



Office of the Medical Examiner

2016 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.

We are acutely aware that, in many cases, the pursuit of civil or criminal proceedings is in part determined by our ability to determine the cause and manner of death. Thus, in an effort to provide thorough, honest investigations, the EPOME and its investigative medical staff, aside from the autopsy and ancillary testing, rely on witness accounts, law enforcement agencies, medical records review, first responders reports, and a wide variety of sources to certify the cause and manner of death.

The EPOME is also very proud to function as an advocate for families by working with them to ensure they are notified of the death, relaying preliminary findings, sharing the final autopsy report in a timely manner, assist families with funeral arrangements, and facilitating communication between the families and other agencies that will assist in the grieving process. Similarly, the EPOME works with organ and tissue procurement organizations whenever possible, to facilitate family wishes regarding postmortem donations.

The public health role of the EPOME 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.

Lastly, I wish to express my deepest gratitude to our staff, whose tireless efforts were crowned June 17th, 2016, when the EPOME was granted full institutional accreditation by the National Association of Medical Examiners (NAME), after a deficiency-free inspection. This report is dedicated to them with the utmost admiration and gratitude, for being an exemplary team committed to serving our community.



Mario A Rascon, MD, 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.

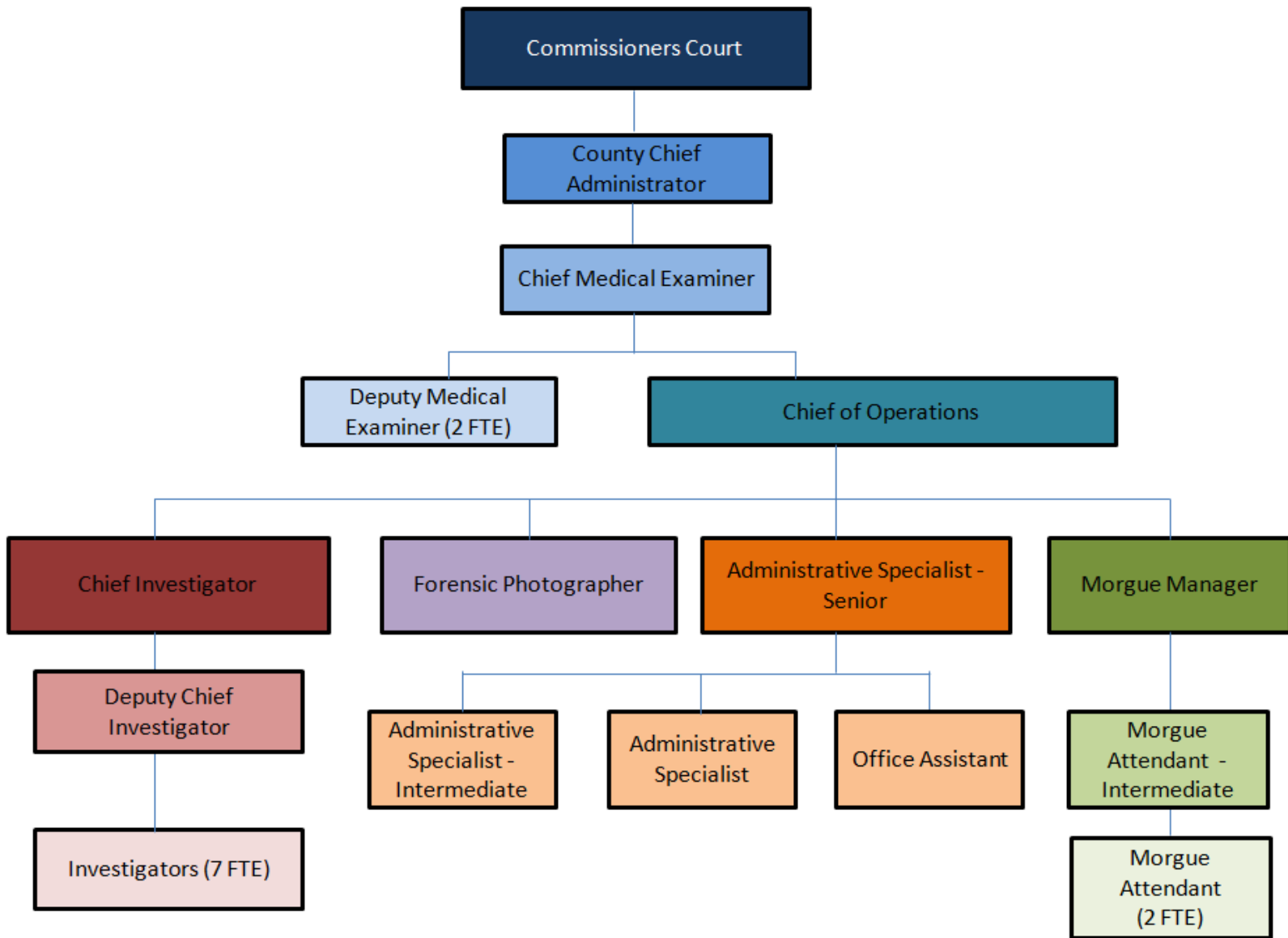
The Texas Code of Criminal Procedure (Chapter 49. 'Inquests Upon Dead Bodies'), stipulates that the EPOME shall conduct an inquest into the death of a person who dies in the County if:

- (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 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

The El Paso Metro area covers an area of 1,015 square miles, and has an estimated population (2016) of about 837,918. 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, 1.4% 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:
 - External Examination.** Formal external examination, which may or may not include toxicology/chemical testing.
 - Autopsy.** Complete autopsy. A **partial autopsy** (dissection limited to specific anatomic sites) is sometimes performed if there is expressed objection to autopsy or significant health or safety risks exist for staff.



Area served by the EPOME is highlighted in red

EXECUTIVE SUMMARY – 2016

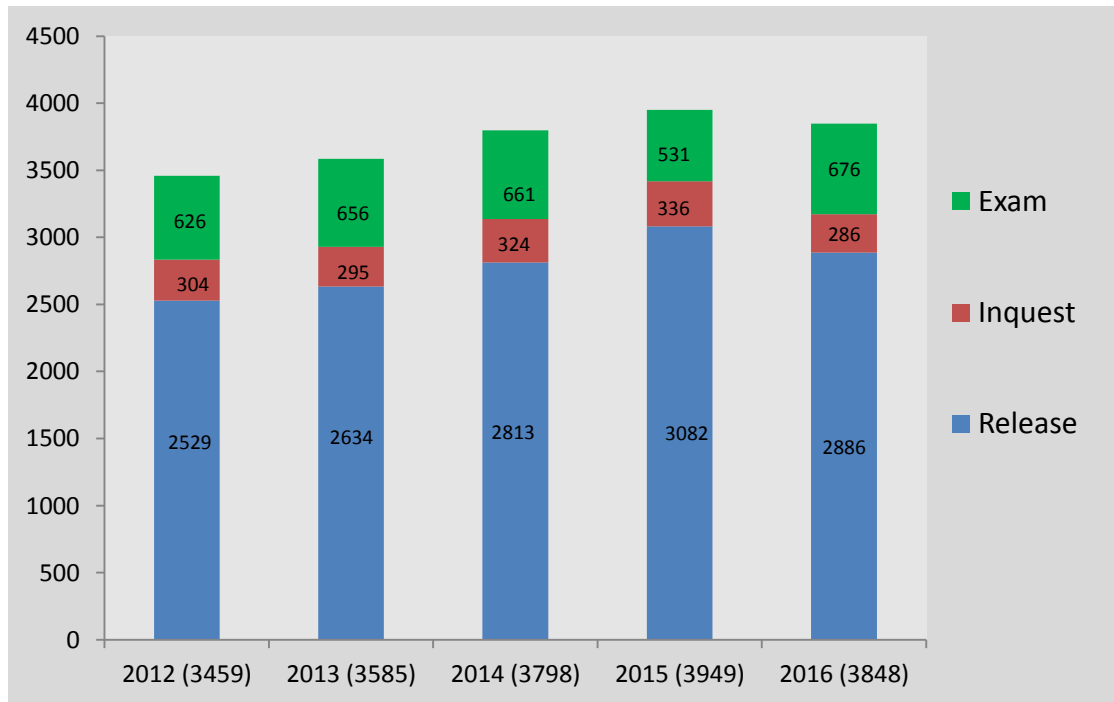
In 2016, the El Paso County had a total of 5521 deaths. Of these, 3984 were reported to the EPOME. Every reported case requires a preliminary screening by EPOME investigative staff to determine if it falls under the jurisdiction of the EPOME. Of those calls, a total of 2886 cases were **released**, with death certificates being signed by primary care physicians in the community. Additionally, 136 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 (286 **inquests** and 676 **exam** cases). In all the exam cases the bodies were physically examined at the EPOME. Full body autopsies were conducted on 608 cases and 68 underwent an *external examination* only. Two partial autopsies were performed in 2016.

There were a total of 849 death scenes investigated. A total of 790 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* 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 (human skeleton). There were no exhumations performed and no cases previously autopsied at local hospitals were retained by the EPOME in 2016.

