

KING COUNTY MEDICAL EXAMINER'S OFFICE

Dorothy F. Teeter, MHA, Interim Director and Health Officer Richard Harruff, MD, PhD, Chief Medical Examiner

# DEDICATION

We recognize that each case in this report represents the death of a person whose absence is grieved by friends and relatives. To those people who have suffered the loss of a friend or relative, we dedicate this report.

Dorothy F. Teeter, MHA Interim Director & Health Officer Public Health - Seattle & King County

Richard Harruff, MD, PhD Chief Medical Examiner King County Medical Examiner's Office Public Health - Seattle & King County





Page ii

# TABLE OF CONTENTS

DEDICATION		i
TABLE OF CONTENTS		iii
FOREWORD		1
DESCRIPTION AND PURPOSE		2-3
MISSION STATEMENT		
EXPLANATION OF DATA		5
MEDICAL EXAMINER CASES IN 2005 MANNER OF DEATH IN 2005 OUT OF COUNTY CASES, 2005		
TEN YEAR PERSPECTIVE		
MANNER: ACCIDENT		
MANNER: HOMICIDE		
MANNER: NATURAL		51
MANNER: SUICIDE		59
MANNER: TRAFFIC		67
MANNER: UNDETERMINED		
DEATHS DUE TO DRUGS & POISONS: 2005 LISTED DRUG NAMES		
DEATHS DUE TO FIREARMS: 2005 99		
CAUSES OF DEATH IN CHILDREN AND YOUTH		103
MEDICAL EXAMINER ACTIVITY		107
ORGANIZATION OF THE KING COUNTY MEDICA	L EXAMINER'S OFFICE 2005	116
GLOSSARY	OF	7 TERMS
		1

Page iv

# 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 expeditious 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, we immediately forward the results of our investigation to the State Department of Labor and Industries so that the family can gain the full benefit of our findings. Private insurance companies also routinely use our findings to settle claims. Whenever a consumer product is implicated in a death, we notify 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, we notify the family and contacts of the deceased so they may receive any needed medical treatment. In this era of concern regarding 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 offers the criminal justice system the best support that medical science can provide.

In summary, the King County Medical Examiner's Office brings trained medical evaluation to the investigation of deaths that are of concern to the health, safety, and welfare of the community.

Page 2

## DESCRIPTION AND PURPOSE of the Public Health – Seattle & King County 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 is under 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:

- 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).

- 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, criminal or medical negligence, or abortion under unlawful circumstances.

# **MISSION STATEMENT** of the

Public Health – Seattle & King County 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.

#### Page 5

# EXPLANATION OF DATA

The information presented here was compiled on deaths in which the King County Medical Examiner assumed jurisdiction during the calendar year 2005. (*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. If the quality of life in King County is to be improved then perhaps this report can serve as a basis for change.

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 2005 the King County population was estimated to be 1,808,300<sup>1</sup>. Included within King County are 42 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 2005. According to 2004 Office of Financial Management (OFM) estimates, the racial distribution of King County is 77.7% White, 5.8% Black, 3.3% two or more races indicated (new category in the year 2000), 12.2% Asian (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.

Medical Examiner 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 41).

<sup>&</sup>lt;sup>1</sup> State of Washington, Office of Financial Management, April 29, 2006 estimate.

#### Page 6

## King County Medical Examiner's Office – 2005 Annual Report

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 among children and youth. The firearm data pertain to the victim because data relating to the shooter are not included in the Medical Examiner's investigation. On deaths among children and youth, the analysis focuses on violent, non-natural causes of death.

Data on natural deaths are included. However, these deaths due to natural causes are not representative of all natural deaths in King County. Natural deaths that the Medical Examiner investigates are those that occur suddenly and unexpectedly with no physician in attendance, or under suspicious circumstances. Such natural deaths comprised 39% (763/1,945) of all deaths that the Medical Examiner investigated in 2005.

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 2005

The following provides a summary of the raw data from the Medical Examiner's cases for the year 2005.

In 2005 there were an estimated 12,937 deaths in King County<sup>2</sup> (0.72% of a 2005 population estimate of 1,808,300). Of these deaths, 8,527 (66%) 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 medicolegal investigators, the Medical Examiner's Office assumed jurisdiction in 2002 of these reported deaths, of which 57 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 are excluded. The number of applicable cases used in this report is 1,945 deaths.

Of note is the fact that the Medical Examiner declined jurisdiction in 6,525 of the deaths that were reported. The Medical Examiner's Office applies a strict interpretation of the 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 <u>and</u> 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 68% (1,332/1,945) 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 2005 there were 383 such deaths, accounting for 20% (383/1,945) of the total deaths. In addition, there were 212 deaths (11%) (212/1,945) 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, 30% (53/174) 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 147 vehicle occupants who died, 52% (77/147) were wearing restraints.

In the 36 deaths involving motorcyclists, 94% (34/36) were wearing helmets. The remaining two were either not wearing helmets or represent cases in which the use of a helmet is not known.

<sup>&</sup>lt;sup>2</sup> Death certificates filed in King County, (Vital Statistics, Public Health - Seattle & King County, 2005).

Firearms were the most frequent instrument of death in homicides and suicides, accounting for 59% (47/80) of the homicides and 41% (96/233) of the suicides.

While the discussion here tends to depict the more violent types of death, the reader should be reminded that 39% (763/1,945) of Medical Examiner cases involve natural deaths. Specific discussion and presentation of relevant tables regarding 2005 cases follow this brief summary.

Table 1-1 Deaths Occurring in King Co	unity / Medica		572005
3		NUMBER OF KCME	PERCENT OF KCME
CASES BY MANNER OF DEATH		DEATHS	DEATHS
Accident Other	(A)	602	31.0%
Accident Traffic	(T)	226	11.6%
Homicide	(H)	80	4.1%
Natural	(N)	763	39.2%
Suicide	(S)	233	12.0%
Undetermined <sup>4</sup>	(U)	41	2.1%
Total KCME general cases		1,945	100%
Non-applicable cases where jurisdiction was assumed	5	57	
Total KCME jurisdiction cases		2,002	
Total KCME general cases		1,945	
Deaths reported to KCME but no jurisdiction was assur	6,525		
All other deaths in King County not reported to KCME		4,467	
ALL KING COUNTY DEATHS		12,937	

## Table 1-1 Deaths Occurring in King County / Medical Examiner Cases / 2005

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

<sup>&</sup>lt;sup>4</sup> Includes nine fetal deaths, which, according to Washington State death certification procedures, are not assigned a manner.

<sup>&</sup>lt;sup>5</sup> Non-applicable includes 57 non-human bones/tissue, and 13 anthropology/contract cases.

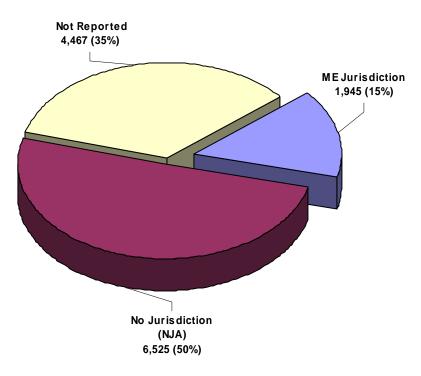
<sup>&</sup>lt;sup>6</sup> This is the total number of cases that will be referred to throughout this report unless otherwise noted.

<sup>&</sup>lt;sup>7</sup> Death certificates filed in King County, (Vital Statistics, Public Health - Seattle & King County, 2005).

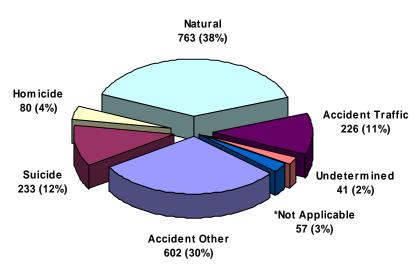
#### Page 10

### Graph 1-1 All King County Deaths with Medical Examiner Jurisdiction Shown / 2005

There were 12,937 deaths in King County in 2005.



### Graph 1-2 Manner of Death for All Medical Examiner Jurisdiction Cases / 2005

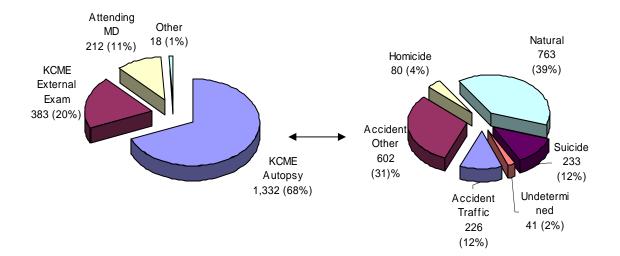


Jurisdiction assumed in 2,002 cases .

<sup>&</sup>lt;sup>8</sup> This number includes 57 non-applicable cases (non-human tissue/bones and anthropology/contract cases).

Table 1-2	М	Method of Certification / Manner of Death / KCME / 2005									
CERTIFICATION		Ν	IANNER	OF DEAT	Н		_				
CERTINEATION	А	Т	Н	Ν	S	U	TOTAL	%			
KCME Autopsies	387	164	77	470	197	37	1332	68%			
KCME External Exams	118	61	0	168	36	0	383	20%			
KCME Other	10	1	3	1	0	3	18	1%			
Attending Physician	87	0	0	124	0	1	212	11%			
Totals	602	226	80	763	233	41	1,945	100%			

# Graph 1-3 Method of Certification for all King County Medical Examiner Jurisdiction Cases / 2005

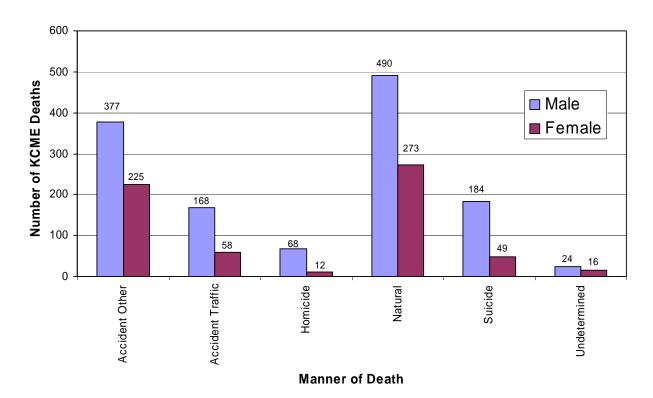


# Manner of Death in 2005 King County Medical Examiner General Cases

Table 1-3	Sex	/ Manner	of Deat	h / King	County I	Medical I	Examiner / 2	2005
SEX		I	MANNER	OF DEATH	1		_	
JLX	А	Т	Н	Ν	S	U	TOTAL	%
Male	377	168	68	490	184	24	1311	67%
Female	225	58	12	273	49	16	633	33%
Totals	602	226	80	763	233	<b>41</b> <sup>9</sup>	<b>1,945</b> <sup>10</sup>	100%



Sex / Manner of Death / King County Medical Examiner / 2005<sup>11</sup>



<sup>&</sup>lt;sup>9</sup> Includes one fetal death of undetermined sex.

<sup>&</sup>lt;sup>10</sup> Includes one fetal death of undetermined sex.

<sup>&</sup>lt;sup>11</sup> Does not include one fetal death of undetermined sex.

King County Medical Examiner's Office – 2005 Annual Report

		N	ANNER	OF DEAT	Н				
AGE / SEX	А	Т	Н	Ν	S	U	Sub- Total	TOTAL	%
Under 1 year								41	2.1%
Male	0	1	2	16	0	5	24		
Female	2	2	1	6	0	6	17		
1 - 5 years								12	0.6%
Male	5	0	0	3	0	1	9		
Female	2	0	0	1	0	0	3		
6-12 years								7	0.4%
Male	0	3	0	1	0	0	4		
Female	2	1	0	0	0	0	3		
13-15 years								6	0.3%
Male	0	1	1	2	0	0	4		
Female	1	0	0	1	0	0	2		
16-19 years								43	2.2%
Male	3	15	6	2	7	0	33		
Female	1	2	3	3	1	0	10		
20- 29 years								166	8.5%
Male	36	42	16	9	20	2	125		
Female	11	14	0	11	4	1	41		
30- 39 years								194	10.0%
Male	45	21	12	26	36	6	146		
Female	20	2	2	16	6	2	48		
40- 49 years				_				303	15.6%
Male	56	32	21	76	43	3	231		
Female	24	7	3	23	14	1	72		
50- 59 years				_				374	19.2%
Male	79	14	5	129	37	3	267		
Female	33	6	2	47	15	4	107		
60 - 69 years								237	12.2%
Male	29	7	3	112	15	2	168		
Female	20	6	0	39	3	1	69		
70 - 79 years		·						233	12.0%
Male	43	17	1	67	13	2	143		
Female	33	8	0	46	3	0	90	0.10	40.001
80 - 89 years		10	•	~~~		•		240	12.3%
Male	60	13	0	38	13	0	124		
Female	44	8	0	60	3	1	116		4 501
90+ years	<u> </u>	•	4	•	•	•		88	4.5%
Male	21	2	1	9	0	0	33		
Female	32	2	1	20	0	0	55	4	0.454
Unknown	•		•			•		1	0.1%
Male	0	0	0	0	0	0	0		
Female	0	0	0	0	0	0	0		
	0	0	0	0	0	1	1		
Totals	602	226	80	763	233	41		1,945	100%

## Table 1-4 Age / Sex / Manner of Death / King County Medical Examiner / 2005

Page 13

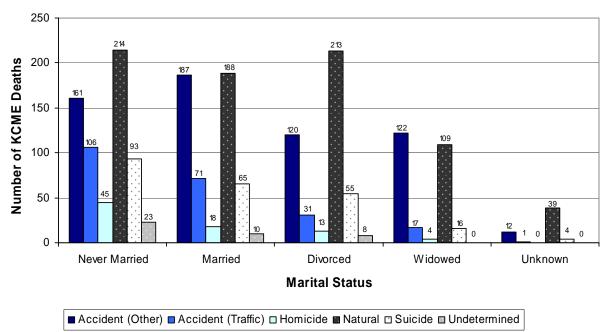
	MANNER OF DEATH									
RACE / SEX	А	Т	Н	Ν	S	U	Sub- Total	TOTAL	%	
White								1568	80.6%	
Male	312	143	36	384	158	19	1052			
Female	195	44	7	216	45	9	516			
Black								206	10.6%	
Male	37	13	24	64	9	3	150			
Female	16	2	2	32	2	2	56			
Asian								104	5.3%	
Male	15	9	6	22	13	2	67			
Female	7	7	1	18	2	2	37			
Native American								40	2.1%	
Male	9	3	2	11	0	0	25			
Female	5	2	2	6	0	0	15			
Other								26	1.3%	
Male	4	0	0	9	4	0	17			
Female	2	3	0	1	0	3	9			
Unknown								1	0.1%	
Male	0	0	0	0	0	0	0			
Female	0	0	0	0	0	0	0			
Unknown	0	0	0	0	0	1	1			
Totals	602	226	80	763	233	41		1,945	100%	

## Table 1-5 Race / Sex / Manner of Death / King County Medical Examiner / 2005

MARITAL STATUS /		М	ANNER	OF DEAT	н				
SEX	А	Т	Н	Ν	S	U	Sub- Total	TOTAL	%
Never Married	161	106	45	214	93	23		642	33.0%
Male	118	82	39	155	77	14	485		
Female	43	24	6	59	16	8	156		
Unknown	0	0	0	0	0	1	1		
Married	187	71	18	188	65	10		539	27.7%
Male	129	54	15	126	52	5	381		
Female	58	17	3	62	13	5	158		
Divorced	120	31	13	213	55	8		440	22.6%
Male	72	23	11	148	43	5	302		
Female	48	8	2	65	12	3	138		
Widowed	122	17	4	109	16	0		268	13.8%
Male	49	8	3	31	9	0	100		
Female	73	9	1	78	7	0	168		
Unknown	12	1	0	39	4	0		56	2.9%
Male	9	1	0	29	3	0	42		
Female	3	0	0	10	1	0	14		
Totals	602	226	80	763	233	41		1,945	100%

## Table 1-6 Marital Status / Sex / Manner of Death / King County Medical Examiner / 2005





Page 16

King County Medical Examiner's Office – 2005 Annual Report

Table 1-7         Month / Manner of Death / King County Medical Examiner / 2005									
		М	ANNER	OF DEA	ГН				
MONTH	А	Т	Н	Ν	S	U	Total	%	
Prior to 2004	0	0	2	0	0	3	5	0.3%	
2004	2	1	0	6	1	1	11	0.5%	
January	52	20	6	66	17	5	166	8.5%	
February	56	15	5	70	14	4	164	8.4%	
March	45	16	7	70	23	6	167	8.6%	
April	42	19	7	58	19	4	149	7.7%	
May	48	17	7	53	22	2	149	7.7%	
June	44	22	14	55	17	3	155	8.0%	
July	51	25	3	79	23	6	187	9.6%	
August	58	14	6	52	16	2	148	7.6%	
September	56	24	8	56	22	1	167	8.6%	
October	46	26	5	63	13	2	155	8.0%	
November	39	10	6	74	18	1	148	7.6%	
December	63	17	4	61	28	1	174	8.9%	
Totals	602	226	80	763	233	41	1,945	100%	



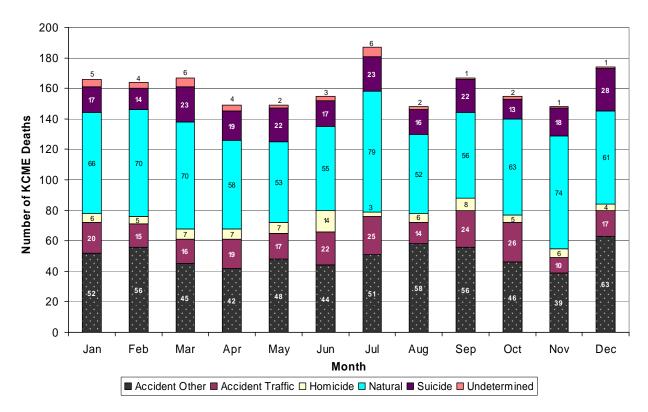


Table 1-8	Neare	Nearest Incorporated City to the Fatal Incident / KCME / 2005 <sup>12</sup>										
		MANI	NER OF D	EATH								
CITY	А	Т	Н	S	U	TOTAL	%					
Algona	1	2	0	10	0	13	1.1%					
Auburn	31	13	1	0	1	46	3.9%					
Beaux Arts	0	0	0	0	0	0	0%					
Bellevue	26	2	3	11	0	42	3.5%					
Black Diamond	0	0	0	0	0	0	0%					
Bothell	7	0	1	2	0	10	0.8%					
Burien	9	6	6	6	3	30	2.5%					
Carnation	1	0	0	0	0	1	0.1%					
Clyde Hill	0	0	0	0	0	0	0%					
Covington	0	0	0	1	0	1	0.1%					
Des Moines	7	2	1	4	1	15	1.3%					
Duvall	2	0	0	1	0	3	0.3%					
Enumclaw	7	3	0	0	1	11	0.9%					
Fall City	0	1	0	1	0	2	0.2%					
Federal Way	21	11	7	7	0	46	3.9%					
Hunt's Point	0	0	0	0	0	0	0%					
Issaquah	10	8	1	3	0	22	1.8%					
Kenmore	3	1	1	2	2	9	0.8%					
Kent	23	11	7	14	2	57	4.8%					
Kirkland	12	1	1	6	2	22	1.8%					
Lake Forest Park	2	0	0	3	0	5	0.4%					
Maple Valley	1	5	0	1	0	7	0.6%					
Medina	5	0	0	0	0	5	0.4%					
Mercer Island	0	0	0	1	1	2	0.2%					
Milton	0	0	0	0	0	0	0%					
Newcastle	1	0	0	1	0	2	0.2%					
Normandy Park	1	0	0	0	0	1	0.1%					
North Bend	2	5	0	3	0	10	0.8%					
Pacific	2	0	0	1	0	3	0.3%					
Ravensdale	0	1	1	0	0	2	0.2%					

Table 1 0 Neer () - E - 1 - 1-

<sup>12</sup> Table does not include cases where manner of death is classified "Natural."

