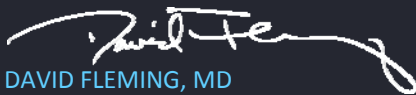




King County Medical Examiner's Office
Harborview Medical Center
325 Ninth Ave, Box 359792
Seattle, Washington 98104

Phone: 206-731-3232 | Fax: 206-731-8555
TTY Relay: 711
www.kingcounty.gov/health/examiner


DAVID FLEMING, MD

Director and 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



Public Health
Seattle & King County



2011 Annual Report

DEDICATION

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

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

When a death occurs on the job or is work-related, the King County Medical Examiner's Office immediately forwards the results of its investigation to the Washington State Department of Labor and Industries so that the family can gain the full benefit of the findings. Private insurance companies also routinely use the findings to settle claims. Whenever a consumer product is implicated in a death, the King County Medical Examiner's Office notifies the Consumer Product Safety Commission to ensure that the product is studied and the necessary steps are taken to protect the public.

The public health role of the Medical Examiner is to isolate and identify the causes of sudden, unexpected death that might affect more than one person. When an infectious agent or toxin is implicated in a death, the Medical Examiner's Office

notifies the family and contacts of the deceased so they may receive any needed medical treatment. Trends in injury and violence are monitored. In this era of concern about emergency response and bioterrorism, the Medical Examiner provides an important level of preparedness and surveillance.

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

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



The Medical Examiner's Office 2011 Annual Report reflects the activities in investigating jurisdictional deaths in King County. The mission of the King County Medical Examiner's Office (KCMEO) is to investigate sudden, unexpected and unnatural deaths in King County with the highest level of professionalism, compassion and efficiency, and to provide a resource for improving the health and safety of the community.

A few selected findings are highlighted below:

- In 2011, there were an estimated 13,355 deaths in King County. Of those deaths, 10,061 (75%) were reported to the Medical Examiner's Office. Deaths occurring in a hospital setting from a known natural disease process are not required to be reported to the Medical Examiner's Office. The Medical Examiner's Office assumed jurisdiction over 2,112 deaths; the number of applicable cases used in this report is 2,036 deaths once non-human remains and contract anthropology cases for other jurisdictions are removed.
- The Medical Examiner's Office performed autopsies in 59% of those jurisdictional deaths (1,196/2,036). In 2011, those jurisdictional deaths included: 54 homicides, 265 suicides, 135 traffic deaths, 594 accidental deaths, 926 natural deaths and 62 deaths due to undetermined causes.
- Of the 23 natural deaths of children and youth investigated by the Medical Examiner, 74% (17/23) were of infants less than one year of age. Of those 17 infants who died of natural causes, 10 were due to Sudden Infant Death Syndrome (SIDS). In addition, nine infant deaths were classified as "Sudden Unexplained Infant Death" (SUID), manner undetermined, due to the inability to exclude if external factors contributed to death.
- Several factors appear repeatedly in unnatural deaths. Of all traffic fatalities in which tests were performed, 21% tested positive for the presence of alcohol in the blood. Firearms were the most frequent instrument of death in homicides (65%) and suicides (44%).
- Males comprised 74% (40/54) and women 26% (14/54) of the homicide victims in 2011. The majority of victims, 59% (32/54), were between the ages of 20 and 49 years. The number of homicide victims 19 years old and under dropped significantly. In 2011 they accounted for 15% (8/54) of the homicide victims, compared to 2010 when this younger age group represented 25% (15/59) of all homicide victims. Eighty-seven percent (47/54) of the victims were tested for the presence of alcohol. Of those tested 30% (14/47) showed alcohol present at the time of death.
- In 2011, of the 35 firearm homicide victims, 14% (5/35) were 19 years old and younger - a decrease from 2010 when 28% of firearm homicide victims were 19 years old and younger. In 2011, there was a

disproportionate number of firearm homicide victims that were African American (17%, 6/35) when compared to the percentage of African Americans in King County's population (6.3%) (see discussions on pages 8 and 44.) Of the 6 African American firearm homicide victims, 33% (2/6) were males 29 years old and younger. In comparison, 66% (23/35) of the homicide firearm victims were White. Of the 23 White firearm homicide victims, 52% (12/23) were males between 20 and 29 years old.

- For King County in 2011, drugs and poisons caused 268 deaths, approximately 13% of all deaths investigated (268/2,036). The total number of drug-caused deaths decreased very slightly compared to 2010 when there were 271 drug deaths. In 2011, deaths due to drugs and poisons comprised 29% (268/922) of all suicidal, accidental and undetermined deaths combined.
- In 2011 the King County Medical Examiner's Office maintained accreditation by N.A.M.E. which stands for the National Association of Medical Examiners. This is the national professional organization of physician medical examiners, medicolegal death investigators and death investigation system administrators who perform the official duties of the medicolegal investigation of deaths in the United States.

This annual report presents detailed analyses of the different manners of deaths, as well as trends in homicides, traffic fatalities, and drug overdose deaths. While the report tends to depict the more violent types of deaths, it is worth noting that 46% of Medical Examiner cases were classified as natural deaths.

Description and purpose

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

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

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

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

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

Mission Statement

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

To achieve this mission, the KCMEO will:

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

Explanation of data

The 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 2010, the King County population was estimated to be 1,942,600.¹ Included within King County are 39 cities and towns including Seattle, the state's largest city. Mercer Island, Vashon Island, two major airports and several colleges and universities are all in the geographic area served by the Medical Examiner's Office. In King County more than 20 hospitals and a major trauma center serve the entire Pacific Northwest region.

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

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

The variables displayed in the tables such as race, sex, age, etc., have been selected as those most likely to assist and interest individuals using this data in assembling a profile of statistics on deaths examined by the Medical Examiner's Office for 2011. The Washington State Office of Financial Management estimates the racial distribution of King County to be 74.7% White, 6.3% African American, 3.6% Two or More Races, 14.4% Asian/Pacific Islander (including Hawaiian and other Pacific Islanders), and 1% American Indian/Alaska Native.² Information on Hispanic ethnicity of the decedent is not available for every case, and will not be presented in this report.

Medical Examiner figures cannot be directly compared to the racial distribution of King County residents. This is because as mentioned above and emphasized in Table 1-9 on page 22, in 6% of the Medical Examiner cases the incident leading to death occurred outside of King County and the decedent likely was not a resident of King County. However, as a rough estimate, the only manner of death that varies from the racial distribution of the county by a large percentage is Homicide (see discussion on page 44).

Age groups 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.

¹State of Washington, Office of Financial Management, 2011 estimate.

² State of Washington, Office of Financial Management, 2010 estimate. (latest figures available)

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

Data on natural deaths is included. However, these deaths due to natural causes are not representative of all natural deaths in King County. Natural deaths that the Medical Examiner investigates are those that occur suddenly and unexpectedly with no physician in attendance, or under suspicious circumstances. Such natural deaths comprised 45% (926/2,036) of all deaths that the Medical Examiner's Office investigated in 2011.

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 2011

The following provides a summary of the raw data from the Medical Examiner's cases for the year 2011. Ten-year trends are shown beginning on page 25.

In 2011, there were an estimated 13,355 deaths that occurred in King County (0.69% of a 2011 population estimate of 1,942,600).³ A total of, 10,137 (76%, 10,137/13,355) were reported to the Medical Examiner's Office by medical and law enforcement personnel. Based on analysis of the scene and circumstances of death and the decedent's medical history gathered by the forensic medicolegal death investigators, the Medical Examiner's Office assumed jurisdiction in 2,112 of these reported deaths, of which 76 were either ultimately found to be non-human remains or contract cases (i.e., cases in which autopsy and/or anthropology cases are examined for other counties or agencies). Throughout the report, except where stated, the non-human, anthropology, and contract cases are excluded. The number of applicable cases used in this report is 2,036 deaths.

In approximately 79% (8,025/10,137) 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% (2,036/13,355) of deaths that occurred in King County in 2011.⁴

Of note is the fact that the Medical Examiner declined jurisdiction in 8,025 of the deaths that were reported. The Medical Examiner's Office applies a strict interpretation of its governing legislative language "persons who die suddenly when in apparent good health and without medical attendance within thirty-six hours preceding death" (RCW 68.50). The Medical Examiner assumes jurisdiction only if both conditions (lack of medical care and apparent good health) apply, and there is no attending outside physician with sufficient knowledge of the individual's natural disease condition to certify the death.

The Medical Examiner's Office performed autopsies in 59% (1,196/2,036) 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 2011, there were 381 such deaths, accounting for 19% (381/2,036) of the total deaths. In addition, there were 430 deaths (21%) (430/2,036) 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, 21% (22/107) 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 80 vehicle occupants who died, 48% (38/80) were wearing seatbelt restraints.

³Death certificates filed in King County, Vital Statistics, Public Health - Seattle & King County, March, 2011.

⁴Does not include non-human remains or anthropology/contract cases.

In the 27 deaths involving motorcyclists, 19 (70%) were wearing helmets.

Firearms were the most frequent instrument of death in homicides and suicides, accounting for 65% (35/54) of the homicides and 49% (116/235) of the suicides.

While the discussion here tends to depict the more violent types of death, the reader should be reminded that 45% (926/2,036) of Medical Examiner cases involve natural deaths. Specific discussion and presentation of relevant tables regarding 2011 cases follow this brief summary.

Table 1-1 Deaths Occurring in King County / Medical Examiner Cases / 2011

| CASES BY MANNER OF DEATH ⁵ | | | NUMBER OF KCME DEATHS | PERCENT OF KCME DEATHS |
|---|-----|--|-----------------------------|------------------------------|
| Accident Other | (A) | | 594 | 29% |
| Accident Traffic | (T) | | 135 | 7% |
| Homicide | (H) | | 54 | 3% |
| Natural | (N) | | 926 | 45% |
| Suicide | (S) | | 265 | 13% |
| Undetermined ⁶ | (U) | | 62 | 3% |
| Total KCME general cases | | | 2,036 | 100% |
| Non-applicable cases where jurisdiction was assumed | | | 76 | |
| Total KCME jurisdiction cases | | | 2,112 | |
| Total KCME general cases ⁷ | | | 2,036 | |
| Deaths reported to KCME but no jurisdiction was assumed (NJA) | | | 8,025 | |
| All other deaths in King County not reported to KCME | | | 3,294 | |
| ALL KING COUNTY DEATHS ⁸ | | | 13,355 | |

⁵The letters following each manner of death will be used in most tables throughout this report.

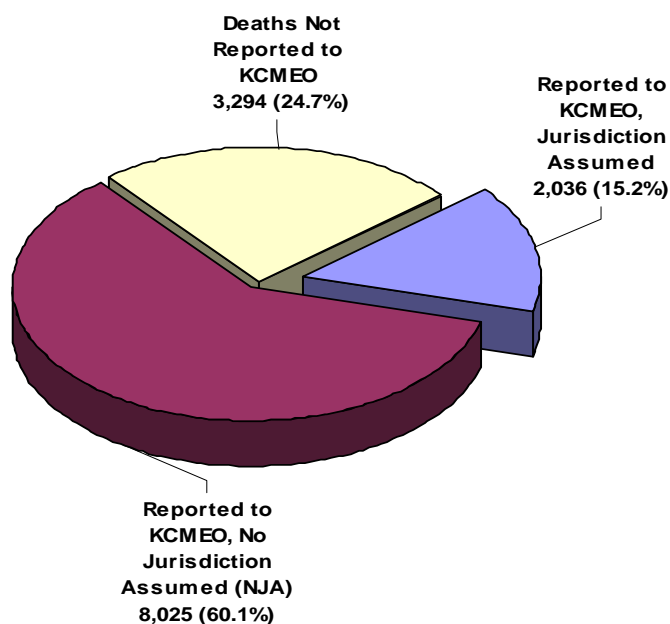
⁶Includes four fetal deaths, which according to Washington State death certification procedures, are not assigned a manner of death.

⁷This is the total number of cases that will be referred to throughout this report unless otherwise noted.