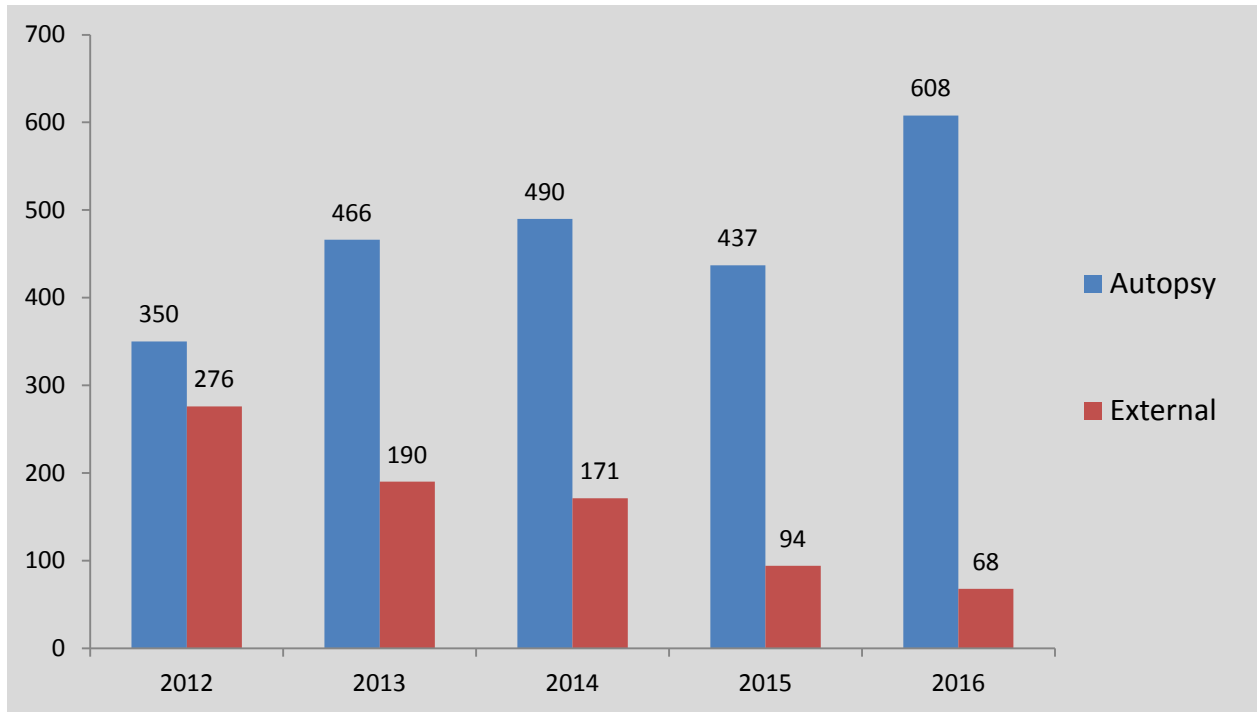
EPOME DATA (2012 – 2016)

TOTAL CASES HANDLED BY THE EPOME – 2012 to 2016



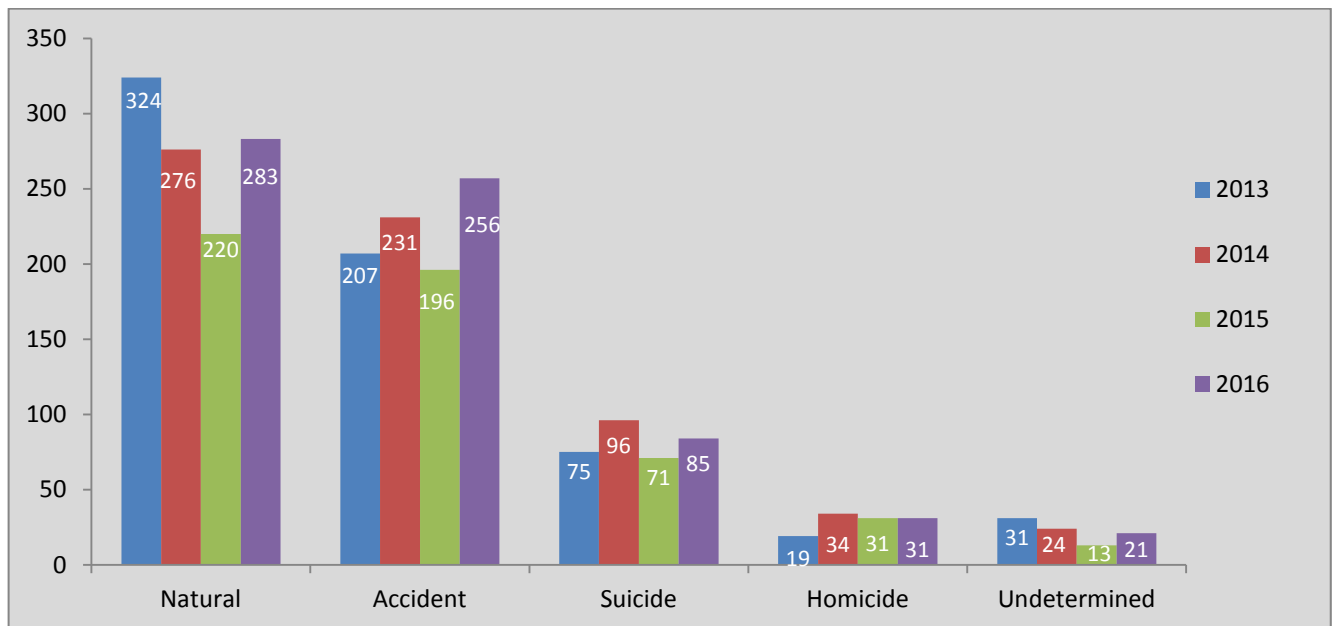
There was a 27% increase in exam cases from 2015 to 2016.

EXAM CASES 2012 to 2016 – EXAMINATION TYPE

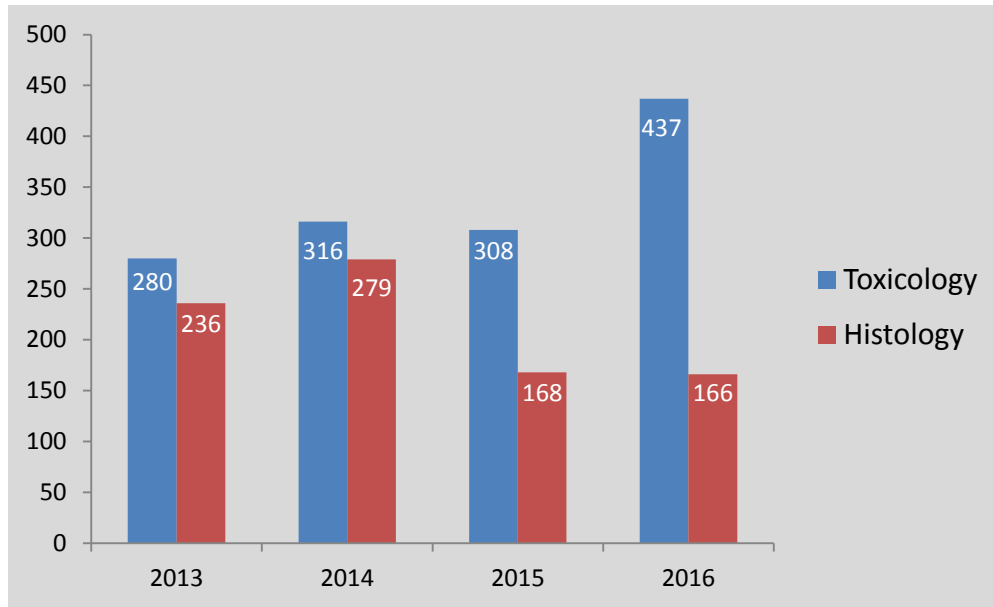


The autopsy to external examination ratio has gone from 1.2:1 in 2012 to 8.9:1 in 2016.

EXAM CASES 2013 to 2016 – MANNER OF DEATH



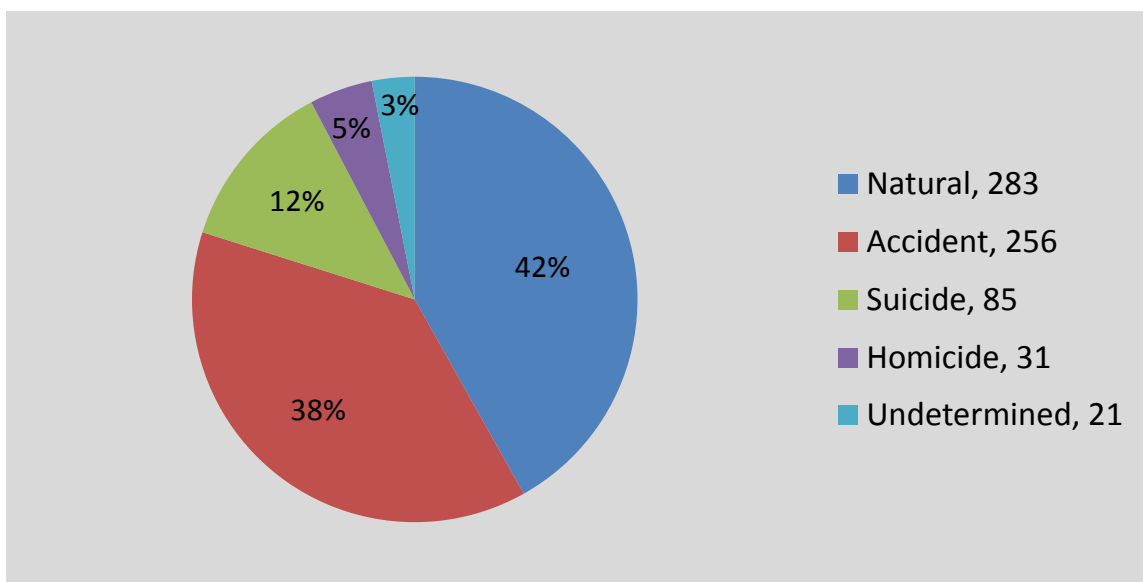
EXAM CASES 2012 to 2016 – TOXICOLOGY & HISTOLOGY REQUESTS



There was a 41% increase in the number of toxicology requests from 2015 to 2016.