		MANI	NER OF D				
CITY	А	Т	Н	S	U	Total	%
Redmond	12	3	1	6	0	22	1.8%
Renton	29	12	3	12	2	58	4.9%
Sammamish	2	2	0	0	0	4	0.3%
SeaTac	1	2	2	3	1	9	0.8%
Seattle	264	50	30	95	18	457	38.7%
Shoreline	9	2	1	5	1	18	1.5%
Skykomish	1	1	0	3	0	5	0.4%
Snoqualmie	3	3	0	0	0	6	0.5%
Tukwila	5	2	3	3	1	14	1.2%
Vashon Island	1	0	0	2	0	3	0.3%
Woodinville	3	3	0	3	0	9	0.8%
Yarrow Point	0	0	0	0	0	0	0%
Unincorporated King County	0	0	2	0	0	2	0.2%
Outside of King County	97	74	8	23	4	206	17.4%
Unknown Location	1	0	0	0	1	2	0.2%
Totals	602	226	80	233	41	1,182	100%

## Table 1-8 Nearest Incorporated City to the Fatal Incident / KCME / 2005 (continued)

### King County Medical Examiner's Office – 2005 Annual Report

# **OUT OF COUNTY CASES IN 2005**

Within King County are several major 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 2005 there were 206 deaths (17%, 206/1182) where the incident (excluding deaths classified as "Natural") occurred out of county. Table 1-9 displays these deaths by incident location and manner.

		MANN	NER OF D	EATH		
INCIDENT LOCATION	А	Т	Н	S	U	TOTAL
Alaska	2	0	0	1	0	3
Idaho	1	1	1	0	0	3
Montana	2	1	0	1	0	4
Oregon	1	0	0	0	0	1
Other States	2	0	0	0	0	2
Washington						
Kitsap County	11	5	1	2	1	20
Pierce County	14	4	0	1	2	21
Skagit County	6	7	0	0	0	13
Snohomish County	19	15	3	9	1	47
Thurston County	4	8	0	1	0	13
Other WA Counties	31	31	3	8	0	73
Washington Sub-Total						187
Out of Country	4	2	0	0	0	6
Totals	97	74	8	23	4	206

<sup>&</sup>lt;sup>13</sup>Table does not include cases where manner of death is classified as "Natural."

Page 20

# 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 65%  $(8470/12,937^{1})$  of the deaths that occurred in 2005 in King County were reported to the Medical Examiner. The Medical Examiner's Office, however, did not assume responsibility for certification in all of these deaths. In about 77% (6,525/8,470) 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 15% (1,945/12,937) of deaths that occurred in King County in 2005<sup>2</sup>.

over time. More detailed analysis of 2005 data is provided in separate sections for each manner

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

of death (Accident, Homicide, Natural, Suicide, Traffic, and Undetermined).

<sup>&</sup>lt;sup>1</sup>Death certificates filed in King County, (Vital Statistics, Public Health - Seattle & King County, 2005).

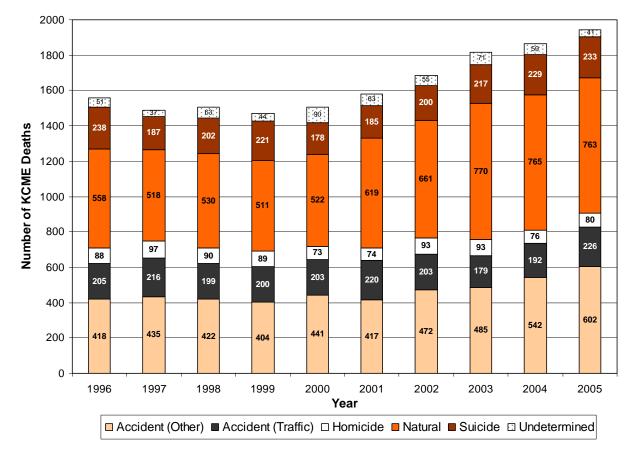
<sup>&</sup>lt;sup>2</sup>Does not include non-human remains or anthropology/contract cases.

					••••••					
MANNER OF DEATH	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
	-	-	_	-	-	-	-	_	-	
Accident (Other)	418	435	422	404	441	417	472	485	542	602
Accident (Traffic)	205	216	199	200	203	220	203	179	192	226
Homicide	88	97	90	89	73	74	93	93	76	80
Natural	558	518	530	511	522	619	661	770	765	763
Suicide	238	187	202	221	178	185	200	217	229	233
Undetermined	51	37	63	44	90	63	55	71	59	41
Totals	1,558	1,490	1,506	1,469	1,507	1,578	1,684	1,815	1,863	1,945

Table 2-1	Comparison of Manners of Death / KCME / 1996 - 2005
-----------	---

Table 2-2Comparison of Manners of Death as Percentage of Total AnnualMedical Examiner Cases / KCME / 1996 - 2005

MANNER OF DEATH	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
	%	%	%	%	%	%	%	%	%	%
Accident (Other)	26.8	29.2	28.0	27.5	29.3	26.5	28.0	26.8	29.1	31.0
Accident (Traffic)	13.2	14.5	13.2	13.6	13.5	13.9	12.1	9.9	10.3	11.6
Homicide	5.6	6.5	6.0	6.1	4.8	4.7	5.5	5.1	4.1	4.1
Natural	35.8	35.2	35.2	34.8	34.6	39.2	39.3	42.4	41.0	39.2
Suicide	15.3	12.6	13.4	15.0	11.8	11.7	11.9	11.9	12.3	12.0
Undetermined	3.3	2.5	4.2	3.0	6.0	4.0	3.2	3.9	3.2	2.1
Totals	1,558	1,490	1,506	1,469	1,507	1,578	1,684	1,815	1,863	1,945



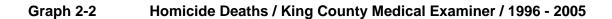
Graph 2-1 Comparison of Manners of Death / King County Medical Examiner / 1996 - 2005

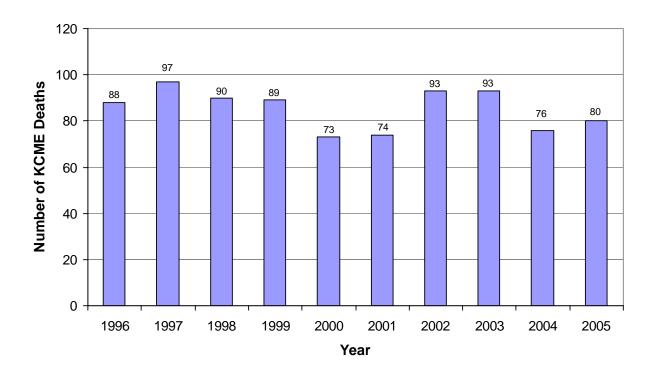
TEN YEAR PERSPECTIVE

## King County Medical Examiner's Office - 2005 Annual Report

			spectra		mondar		37 1.01		200	,
METHOD USED	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Blunt Force (#)	11	16	10	9	12	14	14	14	10	12
Blunt Force (%)	13%	16%	11%	10%	16%	19%	15%	15%	13%	15%
Firearms (#)	51	52	55	52	39	43	53	52	46	47
Firearms (%)	58%	54%	61%	58%	53%	58%	57%	56%	61%	59%
Hom. Violence (#)	0	0	0	0	0	0	2	3	3	2
Hom. Violence (%)	0%	0%	0%	0%	0%	0%	2%	3%	4%	3%
Stabbing (#)	15	14	15	19	16	8	17	16	10	14
Stabbing (%)	17%	14%	16%	21%	22%	11%	18%	17%	13%	17%
Strangulation (#)	3	6	5	3	2	3	3	5	1	4
Strangulation (%)	3%	6%	6%	3%	3%	4%	3%	6%	1%	5%
Other (#)	8	9	5	6	4	6	4	3	6	1
Other (%)	10%	9%	6%	7%	6%	8%	5%	3%	8%	1%
Totals	88	97	90	89	73	74	93	93	76	80

#### Table 2-3 Ten-Year Perspective of Homicidal Methods / KCME / 1996 - 2005





TEN YEAR PERSPECTIVE

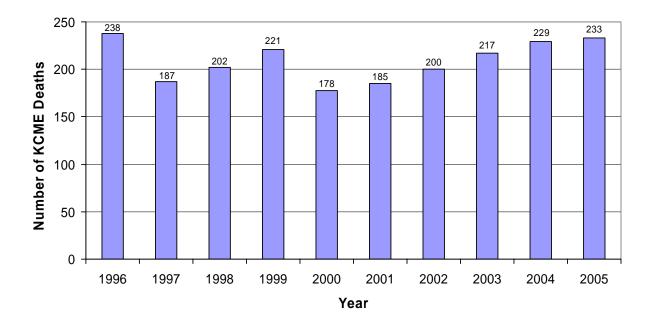
Page 24

## King County Medical Examiner's Office - 2005 Annual Report

	Ten Tear Terspective of Suicidal Injury Modes / (CML / 1990 - 2003									
INJURY MODE	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Asphyxia / Plastic Bag	8	3	6	2	6	9	5	8	7	5
Burns / Fire / Heat	1	0	1	3	1	1	2	1	1	3
Carbon Monoxide	16	14	14	11	5	9	17	12	8	13
Drowning	1	4	3	2	0	1	2	4	5	0
Drugs / Poisons	37	23	29	35	31	21	23	35	41	39
Firearms	112	99	95	106	87	85	98	101	95	96
Hanging	40	28	37	39	31	38	32	36	44	42
Incised Wounds / Stabbing	3	6	3	7	7	9	4	6	8	9
Jumped	17	10	9	15	8	11	14	11	15	22
Other	3	0	5	1	2	1	3	3	5	4
Totals	238	187	202	221	178	185	200	217	229	233

Table 2-4	Ten Year Perspective of Suicidal Injury Modes / KCME / 1996 - 2005

## Graph 2-3 Suicide Deaths / King County Medical Examiner / 1996 – 2005



Page 26

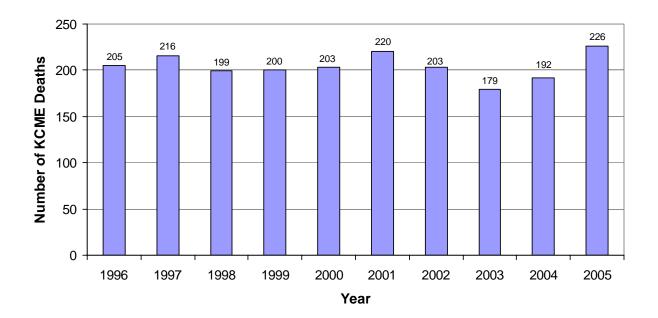
King County Medical Examiner's Office - 2005 Annual Report

		i atam	<b>,</b>							
CIRCUMSTANCES	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Vehicle Driver	102	88	85	97	90	93	99	75	78	99
Vehicle Passenger	39	58	47	47	52	56	46	36	54	47
Vehicle (Undetermined)	0	0	0	0	2	2	1	2	1	1
Bicyclist	4	9	6	6	8	7	3	3	5	6
Motorcycle Driver	13	14	18	17	9	21	17	21	23	33
Motorcycle Passenger	2	2	2	1	4	0	0	3	0	3
Pedestrian	42	39	40	32	32	40	34	38	30	36
Other	3	6	1	0	6	1	3	1	1	1
Totals	205	216	199	200	203	220	203	179	192	226

Table 2-5	<b>Traffic Fatality</b>	<b>Circumstances</b>	/ KCME / 1996 -	2005



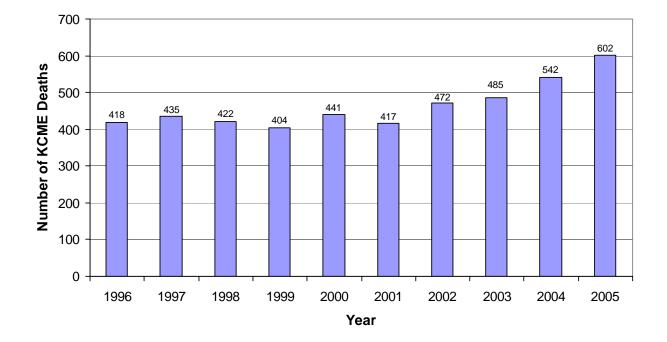
Traffic Fatalities / King County Medical Examiner / 1996 – 2005



Page 27
---------

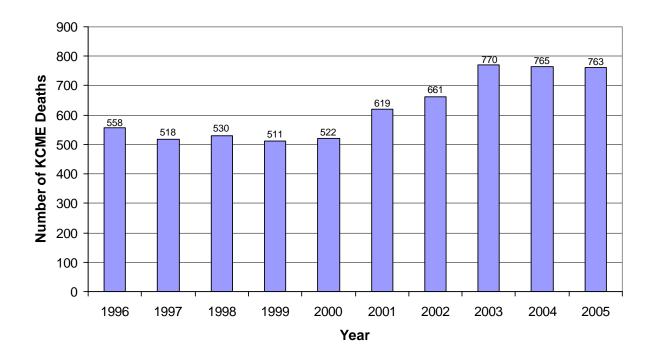
# Table 2-6Ten Year Perspective of Non-Traffic Accidental Death<br/>Circumstances / KCME / 1996 - 2005

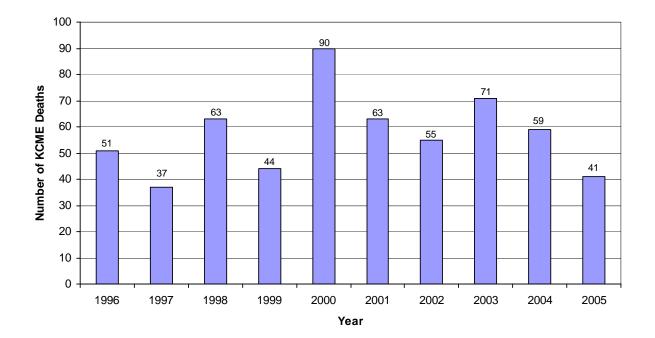
CIRCUMSTANCES	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Aircraft	2	3	1	3	3	1	0	0	2	3
Asphyxia	8	2	11	7	7	10	7	4	2	9
Aspiration	3	5	4	1	7	5	5	9	8	10
Blunt Force / Crushing	4	3	8	0	11	7	12	9	8	10
Burns / Fire	13	25	25	25	23	29	22	19	24	26
Carbon Monoxide	5	2	0	0	1	5	0	1	3	4
Complication of Therapy	3	10	10	11	16	17	24	22	18	45
Drowning	28	34	24	23	23	35	32	27	17	19
Drugs / Poisons	165	156	179	164	177	122	173	160	211	216
Electrocution	2	0	1	0	3	1	2	0	2	1
Explosion	2	2	2	2	0	1	0	0	4	1
Fall	135	165	138	147	149	157	171	207	213	230
Firearms	0	1	0	0	0	0	0	1	1	2
Hanging	2	1	0	0	4	0	1	0	2	2
Hypothermia	6	3	5	0	0	8	6	2	2	4
Struck by Object	8	7	6	6	2	5	2	8	7	1
Struck by Train	5	1	1	0	4	3	2	0	3	1
Vehicular Non-Traffic	5	7	3	8	6	6	8	14	10	8
Other	22	8	5	7	5	5	5	2	5	10
Totals	418	435	422	404	441	417	472	485	542	602



Graph 2-5 Accidental Deaths / King County Medical Examiner / 1996 – 2005

Graph 2-6 Natural Deaths / King County Medical Examiner / 1996 – 2005







Page 30

# Manner: ACCIDENT

The Medical Examiner certified 602 deaths as non-traffic accidents for the calendar year 2005. The largest group of accidental deaths was those who died as a result of a fall, 38% (230/602). Of the 230 deaths attributed to injury sustained in falls, 80% (185/230) 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 36% (216/602). By age, the largest percentage of these accidental drug deaths, 32% (68/216), occurred among adults between 50-59 years. The second largest group, 26% (57/216), included adults between the ages of 40-49. Twenty-one percent (45/216) were adults between 30-39 years of age. Four accidental drug deaths were between the ages of 16-19 years and one accidental drug death occurred in an infant under one year of age.

The 2005 drug rate number (216) represents a 2% increase compared to the 211 accidental drug deaths in 2004. A more detailed discussion of these deaths is presented in the section "Death Due to Drugs and Poisons on page 83 and 84."

Twenty-six (26) deaths resulted from fire or thermal injury, an increase from 24 in 2004 and 19 in 2003. Of the 26 fire-related deaths, 58% (15/26) 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 19 drowning deaths in 2005, as compared to 17 drowning deaths in 2004, 27 in 2003, and 32 in 2002.

A comment is necessary to clarify the cause of death listed as "aspiration." This type of death results from a person choking on a foreign object, often a bolus of food while eating. In 2005 there were ten (10) deaths due to aspiration of a foreign body compared to eight (8) in 2004, nine (9) in 2003, and five (5) in 2002.

Of the 602 accidental deaths in 2005, 16% (97/602) 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 come under the jurisdiction of the King County Medical Examiner

A special subset of deaths designated "Complication of Therapy" has been incorporated in the statistical analyses of Accidental deaths but 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 nonjudgmental 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.

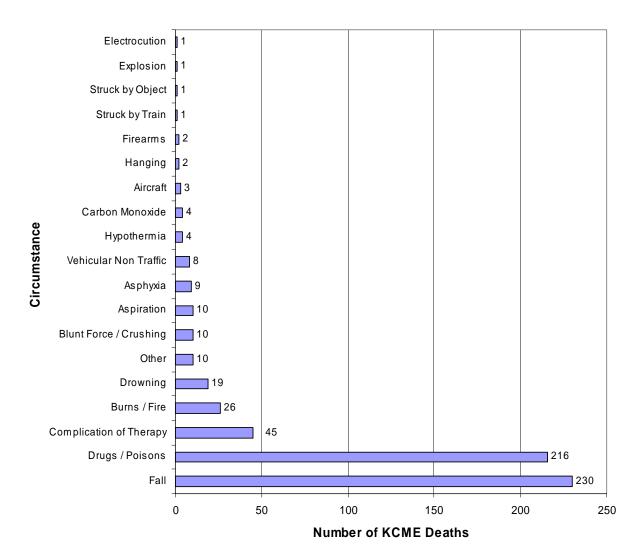
Complication of Therapy deaths have increased in the previous ten years, from three (3) in 1996 to 45 in 2005 (see table on p. 27, Ten Year Perspective of Non-Traffic Accidental Death Circumstances) and can be divided into three general categories: drug-related, surgical injury, and consequence of surgery. Drug related includes anaphylactic/allergic reaction, hemorrhagic complications of anticoagulants, anesthesia related events, and other adverse drug reactions. Surgical injury 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 a surgery. Consequence of surgery refers to such things as pulmonary embolism/deep venous thrombosis and wound infections.

For 2005, there were 45 deaths 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 significant natural disease).

There may be multiple reasons for this apparent upward trend in the incidence of Complications of Therapy over the last ten years but the most important factor 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. 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 be resulting in a greater percentage of these cases being reported to the medical examiner.

The KCMEO will continue to track these cases and provide more detailed analyses of the data in future editions of the Annual Report.