⁸Death certificates filed in King County, Vital Statistics, Public Health - Seattle & King County, May 2012

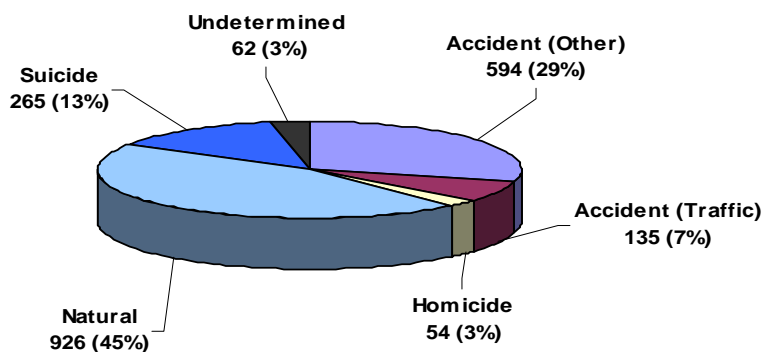
Graph 1-1 All King County Deaths with Medical Examiner Jurisdiction Shown / 2011

Total Deaths in King County, 2011: 13,355



Graph 1-2 Manner of Death for All Medical Examiner Jurisdiction Cases / 2011

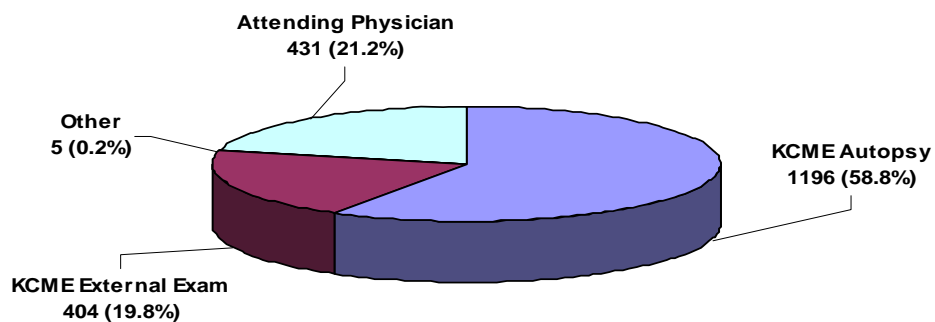
⁹
Jurisdiction assumed in 2,036 cases.



⁹This number does not include 76 non-applicable cases (non-human tissue/bones and anthropology/contract cases).

Table 1-2 Method of Certification / Manner of Death / KCME / 2011

| CERTIFICATION | MANNER OF DEATH | | | | | | TOTAL | % |
|---------------------|-----------------|------------|-----------------|------------|------------|-----------------|-------------|-------------|
| | A | T | H | N | S | U | | |
| KCME Autopsies | 325 | 84 | 51 | 457 | 221 | 58 | 1196 | 58.8% |
| KCME External Exams | 158 | 44 | 0 | 158 | 44 | 0 | 404 | 19.8% |
| KCME Other | 0 | 0 | 3 ¹⁰ | 0 | 0 | 2 ¹¹ | 5 | 0.2% |
| Attending Physician | 111 | 7 | 0 | 311 | 0 | 2 | 431 | 21.2% |
| Totals | 594 | 135 | 54 | 926 | 265 | 62 | 2036 | 100% |

Graph 1-3 Method of Certification for all King County Medical Examiner Jurisdiction Cases / 2011

¹⁰ Includes 3 cases where death occurred in King County, but jurisdiction for examination was transferred to county of incident.

¹¹ Includes one presumptive death certificate where a body was not found and 1 case of jurisdiction transfer.

Manner of Death in 2011

King County Medical Examiner's Office General Cases

Table 1-3 Sex / Manner of Death / King County Medical Examiner's Office / 2011

| SEX | MANNER OF DEATH | | | | | | TOTAL | % |
|---------------|-----------------|------------|-----------|------------|------------|-----------|--------------|-------------|
| | A | T | H | N | S | U | | |
| Male | 342 | 101 | 40 | 615 | 192 | 34 | 1,324 | 65% |
| Female | 252 | 34 | 14 | 311 | 73 | 28 | 712 | 35% |
| Totals | 594 | 135 | 54 | 926 | 265 | 62 | 2,036 | 100% |

Graph 1-4 Sex / Manner of Death / King County Medical Examiner's Office / 2011

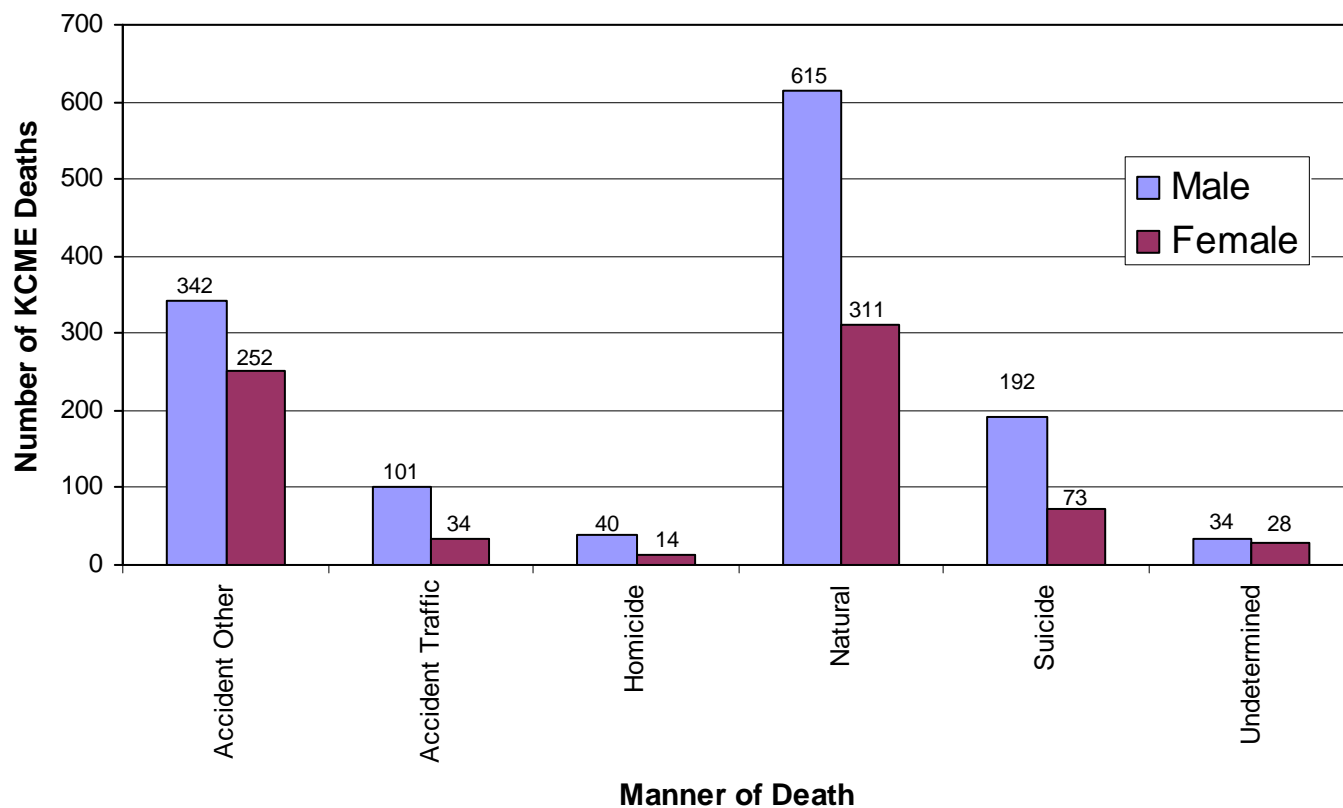


Table 1-4 Age / Sex / Manner of Death / King County Medical Examiner's Office / 2011

| AGE / SEX | MANNER OF DEATH | | | | | | Sub-Total | TOTAL | % |
|---------------|-----------------|------------|-----------|------------|------------|-----------|-----------|--------------|-------------|
| | A | T | H | N | S | U | | | |
| Under 1 year | 3 | 1 | 0 | 17 | 0 | 14 | | 35 | 1.7% |
| Male | 0 | 1 | 0 | 12 | 0 | 8 | 21 | | |
| Female | 3 | 0 | 0 | 5 | 0 | 6 | 14 | | |
| 1-5 years | 5 | 0 | 1 | 0 | 0 | 1 | | 7 | 0.3% |
| Male | 5 | 0 | 1 | 0 | 0 | 1 | 7 | | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 6-12 years | 3 | 2 | 0 | 0 | 2 | 1 | | 8 | 0.4% |
| Male | 3 | 1 | 0 | 0 | 1 | 1 | 6 | | |
| Female | 0 | 1 | 0 | 0 | 1 | 0 | 2 | | |
| 13-15 years | 1 | 2 | 0 | 3 | 2 | 0 | | 8 | 0.4% |
| Male | 1 | 2 | 0 | 3 | 0 | 0 | 6 | | |
| Female | 0 | 0 | 0 | 0 | 2 | 0 | 2 | | |
| 16-19 years | 5 | 5 | 7 | 3 | 7 | 0 | | 27 | 1.3% |
| Male | 5 | 3 | 3 | 1 | 6 | 0 | 18 | | |
| Female | 0 | 2 | 4 | 2 | 1 | 0 | 9 | | |
| 20-29 years | 41 | 26 | 18 | 16 | 42 | 7 | | 150 | 7.4% |
| Male | 29 | 18 | 16 | 5 | 30 | 3 | 101 | | |
| Female | 12 | 8 | 2 | 11 | 12 | 4 | 49 | | |
| 30-39 years | 59 | 14 | 4 | 49 | 38 | 5 | | 169 | 8.3% |
| Male | 38 | 13 | 3 | 32 | 31 | 3 | 120 | | |
| Female | 21 | 1 | 1 | 11 | 12 | 4 | 49 | | |
| 40-49 years | 72 | 13 | 10 | 105 | 38 | 10 | | 248 | 12.2% |
| Male | 55 | 11 | 7 | 70 | 26 | 4 | 173 | | |
| Female | 17 | 2 | 3 | 35 | 12 | 6 | 75 | | |
| 50-59 years | 94 | 29 | 6 | 237 | 63 | 8 | | 437 | 21.5% |
| Male | 57 | 22 | 5 | 175 | 42 | 7 | 308 | | |
| Female | 37 | 7 | 1 | 62 | 21 | 1 | 129 | | |
| 60-69 years | 60 | 18 | 4 | 225 | 41 | 7 | | 355 | 17.4% |
| Male | 35 | 16 | 3 | 170 | 30 | 5 | 259 | | |
| Female | 25 | 2 | 1 | 55 | 11 | 2 | 96 | | |
| 70-79 years | 53 | 12 | 1 | 125 | 18 | 3 | | 212 | 10.4% |
| Male | 28 | 8 | 1 | 83 | 15 | 2 | 137 | | |
| Female | 25 | 4 | 0 | 42 | 3 | 1 | 75 | | |
| 80-89 years | 118 | 10 | 3 | 104 | 11 | 4 | | 250 | 12.3% |
| Male | 59 | 5 | 1 | 52 | 8 | 0 | 125 | | |
| Female | 59 | 5 | 2 | 52 | 3 | 4 | 125 | | |
| 90+years | 80 | 3 | 0 | 42 | 3 | 2 | | 130 | 6.4% |
| Male | 27 | 1 | 0 | 12 | 3 | 0 | 43 | | |
| Female | 53 | 2 | 0 | 30 | 0 | 2 | 87 | | |
| Totals | 594 | 135 | 54 | 926 | 265 | 62 | | 2,036 | 100% |

