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Public Health
Seattle & King County

DEDICATION

Each case in this report represents the death of a person whose absence is grieved by friends and relatives. We dedicate this report to those people who have suffered the loss of a friend or relative.

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Public Health - Seattle & King County

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FOREWORD

The King County Medical Examiner's Office serves the community by investigating sudden, unexpected, violent, suspicious, or 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 which 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 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 dimension of the Medical Examiner's function is designed to isolate and identify causes of sudden, unexpected death. When an infectious agent or poison 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. In this era of concern about bioterrorism, the Medical Examiner provides an important level of surveillance for such possibilities.

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. In this way, 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.

DESCRIPTION AND PURPOSE
of the
Public Health – Seattle & King County
Medical Examiner's Office

In 1968, the 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 within the Prevention Division of Public Health – Seattle & King County. Although the Department of Public Health is a combined City-County department, 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 is a physician trained and certified in Forensic Pathology - the branch of medicine concerned with 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 when indicated, 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 thirty-six 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 an individual who was not under the care of a physician. (4) Death of a person in a nursing home or other institution 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 the operating room whether due to surgical or anesthetic procedures. (4) Narcotics or other drugs including alcohol or toxic agents, or toxic exposure. (5) Death thought to be associated with, or resulting from, the decedent's occupation, including chronic occupational disease such as asbestosis and black lung. (6) Death of the mother caused by known or suspected

abortion. (7) Death from apparent natural causes during the course of a criminal act, e.g., a victim collapses during a robbery. (8) Death that occurs within one year following an accident, even if the accident is not thought to have contributed to the cause of death. (9) 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, stabs, 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

of the
Public Health – Seattle & King County
Medical Examiner's Office

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, 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; and 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 information presented in this report was compiled for deaths during the calendar year 2008 on which the King County Medical Examiner assumed jurisdiction. (*Please refer to Pages 2 and 3 which outline this jurisdictional definition.*) This report emphasizes the role of alcohol, drugs, and firearm use in violent deaths. Health agencies, safety councils and lawmakers may find these statistics useful in understanding the most frequent causes of violent death in King County, which may help in making policy decisions that impact the quality of life in King County.

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 2008 the King County population was estimated to be 1,844,200[1]. 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 all in the geographic area served by the Medical Examiner's Office. In King County more than 20 hospitals and a major trauma center serve the entire Pacific Northwest region.

This report summarizes demographics from individual cases in which the Medical Examiner assumed jurisdiction, and presents them in aggregate form. The location (Nearest Incorporated City to the Fatal Incident, Table 1-8, page 17) 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, sex, age, etc., have been selected as those most likely to assist and interest individuals using this data in assembling a profile of death statistics on deaths examined by the Medical Examiner's Office for 2008. According to 2008 Office of Financial Management (OFM) estimates, the racial distribution of King County is 75.8% White, 6.1% African American, 3.4% Two or More Races Indicated (new category in the year 2000), 13.7% Asian/Pacific Islander (including Hawaiian and other Pacific Islanders), and 1.0% Native American. Information on Hispanic ethnicity of the decedent is not available for every case, and will not be presented in this report.

King County Medical Examiner population estimate figures cannot be directly compared to the racial distribution of King County residents. The main reason for this is that, as emphasized in Table 1-9 on page 19, in 17% 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 43).

[1]State of Washington, Office of Financial Management, April 1, 2008 estimate.

Age groups 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 old or older.

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 the incident.

Three sections are included that review specific issues; data are presented which highlights deaths due to drugs, firearms, and 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. On deaths among children and youth, the analysis focuses on violent, non-natural causes of death.

Data on natural deaths are included. However, 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% (871/2,121) of all deaths that the Medical Examiner's Office investigated in 2008.

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.

Those interested in obtaining more specific information and data from the King County Medical Examiner's Office should contact (206) 731-3232, extension 1.

MEDICAL EXAMINER CASES IN 2008

The following provides a summary of the raw data from the Medical Examiner's cases for the year 2008.

In 2008 an estimated 13,339 deaths occurred in King County[2] (0.72% of a 2008 population estimate of 1,844,200). Of these deaths, 9,888 (74%) were reported to the Medical Examiner's Office by medical and law enforcement personnel. Based on analysis of the scene and circumstances of death and the decedent's medical history gathered by the forensic medicolegal investigators, the Medical Examiner's Office assumed jurisdiction in 2,195 of these reported deaths, of which 74 were either ultimately found to be non-human remains or were anthropology or contract cases. Throughout the discussion of data that follows, except where stated, the non-human, anthropology, and contract cases (cases in which autopsy and/or anthropology cases are examined for other counties or agencies) are excluded. The number of applicable cases used in this report is 2,121 deaths. The number of cases in 2008 increased from 2007. Part of the reason for the increase is the number of cases in which jurisdiction was assumed due to cremation review (see page 109).

Of note is the fact that the Medical Examiner declined jurisdiction in 7,693 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 58% (1,232/2,121) 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 2008 there were 494 such deaths, accounting for 23% (494/2,121) of the total deaths. In addition, there were 395 deaths (19%) (395/2,121) certified by attending private physicians after review by and consultation with the Medical Examiner.

Several factors appear repeatedly in the unnatural deaths. Of all traffic fatalities in which tests were performed, 40% (54/134) 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 99 vehicle occupants who died, 63% (62/99) were wearing restraints.

In the 29 deaths involving motorcyclists, 25 (86%) were wearing helmets.

[2]Death certificates filed in King County, Vital Statistics, Public Health - Seattle & King County, June, 2009.

Firearms were the most frequent instrument of death in homicides and suicides, accounting for 53% (45/85) of the homicides and 44% (93/210) of the suicides.

While the discussion here tends to depict the more violent types of death, the reader should be reminded that 41% (871/2,121) of Medical Examiner cases involve natural deaths. Specific discussion and presentation of relevant tables regarding 2008 cases follow this brief summary.

Table 1-1 Deaths Occurring in King County / Medical Examiner Cases / 2008

CASES BY MANNER OF DEATH[3]		NUMBER OF KCME DEATHS	PERCENT OF KCME DEATHS
Accident Other	(A)	739	35%
Accident Traffic	(T)	163	8%
Homicide	(H)	85	4%
Natural	(N)	871	41%
Suicide	(S)	210	10%
Undetermined[4]	(U)	53	2%
Total KCME general cases		2,121	100%
Non-applicable cases where jurisdiction was assumed[5]		74	
Total KCME jurisdiction cases		2,195	
Total KCME general cases[6]		2,121	
Deaths reported to KCME but no jurisdiction was assumed (NJA)		7,693	
All other deaths in King County not reported to KCME		3,525	
ALL KING COUNTY DEATHS[7]		13,339	

[3]The letters following each manner of death will be used in most tables throughout this report.

[4]Includes seven fetal deaths, which, according to Washington State death certification procedures, are not assigned a manner of death.

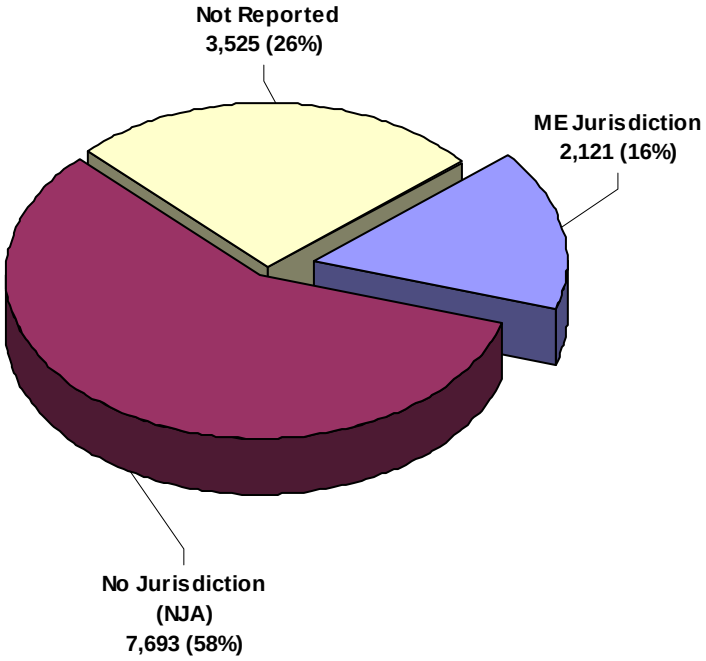
[5]Non-applicable includes 35 non-human bones/tissue, and 39 anthropology/contract cases.

[6]This is the total number of cases that will be referred to throughout this report unless otherwise noted.

[7]Death certificates filed in King County, Vital Statistics, Public Health - Seattle & King County, June, 2009.

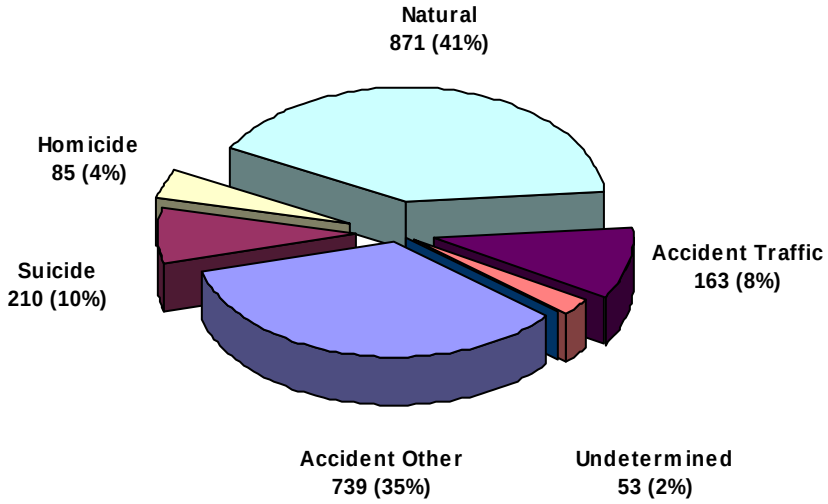
Graph 1-1 All King County Deaths by Medical Examiner Jurisdiction / 2008

In 2008, 13339 deaths occurred in King County.



Graph 1-2 Manner of Death for all Medical Examiner Jurisdiction Cases / 2008

Jurisdiction assumed in 2,121 cases[8].

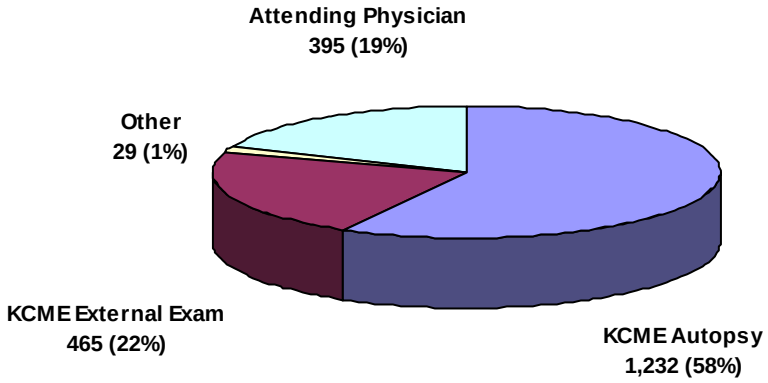


[8]This number does not include 74 non-applicable cases (non-human tissue/bones and anthropology/contract cases).

Table 1-2 Method of Certification / Manner of Death / KCME / 2008

CERTIFICATION	MANNER OF DEATH						TOTAL	%
	A	T	H	N	S	U		
KCME Autopsies	368	110	82	454	171	47	1232	58%
KCME External Exams	199	49	0	177	39	1	465	22%
KCME Other	16	2	3[9]	3	0	5	29	1%
Attending Physician	156	2	0	237	0	0	395	19%
Totals	**739**	**163**	**85**	**871**	**210**	**53**	**2,121**	100%

Graph 1-3 Method of Certification for all King County Medical Examiner Jurisdiction Cases / 2008



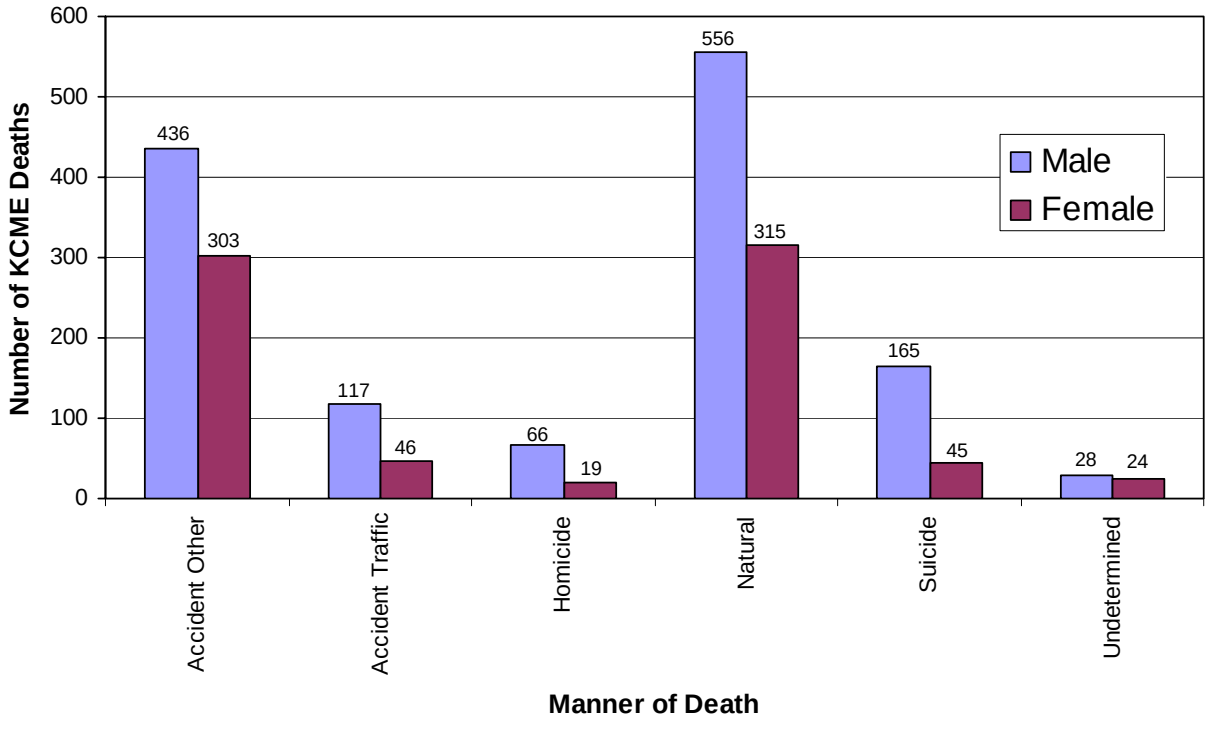
[9]The remains of three (3) victims whose deaths were classified as Homicide were returned to the county(s) where the original injuries occurred. Because Harborview Medical Center is a regional trauma center, the King County Medical Examiner's Office receives victims of violence from surrounding counties. By prior agreement, the remains of some of those victims are returned to the originating county for autopsy by the Medical Examiner of record.

Manner of Death in 2008
King County Medical Examiner General Cases

Table 1-3 Sex / Manner of Death / King County Medical Examiner / 2008

SEX	MANNER OF DEATH							
	A	T	H	N	S	U	TOTAL	%
Male	436	117	66	556	165	28	1368	65%
Female	303	46	19	315	45	24	752	35%
Totals	**739**	**163**	**85**	**871**	**210**	**53**[10]	**2,121**	100%

Graph 1-4 Sex / Manner of Death / King County Medical Examiner / 2008



[10]Total includes one death of undetermined sex.

Table 1-4 Age / Sex / Manner of Death / King County Medical Examiner / 2008

	MANNER OF DEATH								
AGE / SEX	A	T	H	N	S	U	Sub-Total	TOTAL	%
Under 1 year	5	1	3	30	0	11[11]		50	2.4%
Male	*3*	*1*	*3*	*13*	*0*	*1*	*21*		
Female	*2*	*0*	*0*	*17*	*0*	*9*	*28*		
1 - 5 years	6	3	2	5	0	0		16	0.8%
Male	*4*	*2*	*2*	*5*	*0*	*0*	*13*		
Female	*2*	*1*	*0*	*0*	*0*	*0*	*3*		
6- 12 years	5	0	4	3	1	0		13	0.6%
Male	*3*	*0*	*3*	*3*	*1*	*0*	*10*		
Female	*2*	*0*	*1*	*0*	*0*	*0*	*3*		
13-15 years	2	2	3	0	2	2		11	0.5%
Male	*2*	*1*	*2*	*0*	*0*	*2*	*7*		
Female	*0*	*1*	*1*	*0*	*2*	*0*	*4*		
16-19 years	9	11	10	4	6	1		41	1.9%
Male	*6*	*8*	*10*	*2*	*5*	*1*	*32*		
Female	*3*	*3*	*0*	*2*	*1*	*0*	*9*		
20- 29 years	43	32	25	16	36	3		155	7.3%
Male	*35*	*25*	*22*	*9*	*32*	*2*	*125*		
Female	*8*	*7*	*3*	*7*	*4*	*1*	*30*		
30- 39 years	51	23	13	44	37	3		171	8.1%
Male	*38*	*19*	*7*	*30*	*25*	*2*	*121*		
Female	*13*	*4*	*6*	*14*	*12*	*1*	*50*		
40- 49 years	106	26	10	109	39	9		299	14.1%
Male	*65*	*20*	*6*	*80*	*29*	*6*	*206*		
Female	*41*	*6*	*4*	*29*	*10*	*3*	*93*		
50- 59 years	121	25	6	205	46	13		416	19.6%
Male	*86*	*19*	*6*	*152*	*35*	*7*	*305*		
Female	*35*	*6*	*0*	*53*	*11*	*6*	*111*		
60 - 69 years	66	11	5	175	16	5		278	13.1%
Male	*38*	*5*	*4*	*128*	*14*	*5*	*194*		
Female	*28*	*6*	*1*	*47*	*2*	*0*	*84*		
70 - 79 years	79	17	3	118	13	3		233	11.0%
Male	*53*	*12*	*2*	*82*	*10*	*2*	*161*		
Female	*26*	*5*	*1*	*36*	*3*	*1*	*72*		
80 - 89 years	160	8	1	118	10	1		297	14.0%
Male	*77*	*3*	*0*	*42*	*10*	*0*	*132*		
Female	*83*	*5*	*1*	*76*	*0*	*0*	*165*		
90+ years	86	4	0	45	4	2		141	6.6%
Male	*26*	*2*	*0*	*12*	*4*	*1*	*44*		
Female	*60*	*2*	*0*	*33*	*0*	*1*	*96*		
Totals	**739**	**163**	**85**	**871**	**210**	**53**		**2,121**	**100%**

[11]Includes one fetal death of undetermined sex.

Table 1-5 Race / Sex / Manner of Death / King County Medical Examiner / 2008[12]

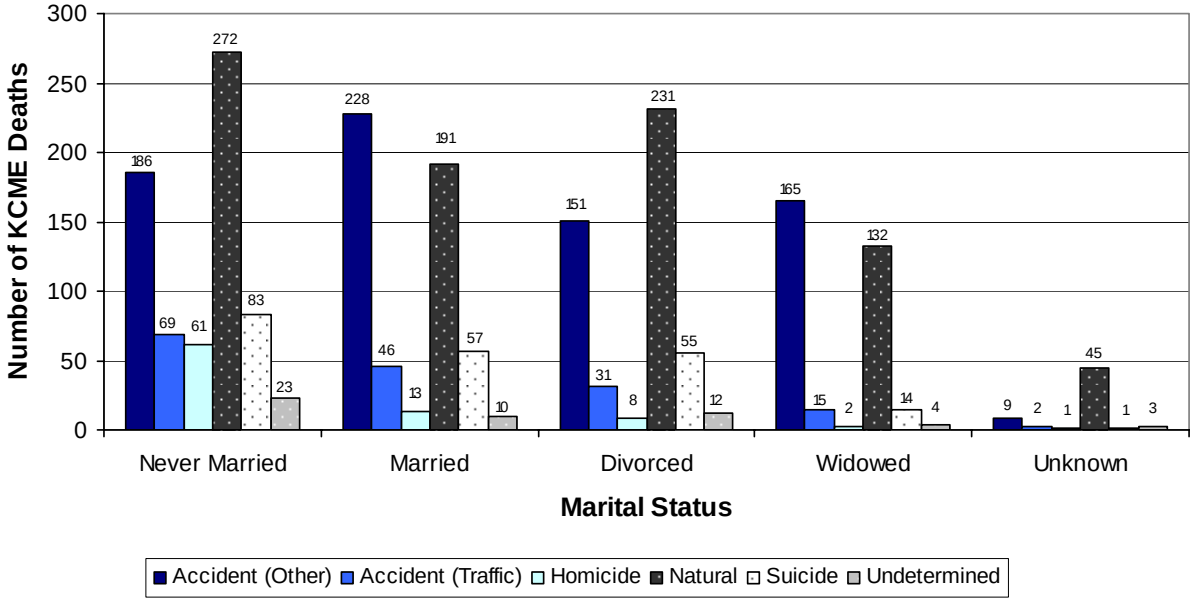
	MANNER OF DEATH								
RACE / SEX	A	T	H	N	S	U	Sub-Total	TOTAL	%
White	642	135	49	717	185	42		1770	83.5%
Male	*373*	*98*	*36*	*452*	*153*	*23*	*1135*		
Female	*269*	*37*	*13*	*265*	*32*	*19*	*635*		
African American	42	9	27	88	5	8		179	8.4%
Male	*31*	*6*	*24*	*60*	*3*	*3*	*127*		
Female	*11*	*3*	*3*	*28*	*2*	*5*	*52*		
Asian/Pacific Is.	36	14	4	50	17	1		122	5.8%
Male	*20*	*9*	*4*	*33*	*8*	*1*	*75*		
Female	*16*	*5*	*0*	*17*	*9*	*0*	*47*		
Native American	18	5	3	10	2	0		38	1.8%
Male	*11*	*4*	*1*	*6*	*1*	*0*	*23*		
Female	*7*	*1*	*2*	*4*	*1*	*0*	*15*		
Other	1	0	2	6	1	1		12	0.5%
Male	*1*	*0*	*1*	*5*	*0*	*0*	*7*		
Female	*0*	*0*	*1*	*1*	*1*	*1*	*4*		
Unknown	*0*	*0*	*0*	*0*	*0*	*0*	*1*		
Totals	**739**	**163**	**85**	**871**	**210**	**53**		**2,121**	**100%**

[12]A = Accident (Non-Traffic), T = Traffic, H = Homicide, N = Natural, S = Suicide, U = Undetermined.

Table 1-6 Marital Status / Sex / Manner of Death / King County Medical Examiner / 2008[13]

MARITAL STATUS / SEX	MANNER OF DEATH								
	A	T	H	N	S	U	Sub-Total	TOTAL	%
Never Married	186	69	61	272	83	23		694	32.7%
Male	*148*	*53*	*53*	*191*	*69*	*11*	*525*		
Female	*38*	*16*	*8*	*81*	*14*	*12*	*169*		
Married	228	46	13	191	57	10		545	25.7%
Male	*150*	*36*	*7*	*133*	*44*	*4*	*374*		
Female	*78*	*10*	*6*	*58*	*13*	*6*	*171*		
Divorced	151	31	8	231	55	12		488	23.0%
Male	*85*	*19*	*4*	*154*	*41*	*10*	*313*		
Female	*66*	*12*	*4*	*77*	*14*	*2*	*175*		
Widowed	165	15	2	132	14	4		332	15.7%
Male	*50*	*8*	*1*	*45*	*11*	*0*	*115*		
Female	*115*	*7*	*1*	*87*	*3*	*4*	*217*		
Unknown	9	2	1	45	1	3		61	2.9%
Male	*3*	*1*	*1*	*33*	*0*	*3*	*41*		
Female	*6*	*1*	*0*	*12*	*1*	*0*	*20*		
Totals	**739**	**163**	**85**	**871**	**210**	**53**[14]		**2,121**	**100%**

Graph 1-5 Marital Status / Manner of Death / King County Medical Examiner / 2008



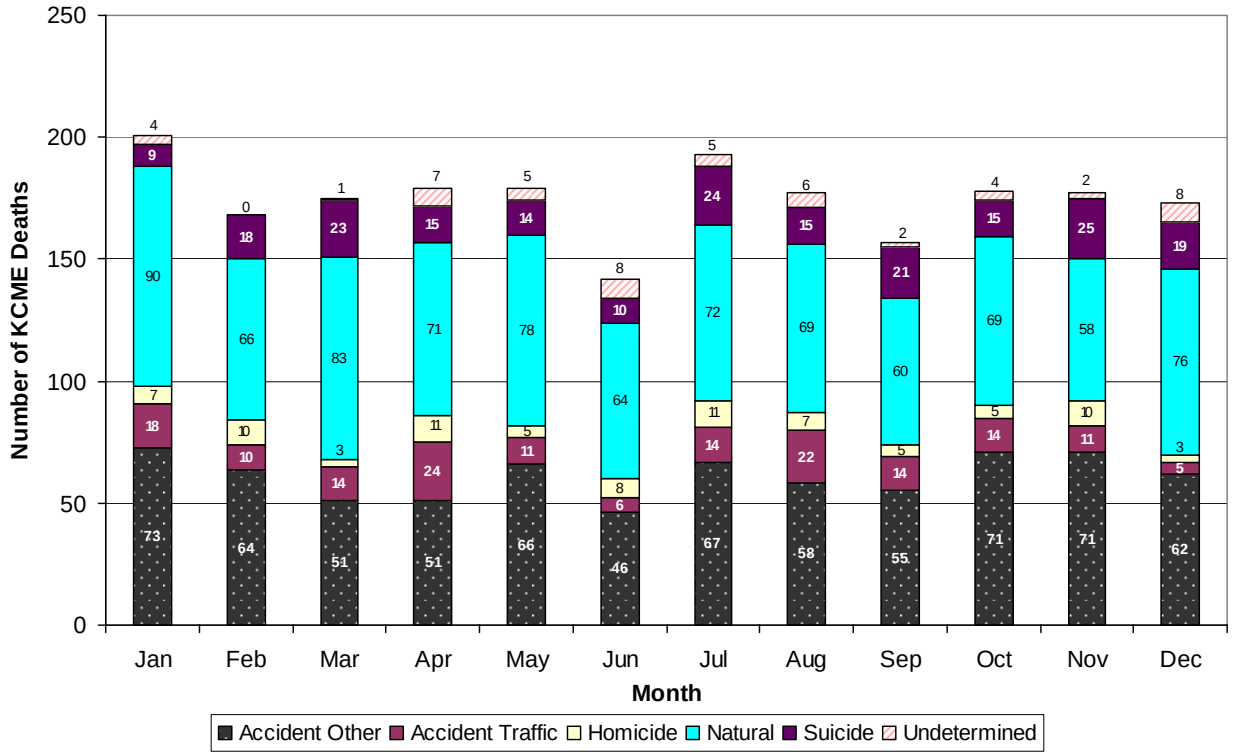
[13]A = Accident (Non-Traffic), T = Traffic, H = Homicide, N = Natural, S = Suicide, U = Undetermined.

[14]Includes one death of undetermined sex.

Table 1-7 Month / Manner of Death / King County Medical Examiner / 2008[15]

	MANNER OF DEATH							
MONTH	A	T	H	N	S	U	Total	%
Prior to 2007	0	0	0	0	0	1	1	0.05%
2007	4	0	0	15	2	0	21	0.99%
January	73	18	7	90	9	4	201	9.48%
February	64	10	10	66	18	0	168	7.92%
March	51	14	3	83	23	1	175	8.25%
April	51	24	11	71	15	7	179	8.44%
May	66	11	5	78	14	5	179	8.44%
June	46	6	8	64	10	8	142	6.69%
July	67	14	11	72	24	5	193	9.09%
August	58	22	7	69	15	6	177	8.35%
September	55	14	5	60	21	2	157	7.40%
October	71	14	5	69	15	4	178	8.39%
November	71	11	10	58	25	2	177	8.35%
December	62	5	3	76	19	8	173	8.16%
Totals	**739**	**163**	**85**	**871**	**210**	**53**	**2,121**	**100%**

Graph 1-6 Month / Manner of Death / King County Medical Examiner / 2008



[15]A = Accident (Non-Traffic), T = Traffic, H = Homicide, N = Natural, S = Suicide, U = Undetermined.

Table 1-8 Location of the Fatal Incident / KCME / 2008[16]

	MANNER OF DEATH						
CITY	A	T	H	S	U	TOTAL	%
Algona	1	0	0	0	0	1	0.1%
Auburn	45	12	2	11	2	72	5.8%
Beaux Arts	0	0	0	0	0	0	0%
Bellevue	30	5	0	13	2	50	4.0%
Black Diamond	0	0	0	0	0	0	0%
Bothell	13	1	0	3	0	17	1.4%
Burien	15	2	4	3	0	24	1.9%
Carnation	0	0	0	0	0	0	0%
Clyde Hill	0	0	0	0	0	0	0%
Covington	2	0	0	2	0	4	0.3%
Des Moines	15	0	1	1	0	17	1.4%
Duvall	1	0	0	0	0	1	0.1%
Enumclaw	11	7	0	3	0	21	1.7%
Federal Way	30	8	8	9	4	59	4.7%
Hunt's Point	0	0	0	0	0	0	0%
Issaquah	11	0	1	5	1	18	1.4%
Kenmore	0	1	1	1	1	4	0.3%
Kent	24	6	4	15	2	51	4.1%
Kirkland	15	1	1	6	0	23	1.8%
Lake Forest Park	0	0	0	0	1	1	0.1%
Maple Valley	3	2	1	1	0	7	0.6%
Medina	0	0	0	0	0	0	0%
Mercer Island	7	0	0	2	0	9	0.7%
Milton	0	0	0	0	0	0	0%
Newcastle	0	0	0	1	0	1	0.1%
Normandy Park	1	0	0	1	0	2	0.2%
North Bend	7	0	0	3	0	10	0.8%
Pacific	1	0	1	0	0	2	0.2%

[16]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 Location of the Fatal Incident / KCME / 2008[17] (continued)

CITY	MANNER OF DEATH A	T	H	S	U	Total	%
Redmond	16	6	2	7	1	32	2.5%
Renton	28	12	4	14	1	59	4.7%
Sammamish	5	0	0	4	0	9	0.7%
SeaTac	8	2	2	5	1	18	1.4%
Seattle	279	34	34	74	26	447	35.8%
Shoreline	9	1	1	5	0	16	1.2%
Skykomish	2	0	0	1	1	4	0.3%
Snoqualmie	2	1	0	4	1	8	0.6%
Tukwila	10	4	7	1	0	22	1.8%
Woodinville	9	2	0	1	0	12	0.9%
Yarrow Point	0	0	0	0	0	0	0%
Unincorporated King County							
Fall City	2	2	0	2	1	7	0.6%
Ravensdale	1	1	0	0	0	2	0.2%
Vashon Island	5	1	0	0	0	6	0.5%
Outside King County	128	52	11	11	8	210	16.8%
Unknown Location	3	0	0	1	0	4	0.3%
Totals	**739**	**163**	**85**	**210**	**53**	**1,250**	**100%**

[17] A = Accident (Non-Traffic), T = Traffic, H = Homicide, S = Suicide, U = Undetermined.

