

**COUNTY OF SPOKANE
STATE OF WASHINGTON**



2008 Annual Report

Spokane County Medical Examiner

**5901 N LIDGERWOOD ST, STE 24B
SPOKANE WA 99208-1126
(509) 477-2296**

2008 ANNUAL REPORT

TABLE OF CONTENTS

Section 1: Overview.....	1
Mission Statement	1
Introduction	1
Foreword.....	1
Outside County Autopsies per County	2
Acknowledgment.....	3
Criteria for Reportable Deaths	3
Function of the Medical Examiner’s Office	3
Standard Annual Reports Data as Identified by the National Association of	4
Medical Examiners (N.A.M.E.)	4
Spokane County Medical Examiner Cases in 2008	5
Forensic Unit.....	5
Chaplaincy Program	5
Section 2: Total Cases	6
Total Cases for 2008.....	6
Total Cases by Gender and Manner of Death.....	7
Total Cases by Race and Manner of Death	8
Total Cases by Age Group and Manner of Death	9
Total Cases by Age Group and Gender	10
Section 3: Multi-Year Comparison	11
Manner Of Deaths Comparison	12
Homicidal Methods Comparison	14
Suicidal Methods Comparison	15
Vehicular Deaths Comparison	16
Accidental Deaths Comparison.....	17
Accidental Deaths Comparison.....	18
Natural Deaths Comparison.....	19
Undetermined Deaths Comparison.....	20
Section 4: Manner of Death	21
ACCIDENT.....	21
<i>Accident Deaths by Month</i>	21
<i>Accident Mode by Gender</i>	22
<i>Accident Mode by Gender and Age Group</i>	23
HOMICIDE	24
<i>Homicide Deaths by Month</i>	24
<i>Homicide Deaths by Method, Gender, and Age Group</i>	25
<i>Homicide Deaths by Age Group</i>	25
<i>Homicide Deaths by Method</i>	26
NATURAL	27
<i>Natural Deaths by Month</i>	27
<i>Natural Deaths by Disease Process</i>	28

<i>Cause of Natural Deaths by Category</i>	29
<i>Natural Deaths by Disease Process and Gender</i>	29
<i>Natural Deaths by Gender and Age Group</i>	30
<i>Natural Deaths by Disease Process (Autopsied)</i>	31
<i>Natural Deaths Autopsied</i>	32
SUICIDE	33
<i>Suicide Deaths by Month</i>	33
<i>Suicide Method by Gender and Age Group</i>	34
VEHICULAR	35
<i>Vehicular Deaths by Month</i>	35
<i>Vehicular Deaths by Method, Gender, and Age Group</i>	36
UNDETERMINED	37
<i>Undetermined Deaths</i>	38
Glossary of Terms	39
Organizational Chart.....	41

Section 1: Overview

Mission Statement

“A regional forensic medicine center striving for continued excellence in providing scientific, compassionate, and professional services in the investigation of unexpected death.”

Introduction

The Spokane County Medical Examiner’s Office has been in existence for ten full years. In April of 2004, the office received full accreditation from the National Association of Medical Examiners (NAME). The office was re-inspected and re-accredited in May, 2009. Roughly 60 Medical Examiner/Coroner Offices in the United States are accredited. The office has been the recipient of 4 Federal Paul Coverdell Forensic Science Improvement grants, totaling approximately \$ 200,000.00. The office employs 2 forensic pathologists, an office manager, 4 full time investigators, 2 administrative staff and one autopsy room technician, as well as extra help employees. For more information about the Medical Examiner’s Office, visit our web site at www.spokanecounty.org/medexaminer.

Foreword

Information presented in this annual report has been compiled from deaths that were reported to the Spokane County Medical Examiner’s Office in 2008. This summarized report presents data in a variety of formats with the objective of providing useful information to diverse groups in the community.

Referral Caseload: Currently the Spokane County Medical Examiner’s Office performs autopsies for 11 “outside” counties in Eastern Washington and the Idaho panhandle. In 2008 a total of 162 autopsies were performed for the following referral counties, Asotin, Benewah, Bonner, Boundary, Ferry, Kootenai, Lincoln, Nez Perce, Pend Oreille, Shoshone and Stevens. This is a mutually beneficial arrangement. The surrounding counties benefit from forensic expertise and an excellent accredited forensic pathology facility. Spokane County receives payment from outside counties for these services, revenues for autopsies totaled \$251,100 in 2008.

OUTSIDE COUNTY AUTOPSIES

2008	162
2007	138
2006	146
2005	144
2004	168
2003	151
2002	145
2001	163

SPOKANE COUNTY AUTOPSIES

2008	462
2007	430
2006	423
2005	426
2004	436
2003	418
2002	442
2001	393

Acknowledgment...

The Medical Examiner's Office wishes to express, once again, their sincere and deepest appreciation to Eileen Egeland, Systems Analyst of the Spokane County Information Systems Department, for her assistance and support in the development of this statistical report.

Criteria for Reportable Deaths

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. 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 notification of 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 achieved the distinction of Accreditation by the National Association of Medical Examiners in April, 2004. In March 2009 the Spokane County Medical Examiner's Office underwent another inspection and was again accredited by the National Association of Medical Examiners. 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. Most members work as Medical Examiners or Coroners. Accreditation is a rigorous process, and requires a lengthy inspection by an independent Medical Examiner appointed by the organization. The accreditation requirements are 28 pages long, and include an estimated 300 items covering things such as how specimens are labeled, and the qualifications of staff members. The Spokane County Medical Examiner's Office is accredited for a 5 year period, until May 2014. Please refer to the following chart for some of the data required by the National Association of Medical Examiners.

2008 Data

Deaths in Spokane County	4498
Deaths Reported to the Medical Examiner's Office	3568
Deaths Investigated by the Medical Examiner's Office	635
Scenes Investigated by the Medical Examiner Office	342
Bodies transported by order of the office	482
Total bodies transported to the Forensic Institute	679
Total External Autopsies	35
Total Partial Autopsies	3
Total Complete Autopsies	586
Hospital Autopsies Retained Under Medical Examiner jurisdiction	0
Microscopic Studies Performed	586
Neuropathologic Studies Performed	3
Cardiac Pathologic Studies Performed	6
Autopsies Performed for Outside Jurisdictions	162
Bodies Unidentified after Examination	0
Organ Donations	16
Corneal and other Tissue Donations	29
Unclaimed bodies	15
Exhumations	0

The statistical information which follows, includes information regarding Spokane County Deaths only. Please see the link to the National Association of Medical Examiners accreditation report. [NAME Inspection Report](#)

Spokane County Medical Examiner Cases in 2008

In 2008, there were 4,498 deaths in Spokane County (based on the latest census of 456,175, this represents 1% of the population). Of these deaths, 3,569 (79% of all deaths) were reported to the Medical Examiner by medical and law enforcement personnel. Based on analysis of the scene and circumstances of death, and the decedent's medical history, the Medical Examiner assumed jurisdiction in 635 (18%) of these reported deaths, or in 14% 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. The number of deaths reported to the Medical Examiner's Office is significantly greater than reported during the years as a coroner's system (before January 1, 1999). The number has also steadily 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. All nursing home and adult care facilities deaths are reported to the Medical Examiner's Office allowing for appropriate agency analysis. This progressive Spokane County Medical Examiner Policy has been adopted recently by other Medical Examiner systems around the state.

Forensic Unit

The Forensic Unit works in the Sheriff's department and provides crime scene documentation, fingerprint comparison and photo documentation. The Medical Examiner's office often partners with this group in the collection and preservation of evidence.

Chaplaincy Program

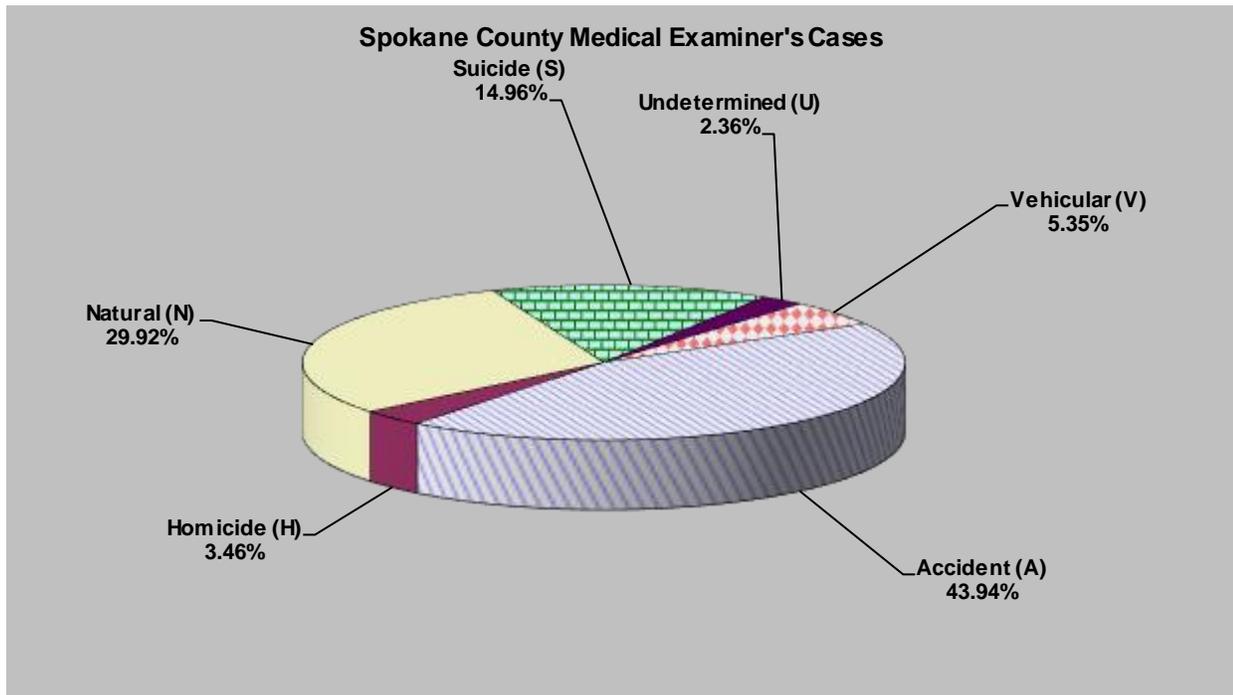
While there are no Washington State laws which require the Medical Examiner to identify and locate next-of-kin, by convention and practice in Spokane County, the Medical Examiner has been depended upon for identifying next-of-kin and for facilitating the locating and notifying next-of-kin. The Medical Examiner's Office is fortunate to have the assistance of the Chaplains from the Spokane Police Department and Spokane County Sheriff's Office in locating and notifying family members. The staff of the Medical Examiner's Office recognizes that the Chaplains have considerable experience and professional training to help in this difficult and emotional endeavor.

