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<td>Pima County</td>
<td>Pages 40 - 68</td>
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<tr>
<td>Homicide Deaths</td>
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<td>Indigent Interment</td>
<td>Page 66</td>
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<td>Pages 69 - 89</td>
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<tr>
<td>Santa Cruz County</td>
<td>Pages 90 - 94</td>
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</table>

*Medical Examiner Counties – Pima County serves as appointed Medical Examiner

## Deaths by County – Non-Medical Examiner*

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<td>Graham County</td>
<td>Pages 101 - 103</td>
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<td>Greenlee County</td>
<td>Pages 104 - 106</td>
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<td>La Paz County</td>
<td>Pages 107 - 109</td>
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<td>Navajo County</td>
<td>Pages 110 - 112</td>
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<td>Pinal County</td>
<td>Pages 113 - 115</td>
</tr>
<tr>
<td>Yuma County</td>
<td>Pages 116 - 118</td>
</tr>
</tbody>
</table>

*Non-Medical Examiner Counties – Pima County performs examinations on fee-for-service basis but does not serve as appointed Medical Examiner for these counties
INTRODUCTION
The Pima County Office of the Medical Examiner (PCOME) investigates any death in Pima County that is sudden, violent, unexpected, or in which the cause of death is unknown. The PCOME also serves as the Medical Examiner (ME) for Cochise and Santa Cruz Counties and performs examinations as needed for eight additional counties. In 2019 there were 9,983* deaths in Pima County; of these 3,058 (31%) were reported to the PCOME for investigation. This annual report consists of four main sections. The first is an overview of the activities and notable events of the office over the course of the report year. The second is a statistical review of the types of all cases processed by the office regardless of the county of death. The third is a breakdown of certain death classifications for the three counties for which the PCOME is the appointed medical examiner. The fourth is a breakdown of certain death classifications for deaths reported to the PCOME from counties in which the PCOME is not the appointed medical examiner.

OVERVIEW
The PCOME was fully accredited by the National Association of Medical Examiners (NAME) following a two-day inspection in October 2011. This accreditation was effective from October 24, 2011 through October 24, 2016 and required annual accreditation verifications. The office was re-inspected in January 2017 and received continued full accreditation valid through October 25, 2021. NAME accredited offices represent the highest quality of death investigation systems. There are 79 fully accredited Medical Examiner’s Offices across the United States. The PCOME has the distinction of being one of two fully accredited offices in Arizona.

Reportable Deaths
Arizona Revised Statute §11-593 delineates ten circumstances in which a death is reportable to the PCOME.
1. Death when not under the current care of a health care provider as defined pursuant to section 36-301.
2. Death resulting from violence.
3. Unexpected or unexplained death.
4. Death of a person in a custodial agency as defined in section 13-4401.
5. Unexpected or unexplained death of an infant or child.
6. Death occurring in a suspicious, unusual or non-natural manner, including death from an accident believed to be related to the deceased's occupation or employment.
7. Death occurring as a result of anesthetic or surgical procedures.
8. Death suspected to be caused by a previously unreported or undiagnosed disease that constitutes a threat to public safety.
9. Death involving unidentifiable bodies.

*AZDHS monthly vital statistics as of 2/14/2020
Investigations
Our 11 medical investigators processed 3,058 reports of deaths from Pima County and 485 reports from 11 additional Arizona counties in 2019. Jurisdiction was declined in 1,337 of these cases. A total of 1,875 decedents were transported to the PCOME for examination or storage in 2019.

Examinations
Pima County forensic pathologists and anthropologists performed 1,361 autopsies, 476 external examinations, 331 death certifications, 191 anthropologic examinations, and reviewed 7,277 death certificates for cremation authorization in 2019.

Education, Training and Activities
1) Medicolegal Death Investigators
Calendar year 2012 saw a transition from the term Forensic Medical Investigator (FMI) to Medicolegal Death Investigator (MDI) for our 11 MDIs in keeping with national norms. Seven MDIs, our MDI Supervisor, and Administrative Supervisor are certified by the American Board of Medicolegal Death Investigators to provide competent medicolegal death investigations. PCOME Forensic Pathologists lecture to the MDIs on varying topics monthly. In accordance with our MDI quality assurance and performance improvement program, 10% of reports are reviewed by a pathologist monthly and 10% of reports are peer reviewed quarterly.

2) Community education, presentations and media interviews
The PCOME receives numerous requests from various groups, organizations, individuals and schools for presentations regarding a host of forensic issues annually. Not all requests can be honored due to time and personnel constraints, but examples of educational activities include but are not limited to: presentations at local primary and secondary schools; lectures at various institutions and departments at the University of Arizona; presentations and tours for humanitarian organizations; and the teaching of a 3-credit-hour death investigation class at Pima Community College. The Chief Medical Examiner recorded 201 media interviews, emails and phone calls over the calendar year. Pima County’s Forensic Anthropologists and Pathologists gave numerous platform and poster presentations to various organizations and at national anthropologic and forensic conferences.

3) University of Arizona College of Medicine, Department of Pathology and School of Anthropology
PCOME Forensic Pathologists hold clinical appointments with the Department of Pathology at the University of Arizona, College of Medicine, where they are involved with pathology resident and medical student teaching. Three pathology residents, six medical students and one pathology post-sophomore fellows rotated through the PCOME for month-long rotations in 2019. Funded by the Department of Pathology, the PCOME began a Forensic Pathology training program in 2016; the only such training program offered in Arizona. Our
Forensic Anthropologists hold academic appointments at the University of Arizona and three anthropology interns trained at our facility in 2019.

Law Enforcement and Legal System
The availability of our pathologists to assist or advise law enforcement personnel in their investigations and the legal system in its proceedings is an important function of the PCOME. Involvement of the PCOME in the legal system generally consists of pretrial interviews, depositions and courtroom testimony. In 2019, the office’s six forensic pathologists and three anthropologists participated in a number of pretrial interviews, depositions and jury trials not only for Pima County but also for out-of-county cases.

Organ and Tissue Donation
Pursuant to A.R.S §36-861, the PCOME refers death notifications to, and partners with, Donor Network of Arizona (DNA) and other associated tissue research agencies for the coordination and procurement of anatomic gifts. The importance of supporting the efforts of the organ and tissue transplant and research communities in Arizona cannot be understated. Anatomic gifts can be life saving for organ and tissue recipients and these donations are always in short supply. The authorization for the procurement of organs was granted in 100% of cases. The PCOME has long been the state leader in percentage of release on tissue and ocular cases and 2019 was no different. The release of tissues and corneas was granted 98% of the time.

Organ Donations with PCOME Involvement 2019

<table>
<thead>
<tr>
<th>Organ</th>
<th>Heart</th>
<th>Lungs</th>
<th>Liver</th>
<th>Kidneys</th>
<th>Pancreas</th>
<th>Sm. Intestine</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart</td>
<td>17</td>
<td>21</td>
<td>30</td>
<td>73</td>
<td>7</td>
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<tr>
<td>Lungs</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Liver</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Kidneys</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pancreas</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Sm. Intestine</td>
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<td></td>
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<tr>
<td>Total</td>
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<td></td>
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Tissue Donation with PCOME Involvement 2019

<table>
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<tr>
<th>Tissue</th>
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<th>Ocular</th>
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<td>55</td>
<td>51</td>
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<tr>
<td>Ocular</td>
<td></td>
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</tbody>
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Rev: 04/20/2020
Chief Medical Examiner
Gregory Hess MD

Forensic Anthropologists
Bruce Anderson PhD
Jennifer Vollner PhD
Caitlin Vogelsberg PhD

Administrative Services Manager
Christopher Smith D-ABMDI

Morgue Supervisor
Lindsay Hershberger

Pathology Assistants
Gabriel Costell
Louie Goad
Jeremy Cox
Kayla Hare
Brittney Klein
Kristine Clor

Indigent Interment
Lorenia Ton

Medicolegal Death Investigator Supervisor
Gene Hernandez D-ABMDI

Medicolegal Death Investigators
Meghan Matuszczak
Eric Slocum D-ABMDI
Raelene Ruiz D-ABMDI
Selina Herrera D-ABMDI
Chuck Harding
Trevis Hairston D-ABMDI
MaryAlice Pratt
Kelsey Scott D-ABMDI
Timothy Jessup
Tom Buck D-ABMDI
Jeff Huesgen D-ABMDI

Deputy Chief Medical Examiner
Eric Peters MD

Forensic Pathologists
Krista Timm MD
David Winston MD PhD
Jennifer Chen MD
Kevin Lougee DO
Bruce Parks MD

Office of the Medical Examiner
Organizational Chart as of December 31, 2019
**TOTAL CASES**

The total cases handled by the PCOME in a given year are the sum of the ME cases (autopsies, external examinations, and death certificate cases), cases in which jurisdiction was declined, and the number of cases stored at our facility during the calendar year (storage cases). “All Counties” includes cases examined at the PCOME from Apache (14), Cochise (284), Coconino (1), Gila (29), Graham (12), Greenlee (8), La Paz (26), Navajo (37), Pinal (8), Santa Cruz (48) and Yuma (18) counties in addition to Pima County (3,058).