OUT OF COUNTY CASES IN 2008

King County is home to many hospitals and a major trauma center that serve 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. In 2008 there were 213 deaths (17%, 213/1,250) where the incident (excluding deaths classified as "Natural") occurred out of county. Table 1-9 displays these deaths by incident location and manner.

Table 1-9 Fatal Incident Occurred Outside of King County / KCME / 2008[18]

	MANNER OF DEATH					
INCIDENT LOCATION	A	T	H	S	U	TOTAL
Alaska	5	2	0	0	0	7
Idaho	0	2	1	0	0	3
Montana	3	3	1	0	0	7
Oregon	0	0	0	0	0	0
Other States	2	4	0	0	0	6
Washington						
Island County	13	1	0	1	0	15
Kitsap County	9	4	0	0	0	13
Pierce County	14	4	1	0	0	19
Skagit County	11	3	0	1	1	16
Snohomish County	36	13	5	1	3	58
Thurston County	3	4	0	2	0	9
Other WA Counties	32	12	3	6	3	56
Washington Sub-Total	***118***	***41***	***9***	***11***	***7***	***186***
Out of Country	0	0	0	0	1	1
Unknown	3	0	0	0	0	3
Totals	**131**	**52**	**11**	**11**	**8**	**213**

[18]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.

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TEN-YEAR PERSPECTIVE

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

Approximately 74% (9,814/13,339[1]) of the deaths that occurred in 2008 in King County were reported to the Medical Examiner. The Medical Examiner's Office, however, did not assume responsibility for certification of all of these deaths. In about 78% (7,693/9,814) of these 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. Thus, the Medical Examiner assumed jurisdiction in 16% (2,121/13,339) of deaths that occurred in King County in 2008[2].

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 2008 data is provided in separate sections for each manner of death (Accident, Homicide, Natural, Suicide, Traffic, and Undetermined).

[1]Death certificates filed in King County, (Vital Statistics, Public Health - Seattle & King County, June, 2009).

[2]Does not include non-human remains (35 cases) or anthropology/contract cases (39 cases).

Table 2-1 Comparison of Manners of Death / KCME / 1999 - 2008

MANNER OF DEATH	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Accident (Other)	404	441	417	472	485	542	602	721	687	739
Accident (Traffic)	200	203	220	203	179	192	226	211	170	163
Homicide	89	73	74	93	93	76	80	91	76	85
Natural	511	522	619	661	770	765	763	752	863	871
Suicide	221	178	185	200	217	229	233	227	223	210
Undetermined	44	90	63	55	71	59	41	53	53	53
Totals	**1,469**	**1,507**	**1,578**	**1,684**	**1,815**	**1,863**	**1,945**	**2,055**	**2,072**	**2,121**

Table 2-2 Comparison of Manners of Death as Percentage of Total Annual Medical Examiner Cases / KCME / 1999 - 2008

MANNER OF DEATH	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	%	%	%	%	%	%	%	%	%	%
Accident (Other)	27.5	29.3	26.5	28.0	26.8	29.1	31.0	35.1	33.1	34.8
Accident (Traffic)	13.6	13.5	13.9	12.1	9.9	10.3	11.6	10.3	8.2	7.7
Homicide	6.1	4.8	4.7	5.5	5.1	4.1	4.1	4.4	3.7	4.0
Natural	34.8	34.6	39.2	39.3	42.4	41.0	39.2	36.6	41.7	41.1
Suicide	15.0	11.8	11.7	11.9	11.9	12.3	12.0	11.0	10.8	9.9
Undetermined	3.0	6.0	4.0	3.2	3.9	3.2	2.1	2.6	2.5	2.5
Totals	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Graph 2-1 Comparison of Manners of Death / King County Medical Examiner / 1999 - 2008

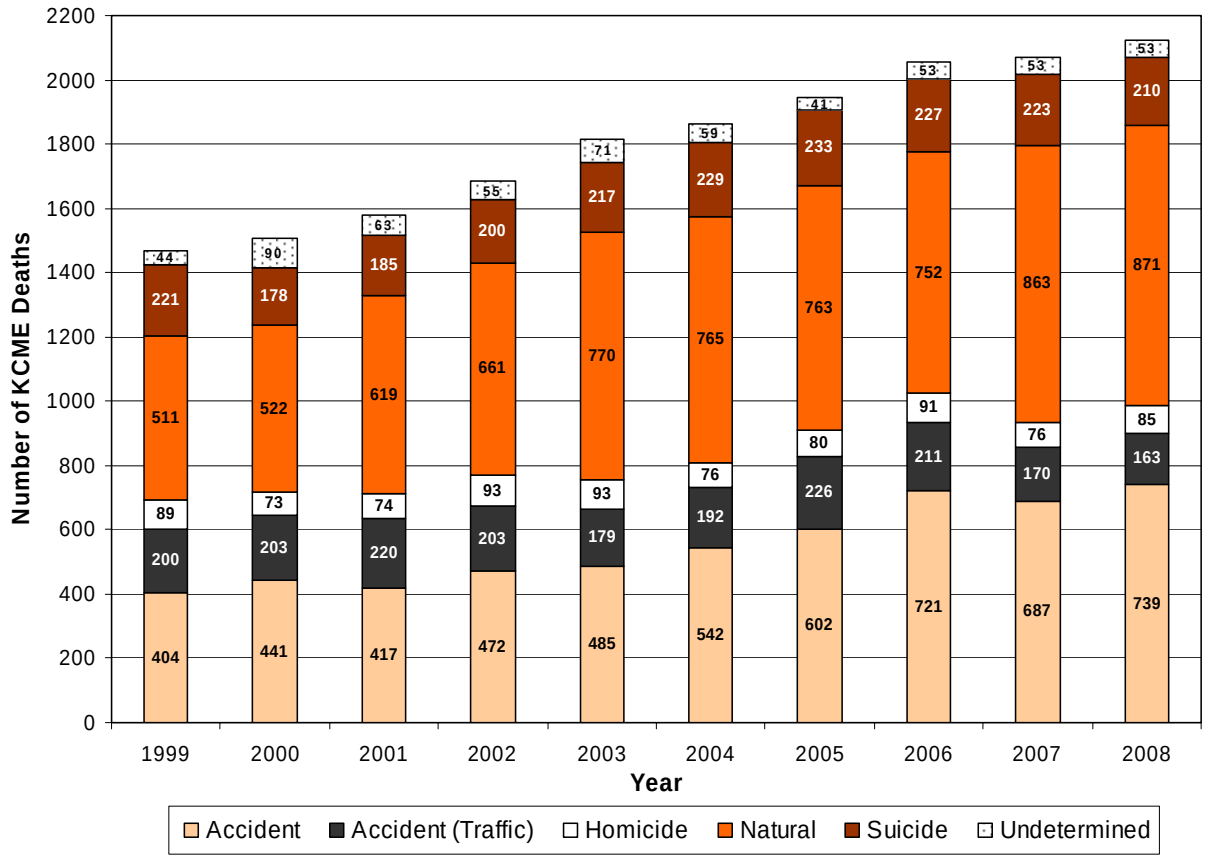


Table 2-3 Ten-Year Perspective of Homicidal Methods / KCME / 1999 - 2008

METHOD USED	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Blunt Force #	9	12	14	14	14	10	12	16	9	16
Blunt Force %	10%	16%	19%	15%	15%	13%	15%	18%	12%	19%
Firearms #	52	39	43	53	52	46	47	52	55	45
Firearms %	58%	53%	58%	57%	56%	61%	59%	57%	72%	53%
Hom. Violence #	0	0	0	2	3	3	2	0	0	0
Hom. Violence %	0%	0%	0%	2%	3%	4%	3%	0%	0%	0%
Stabbing #	19	16	8	17	16	10	14	14	12	12
Stabbing %	21%	22%	11%	18%	17%	13%	17%	15%	16%	14%
Strangulation #	3	2	3	3	5	1	4	1	0	4
Strangulation %	3%	3%	4%	3%	6%	1%	5%	1%	0%	5%
Other #	6	4	6	4	3	6	1	8	0	8
Other %	7%	6%	8%	5%	3%	8%	1%	9%	0%	9%
Totals	**89**	**73**	**74**	**93**	**93**	**76**	**80**	**91**	**76**	**85**
Percentage	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Graph 2-2 Homicide Deaths / King County Medical Examiner / 1999 - 2008

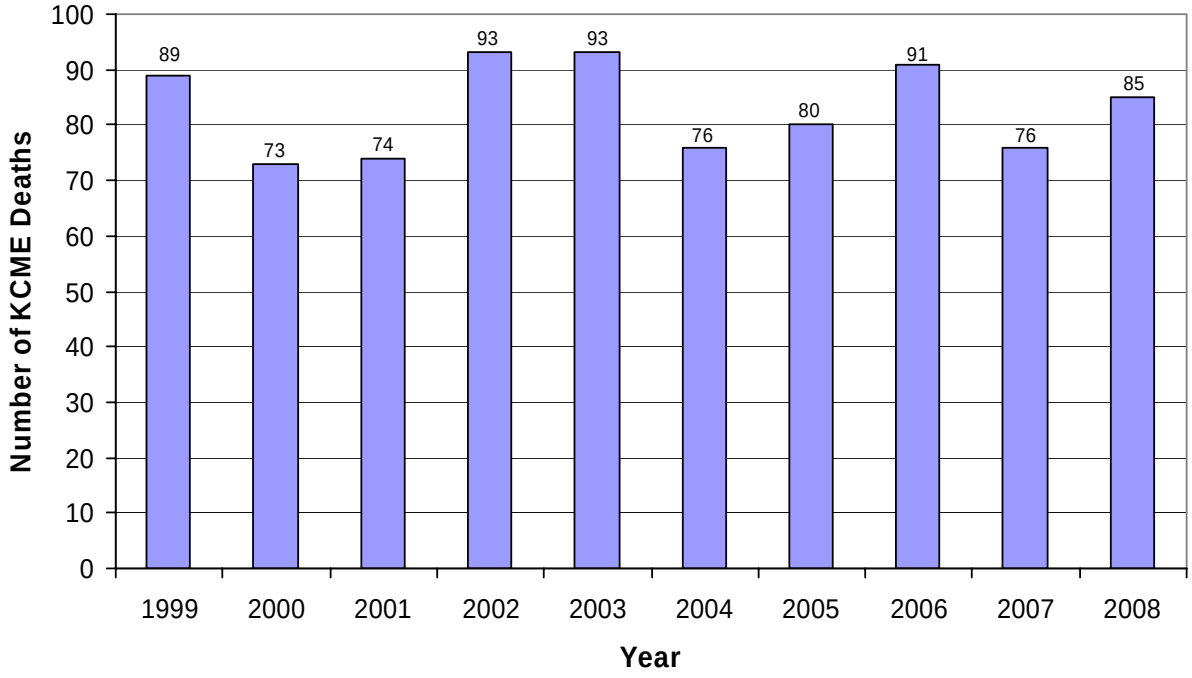


Table 2-4 Ten Year Perspective of Suicidal Injury Modes / KCME / 1999 - 2008

INJURY MODE	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Asphyxia / Plastic Bag	2	6	9	5	8	7	5	11	3	8
Burns / Fire / Heat	3	1	1	2	1	1	3	3	1	3
Carbon Monoxide	11	5	9	17	12	8	13	11	17	4
Drowning	2	0	1	2	4	5	0	1	3	3
Drugs / Poisons	35	31	21	23	35	41	39	36	36	29
Firearms	106	87	85	98	101	95	96	98	93	93
Hanging	39	31	38	32	36	44	42	31	43	48
Incised Wounds / Stabbing	7	7	9	4	6	8	9	5	4	5
Jumped	15	8	11	14	11	15	22	26	22	13
Other	1	2	1	3	3	5	4	5	1	4
Totals	**221**	**178**	**185**	**200**	**217**	**229**	**233**	**227**	**223**	**210**

Graph 2-3 Suicide Deaths / King County Medical Examiner / 1999 – 2008

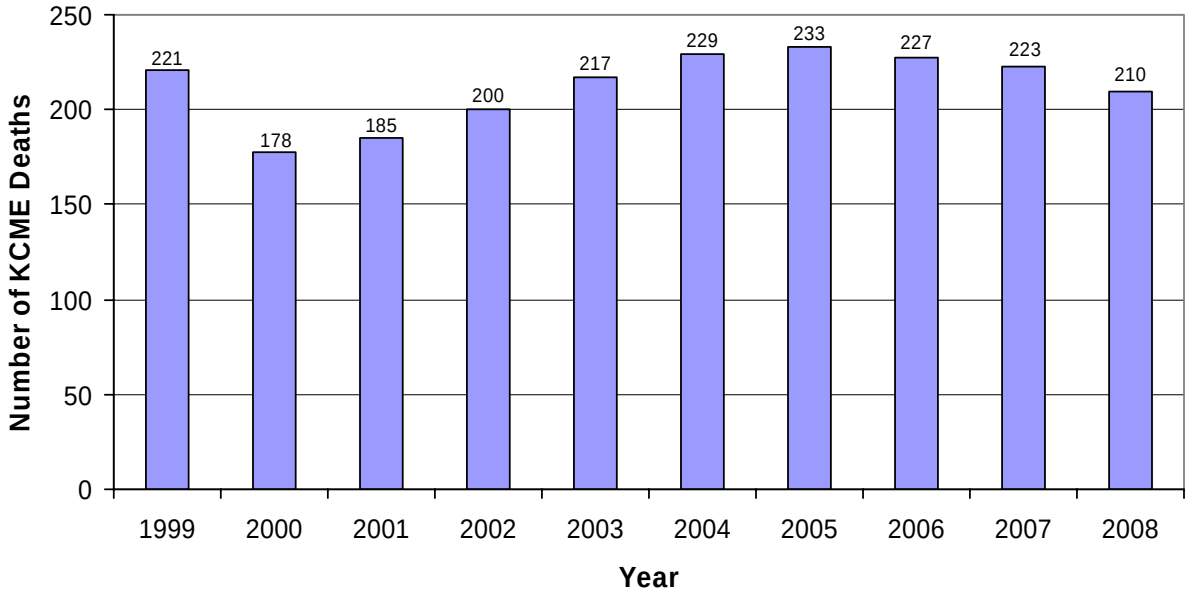


Table 2-5 Traffic Fatality Circumstances / KCME / 1999 - 2008

CIRCUMSTANCES	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Vehicle Driver	97	90	93	99	75	78	99	92	71	71
Vehicle Passenger	47	52	56	46	36	54	47	44	29	24
Vehicle Unknown Position	0	2	2	1	2	1	1	5	1	4
Bicyclist	6	8	7	3	3	5	6	8	7	4
Motorcycle Driver	17	9	21	17	21	23	33	27	26	28
Motorcycle Passenger	1	4	0	0	3	0	3	1	2	1
Pedestrian	32	32	40	34	38	30	36	33	31	26
Other	0	6	1	3	1	1	1	1	3	5
Totals	**200**	**203**	**220**	**203**	**179**	**192**	**226**	**211**	**170**	**163**

Graph 2-4 Traffic Fatalities / King County Medical Examiner / 1999 – 2008

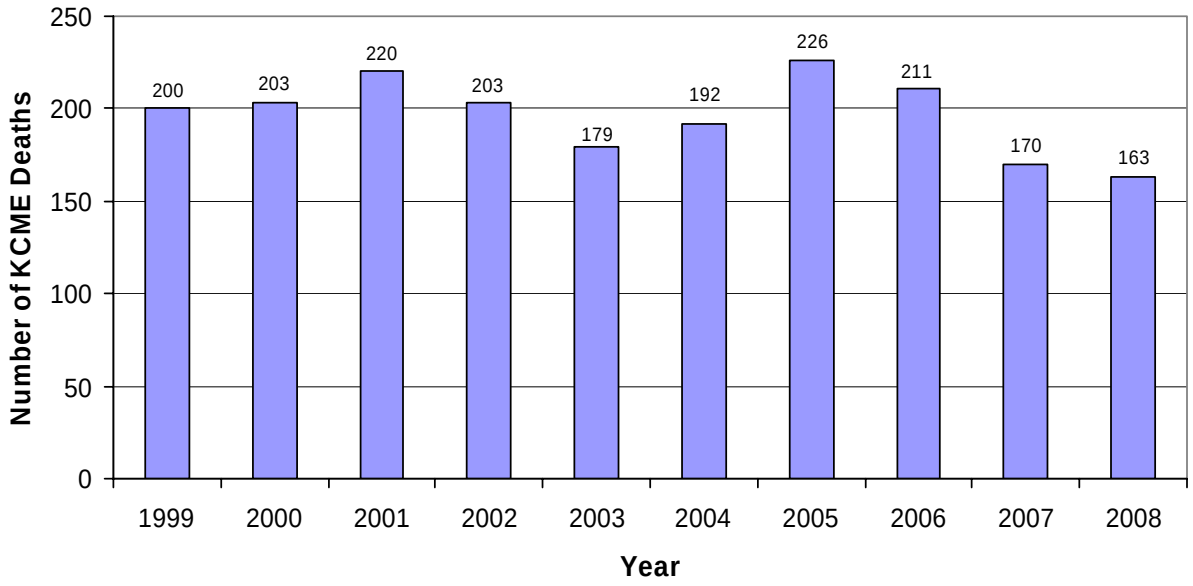
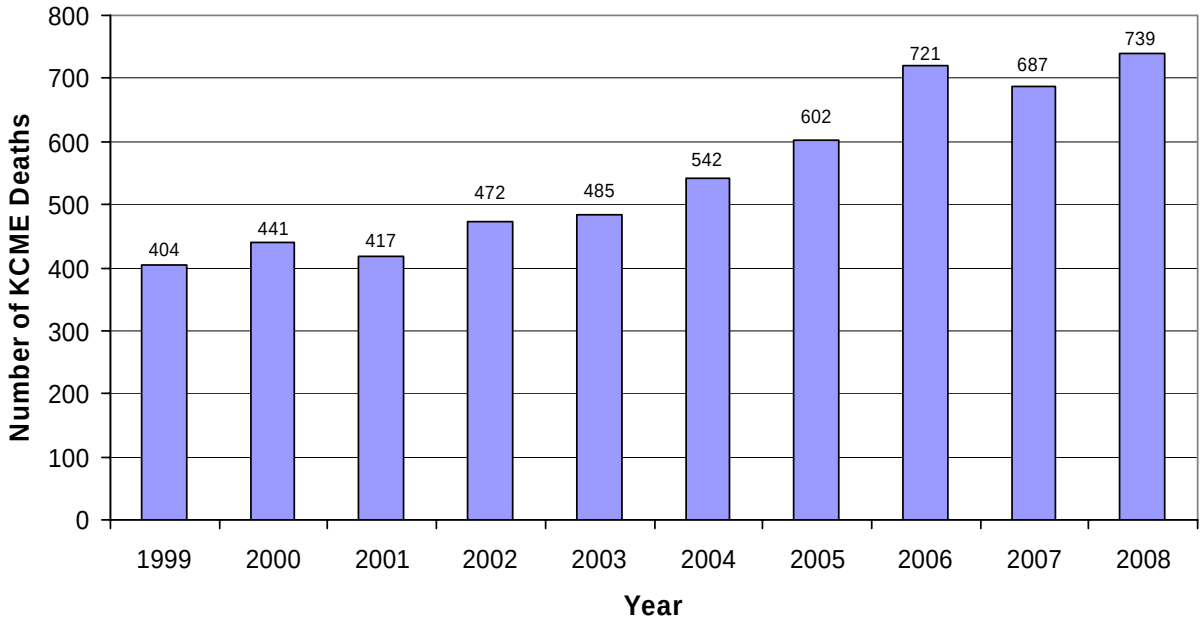


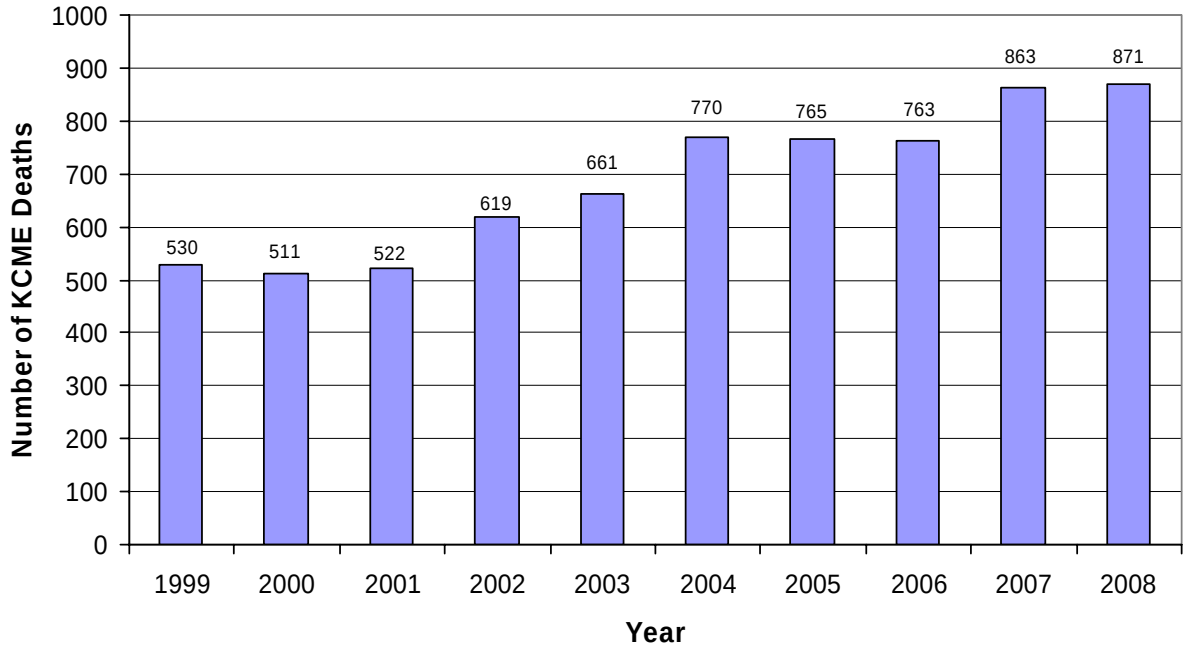
Table 2-6 Ten Year Perspective of Non-Traffic Accidental Death Circumstances / KCME / 1999 - 2008

CIRCUMSTANCES	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Aircraft	3	3	1	0	0	2	3	3	11	1
Asphyxia	7	7	10	7	4	2	9	12	11	14
Aspiration	1	7	5	5	9	8	10	9	5	10
Blunt Force / Crushing	0	11	7	12	9	8	10	4	10	10
Burns / Fire	25	23	29	22	19	24	26	23	23	13
Carbon Monoxide	0	1	5	0	1	3	4	8	3	4
Complication of Therapy	11	16	17	24	22	18	45	31	40	81
Drowning	23	23	35	32	27	17	19	30	23	23
Drugs / Poisons	164	177	122	173	160	211	216	262	247	232
Electrocution	0	3	1	2	0	2	1	2	1	1
Explosion	2	0	1	0	0	4	1	1	2	0
Fall	147	149	157	171	207	213	230	308	292	323
Firearms	0	0	0	0	1	1	2	0	1	1
Hanging	0	4	0	1	0	2	2	0	0	1
Hypothermia	0	0	8	6	2	2	4	4	3	4
Struck by Object	6	2	5	2	8	7	1	8	5	2
Struck by Train	0	4	3	2	0	3	1	0	1	3
Vehicular Non-Traffic	8	6	6	8	14	10	8	9	7	10
Other	7	5	5	5	2	5	10	7	2	6
Totals	**404**	**441**	**417**	**472**	**485**	**542**	**602**	**721**	**687**	**739**

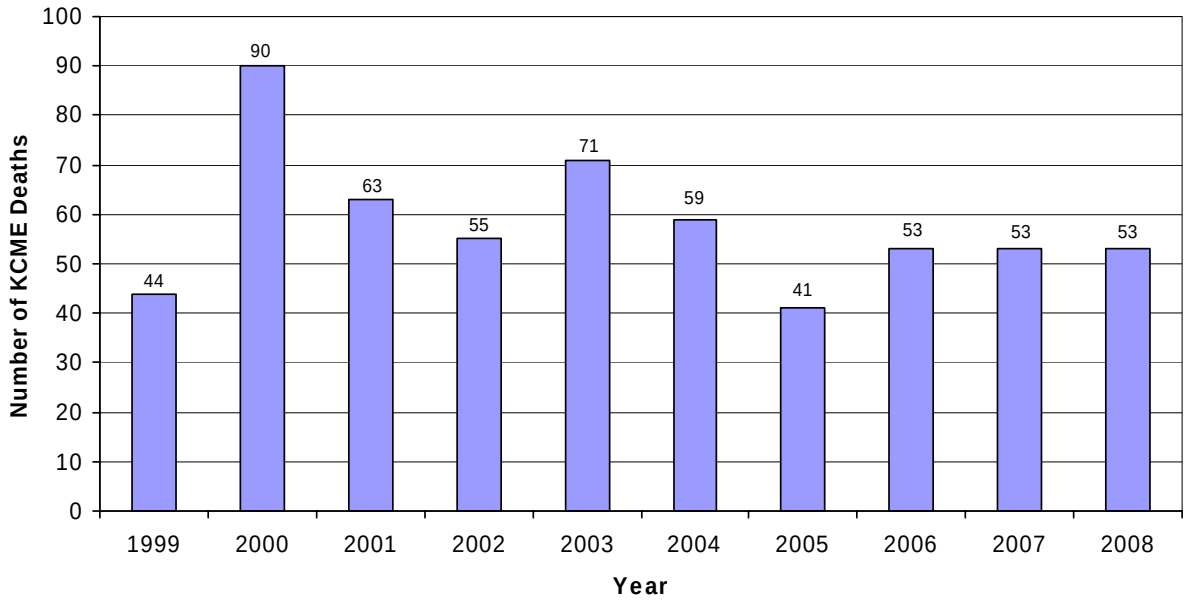
Graph 2-5 Accidental Deaths / King County Medical Examiner / 1999 – 2008



Graph 2-6 Natural Deaths / King County Medical Examiner / 1999 – 2008



Graph 2-7 Deaths of Undetermined Manner / King County Medical Examiner / 1999 – 2008



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Manner: ACCIDENT

The Medical Examiner certified 739 deaths as non-traffic accidents for the calendar year 2008. The largest group of accidental deaths was those who died as a result of a fall, 44% (323/739). Of the 323 deaths attributed to injury sustained in falls, 81% (261/323) occurred in the age group 70 years and over. A large percentage of these falls were ground-level falls in elderly individuals, which resulted in fractures leading to complications such as pneumonia.

The second largest group of non-traffic accidental deaths was individuals who died as a result of accidental overdoses of drugs and/or poisons, representing 31% (232/739). By age, the largest percentage of these accidental drug deaths, 32% (75/232), occurred among adults between 40-49 years. The second largest group, 31% (73/232), included adults between the ages of 50-59. Sixteen percent (36/232) were adults between 30-39 years of age. There were four accidental drug deaths of children between the ages of 16-19 years, and there were no accidental drug deaths of children or infants less than 15 years of age.

The 2008 drug rate number (232) represents a 6% decrease compared to the 247 accidental drug deaths in 2007. A more detailed discussion of these deaths is presented in the section "Death Due to Drugs and Poisons" on page 83 and 84.

Thirteen (13) deaths resulted from fire or thermal injury, a decrease from 2007 when there were 23. Of the 13 fire-related deaths, 69% (9/13) 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 23 drowning deaths in 2008, as compared to 23 in 2007.

Aspiration is a type of death that results from a person choking on a foreign object, often a bolus of food while eating. In 2008 there were ten (10) deaths due to aspiration of a foreign body, compared to five in 2007. All of the aspiration deaths in 2008 were in adults over 50 years of age with the majority 40% (4/10) in the 50 – 59 age group.

Of the 739 accidental deaths in 2008, 18% (131/739) 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 jurisdiction.

Fifty-six percent (411/739) of the victims were tested for the presence of alcohol. Of those tested, 24% (99/411), showed alcohol present at the time of death.

A special subset of deaths designated "Complication of Therapy" has been incorporated in the statistical analyses of Accidental deaths. This category 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 deaths or accidents. As such, this category of deaths warrants special mention because of an apparent upward trend in incidence and increased public interest. A Complication of Therapy is defined as a death that arises as a predictable consequence of appropriate medical therapy. Circumstances 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, etc.

For example, the manner of death in the case of a person with no known drug allergies and a minor infection who is administered an appropriate dose of penicillin but subsequently develops a fatal allergic reaction to the drug and dies would be Complication of Therapy. Contrast this example with the case of a hospital patient who is written a proper prescription for a heart medication but is administered an overdose of the medication by a healthcare provider, and 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 deaths have increased in the previous ten years, from 11 in 1999 to 81 in 2008 (see table on p. 27, Ten Year Perspective of Non-Traffic Accidental Death Circumstances) and 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.

In 2008, 81 deaths were classified as Complication of Therapy. Graph 3-4 shows the Complication of Therapy deaths by general category and Graph 3-5 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.)

There may be multiple reasons for this apparent upward trend in the incidence of Complication of Therapy over the last ten years but one of the most important factors is probably the rate at which non-natural deaths are reported to the KCMEO. The medical examiner is dependent on clinical providers to report deaths that may have been a consequence of medical therapy. Another important factor for the increase in cases from 2007 to 2008 is the inclusion of Clostridium difficile colitis as a complication of antibiotic therapy. 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.