Section 2: Total Cases

Total Cases for 2008

Cases By Manner Of Death	Number Of Deaths	Percent Of Total
Accident (A)	279	43.94%
Homicide (H)	22	3.46%
Natural (N)	190	29.92%
Suicide (S)	95	14.96%
Undetermined (U)	15	2.36%
Vehicular (V)	34	5.35%

Total Spokane County Population	456,175
Total Deaths in Spokane County	4,498
Total Deaths Reported to the Medical Examiner 2008	3,569
Total Jurisdiction Released after Investigation	2,933
Total Spokane County Medical Examiner Cases	635
Total Spokane County Autopsies Performed	462



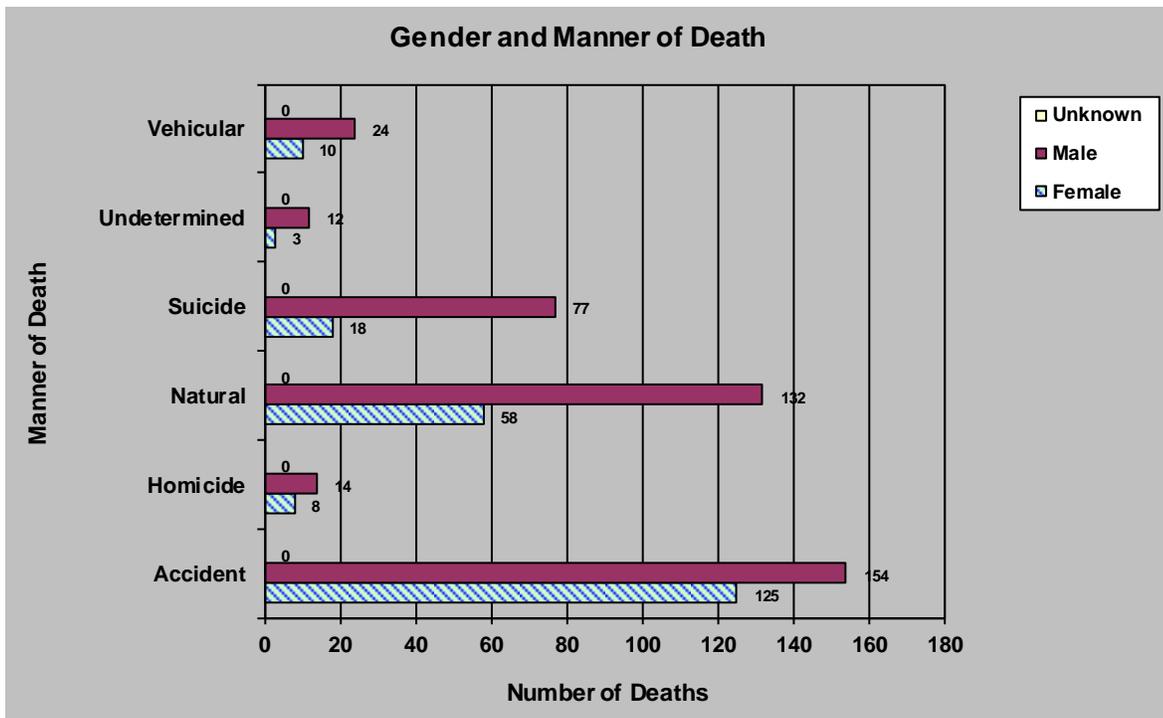
	Jurisdiction Released Cases	Outside Agency Deaths Reported (Adult Care Facilities, Nursing Homes, Hospice, etc)	Spokane County Autopsies Completed	Referral County Autopsies Completed
January	82	158	34	12
February	90	146	29	10
March	103	196	37	11
April	92	180	39	15
May	94	159	41	20
June	80	152	45	10
July	72	127	50	12
August	84	139	34	12
September	75	180	44	15
October	104	134	32	15
November	64	162	32	15
December	106	154	45	15
Total	1046	1887	462	162

In addition to the Spokane County autopsies, the Medical Examiners performed 162 autopsies for neighboring referral counties.

Total Cases by Gender and Manner of Death

Gender and Manner Of Death

Sex	A	H	N	S	U	V	Total	Percent
Female	125	8	58	18	3	10	222	34.96%
Male	154	14	132	77	12	24	413	65.04%
Unknown	0	0	0	0	0	0	0	0.00%
Total	279	22	190	95	15	34	635	



Predominance of male gender in all categories of death coming under the jurisdiction of the Medical Examiners Office reflects the experience of most death investigation systems. In most death investigation systems, this male predominance begins in infancy and extends to near the end of life spans.

Total Cases by Race and Manner of Death

Race and Manner of Death

Race	A	H	N	S	U	V	Total
Asian	3	0	2	0	0	0	5
Black	1	2	4	1	0	1	9
Caucasian	261	16	169	90	12	30	578
Hispanic	2	1	0	2	1	2	8
Native American	2	2	6	0	1	1	12
Other	1	0	3	1	1	0	6
Unknown	9	1	6	1	0	0	17
Total	279	22	190	95	15	34	635

These reflect the demographics of Spokane County, where the Caucasian race predominates statistically.

Total Cases by Age Group and Manner of Death

Age and Manner of Death							
Age Group (Years)		A	H	N	S	U	V
0 to 9	27	6	2	14	0	4	1
10 to 19	13	7	1	2	2	0	1
20 to 29	55	18	8	6	13	2	8
30 to 39	56	24	3	10	12	3	4
40 to 49	102	36	2	36	25	2	1
50 to 59	136	50	4	47	27	2	6
60 to 69	81	24	1	44	8	2	2
70 to 79	53	28	0	14	5	0	6
80 to 89	74	56	1	12	2	0	3
90 to 99	35	27	0	5	1	0	2
100 to 109	3	3	0	0	0	0	0
Total	635	279	22	190	95	15	34

Accidental deaths predominate in almost all age groups, except the very young and the 60-69 group where natural deaths are more frequent.

Total Cases by Age Group and Gender

Gender and Age Group				
Age Group (Years)		Female	Male	Unknown
0 to 9	27	11	16	0
10 to 19	13	3	10	0
20 to 29	55	7	48	0
30 to 39	56	22	34	0
40 to 49	102	35	67	0
50 to 59	136	43	93	0
60 to 69	81	20	61	0
70 to 79	53	19	34	0
80 to 89	74	34	40	0
90 to 99	35	25	10	0
100 to 109	3	3	0	0
Total	635	222	413	0

Males exceed females in each age group excluding 90 to 109. The female predominance at 90 to 109 in 2008 is not typical in Spokane County and may be a single year statistical aberration (only 3 deaths in the 100 to 109 age group were included.) The male predominance is typical of the experience of most Medical Examiner offices.

Section 3: Multi-Year Comparison

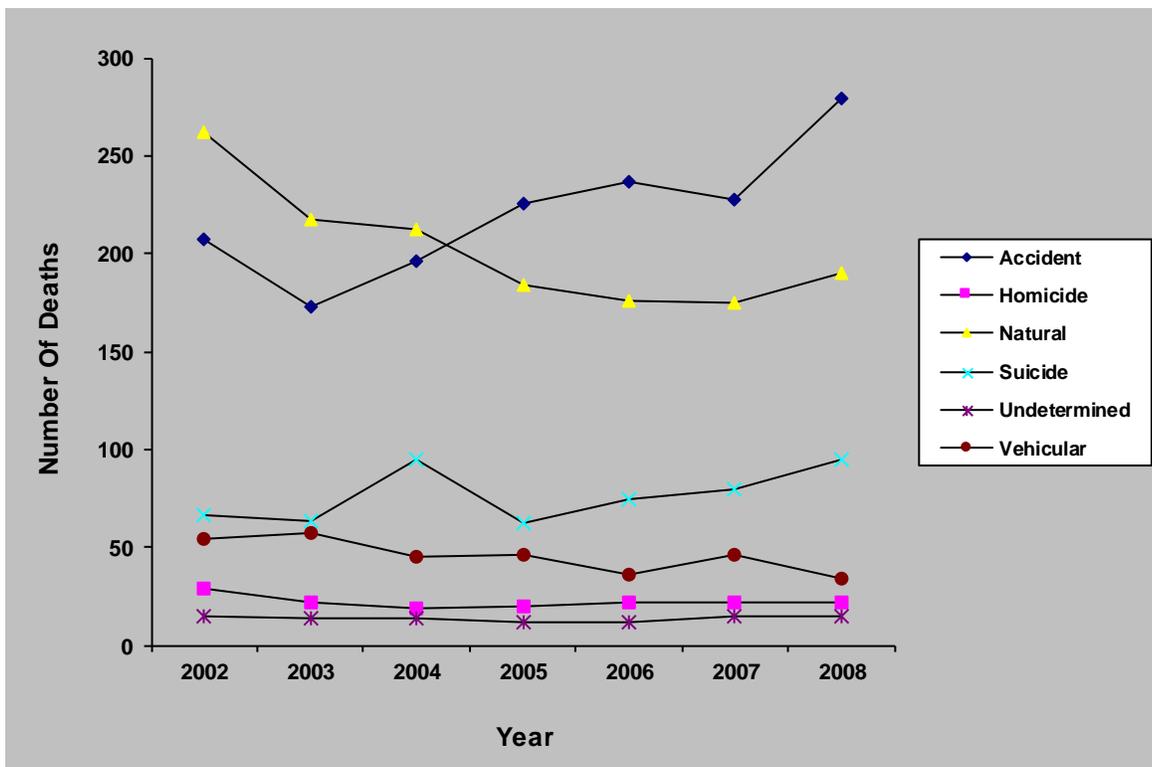
The Medical Examiner's Office replaced the coroner's system on January 1, 1999. From 1999 to present, the Spokane County deaths which have fallen under the jurisdiction of the Medical Examiner System have ranged from a low of 550 to a high of 635, with the number of autopsies performed typically under 450, however in 2008 462 Spokane County autopsies were performed by the Medical Examiner's Office.

