



# Public Health

Seattle & King County



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# 2015 Annual Report

## DEDICATION

We recognize that each case in this report represents the death of a person whose absence is grieved by friends and relatives. These deaths also represent a loss to our community. As those responsible for investigating these deaths, we dedicate this report to the memory of those lost and to those who have suffered the loss of a friend or relative.

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# FOREWORD

The King County Medical Examiner's Office serves the community by investigating sudden, unexpected, violent, suspicious, and unnatural deaths. Medical Examiner staff recognize the tragedy surrounding an untimely death and perform investigations, in part, to assist the grieving family. A complete investigation provides for the quick settling of estates and insurance claims, as well as for implementing civil and criminal actions. Questions that seem irrelevant in the initial hours after death can become significant in the following months. The surviving family, friends, and general public can have the assurance that the Medical Examiner conducted a comprehensive investigation.

When a death occurs on the job or is work-related, the King County Medical Examiner's Office immediately forwards the results of its investigation to the Washington State Department of Labor and Industries so that the family can gain the full benefit of the findings. Private insurance companies also routinely use the findings to settle claims.

Whenever a consumer product is implicated in a death, the King County Medical Examiner's Office notifies the Consumer Product Safety Commission to ensure that the product is studied and the necessary steps are taken to protect the public.

The public health role of the Medical Examiner is to isolate and identify the causes of sudden,

unexpected death that might affect more than one person. When an infectious agent or toxin is implicated in a death, the Medical Examiner's Office notifies the family and contacts of the deceased so they may receive any needed medical treatment. Trends in injury and violence are monitored. In this era of concern about emergency response and bioterrorism, the Medical Examiner provides an important level of preparedness and surveillance.

Civil or criminal judicial proceedings frequently require the medical investigation of violent death. Thus, the King County Medical Examiner's Office conducts a prompt medical investigation to provide the criminal justice system with medical information and evidence required for adjudication. Although criminal death investigations constitute a small portion of deaths investigated by the Medical Examiner, these deaths are studied in great detail because of the issues and legal consequences involved. The King County Medical Examiner's Office provides the criminal justice system the best support that medical science can provide.

In summary, the King County Medical Examiner's Office provides expert medical evaluation and extensive services related to the investigation of deaths that are of concern to the health, safety, and welfare of the community.



# EXECUTIVE SUMMARY

**The Medical Examiner's Office 2015 Annual Report reflects the activities pertaining to the investigation of jurisdictional deaths in King County. The mission of the King County Medical Examiner's Office (KCMEO) is to investigate sudden, unexpected and unnatural deaths in King County with the highest level of professionalism, compassion and efficiency, and to provide a resource for improving the health and safety of the community.**

This annual report presents detailed analyses of the different manners of death, as well as trends in homicides, traffic fatalities, and drug overdose deaths. While the report tends to depict the more violent types of death, it is worth noting that nearly 41% of Medical Examiner cases were classified as natural deaths.

In addition, data provided within this report helps shape Public Health policies designed to save lives by reducing preventable deaths. This report also documents the Medical Examiner's role in support of life saving organ and tissue donations, see page 104 for further details.

A few selected findings are highlighted below:

- In 2015, there were an estimated 13,641 deaths in King County. Of those deaths, 12,226 (90%) were reported to the Medical Examiner's Office. Deaths occurring in a hospital setting from a known natural disease process are not required to be reported to the Medical Examiner's Office. The Medical Examiner's Office assumed jurisdiction over 2,221 deaths; the number of applicable cases used in this report is 2,103 deaths after non-human remains and contract anthropology cases for other jurisdictions are removed. The King County Medical Examiner's Office assumes jurisdiction if a death falls under the Revised Code of Washington that defines the Medical Examiner's charge.
- The Medical Examiner's Office performed autopsies in 63% of those jurisdictional deaths (1,316/2,103). In 2015, those jurisdictional deaths included: 76 homicides, 262 suicides, 168 traffic deaths, 672 accidental deaths, 858 natural deaths and 67 deaths due to undetermined causes.
- Of the 13 natural deaths of children and youth investigated by the Medical Examiner, 31% (4/13) were of infants less than one year of age. Of those 4 infants who died of natural causes, 1 was due to Sudden Infant

Death Syndrome (SIDS). In addition, 8 infant deaths were classified as "Sudden Unexplained Infant Death" (SUID), manner undetermined, due to the inability to exclude external factors that might have contributed to the death.

- Several factors appear repeatedly in unnatural deaths. Of all traffic fatalities in which tests were performed, 29% tested positive for the presence of alcohol in the blood. Firearms were the most frequent instrument of death in homicides (71%) and suicides (42%).
- Males comprised 74% (56/76) and women 26% (20/76) of the homicide victims in 2015. The majority of victims, 82% (62/76), were between the age 20 and 49. The number of homicide victims 19 years old and under increased when compared to the previous year. In 2015 they accounted for 18% (14/76) of the homicide victims, compared to 2014 when this younger age group represented 11% (8/76) of all homicide victims. 87% (66/76) of the victims were tested for the presence of alcohol. Of those tested 24% (16/66) showed alcohol present at the time of death.
- In 2015, there were 54 firearm homicide victims, 17% (9/54) were 19 years old and younger – a 7 percentage increase from 2014 when 10% (5/51) of firearm homicide victims were 19 years old and younger. In 2015, there was a disproportionate number (25/54 or 46%) of firearm homicide victims that were African American when compared to the percentage of African Americans in King County's population (6.7%), see discussions on pages 8 and 44. Of the 25 African American firearm homicide victims, 64% (16/25) were males 29 years old and younger. In comparison, 48% (23/54) of all the homicide firearm victims were White. Of the 23 White firearm homicide victims, 30% (7/23) were males 29 years old and younger.
- For King County in 2015, drugs and poisons caused 345 deaths, approximately 16% (345/2,103) of all deaths investigated. The total number of drug-caused deaths increased compared to 2014 when there were 344 drug deaths. In 2015, deaths due to drugs and poisons comprised 34% (345/1001) of all suicidal, accidental and undetermined deaths combined.
- In 2015 the King County Medical Examiner's Office maintained accreditation by the National Association of Medical Examiners. This is the national professional organization of physician medical examiners, medicolegal death investigators and death investigation system administrators who perform the official duties of the medicolegal investigation of deaths in the United States.

# Description and purpose

**In 1969, the King County Home Rule Charter abolished the King County Office of the Coroner, which was replaced with the King County Medical Examiner's Office. The Medical Examiner's Office is a part of the Prevention Division of Public Health – Seattle & King County. The King County Medical Examiner's Office is funded by King County and operates under the direction of the King County Executive.**

The Chief Medical Examiner, Dr. Richard Harruff, is a physician trained and certified in forensic pathology - the branch of medicine devoted to the scientific investigation of sudden, unexpected, violent, suspicious, or unnatural deaths. There are four sections under the Chief Medical Examiner's direction: Forensic Pathology, Scene Investigation, Autopsy Support and Administrative Support. The duties of these four sections include the performance of autopsies, certification of death, field investigation of scene and circumstances of death, identification of the deceased, notification of next-of-kin, and control and disposition of the deceased's personal property.

Deaths that come under the jurisdiction of the Medical Examiner are defined by state statute (RCW 68.50) and include, but are not limited to, the following circumstances:

1. *Persons who die suddenly when in apparent good health and without medical attendance within 36 hours preceding death.* This category is reserved for the following situations: (1) Sudden death of an individual with no known natural cause for the death. (2) Death during an acute or unexplained rapidly fatal illness, for which a reasonable natural cause has not been established. (3) Death of a person who was not under the care of a physician. (4) Death of a person in a nursing home or care facility where medical treatment is not provided by a licensed physician.
2. *Circumstances which indicate death was caused in part or entirely by unnatural or unlawful means.* This category includes but is not limited to: (1) Drowning, suffocation, smothering, burns, electrocution, lightning, radiation, chemical or thermal injury, starvation, environmental exposure, or neglect. (2) Unexpected death during, associated with, or as a result of diagnostic or therapeutic procedures. (3) All deaths in an operating room whether due to surgical or anesthetic procedures. (4) Narcotics or other drugs including alcohol or toxic agents, or toxic exposure. (5) Death of the mother caused by known or suspected abortion. (6) Death from apparent natural causes during the course of a criminal act, e.g., a victim collapses during a robbery. (7) Death that occurs within one year following an accident, even if the accident is not thought to have contributed to the cause of death. (8) Death following all injury-producing accidents, if recovery was considered incomplete or if the accident is thought to have contributed to the cause of death (regardless of the interval between the accident and death).
3. *Suspicious circumstances.* This category includes, but is not limited to, deaths under the following circumstances: (1) Deaths resulting from apparent homicide or suicide. (2) Hanging, gunshot wounds, stab wounds, cuts, strangulation, etc. (3) Alleged rape, carnal knowledge, or sodomy. (4) Death during the course of, or precipitated by, a criminal act. (5) Death that occurs while in a jail or prison, or while in custody of law enforcement or other non-medical public institutions.

4. *Unknown or obscure causes.* This category includes: (1) Bodies that are found dead. (2) Death during or following an unexplained coma.
5. *Deaths caused by any violence whatsoever, when the injury was the primary cause or a contributory factor in the death.* This category includes, but is not limited to: (1) Injury of any type, including falls. (2) Any death due to or contributed to by any type of physical trauma.
6. *Contagious disease.* This category includes only those deaths wherein the diagnosis is undetermined and the suspected cause of death is a contagious disease which may be a public health hazard.
7. *Unclaimed bodies.* *This category is limited to deaths where no next of kin or other legally responsible representatives can be identified for disposition of the body.*
8. *Premature and stillborn infants.* *This category includes only those stillborn or premature infants whose birth was precipitated by maternal injury or drug use, criminal or medical negligence, or abortion under unlawful circumstances.*

# Mission Statement

**The mission of the King County Medical Examiner's Office (KCMEO) is to investigate sudden, unexpected and unnatural deaths in King County with the highest level of professionalism, compassion and efficiency and to provide a resource for improving the health and safety of the community consistent with the general mission of Public Health.**

To achieve this mission, the KCMEO will:

- Coordinate investigative efforts with law enforcement, hospitals, and other agencies in a professional and courteous manner.
- Treat decedents and their effects with dignity and respect, and without discrimination.
- Conduct investigations and autopsies professionally, scientifically, and conscientiously; complete reports expeditiously with regard for the concerns of family members, criminal justice, and public health and safety.
- Provide compassion, courtesy, and honest information to family members and, with sensitivity for cultural differences, make appropriate efforts in assisting with their grief, medical and legal questions, disposition of decedents and effects, and other settlements.
- Collect, compile, and disseminate information regarding deaths in a manner consistent with the laws of Washington state and consistent with the mission of Public Health.
- Provide medical and scientific testimony in court and in deposition as well as medicolegal consultation for prosecuting attorneys, defense attorneys, and attorneys representing surviving family members.
- Promote and advance, through education and research, the sciences and practices of death investigation, pathology, and anthropology within KCMEO and in collaboration with educational institutions.
- Promote and maintain an emotionally and physically healthy and safe working environment for KCMEO employees, following Public Health policies for standards of conduct, management, and support for employee diversity, training, and development.
- Expand communication throughout Public Health and the community at large regarding the roles, responsibilities, and objectives of KCMEO.

# Explanation of data

The Medical Examiner serves the geographic area that includes all 2,130 square miles of King County, bounded by Pierce County to the south, Snohomish County to the north, Kittitas and Chelan Counties to the east, and Puget Sound to the west. In 2015, the King County population was estimated to be 2,117,125.<sup>1</sup> Included within King County are 39 cities and towns including Seattle, the state's largest city. Mercer Island, Vashon Island, two major airports and several colleges and universities are in the geographic area served by the Medical Examiner's Office. In King County there are more than 20 hospitals and one regional trauma center (Harborview) which serves the entire Pacific Northwest region.

The KCMEO assumes jurisdiction of deaths occurring in King County that include both King County residents and nonresidents. King County residents who die in other counties do not fall under KCMEO jurisdiction. For data on deaths of King County residents, along with other health indicators, please see Public Health—Seattle & King County Community Health Indicators online at: [www.kingcounty.gov/healthservices/health/data/chi](http://www.kingcounty.gov/healthservices/health/data/chi).

This report summarizes demographics from individual cases in which the Medical Examiner assumed jurisdiction and presents them in aggregate form. Table 1-8 (Nearest Incorporated City to the Fatal Incident) on pages 21 and 22 represents the location of the incident to the nearest city, not the residential address of the individual. Each manner (category) of death is subdivided into the various sub-groupings (methods) appropriate to that manner, which together form a more detailed description of the cause and manner of death.

The variables displayed in the tables such as race, gender, age, etc., have been selected as those most likely to assist and interest individuals using this data in assembling a profile of statistics on deaths examined by the Medical Examiner's Office for 2015. The United States Census Bureau estimates the racial distribution of King County to be 70.1% White, 17.2% Asian/Pacific Islander (including Hawaiian and other Pacific Islanders), 6.7% African American, 4.9% Two or More Races, and 1.1% American Indian/Alaska Native.<sup>2</sup> Information on Hispanic ethnicity of the decedent is not available for every case, and will not be presented in this report.

Medical Examiner figures cannot be directly compared to the racial distribution of King County residents. This is because as mentioned above and emphasized in Table 1-9 on page 22, in 14% of the Medical Examiner cases the incident leading to death occurred outside of King County and the decedent likely was not a resident of King County. However, as a rough estimate, the only manner of death that varies from the racial distribution of the county by a large percentage is Homicide (see discussion on page 44).

Age groups displayed in the tables are divided into youth and adult. The youth groups are infants (newborn to 11 months), toddlers (1-5 years), grade school (6-12 years), junior high (13-15 years), and high school (16-19 years). Adult age groups are in corresponding decades with the last being 90 years of age or older.

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<sup>1</sup>United States Census Bureau 2015 estimate.

<sup>2</sup> United States Census Bureau 2014 estimate.

Blood alcohol (ethanol) data included here represent the blood level at the time of death. Alcohol is metabolized at a rate of 0.015 to 0.018 grams percent per hour. Thus, if there is a significant survival interval, the blood alcohol at the time of death will be lower than at the time of incident. Consequently, blood alcohol tests are not performed in cases where death occurs more than 24 hours after the fatal injury. For these reasons, an unknown number of cases not tested or showing no blood alcohol may actually have had a measurable alcohol concentration at the time of incident.

Three sections are included that review specific issues: deaths due to drugs, deaths due to firearms, and deaths among children and youth. The firearm data pertain to the victim because data relating to the shooter are not included in the Medical Examiner's investigation. For deaths among children and youth, the analysis focuses on violent, non-natural causes of death.

Data on natural deaths is included. However, these deaths due to natural causes are not representative of all natural deaths in King County. Natural deaths that the Medical Examiner investigates are those that occur suddenly and unexpectedly with no physician in attendance, or under suspicious circumstances. Such natural deaths comprised 41% (858/2,103) of all deaths that the Medical Examiner's Office investigated in 2015.

The "undetermined" category includes deaths in which the manner could not be clearly determined. In some cases, serious doubt existed as to whether the injury occurred with intent or as a result of an accident. In others, lack of witnesses or prolonged time between death and discovery precluded the accurate determination of the circumstances surrounding death. Moreover, it may be difficult to assess street drug or medication overdose deaths as showing enough features to reasonably determine the manner of death. Also included in the undetermined category are fetal deaths, which, according to the State of Washington death certification guidelines, are not assigned a manner of death.

# Medical Examiner cases in 2015

The following provides a summary of the raw data from the Medical Examiner's cases for the year 2015. Ten-year trends are shown beginning on page 23.

In 2015, there were an estimated 13,641 deaths that occurred in King County (0.64% of a 2015 population estimate of 2,117,125). A total of 90%, (12,226/13,641) were reported to the Medical Examiner's Office by medical and law enforcement personnel. Based on analysis of the scene, circumstances of death and the decedent's medical history gathered by the forensic medicolegal death investigators, the Medical Examiner's Office assumed jurisdiction in 2,221 of these reported deaths, of which 118 were either ultimately found to be non-human remains or contract cases (i.e., cases in which autopsy and/or anthropology cases are examined for other counties or agencies). Throughout the report, except where stated, the non-human, anthropology, and contract cases are excluded. Thus, the Medical Examiner assumed jurisdiction in 16% (2,103/13,461) of deaths that occurred in King County in 2015.

In approximately 83% (10,123/12,226) of the reported deaths, the Medical Examiner did not assume jurisdiction and perform an investigation; instead a "No Jurisdiction Assumed" (NJA) number was assigned. In such instances a physician with knowledge and awareness of the decedent's state of health certified the death. These are primarily natural deaths, with a predominance of individuals in nursing homes with a known fatal disease process. Of note is the fact that the Medical Examiner declined jurisdiction in 10,123 of the deaths that were reported. The Medical Examiner's Office applies a strict interpretation of its governing legislative language "persons who die suddenly when in apparent good health and without medical attendance within thirty-six hours preceding death" (RCW 68.50). The Medical Examiner assumes jurisdiction only if both conditions (lack of medical care and apparent good health) apply, and there is no attending outside physician with sufficient knowledge of the individual's natural disease condition to certify the death.

The Medical Examiner's Office performed autopsies in 63% (1,316/2,103) of the cases in which jurisdiction was assumed. Autopsies by a Medical Examiner pathologist were not performed in deaths where scene, circumstances, medical history, and external examination of the body provided sufficient information for death certification. In 2015, there were 322 such deaths, accounting for 15% (322/2,103) of the total deaths. In addition, there were 458 deaths, accounting for 22% (458/2,103) certified by attending private physicians after review by and consultation with the Medical Examiner.

Of all the traffic fatalities in which tests were performed 29% (40/140) tested positive for presence of alcohol (ethanol) in the blood. In recognition of the importance of safety devices in traffic accidents, Medical Examiner data indicate that of the 96 vehicle occupants who died, 42% (40/96) were known to be wearing seatbelt restraints.

In the 26 deaths involving motorcyclists, 81% (21/26) were wearing helmets.

Firearms were the most frequent instrument of death in homicides and suicides, accounting for 71% (54/76) of the homicides and 42% (109/262) of the suicides.

While the discussion here tends to depict the more violent types of death, the reader should be reminded that 41% (858/2,103) of Medical Examiner cases involve natural deaths. Specific discussion and presentation of relevant tables regarding 2015 cases follow this brief summary.

**Table 1-1 Deaths Occurring in King County / Medical Examiner Cases / 2015**

CASES BY MANNER OF DEATH <sup>3</sup>	NUMBER OF KCME DEATHS	PERCENT OF KCME DEATHS
Accident Other (A)	672	32%
Accident Traffic (T)	168	8%
Homicide (H)	76	4%
Natural (N)	858	41%
Suicide (S)	262	12%
Undetermined <sup>4</sup> (U)	67	3%
Total KCME general cases		2,103
Non-applicable cases where jurisdiction was assumed		118
Total KCME jurisdiction cases		2,221
Total KCME general cases <sup>5</sup>		2,103
Deaths reported to KCME but no jurisdiction was assumed (NJA)		10,123
All other deaths in King County not reported to KCME		1,415
<b>ALL KING COUNTY DEATHS<sup>6</sup></b>		<b>13,641</b>

<sup>3</sup>The letters following each manner of death will be used in most tables throughout this report.

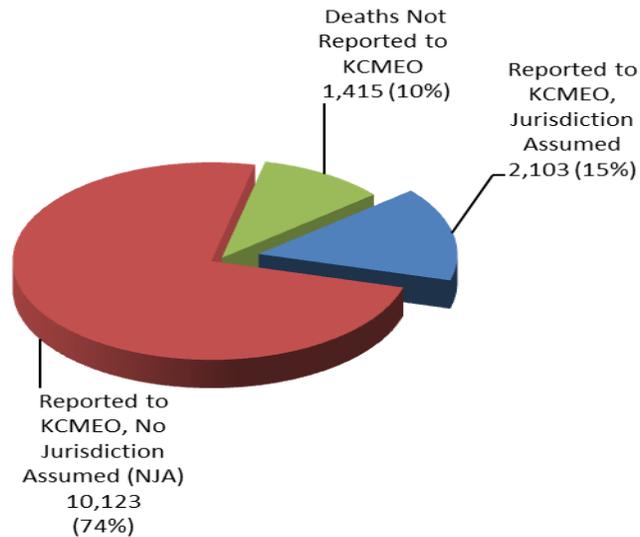
<sup>4</sup>Includes 7 fetal deaths, which according to Washington State death certification procedures, are not assigned a manner of death.

<sup>5</sup>This is the total number of cases that will be referred to throughout this report unless otherwise noted.

<sup>6</sup>Death certificates filed in King County, Vital Statistics, Public Health - Seattle & King County, May 2015

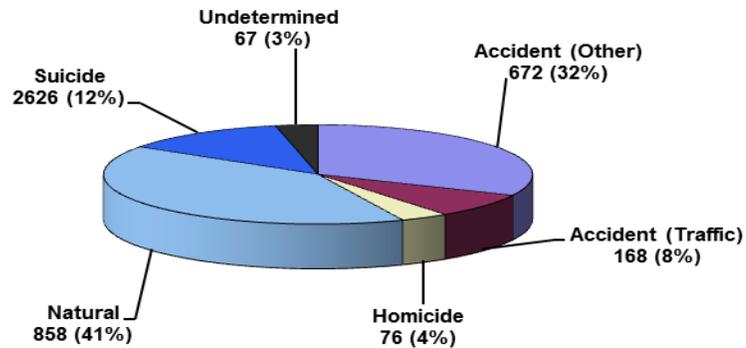
**Graph 1-1 All King County Deaths with Medical Examiner Jurisdiction / 2015**

**Total Deaths in King County, 2015: 13,641**



**Graph 1-2 Manner of Death for All Medical Examiner Jurisdiction Cases / 2015**

**Jurisdiction assumed in 2,103 cases.<sup>7</sup>**



<sup>7</sup>This number does not include 118 non-applicable cases (non-human tissue/bones and anthropology/contract cases).

Graph 1-3 Method of Certification for all King County Medical Examiner Jurisdiction Cases / 2015

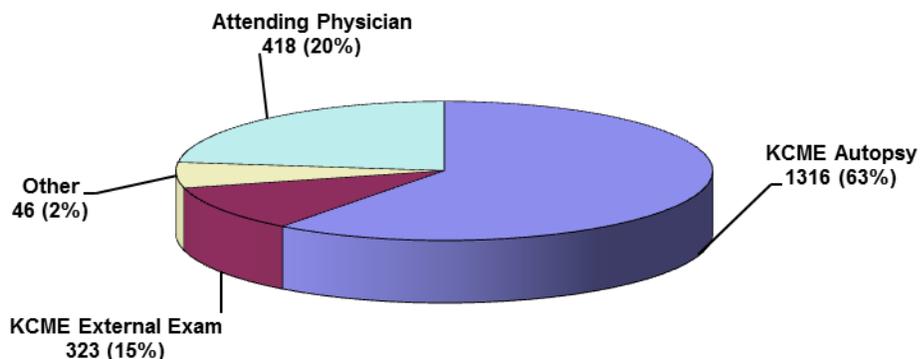


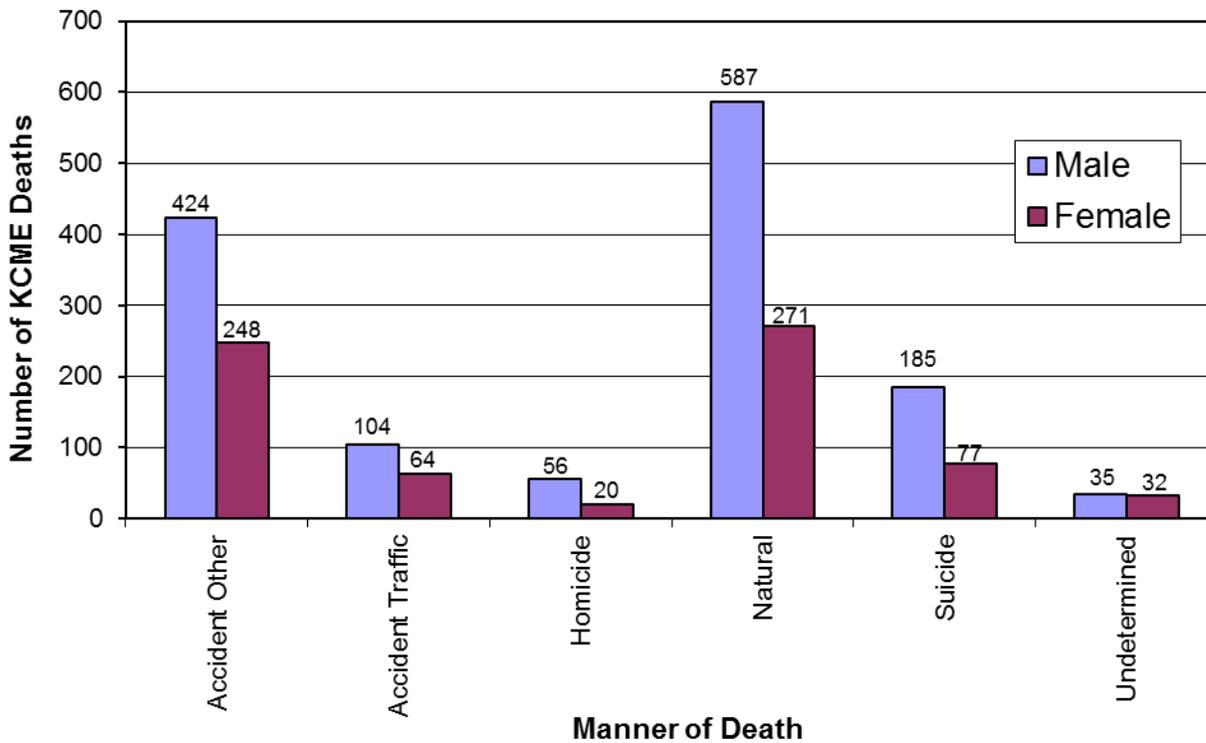
Table 1-2 Method of Certification / Manner of Death / KCME / 2015

CERTIFICATION	MANNER OF DEATH						TOTAL	%
	A	T	H	N	S	U		
KCME Autopsies	405	112	72	441	227	59	1,316	63%
KCME External Exams	72	50	0	163	35	3	323	15%
KCME Other	40	0	4	0	0	2	46	2%
Attending Physician	155	6	0	254	0	3	418	20%
<b>Totals</b>	<b>672</b>	<b>168</b>	<b>76</b>	<b>858</b>	<b>262</b>	<b>67</b>	<b>2,103</b>	<b>100%</b>

## Manner of Death in 2015

### King County Medical Examiner's Office General Cases

**Graph 1-4 Gender / Manner of Death / KCME / 2015**



**Table 1-3 Gender / Manner of Death / KCME / 2015**

GENDER	MANNER OF DEATH						TOTAL	%
	A	T	H	N	S	U		
Male	424	104	56	587	185	35	1,391	66%
Female	248	64	20	271	77	32	712	34%
<b>Totals</b>	<b>672</b>	<b>168</b>	<b>76</b>	<b>858</b>	<b>262</b>	<b>67</b>	<b>2,103</b>	<b>100%</b>

**Table 1-4 Age / Gender / Manner of Death / KCME / 2015**

AGE / GENDER	MANNER OF DEATH						Sub-Total	TOTAL	%
	A	T	H	N	S	U			
Under 1 year	4	0	2	4	0	16		26	1.2%
<i>Male</i>	1	0	0	2	0	5	8		
<i>Female</i>	3	0	2	2	0	11	18		
1-5 years	2	4	3	6	0	1		16	0.8%
<i>Male</i>	0	2	1	4	0	1	8		
<i>Female</i>	2	2	2	2	0	0	8		
6-12 years	4	3	0	1	2	0		10	0.5%
<i>Male</i>	1	2	0	0	1	0	4		
<i>Female</i>	3	1	0	1	1	0	6		
13-15 years	1	0	1	1	3	1		7	0.3%
<i>Male</i>	1	0	0	1	1	1	4		
<i>Female</i>	0	0	1	0	2	0	3		
16-19 years	9	11	8	1	12	0		41	1.9%
<i>Male</i>	7	8	7	1	9	0	32		
<i>Female</i>	2	3	1	0	3	0	9		
20-29 years	51	27	25	19	42	8		172	8.2%
<i>Male</i>	37	221	17	16	28	4	123		
<i>Female</i>	14	6	8	3	14	4	49		
30-39 years	81	27	12	36	47	7		210	10.0%
<i>Male</i>	62	17	10	25	34	4	152		
<i>Female</i>	19	10	2	11	13	3	58		
40-49 years	93	20	11	96	47	12		279	13.3%
<i>Male</i>	66	12	9	62	32	8	189		
<i>Female</i>	27	8	2	34	15	4	90		
50-59 years	114	25	8	183	51	10		391	18.6%
<i>Male</i>	81	16	8	141	39	7	292		
<i>Female</i>	33	9	0	42	12	3	99		
60-69 years	69	19	3	253	29	6		379	18.0%
<i>Male</i>	46	13	2	180	20	4	265		
<i>Female</i>	23	6	1	73	9	2	114		
70-79 years	59	13	3	129	16	3		223	10.6%
<i>Male</i>	36	7	2	91	12	0	148		
<i>Female</i>	23	6	1	38	4	3	75		
80-89 years	92	15	0	90	11	3		221	10.0%
<i>Male</i>	53	6	0	48	8	1	116		
<i>Female</i>	39	9	0	42	3	2	95		
90+years	93	4	0	39	2	0		138	6.6%
<i>Male</i>	33	0	0	16	0	0	49		
<i>Female</i>	60	4	0	23	2	0	89		
<b>Totals</b>	<b>672</b>	<b>168</b>	<b>76</b>	<b>858</b>	<b>262</b>	<b>67</b>		<b>2,103</b>	<b>100%</b>

**Table 1-5 Race / Gender / Manner of Death / KCME / 2015<sup>8</sup>**

RACE / GENDER	MANNER OF DEATH						Sub-Total	TOTAL	%
	A	T	H	N	S	U			
White	560	127	36	684	21	46		1674	79.6
<i>Male</i>	355	79	27	455	166	24	1,106		
<i>Female</i>	205	48	9	229	55	22	568		
African American	45	15	29	89	7	8		193	9.2%
<i>Male</i>	31	9	26	67	1	3	137		
<i>Female</i>	14	6	3	22	6	5	56		
Asian/Pacific Is.	39	19	5	47	28	8		146	6.9%
<i>Male</i>	24	11	3	33	14	6	91		
<i>Female</i>	15	8	2	14	14	2	55		
American Indian / Alaska Native	19	4	2	20	3	1		49	2.3%
<i>Male</i>	9	2	0	16	1	0	28		
<i>Female</i>	10	2	2	4	2	1	21		
Other	9	3	4	18	3	4		41	2.0%
<i>Male</i>	5	3	0	16	3	2	29		
<i>Female</i>	4	0	4	2	0	2	12		
<b>Totals</b>	<b>672</b>	<b>168</b>	<b>76</b>	<b>858</b>	<b>262</b>	<b>67</b>		<b>2,103</b>	<b>100%</b>

<sup>8</sup> A = Accident (Non-Traffic), T = Traffic, H = Homicide, N = Natural, S = Suicide, U = Undetermined.

Graph 1-6 Month / Manner of Death / KCME / 2015

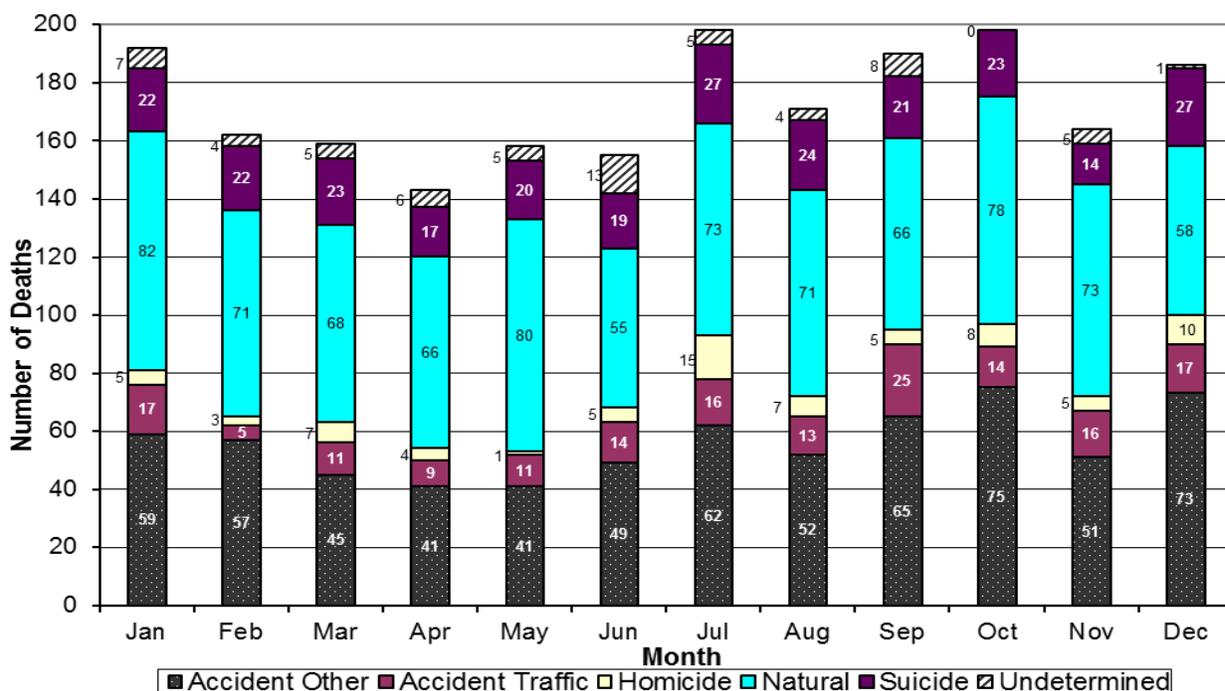


Table 1-7 Month / Manner of Death / KCME / 2015<sup>9</sup>

MONTH	MANNER OF DEATH						Total	%
	A	T	H	N	S	U		
Prior to 2014	0	0	1	1	1	4	7	0.3%
2014	2	0	0	16	2	0	18	1.0%
January	59	17	5	82	22	7	192	9.1%
February	57	5	3	71	22	4	162	7.7%
March	45	11	7	68	23	5	159	7.6%
April	41	9	4	66	17	6	143	6.8%
May	41	11	1	80	20	5	158	7.5%
June	49	14	5	55	19	13	155	7.4%
July	62	16	15	73	27	5	198	9.4%
August	52	13	7	71	24	4	171	8.1%
September	65	25	5	66	21	8	190	9.1%
October	75	14	8	78	23	0	198	9.4%
November	51	16	5	73	14	5	164	7.8%
December	73	17	10	58	27	1	186	8.8%
<b>Totals</b>	<b>672</b>	<b>168</b>	<b>76</b>	<b>88</b>	<b>2626</b>	<b>67</b>	<b>2,103</b>	<b>100%</b>

<sup>9</sup>Month of death; A = Accident (Non-Traffic), T = Traffic, H = Homicide, N = Natural, S = Suicide, U = Undetermined.