Graph 3-1 Circumstances of Accidental Death / King County Medical Examiner / 2008

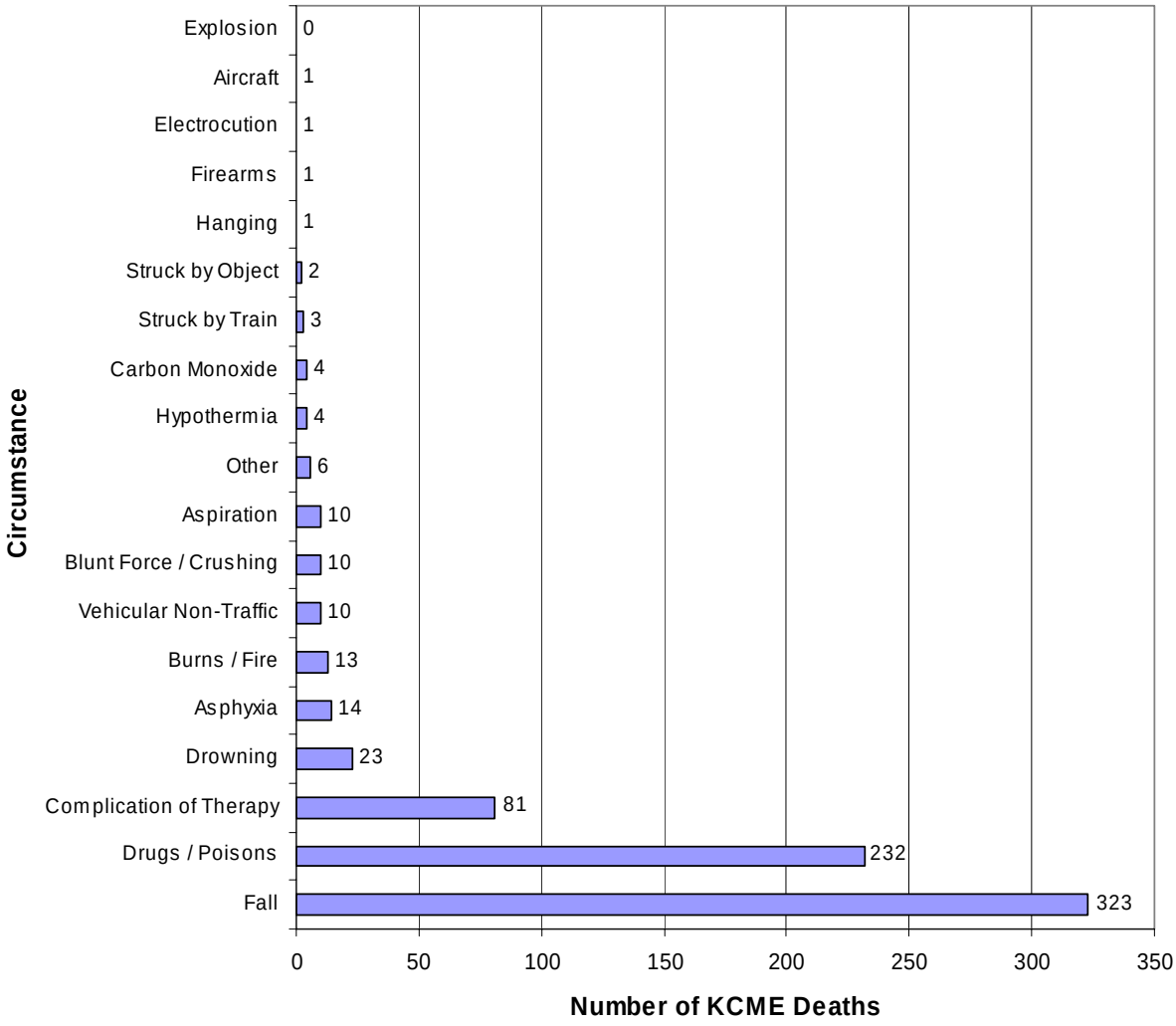


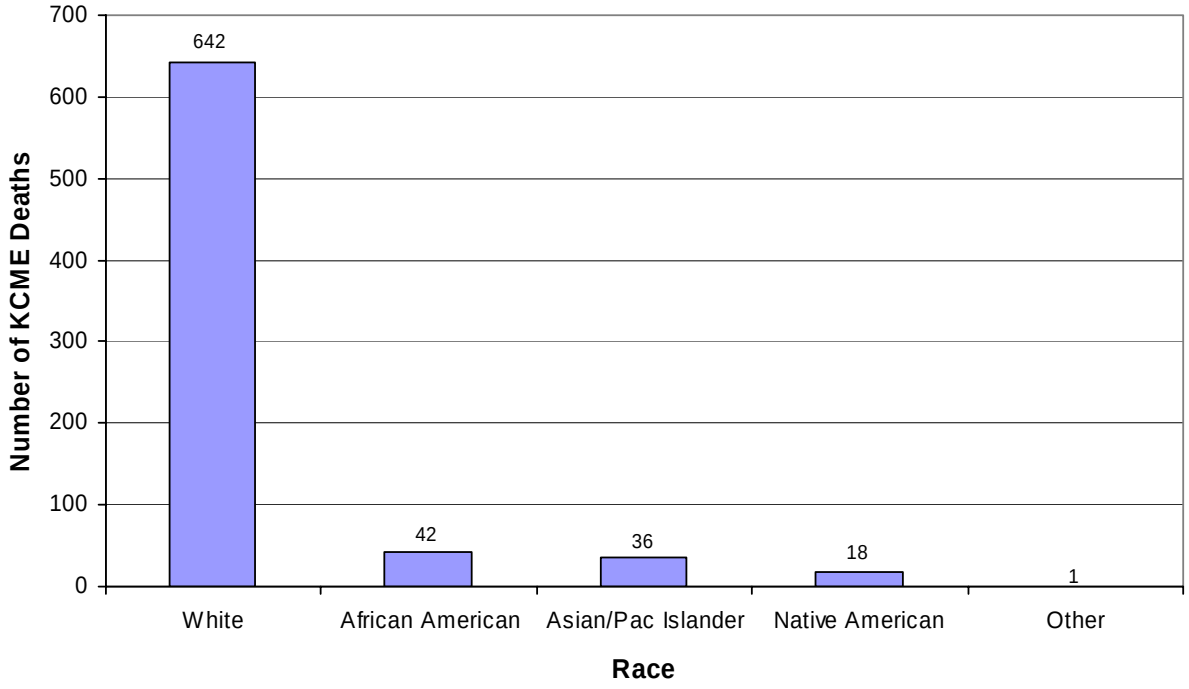
Table 3-1 Circumstances of Accidental Death / Race / Sex / KCME / 2008

CIRCUMSTANCES / SEX	RACE: WHITE	AF AMER	ASIAN/ PAC IS	NATIVE AMERICAN	OTHER	SUB TOTAL	TOTAL
Aircraft	1	0	0	0	0		1
Male	*1*	*0*	*0*	*0*	*0*	*1*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	
Asphyxia (compressional / positional / mechanical)	12	1	1	0	0		14
Male	*10*	*0*	*1*	*0*	*0*	*11*	
Female	*2*	*1*	*0*	*0*	*0*	*3*	
Aspiration	10	0	0	0	0		10
Male	*7*	*0*	*0*	*0*	*0*	*7*	
Female	*3*	*0*	*0*	*0*	*0*	*3*	
Blunt Force / Crushing	8	1	0	1	0		10
Male	*7*	*1*	*0*	*1*	*0*	*9*	
Female	*1*	*0*	*0*	*0*	*0*	*1*	
Burns / Fire	10	0	1	2	0		13
Male	*5*	*0*	*1*	*2*	*0*	*8*	
Female	*5*	*0*	*0*	*0*	*0*	*5*	
Carbon Monoxide	3	1	0	0	0		4
Male	*1*	*1*	*0*	*0*	*0*	*2*	
Female	*2*	*0*	*0*	*0*	*0*	*2*	
Complication of Therapy	71	3	4	3	0		81
Male	*41*	*3*	*0*	*1*	*0*	*45*	
Female	*30*	*0*	*4*	*2*	*0*	*36*	
Drowning	13	6	3	1	0		23
Male	*10*	*5*	*3*	*0*	*0*	*18*	
Female	*3*	*1*	*0*	*1*	*0*	*5*	
Drugs / Poisons	191	25	6	9	1		232
Male	*124*	*17*	*6*	*5*	*1*	*153*	
Female	*67*	*8*	*0*	*4*	*0*	*79*	
Electrocution	1	0	0	0	0		1
Male	*0*	*0*	*0*	*0*	*0*	*0*	
Female	*1*	*0*	*0*	*0*	*0*	*1*	
Explosion	0	0	0	0	0		0
Male	*0*	*0*	*0*	*0*	*0*	*0*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	
Fall	300	3	19	1	0		323
Male	*153*	*3*	*9*	*1*	*0*	*166*	
Female	*147*	*0*	*10*	*0*	*0*	*157*	

Table 3-1 Circumstances of Accidental Death / Race / Sex / KCME / 2008 (continued)

CIRCUMSTANCES / SEX	RACE WHITE	AF AMER	ASIAN/ PAC IS	NATIVE AMERICAN	OTHER	SUB TOTAL	TOTAL
Firearms	1	0	0	0	0		1
Male	*1*	*0*	*0*	*0*	*0*	*1*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	
Hanging	1	0	0	0	0	0	1
Male	*1*	*0*	*0*	*0*	*0*	*1*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	
Hypothermia	4	0	0	0	0		4
Male	*2*	*0*	*0*	*0*	*0*	*2*	
Female	*2*	*0*	*0*	*0*	*0*	*2*	
Struck by Object	1	1	0	0	0		2
Male	*1*	*1*	*0*	*0*	*0*	*2*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	
Struck by Train	2	0	0	1	0		3
Male	*1*	*0*	*0*	*1*	*0*	*2*	
Female	*1*	*0*	*0*	*0*	*0*	*1*	
Vehicular Non-Traffic	9	0	1	0	0		10
Male	*6*	*0*	*0*	*0*	*0*	*6*	
Female	*3*	*0*	*1*	*0*	*0*	*4*	
Other	4	1	1	0	0		6
Male	*2*	*0*	*0*	*0*	*0*	*2*	
Female	*2*	*1*	*1*	*0*	*0*	*4*	
Totals	**642**	**42**	**36**	**18**	**1**		**739**
Percent	86.9%	5.7%	4.9%	2.4%	0.1%		100%

Graph 3-2 Accidental Deaths / Race / King County Medical Examiner / 2008



Graph 3-3 Accidental Deaths / Age Group / King County Medical Examiner / 2008

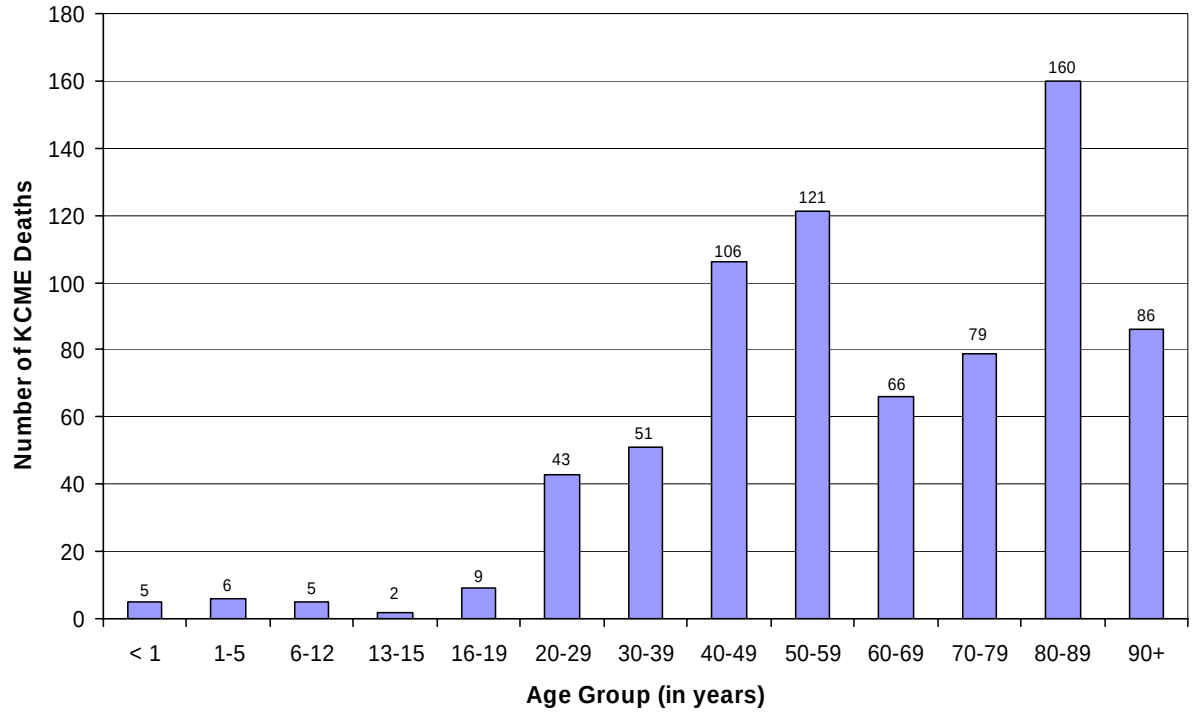


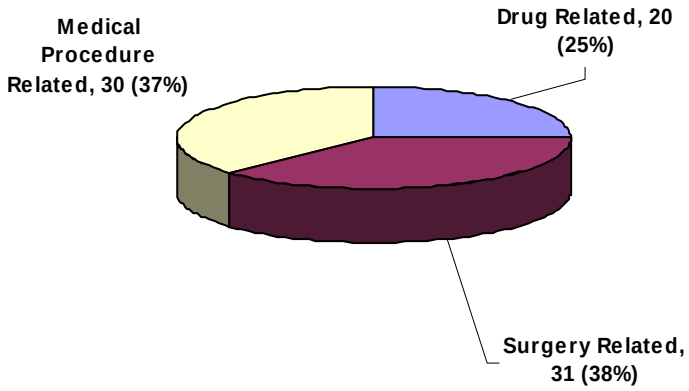
Table 3-2 Circumstances of Accidental Death / Age / Sex / KCME / 2008

CIRCUMSTANCES / SEX	AGE GROUP (YEARS) < 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 +	SUB TOTAL	TOTAL
Aircraft	0	0	0	0	0	0	0	0	0	1	0	0	0		1
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*1*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Asphyxia (compress/positional/mech)	4	1	2	1	0	2	1	2	0	0	0	0	1		14
Male	*2*	*1*	*1*	*1*	*0*	*2*	*1*	*2*	*0*	*0*	*0*	*0*	*1*	*11*	
Female	*2*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*3*	
Aspiration	0	0	0	0	0	0	0	0	4	1	2	2	1		10
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*3*	*1*	*1*	*2*	*0*	*7*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*1*	*0*	*1*	*3*	
Blunt Force / Crushing	0	0	1	0	0	3	0	2	2	1	1	0	0		10
Male	*0*	*0*	*1*	*0*	*0*	*3*	*0*	*2*	*1*	*1*	*1*	*0*	*0*	*9*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*1*	
Burns / Fire	0	0	0	0	1	1	0	2	1	3	3	2	0		13
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*1*	*2*	*2*	*1*	*0*	*8*	
Female	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*0*	*0*	*1*	*1*	*1*	*0*	*5*	
Carbon Monoxide	0	0	0	0	1	0	0	1	2	0	0	0	0		4
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*0*	*2*	
Female	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*2*	
Complication of Therapy	0	0	0	0	0	1	3	6	16	14	22	14	5		81
Male	*0*	*0*	*0*	*0*	*0*	*1*	*2*	*2*	*12*	*7*	*14*	*6*	*1*	*45*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*4*	*4*	*7*	*8*	*8*	*4*	*36*	
Drowning	1	2	0	1	2	3	5	6	0	2	0	0	1		23
Male	*1*	*2*	*0*	*1*	*2*	*3*	*5*	*3*	*0*	*1*	*0*	*0*	*0*	*18*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*3*	*0*	*1*	*0*	*0*	*1*	*5*	
Drugs / Poisons	0	0	0	0	4	27	36	75	73	15	2	0	0		232
Male	*0*	*0*	*0*	*0*	*4*	*21*	*26*	*47*	*47*	*7*	*1*	*0*	*0*	*153*	
Female	*0*	*0*	*0*	*0*	*0*	*6*	*10*	*28*	*26*	*8*	*1*	*0*	*0*	*79*	
Electrocution	0	0	0	0	0	0	0	1	0	0	0	0	0		1
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	
Explosion	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*	
Fall	0	2	1	0	0	4	3	8	19	25	46	137	78		323
Male	*0*	*1*	*0*	*0*	*0*	*3*	*2*	*6*	*17*	*15*	*33*	*65*	*24*	*166*	
Female	*0*	*1*	*1*	*0*	*0*	*1*	*1*	*2*	*2*	*10*	*13*	*72*	*54*	*157*	

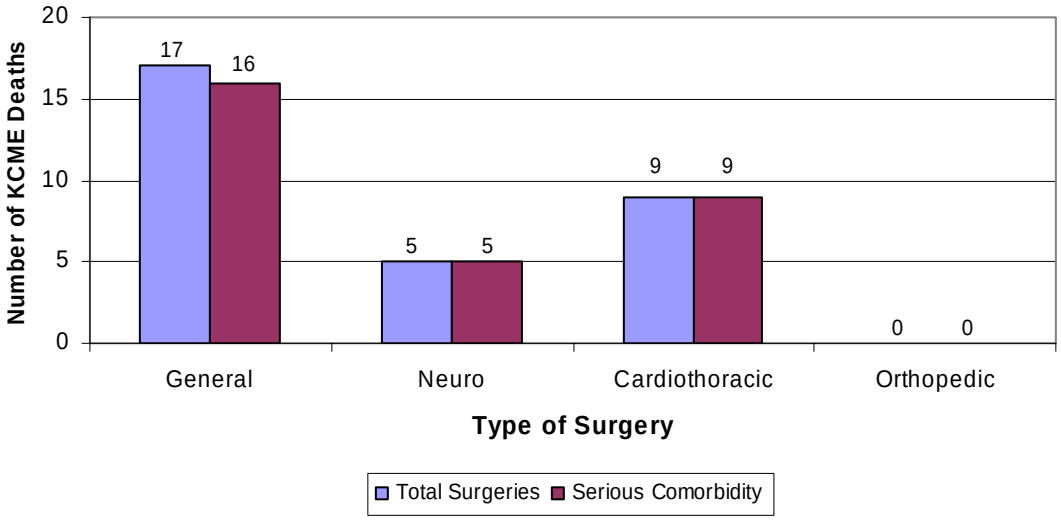
Table 3-2 Circumstances of Accidental Death / Age / Sex / KCME / 2008 (continued)

Circumstance / Sex	AGE GROUP (YEARS) < 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 +	SUB TOTAL	TOTAL
Firearms	0	0	0	0	0	0	1	0	0	0	0	0	0		1
Male	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Hanging	0	0	1	0	0	0	0	0	0	0	0	0	0		1
Male	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Hypothermia	0	0	0	0	0	0	0	0	0	1	1	2	0		4
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*1*	*0*	*2*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*2*	
Struck by Object	0	0	0	0	0	0	0	0	0	0	1	1	0		2
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*2*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Struck by Train	0	0	0	0	1	0	0	0	2	0	0	0	0		3
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*0*	*2*	
Female	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	
Vehicular Non-Traffic	0	1	0	0	0	2	0	2	1	2	0	2	0		10
Male	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*1*	*1*	*1*	*0*	*1*	*0*	*6*	
Female	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*1*	*0*	*1*	*0*	*4*	
Other	0	0	0	0	0	0	2	1	1	1	1	0	0		6
Male	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*1*	*0*	*0*	*0*	*2*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*0*	*1*	*0*	*0*	*4*	
Totals	**5**	**6**	**5**	**2**	**9**	**43**	**51**	**106**	**121**	**66**	**79**	**160**	**86**		**739**
Percent	0.7	0.8	0.7	0.3	1.2	5.8	6.9	14.3	16.4	8.9	10.7	21.7	11.6		100%

Graph 3-4 Complication of Therapy / General Categories / KCME / 2008



Graph 3-5 Complication of Therapy[1] / Surgical Injuries / KCME / 2008



[1]Serious comorbidity indicates coexisting natural disease serious enough to contribute to death.

Table 3-3 Circumstances of Accidental Death / Sex / KCME / 2008

CIRCUMSTANCES	SEX		TOTAL
	MALE	FEMALE	
Aircraft	1	0	1
Asphyxia (compressional / positional / mechanical)	11	3	14
Aspiration	7	3	10
Blunt Force / Crushing	9	1	10
Burns / Fire	8	5	13
Carbon Monoxide	2	2	4
Complication of Therapy	45	36	81
Drowning	18	5	23
Drugs / Poisons	153	79	232
Electrocution	0	1	1
Explosion	0	0	0
Fall	166	157	323
Firearms	1	0	1
Hanging	1	0	1
Hypothermia	2	2	4
Struck by Object	2	0	2
Struck by Train	2	1	3
Vehicular Non-Traffic	6	4	10
Other	2	4	6
Totals	**436**	**303**	**739**
Percent	59%	41%	100%

Table 3-4 Circumstances of Accidental Death / Blood Alcohol Results / KCME / 2008

CIRCUMSTANCES	TESTED		NOT TESTED	TOTAL
	TESTED POSITIVE	TESTED NEGATIVE		
Aircraft	0	1	0	1
Asphyxia (compressional/ positional / mechanical)	0	11	3	14
Aspiration	0	6	4	10
Blunt Force / Crushing	3	6	1	10
Burns / Fire	2	6	5	13
Carbon Monoxide	1	3	0	4
Complication of Therapy	1	10	70	81
Drowning	6	17	0	23
Drugs / Poisons	69	147	16	232
Electrocution	0	1	0	1
Explosion	0	0	0	0
Fall	13	90	220	323
Firearms	1	0	0	1
Hanging	0	1	0	1
Hypothermia	0	4	0	4
Struck by Object	0	0	2	2
Struck by Train	2	1	0	3
Vehicular Non-Traffic	0	5	5	10
Other	1	3	2	6
Totals	**99**	**312**	**328**	**739**
Percent	13.4%	42.2%	44.4%	100%

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Manner: 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. During 2008, the Medical Examiner classified 85 deaths as homicide. This number represents 4% (85/2,121) of the Medical Examiner death investigations for the calendar year 2008. Of these 85 homicides, 74 (87%, 74/85) were the result of incidents that occurred within King County. For comparison, there were 76 homicides investigated in 2007, of which 66 (87%, 66/76) were incidents in King County.

The data reflect the weapons or mechanisms responsible for the homicidal deaths in 2008. Firearms were responsible for 53% (45/85), compared to 2007, when 72% (55/76) were due to firearms. Stabbing by a knife or other sharp-edged instrument caused fourteen percent (12/85) of deaths of homicide victims. Blunt force injuries were responsible for nineteen percent (16/85) of the 2008 homicide deaths. There were four deaths due to strangulation/asphyxia, no deaths due to homicidal violence and eight 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.

In 2008, there were five homicide victims under five years of age. There were seven homicide victims between 6 - 15 years of age. Ten homicide victims were between the ages of 16 and 19 years.

Examining the racial distribution of victims of homicide, 32% (27/85) of the victims were African American, compared to 2007, when 28% (21/76) of the victims were African American. Whites, while representing 76% of the population, made up 58% (49/85) of the homicide victims. The remaining 11% of homicide victims (9/85) included Asian/Pacific Islanders and Native American. As indicated on pages 5 and 19, in 17% 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 19).

Males comprised 78% (66/85) and women 22% (19/85) of the homicide victims in 2008. The majority of victims, 56% (48/85), were between the ages of 20 and 49 years. Young people, 19 years old and under, comprised 26% (22/85) of the homicide victims. For comparison, this younger age group represented 12% (9/76) in the year 2006. Eighty-eight percent (75/85) of the victims were tested for the presence of alcohol. Of those tested 29% (22/75) showed alcohol present at the time of death.

Of the 85 homicidal deaths in 2008, 87% (74/85) of the fatal incidents occurred within King County, and of these deaths, 30 (41%, 30/74) occurred within the city limits of Seattle. In 11 of the 85 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 / King County Medical Examiner / 2008

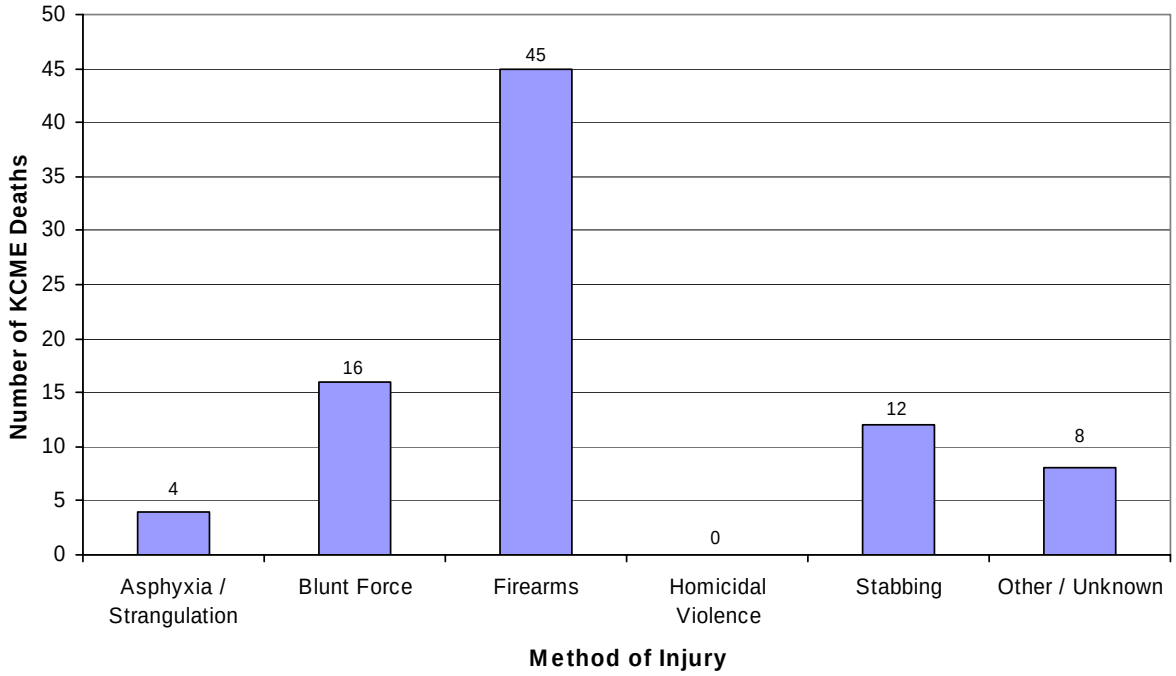


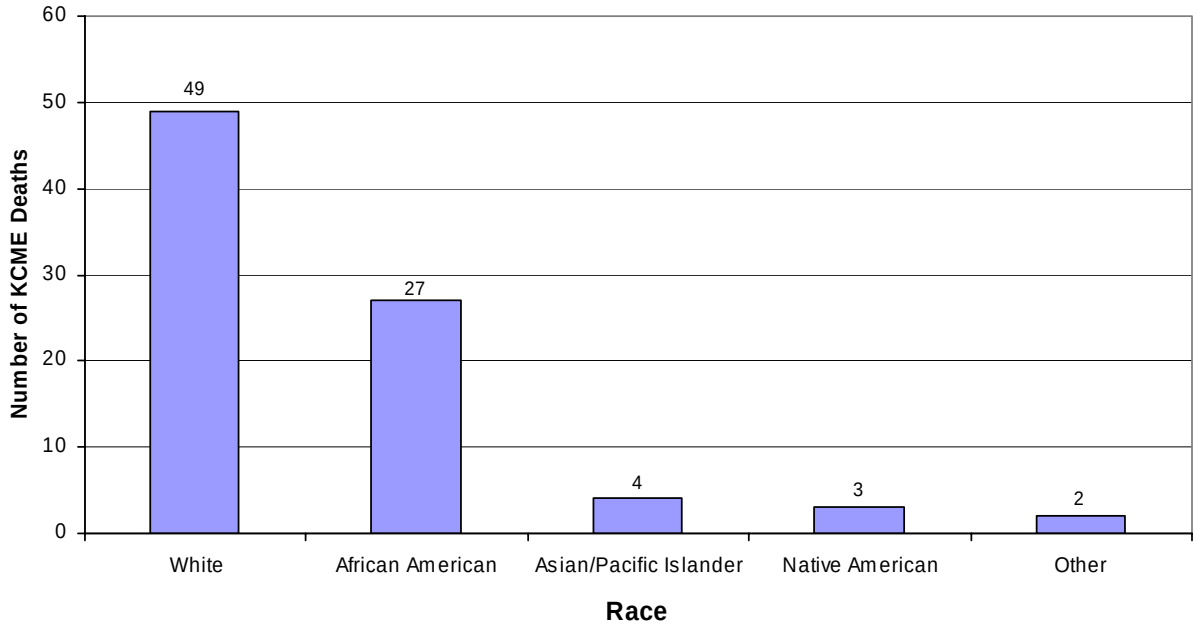
Table 4-1 Homicide Methods / Race / Sex / King County Medical Examiner / 2008

CIRCUMSTANCES / SEX	RACE					SUB TOTAL	TOTAL
	WHITE	AF AMER	ASIAN/ PAC IS	NATIVE AMERICAN	OTHER		
Asphyxia / Strangulation	2	0	0	1	1		4
Male	*1*	*0*	*0*	*0*	*0*	*1*	
Female	*1*	*0*	*0*	*1*	*1*	*3*	
Blunt Force	12	1	1	2	0		16
Male	*10*	*1*	*1*	*1*	*0*	*13*	
Female	*2*	*0*	*0*	*1*	*0*	*3*	
Firearms	19	24	1	0	1		45
Male	*14*	*23*	*1*	*0*	*1*	*39*	
Female	*5*	*1*	*0*	*0*	*0*	*6*	
Homicidal Violence	0	0	0	0	0		0
Male	*0*	*0*	*0*	*0*	*0*	*0*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	
Stabbing	10	2	0	0	0		12
Male	*7*	*0*	*0*	*0*	*0*	*7*	
Female	*3*	*2*	*0*	*0*	*0*	*5*	
Other / Unknown	6	0	2	0	0		8
Male	*4*	*0*	*2*	*0*	*0*	*6*	
Female	*2*	*0*	*0*	*0*	*0*	*2*	
Totals	**49**	**27**	**4**	**3**	**2**		**85**
Percent	58%	32%	5%	3%	2%		100%