As seen in the comparison chart on the following page, the Medical Examiner System has assumed jurisdiction in an increasing number of accident cases. This increase may be attributed to improved reporting techniques, full investigation of fracture related deaths in the elderly and to an increase in the number of deaths attributed to "overdose". The federal government data classifies overdose deaths as "poisoning deaths". Federal data indicates that poisoning deaths have increased significantly in the last 5 years. Most of the poisoning death increases have resulted from prescription drug deaths. The number of natural deaths identified by the Medical Examiner System has increased (compared to the Coroner System). Deaths classified as homicides, suicides and undetermined have remained relatively constant. Accidents have increased in number and proportion, and fewer deaths are certified as natural.

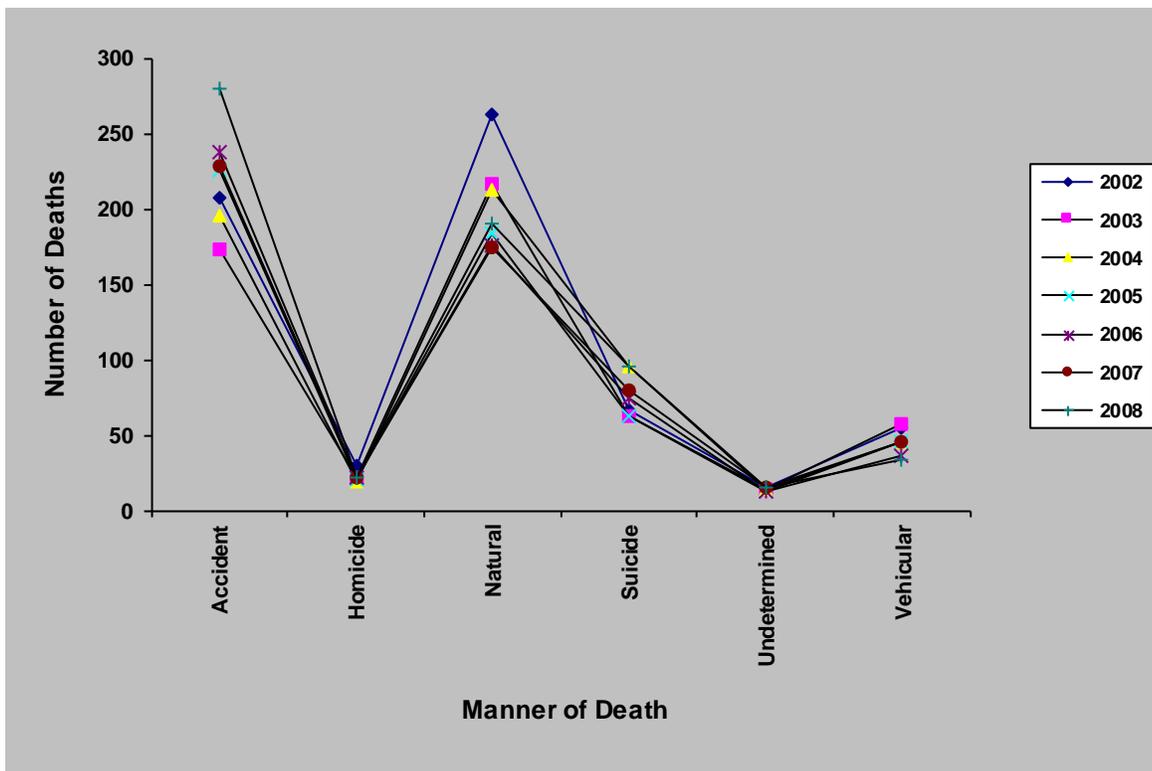
Manner Of Deaths Comparison

Comparison of Manners of Death 2002 - 2008

Manner of Death	2002	2003	2004	2005	2006	2007	2008
Accident	207	173	196	226	237	228	279
Homicide	29	22	19	20	22	22	22
Natural	262	217	212	184	176	175	190
Suicide	66	63	95	62	74	80	95
Undetermined	15	14	14	12	12	15	15
Vehicular	54	57	45	46	36	46	34
Total	633	546	581	550	557	566	635



Medical Examiner Homicide numbers may not mirror the Police Department reports of death, 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.



Comparison of Manners of Death as Percentage of Total Annual Medical Examiner's Cases 2002 - 2008

Manner of Death	2002	2003	2004	2005	2006	2007	2008
Accident	32.70%	31.68%	33.73%	41.09%	42.55%	40.28%	43.94%
Homicide	4.58%	4.03%	3.27%	3.64%	3.95%	3.89%	3.46%
Natural	41.39%	39.74%	36.49%	33.45%	31.60%	30.92%	29.92%
Suicide	10.43%	11.54%	16.35%	11.27%	13.29%	14.13%	14.96%
Undetermined	2.37%	2.56%	2.41%	2.18%	2.15%	2.65%	2.36%
Vehicular	8.53%	10.44%	7.75%	8.36%	6.46%	8.13%	5.35%

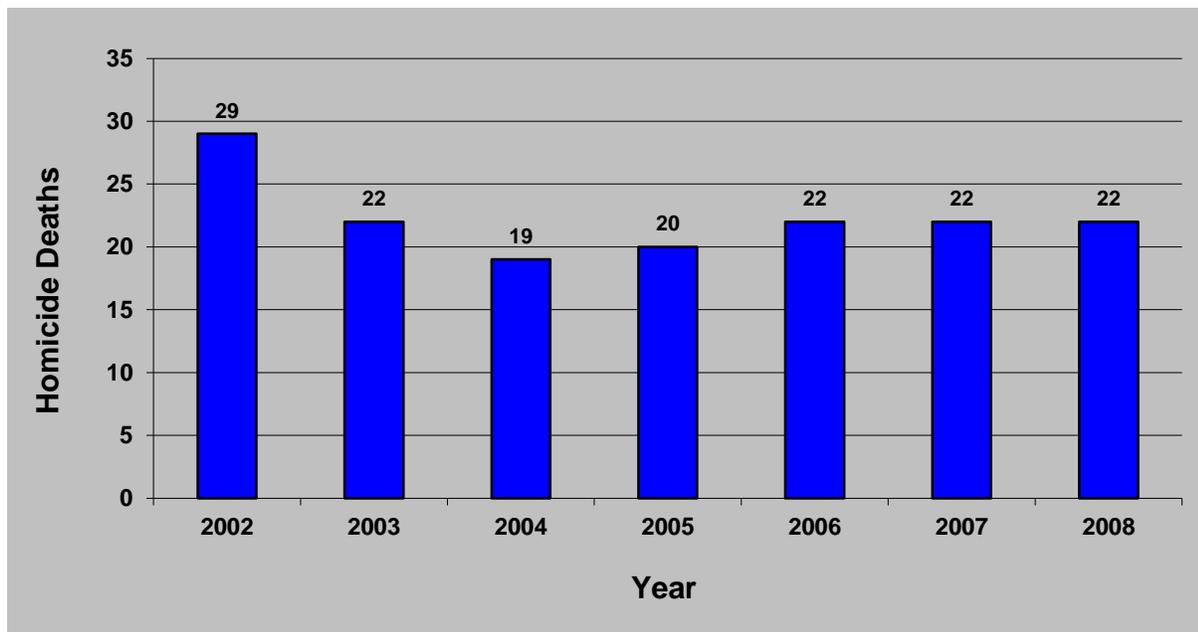
Ideally, a Medical Examiner System strives to keep the percentage of “undetermined” manner of death cases to less than five percent. This requires thorough investigation and autopsy. In the Spokane County Medical Examiner’s Office, every “undetermined” manner case is reviewed as part of the office Performance Improvement Program.

Homicidal Methods Comparison

Comparison of Homicidal Methods 2002 - 2008

Method Used	2002	2003	2004	2005	2006	2007	2008
Asphyxia	0	2	0	0	1	0	0
Blunt Impact	6	0	3	2	2	3	0
Child Abuse	2	3	1	2	2	3	2
Firearms	16	7	7	7	5	9	9
Homicidal Violence	1	5	3	4	2	1	1
Other	2	1	2	2	4	4	0
Stabbing	2	4	2	3	4	2	8
Strangulation	0	0	1	0	1	0	2
Unknown	0	0	0	0	1	0	0
Total	29	22	19	20	22	22	22

Homicides 2002 - 2008

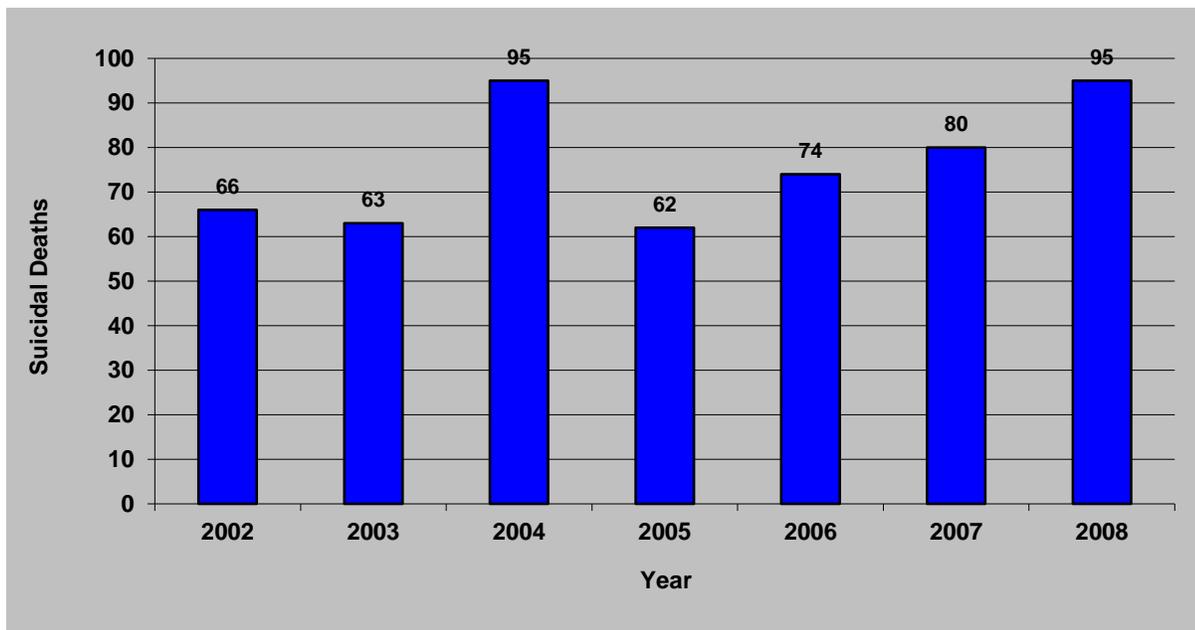


Suicidal Methods Comparison

Comparison of Suicidal Methods 2002 - 2008

Method Used	2002	2003	2004	2005	2006	2007	2008
Carbon Monoxide	3	4	3	5	4	7	5
Drowning	0	1	1	0	4	0	0
Drugs/Poisons	9	16	24	20	19	19	19
Firearms	41	24	50	21	37	32	51
Hanging	9	10	15	14	8	17	17
Jumping	0	6	0	0	1	3	1
Other	2	1	2	0	1	2	0
Plastic Bag	1	1	0	0	0	0	1
Stab/incised wound	1	0	0	2	0	0	1
Total	66	63	95	62	74	80	95

