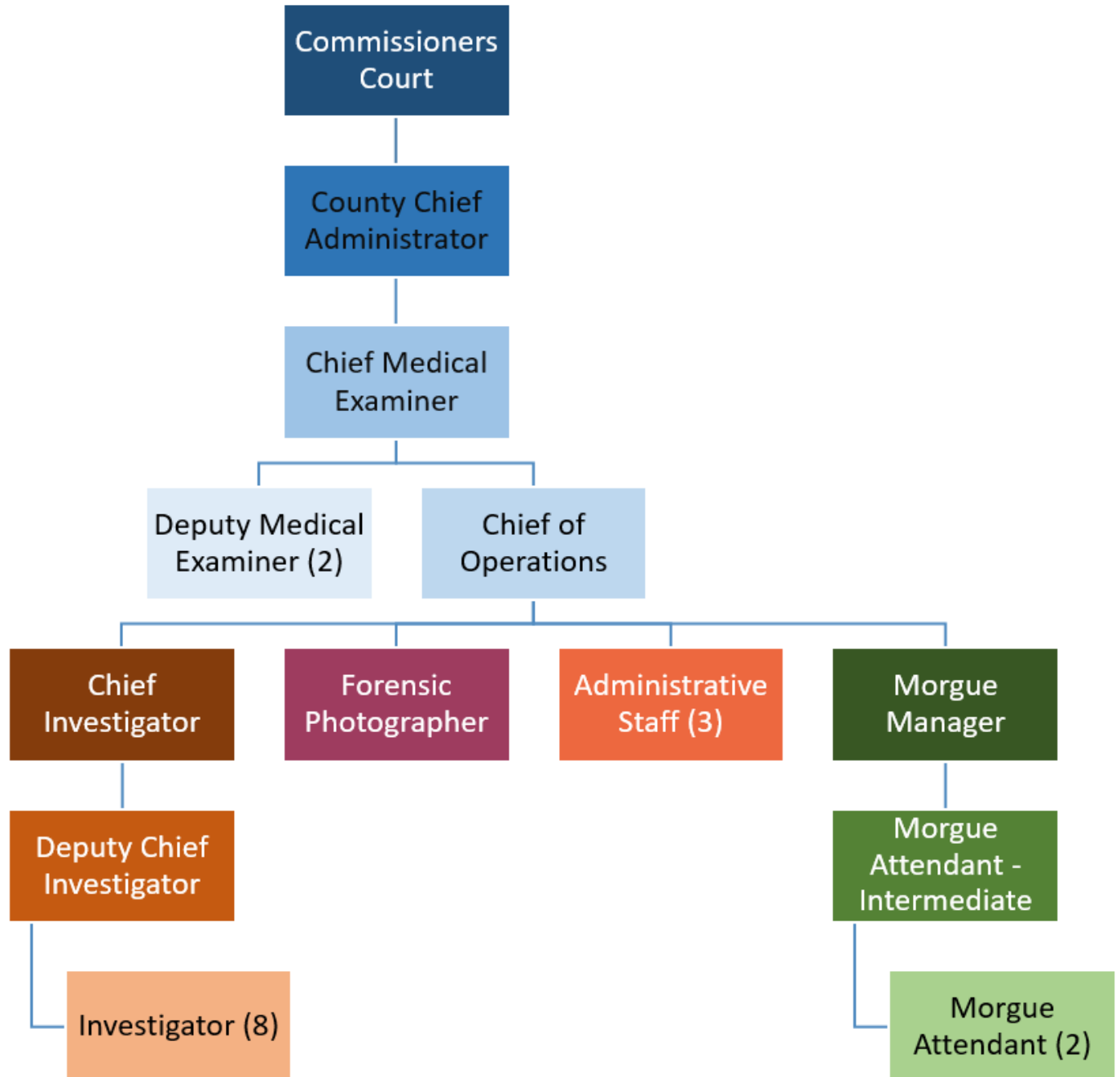
The Texas Code of Criminal Procedure (Chapter 49. 'Inquests Upon Dead Bodies'), stipulates that the EPOME shall conduct an inquest into the death of a person who dies in the County if:

- (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 casualty event, academic endeavors (teaching interns and Medical Students), 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 (2021 census estimate) of about 867,947. Countywide, the population is about 92% white (which includes 83% white-hispanic and 11% white non-hispanic), 4% black, 1% American Indian, 1.4% Asian, 1.6% 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 – 2021**

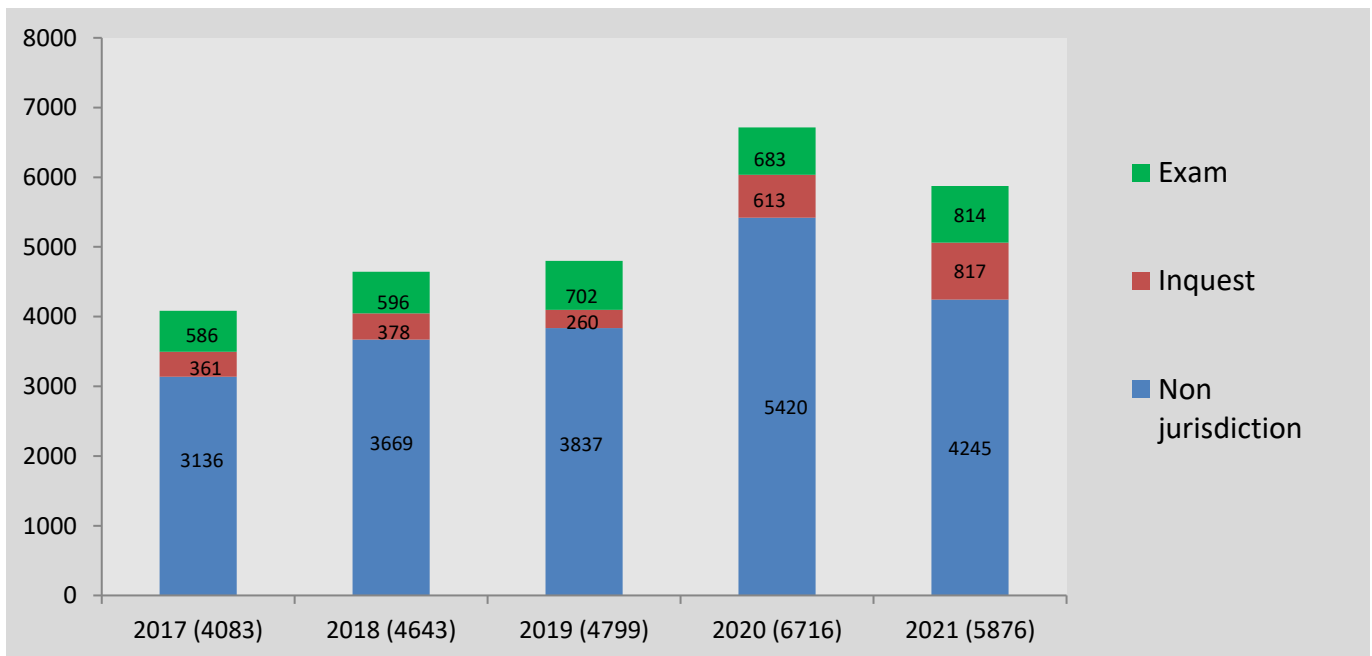
In 2021, the El Paso County had a total of 7979 deaths. Of these, 5876 were reported to the EPOME. Every reported case requires a preliminary screening by EPOME investigative staff to determine if it falls under the jurisdiction of the EPOME. Of those calls, a total of 3444 cases were **released**, with death certificates being signed by primary care physicians in the community. Additionally, 801 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 1631 cases (817 inquests and 814 exam cases). A significant proportion [615 (37%)] of the EPOME jurisdiction cases came from local hospitals. In all the exam cases the bodies were physically examined at the EPOME. Full body autopsies were conducted on 664 cases and 150 underwent an *external examination* only. The EPOME does not perform partial autopsies.

There were a total of 1427 death scenes investigated. This represented an increase of 9% from those in 2020 (1309). A total of 1062 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.

Five cases remained unidentified after examination (3 bodies found afloat in water; 2 human bone fragments found in desert). There were no exhumations performed and no cases previously autopsied at local hospitals were retained by the EPOME in 2021.