Table 4-2 Homicide Methods / Age / Sex / King County Medical Examiner / 2008

METHOD / SEX	AGE GROUP (YEARS) < 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 +	SUB TOTAL	TOTAL
Asphyxia / Strangulation	0	0	0	1	0	1	0	0	0	1	1	0	0		4
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*1*	
Female	*0*	*0*	*0*	*1*	*0*	*1*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*3*	
Blunt Force	2	1	0	0	0	3	2	3	3	2	0	0	0		16
Male	*2*	*1*	*0*	*0*	*0*	*3*	*1*	*1*	*3*	*2*	*0*	*0*	*0*	*13*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*2*	*0*	*0*	*0*	*0*	*0*	*3*	
Firearms	0	1	2	2	8	18	9	2	3	0	0	0	0		45
Male	*0*	*1*	*1*	*2*	*8*	*16*	*6*	*2*	*3*	*0*	*0*	*0*	*0*	*39*	
Female	*0*	*0*	*1*	*0*	*0*	*2*	*3*	*0*	*0*	*0*	*0*	*0*	*0*	*6*	
Homicidal Violence	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*	
Stabbing	0	0	0	0	2	3	2	3	0	2	0	0	0		12
Male	*0*	*0*	*0*	*0*	*2*	*3*	*0*	*1*	*0*	*1*	*0*	*0*	*0*	*7*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*2*	*0*	*1*	*0*	*0*	*0*	*5*	
Other / Unknown	1	0	2	0	0	0	0	2	0	0	2	1	0		8
Male	*1*	*0*	*2*	*0*	*0*	*0*	*0*	*2*	*0*	*0*	*1*	*0*	*0*	*6*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*2*	
Totals	**3**	**2**	**4**	**3**	**10**	**25**	**13**	**10**	**6**	**5**	**3**	**1**	**0**		**85**
Percent	4%	2%	4%	4%	12%	29%	15%	12%	7%	6%	4%	1%	0%		100%

Graph 4-2 Homicide Deaths / Race / King County Medical Examiner / 2008



Graph 4-3 Homicide Deaths / Age Group / King County Medical Examiner / 2008

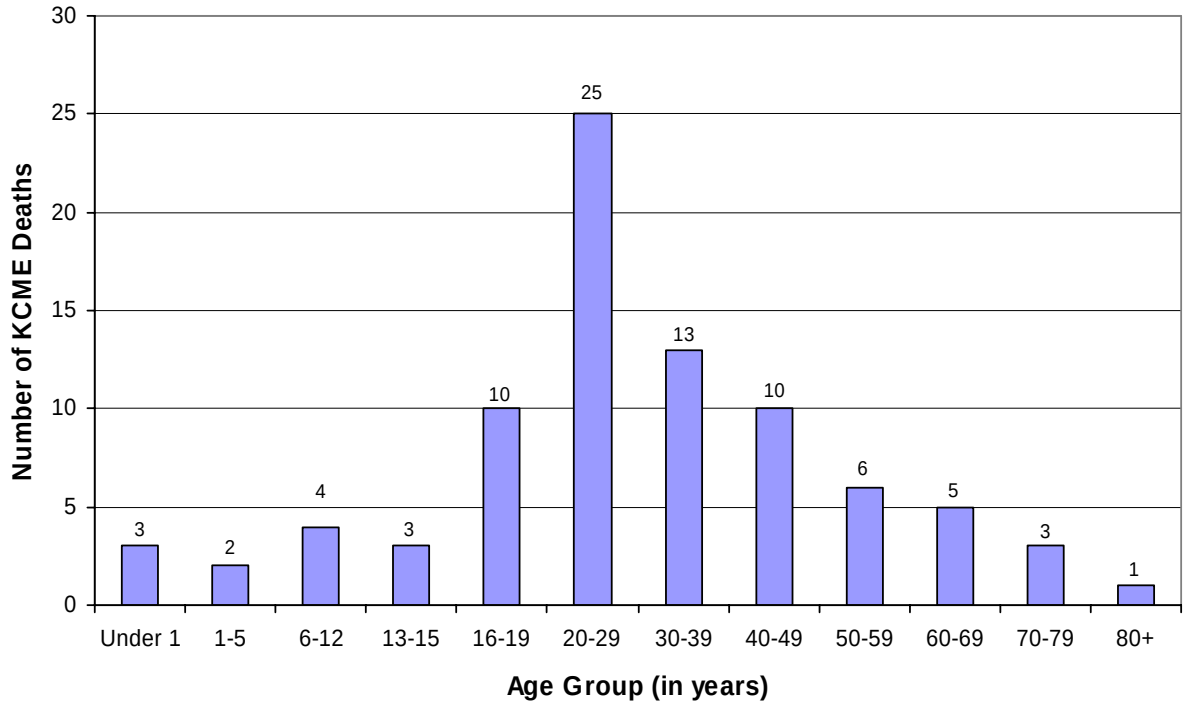


Table 4-3 Homicide Deaths / Age / Race / Sex / King County Medical Examiner / 2008

METHOD		AGE < 16	16 to 19	20 to 29	30 to 39	40 to 49	50+	SUB TOTAL	TOTAL
Asphyxia/ Strangulation	White	0	0	0	0	0	2		2
	Male	*0*	*0*	*0*	*0*	*0*	*1*	*1*	
	Female	*0*	*0*	*0*	*0*	*0*	*1*	*1*	
	Nat. American	1	0	0	0	0	0		1
	Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Female	*1*	*0*	*0*	*0*	*0*	*0*	*1*	
	Other	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	White	1	0	3	2	2	4		12
	Male	*1*	*0*	*3*	*1*	*1*	*4*	*10*	
	Female	*0*	*0*	*0*	*1*	*1*	*0*	*2*	
	African Amer.	0	0	0	0	0	1		1
	Male	*0*	*0*	*0*	*0*	*0*	*1*	*1*	
	Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Asian/Pac Is.	1	0	0	0	0	0		1
	Male	*1*	*0*	*0*	*0*	*0*	*0*	*1*	
	Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Nat. American	1	0	0	0	1	0		2
	Male	*1*	*0*	*0*	*0*	*0*	*0*	*1*	
	Female	*0*	*0*	*0*	*0*	*1*	*0*	*1*	
Firearms	White	3	2	9	3	2	0		19
	Male	*2*	*2*	*7*	*1*	*2*	*0*	*14*	
	Female	*1*	*0*	*2*	*2*	*0*	*0*	*5*	
	African Amer.	2	6	9	5	0	2		24
	Male	*2*	*6*	*9*	*4*	*0*	*2*	*23*	
	Female	*0*	*0*	*0*	*1*	*0*	*0*	*1*	
	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*	
	Other	0	0	0	1	0	0		1
	Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Female	*0*	*0*	*0*	*1*	*0*	*0*	*1*	

Table 4-3 Homicide Deaths / Age / Race / Sex / King County Medical Examiner / 2008, continued

METHOD		AGE < 16	16 to 19	20 to 29	30 to 39	40 to 49	50+	SUB TOTAL	TOTAL
Stabbing	White	0	2	3	2	1	2		10
	Male	*0*	*2*	*3*	*0*	*1*	*1*	*7*	
	Female	*0*	*0*	*0*	*2*	*0*	*1*	*3*	
	African Amer.	0	0	0	0	2	0		2
	Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Female	*0*	*0*	*0*	*0*	*2*	*0*	*2*	
Other	White	*2*	*0*	*0*	*0*	*1*	*3*		6
	Male	*2*	*0*	*0*	*0*	*1*	*1*	*4*	
	Female	*0*	*0*	*0*	*0*	*0*	*2*	*2*	
	Asian/Pac Is.	*1*	*0*	*0*	*0*	*1*	*0*		2
	Male	*1*	*0*	*0*	*0*	*1*	*0*	*2*	
	Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
TOTALS		**12**	**10**	**25**	**13**	**10**	**15**		**85**

Table 4-4 Homicide Methods / Sex / King County Medical Examiner / 2008

	SEX		
METHOD	MALE	FEMALE	TOTAL
Asphyxia / Strangulation	1	3	4
Blunt Force	13	3	16
Firearms	39	6	45
Homicidal Violence	0	0	0
Stabbing	7	5	12
Other / Unknown	6	2	8
Totals	**66**	**19**	**85**
Percent	78%	22%	100%

Table 4-5 Homicide Methods / Blood Alcohol Results / KCME / 2008

	TESTED			
METHOD	POSITIVE	NEGATIVE	NOT TESTED	TOTAL
Asphyxia / Strangulation	2	2	0	4
Blunt Force	3	8	5	16
Firearms	10	30	5	45
Homicidal Violence	0	0	0	0
Stabbing	7	5	0	12
Other / Unknown	0	8	0	8
Totals	**22**	**53**	**10**	**85**
Percent	26%	62%	12%	100%

Manner: NATURAL

The Medical Examiner assumes jurisdiction over deaths that are classified as 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 2008, the King County Medical Examiner's Office assumed jurisdiction over 871 deaths attributed to natural causes, representing 41% (871/2,121) of the cases investigated. The King County Medical Examiner certified 73% (634/871) of these deaths; attending physicians who had knowledge of the decedent's medical condition certified 27% (237/871). 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% (454/634) of the deaths certified as natural, which included autopsies performed in all 21 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.

The data presented in this section are derived from the 871 natural deaths in which the King County Medical Examiner assumed jurisdiction in 2008. 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".

Table 5-1 Disease Processes Causing Natural Deaths / KCME / 2008

NUMBER OF DEATHS	DISEASE DESCRIPTION
	CARDIOVASCULAR
2	Aortic aneurysm
11	Aortic dissection
200	Arteriosclerotic cardiovascular disease (ASCVD)
6	Bacterial endocarditis
9	Cardiac dysrhthymia
22	Cardiomyopathy
2	Congenital heart disease
3	Congestive heart failure
61	Hypertensive ASCVD / Hypertensive heart disease
3	Myocarditis
148	Probable arteriosclerotic cardiovascular disease
7	Valvular heart disease
0	Other
474	TOTAL CARDIOVASCULAR
	CENTRAL NERVOUS SYSTEM
9	Epilepsy (idiopathic & other non-traumatic etiologies)
6	Infarct
4	Meningitis
4	Spontaneous intracerebral hemorrhage
5	Spontaneous rupture of aneurysm
23	Other
51	TOTAL CENTRAL NERVOUS SYSTEM
	ENDOCRINE
12	Diabetic ketoacidosis
20	Diabetes mellitus
1	Pancreatitis
1	Other
34	TOTAL ENDOCRINE
	GASTROINTESTINAL
3	Bacterial peritonitis
6	Gastrointestinal hemorrhage
2	Obstruction
3	Perforating ulcer
5	Other
19	TOTAL GASTROINTESTINAL

Table 5-1 Disease Processes Causing Natural Deaths / KCME / 2008 (continued)

NUMBER OF DEATHS	DISEASE DESCRIPTION
	HEPATIC
5	Cirrhosis
1	Fatty liver
9	Hepatitis
3	Other
18	TOTAL HEPATIC
	MALIGNANCY
6	Breast
3	Colon
14	Lung
3	Pancreas
1	Prostate
2	Rectum
21	Other
50	TOTAL MALIGNANCY
	RESPIRATORY
6	Asthma
31	Chronic obstructive pulmonary disease
38	Pneumonia
10	Pulmonary thromboembolus
8	Other
93	TOTAL RESPIRATORY
	SUDDEN INFANT DEATH SYNDROME
21	SIDS
	OTHER PROCESSES
51	Chronic ethanolism (alcoholism)
1	Chronic renal disease
5	HIV / AIDS
5	Infection
3	Labor / Delivery / Prematurity
7	Necrotizing fasciitis
10	No anatomic or toxicological cause of death
15	Sepsis
14	Other
111	TOTAL OTHER PROCESSES

Table 5-1 Disease Processes Causing Natural Deaths / KCME / 2008 (continued)

NUMBER OF DEATHS	DISEASE DESCRIPTION
397	TOTAL Non-Cardiovascular Cause of Death
474	TOTAL Cardiovascular Cause of Death
871	**Total NATURAL DEATHS under KCMEO Jurisdiction, 2008**

Graph 5-1 Deaths due to Natural Causes / King County Medical Examiner / 2008

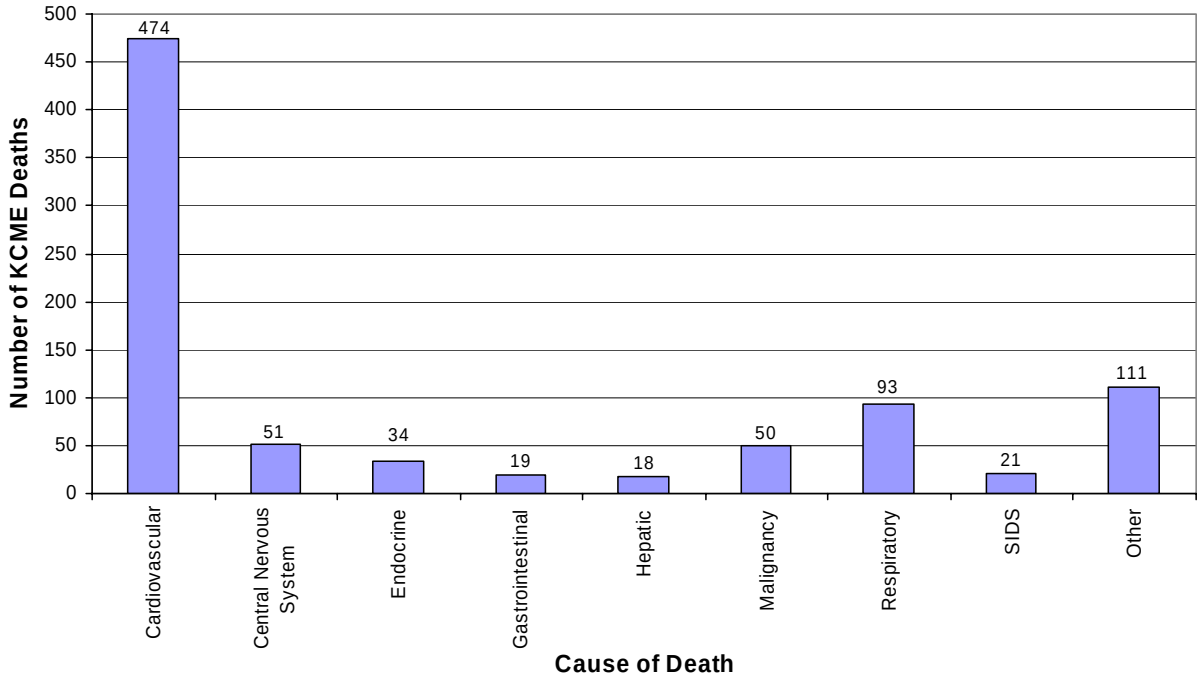
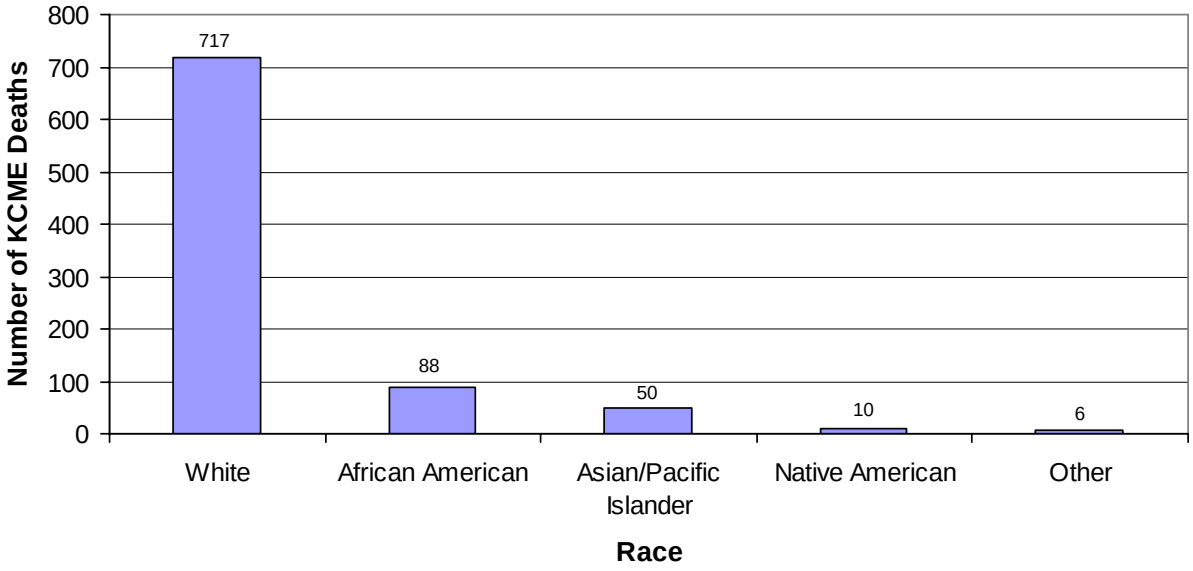


Table 5-2 Natural Deaths / Race / Sex / King County Medical Examiner / 2008

DISEASE PROCESS / SEX	RACE						
	WHITE	AF AMER	ASIAN/ PAC IS	NATIVE AMERICAN	OTHER	SUB TOTAL	TOTAL
Cardiovascular	397	43	30	2	2		474
Male	*269*	*29*	*18*	*0*	*2*	*318*	
Female	*128*	*14*	*12*	*2*	*0*	*156*	
Central Nervous	44	2	4	0	1		51
Male	*21*	*1*	*3*	*0*	*1*	*26*	
Female	*23*	*1*	*1*	*0*	*0*	*25*	
Endocrine	27	4	2	0	1		34
Male	*17*	*2*	*1*	*0*	*1*	*21*	
Female	*10*	*2*	*1*	*0*	*0*	*13*	
Gastrointestinal	14	5	0	0	0		19
Male	*6*	*3*	*0*	*0*	*0*	*9*	
Female	*8*	*2*	*0*	*0*	*0*	*10*	
Hepatic	16	1	1	0	0		18
Male	*13*	*1*	*1*	*0*	*0*	*15*	
Female	*3*	*0*	*0*	*0*	*0*	*3*	
Malignancy	37	8	3	1	1		50
Male	*20*	*7*	*3*	*1*	*1*	*32*	
Female	*17*	*1*	*0*	*0*	*0*	*18*	
Respiratory	76	12	2	2	1		93
Male	*42*	*10*	*2*	*2*	*0*	*56*	
Female	*34*	*2*	*0*	*0*	*1*	*37*	
SIDS	12	4	4	1	0		21
Male	*6*	*3*	*1*	*0*	*0*	*10*	
Female	*6*	*1*	*3*	*1*	*0*	*11*	
Other	94	9	4	4	0		111
Male	*58*	*4*	*4*	*3*	*0*		
Female	*36*	*5*	*0*	*1*	*0*		
Totals	**717**	**88**	**50**	**10**	**6**		**871**
Percent	82.3%	10.1%	5.7%	1.2%	0.7%		100%

Graph 5-2 Natural Deaths / Race / King County Medical Examiner / 2008



Graph 5-3 Natural Deaths / Age Group / King County Medical Examiner / 2008

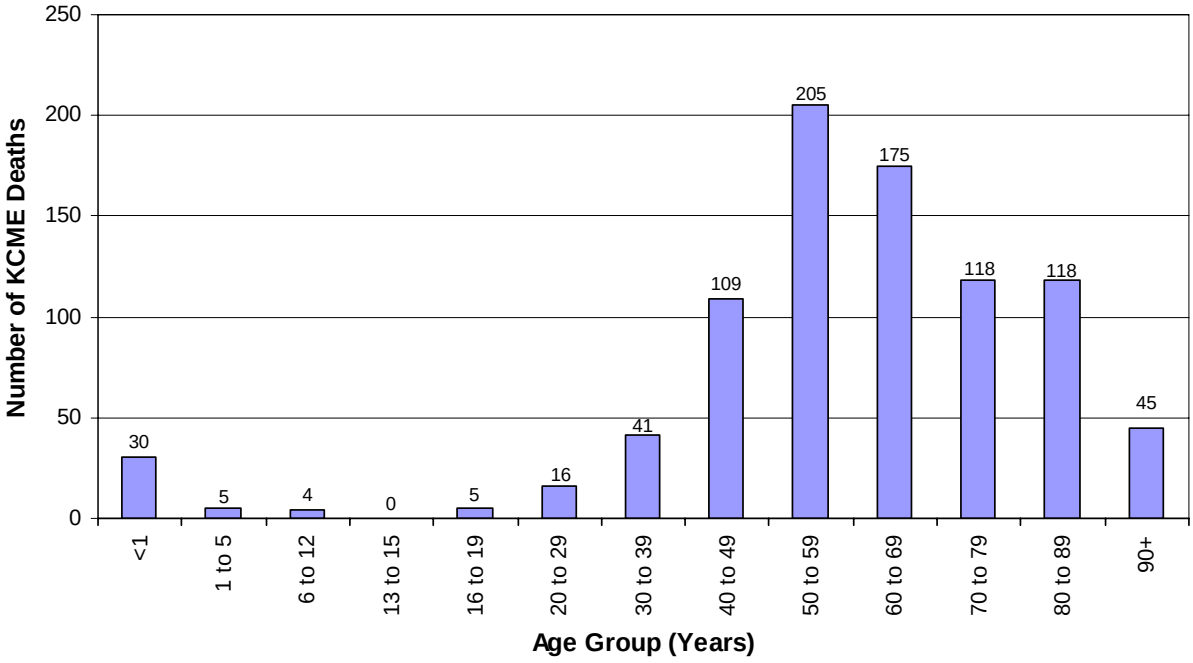


Table 5-3 Natural Deaths / Age / Sex / King County Medical Examiner / 2008

DISEASE PROCESS/ SEX	AGE GROUP (YEARS) < 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 +	SUB TOTAL	TOTAL
Cardiovascular	3	1	1	0	1	6	21	56	96	111	76	72	30		474
Male	*2*	*1*	*1*	*0*	*0*	*6*	*15*	*45*	*74*	*89*	*50*	*27*	*8*	*318*	
Female	*1*	*0*	*0*	*0*	*1*	*0*	*6*	*11*	*22*	*22*	*26*	*45*	*22*	*156*	
Central Nervous	0	2	1	0	2	2	5	4	2	4	6	14	9		51
Male	*0*	*2*	*1*	*0*	*2*	*0*	*4*	*4*	*1*	*2*	*3*	*4*	*3*	*26*	
Female	*0*	*0*	*0*	*0*	*0*	*2*	*1*	*0*	*1*	*2*	*3*	*10*	*6*	*25*	
Endocrine	0	0	0	0	0	1	1	9	13	4	4	2	0		34
Male	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*6*	*8*	*2*	*3*	*0*	*0*	*21*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*3*	*5*	*2*	*1*	*2*	*0*	*13*	
Gastrointestinal	0	0	0	0	0	0	1	3	4	6	1	3	1		19
Male	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*3*	*1*	*2*	*0*	*9*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*3*	*3*	*0*	*1*	*1*	*10*	
Hepatic	0	0	0	0	0	0	1	0	12	4	1	0	0		18
Male	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*11*	*3*	*0*	*0*	*0*	*15*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*0*	*0*	*3*	
Malignancy	0	0	0	0	0	0	1	3	11	15	12	7	1		50
Male	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*2*	*9*	*9*	*8*	*3*	*0*	*32*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*2*	*6*	*4*	*4*	*1*	*18*	
Respiratory	1	2	1	0	0	4	4	6	24	20	13	14	4		93
Male	*0*	*2*	*0*	*0*	*0*	*2*	*2*	*3*	*16*	*14*	*12*	*4*	*1*	*56*	
Female	*1*	*0*	*1*	*0*	*0*	*2*	*2*	*3*	*8*	*6*	*1*	*10*	*3*	*37*	
SIDS	21	0	0	0	0	0	0	0	0	0	0	0	0		21
Male	*10*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*10*	
Female	*11*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*11*	
Other	5	0	1	0	1	3	7	28	42	12	5	6	1		111
Male	*2*	*0*	*1*	*0*	*0*	*0*	*2*	*19*	*31*	*7*	*5*	*2*	*0*	*69*	
Female	*3*	*0*	*0*	*0*	*1*	*3*	*5*	*9*	*11*	*5*	*0*	*4*	*1*	*42*	
Totals	**30**	**5**	**4**	**0**	**4**	**16**	**41**	**109**	**204**	**176**	**118**	**118**	**46**		**871**
Percent	3.4	0.6	0.5	0	0.5	1.8	4.7	12.5	23.4	20.2	13.5	13.5	5.3		100%

Table 5-4 Natural Deaths / Sex / King County Medical Examiner / 2008

CIRCUMSTANCES	SEX		TOTAL
	MALE	FEMALE	
Cardiovascular	318	156	474
Central Nervous	26	25	51
Endocrine	21	13	34
Gastrointestinal	9	10	19
Hepatic	15	3	18
Malignancy	32	18	50
Respiratory	56	37	93
SIDS	10	11	21
Other	69	42	111
Totals	**556**	**315**	**871**
Percent	64%	36%	100%

Table 5-5 Natural Deaths / Blood Alcohol / King County Medical Examiner / 2008

METHOD	TESTED		NOT TESTED	TOTAL
	POSITIVE	NEGATIVE		
Cardiovascular	60	233	181	474
Central Nervous System	1	18	32	51
Endocrine	6	13	15	34
Gastrointestinal	1	9	9	19
Hepatic	0	3	15	18
Malignancy	1	12	37	50
Respiratory	2	43	48	93
SIDS	0	21	0	21
Other	26	56	29	111
Totals	**97**	**410**	**364**	**871**
Percent	11%	47%	42%	100%

Manner: 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 2008 there were 210 suicides, accounting for 10% (210/2,121) of the deaths that the King County Medical Examiner's Office investigated.

Firearms caused forty-four percent (44%, 93/210) of the 2008 suicide deaths. In 2007 there were also 93 suicide firearm deaths. Hanging accounted for 23% (48/210) of suicidal deaths, while jumping from a height accounted for 6% (13/210). Drugs and poisons accounted for 14% (29/210) of all suicides, while carbon monoxide caused death in 2% (4/210) of the cases. More information regarding drug caused deaths is presented in the section "Deaths Due to Drugs & Poisons" beginning on page 83.

Blood alcohol tests were performed in 98% (206/210) of suicidal deaths and were positive in 33% (69/206) of cases tested.

In 2008, there were nine suicides among persons 19 years and younger (4% of all suicides, 9/210), which is more than 2007 when there were five suicides in this age group (2%, 5/223). Suicides in the age group 60 years and older represented 20% (43/210) of all suicides in 2008: in 2007 this figure was 19% (43/223).

Firearms were the primary method of committing suicide for all age groups except in the 40-49 year age group; in this age group, firearms and hanging each equaled 23% (9/39) of the deaths in 2008. In the 19 years and younger age group, firearms represented 67% (6/9) of the deaths.

In 2008, five deaths were due to drugs and/or poisons by adults 60 years of age and over. In 2008, one suicide was attributed to drugs and/or poisons among youths 19 years and younger. In 2007 no deaths were attributed to drugs and/or poisons in this age group.