**Table 1-8 Nearest Incorporated City to the Fatal Incident / KCME / 2015<sup>10</sup>**

CITY	MANNER OF DEATH					TOTAL	%
	A	T	H	S	U		
Algona	2	0	0	0	0	2	0.2%
Auburn	31	4	8	17	2	62	5.0%
Beaux Arts	0	0	0	0	0	0	0%
Bellevue	36	5	2	11	1	55	4.4%
Black Diamond	2	0	0	0	0	2	0.2%
Bothell	11	3	0	3	0	17	1.4%
Burien	11	3	0	3	1	18	1.4%
Carnation	3	0	0	2	0	5	0.4%
Clyde Hill	0	0	0	0	0	0	0%
Covington	3	0	1	1	0	5	0.4%
Des Moines	11	0	1	7	0	19	1.5%
Duvall	4	0	0	2	0	6	0.5%
Enumclaw	6	5	0	2	1	14	1.1%
Federal Way	21	8	4	12	1	46	3.7%
Hunts Point	0	0	0	0	0	0	0%
Issaquah	8	5	0	6	0	19	1.5%
Kenmore	2	1	0	2	0	5	0.4%
Kent	29	9	5	16	3	62	5.0%
Kirkland	12	3	1	9	5	30	2.4%
Lake Forest Park	4	0	0	2	0	6	0.5%
Maple Valley	4	1	0	3	0	8	0.6%
Medina	2	0	0	0	0	2	0.2%
Mercer Island	8	0	0	1	0	9	0.7%
Milton	0	0	0	0	0	0	0%
Newcastle	2	0	0	0	0	2	0.2%
Normandy Park	1	0	0	0	1	2	0.2%
North Bend	7	2	0	5	0	14	1.1%
Pacific	2	0	0	1	1	4	0.3%

<sup>10</sup> Table does not include cases where manner of death is classified "Natural". A = Accident (Non-Traffic), T = Traffic, H = Homicide, S = Suicide, U = Undetermined.

**Table 1-8 Nearest Incorporated City to the Fatal Incident / KCME / 2015<sup>11</sup> (continued)**

CITY	MANNER OF DEATH					Total	%
	A	T	H	S	U		
Redmond	15	4	1	6	1	27	2.2%
Renton	33	7	6	19	4	69	5.5%
Sammamish	1	1	0	0	0	2	0.2%
SeaTac	7	2	4	2	3	18	1.4%
Seattle	278	42	31	100	27	478	38.4%
Shoreline	20	1	0	9	2	32	2.6%
Skykomish	0	1	0	1	0	2	0.2%
Snoqualmie	4	2	0	3	0	9	0.7%
Tukwila	7	1	2	0	1	11	0.9%
Woodinville	1	2	0	3	0	6	0.5%
Yarrow Point	0	0	0	0	0	0	0%
Unincorporated King County							
Hobart	0	0	0	0	0	0	0%
Fall City	1	3	0	0	0	4	0.3%
Preston	0	0	0	0	0	0	0%
Ravensdale	1	1	1	1	0	4	0.3%
Vashon Island	2	2	0	1	0	5	0.4%
Outside of King County	75	50	7	12	7	151	12.1%
Unknown Location	5	0	2	0	6	13	1.0%
<b>Totals</b>	<b>672</b>	<b>168</b>	<b>76</b>	<b>262</b>	<b>67</b>	<b>1,245</b>	<b>100%</b>

<sup>11</sup>A = Accident (Non-Traffic), T = Traffic, H = Homicide, S = Suicide, U = Undetermined.

## Out of County Cases 2015

King County is home to many hospitals and a regional trauma center (Harborview) that serves the entire Pacific Northwest and the western United States. Consequently, there are numerous deaths each year where the incident leading to death occurred outside of King County. However, because the death occurred within King County, it comes under the jurisdiction of the King County Medical Examiner's Office. In 2015, there were 160 deaths, 13% (160/1,245) where the incident (excluding deaths classified as "Natural") occurred out of county or where the incident location was unknown. Table 1-9 displays these deaths by incident location and manner.

**Table 1-9 Fatal Incident Occurred Outside of King County / KCME / 2015<sup>12</sup>**

INCIDENT LOCATION	MANNER OF DEATH					TOTAL
	A	T	H	S	U	
Alaska	6	1	0	0	1	8
Montana	0	0	0	0	1	1
Idaho	1	0	0	0	1	2
Oregon	0	0	0	0	0	0
Other States	1	0	0	0	0	1
Washington						
<i>Island County</i>	5	1	1	1	0	8
<i>Kitsap County</i>	10	4	0	1	0	15
<i>Pierce County</i>	4	3	1	1	1	10
<i>Skagit County</i>	2	5	0	1	1	9
<i>Snohomish County</i>	19	14	2	3	1	39
<i>Thurston County</i>	1	3	0	1	0	5
<i>Other WA Counties</i>	27	19	3	4	1	54
Washington Sub-Total	68	49	7	12	4	140
Out of Country	0	0	0	0	0	0
Unknown	2	0	1	0	5	8
<b>Totals</b>	<b>78</b>	<b>50</b>	<b>8</b>	<b>12</b>	<b>12</b>	<b>160</b>

<sup>12</sup>Table does not include cases where manner of death is classified as "Natural." A = Accident (Non-Traffic), T = Traffic, H = Homicide, S = Suicide, U = Undetermined.

# Ten-year perspective

This section provides a ten-year perspective on deaths investigated by the Medical Examiner and shows the variations in data from year to year.

The tables on the following pages attempt to give a perspective on the types of deaths that the Medical Examiner investigates. The tables display data by category and year and provide trends over time. More detailed analysis of 2015 data is provided in separate sections for each manner of death (Accident, Homicide, Natural, Suicide, Traffic, and Undetermined).

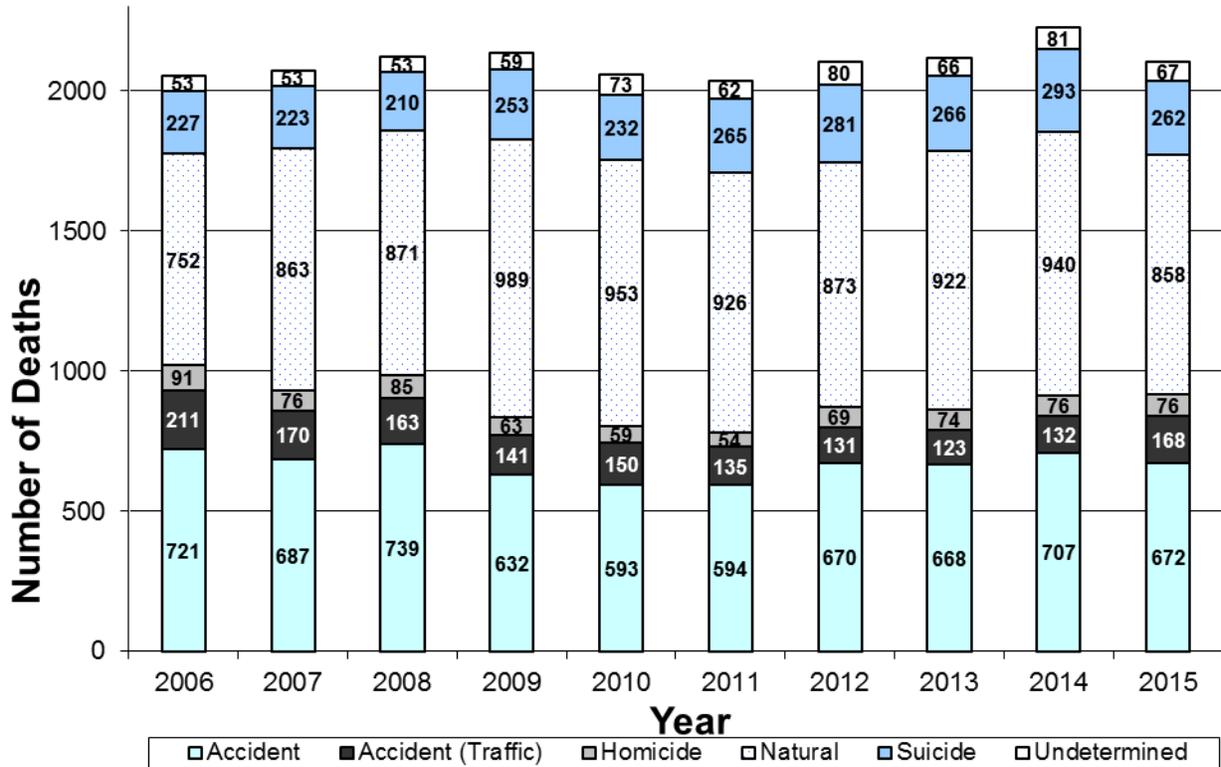
**Table 2-1 Comparison of Manners of Death / KCME / 2004 - 2015**

MANNER OF DEATH	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Accident (Other)	721	687	739	632	593	594	670	668	707	672
Accident (Traffic)	211	170	163	141	150	135	131	123	132	168
Homicide	91	76	85	63	59	54	69	74	76	76
Natural	752	863	871	989	953	926	873	922	940	858
Suicide	227	223	210	253	232	265	281	266	293	262
Undetermined	53	53	53	59	73	62	80	66	81	67
<b>Totals</b>	<b>2,055</b>	<b>2,072</b>	<b>2,121</b>	<b>2,137</b>	<b>2,060</b>	<b>2,036</b>	<b>2,104</b>	<b>2,119</b>	<b>2,229</b>	<b>2,103</b>

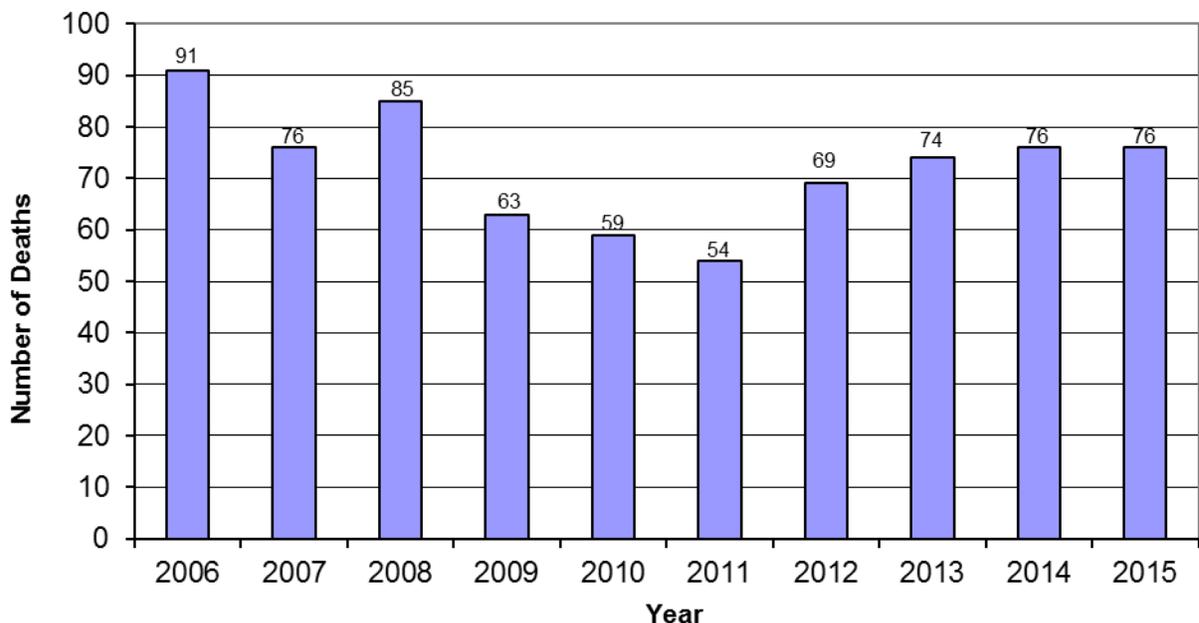
**Table 2-2 Comparison of Manners of Death as Percentage of Total Annual Medical Examiner Cases / KCME / 2004 – 2015**

MANNER OF DEATH	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	%	%	%	%	%	%	%	%	%	%
Accident (Other)	35.1	33.1	34.8	29.6	28.8	29.2	31.8	31.5	31.7	32.0
Accident (Traffic)	10.3	8.2	7.7	6.6	7.3	6.6	6.2	5.8	5.9	8.0
Homicide	4.4	3.7	4.0	2.9	2.9	2.7	3.3	3.5	3.4	3.6
Natural	36.6	41.7	41.1	46.3	46.3	45.5	41.5	43.5	42.2	40.8
Suicide	11.0	10.8	9.9	11.8	11.2	13	13.4	12.6	13.2	12.4
Undetermined	2.6	2.5	2.5	2.8	3.5	3.0	3.8	3.1	3.6	3.2
<b>Totals</b>	<b>100%</b>									

Graph 2-1 Comparison of Manners of Death / KCME / 2006- 2015



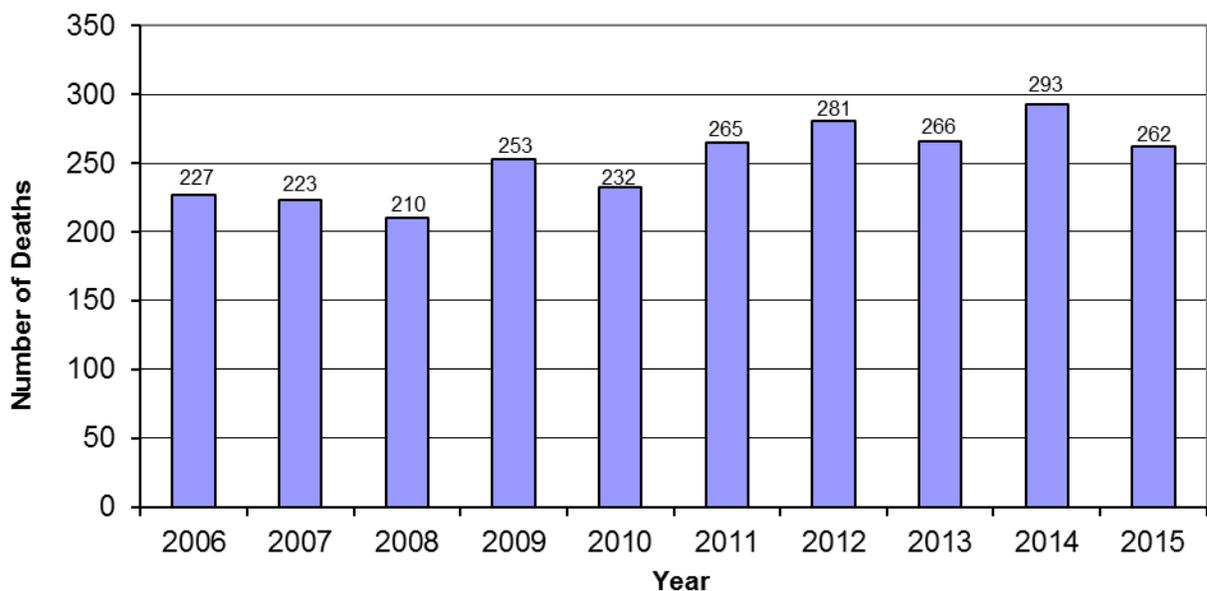
**Graph 2-2 Homicide Deaths / KCME / 2006 - 2015**



**Table 2-3 Ten-Year Perspective of Homicidal Methods / KCME / 2006 – 2015**

METHOD USED	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Blunt Force (#)	16	9	16	5	11	6	6	14	13	14
Blunt Force (%)	18%	12%	19%	8%	18%	11%	9%	19%	17%	18%
Firearms (#)	52	55	45	41	39	35	47	44	51	54
Firearms (%)	57%	72%	53%	65%	66%	65%	68%	59%	67%	71%
Hom. Violence (#)	0	0	0	0	1	1	3	0	0	2
Hom. Violence (%)	0%	0%	0%	0%	2%	2%	4%	0%	0%	3%
Stabbing (#)	14	12	12	11	2	9	13	11	9	4
Stabbing (%)	15%	16%	14%	17%	4%	16%	19%	15%	12%	5%
Strangulation (#)	1	0	4	3	1	2	0	3	2	2
Strangulation (%)	1%	0%	5%	5%	2%	4%	0%	4%	3%	3%
Other (#)	8	0	8	3	5	1	0	2	1	0
Other (%)	9%	0%	9%	5%	8%	2%	0%	3%	1%	0%
<b>Totals</b>	<b>91</b>	<b>76</b>	<b>85</b>	<b>63</b>	<b>59</b>	<b>54</b>	<b>69</b>	<b>74</b>	<b>76</b>	<b>76</b>

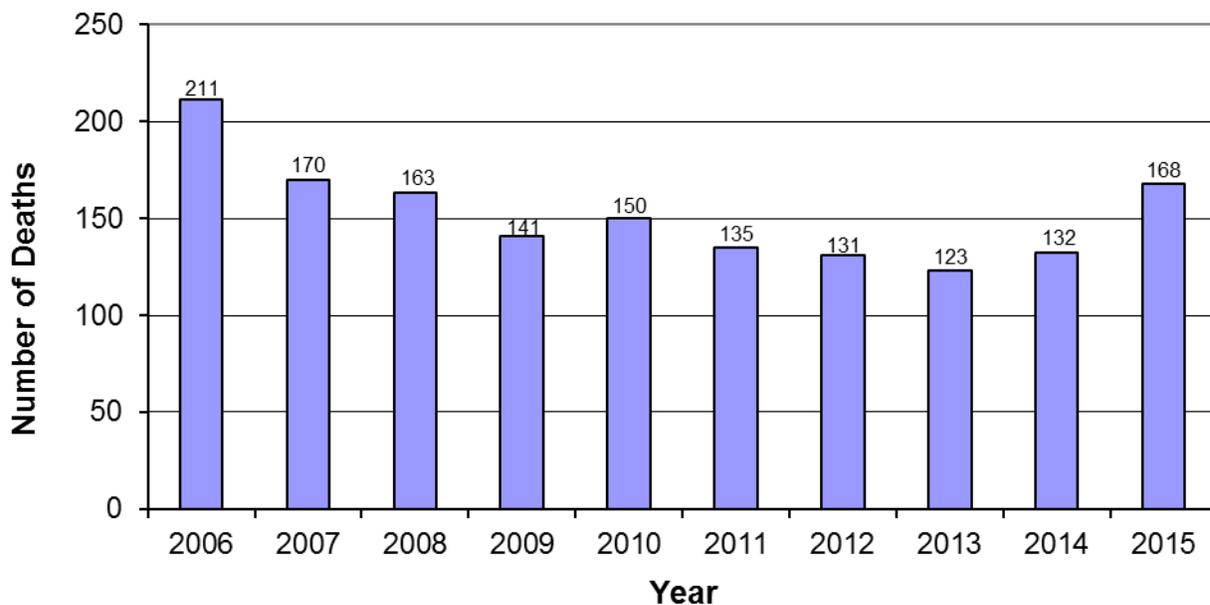
**Graph 2-3 Suicide Deaths /KCME / 2006 – 2015**



**Table 2-4 Ten Year Perspective of Suicidal Injury Modes / KCME / 2006 - 2015**

INJURY MODE	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Asphyxia / Plastic Bag	11	3	8	8	13	15	21	13	22	14
Burns / Fire	3	1	3	2	2	1	2	1	4	2
Carbon Monoxide	11	17	4	14	4	7	9	10	4	8
Drowning	1	3	3	7	3	5	7	2	5	3
Drugs / Poisons	36	36	29	29	43	41	42	41	41	41
Firearms	98	93	93	100	92	116	119	100	124	109
Hanging	31	43	48	60	44	48	48	71	69	59
Incised Wounds / Stabbing	5	4	5	8	7	12	8	9	3	8
Jumped	26	22	13	20	21	19	24	15	19	16
Other	5	1	4	5	3	1	1	4	2	2
<b>Totals</b>	<b>227</b>	<b>223</b>	<b>210</b>	<b>253</b>	<b>232</b>	<b>265</b>	<b>281</b>	<b>266</b>	<b>293</b>	<b>262</b>

**Graph 2-4 Traffic Fatalities / KCME / 2006– 2015**



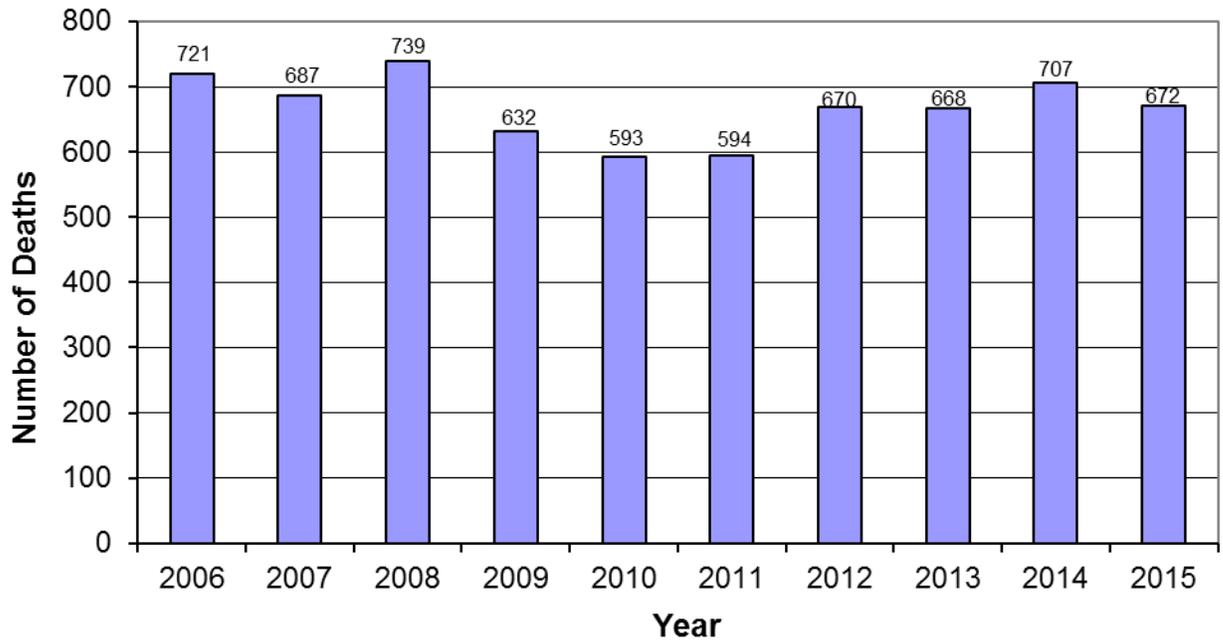
**Table 2-5 Traffic Fatality Circumstances / KCME / 2006 - 2015**

CIRCUMSTANCES	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Vehicle Driver	92	71	71	51	69	55	47	45	58	55
Vehicle Passenger	44	29	24	28	27	22	16	23	19	40
Vehicle Unknown Position	5	1	4	0	0	3	4	0	5	1
Bicyclist	8	7	4	12	3	8	5	7	3	6
Motorcycle Driver	27	26	28	18	24	26	24	22	19	25
Motorcycle Passenger	1	2	1	1	0	1	1	0	1	1
Pedestrian	33	31	26	29	27	17	33	25	26	39
Other	1	3	5	2	0	3	1	1	1	1
<b>Totals</b>	<b>211</b>	<b>170</b>	<b>163</b>	<b>141</b>	<b>150</b>	<b>135</b>	<b>131</b>	<b>123</b>	<b>132</b>	<b>168</b>

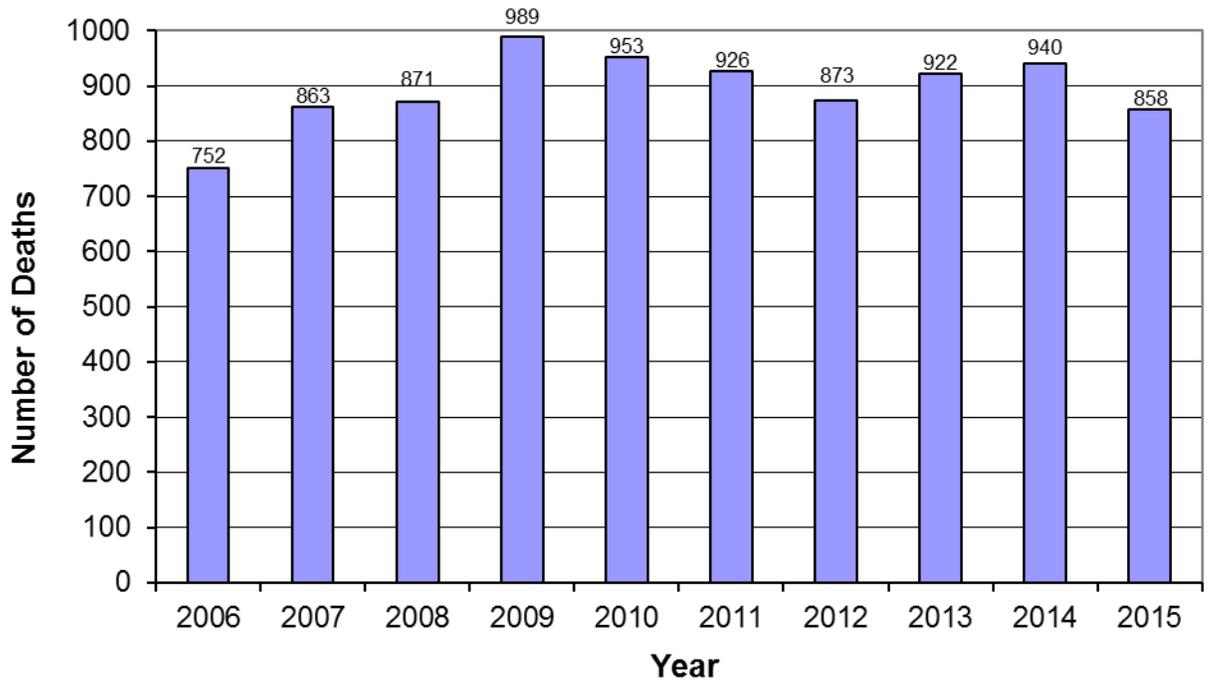
**Table 2-6**                      **Ten Year Perspective of Non-Traffic Accidental Death  
Circumstances / KCME / 2006 - 2015**

CIRCUMSTANCES	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Aircraft	3	11	1	0	0	1	3	1	4	0
Asphyxia	12	11	14	10	5	6	7	8	14	9
Aspiration	9	5	10	7	6	7	15	13	14	9
Blunt Force / Crushing	4	10	10	6	5	11	20	3	19	12
Burns / Fire	23	23	13	15	29	18	26	19	20	17
Carbon Monoxide	8	3	4	4	2	3	0	0	0	0
Drowning	30	23	23	17	11	21	24	23	18	20
Drugs / Poisons	262	247	232	233	214	203	230	279	289	295
Electrocution	2	1	1	2	2	1	1	2	0	0
Explosion	1	2	0	0	3	0	0	0	0	0
Fall	308	292	323	309	291	291	314	291	310	280
Firearms	0	1	1	1	1	0	2	1	1	0
Hanging	0	0	1	1	1	2	4	1	1	2
Hypothermia	4	3	4	7	4	7	6	5	5	11
Struck by Object	8	5	2	4	4	3	2	1	2	0
Struck by Train	0	1	3	2	0	6	2	5	2	5
Vehicular Non-Traffic	9	7	10	5	2	4	4	7	3	6
Other	7	2	6	9	13	10	10	9	4	6
<b>Totals</b>	<b>721</b>	<b>687</b>	<b>739</b>	<b>632</b>	<b>593</b>	<b>594</b>	<b>670</b>	<b>668</b>	<b>707</b>	<b>672</b>

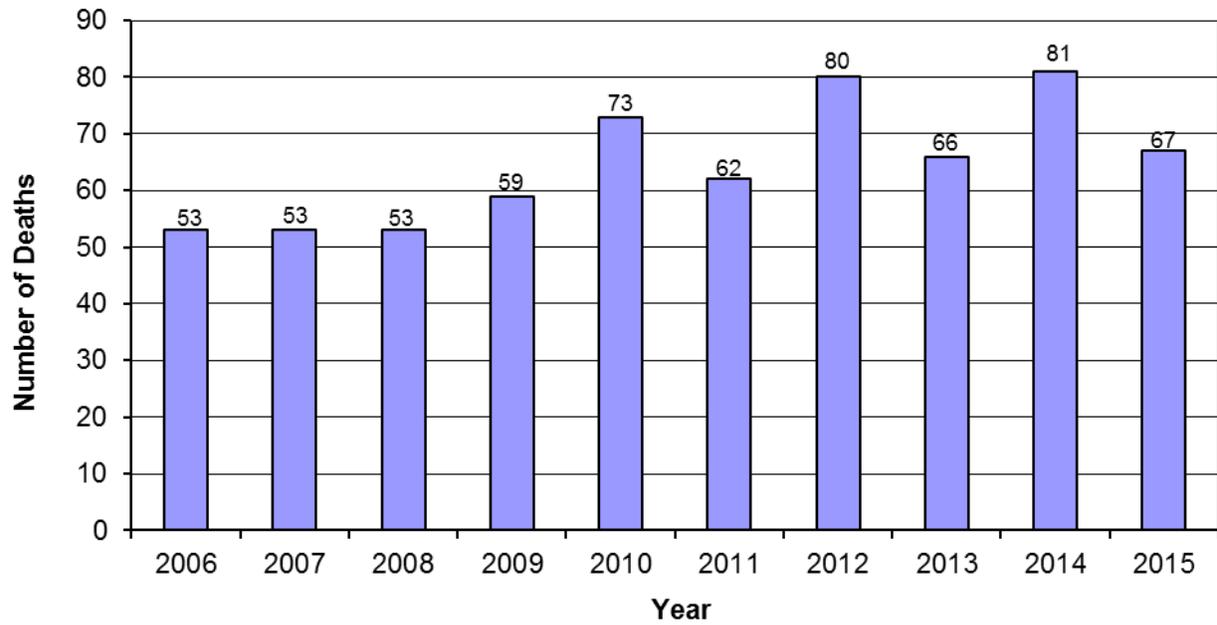
Graph 2-5 Accidental Deaths / KCME / 2006 – 2015



Graph 2-6 Natural Deaths / KCME / 2006 – 2015



Graph 2-7 Deaths of Undetermined Manner / KCME / 2006 – 2015



# Manner of death: Accident

The Medical Examiner certified 672 deaths as non-traffic accidents for the calendar year 2015. The largest group of accidental deaths was those who died as a result of accidental overdoses of drugs and/or poisons, 44% (295/672). There were three accidental drug deaths of a child between the ages of 16-19 years, and there were two deaths of a child less than 15 years of age.

The 2015 accidental drug death percentage, 44% (295/672) is three percent more than the 41% (290/707) of accidental drug deaths in 2014. A more detailed discussion of these deaths is presented in the section "Death Due to Drugs and Poisons" on pages 89 and 90.

The second largest group of non-traffic accidental deaths was individuals who died as a result of a fall, representing 42% (280/672). Of the 280 deaths attributed to injury sustained in falls, 77% (215/280) occurred in the age group 70 years and over. The largest percentage was ground-level falls in elderly individuals, which resulted in fractures leading to complications such as pneumonia.

In 2015, 17 deaths resulted from fire or thermal injury, a decrease from 2014 when there were 20. Of the 17 fire-related deaths, 29% (5/17) were the result of accidents that occurred outside of King County. The injured were transported to Harborview Medical Center's Burn Intensive Care Unit where they died.

Another category of accidental deaths worthy of comment is death resulting from drowning. There were 20 drowning deaths in 2015, as compared to 18 in 2014.