Table 1-5 Race / Sex / Manner of Death / King County Medical Examiner's Office / 2011¹²

| RACE / SEX | MANNER OF DEATH | | | | | | Sub-Total | TOTAL | % |
|------------------------------------|-----------------|------------|-----------|------------|------------|-----------|-----------|--------------|-------------|
| | A | T | H | N | S | U | | | |
| White | 518 | 110 | 37 | 748 | 229 | 41 | | 1,683 | 82.7% |
| <i>Male</i> | 293 | 83 | 29 | 503 | 168 | 24 | 1100 | | |
| <i>Female</i> | 225 | 27 | 8 | 245 | 61 | 17 | 583 | | |
| African American | 34 | 8 | 8 | 77 | 11 | 7 | | 145 | 7.1% |
| <i>Male</i> | 22 | 8 | 4 | 52 | 6 | 5 | 97 | | |
| <i>Female</i> | 12 | 0 | 4 | 25 | 5 | 2 | 48 | | |
| Asian/Pacific Is. | 22 | 13 | 6 | 58 | 18 | 7 | | 124 | 6.1% |
| <i>Male</i> | 13 | 7 | 5 | 33 | 12 | 3 | 73 | | |
| <i>Female</i> | 9 | 6 | 1 | 25 | 6 | 4 | 51 | | |
| American Indian / Alaska Native | 3 | 0 | 0 | 19 | 2 | 0 | | 24 | 1.2% |
| <i>Male</i> | 1 | 0 | 0 | 11 | 2 | 0 | 14 | | |
| <i>Female</i> | 2 | 0 | 0 | 8 | 0 | 0 | 10 | | |
| Other | 17 | 4 | 3 | 24 | 5 | 7 | | 60 | 2.9% |
| <i>Male</i> | 13 | 3 | 2 | 16 | 4 | 2 | 40 | | |
| <i>Female</i> | 4 | 1 | 1 | 8 | 1 | 5 | 20 | | |
| Totals | 594 | 135 | 54 | 926 | 265 | 62 | | 2,036 | 100% |

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

Table 1-6 Marital Status / Sex / Manner of Death / King County Medical Examiner's Office / 2011¹³

| MARITAL STATUS / SEX | MANNER OF DEATH | | | | | | Sub-Total | TOTAL | % |
|----------------------|-----------------|------------|-----------|------------|------------|-----------|-----------|--------------|-------------|
| | A | T | H | N | S | U | | | |
| Never Married | 152 | 47 | 28 | 271 | 108 | 28 | | 634 | 31.14% |
| Male | 107 | 36 | 22 | 201 | 82 | 18 | 466 | | |
| Female | 45 | 11 | 6 | 70 | 26 | 10 | 168 | | |
| Married | 168 | 39 | 11 | 202 | 69 | 12 | | 501 | 24.61% |
| Male | 121 | 32 | 8 | 134 | 57 | 6 | 353 | | |
| Female | 47 | 7 | 3 | 68 | 17 | 6 | 148 | | |
| Divorced | 97 | 26 | 11 | 229 | 57 | 11 | | 431 | 21.27% |
| Male | 48 | 20 | 8 | 164 | 38 | 6 | 284 | | |
| Female | 49 | 6 | 3 | 65 | 19 | 5 | 147 | | |
| Widowed | 138 | 15 | 2 | 111 | 17 | 7 | | 290 | 14.24% |
| Male | 40 | 7 | 0 | 34 | 12 | 1 | 94 | | |
| Female | 98 | 8 | 2 | 77 | 5 | 6 | 196 | | |
| Unknown | 37 | 8 | 1 | 113 | 13 | 4 | | 176 | 8.64% |
| Male | 24 | 6 | 1 | 82 | 8 | 3 | 124 | | |
| Female | 13 | 2 | 0 | 31 | 5 | 1 | 52 | | |
| Domestic Partner | 2 | 0 | 1 | 0 | 1 | 0 | | 4 | 0.19% |
| Male | 2 | 0 | 1 | 0 | 0 | 0 | 3 | | |
| Female | 0 | 0 | 0 | 0 | 1 | 0 | 1 | | |
| Totals | 594 | 135 | 54 | 926 | 265 | 62 | | 2,036 | 100% |

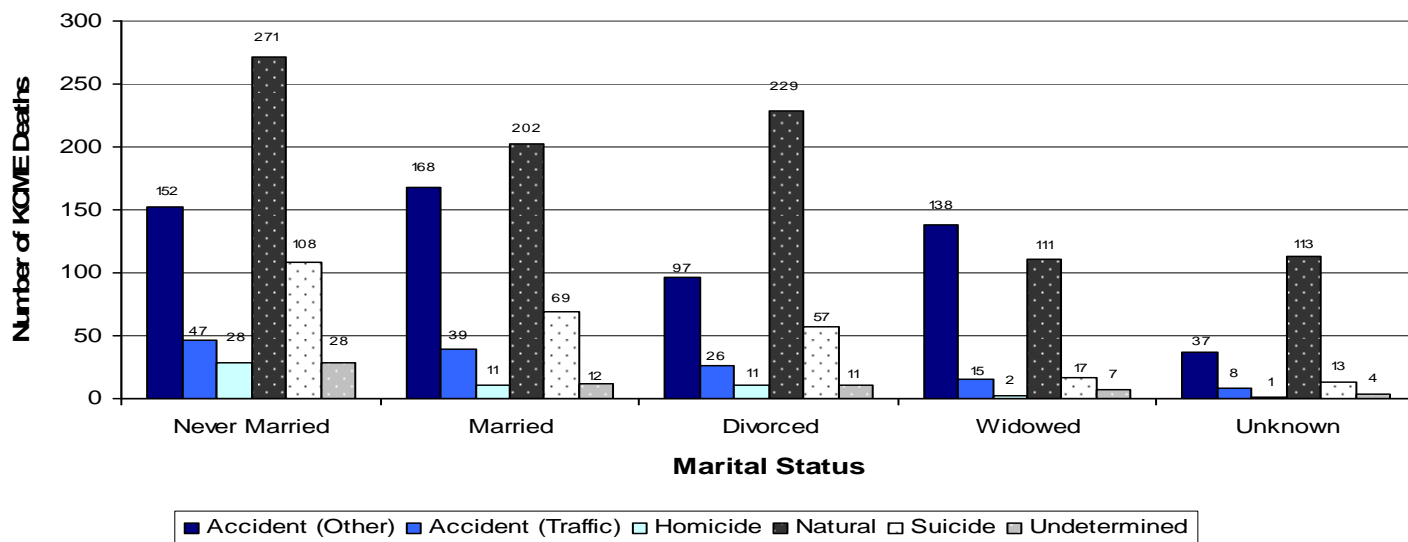
¹³A = Accident (Non-Traffic), T = Traffic, H = Homicide, N = Natural, S = Suicide, U = Undetermined.

Table 1-7 Month / Manner of Death / King County Medical Examiner's Office / 2011¹⁴

| MONTH | MANNER OF DEATH | | | | | | Total | % |
|---------------|-----------------|------------|-----------|------------|------------|-----------|--------------|-------------|
| | A | T | H | N | S | U | | |
| Prior to 2010 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 0.1% |
| 2010 | 2 | 0 | 5 | 14 | 2 | 3 | 26 | 1.3% |
| January | 63 | 8 | 4 | 85 | 28 | 7 | 195 | 9.6% |
| February | 43 | 13 | 2 | 86 | 18 | 3 | 165 | 8.1% |
| March | 54 | 8 | 3 | 79 | 25 | 8 | 177 | 8.7% |
| April | 47 | 10 | 2 | 101 | 26 | 5 | 191 | 9.4% |
| May | 48 | 6 | 6 | 78 | 26 | 6 | 170 | 8.3% |
| June | 43 | 12 | 2 | 66 | 16 | 2 | 141 | 6.9% |
| July | 42 | 19 | 6 | 61 | 21 | 7 | 156 | 7.7% |
| August | 52 | 10 | 5 | 65 | 26 | 4 | 162 | 8% |
| September | 58 | 22 | 5 | 80 | 28 | 7 | 200 | 9.8% |
| October | 43 | 6 | 3 | 72 | 21 | 2 | 147 | 7.2% |
| November | 53 | 11 | 6 | 77 | 15 | 3 | 165 | 8.1% |
| December | 45 | 10 | 5 | 62 | 13 | 4 | 139 | 6.8% |
| Totals | 594 | 135 | 54 | 926 | 265 | 62 | 2,036 | 100% |

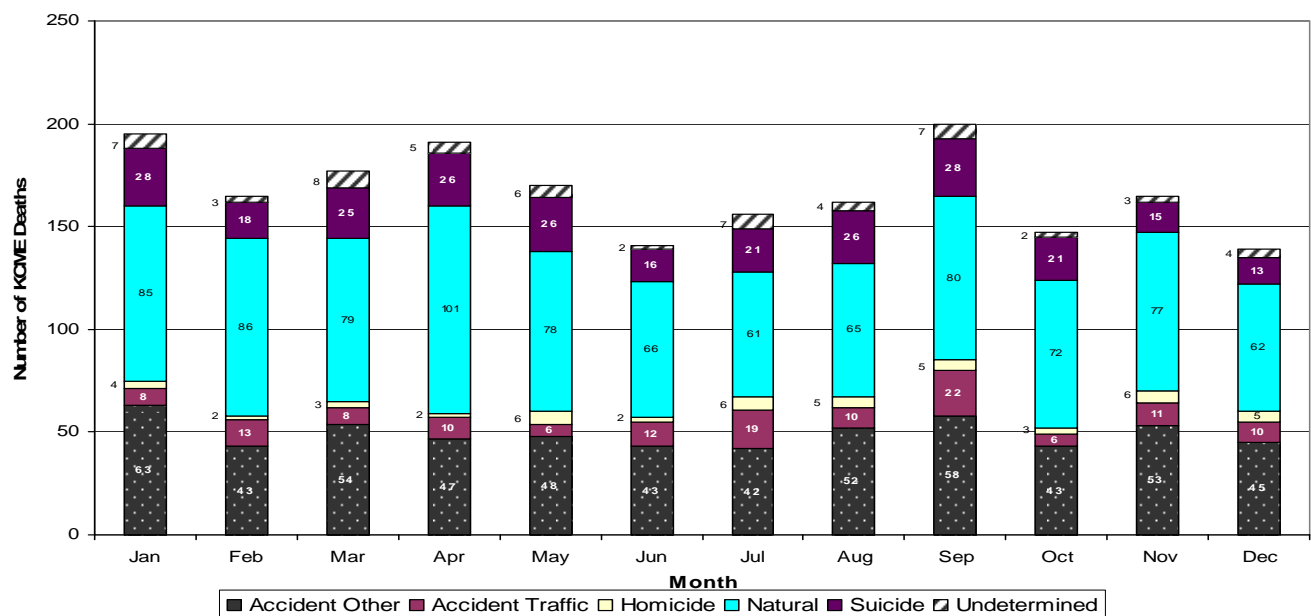
Graph 1-6 Month / Manner of Death / King County Medical Examiner's Office / 2011

¹⁴A = Accident (Non-Traffic), T = Traffic, H = Homicide, N = Natural, S = Suicide, U = Undetermined.

Table 1-8 Nearest Incorporated City to the Fatal Incident / KCME / 2011¹⁵

| CITY | MANNER OF DEATH | | | | | TOTAL | % |
|------------------|-----------------|----|---|----|---|-------|------|
| | A | T | H | S | U | | |
| Algona | 1 | 0 | 0 | 0 | 0 | 1 | 0.1% |
| Auburn | 17 | 12 | 3 | 11 | 2 | 45 | 4% |
| Beaux Arts | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Bellevue | 25 | 6 | 3 | 15 | 2 | 51 | 4.6% |
| Black Diamond | 1 | 1 | 0 | 1 | 0 | 3 | 0.3% |
| Bothell | 9 | 0 | 0 | 3 | 0 | 12 | 1.1% |
| Burien | 10 | 1 | 0 | 3 | 2 | 16 | 1.4% |
| Carnation | 1 | 0 | 0 | 2 | 0 | 3 | 0.3% |
| Clyde Hill | 0 | 0 | 0 | 1 | 0 | 1 | 0.1% |
| Covington | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Des Moines | 15 | 1 | 1 | 1 | 1 | 19 | 1.7% |
| Duvall | 0 | 0 | 0 | 3 | 0 | 3 | 0.3% |
| Enumclaw | 9 | 1 | 1 | 5 | 1 | 17 | 1.5% |
| Federal Way | 27 | 1 | 4 | 12 | 5 | 49 | 4.4% |
| Hunts Point | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Issaquah | 11 | 2 | 1 | 7 | 1 | 22 | 2.0% |
| Kenmore | 5 | 0 | 0 | 3 | 0 | 8 | 0.7% |
| Kent | 32 | 6 | 5 | 18 | 8 | 69 | 6.2% |
| Kirkland | 15 | 4 | 1 | 9 | 2 | 31 | 2.8% |
| Lake Forest Park | 0 | 0 | 0 | 1 | 0 | 1 | 0.1% |
| Maple Valley | 2 | 2 | 1 | 2 | 0 | 7 | 0.6% |
| Medina | 1 | 0 | 0 | 0 | 0 | 1 | 0.1% |
| Mercer Island | 9 | 1 | 0 | 3 | 0 | 13 | 1.2% |
| Milton | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Newcastle | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Normandy Park | 3 | 0 | 0 | 0 | 0 | 3 | 0.3% |
| North Bend | 2 | 0 | 0 | 6 | 0 | 8 | 0.7% |
| Pacific | 1 | 0 | 0 | 0 | 0 | 1 | 0.1% |

¹⁵ Table does not include cases where manner of death is classified "Natural". A = Accident (Non-Traffic), T = Traffic, H = Homicide, S = Suicide, U = Undetermined.