Graph 6-1 Suicide Injury Methods / King County Medical Examiner / 2008

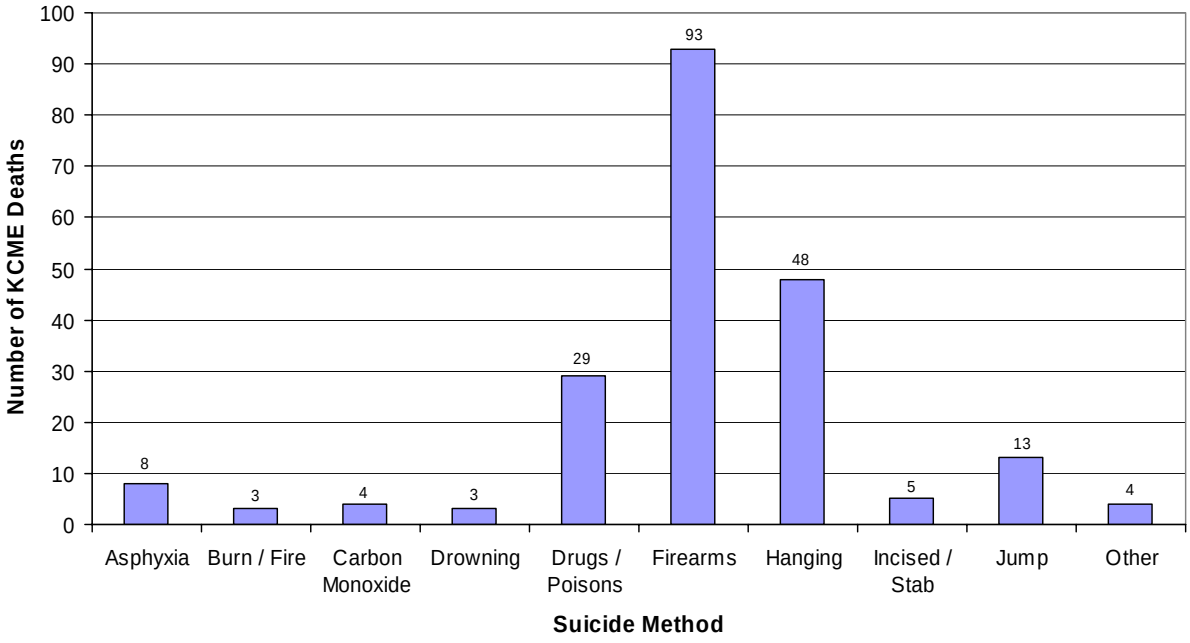
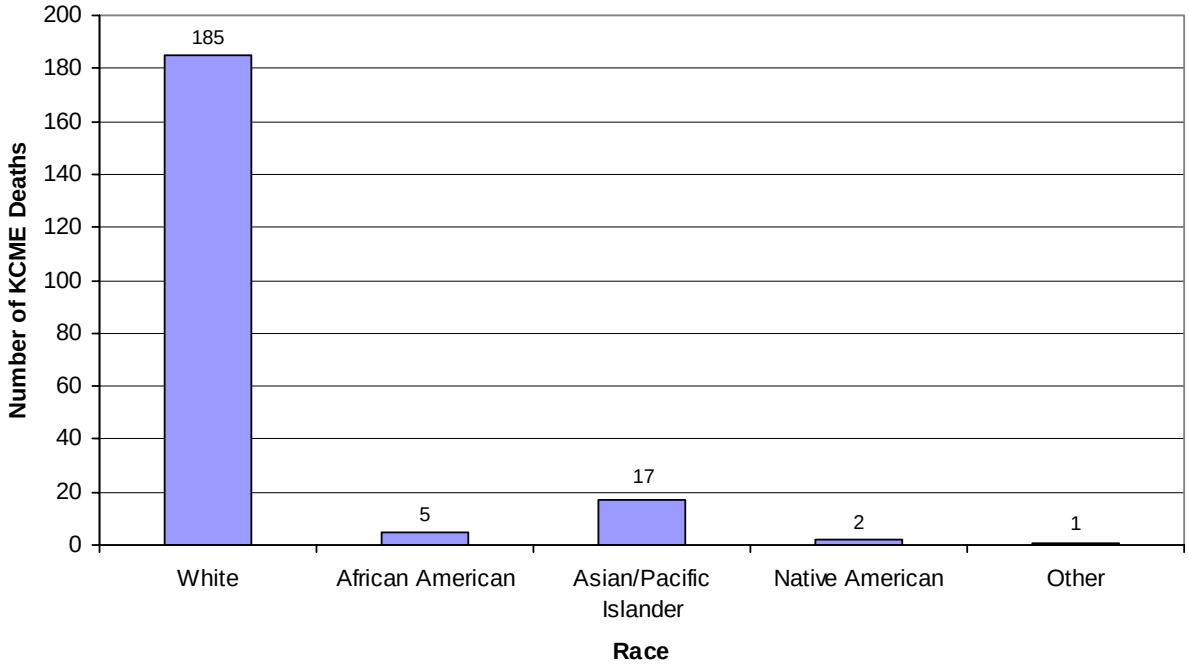


Table 6-1 Suicide Injury Methods / Race / Sex / King County Medical Examiner / 2008

CIRCUMSTANCES / SEX	RACE						
	WHITE	AF AMER	ASIAN/ PAC IS	NATIVE AMERICAN	OTHER	SUB TOTAL	TOTAL
Asphyxia	7	1	0	0	0		8
Male	*7*	*1*	*0*	*0*	*0*	*8*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	
Burns/ Fire	1	0	2	0	0		3
Male	*1*	*0*	*1*	*0*	*0*	*2*	
Female	*0*	*0*	*1*	*0*	*0*	*1*	
Carbon Monoxide	3	0	1	0	0		4
Male	*2*	*0*	*1*	*0*	*0*	*3*	
Female	*1*	*0*	*0*	*0*	*0*	*1*	
Drowning	2	1	0	0	0		3
Male	*1*	*0*	*0*	*0*	*0*	*1*	
Female	*1*	*1*	*0*	*0*	*0*	*2*	
Drugs / Poisons	25	0	4	0	0		29
Male	*14*	*0*	*3*	*0*	*0*	*17*	
Female	*11*	*0*	*1*	*0*	*0*	*12*	
Firearms	89	1	2	0	1		93
Male	*80*	*1*	*2*	*0*	*0*	*83*	
Female	*9*	*0*	*0*	*0*	*1*	*10*	
Hanging	38	1	7	2	0		48
Male	*30*	*1*	*1*	*1*	*0*	*33*	
Female	*8*	*0*	*6*	*1*	*0*	*15*	
Incised / Stab Wound(s)	5	0	0	0	0		5
Male	*5*	*0*	*0*	*0*	*0*	*5*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	
Jumping	12	0	1	0	0		13
Male	*10*	*0*	*0*	*0*	*0*	*10*	
Female	*2*	*0*	*1*	*0*	*0*	*3*	
Traffic	0	1	0	0	0		1
Male	*0*	*0*	*0*	*0*	*0*	*0*	
Female	*0*	*1*	*0*	*0*	*0*	*1*	
Other	3	0	0	0	0		3
Male	*3*	*0*	*0*	*0*	*0*	*3*	
Female	*2*	*0*	*1*	*0*	*0*	*0*	
Totals	**185**	**5**	**17**	**2**	**1**		**210**
Percent	88.0%	2.4%	8.1%	1.0%	0.5%		100%

Graph 6-2 Suicide Deaths / Race / King County Medical Examiner / 2008



Graph 6-3 Suicide Deaths / Age Group / King County Medical Examiner / 2008

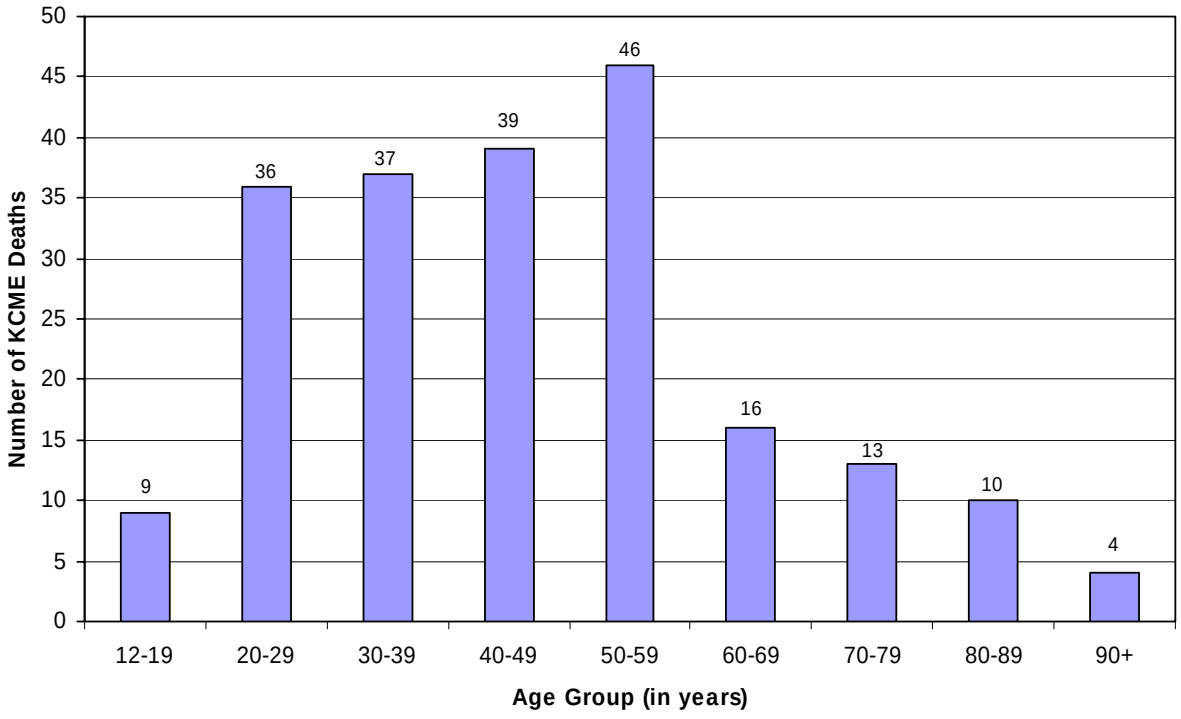


Table 6-2 Suicide Injury Methods / Age / Sex / King County Medical Examiner / 2008

INJURY METHOD/ SEX	AGE GROUP (YEARS) 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 +	SUB TOTAL	TOTAL
Asphyxia	0	3	1	2	1	0	1	0	0		8
Male	*0*	*3*	*1*	*2*	*1*	*0*	*1*	*0*	*0*	*8*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Burns/ Fire	0	0	0	1	1	1	0	0	0		3
Male	*0*	*0*	*0*	*1*	*0*	*1*	*0*	*0*	*0*	*2*	
Female	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*1*	
Carbon Monoxide	0	0	0	3	1	0	0	0	0		4
Male	*0*	*0*	*0*	*2*	*1*	*0*	*0*	*0*	*0*	*3*	
Female	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	
Drowning	0	0	0	2	0	1	0	0	0		3
Male	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*1*	
Female	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*0*	*0*	*2*	
Drugs / Poisons	1	2	5	6	10	2	2	0	1		29
Male	*0*	*1*	*1*	*5*	*5*	*2*	*2*	*0*	*1*	*17*	
Female	*1*	*1*	*4*	*1*	*5*	*0*	*0*	*0*	*0*	*12*	
Firearms	6	18	15	9	20	8	6	8	3		93
Male	*5*	*16*	*14*	*6*	*19*	*7*	*5*	*8*	*3*	83	
Female	*1*	*2*	*1*	*3*	*1*	*1*	*1*	*0*	*0*	*10*	
Hanging	2	9	10	9	11	2	4	1	0		48
Male	*1*	*9*	*4*	*7*	*8*	*1*	*2*	*1*	*0*	*33*	
Female	*1*	*0*	*6*	*2*	*3*	*1*	*2*	*0*	*0*	*15*	
Incised / Stab Wound(s)	0	0	2	2	0	1	0	0	0		5
Male	*0*	*0*	*2*	*2*	*0*	*1*	*0*	*0*	*0*	*5*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Jumping	0	3	2	5	2	0	0	1	0		13
Male	*0*	*2*	*2*	*4*	*1*	*0*	*0*	*1*	*0*	*10*	
Female	*0*	*1*	*0*	*1*	*1*	*0*	*0*	*0*	*0*	*3*	
Traffic	0	0	1	0	0	0	0	0	0		1
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Female	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	
Other	0	1	1	0	0	1	0	0	0		3
Male	*0*	*1*	*1*	*0*	*0*	*1*	*0*	*0*	*0*	*3*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Totals	**9**	**36**	**37**	**39**	**46**	**16**	**13**	**10**	**4**		**210**
Percent	4%	17%	18%	19%	22%	8%	6%	4%	2%		100%

Table 6-3 Suicide Injury Methods / Sex / King County Medical Examiner / 2008

	SEX		
INJURY METHOD	MALE	FEMALE	TOTAL
Asphyxia	8	0	8
Burns/ Fire	2	1	3
Carbon Monoxide	3	1	4
Drowning	1	2	3
Drugs / Poisons	17	12	29
Firearms	83	10	93
Hanging	33	15	48
Incised / Stab Wound(s)	5	0	5
Jumping	10	3	13
Traffic	0	1	1
Other	3	0	3
Totals	**165**	**45**	**210**
Percent	79%	21%	100%

Table 6-4 Suicide Injury Methods / Marital Status / Sex / KCME / 2008

CIRCUMSTANCES / SEX	MARITAL STATUS Single	Married	Divorced	Widowed	Unknown	Sub Total	Total
Asphyxia	4	3	1	0	0		8
Male	*4*	*3*	*1*	*0*	*0*	*8*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	
Burns/ Fire	0	0	3	0	0		3
Male	*0*	*0*	*3*	*0*	*0*	*3*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	
Carbon Monoxide	1	2	1	0	0		4
Male	*1*	*1*	*1*	*0*	*0*	*3*	
Female	*0*	*1*	*0*	*0*	*0*	*1*	
Drowning	0	0	3	0	0		3
Male	*0*	*0*	*1*	*0*	*0*	*1*	
Female	*0*	*0*	*2*	*0*	*0*	*2*	
Drugs / Poisons	9	11	8	1	0		29
Male	*5*	*8*	*3*	*1*	*0*	*17*	
Female	*4*	*3*	*5*	*0*	*0*	*12*	
Firearms	37	22	26	8	0		93
Male	*32*	*20*	*23*	*8*	*0*	*83*	
Female	*5*	*2*	*3*	*0*	*0*	*10*	
Hanging	21	13	10	3	1		48
Male	*17*	*8*	*8*	*0*	*0*	*33*	
Female	*4*	*5*	*2*	*3*	*1*	*15*	
Incised / Stab Wound(s)	3	1	0	1	0		5
Male	*3*	*1*	*0*	*1*	*0*	*5*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	
Jumping	6	*3*	3	1	0		13
Male	*5*	*2*	*2*	*1*	*0*	*10*	
Female	*1*	*1*	*1*	*0*	*0*	*3*	
Traffic	0	1	0	0	0		1
Male	*0*	*0*	*0*	*0*	*0*	*0*	
Female	*0*	*1*	*0*	*0*	*0*	*1*	
Other	2	1	0	0	0		3
Male	*2*	*1*	*0*	*0*	*0*	*3*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	
Totals	**83**	**57**	**55**	**14**	**1**		**210**
Percent	39.5%	27.1%	26.2%	6.7%	0.5%		100%

Table 6-5 Suicide Injury Methods / Blood Alcohol / KCME / 2008

METHOD	TESTED		NOT TESTED	TOTAL
	POSITIVE	NEGATIVE		
Asphyxia	3	5	0	8
Burns/ Fire	0	2	1	3
Carbon Monoxide	2	2	0	4
Drowning	2	1	0	3
Drugs / Poisons	10	18	1	29
Firearms	32	61	0	93
Hanging	16	32	0	48
Incised / Stab Wound(s)	0	5	0	5
Jumping	2	9	2	13
Traffic	0	1	0	1
Other	2	1	0	3
Totals	**69**	**137**	**4**	**210**
Percent	33%	65%	2%	100%

Manner: TRAFFIC

During the calendar year 2008, the Medical Examiner's Office participated in the investigation of 163 traffic fatalities. In 69% (112/163) of the traffic deaths in 2008, the collision occurred in King County. In 2007, 58% (98/170) of the collisions occurred in King County. In 2008, 31% (51/163) 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 death occurred in King County, it came under the jurisdiction of the King County Medical Examiner. The 2008 number of deaths from incidents occurring outside King County is less than in 2007 when 42% (72/170) of the collisions occurred outside of King County. Although these deaths are classified "accident" for death certification purposes, the more accurate term is "motor vehicle collision".

In 2008, 44% (71/163) of the traffic fatalities were motor vehicle drivers. Teenage drivers (16-19 years of age) were 6% (4/71) of the driver deaths in 2008 compared to 9% (6/70) in 2007. By age, 24% percent of vehicle driver deaths (17/71) were people between the ages of 20 and 29. Fourteen percent of driver deaths (10/71) were adults between the ages of 30 and 39. Eighteen percent (13/71) were adults between the ages of 40 and 49. Male drivers represented 75% (53/71) of driver deaths as compared to 25% for female drivers (18/71).

Of the 163 traffic fatalities in 2008, 28 were motor vehicle passengers, representing 17% of the total (28/163). In 2008, teenagers (13-19 years old) accounted for five motor vehicle passenger deaths. There was one passenger death of an infant (less than one year of age), two deaths of children between the ages of 1-5 years, and no 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 directly responsible for the accident. 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[1]. Therefore, blood alcohol figures presented in this report are not a total description of the role of alcohol in traffic collisions. In 40% (25/63) of drivers tested, blood ethanol was present. In 8 vehicle driver deaths, no alcohol determination was performed. Passenger fatalities showed the presence of alcohol in 37% (7/19) of victims tested.

[1]See "Explanation of Data" for criteria for blood alcohol testing, page 6.

Of cases in which restraint status was known, 31% (20/65) of drivers in vehicle deaths were not restrained. This is lower than in the previous 3 years: 41% (26/63) in 2007, 35% (29/84) in 2006, and 37% (32/87) in 2005. Of the vehicle drivers who died at the scene of the collision and who tested positive for blood alcohol, 40% (6/15) were unrestrained.

Motorcycle riders accounted for 18% (29/163) of traffic fatalities. In 2008, there were 28 motorcycle driver fatalities and one motorcycle passenger fatality. Twenty-six of the motorcycle driver deaths were male and two were female. The one motorcycle passenger who died in 2008 was female. Of the 29 motorcycle fatalities, 86% (25/29) of the motorcyclists were wearing a helmet; in two cases, the motorcycle driver was not wearing a helmet, and in two cases, the use of a helmet was unknown. Twenty-four of the motorcyclist fatalities were tested for the presence of blood alcohol. Twelve, or 50% (12/24), had a detectable amount of alcohol at the time of autopsy.

Pedestrians constituted 16% (26/163) of traffic fatalities. The majority of pedestrian deaths, 54% (14/26), were male. Of the pedestrian fatalities that were tested, 48% (10/21) had detectable amounts of alcohol present in their blood at the time of death.

There were four bicyclist deaths in 2008; two riders were wearing a helmet, one was not wearing a helmet, and helmet use by the other one bicyclist is not known. Of the bicyclist fatalities that were tested, none (0/2) had detectable amounts of alcohol present in their blood at the time of death.

Graph 7-1 Traffic Fatality Circumstances / King County Medical Examiner / 2008

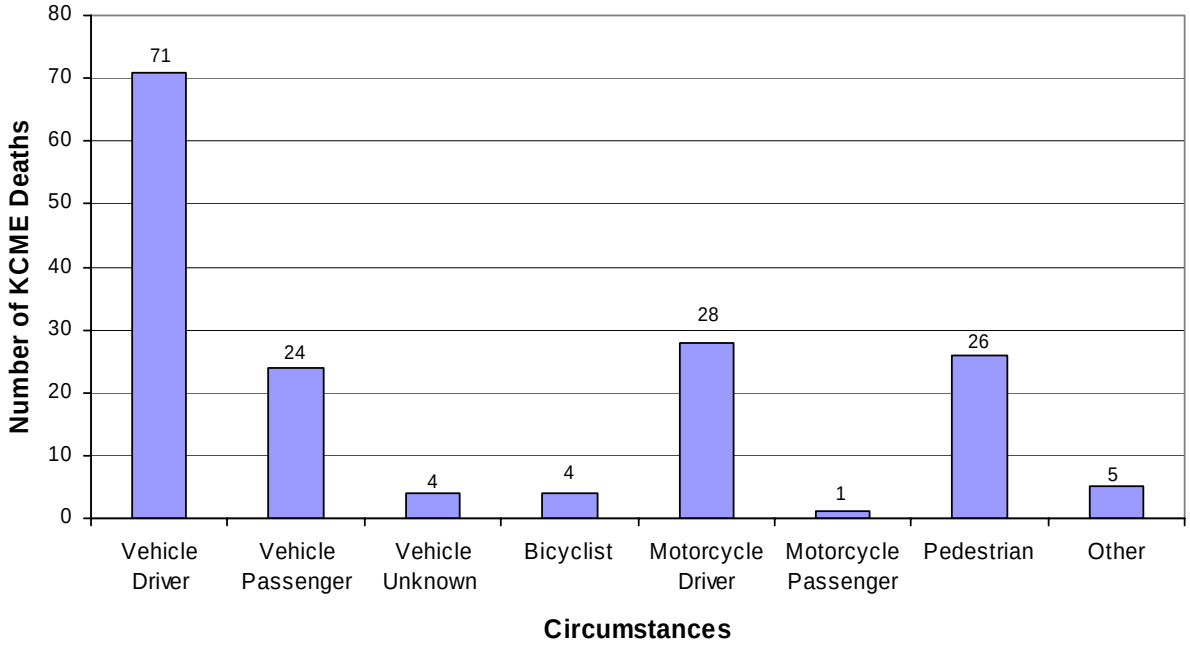
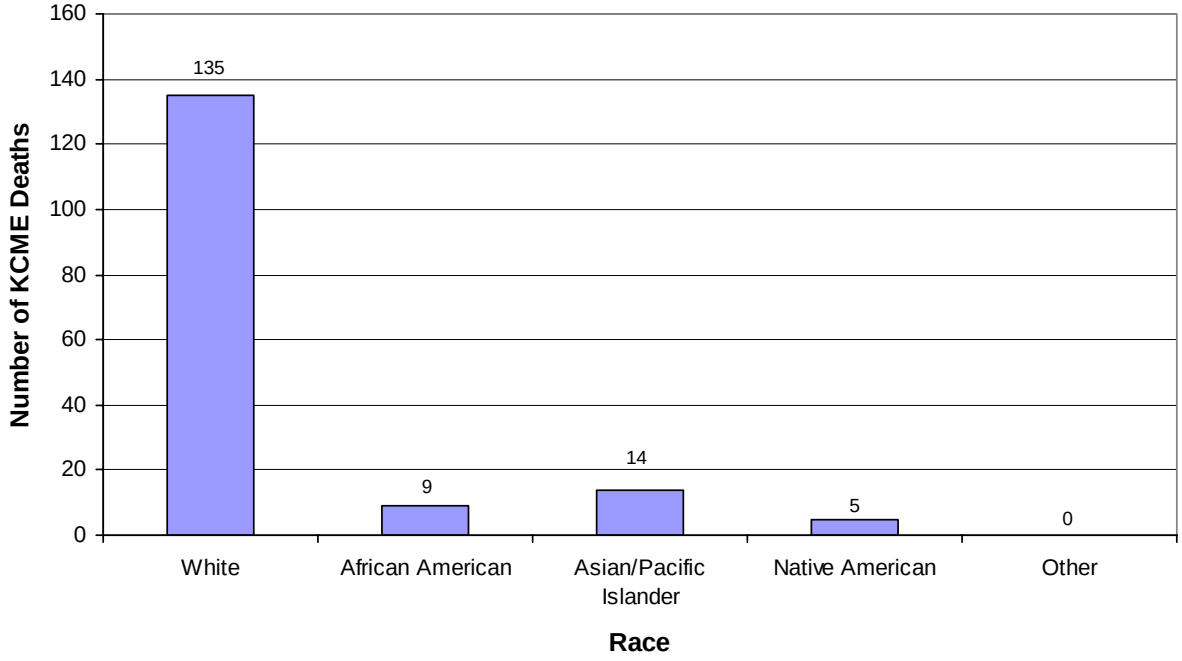


Table 7-1 Traffic Fatality Circumstances / Race / Sex / KCME / 2008

CIRCUMSTANCES / SEX	RACE						
	WHITE	AF AMER	ASIAN/ PAC IS	NATIVE AMERICAN	OTHER	SUB TOTAL	TOTAL
Vehicle Driver	56	6	7	2	0		71
Male	*41*	*5*	*5*	*2*	*0*	*53*	
Female	*15*	*1*	*2*	*0*	*0*	*18*	
Vehicle Passenger	18	0	4	2	0		24
Male	*12*	*0*	*2*	*1*	*0*	*15*	
Female	*6*	*0*	*2*	*1*	*0*	*9*	
Vehicle Unknown	4	0	0	0	0		4
Male	*2*	*0*	*0*	*0*	*0*	*2*	
Female	*2*	*0*	*0*	*0*	*0*	*2*	
Bicycle	4	0	0	0	0		4
Male	*4*	*0*	*0*	*0*	*0*	*4*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	
Motorcycle Driver	26	0	1	1	0		28
Male	*24*	*0*	*1*	*1*	*0*	*26*	
Female	*2*	*0*	*0*	*0*	*0*	*2*	
Motorcycle Passenger	1	0	0	0	0		1
Male	*0*	*0*	*0*	*0*	*0*	*0*	
Female	*1*	*0*	*0*	*0*	*0*	*1*	
Pedestrian	21	3	2	0	0		26
Male	*12*	*1*	*1*	*0*	*0*	*14*	
Female	*9*	*2*	*1*	*0*	*0*	*12*	
Other	5	0	0	0	0		5
Male	*3*	*0*	*0*	*0*	*0*	*3*	
Female	*2*	*0*	*0*	*0*	*0*	*2*	
Totals	**135**	**9**	**14**	**5**	**0**		**163**
Percent	82.8%	5.5%	8.6	3.1%	0%		100%

Graph 7-2 Traffic Fatalities / Race / King County Medical Examiner / 2008



Graph 7-3 Traffic Fatalities / Age / King County Medical Examiner / 2008

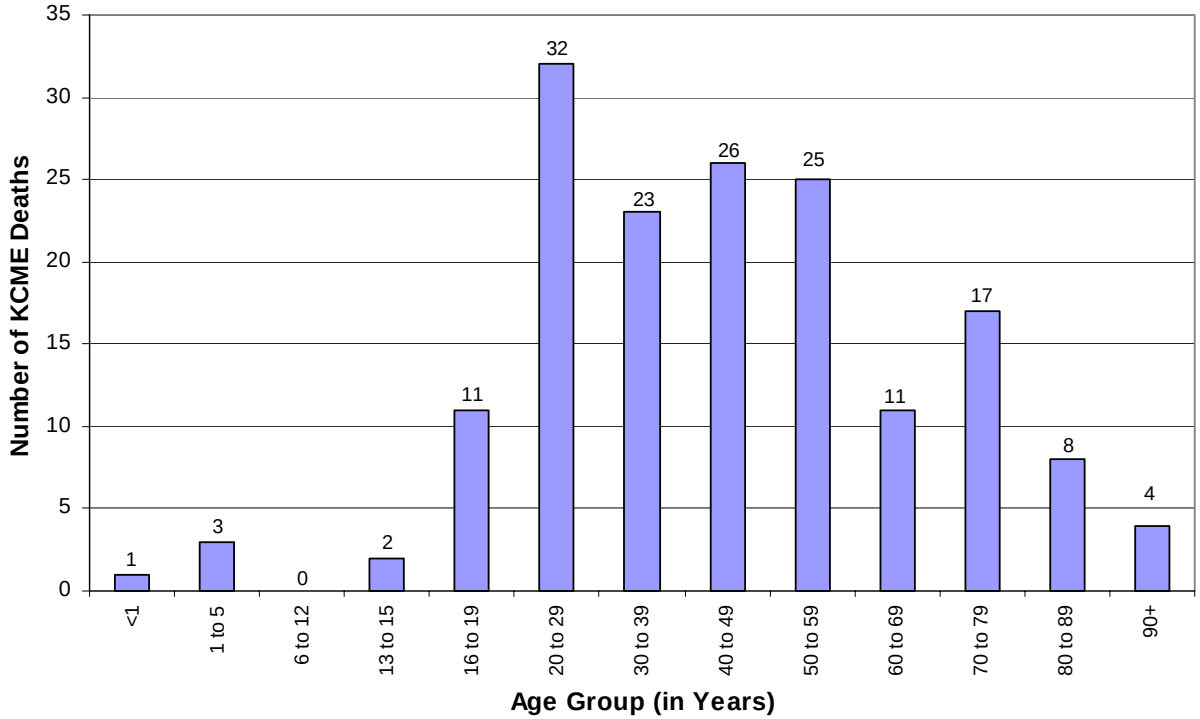


Table 7-2 Traffic Fatality Circumstances / Age / Sex / KCME / 2008

Circumstances / Sex	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	17	10	13	7	4	11	4	1		71
Male	*0*	*0*	*0*	*0*	*3*	*13*	*9*	*9*	*7*	*1*	*8*	*2*	*1*	*53*	
Female	*0*	*0*	*0*	*0*	*1*	*4*	*1*	*4*	*0*	*3*	*3*	*2*	*0*	*18*	
Vehicle Passenger	1	2	0	2	3	8	1	3	2	0	1	1	0		24
Male	*1*	*1*	*0*	*1*	*2*	*6*	*1*	*3*	*0*	*0*	*0*	*0*	*0*	*15*	
Female	*0*	*1*	*0*	*1*	*1*	*2*	*0*	*0*	*2*	*0*	*1*	*1*	*0*	*9*	
Vehicle Unknown	0	0	0	0	0	0	0	0	2	1	0	1	0		4
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*0*	*2*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*1*	*0*	*2*	
Bicyclist	0	0	0	0	0	0	0	0	4	0	0	0	0		4
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*4*	*0*	*0*	*0*	*0*	*4*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Motorcycle Driver	0	0	0	0	2	0	9	7	4	1	1	0	0		28
Male	*0*	*0*	*0*	*0*	*1*	*4*	*8*	*7*	*4*	*1*	*1*	*0*	*0*	*26*	
Female	*0*	*0*	*0*	*0*	*1*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	
Motorcycle Passenger	0	0	0	0	0	0	0	1	0	0	0	0	0		1
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	
Pedestrian	0	1	0	0	2	3	1	2	4	4	4	2	3		26
Male	*0*	*1*	*0*	*0*	*2*	*2*	*1*	*1*	*0*	*2*	*3*	*1*	*1*	*14*	
Female	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*1*	*4*	*2*	*1*	*1*	*2*	*12*	
Other	0	0	0	0	0	0	2	0	2	1	0	0	0		5
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*1*	*0*	*0*	*0*	*3*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	
Totals	**1**	**3**	**0**	**2**	**11**	**32**	**23**	**26**	**25**	**11**	**17**	**8**	**4**		**163**
Percent	0.6	1.8	0	1.2	6.8	19.6	14.1	16.0	15.3	6.8	10.4	4.9	2.5		100%

Table 7-3 Traffic Fatality Circumstances / Sex / King County Medical Examiner / 2008

CIRCUMSTANCES	SEX		TOTAL
	MALE	FEMALE	
Vehicle Driver	53	18	71
Vehicle Passenger	15	9	24
Vehicle Unknown	2	2	4
Bicyclist	4	0	4
Motorcycle Driver	26	2	28
Motorcycle Passenger	0	1	1
Pedestrian	14	12	26
Other Mode	3	2	5
Totals	**117**	**46**	**163**
Percent	72%	28%	100%

Table 7-4 Traffic Fatality Circumstances / Use of Restraint / Helmet / KCME / 2008[2]

CIRCUMSTANCES	Used Safety Device	No Safety Device Used	Unknown	TOTAL
Vehicle Driver	45	20	6	71
Vehicle Passenger	17	6	1	24
Vehicle Unknown	0	0	4	4
Bicyclist	2	1	1	4
Motorcycle Driver	24	2	2	28
Motorcycle Passenger	1	0	0	1
Other Mode	2	3	0	5
Totals	**91**	**32**	**14**	**137**
Percent	67%	23%	10%	100%

[2]Does not include pedestrian deaths.

