

COUNTY OF SPOKANE
STATE OF WASHINGTON

**OFFICE OF THE MEDICAL
EXAMINER**

2019 Annual Report

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Nationally Accredited Office



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Section 1: Overview

Mission Statement

“A regional center dedicated to excellence in public service by providing professional, scientific, and compassionate forensic death investigation.”

Introduction

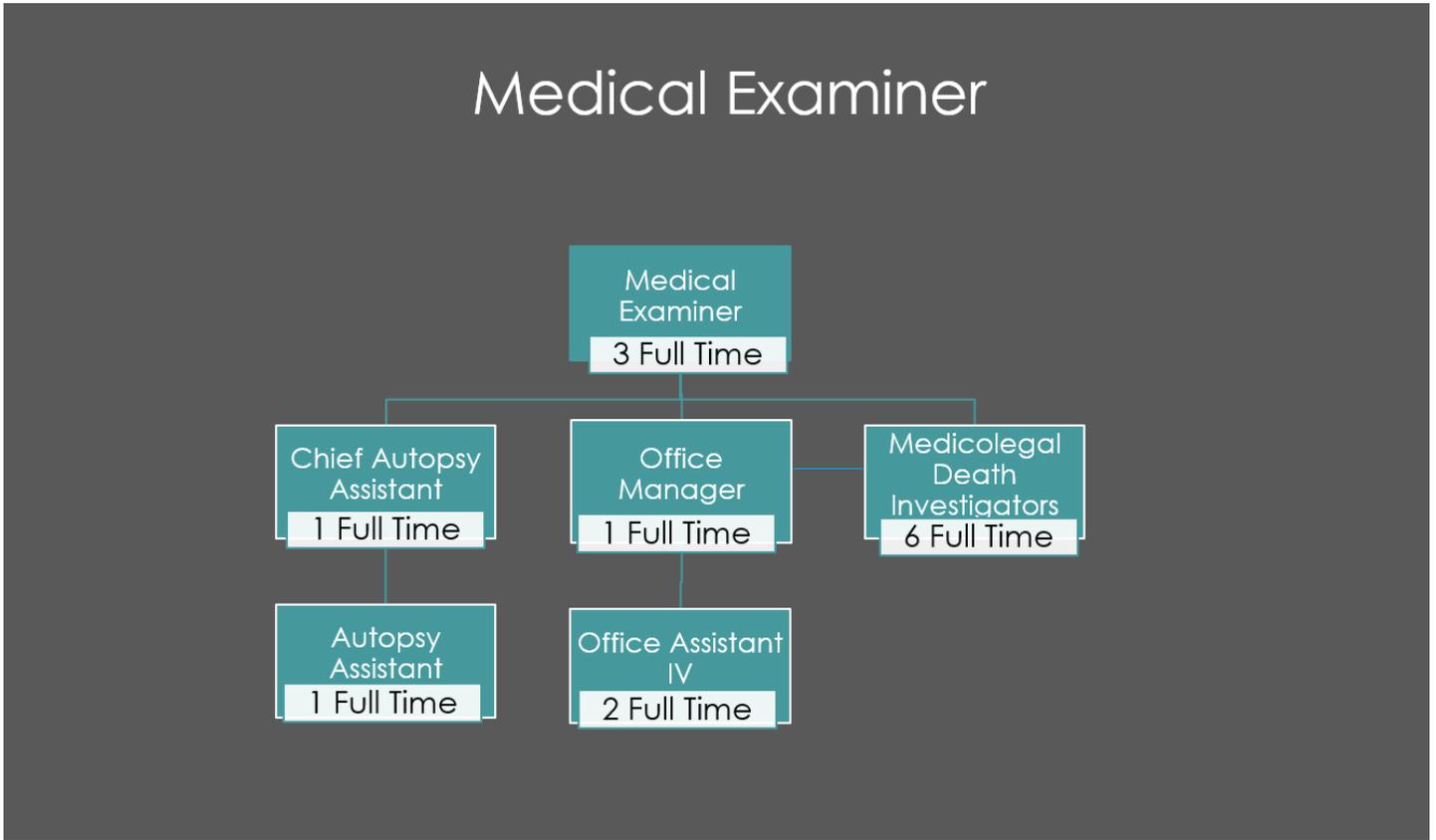
*The Spokane County Medical Examiner’s Office has been in existence since January 1, 1999, when the Coroner’s Office was replaced. In April of 2004, the office received full accreditation from the National Association of Medical Examiners (NAME). The office is inspected every 5 years and has maintained accreditation since with the most recent accreditation in 2019. **The National Commission on Forensic Sciences (through the Department of Justice) recommends that all investigation systems whether coroner or Medical Examiner obtain accreditation by 2020. Only 88 Medical Examiner/Coroners systems in the United States are currently accredited. There about 2300 Coroner and Medical Examiner jurisdictions in the United States.***

The Spokane County Medical Examiner’s Office is a separate department in Spokane County, and not under the supervision or direction of the Spokane Police Department, the Washington State Patrol, the Prosecutor’s Office or the Spokane County Sheriff’s Office. The Medical Examiner’s Office is an independent entity.

The office employs three forensic pathologists, an office manager, six full time investigators, two full time administrative staff, one chief autopsy assistant, one full time autopsy assistant. For more information about the Medical Examiner’s Office, visit our web site at <https://www.spokanecounty.org/807/Medical-Examiner>.

The Spokane Medical Examiner has been the recipient of eight federal Paul Coverdell Forensic Science Improvement grants, totaling approximately \$ 837,700.00. The latest grant was awarded in 2019. The last two Coverdell grants provided funding for a state of the art Lodox scanner as well as large monitors for viewing xray images. At the time of the writing of this report in 2020, this office learned it was awarded an additional Paul Coverdell Forensic Science grant funds for 2021, totaling approximately \$ 50,000 total. These funds will be utilized for additional storage for decedents in the event of a mass fatality event.

Medical Examiner Organizational Chart



The Spokane County Medical Examiner is responsible for death investigation in all of Spokane County to include Federal, State, County and City lands.

Foreword

Information presented in this annual report has been compiled from deaths that were reported to the Spokane County Medical Examiner's Office in 2019. This summarized report presents data in a variety of formats with the objective of providing useful information to diverse groups in the community.

Completion of this report for 2019 was late, because of delays in turnaround time in the Washington State Toxicology Laboratory, and because the Medical Examiner's office was occupied with planning and implementation for a move to a new facility.

Referral Caseload: In addition to assuming statutory responsibility for unexpected deaths in Spokane County, the Spokane County Medical Examiner's Office performs autopsies for 13 "outside" counties in Eastern Washington and the Idaho panhandle. In 2019 a total of 123 autopsies were performed for the following referral counties, Asotin, Benewah, Bonner, Boundary, Clearwater, Garfield, Kootenai, Latah, Lincoln, Nez Perce, Pend Oreille, Shoshone and Stevens. The referral relationship is established by memorandums of agreement. The surrounding counties utilize forensic expertise and an accredited forensic pathology facility, without the necessity of having larger staffs, employing Forensic Pathologists, and maintaining an autopsy facility. Spokane County receives payment from outside counties for these services, revenues for autopsies totaled \$242,810.00 in 2019.

OUTSIDE COUNTY AUTOPSIES

2019	123
2018	135
2017	157
2016	126
2015	130
2014	139
2013	125
2012	136

SPOKANE COUNTY AUTOPSIES

2019	366
2018	396
2017	432
2016	415
2015	430
2014	354
2013	408
2012	373

- Note in addition to the 366 complete autopsies performed by the Spokane County Medical Examiner, there were 15 external body examinations performed.

Outside County Autopsies per County

	2019	2018	2017	2016	2015	2014	2013	2012
Asotin	6	6	3	4	7	2	1	4
Benewah	2	2	2	2	2	2	1	1
Bonner	15	11	15	7	19	12	9	14
Boundary	2	3	4	0	4	6	3	6
Clearwater	4	3	4	5	0	0	0	0
FBI	0	0	0	0	0	0	0	0
Garfield	0	0	2	0	0	1	0	2
Kootenai	40	42	53	46	50	57	49	47
Latah	3	N/A						
Lewis	N/A	N/A	N/A	N/A	0	0	0	1
Lincoln	3	3	4	6	4	7	6	5
Nez Perce	10	10	15	11	4	9	10	10
Pend Oreille	9	9	6	10	10	8	8	7
Shoshone	12	9	19	9	3	7	8	10
Stevens	17	37	30	26	24	28	30	29

In 2016 Spokane County began service to the Clearwater County Coroner. Service to Lewis County was discontinued in 2013.

The Spokane County Medical Examiner only periodically performs autopsies at the request of the FBI.

Criteria for Reportable Deaths (Washington State Law)

1. Persons who die suddenly when in apparent good health and without medical attendance within 36 hours preceding death.
2. Circumstances that indicate death was caused in part or entirely by unnatural or unlawful means.
3. Suspicious circumstances.
4. Unknown or obscure causes.
5. Deaths caused by any injury whatsoever, whether the primary cause or contributing cause.
6. Rapidly fatal contagious disease, with public health risk.
7. Unclaimed bodies.
8. Premature and stillborn infants where suspicious circumstances exist.
9. All deaths in children.

Function of the Medical Examiner's Office

The Medical Examiner's Office serves the living, by investigating deaths that are unnatural and/or unexpected, such deaths have implications to the greater community. This task begins with careful investigation at the scene of death, supplemented when appropriate, by autopsy examination, toxicology and other testing. The Medical Examiner's Office helps the community by determining the cause and manner of death, recognizing and collecting evidence needed for adjudication, defining public health and product safety risks and providing compassionate services to families including direction of efforts to notify next of kin.

Standard Annual Reports Data as Identified by the National Association of Medical Examiners (N.A.M.E.)

The Spokane County Medical Examiner's Office (SCMEO) achieved the distinction of Accreditation by the National Association of Medical Examiners in April 2004. The office has been continually accredited since, with annual self-inspections, and on-site inspections every 4 years. The National Association of Medical Examiners (NAME) is the national professional organization of forensic pathologists, physician medical examiners, medical death investigators, death investigation system administrators, and consultants who perform the official duties of medicolegal investigation of deaths of public interest in the United States. Accreditation is a rigorous process, and requires a lengthy inspection by an independent Medical Examiner trained and appointed by the organization. The accreditation requirements are 30 pages long, and include more than 300 items covering diverse points of quality, such as how specimens are labeled, and the qualifications of staff members. Please refer to the following chart for some of the data required as part of accreditation by the National Association of Medical Examiners.

2019 N.A.M.E. Data

Deaths in Spokane County	5276
Deaths Reported to the Medical Examiner's Office	1937
Deaths Investigated by the Medical Examiner's Office (Jurisdiction Assumed)	623
Scenes Investigated by the Medical Examiner Office	305
Bodies transported by order of the office via Contract Body Transport	433
○ Total bodies transported to the Forensic Institute	661
Total External Body Examinations	15
Total Partial Autopsies	0
➤ Total Complete Autopsies	489
Hospital Autopsies Retained Under Medical Examiner Jurisdiction	0
Microscopic Studies Performed	488
Neuropathologic Studies Performed	4
Cardiac Pathologic Studies Performed (many of the tissue donor cases valve donors get this)	0
Autopsies Performed for Outside Jurisdictions	123
Bodies Unidentified after Examination	0
▪ Organ Donors	22
Corneal Donors	25
Bone Donors	14
Connective Tissue Donors	17
Heart Valve Donors	7
Skin Donors	10
Unclaimed bodies	32
Exhumations	0

- Some decedents were not transported via contract transport; these include deaths that occurred at Holy Family Hospital (105), where the Forensic Institute was housed; as well as deaths that occur in a referral county (123).
- Total complete autopsies includes both Spokane County cases and Referral County Cases.
 - Organ and tissue donation agencies must seek permission from the Medical Examiner's office before proceeding with donation procedures.

Spokane County Medical Examiner Cases in 2019 (Excluding all referral County Autopsies)

In 2019, there were 5276 deaths in Spokane County. Based on the latest United States Census Bureau data the estimated population of Spokane County is 522,798. The 5276 deaths thus represent approximately 1% of the population. Of these deaths, 1,937 or 36.7 % of the deaths were reported to the Medical Examiner. Based upon analysis of the scene and circumstances of death, and the decedent's medical history, the Medical Examiner assumed jurisdiction in 623 (32.1%) of these reported deaths, or in 11.8 % of all deaths in the county. These reporting figures and autopsy percentages are similar to other Medical Examiner jurisdictions nationally.

There were deaths reported to the Medical Examiner in which jurisdiction was released after investigation (termed "jurisdiction released"). The number of deaths reported to the Medical Examiner's Office is significantly greater each year than reported during the years Spokane County had an elected lay Coroner for death investigations (before January 1, 1999). The number of cases

which were reported to the Medical Examiner but released after investigation (jurisdiction released) has also generally increased during the Medical Examiners years (1999 to present), reflecting efforts by the Medical Examiner's Office to educate reporting agencies and encourage appropriate reporting of deaths to the Medical Examiner and also partly due to population growth.

Beginning in 2019 only selected nursing home and adult care facility deaths were reported, those meeting hospital reporting criteria resulting in a lower number of jurisdiction released cases in 2019.

Prior to 2019, all nursing home and adult care facility deaths were reported to the Medical Examiner and in the vast number of cases, jurisdiction was eventually released. Starting in 2019, only deaths that meet hospital reporting requirements are reported to the Medical Examiner by nursing home and adult care centers. This change accounts for the abrupt decline in reported cases and jurisdiction released cases in 2019.



Next of Kin Notification

While there are no Washington State laws which require the Medical Examiner to identify and locate next-of-kin, by convention and practice in Spokane County, the Medical Examiner has been depended upon for identifying next-of-kin and for facilitating the locating and notifying of next-of-kin. The office always coordinates next-of-kin notification and typically takes responsibility for notifying next-of-kin of the death.