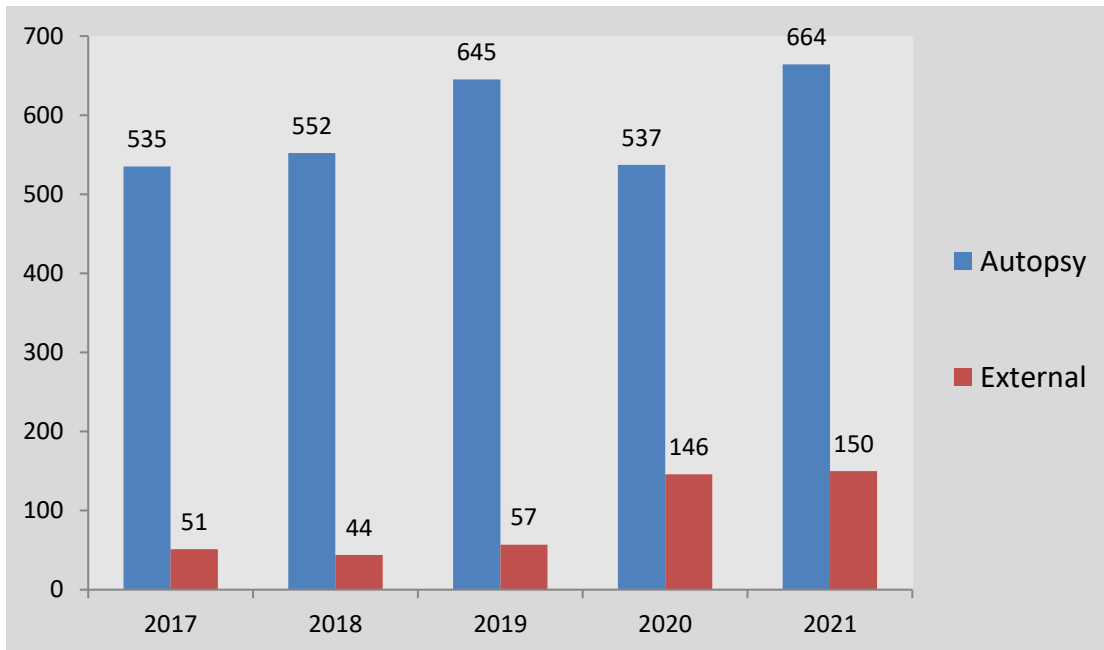
**EPOME DATA**

TOTAL CASES HANDLED BY THE EPOME – 2017 to 2021



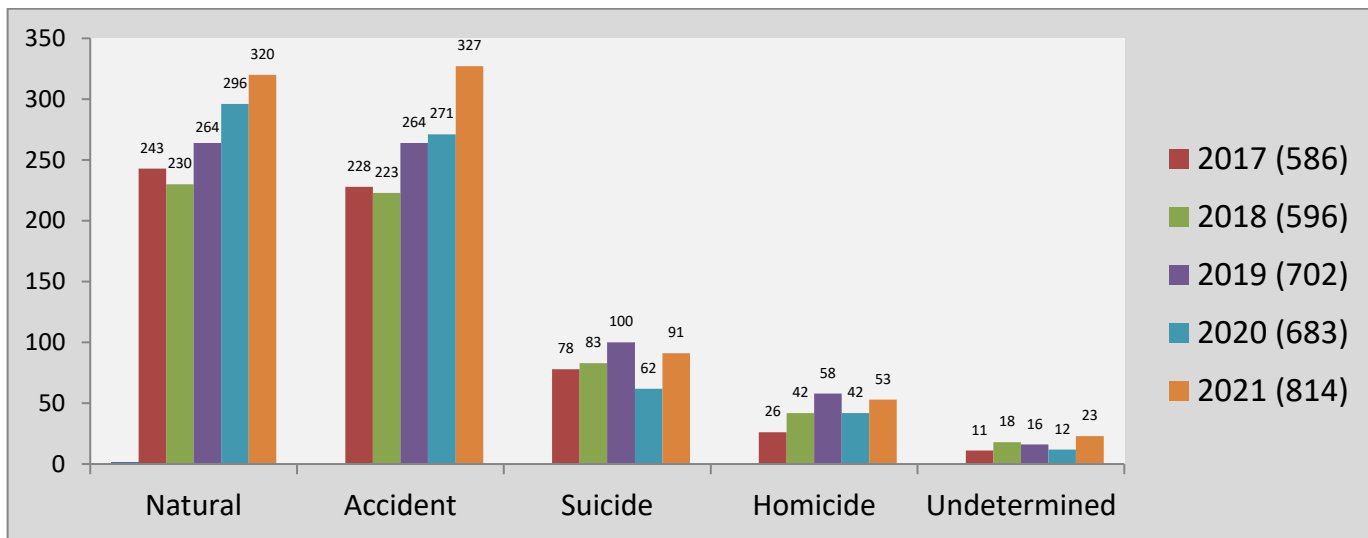


EXAM CASES 2017 to 2021– EXAMINATION TYPE

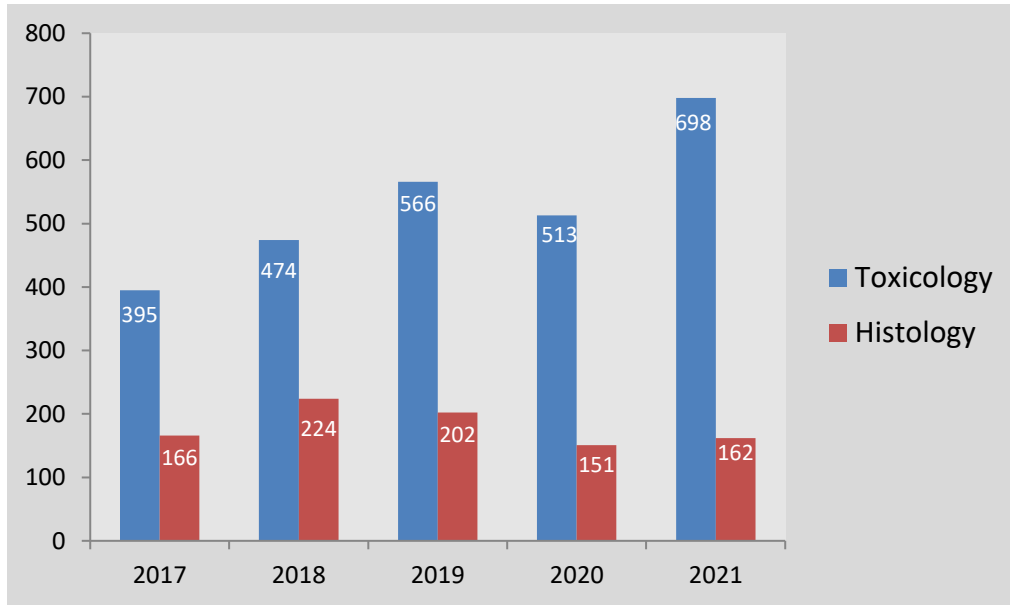


The autopsy to external examination ratio for 2021 was 4.4:1

EXAM CASES 2017 to 2021 – MANNER OF DEATH

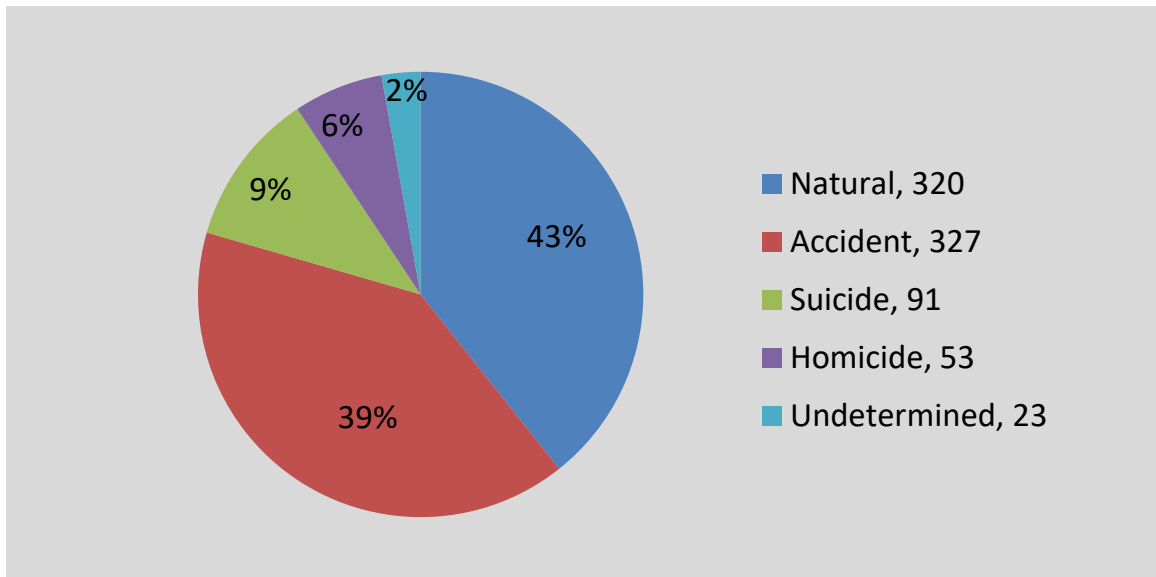


EXAM CASES 2017 to 2021– TOXICOLOGY & HISTOLOGY REQUESTS



EPOME 2021: EXAM CASES

2021 TOTAL EXAM CASES (814) – MANNER OF DEATH



2021 TOTAL EXAM CASES (814) – MANNER OF DEATH & AUTOPSY STATUS

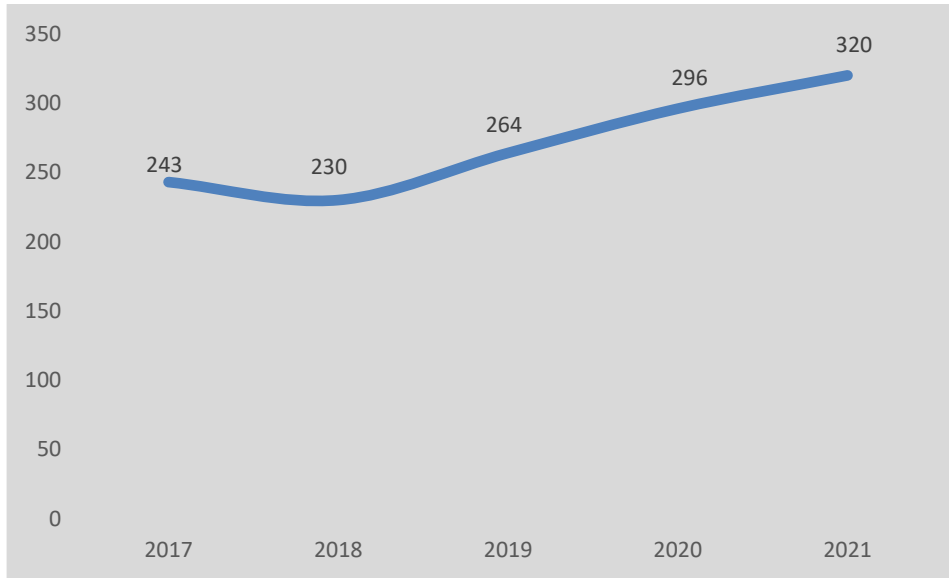
	MANNER OF DEATH					TOTAL (%)
	NATURAL	ACCIDENT	SUICIDE	HOMICIDE	UNDETERMINED	
Full Autopsy (%)	214(67%)	290 (89%)	85 (94%)	53 (100%)	23 (100%)	665 (82%)
Partial Autopsy (%)	0	0	0	0	0	0
External Exam (%)	106 (33%)	37(11%)	6(6%)	0	0	149 (18%)
<b>TOTAL</b>	<b>320</b>	<b>327</b>	<b>91</b>	<b>53</b>	<b>23</b>	<b>814</b>