Suicides 2002 - 2008



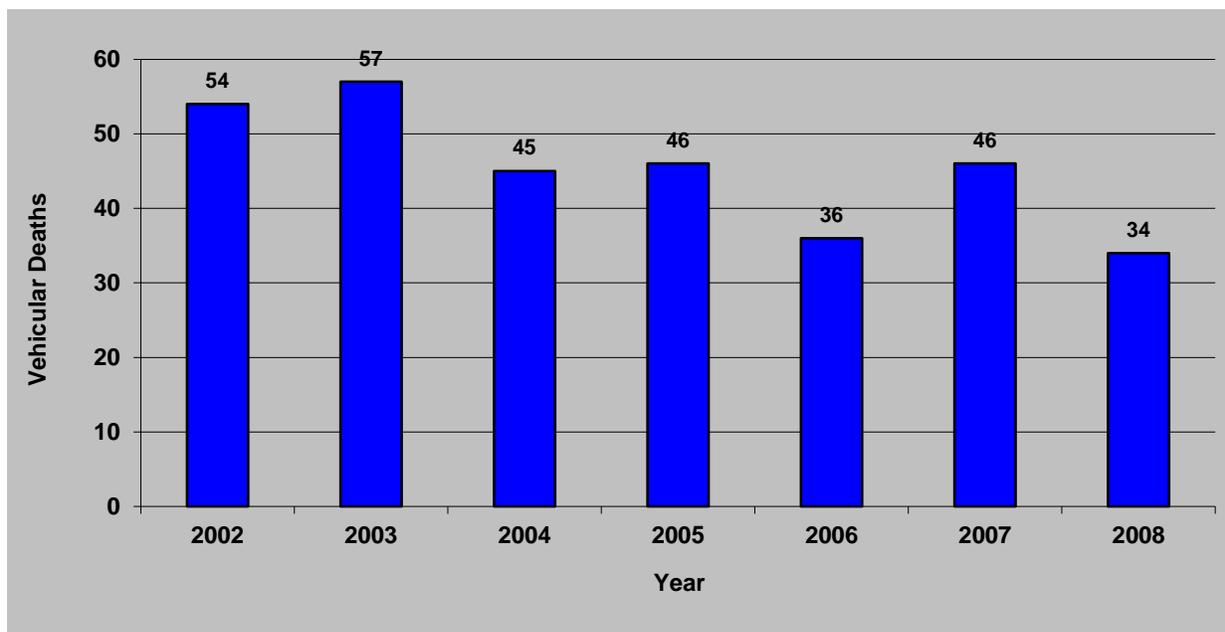
Vehicular Deaths Comparison

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

Comparison of Vehicular Deaths 2002 - 2008

Vehicle Circumstances	2002	2003	2004	2005	2006	2007	2008
Automobile Driver	26	23	20	17	18	14	22
Automobile Passenger	13	12	7	15	8	12	6
Bicyclist	0	2	0	3	2	1	0
Motorcycle Driver	4	11	10	5	6	5	6
Motorcycle Passenger	0	2	3	0	0	1	0
Other	2	1	0	0	1	2	0
Pedestrian	9	6	4	5	1	9	0
Unknown	0	0	1	1	0	2	0
Total	54	57	45	46	36	46	34

Vehicular Deaths 2002 - 2008



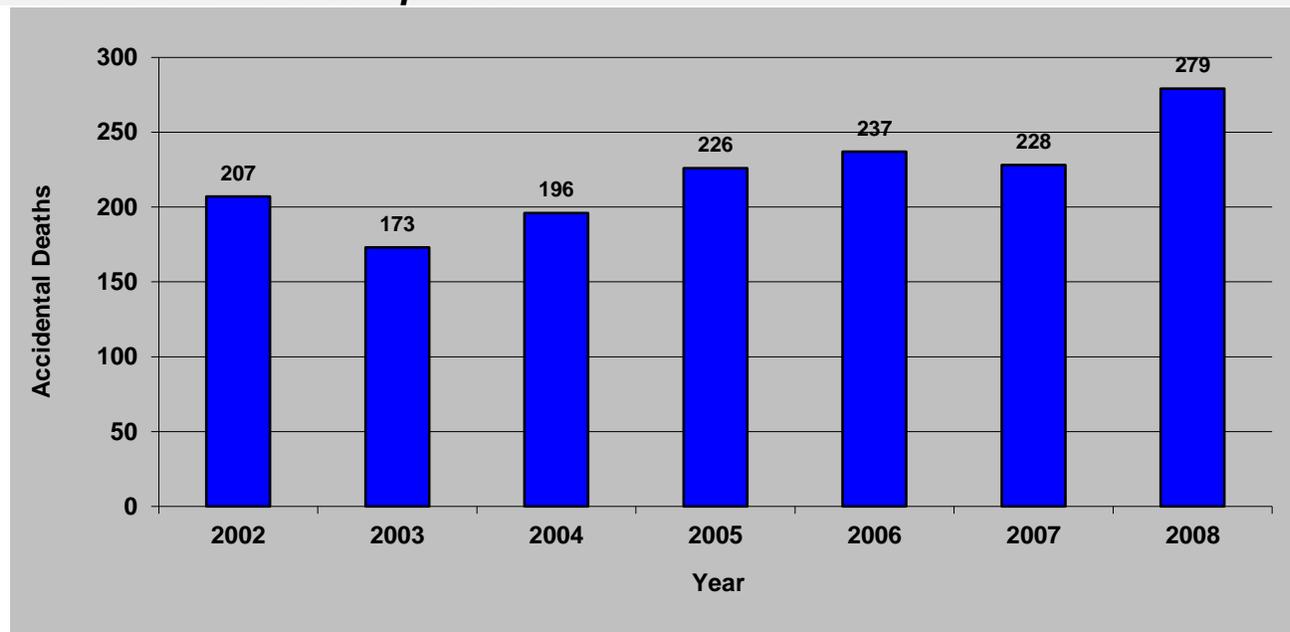
Accidental Deaths Comparison

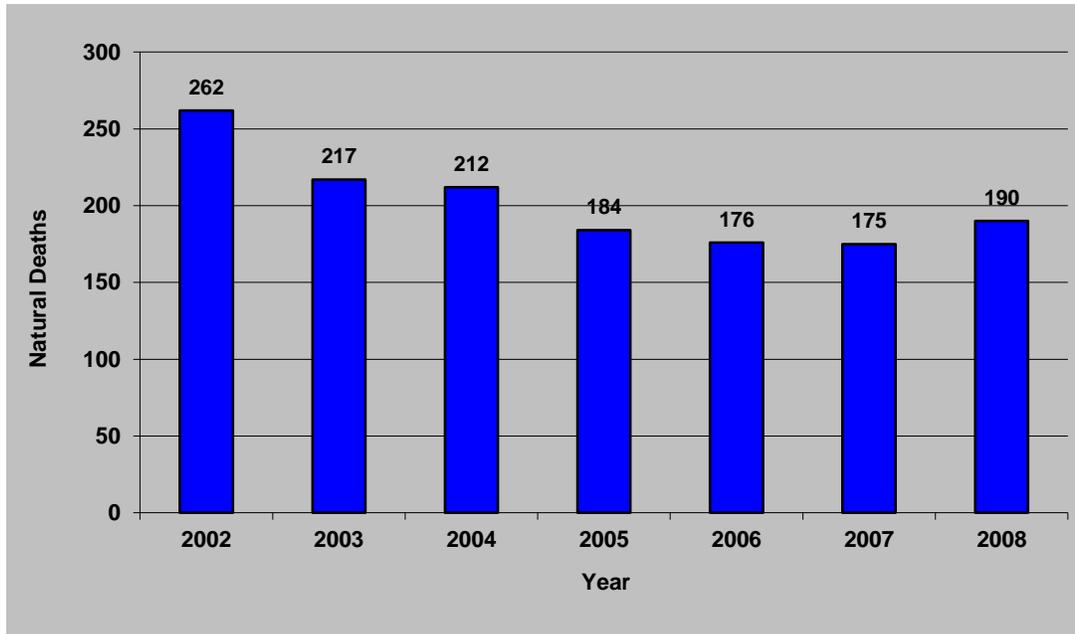
Comparison of Accidental Deaths 2002 - 2008

Accident Circumstances	2002	2003	2004	2005	2006	2007	2008
Aircraft	0	1	1	0	0	0	0
Alcohol Abuse	2	2	1	2	2	1	1
Asphyxiation	9	3	4	7	8	5	3
Aspiration	0	0	0	3	3	3	3
Bicycle Fall	0	1	0	0	1	0	1
Boating	1	0	0	0	0	0	1
Choking	0	0	2	0	2	1	0
Dog Bite	0	0	1	0	0	0	0
Drowning	13	7	7	4	12	3	6
Drugs	49	56	70	48	47	38	48
Prescribed Drugs	0	0	0	35	50	61	61
Electrocution	2	1	1	1	0	0	0
Fall	114	85	93	102	97	101	131
Farm	0	1	0	0	0	1	0
Fire/burns	4	0	3	3	0	1	3
Firearms	0	0	0	0	1	1	1
Hyperthermia	0	0	0	0	2	1	1
Hypothermia	2	3	2	5	2	4	5
Industrial Accident	3	3	2	3	2	2	2
Other	6	7	6	13	4	2	9
Struck by Object	0	1	1	0	1	0	2
Surgical Procedure	0	1	1	0	0	0	0
Therapy Complication	2	1	1	0	3	3	1
Total	207	173	196	226	237	228	279