Table 1-8 Nearest Incorporated City to the Fatal Incident / KCME / 2011¹⁶ (continued)

| CITY | MANNER OF DEATH | | | | | Total | % |
|-------------------------------|-----------------|------------|-----------|------------|-----------|-------------|-------------|
| | A | T | H | S | U | | |
| Redmond | 18 | 1 | 0 | 8 | 0 | 27 | 2.4% |
| Renton | 31 | 6 | 2 | 10 | 4 | 53 | 4.7% |
| Sammamish | 2 | 0 | 0 | 2 | 0 | 4 | 0.4% |
| SeaTac | 6 | 0 | 0 | 5 | 1 | 12 | 1.1% |
| Seattle | 220 | 26 | 25 | 98 | 25 | 394 | 35.5% |
| Shoreline | 13 | 3 | 1 | 12 | 0 | 29 | 2.6% |
| Skykomish | 1 | 1 | 0 | 1 | 0 | 3 | 0.3% |
| Snoqualmie | 1 | 2 | 0 | 0 | 0 | 3 | 0.3% |
| Tukwila | 4 | 1 | 0 | 2 | 0 | 7 | 0.6% |
| Woodinville | 5 | 2 | 0 | 4 | 0 | 11 | 1% |
| Yarrow Point | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Unincorporated King County | | | | | | | |
| Fall City | 3 | 1 | 0 | 1 | 0 | 5 | 0.4% |
| Ravensdale | 1 | 2 | 1 | 2 | 0 | 6 | 0.5% |
| Vashon Island | 6 | 0 | 0 | 2 | 1 | 9 | 0.8% |
| Outside of King County | 81 | 49 | 5 | 12 | 3 | 150 | 13.4% |
| Unknown Location | 6 | 3 | 0 | 0 | 4 | 13 | 1.4% |
| Totals | 594 | 135 | 54 | 265 | 62 | 1110 | 100% |

¹⁶A = Accident (Non-Traffic), T = Traffic, H = Homicide, S = Suicide, U = Undetermined.

Out of County Cases 2011

King County is home to many hospitals and a major trauma center that serve the entire Pacific Northwest and the western United States. Consequently, there are numerous deaths each year where the incident leading to death occurred outside of King County. However, because the death occurred within King County, it comes under the jurisdiction of the King County Medical Examiner's Office. In 2011, there were 163 deaths (15%, 163/1,100) where the incident (excluding deaths classified as "Natural") occurred out of county. Table 1-9 displays these deaths by incident location and manner.

Table 1-9 Fatal Incident Occurred Outside of King County / KCME / 2011¹⁷

| INCIDENT LOCATION | MANNER OF DEATH | | | | | TOTAL |
|--------------------------|-----------------|-----------|----------|-----------|----------|------------|
| | A | T | H | S | U | |
| Alaska | 1 | 1 | 0 | 0 | 0 | 2 |
| Montana | 0 | 0 | 0 | 0 | 0 | 0 |
| Idaho | 0 | 1 | 0 | 0 | 0 | 1 |
| Oregon | 3 | 0 | 0 | 0 | 0 | 3 |
| Other States | 1 | 3 | 0 | 0 | 0 | 4 |
| Washington | | | | | | |
| <i>Island County</i> | 5 | 0 | 0 | 0 | 0 | 5 |
| <i>Kitsap County</i> | 3 | 6 | 0 | 0 | 0 | 9 |
| <i>Pierce County</i> | 9 | 0 | 0 | 1 | 0 | 10 |
| <i>Skagit County</i> | 9 | 0 | 0 | 0 | 0 | 9 |
| <i>Snohomish County</i> | 26 | 13 | 3 | 3 | 2 | 47 |
| <i>Thurston County</i> | 1 | 2 | 0 | 0 | 0 | 3 |
| <i>Other WA Counties</i> | 27 | 23 | 2 | 8 | 4 | 64 |
| Washington Sub-Total | 80 | 44 | 5 | 12 | 6 | 147 |
| Out of Country | 0 | 1 | 0 | 0 | 0 | 1 |
| Unknown | 2 | 2 | 0 | 0 | 1 | 5 |
| Totals | 87 | 52 | 5 | 12 | 7 | 163 |

¹⁷Table does not include cases where manner of death is classified as "Natural." A = Accident (Non-Traffic), T = Traffic, H = Homicide, S = Suicide, U = Undetermined.

Ten-year perspective

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

The tables on the following pages attempt to give a perspective on the types of deaths that the Medical Examiner investigates. The tables display data by category and year and provide trends over time. More detailed analysis of 2011 data is provided in separate sections for each manner of death (Accident, Homicide, Natural, Suicide, Traffic, and Undetermined).

Table 2-1
Comparison of Manners of Death / KCME / 2002 - 2011

| MANNER OF DEATH | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Accident (Other) | 472 | 485 | 542 | 602 | 721 | 687 | 739 | 632 | 593 | 594 |
| Accident (Traffic) | 203 | 179 | 192 | 226 | 211 | 170 | 163 | 141 | 150 | 135 |
| Homicide | 93 | 93 | 76 | 80 | 91 | 76 | 85 | 63 | 59 | 54 |
| Natural | 661 | 770 | 765 | 763 | 752 | 863 | 871 | 989 | 953 | 926 |
| Suicide | 200 | 217 | 229 | 233 | 227 | 223 | 210 | 253 | 232 | 265 |
| Undetermined | 55 | 71 | 62 | 41 | 53 | 53 | 53 | 59 | 73 | 62 |
| Totals | 1,684 | 1,815 | 1,866 | 1,945 | 2,055 | 2,072 | 2,121 | 2,137 | 2,060 | 2,036 |

Table 2-2
Comparison of Manners of Death as Percentage of Total Annual Medical Examiner Cases / KCME / 2002 – 2011

| MANNER OF DEATH | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | % | % | % | % | % | % | % | % | % | % |
| Accident (Other) | 28.0 | 26.8 | 29.0 | 31.0 | 35.1 | 33.1 | 34.8 | 29.6 | 28.8 | 29.2 |
| Accident (Traffic) | 12.1 | 9.9 | 10.3 | 11.6 | 10.3 | 8.2 | 7.7 | 6.6 | 7.3 | 6.6 |
| Homicide | 5.5 | 5.1 | 4.1 | 4.1 | 4.4 | 3.7 | 4.0 | 2.9 | 2.9 | 2.7 |
| Natural | 39.3 | 42.4 | 41.0 | 39.2 | 36.6 | 41.7 | 41.1 | 46.3 | 46.3 | 45.5 |
| Suicide | 11.9 | 11.9 | 12.3 | 12.0 | 11.0 | 10.8 | 9.9 | 11.8 | 11.2 | 13 |
| Undetermined | 3.2 | 3.9 | 3.3 | 2.1 | 2.6 | 2.5 | 2.5 | 2.8 | 3.5 | 3 |
| Totals | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Graph 2-1

Comparison of Manners of Death / King County Medical Examiner / 2002 - 2011

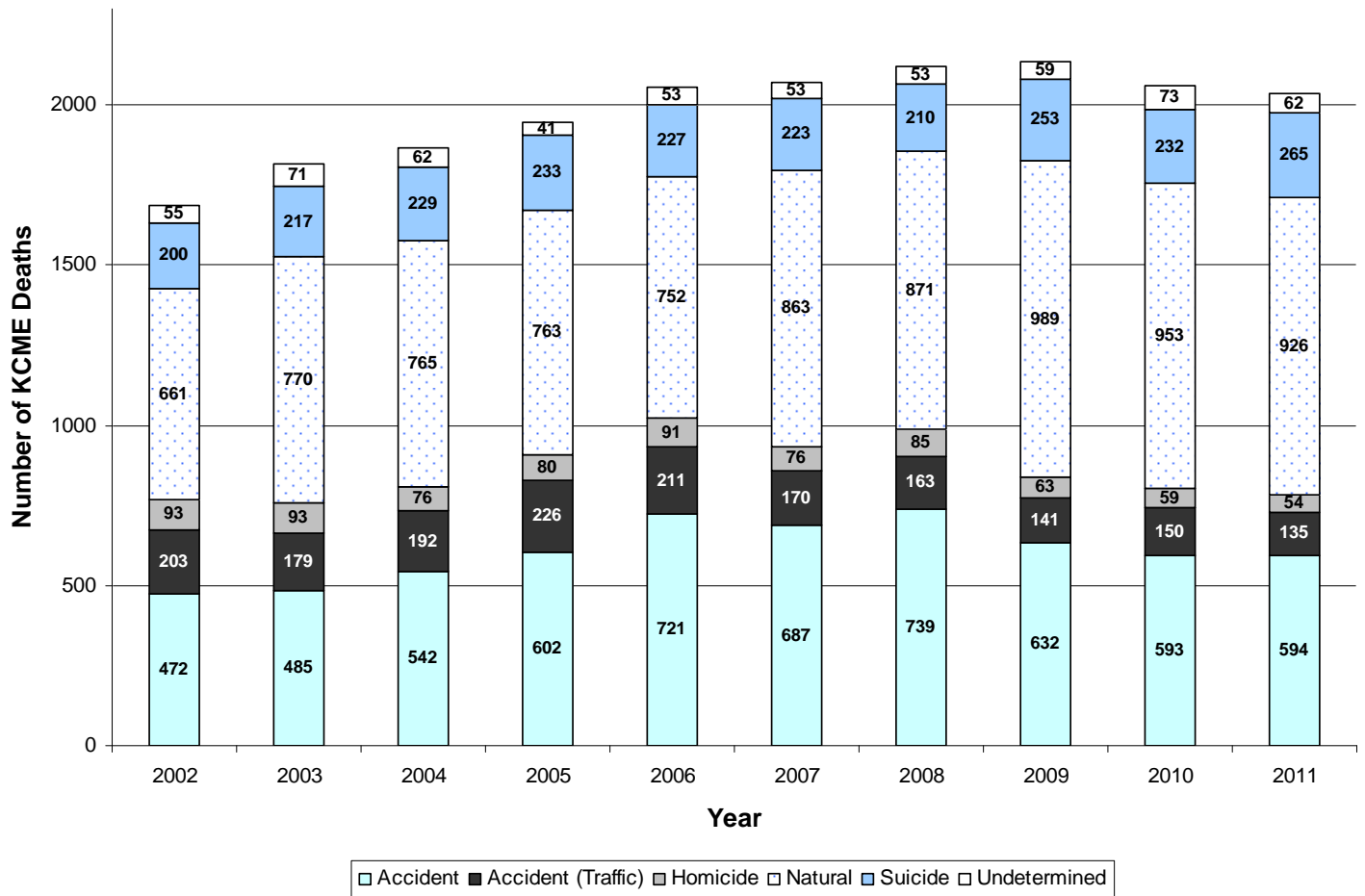


Table 2-3 Ten-Year Perspective of Homicidal Methods / KCME / 2002 – 2011

| METHOD USED | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Blunt Force (#) | 14 | 14 | 10 | 12 | 16 | 9 | 16 | 5 | 11 | 6 |
| Blunt Force (%) | 15% | 15% | 13% | 15% | 18% | 12% | 19% | 8% | 18% | 11% |
| Firearms (#) | 53 | 52 | 46 | 47 | 52 | 55 | 45 | 41 | 39 | 35 |
| Firearms (%) | 57% | 56% | 61% | 59% | 57% | 72% | 53% | 65% | 66% | 65% |
| Hom. Violence (#) | 2 | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 1 | 1 |
| Hom. Violence (%) | 2% | 3% | 4% | 3% | 0% | 0% | 0% | 0% | 2% | 2% |
| Stabbing (#) | 17 | 16 | 10 | 14 | 14 | 12 | 12 | 11 | 2 | 9 |
| Stabbing (%) | 18% | 17% | 13% | 17% | 15% | 16% | 14% | 17% | 4% | 16% |
| Strangulation (#) | 3 | 5 | 1 | 4 | 1 | 0 | 4 | 3 | 1 | 2 |
| Strangulation (%) | 3% | 6% | 1% | 5% | 1% | 0% | 5% | 5% | 2% | 4% |
| Other (#) | 4 | 3 | 6 | 1 | 8 | 0 | 8 | 3 | 5 | 1 |
| Other (%) | 5% | 3% | 8% | 1% | 9% | 0% | 9% | 5% | 8% | 2% |
| Totals | 93 | 93 | 76 | 80 | 91 | 76 | 85 | 63 | 59 | 54 |