#### Graph 3-1 Circumstances of Accidental Death / King County Medical Examiner / 2005



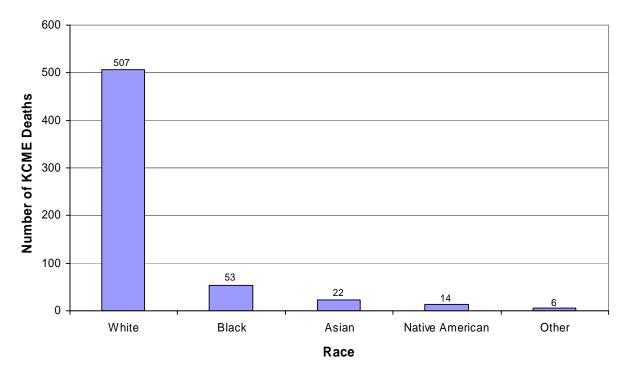
### Table 3-1 Circumstances of Accidental Death / Race / Sex / KCME / 2005

CIRCUMSTANCES / SEX	WHITE	BLACK	ASIAN	NATIVE AMERICAN	OTHE R	SUB TOTAL	TOTAL
Aircraft	1	1	1	0	0		3
Male	1	1	1	0	0	3	
Female	0	0	0	0	0	0	
Asphyxia (compressional / positional / mechanical)	8	1	0	0	0		9
Male	5	1	0	0	0	6	
Female	3	0	0	0	0	3	
Aspiration	10	0	0	0	0		10
Male	4	0	0	0	0	4	
Female	6	0	0	0	0	6	
Blunt Force / Crushing	7	1	1	1	0		10
Male	5	1	1	1	0	8	
Female	2	0	0	0	0	2	
Burns / Fire	25	1	0	0	0		26
Male	17	1	0	0	0	18	
Female	8	0	0	0	0	8	
Carbon Monoxide	3	1	0	0	0		4
Male	2	1	0	0	0	3	
Female	1	0	0	0	0	1	
Complication of Therapy	35	5	4	1	0		45
Male	15	1	1	0	0	17	
Female	20	4	3	1	0	28	
Drowning	16	1	1	1	0		19
Male	13	1	0	1	0	15	
Female	3	0	1	0	0	4	
Drugs / Poisons	167	35	2	10	2		216
Male	120	24	1	6	2	153	
Female	47	11	1	4	0	63	
Electrocution	0	0	0	0	1		1
Male	0	0	0	0	1	1	
Female	0	0	0	0	0	0	
Explosion	1	0	0	0	0		1
Male	1	0	0	0	0	1	
Female	0	0	0	0	0	0	
Fall	207	6	13	1	3		230
Male	109	5	11	1	1	127	
Female	98	1	2	0	2	103	

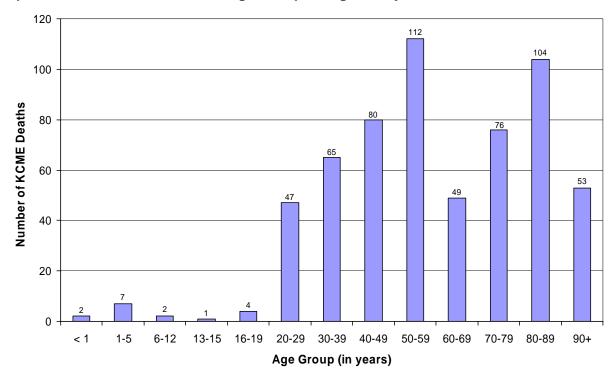
RACE										
CIRCUMSTANCES / SEX	WHITE	BLACK	ASIAN	NATIVE AMERICAN	OTHE R	SUB TOTAL	TOTAL			
Firearms	2	0	0	0	0		2			
Male	2	0	0	0	0	2				
Female	0	0	0	0	0	0				
Hanging	2	0	0	0	0		2			
Male	0	0	0	0	0	0				
Female	2	0	0	0	0	2				
Hypothermia	4	0	0	0	0		4			
Male	3	0	0	0	0	3				
Female	1	0	0	0	0	1				
Struck by Object	1	0	0	0	0		1			
Male	0	0	0	0	0	0				
Female	1	0	0	0	0	1				
Struck by Train	1	0	0	0	0		1			
Male	1	0	0	0	0	1				
Female	0	0	0	0	0	0				
Vehicular Non-Traffic	7	1	0	0	0		8			
Male	5	1	0	0	0	6				
Female	2	0	0	0	0	2				
Other	10	0	0	0	0		10			
Male	9	0	0	0	0	9				
Female	1	0	0	0	0	1				
Totals	507	53	22	14	6		602			
Percent	84%	9%	4%	2%	1%		100%			

#### Table 3-1 Circumstances of Accidental Death / Race / Sex / KCME / 2005 (continued)





Graph 3-3 Accidental Deaths / Age Group / King County Medical Examiner / 2005



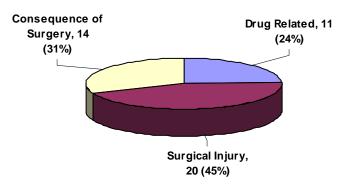
AGE GROUP (YEARS)															
CIRCUMSTANCES / SEX	< 1	1 to 5	6 to 12	13 to 15	16 to 19	20 to 29	<b>30</b> to <b>39</b>	<b>40</b> to <b>49</b>	50 to 59	60 to 69	<b>70</b> to <b>79</b>	80 to 89	90 +	SUB TOTAL	TOTAL
Aircraft	0	0	0	0	0	2	0	1	0	0	0	0	0		3
Male	0	0	0	0	0	2	0	1	0	0	0	0	0	3	
Female	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Asphyxia (compress/positional/mech)	0	1	0	0	0	2	0	2	1	0	1	0	2		9
Male	0	1	0	0	0	2	0	1	1	0	1	0	0	6	
Female	0	0	0	0	0	0	0	1	0	0	0	0	2	3	
Aspiration	1	0	0	0	0	0	0	0	1	3	1	3	1		10
Male	0	0	0	0	0	0	0	0	1	1	1	0	1	4	
Female	1	0	0	0	0	0	0	0	0	2	0	3	0	6	
Blunt Force / Crushing	0	0	0	0	0	1	3	1	2	0	0	3	0		10
Male	0	0	0	0	0	0	3	1	2	0	0	2	0	8	
Female	0	0	0	0	0	1	0	0	0	0	0	1	0	2	
Burns / Fire	0	0	0	0	0	0	1	3	7	4	8	3	0		26
Male	0	0	0	0	0	0	0	3	6	3	4	2	0	18	
Female	0	0	0	0	0	0	1	0	1	1	4	1	0	8	
Carbon Monoxide	0	0	0	0	0	1	1	1	0	1	0	0	0		4
Male	0	0	0	0	0	0	1	1	0	1	0	0	0	3	
Female	0	0	0	0	0	1	0	0	0	0	0	0	0	1	
Complication of Therapy	0	0	0	0	0	2	2	4	14	8	8	5	2		45
Male	0	0	0	0	0	0	0	1	8	4	2	2	0	17	
Female	0	0	0	0	0	2	2	3	6	4	6	3	2	28	
Drowning	0	2	1	0	0	2	5	3	4	0	2	0	0		19
Male	0	1	0	0	0	2	4	3	3	0	2	0	0	15	
Female	0	1	1	0	0	0	1	0	1	0	0	0	0	4	
Drugs / Poisons	1	0	0	0	4	35	45	57	68	4	2	0	0		216
Male	0	0	0	0	3	29	31	38	48	3	1	0	0	153	
Female	1	0	0	0	1	6	14	19	20	1	1	0	0	63	
Electrocution	0	0	0	0	0	0	0	0	0	0	0	0	1		1
Male	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
Female	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Explosion	0	0	0	0	0	0	0	0	1	0	0	0	0		1
Male	0	0	0	0	0	0	0	0	1	0	0	0	0	1	
Female	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Fall	0	0	0	0	0	1	3	6	11	24	53	86	46		230
Male	0	0	0	0	0	0	2	5	6	13	31	51	19	127	
Female	0	0	0	0	0	1	1	1	5	11	22	35	27	103	

# Table 3-2 Circumstances of Accidental Death / Age / Sex / KCME / 2005

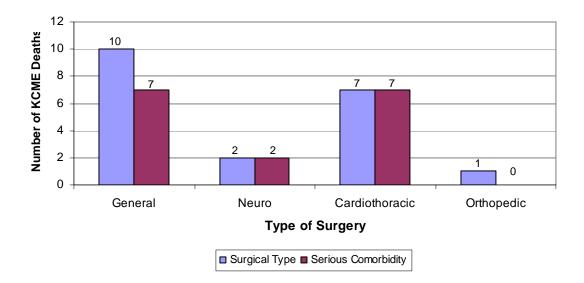
	AGE GROUP (YEARS)														
Circumstance / Sex	< 1	1 to 5	6 to 12	13 <sup>to</sup> 15	16 <sup>to</sup> 19	<b>20</b> to <b>29</b>	<b>30</b> to <b>39</b>	<b>40</b> to <b>49</b>	<b>50</b> to <b>59</b>	60 to 69	<b>70</b> to <b>79</b>	<b>80</b> to <b>89</b>	90 +	SUB TOTAL	TOTAL
Firearms	0	0	0	0	0	0	1	1	0	0	0	0	0		2
Male	0	0	0	0	0	0	1	1	0	0	0	0	0	2	
Female	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hanging	0	1	1	0	0	0	0	0	0	0	0	0	0		2
Male	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Female	0	1	1	0	0	0	0	0	0	0	0	0	0	2	
Hypothermia	0	0	0	0	0	0	0	0	1	2	0	1	0		4
Male	0	0	0	0	0	0	0	0	1	1	0	1	0	3	
Female	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
Struck by Object	0	0	0	0	0	0	0	0	0	0	0	0	1		1
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	1	1	
Struck by Train	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	
Vehicular Non-Traffic	0	1	0	1	0	1	2	0	1	0	0	2	0		8
Male	0	1	0	0	0	1	2	0	1	0	0	1	0	6	
Female	0	0	0	1	0	0	0	0	0	0	0	1	0	2	
Other	0	2	0	0	0	0	2	1	1	2	1	1	0		10
Male	0	2	0	0	0	0	1	1	1	2	1	1	0	9	
Female	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
Totals	2	7	2	1	4	47	65	80	112	49	76	104	53		602
Percent	0.3	1.2	0.3	0.2	0.7	7.8	10.8	13.3	18.6	8.1	12.6	17.3	8.8		100%

# Table 3-2 Circumstances of Accidental Death / Age / Sex / KCME / 2005 (continued)

#### Graph 3-4 Complication of Therapy / General Categories / KCME / 2005



#### Graph 3-5 Complication of Therapy / Surgical Injuries / KCME / 2005



	SEX					
CIRCUMSTANCES	MALE	FEMALE	TOTAL			
Aircraft	3	0	3			
Asphyxia (compressional / positional / mechanical)	6	3	9			
Aspiration	4	6	10			
Blunt Force / Crushing	8	2	10			
Burns / Fire	18	8	26			
Carbon Monoxide	3	1	4			
Complication of Therapy	17	28	45			
Drowning	15	4	19			
Drugs / Poisons	153	63	216			
Electrocution	1	0	1			
Explosion	1	0	1			
Fall	127	103	230			
Firearms	2	0	2			
Hanging	0	2	2			
Hypothermia	3	1	4			
Struck by Object	0	1	1			
Struck by Train	1	0	1			
Vehicular Non-Traffic	6	2	8			
Other	9	1	10			
Totals	377	225	602			
Percent	63%	37%	100%			

# Table 3-3 Circumstances of Accidental Death / Sex / KCME / 2005

TESTED										
CIRCUMSTANCES	TESTED POSITIVE	TESTED NEGATIVE	NOT TESTED	TOTAL						
Aircraft	0	3	0	3						
Asphyxia (compressional/ positional / mechanical)	1	7	1	9						
Aspiration	2	5	3	10						
Blunt Force / Crushing	1	6	3	10						
Burns / Fire	11	9	6	26						
Carbon Monoxide	1	3	0	4						
Complication of Therapy	0	19	26	45						
Drowning	6	12	1	19						
Drugs / Poisons	55	152	9	216						
Electrocution	0	1	0	1						
Explosion	0	1	0	1						
Fall	75	8	147	230						
Firearms	1	1	0	2						
Hanging	0	2	0	2						
Hypothermia	2	2	0	4						
Struck by Object	0	1	0	1						
Struck by Train	0	1	0	1						
Vehicular Non-Traffic	1	5	2	8						
Other	1	8	1	10						
Totals	157	246	199	602						
Percent	26%	41%	33%	100%						

# Table 3-4 Circumstances of Accidental Death / Blood Alcohol Results / KCME / 2005

Page 42

## Manner: HOMICIDE

The Medical Examiner classifies a death as a homicide when the death results from injuries inflicted by another person. The prosecuting attorney may either charge the person responsible for the injuries with murder or manslaughter, or decline to file charges. During 2005, the Medical Examiner classified 80 deaths as homicide. This number represents 4% (80/1,945) of the Medical Examiner death investigations for the calendar year 2005. Of these 80 homicides, 72 were the result of incidents that occurred within King County. For comparison, there were 76 homicides investigated in 2004, of which 68 were incidents in King County. In 2003, 77 of 93 homicides occurred in King County.

The data reflect the weapons or mechanisms responsible for the homicidal deaths in 2005. Firearms were responsible for 59% (47/80), compared to 2004, when 61% (46/76) were due to firearms. Stabbing by a knife or other sharp-edged instrument caused eighteen percent (14/80) of deaths of homicide victims. Blunt force injuries were responsible for fifteen percent (12/80) of the 2005 homicide deaths. There were four (4) deaths due to strangulation/asphyxia and one (1) death was due to other homicidal means.

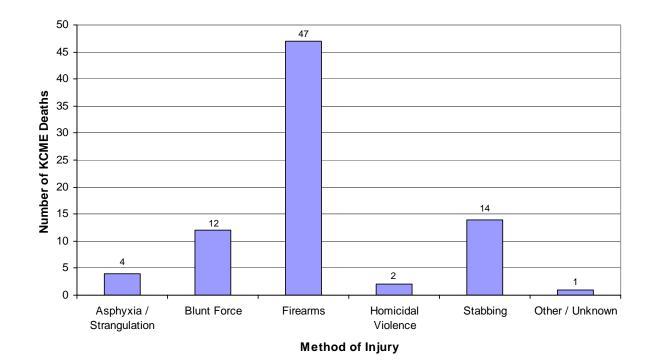
In 2005, there were three homicide victims under five years of age. There were no homicide victims between 6 - 12 years of age and there was one homicide victim was between 13 - 15 years of age. Nine homicide victims were between the ages of 16 and 19 years.

Examining the racial distribution of victims of homicide, 32% (26/80) of the victims were black, compared to 2004, when 26% (20/76) of the victims were black. Whites, while representing 78% of the population, made up 54% (43/80) of the homicide victims. The remaining 14% of homicide victims (11/80) included Asian/Pacific Islanders, Native American, and Other Race. As indicated on page 5, 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 85% (68/80) and women 15% (12/80) of the homicide victims in 2005. The majority of victims, 68% (54/80), were between the ages of 20 and 49 years. Young people, 19 years old and under, comprised 16% (13/80) of the homicide victims. For comparison, this younger age group represented 24% (18/76) in the year 2004. Ninety-two percent (74/80) of the victims were tested for the presence of alcohol. Of those tested 34% (25/74) showed alcohol present at the time of death.

Of the 80 homicidal deaths in 2005, 90% (72/80) of the fatal incidents occurred within King County, and of these deaths, 30 (42%) occurred within the city limits of Seattle. In eight of the 80 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.



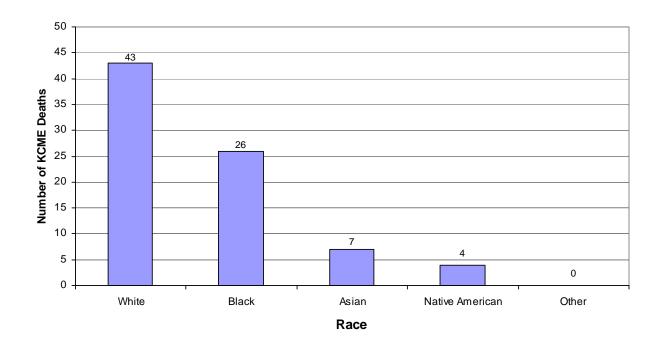
Graph 4-1 Homicide Injury Methods / King County Medical Examiner / 2005

Table 4-1 Homicide Methods / Race / Sex / King County Medical Examiner / 2005									
			RACE			_			
CIRCUMSTANCES / SEX	WHITE	BLACK	ASIAN	NATIVE AMERICAN	OTHER	SUB TOTAL	TOTAL		
Asphyxia / Strangulation	3	0	0	1	0		4		
Male	1	0	0	1	0	2			
Female	2	0	0	0	0	2			
Blunt Force	6	1	2	3	0		12		
Male	5	1	1	1	0	8			
Female	1	0	1	2	0	4			
Firearms	25	18	4	0	0		47		
Male	23	18	4	0	0	45			
Female	2	0	0	0	0	2			
Homicidal Violence	2	0	0	0	0		2		
Male	0	0	0	0	0	0			
Female	2	0	0	0	0	2			
Stabbing	6	7	1	0	0		14		
Male	6	5	1	0	0	12			
Female	0	2	0	0	0	2			
Other / Unknown	1	0	0	0	0		1		
Male	1	0	0	0	0	1			
Female	0	0	0	0	0	0			
Totals	43	26	7	4	0		80		
Percent	54%	32%	9%	5%	0%		100%		

#### Table 4-1 Homicide Methods / Race / Sex / King County Medical Examiner / 2005

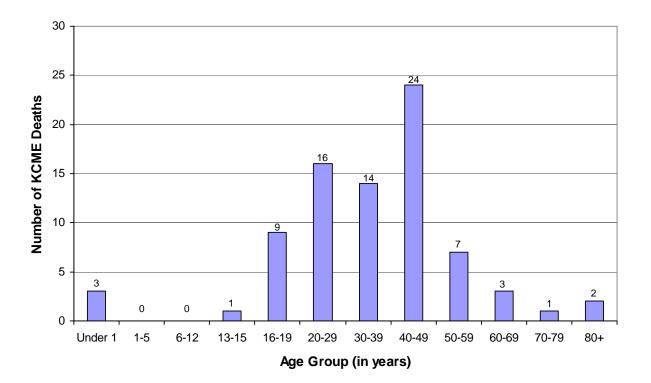
	AGE GROUP (YEARS)														
METHOD / SEX	<b>v</b> 1	1 to 5	6 to 12	13 to 15	16 to 19	<b>20</b> to <b>29</b>	<b>30</b> to <b>39</b>	<b>40</b> to <b>49</b>	<b>50</b> to <b>59</b>	60 to 69	<b>70</b> to <b>79</b>	<b>80</b> to <b>89</b>	90 +	SUB TOTAL	TOTAL
Asphyxia / Strangulation	0	0	0	0	0	1	1	2	0	0	0	0	0		4
Male	0	0	0	0	0	1	0	1	0	0	0	0	0	2	
Female	0	0	0	0	0	0	1	1	0	0	0	0	0	2	
Blunt Force	3	0	0	0	0	0	1	4	1	1	0	0	2		12
Male	2	0	0	0	0	0	1	3	0	1	0	0	1	8	
Female	1	0	0	0	0	0	0	1	1	0	0	0	1	4	
Firearms	0	0	0	1	6	14	9	11	4	2	0	0	0		47
Male	0	0	0	1	6	14	9	10	3	2	0	0	0	45	
Female	0	0	0	0	0	0	0	1	1	0	0	0	0	2	
Homicidal Violence	0	0	0	0	2	0	0	0	0	0	0	0	0		2
Male	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Female	0	0	0	0	2	0	0	0	0	0	0	0	0	2	
Stabbing	0	0	0	0	1	1	3	7	1	0	1	0	0		14
Male	0	0	0	0	0	1	2	7	1	0	1	0	0	12	
Female	0	0	0	0	1	0	1	0	0	0	0	0	0	2	
Other / Unknown	0	0	0	0	0	0	0	0	1	0	0	0	0		1
Male	0	0	0	0	0	0	0	0	1	0	0	0	0	1	
Female	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals	3	0	0	1	9	16	14	24	7	3	1	0	2		80
Percent	4%	0%	0%	1%	11%	20%	18%	30%	9%	4%	1%	0%	2%		100%

# Table 4-2 Homicide Methods / Age / Sex / King County Medical Examiner / 2005



Graph 4-2 Homicide Deaths / Race / King County Medical Examiner / 2005





METHOD			< 16	16 <sup>to</sup> 19	<b>20</b> to <b>29</b>	<b>30</b> to <b>39</b>	<b>40</b> to <b>49</b>	50+	SUB TOTAL	TOTAL
Asphyxia /	White		0	0	0	1	2	0		3
Strangulation		Male	0	0	0	0	1	0	1	
		- emale	0	0	0	1	1	0	2	
	Nat. Americar	ı	0	0	1	0	0	0		1
		Male	0	0	1	0	0	0	1	
	F	emale	0	0	0	0	0	0	0	
Blunt Force	White		1	0	0	0	3	2		6
		Male	1	0	0	0	3	1	5	
	F	- emale	0	0	0	0	0	1	1	
	Black		1	0	0	0	0	0		1
		Male	1	0	0	0	0	0	1	
	F	- emale	0	0	0	0	0	0	0	
	Asian		0	0	0	0	0	2		2
		Male	0	0	0	0	0	1	1	
		- emale	0	0	0	0	0	1	1	
	Nat. Americar	า	1	0	0	1	1	0		3
		Male	0	0	0	1	0	0	1	
	F	- emale	1	0	0	0	1	0	2	
Firearms	White		0	2	3	6	9	5		25
		Male	0	2	3	6	8	4	23	
	F	- emale	0	0	0	0	1	1	2	
	Black		0	2	10	3	2	1		18
		Male	0	2	10	3	2	1	18	
	F	- emale	0	0	0	0	0	0	0	
	Asian		1	2	1	0	0	0		4
		Male	1	2	1	0	0	0	4	
		- emale	0	0	0	0	0	0	0	
	Nat. Americar	1	0	0	0	0	0	0		0
		Male	0	0	0	0	0	0	0	
	F	- emale	0	0	0	0	0	0	0	
Homicidal	White		0	2	0	0	0	0		2
Violence		Male	0	0	0	0	0	0	0	
	F	- emale	0	2	0	0	0	0	2	

#### Table 4-3 Homicide Deaths / Age / Race / Sex / King County Medical Examiner / 2005

METHOD			< 16	16 to 19	<b>20</b> to <b>29</b>	<b>30</b> to <b>39</b>	<b>40</b> to <b>49</b>	50+	SUB TOTAL	TOTAL
Stabbing	White		0	0	1	0	4	1		6
		Male	0	0	1	0	4	1	6	
		Female	0	0	0	0	0	0	0	
	Black		0	1	0	3	2	1		7
		Male	0	0	0	2	2	1	5	
		Female	0	1	0	1	0	0	2	
	Asian		0	0	0	0	1	0		1
		Male	0	0	0	0	1	0	1	
		Female	0	0	0	0	0	0	0	
Other /	White		0	0	0	0	0	1		1
Unknown		Male	0	0	0	0	0	1	1	
		Female	0	0	0	0	0	0	0	
TOTALS			4	9	16	14	24	13		80

#### Table 4-3 Homicide Deaths / Age / Race / Sex / King County Medical Examiner / 2005

King County Medical Examiner's Office – 2005 Annual Report

Table 4-4         Homicide Methods / Sex / King County Medical Examiner / 2005										
	S	έEX								
METHOD	MALE	FEMALE	TOTAL							
Asphyxia / Strangulation	2	2	4							
Blunt Force	8	4	12							
Firearms	45	2	47							
Homicidal Violence	0	2	2							
Stabbing	12	2	14							
Other / Unknown	1	0	1							
Totals	68	12	80							
Percent	85%	15%	100%							

#### Table 4-5 Homicide Methods / Blood Alcohol Results / KCME / 2005

TESTED										
METHOD	POSITIVE	NEGATIVE	NOT TESTED	TOTAL						
Asphyxia / Strangulation	1	3	0	4						
Blunt Force	4	7	1	12						
Firearms	15	30	2	47						
Homicidal Violence	0	0	2	2						
Stabbing	5	8	1	14						
Other / Unknown	0	1	0	1						
Totals	25	49	6	80						
Percent	31%	61%	8%	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 2005, the King County Medical Examiner assumed jurisdiction over 763 deaths attributed to natural causes, representing 39% (763/1,945) of the cases investigated. The King County Medical Examiner certified 84% (639/763) of these deaths; attending physicians who had knowledge of the decedent's medical condition certified 16% (124/763). 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. That physician would then be contacted to certify the death. The King County Medical Examiner performed autopsies in 74% (470/639) of the deaths certified as natural, which included autopsies performed in all 10 deaths from Sudden Infant Death Syndrome (SIDS).