![Total Reported Deaths 2010 - 2019](chart)

**MEDICAL EXAMINER CASES**

The PCOME considers all cases in which the cause and manner of death are determined by this office as “medical examiner cases.” Those cases include autopsies, external examinations and death certificate (DC) cases. Autopsies are examinations where a decedent is examined both externally and internally for evidence of injury or natural disease which may have caused or contributed to the individual’s death. External examinations consist of an external examination of the body without the internal examination. A DC case involves review of the medical records, law enforcement reports and any other information that may be necessary to determine the cause and manner of death without physical examination of the decedent. In 2019, for Pima and all other counties listed above, 1,361 autopsies, 476 external examinations and 331 DC cases were performed or certified at the PCOME. Pima County alone accounted for 1075 autopsies, 419 external examinations and 318 DC cases.
2019 Medical Examiner Cases

Medical Examiner Cases by Age - 2019
ME Cases (all counties) by Manner of Death - 2019

- Accident: 43%
- Natural: 28%
- Suicide: 14%
- Undetermined: 10%
- Homicide: 4%

ME Cases (Pima only) by Manner of Death - 2019

- Accident: 45%
- Natural: 27%
- Suicide: 14%
- Undetermined: 10%
- Homicide: 4%
HOMICIDE DEATHS

The PCOME certified 93 deaths as homicide in 2019, 69 from Pima County and 24 from other counties. Homicide totals from 2010 – 2019 are compared below. Homicide victims were most frequently male (76%), between 20-29 years of age (26%) and died as the result of firearms (71%).
Homicide Deaths by Sex 2019

- Male: 76%
- Female: 24%

Homicide Deaths by Cause 2019

- Firearms: 71%
- Sharp Force: 11%
- Blunt Force: 12%
- Asphyxia: 2%
- Other: 4%
ACCIDENT DEATHS

Deaths due to accidents accounted for 43% of the ME deaths investigated by the PCOME in 2019. Accident victims were most frequently males (68%), between 50-59 years of age (15%) and died as the result of an overdose (37%).
Accident Deaths by Cause 2019

- Overdose - 37%
- Blunt Force - 26%
- Motor Vehicle - 23%
- Exposure - 5%
- Asphyxia - 3%
- Drowning - 2%
- Fire Deaths - 1%
- Other - 2%

Accident Death by Cause (Top 3) 2015 - 2019

- Overdose
- Blunt Force
- Motor Vehicle

<table>
<thead>
<tr>
<th>Year</th>
<th>Overdose</th>
<th>Blunt Force</th>
<th>Motor Vehicle</th>
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<tr>
<td>2015</td>
<td>312</td>
<td>270</td>
<td>207</td>
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<td>2016</td>
<td>318</td>
<td>305</td>
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<td>2017</td>
<td>290</td>
<td>300</td>
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<td>2018</td>
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<tr>
<td>2019</td>
<td>351</td>
<td>243</td>
<td>220</td>
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</table>
**SUICIDE DEATHS**

Suicide deaths accounted for 14% of the ME deaths investigated by the PCOME in 2019. Suicide victims were most frequently males (79%), between 20-29 years of age (22%) and died as the result of firearms (58%).

**Suicide Deaths by Age 2019**

**Suicide Deaths by Sex 2019**
Suicide Deaths by Cause 2019

- Firearms: 58%
- Hanging: 24%
- Overdose: 10%
- Asphyxia: 5%
- Other: 3%

Suicide Deaths by Cause (Top 3) 2015 - 2019

- 2015: Firearms 150, Hanging 51, Overdose 51
- 2016: Firearms 143, Hanging 46, Overdose 27
- 2017: Firearms 161, Hanging 57, Overdose 27
- 2018: Firearms 154, Hanging 60, Overdose 36
- 2019: Firearms 180, Hanging 75, Overdose 31
NATURAL DEATHS

Natural deaths accounted for 28% of the ME deaths investigated by the PCOME in 2019. Individuals who died from natural causes were most frequently males (72%), between 60-69 years of age (25%) and died as the result of cardiovascular disease (59%).
Natural Deaths by Cause 2019

- Cardiovascular: 59%
- Chronic Alcohol: 11%
- Infectious Disease: 5%
- Pulmonary Disease: 4%
- Diabetes Mellitus: 3%
- Malignancy: 4%
- Other: 15%

Total Deaths: 362
UNDETERMINED MANNER OF DEATH

Deaths in which the manner of death was undetermined accounted for 10% of the ME deaths investigated by the PCOME in 2019. Individuals who died with an undetermined manner were most frequently males (72%), of unknown age (50%) and died from undetermined causes (88%). Many of these deaths represent skeletal remains of undocumented border crossers who died in the deserts of southern Arizona.

Undetermined Manner of Death by Age 2019

Undetermined Manner of Death by Sex 2019
Undetermined Manner of Death by Cause 2019

- Undetermined: 88%
- Overdose: 2%
- Blunt Force: 4%
- Firearms: 3%
- Other: 3%

185 cases
OVERDOSE DEATHS

There were 387 deaths attributed to an overdose of either a single drug (206 deaths, 53%) or a combination of drugs (181 deaths, 47%) in 2019. Overdose deaths commonly involved males (73%) between the ages of 50-59 (23%). The majority of these deaths were classified as accidents (91%).

Opiate drugs (heroin, oxycodone, methadone, hydrocodone, morphine, oxymorphone, hydromorphone, tramadol, opiate unspecified) and fentanyl (a synthetic opioid narcotic) contributed to the majority of overdose deaths (236 deaths, 61%), either as a single drug or as a component of a poly-drug overdose. Methamphetamine was the most commonly abused illicit drug contributing to death in 2019 followed by fentanyl.

The number of heroin deaths is likely underreported as heroin is rapidly metabolized to morphine by the body and if the metabolite indicative for heroin (6-monoacetylmorphine) is not present on the toxicology report these deaths may be classified as either morphine intoxication or opiate intoxication.

Acute alcohol (ethanol) intoxication alone, not as component of a poly-drug overdose, accounted for 13 overdose (3%) deaths in 2019.

Fentanyl related deaths continued to increase (1357% increase) from a low of 7 deaths in 2014 to 102 deaths in 2019. Fentanyl related deaths increased 96% in one year from 52 in 2018 to 102 related deaths in 2019.
Overdose Deaths by Age 2019

Overdose Deaths by Sex 2019

Male - 73%
Female - 27%
## Overdose Deaths by Drug 2019

Opiate compounds are red

<table>
<thead>
<tr>
<th>Drug</th>
<th>Count</th>
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<td>Heroin</td>
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<td>Oxycodone</td>
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<td>Hydrocodone</td>
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<td>Oxymorphone</td>
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</tr>
<tr>
<td>Hydromorphone</td>
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<tr>
<td>Methadone</td>
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<td>Morphine</td>
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<td>Tramadol</td>
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<td>Fentanyl</td>
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<td>Methamphetamine</td>
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<td>Other</td>
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</tbody>
</table>
**Motor Vehicle Related Fatalities**

Motor vehicle related fatalities accounted for 223 total deaths in 2019. The majority, 117 deaths, were occupants of a motor vehicle involved in an accident (MVA). Of the remaining, 33 were motorcycle accidents (MCA), 72 were pedestrians or bicyclists struck by vehicles and 1 was operating an all-terrain vehicle (ATV). Individuals who died from motor vehicle related fatalities were most frequently males (72%) and between 20-29 years of age (17%).