EPOME 2016: EXAM CASES

2016 TOTAL EXAM CASES (676) – MANNER OF DEATH



2016 TOTAL EXAM CASES (676) – MANNER OF DEATH & AUTOPSY STATUS

	MANNER OF DEATH					TOTAL (%)
	NATURAL	ACCIDENT	SUICIDE	HOMICIDE	UNDETERMINED	
Full Autopsy (%)	248 (87.6%)	228 (89%)	80 (94%)	31 (100%)	20 (95.2%)	607 (89.8%)
Partial Autopsy (%)	0	1 (0.003%)	1 (1.1%)	0	0	2 (0.2%)
External Exam (%)	35 (12.4%)	27 (11%)	4(4.7%)	0	1 (4.8%)*	67 (10%)
TOTAL	283	256	85	31	21	676

*Bona Fide religious objection to autopsy

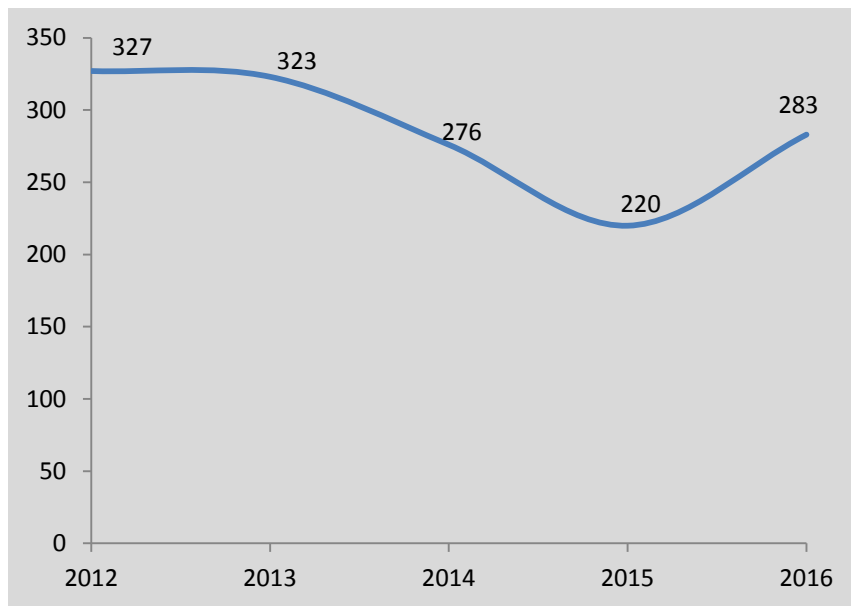
2016 TOTAL EXAM CASES (676) – GENDER AND AGE GROUP

	MANNER OF DEATH										
	NATURAL		ACCIDENT		SUICIDE		HOMICIDE		UNDETERMINED		
Age Group	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	Unknown
Unknown	-	-	-	-	-	-	-	-	-	-	1
>1	1	1	8	4	-	-	1	-	2	2	-
1-5	-	-	2	2	-	-	1	-	-	1	-
6-10	-	-	2	-	-	-	-	-	-	-	-
11-18	1	1	5	4	1	4	2	-	-	1	-
19-25	5	1	23	5	15	-	5	-	1	1	-
26-35	7	5	22	8	15	1	6	3	1	-	-
36-45	15	11	24	13	10	7	5	-	2	-	-
46-55	47	24	30	16	8	1	2	-	1	-	-
56-65	62	23	29	13	10	-	2	-	5	1	-
66-75	33	13	14	5	4	1	2	1	1	-	-
76-85	16	6	14	7	4	1	-	-	1	0	-
>85	5	6	3	3	3	-	-	1	-	-	-
TOTAL	192	91	176	80	70	15	26	5	14	6	1
♂: 478											
♀: 197											
Unknown: 1											

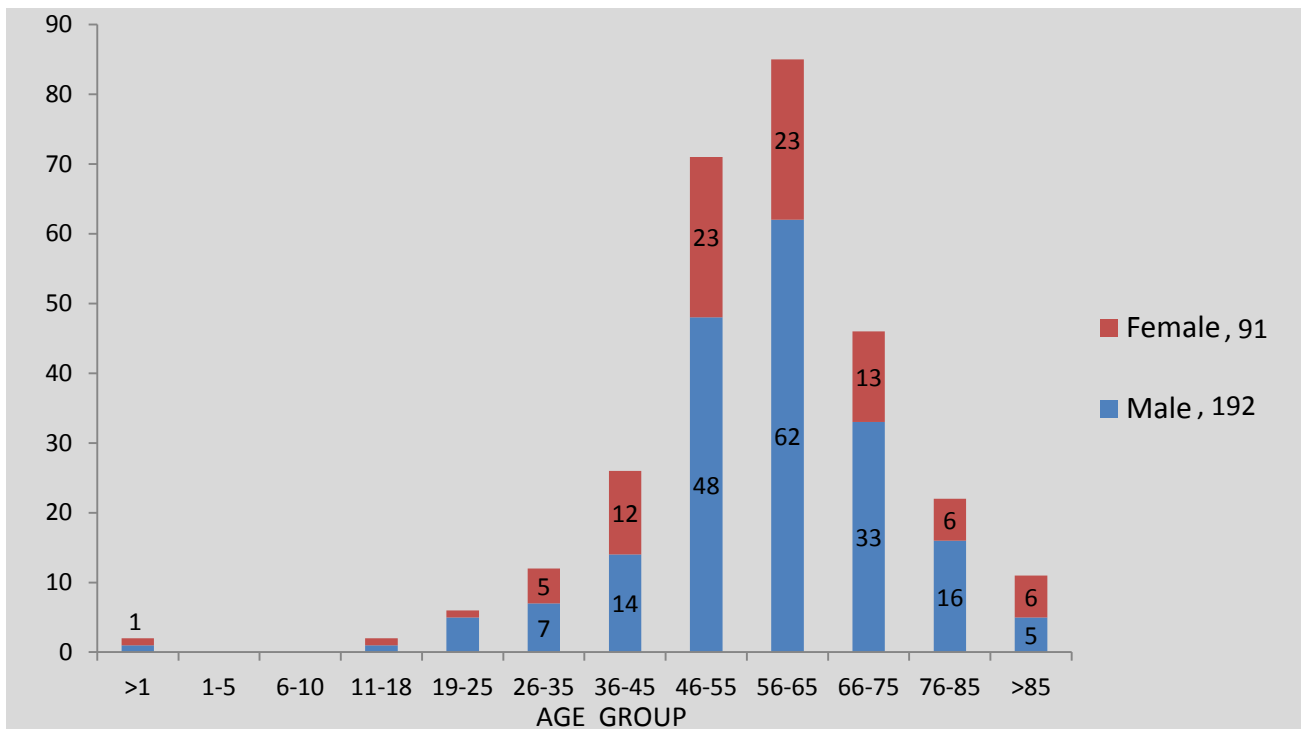
♂=male; ♀=female

NATURAL DEATHS

NATURAL DEATHS: 2012 – 2016



2016 NATURAL DEATHS (283) – GENDER AND AGE GROUP



Individuals aged 46 - 68 years comprised 62.8% of all people who succumbed to natural deaths.

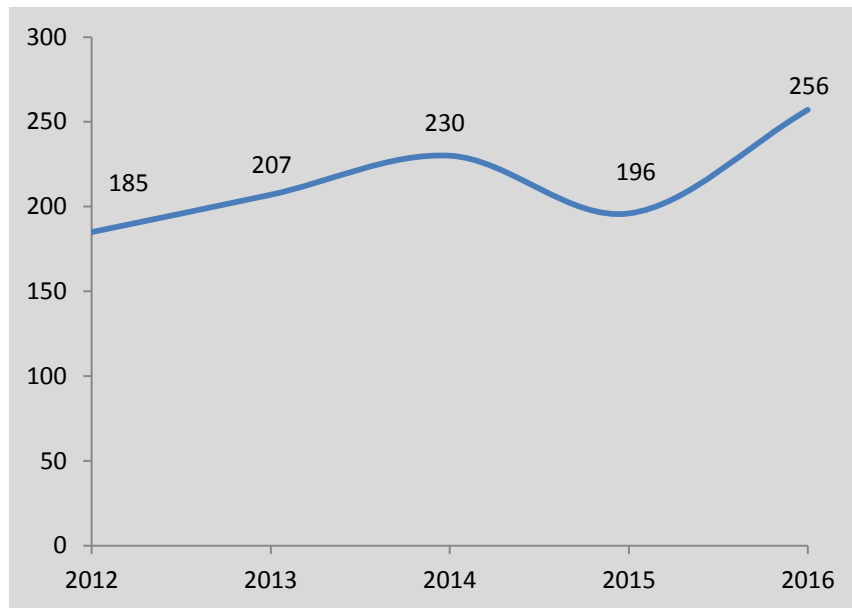
2016 NATURAL DEATHS (283) – CAUSE OF DEATH

Cardiovascular Disease	188
Pulmonary Embolus	14
Diabetes Mellitus	13
Chronic Obstructive Pulmonary Disease	8
Cancer	8
Gastrointestinal Tract Bleeding	8
Seizure Disorder	6
Complications of Chronic Alcohol Abuse	5
Liver Cirrhosis	5
Pneumonia	4
Empyema	3
Fatty Metamorphosis of Liver	3
Complications of Morbid Obesity	2
Peptic Ulcer Disease	2
Meningitis	1
Sepsis (urinary tract infection)	1
Coccidioidomycosis	1
Pericarditis	1
Amyotrophic Lateral Sclerosis	1
Complications of Childbirth	1
Complications of Klinefelter Syndrome	1
Dehydration	1
Sepsis (soft tissue abscess)	1
End Stage Renal Disease	1
Sickle Cell Crisis	1
Complications of Meningioma	1
Undetermined Natural Causes	1
Complications of Cholecystitis	1
TOTAL	283