The data presented in this section are derived from the 763 natural deaths in which the King County Medical Examiner assumed jurisdiction. 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."

Page 52	King County Medical Examiner's Office – 2005 Annual Report
Table 5-1	Disease Processes Causing Natural Deaths / KCME / 2005
NUMBER OF DEATHS	DISEASE DESCRIPTION
	CARDIOVASCULAR
4	Aortic Aneurysm
10	Aortic Dissection
136	Arteriosclerotic Cardiovascular Disease (ASCVD)
2	Bacterial Endocarditis
4	Cardiac Dysrhythmia
19	Cardiomyopathy
4	Congenital Heart Disease
5	Congestive Heart Failure
116	Hypertensive ASCVD / Hypertensive Heart Disease
4	Myocarditis
129	Probable Arteriosclerotic Cardiovascular Disease
6	Valvular Heart Disease
1	Other
440	TOTAL CARDIOVASCULAR
	CENTRAL NERVOUS SYSTEM
11	Epilepsy (idiopathic & other non-traumatic etiologies)
6	Infarct
3	Meningitis
14	Spontaneous Intracerebral Hemorrhage
8	Spontaneous Rupture of Aneurysm
6	Other
48	TOTAL CENTRAL NERVOUS SYSTEM
	ENDOCRINE
9	Diabetic Ketoacidosis
14	Diabetes Mellitus
2	Pancreatitis
0	Other
25	TOTAL ENDOCRINE
	GASTROINTESTINAL
2	Bacterial Peritonitis
4	Gastrointestinal Hemorrhage
4	Obstruction
4	Perforating Ulcer
4	Other
2 15	TOTAL GASTROINTESTINAL
15	

<b>King County</b>	Medical	Examiner's	Office –	2005 Annua	l Report
iming county	muutui	Linumiter b	onnee	accorninaa	I INCPUT

NUMBER OF DEATHS	DISEASE DESCRIPTION
	HEPATIC
4	Cirrhosis
0	Fatty Liver
0	Hepatic Failure
8	Hepatitis
0	Other
12	TOTAL HEPATIC
	MALIGNANCY
3	Breast
1	Colon
8	Lung
5	Pancreas
1	Prostate
2	Rectum
21	Other
41	TOTAL MALIGNANCY
	OTHER PROCESSES
39	Chronic Ethanolism (Alcoholism)
0	Chronic Renal Disease
0	HIV / AIDS
0	Infection
2	Labor / Delivery / Prematurity
15	Necrotizing fasciitis
9	No Anatomic or Toxicologic Cause of Death
19	Sepsis
22	Other
106	TOTAL OTHER PROCESSES
	RESPIRATORY
3	Asthma
15	Chronic Obstructive Pulmonary Disease
32	Pneumonia
11	Pulmonary Thromboembolus
5	Other
66	TOTAL RESPIRATORY

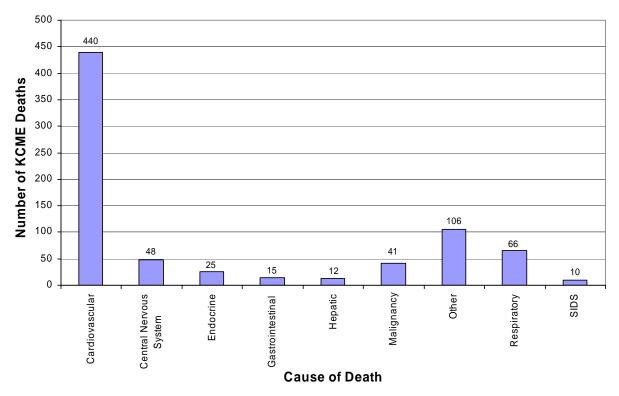
 Table 5-1
 Disease Processes Causing Natural Deaths / KCME / 2005 (continued)

Page 54	King County Medical Examiner's Office – 2005 Annual Report
Page 54	King County Medical Evaminer's Clittice - 7005 Annual Renort
1 420 37	$\mathbf{M}$

Table 5-1	Disease Processes Causing Natural Deaths / KCME / 2005 (continued)
NUMBER OF DEATHS	DISEASE DESCRIPTION
	SUDDEN INFANT DEATH SYNDROME (SIDS)
10	SIDS
323	TOTAL Non-Cardiovascular Cause of Death
440	TOTAL Cardiovascular Cause of Death
763	Total NATURAL DEATHS under KCMEO Jurisdiction, 2005

Table 5-1	Disease Processes Causing	Natural Deaths / K	CME / 2005 (continued)
		j Natural Douting / N	



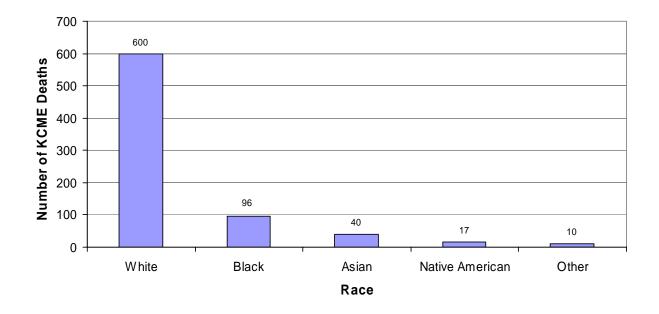


# King County Medical Examiner's Office – 2005 Annual Report

DISEASE .			RACE				
PROCESS / SEX	WHITE	BLACK	ASIAN	NATIVE AMERICAN	OTHER	SUB TOTAL	TOTAL
Cardiovascular	358	45	25	9	3		440
Male	234	34	15	6	2	291	
Female	124	11	10	3	1	149	
Central Nervous	35	5	6	1	1		48
Male	15	1	3	1	1	21	
Female	20	4	3	0	0	27	
Endocrine	15	8	1	1	0		25
Male	11	3	1	1	0	16	
Female	4	5	0	0	0	9	
Gastrointestinal	12	1	1	1	0		15
Male	7	1	0	1	0	9	
Female	5	0	1	0	0	6	
Hepatic	8	1	1	2	0		12
Male	7	1	1	2	0	11	
Female	1	0	0	0	0	1	
Malignancy	33	4	2	0	2		41
Male	20	3	0	0	2	25	
Female	13	1	2	0	0	16	
Other	80	18	2	3	3		106
Male	52	11	0	0	3	66	
Female	28	7	2	3	0	40	
Respiratory	54	10	2	0	0		66
Male	34	7	2	0	0	43	
Female	20	3	0	0	0	23	
SIDS	5	4	0	0	1		10
Male	4	3	0	0	1	8	
Female	1	1	0	0	0	2	
Totals	600	96	40	17	10		763
Percent	79%	13%	5%	2%	1%		100%

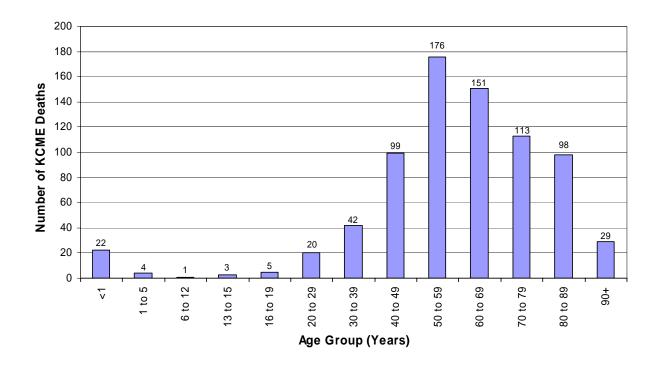
## Table 5-2 Natural Deaths / Race / Sex / King County Medical Examiner / 2005

Page 55



Graph 5-2 Natural Deaths / Race / King County Medical Examiner / 2005

#### Graph 5-3 Natural Deaths / Age Group / King County Medical Examiner / 2005



	AGE GROUP (YEARS)														
DISEASE PROCESS/ SEX	< 1	1 to 5	6 to 12	13 to 15	16 to 19	<b>20</b> to <b>29</b>	<b>30</b> to <b>39</b>	<b>40</b> to <b>49</b>	<b>50</b> to <b>59</b>	60 to 69	<b>70</b> to <b>79</b>	80 to 89	90 +	SUB TOTAL	TOTAL
Cardiovascular	2	0	0	1	2	4	16	44	10 3	99	81	66	22		440
Male	1	0	0	0	1	2	9	34	82	78	50	27	7	291	
Female	1	0	0	1	1	2	7	10	21	21	31	39	15	149	
Central Nervous	2	0	1	1	1	4	7	4	8	5	7	7	1		48
Male	2	0	1	1	1	2	4	2	3	2	2	1	0	21	
Female	0	0	0	0	0	2	3	2	5	3	5	6	1	27	
Endocrine	0	1	0	0	0	0	6	6	6	4	1	1	0		25
Male	0	0	0	0	0	0	3	5	3	3	1	1	0	16	
Female	0	1	0	0	0	0	3	1	3	1	0	0	0	9	_
Gastrointestinal	1	0	0	0	0	0	1	5	2	4	0	2	0		15
Male	0	0	0	0	0	0	1	3	1	3	0	1	0	9	
Female	1	0	0	0	0	0	0	2	1	1	0	1	0	6	
Hepatic	0	0	0	0	0	0	0	5	5	0	1	1	0		12
Male	0	0	0	0	0	0	0	5	4	0	1	1	0	11	
Female	0	0	0	0	0	0	0	0	1	0	0	0	0	1	
Malignancy	0	0	0	0	0	2	1	2	6	16	6	7	1		41
Male	0	0	0	0	0	1	0	2	5	10	5	2	0	25	
Female	0	0	0	0	0	1	1	0	1	6	1	5	1	16	
Other	4	2	0	1	1	8	4	26	27	13	8	9	3		106
Male	3	2	0	1	0	2	4	21	18	8	3	3	1	66	
Female	1	0	0	0	1	6	0	5	9	5	5	6	2	40	
Respiratory	3	1	0	0	1	2	7	7	19	10	9	5	2		66
Male	2	1	0	0	0	2	5	4	13	8	5	2	1	43	
Female	1	0	0	0	1	0	2	3	6	2	4	3	1	23	
SIDS	10	0	0	0	0	0	0	0	0	0	0	0	0		10
Male	8	0	0	0	0	0	0	0	0	0	0	0	0	8	
Female	2	0	0	0	0	0	0	0	0	0	0	0	0	2	
Totals	22	4	1	3	5	20	42	99	17 6	15 1	11 3	98	29		763
Percent	2.9	0.5	0.1	0.4	0.7	2.6	5.5	13.0	23.1	19.8	14.8	12.8	3.8		100%

Table 5-3         Natural Deaths / Age / Sex / King County Medical Examiner / 2005
--

Page 58

Table 5-4 Natural Deaths / Sex / King County Medical Examiner / 2005								
SEX								
CIRCUMSTANCES	MALE	FEMALE	TOTAL					
Cardiovascular	291	149	440					
Central Nervous	21	27	48					
Endocrine	16	9	25					
Gastrointestinal	9	6	15					
Hepatic	11	1	12					
Malignancy	25	16	41					
Other	66	40	106					
Respiratory	43	23	66					
SIDS	8	2	10					
Totals	490	273	763					
Percent	64%	36%	100%					

Table 5-5         Natural Deaths / Blood Alcohol / King County Medical Examiner / 2005									
	TE	STED	NOT						
METHOD	POSITIVE	NEGATIVE	TESTED	TOTAL					
Cardiovascular	62	245	133	440					
Central Nervous System	3	29	16	48					
Endocrine	3	16	6	25					
Gastrointestinal	13	6	6	15					
Hepatic	1	3	8	12					
Malignancy	1	18	22	41					
Other Processes	19	46	41	106					
Respiratory	2	30	34	66					
SIDS	0	9	1	10					
Totals	94	402	267	763					
Percent	12%	53%	35%	100%					

# Manner: SUICIDE

Suicides are those 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 2005 there were 233 suicides, accounting for 12% (233/1,945) of the deaths that the King County Medical Examiner's Office investigated.

Firearms were responsible for forty-one percent (96/233) of the 2005 suicide deaths. The number of gunshot suicides (96) in 2005 is one more than in 2004 but less than in 2003 when there were 95 and 101, respectively. Hanging accounted for 18% (42/233) of suicidal deaths, while jumping from a height accounted for 9% (22/233). Drugs and poisons accounted for 17% (39/233) of all suicides, while carbon monoxide caused death in 6% (13/233) of the cases. More information regarding drug caused deaths is presented in the section "Deaths Due to Drugs & Poisons."

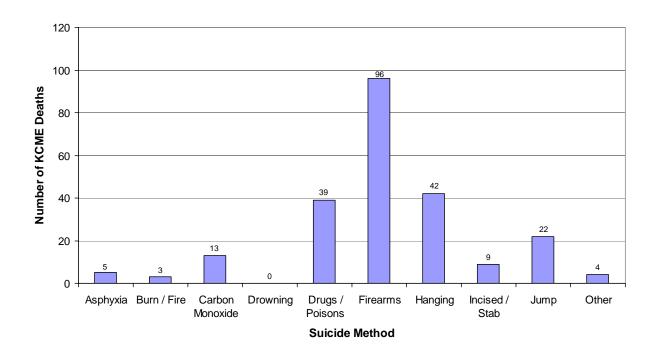
Blood alcohol tests were performed in 97% (225/233) of suicidal deaths and were positive in 30% (69/233) of cases tested.

Suicides in the age group 60 years and older represented 22% (50/233) of all suicides in 2005.

Firearms were the primary method of committing suicide for all age groups in 2005.

In 2005, there were seven deaths due to drugs and/or poisons by adults 60 years of age and over. In 2005, as in 2004, there was one suicide attributed to drugs and/or poisons among youths 19 years and younger.

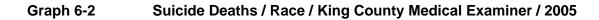
In 2005, there were eight suicides among persons 19 years and younger (3.4% of all suicides, 8/233), which is comparable to 2004 when there were eight suicides in this age group (8/229, 3.5%). Firearms were the primary method of death (50%, 4/8) for suicide among youth 19 years and younger.

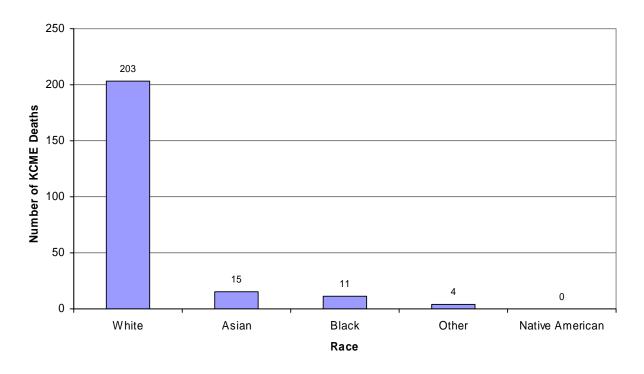


Graph 6-1 Suicide Injury Methods / King County Medical Examiner / 2005

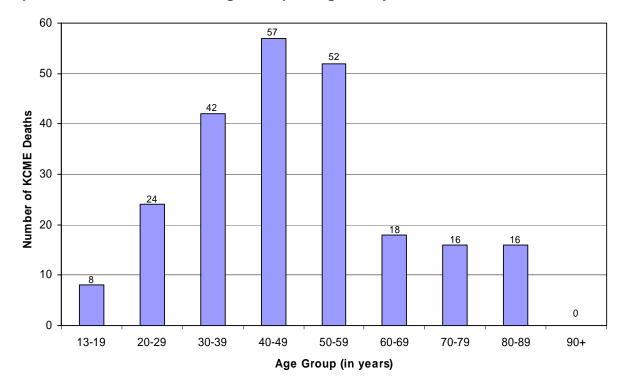
				RACE				
CIRCUMSTANC SEX	ES/	WHITE	BLACK	ASIAN	NATIVE AMERICAN	OTHE R	SUB TOTAL	TOTAL
Asphyxia		5	0	0	0 0			5
	Male	4	0	0	0	0	4	
	Female	1	0	0	0	0	1	
Burns/ Fire		2	0	0	0	1		3
	Male	1	0	0	0	1	2	
	Female	1	0	0	0	0	1	
Carbon Monoxide		13	0	0	0	0		13
	Male	8	0	0	0	0	8	
	Female	5	0	0	0	0	5	
Drowning		0	0	0	0	0		0
	Male	0	0	0	0	0	0	
	Female	0	0	0	0	0	0	
Drugs / Poisons		37	1	0	0	1		39
	Male	20	1	0	0	1	22	
	Female	17	0	0	0	0	17	
Firearms		90	2	3	0	1		96
	Male	81	2	3	0	1	87	
	Female	9	0	0	0	0	9	
Hanging		31	3	7	0	1		42
	Male	27	2	6	0	1	36	
	Female	4	1	1	0	0	6	
Incised / Stab Wou	ınd(s)	7	1	1	0	0		9
	Male	7	1	1	0	0	9	
	Female	0	0	0	0	0	0	
Jumping		16	3	3	0	0		22
	Male	9	2	2	0	0	13	
	Female	7	1	1	0	0	9	
Other		2	1	1	0	0		4
	Male	1	1	1	0	0	3	
	Female	1	0	0	0	0	1	
Totals		203	11	15	0	4		233
Percent		87.1%	4.7%	6.5%	0%	1.7%		100%