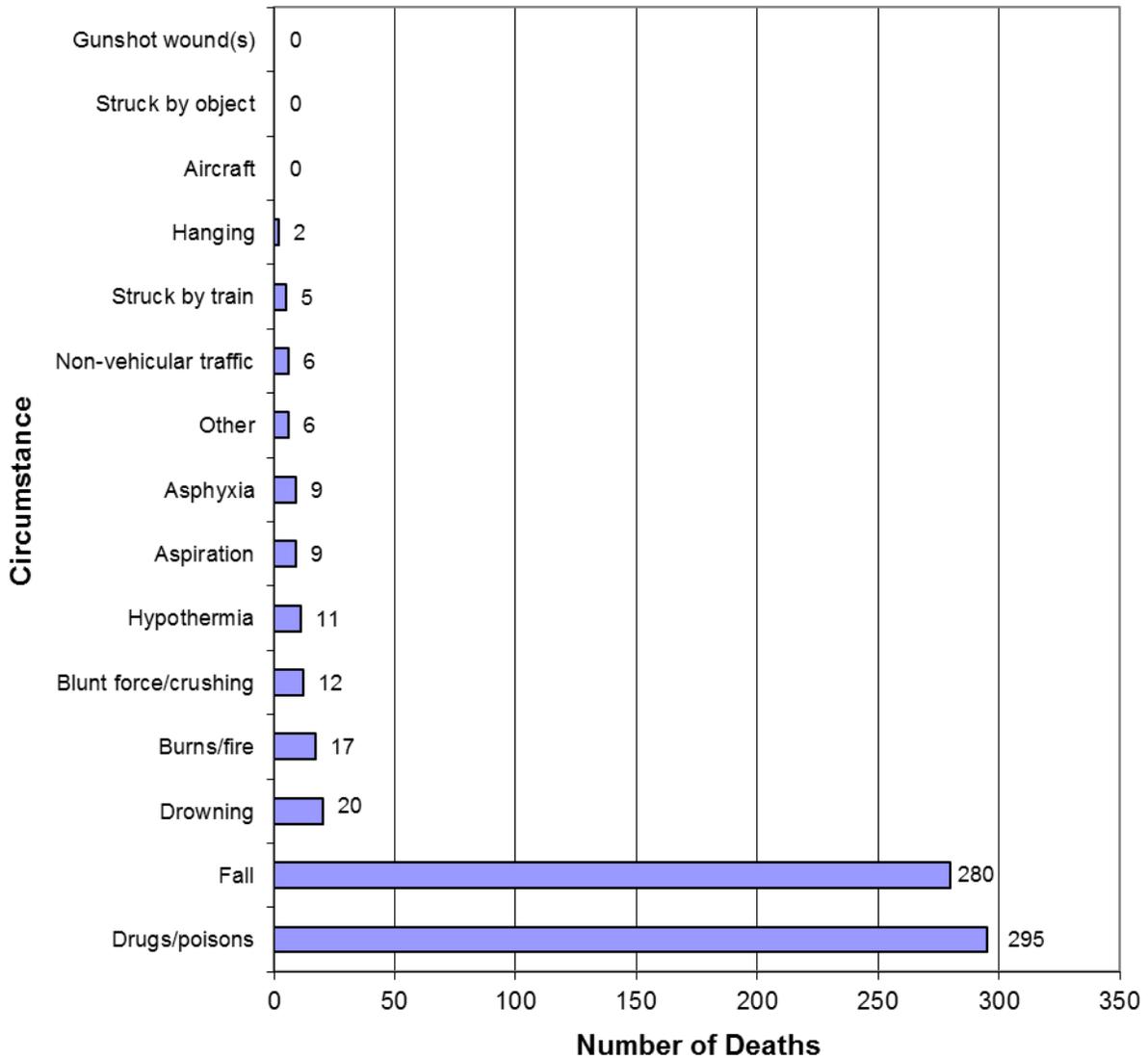
Aspiration is a type of death that results from a person choking on a foreign object, often a bolus of food while eating. In 2015, there were nine deaths due to aspiration of a foreign body, compared to fourteen in 2014. All of the aspiration deaths were in adults over the age of 50.

Of the 672 accidental deaths in 2015, 11% (77/672) were the result of incidents which occurred outside of King County, but the death took place within King County. These deaths were the result of the injured being transported from outside King County to medical facilities within King County where they died. Since these deaths occurred in King County, they fall under King County Medical Examiner's Office jurisdiction.

60% (405/672) of the victims were tested for the presence of alcohol. Of those tested, 34% (138/405) showed alcohol present at the time of death.



Graph 3-1 Circumstances of Accidental Death / KCME / 2015



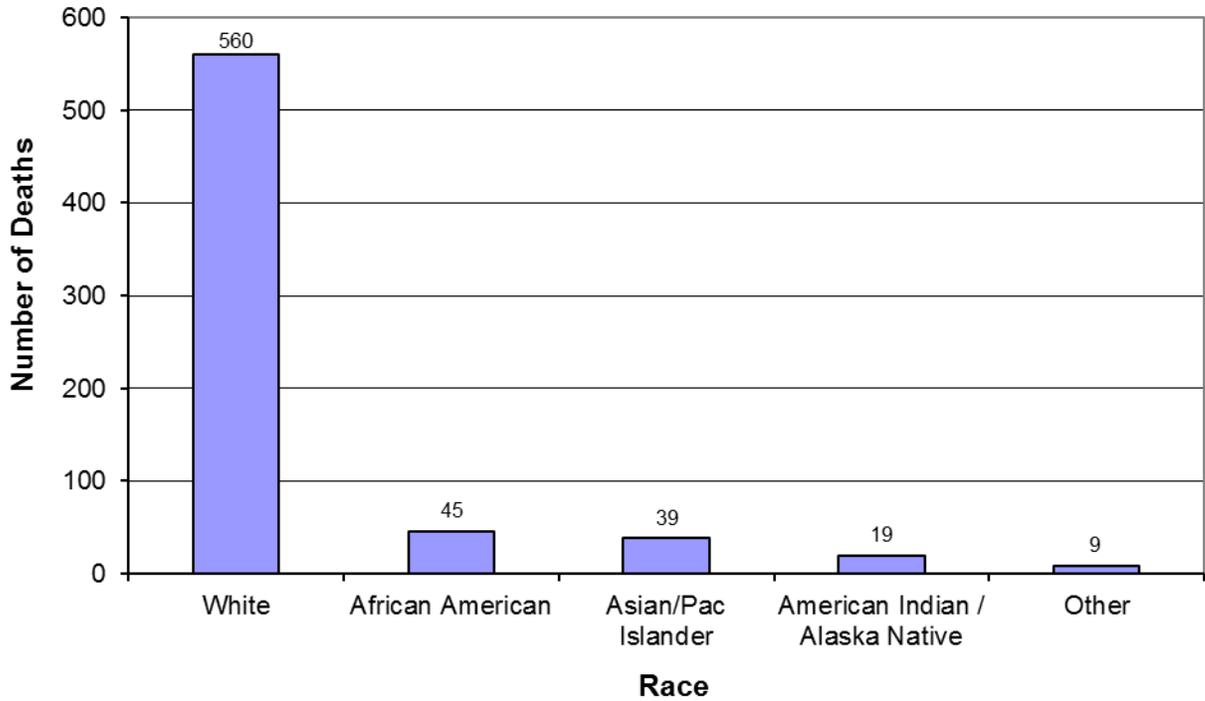
**Table 3-1 Circumstances of Accidental Death / Race / Gender / KCME / 2015**

CIRCUMSTANCES / GENDER	RACE					SUB-TOTAL	TOTAL
	WHITE	AFRICAN AMER	ASIAN/ PAC IS	AM INDIAN / AK NATIVE	OTHER		
Aircraft	0	0	0	0	0		0
<i>Male</i>	0	0	0	0	0	0	
<i>Female</i>	0	0	0	0	0	0	
Asphyxia: compressional / positional / mechanical	8	0	0	0	1		9
<i>Male</i>	6	0	0	0	0	6	
<i>Female</i>	2	0	0	0	1	3	
Aspiration	8	0	1	0	0		9
<i>Male</i>	5	0	1	0	0	6	
<i>Female</i>	2	0	0	0	0	3	
Blunt Force / Crushing	4	1	4	0	3		12
<i>Male</i>	2	1	3	0	1	7	
<i>Female</i>	2	0	1	0	2	5	
Burns / Fire	12	2	3	0	0		17
<i>Male</i>	6	0	2	0	0	8	
<i>Female</i>	6	2	1	0	0	9	
Drowning	13	2	3	1	1		20
<i>Male</i>	10	1	2	0	1	14	
<i>Female</i>	3	1	1	1	0	6	
Drugs / Poisons	238	29	12	14	2		295
<i>Male</i>	169	22	6	7	2	206	
<i>Female</i>	69	7	6	7	0	89	
Fall	252	9	14	3	2		280
<i>Male</i>	138	5	9	1	1	154	
<i>Female</i>	114	4	5	2	1	126	
Gunshot wound(s)	0	0	0	0	0		0
<i>Male</i>	0	0	0	0	0	0	
<i>Female</i>	0	0	0	0	0	0	

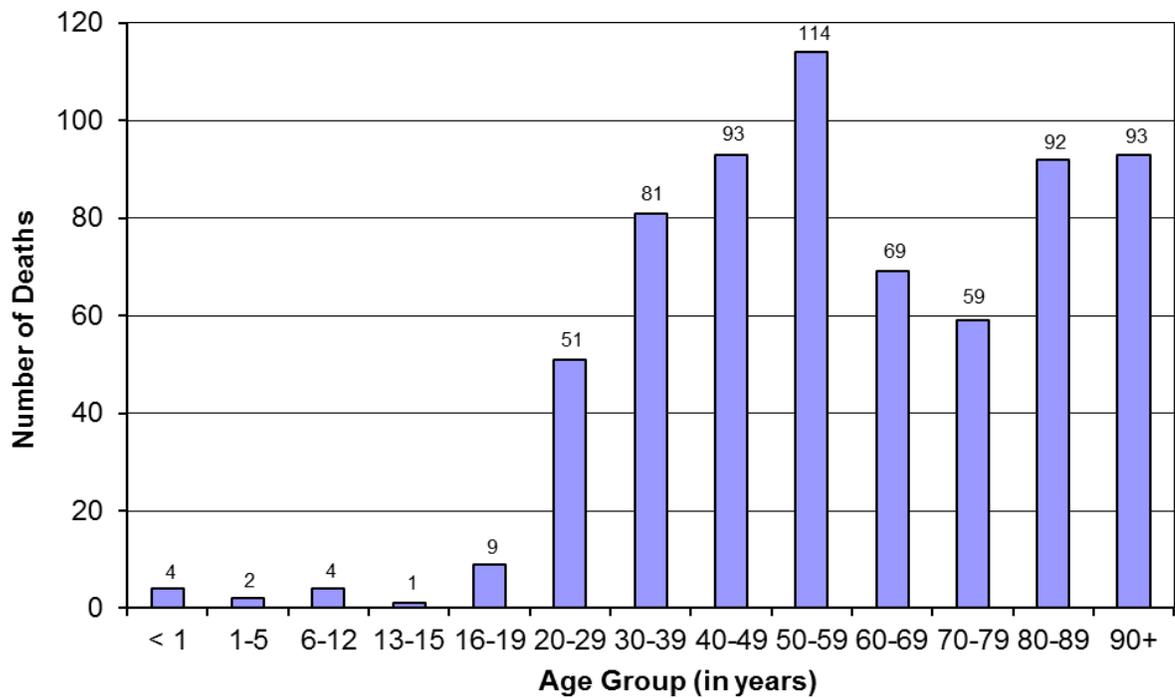
**Table 3-1** Circumstances of Accidental Death / Race / Gender / KCME / 2015 (continued)

CIRCUMSTANCES / GENDER	RACE					SUB- TOTAL	TOTAL
	WHITE	AFRICAN AMER	ASIAN/ PAC IS	AM INDIAN/ AK NATIVE	OTHER		
Hanging	2	0	0	0	0		2
<i>Male</i>	1	0	0	0	0	1	
<i>Female</i>	1	0	0	0	0	1	
Hypothermia	9	1	0	1	0		11
<i>Male</i>	8	1	0	1	0	10	
<i>Female</i>	1	0	0	0	0	1	
Non-Traffic Vehicular	5	0	1	0	0		6
<i>Male</i>	5	0	0	0	0	5	
<i>Female</i>	0	0	1	0	0	1	
Struck by Object	0	0	0	0	0		0
<i>Male</i>	0	0	0	0	0	0	
<i>Female</i>	0	0	0	0	0	0	
Struck by Train	4	0	1	0	0		5
<i>Male</i>	3	0	1	0	0	4	
<i>Female</i>	1	0	0	0	0	1	
Other	5	1	0	0	0		6
<i>Male</i>	2	1	0	0	0	3	
<i>Female</i>	3	0	0	0	0	3	
<b>Totals</b>	<b>560</b>	<b>45</b>	<b>39</b>	<b>19</b>	<b>9</b>		<b>672</b>
Percent	83.4%	6.7%	5.8%	2.8%	1.3%		100%

**Graph 3-2 Accidental Deaths / Race / KCME / 2015**



**Graph 3-3 Accidental Deaths / Age Group / KCME / 2015**



**Table 3-2 Circumstances of Accidental Death / Age / Gender / KCME / 2015**

CIRCUMSTANCES / GENDER	AGE GROUP (YEARS)													SUB-TOTAL	TOTAL
	< 1	1 to 5	6 to 12	13 to 15	16 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 +		
Aircraft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Male	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Female	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Asphyxia compressional / positional / mechanical	1	0	1	0	0	1	0	1	2	1	1	0	1	9	
Male	0	0	1	0	0	1	0	1	2	0	1	0	0	6	
Female	1	0	0	0	0	0	0	0	0	1	0	0	1	3	
Aspiration	0	0	0	0	0	0	0	0	1	2	3	1	2	9	
Male	0	0	0	0	0	0	0	0	1	1	3	0	1	6	
Female	0	0	0	0	0	0	0	0	0	1	0	1	1	3	
Blunt Force / Crushing	1	0	1	0	1	1	0	3	1	0	0	3	1	12	
Male	0	0	0	0	1	1	0	2	0	0	0	2	1	7	
Female	1	0	1	0	0	0	0	1	1	0	0	1	0	5	
Burns / Fire	0	1	0	0	0	0	1	1	3	2	5	3	1	17	
Male	0	0	0	0	0	0	1	1	1	1	3	1	0	8	
Female	0	1	0	0	0	0	0	0	2	1	2	2	1	9	
Drowning	0	1	1	1	3	4	4	1	3	1	0	1	0	20	
Male	0	0	0	1	3	3	3	0	2	1	0	1	0	14	
Female	0	1	1	0	0	1	1	1	1	0	0	0	0	6	
Drugs / Poisons	2	0	0	0	3	41	66	74	80	26	3	0	0	295	
Male	1	0	0	0	1	29	49	52	55	18	1	0	0	206	
Female	1	0	0	0	2	12	17	22	25	8	2	0	0	89	
Fall	0	0	0	0	1	1	6	6	20	31	46	82	87	280	
Male	0	0	0	0	1	1	6	4	16	19	28	48	31	154	
Female	0	0	0	0	0	0	0	2	4	12	18	34	56	126	
Gunshot wound(s)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Male	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Female	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hanging	0	0	1	0	0	0	0	1	0	0	0	0	0	2	
Male	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
Female	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
Hypothermia	0	0	0	0	0	1	1	2	3	3	1	0	0	11	
Male	0	0	0	0	0	1	1	2	3	3	0	0	0	10	
Female	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
Non-traffic Vehicular	0	0	0	0	1	0	0	1	0	3	0	1	0	6	
Male	0	0	0	0	1	0	0	1	0	3	0	0	0	5	
Female	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
Struck by Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Male	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Female	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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Struck by Train	0	0	0	0	0	2	1	1	1	0	0	0	0	5
<i>Male</i>	0	0	0	0	0	1	1	1	1	0	0	0	0	4
<i>Female</i>	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Other	0	0	0	0	0	0	2	2	0	0	0	1	1	6
<i>Male</i>	0	0	0	0	0	0	1	1	0	0	0	1	0	3
<i>Female</i>	0	0	0	0	0	0	1	1	0	0	0	0	1	3
<b>Totals</b>	<b>4</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>9</b>	<b>51</b>	<b>81</b>	<b>93</b>	<b>114</b>	<b>69</b>	<b>59</b>	<b>92</b>	<b>93</b>	<b>672</b>
Percent	.6%	.3%	.6%	.1%	1.3%	7.6%	12.1%	13.8%	17%	10.3%	8.8%	13.7%	13.8%	100%

**Table 3-3      Circumstances of Accidental Death / Gender / KCME / 2015**

CIRCUMSTANCES	GENDER		TOTAL
	MALE	FEMALE	
Aircraft	0	0	0
Asphyxia (compressional / positional / mechanical)	6	3	9
Aspiration	6	3	9
Blunt Force / Crushing	7	5	12
Burns / Fire	8	9	17
Drowning	14	6	20
Drugs / Poisons	206	89	295
Fall	154	126	280
Gunshot wound(s)	0	0	0
Hanging	1	1	2
Hypothermia	10	1	11
Non-traffic Vehicular	5	1	6
Struck by Object	0	0	0
Struck by Train	4	1	5
Other	3	3	6
<b>Totals</b>	<b>424</b>	<b>248</b>	<b>672</b>
Percent	63%	37%	100%

**Table 3-4 Circumstances of Accidental Death / Blood Alcohol Results / KCME / 2015**

CIRCUMSTANCES	TESTED		NOT TESTED	TOTAL
	TESTED POSITIVE	TESTED NEGATIVE		
Aircraft	0	0	0	0
Asphyxia (compressional/ positional / mechanical)	3	5	1	9
Aspiration	0	7	2	9
Blunt Force / Crushing	1	4	7	12
Burns / Fire	1	11	5	17
Drowning	7	11	2	20
Drugs / Poisons	107	174	14	295
Fall	14	38	228	280
Gunshot wound(s)	0	0	0	0
Hanging	0	2	0	2
Hypothermia	3	6	2	11
Non-traffic Vehicular	1	1	4	6
Struck by Object	0	0	0	0
Struck by Train	1	3	1	5
Other	0	5	1	6
<b>Totals</b>	<b>138</b>	<b>267</b>	<b>267</b>	<b>672</b>
Percent	20%	40%	40%	100%

# Manner of death: Homicide

The Medical Examiner classifies a death as a homicide when the death results from injuries inflicted by another person. In this context, the word homicide does not necessarily imply the existence of criminal intent behind the action of the other person. This is reflected in the fact that the prosecuting attorney may either charge the person responsible for the injuries with murder or manslaughter, or decline to file charges. In 2015, the Medical Examiner classified 76 deaths as homicide. This number represents 3.4% (76/2221) of the Medical Examiner death investigations for the calendar year 2015. Of these 76 homicides, 88% (67/76) were the result of incidents that occurred within King County. For comparison, there were 76 homicides investigated in 2014, of which 83% (63/76) were incidents in King County.

The data reflect the weapons or mechanisms responsible for the homicidal deaths in 2015. Firearms were responsible for 71% (54/76), compared to 2014, when 67% (51/76) were due to firearms. Stabbing by a knife or other sharp-edged instrument caused 5.3% (4/76) of deaths of homicide victims. Blunt force injuries were responsible for 18% (14/76) of the 2015 homicide deaths. There were two deaths due to strangulation/asphyxia, two deaths due to homicidal violence and no deaths due to other means. The term "homicidal violence" is used when circumstances indicate that death was due to homicide, but the exact cause of death is not determined, for example, in a decomposed body. There were no such deaths in 2014.

In 2015, there were five homicide victims under five years of age. There was one homicide victim between 6 - 15 years of age. Eight homicide victims were between the ages of 16 and 19 years.

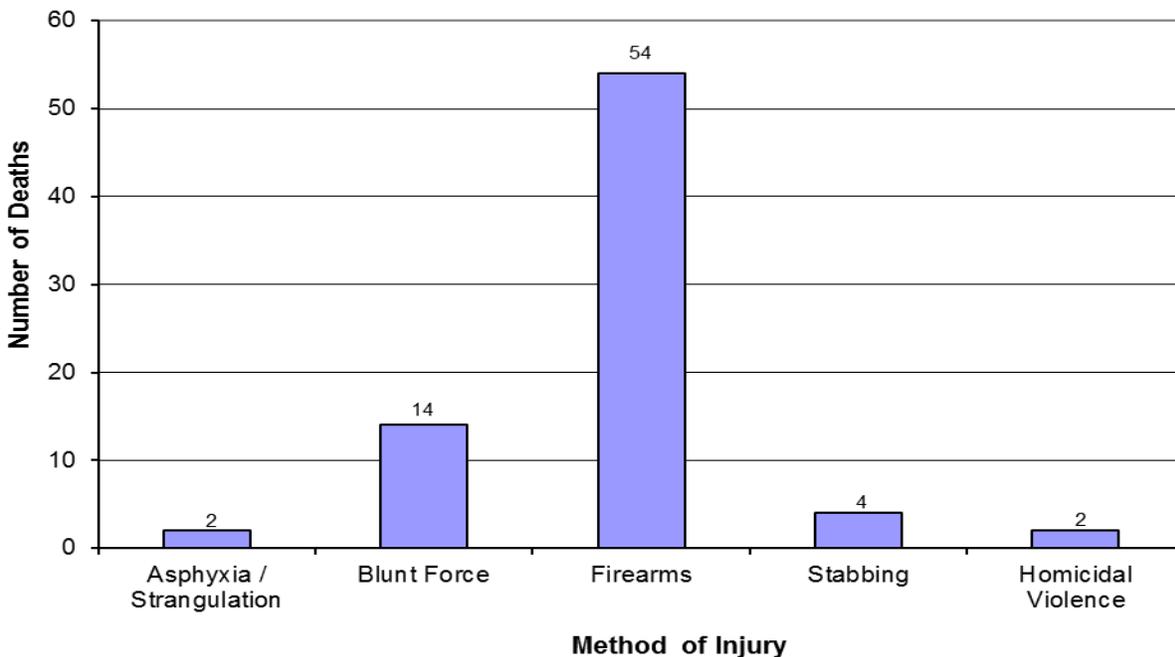
Examining the racial distribution of victims of homicide, 38% (29/76) of the victims were African American, compared to 2014, when 30% (23/76) of the victims were African American. Whites, while representing 70.8% of the population, made up 47% (36/76) of the homicide victims. The remaining 15% of homicide victims (11/76) included Asian/Pacific Islanders (5/76), Native Americans/AK Natives (2/76), and other (4/76). As indicated on pages 9 and 23, in 14% of the Medical Examiner cases the incident leading to death occurred outside of King County and the decedent was likely not a resident of King County. Therefore, Medical Examiner figures cannot be directly compared to the racial distribution of King County residents (refer to Table 1-9 on page 23.)

Males comprised 74% (56/76) and women 26% (20/76) of the homicide victims in 2015. The majority of victims, 82% (62/76), were between the ages of 20 and 59 years. Young people, 19 years old and under, comprised 18% (14/76) of the homicide victims. For comparison, this younger age group represented 11% (8/76) in the year 2014. 87% percent (66/76) of the victims were tested for the presence of alcohol. Of those tested 42% (28/67) showed alcohol present at the time of death.

Of the 76 homicide deaths in 2015, 88% (67/76) of the fatal incidents occurred within King County, and of these deaths, 51% (34/67) occurred within the city limits of Seattle. In 9 of the 76 homicidal deaths, the incident occurred outside of King County, but death occurred within King County.

The relationship of victim to assailant was not tabulated as part of this report. In order to investigate such associations, additional review of police records would be necessary.

**Graph 4-1 Homicide Injury Methods / KCME / 2015**



**Table 4-1**

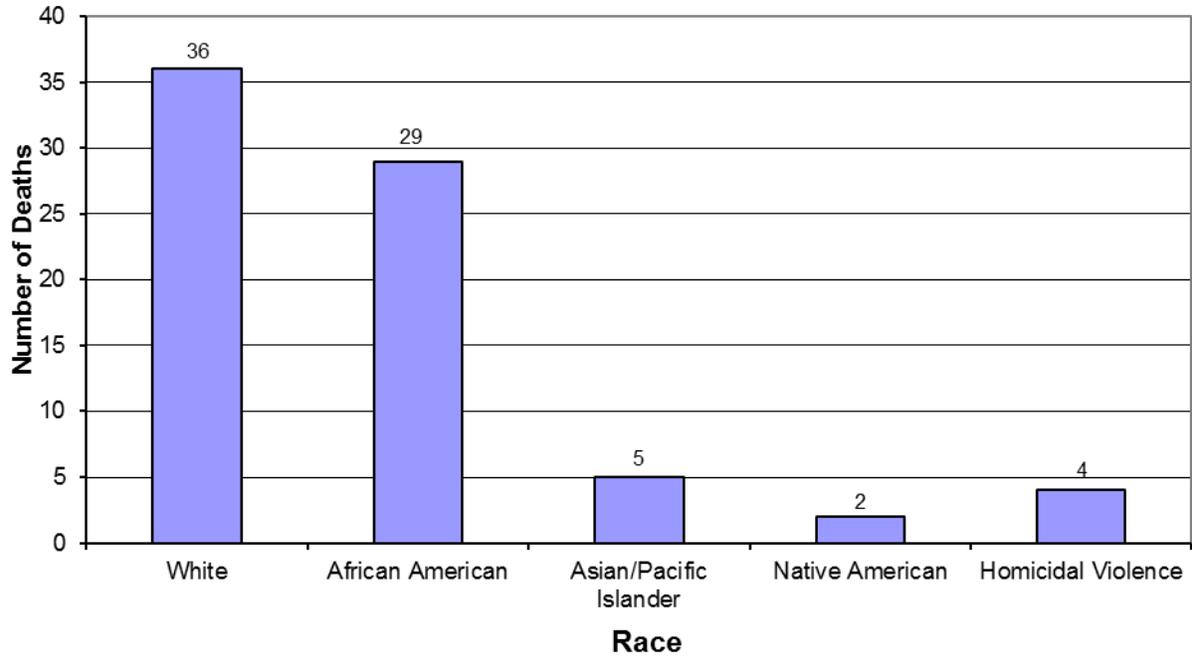
**Homicide Methods / Race / Gender / KCME / 2015**

CIRCUMSTANCES / GENDER	RACE					SUB-TOTAL	TOTAL
	WHITE	AFRICAN AMER	ASIAN/ PAC IS	AM INDIAN/ AK NATIVE	OTHER		
Asphyxia / Strangulation	1	1	0	0	0		2
<i>Male</i>	1	0	0	0	0	1	
<i>Female</i>	0	1	0	0	0	1	
Blunt Force	9	1	1	1	2		14
<i>Male</i>	6	1	1	0	0	8	
<i>Female</i>	3	0	0	1	2	6	
Firearms	23	25	3	1	2		54
<i>Male</i>	19	24	2	0	0	45	
<i>Female</i>	4	1	1	1	2	9	
Stabbing	1	2	1	0	0		4
<i>Male</i>	1	1	0	0	0	2	
<i>Female</i>	0	1	1	0	0	2	
Homicidal Violence	2	0	0	0	0		2
<i>Male</i>	0	0	0	0	0	0	
<i>Female</i>	2	0	0	0	0	2	
<b>Totals</b>	<b>36</b>	<b>29</b>	<b>5</b>	<b>2</b>	<b>4</b>		<b>76</b>
Percent	47%	38%	7%	3%	5%		100%

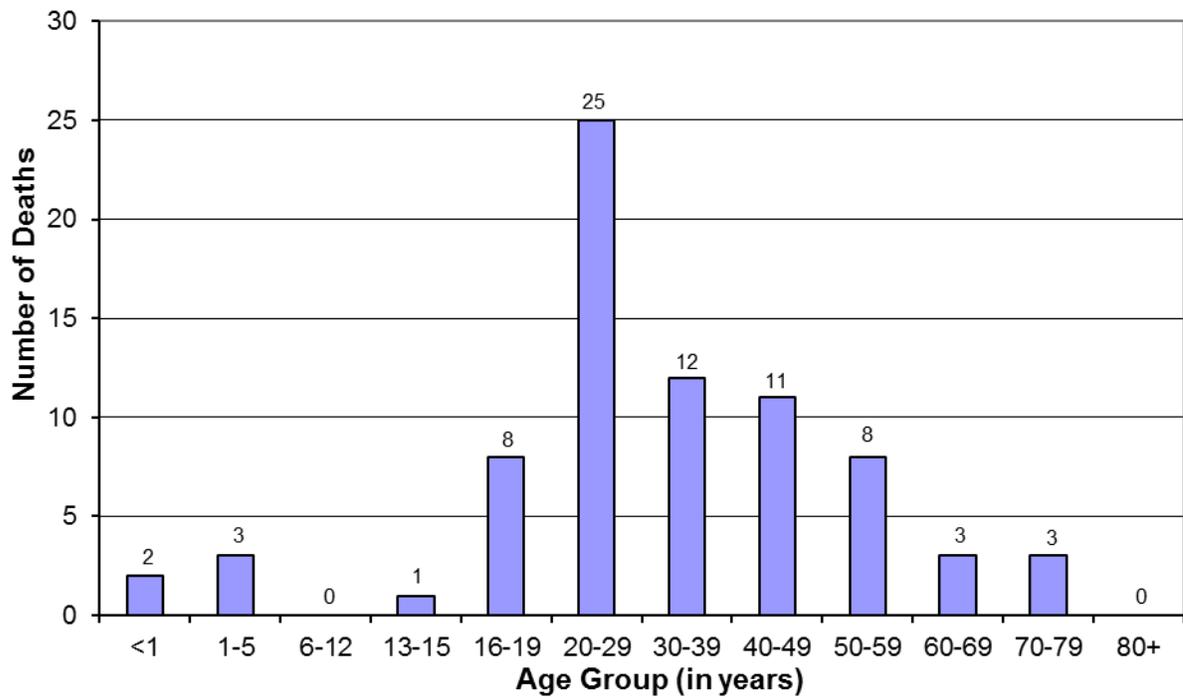
**Table 4-2 Homicide Methods / Age / Gender / KCME / 2015**

METHOD / GENDER	AGE GROUP (YEARS)													SUB-TOTAL TOTAL
	< 1	1 to 5	6 to 12	13 to 15	16 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 +	
	Asphyxia / Strangulation	0	0	0	0	0	1	0	0	1	0	0	0	
<i>Male</i>	0	0	0	0	0	0	0	0	1	0	0	0	0	1
<i>Female</i>	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Blunt Force	1	2	0	0	1	1	4	2	0	1	2	0	0	14
<i>Male</i>	0	1	0	0	0	0	4	1	0	1	1	0	0	8
<i>Female</i>	1	1	0	0	1	1	0	1	0	0	1	0	0	6
Firearms	0	1	0	1	7	22	6	9	6	1	1	0	0	54
<i>Male</i>	0	0	0	0	7	17	6	8	6	0	1	0	0	45
<i>Female</i>	0	1	0	1	0	5	0	1	0	1	0	0	0	9
Stabbing	0	0	0	0	0	1	1	0	1	1	0	0	0	4
<i>Male</i>	0	0	0	0	0	0	0	0	1	1	0	0	0	2
<i>Female</i>	0	0	0	0	0	1	1	0	0	0	0	0	0	2
Homicidal Violence	1	0	0	0	0	0	1	0	0	0	0	0	0	2
<i>Male</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Female</i>	1	0	0	0	0	0	1	0	0	0	0	0	0	2
<b>Totals</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>8</b>	<b>25</b>	<b>12</b>	<b>11</b>	<b>8</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>76</b>
Percent	3%	4%	0%	1%	10.5%	33%	16%	14%	10.5%	4%	4%	0%	0%	100%

**Graph 4-2 Homicide Deaths / Race / KCME / 2015**



**Graph 4-3 Homicide Deaths / Age Group / KCME / 2015**



**Table 4-3 Homicide Deaths / Age / Race / Gender / KCME / 2015**

METHOD		< 16	16 to 19	20 to 29	30 to 39	40 to 49	50+	SUB-TOTAL	TOTAL	
Asphyxia	White	0	0	0	0	0	1		1	
	Male	0	0	0	0	0	1	1		
	Female	0	0	0	0	0	0	0		
	African Am.	0	0	1	0	0	0		1	
	Male	0	0	0	0	0	0	0		
	Female	0	0	1	0	0	0	1		
Blunt Force	1	1	1	1	3	2	1		9	
	Male	1	0	0	3	1	1	6		
	Female	0	1	1	0	1	0	3		
	African Am.	0	0	0	1	0	0		1	
	Male	0	0	0	1	0	0	1		
	Female	0	0	0	0	0	0	0		
	Asian/Pac Is.	0	0	0	0	0	1		1	
	Male	0	0	0	0	0	1	1		
	Female	0	0	0	0	0	0	0		
	Am. Indian / AK Native	0	0	0	0	0	1		1	
	Male	0	0	0	0	0	0	0		
	Female	0	0	0	0	0	1	1		
	Other	2	0	0	0	0	0		2	
	Male	0	0	0	0	0	0	0		
Female	2	0	0	0	0	0	2			
Firearms	White	0	5	5	3	5	5		23	
	Male	0	5	2	3	5	4	19		
	Female	0	0	3	0	0	1	4		
	African Am.	1	2	14	3	3	2		25	
	Male	0	2	14	3	3	2	24		
	Female	1	0	0	0	0	0	1		
	Asian/Pac Is.	1	0	1	0	0	1		3	
	Male	0	0	1	0	0	1	2		
	Female	1	0	0	0	0	0	1		
	Other	0	0	2	0	0	0		2	
	Male	0	0	0	0	0	0	0		
	Female	0	0	2	0	0	0	2		
	Stabbing	White	0	0	0	0	0	1		1
		Male	0	0	0	0	0	1	1	
Female		0	0	0	0	0	0	0		
African Am.		0	0	1	0	0	1		2	

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	<i>Male</i>	0	0	0	0	0	1	1	
	<i>Female</i>	0	0	1	0	0	0	1	
	Asian	0	0	0	1	0	0		1
	<i>Male</i>	0	0	0	0	0	0	0	
	<i>Female</i>	0	0	0	1	0	0	1	
Homicidal Violence	White	1	0	0	1	0	0		2
	<i>Male</i>	0	0	0	0	0	0	0	
	<i>Female</i>	1	0	0	1	0	0	2	
<b>Totals</b>		6	8	25	12	11	14		76

**Table 4-4 Homicide Methods / Gender / KCME / 2015**

Gender			
METHOD	MALE	FEMALE	TOTAL
Asphyxia / Strangulation	1	1	2
Blunt Force	8	6	14
Firearms	45	9	54
Stabbing	2	2	4
Homicidal Violence	0	2	2
<b>Totals</b>	<b>56</b>	<b>20</b>	<b>76</b>
Percent	74%	26%	100%

**Table 4-5 Homicide Methods / Blood Alcohol Results / KCME / 2015**

TESTED				
METHOD	TESTED		NOT TESTED	TOTAL
	POSITIVE	NEGATIVE		
Asphyxia / Strangulation	0	2	0	2
Blunt Force	4	6	4	14
Firearms	12	38	4	54
Stabbing	0	4	0	4
Homicidal Violence	0	0	2	2
<b>Totals</b>	<b>16</b>	<b>50</b>	<b>10</b>	<b>76</b>
Percent				

# Manner of death: Natural

The Medical Examiner assumes jurisdiction over deaths that are determined to be natural due to the sudden and unexpected nature of the death in an apparently healthy individual, when there is no physician who has knowledge or awareness of the decedent's condition, when there is no next of kin to make disposition, or when there are suspicious circumstances surrounding the death. In these situations, the Medical Examiner becomes responsible for certification of death. It should be stressed that the natural deaths the Medical Examiner investigates may not be representative of all natural deaths in the general population, due to the possibility that jurisdictional considerations introduce significant bias.