Forensic Unit

The Forensic Unit is part of the Sheriff's department and provides crime scene documentation, fingerprint comparison and scene photo documentation at the direction of the Law Enforcement Agency with jurisdiction. The Medical Examiner's office often partners with this group in the collection

and preservation of evidence. The unit also assists the Medical Examiner's Office in providing fingerprint (friction ridge) comparison expertise.

Section 2: Total Cases

Total Cases for 2019

Total Spokane County Population	522, 798
Total Deaths in Spokane County	5276
Total Deaths Reports to the Medical Examiner in 2019	1937
Total Jurisdiction Released after Investigation	1314
Total Spokane County Jurisdiction Assumed Cases	623
Total Spokane County Complete Autopsies Performed	366
Total Spokane County External Examinations Performed	15
Total Spokane County Partial Examinations Performed	0

Manner of Death and Death Certification

The death certificate is a Washington State Health Department document, not a medical examiner or coroner document.

The death certification process includes classification of the manner of death (Natural, Accident, Suicide, Homicide, or Undetermined), intended to describe the action associated with a death, if any, for public health department vital statistics purposes. In the vast majority of deaths, Washington State law directs the physician last in attendance to certify the death.

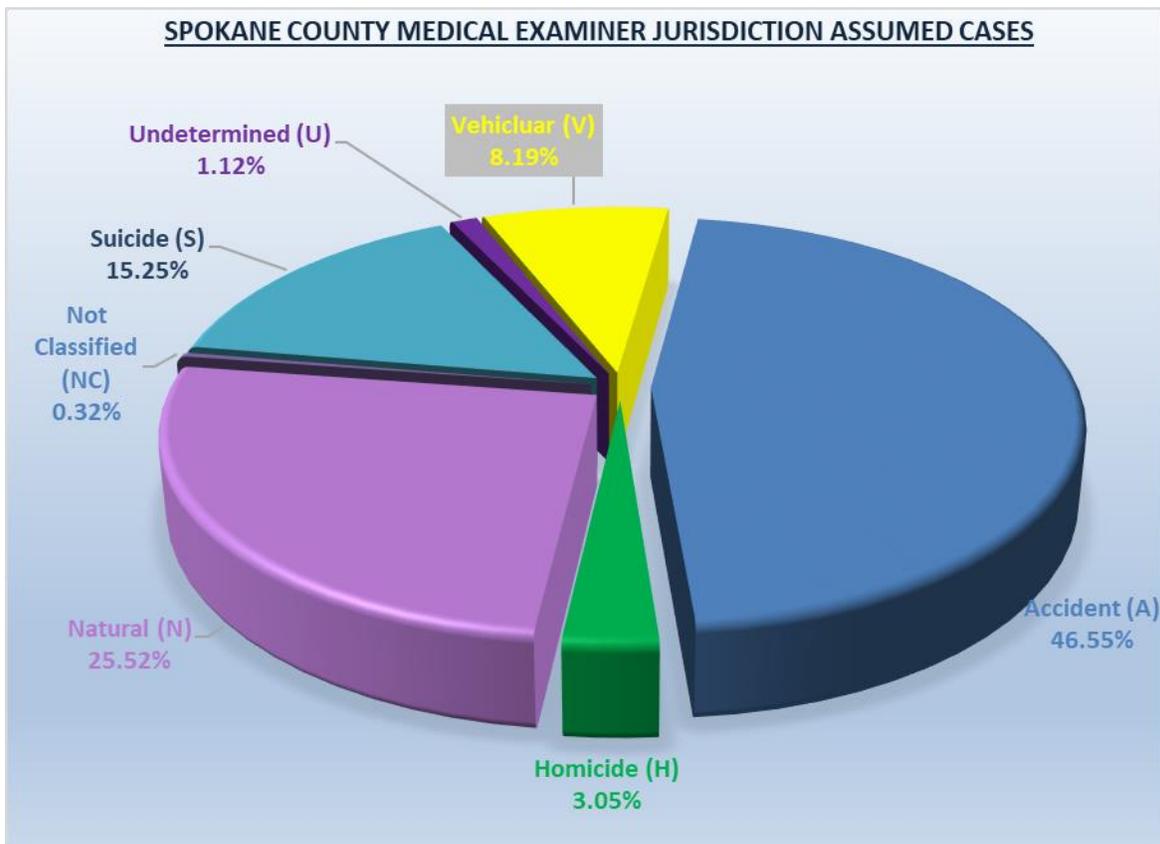
The Medical Examiners assist the community and the Health Department with death certifications in deaths reported to the Office of the Medical Examiner, most often in cases of unnatural death. The manner of death as used by the Office of the Medical Examiner does not address presence or absence of intent, culpability or justification of any action associated with a death. Manner of death classification was added to the death certificate by public health officials in 1910 to help clarify the circumstances of death and how an injury causing death occurred, assisting nosologists who code and classify cause-of-death information for statistical purposes.

The Medical Examiner criteria for manner of death is not the same as the prosecutor's legal determination. For example, most motor vehicle deaths are classified as "accident" by the Medical Examiner. The prosecutor may pursue a legal charge of "vehicular homicide", if the legal definition is met. Medical Examiner manner of death certification is for generation of public health data.

Any determination by the Medical Examiner of suicide, accident or homicide in no way limits the ability of law enforcement to investigate to whatever extent they deem appropriate or necessary. No law enforcement agency is bound or limited by the manner of death on a death certificate.

Jurisdiction Assumed Cases by Manner of Death 2019	Number of Deaths	Percent of Total
Accident (A)	290	46.55%
Homicide (H)	19	3.05 %
Natural (N)	159	25.52%
Not Classified (NC)	2	0.32%
Suicide (S)	95	15.25%
Undetermined (U)	7	1.12%
Vehicular (V)	51	8.19%
Total	623	

For death certificate purposes, vehicular deaths are classified as accident.



	Jurisdiction Released Cases	❖ Spokane County Autopsies Completed	Referral County Autopsies Completed
January	126	37	8
February	111	25	7
March	103	27	10
April	112	32	9
May	105	33	6
June	86	28	11
July	100	31	13
August	103	28	12
September	106	29	12
October	124	36	11
November	114	31	14
December	124	29	10
Total	1314	366	123

❖ 366 complete autopsies were performed for Spokane County (additionally there were 15 external only examinations for Spokane County). In addition to the Spokane County autopsies, the Medical Examiner’s Office performed 123 complete autopsies for neighboring referral counties, for a total of 489 complete autopsies performed by Spokane County Medical Examiners.

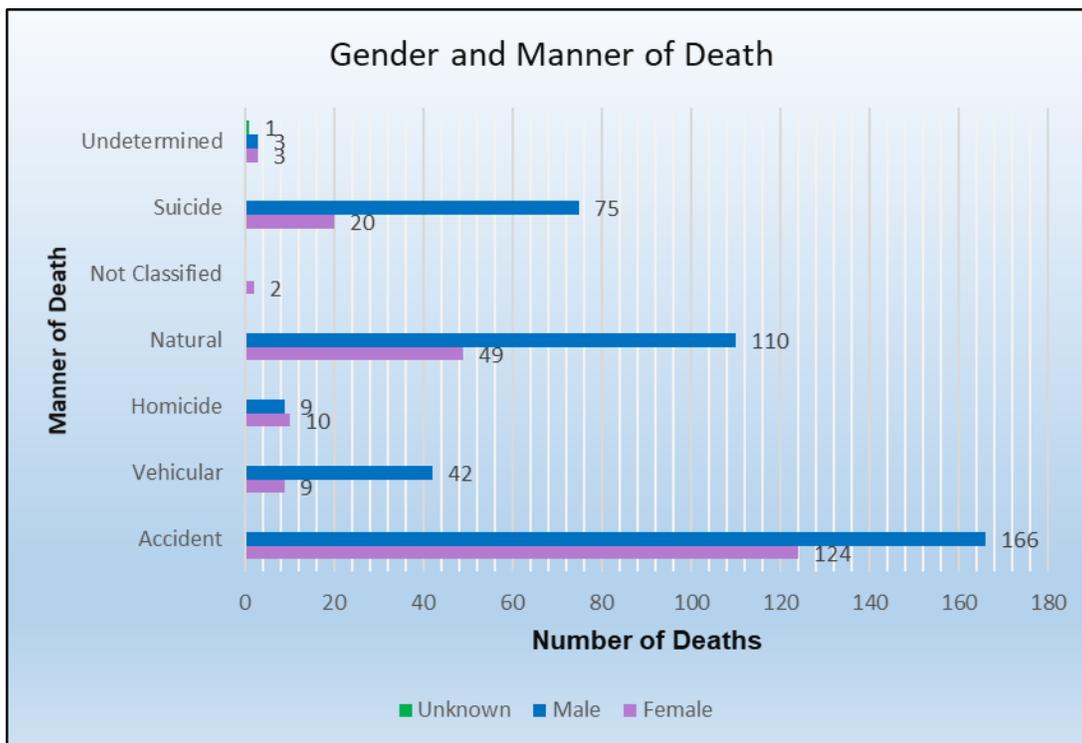
Total Cases by Gender and Manner of Death (All Jurisdiction Assumed deaths, with or without autopsy)

- A – Accident
- V – Vehicular
- H – Homicide
- N – Natural
- S – Suicide
- NC- Not Classified
- P – Pending
- U – Undetermined

Sex	A	V	H	N	NC	S	U	Total	Percent
Female	124	9	10	49	2	20	3	217	34.83%
Male	166	42	9	110	0	75	3	405	65.01%
Unknown	0	0	0	0	0	0	1	1	0.16%
Total								623	

The preponderance of males has been the historical norm in Spokane County, and is similar to the experience/practice of nearly all other medical examiner systems in the country.

Gender and Manner of Death



Predominance of male gender in all categories of death coming under the jurisdiction of the Medical Examiner’s Office reflects the experience of most death investigation systems. This male predominance begins in infancy and extends to near the end of life spans. While females statistically attempt suicide more often than males, males more often succeed.

Total Jurisdiction Assumed (JA) Cases by Race and Manner of Death

	Race and Manner of Death							Total	% of 5276 Spokane County Deaths
	A	H	N	NC	S	U	V		
Asian	2	1	4	0	1	1	0	9	0.17%
Black	5	1	4	0	3	0	1	14	0.27%
Caucasian	272	13	145	0	85	5	45	565	10.71%
Hispanic	0	2	1	0	1	0	2	6	0.11%
Native American	6	1	2	0	1	0	2	12	0.23%
Other	4	1	3	0	4	0	0	12	0.23%
Unknown	1	0	0	2	0	1	1	5	0.09%
	290	19	159	2	95	7	51	623	

These data reflect the demographics of Spokane County, where the Caucasian race predominates statistically. Race determination is required on the death certificate.

Total Jurisdiction Assumed (JA) Cases by Age Group and Manner of Death

In Jurisdiction Assumed (JA) cases, the Medical Examiner assumes responsibility for signing the death certificate. In 366 cases a complete autopsy was performed, in 15 cases an external body examination was performed. In 242 cases the death certificate was signed based on death investigation and/or medical records.

In the 0-9 age group, sudden unexplained infant deaths (SIDS or SUID) are classified as natural in this jurisdiction. In older Spokane County deaths (age 70 plus) accidents predominate, and most result from falls with hip (or other) fractures or head injuries leading to death.

Age and Manner of Death								
Age Group (Years)	A	H	N	NC	S	U	V	Total
Unknown Age	0	0	0	0	0	0	0	0
0-9	6	1	14	2	0	3	1	27
10-19	1	0	0	0	9	0	4	14
20-29	19	6	6	0	13	1	10	55
30-39	24	5	7	0	19	1	7	63
40-49	25	4	21	0	16	0	6	72
50-59	29	0	22	0	12	2	7	72
60-69	29	2	50	0	14	0	8	103
70-79	43	1	27	0	8	0	5	84
80-89	62	0	9	0	3	0	2	76
90-99	46	0	2	0	1	0	1	50
100-109	6	0	1	0	0	0	0	7
	290	19	159	2	95	7	51	623

Total Jurisdiction Assumed (JA) Cases by Age Group and Gender

Age Group (Years)		Female	Male	Unknown Gender
Unknown Age	0	0	0	0
0 to 9	27	15	12	0
10 to 19	14	4	10	0
20 to 29	55	13	42	0
30 to 39	63	17	46	0
40 to 49	72	24	48	0
50 to 59	72	22	50	0
60 to 69	103	20	83	0
70 to 79	84	34	50	0
80 to 89	76	34	42	0
90 to 99	50	30	20	0
10 to 109	7	5	2	0
Total	623	218	405	0

Out of Area Incidents Leading to Death in Spokane County

In 2019 there were a total of 55 cases in which an event occurred outside of Spokane County that led to the eventual death in Spokane County. According to Washington State law, Medical Examiner and Coroner jurisdiction is based upon where the death occurs. The majority of these cases were transfers from out of county or out of state hospitals to one of the Spokane County hospitals. The manners of death in these cases are: 27 Accidents, 13 motor vehicle accidents, 4 natural, 8 suicides, 2 undetermined and 1 not classified. Please see the link to the data below:

[Out of Area Incidents Leading to Death in Spokane County](#)