# Table 6-1 Suicide Injury Methods / Race / Sex / King County Medical Examiner / 2005





Graph 6-3 Suicide Deaths / Age Group / King County Medical Examiner / 2005



AGE GROUP (YEARS)											
INJURY METHOD/ SEX	13 to 19	<b>20</b> to <b>29</b>	<b>30</b> to <b>39</b>	<b>40</b> to <b>49</b>	50 to 59	60 to 69	<b>70</b> to <b>79</b>	<b>80</b> to <b>89</b>	90 +	SUB TOTAL	TOTAL
Asphyxia	0	0	2	0	1	2	0	0	0		5
Male	0	0	2	0	1	1	0	0	0	4	
Female	0	0	0	0	0	1	0	0	0	1	
Burns/ Fire	0	0	0	1	2	0	0	0	0		3
Male	0	0	0	0	2	0	0	0	0	2	
Female	0	0	0	1	0	0	0	0	0	1	
Carbon Monoxide	0	1	2	6	3	1	0	0	0		13
Male	0	0	2	4	1	1	0	0	0	8	
Female	0	1	0	2	2	0	0	0	0	5	_
Drowning	0	0	0	0	0	0	0	0	0		0
Male	0	0	0	0	0	0	0	0	0	0	
Female	0	0	0	0	0	0	0	0	0	0	
Drugs / Poisons	1	2	7	14	8	2	3	2	0		39
Male	1	0	5	9	4	1	2	0	0	22	
Female	0	2	2	5	4	1	1	2	0	17	
Firearms	4	9	12	20	22	6	12	11	0		96
Male	4	9	12	17	19	6	10	10	0	87	
Female	0	0	0	3	3	0	2	1	0	9	40
Hanging	1	8	11	9	6	6	0	1	0		42
Male Female	1	7	10	6	5	6	0	1	0	36 6	
Incised / Stab	0	1	1	3		0	0	0	0	0	
Wound(s)	0	0	0	5	3	0	1	0	0		9
Male	0	0	0	5	3	0	1	0	0	9	
Female	0	0	0	0	0	0	0	0	0	0	
Jumping	2	3	5	2	7	1	0	2	0		22
Male	1	3	3	2	2	0	0	2	0	13	
Female	1	0	2	0	5	1	0	0	0	9	
Other	0	1	3	0	0	0	0	0	0		4
Male	0	1	2	0	0	0	0	0	0	3	
Female	0	0	1	0	0	0	0	0	0	1	
Totals	8	24	42	57	52	18	16	16	0		233
Percent	3%	10%	18%	25%	22%	8%	7%	7%	0%		100%

# Table 6-2 Suicide Injury Methods / Age / Sex / King County Medical Examiner / 2005

Page 64

	SEX							
INJURY METHOD	MALE	FEMALE	TOTAL					
Asphyxia	4	1	5					
Burns/ Fire	2	1	3					
Carbon Monoxide	8	5	13					
Drowning	0	0	0					
Drugs / Poisons	22	17	39					
Firearms	87	9	96					
Hanging	36	6	42					
Incised / Stab Wound(s)	9	0	9					
Jumping	13	9	22					
Other	3	1	4					
Totals	184	49	233					
Percent	79%	21%	100%					

### Table 6-3 Suicide Injury Methods / Sex / King County Medical Examiner / 2005

# King County Medical Examiner's Office – 2005 Annual Report

	MARITAL STATUS							
CIRCUMSTANCES / SEX	Single	Marrie d	Divorce d	Widowed	Unknow n	Sub Total	Total	
Asphyxia	3	0	0	2	0		5	
Male	3	0	0	1	0	4		
Female	0	0	0	1	0	1		
Burns/ Fire	0	3	0	0	0		3	
Male	0	2	0	0	0	2		
Female	0	1	0	0	0	1		
Carbon Monoxide	7	3	2	1	0		13	
Male	5	2	1	0	0	8		
Female	2	1	1	1	0	5		
Drowning	0	0	0	0	0		0	
Male	0	0	0	0	0	0		
Female	0	0	0	0	0	0		
Drugs / Poisons	18	6	8	5	2		39	
Male	12	4	4	1	1	22		
Female	6	2	4	4	1	17		
Firearms	30	35	24	7	0		96	
Male	29	30	22	6	0	87		
Female	1	5	2	1	0	9		
Hanging	16	11	14	0	1		42	
Male	14	9	12	0	1	36		
Female	2	2	2	0	0	6		
Incised / Stab Wound(s)	3	3	3	0	0		9	
Male	3	3	3	0	0	9		
Female	0	0	0	0	0	0		
Jumping	14	3	4	0	1		22	
Male	9	2	1	0	1	13		
Female	5	1	3	0	0	9		
Other	2	1	0	1	0		4	
Male	2	0	0	1	0	3		
Female	0	1	0	0	0	1		
Totals	93	65	55	16	4		233	
Percent	40%	28%	23%	7%	2%		100%	

## Table 6-4 Suicide Injury Methods / Marital Status / Sex / KCME / 2005

Table 6-5         Suicide Injury Methods / Blood Alcohol / KCME / 2005										
	TES	TED	_							
METHOD	POSITIVE	NEGATIVE	NOT TESTED	TOTAL						
Asphyxia	2	3	0	5						
Burns/ Fire	0	3	0	3						
Carbon Monoxide	11	2	0	13						
Drowning	-	-	-	0						
Drugs / Poisons	9	28	2	39						
Firearms	35	58	3	96						
Hanging	8	33	1	42						
Incised / Stab Wound(s)	1	6	2	9						
Jumping	3	19	0	22						
Other	0	4	0	4						
Totals	69	156	8	233						
Percent	30%	67%	3%	100%						

### Manner: TRAFFIC

During the calendar year 2005, the Medical Examiner's Office participated in the investigation of 226 traffic fatalities. There were 152 traffic deaths where the collision occurred in King County, compared to 127 in 2004, 112 in 2003, 121 in 2002 and 142 in 2001. In 2005, 33% (74/226) 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. This is comparable to 34% (65/192) in 2004, 37% (67/179) in 2003 and 40% (82/203) in 2002. Although these deaths are classified "accident" for death certification purposes, the more accurate term is "motor vehicle collision."

In 2005, 44% (99/226) of the traffic fatalities were motor vehicle drivers. Teenage drivers (16-19 years of age) were 5% (5/99) of the driver deaths in 2005 compared to 4% (3/78) in 2004, 15% (11/76) in 2003 and 9% (9/100) in 2002. By age, 28% percent of vehicle driver deaths (28/99) were people between the ages of 20 and 29. Twelve percent of driver deaths (12/99) were adults between the ages of 30 and 39. Thirteen percent (13/99) were adults between the ages of 40 and 49. Male drivers represented 86% (85/99) of driver deaths as compared to 14% for female drivers (14/99).

Of the 226 traffic fatalities in 2005, 47 were motor vehicle passengers, representing 21% of the total (47/226). In 2005, teenagers (13-19 years old) accounted for 9 motor vehicle passenger deaths. There were three passenger deaths of infants (less than one year of age), and no deaths of children between the ages of 1 - 5 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<sup>1</sup>. Therefore, blood alcohol figures presented in this report are not a total description of the role of alcohol in traffic collisions. In 34% (26/76) of drivers tested, blood ethanol was present. In 23 vehicle driver deaths, no alcohol determination was performed. Passenger fatalities showed the presence of alcohol in 26% (9/35) of victims tested.

<sup>&</sup>lt;sup>1</sup>See "Explanation of Data" for criteria for blood alcohol testing.

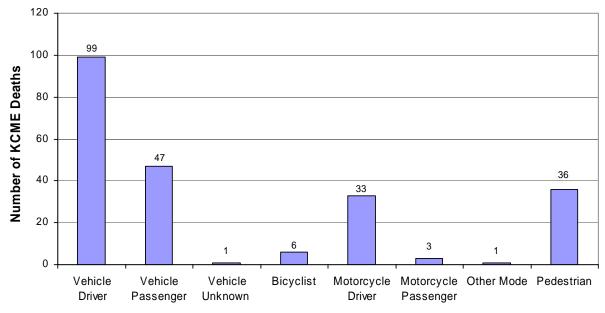
### King County Medical Examiner's Office – 2005 Annual Report

Of cases in which restraint status was known, 37% (32/87) of drivers in vehicle deaths were not restrained. This is comparable to 37% (25/68) in 2004, 37% (18/49) in 2003 and 43% (30/69) in 2002. Of the vehicle drivers who died at the scene of the collision and who tested positive for blood alcohol, 47% (8/17) were unrestrained.

Motorcycle riders accounted for 16% (36/226) of traffic fatalities. In 2005, there were 33 motorcycle driver fatalities and three motorcycle passenger fatalities. Thirty-one of the motorcycle driver deaths were male, and two were female. Of the 35 motorcycle fatalities in which helmet use was known, 97% (34/35) of the motorcyclists were wearing a helmet. Thirty-one of the motorcyclist fatalities were tested for the presence of blood alcohol. Eight, or 26% (8/31), had a detectable amount of alcohol at the time of autopsy.

Pedestrians constituted 16% (36/226) of traffic fatalities. The majority of pedestrian deaths, 56% (20/36), were male. Of the pedestrian fatalities that were tested, 31% (9/29) had detectable amounts of alcohol present in their blood at the time of death.

There were six bicyclist deaths in 2005. Four riders were wearing a helmet and two riders were not wearing helmets.



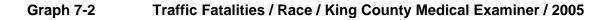
Graph 7-1 Traffic Fatality Circumstances / King County Medical Examiner / 2005

Circumstances

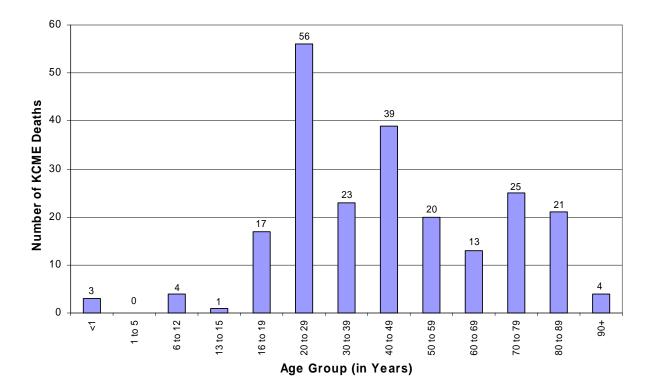
				RACE				
CIRCUMSTANCES / S	SEX	WHITE	BLACK	ASIAN	NATIVE AMERICAN	OTHER	SUB TOTAL	TOTAL
Vehicle Driver		85	3	9	1	1		99
	Male	75	3	6	1	0	87	
Fe	emale	10	0	3	0	1	14	
Vehicle Passenger		33	7	3	3	1		47
	Male	20	5	1	1	0	25	
Fe	emale	13	2	2	2	1	20	
Vehicle Unknown		1	0	0	0	0		1
	Male	0	0	0	0	0	0	
Fe	emale	1	0	0	0	0	1	
Bicycle		5	0	1	0	0		6
	Male	3	0	1	0	0	4	
Fe	emale	2	0	0	0	0	2	
Motorcycle Driver		28	4	1	0	0		33
	Male	26	4	1	0	0	31	
Fe	emale	2	0	0	0	0	2	
Motorcycle Passenger	•	3	0	0	0	0		3
	Male	0	0	0	0	0	0	
	emale	3	0	0	0	0	3	
Other Mode		1	0	0	0	0		1
	Male	1	0	0	0	0	1	
Fe	emale	0	0	0	0	0	0	
Pedestrian		31	1	2	1	1		36
	Male	18	1	0	1	0	20	
Fe	emale	13	0	2	0	1	16	
Totals		187	15	16	5	3		226
Percent		83%	7%	7%	2%	1%		100%

### Table 7-1 Traffic Fatality Circumstances / Race / Sex / KCME / 2005

200 187 180 160 Number of KCME Deaths 140 120 100 80 60 40 15 16 20 5 3 0 -White Black Asian Native American Other Race







Page 72

King County Medical Examiner's Office – 2005 Annual Report

					AG	GE GR	OUP	(YEAF	RS)						
Circumstances / Sex	< 1	1 to 5	6 to 12	13 to 15	16 to 19	<b>20</b> to <b>29</b>	<b>30</b> to <b>39</b>	<b>40</b> to <b>49</b>	50 to 59	60 to 69	<b>70</b> to <b>79</b>	80 to 89	90 +	SUB TOTAL	ΤΟΤΑΙ
Vehicle Driver	0	0	0	0	5	28	12	13	8	8	13	10	2		99
Male	0	0	0	0	4	23	12	13	6	5	11	9	2	85	
Female	0	0	0	0	1	5	0	0	2	3	2	1	0	14	
Vehicle Passenger	3	0	2	1	8	14	4	4	0	1	2	7	1		47
Male	1	0	2	1	8	6	3	3	0	0	1	2	0	27	
Female	2	0	0	0	0	8	1	1	0	1	1	5	1	20	
Vehicle Unknown	0	0	0	0	0	0	0	0	1	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	0	1	0	0	0	0	1	
Bicyclist	0	0	1	0	0	0	2	2	1	0	0	0	0	6	6
Male	0	0	0	0	0	0	2	2	0	0	0	0	0	4	
Female	0	0	1	0	0	0	0	0	1	0	0	0	0	2	
Motorcycle Driver	0	0	0	0	2	10	5	8	7	1	0	0	0		33
Male	0	0	0	0	2	10	4	7	7	1	0	0	0	31	
Female	0	0	0	0	0	0	1	1	0	0	0	0	0	2	
Motorcycle Passenger	0	0	0	0	1	0	0	2	0	0	0	0	0		3
Male	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Female	0	0	0	0	1	0	0	2	0	0	0	0	0	3	
Other Mode	0	0	0	0	0	1	0	0	0	0	0	0	0		1
Male	0	0	0	0	0	1	0	0	0	0	0	0	0	1	
Female	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrian	0	0	1	0	1	3	0	10	3	3	10	4	1		36
Male	0	0	1	0	1	2	0	7	1	1	5	2	0	20	
Female	0	0	0	0	0	1	0	3	2	2	5	2	1	16	
Totals	3	0	4	1	17	56	23	39	20	13	25	21	4		226
Percent	1.3	0	1.8	0.4	7.5	24.8	10.1	17.3	8.8	5.8	11.1	9.3	1.8		100%

	S	SEX	
CIRCUMSTANCES	MALE	FEMALE	TOTAL
Vehicle Driver	85	14	99
Vehicle Passenger	27	20	47
Vehicle Unknown	0	1	1
Bicyclist	4	2	6
Motorcycle Driver	31	2	33
Motorcycle Passenger	0	3	3
Other Mode	1	0	1
Pedestrian	20	16	36
Totals	168	58	226
Percent	74%	26%	100%

### Table 7-3 Traffic Fatality Circumstances / Sex / King County Medical Examiner / 2005

## Table 7-4 Traffic Fatality Circumstances / Use of Restraint / Helmet / KCME / 2005<sup>2</sup>

CIRCUMSTANCES	Used Safety Device	No Safety Device Used	Unknown	TOTAL
Vehicle Driver	55	32	12	99
Vehicle Passenger	22	18	7	47
Vehicle Unknown	0	0	1	1
Bicyclist	4	2	0	6
Motorcycle Driver	31	1	1	33
Motorcycle Passenger	3	0	0	3
Other Mode	1	0	0	1
Totals	116	53	21	190
Percent	61%	28%	11%	100%

<sup>&</sup>lt;sup>2</sup> Does not include pedestrian deaths.

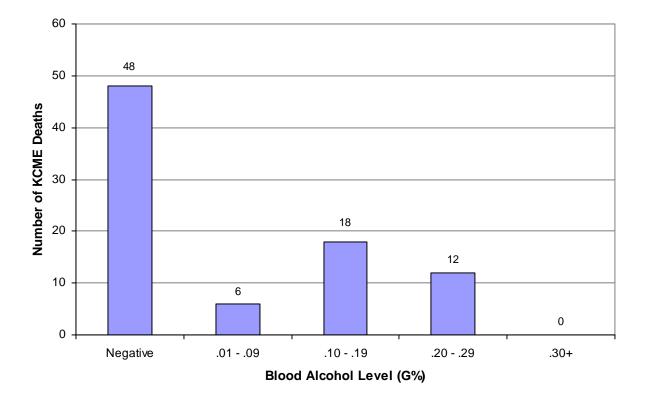
	TES	STED	NOT	TOTAL	
CIRCUMSTANCES	POSITIVE	NEGATIVE	TESTED		
Vehicle Driver	26	50	23	99	
Vehicle Passenger	9	26	12	47	
Vehicle Unknown	0	1	0	1	
Bicyclist	0	1	5	6	
Motorcycle Driver	8	20	5	33	
Motorcycle Passenger	0	3	0	3	
Other Mode	1	0	0	1	
Pedestrian	9	20	7	36	
Totals	53	121	52	226	
Percent	23%	54%	23%	100%	

### Table 7-5 Traffic Fatality Circumstances / Blood Alcohol / KCME / 2005

# Table 7-6 Blood Alcohol Levels of Traffic Fatalities who died AT THE SCENE of the Collision / King County Medical Examiner / 2005

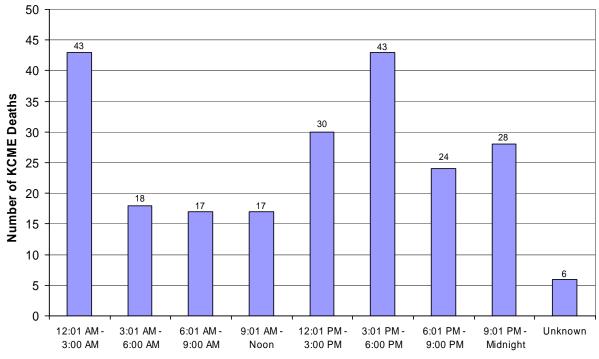
		BLOOD AL	COHOL LEV	′EL (G%)		
CIRCUMSTANCES	NONE	.0109	.1019	.2029	.30+	TOTAL
Vehicle Driver	26	2	10	5	0	43
Vehicle Passenger	7	4	4	2	0	17
Vehicle Unknown	0	0	0	0	0	0
Bicyclist	0	0	0	0	0	0
Motorcycle Driver	11	0	2	2	0	15
Motorcycle Passenger	1	0	0	0	0	1
Other Mode	0	0	1	0	0	1
Pedestrian	3	0	1	3	0	7
Totals	48	6	18	12	0	84
Percent	57%	7%	22%	14%	0%	100%





Page 76	King County Medical	Examiner's Office –	2005 Annual Report
Table 7-7	Time of Fatal Traffic Collision / K	King County Medical	Examiner / 2005
	TIME OF DAY	TOTAL	PERCENT
	12:01 AM - 3:00 AM	43	19.0%
	3:01 AM - 6:00 AM	18	8.0%
	6:01 AM - 9:00 AM	17	7.5%
	9:01 AM - Noon	17	7.5%
	12:01 PM - 3:00 PM	30	13.3%
	3:01 PM - 6:00 PM	43	19.0%
	6:01 PM - 9:00 PM	24	10.6%
	9:01 PM -Midnight	28	12.4%
	Unknown	6	2.7%
	TOTALS	226	100%





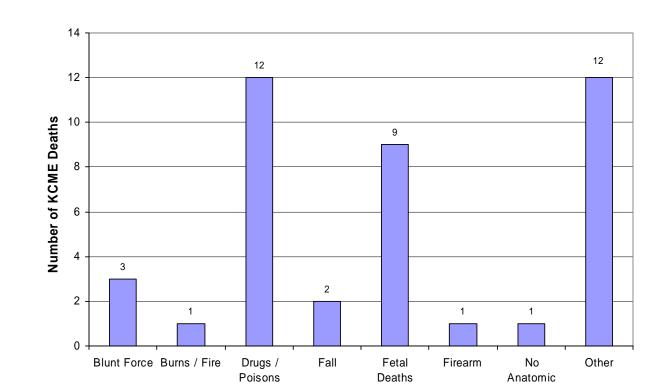
Time of Day

### 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 death (Accident, Homicide, or Suicide). In some cases, serious doubt existed 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 41 deaths with manner undetermined, accounting for two percent (41/1,945) of the deaths investigated for the calendar year 2005. Drugs and poisons caused 12 or 29%, of the 41 deaths of undetermined manner (this figure includes 11 drug deaths and one carbon monoxide death). For a more detailed review of drug-caused deaths in 2005, see the discussion in the section on Drugs and Poisons on pages 83 and 84.

The 41 deaths that were classified as Undetermined for 2005 include nine 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. The Medical Examiner assumed jurisdiction over nine fetal deaths in 2005, including seven that were related to maternal drug use. These deaths are included in drug-related deaths in the Drugs and Poisons chapter on pages 82 and 83.