Cardiovascular Disease includes cause of death statements such as: *hypertensive and atherosclerotic cardiovascular disease (115), atherosclerotic cardiovascular disease (41), acute myocardial infarction (8), intracerebral hemorrhage due to systemic hypertension (7), ruptured aortic aneurysm (5), bowel ischemia due to peripheral vascular disease (4), dilated cardiomyopathy (4), aortic dissection (2), hypertrophic cardiomyopathy (1), and aortic stenosis (1).*

ACCIDENTS

ACCIDENTS: 2012 – 2016

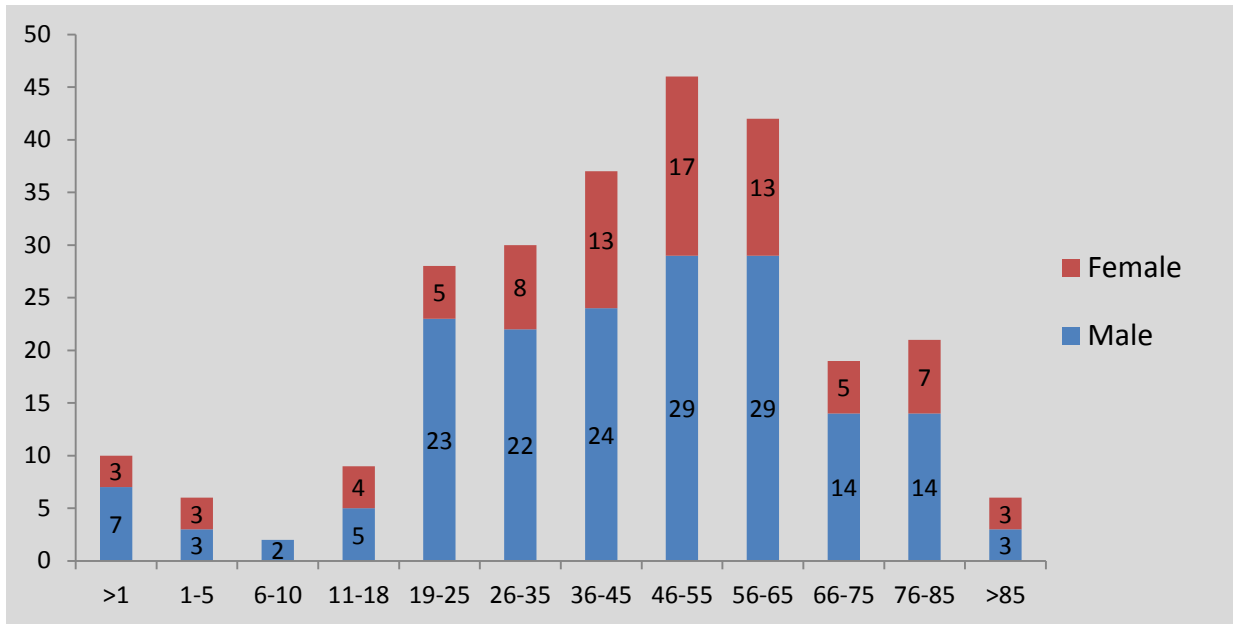


2016 ACCIDENTS (256) – MECHANISM

Blunt Force Injuries	118
Acute Drug Toxicity	83
Mixed Alcohol and Drug Toxicity	10
Drowning	10
Suffocation	9
Traumatic Asphyxia	6
Thermal & Inhalation Injuries	4
Environmental Heat Exposure	4
Carbon Monoxide Poisoning	2
Blunt and Thermal Injuries	3
Asphyxia due to Aspiration	2
Arteriovenous Fistula Rupture	2
Choking	1
Environmental Cold Exposure	1
Acute Alcohol Toxicity	1
Gunshot Wound	1
Autoerotic Asphyxia	1
Seizure Disorder	1

**note that the sum of all cases is >256 due to some cases involving multiple mechanisms, e.g., an intoxicated individual that sustains a lethal head injury after a fall*

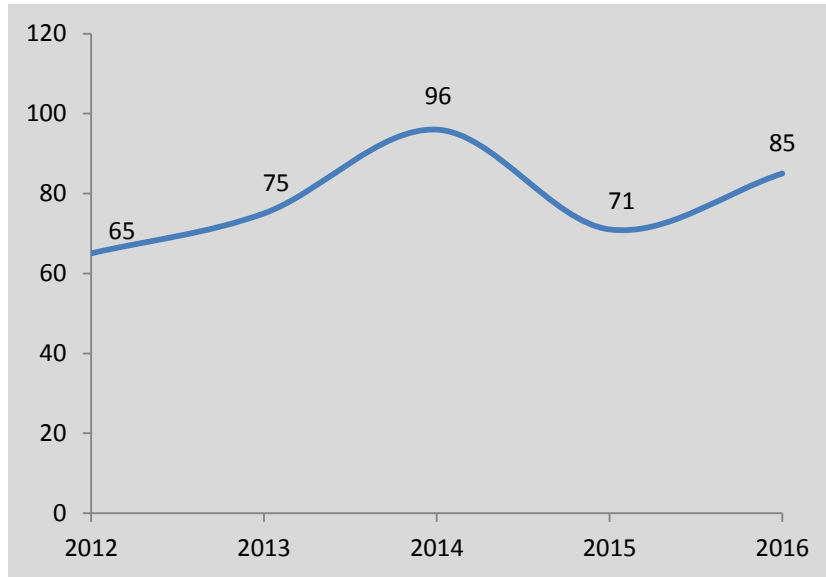
2016 ACCIDENTS (256) – GENDER AND AGE GROUP



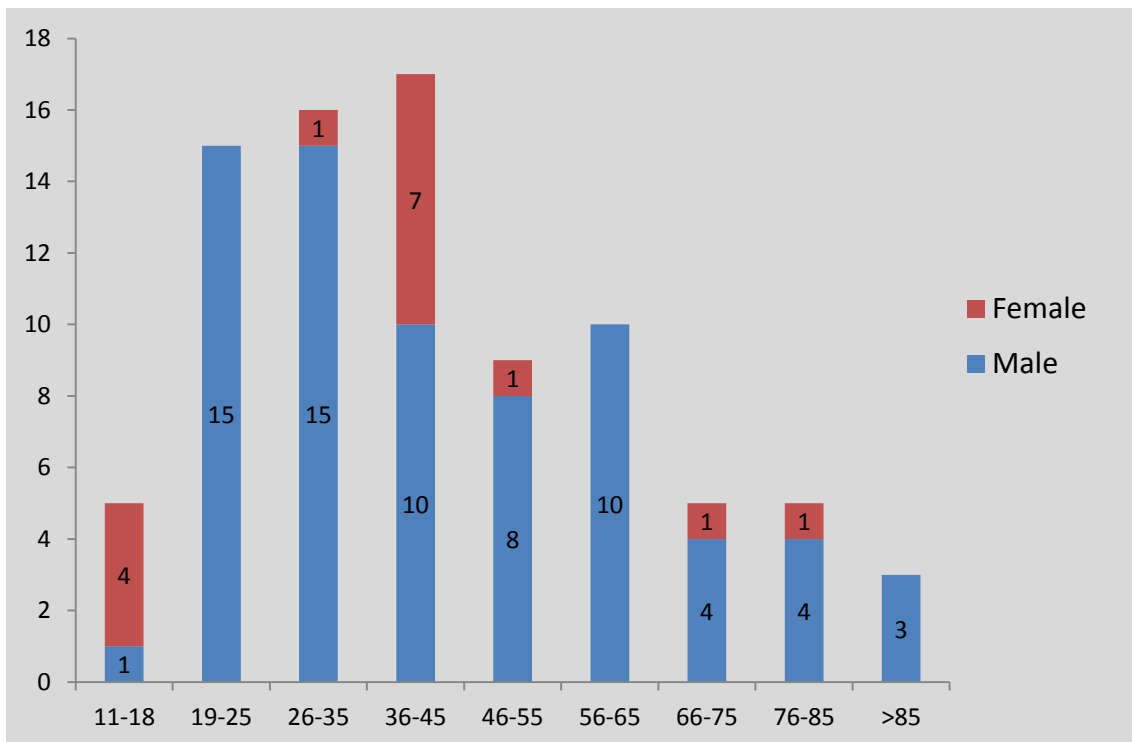
Accident victims were most frequently male (68.3%). Individuals between the ages of 22 – 49 years comprised 52% of all accidental fatalities. Accidental deaths increased by 30% from 2015(196) to 2016 (256).