2021 TOTAL EXAM CASES (814) – GENDER AND AGE GROUP

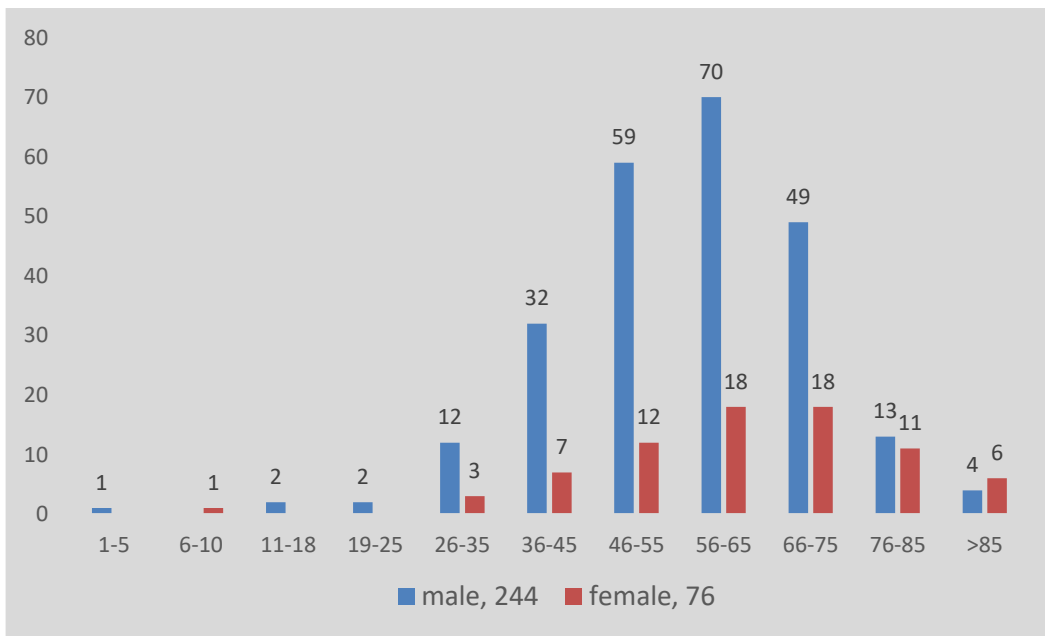
Age Group	MANNER OF DEATH									
	NATURAL		ACCIDENT		SUICIDE		HOMICIDE		UNDETERMINED	
	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀
Unidentified	-	-	3	-	-	-	-	-	2	-
Fetus	-	-	-	-	-	-	-	-	-	-
<1	-	-	4	-	-	-	-	1	3	1
1-5	1	-	-	2	-	-	1	-	1	-
6-10	-	1	1	-	-	-	1	-	1	-
11-18	2	-	10	5	5	5	7	-	2	-
19-25	2	-	39	6	15	2	6	-	-	-
26-35	12	3	53	15	20	1	17	-	2	1
36-45	31	8	46	11	10	2	5	1	2	-
46-55	59	12	30	15	7	1	5	1	-	1
56-65	72	16	40	5	8	3	4	-	3	-
66-75	49	18	19	9	4	-	2	1	2	1
76-85	13	11	5	2	4	-	1	-	-	1
>85	4	6	3	4	3	1	-	-	-	-
<b>TOTAL</b>	<b>245</b>	<b>75</b>	<b>253</b>	<b>74</b>	<b>76</b>	<b>15</b>	<b>49</b>	<b>4</b>	<b>18</b>	<b>5</b>
♂: <u>641</u>	<b>320</b>		<b>327</b>		<b>91</b>		<b>53</b>		<b>23</b>	
♀: <u>173</u>										

♂=male; ♀=female

**NATURAL DEATHS (320)**  
NATURAL DEATHS: 2017 - 2021



**2021 NATURAL DEATHS (320) – SEX AND AGE GROUP**



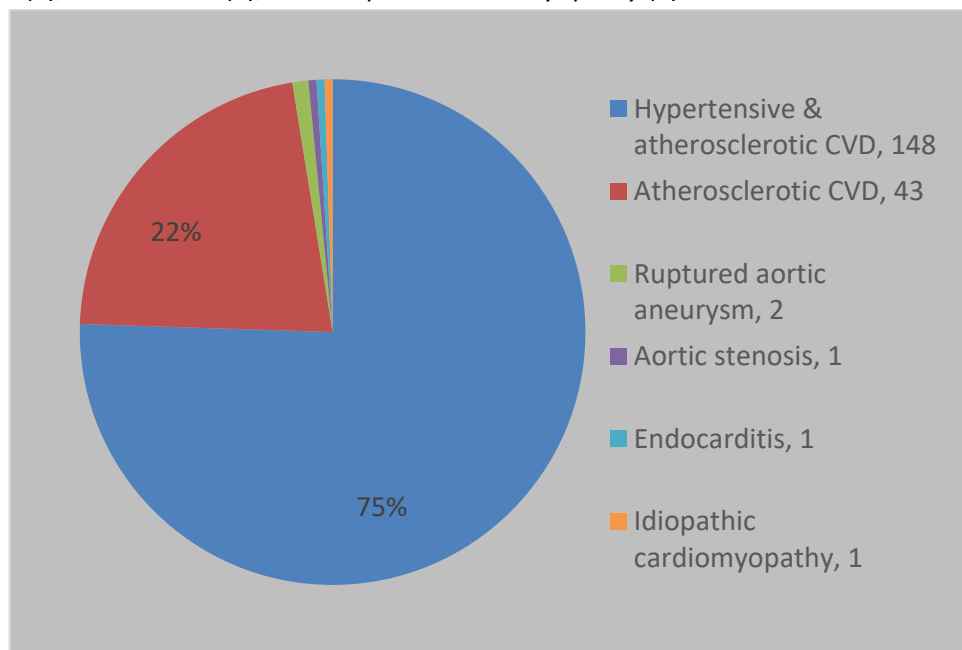
Individuals aged 54 -65 years comprised 30% of all people who succumbed to natural deaths in 2021. The male:female ratio for natural deaths investigated by the OME was 2.6:1 in 2021.

2021 NATURAL DEATHS\* – CAUSE OF DEATH

Cardiovascular Disease	196
COVID-19	38
Complications of Chronic Alcohol Abuse	17
Liver Cirrhosis	14
Diabetes Mellitus	9
Pulmonary Embolism	8
Subarachnoid hemorrhage	4
Morbid Obesity	4
Peptic ulcer disease	4

\*only diagnoses with 4 or more occurrences are included.

**Cardiovascular Disease** includes 196 cases with the following cause of death statements: *hypertensive and atherosclerotic cardiovascular disease (148), atherosclerotic cardiovascular disease (43), ruptured aortic aneurysm (2), aortic stenosis (1), endocarditis (1), and idiopathic cardiomyopathy (1).*

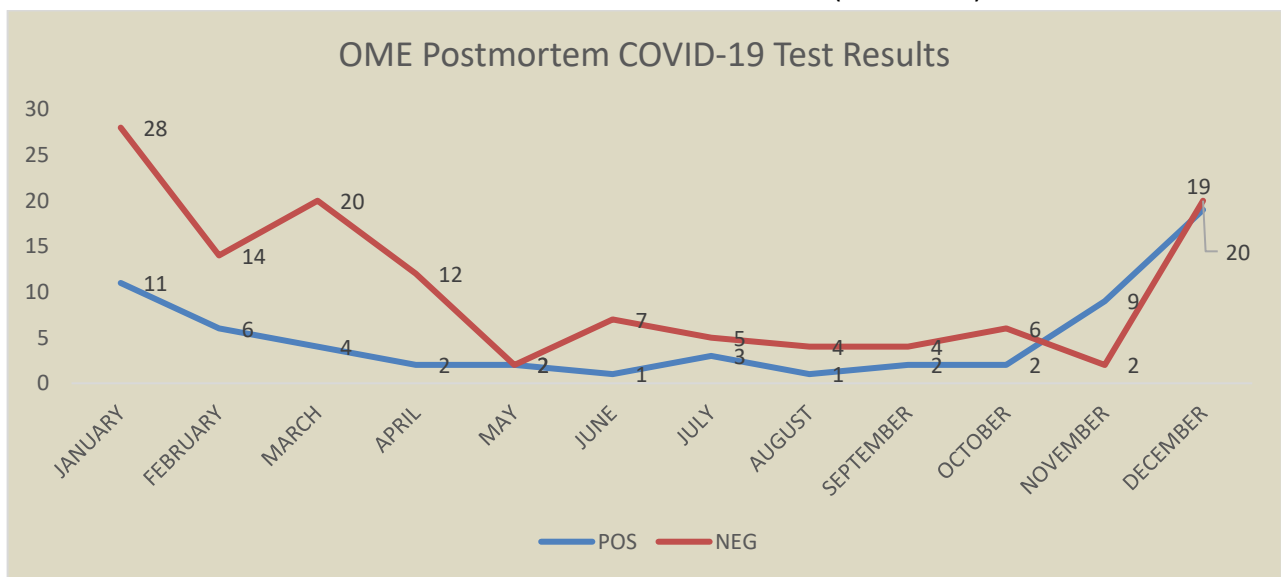


CVD=cardiovascular disease

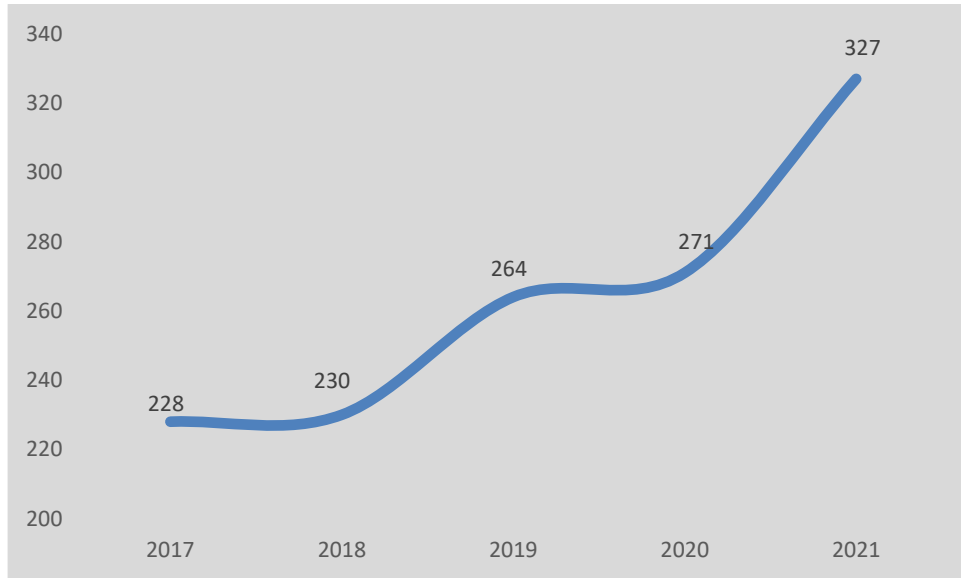
2021 COVID-19 DEATHS (38)

The vast majority (>97%) of COVID-19 deaths are investigated and reported by local primary care physicians. Despite this, COVID-19 was the second most common cause of death in natural deaths certified by the OME. Postmortem molecular testing was secured through the Department of Health and The University Medical Center for selected cases, including decedents who complained of flu-like symptoms prior to their death. The OME conducted 186 of such tests in 2021, with an overall positivity rate of 33% (62/186). COVID-19 was certified to be the cause of death - or a significant contributing condition in 38 cases.