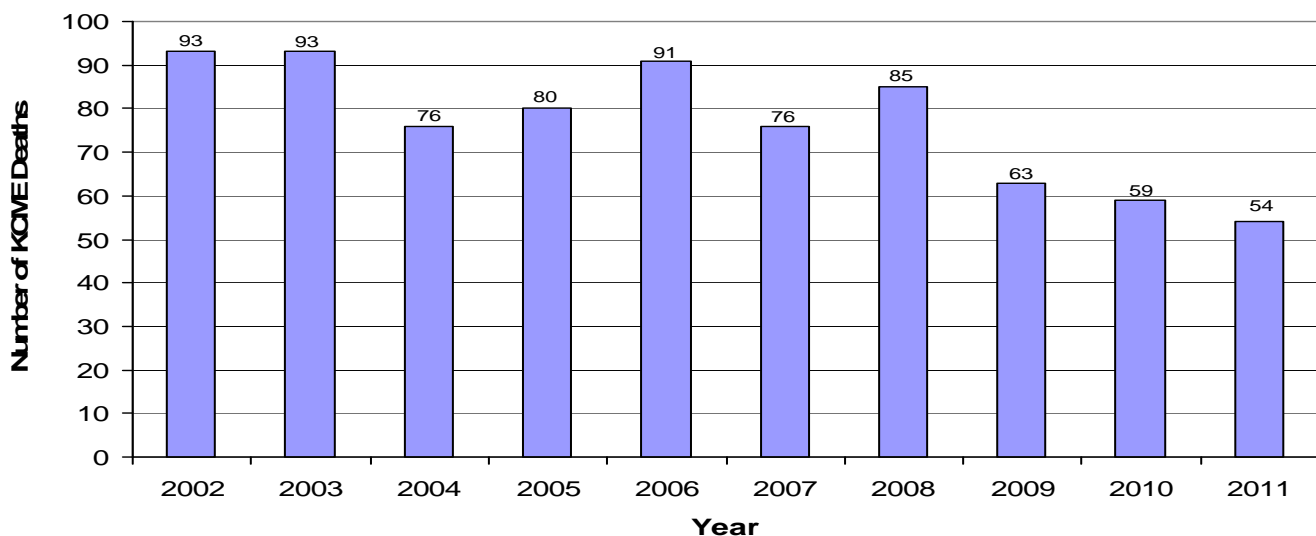
Graph 2-2 Homicide Deaths / King County Medical Examiner's Office / 2001 - 2011


Table 2-4 Ten Year Perspective of Suicidal Injury Modes / KCME / 2002 - 2011

| INJURY MODE | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Asphyxia / Plastic Bag | 5 | 8 | 7 | 5 | 11 | 3 | 8 | 8 | 13 | 15 |
| Burns / Fire | 2 | 1 | 1 | 3 | 3 | 1 | 3 | 2 | 2 | 1 |
| Carbon Monoxide | 17 | 12 | 8 | 13 | 11 | 17 | 4 | 14 | 4 | 7 |
| Drowning | 2 | 4 | 5 | 0 | 1 | 3 | 3 | 7 | 3 | 5 |
| Drugs / Poisons | 23 | 35 | 41 | 39 | 36 | 36 | 29 | 29 | 43 | 41 |
| Firearms | 98 | 101 | 95 | 96 | 98 | 93 | 93 | 100 | 92 | 116 |
| Hanging | 32 | 36 | 44 | 42 | 31 | 43 | 48 | 60 | 44 | 48 |
| Incised Wounds / Stabbing | 4 | 6 | 8 | 9 | 5 | 4 | 5 | 8 | 7 | 12 |
| Jumped | 14 | 11 | 15 | 22 | 26 | 22 | 13 | 20 | 21 | 19 |
| Other | 3 | 3 | 5 | 4 | 5 | 1 | 4 | 5 | 3 | 1 |
| Totals | 200 | 217 | 229 | 233 | 227 | 223 | 210 | 253 | 232 | 265 |

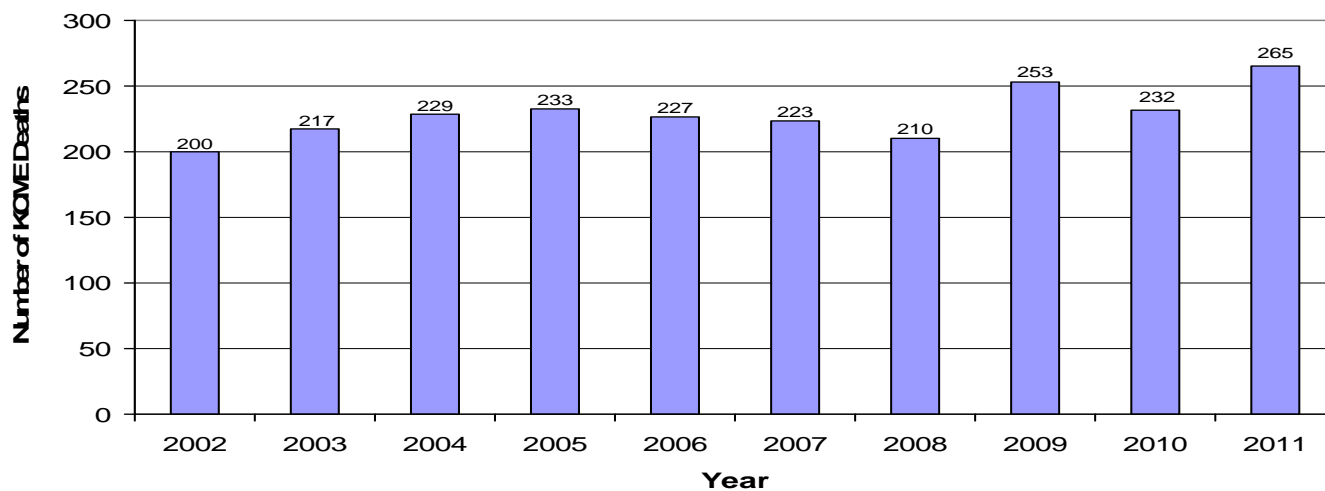
Graph 2-3 Suicide Deaths / King County Medical Examiner's Office / 2002 – 2011


Table 2-5 Traffic Fatality Circumstances / KCME / 2002 - 2011

| CIRCUMSTANCES | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Vehicle Driver | 99 | 75 | 78 | 99 | 92 | 71 | 71 | 51 | 69 | 55 |
| Vehicle Passenger | 46 | 36 | 54 | 47 | 44 | 29 | 24 | 28 | 27 | 22 |
| Vehicle Unknown Position | 1 | 2 | 1 | 1 | 5 | 1 | 4 | 0 | 0 | 3 |
| Bicyclist | 3 | 3 | 5 | 6 | 8 | 7 | 4 | 12 | 3 | 8 |
| Motorcycle Driver | 17 | 21 | 23 | 33 | 27 | 26 | 28 | 18 | 24 | 26 |
| Motorcycle Passenger | 0 | 3 | 0 | 3 | 1 | 2 | 1 | 1 | 0 | 1 |
| Pedestrian | 34 | 38 | 30 | 36 | 33 | 31 | 26 | 29 | 27 | 17 |
| Other | 3 | 1 | 1 | 1 | 1 | 3 | 5 | 2 | 0 | 3 |
| Totals | 203 | 179 | 192 | 226 | 211 | 170 | 163 | 141 | 150 | 135 |

Graph 2-4 Traffic Fatalities / King County Medical Examiner's Office / 2001 – 2011

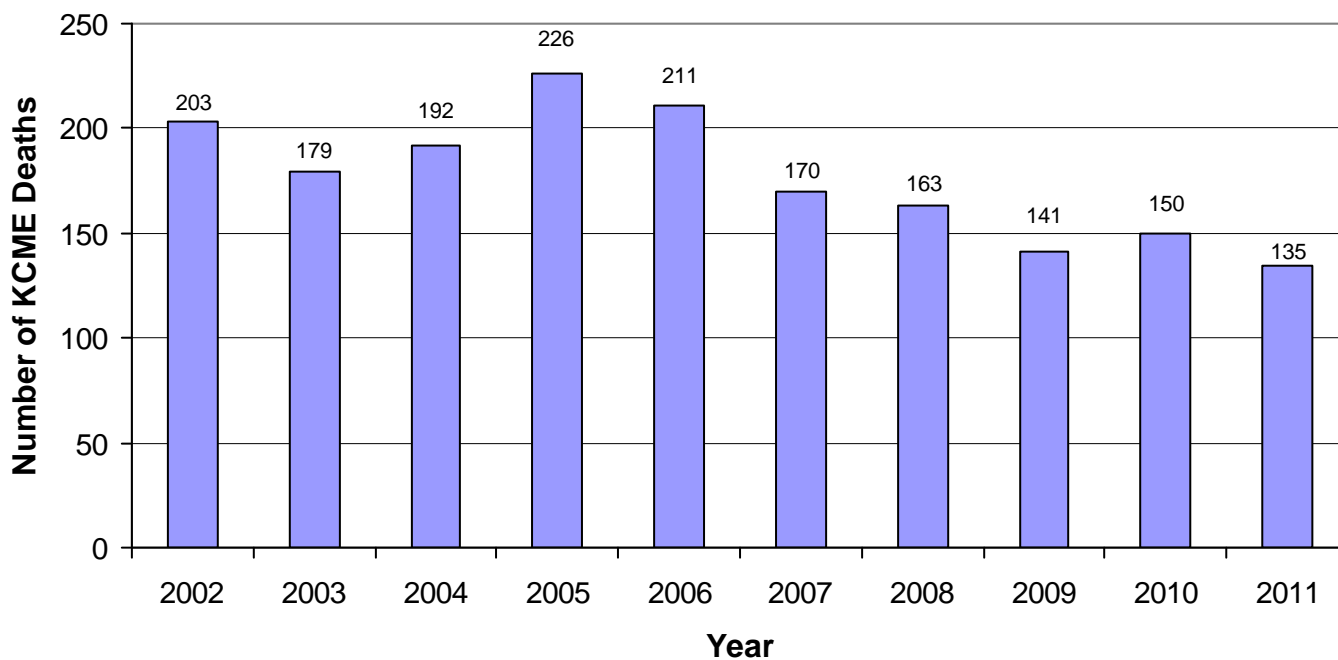
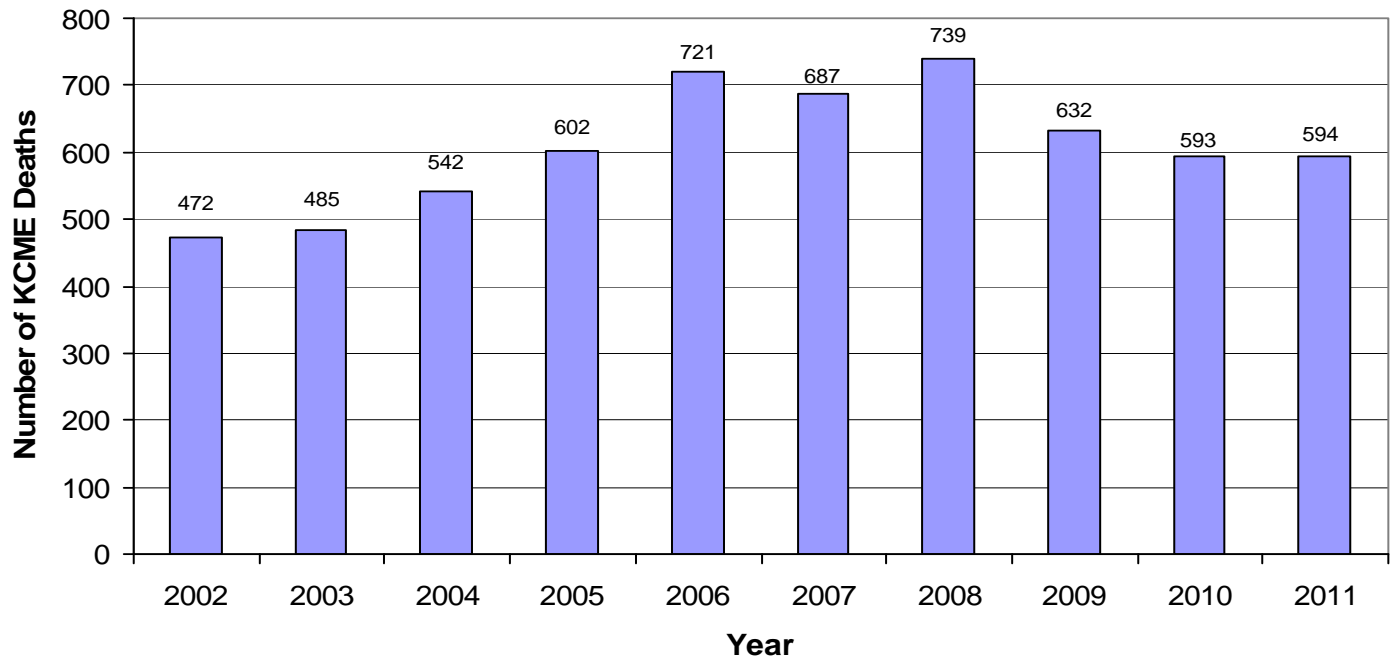