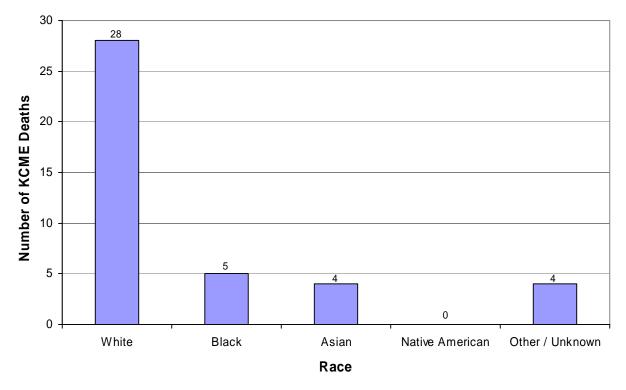
Circumstances

### Graph 8-1 Undetermined Manner of Death / King County Medical Examiner / 2005

## King County Medical Examiner's Office – 2005 Annual Report

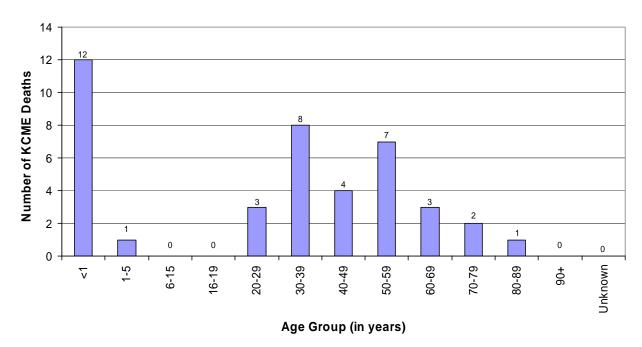
			RAC	E			
CIRCUMSTANCES / SEX	WHITE	BLACK	ASIAN	NATIVE AMERICAN	OTHER / UNK	SUB TOTAL	TOTAL
Blunt Force	2	0	1	0	0		3
Ma	ale 2	0	1	0	0	3	
Fema	ale 0	0	0	0	0	0	
Burns / Fire	0	0	1	0	0		1
Ma	nle 0	0	0	0	0	0	
Fema	nle 0	0	1	0	0	1	
Drugs / Poisons	10	1	0	0	1		12
Ma	ale 5	0	0	0	0	5	
Fema	ale 5	1	0	0	1	7	
Fall	2	0	0	0	0		2
Ma		0	0	0	0	2	
Fema	ale 0	0	0	0	0	0	
Fetal Deaths	3	3	0	0	3		9
Ma		2	0	0	0	4	
Fema		1	0	0	2	4	
Unkno	vn 0	0	0	0	1	1	
Firearms	1	0	0	0	0		1
Ma		0	0	0	0	1	
Fema	nle 0	0	0	0	0	0	
No Anatomic or Toxicologic Cause of Death	1	0	0	0	0		1
Ma		0	0	0	0	0	
Fema	nle 1	0	0	0	0	1	
Other	9	1	2	0	0		12
Ma		1	1	0	0	9	
Fema	nle 2	0	1	0	0	3	
Totals	28	5	4	0	4		41
Percent	68%	12%	10%	0%	10%		100%

### Table 8-1 Undetermined Manner of Death / Race / Sex / KCME / 2005



Graph 8-2 Undetermined Manner / Race / King County Medical Examiner / 2005





## King County Medical Examiner's Office – 2005 Annual Report

INJURY METHOD / SEX Blunt Force	<1 0	1 to 5 0	6 to 15	16 to 19	AGE ( <b>20</b> to	GROU <b>30</b>	P (YE <b>40</b>	,						
SEX	0	to 5	to	to		30	۸٥						I	
Blunt Force	-	Δ			29	to <b>39</b>	to <b>49</b>	50 to 59	60 to 69	<b>70</b> to <b>79</b>	80 to 89	90 +	SUB TOTAL	TOTAL
	0	0	0	0	0	0	0	1	1	1	0	0		3
Male	0	0	0	0	0	0	0	1	1	1	0	0	3	
Female	0	0	0	0	0	0	0	0	0	0	0	0	0	
Burns / Fire	0	0	0	0	0	1	0	0	0	0	0	0		1
Male	0	0	0	0	0	0	0	0	0	0	0	0	0	
Female	0	0	0	0	0	1	0	0	0	0	0	0	1	
Drugs / Poisons	0	0	0	0	1	3	2	5	1	0	0	0		12
Male	0	0	0	0	1	2	1	1	0	0	0	0	5	
Female	0	0	0	0	0	1	1	4	1	0	0	0	7	0
Fall	0	0	0	0	0	0	1	0	0	1	0	0		2
Male Female	0 0	0	0 0	0 0	0 0	0 0	1 0	0 0	0 0	1 0	0	0 0	2 0	
Fetal Deaths	1	0		0	0	0	0	0		0	0	0		9
	9		0						0					9
Male Female	4	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0	0 0	4	
Unknown	1	0	0	0	0	0	0	0	0	0	0	0	1	
Firearms	0	0	0	0	1	0	0	0	0	0	0	0		1
Male	0	0	0	0	1	0	0	0	0	0	0	0	1	
Female	0	0	0	0	0	0	0	0	0	0	0	0	0	
No anatomic or toxicological cause of death	1	0	0	0	0	0	0	0	0	0	0	0		1
Male	0	0	0	0	0	0	0	0	0	0	0	0	0	
Female	1	0	0	0	0	0	0	0	0	0	0	0	1	
Other	2	1	0	0	1	4	1	1	1	0	1	0		12
Male	1	1	0	0	0	4	1	1	1	0	0	0	9	
Female	1	0	0	0	1	0	0	0	0	0	1	0	3	
Totals	12	1	0	0	3	8	4	7	3	2	1	0		41
Percent	29.3	2.4	0	0	7.3	19.5	9.8	17.1	7.3	4.9	2.4	0		100%

### Table 8-2 Undetermined Circumstances / Age / Sex / KCME / 2005

Table 8-3 Ondetermined Manner / Sex / King County Medical Examiner / 2005									
	SE	X							
INJURY METHOD	MALE	FEMALE	TOTAL						
Blunt Force	3	0	3						
Burns / Fire	0	1	1						
Drugs / Poisons	5	7	12						
Fall	2	0	2						
Fetal Deaths	4	4	81						
Firearms	1	0	1						
No Anatomic or Toxicologic Cause of Death	0	1	1						
Other	9	3	12						
Totals	24	16	<b>40</b> <sup>2</sup>						
Percent	60%	40%	100%						

### Table 8-3 Undetermined Manner / Sex / King County Medical Examiner / 2005

### Table 8-4 Undetermined Manner / Blood Alcohol / King County Medical Examiner / 2005

	TE	STED	NOT	
METHOD	POSITIVE	NEGATIVE	TESTED	TOTAL
Blunt Force	1	1	1	3
Burns / Fire	0	1	0	1
Drugs / Poisons	6	5	1	12
Fall	1	0	1	2
Fetal Deaths	0	5	4	9
Firearms	1	0	0	1
No Anatomic or Toxicologic Cause of Death	0	1	0	1
Other	2	6	4	12
Totals	11	19	11	41
Percent	27%	46%	27%	100%

<sup>&</sup>lt;sup>1</sup> Does not include one fetal death of undetermined sex. <sup>2</sup> Does not include one fetal death of undetermined sex.

### **DEATHS DUE TO DRUGS & POISONS: 2005**

In 2005, drugs and poisons caused 273 deaths (excluding 18 deaths due to carbon monoxide). This comprised approximately 14% of all deaths investigated (273/1,945). The total number of drug caused deaths has decreased slightly compared to 2004 figures when there were 278 drug deaths. In 2003 there were 220 drug caused deaths, in 2002, there were 216, and in 2001, there were 165. In 2005, deaths due to drugs and poisons comprised 31% (273/876) of all suicides, accidents, and undetermined deaths combined.

Of the drug/poison deaths in 2005, a single drug or poison caused 29% of the deaths (78/273), and drugs or poisons in combination caused 71% (195/273) of the deaths. Multiple drug intoxication continued to cause the majority of drug deaths in 2005 (71% in 2005 and 2004, 72% in 2003, 65% in 2002, and 65% in 2001). Table 9-3 displays the specific drugs that caused death in 2005. Because of their prevalence, ethanol, cocaine (a stimulant), and opiates<sup>1</sup> (a narcotic) are identified as separate drug categories. Data on deaths involving methadone, oxycodone, and methamphetamine are also shown in detail.

The manners of "accident," "suicide," and "undetermined" are represented in the deaths due to drugs and poisons. In 2005, as in the past five years, there were no homicidal deaths 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 2005, drugs and poisons caused 18 deaths of undetermined manner, compared to 26 in 2004, 32 in 2003, 20 in 2002, and 21 in 2001. Of the 18 undetermined drug related deaths in 2005, seven were fetal deaths. The seven fetal deaths include three associated with maternal cocaine use, two associated with maternal methamphetamine use, one associated with maternal methadone therapy, and one associated with maternal heroin use.

In 2005, drugs/poisons caused 39 suicides, as compared to 41 in 2004, 29 in 2003, 23 in 2002, and 20 in 2001.

Drugs/poisons caused 216 accidental overdoses in 2005 compared to 211 in 2004, 159 in 2003, 173 in 2002, and 124 in 2001. In 2005, accidental drug deaths comprised 36% (216/602) of all accidental deaths.

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.

### King County Medical Examiner's Office - 2005 Annual Report

Ethanol (alcohol) is also a drug to be critically examined for its contribution to the circumstances surrounding death. In 2005, five accidental deaths were attributed to acute ethanol intoxication where ethanol was the single substance used, and one undetermined death was attributed to acute ethanol intoxication where ethanol was the single substance used. There were 55 deaths where ethanol, in combination with other drugs, was the cause of death. Blood alcohol (ethanol) tests were performed in 77% (906/1,182) 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 35% (315/906) of non-natural deaths where tests were performed.

Blood alcohol tests are performed on most persons who die within 24 hours of the incident. It should be noted that in many cases of traffic and homicide deaths, persons responsible for the death other than the decedent were under the influence of alcohol. The blood alcohol data is presented to show the levels of alcohol among those that died, but does not reflect the presence of alcohol among all parties involved.

Page	85
------	----

			, mainter /				
Test Results	ACCIDEN T	TRAFFI C	HOMICID E	NATURA L	SUICIDE	UNDETER- MINED	TOTAL
Tested	403	174	74	496	225	30	1402
Positive	157	53	25	94	69	11	409
Negative	246	121	49	402	156	19	993
Not Tested	199	52	6	267	8	11	543
Totals	602	226	80	763	233	41	1945

### Table 9-1 Blood Alcohol Testing / Manner / King County Medical Examiner / 2005

Table 9-2	Blood Alcohol Testing / Percentage / Manner / KCME / 2005
-----------	---

Totals	100%	100%	100%	100%	100%	100%	100%
Not Tested	33%	23%	7%	35%	3%	27%	28%
Negative	61%	70%	66%	81%	69%	63%	71%
Positive	39%	30%	34%	19%	31%	37%	29%
Tested	67%	77%	93%	65%	97%	73%	72%
Test Results	ACCIDEN T	TRAFFI C	HOMICID E	NATURA L	SUICIDE	UNDETER- MINED	TOTAL

Table 9-3		2005 Drug & Poison Caused Deaths												
		Ove	erdose Death	s (269) – Dru	Overdose Deaths (269) – Drug Causing									
Drug Name	Total Deaths out of 1,945 Cases in which Drug was Present	In which Listed Drug was Present	Single Drug OD in which Drug was Present	Multiple Drug OD in which Drug was Present	Accident	Suicide	Undetermined	In which Listed Drug Caused Death	In which a Single Drug Caused Death	In which Multiple Drugs Caused Death	Accident	Suicide	Undetermined	
Acetaminophen	65	26	3	23	15	7	4	8	0	8	3	4	1	
Alprazolam	23	13	0	13	9	4	0	12	0	12	8	4	0	
Amitriptyline	35	22	0	22	10	10	2	21	0	21	10	10	1	
Amobarbital	1	0	0	0	0	0	0	0	0	0	0	0	0	
Amphetamine	39	19	10	9	18	0	1	0	0	0	0	0	0	
Antipyrene	3	2	0	2	2	0	0	0	0	0	0	0	0	
Benzocaine	1	0	0	0	0	0	0	0	0	0	0	0	0	
Bupivacaine	7	1	0	1	1	0	0	1	0	1	1	0	0	
Bupropion	15	9	1	8	4	4	1	8	0	8	3	4	1	
Butalbital	3	2	0	2	2	0	0	2	0	2	2	0	0	
Cannabinoids / THC <sup>2</sup>	176	58	14	44	52	5	1	0	0	0	0	0	0	
Carbamazepine	8	2	0	2	2	0	0	2	0	2	2	0	0	
Carbon Monoxide <sup>3</sup>	25	18	12	6	4	13	1	18	12	6	4	13	1	
Carisoprodol	9	5	0	5	3	0	2	4	0	4	2	0	2	
Chlordiazepoxide	5	2	0	2	2	0	0	2	0	2	2	0	0	
Chloroform	1	1	0	1	1	0	0	1	0	1	1	0	0	
Chlorpheniramine	11	7	2	5	5	2	0	3	1	0	2	1	0	
Chlorpromazine	1	0	0	0	0	0	0	0	0	0	0	0	0	
Citalopram	44	22	0	22	20	2	0	23	0	23	21	2	0	
Clomipramine	3	2	1	1	1	1	0	2	1	1	1	1	0	
Clonazepam	2	1	0	1	0	1	0	1	0	1	0	1	0	
Clonidine	1	1	0	1	1	0	0	0	0	0	0	0	0	
Clozapine	1	0	0	0	0	0	0	0	0	0	0	0	0	
Cocaine <sup>4</sup>	153	95	27	68	85	5	5	90	26	64	80	5	5	
Codeine <sup>5</sup>	61	45	5	40	39	5	1	2	0	2	2	0	0	

### **2005 Drug & Poison Caused Deaths**<sup>1</sup>

DRUGS AND POISONS

King County Medical Examiner's Office - 2005 Annual Report

To	hI	6	0	3
Ia	DI	E.	7	

## 2005 Drug & Poison Caused Deaths, page 2

			Overdose Deaths (269)						Overdose Deaths (269)						
Drug Name	Total Deaths out of 1,945 Cases in which Drug was Present	In which Listed Drug was Present	Single Drug OD in which Drug was Present	Multiple Drug OD in which Drug was Present	Accident	Suicide	Undetermined	In which Listed Drug Caused Death	In which a Single Drug Caused Death	In which Multiple Drugs Caused Death	Accident	Suicide	Undetermined		
Cyclobenzaprine	20	13	0	13	9	3	1	12	0	12	8	3	1		
Desipramine	3	1	0	1	0	1	0	0	0	0	0	0	0		
Dextromethorphan	23	13	0	13	10	2	1	11	0	11	8	2	1		
Diazepam	90	29	2	27	25	3	1	26	0	26	22	3	1		
Diltiazem	13	3	0	3	3	0	0	1	0	1	1	0	0		
Diphenhydramine	68	38	3	35	23	12	3	33	1	32	21	10	2		
Doxepin	8	4	0	4	2	1	1	4	0	4	2	1	1		
Doxylamine	12	5	0	5	4	0	1	5	0	5	4	0	1		
Ethanol (Ethyl Alcohol)	341	82	19	63	56	20	6	61	6	55	50	6	5		
Ethylene Glycol	1	1	1	0	0	1	0	1	1	0	0	1	0		
Fentanyl	14	4	0	4	4	0	0	4	0	4	4	0	0		
Fluoxetine	29	19	1	17	14	2	3	18	0	18	13	2	3		
Gabapentin	24	15	0	15	10	3	2	12	0	12	7	3	2		
GHB	4	2	0	2	2	0	0	0	0	0	0	0	0		
Glyphosate	1	1	1	0	0	1	0	1	1	0	0	1	0		
Hydrocodone	46	20	0	20	16	3	1	18	0	18	15	3	0		
Hydromorphone	23	14	0	14	12	2	0	11	0	11	9	2	0		
Ibuprofen	13	8	1	7	5	3	0	4	0	4	1	3	0		
Imipramine	5	2	1	1	1	1	0	1	0	1	0	1	0		
Isopropanol	35	0	0	2	2	0	0	0	0	0	0	0	0		
Lamotrigene	4	1	0	1	0	1	0	1	0	1	0	1	0		
Levetriacetam	1	0	0	0	0	0	0	0	0	0	0	0	0		
Lidocaine	2	0	0	0	0	0	0	0	0	0	0	0	0		
Lorazepam	15	5	1	4	4	1	0	3	0	3	2	1	0		
MDA	5	2	0	2	2	0	0	1	0	1	1	0	0		

## 2005 Drug & Poison Caused Deaths, page 3

			Overdos	se Deaths (26	i9)				Overdos	se Deaths (26	9)			Pag
Drug Name	Total Deaths out of 1,945 Cases in which Drug was Present	In which Listed Drug was Present	Single Drug OD in which Drug was Present	Multiple Drug OD in which Drug was Present	Accident	Suicide	Undetermined	In which Listed Drug Caused Death	In which a Single Drug Caused Death	In which Multiple Drugs Caused Death	Accident	Suicide	Undetermined	Page 88
MDMA	10	4	0	4	4	0	0	4	0	4	4	0	0	
Meclizine	1	0	0	0	0	0	0	0	0	0	0	0	0	
Meperidine	2	1	0	1	0	1	0	1	0	1	0	1	0	
Meprobamate	10	6	0	6	4	0	2	2	0	2	2	0	0	K
Mesoridazine	1	1	0	1	1	0	0	0	0	0	0	0	0	King County Medical Examiner's
Methadone	123	84	12	72	76	5	3	86	13	73	78	5	3	C
Methamphetamine	50	27	12	15	25	0	2	29	13	16	26	0	3	) un
Methanol	2	0	0	0	0	0	0	0	0	0	0	0	0	ty
Metoclopramide	7	0	0	0	0	0	0	0	0	0	0	0	0	Me
Methylphenidate	1	0	0	0	0	0	0	0	0	0	0	0	0	dic
Metoprolol	2	1	0	1	1	0	0	1	0	1	1	0	0	al
Midazolam	15	1	0	1	1	0	0	1	0	1	1	0	0	Ex
Mirtazepine	9	2	0	2	2	0	0	2	0	2	2	0	0	am
Morphine	177	85	15	70	76	6	3	84	13	71	76	5	3	ine
Monoacetylmorphine <sup>7</sup>	28	26	4	22	24	1	1	26	4	22	24	1	1	r's
Naproxen	2	1	0	1	1	0	0	0	0	0	0	0	0	Office
Nefazodone	1	0	0	0	0	0	0	0	0	0	0	0	0	fic
Nortriptyline <sup>8</sup>	40	25	0	25	12	11	2	7	0	7	5	2	0	
Olanzapine	5	3	0	3	3	0	0	3	0	3	3	0	0	2005
Oxcarbazepine	1	0	0	0	0	0	0	0	0	0	0	0	0	
Oxycodone	66	35	2	33	28	4	3	34	1	33	28	4	2	An
Paroxetine	9	5	0	5	3	2	0	5	0	5	3	2	0	nu
Phencyclidine (PCP)	3	1	0	1	1	0	0	1	0	1	1	0	0	all
Phenobarbital	15	4	0	4	2	1	1	4	0	4	2	1	1	Annual Report
Phentermine	1	0	0	0	0	0	0	0	0	0	0	0	0	or

Table 9-3

### 2005 Drug & Poison Caused Deaths, page 4

			Overdos	se Deaths (26	i9)				Overdos	e Deaths (269	Ð)			Kin
Drug Name	Total Deaths out of 1,945 Cases in which Drug was Present	In which Listed Drug was Present	Single Drug OD in which Drug was Present	Multiple Drug OD in which Drug was Present	Accident	Suicide	Undetermined	In which Listed Drug Caused Death	In which a Single Drug Caused Death	In which Multiple Drugs Caused Death	Accident	Suicide	Undetermined	g County Medical
Phenytoin	17	3	1	2	1	2	0	2	0	2	0	2	0	ica
Promethazine	12	8	1	7	7	0	1	7	0	7	6	0	1	
Propoxyphene	7	5	0	5	2	1	2	5	0	5	2	1	2	Examiner'
Pseudoephedrine	9	2	0	2	2	0	0	1	0	1	1	0	0	nin
Quetiapine	2	1	0	1	1	0	0	0	0	0	0	0	0	ler'
Salicylates	10	4	1	0	3	0	1	1	1	0	1	0	0	Ś
Sertraline	18	11	0	11	9	1	1	11	0	11	9	1	1	Office
Sufentanil	1	1	0	1	1	0	0	1	0	1	0	0	1	ce
Temazepam	9	3	0	3	3	0	0	1	0	1	1	0	0	- 2
Thioridazine	1	1	0	1	1	0	0	1	0	1	1	0	0	2005
Topiramate	4	2	0	2	1	0	1	2	0	2	1	0	1	
Tramadol	9	3	0	3	3	0	0	3	0	3	3	0	0	nn
Trazodone	28	15	0	15	13	2	0	12	0	12	10	2	0	Annual
Valproic Acid	4	1	0	1	1	0	0	1	0	1	1	0	0	Re
Venlafaxine	11	7	0	7	6	1	0	7	0	7	6	1	0	Report
Zolpidem	9	1	0	1	1	0	0	1	0	1	1	0	0	rt
Zonisamide	1	0	0	0	0	0	0	0	0	0	0	0	0	

<sup>&</sup>lt;sup>1</sup> Table 9-3 is constructed on the basis of finding each of the listed drugs by laboratory analysis of the decedent's blood. The first column represents the total number of cases in which the specific drug was detected, regardless of cause and manner of death. The rest of the columns represent only drug overdose deaths and are divided into two parts. The part that lists "Drug Present" represents the number of cases in drug overdose deaths in which the drug was present in quantifiable amounts. The other part that lists "Drug Causing" represents the number of drug overdose deaths in which the specific drug caused or contributed to death in the opinion of the certifying Medical Examiner. 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. In a few cases, the column that lists "In which Listed Drug Caused Death" is greater than the column that lists "In which Listed 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 4 additional cases of drug overdose deaths in which no sample was available for analysis. Two of these cases represent deaths due to anoxic brain injury that occurred in a hospital after the

Page

68

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 include one death certified as the ingestion of an unknown caustic substance, and three delayed overdose deaths of the following drugs: (1) amitriptyline and amlodipine; (2) cocaine; (3) opiate or methadone.