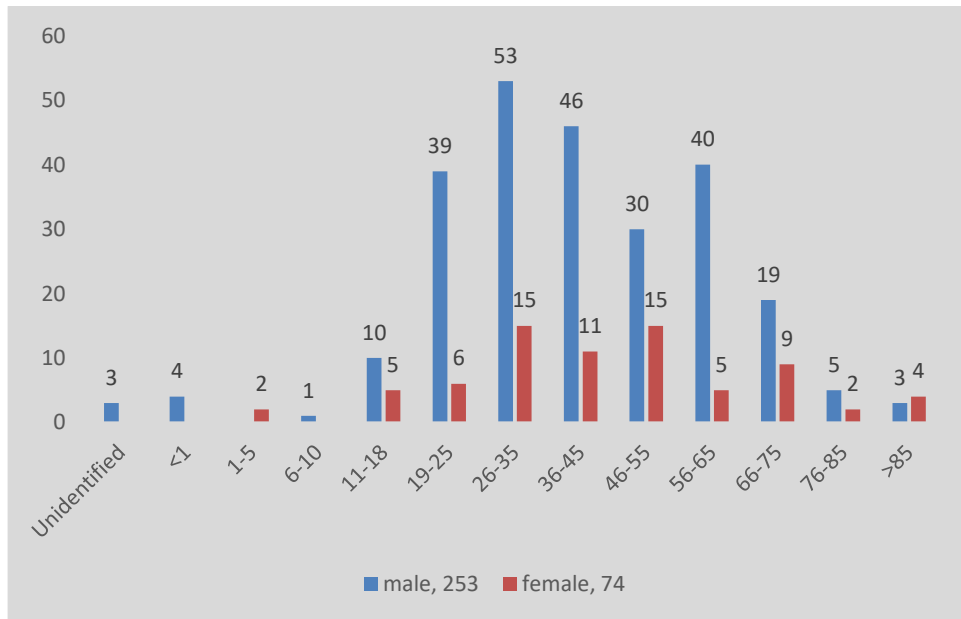
2021 COVID-19 POSTMORTEM TESTING (186 TESTS)



**ACCIDENTS (327)**  
**ACCIDENTS: 2017 – 2021**



**2021 ACCIDENTS (327) – SEX AND AGE GROUP**



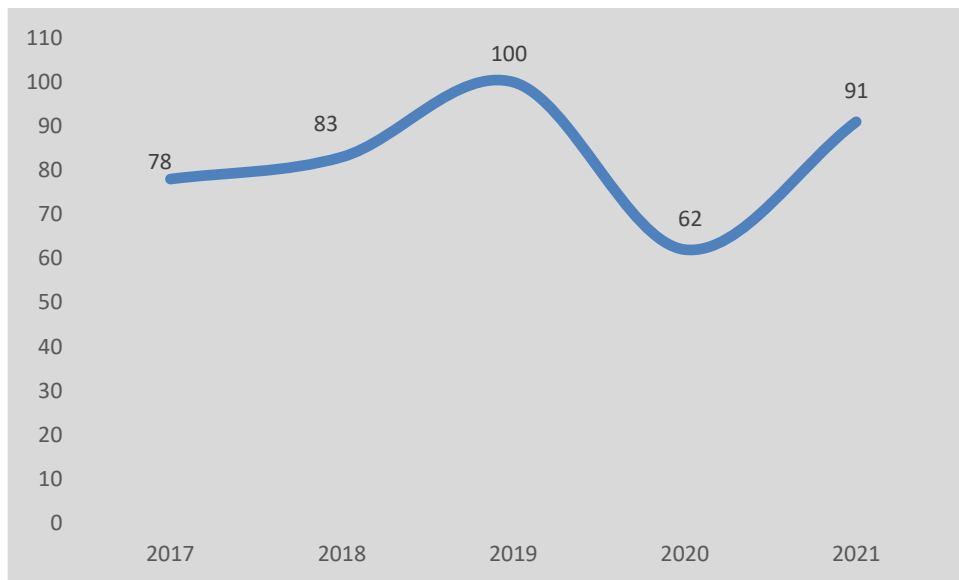
Accident victims were most frequently male (77.3%). Individuals between the ages of 21 – 45 years comprised half (49%) of all accidental fatalities.

2021 ACCIDENTS (327) – MECHANISM

Acute Drug Toxicity	162
Blunt Force Injuries	127
Drowning	18
Asphyxia - Suffocation	6
Carbon Monoxide Poisoning	1
Alcohol Toxicity	2
Choking	2
Thermal injuries	3
Environmental Heat Exposure	3
Dog bite injuries	1
Gunshot Wound	1
Environmental Cold Exposure	1
<b>TOTAL</b>	<b>327</b>

**SUICIDES**

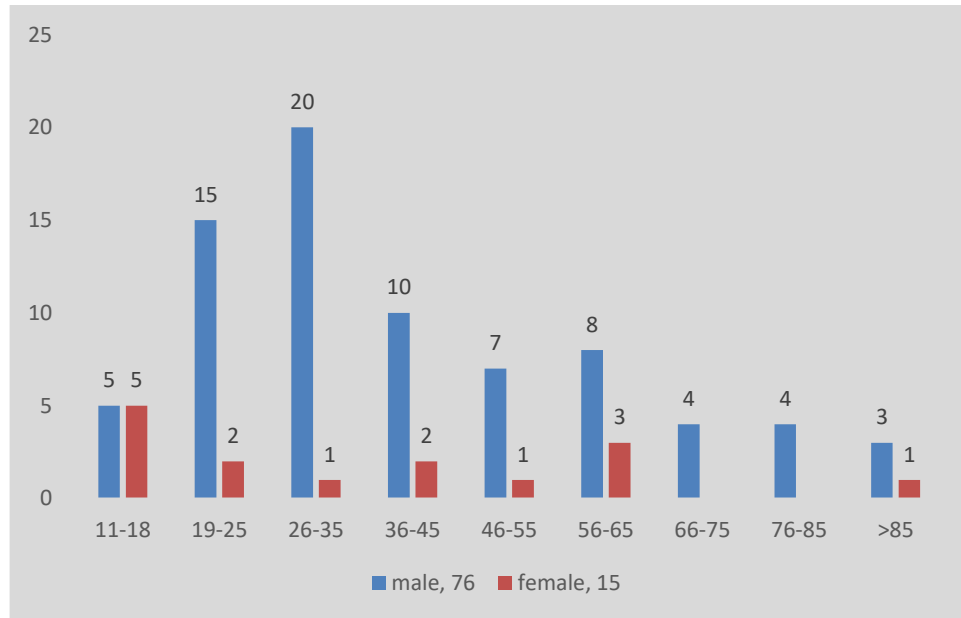
SUICIDES: 2017 - 2021



*There was an increase of 46% in suicides from 2020 to 2021*



2021 SUICIDES (91) – SEX AND AGE GROUP



Suicide victims were most frequently male (83.5%). Individuals between the ages of 21 – 38 years comprised 45% of all suicides.

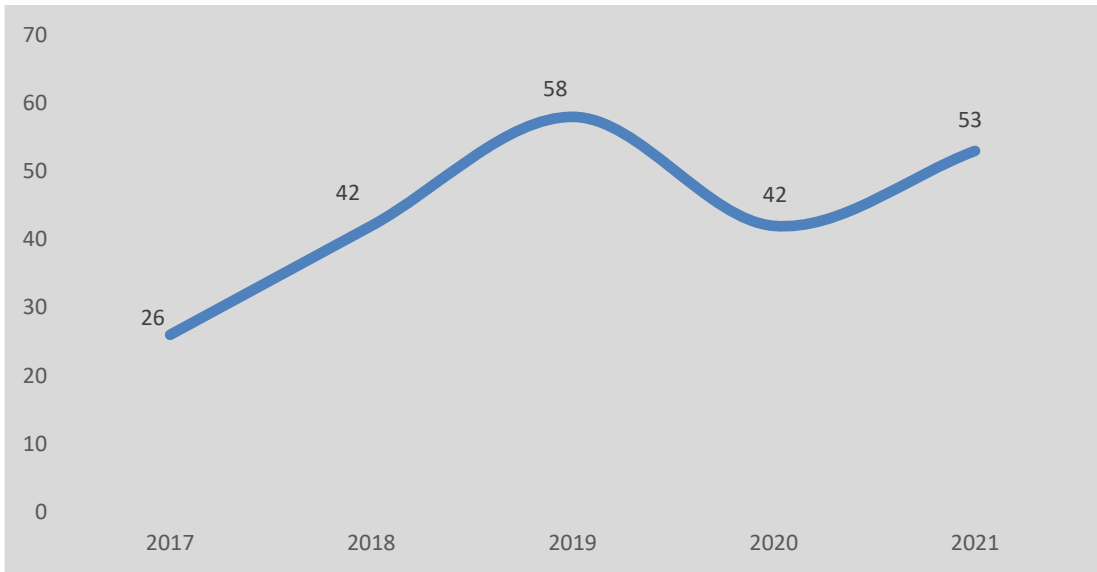
2021 SUICIDES (91) – METHOD

Firearm	49
Hanging	31
Acute Drug Toxicity	6
Blunt Force Injuries	4
Sharp Force Injuries	1
<b>TOTAL</b>	<b>91</b>

The majority (42 out of 49 [85%]) of suicide by firearm involved wounds to the head.