In 2015, the King County Medical Examiner's Office assumed jurisdiction over 858 deaths attributed to natural causes, representing 41% (858/2,103) of the cases investigated. The King County Medical Examiner certified 71% (610/858) of these deaths; attending physicians who had knowledge of the decedent's medical condition certified 29% (248/858). It should be noted that when a death is initially reported, there may be no evidence of an attending physician. A thorough scene investigation often reveals that the deceased did, in fact, have a physician with knowledge of the decedent's medical condition. In that case, this physician would then be contacted to certify the death.

The King County Medical Examiner performed autopsies in 72% (441/610) of the deaths certified as natural, which included autopsies performed in 100% (1/1) of deaths classified as Sudden Infant Death Syndrome (SIDS). In this context, it is important to recognize that there are changes occurring in the classification of sudden infant deaths. The term "Sudden Unexplained Infant Death" (SUID) is used by some as an alternative to SIDS. Whatever the designation, it is important to recognize that an autopsy is performed on all sudden infant deaths.

Cardiovascular disease accounted for the greatest proportion of natural deaths. Most deaths in which an autopsy was not performed were certified as due to "probable arteriosclerotic cardiovascular disease."

A special subset of deaths designated "Complication of Therapy" has been incorporated in the statistical analyses of natural deaths. Complication of Therapy is defined as a death that is identified as a predictable consequence of appropriate medical therapy. Previously, these deaths were classified separately and included in the Accident chapter. Complication of Therapy is not an official manner of death recognized by state or federal standards of death certification. It is, however, a useful category that includes deaths resulting from medical therapy or surgical procedures that are not easily classified as either natural or accidental deaths. As such, this category of deaths warrants special mention because of an apparent upward trend in incidence and increased public interest. Deaths that are excluded from this category include falls and mechanical injuries in hospitals, inadvertent misadministration of drugs, wrong-sided surgeries, and wholly unexpected procedure-related injuries, all of which are more appropriately classified as manner Accident.

As an example, a patient who dies from an infection after a colectomy for the treatment of colon cancer, that patient's death would be classified as Complication of Therapy, manner Natural. Contrast this example with the case of a patient where a proper prescription for a heart medication is written, but who is given an unintentional overdose of the medication. In this second case, the manner of death would be Accident, not Complication of Therapy.

It is important to note that the classification of a death as a Complication of Therapy is a non-judgmental means by which the inherent risk of medical therapies can be recognized and tracked. By no means is Complication of Therapy synonymous with malpractice or negligence.

Complication of Therapy can be divided into three general categories: drug-related, consequence of medical procedure, and consequence of surgery. Drug-related includes anaphylactic/allergic reaction, hemorrhagic complications of anticoagulants, anesthesia related events, and other adverse drug reactions. Consequence of medical procedure refers to complications from procedures that are therapeutic or diagnostic, but do not meet the criteria for surgery, such as placement of catheters, penetration of body cavities by needles, or manipulation of body regions, etc. Consequence of surgery refers to direct anatomic damage during a procedure and usually involves a diseased organ system, such as perforation of a viscus or vessel or hemorrhagic complications of surgery.

Graph 5-4 shows the Complication of Therapy deaths by general category and Graph 5-5 further divides the general category of surgical injury into "type of surgery" and "comorbidity." (Comorbidity is defined as the coexistence of natural disease serious enough to be listed on the death certificate as a contributing condition.)

Recognition of the importance of identifying and reporting these deaths by the medical community has surged since the Institute of Medicine of the National Academy of Sciences published a report in 1999 that estimated that up to 98,000 preventable deaths may occur each year in the United States due to medical errors. The subsequent public interest and efforts by the healthcare system to address issues of patient safety may contribute to a greater percentage of these cases being reported to the Medical Examiner.

**Table 5-1 Disease Processes Causing Natural Deaths / KCME / 2015**

NUMBER OF DEATHS	DISEASE DESCRIPTION
<b>CARDIOVASCULAR</b>	
4	Aortic aneurysm
9	Aortic dissection
61	Arteriosclerotic cardiovascular disease (ASCVD)
121	Bacterial endocarditis
3	Cardiac dysrhythmia
30	Cardiomyopathy
1	Congenital heart disease
5	Congestive heart failure
159	Hypertensive ASCVD / Hypertensive heart disease
146	Probable arteriosclerotic cardiovascular disease
4	Valvular heart disease
<b>434</b>	<b>TOTAL CARDIOVASCULAR</b>
<b>CENTRAL NERVOUS SYSTEM</b>	
6	Epilepsy (idiopathic & other non-traumatic etiologies)
10	Infarct
1	Meningitis
7	Spontaneous intracerebral hemorrhage
13	Spontaneous rupture of aneurysm
24	Other
<b>61</b>	<b>TOTAL CENTRAL NERVOUS SYSTEM</b>
<b>COMPLICATION OF THERAPY (COT)</b>	
1	Drug Related COT
6	Procedure Related COT
5	Surgery Related COT
<b>12</b>	<b>TOTAL COMPLICATION OF THERAPY</b>
<b>ENDOCRINE</b>	
11	Diabetic ketoacidosis
13	Diabetes mellitus
3	Pancreatitis
3	Other
<b>30</b>	<b>TOTAL ENDOCRINE</b>

**Table 5-1 Disease Processes Causing Natural Deaths / KCME / 2015**

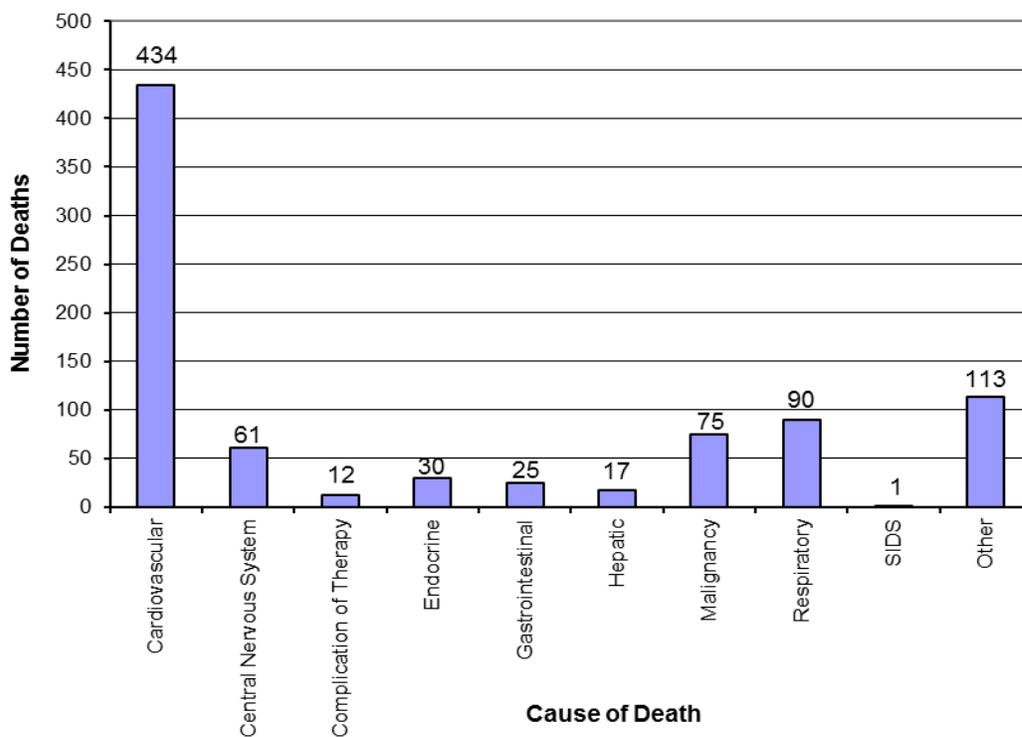
NUMBER OF DEATHS	DISEASE DESCRIPTION
<b>GASTROINTESTINAL</b>	
3	Bacterial peritonitis
7	Gastrointestinal hemorrhage
4	Perforating ulcer
11	Other
<b>25</b>	<b>TOTAL GASTROINTESTINAL</b>
<b>HEPATIC</b>	
7	Cirrhosis
2	Hepatic failure
8	Hepatitis
<b>17</b>	<b>TOTAL HEPATIC</b>
<b>MALIGNANCY</b>	
1	Bladder
8	Colon
29	Lung
2	Pancreas
4	Prostate
1	Rectum
30	Other
<b>75</b>	<b>TOTAL MALIGNANCY</b>
<b>RESPIRATORY</b>	
7	Asthma
24	Chronic obstructive pulmonary disease
39	Pneumonia
17	Pulmonary thromboembolus
3	Other
<b>90</b>	<b>TOTAL RESPIRATORY</b>
<b>SUDDEN INFANT DEATH SYNDROME</b>	
<b>1</b>	<b>SIDS</b>



**Table 5-1 Disease Processes Causing Natural Deaths / KCME / 2015 (continued)**

NUMBER OF DEATHS	DISEASE DESCRIPTION
<b>OTHER PROCESSES</b>	
58	Chronic ethanolism (alcoholism)
1	Chronic renal disease
4	HIV / AIDS
12	Infection
1	Labor/delivery/prematurity
1	Morbid obesity
1	Necrotizing fasciitis
8	No anatomic or toxicological cause of death
14	Sepsis
1	Sudden unexplained neonatal death
11	Other
1	Unspecified natural causes
<b>113</b>	<b>TOTAL OTHER PROCESSES</b>
<b>424</b>	<b>TOTAL Non-Cardiovascular Cause of Death</b>
<b>434</b>	<b>TOTAL Cardiovascular Cause of Death</b>
<b>858</b>	<b>Total NATURAL DEATHS under KCMEO Jurisdiction, 2015</b>

**Graph 5-1 Deaths due to Natural Causes / KCME / 2015**

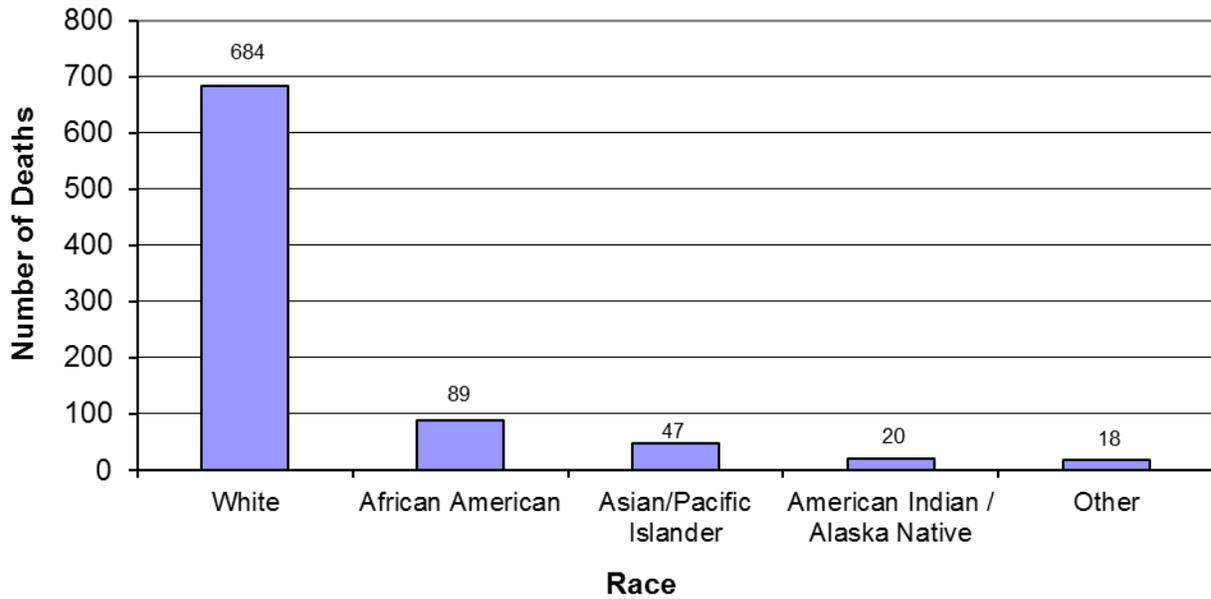




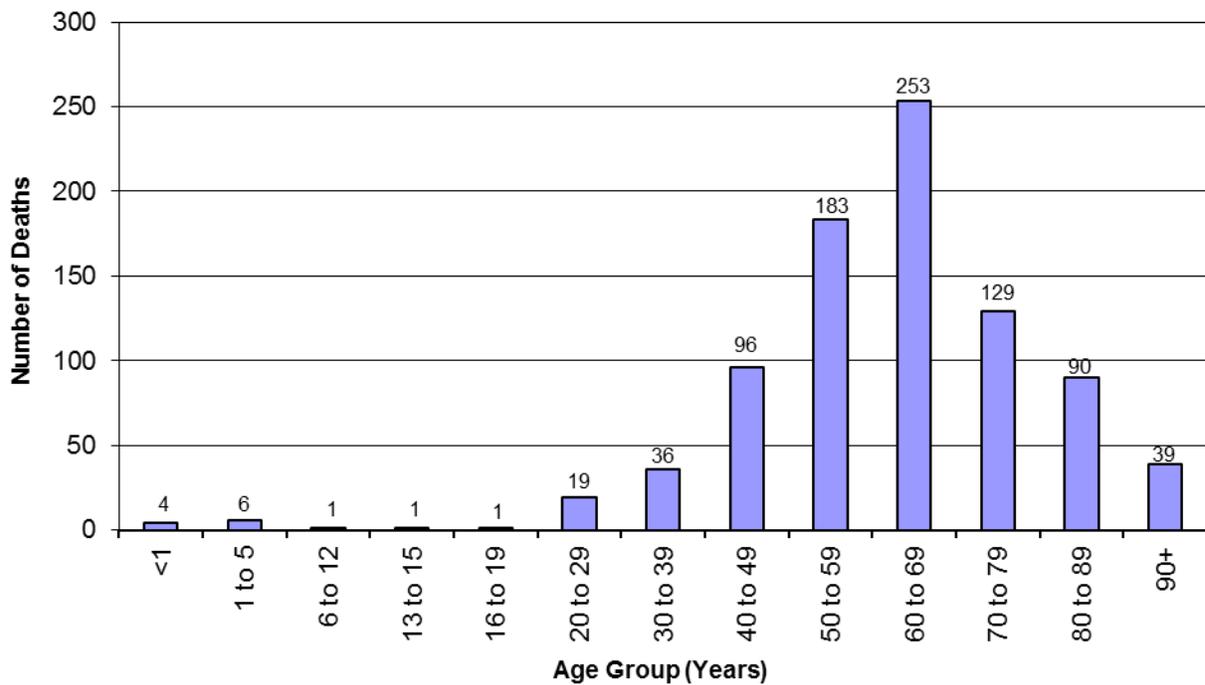
**Table 5-2 Natural Deaths / Race / Gender / KCME / 2015**

DISEASE PROCESS / GENDER	RACE					SUB-TOTAL	TOTAL
	WHITE	AFRIC AMER	ASIAN/ PAC IS	AM INDIAN/ /AK NATIVE	OTHER		
Cardiovascular	354	36	32	5	7		434
<i>Male</i>	250	26	23	5	7	311	
<i>Female</i>	104	10	9	0	0	123	
Central Nervous	51	7	2	1	0		61
<i>Male</i>	27	6	2	0	0	35	
<i>Female</i>	24	1	0	1	0	26	
Complication of Therapy	10	1	1	0	0		12
<i>Male</i>	4	1	1	0	0	6	
<i>Female</i>	6	0	0	0	0	6	
Endocrine	24	6	0	0	0		30
<i>Male</i>	17	4	0	0	0	21	
<i>Female</i>	7	2	0	0	0	9	
Gastrointestinal	16	2	1	3	3		25
<i>Male</i>	12	2	0	3	2	19	
<i>Female</i>	4	0	1	0	1	6	
Hepatic	13	1	1	2	0		17
<i>Male</i>	10	1	1	1	0	13	
<i>Female</i>	3	0	0	1	0	4	
Malignancy	60	9	1	2	3		75
<i>Male</i>	39	9	0	1	3	52	
<i>Female</i>	21	0	1	1	0	23	
Respiratory	67	18	4	1	0		90
<i>Male</i>	38	12	4	1	0	55	
<i>Female</i>	29	6	0	0	0	35	
SIDS	0	1	0	0	0		1
<i>Male</i>	0	1	0	0	0	1	
<i>Female</i>	0	0	0	0	0	0	
Other	89	8	5	6	5		113
<i>Male</i>	58	5	2	5	4	74	
<i>Female</i>	31	3	3	1	1	39	
<b>Totals</b>	<b>684</b>	<b>89</b>	<b>47</b>	<b>20</b>	<b>18</b>		<b>858</b>
Percent	80%	10.3%	5.4%	2.3%	2%		100%

**Graph 5-2 Natural Deaths / Race / KCME / 2015**



**Graph 5-3 Natural Deaths / Age Group / KCME / 2015**





**Table 5-3 Natural Deaths / Age / Gender / KCME / 2015**

DISEASE PROCESS/ GENDER	AGE GROUP (YEARS)													SUB-TOTAL	TOTAL
	< 1	1 to 5	6 to 12	13 to 15	16 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 +		
	Cardiovascular	0	0	0	0	0	5	15	46	80	143	79	50		
<i>Male</i>	0	0	0	0	0	5	13	31	61	110	53	32	6	311	
<i>Female</i>	0	0	0	0	0	0	2	15	19	33	26	18	10	123	
Central Nervous	0	1	0	0	0	1	1	8	10	10	9	11	10	61	
<i>Male</i>	0	1	0	0	0	1	1	5	6	6	7	4	4	35	
<i>Female</i>	0	0	0	0	0	0	0	3	4	4	2	7	6	26	
Complication of Therapy	1	0	1	1	0	0	1	1	0	1	4	1	1	12	
<i>Male</i>	1	0	0	1	0	0	1	0	0	0	3	0	0	6	
<i>Female</i>	0	0	1	0	0	0	0	1	0	1	1	1	1	6	
Endocrine	0	0	0	0	0	2	3	4	7	8	1	4	1	30	
<i>Male</i>	0	0	0	0	0	1	2	3	7	6	1	0	1	21	
<i>Female</i>	0	0	0	0	0	1	1	1	0	2	0	4	0	9	
Gastrointestinal	0	1	0	0	0	1	0	2	10	3	2	6	0	25	
<i>Male</i>	0	1	0	0	0	1	0	1	10	2	2	2	0	19	
<i>Female</i>	0	0	0	0	0	0	0	1	0	1	0	4	0	6	
Hepatic	0	0	0	0	0	0	0	1	12	4	0	0	0	17	
<i>Male</i>	0	0	0	0	0	0	0	1	8	4	0	0	0	13	
<i>Female</i>	0	0	0	0	0	0	0	0	4	0	0	0	0	4	
Malignancy	0	0	0	0	0	1	2	1	16	27	20	6	2	75	
<i>Male</i>	0	0	0	0	0	1	0	0	13	16	16	5	1	52	
<i>Female</i>	0	0	0	0	0	0	2	1	3	11	4	1	1	23	
Respiratory	0	1	0	0	1	2	5	13	20	26	12	6	4	90	
<i>Male</i>	0	1	0	0	1	2	2	6	15	14	9	3	2	55	
<i>Female</i>	0	0	0	0	0	0	3	7	5	12	3	3	2	35	
SIDS	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
<i>Male</i>	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
<i>Female</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other	2	3	0	0	0	7	9	20	28	31	2	6	5	113	
<i>Male</i>	0	1	0	0	0	5	6	15	21	22	0	2	2	74	
<i>Female</i>	2	2	0	0	0	2	3	5	7	9	2	4	3	39	
<b>Totals</b>	<b>4</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>19</b>	<b>36</b>	<b>96</b>	<b>183</b>	<b>253</b>	<b>129</b>	<b>90</b>	<b>39</b>	<b>858</b>	
Percent	.5%	.9%	.1%	.1%	.1%	2.2%	3.1%	11.2%	21.3%	30%	15%	11%	4.5%	<b>100%</b>	



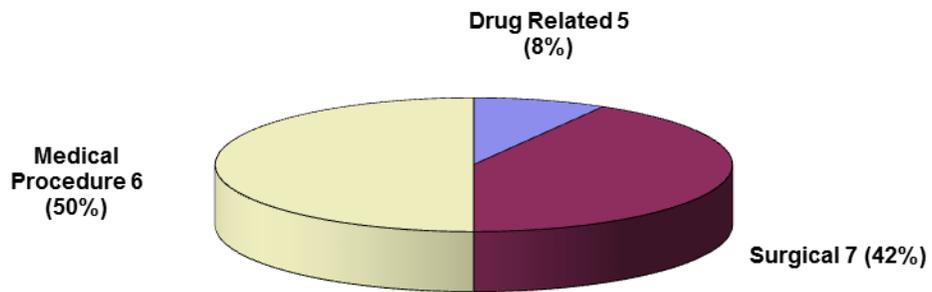
**Table 5-4 Natural Deaths / Gender / KCME / 2015**

CIRCUMSTANCES	GENDER		TOTAL
	MALE	FEMALE	
Cardiovascular	311	123	434
Central Nervous	35	26	61
Complication of Therapy	6	6	12
Endocrine	21	9	30
Gastrointestinal	19	6	25
Hepatic	13	4	17
Malignancy	52	23	75
Respiratory	55	35	90
SIDS	1	0	1
Other	74	39	113
<b>Totals</b>	<b>587</b>	<b>271</b>	<b>858</b>
Percent	68%	32%	100%

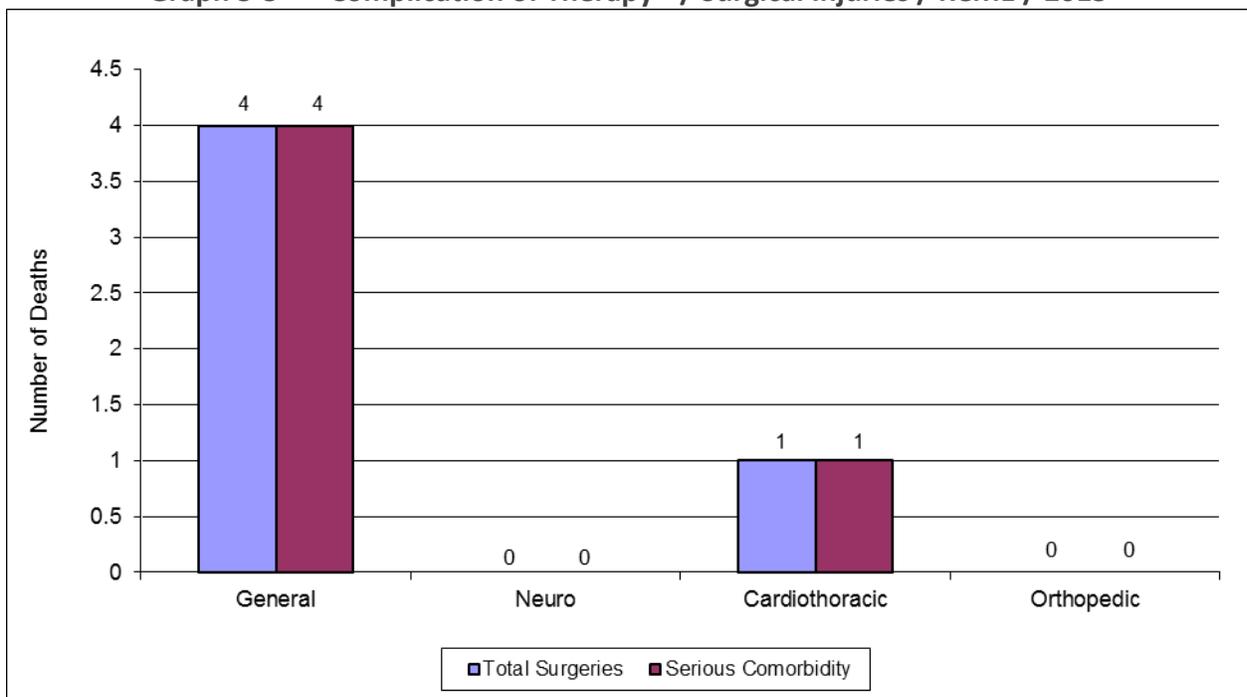
**Table 5-5 Natural Deaths / Blood Alcohol Results / KCME / 2015**

METHOD	TESTED		NOT	TOTAL
	POSITIVE	NEGATIVE	TESTED	
Cardiovascular	43	224	167	434
Central Nervous System	4	20	37	61
Complication of Therapy	1	4	7	12
Endocrine	2	11	17	30
Gastrointestinal	4	12	9	25
Hepatic	4	5	8	17
Malignancy	1	10	64	75
Respiratory	8	41	41	90
SIDS	0	1	0	1
Other	29	44	40	113
<b>Totals</b>	<b>96</b>	<b>372</b>	<b>390</b>	<b>858</b>
Percent	11.2%	43.4%	45.4%	100%

Graph 5-4 Complication of Therapy / General Categories / KCME / 2015



Graph 5-5 Complication of Therapy<sup>13</sup> / Surgical Injuries / KCME / 2015



<sup>13</sup>Serious co-morbidity indicates coexisting natural disease serious enough to contribute to death.

# Manner of death: Suicide

Suicides are deaths caused by self-inflicted injuries with evidence of intent to end one's life. Evidence of intent includes an explicit expression, such as a suicide note or verbal threat, or an act constituting implicit intent, such as deliberately placing a gun to one's head or rigging a vehicle's exhaust. In 2015, there were 262 suicides, accounting for 12% (262/2,103) of the deaths that the King County Medical Examiner's Office investigated.

In 2015, 6.5% of all suicides (17/262) among persons 19 years and younger which is greater than in 2014 when there were 15 suicides in this age group. Suicides in the age group 60 years and older represented 22% (58/262) of all suicides in 2015.

Firearms were responsible for 42% (109/262) of the 2015 suicide deaths, 15 less than in 2014 when there were 124. Hanging accounted for 22.5% (59/262) of suicidal deaths, while jumping from a height accounted for 6% (16/262). Drugs and poisons accounted for 16% (41/262) of all suicides, while carbon monoxide caused death in 3% (8/262) of the cases. More information regarding drug-caused deaths is presented in the section "Deaths Due to Drugs & Poisons" beginning on page 89.

Firearms were the primary method of committing suicide for all age groups. In the 19 years and younger age group, firearms represented 41% (7/17) of the deaths while hanging represented 35% (6/17) of the deaths.

Blood alcohol tests were performed in 91% (237/262) of suicidal deaths and were positive in 31% (81/262) of cases tested.

In 2015, there were sixteen deaths due to drugs and/or poisons by adults 60 years of age and over. In 2015, there were no suicides attributed to drugs and/or poisons among youths 19 years and younger. In 2014, there was one death from drug and/or poisons in this age group.

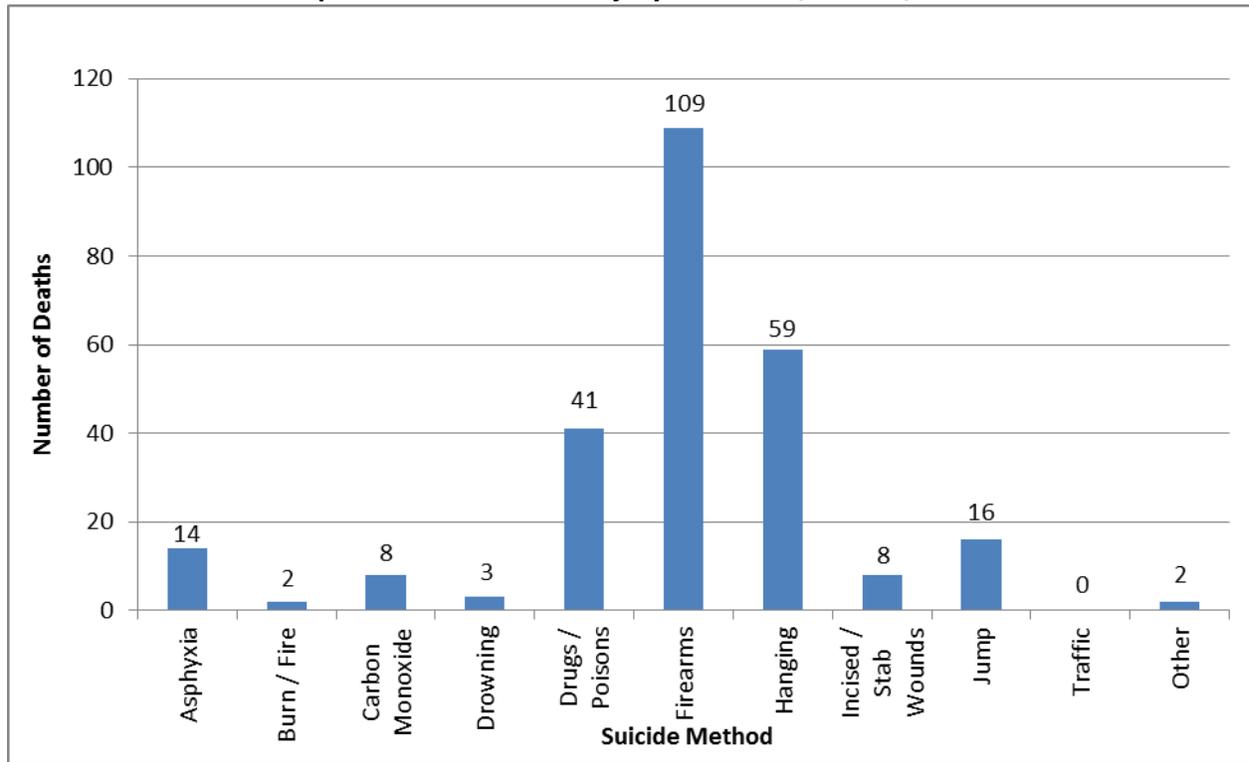
The Washington Death with Dignity Act, Initiative 1000, codified as RCW 70.245, passed on November 4, 2008 and took effect on March 5, 2009. This act allows terminally ill adults seeking to end their life to request lethal doses of medication from medical and osteopathic physicians. These terminally ill patients must be Washington state residents who have less than six months to live.<sup>14</sup>

As provided in the act, "the patient's death certificate...shall list the underlying terminal disease as the cause of death." The act also states that, "Actions taken in accordance with this chapter do not, for any purpose, constitute suicide, assisted suicide, mercy killing, or homicide, under the law." Given these instructions, the King County Medical Examiner's Office has no involvement in these cases and collects no statistics on the number of deaths where an individual has utilized their rights under the provisions of this act. Statistics are kept and released annually by the Washington State Department of Health.