Please see the following link to overdose data: [2008 Overdose Data](#)

Accidental Deaths Comparison

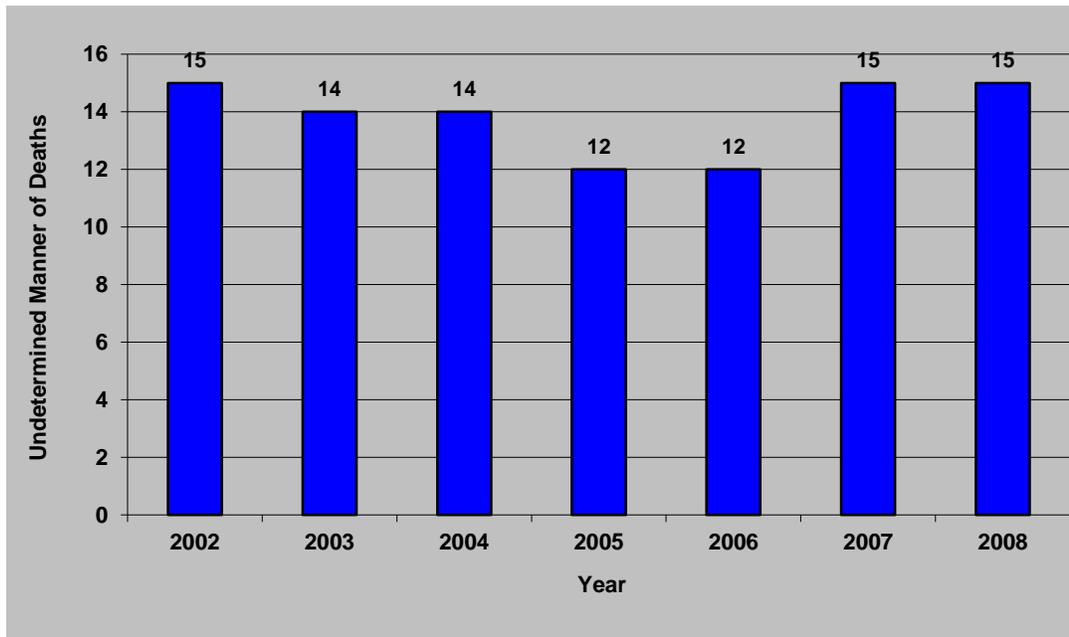


Natural Deaths Comparison**Natural Deaths 2002 - 2008**

The focus of the Medical Examiner's Office has shifted somewhat from the investigation of natural, but unexpected deaths to accidental deaths in the last six years. This shift is partly because of an increase in prescription drug deaths, considered "accidents" usually and partly due to an increased reporting of falls in elderly citizens which sometimes result in death.

Undetermined Deaths Comparison

Deaths of Undetermined Manner 2002 - 2008

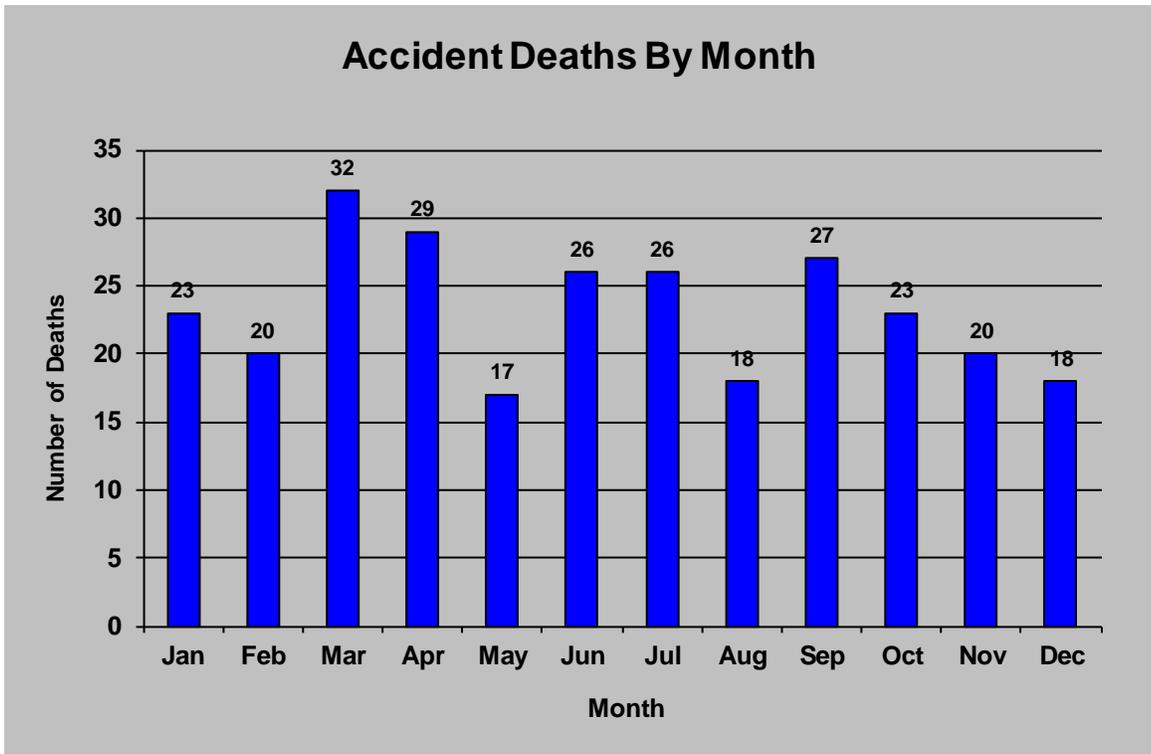


Ideally the Medical Examiner Systems use the undetermined manner of death category in less than five percent of cases. This reflects fullest utilization of available investigative and autopsy tools. In 2008, the undetermined classification was used in 2.36% of Spokane Medical Examiner cases.

Section 4: Manner of Death

ACCIDENT

Accident Deaths by Month



*Accident Mode by Gender***Accident Mode By Gender**

Accident Mode	Female	Male	Total
Alcohol Abuse	1	0	1
Asphyxiation	1	2	3
Aspiration	0	3	3
Bicycle Fall	0	1	1
Boating	0	1	1
Drowning	1	5	6
Drugs	17	31	48
Electrocution	0	2	2
Fall	72	59	131
Fire/burns	3	0	3
Firearms	0	1	1
Hyperthermia	1	0	1
Hypothermia	0	5	5
Industrial Accident	0	2	2
Other	2	7	9
Prescribed Drugs	27	34	61
Therapy Complication	0	1	1
Total	125	154	279

Accident Mode by Gender and Age Group

Accident Mode, Gender and Age Group

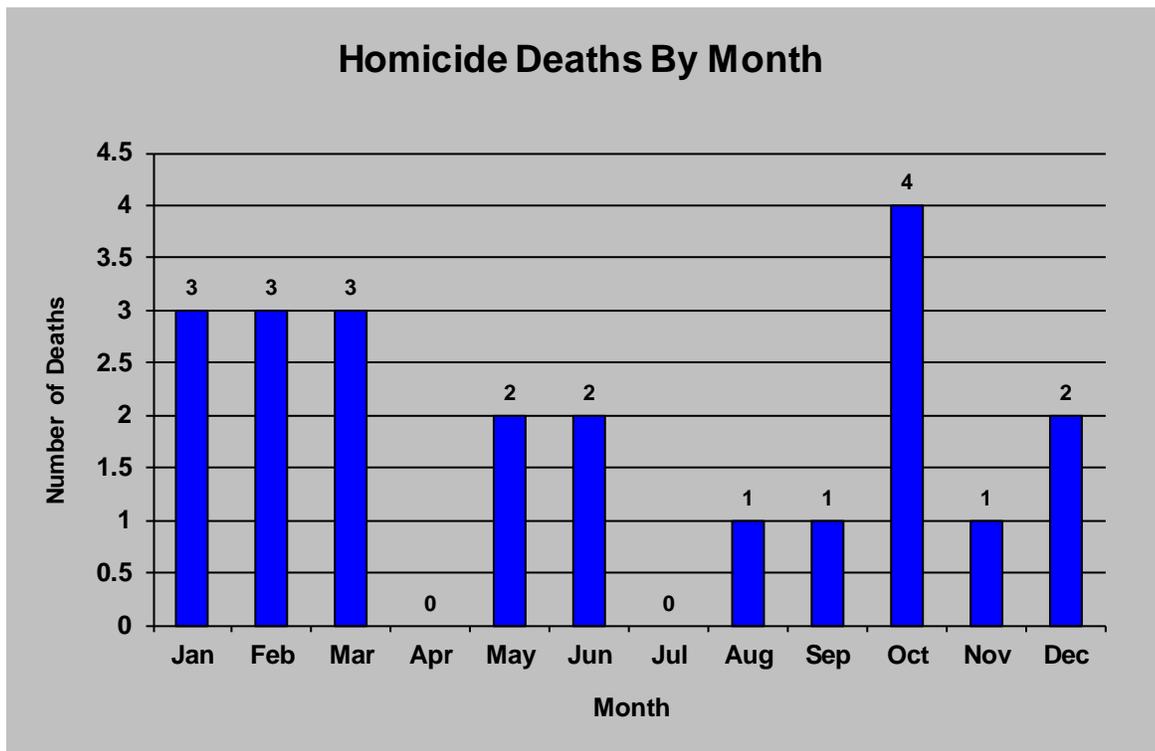
Accident Mode	Sex	<1	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	>=100	Total
Alcohol Abuse	F	0	0	0	0	1	0	0	0	0	0	0	0	1
Alcohol Abuse Total														1
Asphyxiation	F	1	0	0	0	0	0	0	0	0	0	0	0	1
Asphyxiation	M	0	1	0	0	0	0	0	0	0	1	0	0	2
Asphyxiation Total														3
Aspiration	M	0	0	0	0	0	1	0	1	1	0	0	0	3
Aspiration Total														3
Bicycle Fall	M	0	0	0	0	0	1	0	0	0	0	0	0	1
Bicycle Fall Total														1
Boating	M	0	0	1	0	0	0	0	0	0	0	0	0	1
Boating Total														1
Drowning	F	0	0	0	0	0	0	0	0	1	0	0	0	1
Drowning	M	0	1	1	1	1	0	0	0	0	0	1	0	5
Drowning Total														6
Drugs	F	0	0	0	1	8	4	3	1	0	0	0	0	17
Drugs	M	0	0	2	8	6	6	9	0	0	0	0	0	31
Drugs Total														48
Electrocution	M	0	0	0	0	0	1	1	0	0	0	0	0	2
Electrocution Total														2
Fall	F	0	0	0	0	1	2	2	7	10	27	20	3	72
Fall	M	0	0	1	1	0	1	7	7	14	23	5	0	59
Fall Total														131
Fire/burns	F	0	0	0	0	0	0	2	0	0	1	0	0	3
Fire/burns Total														3
Firearms	M	0	0	0	0	0	1	0	0	0	0	0	0	1
Firearms Total														1
Hyperthermia	F	0	0	0	0	0	0	0	0	1	0	0	0	1
Hyperthermia Total														1
Hypothermia	M	0	0	1	0	0	0	2	0	0	2	0	0	5
Hypothermia Total														5
Industrial Accident	M	0	0	0	0	0	0	0	2	0	0	0	0	2
Industrial Accident Total														2
Other	F	0	1	0	0	0	0	0	0	0	1	0	0	2
Other	M	0	1	0	0	0	0	2	2	1	1	0	0	7
Other Total														9
Prescribed Drugs	F	0	0	0	2	3	10	11	1	0	0	0	0	27
Prescribed Drugs	M	0	1	1	5	4	9	11	3	0	0	0	0	34
Prescribed Drugs Total														61
Therapy Complication	M	0	0	0	0	0	0	0	0	0	0	1	0	1
Therapy Complication Total														1
Grand Total		1	5	7	18	24	36	50	24	28	56	27	3	279