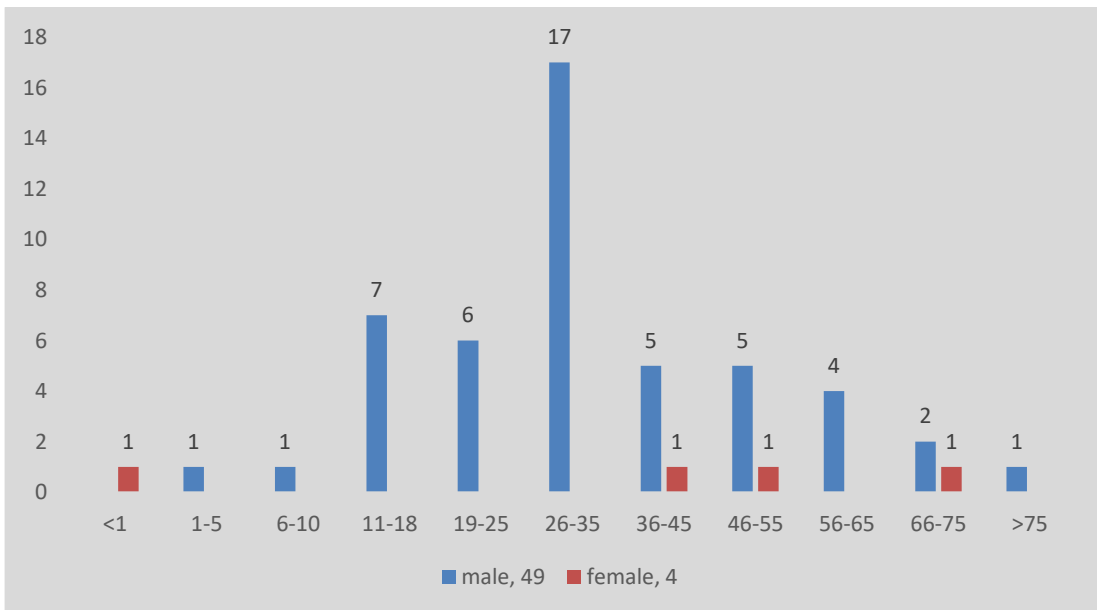
## HOMICIDES

### HOMICIDES: 2017 - 2021



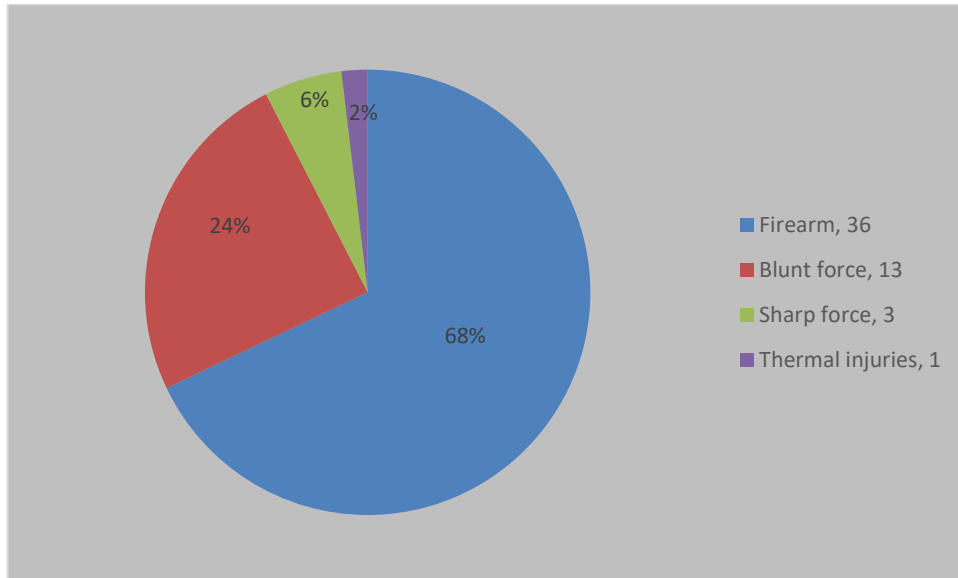
*There was a 26% increase in homicides from 2020 to 2021. The homicide rate for El Paso County in 2021 was to 6.1 per 100,000 people (compared to 7.5 US National Average [CDC, 2020]).*

### 2021 HOMICIDES (53) – SEX AND AGE GROUP



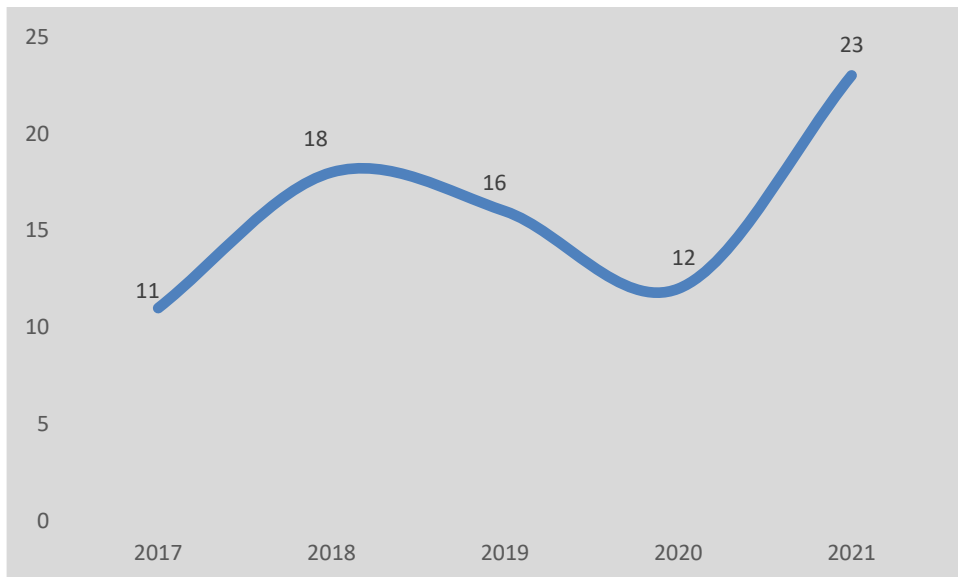
*The vast majority of homicide victims were male (92%).*

2021 HOMICIDES (53) – MODE OF INFLICTION

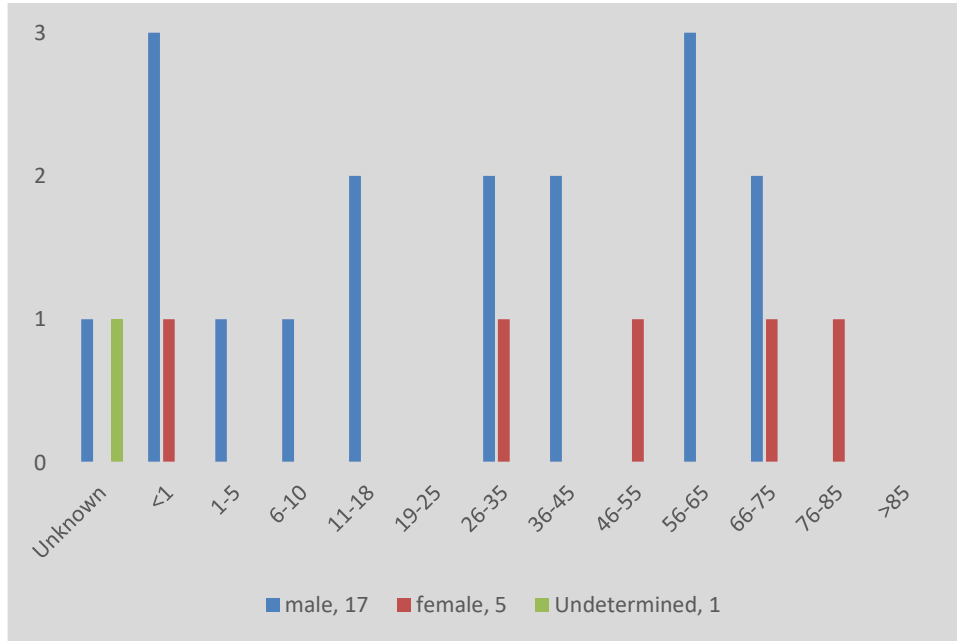


**UNDETERMINED**

UNDETERMINED MANNER OF DEATH: 2017 - 2021



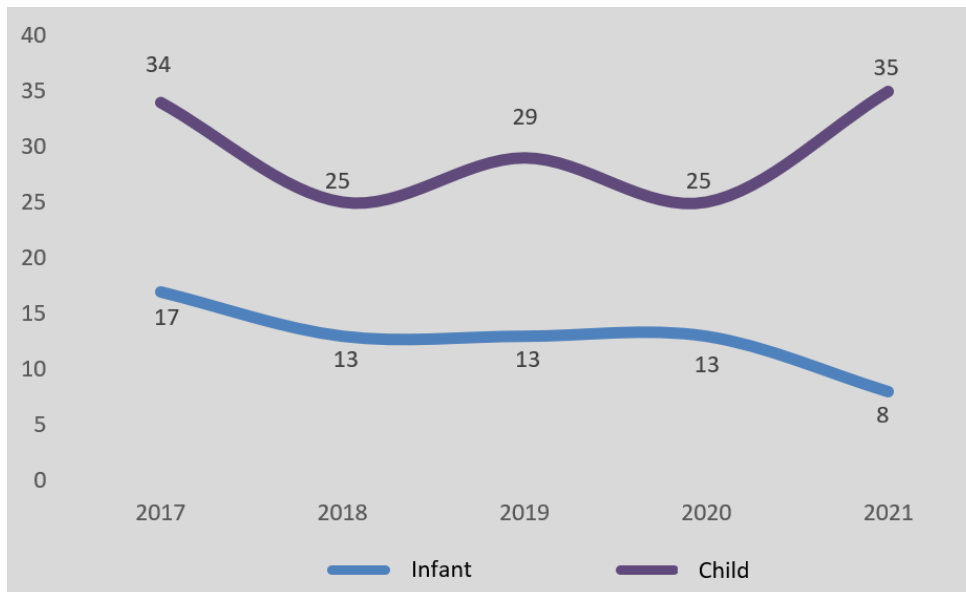
**2021 UNDETERMINED MANNER OF DEATH (23) – SEX AND AGE GROUP**



**CHILD FATALITY**

In 2021, there were 43 deaths of individuals 17 years or age or younger, which included the deaths of 8 infants (a baby in the first year of life) and 35 children (individual between the ages of 1 and 17).