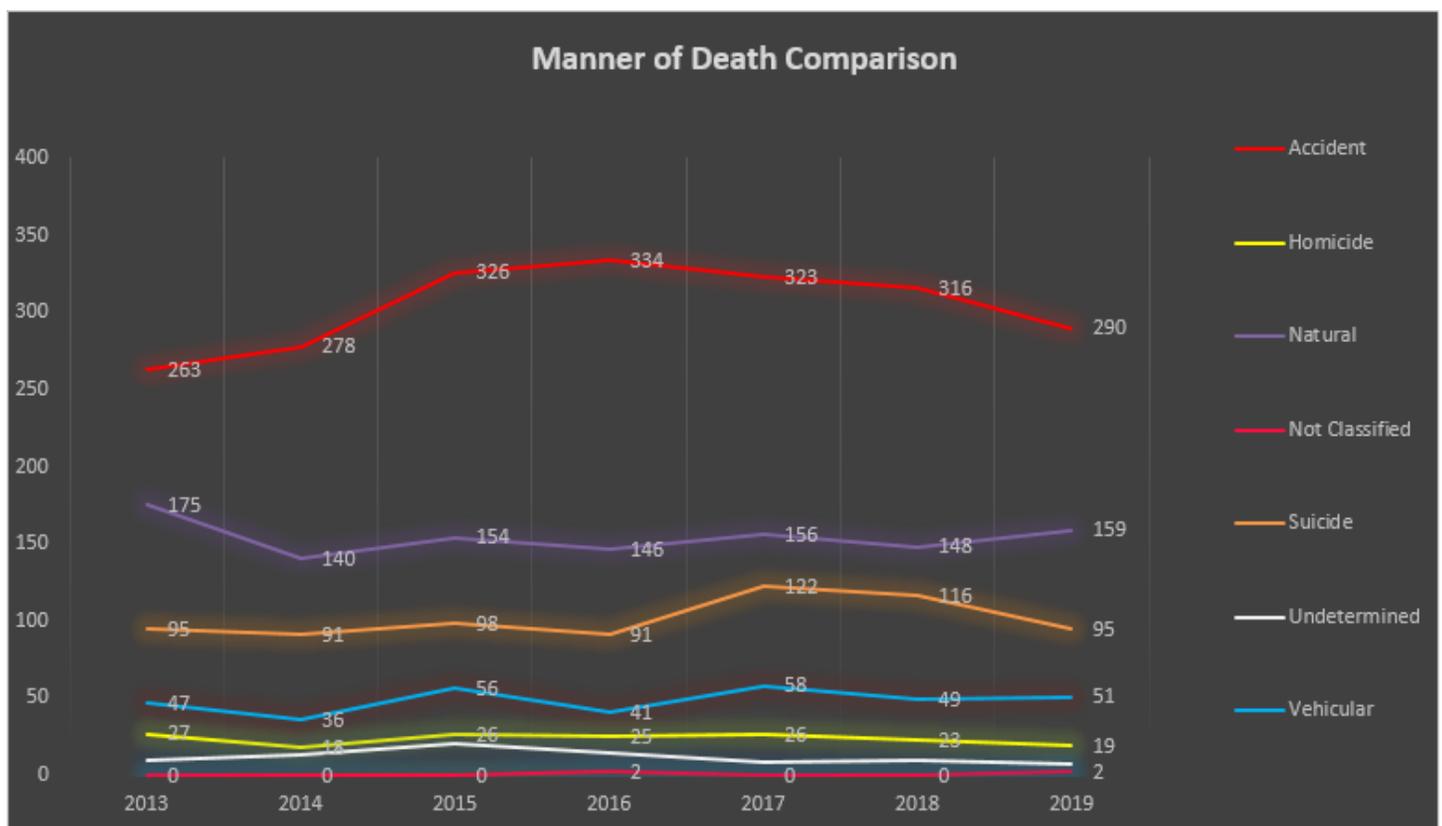
Section 3: Multi Year Comparison

Manner of Deaths Comparison (Jurisdiction Assumed – JA Deaths)

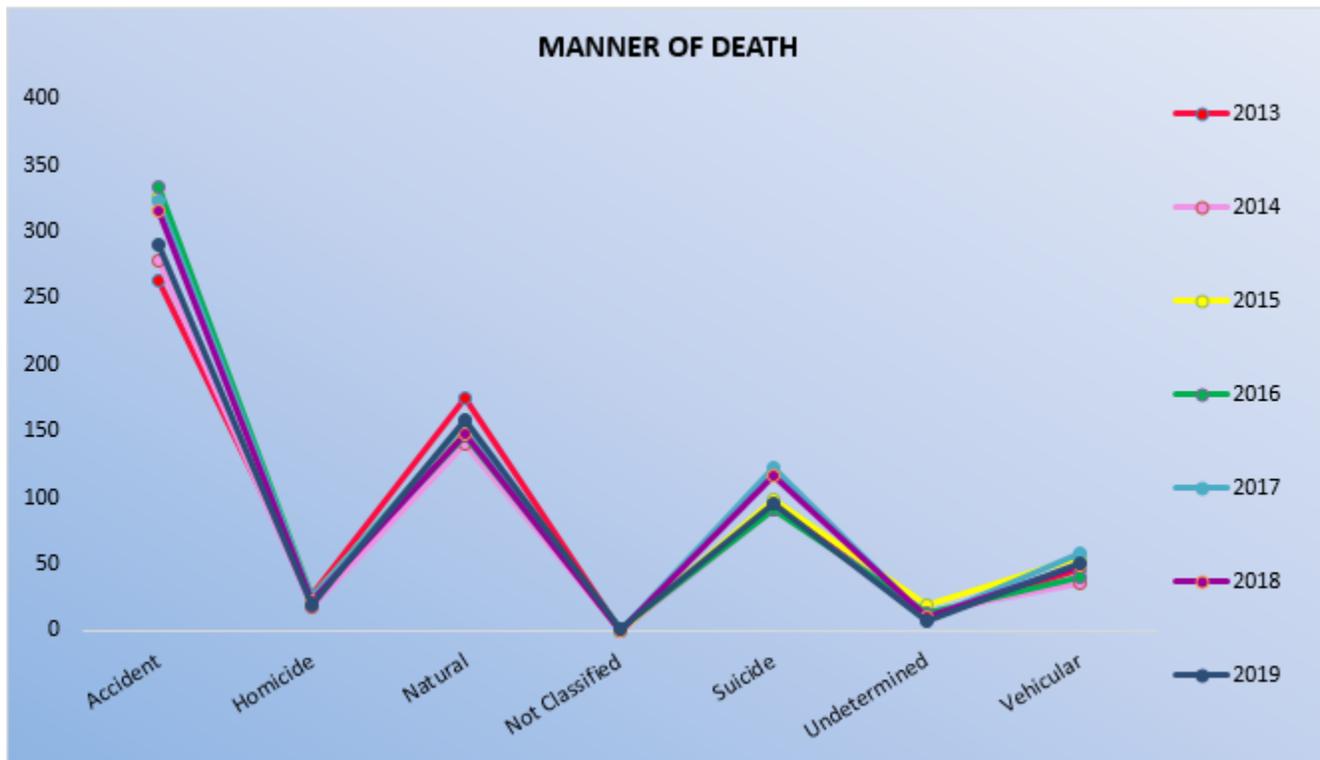
The Medical Examiner’s Office replaced the coroner’s system on January 1, 1999. From 1999 to present, the number of Spokane County deaths which have fallen under the jurisdiction of the Medical Examiner System has ranged from a low of 550 to a high of 680, with the number of Spokane County autopsies performed typically under 450.

Comparison of Manners of Death 2013-2019

	2013	2014	2015	2016	2017	2018	2019
Accident	263	278	326	334	323	316	290
Homicide	27	18	26	25	26	23	19
Natural	175	140	154	146	156	148	159
Not Classified	0	0	0	2	0	0	2
Suicide	95	91	98	91	122	116	95
Undetermined	10	13	20	14	9	10	7
Vehicular	47	36	56	41	58	49	51
Total	617	576	680	653	694	662	623



Medical Examiner Homicide numbers may not mirror the Police Department reports of homicide deaths because the Medical Examiner certification of homicide is broader in some situations and more narrow in others. The Medical Examiner is using these classifications for the purposes of statistical analysis based on death certificate classification. The increase in accidents over time is the result of the diligence of the Medical Examiner’s Office in investigating deaths such as hip fractures in the elderly and prescription overdose deaths. Suicide numbers declined somewhat in 2019 to a more typical historical level. The office has been releasing jurisdiction more in natural deaths, but assumes jurisdiction for more accidents.



The proportions of the manners of death have remained remarkably similar through the years, but suicides spiked in 2017, declining in 2018 and with 27 fewer in 2019.

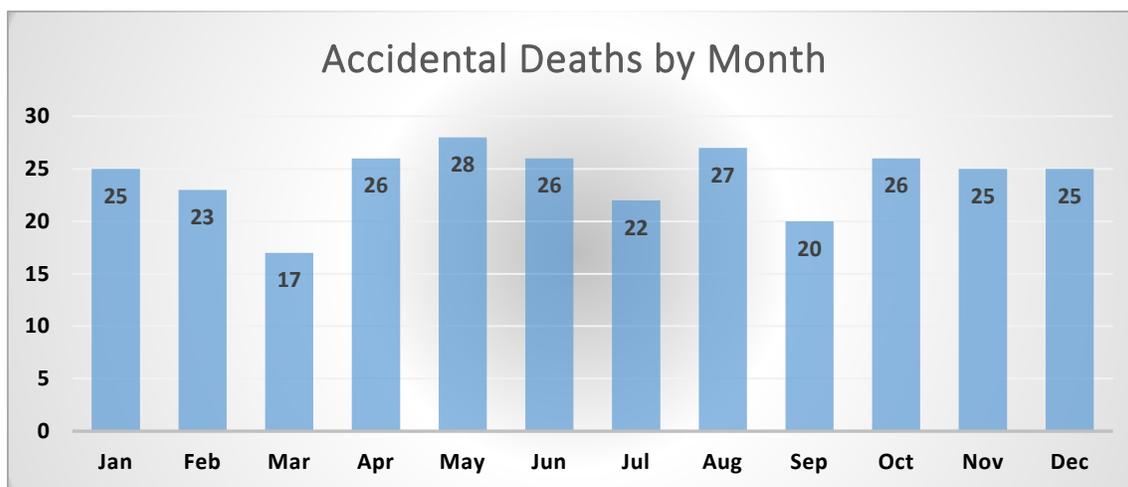
Manner of Death	2013	2014	2015	2016	2017	2018	2019
Accident	42.63%	48.26%	47.94%	51.15%	46.54%	47.73%	46.55%
Homicide	4.38%	3.13%	3.82%	3.83%	3.75%	3.47%	3.05%
Natural	28.36%	24.31%	22.65%	22.36%	22.48%	22.36%	25.52%
Not Classified	0.00%	0.00%	0.00%	0.31%	0.00%	0.00%	0.32%
Suicide	15.40%	15.80%	14.41%	13.94%	17.58%	17.52%	15.25%
Undetermined	1.62%	2.26%	2.94%	2.14%	1.30%	1.51%	1.12%
Vehicular	7.62%	6.25%	8.24%	6.28%	8.36%	7.40%	8.19%

Ideally, a Medical Examiner system strives to keep the percentage of “undetermined” manner of death cases to less than five percent. This requires thorough investigation and autopsy. In the

Spokane County Medical Examiner’s Office, every “undetermined” manner case is reviewed by multiple staff members as part of the office Quality Improvement Program.

Accident

Accidental Deaths in Jurisdiction Assumed (JA) Cases by Month



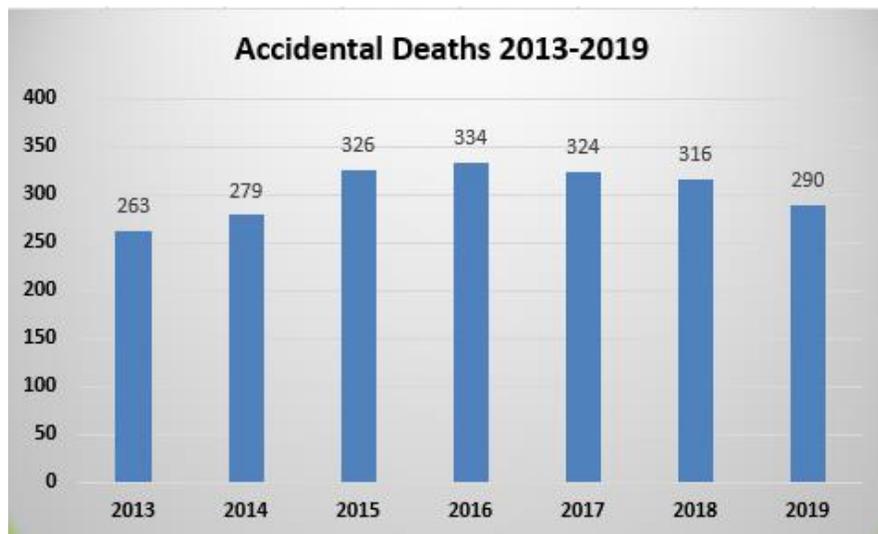
As noted elsewhere in this report, the majority of deaths investigated by the Medical Examiner are in males (About 2/3 of Medical Examiner Jurisdiction Assumed deaths). Falls resulting in death become more common in women in their 80’s and 90’s. An example is a fall leading to hip fracture, and resulting in death from related complications.