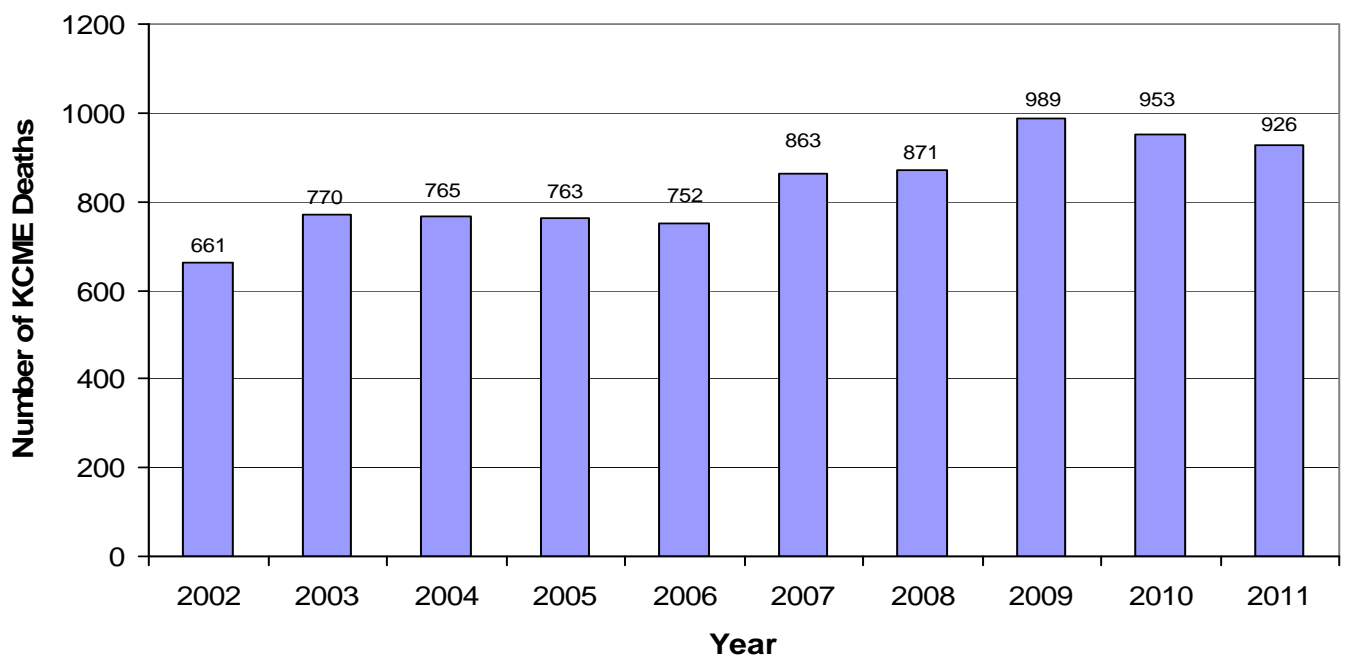
Table 2-6 **Ten Year Perspective of Non-Traffic Accidental Death Circumstances / KCME / 2002 - 2011**

| CIRCUMSTANCES | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Aircraft | 0 | 0 | 2 | 3 | 3 | 11 | 1 | 0 | 0 | 1 |
| Asphyxia | 7 | 4 | 2 | 9 | 12 | 11 | 14 | 10 | 5 | 6 |
| Aspiration | 5 | 9 | 8 | 10 | 9 | 5 | 10 | 7 | 6 | 7 |
| Blunt Force / Crushing | 12 | 9 | 8 | 10 | 4 | 10 | 10 | 6 | 5 | 11 |
| Burns / Fire | 22 | 19 | 24 | 26 | 23 | 23 | 13 | 15 | 29 | 18 |
| Carbon Monoxide | 0 | 1 | 3 | 4 | 8 | 3 | 4 | 4 | 2 | 3 |
| Drowning | 32 | 27 | 17 | 19 | 30 | 23 | 23 | 17 | 11 | 21 |
| Drugs / Poisons | 173 | 160 | 211 | 216 | 262 | 247 | 232 | 233 | 214 | 203 |
| Electrocution | 2 | 0 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 |
| Explosion | 0 | 0 | 4 | 1 | 1 | 2 | 0 | 0 | 3 | 0 |
| Fall | 171 | 207 | 213 | 230 | 308 | 292 | 323 | 309 | 291 | 291 |
| Firearms | 0 | 1 | 1 | 2 | 0 | 1 | 1 | 1 | 1 | 0 |
| Hanging | 1 | 0 | 2 | 2 | 0 | 0 | 1 | 1 | 1 | 2 |
| Hypothermia | 6 | 2 | 2 | 4 | 4 | 3 | 4 | 7 | 4 | 7 |
| Struck by Object | 2 | 8 | 7 | 1 | 8 | 5 | 2 | 4 | 4 | 3 |
| Struck by Train | 2 | 0 | 3 | 1 | 0 | 1 | 3 | 2 | 0 | 6 |
| Vehicular Non-Traffic | 8 | 14 | 10 | 8 | 9 | 7 | 10 | 5 | 2 | 4 |
| Other | 5 | 2 | 5 | 10 | 7 | 2 | 6 | 9 | 13 | 10 |
| Totals | 472 | 485 | 542 | 602 | 721 | 687 | 739 | 632 | 593 | 594 |

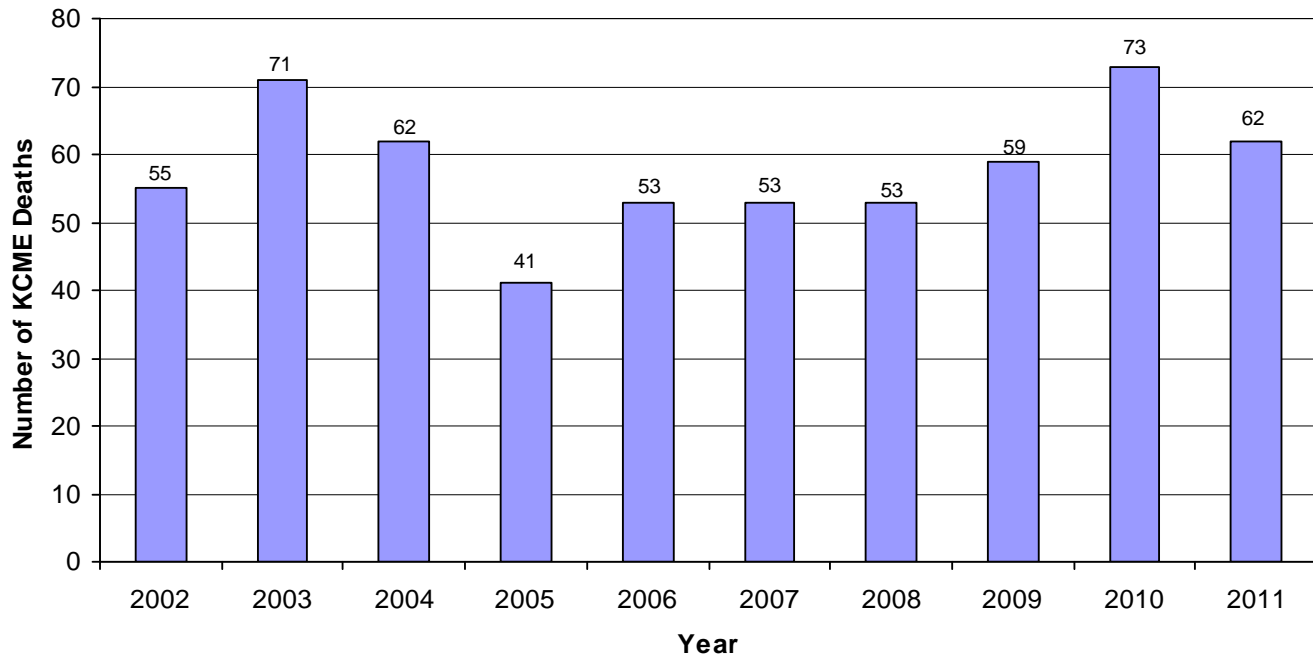
Graph 2-5 Accidental Deaths / King County Medical Examiner's Office / 2002 – 2011



Graph 2-6 Natural Deaths / King County Medical Examiner's Office / 2002 – 2011



Graph 2-7 Deaths of Undetermined Manner / King County Medical Examiner's Office / 2002 – 2011



Manner of death: Accident

The Medical Examiner certified 594 deaths as non-traffic accidents for the calendar year 2011. The largest group of accidental deaths was those who died as a result of a fall, 49% (291/594). Of the 291 deaths attributed to injury sustained in falls, 80% (233/291) occurred in the age group 70 years and over. A large percentage 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 34% (203/594). By age, the largest percentage of these accidental drug deaths, 29% (59/205), occurred among adults between 50-59 years. The second largest group, 24% (50/205), included adults between the ages of 40-49. Twenty percent (41/205) were adults between 30-39 years of age. There were four accidental drug deaths of children between the ages of 16-19 years, and there were no deaths of a child less than 15 years of age.