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<sup>14</sup> Washington State Department of Health website: <http://www.doh.wa.gov/dwda>

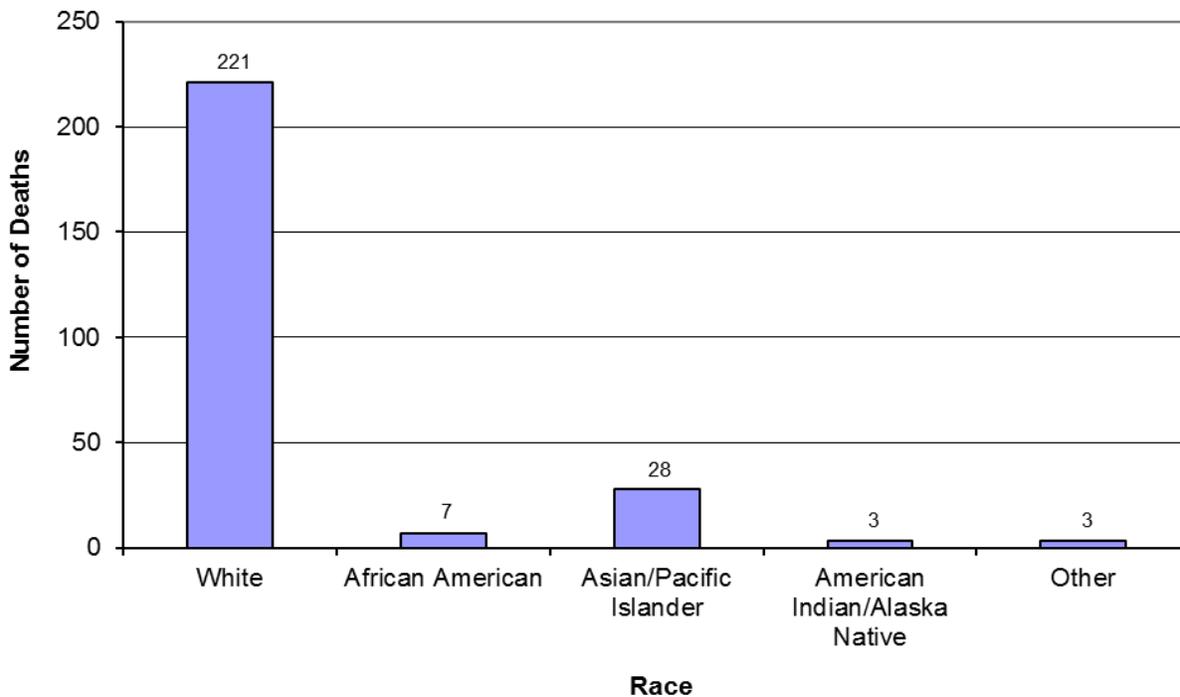
Graph 6-1 Suicide Injury Methods / KCME / 2015



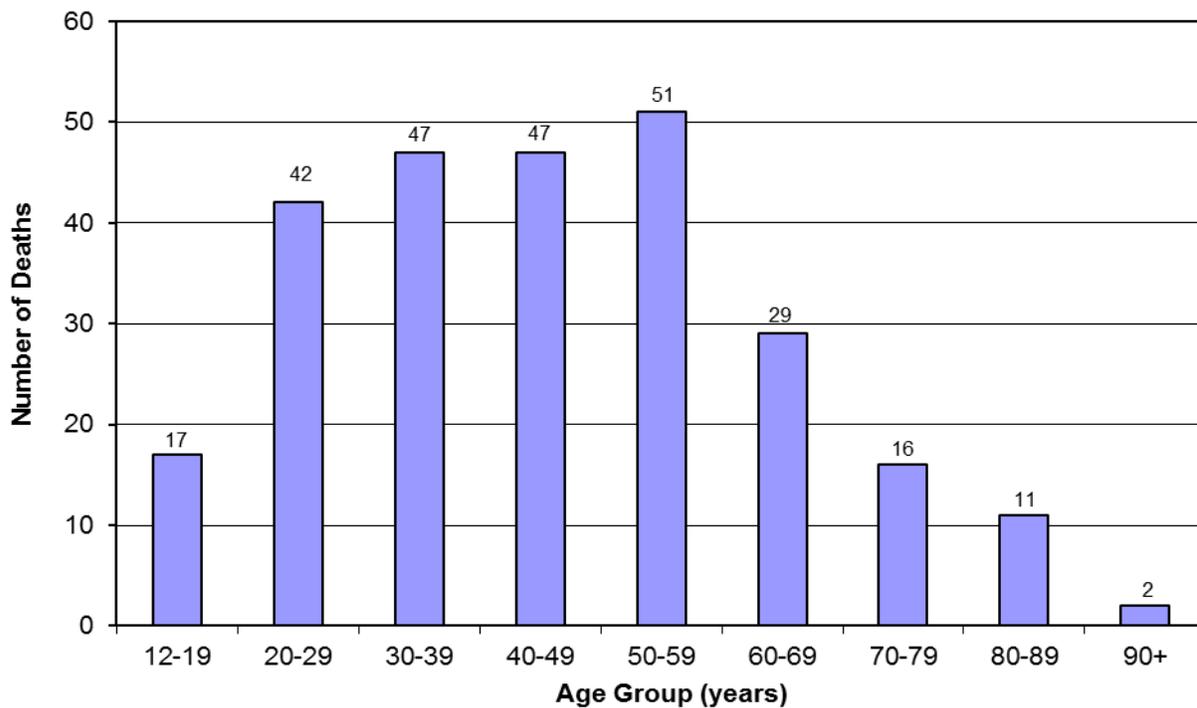
**Table 6-1 Suicide Injury Methods / Race / Gender / KCME / 2015**

CIRCUMSTANCES / GENDER	RACE					SUB-TOTAL	TOTAL
	WHITE	AFRIC AMER	ASIAN/ PAC IS	AM INDIAN/ AK NATIVE	OTHER		
Asphyxia	13	0	1	0	0		14
<i>Male</i>	8	0	0	0	0	8	
<i>Female</i>	5	0	1	0	0	6	
Burns / Fire	2	0	0	0	0		2
<i>Male</i>	1	0	0	0	0	1	
<i>Female</i>	1	0	0	0	0	1	
Carbon Monoxide	7	1	0	0	0		8
<i>Male</i>	7	0	0	0	0	7	
<i>Female</i>	0	1	0	0	0	1	
Drowning	1	0	2	0	0		3
<i>Male</i>	0	0	2	0	0	2	
<i>Female</i>	1	0	0	0	0	1	
Drugs / Poisons	36	2	3	0	0		41
<i>Male</i>	19	0	0	0	0	19	
<i>Female</i>	17	2	3	0	0	22	
Firearms	96	3	7	1	2		109
<i>Male</i>	87	1	6	1	2	97	
<i>Female</i>	9	2	1	0	0	12	
Hanging	43	1	12	2	1		59
<i>Male</i>	28	0	5	0	1	34	
<i>Female</i>	15	1	7	2	0	25	
Incised / Stab Wound(s)	7	0	1	0	0		8
<i>Male</i>	6	0	0	0	0	6	
<i>Female</i>	1	0	1	0	0	2	
Jumping	14	0	2	0	0		16
<i>Male</i>	8	0	1	0	0	9	
<i>Female</i>	6	0	1	0	0	7	
Other	2	0	0	0	0		2
<i>Male</i>	2	0	0	0	0	2	
<i>Female</i>	0	0	0	0	0	0	
<b>Totals</b>	221	7	28	3	3		262
Percent	84%	3%	11%	1%	1%		100%

**Graph 6-2 Suicide Deaths / Race / KCME / 2015**



**Graph 6-3 Suicide Deaths / Age Group / KCME / 2015**



**Table 6-2 Suicide Injury Methods / Age / Gender / KCME / 2015**

INJURY METHOD/ GENDER	AGE GROUP (YEARS)									SUB-TOTAL	TOTAL
	12 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 +		
Asphyxia	1	1	4	2	3	1	0	2	0		14
<i>Male</i>	0	1	2	2	2	1	0	0	0	8	
<i>Female</i>	1	0	2	0	1	0	0	2	0	6	
Burns / Fire	0	0	1	0	1	0	0	0	0		2
<i>Male</i>	0	0	1	0	0	0	0	0	0	1	
<i>Female</i>	0	0	0	0	1	0	0	0	0	1	
Carbon Monoxide	0	3	0	2	2	0	1	0	0		8
<i>Male</i>	0	3	0	2	1	0	1	0	0	7	
<i>Female</i>	0	0	0	0	1	0	0	0	0	1	
Drowning	1	2	0	0	0	0	0	0	0		3
<i>Male</i>	1	1	0	0	0	0	0	0	0	2	
<i>Female</i>	0	1	0	0	0	0	0	0	0	1	
Drugs / Poisons	0	2	5	10	8	10	3	2	1		41
<i>Male</i>	0	0	2	4	5	6	0	2	0	19	
<i>Female</i>	0	2	3	6	3	4	3	0	1	22	
Firearms	7	16	18	17	22	12	11	6	0		109
<i>Male</i>	7	14	14	15	20	11	10	6	0	97	
<i>Female</i>	0	2	4	2	2	1	1	0	0	12	
Hanging	6	14	13	12	9	3	1	1	0		59
<i>Male</i>	2	7	11	6	7	0	1	0	0	34	
<i>Female</i>	4	7	2	6	2	3	0	1	0	25	
Incised / Stab Wound(s)	0	0	1	2	4	0	0	0	1		8
<i>Male</i>	0	0	1	2	3	0	0	0	0	6	
<i>Female</i>	0	0	0	0	1	0	0	0	1	2	
Jumping	1	4	5	2	2	2	0	0	0		16
<i>Male</i>	0	3	3	1	1	1	0	0	0	9	
<i>Female</i>	1	1	2	1	1	1	0	0	0	7	
Other	1	0	0	0	0	1	0	0	0		2
<i>Male</i>	1	0	0	0	0	1	0	0	0	2	
<i>Female</i>	0	0	0	0	0	0	0	0	0	0	
<b>Totals</b>	<b>17</b>	<b>42</b>	<b>47</b>	<b>47</b>	<b>51</b>	<b>29</b>	<b>16</b>	<b>11</b>	<b>2</b>		<b>262</b>
Percent	6.5%	16%	18%	18%	19.5%	11%	6%	4%	1%		100%

**Table 6-3 Suicide Injury Methods / Gender / KCME / 2015**

INJURY METHOD	GENDER		TOTAL
	MALE	FEMALE	
Asphyxia	8	6	14
Burns/ Fire	1	1	2
Carbon Monoxide	7	1	8
Drowning	2	1	3
Drugs / Poisons	19	22	41
Firearms	97	12	109
Hanging	34	25	59
Incised / Stab Wound(s)	6	2	8
Jumping	9	7	16
Other	2	0	2
<b>Totals</b>	<b>185</b>	<b>77</b>	<b>262</b>
Percent	71%	29%	100%

**Table 6-5 Suicide Injury Methods / Blood Alcohol / KCME / 2015**

METHOD	TESTED		NOT TESTED	TOTAL
	POSITIVE	NEGATIVE		
Asphyxia	5	9	0	14
Burns/ Fire	0	2	0	2
Carbon Monoxide	2	6	0	8
Drowning	0	3	0	3
Drugs / Poisons	10	25	6	41
Firearms	47	51	11	109
Hanging	13	41	5	59
Incised / Stab Wound(s)	0	8	0	8
Jumping	4	9	3	16
Other	0	2	0	2
<b>Totals</b>	<b>81</b>	<b>156</b>	<b>25</b>	<b>262</b>
Percent	31%	60%	9%	100%

# Manner of death: Undetermined

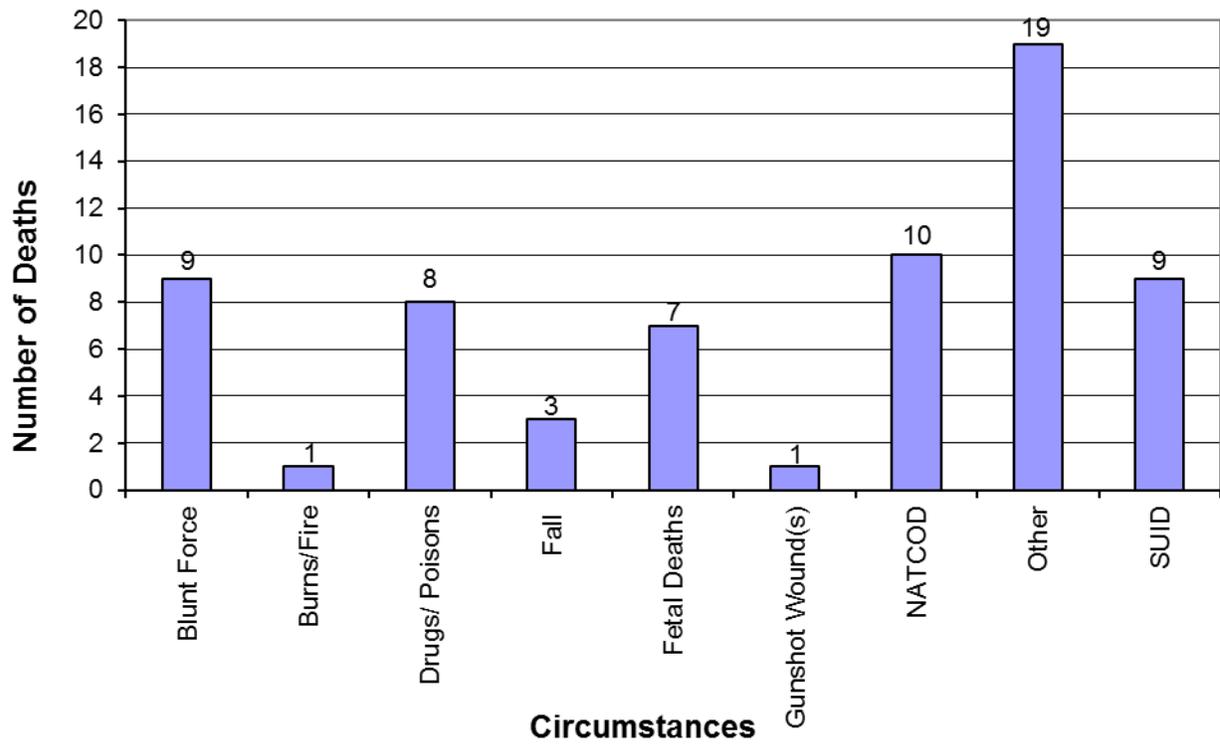
The King County Medical Examiner's Office certifies a manner of death as undetermined when available information regarding the circumstances of death is insufficient to classify the death into one of the specific manners of natural or unnatural (Accident, Homicide or Suicide) death. In some cases, serious doubt exists as to whether an injury occurred with intent or as a result of an accident. Information concerning the circumstances may be lacking due to the absence of background information or witnesses, or because of a lengthy delay between death and discovery of the body. Moreover, it may be difficult to assess street drug or medication overdose deaths as showing enough features to reasonably determine the manner of death. If an extensive investigation and autopsy cannot clarify the circumstances, the death is classified undetermined.

The King County Medical Examiner's Office certified 67 deaths with manner undetermined, accounting for 3% (67/2,221) of the deaths investigated in 2015. Drugs and poisons caused 12% (8/67) of the deaths classified as undetermined. For a more detailed review of drug-caused deaths in 2015, see the discussion in the section on Drugs and Poisons on pages 89 and 90.

The 67 deaths that were classified as undetermined for 2015 included 7 fetal deaths, which, in accordance with the Washington State Department of Health - Center for Health Statistics Fetal Death Certification Guidelines, are not assigned a manner of death. Fetal death certificates must be issued for every fetus of 20 weeks or more gestation. Of the 7 fetal deaths in 2015, two were related to maternal drug abuse.

Two of the cases, categorized as Sudden Unexplained Neonatal Death (SUND), were included in the Sudden Unexplained Infant Death (SUID) statistics. An infant is defined as a newborn that is only hours, days, or up to a few weeks old. In medical contexts, neonate refers to an infant that is in the first 28 days after birth whether premature, postmature or full term.

Graph 7-1 Undetermined Manner of Death<sup>15</sup> / KCME / 2015

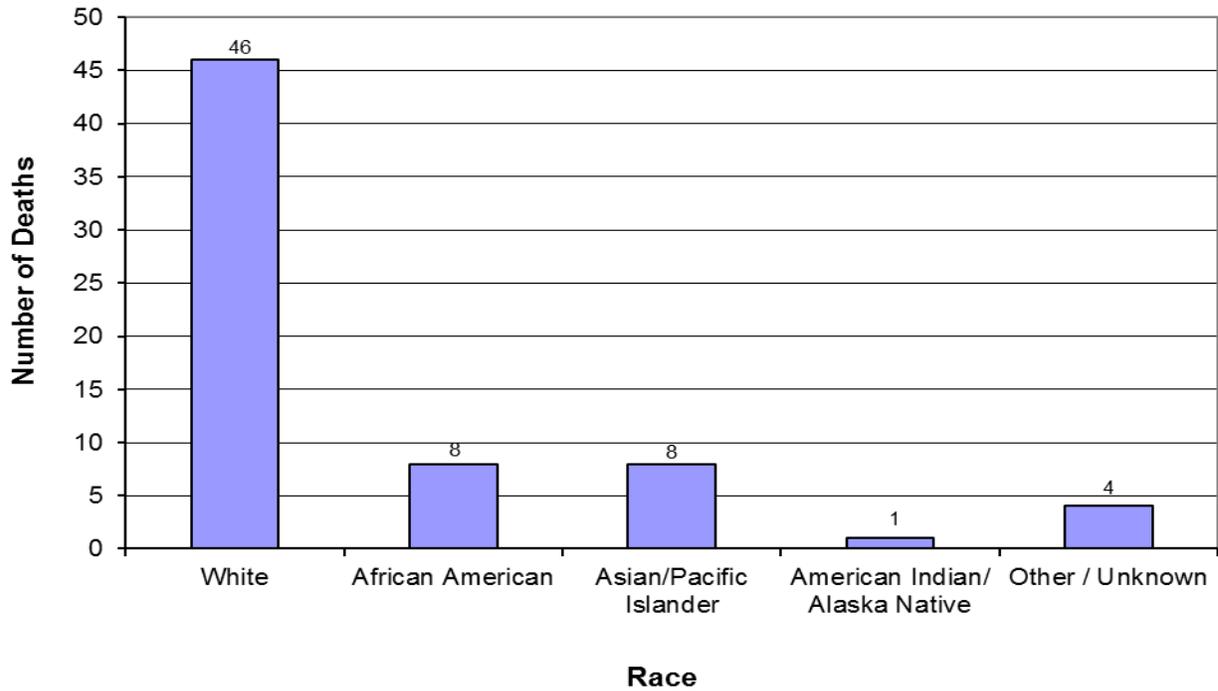


<sup>15</sup>NATCOD is an abbreviation for “no anatomic or toxicological cause of death,” and refers to deaths in which full autopsies and toxicological analyses (if relevant) fail to identify an adequate cause of death.

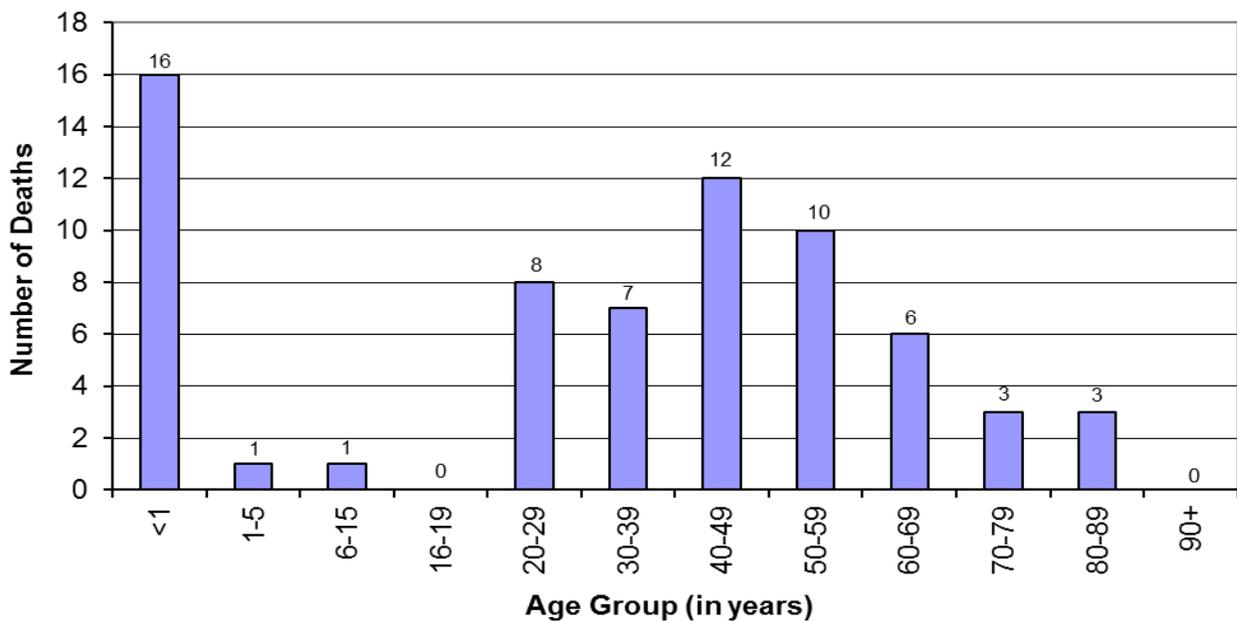
**Table 7-1 Undetermined Manner of Death / Race / Gender / KCME / 2015**

CIRCUMSTANCES / GENDER	RACE					SUB-TOTAL	TOTAL
	WHITE	AFRIC AMER	ASIAN/ PAC IS	AM INDIAN/ AK NATIVE	OTHER / UNK		
Blunt Force	7	0	1	0	1		9
<i>Male</i>	6	0	1	0	1	8	
<i>Female</i>	1	0	0	0	0	1	
Burns/Fire	1	0	0	0	0		1
<i>Male</i>	1	0	0	0	0	1	
<i>Female</i>	0	0	0	0	0	0	
Drugs / Poisons	6	1	1	0	0		8
<i>Male</i>	1	0	1	0	0	2	
<i>Female</i>	5	1	0	0	0	6	
Fall	2	0	1	0	0		3
<i>Male</i>	2	0	1	0	0	3	
<i>Female</i>	0	0	0	0	0	0	
Fetal Deaths	2	1	1	1	2		7
<i>Male</i>	0	0	0	0	0	0	
<i>Female</i>	2	1	1	1	2	7	
Gunshot Wound(s)	0	1	0	0	0		1
<i>Male</i>	0	1	0	0	0	1	
<i>Female</i>	0	0	0	0	0	0	
No Anatomic or Toxicological Cause of Death	6	0	3	0	1		10
<i>Male</i>	4	0	3	0	1	8	
<i>Female</i>	2	0	0	0	0	2	
Other	14	4	1	0	0		19
<i>Male</i>	5	2	0	0	0	7	
<i>Female</i>	9	2	1	0	0	12	
SUID	8	1	0	0	0		9
<i>Male</i>	5	0	0	0	0	5	
<i>Female</i>	3	1	0	0	0	4	
<b>Totals</b>	<b>46</b>	<b>8</b>	<b>8</b>	<b>1</b>	<b>4</b>		<b>67</b>
Percent	69%	12%	12%	1%	6%		100%

**Graph 7-2 Undetermined Manner / Race / KCME / 2015**



**Graph 7-3 Undetermined Manner / Age Group / KCME / 2015**



**Table 7-2 Undetermined Circumstances / Age / Gender / KCME / 2015**

INJURY METHOD / GENDER	AGE GROUP (YEARS)												SUB-TOTAL	TOTAL
	<1	1 to 5	6 to 15	16 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 +		
Blunt Force	0	0	0	0	1	1	2	2	2	0	1	0		9
<i>Male</i>	0	0	0	0	1	1	2	2	2	0	0	0	8	
<i>Female</i>	0	0	0	0	0	0	0	0	0	0	1	0	1	
Burns/Fire	0	0	0	0	0	0	1	0	0	0	0	0		1
<i>Male</i>	0	0	0	0	0	0	1	0	0	0	0	0	0	
<i>Female</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	
Drugs / Poisons	0	0	0	0	0	1	2	4	1	0	0	0		8
<i>Male</i>	0	0	0	0	0	0	0	1	1	0	0	0	2	
<i>Female</i>	0	0	0	0	0	1	2	3	0	0	0	0	6	
Fall	0	0	0	0	0	1	1	1	0	0	0	0		3
<i>Male</i>	0	0	0	0	0	1	1	1	0	0	0	0	3	
<i>Female</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	
Fetal Deaths	7	0	0	0	0	0	0	0	0	0	0	0		7
<i>Male</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Female</i>	7	0	0	0	0	0	0	0	0	0	0	0	7	
Gunshot Wound(s)	0	0	0	0	1	0	0	0	0	0	0	0		0
<i>Male</i>	0	0	0	0	1	0	0	0	0	0	0	0	1	
<i>Female</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	
No anatomic or toxicological cause of death	0	0	0	0	2	3	2	3	0	0	0	0		10
<i>Male</i>	0	0	0	0	2	2	1	3	0	0	0	0	8	
<i>Female</i>	0	0	0	0	0	1	1	0	0	0	0	0	2	
Other	0	1	1	0	4	1	4	0	3	3	2	0		19
<i>Male</i>	0	1	1	0	0	0	3	0	1	0	1	0	7	
<i>Female</i>	0	0	0	0	4	1	1	0	2	3	1	0	12	
SUID	9	0	0	0	0	0	0	0	0	0	0	0		9
<i>Male</i>	5	0	0	0	0	0	0	0	0	0	0	0	5	
<i>Female</i>	4	0	0	0	0	0	0	0	0	0	0	0	4	
<b>Totals</b>	<b>16</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>8</b>	<b>7</b>	<b>12</b>	<b>10</b>	<b>6</b>	<b>3</b>	<b>3</b>	<b>0</b>		<b>67</b>
Percent	24%	1.5%	1.5%	0%	12%	10%	18%	15%	9%	4.5%	4.5%	0%		100%

**Table 7-3 Undetermined Manner / Gender / KCME / 2015**

INJURY METHOD	GENDER		TOTAL
	MALE	FEMALE	
Blunt Force	8	1	9
Burns / Fire	1	0	1
Drugs / Poisons	2	6	8
Fall	3	0	3
Fetal Deaths	0	7	7
Gunshot Wound(s)	1	0	1
No Anatomic or Toxicological Cause of Death	8	2	10
Other	7	12	19
SUID	5	4	9
<b>Totals</b>	<b>35</b>	<b>32</b>	<b>67</b>
Percent	52%	48%	100%

**Table 7-4 Undetermined Manner / Blood Alcohol Results / KCME / 2015**

METHOD	TESTED		NOT TESTED	TOTAL
	POSITIVE	NEGATIVE		
Blunt Force	2	7	0	9
Burns / Fire	0	0	1	1
Drugs / Poisons	3	5	0	8
Fall	0	3	0	3
Fetal Deaths	1	3	3	7
Gunshot Wounds(s)	0	1	0	1
No Anatomic or Toxicological Cause of Death	4	4	2	10
Other	6	11	2	19
SUID	0	8	1	9
<b>Totals</b>	<b>16</b>	<b>42</b>	<b>9</b>	<b>67</b>
Percent	24%	63%	13%	100%

# Traffic deaths

During the calendar year 2015, the Medical Examiner's Office participated in the investigation of 168 traffic fatalities. In 70% (118/168) of the traffic deaths, the collisions occurred in King County, compared to 70% (93/132) of the collisions in 2014. In 2015, 30% (50/168) of the traffic deaths that the Medical Examiner investigated were the result of collisions that occurred outside of King County, with the injured transported to hospitals in King County, primarily Harborview Medical Center. Because the deaths occurred in King County, it falls under the jurisdiction of the King County Medical Examiner. Although these deaths are classified "Accident" for death certification purposes, the more accurate term is "motor vehicle collision."

In 2015, 33% (55/168) of the traffic fatalities were motor vehicle drivers. Teenage drivers (16-19 years of age) were 7% (4/55) of the driver deaths in 2015 and 9% (5/8) in 2014. By age, 15% of vehicle driver deaths (8/55) were people between the ages of 20 and 29. 22% of driver deaths (12/55) were adults between the ages of 30 and 39. 15% (8/55) were adults between the ages of 40 and 49. Male drivers represented 67% (37/55) of driver deaths and female drivers represented 33% of driver deaths (18/55).

Of the 168 traffic fatalities in 2015, 40 were motor vehicle passengers, representing 24% of the total (40/168). In 2015, teenagers (13-19 years old) accounted for 6 motor vehicle passenger deaths. There were no passenger deaths of infants (less than one year of age), no vehicle passenger death of a child between the ages of 1-5 years, and 3 deaths of children between the ages of 6-12 years.

Blood ethanol (alcohol) statistics are presented to describe the role of alcohol in traffic deaths. However, it should be noted that in many cases someone other than the person who died was under the influence of alcohol and was directly responsible for the collision. The Medical Examiner determines the blood alcohol levels of persons who die, not of everyone involved in the incident. In addition, blood alcohol is not tested in persons who die after surviving more than 24 hours, because in those deaths the alcohol has had time to metabolize.<sup>16</sup> Therefore, blood alcohol figures presented in this report are not a total description of the role of alcohol in traffic collisions.

Of cases in which seatbelt restraint status was known (45/55), 51% (23/45) of drivers in vehicle deaths were not restrained. The figures for drivers not wearing seatbelts for the previous three years are: 40% (19/47) in 2014, 26% (9/34) in 2013, and 33% (10/38) in 2012.

Motorcycle riders accounted for 15% (26/168) of traffic fatalities. In 2015, there were 25 motorcycle driver fatalities and 1 motorcycle passenger fatality. Twenty four of the motorcycle driver deaths were male and 1 was female. Of the 26 motorcycle fatalities, 81% (21/26) of the motorcyclists were wearing a helmet; in 2 cases no helmet was used and in 3 cases it was unknown if the motorcycle driver was wearing a helmet. Twenty four of the motorcyclist fatalities were tested for the presence of blood alcohol. 9, or 19% (5/26), had a detectable amount of alcohol at the time of autopsy.

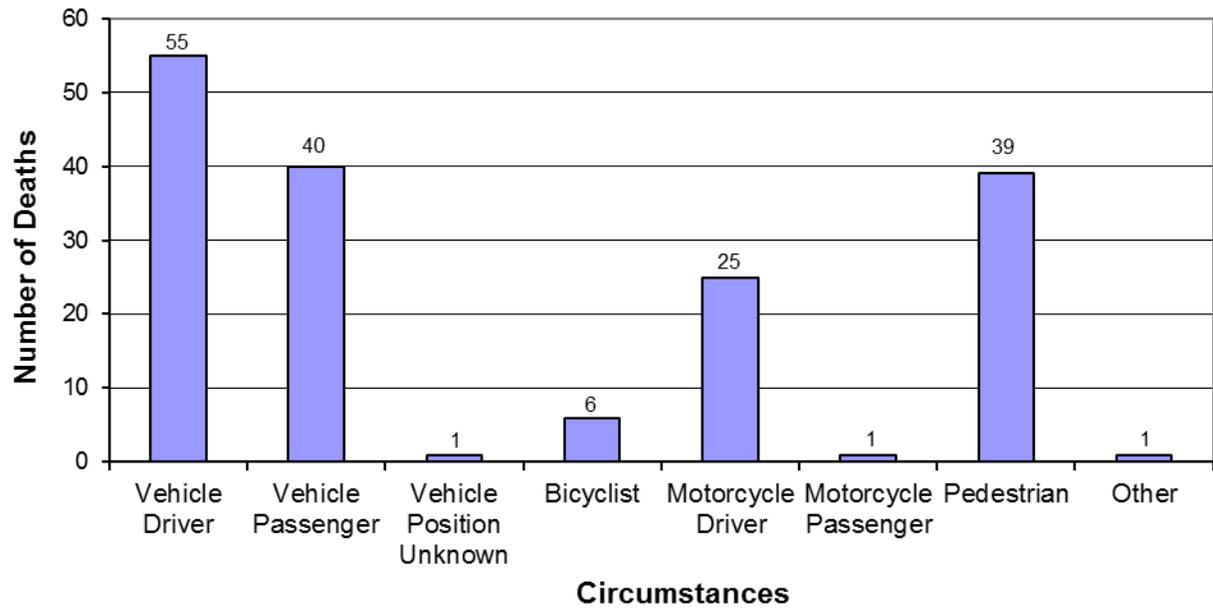
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<sup>16</sup>See "Explanation of Data" for criteria for blood alcohol testing, page 6.

Pedestrians constituted 23% (39/168) of traffic fatalities. The majority of pedestrian deaths, 67% (26/39), were male. Of the pedestrian fatalities that were tested, 32% (9/28) had detectable amounts of alcohol present in their blood at the time of death.

There were 6 bicyclist deaths in 2015; 3 were riders wearing a helmet, 2 were not wearing a helmet, and it is unknown if 3 were wearing a helmet or not. Four of the bicyclist fatalities were tested and none of them had a detectable amount of alcohol present in his/her blood at the time of death.