**INFANT (AGE <1) & CHILD (AGE 1-17) DEATHS: 2017 - 2021**



2021 INFANT & CHILD DEATHS (43) – SUMMARY TABLE

	MANNER OF DEATH					TOTAL (%)
	NATURAL	ACCIDENT	HOMICIDE	SUICIDE	UNDETERMINED	
Full Autopsy (%)	4 (100%)	15 (94%)	8 (100%)	9 (100%)	6 (100%)	98%
External Exam (%)	0	1 (6%)	0	0	0	2%
<b>TOTAL</b>	<b>4</b>	<b>16</b>	<b>8</b>	<b>9</b>	<b>6</b>	<b>43/100%</b>

2021 INFANT & CHILD DEATHS (43) – MANNER OF DEATH

Age Group	MANNER OF DEATH									
	NATURAL		ACCIDENT		HOMICIDE		SUICIDE		UNDETERMINED	
	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀
<1	-	-	3	-	1	1	-	-	2	1
1-3	1	-	-	2	-	-	-	-	1	-
4-6	-	-	1	-	1	-	-	-	-	-
7-10	-	1	-	-	-	-	-	-	1	-
11-14	2	-	1	1	-	-	1	-	1	-
15-17	-	-	4	4	5	-	3	5	-	-
<b>TOTAL</b>	<b>3</b>	<b>1</b>	<b>9</b>	<b>7</b>	<b>7</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>1</b>
♂ : 28	<b>4</b>		<b>16</b>		<b>8</b>		<b>9</b>		<b>6</b>	
♀ : 15										
total: 43										

♂=male; ♀=female

2021 CHILD (AGE 1-17) DEATHS (35) – CAUSE OF DEATH

Firearm	9
Blunt Force Injury	6
Hanging	5
Drug Toxicity	5
Drowning	4
Cerebral palsy	1
Myotubular myopathy	1
Duchenne muscular dystrophy	1
Dog bite injuries	1
Ruptured intestinal diverticulum	1
Undetermined	1
<b>TOTAL</b>	<b>35</b>

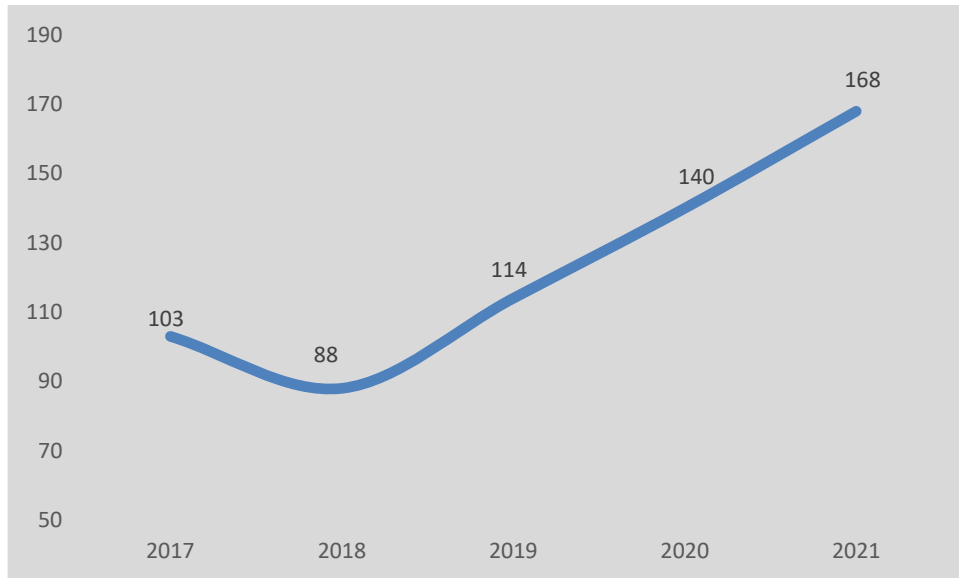
2021 INFANT (<1Y) DEATHS (8) – CAUSE OF DEATH

Asphyxia – Suffocation	3
Undetermined	3
Blunt force injuries	2
<b>TOTAL</b>	<b>8</b>

CHILD FATALITY – SUMMARY

Childhood deaths represented 5.2% of all the exam cases investigated by the EPOME in 2021. Male decedents comprised 65% of the total deaths in children. The most common manner of death among children was accident (37%).

**TOXICOLOGY-RELATED DEATHS**  
TOXICOLOGY-RELATED DEATHS: 2017 - 2021



There was a 20% increase in toxicology-related deaths from 2020 (140 cases) to 2021 (168 cases).

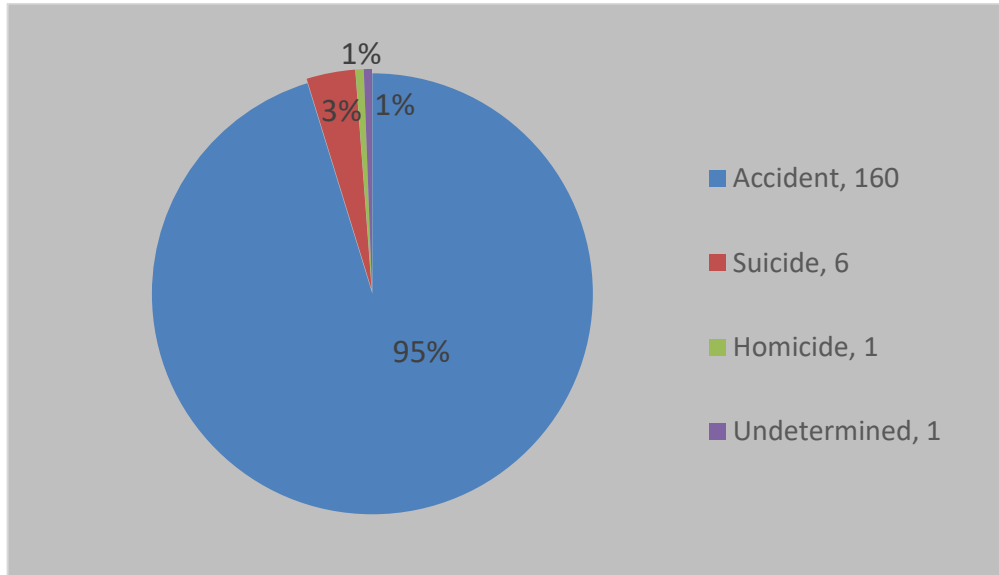
2021 TOXICOLOGY-RELATED DEATHS (168) – SUMMARY

Age Group	MANNER OF DEATH							
	ACCIDENT		SUICIDE		HOMICIDE		UNDETERMINED	
	♂	♀	♂	♀	♂	♀	♂	♀
11-18	3	1	-	1	-	-	-	-
19-25	18	2	-	-	-	-	-	-
26-35	22	9	-	-	-	-	-	-
36-45	33	7	1	1	1	-	1	-
46-55	18	11	-	-	-	-	-	-
56-65	26	2	-	3	-	-	-	-
66-75	5	2	-	-	-	-	-	-
76-85	1	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>126</b>	<b>34</b>	<b>1</b>	<b>5</b>	<b>1</b>	<b>-</b>	<b>1</b>	<b>-</b>
♂: <u>129</u>	<b>160</b>		<b>6</b>		<b>1</b>		<b>1</b>	
♀: <u>39</u>								

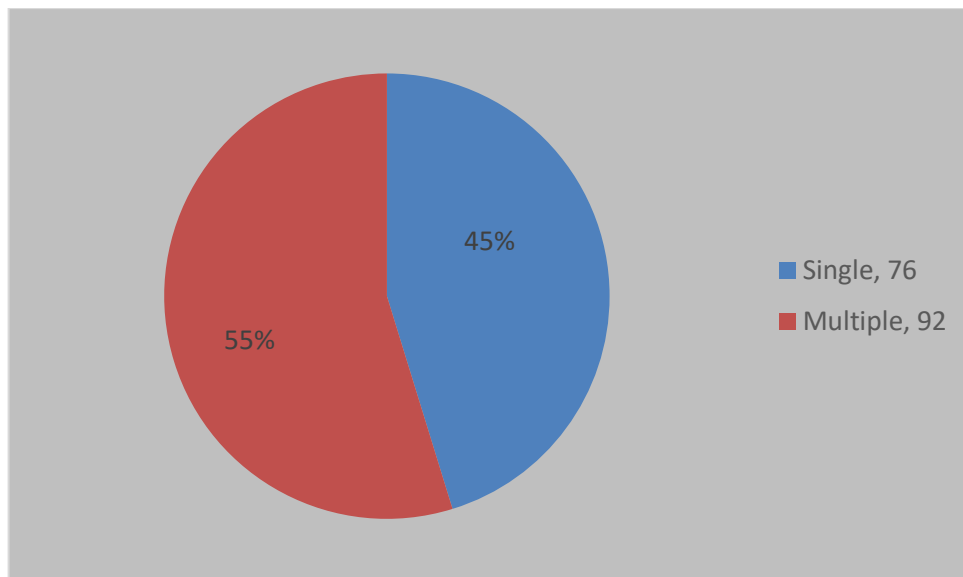
♂=male    ♀=female

By definition, toxicology-related deaths cannot be natural in manner. Accidents comprised 95% of all toxicology-related deaths. Over half (51%) of the decedents who succumbed to drug toxicity were between the ages of 26 and 55. Regarding accidental toxicology-related deaths, the male-to-female ratio is 3.7:1.