---

**Motor Vehicle Fatalities by Year 2011 - 2019**

![Bar chart showing motor vehicle fatalities by year from 2011 to 2019.](chart)

**Motor Vehicle Fatalities by Age 2019**

![Bar chart showing motor vehicle fatalities by age group in 2019.](chart)
Motor Vehicle Fatalities by Sex 2019

- Male: 72%
- Female: 28%

Motor Vehicle Fatalities by Type 2019

- MVA: 52%
- Pedestrian: 26%
- MCA: 15%
- Bicyclist: 6%
- ATV: <1%
Forensic Anthropologists at the W.H. Birkby Forensic Anthropology Laboratory within the PCOME performed 145 examinations (biological profiles, trauma evaluations, dental examinations and examinations for identification) in 2019 on human remains of forensic significance. An additional 46 examinations were performed on remains ultimately deemed non-human, prehistoric or otherwise not forensically significant and these remains were classified as jurisdiction declined (JD) cases.

The extent of postmortem decomposition of a particular set of remains is important when performing a Forensic Anthropology (FA) examination. Remains examined by Forensic Anthropologists were categorized as minimally decomposed, decomposing, mummified, skeletal or burnt. In 2019, skeletal remains comprised 78% of FA examinations. Five main types of exams are performed: biologic profiles, dental examinations, trauma evaluations, comparisons to antemortem information and field activities.

Biological profiles refer to charting, measurements, descriptions, radiographs and photographs taken to estimate sex, age, ancestry, stature and postmortem interval of a set of remains. Dental examinations entail charting, descriptions, radiographs and photographs in an effort to preserve dental information. Trauma examinations entail charting, measurements, descriptions, radiographs and photographs to characterize the nature of an injury, implement used to cause injury to the bone, age of injury, etc. Comparisons are evaluation of postmortem distinctive skeletal characteristics or dental information to antemortem information for purposes of identification. Field activities are exhumations or other excursions from the office to assist local law enforcement with the recovery of remains. It is common for a particular set of remains to receive more than one type of examination.

![Number of FA Exams 2010 - 2019](image)
FA Exam by Condition of Remains 2019

- Skeletal: 78%
- Mummified: 8%
- Decomposing: 8%
- Fully Fleshed: 3%
- Burnt: 3%

FA Examination by Type 2019

- Biologic Profiles: 123
- Dental Examinations: 110
- Comparisons: 13
- Trauma: 5
- Field Activities: 2
**UNDOCUMENTED BORDER CROSSER (UBC) REMAINS ~ 20 YEARS ~**

The term ‘UBC’ refers to foreign nationals who die attempting to cross the southern Arizona desert without permission from the United States government. Calendar year (CY) 2010 saw the highest number of UBC recoveries (222) recorded at the PCOME as compared to the annual average (163 recoveries per year on average from 2002 - 2019). The PCOME has received 3,081 recovered remains of suspected UBCs since 2000. The recoveries per year are adjusted annually to account for the association of remains found months or years apart later discovered to be that of the same individual.

There were 153 UBC recoveries in calendar year 2019. Of the decedents who were identified, 71% (35 decedents) were between 20-39 years of age. Additionally, 76% (116) of the recovered remains, identified or unidentified, were males, 8% (12) were females and in 16% (25) the sex was unable to be determined at the time of the writing of this report.

Since the exact date and time of death of found remains are often unknown, PCOME staff determine a ‘postmortem interval (PMI)’, which is an assessment of what period of time elapsed from death to recovery of the remains. A 1-8 body condition scale was developed in 2013 to provide a more objective measure of the PMI. The PMI is an estimate and therefore subject to error. The PMIs for the body condition categories are listed following the Condition of Recovered UBC Remains table on page 34 of this report. In 2019, 11 remains (condition 1) were found within less than a day of death (7%), 45 remains (conditions 2-4) were found with a few days up to a few weeks from death (29%), and skeletal remains (body conditions 5-7) accounted for 97 (63%) of the recovered remains.

The cause of death was undetermined in 80% (122) of cases, primarily due to limitations of examination of decomposed and skeletal remains. Of the remainder, environmental exposure to extremes in heat or cold combined with dehydration comprised 17% (29) of deaths. Other, less frequent, causes of death included hanging (1 case), and natural causes (1 case).

In 2019, 20 (41%) of identified UBCs were of Guatemalan nationality, followed by Mexicans (18 or 37%), Hondurans (2 or 4%), Salvadorans (5 or 10%), Ecuadorians (2 or 4%), one Indian (1 or 2%) and one Nicaraguan (1 or 2%). Since 2000, identified UBCs of Mexican nationality have been the most numerous (1,592, 81%), followed by Guatemalans (223, 11%) and Salvadorans (58, 3%). Of the 3,081 decedents recovered since 2000, 1,970 (64%) have been identified. As of December 31, 2019, 1,111 decedents remain unidentified.
UBC Recoveries CY2000 - 2019

UBC Recoveries FedFY2000 - 2019
UBC Recoveries by Month 2019

January: 15  
February: 8  
March: 9  
April: 11  
May: 14  
June: 13  
July: 19  
August: 14  
September: 13  
October: 17  
November: 9  
December: 11

UBC Recoveries by Month 2000 - 2019

January: 157  
February: 171  
March: 169  
April: 201  
May: 292  
June: 469  
July: 535  
August: 335  
September: 251  
October: 175  
November: 166  
December: 160
1 - Fully fleshed (PMI < 1 day)
2 - Decomposed (PMI < week)
3 - Decomposition with focal skeletonization (PMI < 3 weeks)
4 - Mummification with skeletonization (PMI < 5 weeks)
5 - Skeletonization with articulation/ligamentous attachments (PMI < 3 months)
6 - Complete skeletonization with disarticulation (PMI < 6-8 months)
7 - Complete skeletonization with bone degradation (PMI > 6-8 months)
8 – Other
Pooled Body Conditions of Recovered UBC Remains by Year 2000 - 2019

1 – 4 represents not fully skeletal remains with a likely PMI of ≤ 3 months
5 – 7 represents fully skeletal remains with a likely PMI of ≥ 3 months

UBC Recoveries by Sex 2019

- Male - 76%
- Female - 8%
- Unsure - 16%

Rev: 04/20/2020
### UBC Recoveries by Sex 2000 - 2019

- Male: 84%
- Female: 15%
- Unsure: 1%

### UBC Recoveries by Cause 2019

- Undetermined: 80%
- Exposure: 17%
- Hanging: <1%
- Natural Causes: <1%
**UBC Recoveries by Cause 2000 - 2019**

- Undetermined - 49%
- Exposure - 39%
- Blunt Force - 7%
- Firearms - 3%
- Natural Causes - 2%
- Drowning - 1%
- Hanging - <1%
- Other - <1%

**Identified UBC Recoveries by Nationality 2019**

- Guatemalan - 41%
- Mexican - 37%
- Salvadoran - 10%
- Honduran - 4%
- Ecuadorian - 4%
- Nicaraguan - 2%
- Indian - 2%
### Identified UBC Recoveries by Nationality 2000 - 2019

<table>
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<tr>
<th>Nationality</th>
<th>Count</th>
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<tbody>
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<td>Mexican</td>
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<tr>
<td>Guatemalan</td>
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</tr>
<tr>
<td>Salvadoran</td>
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</tr>
<tr>
<td>Honduran</td>
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<td>Ecuadorian</td>
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<td>Peruvian</td>
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<td>4</td>
</tr>
<tr>
<td>Costa Rican</td>
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</tr>
<tr>
<td>Colombian</td>
<td>3</td>
</tr>
<tr>
<td>Indian</td>
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<td>Dominican</td>
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<td>Other</td>
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### Identified vs Unidentified UBC Recoveries

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<tr>
<td>2019</td>
<td></td>
<td></td>
<td>104</td>
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</tbody>
</table>

Legend:
- **Total Recoveries**
- **Identified**
- **Unidentified**
## UBC Methods of Identification 2000 - 2019

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<td>41</td>
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<td>49</td>
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<td>Unidentified</td>
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<td>19</td>
<td>26</td>
<td>35</td>
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<td>45</td>
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<td>59</td>
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<td>Total UBCs</td>
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<td>147</td>
<td>155</td>
<td>169</td>
<td>195</td>
<td>169</td>
<td>213</td>
<td>163</td>
<td>190</td>
<td>222</td>
<td>178</td>
<td>154</td>
<td>166</td>
<td>127</td>
<td>136</td>
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<td>119</td>
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<td>% Identified</td>
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<td>79%</td>
<td>79%</td>
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<td>68%</td>
<td>68%</td>
<td>58%</td>
<td>62%</td>
<td>61%</td>
<td>49%</td>
<td>49%</td>
<td>34%</td>
<td>34%</td>
<td>31%</td>
<td>64%</td>
</tr>
</tbody>
</table>
PIMA COUNTY

TOTAL MORTALITY

The number of deaths reported to the medical examiner’s office in a given period is a reflection of the total population that the office serves. In 2019 there were 9,953 deaths in Pima County; of these 3,058 (31%) were reported to the PCOME for investigation.