Falls that result in mortality are significantly correlated with increasing age. Illicit drug deaths peak in middle age in the county. In 2008, prescription drug deaths also were most common in middle age.

HOMICIDE

In 2008 the recorded 22 homicides represents no increase from the previous year. Firearms accounted for single largest method of homicide. Firearms also accounted for the largest number of deaths by suicide. The most frequent age group of homicide victims in 2008 was 20-29 years.

Homicide Deaths by Month



Homicide Deaths by Method, Gender, and Age Group

Homicide Mode, Gender and Age Group

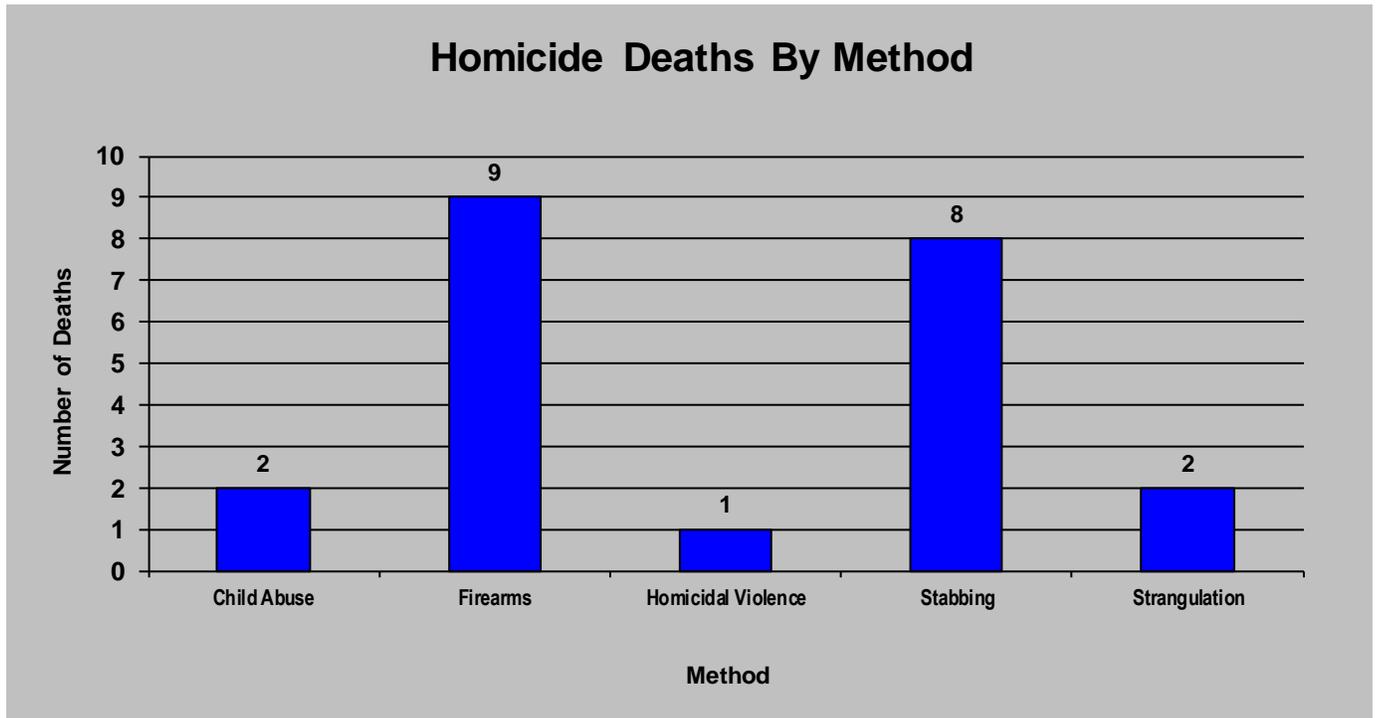
Homicide Method Sex	<1	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	>=100	Total
Child Abuse Female	1	0	0	0	0	0	0	0	0	0	0	0	1
Child Abuse Male	1	0	0	0	0	0	0	0	0	0	0	0	1
Child Abuse Total													2
Firearms Female	0	0	0	0	0	1	0	1	0	0	0	0	2
Firearms Male	0	0	0	2	1	1	2	0	0	1	0	0	7
Firearms Total													9
Homicidal Violence Female	0	0	0	0	1	0	0	0	0	0	0	0	1
Homicidal Violence Total													1
Stabbing Female	0	0	1	0	0	0	1	0	0	0	0	0	2
Stabbing Male	0	0	0	4	1	0	1	0	0	0	0	0	6
Stabbing Total													8
Strangulation Female	0	0	0	2	0	0	0	0	0	0	0	0	2
Strangulation Total													2
GRAND TOTAL	2	0	1	8	3	2	4	1	0	1	0	0	22

Homicide Deaths by Age Group



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

Homicide Deaths by Method

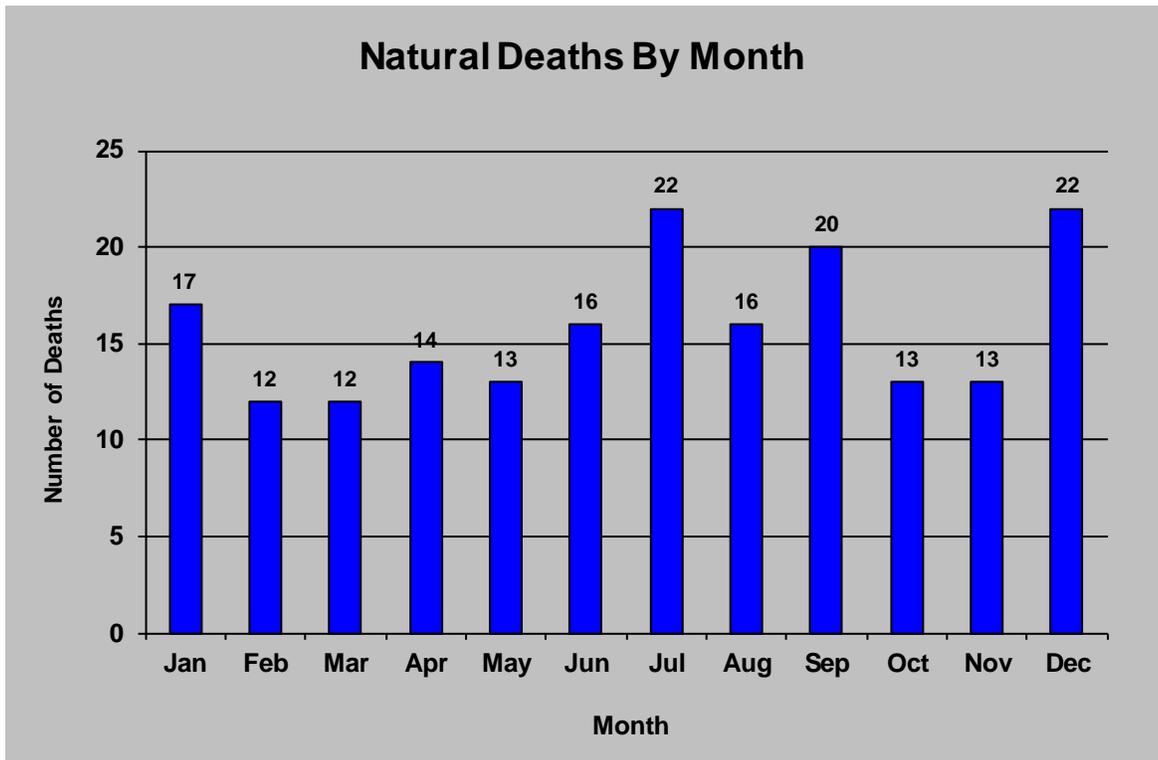


Stabbing deaths increased from 2 in 2007 to 8 in 2008.