Accident Mode	Female	Male	Total
Alcohol Abuse	1	0	1
Asphyxiation	0	2	2
Choking	2	6	8
Drowning	3	4	7
Drugs	24	48	72
Prescribed Drugs	3	5	8
Electrocution	0	1	1
Fall	85	78	163
Fire/burns	0	1	1
Firearms	0	1	1
Hypothermia	3	11	14
Industrial Accident	0	1	1
Other	3	8	11
Total	124	166	290

Accident Mode by Gender and Age Group

Accident Mode	Sex	> 1	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	Total
Alcohol Abuse	Female	0	0	0	0	1	0	0	0	0	0	0	0	1
Alcohol Abuse	Male	0	0	0	0	0	0	0	0	0	0	0	0	0
														1
Asphyxiation	Female	0	0	0	0	0	0	0	0	0	0	0	0	0
Asphyxiation	Male	0	0	0	0	1	0	1	0	0	0	0	0	2
														2
Choking	Female	0	0	1	0	0	0	0	0	0	0	1	0	2
Choking	Male	0	1	0	0	0	0	2	1	1	1	0	0	6
														8
Drowning	Female	0	2	0	0	0	0	0	0	1	0	0	0	3
Drowning	Male	0	2	0	0	0	0	1	0	0	1	0	0	4
														7
Drugs	Female	0	0	0	2	4	7	9	2	0	0	0	0	24
Drugs	Male	0	0	0	14	13	7	4	10	0	0	0	0	48
														72
Prescribed Drugs	Female	0	0	0	0	0	1	0	0	2	0	0	0	3
Prescribed Drugs	Male	0	0	0	0	2	2	0	1	0	0	0	0	5
														8
Electrocution	Female	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrocution	Male	0	0	0	0	0	1	0	0	0	0	0	0	1
														1
Fall	Female	0	0	0	0	1	2	4	3	16	29	26	4	85
Fall	Male	0	1	0	1	0	1	4	2	19	29	19	2	78
														163
Fire/burns	Female	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire/burns	Male	0	0	0	1	0	0	0	0	0	0	0	0	1
														1
Firearms	Female	0	0	0	0	0	0	0	0	0	0	0	0	0
Firearms	Male	0	0	0	0	0	0	1	0	0	0	0	0	1
														1
Hypothermia	Female	0	0	0	0	0	1	0	0	2	0	0	0	3
Hypothermia	Male	0	0	0	0	0	3	1	6	1	0	0	0	11
														14
Industrial Accident	Female	0	0	0	0	0	0	0	0	0	0	0	0	0
Industrial Accident	Male	0	0	0	0	0	0	0	0	0	1	0	0	1
														1
Other	Female	0	0	0	0	0	0	1	2	0	0	0	0	3
Other	Male	0	0	0	1	2	0	1	2	1	1	0	0	8
														11
Grand Total		0	6	1	19	24	25	29	29	43	62	46	6	290

Falls that result in mortality are significantly correlated with increasing age. Illicit and prescription drug deaths peak in middle part of life in Spokane County.

Accidental Deaths Comparison (Jurisdiction Assumed – JA Deaths)

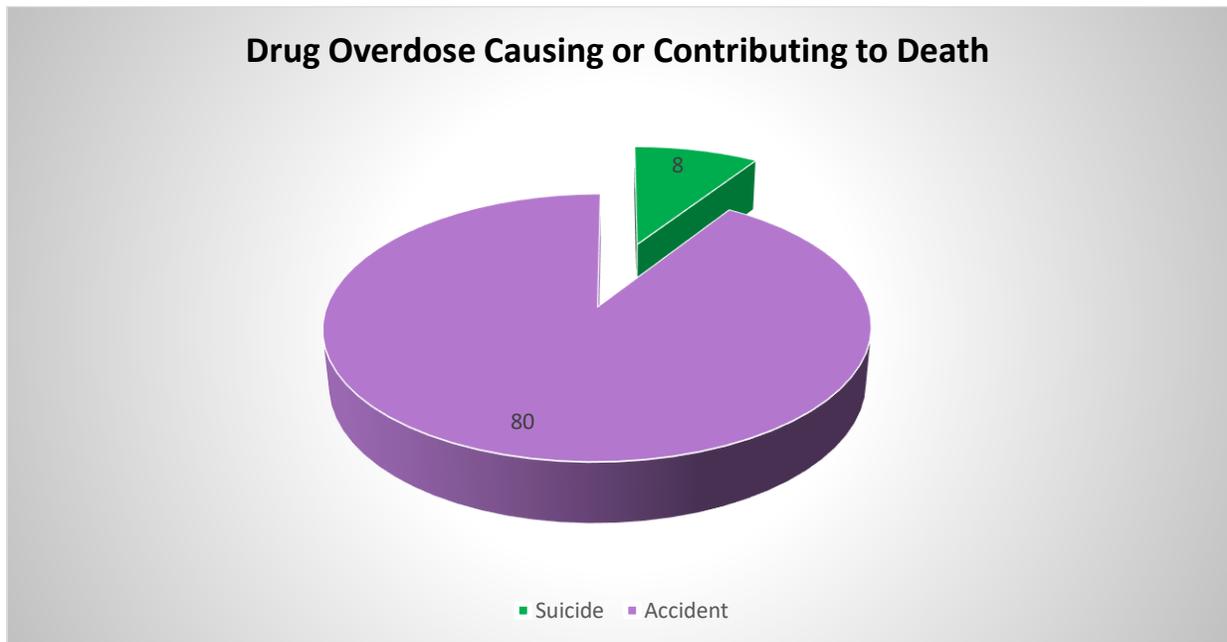
Accident Circumstances	2013	2014	2015	2016	2017	2018	2019
Aircraft	0	0	4	0	0	0	0
Alcohol Abuse	8	2	5	1	3	4	1
Anaphylaxis	1	0	0	1	0	1	0
Asphyxiation	3	6	3	5	3	3	2
Aspiration	0	1	2	0	0	1	0
Bicycle Fall	0	2	1	0	1	1	0
Choking	1	7	6	4	12	4	8
Drowning	7	5	7	5	3	4	7
Drugs	33	30	66	81	67	71	72
Prescribed Drugs	24	32	16	34	8	13	8
Electrocution	0	0	0	0	0	0	1
Fall	156	176	179	181	192	185	163
Farm	0	0	1	0	1	0	0
Fire/burns	3	3	5	5	7	6	1
Firearms	3	0	1	3	1	4	1
Hyperthermia	0	1	4	3	1	2	0
Hypothermia	8	3	15	3	10	4	14
Industrial Accident	2	3	1	1	4	2	1
Motorcycle Driver (race track)	0	0	0	0	0	1	0
Other	13	7	9	6	7	9	11
Struck by Object	0	0	0	1	3	0	0
Surgical Procedure	1	0	0	0	0	0	0
Therapy Complication	0	1	1	0	1	1	0
Total	263	279	326	334	324	316	290

Toxicology may show numerous combinations of medications and illicit drugs, but such deaths are categorized in the chart above as “Drugs”. Prescribed drugs is an exclusive category.

Drug Overdose Data Summary 2019

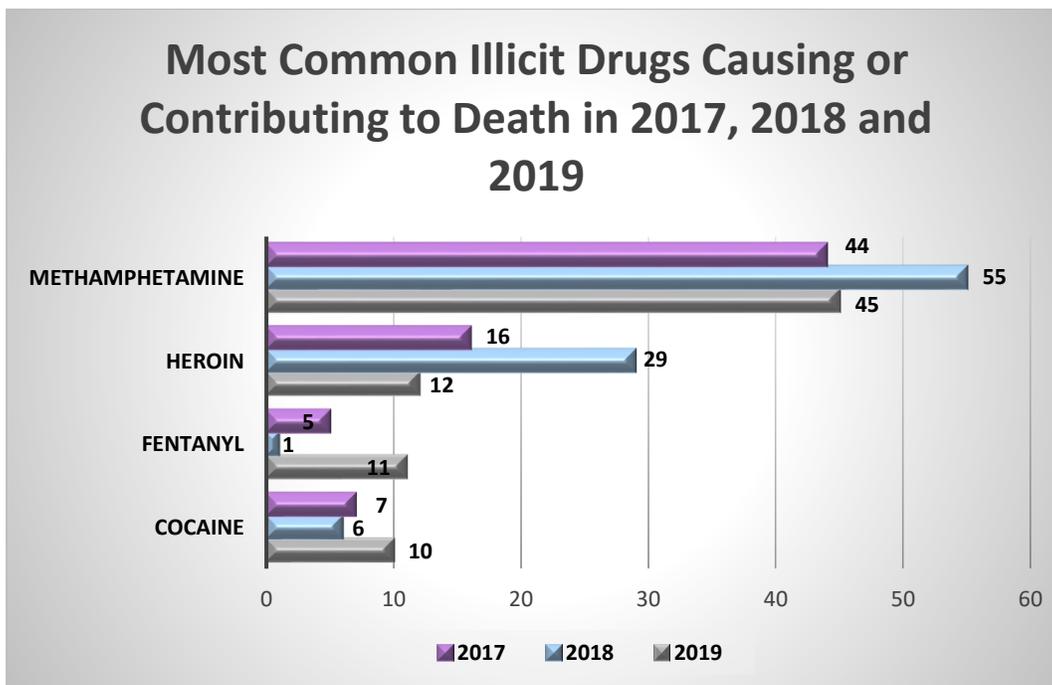
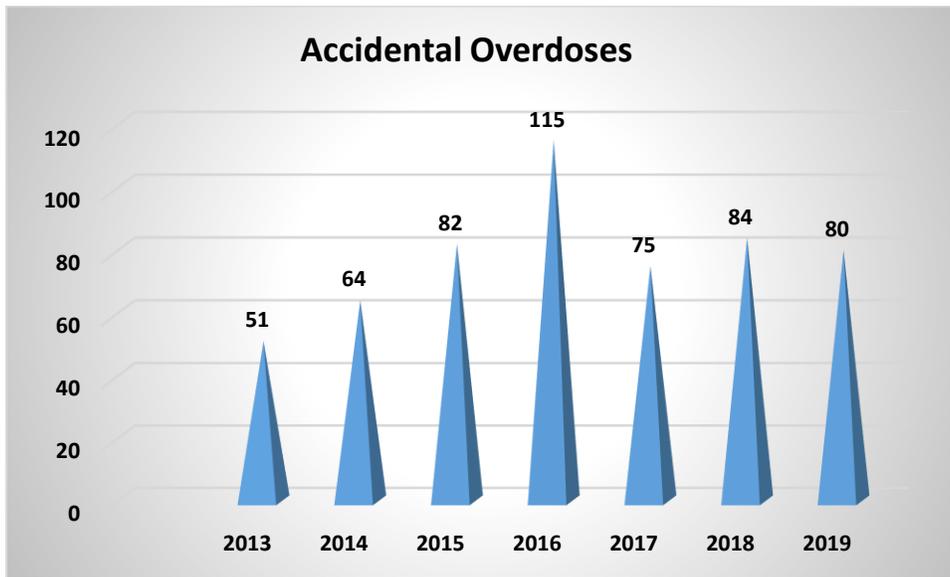
In 2019 the drug overdose total was 88 wherein 80 accidental deaths had prescription / and or illicit drugs listed on the death certificate as causing or contributing to death. Of the 80 deaths 66 had drugs listed in the primary cause of death, in the others the drugs contributed to death. There were 8 deaths that were intentional (suicide):

- 8 deaths Suicide
- 80 deaths Accident

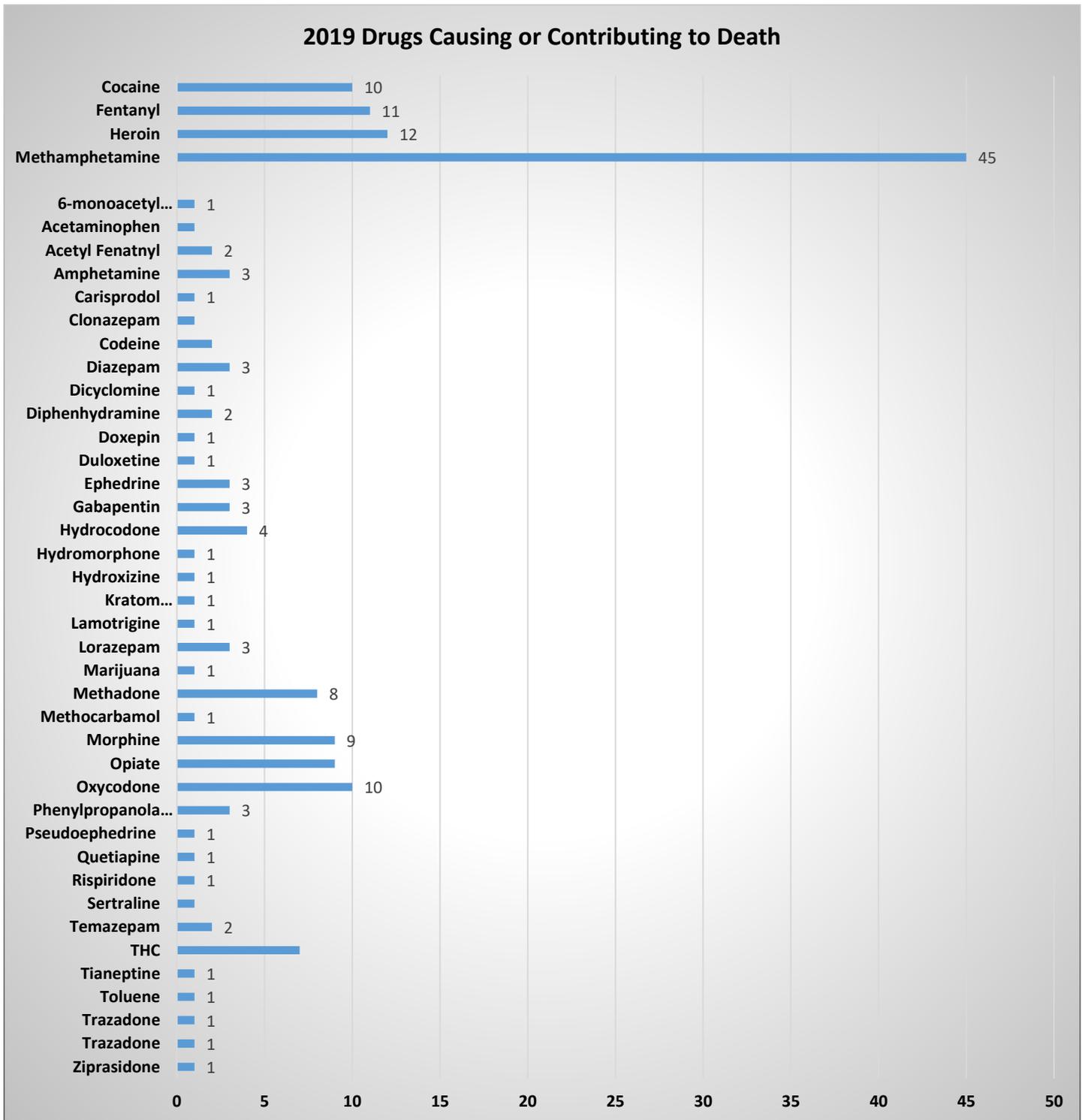


Overdose deaths may be classified as “accidents”. The federal government data categorizes overdose deaths as “unintentional poisoning deaths”. Centers for Disease Control (CDC) data suggests that poisoning deaths have decreased slightly from 2017 to 2018. (See link to CDC Morbidity and Mortality Weekly Report (MMWR) Vol. 68 / No. 34) [MMWR Vol 68 No 34](#) .