The 2011 drug rate number (203) represents a 5% decrease compared to the 214 accidental drug deaths in 2010. A more detailed discussion of these deaths is presented in the section "Death Due to Drugs and Poisons" on pages 89 and 90. **Note that the number of accidental drug-related deaths included in the Accidental category does not include three deaths (one drowning death and two hypothermia deaths) that are included in the Death Due to Drugs and Poisons Chapter. They are included in the drug-related deaths because drug intoxication was listed as a cause of death on the death certificate in addition to the drowning and hypothermia. In this chapter, these three deaths are listed under the categories "Drowning" and "Hypothermia."**

In 2011, 18 deaths resulted from fire or thermal injury, a decrease from 2010 when there were 29. Of the 18 fire-related deaths, 33% (6/18) 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 21 drowning deaths in 2011, as compared to 11 in 2010.

Aspiration is a type of death that results from a person choking on a foreign object, often a bolus of food while eating. In 2011, there were seven deaths due to aspiration of a foreign body, compared to six in 2010. One of the aspiration deaths was in a child under the age of 5 and the rest were in adults over the age of 30.

Of the 594 accidental deaths in 2011, 15% (90/594) were the result of incidents which occurred outside of King County, but the death took place within King County. These deaths were the result of the injured being transported from outside King County to medical facilities within King County where they died. Since these deaths occurred in King County, they fall under King County Medical Examiner's Office jurisdiction.

Fifty nine percent (351/594) of the victims were tested for the presence of alcohol. Of those tested, 22% (85/391) showed alcohol present at the time of death.

Graph 3-1 Circumstances of Accidental Death / King County Medical Examiner 's Office/ 2011

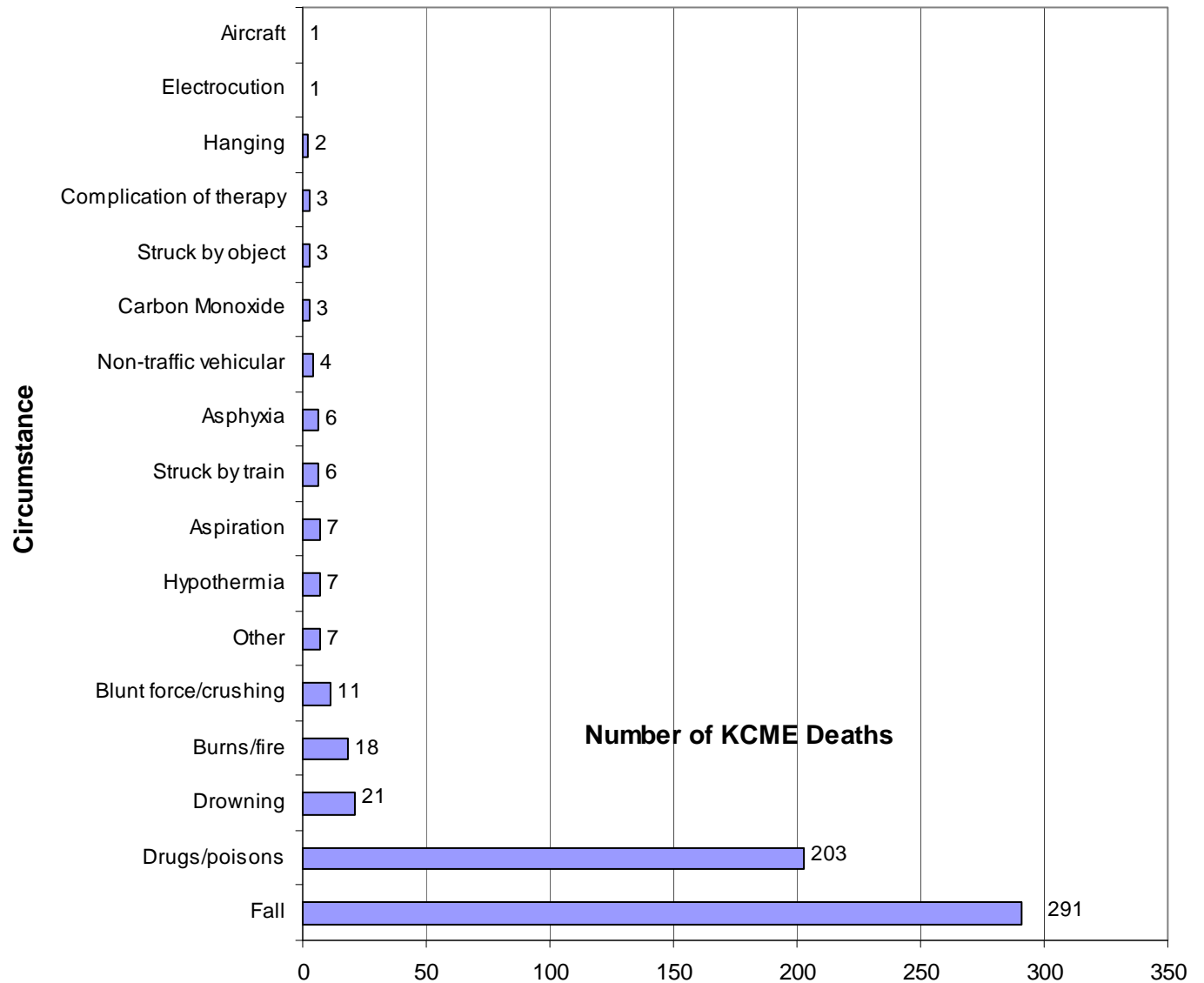


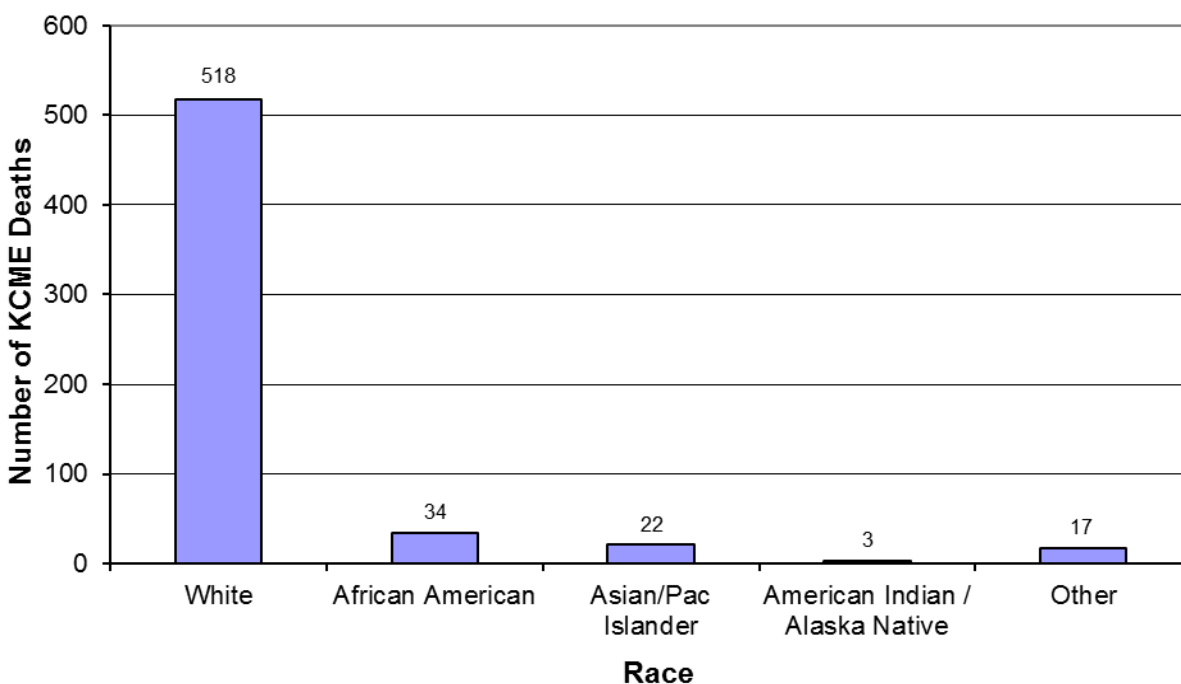
Table 3-1 Circumstances of Accidental Death / Race / Sex / KCME / 2011

| CIRCUMSTANCES / SEX | RACE | | | | | SUB-TOTAL | TOTAL |
|---|-------|--------------|---------------|-----------------------|-------|-----------|-------|
| | WHITE | AFRICAN AMER | ASIAN/ PAC IS | AM INDIAN / AK NATIVE | OTHER | | |
| Aircraft | 1 | 0 | 0 | 0 | 0 | | 1 |
| <i>Male</i> | 1 | 0 | 0 | 0 | 0 | 1 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | |
| Asphyxia: compressional / positional / mechanical | 6 | 0 | 0 | 0 | 0 | | 6 |
| <i>Male</i> | 3 | 0 | 0 | 0 | 0 | 3 | |
| <i>Female</i> | 3 | 0 | 0 | 0 | 0 | 3 | |
| Aspiration | 7 | 0 | 0 | 0 | 0 | | 7 |
| <i>Male</i> | 4 | 0 | 0 | 0 | 0 | 4 | |
| <i>Female</i> | 3 | 0 | 0 | 0 | 0 | 3 | |
| Blunt Force / Crushing | 8 | 1 | 1 | 0 | 1 | | 11 |
| <i>Male</i> | 5 | 0 | 0 | 0 | 1 | 6 | |
| <i>Female</i> | 3 | 1 | 1 | 0 | 0 | 5 | |
| Burns / Fire | 16 | 1 | 1 | 0 | 0 | | 18 |
| <i>Male</i> | 13 | 1 | 0 | 0 | 0 | 14 | |
| <i>Female</i> | 3 | 0 | 1 | 0 | 0 | 4 | |
| Carbon Monoxide | 0 | 2 | 0 | 0 | 1 | | 3 |
| <i>Male</i> | 0 | 2 | 0 | 0 | 1 | 3 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | |
| Complication of Therapy | 2 | 0 | 0 | 0 | 1 | | 3 |
| <i>Male</i> | 1 | 0 | 0 | 0 | 1 | 2 | |
| <i>Female</i> | 1 | 0 | 0 | 0 | 0 | 1 | |
| Drowning | 18 | 1 | 2 | 0 | 0 | | 21 |
| <i>Male</i> | 9 | 0 | 2 | 0 | 0 | 12 | |
| <i>Female</i> | 9 | 1 | 0 | 0 | 0 | 10 | |
| Drugs / Poisons | 167 | 22 | 2 | 3 | 9 | | 203 |
| <i>Male</i> | 107 | 12 | 1 | 1 | 8 | 129 | |
| <i>Female</i> | 60 | 10 | 1 | 2 | 1 | 74 | |
| Electrocution | 1 | 0 | 0 | 0 | 0 | | 1 |
| <i>Male</i> | 1 | 0 | 0 | 0 | 0 | 1 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | |

Table 3-1 Circumstances of Accidental Death / Race / Sex / KCME / 2011 (continued)

| CIRCUMSTANCES / SEX | RACE | | | | | SUB-TOTAL | TOTAL |
|-----------------------|------------|--------------|---------------|----------------------|-----------|-----------|------------|
| | WHITE | AFRICAN AMER | ASIAN/ PAC IS | AM INDIAN /AK NATIVE | OTHER | | |
| Fall | 267 | 3 | 16 | 0 | 5 | | 291 |
| Male | 131 | 3 | 10 | 0 | 2 | 146 | |
| Female | 136 | 0 | 6 | 0 | 3 | 1 | |
| Hanging | 1 | 1 | 0 | 0 | 0 | | 2 |
| Male | 1 | 1 | 0 | 0 | 0 | 2 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | |
| Hypothermia | 6 | 1 | 0 | 0 | 0 | | 7 |
| Male | 4 | 1 | 0 | 0 | 0 | 5 | |
| Female | 2 | 0 | 0 | 0 | 0 | 2 | |
| Non-Traffic Vehicular | 3 | 1 | 0 | 0 | 0 | | 4 |
| Male | 3 | 1 | 0 | 0 | 0 | 4 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | |
| Struck by Object | 3 | 0 | 0 | 0 | 0 | | 3 |
| Male | 3 | 0 | 0 | 0 | 0 | 3 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | |
| Struck by Train | 5 | 1 | 0 | 0 | 0 | | 6 |
| Male | 4 | 1 | 0 | 0 | 0 | 6 | |
| Female | 1 | 0 | 0 | 0 | 0 | 1 | |
| Other | 7 | 0 | 0 | 0 | 0 | | 7 |
| Male | 3 | 0 | 0 | 0 | 0 | 3 | |
| Female | 4 | 0 | 0 | 0 | 0 | 4 | |
| Totals | 518 | 34 | 22 | 3 | 17 | | 594 |
| Percent | 87% | 5.5% | 4% | .5% | 3% | | 100% |