NATURAL

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

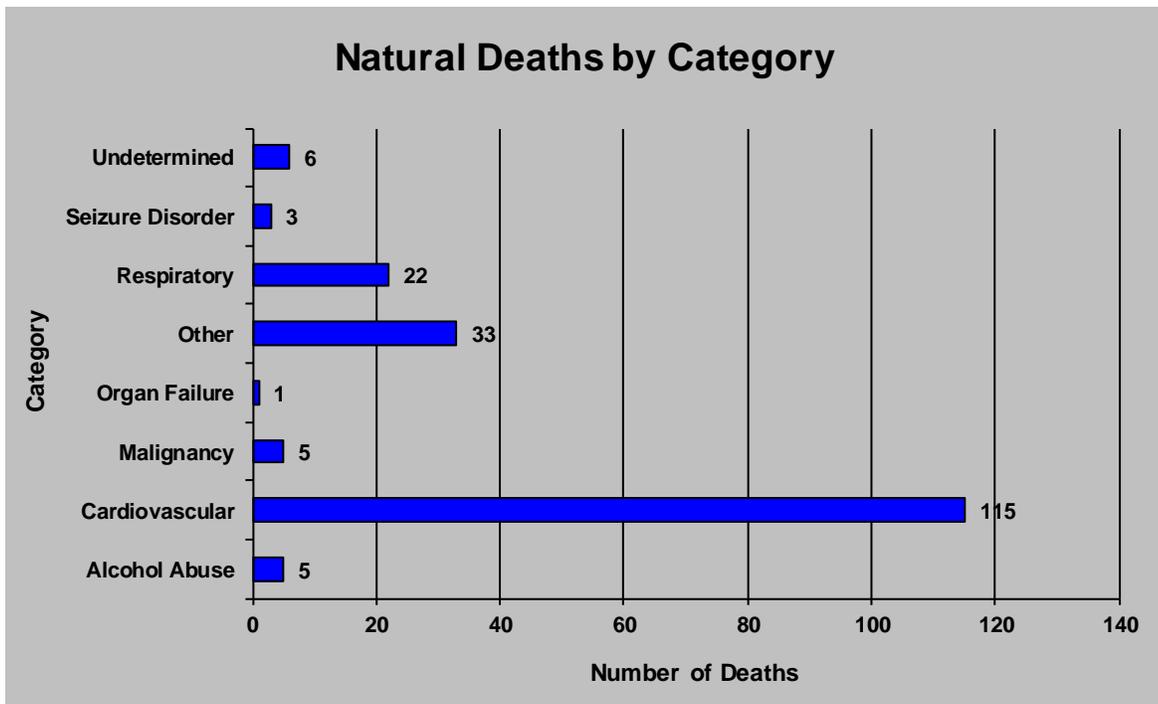
Natural Deaths by Month



Natural Deaths by Category

The high proportion of deaths related to the cardiovascular system is typical of national statistics defining the categories of natural deaths. By convention, in most Coroner and Medical Examiner systems, alcohol abuse is considered “natural”. The cancer deaths are usually not diagnosed until autopsy or are investigated for mitigating circumstances such as concern over overdose.

Cause of Natural Deaths by Category



Natural Deaths by Disease Process and Gender

Disease Process By Gender

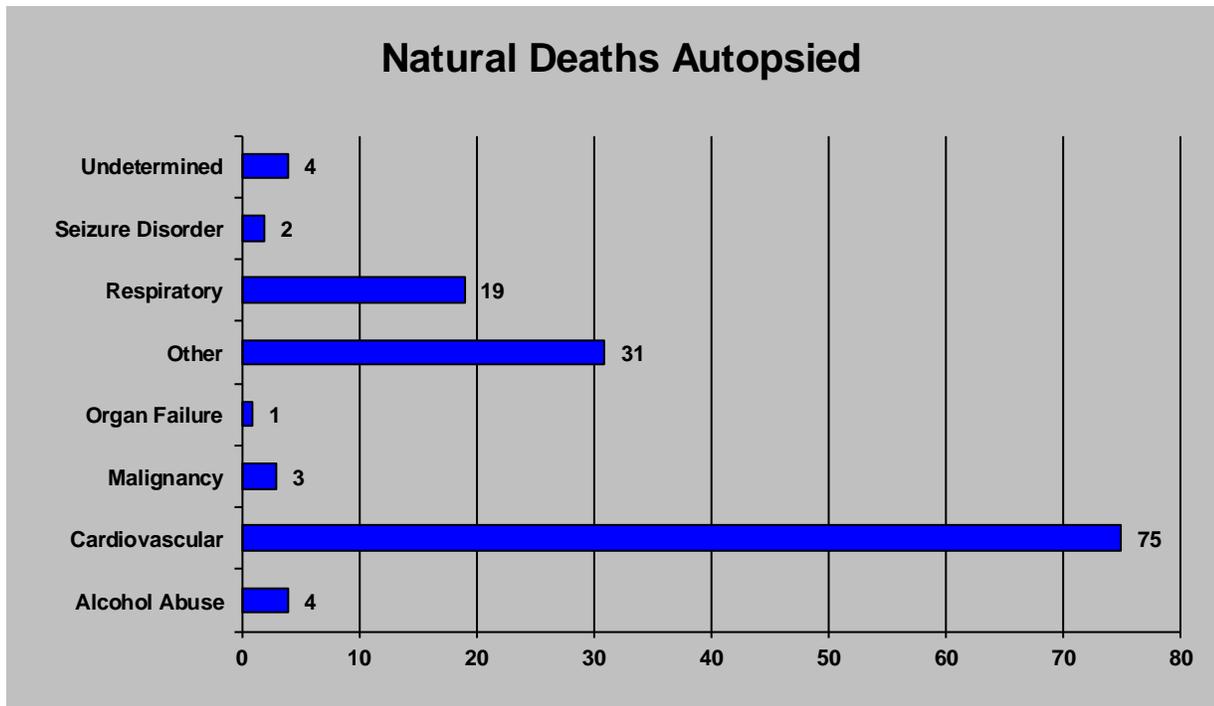
Disease Process	Female	Male	Unknown	Total
Alcohol Abuse	2	3	0	5
Cardiovascular	31	84	0	115
Malignancy	1	4	0	5
Organ Failure	1	0	0	1
Other	10	23	0	33
Respiratory	12	10	0	22
Seizure Disorder	0	3	0	3
Undetermined	1	5	0	6
Total	58	132	0	190

Natural Deaths by Gender and Age Group

Natural Death Gender and Age Group

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	Total
Alcohol Abuse	F	0	0	0	0	0	1	1	0	0	0	0	0	2
Alcohol Abuse	M	0	0	0	0	0	1	0	2	0	0	0	0	3
Alcohol Abuse Total														5
Cardiovascular	F	1	0	1	0	2	4	8	7	4	1	3	0	31
Cardiovascular	M	0	0	1	1	3	17	23	25	8	5	1	0	84
Cardiovascular Total														115
Malignancy	F	0	0	0	0	0	0	0	0	0	0	1	0	1
Malignancy	M	0	0	0	0	0	0	2	1	1	0	0	0	4
Malignancy Total														5
Organ Failure	F	0	0	0	0	0	0	1	0	0	0	0	0	1
Organ Failure Total														1
Other	F	3	1	0	2	1	1	2	0	0	0	0	0	10
Other	M	7	0	0	2	2	6	2	2	0	2	0	0	23
Other Total														33
Respiratory	F	2	0	0	0	1	2	4	1	0	2	0	0	12
Respiratory	M	0	0	0	0	0	4	3	3	0	0	0	0	10
Respiratory Total														22
Seizure Disorder	M	0	0	0	1	0	0	1	1	0	0	0	0	3
Seizure Disorder Total														3
Undetermined	F	0	0	0	0	0	0	0	0	0	1	0	0	1
Undetermined	M	0	0	0	0	1	0	0	2	1	1	0	0	5
Undetermined Total														6
Grand Total		13	1	2	6	10	36	47	44	14	12	5	0	190

Nine of the deaths listed as “other” are attributed to Sudden Unexplained Infant Death. **Sudden unexplained infant death (SUID)** applies to 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. SUID includes cases that meet the definition of Sudden Infant Death Syndrome.

Natural Deaths Autopsied

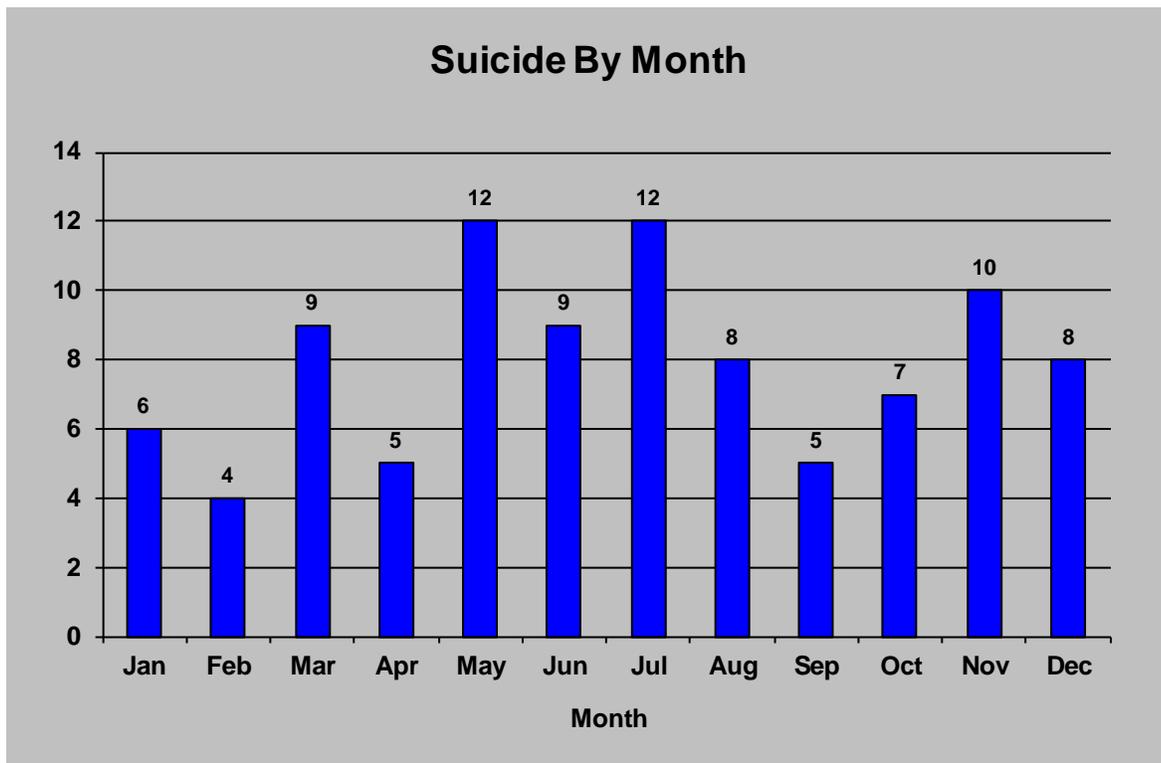
The numbers of cardiovascular deaths reflect the fact that the first symptom of significant heart disease is often a fatal heart attack. The natural manners of death with “undetermined” cause, are deaths in which the scene investigation was highly suggestive of a natural death. However complete autopsies, including microscopic examination of biopsies and toxicology testing did not show cause of death. Some of these deaths might be a result of “chemical” failures of systems at a submicroscopic level.