Pima County Mortality by Year 2010 - 2019*

*Arizona Department of Vital Statistics as of 02/14/20
**TOTAL CASES**

The total cases handled by the PCOME from Pima County in a given year are the sum of the ME cases (autopsies, external examinations, and death certificate cases), cases in which jurisdiction was declined, and the number of cases stored at our facility during the calendar year (storage cases).

**Medical Examiner Cases**

The PCOME considers all cases in which the cause and manner of death are determined by this office as “medical examiner cases.” Those cases include autopsies, external examinations and death certificate (DC) cases. Autopsies are examinations where a decedent is examined both externally and internally for evidence of injury or natural disease which may have caused or contributed to the individual’s death. External examinations consist of an external examination of the body without the internal examination. A DC case involves review of the medical records, law enforcement reports and any other information that may be necessary to determine the cause and manner of death without physical examination of the decedent. In 2019, 1075 autopsies, 419 external examinations and 318 DC cases were performed on deaths from Pima County.
2019 Pima County Medical Examiner Cases

- Autopsy: 1075 cases
- External: 419 cases
- DC: 318 cases

Pima County Medical Examiner Cases by Age 2019

- Ages 0-1: 25 cases
- Ages 1.5-2: 3 cases
- Ages 6-12: 9 cases
- Ages 13-19: 54 cases
- Ages 20-29: 201 cases
- Ages 30-39: 213 cases
- Ages 40-49: 196 cases
- Ages 50-59: 278 cases
- Ages 60-69: 252 cases
- Ages 70-79: 197 cases
- Ages 80-89: 178 cases
- Ages >90: 99 cases
- Unknown: 104 cases
Pima County ME Cases by Manner of Death 2019

- Accident: 45%
- Natural: 27%
- Suicide: 14%
- Undetermined: 10%
- Homicide: 4%

Total cases: 823
HOMICIDE DEATHS

The PCOME examined 69 homicides from Pima County in 2019; 4% of total Pima County deaths certified. Homicide totals from 2010 – 2019 are compared below. Homicide victims were most frequently male (84%), between 30-39 years of age (27%) and died as the result of firearms (68%).

Pima County Homicide Deaths 2010 - 2019

Pima County Homicide Deaths by Age 2019
Pima County Homicide Deaths by Sex 2019

- Male: 53 (77%)
- Female: 16 (23%)

Pima County Homicide Deaths by Cause 2019

- Firearms: 48 (70%)
- Blunt Force: 6 (14%)
- Sharp Force: 5 (9%)
- Other: 10 (7%)
Pima County Homicide Deaths by Cause (Top 3) 2015 - 2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Firearms</th>
<th>Sharp Force</th>
<th>Blunt Force</th>
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</thead>
<tbody>
<tr>
<td>2015</td>
<td>39</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2016</td>
<td>41</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>2017</td>
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<tr>
<td>2018</td>
<td>54</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>2019</td>
<td>48</td>
<td>6</td>
<td>10</td>
</tr>
</tbody>
</table>
ACCIDENT DEATHS

Deaths due to accidents accounted for 45% of the Pima County deaths certified by the PCOME in 2019. Accident victims were most frequently males (67%), between the ages of 50-59 (15%) and died as the result of an overdose (37%).

Pima County Accident Deaths 2014 - 2019

Pima County Accident Deaths by Age 2019
Pima County Accident Deaths by Sex 2019

- Male: 554 (67%)
- Female: 269 (33%)

Pima County Accident Deaths by Cause 2019

- Overdose: 306 (37%)
- Blunt Force: 24 (29%)
- Motor Vehicle: 239 (23%)
- Exposure: 17 (4%)
- Asphyxia: 10 (3%)
- Drowning: 3 (1%)
- Other: 24 (2%)

Rev: 04/20/2020
Pima County Accident Deaths by Cause (Top 3) 2015 - 2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Overdose</th>
<th>Blunt Force</th>
<th>Motor Vehicle</th>
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<tbody>
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<td>2015</td>
<td>215</td>
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</tr>
<tr>
<td>2016</td>
<td>233</td>
<td>279</td>
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<td>2017</td>
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<tr>
<td>2019</td>
<td>306</td>
<td>239</td>
<td>187</td>
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SUICIDE DEATHS

Deaths due to suicide accounted for 14% of the Pima County deaths certified by the PCOME in 2019. Suicide victims were most frequently males (77%), between 20-29 years of age (23%) and died as the result of firearms (58%).

Pima County Suicide Deaths 2014 - 2019

Pima County Suicide Deaths by Age 2019
Pima County Suicide Deaths by Sex 2019

- Male: 77%
- Female: 23%

Pima County Suicide Deaths by Cause 2019

- Firearms: 58%
- Hanging: 24%
- Overdose: 10%
- Asphyxial: 4%
- Sharp Force: 1%
- Carbon Monoxide: <1%
- Other: 2%
Pima County Suicide Deaths by Cause (Top 3) 2015 – 2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Firearms</th>
<th>Hanging</th>
<th>Overdose</th>
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<tr>
<td>2015</td>
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<td>38</td>
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<td>2016</td>
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<td>2017</td>
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<td>2018</td>
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</tr>
<tr>
<td>2019</td>
<td>148</td>
<td>60</td>
<td>26</td>
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</tbody>
</table>
NATURAL DEaths

Deaths due to natural causes accounted for 27% of the Pima County deaths certified by the PCOME in 2019. Individuals who died from natural causes were most frequently males (74%), between 60-69 years of age (24%) and died as the result of cardiovascular disease (61%).
Pima County Natural Deaths by Sex 2019

- Male: 123 (74%)
- Female: 51 (26%)

Pima County Natural Deaths by Cause 2019

- Cardiovascular: 111 (61%)
- Chronic Alcohol: 29 (10%)
- Infectious Disease: 18 (6%)
- Malignancy: 14 (5%)
- Pulmonary Disease: 12 (4%)
- Diabetes Mellitus: 10 (2%)
- Thromboemboli: 9 (2%)
- Other: 32 (11%)
**UNDETERMINED MANNER OF DEATH**

Deaths of undetermined manner accounted for 10% of the Pima County deaths certified by the PCOME in 2019. Individuals who died with an undetermined manner were most frequently males (70%), of unknown age (54%) and died from undetermined causes (86%). Many of these deaths represent skeletal remains of UBCs who died in the deserts of southern Arizona.

**Pima County Undetermined Manner 2014 - 2019**

[Bar chart showing the number of undetermined deaths by year from 2014 to 2019.]

**Pima County Undetermined Manner of Death by Age 2019**

[Bar chart showing the number of undetermined deaths by age group in 2019.]
Pima County Undetermined Manner of Death by Sex 2019

- Male: 70%
- Female: 16%
- Unsure: 14%

Pima County Undetermined Manner of Death by Cause 2019

- Undetermined: 86%
- Blunt Force: 4%
- Firearms: 3%
- Overdose: 3%
- Other: 2%
PIMA COUNTY OVERDOSE DEATHS IN 2019

There were 337 deaths attributed to an overdose of either a single drug (180 deaths, 53%) or a combination of drugs (157 deaths, 47%) in 2019. Overdose deaths commonly involved males (72%) between the ages of 50-59 (23%). The majority of these deaths were classified as accidents (91%).

Opiate compounds are typically heroin, oxycodone, methadone, hydrocodone, morphine, oxymorphone, hydromorphone, tramadol, codeine, fentanyl (a synthetic opioid narcotic) and clandestinely manufactured fentanyl analogs. In 2019 an opiate compound contributed to 208 (62%) of the 337 total overdose deaths. Opiate compounds, which contributed to an overdose death in 2019, are indicated in red in the Pima County Overdose Deaths by Drug 2019 figure.

The number of heroin deaths is likely underreported as heroin is rapidly metabolized to morphine by the body and if the metabolite indicative for heroin (6-monoacetylmorphine) is not present on the toxicology report these deaths may be classified as either morphine intoxication (morphine) or opiate intoxication (opiate unspecified).

Methamphetamine was the most commonly abused illicit drug in 2019. Contributing to 37% of all 2019 overdoses, followed by fentanyl (26%).