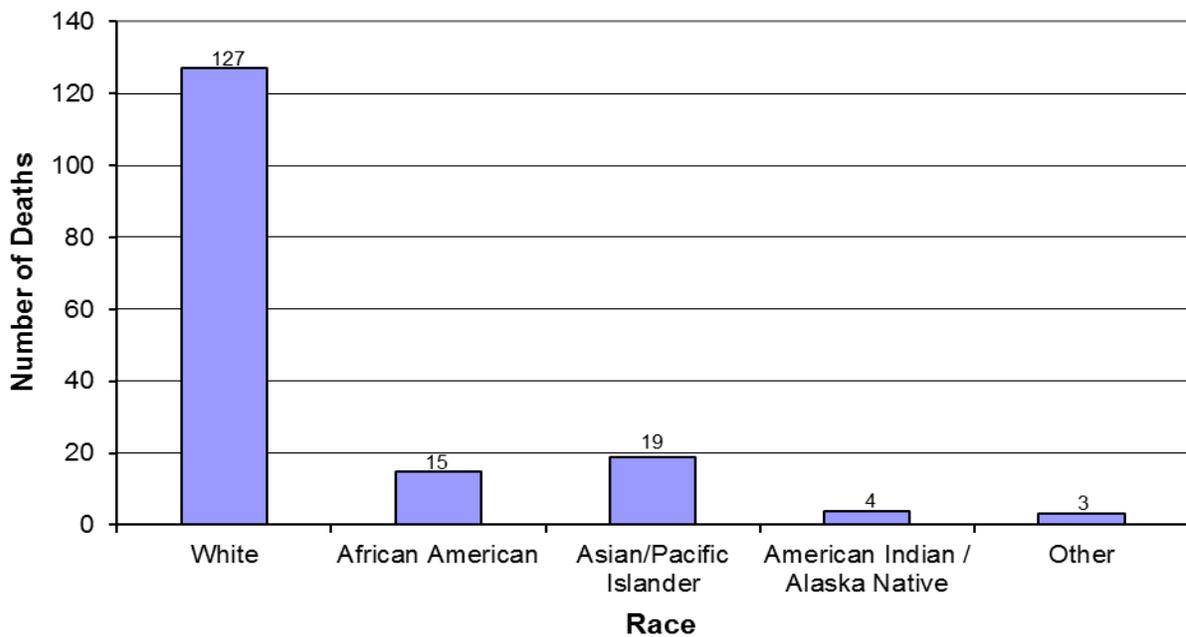
Graph 8-1 Traffic Fatality Circumstances / KCME / 2015



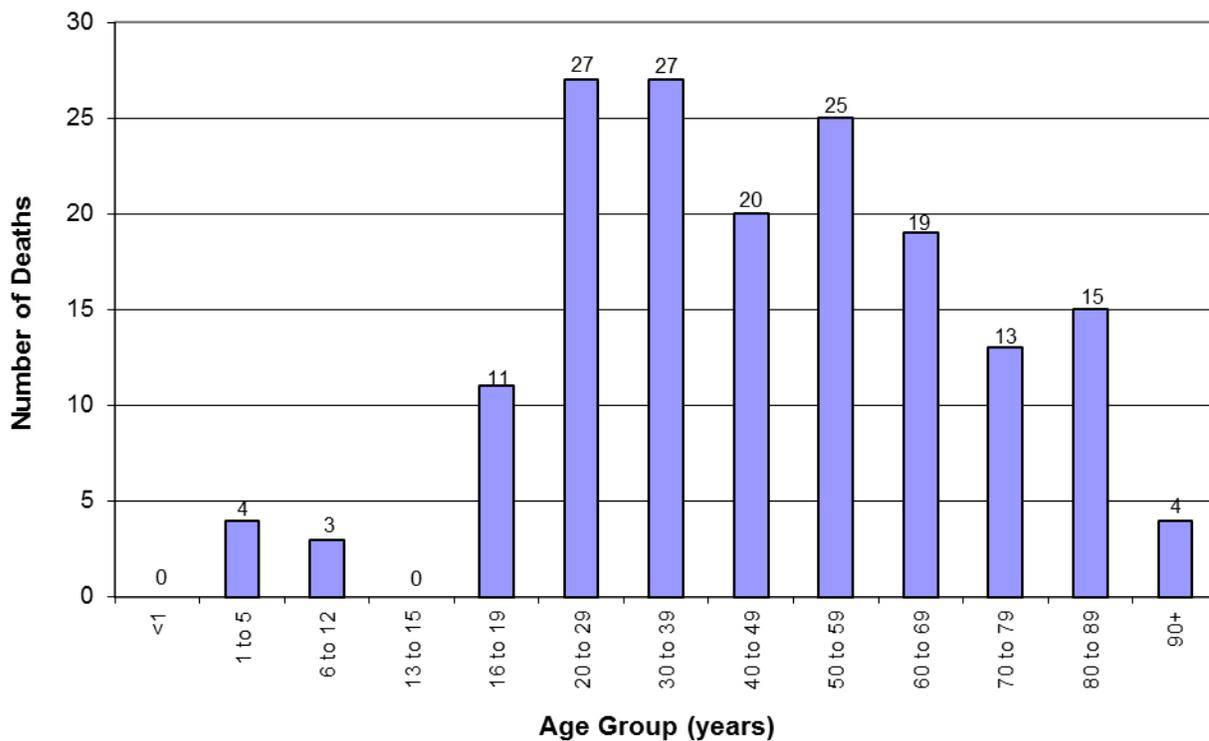
**Table 8-1 Traffic Fatality Circumstances / Race / Gender / KCME / 2015**

CIRCUMSTANCES / GENDER	RACE					SUB-TOTAL	TOTAL
	WHITE	AFRICAN AMER	ASIAN/ PAC IS	AM INDIAN /AK NATIVE	OTHER		
Vehicle Driver	40	7	5	2	1		55
<i>Male</i>	28	4	3	1	1	37	
<i>Female</i>	12	3	2	1	0	18	
Vehicle Passenger	27	4	8	1	0		40
<i>Male</i>	8	1	3	0	0	12	
<i>Female</i>	19	3	5	1	0	28	
Vehicle Unknown Position	1	0	0	0	0		1
<i>Male</i>	0	0	0	0	0	0	
<i>Female</i>	1	0	0	0	0	1	
Bicycle	6	0	0	0	0		6
<i>Male</i>	4	0	0	0	0	4	
<i>Female</i>	2	0	0	0	0	2	
Motorcycle Driver	21	2	1	1	0		25
<i>Male</i>	20	2	1	1	0	24	
<i>Female</i>	1	0	0	0	0	1	
Motorcycle Passenger	1	0	0	0	0		1
<i>Male</i>	0	0	0	0	0	0	
<i>Female</i>	1	0	0	0	0	1	
Pedestrian	30	2	5	0	2		39
<i>Male</i>	18	2	4	0	2	26	
<i>Female</i>	12	0	1	0	0	13	
Other	1	0	0	0	0		1
<i>Male</i>	1	0	0	0	0	1	
<i>Female</i>	0	0	0	0	0	0	
<b>Totals</b>	<b>127</b>	<b>15</b>	<b>19</b>	<b>4</b>	<b>3</b>		<b>168</b>
Percent	75.6%	8.9%	11.3%	2.4%	1.8%		100%

**Graph 8-2 Traffic Fatalities / Race / KCME / 2015**



**Graph 8-3 Traffic Fatalities / Age / KCME / 2015**





**Table 8-2 Traffic Fatality Circumstances / Age / Gender / KCME / 2015**

Circumstances/Gender	AGE GROUP (YEARS)													SUB-TOTAL	TOTAL
	< 1	1 to 5	6 to 12	13 to 15	16 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 +		
Vehicle Driver	0	0	0	0	4	8	12	8	9	4	5	4	1		55
<i>Male</i>	0	0	0	0	4	6	8	6	7	2	2	2	0	37	
<i>Female</i>	0	0	0	0	0	2	4	2	2	2	3	2	1	18	
Vehicle Passenger	0	0	3	0	6	6	6	4	3	1	44	5	2		40
<i>Male</i>	0	0	2	0	4	3	1	1	0	0	1	0	0	12	
<i>Female</i>	0	0	1	0	2	3	5	3	3	1	3	5	2	28	
Vehicle Position Unknown	0	0	0	0	0	0	0	0	1	0	0	0	0		1
<i>Male</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Female</i>	0	0	0	0	0	0	0	0	1	0	0	0	0	1	
Bicyclist	0	0	0	0	0	1	0	2	0	2	1	0	0		6
<i>Male</i>	0	0	0	0	0	0	0	1	0	2	1	0	0	4	
<i>Female</i>	0	0	0	0	0	1	0	1	0	0	0	0	0	2	
Motorcycle Driver	0	0	0	0	1	5	7	1	5	4	1	1	0		25
<i>Male</i>	0	0	0	0	1	5	6	1	5	4	1	1	0	24	
<i>Female</i>	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
Motorcycle Passenger	0	0	0	0	1	0	0	0	0	0	0	0	0		1
<i>Male</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Female</i>	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
Pedestrian	0	4	0	0	0	5	2	5	7	8	2	5	1		39
<i>Male</i>	0	2	0	0	0	5	2	3	4	5	2	3	0	26	
<i>Female</i>	0	2	0	0	0	0	0	2	3	3	0	2	1	13	
Other	0	0	0	0	0	1	0	0	0	0	0	0	0		1
<i>Male</i>	0	0	0	0	0	1	0	0	0	0	0	0	0	1	
<i>Female</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Totals</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>11</b>	<b>27</b>	<b>27</b>	<b>20</b>	<b>25</b>	<b>19</b>	<b>13</b>	<b>15</b>	<b>4</b>		<b>168</b>
Percent	0%	2.4%	1.8%	0%	6.5%	16.1%	16.1%	11.9%	14.9%	11.3%	7.7%	8.9%	2.4%		100%



**Table 8-3 Traffic Fatality Circumstances / Gender / KCME / 2015**

CIRCUMSTANCES	GENDER		TOTAL
	MALE	FEMALE	
Vehicle Driver	37	18	55
Vehicle Passenger	12	28	40
Vehicle Position Unknown	0	1	1
Bicyclist	4	2	6
Motorcycle Driver	24	1	25
Motorcycle Passenger	0	1	1
Pedestrian	26	13	39
Other Mode	1	0	1
<b>Totals</b>	<b>104</b>	<b>64</b>	<b>168</b>
Percent	62%	38%	100%

**Table 8-4 Traffic Fatality Circumstances / Use of Restraint / Helmet / KCME / 2015<sup>2</sup>**

CIRCUMSTANCES	Used Safety Device	No Safety Device Used	Unknown	TOTAL
Vehicle Driver	22	23	10	55
Vehicle Passenger	18	13	9	40
Bicyclist	3	2	1	6
Motorcycle Driver	20	2	3	25
Motorcycle Passenger	1	0	0	1
<b>Totals</b>	<b>64</b>	<b>40</b>	<b>23</b>	<b>127</b>
Percent	50%	32%	18%	100%

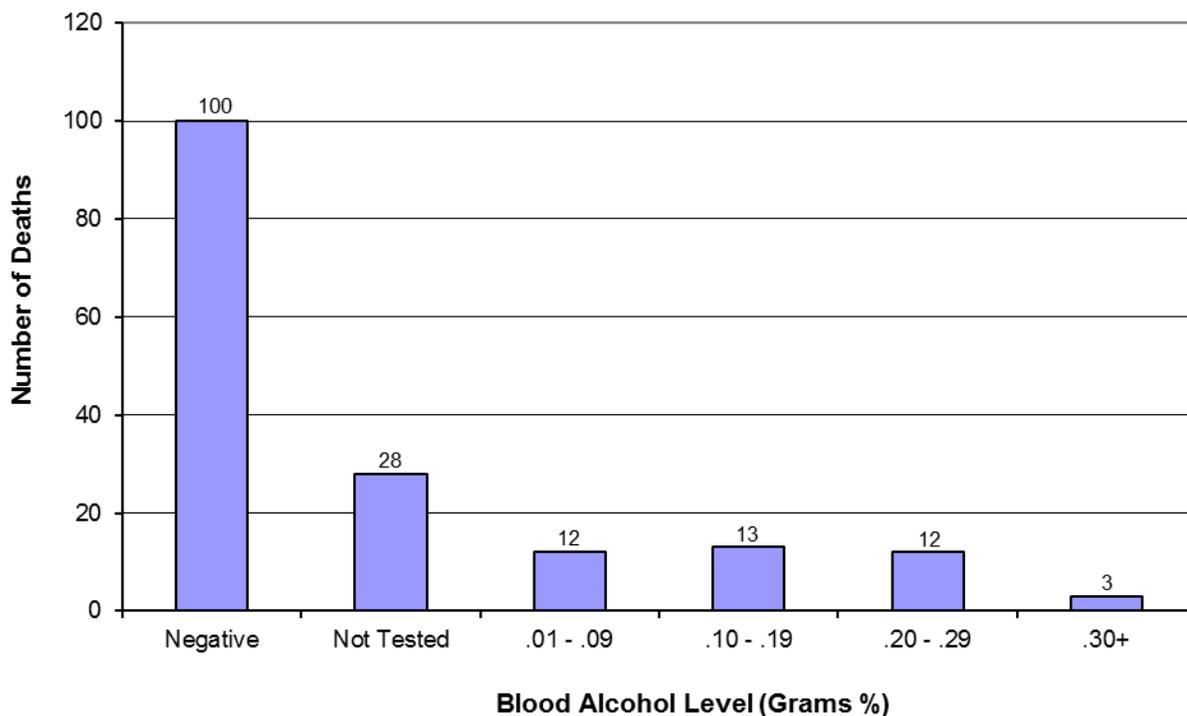
<sup>2</sup>Does not include vehicle position unknown, pedestrian or other traffic modes of deaths.



**Table 8-5 Traffic Fatality Circumstances / Blood Alcohol Results / KCME / 2015**

CIRCUMSTANCES	TESTED		NOT TESTED	TOTAL
	POSITIVE	NEGATIVE		
Vehicle Driver	21	31	3	55
Vehicle Passenger	5	23	12	40
Vehicle Position Unknown	0	1	0	1
Bicyclist	0	4	2	6
Motorcycle Driver	5	18	2	25
Motorcycle Passenger	0	1	0	1
Pedestrian	9	21	9	39
Other Mode	0	1	0	0
<b>Totals</b>	<b>40</b>	<b>100</b>	<b>28</b>	<b>168</b>
Percent	24%	59%	17%	100%

**Graph 8-4 Blood Alcohol Results / KCME / 2015**

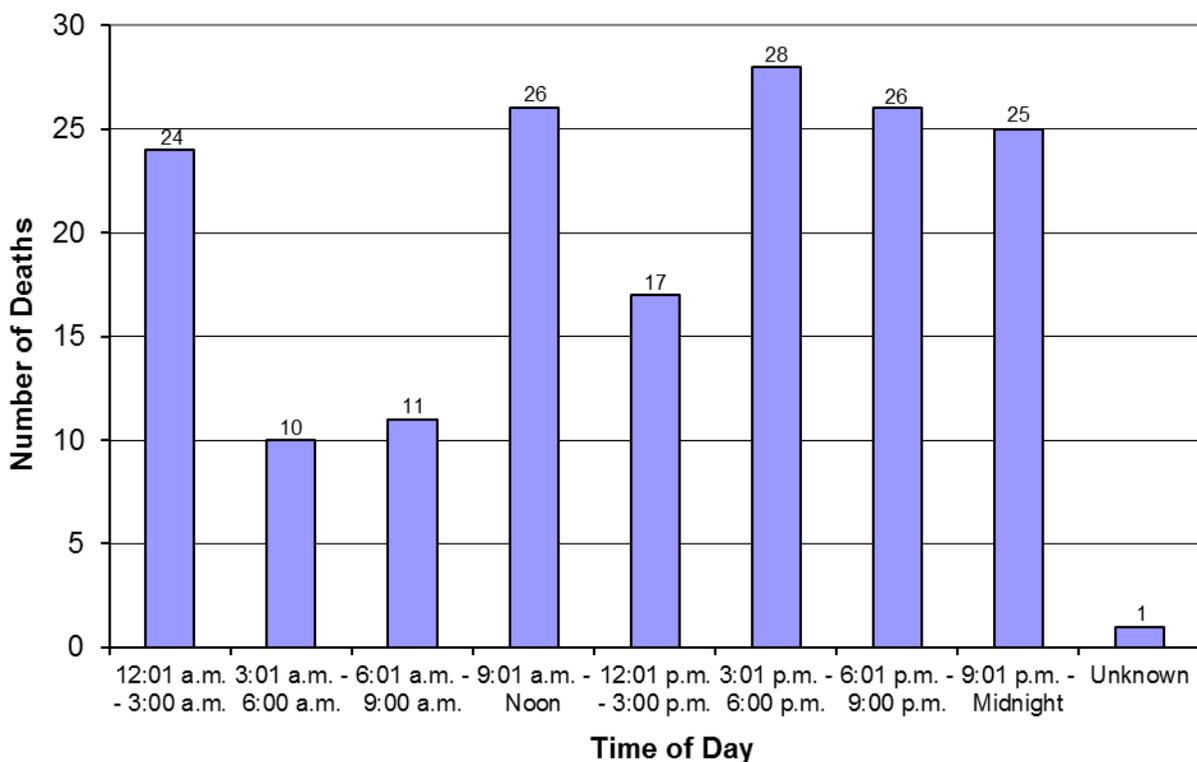




**Table 8-6 Time of Fatal Traffic Collision / KCME / 2015**

TIME OF DAY	TOTAL	PERCENT
12:01 a.m. - 3:00 a.m.	24	14
3:01 a.m. - 6:00 a.m.	10	6
6:01 a.m. - 9:00 a.m.	11	7
9:01 a.m. - Noon	26	15
12:01 p.m. - 3:00 p.m.	17	10
3:01 p.m. - 6:00 p.m.	28	17
6:01 p.m. - 9:00 p.m.	26	15
9:01 p.m. - Midnight	25	15
Unknown	1	1
<b>TOTALS</b>	<b>168</b>	<b>100%</b>

**Graph 8-5 Time of Fatal Traffic Collision / KCME / 2015**



# Deaths due to drugs and poisons

In 2012, it was reported in the *National Vital Statistics Report*<sup>17</sup> that preliminary cause of death information from 2009 shows drug-induced deaths were the leading cause of accidental deaths of Americans. This was the first time drug-induced deaths had surpassed motor vehicle accidents as the number one cause of accidental deaths.

For King County in 2015, drugs and poisons caused 345 deaths, approximately 16% of all deaths investigated (345/2,103). The total number of drug-caused deaths increased compared to 2014 when there were 343 drug deaths. In 2015, deaths due to drugs and poisons comprised 34% (345/1001) of all suicidal, accidental and undetermined deaths combined.

For the purpose of this section, the term “overdose” is used to describe a death caused by a single drug or multiple drugs in combination. Multiple drug intoxication continued to cause the majority of drug deaths in 2015. Of the drug/poison deaths in 2015, a single drug or poison caused 32% of the drug related deaths (111/345), and drugs or poisons in combination caused 68% (234/345.) Multiple drug intoxication caused 72% of the drug/poison deaths in 2014. Table 9-3 displays the specific drugs that caused death in 2015. Because of their prevalence, ethanol, cocaine (a stimulant), and opiates<sup>18</sup> are identified as separate drug categories. Data on deaths involving methadone, oxycodone, and methamphetamine are also shown in detail.

Deaths due to drugs and poisons are represented in the manners of accident, suicide, and undetermined. There were no deaths classified as homicide in 2015 in which drugs or poisons were the primary cause of the death, although the victim may have been under the influence of drugs at the time of the fatal incident.

The classification of undetermined manner is used when the circumstances surrounding the drug death does not allow clarification of whether the fatal intoxication was intentional, unintentional ("recreational"), or due to another person's actions. In the year 2015, drugs and poisons caused 9 deaths of undetermined manner, compared to 13 in 2014. Of the 9 undetermined drug related deaths in 2015, 1 was a fetal death attributed to maternal drug use.

In 2015, drugs/poisons caused 41 suicides, the same amount as in 2014.

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<sup>17</sup> Kenneth D. Kochanek, M.A.; Jiaquan Xu, M.D.; Sherry L. Murphy, B.S.; Arialdi M. Miniño M.P.H.; and Hsiang-Ching Kung, Ph.D., Division of Vital Statistics “Deaths: Preliminary Data 2009,” National Vital Statistics Report Volume 59 Number 4 (March 2013)

<sup>18</sup> When the term “opiate” is used in this section, the drug detected by analysis is a derivative of opium, usually morphine, the source of which is either pharmaceutical morphine or heroin. The term opioid refers to the general class of drugs, often called narcotics that interact with the opioid receptor. For example, oxycodone, and methadone are “opioids” but in this section are not “opiates.”

Drugs/poisons caused 295 accidental overdose deaths in 2015 compared to 290 in 2014. In 2015, accidental drug deaths comprised 35% (295/840) of all accidental deaths.

Ethanol (alcohol) is also a drug to be critically examined for its role in the circumstances surrounding death. In 2015, 14 accidental deaths were attributed to acute ethanol intoxication where ethanol was the single substance used. Eighty-seven people died in 2015 where ethanol, in combination with other drugs, was the cause of death. Blood alcohol (ethanol) tests were performed in 73% (903/1245) of non-natural deaths. Blood alcohol tests are only performed when death occurs within 24 hours of the initial injury/event, or, in hospital deaths, when an admission blood sample is available for testing. Positive blood alcohol levels were detected in 32% (291/903) of non-natural deaths where tests were performed.

It is important to know that the following tables and charts represent toxicology results from specimens gathered by the King County Medical Examiner's Office and are not necessarily reflective of the total number of overdoses. While there were 345 overdose deaths in 2015 not all of those deaths had toxicological specimens available for testing. In certain instances delayed hospital deaths were classified based on medical records where samples for confirmatory laboratory testing were no longer available. For example there were 6 methamphetamine, 1 cocaine, and 9 opiate deaths where the cause of death was based on medical records alone.

**Table 9-1 Blood Alcohol Testing / Manner / KCME / 2015**

Test Results	ACCIDENT	TRAFFIC	HOMICIDE	NATURAL	SUICIDE	UNDETERMINED	TOTAL
Tested	405	136	67	68	237	58	1371
<i>Positive</i>	138	40	16	96	81	16	387
<i>Negative</i>	267	96	51	372	156	42	984
Not Tested	267	32	9	390	25	9	732
<b>Totals</b>	<b>672</b>	<b>168</b>	<b>76</b>	<b>858</b>	<b>262</b>	<b>67</b>	<b>2,103</b>

**Table 9-2 Blood Alcohol Testing / Percentage / Manner / KCME / 2015**

Test Results	ACCIDENT	TRAFFIC	HOMICIDE	NATURAL	SUICIDE	UNDETERMINED	TOTAL
Tested	60%	81%	88%	55%	90%	87%	65%
<i>Positive</i>	20%	24%	21%	11%	31%	24%	18%
<i>Negative</i>	10%	57%	67%	43%	59%	63%	47%
Not Tested	40%	19%	12%	45%	10%	13%	35%
<b>Totals</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Table 9-3 2015 Drug & Poison Caused Deaths<sup>1</sup>**

Drug Name	Total deaths out of 2,103 cases in which drug was present	Overdose Deaths (345) – Drug Present						Overdose Deaths (345) – Drug Causing					
		In which drug was present	Single drug OD in which drug was present	Multiple drug OD in which drug was present	Accident	Suicide	Undetermined	In which drug caused death	OD in which a single drug caused death	OD in which multiple drugs caused death	Accident	Suicide	Undetermined
Acetaminophen	11	7	1	6	1	5	1	3	1	2	0	2	1
Alprazolam	47	34	1	33	31	3	0	34	1	33	31	3	0
Amitriptyline	21	10	1	9	6	3	1	10	1	9	6	3	1
Amphetamine	74	41	27	14	39	2	0	1	0	1	0	1	0
Bupropion	14	7	0	7	4	3	0	7	0	7	4	3	0
Cannabinoids / THC <sup>2</sup>	108	16	2	14	14	2	0	0	0	0	0	0	0
Carbon Monoxide <sup>3</sup>	23	0	0	0	0	0	0	0	0	0	0	0	0
Carisoprodol	3	2	0	2	2	0	0	2	0	2	2	0	0
Chlordiazepoxide	13	8	0	8	8	0	0	7	0	7	7	0	0
Citalopram	47	17	0	17	13	4	0	16	0	16	12	4	0
Cocaine <sup>4</sup>	90	55	7	48	53	2	0	53	7	46	51	2	0
Codeine <sup>5</sup>	90	77	60	17	76	1	0	3	0	3	2	1	0
Cyanide	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyclobenzaprine	4	3	0	3	2	1	0	3	0	3	2	1	0
Dextromethorphan	9	3	1	2	2	1	0	2	0	2	1	1	0
Diazepam	37	16	0	16	12	3	1	14	0	14	10	3	1
Diltiazem	3	1	0	1	1	0	0	1	0	1	1	0	0
Difluoroethane	2	2	2	0	2	0	0	2	2	0	2	0	0
Diphenhydramine	66	22	3	19	16	5	1	20	1	19	15	4	1
Doxepin	3	1	0	1	1	0	0	1	0	1	1	0	0
Doxylamine	10	4	0	4	3	1	0	2	0	2	2	0	0
Ephedrine	2	1	0	1	1	0	0	1	0	1	1	0	0
Ethanol	387	120	24	96	107	10	3	101	14	87	90	8	3
Ethylene Glycol	2	2	2	0	0	2	0	2	2	0	0	2	0
Fentanyl	12	4	1	3	4	0	0	2	1	1	2	0	0

Table 9-3 2015 Drug & Poison Caused Deaths, page 2

Drug Name	Total deaths out of 2,103 cases in which drug was present	Overdose Deaths (345) – Drug Present						Overdose Deaths (345) – Drug Causing					
		In which drug was present	Single drug OD in which drug was present	Multiple drug OD in which drug was present	Accident	Suicide	Undetermined	In which drug caused death	OD in which a single drug caused death	OD in which multiple drugs caused death	Accident	Suicide	Undetermined
Fluoxetine	25	11	1	10	4	2	5	11	1	10	4	2	5
Gabapentin	17	8	0	8	6	1	1	8	0	8	6	1	1
Gamma hydroxybutyrate	1	1	0	1	1	0	0	1	0	1	1	0	0
Hydrocodone	33	11	0	11	6	5	0	11	0	11	6	5	0
Hydromorphone	31	14	1	13	11	3	0	8	0	8	8	0	0
Hydroxyzine	1	1	1	0	1	0	0	0	0	0	0	0	0
Isopropanol	7	1	0	1	1	0	0	0	0	0	0	0	0
Ketamine	4	1	0	1	1	0	0	0	0	0	0	0	0
Lamotrigine	9	4	0	4	2	2	0	4	0	4	2	2	0
Lidocaine	16	4	0	4	3	1	0	1	0	1	1	0	0
Lorazepam	21	7	1	6	1	6	0	5	0	5	0	5	0
MDA	2	2	0	2	2	0	0	1	0	1	1	0	0
MDMA	3	2	0	2	2	0	0	2	0	2	2	0	0
Meprobamate	6	4	0	4	4	0	0	2	0	2	2	0	0
Methadone	68	40	5	35	39	1	0	39	5	34	38	1	0
Methamphetamine	147	83	26	57	81	1	1	81	24	57	79	1	1
Metoclopramide	1	1	0	1	0	0	1	1	0	1	0	0	1
Metoprolol	3	1	0	1	0	1	0	1	0	1	0	1	0
Midazolam	42	3	1	2	3	0	0	0	0	0	0	0	0
Mirtazapine	7	4	0	4	3	1	0	0	0	0	0	0	0
Mitragynine	3	1	0	1	1	0	0	1	0	1	1	0	
Monoacetylmorphine <sup>6</sup>	65	59	10	49	59	0	0	0	0	0	0	0	0
Nicotine	1	1	1	0	0	1	0	1	1	0	0	1	0
Nortriptyline <sup>7</sup>	27	13	2	11	7	4	2	3	0	3	1	1	1
Opiate <sup>8</sup>	205	144	25	119	142	1	1	142	24	118	140	1	1

Table 9-3 2015 Drug & Poison Caused Deaths, page 3

Drug Name	Total deaths out of 2,103 cases in which drug was present	Overdose Deaths (345) – Drug Present						Overdose Deaths (345) – Drug Causing					
		In which drug was present	Single drug OD in which drug was present	Multiple drug OD in which drug was present	Accident	Suicide	Undetermined	In which drug caused death	OD in which a single drug caused death	OD in which multiple drugs caused death	Accident	Suicide	Undetermined
Oxazepam	8	6	0	6	3	3	0	0	0	0	0	0	0
Oxycodone	71	26	1	25	16	9	1	26	1	25	16	9	1
Oxymorphone	21	13	1	12	8	5	0	2	0	2	2	0	0
Paroxetine	4	2	1	1	2	0	0	2	1	1	2	0	0
Phencyclidine	2	1	0	1	1	0	0	1	0	1	1	0	0
Phenobarbital	5	2	0	2	1	0	1	1	0	1	1	0	0
Pseudoephedrine	3	2	0	2	2	0	0	2	0	2	2	0	0
Quetiapine	10	4	0	4	3	1	0	4	0	4	3	1	0
Remifentanyl	1	1	0	1	1	0	0	1	0	1	1	0	0
Risperidone	1	1	0	1	0	1	0	1	0	1	0	1	0
Salicylate	2	2	0	2	1	1	0	2	0	2	1	1	0
Sertaline	25	10	0	10	9	0	1	8	0	8	7	0	1
Strychnine	1	1	1	0	0	1	1	1	1	0	0	1	0
Temazepam	12	7	0	7	4	3	0	2	0	2	1	1	0
Tramadol	10	5	1	4	2	2	1	5	1	4	2	2	1
Trazodone	39	17	0	17	10	7	0	17	0	17	10	7	0
Venlafaxine	18	9	0	9	7	2	0	9	0	9	7	2	0
ZopliDEM	14	8	0	8	3	3	2	8	0	8	3	3	2

**Table 9-3            2015 Drug & Poison Caused Deaths, page 4**

<sup>1</sup>Table 9-3 is constructed on the basis of finding each of the listed drugs by laboratory analysis of the decedent's blood. The first column represents the total number of cases in which the specific drug was detected, regardless of cause and manner of death. The rest of the columns represent only drug overdose deaths and are divided into two parts. The part that lists "Drug Present" represents the number of cases in drug overdose deaths in which the drug was present in quantifiable amounts. The other part that lists "Drug Causing" represents the number of drug overdose deaths in which the specific drug caused or contributed to death in the opinion of the certifying Medical Examiner, i.e., the drug was included on the death certificate. In many cases, the numbers in the first part are more than those in the second part because the drug, although present, was not considered to contribute significantly to death, i.e., the drug was not listed on the death certificate even though it was detected in the decedent. In a few cases, the column that lists "In which drug caused death" is greater than the column that lists "In which drug was present," because the drug was detected but not in quantifiable levels, and the certifying Medical Examiner considered the drug to have contributed to death.

<sup>2</sup>Cannabinoids are listed if they were found at any level in blood or urine, not necessarily in quantified levels. Cannabinoids in levels typically found are not considered lethal agents and, therefore, there are no instances of single drug overdose deaths involving cannabinoids or THC. Although cannabinoids/THC were not considered contributory to death, they were detected in overdose deaths as listed.

<sup>3</sup>Carbon monoxide fatalities are listed in the first column if the level of carboxyhemoglobin was 5% or greater. The rest of the columns represent only drug overdose deaths and are divided into two parts, "Drug Present" and "Drug Causing". There were eight suicides from the inhalation of carbon monoxide but these deaths were listed as asphyxia deaths secondary to a suffocating and were not listed as drug overdoses. There were thirteen accidental deaths where carbon monoxide was present. Three were related to accidental asphyxiation from car exhaust and ten where from fires. There were no undetermined overdose deaths involving carbon monoxide.

<sup>4</sup>Includes benzoyllecgonine.

<sup>5</sup>Out of the 77 overdose deaths involving codeine, in 72 cases, the source of the drug was likely small quantities of codeine present in heroin used by illicit drug users. In 1 cases the source of the drug was unknown.

<sup>6</sup> Monoacetylmorphine (MAM) is a principal toxicological marker for heroin. It is the first breakdown product of heroin, which is diacetylmorphine. The presence of MAM, therefore, proves the source of opiate to be heroin. However, the absence of MAM does not imply that the source of the opiate was not heroin.

<sup>7</sup>In 8 of the 27 total cases, nortriptyline was present without the presence of amitriptyline, indicating that the source of the drug was, in fact, nortriptyline. In the other 19 cases, amitriptyline was also present, indicating that the nortriptyline was present due to the breakdown of amitriptyline. There were a total of 3 nortriptyline overdose deaths; all three were multiple drug overdoses. Of those one was an accident, one was a suicide and one was undetermined.

<sup>8</sup>As used in this section, "opiate" refers exclusively to the naturally occurring drug (morphine) or its derivative (heroin). This category does not include the other "opioids" such as oxycodone, hydrocodone, hydromorphone, oxymorphone and methadone. In 2015 there were 142 deaths caused by opiates. Toxicological analysis detects only morphine and cannot differentiate heroin and pharmaceutical morphine as the likely source of the opiate. Based on toxicology analysis (presence of acetylmorphine), scene investigation, and circumstances it was determined that out of these 142 deaths, 119 were definitely or probably due to heroin and 9 were due to pharmaceutical morphine. In the remaining 14 cases, there were 12 where it was not possible to determine whether the death was due to heroin or pharmaceutical morphine and 2 where the cause of death was related to drugs other than morphine.