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

<sup>3</sup> Carbon monoxide fatalities are listed if the level of carboxyhemoglobin was 10% or greater. Suicides due to intentional inhalation of carbon monoxide accounted for 13 of the carbon monoxide deaths. In 11 of the 13 carbon monoxide suicides, other drugs may have been present, but they did not contribute to the death. In two of the 13 carbon monoxide suicides, death was attributed to carbon monoxide in combination with other drugs ((1) amitriptyline, fluoxetine and diazepam, and (2) cocaine and diphenhydramine). Accidental deaths due to inhalation of carbon monoxide accounted for four of the carbon monoxide deaths was attributed solely to inhalation of carbon monoxide and three were attributed to carbon monoxide in combination with drugs (one with cocaine and two with methamphetamine). There was one undetermined death due to carbon monoxide in combination with cocaine. Other sources of carbon monoxide involved fire fatalities.

<sup>4</sup> Includes benzoylecgonine.

<sup>5</sup> Out of the 45 overdose deaths involving codeine, in 43 cases, the source of the drug was likely small quantities of codeine present in heroin used by illicit drug users. In only 2 cases the source of the drug was pharmaceutical codeine.

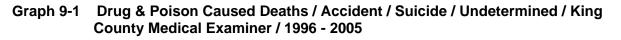
<sup>6</sup> There were 85 overdose deaths involving morphine. In 56 of these cases, the source of the drug was likely the morphine derived from heroin preparations used by illicit drug users. In 20 of these cases the source of the morphine was likely pharmaceutical morphine, and in 9 of these cases the source of the morphine was not known.

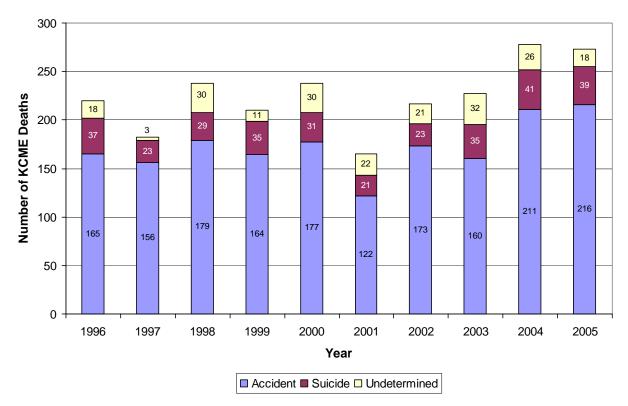
<sup>7</sup> Monoacetylmorphine (MAM) is the first breakdown product of heroin, otherwise known as diacetylmorphine. The presence of MAM, therefore, proves the source of opiate to be heroin. However, the absence of MAM does not imply that the source of the opiate was not heroin.

<sup>8</sup> In 6 of the 25 total cases, nortriptyline was present without the presence of amitriptyline, indicating that the source of the drug was, in fact, nortriptyline. In the other 19 cases, amitriptyline was also present, indicating that the nortriptyline was present due to the breakdown of amitriptyline. There were six nortriptyline overdose deaths, five accidental multiple drug overdoses and one suicidal multiple drug overdose.

Page	91
I ugu	-

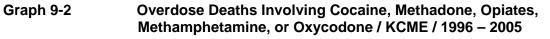
Table 9-4	Total Overdose Deaths / Accident / Suicide / Undetermined / King County Medical Examiner / 1996 - 2005 <sup>°</sup>											
OVERDOSE DEATHS	1996	1996 1997 1998 1999 2000 2001 2002 2003 2004 2005										
Totals	219	182	231	210	235	165	216	226	278	273		

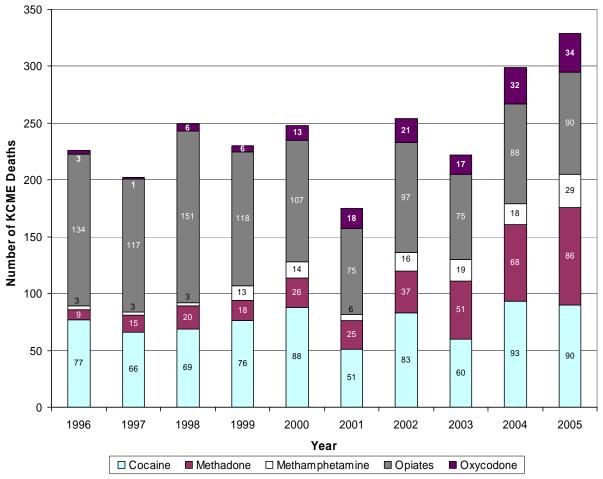


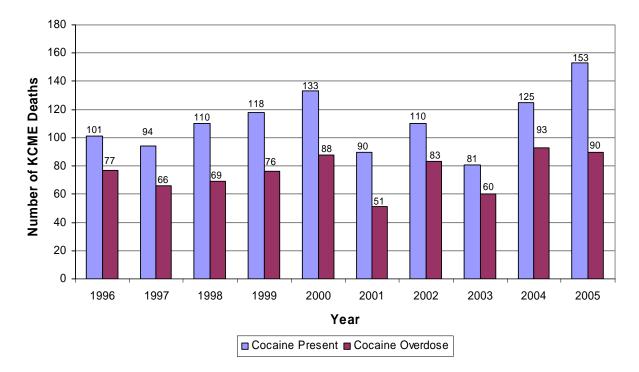


<sup>&</sup>lt;sup>9</sup> Includes all deaths classified as overdose, regardless of whether lab samples were available for analysis.

Table 9-5	Overdose Deaths Involving Cocaine, Methadone, Opiates, Methamphetamine, or Oxycodone / KCME / 1996 - 2005									
DRUG	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Cocaine	77	66	69	76	88	51	83	60	93	90
Methadone	9	15	20	18	26	25	37	51	68	86
Methamphetamine	3	3	3	13	14	6	16	19	18	29
Opiates	134	117	151	118	107	75	97	75	88	90
Oxycodone	3	1	6	5	13	18	21	17	32	34

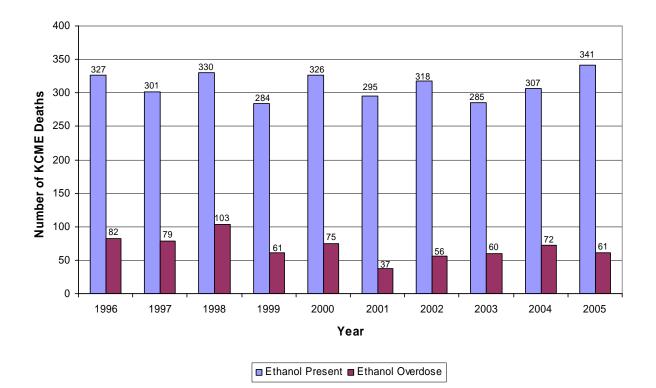




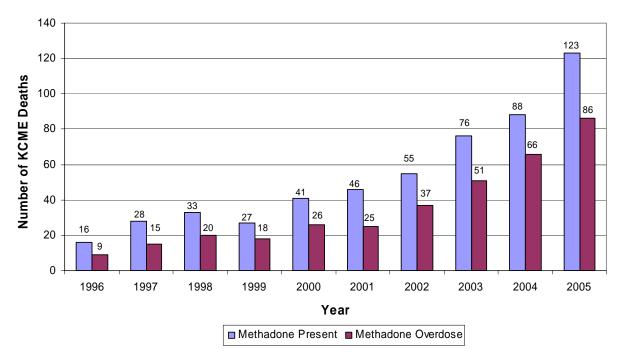


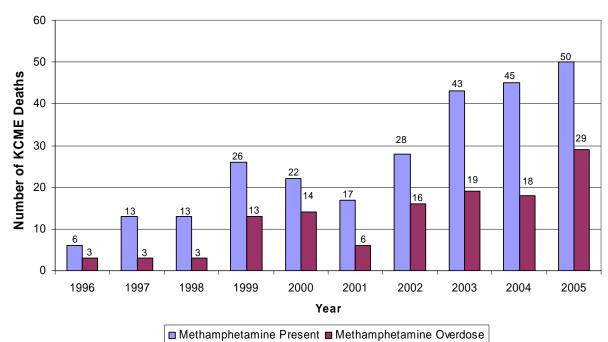
Graph 9-3 Cocaine Involved Deaths / King County Medical Examiner / 1996 - 2005

Graph 9-4 Ethanol Involved Deaths / King County Medical Examiner / 1996 - 2005

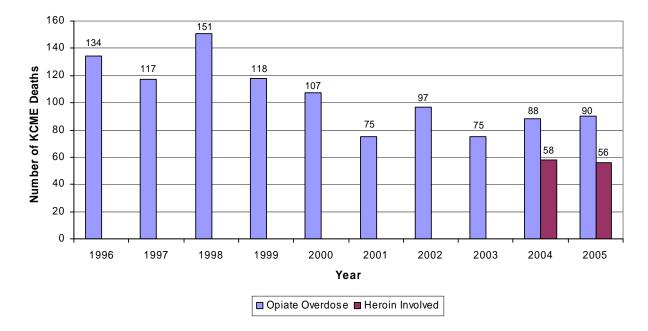


Graph 9-5 Methadone Involved Deaths / King County Medical Examiner / 1996 - 2005



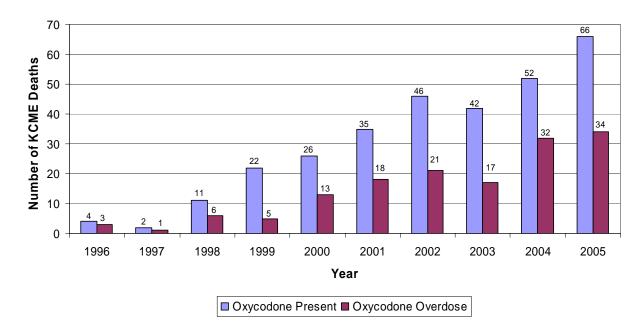


### Graph 9-6 Methamphetamine Involved Deaths / KCME / 1996 – 2005

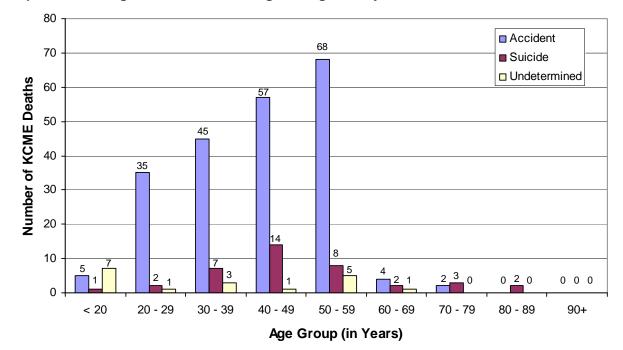


Graph 9-7 Opiate Overdose Deaths & Heroin-Related Deaths / KCME / 1996 - 2005<sup>10</sup>

Graph 9-8 Oxycodone Involved Deaths / King County Medical Examiner / 1996 - 2005



<sup>&</sup>lt;sup>10</sup> 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 / 1996 – 2005

King County Medical Examiner's Office – 2005 Annual Report

Table 9-6         Drug / Poison Deaths / Age / King County Medical Examiner / 2005							
AGE GROUP		MANNER OF DEATH					
(YEARS) / SEX	ACCIDENT	SUICIDE	UNDETERMINE D	TOTAL	TOTAL		
<20	5	1	7		13		
Ma	e 3	1	3	7			
Fema	le 2	0	4	6			
20-29	35	2	1		38		
Ma	e 29	2	1	32			
Fema	le 6	0	0	6			
30-39	45	7	3		55		
Ma	le 31	5	2	38			
Femal	le 14	2	1	17			
40-49	57	14	1		72		
Ma	'e 38	9	0	47			
Fema	le 19	5	1	25			
50-59	68	8	5		81		
Ma	le 48	4	1	53			
Fema	le 20	4	4	28			
60-69	4	2	1		7		
Ma	'e 3	1	0	4			
Fema	'e 1	1	1	3			
70-79	2	3	0		5		
Ma	'e 1	2	0	3			
Fema	'e 1	1	0	2			
80-89	0	2	0		2		
Ma	e 0	0	0	0			
Fema	'e 0	2	0	2			
90+	0	0	0		0		
Ma	'e 0	0	0	0			
Fema	'e 0	0	0	0			
Totals	216	39	18		273		

King County Medical Examiner's Office – 2005 Annual Report
--

### **DEATHS DUE TO FIREARMS: 2005**

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 2005, the Medical Examiner investigated 146 firearm deaths. In 2004, firearms caused 144 deaths; in 2003 firearms caused 155 deaths; in 2002 firearms caused 153 deaths; and in 2001 firearms caused 128 deaths. Of the 146 firearm deaths in 2005, 47 (32%) were homicides and 96 (66%) were suicides. Firearms caused two accidental deaths in 2005; in both 2004 and 2003 firearms caused one accidental death and in both 2002 and 2001 there were no accidental firearm deaths. In 2005, firearms caused one death that was classified as undetermined. This compares to two in 2004, one in 2003, two in 2002, and none in 2001.

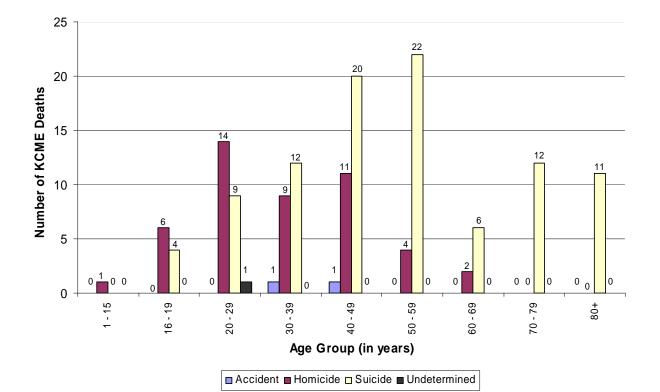
In 2005, gunshot wounds were the leading cause of death for homicides and suicides. Gunshot deaths comprised 59% (47/80) of homicides, compared to 61% (46/76) in 2004, 56% (52/93) in 2003, 58% in both 2002 (53/92) and 2001 (43/74). In 2005, suicides by firearms represented 41% (96/233) of suicide deaths compared to 42% (95/229) in 2004, 47% (101/217) in 2003, 49% in 2002 (98/200), and 46% (85/183) in 2001.

In 2005, of the 47 gunshot homicide victims, 15% (7/47) were 19 years old and younger - a slight decrease from 2004. It is estimated that a disproportionate number of gunshot homicides were black (38%, 18/47) compared to the percentage of blacks in the general population. (See discussions on pages 5 and 41.) Of the 18 black gunshot homicide victims, 37% (10/18) were males between 20 and 29 years of age. In comparison, 53% (25/47) of the homicide gunshot victims were white. Of the 25 white homicide victims, 12% (3/25) were males between 20 and 29 years old.

Firearms were also the most common mode of committing suicide (41%, 96/233) in 2005. Of the 96 gunshot suicide victims, 94% (90/96) were white and 92% (88/96) were males. Four of the gunshot suicide victims were 19 years old and under (4%, 4/96). Twenty-one (22%, 21/96) of the gunshot suicide victims were between the ages of 20 and 39 years of age, 42 (44%, 42/96) were between 40 and 59 years, and 29 (30%, 29/96) were 60 years and older.

		MANNER (					
AGE GROUP / SEX	A H S		S	U	SUB TOTAL	TOTAL	
<13 years	0	0	0	0		0	
Male	0	0	0	0	0		
Female	0	0	0	0	0		
13-15 years	0	1	0	0		1	
Male	0	1	0	0	1		
Female	0	0	0	0	0		
16-19 years	0	6	4	0		10	
Male	0	6	4	0	10		
Female	0	0	0	0	0		
20-29 years	0	14	9	1		24	
Male	0	14	9	1	24		
Female	0	0	0	0	0		
30-39 years	1	9	12	0		22	
Male	1	9	12	0	22		
Female	0	0	0	0	0		
40-49 years	1	11	20	0		32	
Male	1	10	17	0	28		
Female	0	1	3	0	4		
50-59 years	0	4	22	0		26	
Male	0	3	19	0	22		
Female	0	1	3	0	4		
60-69 years	0	2	6	0		8	
Male	0	2	6	0	8		
Female	0	0	0	0	0		
70-79 years	0	0	12	0		12	
Male	0	0	10	0	10		
Female	0	0	2	0	2		
80-89 years	0	0	11	0		11	
Male	0	0	10	0	10		
Female	0	0	1	0	1		
90+	0	0	0	0		0	
Male	0	0	0	0	0		
Female	0	0	0	0	0		
Totals	2	47	96	1		146	
Percent	1.4%	32.2%	65.7%	0.7%		100%	

### Table 10-1 Firearm Deaths / Manner / Age / Sex / King County Medical Examiner / 2005



Graph 10-1 Firearm Deaths / Manner / Age Group / King County Medical Examiner / 2005

	Thoum				/ 2000	
RACE /		SUB-				
SEX	А	Н	S	U	TOTAL	TOTAL
Asian	0	4	3	0		7
Male	0	4	3	0	7	
Female	0	0	0	0	0	
Black	0	18	2	0		20
Male	0	18	2		20	
Female	0	0	0	0	0	
Native American	0	0	0	0		0
Male	0	0	0	0	0	
Female	0	0	0	0	0	
White	2	25	90	1		118
Male	2	23	82	1	108	
Female	0	2	8	0	10	
Other	0	0	1	0		1
Male	0	0	1	0	1	
Female	0	0	0	0	0	
Totals	2	47	96	1		146

Table 10-2	Firearm Deaths / Manner / Race / Sex / KCME / 2005

## CAUSES OF DEATH IN CHILDREN AND YOUTH

In 2005, the King County Medical Examiner's Office investigated 101 deaths of children and youth ages 19 years or younger, which represented 5% (101/1,945) of the total deaths investigated. Of these deaths, 35% (35/101) were natural, 16% (16/101) were accidents (non-traffic), 13% (13/101) were homicides, 25% (25/101) were traffic related, 8% (8/101) were suicides, and 4% (4/101) 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 35 natural deaths of children and youth investigated by the Medical Examiner, 63% (22/35) were of infants less than one year of age. Of these 22 infants who died of natural causes, 10 were due to Sudden Infant Death Syndrome (SIDS).