SUICIDES

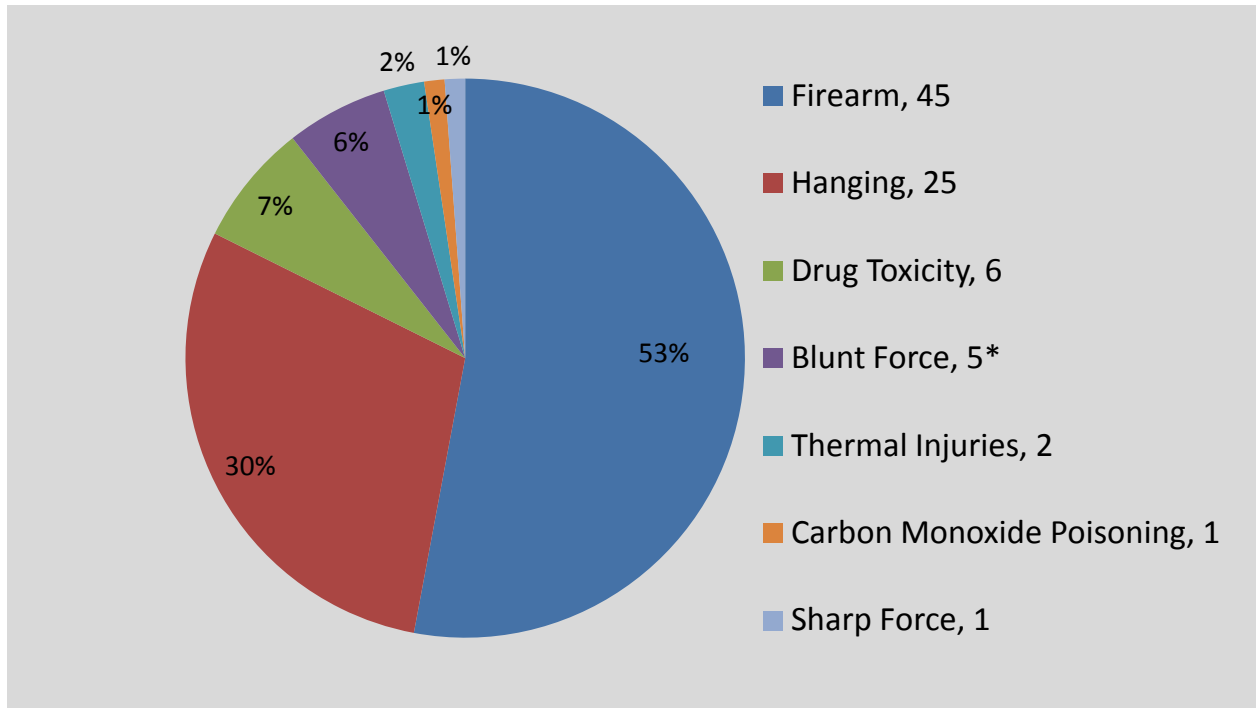
SUICIDES: 2012 – 2016



2016 SUICIDES (85) – GENDER AND AGE GROUP



2016 SUICIDES (85) – METHOD

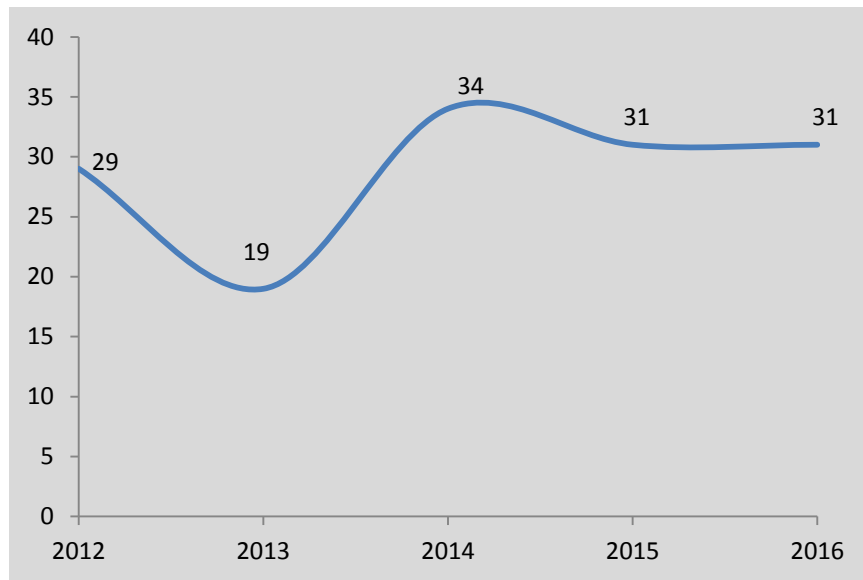


**includes: descend from height (2), jumped out of moving vehicle (1), and jumped in front of vehicle to oncoming traffic (2).*

Suicide victims were most frequently male (83%). The vast majority (41 out of 45 [91%]) of suicide by firearm were wounds to the head, followed by the chest (4 out of 45 [9%]).

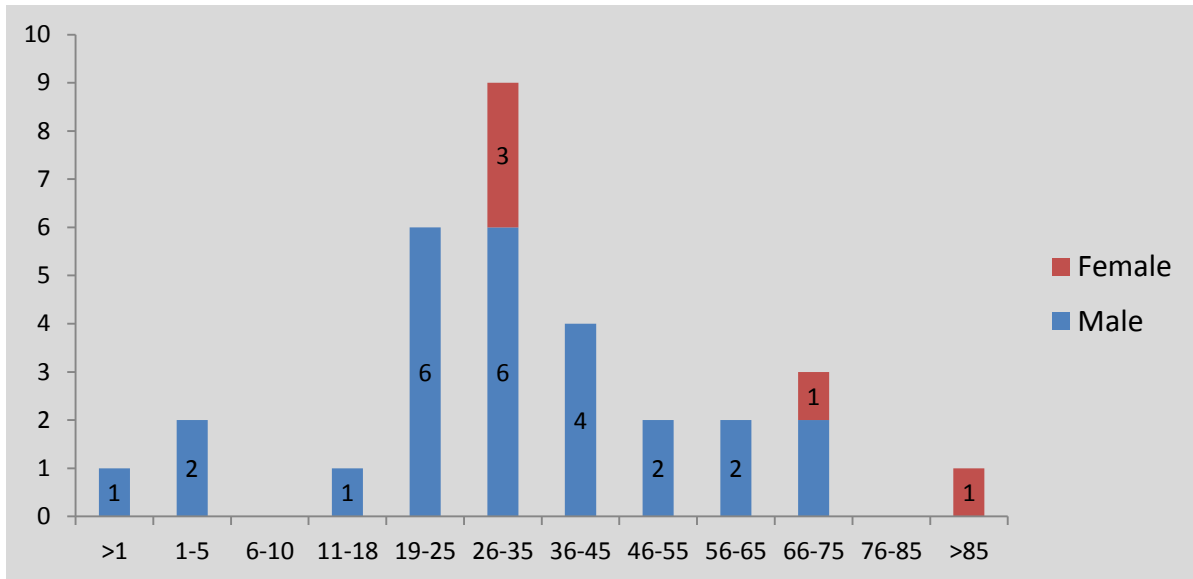
HOMICIDES

HOMICIDES: 2012 – 2016



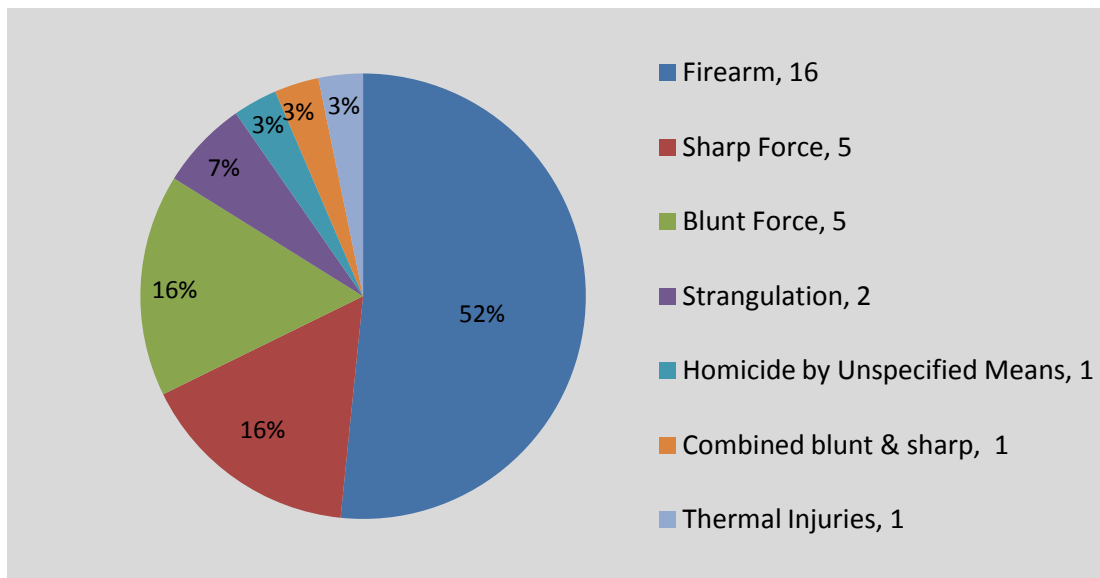
Of note is that 2 of the homicide exam cases from the EPOME in 2016 (6.5% of the total homicides), were cases in which the assault leading to the death took place outside of the El Paso County and, in fact, outside of the State of Texas. The corrected homicide rate for homicides in which the assault took place within the El Paso County geographical circumscription (29 cases) equals 3.4 per 100,000, which ranks amongst the lowest homicide rate in the USA for a city with >500,000 population.

2016 HOMICIDES (31) – GENDER AND AGE GROUP



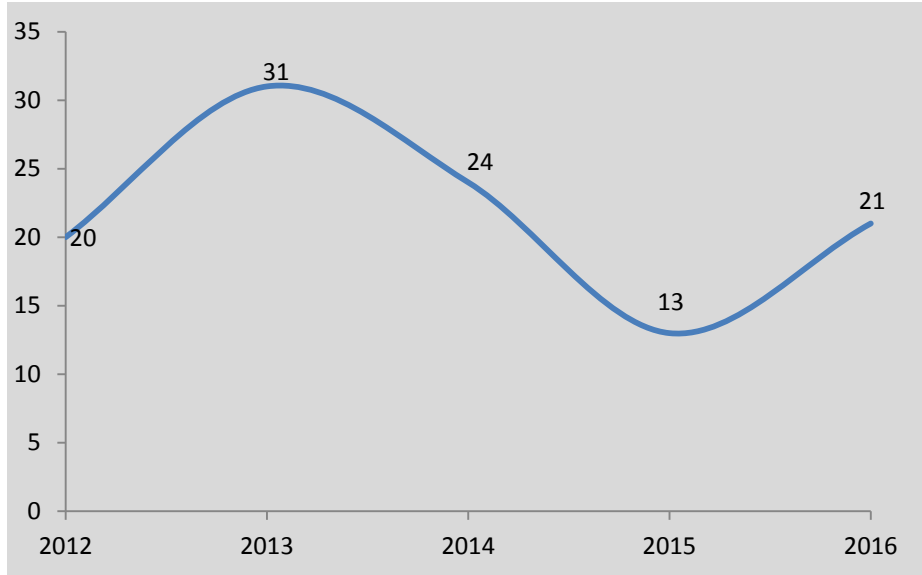
Homicide victims were most frequently male (83.8%).