SUICIDE

Suicides are those deaths caused by intentional, self-inflicted injuries. In Spokane County there were (95) suicides in 2008, up (15) from 2007.

The highest number (77/95) of suicides fell within the 20-59 age groups. However, looking at suicides in persons (50) years and older, in 2008 these age groups represented 45% (43/95) of all suicides occurring in Spokane County. Nationally, suicide deaths in older Americans are associated statistically with financial concerns, illness and declining health. Two suicides occurred in teenagers, and 13 in the 20-29 age group.

Suicide Deaths by Month



Suicide Method by Gender and Age Group

Suicide Method Gender and Age Group

Suicide Method	Sex	<1	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	>100	Total
Carbon Monoxide	M	0	0	0	2	1	1	1	0	0	0	0	0	5
Carbon Monoxide Total														5
Drugs/Poisons	F	0	0	0	0	1	4	2	0	0	0	0	0	7
Drugs/Poisons	M	0	0	0	1	0	4	5	2	0	0	0	0	12
Drugs/Poisons Total														19
Firearms	F	0	0	0	0	0	2	3	1	0	0	0	0	6
Firearms	M	0	0	2	5	7	7	12	4	5	2	1	0	45
Firearms Total														51
Hanging	F	0	0	0	0	1	2	0	1	0	0	0	0	4
Hanging	M	0	0	0	4	2	4	3	0	0	0	0	0	13
Hanging Total														17
Jumping	M	0	0	0	0	0	0	1	0	0	0	0	0	1
Jumping Total														1
Plastic Bag	F	0	0	0	0	0	1	0	0	0	0	0	0	1
Plastic Bag Total														1
Stab/incised wound	M	0	0	0	1	0	0	0	0	0	0	0	0	1
Stab/incised wound Total														1
GRAND TOTAL		0	0	2	13	12	25	27	8	5	2	1	0	95

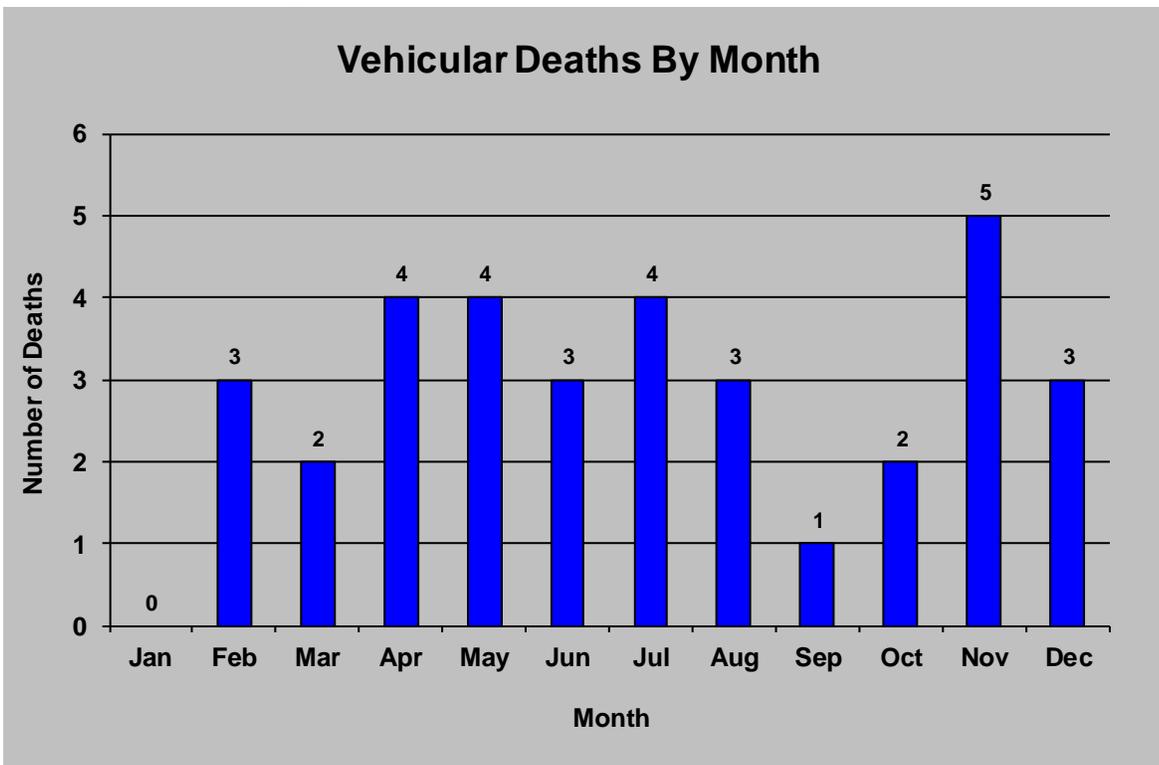
As has been the case in many Medical Examiner years, gunshot wounds remain the most frequent suicide method partly because of the inherent lethality of firearm injuries. Gunshot wounds are followed by intentional overdoses, then suicidal hangings.

VEHICULAR

During the calendar year of 2008, the Medical Examiner’s Office participated in the investigation of (34) deaths categorized as vehicular. This represents more than a 26% decrease over 2007.

In vehicle collisions there were 28 deaths, 22 drivers and 6 passengers. In addition there were 6 deaths among motorcycle drivers.

Vehicular Deaths by Month



Vehicular Deaths by Method, Gender, and Age Group

Vehicular 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	>=100	Total
Automobile Driver	F	0	0	0	0	1	0	2	0	2	1	0	0	6
Automobile Driver	M	0	0	0	4	2	0	2	2	3	2	1	0	16
Automobile Driver Total														22
Automobile Passenger	F	0	0	1	0	0	0	0	0	1	0	1	0	3
Automobile Passenger	M	0	1	0	2	0	0	0	0	0	0	0	0	3
Automobile Passenger Total														6
Motorcycle Driver	F	0	0	0	0	0	1	0	0	0	0	0	0	1
Motorcycle Driver	M	0	0	0	2	1	0	2	0	0	0	0	0	5
Motorcycle Driver Total														6
Grand Total		0	1	1	8	4	1	6	2	6	3	2	0	34

Traffic Fatalities and Use of Restraint

Traffic Fatalities and Use of Restraint

Circumstances	Restrained	Unrestrained	Unknown	Total
Automobile Driver	11	9	2	22
Automobile Passenger	4	2	0	6
Total	15	11	2	28

UNDETERMINED

“Undetermined” manner is used to designate that a death 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 discovery of the body. If an extensive investigation and autopsy cannot clarify the circumstances, the death is placed in this category. There were (15) undetermined deaths in Spokane County in 2008.

Although the cause of death was established in more than half 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	Race
1	fracture of the odontoid process of the C-2 spinal column; dt- blunt impact to head	Jan	M	63	Caucasian
2	acute diphenhydramine intoxication	Feb	M	41	Native American
3	probable drowning	Mar	M	47	Caucasian
4	sudden unexpected death in epilepsy (SUDEP); dt- post traumatic epilepsy	Apr	M	20	Caucasian
5	combined drug toxicity; dt- simultaneous use of methadone and benzodiazepines	May	M	55	Caucasian
6	combined drug toxicity; dt- simultaneous use of ethanol, oxycodone, zolpidem, and alprazolam	May	M	67	Caucasian
7	hypoxic encephalopathy; dt- cardiorespiratory arrest of unknown etiology, with resuscitation	Jun	F	6 mos	Caucasian
8	combined drug toxicity; dt- simultaneous use of diphenhydramine and nortriptyline	Jul	M	30	Caucasian
9	herniation of the brain; dt- swelling of the brain; dt- recent basilar skull fracture with brain contusions; dt- blunt impact to head	Jul	M	35	Hispanic
10	undetermined cause of death in infant with cocaine in bloodstream	Jul	M	4 mos	Other
11	inhalation of carbon monoxide (car exhaust)	Aug	M	20	Caucasian
12	combined drug toxicity; dt- simultaneous use of methadone, fluoxetine, and nortriptyline	Oct	F	56	Caucasian
13	phenobarbital toxicity during terminal care; dt- diffuse hypoxic-ischemic brain injury with coma; dt- recent bilateral subdural hemorrhage	Oct	M	3 mos	Caucasian
14	combined drug toxicity; dt- simultaneous use of diphenhydramine, oxycodone, and metoclopramide	Nov	F	30	Caucasian
15	undetermined (after complete autopsy)	Dec	M	11 days	Caucasian

In general, in the carbon monoxide and overdose deaths listed above, it could not be determined if the decedent had suicidal intent.

Glossary of Terms

Blood Alcohol Level	The concentration of ethanol (alcohol) found in blood following ingestion. Measured in grams per 100 ml of blood or grams % In the State of Washington, 0.08 grams % is considered the legally intoxicated concentration while driving.
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 or with alcohol, 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 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, with intent (explicit or implicit) to end one's life.
Manner: Traffic	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 are equally likely.

Opiate	A broad class of drugs including morphine, heroin, and synthetic medicine such as methadone.
Poison	Any substance, either taken internally or applied externally, that is injurious to health or dangerous to life.
Fetal Death/Perinatal	Category of deaths that occur within the uterus (fetal) or shortly before, during, or shortly after birth (perinatal).
Race	The racial categories used in this report are: Asian, Black, Caucasian, Hispanic, Native American, Other and Unknown.
Sudden Infant Death Syndrome (SIDS)	Sudden Infant Death Syndrome is defined as the sudden death of an infant less than one year of age that cannot be explained after a thorough investigation is conducted, including complete autopsy, examination of the death scene, and review of clinical history.
Sudden Unexplained Infant Death (SUID)	Applies to the death of an infant less than one year of age, in which (<i>SUID</i>) investigation, autopsy, medical history review, and appropriate laboratory testing fails to identify a specific cause of death. SUID includes cases that meet the definition of Sudden Infant Death Syndrome.

Organizational Chart

Spokane County Medical Examiner's Office