Acute alcohol (ethanol) intoxication alone, not as component of a poly-drug overdose, accounted for 6 overdose (2%) deaths in 2019 and was a contributor in 34 additional deaths.

OVERDOSE TRENDS

Overdose deaths in Pima County increased 52% overall from 2010 (222) to 2019 (337), punctuated by plateaus from 2013 (240) to 2014 (241), from 2015 (262) to 2016 (263) and again from 2017 (286) to 2018 (286). Unfortunately, 2019 overdose deaths represent a significant increase (17% one year increase) from our 2018 plateau. The impact of opiate compounds on overdose deaths is of significant interest. An opiate compound contributed to 175 (67%) of the 263 total overdose deaths in 2016 either as a single or poly-drug overdose, 189 (66%) of the 286 total overdose deaths in 2017, 181 (63%) of the 286 overdose deaths in 2018 and 208 (62%) of the 337 overdose deaths in 2019 as previously described.

Pima County is experiencing a rapid increase in the number of overdose deaths in which fentanyl is found to be a contributing factor. Fentanyl contributed to 5 overdose deaths in 2014 in contrast to 89 deaths in 2019, a 1680% increase in the number of deaths involving fentanyl from 2014.
Interestingly, methamphetamine related deaths have also increased in frequency from 38 deaths in 2014 to 126 deaths in 2019, a 232% increase. The largest decrease is in oxycodone deaths, a 56% decrease from 2014 (39 deaths) to 2019 (17 deaths).
Pima County Overdose Deaths by Sex 2019

- Male: 72%
- Female: 28%

Pima County Overdose Deaths by Manner 2019

- Accident: 91%
- Suicide: 8%
- Undetermined: 1%
Pima County Overdose Deaths by Drug 2019

Opiate compounds are red

- Heroin: 72
- Oxycodone: 17
- Hydrocodone: 7
- Oxymorphone: 5
- Hydromorphone: 2
- Methadone: 18
- Morphine: 24
- Codeine: 1
- Tramadol: 7
- Opiate Unspecified: 7
- Fentanyl: 89
- Methamphetamine: 126
- Cocaine: 48
- Benzodiazepines: 27
- Alcohol: 34
- Antihistamines: 9
- SSRI/SNRI: 9
- Tricyclics: 2
- Atypical Antipsychotics: 3
- Muscle Relaxants: 5
- MDMA: 1
- Sleep Aids: 2
- Acetaminophen: 2
- Promethazine: 1
- Bupropion: 2
- Amphetamine: 7
- Other: 11
PIMA COUNTY MOTOR VEHICLE RELATED FATALITIES

Motor vehicle related fatalities accounted for 189 total deaths in Pima County in 2019. The majority, 79 deaths, were occupants of a motor vehicle involved in an accident (MVA). Of the remaining, 18 were motorcycle accidents (MCA), 47 were pedestrians or bicyclists struck by vehicles, and 4 were all-terrain vehicle (ATV) accidents. Individuals who died from motor vehicle related fatalities were most frequently males (68%) and between 50-69 years of age (38%).

Pima County Motor Vehicle Fatalities 2011 - 2019

Pima County Motor Vehicle Fatalities by Age 2019
Pima County Motor Vehicle Fatalities by Sex 2019

- Male: 73%
- Female: 27%

Pima County Motor Vehicle Fatalities by Type 2019

- MVA: 48%
- Pedestrian: 29%
- MCA: 17%
- Bicyclist: 6%
- ATV: <1%
PIMA COUNTY HEAT RELATED FATALITIES

Heat (hyperthermia) related fatalities accounted for 10 total deaths in Pima County in 2019, excluding undocumented border crosser deaths. For environmental deaths involving UBCs, please reference the UBC section on page 30 of this report. Individuals who died from heat related causes were all males (100%) of various ages.

Pima County Heat Related Fatalities 2010 - 2019

Pima County Heat Related Fatalities by Age 2019
Pima County Heat Related Fatalities by Sex 2019

Male - 100%
Female - 0%
Indigent Interment Program in Pima County

Legal responsibility for interment of a decedent rests with the next of kin (NOK) as determined pursuant to A.R.S. §36-831. The County may provide interment services for circumstances in which the NOK are found to be financially unable to pay for arrangements or in which the decedent is unclaimed or abandoned. The PCOME was appointed administrator of the County’s Indigent Interment Program (IIP) and Pima County Cemetery (PCC) in September 2018, in-lieu of the County Public Fiduciary’s Office, the previously appointed administrator.

In 2019, 468 applications for IIP consideration, approximately 5% of the total deaths (9,953) in the county, were processed by our IIP coordinator. In general, IIP applications can be divided into those that are approved for County assistance and those that are disapproved. Regardless of application outcome, special interest groups such as veterans and the homeless are over represented in comparison to the general population in IIP consideration. Some statistical information concerning application outcomes and those interest groups will be provided in this report.

Definitions – Please consider these definitions when reviewing the charts on the following pages

Approved – The interment of the decedent’s remains was funded by the County
Disapproved – The interment of the decedent’s remains was not funded by the County
Met poverty standard – The decedent’s NOK are known, but meet current federal poverty guidelines as promulgated by the U.S. Department of Health & Human Services, and therefore qualify for government interment assistance
Abandonment - The decedent’s NOK are known but fail, or refuse to make interment arrangements for the decedent
Unidentified – The identity of the decedent is unknown and therefore NOK and presence or absence of financial hardship is unknown
No NOK – A search is conducted for family for a decedent in an effort to locate any known NOK who might make interment arrangements but no NOK are found
Burial – The decedent is interred either at the PCC or other cemetery as buried remains, not cremated or otherwise altered remains
Cremation – The decedent is interred as cremains in a columbarium at the PCC, columbarium at another cemetery, or released to NOK for their retention

At the end of 2019, 70 burial plots remain available in the PCC and 1,137 cremation urn locations remain available in the PCC columbaria. The PCC end-of-year columbaria inventory stood at 1,503 remains with a total capacity of 2,640 remains amongst the four columbaria.
IIP Approvals vs Disapprovals

303 (65%) of the 468 IIP referrals were approved for County assistance in 2019. 302 of the 303 total approvals were cremations and one was an approved burial at a faith-based cemetery. 154 (35%) of the referrals were disapproved and family, guardians or local assistance groups assumed responsibility for the disposition of the remains.

Reason for IIP Approval 2019

Disposition of IIP Cremation Approvals 2019
IIP Special Interest Groups

Veterans

72 (15%) of the 468 IIP applications were veterans. 55 veterans were approved through the IIP and 18 were disapproved. Veterans approved through the IIP programs are interred at the Southern Arizona Veterans Memorial Cemetery in Marana unless otherwise claimed by surviving family members.

Reason for IIP Veteran Approval 2019

Homeless

52 (11%) of the 468 IIP applications were decedents believed to be homeless. 37 homeless decedents were approved through the IIP and 15 were disapproved.

Reason for IIP Homeless Approval 2019
COCHISE COUNTY

Cochise County contracts with the PCOME to certify deaths that fall under the jurisdiction of the medical examiner in Cochise County. Cochise County does not maintain an in-county Medical Examiner’s office to conduct death scene investigations, transport remains, or triage deaths reportable to the medical examiner. Cochise County does provide third party transportation services, local law enforcement death scene investigation and archival support for examinations that occurred prior to July 1, 2012. The PCOME works closely with Cochise County law enforcement agencies, the public fiduciary office and funeral homes to facilitate investigations, disposition of remains and transportation respectively. The PCOME is also involved as needed with mass fatality planning, child fatality review, or other medical examiner related issues in Cochise County.

TOTAL MORTALITY

The number of deaths reported to the medical examiner’s office in a given period is a reflection of the total population that the office serves. In 2019 there were 1,402 deaths in Cochise County; of these 284 (20%) were reported to the PCOME for investigation.

Cochise County Mortality by Year 2010 - 2019*

*Arizona Department of Vital Statistics as of 02/14/2020
**TOTAL REPORTED DEATHS**

The total cases investigated by the PCOME from Cochise County in a given year are the sum of the ME cases (autopsies, external examinations, and death certificate cases) and cases in which jurisdiction was declined.