2016 HOMICIDES (31) – MODE OF INFLICTION

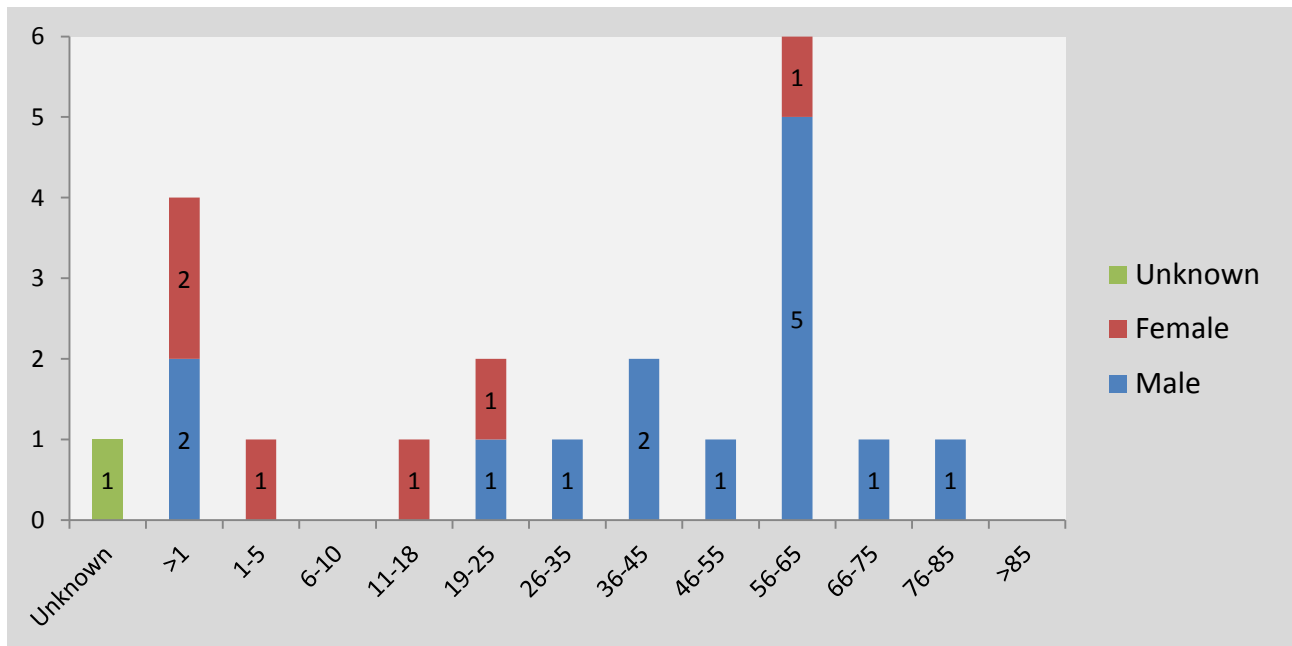


UNDETERMINED

UNDETERMINED MANNER OF DEATH: 2012 – 2016



2016 UNDETERMINED MANNER OF DEATH (21): GENDER AND AGE GROUP



CHILD FATALITY

In 2016, there were 46 deaths of individuals 18 years or age or younger, which included the deaths of 15 infants (a child in the first year of life).

2016 FETAL, INFANT, AND CHILD DEATHS – SUMMARY TABLE

	MANNER OF DEATH									
	NATURAL		ACCIDENT		HOMICIDE		SUICIDE		UNDETERMINED	
Age Group	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀
Fetus	1	-	-	-	-	-	-	-	-	1
<1	-	1	7	3	1	-	-	-	2	1
1-3	-	-	2	3	1	-	-	-	-	1
4-6	-	-	2	-	-	-	-	-	-	-
7-10	-	-	1	-	-	-	-	-	-	-
11-15	1	-	1	2	-	-	-	2	-	-
16-18	-	1	4	2	2	-	1	2	-	1
TOTAL	2	2	17	10	4	0	1	4	2	4
♂ : 26										
♀ : 20										
total: 46										

♂=male; ♀=female

2016 CHILD (<18 YEARS) FATALITY CASES (46) – MANNER OF DEATH & AUTOPSY STATUS

	MANNER OF DEATH				
	NATURAL	ACCIDENT	SUICIDE	HOMICIDE	UNDETERMINED
Full Autopsy (%)	3	26	5	4	6
Partial Autopsy (%)	0	0	0	0	0
External Exam (%)	1	1	0	0	0
TOTAL	4	27	5	4	6

2016 INFANT DEATHS (<1Y) – CAUSE OF DEATH

Asphyxia - Suffocation	9
Undetermined	3
Blunt Head Trauma	1
Dehydration	1
Complications of Prematurity	1
TOTAL	15

2016 CHILD DEATHS (AGE: 1-18) – CAUSE OF DEATH

Blunt Force Injury	11*
Drowning	4
Firearm	3
Hanging	3
Carbon Monoxide Poisoning	3
Undetermined	2
Thermal Injuries	1
Myocardial Infarction	1
Seizure Disorder	1
TOTAL	29

**includes: multiple injuries(6), injuries of head (4) and injuries of torso (1).*

CHILD FATALITY – SUMMARY

Childhood deaths represented 6.8% of all the exam cases investigated by the EPOME in 2016. Male decedents comprised 56% of the total deaths in children. The most common manner of death among children was accident (58%).

An excellent resource for additional information about the deaths of children in El Paso, their circumstances, risk factors, and opportunities for prevention is the Child Fatality Review Team (CFTR) for El Paso County, which consists of volunteers from many state and local agencies. The experts on this team review the circumstances of childhood deaths in order to identify risk factors and develop prevention strategies, and their findings are presented in an annual report.

TOXICOLOGY-RELATED DEATHS

2016 TOXICOLOGY-RELATED DEATHS (89) – SUMMARY TABLE

	MANNER OF DEATH						
	ACCIDENT		SUICIDE		UNDETERMINED		
Age Group	♂	♀	♂	♀	♂	♀	Total
19-25	8	2	1	-	-	-	11
26-35	8	4	1	-	-	-	13
36-45	9	9	-	2	-	-	20
46-55	17	6	-	-	1	-	24
56-65	7	8	-	-	-	1	16
66-75	4	-	-	-	-	-	4
>75	1	-	-	-	-	-	1
TOTAL	54	29	2	2	1	1	89
♂: 57							
♀ : 32							

♂=male; ♀=female

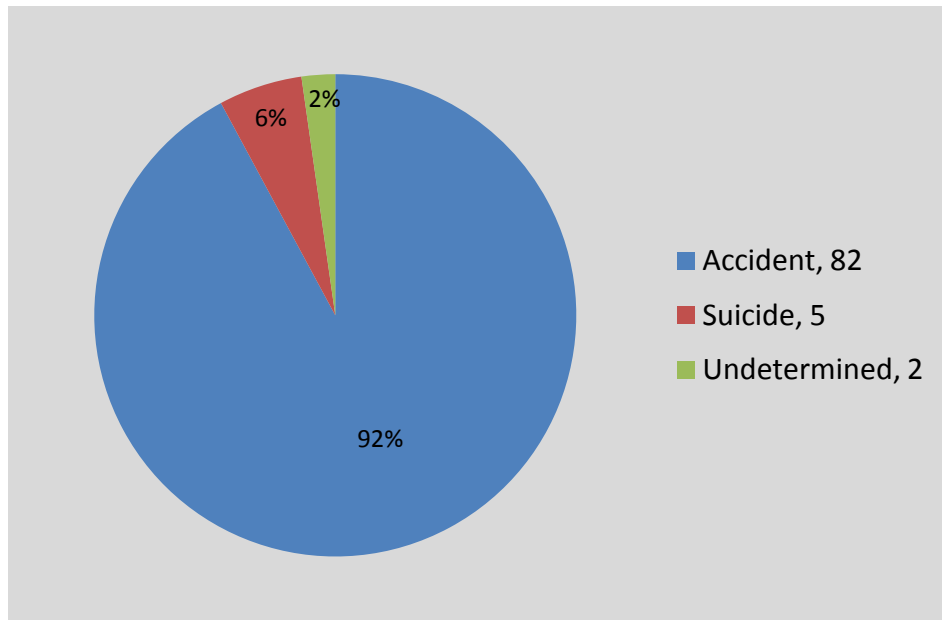
By definition, toxicology-related deaths cannot be natural in manner. There were no homicidal drug-related deaths in 2016.

Individuals between the ages of 35-59 years comprised 61% of all toxicology-related deaths. Accidents comprised 93% of all toxicology-related deaths.