Data below shows accidental drug overdose deaths in Spokane County, in which prescription and/or illicit drugs were demonstrated in toxicology.



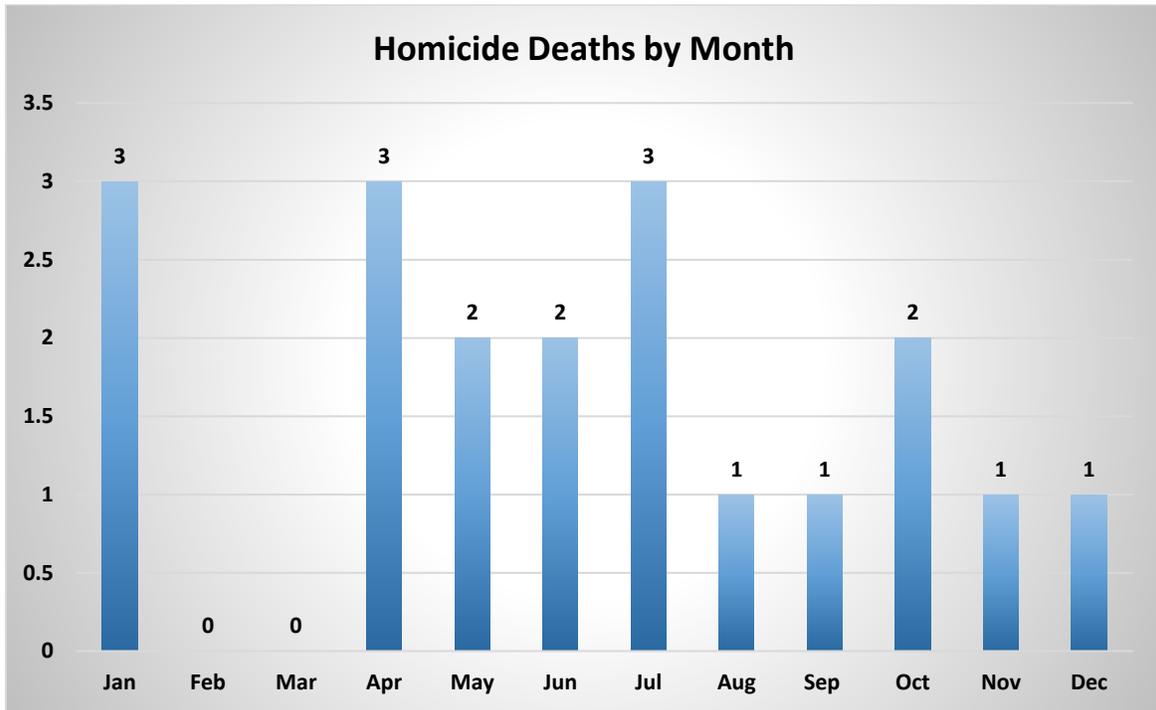
The above chart represents the most common illicit drugs found in Accidental Deaths in Spokane County in 2017, 2018 and 2019. These are listed either as the primary cause of death or as contributing to death on the death certificate.



The 9 morphine deaths may reflect heroin (rapidly converted to morphine in the body), morphine (a prescription drug) or prescription drugs, such as codeine that are converted to morphine in the body. Fentanyl deaths are increasing nationally, Spokane saw an increase in 2019.

Homicide

In 2019 there were 19 recorded homicides, this is a decrease of 4 from the previous year. Firearms accounted for the single largest method of homicide (12 of 19). Firearms also accounted for the largest number of deaths by suicide.

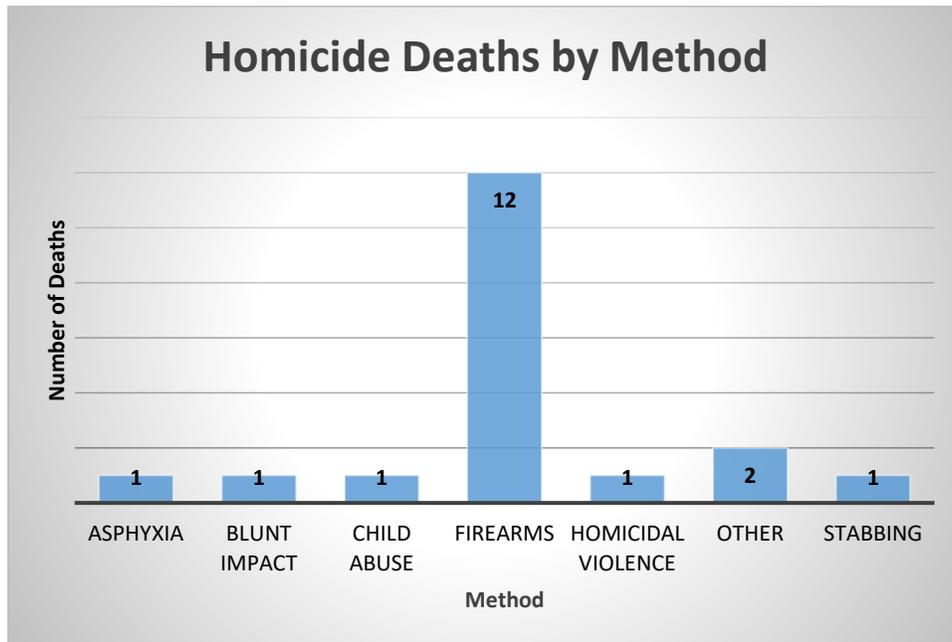


Homicide Deaths by Method, Gender, and Age Group

Homicide Method	Sex	<1	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	Total
Asphyxia	Male	0	0	0	0	1	0	0	0	0	0	1
												1
Blunt Impact	Male	0	0	0	0	0	1	0	0	0	0	1
												1
Child Abuse	Female	1	0	0	0	0	0	0	0	0	0	1
												3
Firearms	Female	0	0	0	2	1	1	0	0	1	0	5
Firearms	Male	0	0	0	2	3	1	0	1	0	0	7
												12
Homicidal Violence	Female	0	0	0	1	0	0	0	0	0	0	1
												1
Other	Female	0	0	0	1	0	0	0	1	0	0	0
												1
Stabbing	Female	0	0	0	0	0	1	0	0	0	0	1
												1
Grand Total		1	0	0	6	5	4	0	2	1	0	19



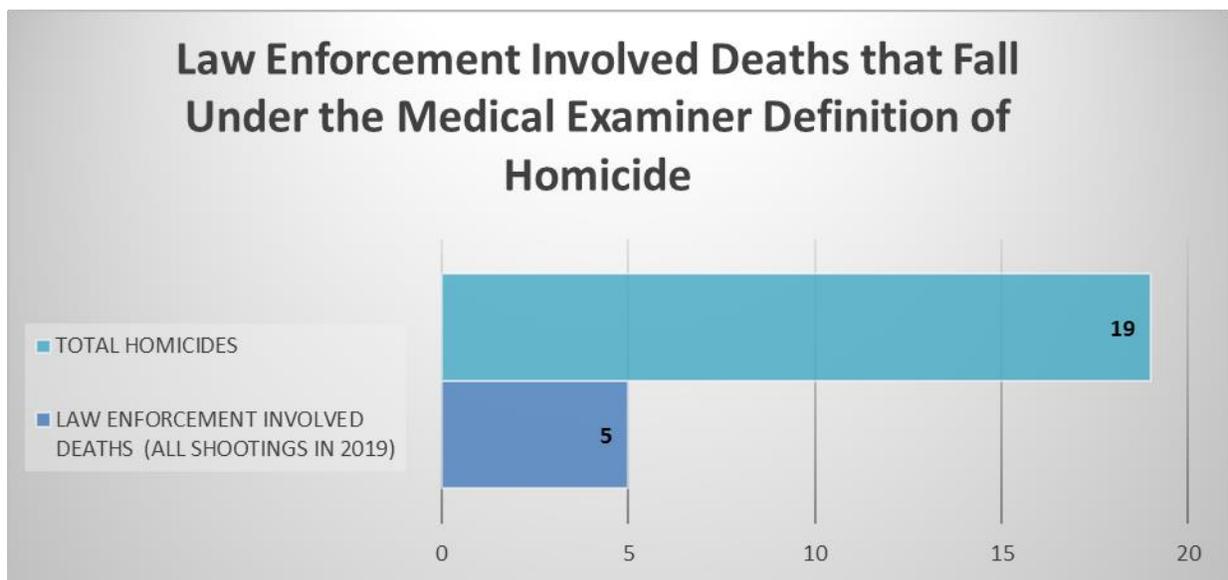
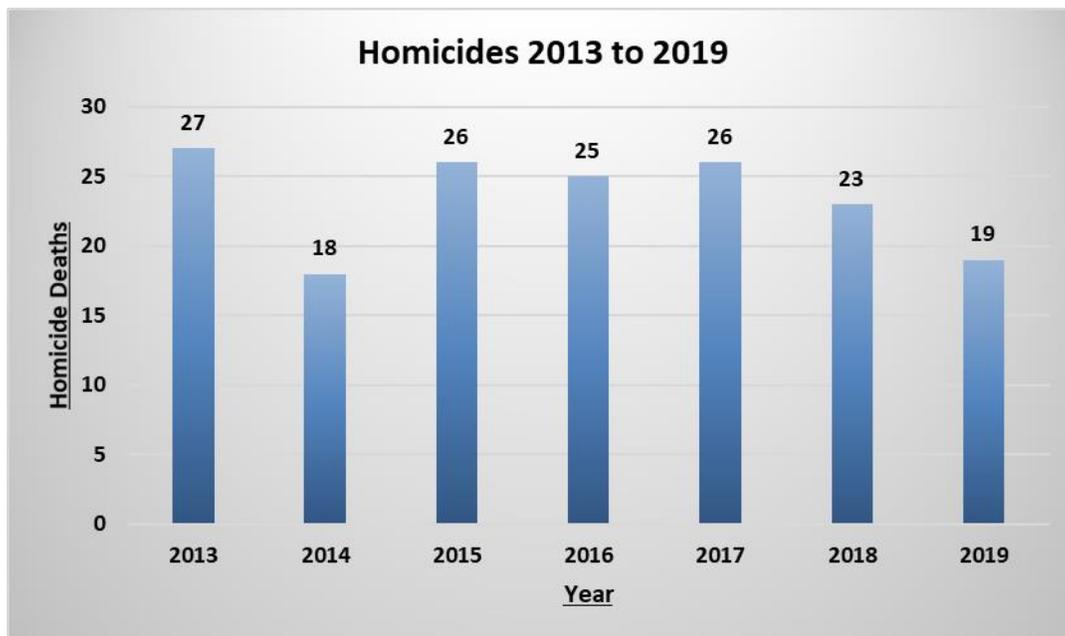
This graph is limited statistically by the small number of total deaths it represents.



Homicide Methods Comparison

Method Used	2013	2014	2015	2016	2017	2018	2019
Asphyxia	0	0	1	1	0	0	1
Blunt Impact	1	0	0	1	0	1	1
Child Abuse	1	0	2	3	3	2	1
Firearms	19	12	12	12	17	11	12
Homicidal Violence	1	2	0	4	3	3	1
Other	3	0	6	1	0	1	2
Stabbing	0	3	3	3	2	5	1
Strangulation	2	1	2	0	1	0	0
Total	27	18	26	25	26	23	19

The number of homicides in Spokane County is small enough that collected data cannot be extensively interpreted.

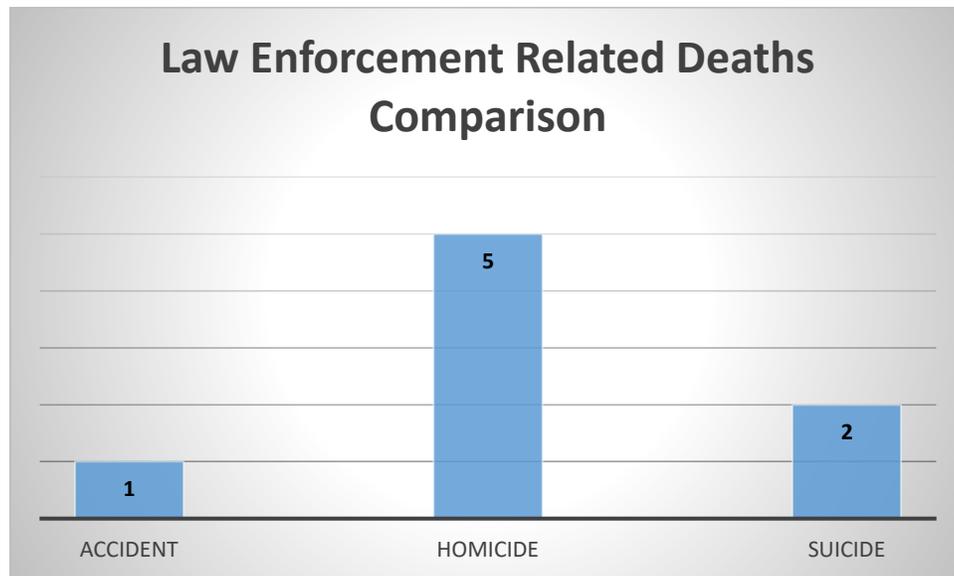


The total number of homicides in Spokane County is 19. Under the Medical Examiner definition of homicide, there were 5 Law Enforcement related deaths (all shootings) categorized as homicide. This equates to 26.3% of homicides.