2021 TOXICOLOGY-RELATED DEATHS (168) – Manner of Death



2021 TOXICOLOGY-RELATED DEATHS (168) – Single vs. Multiple Drugs





2021 SINGLE DRUG-RELATED DEATHS (76) – Drug Involved

Cocaine	19
Fentanyl	18
Methamphetamine	15
Heroin	12
Sertraline	2
<b>TOTAL</b>	<b>66</b>

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

2021 MULTIPLE DRUG-RELATED DEATHS (92) –Most Frequently Involved Drugs

Fentanyl	60
Cocaine	32
Methamphetamine	43
Alprazolam	18
Amphetamine	12
Ethanol	10
Heroin	9
Morphine	8
Methadone	8
Hydroxyzine	6
Benzodiazepines, NOS	6
Quetiapine	5

*\*only drugs involved in ≥5 cases are mentioned*

2021 TOXICOLOGY-RELATED DEATHS – Multiple-Drug-Related Deaths (92): Drugs Involved

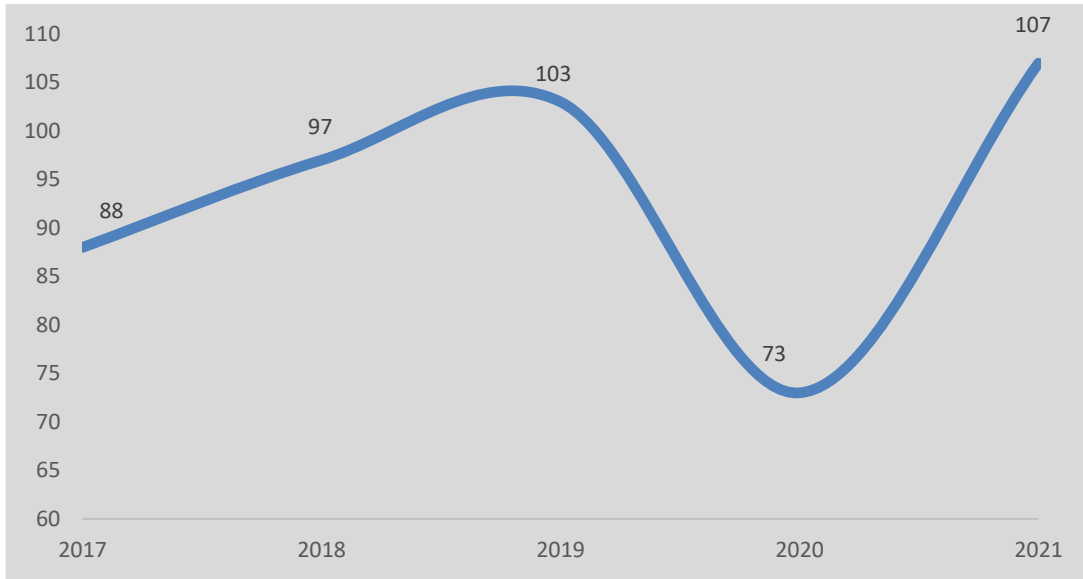
MANNER	Number of Drugs				
	2	3	4	5	≥6
<b>SUICIDE</b>					
1				36-38-49-52-72	
2				6-11-26-36-38	
3					3-20-26-67-86-94
4	11-45				
<b>ACCIDENT</b>					
1	35-60				
2			18-24-40-60		
3		8-35-60			
4	20-35				
5			3-19-40-60		
6	3-35				
7		3-35-60			
8		19-35-59			
9	19-35				
10		3-40-60			
11		8-35-73			
12	32-40				
13	60-73				
14	35-60				
15			9-45-52-86		
16			19-59-60-67		
17	19-32				
18				5-35-59-60-67	
19	19-35				
20		19-32-35			
21	3-35				
22			10-86-94-95		
23	9-19				
24			5-32-35-60		
25			3-35-44-59		
26	19-35				
27	19-35				
28	19-35				
29	19-60				
30	5-60				
31					3-5-32-35-60-91
32				19-23-35-45-60	
33		32-35-71			
34	35-60				
35		32-35-73			
36		8-35-60			
37		5-32-60			
38				8-41-59-60-67	
39	3-35				
40				3-17-20-41-65	
41	59-73				
42	19-35				

MANNER	Number of Drugs				
	2	3	4	5	≥6
ACCIDENT					
43		5-19-60			
44	35-60				
45	35-60				
46					19-35-38-45-54-60-86-95-99
47		39-60-67			
48	40-60				
49		19-32-35			
50		8-19-35			
51	19-35				
52	3-35				
53	5-73				
54	35-60				
55		19-35-60			
56			5-35-45-60		
57			3-19-35-60		
58	35-41				
59		35-40-59			
60	35-60				
61		32-35-60			
62				3-35-41-60-95	
63	35-60				
64		3-19-35			
65	19-35				
66				1-5-19-35-86	
67		9-19-60			
68	60-67				
69	19-60				
70			3-5-17-35		
71	35-60				
72	19-35				
73			3-17-35-60		
74	35-67				
75		35-60-69			
76			40-44-59-60		
77		19-32-35			
78			35-45-95-96		
79	35-40				
80	19-35				
81	3-35				
82				5-19-32-35-60	
83	3-32				
84	19-67				
85	35-60				
86	5-8				
87					11-23-36-89-96-99
88	19-35				

## 2021 TOXICOLOGY-RELATED DEATHS – Multiple-Drug-Related Deaths: Medication/Drug Key

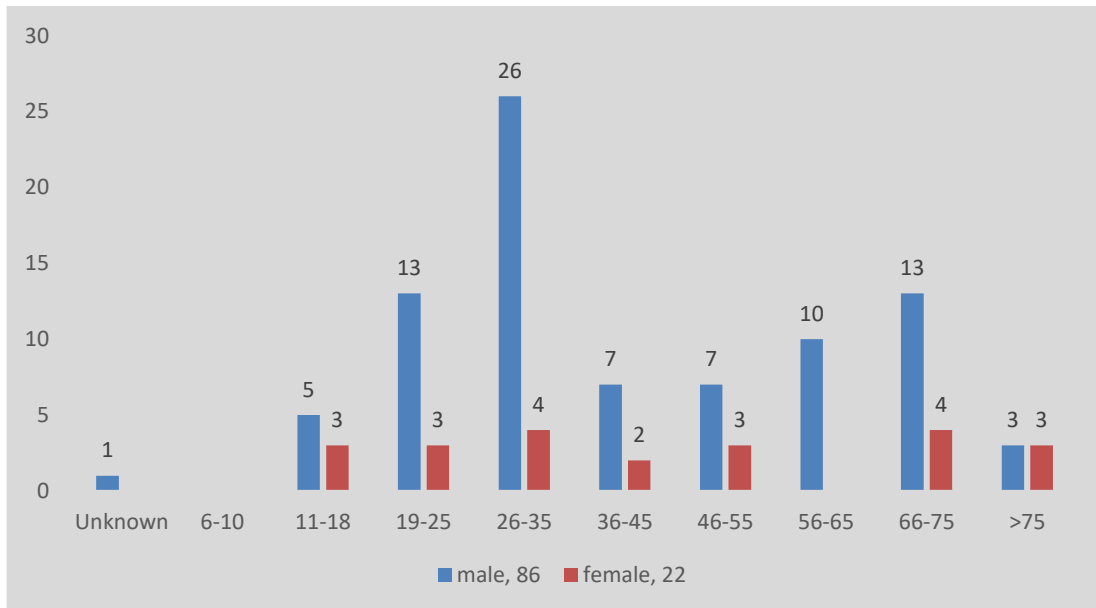
Acetaminophen	1	Etizolam	34	Morphine	67
Acetone	2	Fentanyl	35	Mirtazapine	68
Alprazolam	3	Fluoxetine	36	Mitragynine	69
Amitriptyline	4	Fluvoxamine	37	Naproxen	70
Amphetamine	5	Gabapentin	38	Nordiazepam	71
Aripiprazole	6	Haloperidol	39	Olanzapine	72
Bath Salts	7	Heroin	40	Opiates (NOS)	73
Benzodiazepine (NOS)	8	Hydrocodone	41	Oxazepam	74
Buprenorphine	9	Hydroxychloroquine	42	Oxycodone	75
Butalbital	10	Hydrogen Sulfide	43	Oxymorphone	76
Bupropion	11	Hydromorphone	44	Paroxetine	77
Buspirone	12	Hydroxyzine	45	Pentobarbital	78
Carisoprodol	13	Inhalants (NOS)	46	Perphenazine	79
Chlordiazepoxide	14	Insulin	47	Phenobarbital	80
Chlorphenamine	15	Isopropanol	48	Phentermine	81
Citalopram	16	Lacosamide	49	Phenylpropanolamine	82
Clonazepam	17	Lamotrigine	50	Pregabalin	83
Clozapine	18	Levamisole	51	Promethazine	84
Cocaine	19	Levetiracetam	52	Pseudoephedrine	85
Codeine	20	Loperamide	53	Quetiapine	86
Cyclobenzaprine	21	Lorazepam	54	Risperidone	87
Desipramine	22	Meclizine	55	Salicylates	88
Dextromethorphan	23	Meperidene	56	Sertraline	89
Diazepam	24	Metaxolone	57	Synth. Cannabinoid	90
Difluoroethane	25	Metformin	58	Temazepam	91
Diphenhydramine	26	Methadone	59	Tetrafluoroethane	92
Donepezil	27	Methamphetamine	60	Topiramate	93
Doxepine	28	Methane	61	Tramadol	94
Doxylamine	29	Methanol	62	Trazodone	95
Duloxetine	30	Methylphenidate	63	Venlafaxine	96
Ethane	31	Metroprolol	64	Verapamil	97
Ethanol	32	Midazolam	65	Ziprasidone	98
Ethylene Glycol	33	Mirtazapine	66	Zolpidem	99
				Zopiclone	100

**MOTOR VEHICLE RELATED DEATHS**  
**MOTOR VEHICLE RELATED DEATHS: 2017 - 2021**



There was a 46% increase in motor vehicle-related deaths from 2020 (73 cases) to 2021 (107 cases).

**2021 MOTOR VEHICLE RELATED DEATHS (107) – SUMMARY TABLE**



There were 107 motor vehicle related fatalities in 2021. All but three (2.8%) were accident (2 homicides and 1 suicide). One case (male pedestrian struck by motor vehicle) remained unidentified. Males comprised 80% of all motor vehicle related deaths in 2021.

2021 MOTOR VEHICLE RELATED DEATHS (107) – STATUS OF DECEDENT

Motor vehicle – driver*	49
Pedestrian struck by motor vehicle	26
Motor Vehicle – Passenger**	19
Motorcyclist – operator	10
Fall from moving vehicle	1
Car jack collapse	1
Bicyclist hit by motor vehicle	1
<b>TOTAL</b>	<b>107</b>

\*includes 2 decedents operating an '18-wheeler' truck and a cement truck, respectively.

\*\*includes 3 motorcycle passengers

MISCELLANEOUS DATA - EPOME

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
2017	7	0	0
2018	13	0	1
2019	17	0	1
2020	18	0	0
2021	14	0	5

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 2021, there were **41 donors**, who impacted 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 2021, there were 9 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
2017	3113
2018	3278
2019	3392
2020	5020
2021	5026

**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, 484 decedents have been positively identified using fingerprints.