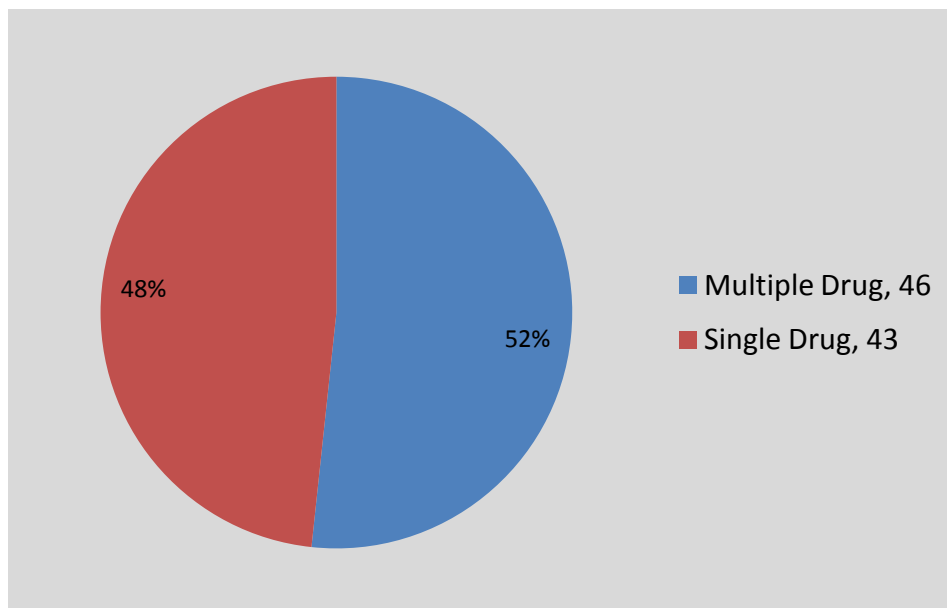
Regarding accidental toxicology-related deaths, the Male-to-Female ratio is 1.8:1.

The cases ruled undetermined in manner included cases in which a definite intention to self harm was not established, but at least one aspect of the investigation suggested the death could have conceivably been a suicide.

2016 TOXICOLOGY-RELATED DEATHS (89) – Manner of Death



2016 TOXICOLOGY-RELATED DEATHS (89) – Single vs. Multiple Drugs



2016 SINGLE DRUG-RELATED DEATHS – Drug Involved

Drug Involved	#cases
Heroin	16
Cocaine	8
Fentanyl	4
Morphine	2
Ethanol	2
Tramadol	2
TOTAL	34

More than half (51%) of the single-drug-related deaths were due to heroin toxicity. Nine drugs were involved in one fatal case each (amitriptyline, amphetamine, dufluroethane, diphenhydramine, methadone, hydromorphone, methamphetamine, oxycodone, and salicylates).

2016 MULTIPLE DRUG-RELATED DEATHS (46) –Most Frequently Involved Drugs

Drug Mentioned	#cases*
Heroin	16
Cocaine	11
Alprazolam	10
Ethanol	10
Morphine	11
Hydrocodone	9
Clonazepam	7
Morphine	7
Diazepam	5
Methadone	5
Oxycodone	5
Fentanyl	4
Codeine	4
Cyclobenzaprine	4
Oxymorphone	4
Tramadol	4

*only drugs involved in ≥4 cases are mentioned
Heroin was present in 34% of all multiple drug-related deaths.

2016 TOXICOLOGY-RELATED DEATHS – Multiple-Drug-Related Deaths: Number of Drugs Involved

MANNER	Number of Drugs					
	2	3	4	5	6	7
SUICIDE						
1			3, 15, 31, 38			
2						3, 8, 13, 21, 32, 46, 50
3				3, 31, 50, 54, 63		
ACCIDENT						
1	16, 46					
2	27, 31					
3	15, 31					
4		3, 16, 32				
5	32, 50					
6	27, 31					
7	27, 31					
8			13, 15, 31, 41			
9	3, 40					
10		13, 50, 52				
11	7, 9					
12		4, 25, 29				
13	5, 31					
14		12, 17, 20, 32				
15	29, 32					
16	27, 31					
17					16, 17, 32, 46, 58, 66	
18				9, 13, 16, 29, 61		
19					3, 12, 17, 27, 54, 61	
20		31, 41, 50				
21				4, 12, 20, 40, 52		
22			16, 32, 40, 46			
23	3, 48					
24		20, 31, 40				
25						8, 13, 16, 45, 46, 61, 63
26			3, 5, 15, 32			
27		13, 29, 46				
28		20, 31, 40				
29	15, 27					
30	20, 50					
31	15, 31					
32	31, 32					
33	3, 50					
34	31, 41					
35			3, 15, 27, 31			
36		4, 13, 21				
37		4, 17, 46				
38		15, 31, 41				
39			15, 30, 32, 61			
40	15, 27					
41	40, 41					
42			8, 15, 21, 54			
43		7, 27, 48				
TOTAL (46)	20	12	7	3	2	2

2016 TOXICOLOGY-RELATED DEATHS – Multiple-Drug-Related Deaths: Medication Key

ACETAMINOPHEN	1	DOXYLAMINE	24	OLANZAPINE	47
ACETONE	2	DULOXETINE	25	OPIATES	48
ALPRAZOLAM	3	ETHANE	26	OXAZEPAM	49
AMITRYPTILINE	4	ETHANOL	27	OXYCODONE	50
AMPHETAMINE	5	ETHYLENE GLYCOL	28	PAROXETINE	51
BATH SALTS	6	FENTANYL	29	PROMETHAZINE	52
BENZODIAZEPINE	7	FLUOXETINE	30	PSEUDOEPHEDRINE	53
BUPROPION	8	HEROIN	31	QUETIAPINE	54
BUTALBITAL	9	HYDROCODONE	32	RISPERIDONE	55
CARISOPRODOL	10	HYDROGEN SULFIDE	33	SERTRALINE	56
CHLORHPHENAMINE	11	HYDROMORPHONE	34	SYNTHETIC CANNABIS	57
CITALOPRAM	12	HYDROXYZINE	35	TEMAZEPAM	58
CLONAZEPAM	13	INHALANTS	36	TETRAFLUOROETHANE	59
CLOZAPINE	14	ISOPROPANOL	37	TOPIRAMATE	60
COCAINE	15	LORAZEPAM	38	TRAMADOL	61
CODEINE	16	MECLIZINE	39	TRAZODONE	62
CYCLOBENZAPRINE	17	METHADONE	40	VENLAFAXINE	63
DESIPRAMINE	18	METHAMPHETAMINE	41	VERAPAMIL	64
DEXTROMETHORPHAN	19	METHANE	42	ZIPRASIDONE	65
DIAZEPAM	20	METHANOL	43	ZOLPIDEM	66
DIPHENHYDRAMINE	21	MIDAZOLAM	44	ZOPICLONE	67
DIFLUORETHANE	22	MIRTAZAPINE	45		
DOXEPINE	23	MORPHINE	46		

MOTOR VEHICLE RELATED DEATHS

2016 MOTOR VEHICLE RELATED DEATHS – SUMMARY TABLE

Age Group	ACCIDENT		
	♂	♀	
>1	-	1	1
1-5	-	-	0
6-10	1	0	1
11-18	4	3	7
19-25	10	3	13
26-35	8	2	10
36-45	11	3	14
46-55	6	4	10
56-65	18	3	21
66-75	2	4	6
76-85	8	3	11
>85	1	2	3
TOTAL	69	28	97

♂=male; ♀=female

There were 97 motor vehicle related fatalities in 2016. All consisted of accidents. Males comprised 71% of all motor vehicle related deaths in 2016.

2016 MOTOR VEHICLE RELATED DEATHS – STATUS OF DECEDENT

Motor vehicle – Driver	32
Pedestrian struck by motor vehicle	24
Motorcyclist – operator	14
Motor Vehicle – Front Passenger	11
Motor vehicle – Back Passenger	8
Motorcyclist – passenger	2
Motor vehicle, non-driver – position unknown	2
Bicyclist	2
Pedestrian hit by train	1
All-terrain vehicle - driver	1
TOTAL	97

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
2013	5	4	1
2014	2	0	2
2015	14	0	3
2016	12	0	2

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 2016, there were **29 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.

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
2012	2585
2013	2717
2014	2839
2015	3025
2016	3084

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, 158 decedents have been positively identified using fingerprints.

YEAR	Fingerprint ID
2012	15
2013	22
2014	48
2015	24
2016	49

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, 94 cases have been referred to this program.

YEAR	Unclaimed Bodies
2012	10
2013	14
2014	19
2015	26
2016	25

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.