Homicide is defined as a death due to the acts of another.

The manner of death as used by the Office of the Medical Examiner does not address presence or absence of intent, culpability or justification of any action associated with a death and therefore any determination by the Medical Examiner of Suicide, Accident or Homicide in no way limits the ability of law enforcement to investigate to whatever extent they deem appropriate or necessary; nor is the manner of death as determined by a Medical Examiner the same as the prosecutor's legal determination.

Manner of Comparison of individuals who died while in Law Enforcement Custody (in Jail)

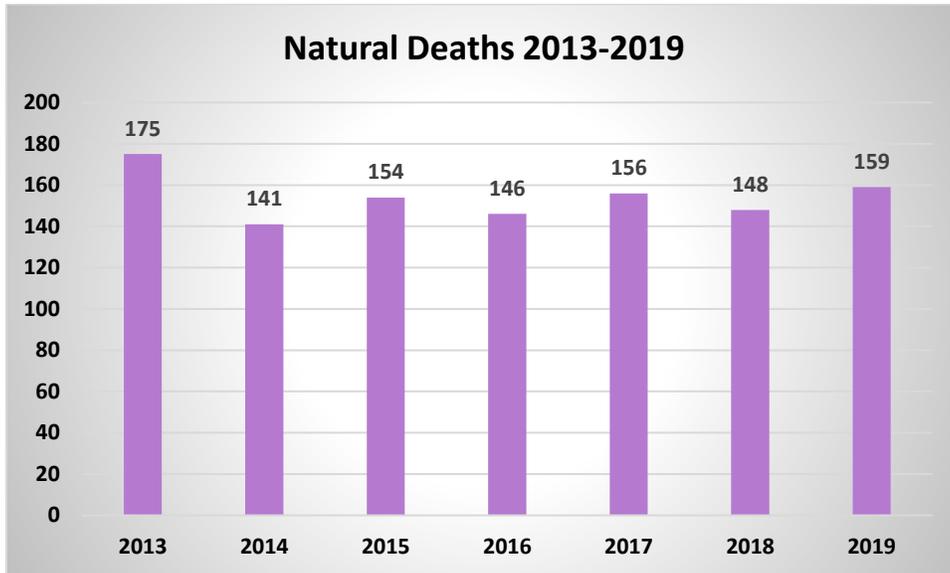


In addition to the five shootings that resulted in death during legal intervention, 3 individuals died in custody while incarcerated in jail. Two of the three jail deaths were suicides and one was classified as accident.

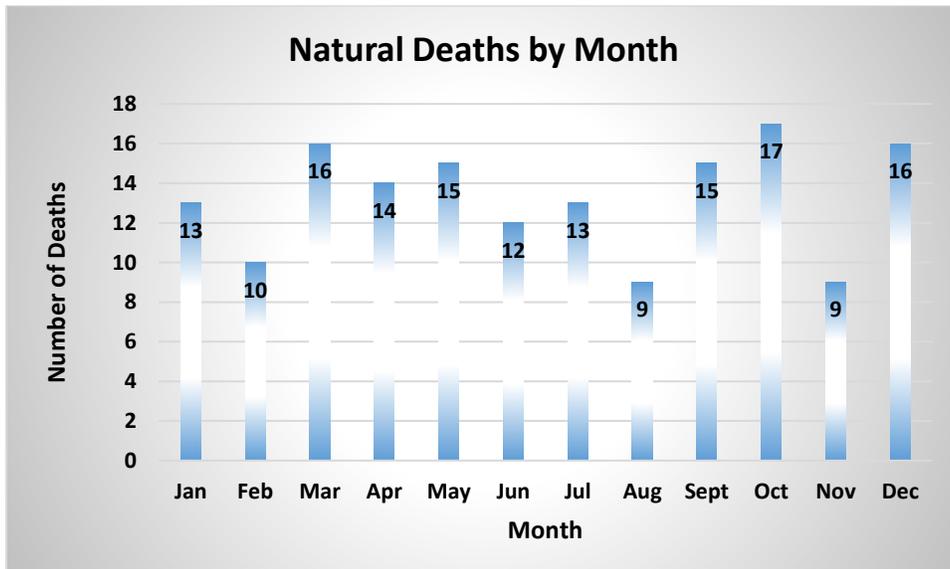
Natural

Typically, the Medical Examiner’s Office assumes jurisdiction in cases that eventually are certified as natural deaths when the death occurs in a young age group without medical history and is therefore unexpected.

Natural Deaths Comparison (Jurisdiction Assumed – JA Deaths)



Natural Deaths by Month (Jurisdiction Assumed – JA Deaths)



Natural Deaths by Disease Process

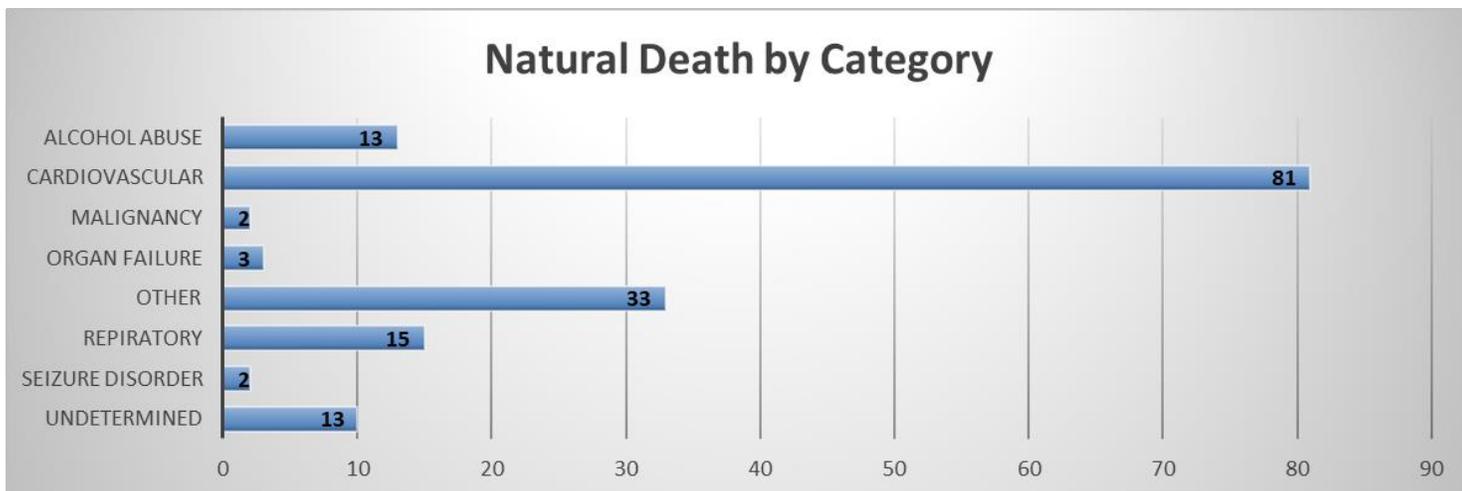
Natural Disease By Process	Alcohol Abuse	Cardiovascular	Malignancy	Organ Failure	Other	Respiratory	Seizure Disorder	Undetermined	Total
Atherosclerotic Cardiovascular Disease	0	51	0	0	0	0	0	0	51
Bleeding Esophageal Varices	1	0	0	0	0	0	0	0	1
Cardiac Dysrhythmia	0	1	0	0	0	0	0	0	1
Cardio Pulmonary Arrest	0	1	0	0	0	0	0	0	1
Cardiomyopathy	0	19	0	0	0	0	0	0	19
Cerebral Hemorrhage	0	0	0	0	1	0	0	0	1
Chronic Alcoholism	9	0	0	0	0	0	0	0	9
Chronic Obstructive Pulmonary Disease	0	0	0	0	0	5	0	0	5
Cirrhosis of the Liver	3	0	0	1	0	0	0	0	4
Congenital Heart Defect	0	1	0	0	0	0	0	0	1
Coronary Thrombosis	0	1	0	0	0	0	0	0	1
Diabetes	0	0	0	1	0	0	0	0	1
Diabetes Mellitus	0	0	0	0	2	0	0	0	2
Dissecting Aneurysm	0	1	0	0	0	0	0	0	1
End Stage Renal Disease	0	0	0	1	0	0	0	0	1
Epilepsy	0	0	0	0	0	0	1	0	1
From History	0	0	0	0	0	0	1	0	1
Gastrointestinal Bleed	0	0	0	0	2	0	0	0	2
Hepatitis C	0	0	0	0	1	0	0	0	1
Influenza	0	0	0	0	1	0	0	0	1
Lung Cancer	0	0	1	0	0	0	0	0	1
Myocardial Infarction	0	1	0	0	0	0	0	0	1
Other	0	5	1	0	16	1	0	0	23
Pneumonia	0	0	0	0	0	6	0	0	6
Pulmonary Embolism	0	0	0	0	0	3	0	0	3
SIDS	0	0	0	0	10	0	0	0	10
Undetermined **	0	0	0	0	0	0	0	10	10
Total	13	81	2	3	33	15	2	10	159

** Undetermined in this chart means that the exact natural cause of death is unknown (an autopsy may not have been performed), but investigation overwhelmingly indicates a natural manner of death.

Natural Deaths by Category (Jurisdiction Assumed – JA Deaths)

The high proportion of deaths related to the cardiovascular system is typical of national statistics describing natural deaths. By convention, in most Medical Examiner and Coroner’s offices, long term (chronic) alcohol abuse is considered “natural”.

The cancer deaths in the list are usually not diagnosed until autopsy or are investigated for mitigating circumstances such as concern of overdose.



Natural Deaths by Disease Process and Gender

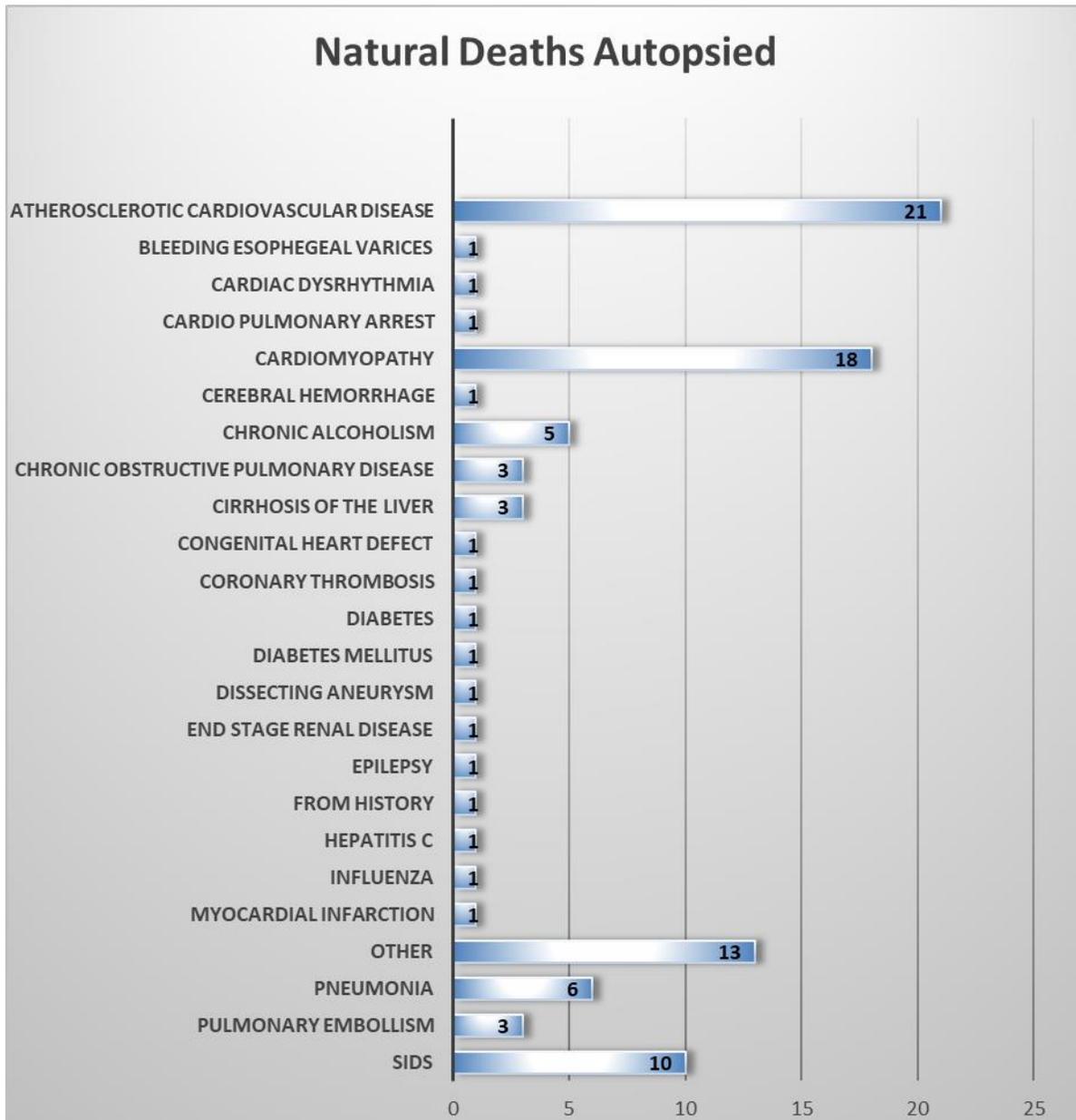
Disease Process	Female	Male	Total
Alcohol Abuse	4	9	13
Cardiovascular	16	65	81
Malignancy	1	1	2
Organ Failure	1	2	3
Other	14	19	33
Respiratory	8	7	15
Seizure Disorder	1	1	2
Undetermined	4	6	10
Total	49	110	159

Undetermined in the above charts means that the exact natural cause of death is unknown (an autopsy may not have been performed), investigation overwhelmingly indicates a natural manner of death.