**Cochise County Deaths Reported to the PCOME 2012 - 2019**

<table>
<thead>
<tr>
<th>Year</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 (half year)</td>
<td>151</td>
</tr>
<tr>
<td>2013</td>
<td>268</td>
</tr>
<tr>
<td>2014</td>
<td>246</td>
</tr>
<tr>
<td>2015</td>
<td>270</td>
</tr>
<tr>
<td>2016</td>
<td>276</td>
</tr>
<tr>
<td>2017</td>
<td>253</td>
</tr>
<tr>
<td>2018</td>
<td>280</td>
</tr>
<tr>
<td>2019</td>
<td>284</td>
</tr>
</tbody>
</table>

**MEDICAL EXAMINER CASES**

The PCOME considers all cases in which the cause and manner of death are determined by this office as “medical examiner cases.” Those cases include autopsies, external examinations and death certificate (DC) cases. Autopsies are examinations where a decedent is examined both externally and internally for evidence of injury or natural disease which may have caused or contributed to the individual’s death. External examinations consist of an external examination of the body without the internal examination. A DC case involves review of the medical records, law enforcement reports and any other information that may be necessary to determine the cause and manner of death without physical examination of the decedent. In 2019, 110 autopsies, 51 external examinations and 10 DC cases were performed on deaths from Cochise County.
Cochise County Medical Examiner Cases 2019

Cochise County Medical Examiner Cases by Age 2019
Cochise County ME Cases by Manner of Death 2019

- Natural: 43%
- Accident: 29%
- Suicide: 22%
- Undetermined: 6%
- Homicide: <1%
HOMICIDE DEATHS

The PCOME examined one firearms related homicide death from Cochise County in 2019; less than 1% of total deaths reported. Homicide totals from 2013 – 2019 are compared below.

Cochise County Homicide Deaths 2013 - 2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>3</td>
</tr>
<tr>
<td>2014</td>
<td>7</td>
</tr>
<tr>
<td>2015</td>
<td>6</td>
</tr>
<tr>
<td>2016</td>
<td>6</td>
</tr>
<tr>
<td>2017</td>
<td>2</td>
</tr>
<tr>
<td>2018</td>
<td>0</td>
</tr>
<tr>
<td>2019</td>
<td>1</td>
</tr>
</tbody>
</table>
ACCIDENT DEATHS

The PCOME examined 49 accident deaths from Cochise County in 2019; 34% of total Cochise County deaths certified. Accident victims were most frequently males (72%), between 40-49 years of age (20%) and died as the result of an overdose (43%).

Cochise County Accident Deaths 2013 - 2019

Cochise County Accident Deaths by Age 2019
Cochise County Accident Deaths by Sex 2019

- Male: 35 (72%)
- Female: 14 (28%)

Cochise County Accident Deaths by Cause 2019

- Overdose: 21 (43%)
- Motor Vehicle: 15 (31%)
- Blunt Force: 5 (10%)
- Asphyxia: 4 (8%)
- Other: 4 (8%)
Cochise County Accident Deaths by Cause (Top 3) 2015 - 2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Overdose</th>
<th>Motor Vehicle</th>
<th>Blunt Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>24</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>2016</td>
<td>24</td>
<td>19</td>
<td>14</td>
</tr>
<tr>
<td>2017</td>
<td>19</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>2018</td>
<td>22</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>2019</td>
<td>21</td>
<td>15</td>
<td>5</td>
</tr>
</tbody>
</table>
SUICIDE DEATHS

The PCOME examined 37 suicide deaths from Cochise County in 2019; 22% of total Cochise County deaths certified. Suicide victims were most frequently males (83%), between 50-59 years of age (33%) and died as the result of firearms (78%).

Cochise County Suicide Deaths 2013 - 2019

Cochise County Suicide Deaths by Age 2019
Cochise County Suicide Deaths by Sex 2019

- Male: 32 (86%)
- Female: 5 (14%)

Cochise County Suicide Deaths by Cause 2019

- Firearms: 27 (73%)
- Hanging: 4 (11%)
- Overdose: 4 (11%)
- Other: 2 (5%)
Cochise County Suicide Deaths by Cause (Top 3) 2015 - 2019

- Firearms
- Hanging
- Overdose

<table>
<thead>
<tr>
<th>Year</th>
<th>Firearms</th>
<th>Hanging</th>
<th>Overdose</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>16</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>2016</td>
<td>23</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2017</td>
<td>26</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2018</td>
<td>14</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>2019</td>
<td>27</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
**NATURAL DEATHS**

The PCOME examined 73 natural deaths from Cochise County in 2019; 43% of total Cochise County deaths certified. Individuals who died from natural causes were most frequently males (60%), between 60-79 years of age (55%) and died as the result of cardiovascular disease (56%).

**Cochise County Natural Deaths 2013 - 2019**

**Cochise County Natural Deaths by Age 2019**
Cochise County Natural Deaths by Sex 2019

- Male: 44 (60%)
- Female: 29 (40%)

Cochise County Natural Deaths by Cause 2019

- Cardiovascular: 41 (56%)
- Chronic Alcohol: 8 (11%)
- Nonspecific Natural: 7 (10%)
- Diabetes Mellitus: 5 (7%)
- Other: 12 (16%)
**UNDETERMINED MANNER OF DEATH**

The PCOME examined 11 undetermined deaths from Cochise County in 2019; 6% of total Cochise County deaths certified. Individuals who died with an undetermined manner were most frequently males (73%), of unknown age (45%) and died from undetermined causes (100%). The vast majority of these deaths represent decomposed remains, which oftentimes precludes a definitive cause of death determination.

**Cochise County Undetermined Manner 2013 - 2019**

![Bar chart showing undetermined deaths by year from 2013 to 2019.](chart1)

**Cochise County Undetermined Manner of Death by Age 2019**

![Bar chart showing undetermined deaths by age group in 2019.](chart2)
Cochise County Undetermined Manner of Death by Sex 2019

- Male: 8 (73%)
- Female: 3 (27%)

Cochise County Undetermined Manner of Death by Cause 2019

- Undetermined: 11 (100%)
OVERDOSE DEATHS

There were 25 deaths attributed to an overdose of either a single drug (14 deaths, 56%) or a combination of drugs (11 deaths, 44%) in 2019. Overdose deaths commonly involved males (80%) between the ages of 50-59 (28%). The majority of these deaths were classified as accidents (84%).

Cochise County Overdose Deaths 2014 - 2019

Cochise County Overdose Deaths by Age 2019
Cochise County Overdose Deaths by Sex 2019

Male - 80%
Female - 20%

Cochise County Overdose Deaths by Manner 2019

Accident - 84%
Suicide - 16%
## Cochise County Overdose Deaths by Drug 2019

Opiate compounds are **red**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heroin</td>
<td>5</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>2</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>0</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td>2</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>0</td>
</tr>
<tr>
<td>Methadone</td>
<td>1</td>
</tr>
<tr>
<td>Morphine</td>
<td>3</td>
</tr>
<tr>
<td>Codeine</td>
<td>0</td>
</tr>
<tr>
<td>Tramadol</td>
<td>1</td>
</tr>
<tr>
<td>Opiate Unspecified</td>
<td>0</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>5</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>7</td>
</tr>
<tr>
<td>Cocaine</td>
<td>1</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>3</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>0</td>
</tr>
<tr>
<td>Alcohol</td>
<td>6</td>
</tr>
<tr>
<td>Antihistamines</td>
<td>1</td>
</tr>
<tr>
<td>SSRI/SNRI</td>
<td>2</td>
</tr>
<tr>
<td>Tricyclics</td>
<td>1</td>
</tr>
<tr>
<td>Atypical Antipsychotics</td>
<td>0</td>
</tr>
<tr>
<td>Muscle Relaxants</td>
<td>0</td>
</tr>
<tr>
<td>Anti-seizure Agents</td>
<td>0</td>
</tr>
<tr>
<td>Sleep Aids</td>
<td>0</td>
</tr>
<tr>
<td>Acetaminophen</td>
<td>0</td>
</tr>
<tr>
<td>Ethylene Glycol</td>
<td>0</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
</tr>
</tbody>
</table>
Cochise County Overdoses by drug by year 2014 - 2019

- Heroin
- Fentanyl
- Oxycodone
- Morphine
- Meth
- Cocaine
- Benzo
- Alcohol
Motor Vehicle Related Fatalities

Motor vehicle related fatalities accounted for 15 total deaths in Cochise County in 2019. The majority, 12 deaths, were occupants of a motor vehicle involved in an accident (MVA). Of the remaining, one was a motorcycle accident (MCA), one was bicyclist struck by a vehicle, and one was a pedestrian struck by a vehicle. Individuals who died from motor vehicle related fatalities were most frequently males (60%) of no specific age.