Table 7-5 Traffic Fatality Circumstances / Blood Alcohol / KCME / 2008

CIRCUMSTANCES	TESTED		NOT TESTED	TOTAL
	POSITIVE	NEGATIVE		
Vehicle Driver	25	38	8	71
Vehicle Passenger	7	10	7	24
Vehicle Unknown	0	2	2	4
Bicyclist	0	2	2	4
Motorcycle Driver	12	11	5	28
Motorcycle Passenger	0	1	0	1
Pedestrian	10	11	5	26
Other Mode	0	5	0	5
Totals	**54**	**80**	**29**	**163**
Percent	33%	49%	18%	100%

Table 7-6 Blood Alcohol Levels of Traffic Fatalities who died AT THE SCENE of the Collision / King County Medical Examiner / 2008

CIRCUMSTANCES	BLOOD ALCOHOL LEVEL (g/100mL)					TOTAL
	NONE	.01-.09	.10-.19	.20-.29	.30+	
Vehicle Driver	18	3	6	6	0	33
Vehicle Passenger	2	0	3	1	0	6
Vehicle Unknown	0	0	0	0	0	0
Bicyclist	1	0	0	0	0	1
Motorcycle Driver	1	2	2	4	0	9
Motorcycle Passenger	0	0	0	0	0	0
Pedestrian	1	0	2	1	0	4
Other Mode	2	0	0	0	0	2
Totals	**25**	**5**	**13**	**12**	**0**	**55**
Percent	45%	9%	24%	22%	0%	100%

Graph 7-4 Blood Alcohol Levels of Traffic Fatalities who Died AT THE SCENE / King County Medical Examiner / 2008

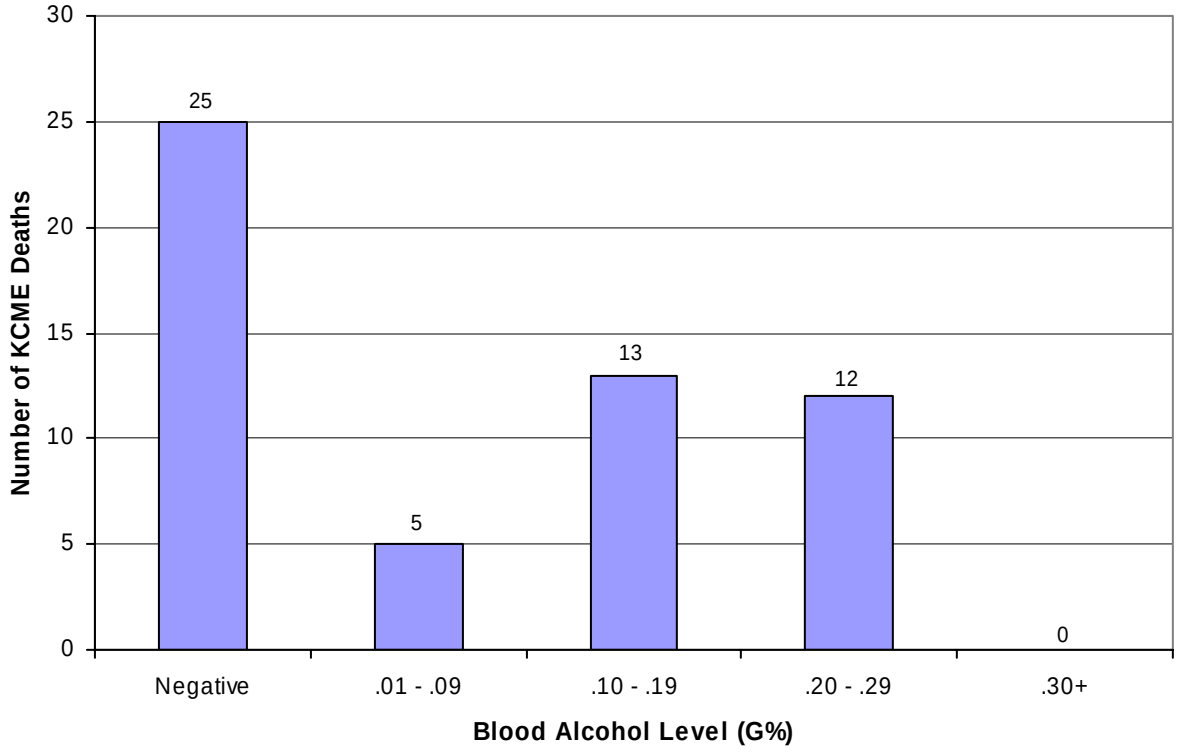
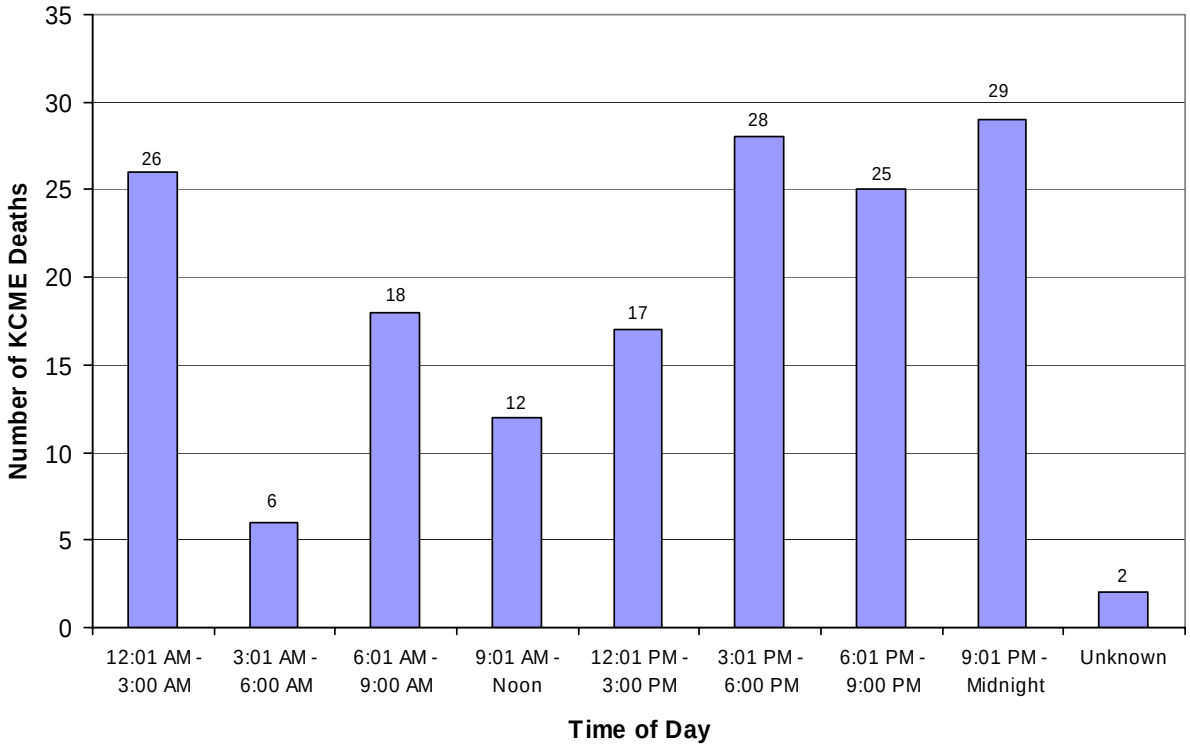


Table 7-7 Time of Fatal Traffic Collision / King County Medical Examiner / 2008

TIME OF DAY	TOTAL	PERCENT
12:01 AM - 3:00 AM	26	16.0%
3:01 AM - 6:00 AM	6	3.7%
6:01 AM - 9:00 AM	18	11.0%
9:01 AM - Noon	12	7.4%
12:01 PM - 3:00 PM	17	10.4%
3:01 PM - 6:00 PM	28	17.2%
6:01 PM - 9:00 PM	25	15.3%
9:01 PM -Midnight	29	17.8%
Unknown	2	1.2%
TOTALS	**163**	100%

Graph 7-5 Time of Fatal Traffic Collision / King County Medical Examiner / 2008



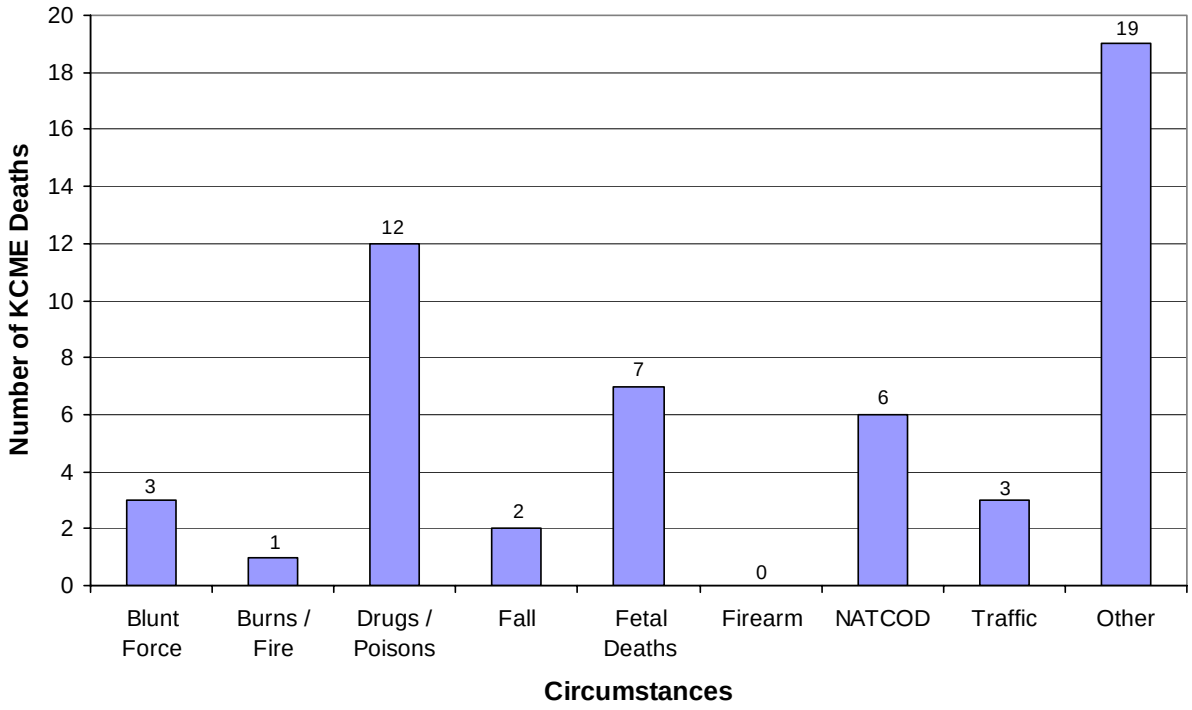
Manner: UNDETERMINED

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 53 deaths with manner undetermined, accounting for two percent (53/2,121) of the deaths investigated for the calendar year 2008. Drugs and poisons caused 23% (12/53) of the deaths classified as undetermined. For a more detailed review of drug-caused deaths in 2008, see the discussion in the section on Drugs and Poisons on pages 83 and 84.

The 53 deaths that were classified as Undetermined for 2008 include seven 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 seven fetal deaths classified Undetermined in 2008, five were drug-related: two were related to maternal cocaine use, one was related to maternal hydromorphone use and two were related to maternal methamphetamine use.

Graph 8-1 Undetermined Manner of Death[1] / King County Medical Examiner / 2008



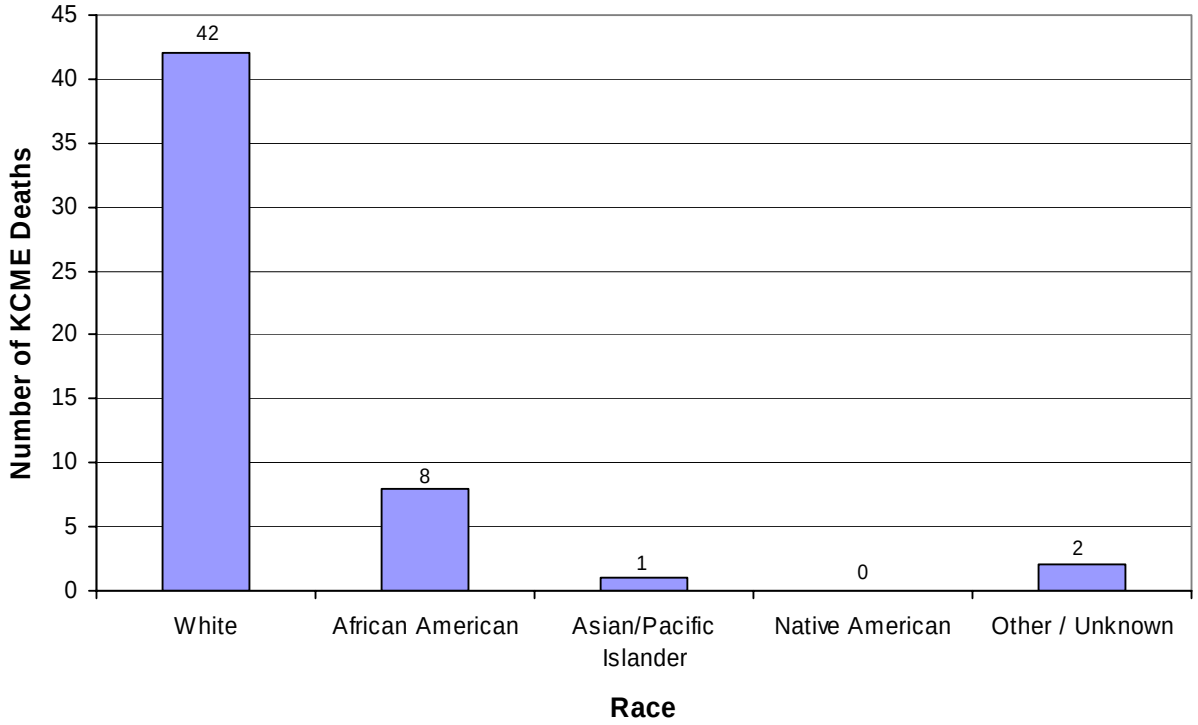
[1]NATCOD is an abbreviation for "no anatomic or toxicological cause of death," and refers to deaths in which full autopsies and toxicological analyses (if relevant) fail to identify an adequate cause of death.

Table 8-1 Undetermined Manner of Death / Race / Sex / KCME / 2008

CIRCUMSTANCES / SEX	RACE: WHITE	AF AMER	ASIAN / PAC IS	NATIVE AMERICAN	OTHER / UNK	SUB TOTAL	TOTAL
Blunt Force	2	1	0	0	0		3
Male	*2*	*0*	*0*	*0*	*0*	*2*	
Female	*0*	*1*	*0*	*0*	*0*	*1*	
Burns / Fire	1	0	0	0	0		1
Male	*1*	*0*	*0*	*0*	*0*	*1*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	
Drugs / Poisons	10	2	0	0	0		12
Male	*4*	*1*	*0*	*0*	*0*	*5*	
Female	*6*	*1*	*0*	*0*	*0*	*7*	
Fall	0	2	0	0	0		2
Male	*0*	*1*	*0*	*0*	*0*	*1*	
Female	*0*	*1*	*0*	*0*	*0*	*1*	
Fetal Deaths[2]	6	0	0	0	1		7
Male	*0*	*0*	*0*	*0*	*0*	*0*	
Female	*6*	*0*	*0*	*0*	*0*	*6*	
Unknown	*0*	*0*	*0*	*0*	*1*	*1*	
Firearms	0	0	0	0	0		0
Male	*0*	*0*	*0*	*0*	*0*	*0*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	
No Anatomic or Toxicological Cause of Death	5	1	0	0	0		6
Male	*4*	*0*	*0*	*0*	*0*	*4*	
Female	*1*	*1*	*0*	*0*	*0*	*2*	
Traffic	3	0	0	0	0		3
Male	*2*	*0*	*0*	*0*	*0*	*2*	
Female	*1*	*0*	*0*	*0*	*0*	*1*	
Other	15	2	1	0	1		19
Male	*10*	*1*	*1*	*0*	*0*	*12*	
Female	*5*	*1*	*0*	*0*	*1*	*7*	
Totals	**42**	**8**	**1**	**0**	**2**		**53**
Percent	79%	15%	2%	0%	4%		100%

[2]Includes five fetal deaths related to maternal drug use. These deaths are included in the Drugs & Poisons chapter.

Graph 8-2 Undetermined Manner / Race / King County Medical Examiner / 2008



Graph 8-3 Undetermined Manner / Age Group / King County Medical Examiner / 2008

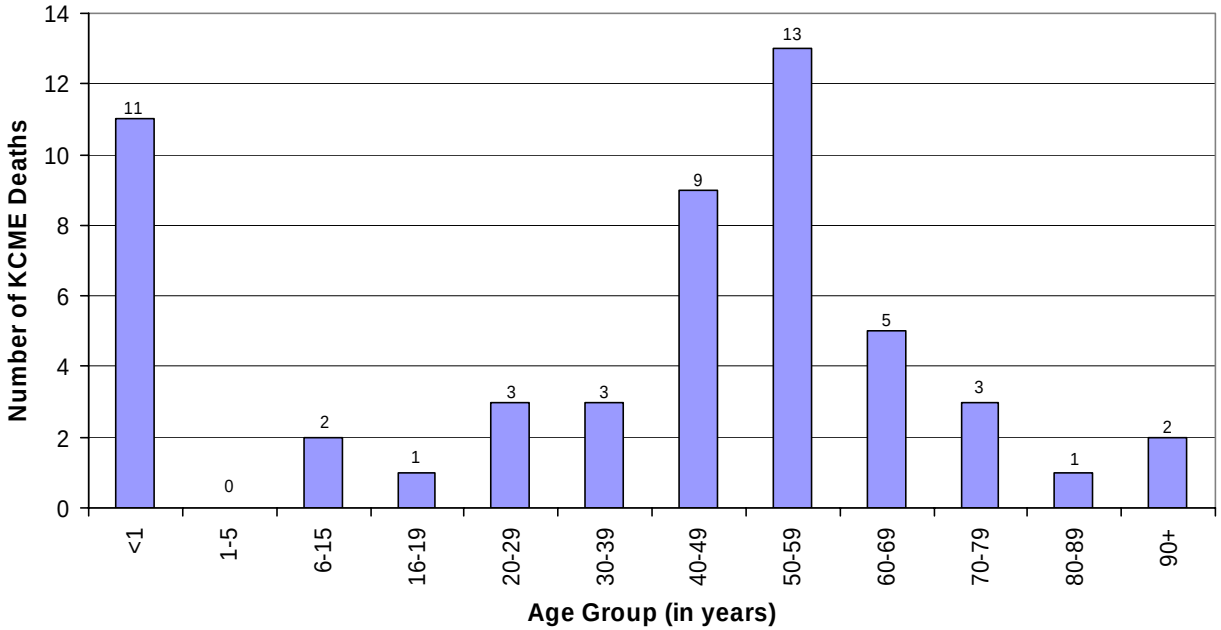


Table 8-2 Undetermined Circumstances / Age / Sex / KCME / 2008

INJURY METHOD / SEX	AGE GROUP (YEARS) <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 +	SUB TOTAL	TOTAL
Blunt Force	0	0	0	0	0	0	1	1	1	0	0	0		3
Male	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*0*	*0*	*0*	*3*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Burns / Fire	0	0	0	0	0	0	0	0	0	1	0	0		1
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*1*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Drugs / Poisons	0	0	0	0	0	1	4	4	3	0	0	0		12
Male	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*3*	*0*	*0*	*0*	*5*	
Female	*0*	*0*	*0*	*0*	*0*	*1*	*2*	*4*	*0*	*0*	*0*	*0*	*7*	
Fall	0	0	1	0	0	0	0	0	0	1	0	0		2
Male	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*1*	
Fetal Deaths	7	0	0	0	0	0	0	0	0	0	0	0		7
Male	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0	
Female	*6*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	6	
Unknown	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	1	
Firearms	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*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
No anatomic or toxicological cause of death	0	0	0	0	0	0	2	3	0	0	0	1		6
Male	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*2*	*0*	*0*	*0*	*0*	*4*	
Female	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*1*	*2*	
Traffic	0	0	0	0	2	0	0	1	0	0	0	0		3
Male	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	2	
Female	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	1	
Other	4	0	1	1	1	2	2	4	1	1	1	1		19
Male	*1*	*0*	*1*	*1*	*1*	*2*	*1*	*3*	*1*	*1*	*0*	*0*	12	
Female	*3*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*0*	*1*	*1*	7	
Totals	**11**	**0**	**2**	**1**	**3**	**3**	**9**	**13**	**5**	**3**	**1**	**2**		**53**
Percent	21%	0%	4%	2%	5%	5%	17%	25%	10%	5%	2%	4%		100%

Table 8-3 Undetermined Manner / Sex / King County Medical Examiner / 2008

	SEX		
INJURY METHOD	MALE	FEMALE	TOTAL
Blunt Force	3	0	3
Burns / Fire	1	0	1
Drugs / Poisons	5	7	12
Fall	1	1	2
Fetal Deaths[3]	0	6	7
Firearms	0	0	0
No Anatomic or Toxicologic Cause of Death	4	2	6
Traffic	2	1	3
Other	12	7	19
Totals[4]	**28**	**24**	**53**
Percent	54%	46%	100%

Table 8-4 Undetermined Manner / Blood Alcohol / King County Medical Examiner / 2008

	TESTED		NOT	
METHOD	POSITIVE	NEGATIVE	TESTED	TOTAL
Blunt Force	1	1	1	3
Burns / Fire	0	1	0	1
Drugs / Poisons	3	8	1	12
Fall	0	2	0	2
Fetal Deaths	0	4	3	7
Firearms	0	0	0	0
No Anatomic or Toxicologic Cause of Death	2	4	0	6
Traffic	3	0	0	3
Other	2	14	3	19
Totals	**11**	**34**	**8**	**53**
Percent	21%	64%	15%	100%

[3] Total includes one decedent of undetermined sex.
[4] Total includes one decedent of undetermined sex.

DEATHS DUE TO DRUGS & POISONS: 2008

In 2008, drugs and poisons caused 278 deaths (with an additional nine deaths due to carbon monoxide), approximately 13% of all deaths investigated (278/2,121). The total number of drug-caused deaths has decreased compared to 2007 figures when there were 302 drug deaths. In 2008, deaths due to drugs and poisons comprised 28% (278/1,002) 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. Of the drug/poison deaths in 2008, a single drug or poison caused 28% of the deaths (78/278), and drugs or poisons in combination caused 72% (200/278) of the deaths. Multiple drug intoxication continued to cause the majority of drug deaths in 2008 (72% in 2007, 68% in 2006, 71% in 2005). Table 9-3 displays the specific drugs that caused death in 2008. Because of their prevalence, ethanol, cocaine (a stimulant), and opiates[1] (a narcotic) 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 homicidal deaths in 2008 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 involved another person's actions. In the year 2008, drugs and poisons caused 17 deaths of undetermined manner, compared to 19 in 2007, 14 in 2006 and 18 in 2005. Of the 17 undetermined drug related deaths in 2008, five were fetal deaths; two fetal deaths were associated with maternal cocaine use, one fetal death was associated with maternal hydromorphone use and two fetal deaths were associated with maternal methamphetamine use.

In 2008, drugs/poisons caused 29 suicides, as compared to 36 in 2007, 36 in 2006, and 39 in 2005.

Drugs/poisons caused 232 accidental overdoses in 2008 compared to 247 in 2007, 262 in 2006 and 216 in 2005. In 2008, accidental drug deaths comprised 31% (232/739) of all accidental deaths.

[1]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, much more likely, heroin.

Ethanol (alcohol) is also a drug to be critically examined for its contribution to the circumstances surrounding death. In 2008, five accidental deaths were attributed to acute ethanol intoxication where ethanol was the single substance used. Seventy (70) people died in 2008 where ethanol, in combination with other drugs, was the cause of death. Blood alcohol (ethanol) tests were performed in 70% (871/1,250) 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 29% (255/871) of non-natural deaths where tests were performed.

Table 9-1 Blood Alcohol Testing / Manner / King County Medical Examiner / 2008

Test Results	ACCIDENT	TRAFFIC	HOMICIDE	NATURAL	SUICIDE	UNDETER-MINED	TOTAL
Tested	411	134	75	507	206	45	1,378
Positive	*99*	*54*	*22*	*99*	*69*	*11*	*354*
Negative	*312*	*80*	*53*	*408*	*137*	*34*	*1,024*
Not Tested	328	29	10	364	4	8	743
Totals	**739**	**163**	**85**	**871**	**210**	**53**	**2,121**

Table 9-2 Blood Alcohol Testing / Percentage / Manner / KCME / 2008

Test Results	ACCIDENT	TRAFFIC	HOMICIDE	NATURAL	SUICIDE	UNDETER-MINED	TOTAL
Tested	56%	82%	88%	58%	98%	85%	65%
Positive	*13.4%*	*33.0%*	*29%*	*20%*	*33%*	*24%*	*26%*
Negative	*4.22%*	*49.0%*	*71%*	*80%*	*67%*	*76%*	*74%*
Not Tested	44%	18%	12%	42%	2%	15%	35%
Totals	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 9-3 **2008 Drug & Poison Caused Deaths**[1]

		Overdose Deaths (268) – Drug Present						Overdose Deaths (268) – Drug Causing					
Drug Name	**Total Deaths out of 2,121 Cases in which Drug was Present**	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	81	60	7	53	46	12	2	13	3	10	3	10	0
Alprazolam	38	31	1	30	21	8	2	30	0	30	20	8	2
Amantadine	3	1	0	1	1	0	0	1	0	1	1	0	0
Amitriptyline	24	14	2	12	13	1	0	13	1	12	12	1	0
Amphetamine	15	8	3	5	6	2	0	4	0	4	2	2	0
Bupivacaine	7	2	0	2	2	0	0	1	0	1	1	0	0
Buprenorphine	1	1	0	1	1	0	0	1	0	1	1	0	0
Bupropion	22	13	3	10	8	3	2	7	0	7	4	3	0
Butalbital	3	2	0	2	1	0	1	2	0	2	1	0	1
Cannabinoids / THC[2]	228	53	16	37	48	3	2	0	0	0	0	0	0
Carbamazepine	9	4	1	3	3	1	0	3	0	3	3	0	0
Carbon Monoxide[3]	17	9	8	1	4	5	0	9	8	1	4	5	0
Carisoprodol	8	6	0	6	5	1	0	6	0	6	5	1	0
Chlordiazepoxide	8	3	0	3	3	0	0	4	0	4	4	0	0
Chlorpheniramine	3	1	0	1	1	0	0	0	0	0	0	0	0
Chlorpromazine	1	0	0	0	0	0	0	0	0	0	0	0	0
Citalopram	52	27	2	25	23	2	2	24	0	24	20	2	2
Clonazepam	3	3	0	3	2	1	0	7	0	7	5	2	0
Cocaine[4]	109	71	19	52	68	0	3	74	20	54	71	0	3
Codeine[5]	55	37	9	28	33	2	2	3	0	3	3	0	0
Cyclobenzaprine	19	7	1	6	6	1	0	7	0	7	7	0	0
Desipramine	2	1	0	1	1	0	0	0	0	0	0	0	0
Dextromethorphan	23	13	1	12	12	1	0	11	0	11	10	1	0
Diazepam	81	33	7	26	29	3	1	25	0	25	22	3	0
Diltiazem	18	6	2	4	6	0	0	1	0	1	1	0	0

Table 9-3 **2008 Drug & Poison Caused Deaths,** page 2

		Overdose Deaths (268) – Drug Present						Overdose Deaths (268) – Drug Causing					
Drug Name	**Total Deaths out of 2,121 Cases in which Drug was Present**	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
Diphenhydramine	85	46	4	42	36	8	2	30	0	30	24	5	1
Doxepin	4	3	0	3	3	0	0	3	0	3	3	0	0
Doxylamine	11	9	0	9	6	3	0	8	0	8	6	2	0
Ethanol (Ethyl Alcohol)	351	83	10	73	70	10	3	75	5	70	64	9	2
Fentanyl	15	8	0	8	7	0	1	9	0	9	8	0	1
Fluoxetine	17	9	0	9	8	0	1	6	0	6	5	0	1
Gabapentin	5	4	0	4	4	0	0	3	0	3	3	0	0
GHB	1	1	0	1	1	0	0	0	0	0	0	0	0
Hydrocodone	45	22	1	21	15	6	1	21	0	21	15	6	0
Hydromorphone	45	20	2	18	16	3	1	16	1	15	13	3	0
Hydroxyzine	4	2	0	2	1	0	1	3	0	3	2	0	1
Ibuprofen	14	7	1	6	6	0	1	0	0	0	0	0	0
Imipramine	2	1	0	1	1	0	0	1	0	1	1	0	0
Isopropanol	47	2	0	2	2	0	0	0	0	0	0	0	0
Ketamine	1	0	0	0	0	0	0	0	0	0	0	0	0
Lamotrigine	14	6	1	5	4	1	1	3	0	3	2	1	0
Levetiracetam	1	1	0	1	1	0	0	1	0	1	1	0	0
Lithium	4	2	1	1	0	2	0	1	0	1	0	1	0
Lorazepam	22	8	0	8	7	0	1	9	0	9	8	0	1
MDMA	1	1	1	0	1	0	0	1	1	0	1	0	0
Meperidine	2	2	0	2	2	0	0	1	0	1	1	0	0
Meprobamate	12	9	0	9	8	1	0	5	0	5	4	1	0
Mesoridazine	1	1	1	0	1	0	0	0	0	0	0	0	0
Methadone	123	86	14	72	81	2	3	86	16	70	80	2	4
Methamphetamine	28	17	8	9	16	0	1	15	9	6	14	0	1

Table 9-3 **2008 Drug & Poison Caused Deaths,** page 3

		Overdose Deaths (268) – Drug Present						Overdose Deaths (268) – Drug Causing					
Drug Name	**Total Deaths out of 2,121 Cases in which Drug was Present**	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
Methanol	1	0	0	0	0	0	0	0	0	0	0	0	0
Metoclopramide	1	0	0	0	0	0	0	1	0	1	1	0	0
Midazolam	16	0	0	0	0	0	0	0	0	0	0	0	0
Mirtazepine	14	9	3	6	8	0	1	6	0	6	5	0	1
Monoacetylmorphine[6]	14	13	1	12	12	0	1	20	3	17	19	0	1
Morphine[7]	174	78	13	65	70	5	3	81	13	68	74	3	4
Nitrous Oxide	1	0	0	0	0	0	0	0	0	0	0	0	0
Nortriptyline[8]	26	16	2	14	15	1	0	3	0	3	3	0	0
Oxazepam	5	2	0	2	2	0	0	2	0	2	2	0	0
Oxycodone	78	44	4	40	41	3	0	44	2	42	41	3	0
Oxymorphone	1	1	0	1	1	0	0	1	0	1	1	0	0
Paliperidone	1	1	0	1	0	1	0	1	0	1	0	0	1
Paroxetine	7	4	1	3	2	1	1	4	1	3	2	1	1
Pentobarbital	1	1	1	0	0	1	0	1	1	0	0	1	0
Phenobarbital	11	5	1	4	4	0	1	4	0	4	3	0	1
Phentermine	1	0	0	0	0	0	0	0	0	0	0	0	0
Phenytoin	7	3	0	3	2	1	0	2	0	2	1	1	0
Promethazine	1	1	0	1	1	0	0	1	0	1	1	0	0
Propoxyphene	5	3	0	3	1	1	1	3	0	3	1	1	1
Pseudoephedrine	4	1	0	1	1	0	0	1	0	1	1	0	0
Quetiapine	26	16	0	16	12	3	1	16	0	16	12	3	1
Salicylates	3	3	2	1	1	1	1	3	1	2	0	2	1
Secobarbital	1	1	0	1	0	1	0	1	0	1	0	1	0
Sertraline	15	9	1	8	6	3	0	8	0	8	6	2	0
Strychnine	1	1	1	0	0	0	1	1	1	0	0	0	1

Table 9-3 **2008 Drug & Poison Caused Deaths,** page 4

		Overdose Deaths (268) – Drug Present						Overdose Deaths (268) – Drug Causing					
Drug Name	**Total Deaths out of 2,121 Cases in which Drug was Present**	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
Temazepam	13	7	0	7	5	2	0	4	0	4	3	1	0
Thioridazine	1	1	1	0	1	0	0	1	1	0	1	0	0
Topiramate	6	3	0	3	3	0	0	3	0	3	3	0	0
Tramadol	8	3	0	3	3	0	0	3	0	3	3	0	0
Trazodone	24	11	0	11	7	4	0	11	0	11	7	4	0
Valproic Acid	4	2	0	2	1	1	0	2	0	2	1	1	0
Venlafaxine	23	14	0	14	13	0	1	12	0	12	11	0	1
Verapamil	2	1	0	1	1	0	0	1	0	1	1	0	0
Zolpidem	19	12	2	10	8	2	2	11	1	10	8	1	2
Zopiclone	1	1	0	1	1	0	0	1	0	1	1	0	0

[1]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. Furthermore, there were ten additional cases of drug overdose deaths in which no sample was available for analysis. All of these cases represent deaths due to anoxic brain injury that occurred in a hospital after the admission blood sample had been discarded, precluding a confirmatory laboratory analysis. These cases were certified on the basis of the medical records rather than laboratory analysis. These cases included two delayed overdose deaths of methadone, two delayed overdose deaths of opiate and ethanol, and six delayed overdose deaths of the following drugs: (1) acetaminophen; (2) benzodiazepine and methadone; (3) benzodiazepine and oxycodone; (4) cocaine, opiate, methadone and ethanol; (5) hydromorphone; (6) opiate (heroin) and methadone.