Graph 9-1 Drug & Poison Caused Deaths / Accident, Suicide, Undetermined / KCME / 2006- 2015

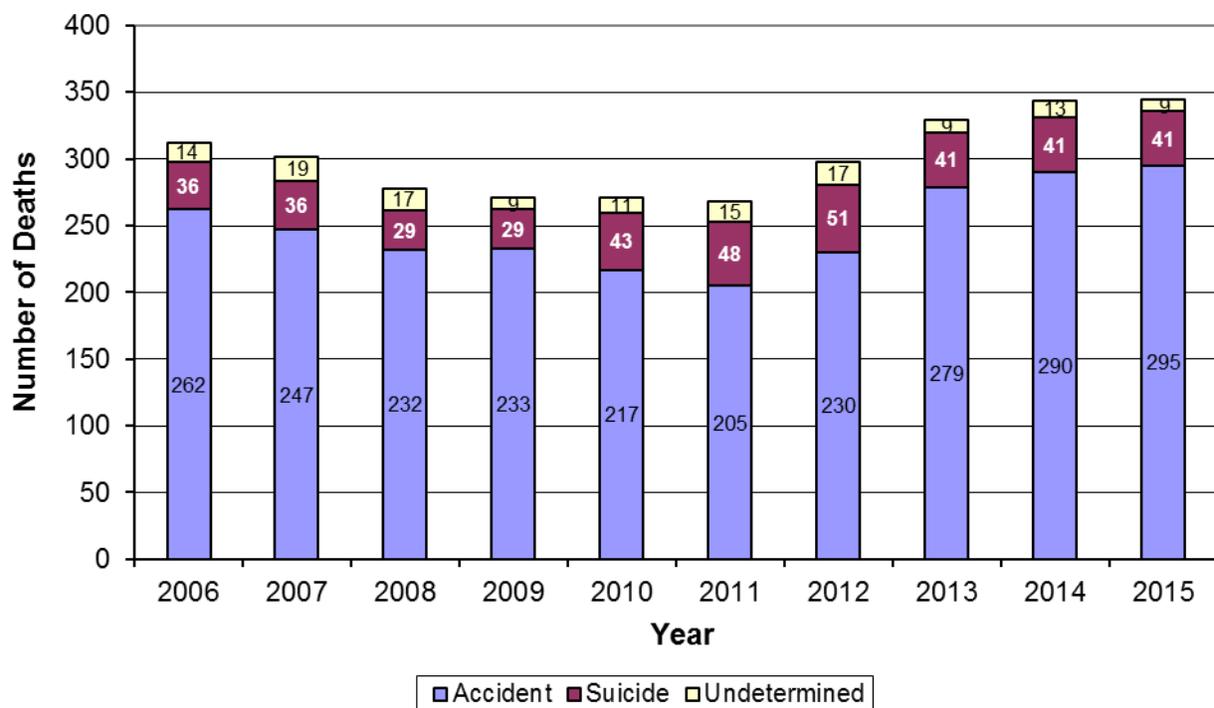


Table 9-4 Total Overdose Deaths / Accident, Suicide, Undetermined / 2003 – 2015<sup>9</sup>

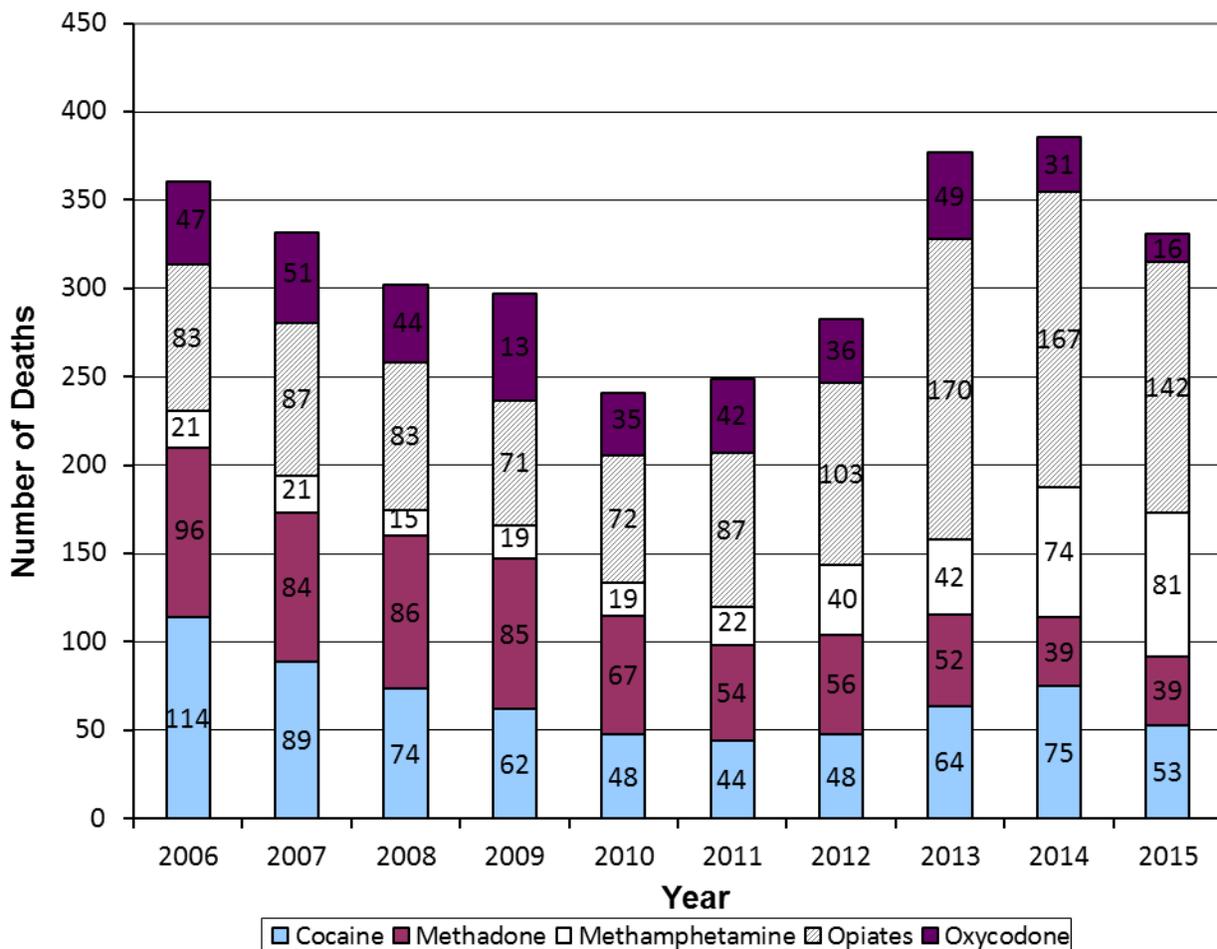
Overdose Deaths	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Accident	262	247	232	233	217	205	230	279	290	295
Suicide	36	36	29	29	43	48	51	41	41	41
Undetermined	14	19	17	9	11	15	17	9	13	9
<b>Totals</b>	<b>312</b>	<b>302</b>	<b>278</b>	<b>271</b>	<b>271</b>	<b>268</b>	<b>298</b>	<b>329</b>	<b>344</b>	<b>345</b>

<sup>9</sup> Includes all deaths classified as overdose, regardless of whether lab samples were available for analysis.

**Table 9-5 Overdose Deaths Caused by Cocaine, Methadone, Opiates, Methamphetamine, or Oxycodone<sup>10</sup> / KCME / 2004 - 2015**

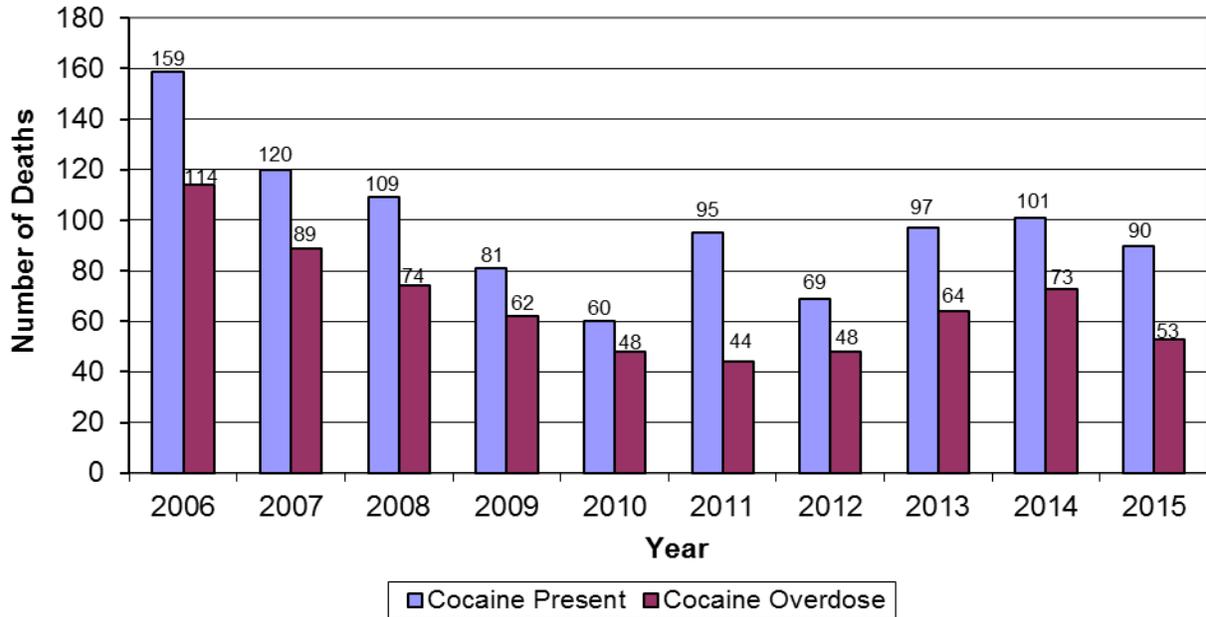
DRUG	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cocaine	114	89	74	62	48	44	48	64	75	53
Methadone	96	84	86	85	67	54	56	52	39	39
Methamphetamine	21	21	15	19	19	22	40	42	74	81
Opiates	83	87	83	71	72	87	103	170	167	142
Oxycodone	47	51	44	60	35	42	36	49	31	16

**Graph 9-2 Drug & Poison Caused Deaths / Accident, Suicide, Undetermined / KCME / 2006 - 2015**

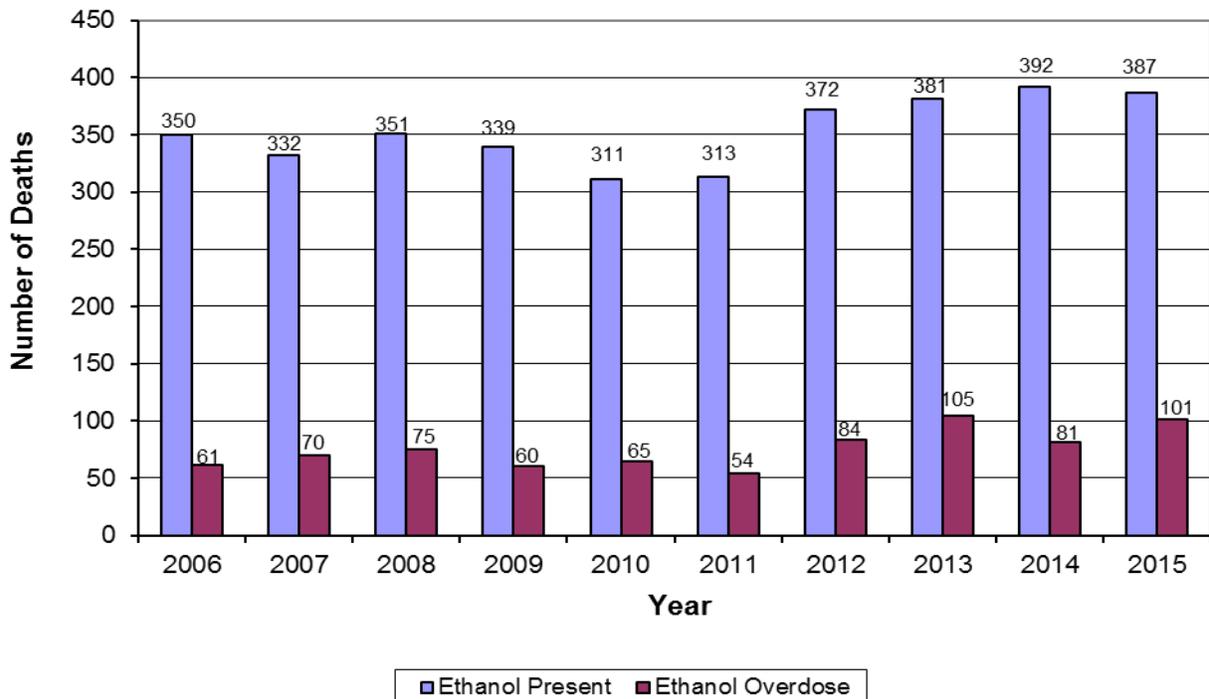


<sup>10</sup>In this context, "caused by" refers to single or multiple drug overdoses in which the drug was listed on the death certificate.

**Graph 9-3 Cocaine Involved Deaths<sup>11</sup> / KCME / 2006 – 2015**

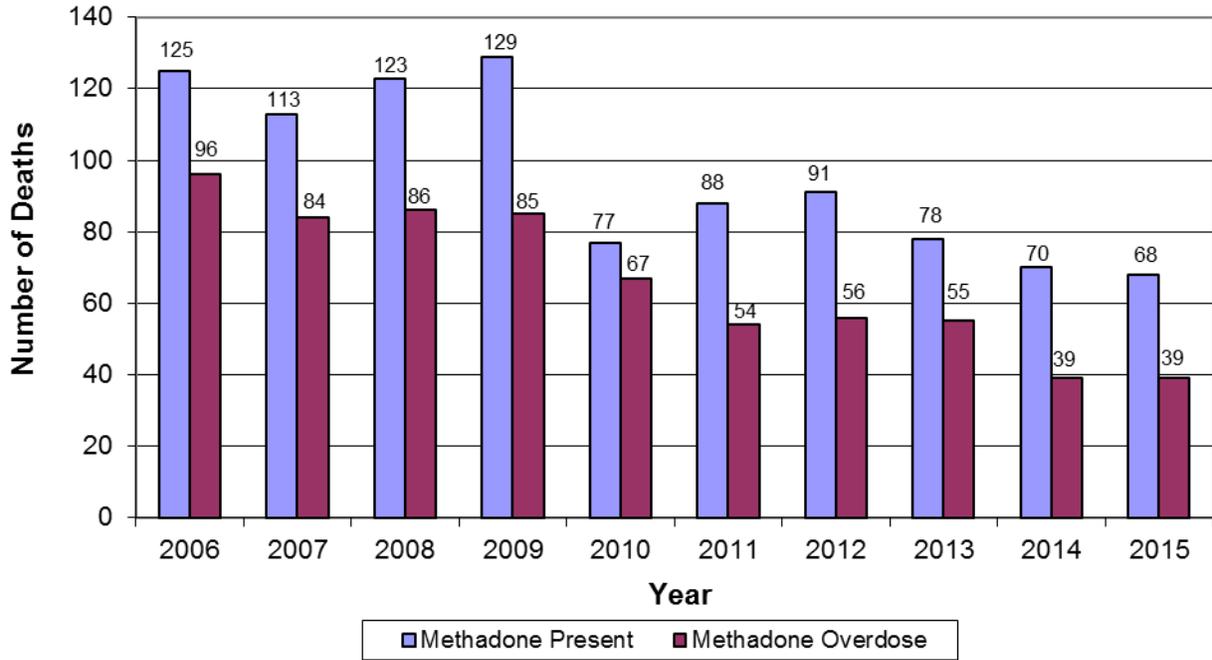


**Graph 9-4 Ethanol Involved Deaths / KCME/ 2006– 2015**

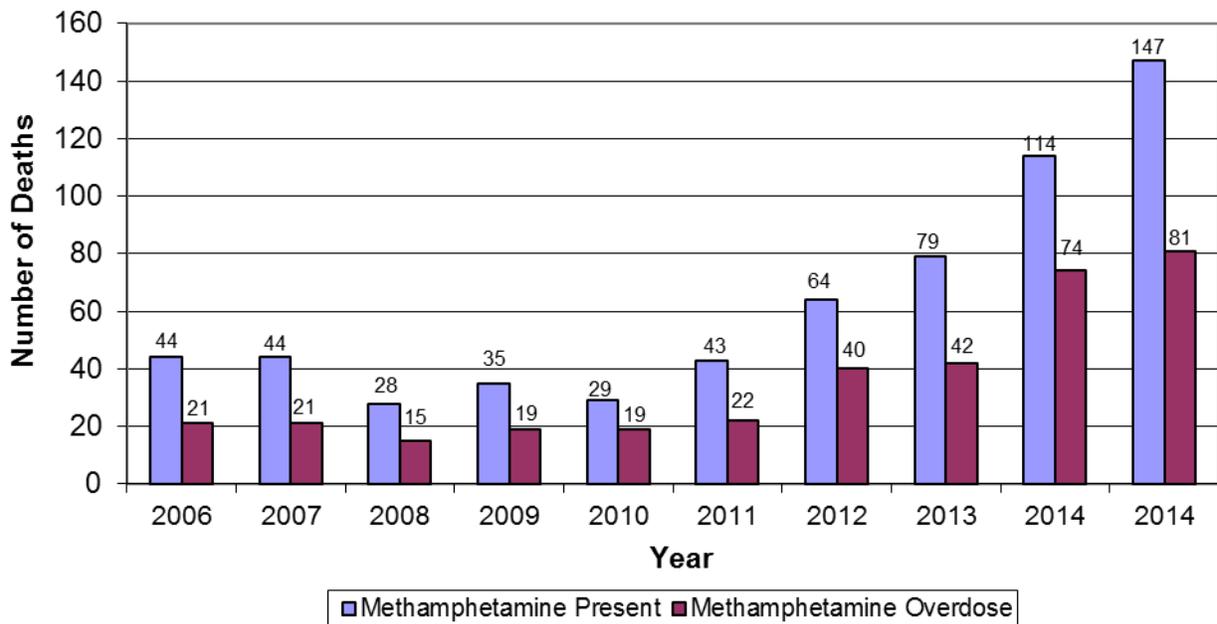


<sup>11</sup>In Graphs 9-3, 9-4, 9-5 and 9-6, "overdose" refers to deaths due to the listed drug in single or multiple drug overdose deaths.

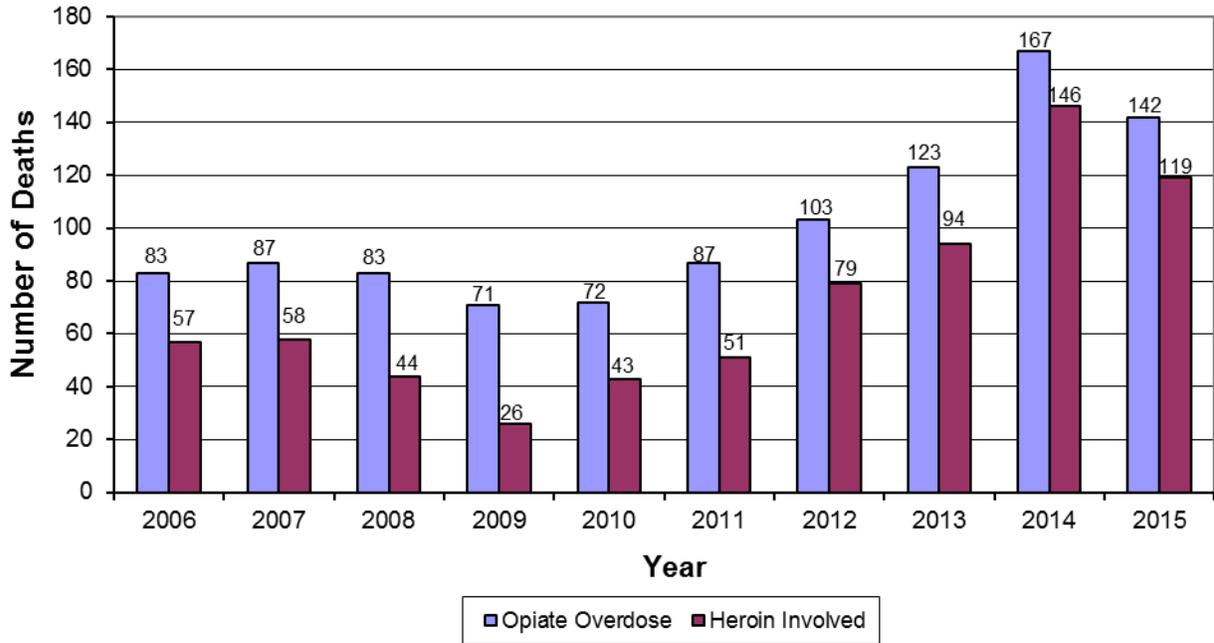
**Graph 9-5 Methadone Involved Deaths / KCME / 2006 - 2015**



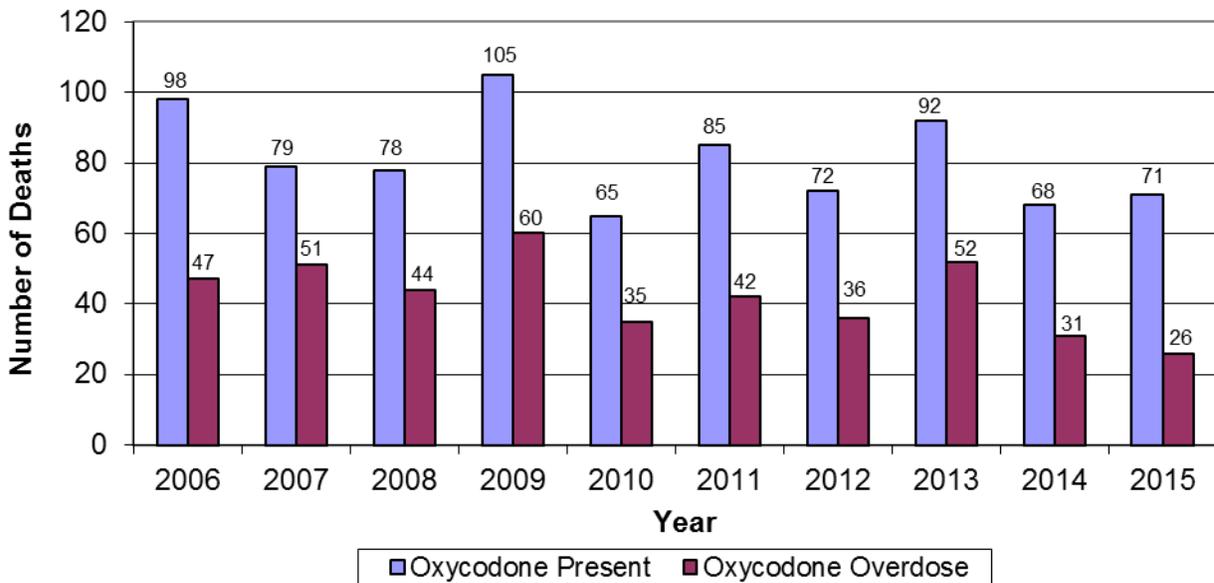
**Graph 9-6 Methamphetamine Involved Deaths / KCME / 2006 – 2015**



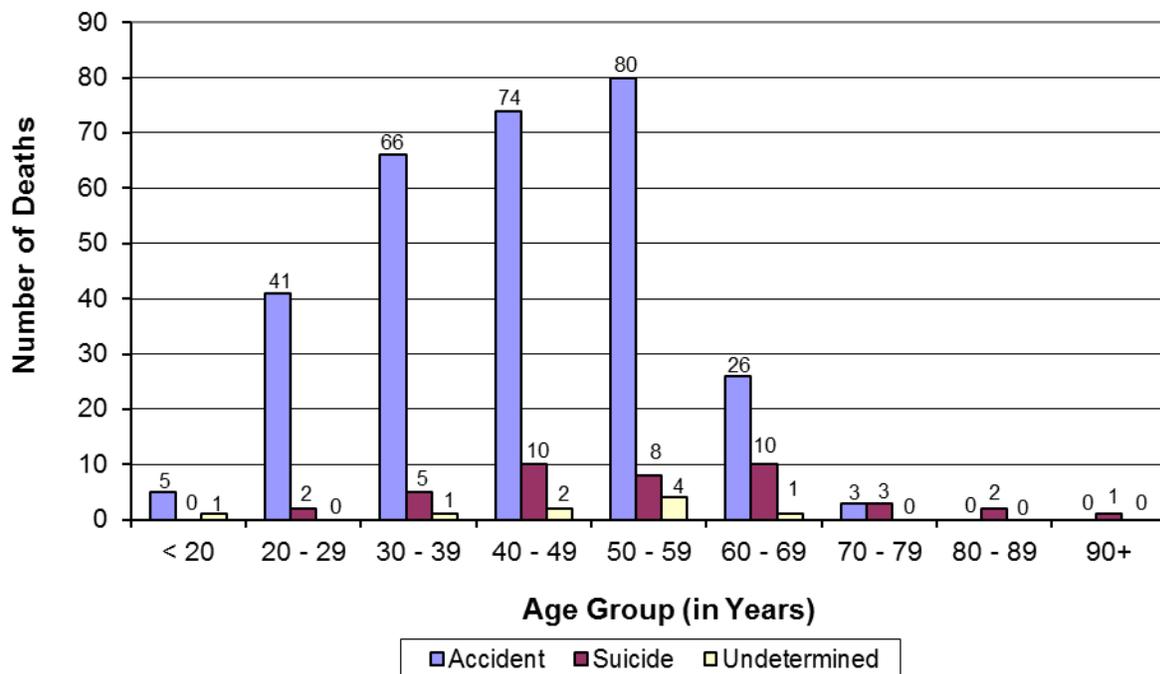
**Graph 9-7 Opiate Overdose Deaths & Heroin-Related Deaths / KCME / 2006 - 2015**



**Graph 9-8 Oxycodone Involved Deaths / KCME / 2006- 2015**



Graph 9-9 Drug / Poison Deaths / Age / KCME / 2006 – 2015



**Table 9-6 Drug / Poison Deaths / Age / KCME / 2015**

AGE GROUP (YEARS) / GENDER	MANNER OF DEATH			SUB-TOTAL	TOTAL
	ACCIDENT	SUICIDE	UNDETERMINED		
<20	5	0	1		6
<i>Male</i>	2	0	0	2	
<i>Female</i>	3	0	1	4	
20-29	41	2	0		43
<i>Male</i>	29	0	0	29	
<i>Female</i>	12	2	0	14	
30-39	66	5	1		72
<i>Male</i>	49	2	0	51	
<i>Female</i>	17	3	1	21	
40-49	74	10	2		86
<i>Male</i>	52	4	0	56	
<i>Female</i>	22	6	2	30	
50-59	80	8	4		92
<i>Male</i>	55	5	1	61	
<i>Female</i>	25	3	3	31	
60-69	26	10	1		37
<i>Male</i>	18	6	1	25	
<i>Female</i>	8	4	0	12	
70-79	3	3	0		6
<i>Male</i>	1	0	0	1	
<i>Female</i>	2	3	0	5	
80-89	0	2	0		2
<i>Male</i>	0	2	0	2	
<i>Female</i>	0	0	0	0	
90+	0	1	0		1
<i>Male</i>	0	0	0	0	
<i>Female</i>	0	1	0	1	
<b>Totals</b>	<b>295</b>	<b>41</b>	<b>9</b>		<b>345</b>

# Deaths due to firearms

The Medical Examiner is responsible for investigating all deaths due to firearms that occur in King County. Medical Examiner data relate primarily to the victim because information regarding the weapon and the shooter is often unknown. The following data are specific to the victims of firearm deaths.

In 2015, the Medical Examiner investigated 164 firearm deaths. In 2014, firearms caused 176 deaths. Of the 164 firearm deaths in 2015, 54 (33%) were homicides and 109 (66%) were suicides. No firearm deaths were classified as an accident in 2015. In 2014, there was also no firearm deaths classified as accident. In 2015, there were 1 firearm deaths that was classified as undetermined; there were none in 2014.

In 2015, gunshot wounds were the leading cause of death for homicides and suicides. Firearm deaths comprised 71% (54/76) of homicides, compared to 67% (51/76) in 2014. In 2015, suicides by firearms represented 42% (110/262) of suicide deaths compared to 42% (124/2293) in 2014.

In 2015, of the 54 firearm homicide victims, 17% (9/54) were 19 years old and younger – an increase from 2014 when 10% of firearm homicide victims were 19 years old and younger. In 2015, it is estimated that 46% (25/54) a disproportionate number of firearm homicide victims were African American compared to the percentage of African Americans in the general population (see discussions on pages 8 and 44). Of the 25 African American firearm homicide victims, 3 were 19 years old and/or younger and 14 were males between 20 and 29 years of age. In comparison, 43% (23/54) of the homicide firearm victims were white. Of the 23 white homicide victims, 22% (5/23) were males between 20 and 29 years old.

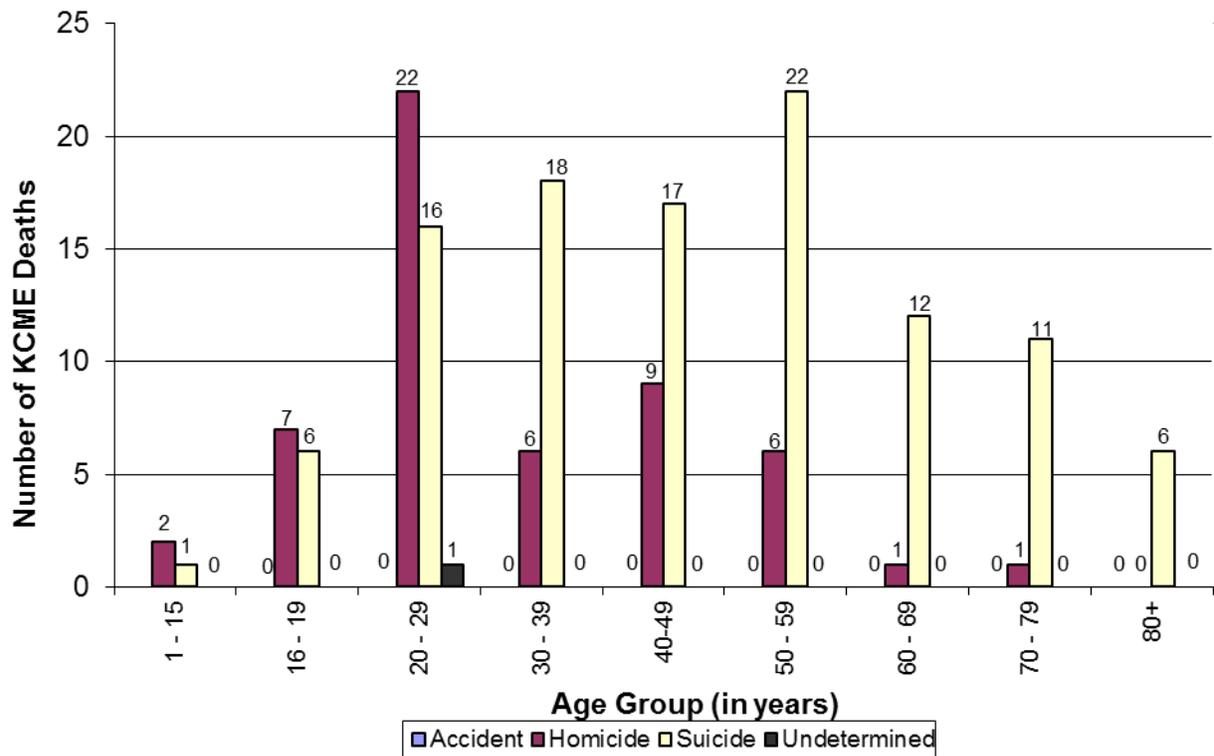
Of the 109 firearm suicide victims in 2015, 89% (96/109) were white and 80% (87/109) were males. Of the firearm suicide victims 6% (7/109) were 19 years old or under. Of the gunshot suicide victims 31% (34/109) were between the ages of 20 and 39 years of age, 36% (39/109) were between 40 and 59 years, and 27%, (29/109) were 60 years and older.



**Table 10-1 Firearm Deaths / Manner / Age / Gender / KCME / 2015**

AGE GROUP / GENDER	MANNER OF DEATH				SUB-TOTAL	TOTAL
	A	H	S	U		
<13 years	0	1	0	0		1
<i>Male</i>	0	0	0	0	0	
<i>Female</i>	0	1	0	0	1	
13-15 years	0	1	1	0		2
<i>Male</i>	0	0	1	0	1	
<i>Female</i>	0	1	0	0	1	
16-19 years	0	7	6	0		13
<i>Male</i>	0	7	6	0	13	
<i>Female</i>	0	0	0	0	0	
20-29 years	0	22	16	1		39
<i>Male</i>	0	17	14	1	32	
<i>Female</i>	0	5	2	0	7	
30-39 years	0	6	18	0		24
<i>Male</i>	0	6	14	0	20	
<i>Female</i>	0	0	4	0	4	
40-49 years	0	9	17	0		26
<i>Male</i>	0	8	15	0	23	
<i>Female</i>	0	1	2	0	3	
50-59 years	0	6	22	0		28
<i>Male</i>	0	6	20	0	26	
<i>Female</i>	0	2	0	0	2	
60-69 years	0	1	12	0		13
<i>Male</i>	0	0	11	0	11	
<i>Female</i>	0	1	1	0	2	
70-79 years	0	1	11	0		12
<i>Male</i>	0	1	10	0	11	
<i>Female</i>	0	0	1	0	1	
80-89 years	0	0	6	0		6
<i>Male</i>	0	0	6	0	6	
<i>Female</i>	0	0	0	0	0	
90+	0	0	0	0		0
<i>Male</i>	0	0	0	0	0	
<i>Female</i>	0	0	0	0	0	
<b>Totals</b>	<b>0</b>	<b>54</b>	<b>109</b>	<b>1</b>		<b>164</b>
Percent	0	33%	66%	1%		100%

Graph 10-1 Firearm Deaths / Manner / Age Group / KCME / 2015





**Table 10-2 Firearm Deaths / Manner / Race / Gender / KCME / 2015**

RACE / GENDER	MANNER OF DEATH				SUB-TOTAL	TOTAL
	A	H	S	U		
Asian/Pacific Islander	0	3	7	0		10
<i>Male</i>	0	2	6	0	8	
<i>Female</i>	0	1	1	0	2	
African American	0	25	3	1		29
<i>Male</i>	0	24	1	1	26	
<i>Female</i>	0	1	2	0	3	
Am Indian / AK Native	0	1	1	0		2
<i>Male</i>	0	0	1	0	1	
<i>Female</i>	0	1	0	0	1	
White	0	23	96	0		119
<i>Male</i>	0	19	87	0	106	
<i>Female</i>	0	4	9	0	13	
Other	0	2	2	0		4
<i>Male</i>	0	0	2	0	2	
<i>Female</i>	0	2	0	0	2	
<b>Totals</b>	<b>0</b>	<b>54</b>	<b>109</b>	<b>1</b>		<b>164</b>
Percents	<b>0</b>	<b>33%</b>	<b>66%</b>	<b>1%</b>		<b>100%</b>

# Causes of death in children and youth

In 2015, the King County Medical Examiner's Office investigated 93 deaths of children and youth ages 19 years or younger, which represented 4% (93/2,103) of the total deaths investigated. Of these deaths, 14% (13/93) were natural, 22% (20/93) were accidental (non-traffic), 15% (14/93) were homicides, 19% (18/93) were traffic-related, 18% (17/93) were suicides, and 12% (11/93) were classified as manner undetermined. In addition to investigating childhood deaths, the King County Medical Examiner participates in Child Death Review, a process which discusses these deaths in detail and formulates prevention strategies.