Cochise County Motor Vehicle Fatalities 2014 - 2019

Cochise County Motor Vehicle Fatalities by Age 2019
Cochise County Motor Vehicle Fatalities by Sex 2019

- Male: 9 (60%)
- Female: 6 (40%)

Cochise County Motor Vehicle Fatalities by Type 2019

- MVA: 12 (80%)
- MCA: 1 (7%)
- Bicyclist: 1 (7%)
- Pedestrian: 1 (7%)
Santa Cruz County does not maintain an in-county Medical Examiner’s office to conduct death scene investigations, transport or examine remains, or certify deaths reportable to the medical examiner. Nor does Santa Cruz County appoint or contract with an Alternate Medical Examiner. The PCOME acts as the de-facto appointed ME for Santa Cruz County. When deaths occur in Santa Cruz County pursuant to A.R.S. §11-593, Santa Cruz County law enforcement agencies investigate the circumstances of the death and notify the PCOME as necessary.

In calendar year 2019 there were 335 deaths in Santa Cruz County; of these 48 (14%) were reported to the PCOME for investigation and/or examination. Some pertinent statistics regarding these deaths are detailed in the tables below.

Santa Cruz County Mortality by Year 2010 - 2019*

<table>
<thead>
<tr>
<th>Year</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>262</td>
</tr>
<tr>
<td>2011</td>
<td>247</td>
</tr>
<tr>
<td>2012</td>
<td>303</td>
</tr>
<tr>
<td>2013</td>
<td>286</td>
</tr>
<tr>
<td>2014</td>
<td>275</td>
</tr>
<tr>
<td>2015</td>
<td>294</td>
</tr>
<tr>
<td>2016</td>
<td>301</td>
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<tr>
<td>2017</td>
<td>297</td>
</tr>
<tr>
<td>2018</td>
<td>278</td>
</tr>
<tr>
<td>2019</td>
<td>335</td>
</tr>
</tbody>
</table>

*Arizona Department of Vital Statistics as of 02/14/2020
Santa Cruz County Deaths Reported to the PCOME 2010 - 2019

Santa Cruz County Deaths by Type of Exam 2019

Autopsy
External
Jurisdiction Declined
Death Certification
Santa Cruz County Deaths by Manner of Death 2019

- Accident: 18
- Natural: 11
- Suicide: 6
- Undetermined: 3
- Homicide: 1

Santa Cruz County Accident Deaths by Type 2019

- Overdose: 7
- Motor Vehicle: 4
- Drowning: 3
- Blunt Force: 3
- Exposure: 1
Santa Cruz County Natural Deaths by Type 2019

- Cardiovascular: 8
- Stroke: 1
- Infectious: 1
- Congenital: 1

Santa Cruz County Suicide Deaths by Type 2019

- Firearms: 2
- Hanging: 4
Santa Cruz County Homicide Deaths by Type 2019

- Asphyxia: 1
Apache County contracts with an appointed non-Forensic Pathologist physician(s), termed an Alternate Medical Examiner(s) (AME) (A.R.S. §11-591); who triages, investigates and certifies deaths that fall under the jurisdiction of the medical examiner in Apache County. The Apache County AME does not perform autopsy examinations and if the AME deems an autopsy is necessary to certify the cause and manner of death, the decedent may be referred to the PCOME for an examination and death certification. The PCOME is not aware of how many deaths occurring in Apache County are reported to the Apache County AME, nor the total number or types of deaths certified by the AME. The PCOME only has a record of deaths reported to, or referred for examination to Pima County. Deaths on Native American tribal lands do not have to be reported through the respective death investigation system of that County and may be reported directly to the PCOME as necessary for the needs of the appropriate agency investigating that death (Bureau of Indian Affairs (BIA), FBI or local tribal police departments).

Fourteen deaths from Apache County were reported to the PCOME in 2019, 13 of which required autopsy examinations. Some pertinent statistics regarding these deaths are detailed in the tables and graphs below.

**Apache County Mortality by Year 2010 - 2019***

<table>
<thead>
<tr>
<th>Year</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>544</td>
</tr>
<tr>
<td>2011</td>
<td>584</td>
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<tr>
<td>2012</td>
<td>471</td>
</tr>
<tr>
<td>2013</td>
<td>607</td>
</tr>
<tr>
<td>2014</td>
<td>601</td>
</tr>
<tr>
<td>2015</td>
<td>646</td>
</tr>
<tr>
<td>2016</td>
<td>653</td>
</tr>
<tr>
<td>2017</td>
<td>689</td>
</tr>
<tr>
<td>2018</td>
<td>692</td>
</tr>
<tr>
<td>2019</td>
<td>711</td>
</tr>
</tbody>
</table>

*Arizona Department of Vital Statistics as of 02/14/20

Rev: 04/20/2020

95
Apache County Deaths Reported to the PCOME 2010 - 2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>8</td>
</tr>
<tr>
<td>2011</td>
<td>5</td>
</tr>
<tr>
<td>2012</td>
<td>17</td>
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<td>2013</td>
<td>14</td>
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<td>2014</td>
<td>12</td>
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<td>2015</td>
<td>17</td>
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<td>2016</td>
<td>19</td>
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<tr>
<td>2017</td>
<td>18</td>
</tr>
<tr>
<td>2018</td>
<td>26</td>
</tr>
<tr>
<td>2019</td>
<td>14</td>
</tr>
</tbody>
</table>

Apache County Deaths by Type of Exam 2019

- Autopsy: 13
- Jurisdiction Declined: 1
Apache County Deaths by Manner of Death 2019

- Natural: 7
- Accident: 4
- Homicide: 1
- Undetermined: 1

Apache County Deaths by Type of Death 2019

- Cardiovascular: 3
- Motor vehicle: 1
- Firearms: 1
- Overdose: 1
- Exposure: 1
- Aneurysm: 1

Rev: 04/20/2020
GILA COUNTY

Gila County contracts with an appointed Forensic Pathologist Medical Examiner, who triages, investigates and certifies deaths that fall under the jurisdiction of the medical examiner (ME) in Gila County. The Gila County ME performs some autopsy examinations in Payson if the ME deems an autopsy is necessary to certify the cause and manner of death. Additionally, the ME may refer some decedents from Gila County to the PCOME for an examination and death certification as necessary. The PCOME is not aware of how many deaths occurring in Gila County are reported to the ME, nor the total number or types of deaths certified by the ME. The PCOME only has a record of deaths reported to, or referred for examination to Pima County. Deaths on Native American tribal lands do not have to be reported through the respective death investigation system of that County and may be reported directly to the PCOME as necessary for the needs of the appropriate agency investigating that death (BIA, FBI or local tribal police departments).

Twenty-nine deaths from Gila County were reported to the PCOME in 2019, all of which required autopsy examinations. Some pertinent statistics regarding these deaths are detailed in the tables and graphs below.

Gila County Mortality by Year 2010 - 2019*

*Arizona Department of Vital Statistics as of 02/14/2020
Gila County Deaths Reported to the PCOME 2010 - 2019

Gila County Deaths by Type of Exam 2019
Gila County Deaths by Manner of Death 2019

- Accident: 11
- Natural: 9
- Homicide: 2
- Undetermined: 4
- Suicide: 3

Gila County Deaths by Type of Death 2019

- Cardiovascular: 6
- Overdose: 5
- Firearms: 4
- Chronic Alcohol: 4
- Undetermined: 3
- Drowning: 2
- Other: 5
GRAHAM COUNTY

Graham County contracts with an appointed non-Forensic Pathologist physician(s), termed an Alternate Medical Examiner(s) (AME) (A.R.S. §11-591), who triages, investigates and certifies deaths that fall under the jurisdiction of the medical examiner in Graham County. The Graham County AME does not perform autopsy examinations and if the AME deems an autopsy is necessary to certify the cause and manner of death, the decedent may be referred to the PCOME for an examination and death certification. The PCOME is not aware of how many deaths occurring in Graham County are reported to the Graham County AME, nor the total number or types of deaths certified by the AME. The PCOME only has a record of deaths reported to, or referred for examination to Pima County. Deaths on Native American tribal lands do not have to be reported through the respective death investigation system of that County and may be reported directly to the PCOME as necessary for the needs of the appropriate agency investigating that death (BIA, FBI or local tribal police departments).