[2]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.

[3]Carbon monoxide fatalities are listed in the first column (Total Deaths out of 2,121 cases in which Drug was Present) if the level of carboxyhemoglobin was 10% or greater. The rest of the columns represent only drug overdose deaths and are divided into two parts, "Drug Present" and "Drug Causing" (which, for carbon monoxide fatalities are the same). Suicides due to intentional inhalation of carbon monoxide accounted for five of the carbon monoxide deaths. In four of the five carbon monoxide suicides, other drugs may have been present, but they did not contribute to the death; in one of the five carbon monoxide suicides, other drugs were present (alprazolam, amphetamine and sertraline) and contributed to death. Accidental deaths due to inhalation of carbon monoxide accounted for four of the carbon monoxide overdose deaths. All four of the accidental carbon monoxide overdose deaths were attributed solely to inhalation of carbon monoxide. Other sources of carbon monoxide included in this table are four homicidal fire fatalities, three accidental house fire fatalities, and one accidental motor vehicle fire. There were no undetermined deaths due to carbon monoxide in 2008.

[4]Includes benzoylecgonine.

[5]Out of the 37 overdose deaths involving codeine, in 31 cases, the source of the drug was likely small quantities of codeine present in heroin used by illicit drug users. In three (3) cases the source of the drug was pharmaceutical codeine. The source of the codeine in three (3) cases was unknown.

[6]Monoacetylmorphine (MAM), otherwise known as diacetylmorphine, is the first breakdown product of heroin. 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.

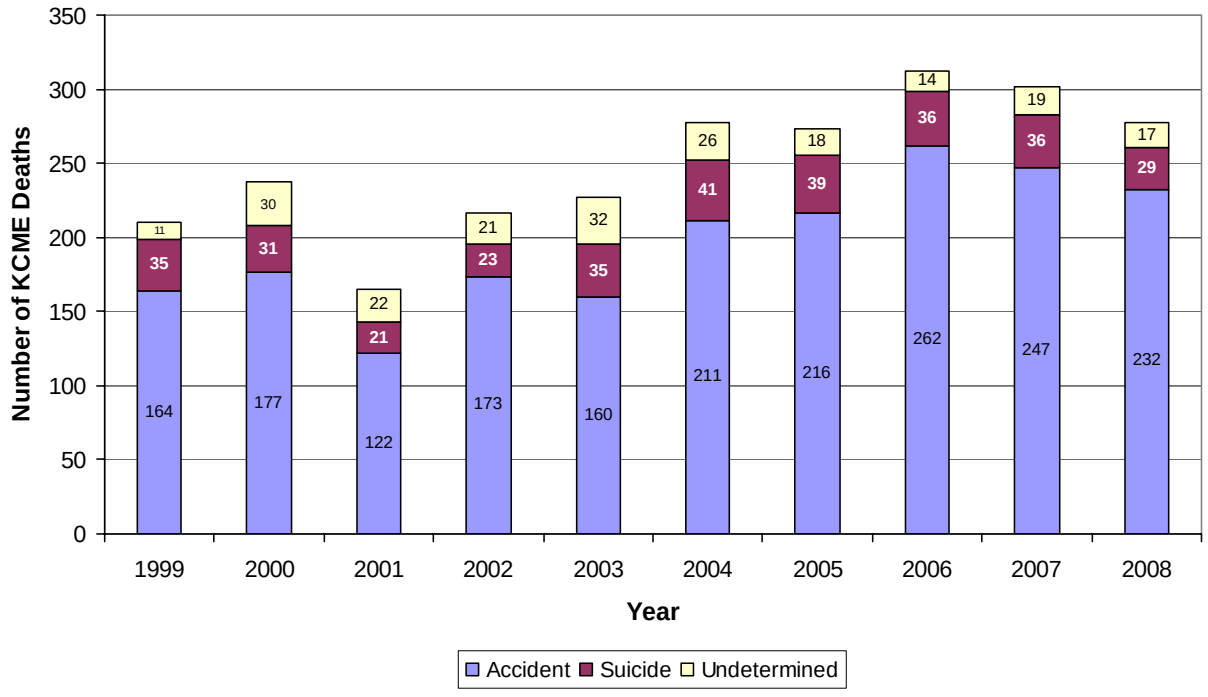
[7]There were 78 overdose deaths involving morphine. In 42 of these cases, the source of the drug was likely the morphine derived from heroin preparations used by illicit drug users. In 25 of these cases the source of the morphine was likely pharmaceutical morphine, and in 11 of these cases the source of the morphine was not known.

[8]In three (3) of the 16 total cases, nortriptyline was present without the presence of amitriptyline, indicating that the source of the drug was, in fact, nortriptyline. In the other 13 cases, amitriptyline was also present, indicating that the nortriptyline was present due to the breakdown of amitriptyline. There were a total of three nortriptyline overdose deaths; all accidental multiple drug overdoses.

Table 9-4 Total Overdose Deaths / Accident, Suicide, Undetermined / King County Medical Examiner / 1999 - 2008[9]

OVERDOSE DEATHS	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Accident	164	177	122	173	160	211	216	262	247	232
Suicide	35	31	21	23	35	41	39	36	36	29
Undetermined	11	30	22	21	32	26	18	14	19	17
Totals	**210**	**238**	**165**	**217**	**227**	**278**	**273**	**312**	**302**	**278**

Graph 9-1 Drug & Poison Caused Deaths / Accident, Suicide, Undetermined / King County Medical Examiner / 1999 - 2008

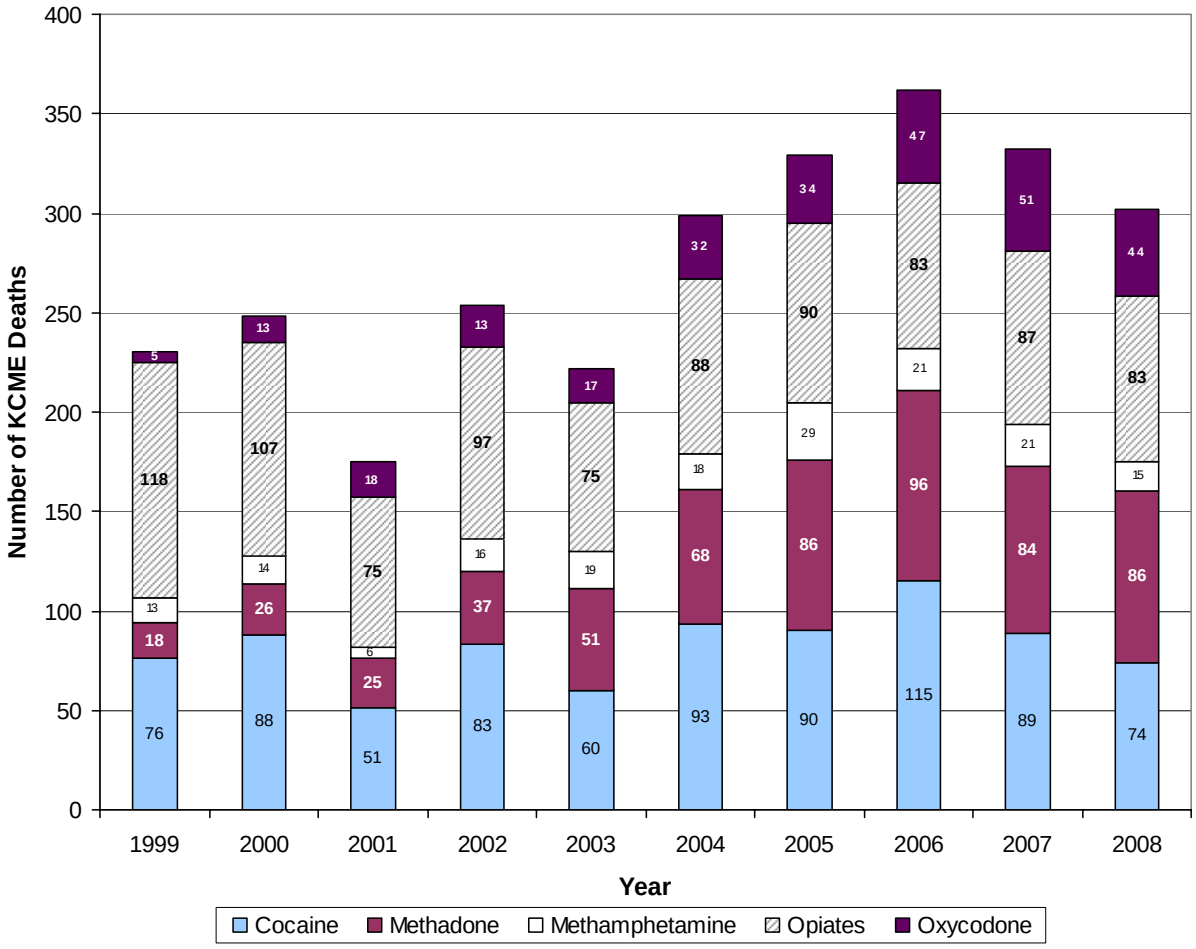


[9] Includes all deaths classified as overdose, regardless of whether lab samples were available for analysis.

Table 9-5 **Overdose Deaths Caused by Cocaine, Methadone, Opiates, Methamphetamine, or Oxycodone[10] / KCME / 1999 - 2008**

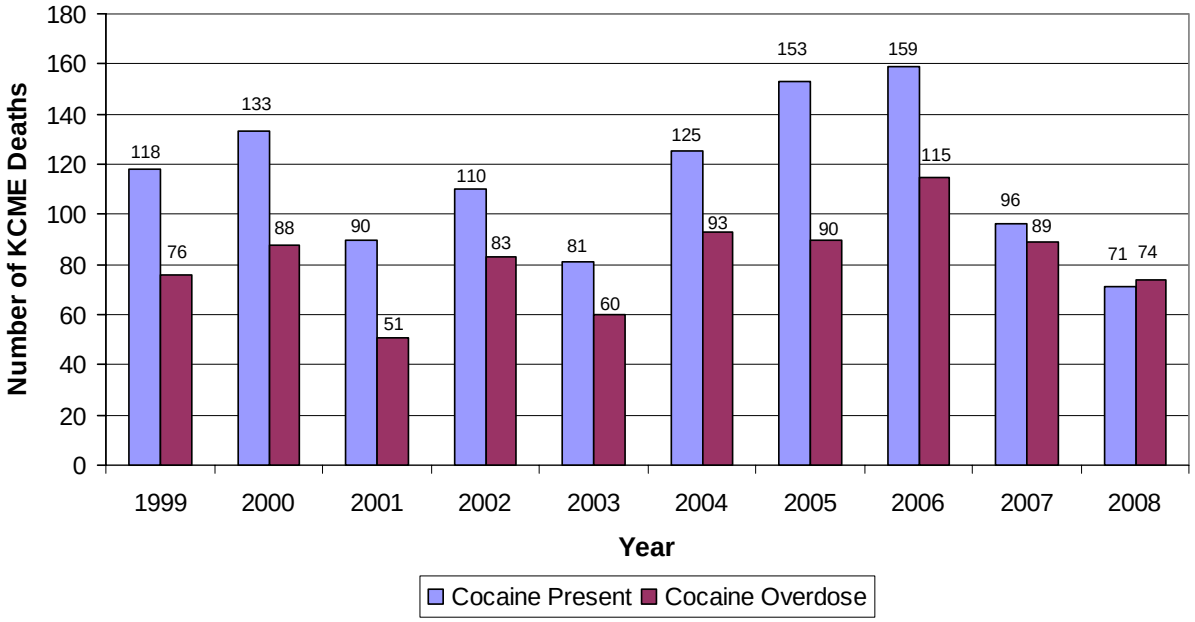
DRUG	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Cocaine	76	88	51	83	60	93	90	115	89	74
Methadone	18	26	25	37	51	68	86	96	84	86
Methamphetamine	13	14	6	16	19	18	29	21	21	15
Opiates	118	107	75	97	75	88	90	83	87	83
Oxycodone	5	13	18	21	17	32	34	47	51	44

Graph 9-2 **Overdose Deaths Caused by Cocaine, Methadone, Opiates, Methamphetamine, or Oxycodone / KCME / 1999 – 2008**

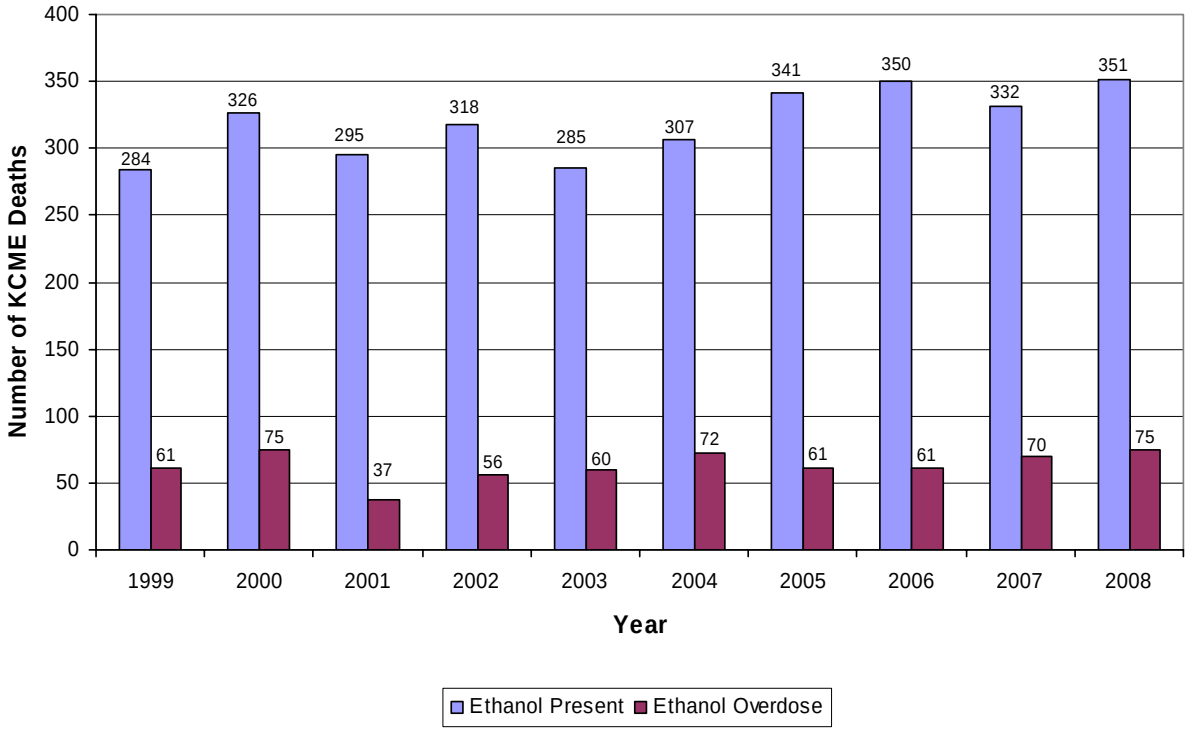


[10] In this context, "caused by" refers to single or multiple drug overdoses in which the drug was listed on the death certificate.

Graph 9-3 Cocaine Involved Deaths[11] / King County Medical Examiner / 1999 - 2008

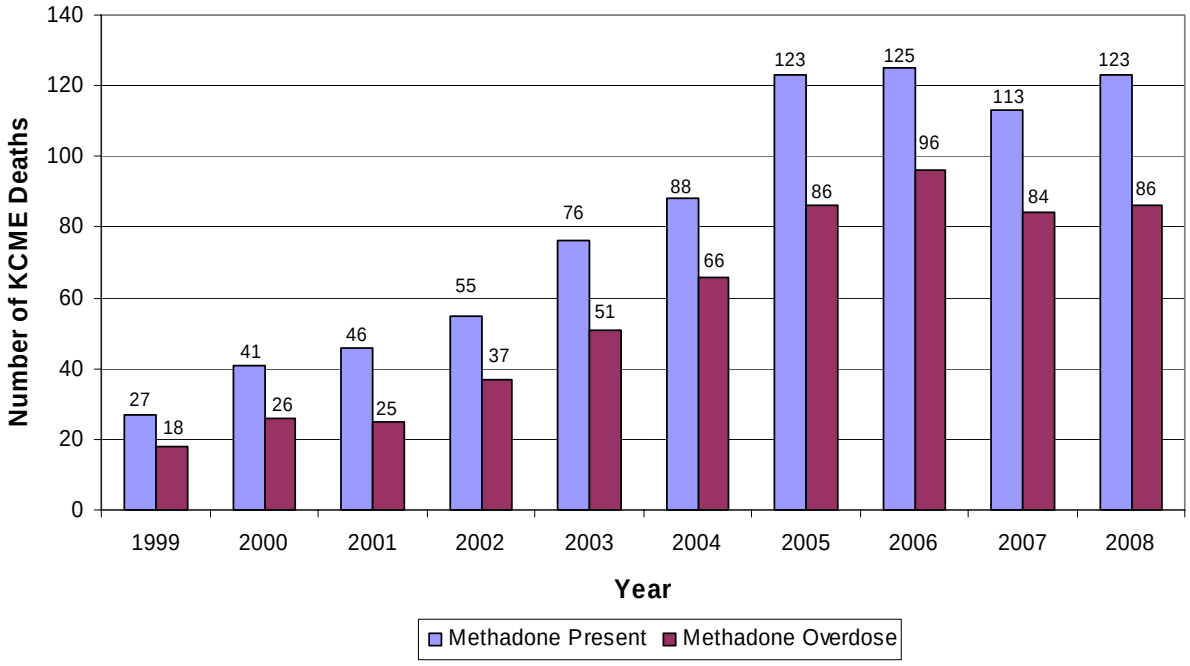


Graph 9-4 Ethanol Involved Deaths / King County Medical Examiner / 1999 - 2008

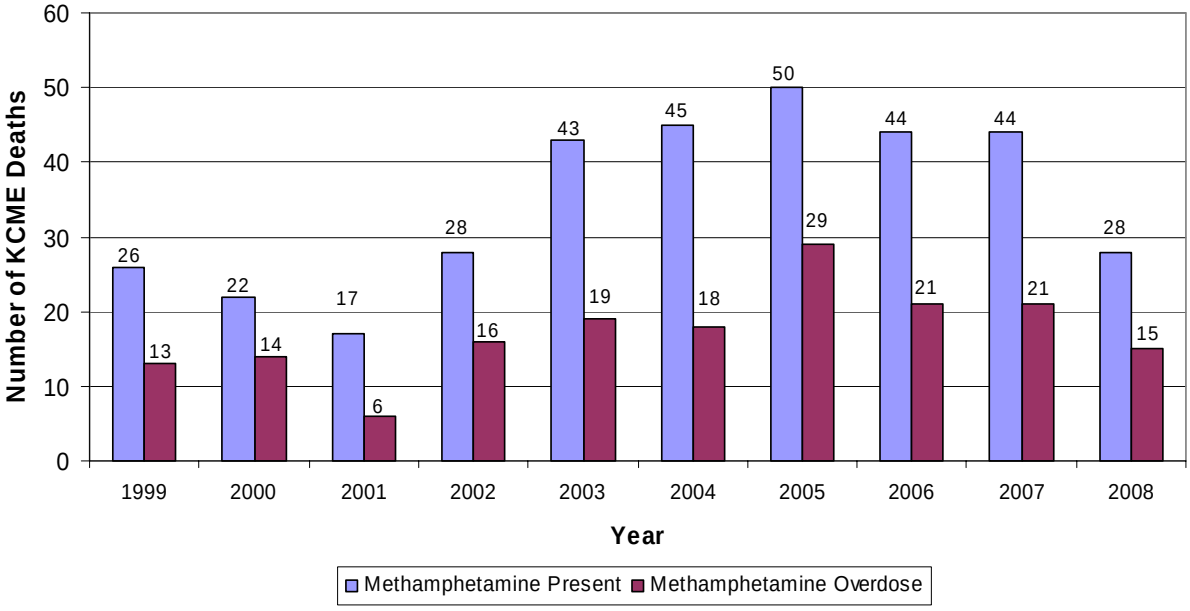


[11] In Graphs 9-3, 9-4, 9-5 and 9-6, "overdose" refers to deaths due to the listed drug or ethanol in single or multiple drug overdose deaths where the listed drug or ethanol was listed on the death certificate.

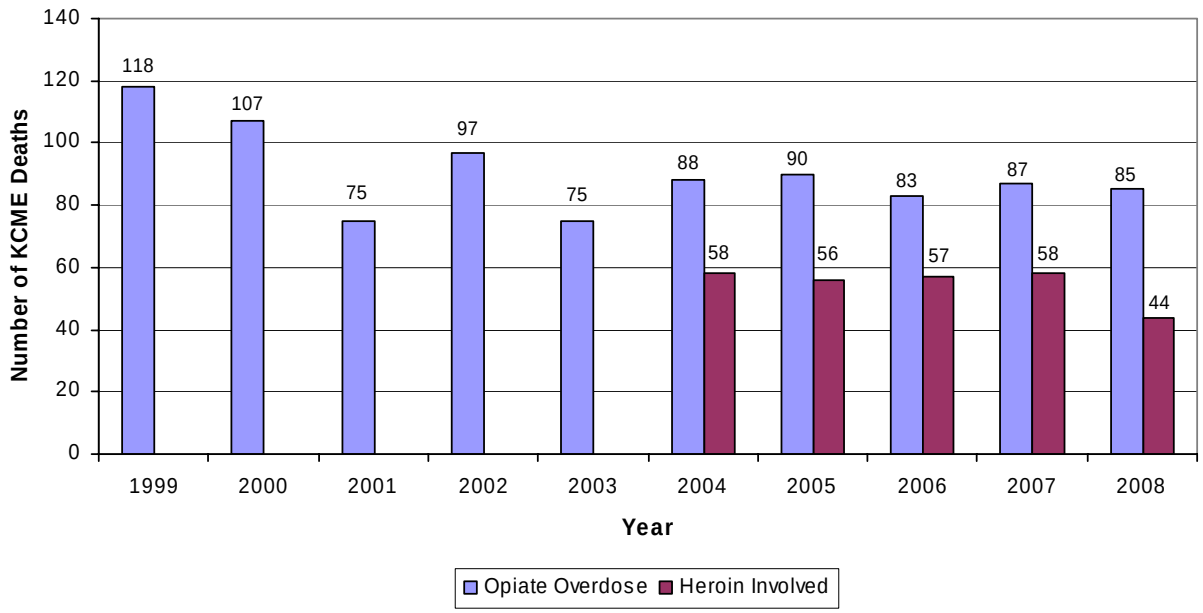
Graph 9-5 Methadone Involved Deaths / King County Medical Examiner / 1999 - 2008



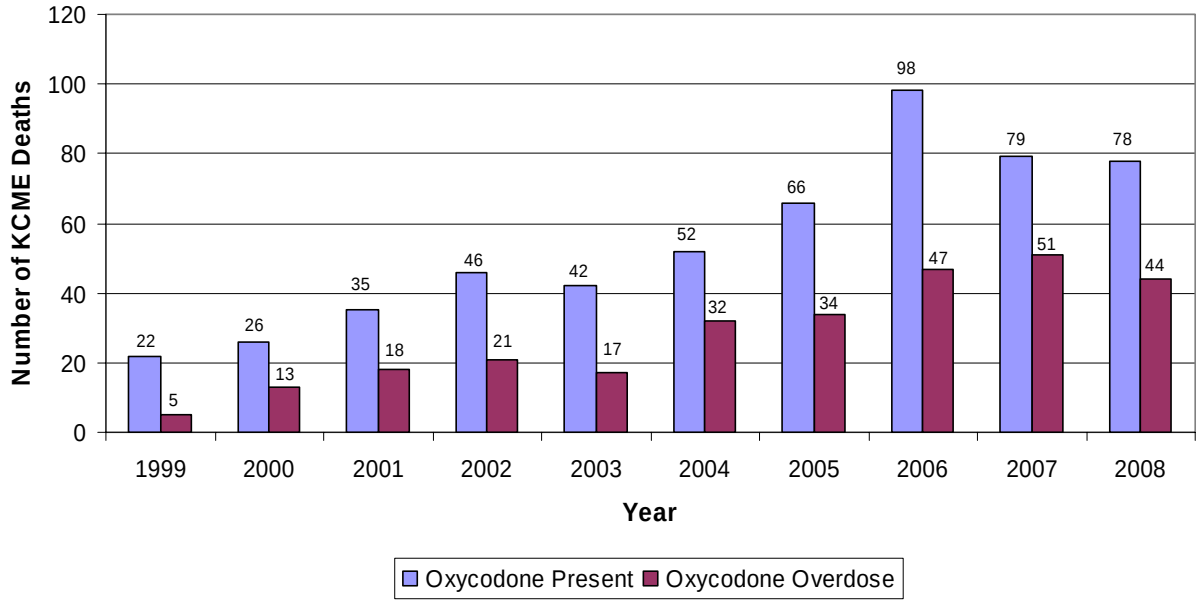
Graph 9-6 Methamphetamine Involved Deaths / KCME / 1999 – 2008



Graph 9-7 Opiate Overdose Deaths & Heroin-Related Deaths / KCME / 1999 - 2008[12]



Graph 9-8 Oxycodone Involved Deaths / King County Medical Examiner / 1999 - 2008



[12] In 2004, the King County Medical Examiner's Office began collecting data on probable heroin overdoses based on a combination of scene, circumstances, and toxicology results.

Graph 9-9 Drug / Poison Deaths / Age / King County Medical Examiner / 1999 – 2008

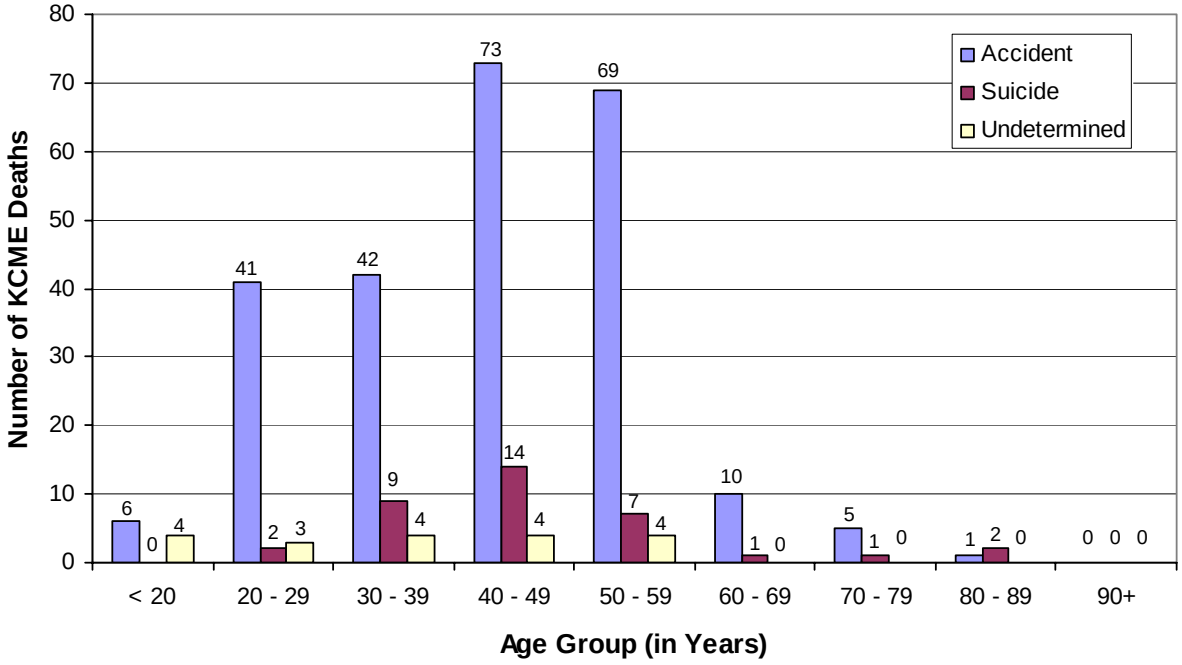


Table 9-6 Drug / Poison Deaths / Age / King County Medical Examiner / 2008

AGE GROUP (YEARS) / SEX	MANNER OF DEATH			SUB-TOTAL	TOTAL
	ACCIDENT	SUICIDE	UNDETERMINED		
<20	4	1	5		10
Male	*4*	*1*	*0*	*5*	
Female	*0*	*0*	*5*	*5*	
20-29	27	2	0		29
Male	*21*	*1*	*0*	*22*	
Female	*6*	*1*	*0*	*7*	
30-39	36	5	1		42
Male	*26*	*1*	*0*	*27*	
Female	*10*	*4*	*1*	*15*	
40-49	75	6	4		85
Male	*47*	*5*	*2*	*54*	
Female	*28*	*1*	*2*	*31*	
50-59	73	10	4		87
Male	*47*	*5*	*0*	*52*	
Female	*26*	*5*	*4*	*35*	
60-69	15	2	3		20
Male	*7*	*2*	*3*	*12*	
Female	*8*	*0*	*0*	*8*	
70-79	2	2	0		4
Male	*1*	*2*	*0*	*3*	
Female	*1*	*0*	*0*	*1*	
80-89	0	0	0		0
Male	*0*	*0*	*0*	*0*	
Female	*0*	*0*	*0*	*0*	
90+	0	1	0		1
Male	*0*	*1*	*0*	*1*	
Female	*0*	*0*	*0*	*0*	
Totals	**232**	**29**	**17**		**278**

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DEATHS DUE TO FIREARMS: 2008

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 2008, the Medical Examiner investigated 139 firearm deaths. In 2007, firearms caused 149 deaths. Of the 139 firearm deaths in 2008, 45 (32%) were homicides and 93 (67%) were suicides. One firearm death was classified as accidental in 2008. In 2007 there was also one firearm death classified as accidental. In 2008, there were no firearms deaths that were classified as undetermined. This compares to 2007 when there were none also.

In 2008, gunshot wounds were the leading cause of death for homicides and suicides. Firearm deaths comprised 53% (45/85) of homicides, compared to 72% (55/76) in 2007. In 2008, suicides by firearms represented 44% (93/210) of suicide deaths compared to 42% (93/223) in 2007.

In 2008, of the 45 firearm homicide victims, 29% (13/45) were 19 years old and younger - an increase from 2007 when 13% of firearm homicide victims were 19 years old and younger. In 2008, it is estimated that a disproportionate number of firearm homicide victims were African American (53%, 24/45) compared to the percentage of African Americans in the general population. (See discussions on pages 5 and 43.) Of the 24 African American firearm homicide victims, 33% (8/24) were males 19 years old and younger and 38% (9/24) were males between 20 and 29 years of age. In comparison, 42% (19/45) of the homicide firearm victims were White. Of the 19 White homicide victims, 37% (7/19) were males between 20 and 29 years old.