Natural Deaths by Gender and Age Group (Not all examined by autopsy)

Disease Process	Sex	<1	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	Total
Alcohol Abuse	Female	0	0	0	0	0	3	1	0	0	0	0	0	4
Alcohol Abuse	Male	0	0	0	0	0	3	3	3	0	0	0	0	9
Alcohol Abuse Total														13
Cardiovascular	Female	0	0	0	0	3	0	0	6	4	2	1	0	16
Cardiovascular	Male	0	0	0	2	1	6	11	28	14	3	0	0	65
Cardiovascular Total														81
Malignancy	Female	0	0	0	0	0	0	1	0	0	0	0	0	1
Malignancy	Male	0	0	0	0	0	0	0	1	0	0	0	0	1
Malignancy Total														2
Organ Failure	Female	0	0	0	0	0	0	0	1	0	0	0	0	1
Organ Failure	Male	0	0	0	1	0	0	0	0	1	0	0	0	2
Organ Failure Total														3
Other	Female	4	1	0	1	2	0	2	2	1	1	0	0	14
Other	Male	5	2	2	1	3	0	2	2	2	0	0	0	19
Other Total														33
Respiratory	Female	1	0	1	1	2	2	0	1	0	0	0	0	8
Respiratory	Male	0	0	0	0	0	1	3	3	0	0	0	0	7
Respiratory Total														15
Seizure Disorder	Female	0	1	0	0	0	0	0	0	0	0	0	0	1
Seizure Disorder	Male	0	0	0	0	0	0	0	1	0	0	0	0	1
Seizure Disorder Total														2
Undetermined	Female	0	0	0	0	0	0	0	1	2	1	0	0	4
Undetermined	Male	0	0	0	0	0	1	1	3	1	0	0	0	6
Undetermined Total														10
Grand Total		10	4	3	6	11	16	24	52	25	7	1	0	159

9 of the deaths listed as “other” in the <1 age group are attributed to **Sudden Infant Death Syndrome (SIDS)**. Sudden unexplained infant death is the death of an infant less than one year of age in which investigation, autopsy, medical history review, and appropriate laboratory testing fails to identify a specific cause of death.

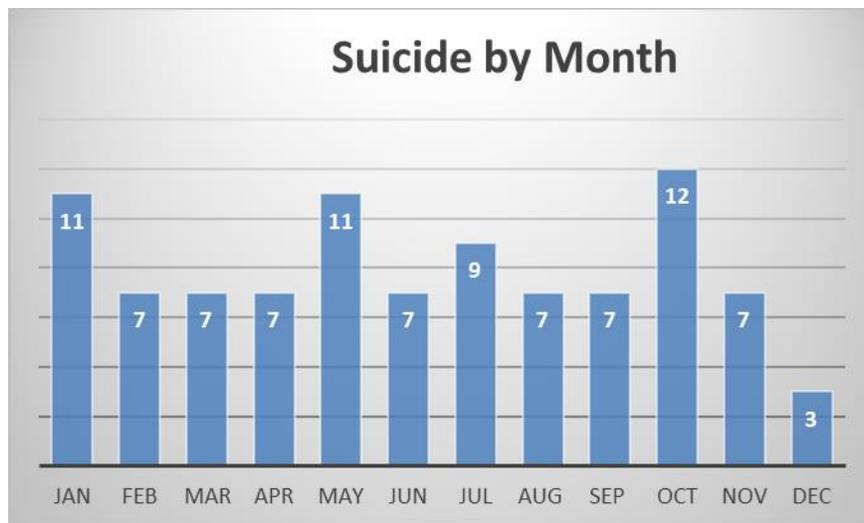
Natural Deaths Autopsied

The numbers of cardiovascular deaths reflect the fact that the first symptom of significant heart disease is often a fatal heart attack.

Suicide

Suicides are those deaths caused by intentional, self-inflicted injuries. In Spokane County there were (95) suicides in 2019, a decrease of 21 from 2018 (116).

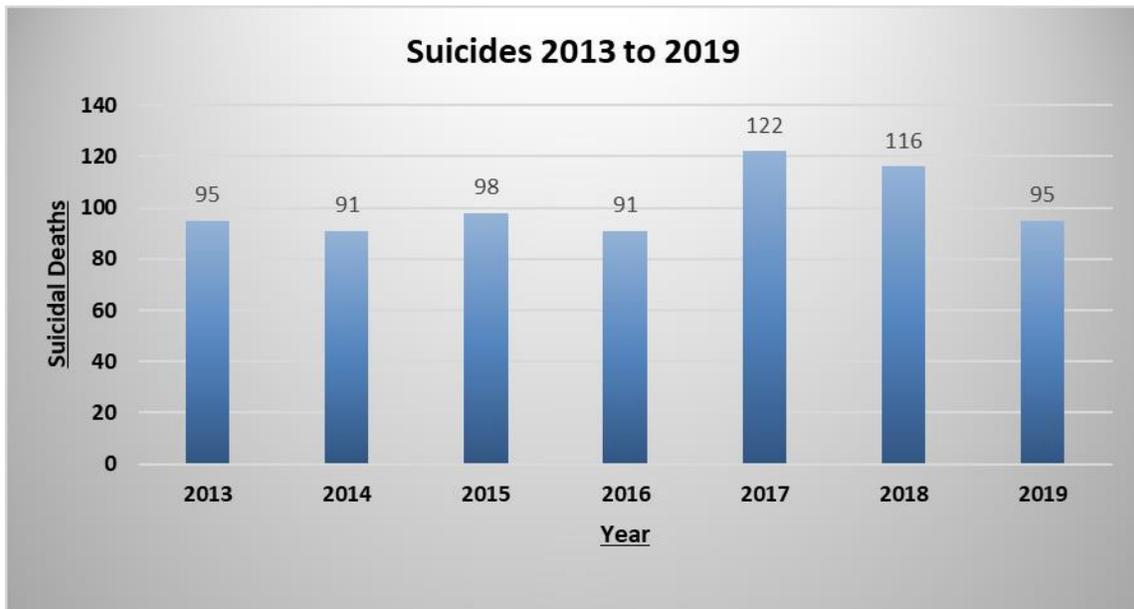
The highest number (74/95) of suicides fell within the 20-69 age range. In Spokane County, suicide numbers peaked in the 30-49 age group. Nationally suicide deaths in older Americans are associated statistically with depression, relationship difficulties, drug and alcohol abuse, and serious physical health problems. Nine suicides occurred in teenagers in Spokane County and 13 in the 20-29 age group.



Suicide Methods Comparison

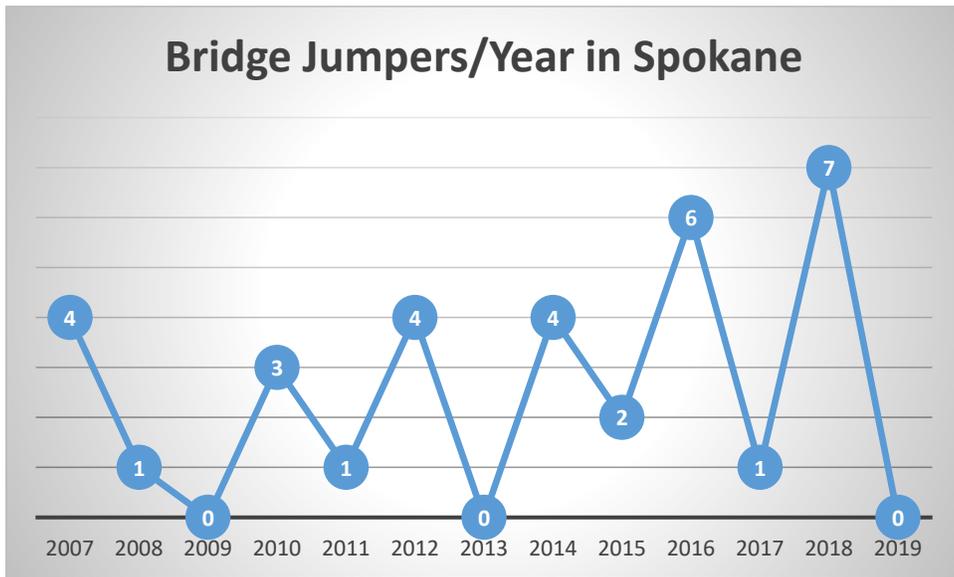
Comparison of Suicide Deaths

Method Used	2013	2014	2015	2016	2017	2018	2019
Carbon Monoxide	4	2	0	6	2	2	3
Drowning	0	5	1	0	0	1	2
Drugs/Poisons	15	7	19	9	13	8	9
Firearms	44	54	46	44	59	53	49
Hanging	23	16	23	19	37	32	27
Jumping	2	1	2	7	5	10	2
Other	3	1	3	3	2	4	1
Plastic Bag	2	3	3	2	4	4	1
Stab/incised wound	2	2	1	1	0	2	1
Total	95	91	98	91	122	116	95

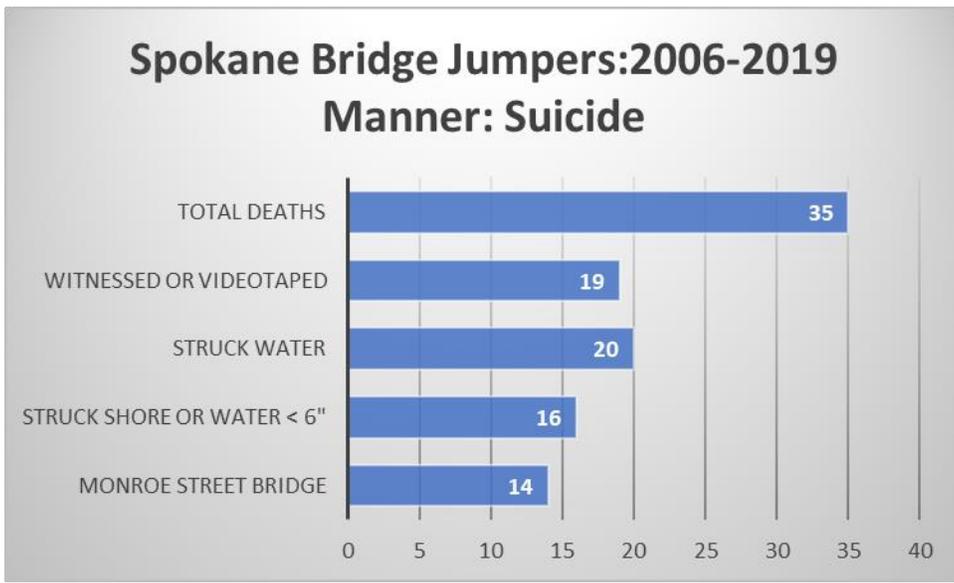


Suicide Method by Gender and Age Group

Suicide Method	Sex	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	Total
Carbon Monoxide	Female	0	0	0	1	0	0	0	0	0	0	1
Carbon Monoxide	Male	0	0	0	0	1	0	1	0	0	0	2
												3
Drowning	Female	0	0	0	1	0	0	0	0	0	0	1
Drowning	Male	0	0	0	0	1	0	0	0	0	0	1
												2
Drugs/Poisons	Female	0	0	0	1	2	0	1	1	0	0	5
Drugs/Poisons	Male	0	0	0	1	1	1	1	0	0	0	4
												9
Firearms	Female	0	0	2	0	2	1	0	2	0	0	7
Firearms	Male	0	4	6	8	4	5	7	4	3	1	42
												49
Hanging	Female	0	3	2	0	0	1	0	0	0	0	6
Hanging	Male	0	2	3	6	3	2	4	1	0	0	21
												27
Jumping	Male	0	0	0	1	1	0	0	0	0	0	2
												2
Other	Male	0	0	0	0	0	1	0	0	0	0	1
												1
Plastic Bag	Male	0	0	0	0	0	1	0	0	0	0	1
												1
Stab/Incised Wound	Male	0	0	0	0	1	0	0	0	0	0	1
												1
Total		0	9	13	19	16	12	14	8	3	1	95



In 2019, Spokane had no recorded bridge jumpers.



For additional information regarding bridge jumpers, see the link below.

[Facts-about-Bridge-Jumpers](#)

As has been the case in many Medical Examiner years, gunshot wounds remain the most frequent suicide method partly because of the inherent lethality of firearm injuries (53 total). Gunshot wounds are followed in frequency by 32 suicidal hanging and 8 intentional overdoses.

The Centers for Disease Control (CDC) report a rise in the U.S. suicide rate, key findings below are quoted from the CDC:

- From 1999 through 2014, the age-adjusted suicide rate in the United States increased 24%, from 10.5 to 13.0 per 100,000 population, with the pace of increase greater after 2006.
- Suicide rates increased from 1999 through 2014 for both males and females and for all ages 10–74.
- The percent increase in suicide rates for females was greatest for those aged 10–14, and for males, those aged 45–64.
- The most frequent suicide method in 2014 for males involved the use of firearms (55.4%), while poisoning was the most frequent method for females (34.1%).
- Percentages of suicides attributable to suffocation increased for both sexes between 1999 and 2014.