2016 EPOME EXAM CASES (676) – TIME FROM AUTOPSY TO FINAL WRITTEN AUTOPSY REPORT

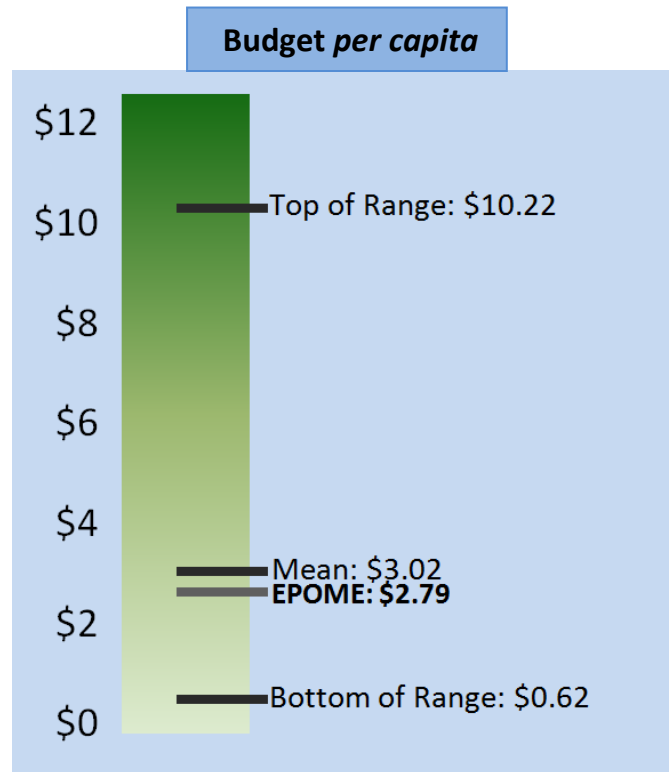
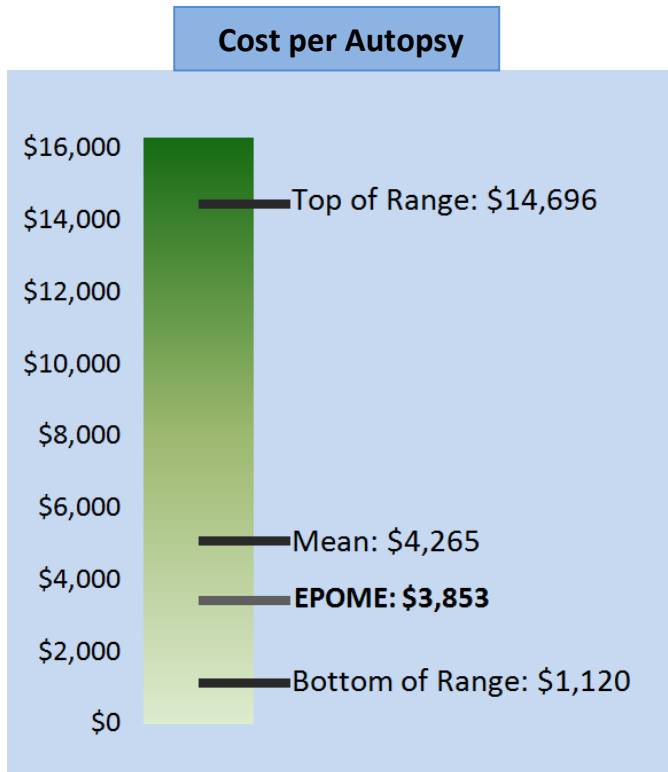
Time for final report	No. of cases (%)
Within 60 days	670 (99.1)
Within 90 days	674 (99.7)
>90 days	2 (0.29)

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 of \$755 for the NAME accredited medical examiner offices in their jurisdiction.

In 2016, the EPOME has a *cost per death reported* of **\$588**; a *cost per autopsy* of **\$3853**; and a *budget per capita* of **\$2.79/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 local 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

Lorenzo Flores - Forensic Photographer

- Border Challenge Criminal Justice Competition 3 day event. 02/16.
- Del Valle HS – Biology/Forensics classes. 05/16.
- UTEP Summer Camp. 06/16.
- SISD Father Son Conference 09/16.
- Montwood Middle School Career Day. 10/16.
- Pebble Hills HS Career Awareness Showcase. 10/16.
- El Dorado HS Criminal Justice Class. 11/16.
- Harmony School of Innovation. 12/16

Mario A Rascon, MD – Chief Medical Examiner

- “Introduction to Forensic Pathology”. CSI Forensics Lab Summer Camp. UTEP.
- “Accountability in the workplace and evaluating performance”. Leadership Academy: El Paso County Human Resources Training and Development Division.
- Speed Mentoring. Medical Professions Organization’s. UTEP. El Paso, TX.

Janice Diaz-Cavallieri, MD – Deputy Medical Examiner

- “Forensic Pathology 101”. Pathology Interest group. PLFSOM. 4/23
- “Reportable deaths”. Trisun lecture. 03/29
- Emergency care “reportable deaths” talk. 05/31
- “Death Certification” Lecture to EPOME investigators. 04/05

II. INTERNSHIP PROGRAM

Spring

- Ashley Rios. *Investigations*. UTEP – Forensic Science.
- Redana Devoll. Morgue. UTEP – Microbiology.
- Adriana DeMoss. Morgue. UTEP – Biology.
- Maria Williams. Morgue. UTEP – Criminal Justice.

Summer

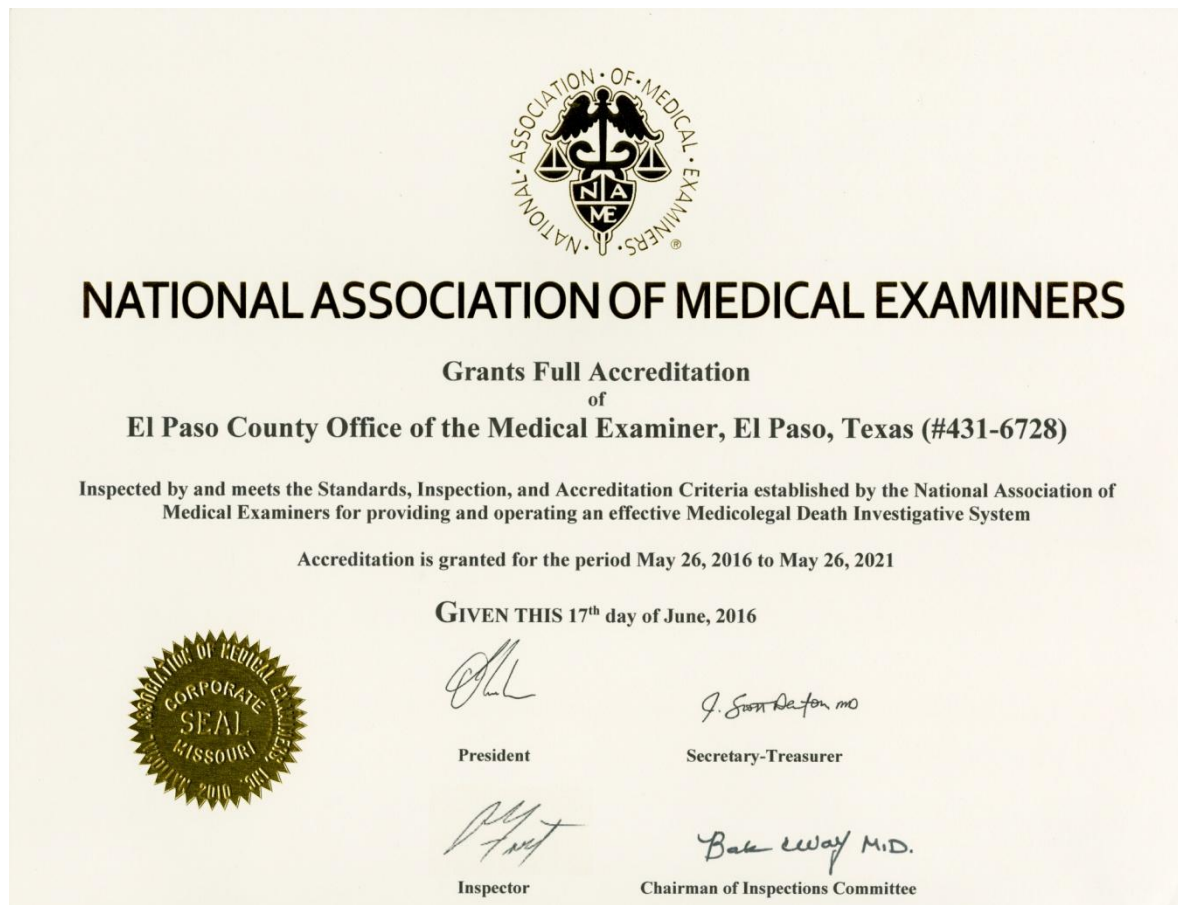
- Cameron Hartwig. *Investigations*. West Virginia University – Forensic Science.
- Christina Shreve. Morgue. UTEP – Biology.
- Cosette Perez. Morgue. UTEP – Forensic Science.

Fall

- Mayra Medina. *Investigations*. UTEP – Biological Sciences.
- Angel Padilla. Morgue. NMSU – Biology
- Jose Barragan. Morgue. UTEP – Biochemistry

PROFESSIONAL DEVELOPMENT

The EPOME's institutional highlight of 2016 regarding professional development consisted of acquiring full accreditation granted by the National Association of Medical Examiners (NAME). Accreditation is an endorsement by NAME that the office provides an adequate environment in which a forensic pathologist may practice the profession, and provides reasonable assurances that the system well serves its jurisdiction.



NAME accreditation certificate. 17 June, 2016.

I. INVESTIGATIVE STAFF

A. Seminars

Medicolegal Death Investigation Training presented by St. Louis University School of Medicine: attended by Jorge Ordaz. April, 2016

B. Certifications

American Board of Medicolegal Death Investigators (ABDMI) Registry Certification

- Jorge Ordaz: 09/13/16
- Morgan Riddle: 09/23/16

II. PATHOLOGY FACULTY

Juan U Contin, MD

- Mid-Winter Medicine Update Conference in Ruidoso, NM. Presbyterian Healthcare Services. 02/16

Janice Diaz-Cavallieri, MD

- NAME 2016 Annual Meeting . Minneapolis, MN. 09/16

Mario A Rascon, MD

- 68th Annual Scientific Meeting of the American Academy of Forensic Sciences. 02/16.
- Abstract Presented: Welder D, Rascon M. Adenoviral Pneumonia as Cause of Death in an Infant. *College of American Pathologists* annual meeting. 09/16
- High Consequence Infectious Disease Response Workshop. Texas Department of State Health.
- Member of the Ad hoc-International Relations Committee – The National Association of Medical Examiners.
- Member of the Ad hoc-Study of Quality Improvement by Peer Review in the ME Office Committee – The National Association of Medical Examiners

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.

2016 El Paso County Office of the Medical Examiner Annual Report

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