Of the 93 firearm suicide victims in 2008, 96% (89/93) were White and 89% (83/93) were males. Six of the firearm suicide victims were 19 years old and under (6%, 6/93). Thirty-three (35%, 33/93) of the gunshot suicide victims were between the ages of 20 and 39 years of age, 29 (31%, 29/93) were between 40 and 59 years, and 25 (27%, 25/93) were 60 years and older.

Table 10-1 Firearm Deaths / Manner / Age / Sex / King County Medical Examiner / 2008

AGE GROUP / SEX	MANNER OF DEATH				SUB TOTAL	TOTAL
	A	H	S	U		
<13 years	0	3	1	0		4
Male	0	2	1	0	3	
Female	0	1	0	0	1	
13-15 years	0	2	1	0		3
Male	0	2	0	0	2	
Female	0	0	1	0	1	
16-19 years	0	8	4	0		12
Male	0	8	4	0	12	
Female	0	0	0	0	0	
20-29 years	0	18	18	0		36
Male	0	16	16	0	32	
Female	0	2	2	0	4	
30-39 years	1	9	15	0		25
Male	1	6	14	0	21	
Female	0	3	1	0	4	
40-49 years	0	2	9	0		11
Male	0	2	6	0	8	
Female	0	0	3	0	3	
50-59 years	0	3	20	0		23
Male	0	3	19	0	22	
Female	0	0	1	0	1	
60-69 years	0	0	8	0		8
Male	0	0	7	0	7	
Female	0	0	1	0	1	
70-79 years	0	0	6	0		6
Male	0	0	5	0	5	
Female	0	0	1	0	1	
80-89 years	0	0	8	0		8
Male	0	0	8	0	8	
Female	0	0	0	0	0	
90+	0	0	3	0		3
Male	0	0	3	0	3	
Female	0	0	0	0	0	
Totals	**1**	**45**	**93**	**0**		**139**
Percent	0.7%	32.4%	66.9%	0%		100%

Graph 10-1 Firearm Deaths / Manner / Age Group / King County Medical Examiner / 2008

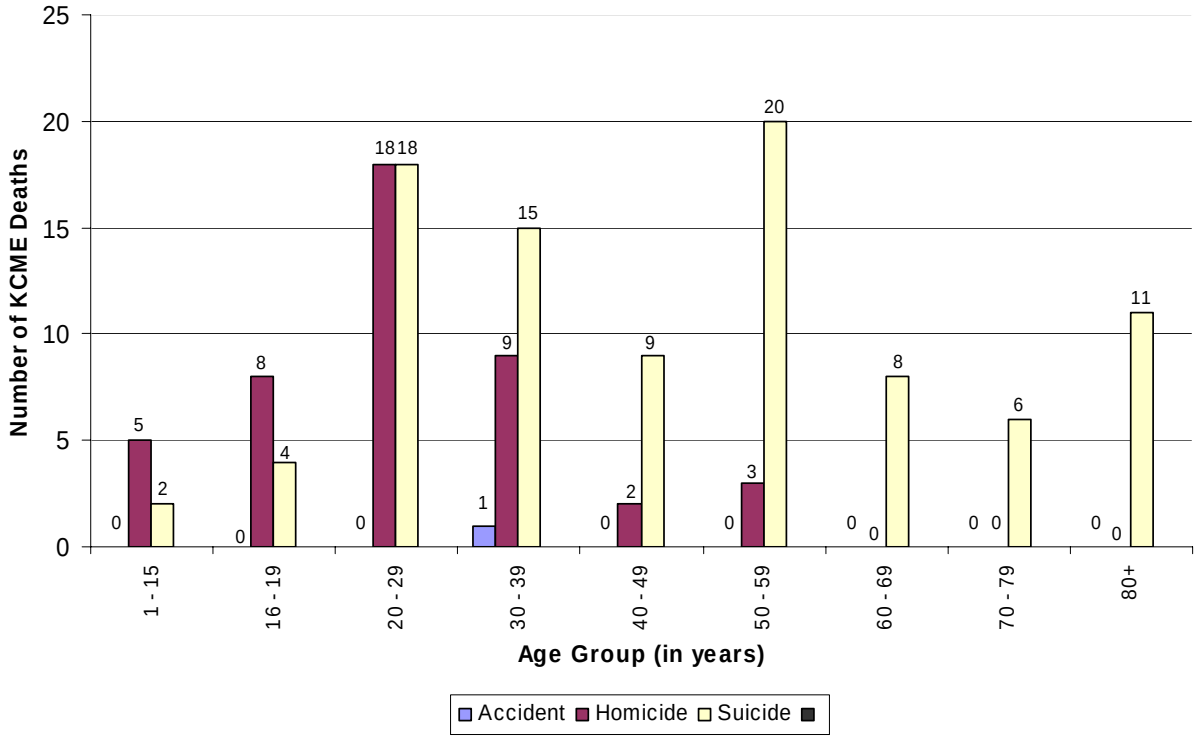

Table 10-2 Firearm Deaths / Manner / Race / Sex / KCME / 2008

RACE / SEX	MANNER OF DEATH A	H	S	U	SUB-TOTAL	TOTAL
Asian/Pacific Islander	0	1	2	0		3
Male	*0*	*1*	*2*	*0*	*3*	
Female	*0*	*0*	*0*	*0*	*0*	
African American	0	24	1	0		25
Male	*0*	*23*	*1*	*0*	*24*	
Female	*0*	*1*	*0*	*0*	*1*	
Native American	0	0	0	0		0
Male	*0*	*0*	*0*	*0*	*0*	
Female	*0*	*0*	*0*	*0*	*0*	
White	1	19	89	0		109
Male	*1*	*14*	*80*	*0*	*95*	
Female	*0*	*5*	*9*	*0*	*14*	
Other	0	1	1	0		2
Male	*0*	*1*	*0*	*0*	*1*	
Female	*0*	*0*	*1*	*0*	*1*	
Totals	**1**	**45**	**93**	**0**		**139**

CAUSES OF DEATH IN CHILDREN AND YOUTH

In 2008, the King County Medical Examiner's Office investigated 125 deaths of children and youth ages 19 years or younger, which represented 6% (125/2,121) of the total deaths investigated. Of these deaths, 34% (43/125) were natural, 22% (27/125) were accidents (non-traffic), 18% (22/125) were homicides, 14% (17/125) were traffic related, 7% (9/125) were suicides, and 6% (7/125) were classified as manner undermined. 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 43 natural deaths of children and youth investigated by the Medical Examiner, 70% (30/43) were of infants less than one year of age. Of these 30 infants who died of natural causes, 21 were due to Sudden Infant Death Syndrome (SIDS). The alternative designation "Sudden Unexplained Infant Death" (SUID) was not used in King County in 2008.

There were 22 homicides among children and youth. Of these twenty-two homicide victims, 13 were teenagers (13 - 19 years of age), six were children 1 to 12 years of age, and three were children less 1 year of age. Fifty-nine percent (13/22) of the children and youth homicide victims died by firearms.

There were nine youth suicides, one between the ages of 1 and 12 years, and eight between the ages of 13 and 19 years. Males comprised 67% (6/9) of the victims. Regarding the methods used to commit suicide by youth, six were by firearm, two were by hanging, and one was drug related.

Seventeen (17) children and youth (19 years and under) died in traffic-related accidents, of whom 13 (76%) were teenagers age 13 – 19 years. There were four motor vehicle driver deaths and five motor vehicle passenger deaths among teenagers. There were no teenage bicycle deaths, two teenage motorcycle deaths, and two teenage pedestrian deaths in 2008. Of the 11 children and youths who died in motor vehicles, nine were known to be restrained, one was found not to be wearing any restraint, and it was unknown or undeterminable if one was using a seatbelt or any other restraint device.

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

Graph 11-1 Causes of Death in Children & Youth / King County Medical Examiner / 2008

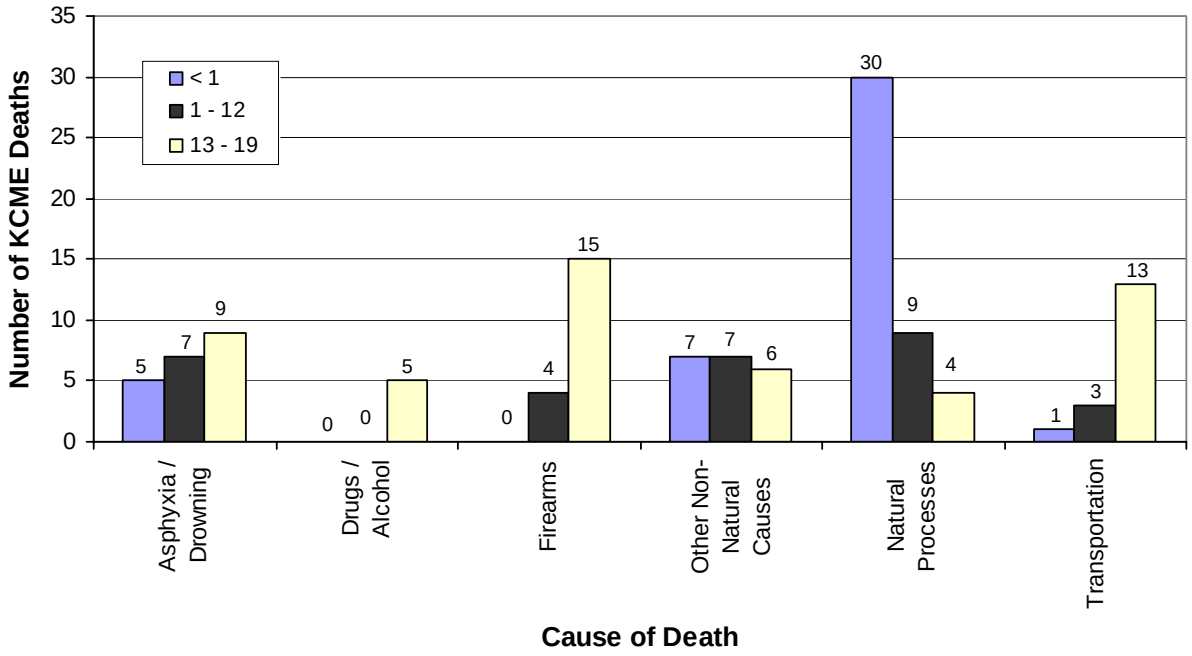

Table 11-1 Causes of Death: Children Under 1 Year of Age / KCME / 2008

CIRCUMSTANCES	MANNER OF DEATH A	H	S	T	U	N	SUB TOTAL	TOTAL
Miscellaneous	5	3	0	1	4	21		34
Asphyxia	*4*	*0*	*0*	*0*	*0*	*0*	*4*	
Blunt Force / Crushing	*0*	*2*	*0*	*0*	*0*	*0*	*2*	
Burns / Fire	*0*	*1*	*0*	*0*	*0*	*0*	*1*	
Motor Vehicle Passenger	*0*	*0*	*0*	*1*	*0*	*0*	*1*	
Other	*1*	*0*	*0*	*0*	*4*	*0*	*5*	
SIDS	*0*	*0*	*0*	*0*	*0*	*21*	*21*	
Other Natural Disease	0	0	0	0	0	9		9
Totals	**5**	**3**	**0**	**1**	**4**	**30**		**43**

Table 11-2 Causes of Death: Children 1 to 12 Years of Age / KCME / 2008

	MANNER OF DEATH						SUB	
CIRCUMSTANCES	A	H	S	T	U	N	TOTAL	TOTAL
Asphyxia	6	1	0	0	0	0		7
Carbon Monoxide	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Drowning	*2*	*0*	*0*	*0*	*0*	*0*	*2*	
Hanging	*1*	*0*	*0*	*0*	*0*	*0*	*1*	
Mechanical	*2*	*0*	*0*	*0*	*0*	*0*	*2*	
Other	*1*	*1*	*0*	*0*	*0*	*0*	*2*	
Positional	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Miscellaneous	4	0	0	0	0	0		4
Aircraft	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Complication of Therapy	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Drugs	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Fall	*3*	*0*	*0*	*0*	*0*	*0*	*3*	
Fire / Explosion	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Hyperthermia	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Jump	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Non Traffic -Vehicle	*1*	*0*	*0*	*0*	*0*	*0*	*1*	
Other	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Physical Trauma	1	5	1	0	0	0		7
Abuse	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Blunt Force / Crushing	*1*	*1*	*0*	*0*	*0*	*0*	*2*	
Burns / Fire	*0*	*1*	*0*	*0*	*0*	*0*	*1*	
Firearms	*0*	*3*	*1*	*0*	*0*	*0*	*4*	
Incised / Stab Wound(s)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Transportation Related	0	0	0	3	0	0		3
Bicycle	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Motor Vehicle Passenger	*0*	*0*	*0*	*2*	*0*	*0*	*2*	
Motorcycle	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Pedestrian	*0*	*0*	*0*	*1*	*0*	*0*	*1*	
Natural Disease	0	0	0	0	0	9		9
Totals	**11**	**6**	**1**	**3**	**0**	**9**		**30**

Table 11-3 Causes of Death: Children 13 to 19 Years of Age / KCME / 2008

	MANNER OF DEATH						SUB	
CIRCUMSTANCES	A	H	S	T	U	N	TOTAL	TOTAL
Asphyxia	5	0	2	0	2	0		9
Carbon Monoxide	*1*	*0*	*0*	*0*	*0*	*0*	*1*	
Drowning	*3*	*0*	*0*	*0*	*0*	*0*	*3*	
Hanging	*0*	*0*	*2*	*0*	*2*	*0*	*4*	
Smothering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Positional	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Other	*1*	*0*	*0*	*0*	*0*	*0*	*1*	
Drugs / Alcohol	4	0	1	0	0	0		5
Miscellaneous	1	0	0	0	1	0		2
Complication of Therapy	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Fall	*0*	*0*	*0*	*0*	*1*	*0*	*1*	
Jump	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Non-Traffic Vehicular	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Other	*1*	*0*	*0*	*0*	*0*	*0*	*1*	
Physical Trauma	1	13	5	0	0	0		19
Blunt Force / Crushing	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Burns / Fire	*1*	*0*	*0*	*0*	*0*	*0*	*1*	
Firearms	*0*	*10*	*5*	*0*	*0*	*0*	*15*	
Homicidal Violence	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Incised / Stab Wound(s)	*0*	*2*	*0*	*0*	*0*	*0*	*2*	
Strangulation	*0*	*1*	*0*	*0*	*0*	*0*	*1*	
Transportation Related	0	0	0	13	0	0		13
Bicycle	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Motor Vehicle Driver	*0*	*0*	*0*	*4*	*0*	*0*	*4*	
Motor Vehicle Passenger	*0*	*0*	*0*	*5*	*0*	*0*	*5*	
Motorcycle	*0*	*0*	*0*	*2*	*0*	*0*	*2*	
Pedestrian	*0*	*0*	*0*	*2*	*0*	*0*	*2*	
Natural Disease	0	0	0	0	0	4		4
Totals	**11**	**13**	**8**	**13**	**3**	**4**		**52**

ORGAN DONATION

Although the King County Medical Examiner's Office does not approach families for donation of organs and tissue from decedents, we realize the tremendous need for this life-saving activity and cooperate fully with organ and tissue procurement agencies for this purpose. 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 2008, the King County Medical Examiner's Office was notified of 33 deaths that were eligible for organ donation in King County. The KCMEO gave full release on all 33 of these deaths. Altogether, there were 115 organs transplanted from King County Medical Examiner cases. The number of specific organs transplanted in 2008 is shown in Table 12-1. In addition to the living organs listed in Table 12-1 that were donated in 2008, the KCMEO approved the donation of skin, bone, cartilage, heart valves, corneas and other tissues through the tissue procurement agency, Northwest Tissue Services. Altogether, there were 67 donors who, on average, were each able to provide 25 donations (1,675 total) to tissue transplant recipients.

Table 12-1 Organs Transplanted / KCME / 2008

ORGAN	# Transplanted
Heart	11
Intestine	0
Kidneys	57
Liver	25
Lungs	14
Pancreas	8
Total	**115**

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CREMATION REVIEW

Although all deaths covered under RCW 68.50.010 are required by law to be reported to the Medical Examiner, these deaths are not always reported in a timely manner. For some of these deaths, a complete investigation is rendered impossible because the body was cremated prior to the death being reported to the medical examiner.

Certain cases need a complete examination of the body to formally determine both the cause and manner of death. Without such examination it is theoretically possible to destroy all anatomical evidence of a homicide without any investigation from the medical examiner or law enforcement. One of the primary duties of the King County Medical Examiner's Office is to identify homicides. Allowing cremations without review by the Medical Examiner creates the possibility of never identifying such cases and forever destroying evidence that a homicide did occur.

Beginning January 1, 2008, the King County Council tasked the Medical Examiner's Office with reviewing the death certificates of all decedents to be cremated in order to rule out the need for additional investigation.

In 2008, the Medical Examiner's Office handled 9,277 cremation review requests. A total of 95 cases were made from the 9,277 review requests, indicating that the Medical Examiner's Office would have never seen nor investigated those cases had they been cremated. Table 13-1 shows the 95 cases that were initiated by the Medical Examiner's Office from cremation reviews.

Table 13-1 Cremation Reviews / KCME / 2008

Manner	Subtype	# Cases	Percentage
Accident	Aspiration	2	2%
Accident	Complication of Therapy	3	3%
Accident	Drugs / Poisons	1	1%
Accident	Fall	38	40%
Accident	Traffic	2	2%
Complication of Therapy		30	32%
Natural		18	19%
Undetermined	Drugs / Poisons	1	1%
Totals		**95**	**100%**

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MEDICAL EXAMINER ACTIVITY

The staff members 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 the family 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 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 and investigators provide testimony in court and at depositions. Staff participates in meetings with police, medical professionals and attorneys. In addition, the Chief Medical Examiner provides 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, to prosecuting attorneys and to 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).

Medical Examiner investigations require frequent contact between the Medical Examiner's Office and various media personnel. 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 accidents, 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 2008, 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, MD, PhD

Academic Appointment:

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

Preceptorships & Faculty Positions:

- Director of Forensic Pathology Fellowship Training Program, King County Medical Examiner's Office
- University of Washington School of Medicine, medical students, pathology residents, and physician assistant students
- University of Washington School of Nursing, graduate students in Forensic Nursing
- Course Director and Faculty, "Problems in Forensic Pathology", King County Medical Examiner's Office, accredited by the University of Washington Office for Continuing Medical Education
- Faculty, Certificate Program in Forensics, University of Washington Extension

Professional Organizations:

- American Medical Association
- American Academy of Forensic Sciences
- National Association of Medical Examiners
- King County Child Death Review Committee
- King County Elder Abuse Council
- Disaster Mortuary Operations Response Team, Region 10
- Washington Association of Coroners and Medical Examiners

Local and Regional Educational Presentations:

- Medicolegal Investigation of Deaths in the Elderly
  Second International Conference on Elder Abuse, University of California
  Newport Beach, CA February 11

- Basic Homicide Investigation
  Basic Class for Law Enforcement
  Criminal Justice Training Center
  Burien, WA March 26

- Medical Examiner's Role in Organ Donation
  Pediatric Organ Donation Summit
  Seattle Children's Hospital
  Seattle, WA March 31

- Pattern Injuries and Strangulation
  Core Training for Sexual Assault Nurse Examiners
  Harborview Center for Sexual Assault and Traumatic Stress / University of Washington
  Seattle WA April 9

- Essentials of Medicolegal Death Investigation
  Southeast Region Emergency Medical Services 24th Annual EMS Symposium
  Wrangell, AK April 11

- Death Investigation of Infants & Children
  Southeast Region Emergency Medical Services 24th Annual EMS Symposium
  Wrangell, AK April 11

- Medicolegal Investigation of Child Fatalities
  Sixteenth Annual Children's Justice Conference
  Seattle, WA April 22

- Investigation of Traffic Fatalities
  University of Washington
  Certificate Program in Forensics
  Seattle, WA June 22

- Investigation of Infant Deaths
  University of Washington
  Certificate Program in Forensics
  Seattle, WA June 22

- Essentials of Medicolegal Death Investigation
  King County Medic One Paramedic Training
  Kent, WA June 24

- Medicolegal Investigation of Deaths in the Elderly.
  Making the Case for Justice: Investigation and Prevention of Abuse and Neglect of Elder and Vulnerable Adults
  Bellevue, WA September 10

- Medicolegal Homicide Investigation
  The Oregon-Washington Lawmen's Association Fall 2008 Training Conference
  Leavenworth, WA October 10

- Pattern Injuries and Strangulation
  Core Training for Sexual Assault Nurse Examiners
  Harborview Center for Sexual Assault and Traumatic Stress / University of Washington
  Seattle, WA October 22

J. Matthew Lacy, MD, Associate Medical Examiner

Associations, Committees and Boards:

- Associate Member, American Academy of Forensic Scientists
- Fellow, College of American Pathologists
- Member, National Association of Medical Examiners
- Member, Washington Association of Coroners and Medical Examiners

Preceptorship:

- Clinical Instructor, Department of Pathology, University of Washington School of Medicine

Scientific Publications:

- Cerebral air embolism resulting in fatal stroke in an airplane passenger with a pulmonary bronchogenic cyst. Edwardson M, Wurth D, Lacy JM, Fink J, Becker K. *Neurocritical Care* 2009:10(2):218-21 (EPub Aug 12, 2008).

Local and Regional Educational Presentations:

- Deaths in the Medical Setting: A Forensic Pathology Perspective
  Critical Care Nursing Conference – Update 2008
  University of Washington School of Nursing
  Shoreline Conference Center
  Seattle, WA March 26

- Natural Deaths
  University of Washington Extension Program in Forensics
  University of Washington Campus
  Seattle, WA April 21

- The Public Health Role of the Medical Examiner
  Laboratory Awareness Week
  Department of Pathology
  Puget Sound Blood Center
  Seattle, WA April 22

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

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
- Fellow College of American Pathologists
- Fellow, American Society of Clinical Pathologists
- Advisory Committee, King County Medical Examiner's Office

Professional Meetings, Trainings & Certifications:

- Forensic Investigation Council Meetings, February, July & September
- Annual Blood Borne Pathogens Training, Public Health – Seattle & King County, October
- Health Information Privacy & Security Training, Public Health – Seattle & King County, December

Local and Regional Educational Presentations:

- Death by Asphyxiation
  Annual Forensic Nursing Conference
  University of Washington
  Seattle, WA April

- Excited Delirium / In-Custody Deaths
  Guest Expert
  Introduction to Forensic Nursing & Healthcare
  University of Washington
  Seattle, WA Autumn Quarter

Katherine Taylor, PhD, Forensic Anthropologist

Associations, Committees and Boards:

- Member, Missing Persons Task Force, Washington Association of Counties
- Board Member, SIDS Foundation of Washington
- Board Member, Department of Criminal Justice Advisory Board, Seattle University
- Member, American Board of Medicolegal Death Investigators
- Fellow, American Academy of Forensic Sciences

Local and Regional Educational Presentations:

- Forensic Anthropology in Death Investigation
  Homicide Investigation Class
  Burien, WA March 25

- Determination of Human vs. Nonhuman Skeletal Remains
  Homicide Investigation Class
  Burien, WA March 25

- MFI Response
  Red Cross
  Seattle, WA March 26

- Mock Expert Witness
  Seattle University School of Law
  Seattle, WA April 17

- Reading Bones: The Science of Forensic Anthropology
  Keynote Address
  Forensic Nursing Conference
  Shoreline, WA April 8

- Outdoor Scenes: Body Recovery and Evidence Collection
  King County Search & Rescue Academy Training
  Seattle, WA April 12

- Outdoor Scenes: Body Recovery and Evidence Collection
  King County Search & Rescue Academy Training
  Seattle, WA May 3

- Hospital Preparedness for MFI Response
  Evergreen Hospital
  Kirkland, WA June 30

- Instructor, Bodies: Search and Recovery
  Washington Violent Crimes Investigation Association
  Ravensdale, WA July 14 - 18

- Determination of Forensic vs. Archaeological Skeletal Remains
  Washington Association of Coroner's & Medical Examiner's Training Conference
  Spokane, WA October 8

- Looking Through Time: How Modern Methods are Shedding New Light on Old Bones
  Lucy Talks Lecture Series
  Pacific Science Center and Burke Museum
  Seattle, WA November 13

Greg Hewett, Mdiv, Program Manager IV

Associations, Committees and Boards

- Member, Seattle University Advisory Committee, Criminal Justice Program
- Member, Washington Association of Coroners and Medical Examiners
- Washington State Registered Counselor

Local and Regional Educational Presentations:

- Role & Responsibility of the King County Medical Examiner's Office
  Seattle University
  King County Medical Examiner's Office
  Seattle, WA January 23

- Role & Responsibility of the King County Medical Examiner's Office
  Seattle University
  King County Medical Examiner's Office
  Seattle, WA January 30

Joe Frisino, D-ABMDI, Medicolegal Death Investigator III

Associations:

- Diplomate, American Board of Medicolegal Death Investigators
- Board Member, American Board of Medicolegal Death Investigators
  - Annual Meeting, February 13-14
- Member, Washington Association of Coroners & Medical Examiners

Nathan Geerdes, BA Psychology, D-ABMDI, Lead Medicolegal Death Investigator

Associations:

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

Local and Regional Educational Presentations:

- The Role & Responsibility of the Medical Examiner's Office
  King County Medical Examiner's Office
  Seattle University
  Seattle, WA January 23

- The Role & Responsibility of the Medical Examiner's Office
  King County Medical Examiner's Office
  Seattle University
  Seattle, WA January 30

- The Role & Responsibility of the Medical Examiner's Office
  Port of Seattle Fire Department
  SeaTac, WA December 12

William Barbour, BS, D-ABMDI, Medicolegal Death Investigator

Associations:

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

Local and Regional Educational Presentations:

- The Role & Responsibility of the Medical Examiner's Office
  King County Medical Examiner's Office
  Seattle University
  Seattle, WA October 22

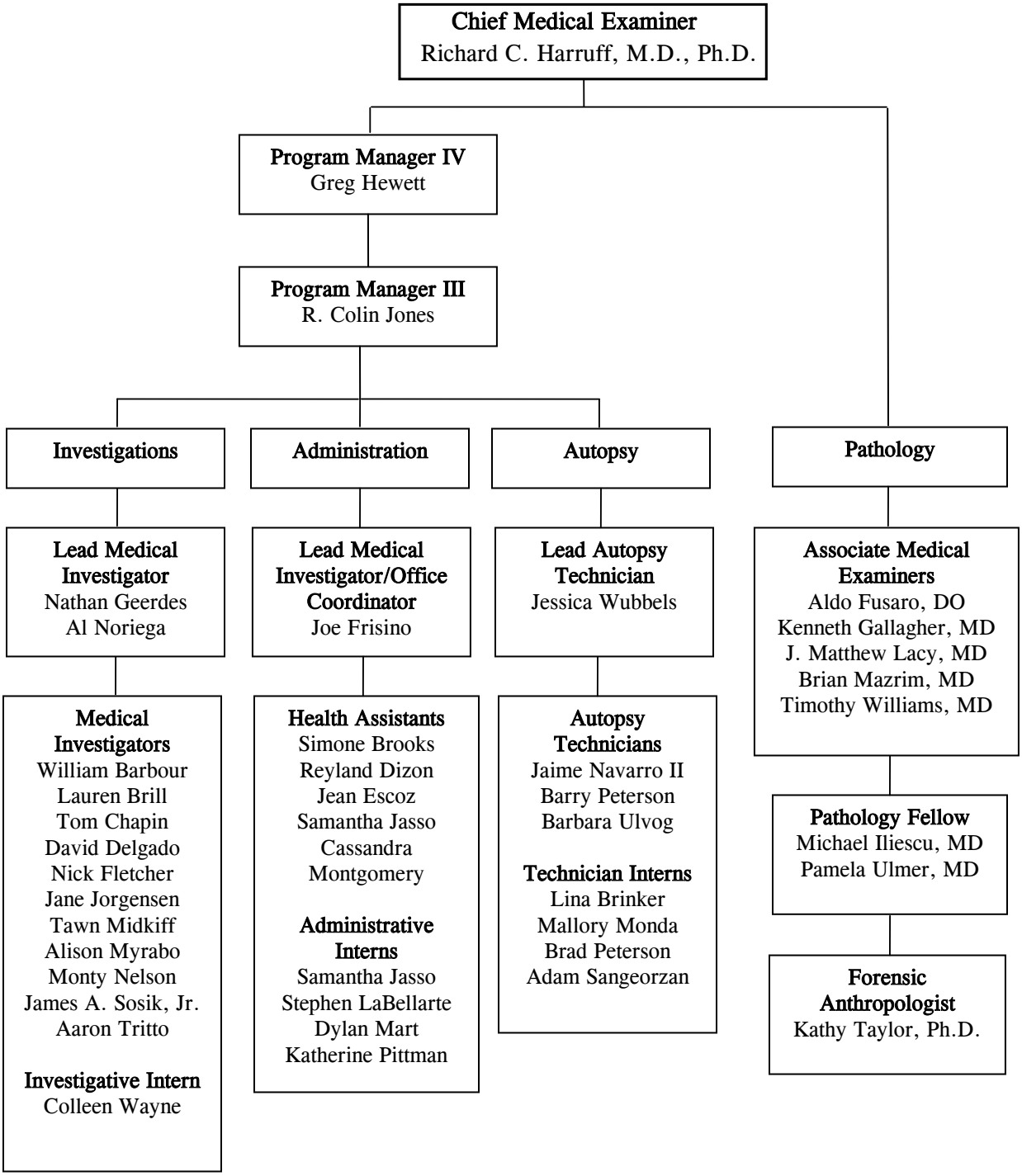
Table 14-1 Weekly Variation of Deaths Investigated by the King County Medical Examiner's Office

	TOTAL
Number of weeks studied	52
Mean number of cases assumed	41
Maximum in any one week	54
Minimum in any one week	29

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

	TOTAL
Number of weeks studied	52
Mean number of autopsies	27
Maximum in any one week	37
Minimum in any one week	16

Organization of the King County Medical Examiner's Office 2008



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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.[1]
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.[2]

[1]DiMaio, Vincent J. & DiMaio, Dominick. Forensic Pathology, Second Edition. CRC Press, 2001.
[2]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.
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: Complication Of Therapy	Death that arises as a predictable consequence of appropriate medical therapy. Although this is a manner of death for death certification purposes, Complication of Therapy statistics are included under the Manner "Accident" in this report.
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; Native American; Asian/Pacific Islander; and Other.