Of the 13 natural deaths of children and youth investigated by the Medical Examiner, 31% (4/13) were of infants less than one year of age. Of these 4 infants who died of natural causes, 1 was due to Sudden Infant Death Syndrome (SIDS). In addition, 8 infant deaths were classified as "Sudden Unexplained Infant Death" (SUID) and 1 neonatal death was classified as "Sudden Unexplained Neonatal Death (SUND), manner undetermined, due to the inability to exclude if external factors contributed to death.

There were 14 homicides among children and youth. Of these 14 homicide victims, 9 were teenagers (13 - 19 years of age), 3 were children (1 to 12 years of age), and 2 were infants less than one year of age. Homicides as a result of gunshot wounds accounted for 64% (9/14) of the children and youth homicide victims.

There were 17 youth suicides, with 15 being between the ages of 13 and 19 years. 2 occurred in the age group of 1 – 12 years of age. Males comprised 65% (11/17) of the victims. Regarding the methods used to commit suicide by youth, 7 were by firearm, 6 were by hanging, 1 were from asphyxia after placing a plastic bag over the head, 1 was from drowning, 1 was from being struck by a train and 1 was from jumping from a height.

18 children and youth (19 years and under) died in traffic-related accidents, of whom 61% (11/18) were teenagers 13 – 19 years of age. There were 4 motor vehicle driver deaths, 9 motor vehicle passenger deaths, 4 pedestrian deaths, and 1 motorcycle operator. Of the 18 children and youth who died in automobiles, 5 were known to be restrained, 5 unrestrained and 3 were restraint unknown.

The following tables list the causes of death among children and youth for all manners in three age groups: less than one year, 1-12 years and 13-19 years.

Graph 11-1 Causes of Death in Children & Youth / KCME / 2015

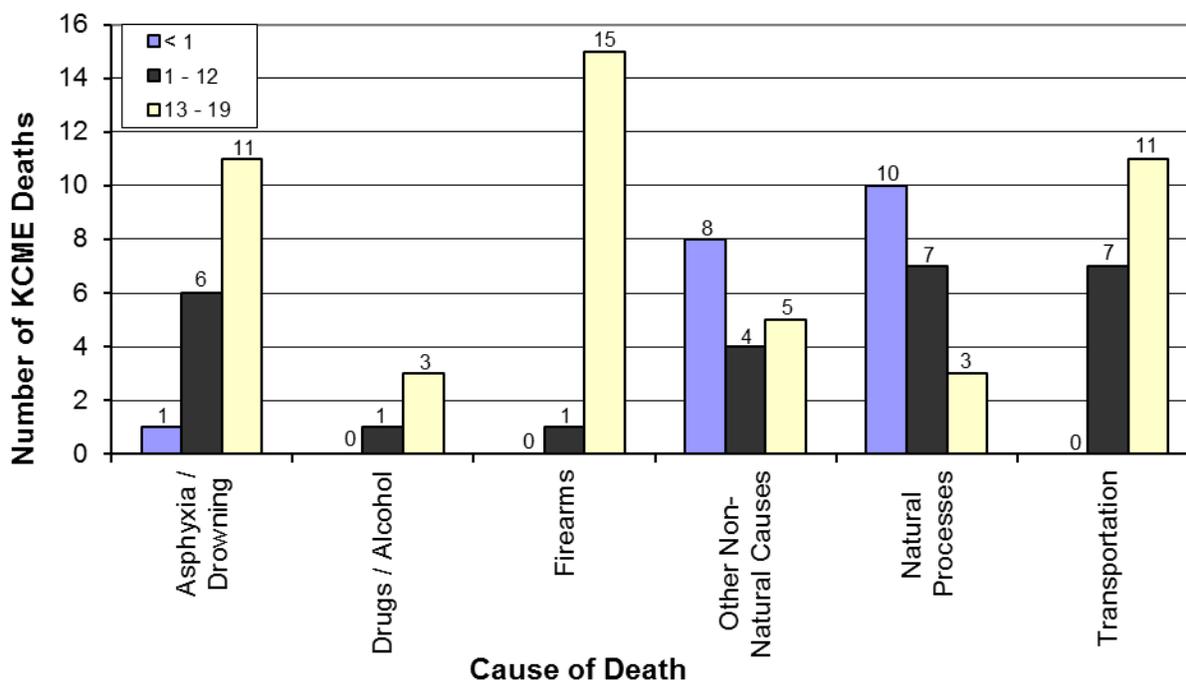


Table 11-1 Causes of Death: Children Under 1 Year of Age / KCME / 2015

CIRCUMSTANCES	MANNER OF DEATH						SUB-TOTAL	TOTAL
	A	H	S	T	U	N		
Miscellaneous	4	2	0	0	0	4		10
Asphyxia	1	0	0	0	0	0	1	
Drowning	0	0	0	0	0	0	0	
Prematurity	0	0	0	0	0	0	0	
Other	3	2	0	0	0	3	8	
SIDS	0	0	0	0	0	1	1	
Other Natural Disease	0	0	0	0	9 <sup>22</sup>	0		9
<b>Totals</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>4</b>		<b>19</b>

<sup>22</sup> Includes 8 cases classified as Sudden Unexplained Infant Death and 1 case classified as Sudden Unexplained Neonatal Death where it was unable to be determined if external factors contributed to the death.

**Table 11-2 Causes of Death: Children 1 to 12 Years of Age / KCME / 2015**

CIRCUMSTANCES	MANNER OF DEATH						SUB-TOTAL	TOTAL
	A	H	S	T	U	N		
<b>Asphyxia</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>6</b>
<i>Carbon Monoxide</i>	0	0	0	0	0	0	0	
<i>Drowning</i>	2	0	0	0	0	0	2	
<i>Hanging</i>	1	0	2	0	0	0	3	
<i>Mechanical</i>	0	0	0	0	0	0	0	
<i>Other</i>	1	0	0	0	0	0	1	
<i>Compressional</i>	0	0	0	0	0	0	0	
<b>Miscellaneous</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>		<b>2</b>
<i>Complication of Therapy</i>	0	0	0	0	0	0	0	
<i>Drugs / Poisons</i>	0	0	0	0	0	0	0	
<i>Fall</i>	0	0	0	0	0	0	0	
<i>Fire / Explosion</i>	1	0	0	0	0	0	1	
<i>Hyperthermia</i>	0	0	0	0	0	0	0	
<i>Jump</i>	0	0	0	0	0	0	0	
<i>Non Traffic -Vehicle</i>	0	0	0	0	0	0	0	
<i>Other</i>	0	0	0	0	1	0	1	
<b>Physical Trauma</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>4</b>
<i>Abuse</i>	0	0	0	0	0	0	0	
<i>Blunt Force / Crushing</i>	1	2	0	0	0	0	3	
<i>Burns / Fire</i>	0	0	0	0	0	0	0	
<i>Firearms</i>	0	1	0	0	0	0	1	
<i>Incised / Stab Wound(s)</i>	0	0	0	0	0	0	0	
<i>Other</i>	0	0	0	0	0	0	0	
<b>Transportation Related</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>		<b>7</b>
<i>Bicycle</i>	0	0	0	0	0	0	0	
<i>Motor Vehicle Driver</i>	0	0	0	0	0	0	0	
<i>Motor Vehicle Passenger</i>	0	0	0	3	0	0	3	
<i>Other</i>	0	0	0	0	0	0	0	
<i>Pedestrian</i>	0	0	0	4	0	0	4	
<b>Natural Disease</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>		<b>7</b>
<b>Totals</b>	<b>6</b>	<b>3</b>	<b>2</b>	<b>7</b>	<b>1</b>	<b>7</b>		<b>26</b>

**Table 11-3 Causes of Death: Children 13 to 19 Years of Age / KCME / 2015**

CIRCUMSTANCES	MANNER OF DEATH						SUB-TOTAL	TOTAL
	A	H	S	T	U	N		
Asphyxia	4	0	6	0	1	0		11
<i>Carbon Monoxide</i>	0	0	0	0	0	0	0	
<i>Drowning</i>	4	0	1	0	0	0	5	
<i>Hanging</i>	0	0	4	0	1	0	5	
<i>Smothering</i>	0	0	0	0	0	0	0	
<i>Positional</i>	0	0	0	0	0	0	0	
<i>Other</i>	0	0	1	0	0	0	1	
Drugs / Alcohol	3	0	0	0	0	0		3
Miscellaneous	1	0	2	0	0	0		3
<i>Complication of Therapy</i>	0	0	0	0	0	0	0	
<i>Fall</i>	1	0	0	0	0	0	1	
<i>Jump</i>	0	0	1	0	0	0	2	
<i>Non-Traffic Vehicular</i>	0	0	1	0	0	0	0	
<i>Other</i>	0	0	0	0	0	0	0	
Physical Trauma	2	9	7	0	0	0		18
<i>Blunt Force / Crushing</i>	2	1	0	0	0	0	3	
<i>Burns / Fire</i>	0	0	0	0	0	0	0	
<i>Firearms</i>	0	8	7	0	0	0	15	
<i>Homicidal Violence</i>	0	0	0	0	0	0	0	
<i>Incised / Stab Wound(s)</i>	0	0	0	0	0	0	0	
<i>Strangulation</i>	0	0	0	0	0	0	0	
Transportation Related	0	0	0	0	11	0		11
<i>Bicycle</i>	0	0	0	0	0	0	0	
<i>Motor Vehicle Driver</i>	0	0	0	5	0	0	5	
<i>Motor Vehicle Passenger</i>	0	0	0	6	0	0	6	
<i>Motorcycle</i>	0	0	0	1	0	0	1	
<i>Pedestrian</i>	0	0	0	0	0	0	0	
<i>Other</i>	0	0	0	0	0	0	0	
Natural Disease	0	0	0	0	0	0		2
<b>Totals</b>	<b>10</b>	<b>9</b>	<b>15</b>	<b>11</b>	<b>1</b>	<b>2</b>		<b>48</b>

# Organ donation

Although the King County Medical Examiner's Office does not approach families for donation of organs and tissue from decedents, we recognize the tremendous need for this life-saving activity and cooperate fully with organ and tissue procurement agencies. It is the philosophy of the King County Medical Examiner's Office that all requests for organ and/or tissue donation be given high priority for approval. In practice, the procurement agency contacts the KCMEO with information regarding a potential donor and the specific organs or tissue requested. The Medical Examiner then evaluates the request to determine if the donation would significantly affect the postmortem examination. In the great majority of cases, examinations can be conducted so that donations do not interfere with certification of death or collection of evidence. In this way, the King County Medical Examiner's Office works to maximize the donation of organs and tissue that go directly to save lives.

In 2015, the King County Medical Examiner's Office gave release on 64 deaths that came under the office's jurisdiction. Altogether, there were 211 organs donated for transplant from the 64 cases referred to the King County Medical Examiner. The number of specific organs transplanted in 2015 is shown in Table 12-1. In addition to the living organs listed in Table 12-1 that were donated in 2015, the KCMEO approved the donation of skin, bone, cartilage, heart valves, corneas and other tissues through the tissue procurement agency, LifeNet Health. Altogether, there were 80 donors who, on average, were able to provide over 50 donations each (4,000 total) to tissue transplant recipients.

<b>ORGAN</b>	<b># Transplanted</b>
Heart	29
Intestine	0
Kidney	107
Liver	39
Lung	29
Pancreas	7
<b>Total</b>	<b>211</b>

# Disposition review

All deaths covered under RCW 68.50.010 are required by law to be reported to the Medical Examiner, however in the past these deaths have not always been reported in a timely manner. For some of these deaths, a complete investigation is not possible because the body was cremated prior to the death being reported to the Medical Examiner.

Beginning January 1, 2008, the King County Council authorized the Medical Examiner's Office to review the death certificates of all decedents to be cremated in order to rule out the need for additional investigation and ensure the proper determination of cause and manner of death.

Beginning January 1, 2015, the King County Council authorized the Medical Examiner's Office to review the death certificates of all decedents to be buried in order to rule out the need for additional investigation and ensure the proper determination of cause and manner of death.

In 2015, the Medical Examiner's Office handled 14,338 disposition review requests. In 86 cases the Medical Examiner took jurisdiction to investigate further and determine correct cause and manner of death. Without this review, these cases would not have been seen and the correct determination of death missed.

# Medical Examiner activity

The staff of the Medical Examiner's Office are involved in a wide variety of activities commensurate with the mission of the office including responding to and investigating the scene of death, performing postmortem examinations, certifying the cause and manner of death, and providing information and assistance to families. Investigators, who are familiar with the emotional trauma of an unexpected death, communicate directly with families as do the Medical Examiner pathologists, who review their findings with the families in order to clarify the many questions that accompany a sudden loss of life. The office also provides referrals to grief support services.

In all cases investigated by the Medical Examiner, it is essential that the decedent's identity is established and the next-of-kin is located and notified regarding the death. In addition, property belonging to the decedent must be controlled and released according to legal requirements. In most cases these issues are resolved expeditiously. In certain cases, identification requires additional effort in locating dental, medical or police records. Some individuals may have died leaving no next-of-kin or next-of-kin far removed. Ensuring that all leads have been exhausted in pursuit of next-of-kin can be a very time consuming but ultimately a rewarding effort.

The postmortem examination on each decedent includes the preservation of various body fluids and tissues for microscopic and toxicologic analysis. Photographs are taken of the external and internal portions of the examination, which are available for review at a later date if needed. Photographic documentation is also an essential item in those cases where the pathologist must provide court testimony. Forensic Anthropology is another important activity necessary to resolve skeletal cases and difficult identification issues.

Medical Examiner pathologists, anthropologist and investigators provide testimony in court and at depositions. Staff participates in meetings with police, medical professionals, and attorneys. A recent addition to the duties of the Chief Medical Examiner is expert medical consultation and testimony in cases involving nonfatal domestic violence assaults.

Autopsy reports and related data from individual investigations are provided to law enforcement agencies, prosecuting attorneys and many other agencies including Labor and Industries, the Drug Enforcement Administration, and the Consumer Product Safety Commission. Drug deaths are reported to the Drug Abuse Warning Network (DAWN).

In 2003, the Medical Examiner's Office created a student internship program that provides educational opportunities for students interested in forensic autopsy and death investigation. Through this program, numerous interns have obtained full-time careers in death investigation, both at the KCMEO and in other area medical examiner's offices.

Medical Examiner investigations require frequent contact between the Medical Examiner's Office and the news media. Staff members are skilled in responding to the media inquiries that occur daily. The Medical Examiner pathologists and other staff participate in a variety of medical conferences, and provide information on a regular basis to law enforcement and to medical personnel on various aspects regarding the role and function of the Medical Examiner's Office.

The data collected and presented in this and other Medical Examiner annual reports also provide baseline information for further analysis. Medical Examiner staff analyzes data to study relevant death investigation topics that have applications in such fields as law enforcement, medicine, law, social sciences, and injury prevention. Examples include infant mortality, teenage suicide, child abuse, law enforcement restraint, investigation of vehicular traffic collisions, and investigation of therapeutic complication deaths. In addition, the office participates in teaching medical students, pathology residents, emergency medical service, and law enforcement personnel.

In 2015, staff participated as speakers at universities, conferences, and training seminars for law enforcement, medical, legal, and social service personnel in the following presentations and lectures:

## **Richard C. Harruff, M.D., Ph.D., Chief Medical Examiner**

### ***Academic appointment:***

- Clinical Associate Professor, Department of Pathology, University of Washington School of Medicine.

### ***Professional organizations:***

- American Academy of Forensic Sciences.
- National Association of Medical Examiners.
- Disaster Mortuary Operations Response Team, Region 10.

### ***Preceptor and faculty positions***

- Program Director, King County Medical Examiner's Office Fellowship Training Program in Forensic Pathology.
- Course Director and Faculty, "Problems in Forensic Pathology", King County Medical Examiner's Office.
- Preceptor for medical students and pathology residents, University of Washington School of Medicine.

### ***Scientific publication***

- Yarid NA, Harruff RC. Globus Pallidus Necrosis Unrelated to Carbon Monoxide Poisoning: Retrospective Analysis of 27 Cases of Basal Ganglia Necrosis. J Forensic Sciences 2015 Aug 10. doi: 10.1111/1556-4029.12838. [Epub ahead of print]

### ***Scientific presentation***

- Epidemiology, Contributing Factors, and Injuries in 28 Electrocution Fatalities in King County, Washington. National Association of Medical Examiners 2015 Annual Meeting, Charlotte, North Carolina, October 2 – 9.

### ***Educational presentations***

- Introduction of Paramedics to Medical Examiner's Office, King County Medical Examiner's Office, Seattle, Washington, February 20.
- Strangulation and patterned injuries. Core training for Sexual Assault Nurse Examiners, Harborview Center for Sexual Assault and Traumatic Stress, Seattle, Washington, March 25.
- Medicolegal death investigation. University of Washington Private Investigators Course, Seattle, Washington, May 12.
- Strangulation injuries. Forensic Nursing Team, Evergreen Health, Kirkland, Washington, June 10.
- Investigation of sudden unexpected infant deaths. Sudden and Unexplained Infant Death Scene Investigation: Improving the Coordinated Agency Community Response, Washington State Criminal Justice Training Commission, Burien, Washington, June 2 and Wenatchee, Washington, June 15.
- Inventory management system using RFID technology. DMORT – FRST Joint Training, Joint Base Lewis – McChord, Washington, September 12.
- Pathology of fatal child abuse. Special Assault Prosecution Training Program, Washington Association of Prosecuting Attorneys, Leavenworth, Washington, October 9.
- Mechanisms and death. Homicide Investigation Course, Federal Bureau of Investigation, Spokane, Washington, October 20.
- Strangulation injuries. Strangulations and Stalking - Investigations and Prosecutions, Washington State Criminal Justice Training Commission, Burien, Washington, November 17 and 18.

### ***Miscellaneous activities***

- Editorial Review Board, *Journal of Forensic Sciences*.
- Disaster Preparedness: Drafting of Washington Mass Fatality Management Mutual Aid Agreement, King County mass fatality tabletop exercise, meeting with King County funeral home representatives, Family Assistance Center Workshop with National Transportation Safety Board.
- Mass fatality incident response training. DMORT – FRST Joint Training, Joint Base Lewis – McChord, Washington, September 12.
- Medical examiner's role in homicide investigation. Research – A – Thon, Seattle University, Seattle, Washington, October 17.

## **Aldo Fusaro, DO, Associate Medical Examiner**

### ***Academic Appointment***

- Clinical Assistant Professor, Department of Pathology, University of Washington School of Medicine

### ***Preceptorship***

- University of Washington School of Medicine, medical students and pathology residents
- King County Medical Examiner's Office, forensic pathology fellow trainer

### ***Associations, Committees and Boards***

- Member, American Medical Association
- Member, Washington Association of Coroners and Medical Examiners
- Member, Washington State Medical Association
- Member, National Association of Medical Examiners
  - Membership Committee
  - Delegate to the American Medical Association
- Fellow, College of American Pathologists
- Fellow, American College of Clinical Pathologists
- Advisory Committee, King County Medical Examiner's Office
- Child Death Review Committee, King County Medical Examiner's Office
- Elder Death Review Committee, King County Medical Examiner's Office
- Quality Improvement Subcommittee, King County Medical Examiner's Office
- Multiple Fatality Incident Preparedness Team, Seattle King County Public Health

### ***Professional Meetings, Trainings and Certifications***

- Forensic Investigations Council Meetings- January, March, April, June, September, November, 2015
- Annual Blood Borne Pathogens Training, Public Health- Seattle and King County, September
- Health Information Privacy and Security Training, Public Health- Seattle and King County, December
- National Association of Medical Examiner's Annual Meeting, Portland, OR
- American Medical Association Annual Meeting, Chicago, IL
- American Medical Association Interim Meeting, Atlanta, GA

### ***Local and Regional Educational Presentations:***

- Another Not-quite Linear Career Path of a Grinnell Graduate, Creative Careers: Learning from Alumni, Grinnell College, Grinnell IA, April
  - Case Studies in Forensic Pathology, Eastside Preparatory High School, Kirkland, WA, May
- Basic Homicide Investigation, Criminal Justice Training Commission and Washington Homicide Investigation Agency, Lakewood Police Department, Lakewood, WA, October

## **Timothy Williams, MD, Associate Medical Examiner**

### ***Academic Appointment***

- Clinical Assistant Professor, Department of Pathology, University of Washington School of Medicine

### ***Preceptorship***

- University of Washington School of Medicine, Supervisor of Medical Student and Resident Rotations
- King County Medical Examiner's Office, Forensic Pathology Fellowship Faculty

- Rotating Moderator, Medicolegal Death Investigation didactic series, King County Medical Examiner's Office

***Associations, Committees, Boards***

- Member, National Association of Medical Examiners
  - Maintenance of Certification Committee
  - Forensic Pathology Education Committee
  - Death Certification Improvement Committee
- Child Death Review Committee, King County Medical Examiner
- Elder Death Review Committee, King County Medical Examiner
- Graduate Medical Education Committee, King County Medical Examiner

**Micheline Lubin, MD, Associate Medical Examiner**

***Associations, Committees & Boards***

- Child Death Review Committee, King County Medical Examiner Office
- Elder Death Review Committee, King County Medical Examiner Office
- Quality Improvement Subcommittee, King County Medical Examiner Office
- Multiple Fatality Incident Committee, King County Medical Examiner Office

**Brian Mazrim, MD, Associate Medical Examiner**

***Associations, Committees & Boards***

- Child Death Review Committee, King County Medical Examiner Office
- Elder Death Review Committee, King County Medical Examiner Office
- Quality Improvement Subcommittee, King County Medical Examiner Office
- Multiple Fatality Incident Committee, King County Medical Examiner Office

**Katherine M. Taylor, Ph.D., D-ABFA Forensic Anthropologist**

***Academic Affiliation***

- Child Death Review Committee, King County Medical Examiner Office
- Elder Death Review Committee, King County Medical Examiner Office
- Quality Improvement Subcommittee, King County Medical Examiner Office
- Multiple Fatality Incident Committee, King County Medical Examiner Office

## **R. Colin Jones, BA, Program Manager**

### ***Associations, Committees & Boards***

- Member, Seattle University Criminal Justice Advisory Board
- Member, Washington Association of Coroners and Medical Examiners
- Notary Public, State of Washington
- Quality Improvement Committee, King County Medical Examiner's Office
- Public Health Legislative Committee

### ***Education Presentations***

- The Design and Operation of a Modern Medical Examiner' Facility. Presentation for Public Health Leadership, King County Medical Examiner's Office, Seattle, Washington, May 4
- The Design and Operation of a Modern Medical Examiner's Facility. Presentation for King County Legislative intern Training Program, King County Medical Examiner's Office, Seattle, Washington, June 3
- The Functionality and Limitations of the King County Medical Examiner Facility in a Multiple Fatality Event. Public Health Reserve Corps Training, King County Medical Examiner Office, Seattle, Washington, June 18
- Unique Operating and Engineering Requirements of the King County Medical Examiner Facility. Presentation for Wright Runstad & Company Property Managers, King County Medical Examiner's Office, Seattle, Washington, July 2
- The Design and Operation of a Modern Medical Examiner Facility. Presentation for King county Sheriff's Office Intern Training Program, King County Medical Examiner's Office, Seattle., Washington, July 15

## **William Barbour, BS, D-ABMDI, Medicolegal Investigator II**

### ***Associations***

- Diplomate, American Board of Medicolegal Death Investigators
- Member, Washington Associations of Coroners & Medical Examiners

### ***Educational Presentations***

- Role and Responsibility of the King County Medical Examiner's Office
  - Seattle University Biology - KCMEO - Seattle, WA February 25.
  - Seattle University Biology – KCMEO- Seattle, WA March 4.
  - Seattle University – KCMEO – Seattle, WA March 11.
  - Seattle University Criminal Justice Club – KCMEO – Seattle, WA October 14
  - Seattle University Nursing – Seattle, WA November 18
  - Mass Fatality Team Training – Public Health Reserve Corps, Seattle, WA December 8

## **Barry Peterson, Forensic Autopsy Technician**

### ***Associations, Committees & Boards***

- Certificate Holder, Washington State Peace Officer
- Member, International Association for Identification
- Member, American Society of Media Photographers

### ***Educational Presentations***

- Kennedy High School, Role and Responsibilities of the King County Medical Examiner's Office, Advanced Placement Anatomy and Physiology Class, Burien, WA, October.

## **Samantha Barbour, BS, Health Program Assistant I**

### ***Associations, Committees & Boards***

- Child Death Review Committee, King County Medical Examiner Office
- Quality Improvement Subcommittee, King County Medical Examiner Office
- Multiple Fatality Incident Committee, King County Medical Examiner Office
- Victim Support Team, Seattle Police Department



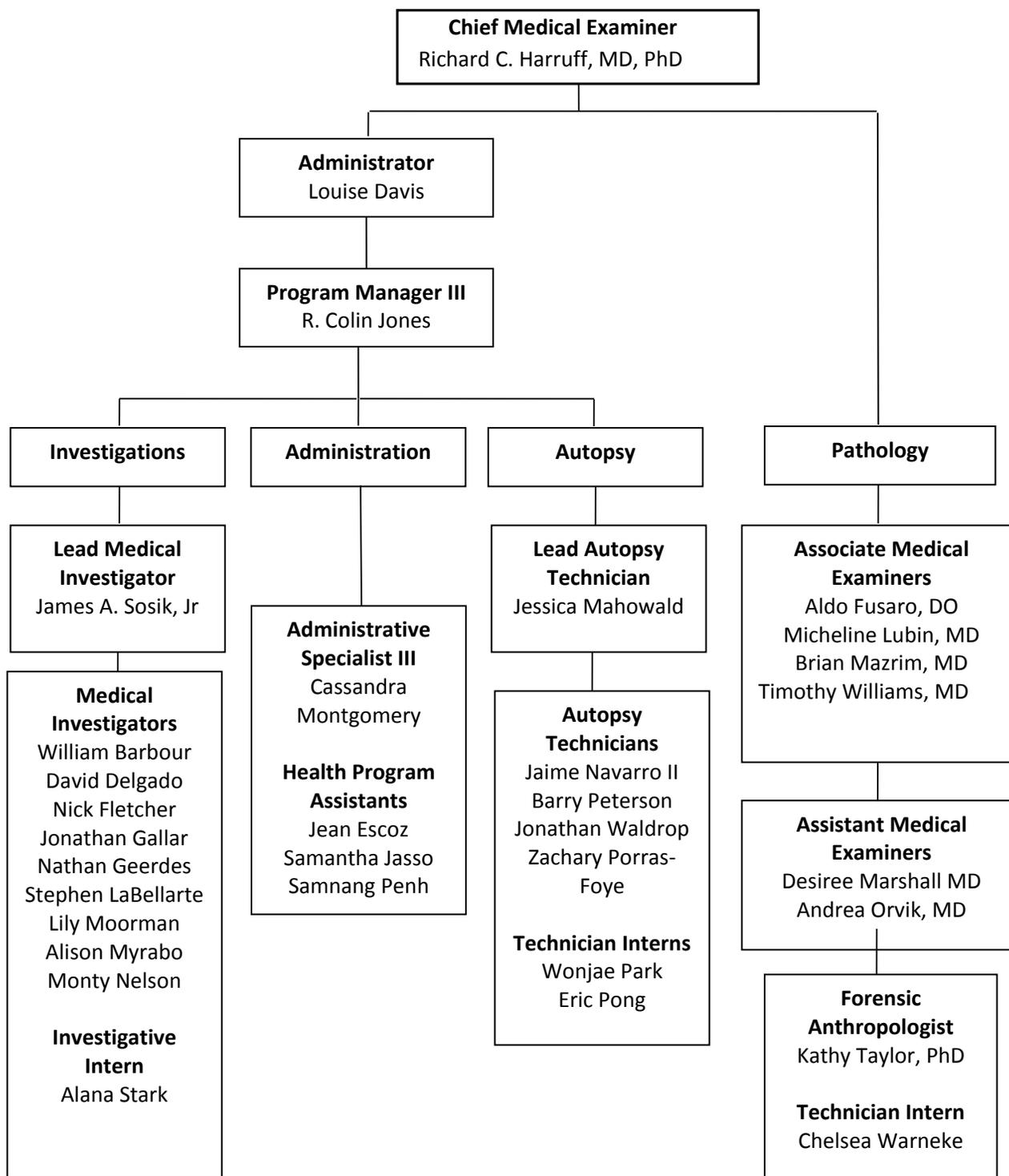
**Table 14-1 Weekly Variation of Deaths Investigated by the King County Medical Examiner's Office**

	TOTAL
Number of weeks studied	52
Mean number of ME jurisdiction cases per week	43
Maximum ME jurisdiction cases in any one week	61
Minimum ME jurisdiction cases in any one week	36

**Table 14-2 Weekly Variation of Autopsies Investigated by the King County Medical Examiner's Office**

	TOTAL
Number of weeks studied	52
Mean number of autopsies performed per week	25
Maximum # autopsies performed in any one week	36
Minimum # autopsies performed in any one week	12

## Organization of the King County Medical Examiner's Office 2015



# 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 level while driving.

## **Cause of Death:**

Any injury or disease that produces a physiological derangement in the body that results in the death of an individual.<sup>1</sup>

## **Drug:**

Therapeutic drug: A substance, other than food, used in the prevention, diagnosis, alleviation, treatment, or cure of disease.

Recreational drug: A drug used non-medically for personal stimulation/depression/euphoria.

## **Drug-caused death:**

Death directly caused by a drug or drugs in combination with each other or with alcohol.

### **Fetal Death:**

Category of deaths that occur within the uterus. The Medical Examiner assumes jurisdiction over fetal deaths that meet the criteria specified in RCW 68.50. See pages 2 - 3 of this report for details.

### **Jurisdiction:**

The jurisdiction of the Medical Examiner extends to all reportable deaths occurring within the boundaries of King County, whether or not the incident leading to the death (such as an accident) occurred within the county. Reportable deaths are defined by RCW 68.50, as explained in the "Description and Purpose" section of this report. Not all natural deaths reported fall within the jurisdiction of the Medical Examiner.

### **Manner of Death:**

A classification of the way in which the events preceding death were causal factors in the death. The manner of death as determined by the forensic pathologist is an opinion based on the known facts concerning the circumstances leading up to and surrounding the death, in conjunction with autopsy findings and laboratory tests. <sup>2</sup>

<sup>1</sup>DiMaio, Vincent J. & DiMaio, Dominick. Forensic Pathology, Second Edition. CRC Press, 2001.

<sup>2</sup>Ibid, p. 3

### **Manner: Accident**

Death other than natural, where there is no evidence of intent, i.e., unintentional. In this report, traffic accidents are classified separately.

### **Manner: Homicide**

Death resulting from intentional harm (explicit or implicit) of one person by another, including actions of grossly reckless behavior.

### **Manner: Natural**

Death caused solely by disease. If natural death is hastened by injury (such as a fall or drowning in a bathtub), the manner of death is classified other than natural. The Natural category includes complication of therapy deaths.

### **Manner: Suicide**

Death as a result of a purposeful action with intent (explicit or implicit) to end one's own life.

**Manner: Traffic**

Unintentional deaths of drivers, passengers, and pedestrians involving motor vehicles on public roadways. Accidents involving motor vehicles on private property (such as driveways) are not included in this category and are classified non-traffic, vehicular accidents.

**Manner: Undetermined**

Manner assigned when there is insufficient evidence or information, especially about intent, to assign a specific manner.

**Opiate:**

Any preparation or derivative of opium, including heroin, morphine or codeine. In this report "opiate deaths" most likely refer to heroin caused deaths.

**Poison:**

Any substance, either taken internally or applied externally, that is injurious to health or dangerous to life, and with no medicinal benefit.

**Race:**

The racial categories used in this report are: White, African American, American Indian/Alaska Native, Asian/Pacific Islander, and Other.