YEAR	Fingerprint ID
2017	51
2018	85
2019	105
2020	104
2021	139

**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, 107 cases have been referred to this program.

YEAR	Unclaimed Bodies
2017	17
2018	14
2019	22
2020	19
2021	35

## 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 to avoid a phase I (minor) deficiency, and that 90% of all exam cases are finalized within 90 calendar days to avoid a phase II (major) deficiency.

### 2021 EPOME EXAM CASES (814) – TIME FROM AUTOPSY TO FINAL WRITTEN AUTOPSY REPORT

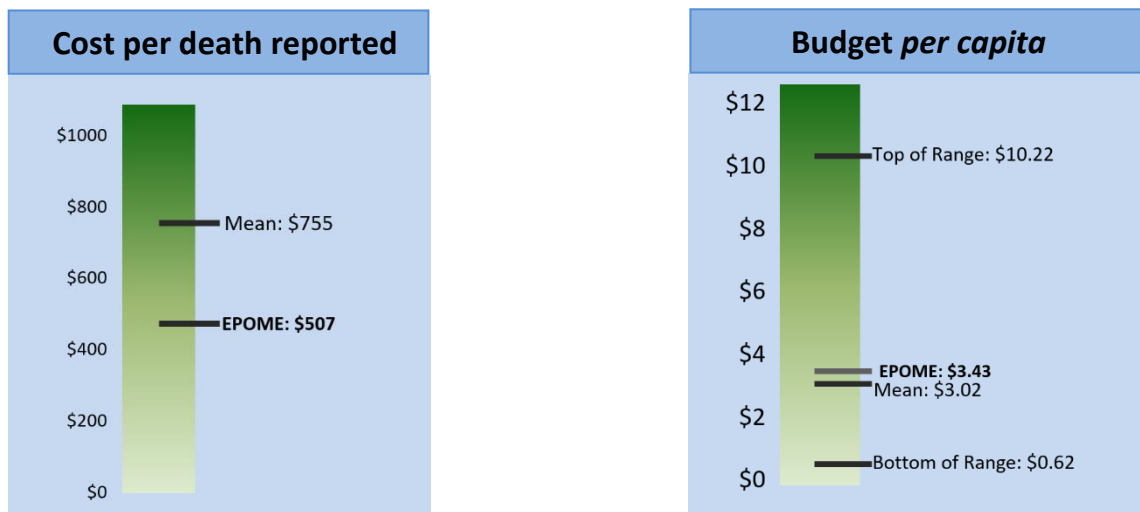
Time for final report	No. of cases (%)
Within 60 days	795 (97.7)
Within 90 days	809 (99.4)
>90 days	5 (0.6)

### 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 **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](http://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 2021, the EPOME has a *cost per death reported* of **\$507** and a *budget per capita* of **\$3.43/year**.

### EL PASO COUNTY COST OF MEDICOLEGAL DEATH INVESTIGATION (AS COMPARED WITH OTHER 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**

*Mario A Rascon, MD, MHCM – Chief Medical Examiner*

- 10/08/21 Recruitment and training of medicolegal death investigators. XII Congreso Internacional de Medicina Legal y Ciencias Forenses. Panama City, Panama (teleconference).
- 09/21/21 Health Policies and the Office of the Medical Examiner. Universidad Autonoma de Ciudad Juarez (teleconference).
- 09/14/21 Principles of Medicolegal Death Investigation. BorderRAC. El Paso (teleconference).

*Janice Diaz-Cavallieri – Deputy Medical Examiner*

- 01/13/21 Introduction to forensics. Office of the District Attorney. El Paso, TX.

### PROFESSIONAL DEVELOPMENT

#### **I. INVESTIGATIVE STAFF**

*PROFESSIONAL CERTIFICATIONS:*

Registry certification by the American Board of Medicolegal Death Investigators: Gabriela Macias; Kathy Martinez

*TRAINING SESSIONS:*

3-D Scanner in Forensic Science – Ashley Rios, Brandon Vecchio, Jose Romero, Annabel Salazar, Christina Enriquez, Jorge Ordaz, Morgan Riddle, Gabriela Macias, Kathy Martinez, Miguel Aguirre.

Introduction to the FARO 3D Scanner-El Paso County Sheriff's Office – Irene Santiago, Ashley Rios, Brandon Vecchio, Jose Romero, Annabel Salazar, Jorge Ordaz, Morgan Riddle, Gabriela Macias, Kathy Martinez, Miguel Aguirre.

Forensic Entomology-National Institute of Justice – Annabel Salazar, Kathy Martinez, Jorge Ordaz, Ashley Rios.

Locating and notifying Next of Kin and Donation; National Institute of Justice – Annabel Salazar, Jose Romero, Miguel Aguirre, Christina Enriquez, Gabriela Macias, Morgan Riddle.

Elder Abuse, Domestic Violence and Special Needs Victims – Kathy Martinez, Ashley Rios, Annabel Salazar, Jorge Ordaz.

Know Be4 Cybersecurity Awareness Training for Texas – Ashley Rios, Brandon Vecchio, Jose Romero, Annabel Salazar, Christina Enriquez, Jorge Ordaz, Morgan Riddle, Gabriela Macias, Kathy Martinez, Miguel Aguirre.

International Association of Coroners and Medical Examiners (IACME) Sessions

Death Scene Investigations – Kathy Martinez, Annabel Salazar.

The Opioid Epidemic: An update from the Coroner/ME perspective (online) – Miguel Aguirre, Annabel Salazar, Jose Romero.

Post-Mortem Computed Tomography Series: PMCT Potpurri of unnatural deaths. Annabel Salazar

Ethics and Report Writing. Annabel Salazar

Update on Legalized Marijuana from the Mile High City. Annabel Salazar, Jose Romero

Census and Surveillance Efforts. Annabel Salazar

NIJ's Role in Strengthening the ME-Coroner System. Annabel Salazar

Tiffany's story: The Impact of Abusive Head Trauma on the Family Bonnie Armstrong

Kathy Martinez, Annabel Salazar, Ashley Rios, Jorge Ordaz

NTSB-Aviation Disaster Response: Federal Support for the Medicolegal Authority – Morgan Riddle, Miguel Aguirre, Gabriela Macias.

The Vicarious Trauma Toolkit-An Evidence-informed resource for organizations – Kathy Martinez, Gabriela Macias, Annabel Salazar, Jose Romero.

Medicolegal Death Investigations Conference-Franklin County Coroner's Office – Morgan Riddle, Miguel Aguirre.

Deaths in Custody: A Comprehensive Review – Morgan Riddle, Ashley Rios, Miguel Aguirre, Jorge Ordaz, Jose Romero, Annabel Salazar, Gabriela Macias.

Human Trafficking, Including Dental Aspects – Kathy Macias, Annabel Salazar, Jorge Ordaz, Ashley Rios.

National Opioid and emerging drug threats policy and practice forum – Morgan Riddle.

Forensic Pathology of Child Abuse – Kathy Martinez, Annabel Salazar, Jorge Ordaz, Ashley Rios.

Forensic Facial Reconstruction – Morgan Riddle, Ashley Rios, Miguel Aguirre, Jorge Ordaz, Christina Enriquez, Gabriela Macias, Kathy Martinez.

Investigating Exposure Deaths – Morgan Riddle, Ashley Rios, Miguel Aguirre, Jorge Ordaz, Christina, Enriquez, Gabriela Macias, Kathy Martinez.

Firearms and Death Investigation – Kathy Martinez, Gabriela Macias, Christina Enriquez, Jorge Ordaz, Miguel Aguirre, Ashley Rios, Morgan Riddle.

Handling Difficult and Disturbing Forensic Cases for Coroners and Medical Examiners – Morgan Riddle, Ashley Rios, Miguel Aguirre, Gabriela Macias, Kathy Martinez.

The Hope Ybarra Investigation of Medical Child Abuse – Kathy Martinez, Annabel Salazar, Ashley Rios, Jorge Ordaz.

Shooting Reconstruction: 4 Elements of Trajectory – Morgan Riddle, Ashley Rios, Jorge Ordaz, Christina Enriquez, Jose Romero, Kathy Martinez, Gabriela Macias, Miguel Aguirre.

Game Over: The Prosecution of Mel Hall, New York Yankee Sexual Predator – Kathy Martinez, Annabel Salazar, Ashley Rios.

Through the Center for Addiction and Recovery Education – Morgan Riddle, Kathy Martinez.

Initial Response and Investigation of Child Deaths – Kathy Martinez, Miguel Aguirre.

Forensic Investigative Techniques and Case Consultations – Ashley Rios, Jorge Ordaz, Annabel Salazar

Coronavirus and Safety: What Every Cop Needs to Know – Annabel Salazar

Motor Vehicle Crash Injury Analysis-Death Investigation Training academy – Christina Enriquez, Annabel Salazar

Driver's Safety Vehicle Usage Training – Miguel Aguirre, Kathy Martinez, Gabriela Macias, Annabel Salazar, Christina Enriquez, Jorge Ordaz, Miguel Aguirre, Ashley Rios, Morgan Riddle

Dress Etiquette in the Workplace – Miguel Aguirre, Jose Romero, Kathy Martinez

## II. PATHOLOGY FACULTY

*Janice Diaz-Cavallieri, MD*

- National Association of Medical Examiners (NAME) annual meeting. October.

*Mario A Rascon, MD, MHCM*

- Member of the El Paso United COVID-19 Transition Task Force

## GLOSSARY

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

**Accident** – manner in which death results from unintentional injury, poisoning, or intoxication.

**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 17 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** – manner in which death stems from a volitional or intentional act of one person against 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 document review, as to whether the death was caused by unnatural events.

**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 and/or aging process 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, unexplained, 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 20<sup>th</sup> 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** – 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.

**2022 El Paso County Office of the Medical Examiner Annual Report**

This publication may be reproduced, in whole or in part, without permission.

Digital copies of this publication can be found online at: [epcounty.com/medicalexaminer/stats.htm](http://epcounty.com/medicalexaminer/stats.htm)

Cover Photo: El Paso County Office of the Medical Examiner Logo (Designed by JRR).

Created by:

Mario A Rascon