Link to the original CDC National Center for Health Statistics (NCHS) report:

<https://www.cdc.gov/nchs/data/databriefs/db241.pdf>.

The suicide rate in Spokane County 18.2 / 100,000 residents Spokane County is a medium metro area according to the Centers for Disease Control (CDC). The CDC control graph [CDC MMWR Suicides per 100,000](#) shows Spokane County suicide rate is higher than other medium metro areas (about 16/100,000 in 2015).

Deaths by suicide per 100,000 resident population in the United State 1950-2015 from Statista <https://www.statista.com/statistics/187478/death-rate-from-suicide-in-the-us-by-gender-since-1950/>

Data Center Report from the Spokane Regional Health District regarding Suicide in Washington's East Region ([Suicide in WA E Region](#)).

Trends in state suicide rates from the Centers for Disease Control [CDC-MMWR-Weekly-Vol-67-No-22](#)

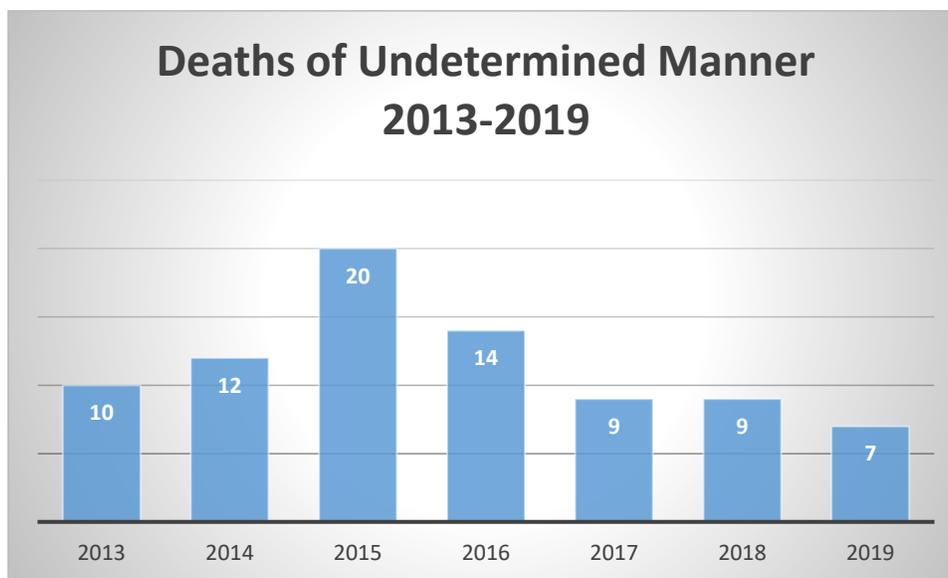
Undetermined

“Undetermined” manner is used to designate a death that does not exactly fit the categories natural, suicide, homicide, accident or overlaps between two categories. An example is a death due to medication overdose. In some such deaths, the determination between accident and suicide cannot be made as the decedent’s intent is not clear. Information concerning the circumstances may be lacking because of the absence of background information, or because of a delay between death and the discovery of the body. If an extensive investigation and autopsy cannot clarify the circumstances, the death is placed in this category. There were (7) undetermined manner deaths in Spokane County in 2019.

Although the cause of death was established in half all of these deaths, the manner still could not be established. Again, the reason for undetermined manner is lack of information or conflicting information.

Undetermined Deaths

Number	Cause of Death	Month	Sex	Age Yrs	Age Mos	Age Days	Race
1	Perforating gunshot wound to head	January	F	31	6	8	Caucasian
2	Drowning	January	F	24	11	11	Asian
4	Blunt force head injury	March	M	55	7	1	Caucasian
3	Skeletal remains: Cause of death unknown	May	U	0	0	0	Unknown
5	Drowning	June	M	56	5	2	Caucasian
6	Brain swelling with herniation of the brain due to hypoxic encephalopathy due to unknown cause	August	F	0	10	22	Caucasian
7	Undetermined after complete autopsy (no cause of death)	September	M	1	1	25	Caucasian

Undetermined Deaths Comparison (Jurisdiction Assumed – JA Deaths)

Ideally Medical Examiner Systems use the undetermined manner of death category in less than five percent of cases. This reflects fullest utilization of investigation and decedent autopsy. In 2019, the undetermined classification was used in 1.12% of Spokane Medical Examiner cases.

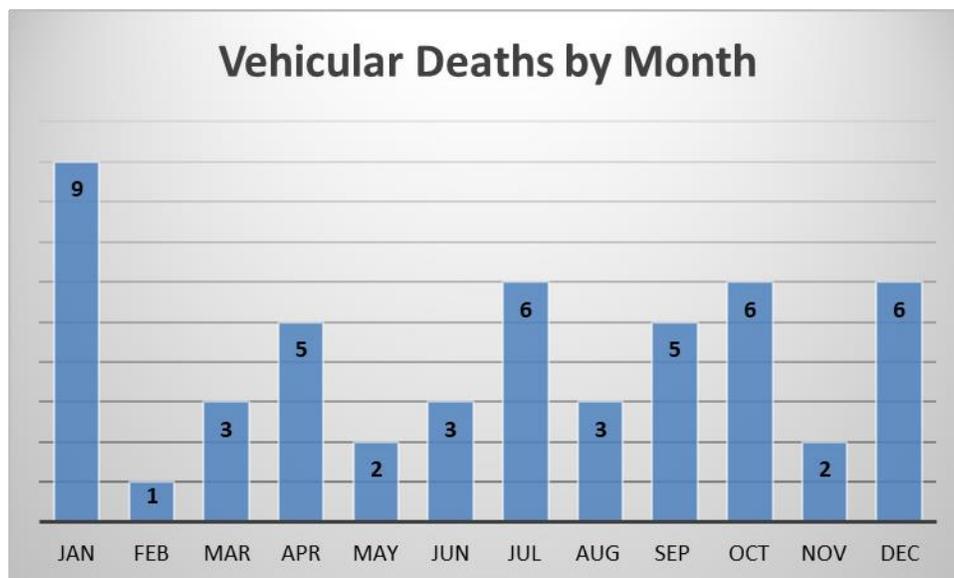
Undetermined manner is used in a wide array of circumstance. An example is an “overdose” death, wherein the intent is unknown despite investigation, making the determination of accident versus suicide unclear.

Vehicular

During the calendar year of 2019, The Medical Examiner's Office participated in the investigation of (51) deaths categorized as vehicular. This represents an increase of two from 2018.

In vehicle collisions there were 26 deaths, 19 drivers and 7 passengers.

In addition there were 14 deaths among motorcycle operators, 6 pedestrians and 1 bicyclist. There are 2 deaths listed as "other" one individual was struck by a vehicle while sledding and the other individual was operating an electric scooter when struck by a sport utility vehicle. Finally there were 2 deaths listed as unknown. One individual died as the result of complications due to a motor vehicle accident that occurred during the 1990's however details of the accident are unknown. The other "unknown" individual died as the result of a seizure disorder resulting from a motor vehicle collision at the age of 8, with details of this accident also unknown.



Vehicular Deaths by Method, Gender, and Age Group

Vehicular Method	Sex	>1	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	Total
Automobile Driver	Female	0	0	0	1	0	0	1	1	0	0	1	4
Automobile Driver	Male	0	0	1	1	1	1	3	4	3	1	0	15
													19
Automobile Passenger	Female	0	1	0	0	1	0	0	0	0	1	0	3
Automobile Passenger	Male	0	0	1	2	0	0	0	0	1	0	0	4
													7
Bicyclist	Male	0	0	0	0	0	0	0	1	0	0	0	1
													1
Motorcycle Driver	Male	0	0	1	4	4	4	0	1	0	0	0	14
													14
Other	Male	0	0	1	1	0	0	0	0	0	0	0	2
													2
Pedestrian	Female	0	0	0	0	0	0	1	1	0	0	0	2
Pedestrian	Male	0	0	0	1	1	0	1	0	1	0	0	4
													6
Unknown	Male	0	0	0	0	0	1	1	0	0	0	0	2
													2
Total		0	1	4	10	7	6	7	8	5	2	1	51

Traffic Fatalities and Use of Restraint

Circumstances	Restrained	Unknown	Unrestrained	Total
Automobile Driver	1	2	6	9
Automobile Passenger	3	0	2	5
Total	4	2	8	14

When traffic victims are flown / transported to Spokane for advanced medical care, it becomes more difficult to collect use of restraint information.

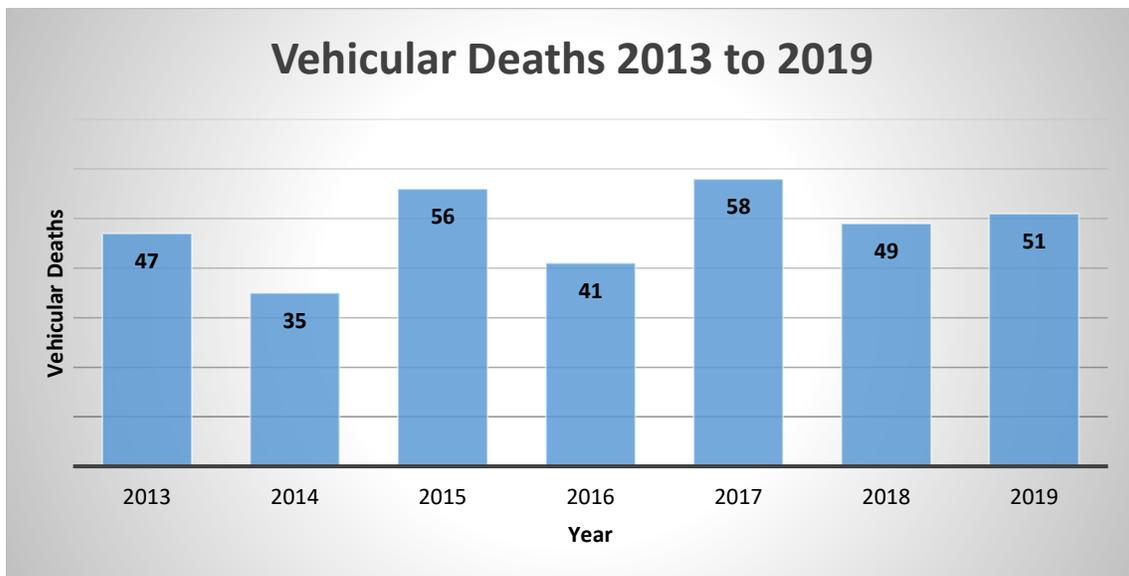
Motorcyclist deaths on 2019 were higher than any year in this comparison.

Vehicular Deaths Comparison

Vehicular-related fatalities are separated from other accidents because some community groups have special statistical interests in examining vehicular-related deaths.

Comparison of Vehicular Deaths 2013 to 2019

Vehicle Circumstances	2013	2014	2015	2016	2017	2018	2019
Automobile Driver	19	20	22	17	25	25	19
Automobile Passenger	14	2	11	6	5	6	7
Bicyclist	0	1	1	2	3	2	1
Motorcycle Driver	8	5	6	5	9	6	14
Motorcycle Passenger	0	1	0	0	0	1	0
Other	0	1	2	3	2	1	2
Pedestrian	5	5	11	5	14	8	6
Unknown	1	0	3	3	0	0	2
Total	47	35	56	41	58	49	51



Glossary of Terms

Prescription Drug	Therapeutic drug or Medicine: A substance, other than food, used in the prevention, diagnosis, alleviation, treatment, or cure of disease.
Illicit Drug	A drug used non-medically for personal stimulation/depression/euphoria, use or abuse.
Drug Caused Death	Death directly caused by a drug or drugs in combination with each other, including psychiatric drugs or therapeutic drugs for conditions such as asthma or epilepsy
Jurisdiction	The jurisdiction of the Medical Examiner's Office extends to all reportable deaths occurring within the boundaries of Spokane County, whether or not the incident leading to the death (such as an accident) occurred within the county. Also included are people who are transferred to Spokane area hospitals from surrounding Counties/States, who then expire in Spokane.
Manner	A statistical classification on the death certificate of the way in which the cause of death came about (accident, homicide, suicide, natural, or undetermined).
Manner: Accident	Death other than natural, where there is no evidence of intent, i.e., unintentional. In this report, vehicle accidents are identified separately.
Manner: Homicide	Death due to the acts of another.
Manner: Natural	Death caused solely by organic disease. If natural death is hastened by injury (such as a fall), the manner of death will not be considered natural.
Manner: Suicide	Death as a result of a purposeful action (self-inflicted), with intent (explicit or implicit) to end one's life.
Manner: Traffic or Vehicular	Unintentional deaths of drivers (automobile, bicycle or motorcycle), passengers, and pedestrians involving motor vehicles on public roadways. By convention, and at the direction of state vital records, accidents involving motor vehicles on private property (such as driveways) are not included in this category.
Manner: Undetermined	Manner assigned when there is insufficient evidence or information to assign to accident, homicide, suicide, or natural categories, or when two plausible manners exist.
Opioid Drug	A broad class of drugs including morphine, heroin, and synthetic medicines such as methadone.
Poison	Any substance, either taken internally or applied externally, that is injurious to health or dangerous to life.
Race	The racial categories used in this report are: Asian, Black, Caucasian, Hispanic, Native American, Other and Unknown. For public Health purposes, race is included in the Washington State death certificate.

**Sudden Unexplained
Infant Death (SUID)**

Applies to the death of an infant less than one year of age, in which (*SUID*) investigation, autopsy, medical history review, and appropriate laboratory testing fail to identify a specific cause of death. SUID includes cases that meet the definition of Sudden Infant Death Syndrome.