Twelve deaths from Graham County were reported to the PCOME in 2019, all of which required autopsy examinations. Some pertinent statistics regarding these deaths are detailed in the tables and graphs below.

Graham County Mortality by Year 2010 - 2019*

*Arizona Department of Vital Statistics as of 02/14/2020
Graham County Deaths Reported to the PCOME 2010 - 2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>14</td>
</tr>
<tr>
<td>2011</td>
<td>13</td>
</tr>
<tr>
<td>2012</td>
<td>15</td>
</tr>
<tr>
<td>2013</td>
<td>17</td>
</tr>
<tr>
<td>2014</td>
<td>13</td>
</tr>
<tr>
<td>2015</td>
<td>5</td>
</tr>
<tr>
<td>2016</td>
<td>9</td>
</tr>
<tr>
<td>2017</td>
<td>11</td>
</tr>
<tr>
<td>2018</td>
<td>18</td>
</tr>
<tr>
<td>2019</td>
<td>12</td>
</tr>
</tbody>
</table>

Graham County Deaths by Type of Exam 2019

- Autopsy: 12
Graham County Deaths by Manner of Death 2019

- Homicide: 4
- Natural: 3
- Accident: 1
- Undetermined: 1

Graham County Deaths by Type of Death 2019

- Firearms: 3
- Cardiovascular: 4
- Overdose: 1
- Drowning: 1
- Other: 3
GREENLEE COUNTY

Greenlee County contracts with an appointed non-Forensic Pathologist physician(s), termed an Alternate Medical Examiner(s) (AME) (A.R.S. §11-591), who triages, investigates and certifies deaths that fall under the jurisdiction of the medical examiner in Greenlee County. The Greenlee County AME does not perform autopsy examinations and if the AME deems an autopsy is necessary to certify the cause and manner of death, the decedent may be referred to the PCOME for an examination and death certification. The PCOME is not aware of how many deaths occurring in Greenlee County are reported to the Greenlee County AME, nor the total number or types of deaths certified by the AME. The PCOME only has a record of deaths reported to, or referred for examination to Pima County. Deaths on Native American tribal lands do not have to be reported through the respective death investigation system of that County and may be reported directly to the PCOME as necessary for the needs of the appropriate agency investigating that death (BIA, FBI or local tribal police departments).

Eight deaths from Greenlee County were reported to the PCOME in 2019, all of which required autopsy examinations. Some pertinent statistics regarding these deaths are detailed in the tables and graphs below.

Greenlee County Mortality by Year 2010 - 2019*

*Arizona Department of Vital Statistics as of 02/14/2020
Greenlee County Deaths Reported to the PCOME 2010 - 2019

Greenlee County Deaths by Type of Exam 2019

Autopsy
Greenlee County Deaths by Manner of Death 2019

- Natural: 4
- Accident: 3
- Suicide: 1

Greenlee County Deaths by Type of Death 2019

- Cardiovascular: 3
- Overdose: 1
- Pulmonary: 1
- Drowning: 1
- Motorvehicle: 2
**La Paz County**

La Paz County contracts with an appointed non-Forensic Pathologist physician(s), termed an Alternate Medical Examiner(s) (AME) (A.R.S. §11-591), who triages, investigates and certifies deaths that fall under the jurisdiction of the medical examiner in La Paz County. The La Paz County AME does not perform autopsy examinations and if the AME deems an autopsy is necessary to certify the cause and manner of death, the decedent may be referred to the PCOME for an examination and death certification. The PCOME is not aware of how many deaths occurring in La Paz County are reported to the La Paz County AME, nor the total number or types of deaths certified by the AME. The PCOME only has a record of deaths reported to, or referred for examination to Pima County.

Deaths on Native American tribal lands do not have to be reported through the respective death investigation system of that County and may be reported directly to the PCOME as necessary for the needs of the appropriate agency investigating that death (BIA, FBI or local tribal police departments).

Twenty-three deaths from La Paz County were reported to the PCOME in 2019, 19 of which required autopsy examinations. Some pertinent statistics regarding these deaths are detailed in the tables and graphs below.

*Arizona Department of Vital Statistics as of 02/14/2020*
La Paz County Deaths Reported to the PCOME 2010 - 2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
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<td>30</td>
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<tr>
<td>2019</td>
<td>23</td>
</tr>
</tbody>
</table>

La Paz County Deaths by Type of Exam 2019

- Autopsy: 19
- Jurisdiction Declined: 4
La Paz County Deaths by Manner of Death 2019

- Accident: 9
- Natural: 6
- Undetermined: 2
- Suicide: 1
- Homicide: 1

La Paz County Deaths by Type of Death 2019

- Motor Vehicle: 4
- Cardiovascular: 5
- Undetermined: 1
- Firearms: 1
- Chronic Alcohol: 1
- Overdose: 2
- Other: 5
NAVADO COUNTY

Navajo County contracts with an appointed non-Forensic Pathologist physician(s), termed an Alternate Medical Examiner(s) (AME) (A.R.S. §11-591), who triages, investigates and certifies deaths that fall under the jurisdiction of the medical examiner in Navajo County. The Navajo County AME does not perform autopsy examinations and if the AME deems an autopsy is necessary to certify the cause and manner of death, the decedent may be referred to the PCOME for an examination and death certification. The PCOME is not aware of how many deaths occurring in Navajo County are reported to the Navajo County AME, nor the total number or types of deaths certified by the AME. The PCOME only has a record of deaths reported to, or referred for examination to Pima County. Deaths on Native American tribal lands do not have to be reported through the respective death investigation system of that County and may be reported directly to the PCOME as necessary for the needs of the appropriate agency investigating that death (BIA, FBI or local tribal police departments).

Thirty-seven deaths from Navajo County were reported to the PCOME in 2019, 35 of which required autopsy examinations. Some pertinent statistics regarding these deaths are detailed in the tables and graphs below.

Navajo County Mortality by Year 2010 - 2019*
Navajo County Deaths by Manner of Death 2019

- Natural: 16
- Accident: 8
- Suicide: 6
- Homicide: 4
- Undetermined: 2

Navajo County Deaths by Type of Death 2019

- Cardiovascular: 7
- Chronic Alcohol: 6
- Hanging: 4
- Motor Vehicle: 2
- Overdose: 2
- Undetermined: 2
- Infection: 2
- Firearms: 2
- Hypothermia: 2
- Other: 2
**PINAL COUNTY**

Pinal County appointed a Medical Examiner in December 2016 and maintains its own Medical Examiner’s office staffed to conduct death scene investigations, transport remains, perform examinations and triage deaths reportable to the ME as stated in A.R.S §11-593 above. Deaths on Native American tribal lands do not have to be reported through the respective death investigation system of that County and may be reported directly to the PCOME as necessary for the needs of the appropriate agency investigating that death (BIA, FBI or local tribal police departments).

Eight deaths from Pinal County were reported to the PCOME in 2019, 6 of which required autopsy examinations. Some pertinent statistics regarding these deaths are detailed in the tables and graphs below.

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*Arizona Department of Vital Statistics as of 02/14/2020*
Pinal County Deaths by Manner of Death 2019

- Accident: 3
- Natural: 3
- Homicide: 1
- Undetermined: 1

Pinal County Deaths by Type of Death 2019

- Diabetes: 1
- Motor Vehicle: 1
- Overdose: 1
- Cardiovascular: 1
- Sharp Force: 1
- Exposure: 1
- Undetermined: 1
YUMA COUNTY

Yuma County contracts with, and appoints the pathology group at Yuma Regional Medical Center, as Medical Examiner for Yuma County. Some decedents (typically suspected homicides) are referred to the PCOME for an examination and death certification at the discretion of the Yuma County Medical Examiner’s Office. The Yuma County Medical Examiner’s Office issues its own Annual Report. Please reference that report for details concerning deaths occurring in Yuma County that are not referred to the PCOME.

Eighteen deaths from Yuma County were reported to the PCOME in 2019, all of which required autopsy examinations. Some pertinent statistics regarding these deaths are detailed in the tables below.

*Arizona Department of Vital Statistics as of 02/14/2020*
Yuma County Deaths Reported to the PCOME 2010 - 2019

<table>
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</tr>
</tbody>
</table>

Yuma County Deaths by Manner of Death 2019

- Homicide: 7
- Accident: 6
- Suicide: 2
- Undetermined: 1
- Natural: 2

Rev: 04/20/2020
Yuma County Deaths by Type of Death 2019

- Firearms: 5
- Overdose: 5
- Asphyxia: 3
- Other: 5