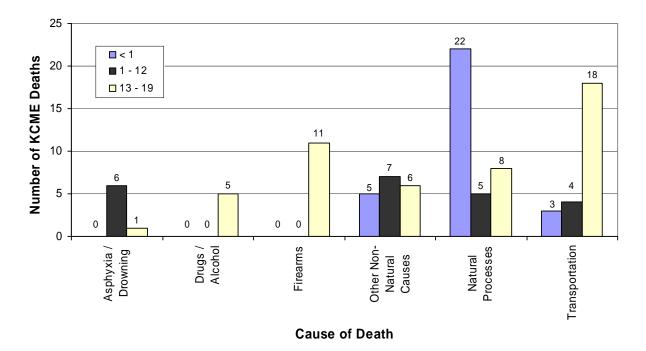
There were 16 children and youth whose deaths were classified as accidental, excluding trafficrelated accidents. Another 25 children and youths died in traffic related accidents.

There were 13 homicides among children and youth. Of these 13 homicide victims, 10 were teenagers (13 - 19 years of age) and three were children under 12 years. Fifty-four percent (7/13) of the children and youth homicide victims died by firearms.

There were eight youth suicides, all between the ages of 13 and 19 years. Males comprised 88% (7/8) of the victims. Regarding the methods used to commit suicide by youth, four were by firearms, one was by hanging, two were by jumping and one was by drugs.

Twenty-five (25) children and youth (19 years and under) died in traffic-related accidents, of whom 18 (72%) were teenagers. There were five motor vehicle driver deaths and nine motor vehicle passenger deaths among teenagers. There were no teenager bicycle deaths in 2005. There were two teenage motorcycle driver deaths in 2005 and one teenage motorcycle passenger death. There was one teenage pedestrian death in 2005. Of the 19 children and youths who died in motor vehicles, six were known to be restrained, nine were found not to be wearing any restraint, and it was unknown or undeterminable if the remaining four were using seatbelts 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 / 2005

Table 11-1	Causes	of Death	: Childre	n Under	1 Year of	<sup>-</sup> Age / K	CME / 20	05
			MANNER	OF DEATH	4		SUB	
CIRCUMSTANCES	А	Н	S	Т	U	Ν	TOTAL	TOTAL
Miscellaneous	1	1	0	3	3	10		18
Asphyxia	0	0	0	0	0	0	0	
Automobile Passenger	0	0	0	3	0	0	3	
Aspiration	1	0	0	0	0	0	1	
Blunt Force / Crushing	0	1	0	0	0	0	1	
Burns / Fire	0	0	0	0	0	0	0	
Drugs	0	0	0	0	0	0	0	
Homicidal Violence	0	0	0	0	0	0	0	
Other	0	0	0	0	3	0	3	
SIDS	0	0	0	0	0	10	10	
Other Natural Disease	0	0	0	0	0	12		12
Totals	1	1	0	3	3	22		30

## King County Medical Examiner's Office – 2005 Annual Report

Page 105

		Μ	IANNER	OF DEAT	Н		SUB	
CIRCUMSTANCES	А	Н	S	Т	U	Ν	TOTAL	TOTAL
Asphyxia	6	0	0	0	0	0		6
Carbon Monoxide	0	0	0	0	0	0	0	
Drowning	3	0	0	0	0	0	3	
Hanging	2	0	0	0	0	0	2	
Mechanical	1	0	0	0	0	0	1	
Other	0	0	0	0	0	0	0	
Positional	0	0	0	0	0	0	0	
Miscellaneous	4	0	0	0	1	0		5
Complication of Therapy	0	0	0	0	0	0	0	
Drugs	0	0	0	0	0	0	0	
Fire / Explosion	0	0	0	0	0	0	0	
Hyperthermia	1	0	0	0	0	0	1	
Jump	0	0	0	0	0	0	0	
Non Traffic -Vehicle	2	0	0	0	0	0	2	
Other	1	0	0	0	1	0	2	
Physical Trauma	0	2	0	0	0	0		2
Abuse	0	0	0	0	0	0	0	
Blunt Force / Crushing	0	2	0	0	0	0	2	
Burns / Fire	0	0	0	0	0	0	0	
Firearms	0	0	0	0	0	0	0	
Incised / Stab Wound(s)	0	0	0	0	0	0	0	
Transportation Related	0	0	0	4	0	0		4
Bicycle	0	0	0	1	0	0	1	
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	5		5
Totals	10	2	0	4	1	5		22

## Table 11-2 Causes of Death: Children 1 to 12 Years of Age / KCME / 2005

Page 106

King County Medical Examiner's Office – 2005 Annual Report

Table 11-3 Caus	Causes of Death: Children 13 to 19 Years of Age / KCME / 2005							
		M	ANNER	OF DEAT	Ή		SUB	
CIRCUMSTANCES	А	Н	S	Т	U	Ν	TOTAL	ΤΟΤΑΙ
Asphyxia	0	0	1	0	0	0		1
Drowning	0	0	0	0	0	0	0	
Hanging	0	0	1	0	0	0	1	
Smothering	0	0	0	0	0	0	0	
Drugs / Alcohol	4	0	1	0	0	0		5
Miscellaneous	1	0	2	0	0	0		3
Complication of Therapy	0	0	0	0	0	0	0	
Fall	0	0	0	0	0	0	0	
Jump	0	0	2	0	0	0	2	
Non-Traffic Vehicular	1	0	0	0	0	0	1	
Other	0	0	0	0	0	0	0	
Physical Trauma	0	10	4	0	0	0		14
Blunt Force / Crushing	0	0	0	0	0	0	0	
Firearms	0	7	4	0	0	0	11	
Homicidal Violence	0	2	0	0	0	0	2	
Incised / Stab Wound(s)	0	1	0	0	0	0	1	
Strangulation	0	0	0	0	0	0	0	
Struck by Train	0	0	0	0	0	0	0	
Transportation Related	0	0	0	18	0	0		18
Bicycle	0	0	0	0	0	0	0	
Motor Vehicle Driver	0	0	0	5	0	0	5	
Motor Vehicle Passenger	0	0	0	9	0	0	9	
Motorcycle	0	0	0	3	0	0	3	
Pedestrian	0	0	0	1	0	0	1	
Natural disease	0	0	0	0	0	8		8
Totals	5	10	8	18	0	8		49

## MEDICAL EXAMINER ACTIVITY

The Medical Examiner's Office staff 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. The Medical Examiner pathologists 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 office, Medical Examiner staff establishes the decedent's identity, and locates and notifies the next-of-kin of the death. In addition, staff secures property that belongs to the decedent and releases it according to legal requirements. In most cases identification and property 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. Medical Examiner staff ensures that all leads have been exhausted in pursuit of next-of-kin; this can be a very time consuming but ultimately rewarding effort.

The Medical Examiner's autopsy staff and forensic pathologists perform a postmortem examination on each decedent that may include external and internal photographs, the preservation of various body fluids and tissues for microscopic and toxicological analysis, and in many cases, skeletal and dental radiography. The above examinations are essential items in those cases where the pathologist provides court testimony. The Medical Examiner's office also provides forensic anthropology services, 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. The Chief Medical Examiner also provides expert medical consultation and testimony in cases involving nonfatal domestic violence assaults.

The Medical Examiner's Office provides autopsy reports and related data from individual investigations to law enforcement agencies, prosecuting attorneys, and many other agencies including Labor and Industries, Child Protective Services, Adult Protective Services, the Drug Enforcement Administration, and the Consumer Product Safety Commission. The Medical Examiner's Office reports drug related deaths to the Drug Abuse Warning Network (DAWN), a national public health surveillance system that monitors drug trends.

Medical Examiner investigations require frequent contact between the Medical Examiner's Office and various media personnel. Staff is 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 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 traffic collisions, and investigation of therapeutic complication deaths. In addition, the Medical Examiner's Office participates in the education of medical students, pathology residents, emergency medical service providers, college interns, and law enforcement personnel.

In 2005, 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, Chief Medical Examiner

## Associations, Committees and Boards:

- Advisory Board, University of Washington Certificate Program in Forensics
- Community Advisory Board, University of Washington School of Nursing, Advanced Practice Forensic Nurse Specialist Program
- King County Child Death Review Committee
- King County Elder Abuse Council
- Washington State Child Death Review Advisory Committee
- King County Jail Health Services Quality Assurance Committee
- Member, American Academy of Forensic Sciences
- Member, National Association of Medical Examiners
- Member, Washington Association of Coroners and Medical Examiners
- Member, Washington State and American Medical Associations

## **Preceptorships:**

- Clinical Professor, Department of Pathology, University of Washington School of Medicine
- Medical Students and Residents in Pathology from University of Washington School of Medicine and Resident in Pathology from University of Hawaii School of Medicine
- Graduate Forensic Nursing Students, University of Washington School of Nursing
- Paramedic Students, Harborview Medical Center

## King County Medical Examiner's Office - 2005 Annual Report

#### **Publications:**

- Tramadol (Ultram) concentrations in death investigation and impaired driving cases and their significance. Clarkson JE, Lacy JM, Fligner CL, Thiersch N, Howard J, Harruff RC, Logan BK. Journal of Forensic Sciences 2004 Sep; 49(5):1101-5.
- *Gun storage practices and risk of youth suicide and unintentional firearm injuries.* Grossman DC, Mueller BA, Riedy C, Dowd MD, Villaveces A, Prodzinski J, Nakagawara J, Howard J, Thiersch N, Harruff R. *JAMA* 2005 Feb; 293(6):707-14.
- *Epidemiology of MDMA and associated club drugs in the Seattle area.* Banta-Green C, Goldbaum G, Kingston S, Golden M, Harruff R, Logan BK. *Substance Use and Misuse* 2005;40(9-10):1295-315.
- Investigation of the sudden death of infants: a multicenter analysis. Landi K, Gutierrez C, Sampson B, Harruff R, Rubio I, Balbela B, Greco MA. Pediatric and Developmental Pathology 2005 Nov-Dec;8(6):630-8.

#### Local and Regional Educational Presentations:

- The Death Scene and Autopsy King County Prosecuting Attorneys Training Seattle, WA January 22
- Medicolegal Death Investigations Course Washington Association of Sheriffs and Police Chiefs Lacey, WA March 10
- Strangulation Injuries Domestic Violence Training for Prosecutors Bastyr University, Seattle, WA March 24 and 25
- Traffic Fatality Investigation and Investigation of Infant Deaths Medicolegal Investigation of Death Course University of Washington Seattle, WA April 11
- Characteristics of Physical Injuries in Assaults Forensic Nursing 2005 – Violence, a Critical Issue for Nursing Practice Conference Sponsored by University of Washington School of Nursing Seattle, WA April 14
- Patterned Injuries and Strangulation Sexual Assault Nurse Examiners (SANE) Core Training University of Washington Seattle, WA April 26
- Firearm Injuries Seattle Police Department Seattle, WA May 2
- Medical Examiner's Office and the Immigrant Community Community Housecalls Advisory Board Harborview Medical Center Seattle, WA June 8

#### **Page 110**

- Medical Examiner and the Operating Room Staff Harborview Medical Center Seattle, WA July 6
- Strangulation Injuries King County Department of Corrections Seattle, WA July 20
- Patterned Injuries and Strangulation Sexual Assault Nurse Examiners (SANE) Core Training University of Washington Seattle, WA October 4
- Fatality Management Lessons from Katrina Washington State Association of Local Public Officials SeaTac, WA November 30
- Forensic Pathology and the Medical Examiner Overlake School, Redmond, WA December 7

## Brian Mazrim, MD, Associate Medical Examiner

## Associations, Committees and Boards:

- Member, American Academy of Forensic Scientists
- Member, Washington Association of Coroners and Medical Examiners

## Local and Regional Educational Presentations:

 Problems in Forensic Pathology Educational Conference King County Medical Examiner's Office Seattle, WA Weekly 2005

## 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

## **Preceptorships:**

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

## **Publications:**

- Aberrant neuronal-glial differentiation in Taylor-type focal cortical dysplasia (type IIA/B). Englund C, Folkerth RD, Born D, Lacy JM, Hevner RF. Acta Neuropathol (Berl). 2005;109(5): 519-533
- Postinfectious vasculopathy with evolution to moyamoya syndrome. Czartoski T, Hallam D, Lacy JM, Chun MR, Becker K. J. Neurol Neurosurg Psychiatry. 2005; 76: 256-259

## Local and Regional Educational Presentations:

- Medical Examiner Testimony Franklin High School Mock Trial Team Seattle, WA January 11
- Tryptase in Death Investigation Forensic Pathology Conference King County Medical Examiner's Office Seattle, WA April 20
- Opiate Deaths in King County King County Board of Health Seattle, WA October 21

## Katherine Taylor, PhD, Forensic Anthropologist

## Associations, Committees and Boards:

- Fellow, American Academy of Forensic Sciences
- Diplomate, American Board of Medicolegal Death Investigators
- Member, Washington Association of Coroners and Medical Examiners
- Member, Washington State Task Force on Missing and Unidentified Persons
- Member, Seattle University Advisory Board, Criminal Justice Program

## Trainings and Educational Activities:

- Participant, Integrated Emergency management Course/Recovery and Mitigation: University of Washington. National Emergency Training Center (FEMA), Emmetsburg, MD August 8-11.
- Participant, National Conference on Missing and Unidentified Persons. Denver, CO November 7-9.

## Page 112 King County Medical Examiner's Office – 2005 Annual Report

#### Local and Regional Educational Presentations:

- A Career In Forensic Anthropology University of Washington Career Day Panel Seattle, WA January 24
- Mock Expert Witness Testimony Seattle University School of Law Seattle, WA March 7
- Speaker for the Careers in Forensic Panel Mercer Island High School Career Day Mercer Island, WA March 21
- Careers for Women in Science: Forensic Anthropology Expanding Your Horizons Conference at Bellevue Community College Bellevue, WA March 30
- Determination of Human vs. Nonhuman Skeletal Material Pierce County Medical Examiner's Office Tacoma, WA March 30
- Forensic Anthropology Seattle University Forensic Science Class Seattle, WA April 12
- Instructor for Buried Body and Surface Recovery School Lane County Sheriff's Office Eugene, OR April 18-20
- Determination of Human vs. Nonhuman skeletal material Washington State Search and Rescue Conference Chelan County, WA May 21
- Guest on Cop Talk Radio Bellevue, WA September 28
- Outdoor Crime Scenes and Evidence Collection Northwest Association of Forensic Science SeaTac, WA November 15
- Outdoor Skeletal Remains Scenes Pierce County Medical Examiner's Office Tacoma, WA December 14

## 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

## **Presentations:**

- Role and Responsibility of the Medical Examiner's Office Co-presenter with Al Noriega Seattle University Criminal Justice Program Seattle, WA April 13
- Role and Responsibility of the Medical Examiner's Office Co-presenter with Al Noriega Seattle University Criminal Justice Program Seattle, WA April 14

## Al Noriega, Lead Forensic Medical Investigator

#### Associations, Committees and Boards:

- Diplomate, American Board of Medicolegal Death Investigators
- Member, Washington Association of Coroners and Medical Examiners
- Member, Seattle University Advisory Committee, Criminal Justice Program

## **Presentations:**

- Role and Responsibility of the Medical Examiner's Office Seattle University Seattle, WA January 19
- Role and Responsibility of the Medical Examiner's Office Co-presenter with Nathan Geerdes Seattle University Seattle, WA January 26
- Role and Responsibility of the Medical Examiner's Office Co-presenter with Greg Hewett Seattle University Seattle, WA April 13
- Role and Responsibility of the Medical Examiner's Office Co-presenter with Greg Hewett Seattle University Seattle, WA April 14
- Medicolegal Death Investigation Virginia Mason Medical Center, Clinical Laboratory Seattle, WA August 9
- Role and Responsibility of the Medical Examiner's Office King County Sheriff Chaplains King County Fire Chaplains Seattle, WA August 30

#### **Page 114**

## Nathan Geerdes, BA, Medicolegal Death Investigator

#### Associations, Committees and Boards:

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

## **Presentations:**

- Role and Responsibility of the Medical Examiner's Office Co-presenter with Al Noriega Seattle University Seattle, WA January 26
- Role and Responsibility of the Medical Examiner's Office Seattle University Seattle, WA March 1
- Role and Responsibility of the Medical Examiner's Office Seattle University Seattle, WA March 18

## **Robinette Struckel, Forensic Autopsy Technician**

#### Associations, Committees and Boards:

- Trainee Affiliate, American Academy of Forensic Scientists
- Member, Northwest Association of Forensic Scientists
- Member, Disease Surge Capacity Response Team
- Member, Washington Association of Coroners and Medical Examiners

## **Presentations:**

 Collection, Processing, and Release of Evidence from KCMEO Co-presented with Jaime Navarro, Forensic Autopsy Technician King County Advisory Committee meeting Seattle Police Department Training Office Seattle, WA November 15

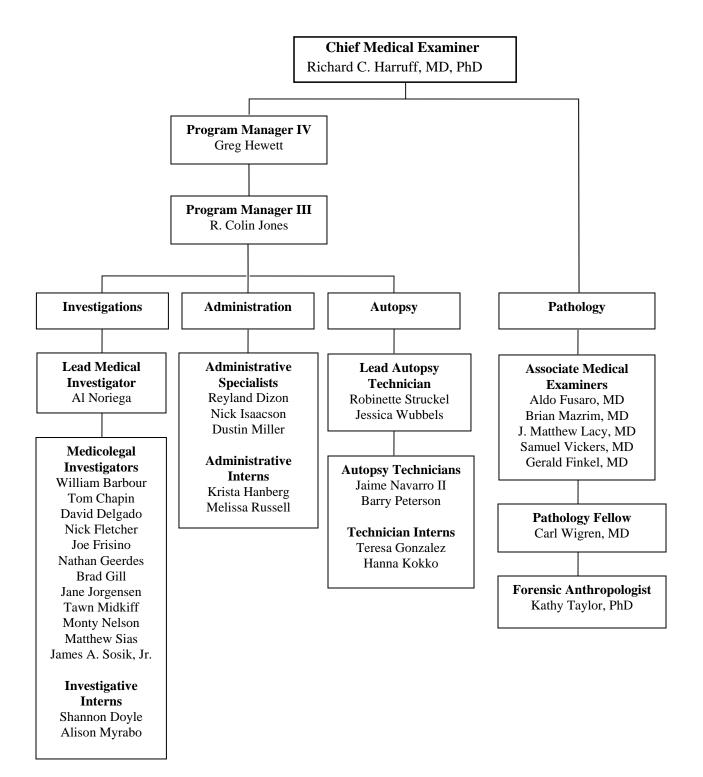
# Weekly Variation of Deaths Investigated by the King CountyTable 12-1Medical Examiner's Office / 2005

	TOTAL
Number of weeks studied	52
Mean number of cases assumed	37
Maximum in any one week	60
Minimum in any one week	24

# Weekly Variation of Autopsies Performed by the King CountyTable 12-2Medical Examiner's Office / 2005

	TOTAL
Number of weeks studied	52
Mean number of autopsies	23
Maximum in any one week	37
Minimum in any one week	17

# **Organization of the King County Medical Examiner's Office 2005**



# **GLOSSARY OF TERMS**

Blood alcohol level:	The concentration of ethanol (alcohol) found in blood following ingestion. Measured in grams per 100 ml of blood or grams %. In the State of Washington, 0.08 grams % is considered the legally intoxicated level while driving.
Cause of Death:	Any injury or disease that produces a physiological derangement in the body that results in the death of an individual. <sup>1</sup>
Drug:	Therapeutic drug: A substance, other than food, used in the prevention, diagnosis, alleviation, treatment, or cure of disease. Recreational drug: A drug used non-medically for personal stimulation/depression/euphoria.
Drug caused death:	Death directly caused by a drug or drugs in combination with each other or with alcohol.
Jurisdiction:	The jurisdiction of the Medical Examiner extends to all reportable deaths occurring within the boundaries of King County, whether or not the incident leading to the death (such as an accident) occurred within the county. Reportable deaths are defined by RCW 68.50, as explained in the "Description and Purpose" section of this report. Not all natural deaths reported fall within the jurisdiction of the Medical Examiner.
Manner of Death:	A classification of the way in which the events preceding death were causal factors in the death. The manner of death as determined by the forensic pathologist is an opinion based on the known facts concerning the circumstances leading up to and surrounding the death, in conjunction with autopsy findings and laboratory tests. <sup>2</sup>
Manner: Accident	Death other than natural, where there is no evidence of intent, i.e., unintentional. In this report, traffic accidents are classified separately.

<sup>&</sup>lt;sup>1</sup> DiMaio, Vincent J. & DiMaio, Dominick. Forensic Pathology, Second Edition. CRC Press, 2001.
<sup>2</sup> Ibid, p. 3.

Page 118	King County Medical Examiner's Office – 2005 Annual Report
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 ends 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.
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.
Race:	The racial categories used in this report are: White; Black; Native American; Asian (S.E. Asian/Pacific Islander); and Other.