Graph 3-2 Accidental Deaths / Race / King County Medical Examiner's Office / 2011



Graph 3-3 Accidental Deaths / Age Group / King County Medical Examiner's Office / 2011

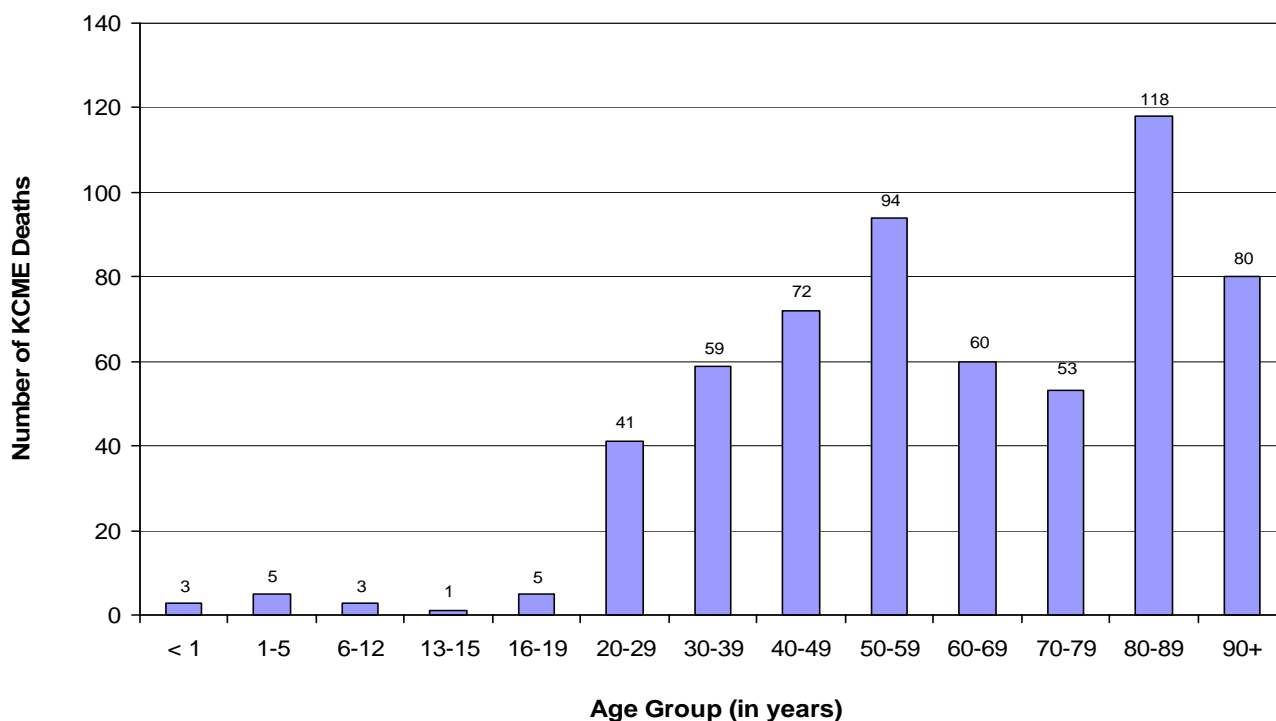


Table 3-2 Circumstances of Accidental Death / Age / Sex / KCME / 2011

| CIRCUMSTANCES / SEX | AGE GROUP (YEARS) | | | | | | | | | | | | | | SUB-TOTAL TOTAL | |
|---|-------------------|--------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------|-----|-----------------|--|
| | < 1 | 1 to 5 | 6 to 12 | 13 to 15 | 16 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 + | | | |
| Aircraft | 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 | | |
| Asphyxia compressional / positional / mechanical | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 6 | | |
| Male | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | | |
| Female | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | | |
| Aspiration | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 0 | 1 | 1 | 7 | | |
| Male | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 4 | | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | | |
| Blunt Force / Crushing | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 4 | 0 | 2 | 0 | 11 | | |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 6 | | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 2 | 0 | 5 | | |
| Burns / Fire | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 2 | 1 | 6 | 0 | 1 | 1 | 18 | | |
| Male | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 1 | 4 | 0 | 1 | 0 | 14 | | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 4 | | |
| Carbon Monoxide | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | | |
| Male | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Complication of Therapy | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 3 | | |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | | |
| Drowning | 2 | 0 | 0 | 1 | 0 | 3 | 5 | 2 | 3 | 0 | 1 | 4 | 0 | 21 | | |
| Male | 0 | 0 | 0 | 1 | 0 | 3 | 3 | 1 | 1 | 0 | 1 | 1 | 0 | 11 | | |
| Female | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 0 | 0 | 3 | 0 | 10 | | |
| Drugs / Poisons | 0 | 0 | 0 | 0 | 4 | 31 | 41 | 51 | 59 | 17 | 0 | 0 | 0 | 203 | | |
| Male | 0 | 0 | 0 | 0 | 4 | 21 | 25 | 37 | 34 | 8 | 0 | 0 | 0 | 129 | | |
| Female | 0 | 0 | 0 | 0 | 0 | 10 | 16 | 14 | 25 | 9 | 0 | 0 | 0 | 74 | | |
| Electrocution | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | | |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 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 | 1 | 3 | 2 | 5 | 20 | 27 | 49 | 106 | 78 | 291 | | |
| Male | 0 | 0 | 0 | 0 | 1 | 3 | 2 | 4 | 12 | 17 | 25 | 55 | 27 | 146 | | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 10 | 24 | 51 | 51 | 145 | | |
| Hanging | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | | |
| Male | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Hypothermia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 1 | 0 | 2 | 0 | 7 | | |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 1 | 0 | 0 | 0 | 5 | | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | | |

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| | | | | | | | | | | | | | | |
|-----------------------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|
| Non-traffic Vehicular | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 4 |
| Male | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 4 |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Struck by Object | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 3 |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 3 |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Struck by Train | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 6 |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 5 |
| Female | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Other | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 2 | 1 | 0 | 0 | 7 |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 4 |
| Totals | 3 | 5 | 3 | 1 | 5 | 41 | 59 | 72 | 94 | 60 | 53 | 118 | 80 | 594 |
| Percent | .5 | .8 | .5 | .2 | .8 | 7 | 10 | 12 | 15.8 | 10 | 9 | 19.9 | 13.5 | 100% |

Table 3-3 Circumstances of Accidental Death / Sex / KCME / 2011

| CIRCUMSTANCES | SEX | | TOTAL |
|--|------------|------------|------------|
| | MALE | FEMALE | |
| Aircraft | 1 | 0 | 1 |
| Asphyxia (compressional / positional / mechanical) | 3 | 3 | 6 |
| Aspiration | 4 | 3 | 7 |
| Blunt Force / Crushing | 6 | 5 | 11 |
| Burns / Fire | 14 | 4 | 18 |
| Carbon Monoxide | 3 | 0 | 3 |
| Complication of Therapy | 2 | 1 | 3 |
| Drowning | 11 | 10 | 21 |
| Drugs / Poisons | 129 | 74 | 203 |
| Electrocution | 1 | 0 | 1 |
| Fall | 146 | 145 | 291 |
| Hanging | 2 | 0 | 2 |
| Hypothermia | 5 | 2 | 7 |
| Non-traffic Vehicular | 4 | 0 | 4 |
| Struck by Object | 3 | 0 | 3 |
| Struck by Train | 5 | 1 | 6 |
| Other | 3 | 4 | 7 |
| Totals | 342 | 252 | 594 |
| Percent | 58% | 42% | 100% |

Table 3-4 Circumstances of Accidental Death / Blood Alcohol Results / KCME / 2011

| CIRCUMSTANCES | TESTED | | NOT TESTED | TOTAL |
|--|-----------------|-----------------|------------|------------|
| | TESTED POSITIVE | TESTED NEGATIVE | | |
| Aircraft | 0 | 1 | 0 | 1 |
| Asphyxia (compressional/ positional / mechanical) | 1 | 5 | 0 | 6 |
| Aspiration | 0 | 4 | 3 | 7 |
| Blunt Force / Crushing | 0 | 7 | 4 | 11 |
| Burns / Fire | 3 | 13 | 2 | 18 |
| Carbon Monoxide | 1 | 2 | 0 | 3 |
| Complication of Therapy | 0 | 1 | 2 | 3 |
| Drowning | 10 | 7 | 4 | 21 |
| Drugs / Poisons | 56 | 138 | 9 | 203 |
| Electrocution | 1 | 0 | 0 | 1 |
| Fall | 9 | 69 | 213 | 291 |
| Hanging | 0 | 2 | 0 | 2 |
| Hypothermia | 2 | 4 | 1 | 7 |
| Non-traffic Vehicular | 0 | 1 | 3 | 4 |
| Struck by Object | 0 | 3 | 0 | 3 |
| Struck by Train | 2 | 3 | 1 | 6 |
| Other | 0 | 6 | 1 | 7 |
| Totals | 85 | 266 | 243 | 594 |
| Percent | 14% | 45% | 41% | 100% |

Manner of death: Homicide

The Medical Examiner classifies a death as a homicide when the death results from injuries inflicted by another person. In this context, the word homicide does not necessarily imply the existence of criminal intent behind the action of the other person. This is reflected in the fact that the prosecuting attorney may either charge the person responsible for the injuries with murder or manslaughter, or decline to file charges. In 2011, the Medical Examiner classified 54 deaths as homicide. This number represents 2.7% (55/2,036) of the Medical Examiner death investigations for the calendar year 2011. Of these 54 homicides, 49 (89%, 49/54) were the result of incidents that occurred within King County. For comparison, there were 59 homicides investigated in 2010, of which 51 (86%, 51/59) were incidents in King County.

The data reflect the weapons or mechanisms responsible for the homicidal deaths in 2011. Firearms were responsible for 65% (35/54), compared to 2010, when 66% (39/59) were due to firearms. Stabbing by a knife or other sharp-edged instrument caused 17% (9/54) of deaths of homicide victims. Blunt force injuries were responsible for 11% (6/54) of the 2011 homicide deaths. There were two deaths due to strangulation/asphyxia, one death due to homicidal violence and one death due to other means, a combination of sharp force and blunt force injuries. The term "homicidal violence" is used when circumstances indicate that death was due to homicide, but the exact cause of death is not determined, for example, in a decomposed body.

In 2011, there was one homicide victim under five years of age. There were no homicide victims between 6 - 15 years of age. Seven homicide victims were between the ages of 16 and 19 years.

Examining the racial distribution of victims of homicide, 15% (8/54) of the victims were African American, compared to 2010, when 19% (11/59) of the victims were African American. Whites, while representing 74.7% of the population, made up 69% (37/54) of the homicide victims. The remaining 16% of homicide victims (9/54) included Asian/Pacific Islanders (6/54) and other (3/54). As indicated on pages 9 and 23, in 11% of the Medical Examiner cases the incident leading to death occurred outside of King County and the decedent was likely not a resident of King County. Therefore, Medical Examiner figures cannot be directly compared to the racial distribution of King County residents (refer to Table 1-9 on page 23.)

Males comprised 74% (40/54) and women 26% (14/54) of the homicide victims in 2011. The majority of victims, 59% (32/54), were between the ages of 20 and 49 years. Young people, 19 years old and under, comprised 15% (8/54) of the homicide victims. For comparison, this younger age group represented 25% (15/59) in the year 2010. Ninety-six percent (52/54) of the victims were tested for the presence of alcohol. Of those tested 29% (15/52) showed alcohol present at the time of death.

Of the 54 homicidal deaths in 2011, 48 (89%, 48/54) of the fatal incidents occurred within King County, and of these deaths, 25 (52%, 25/48) occurred within the city limits of Seattle. In 6 of the 54 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's Office / 2011

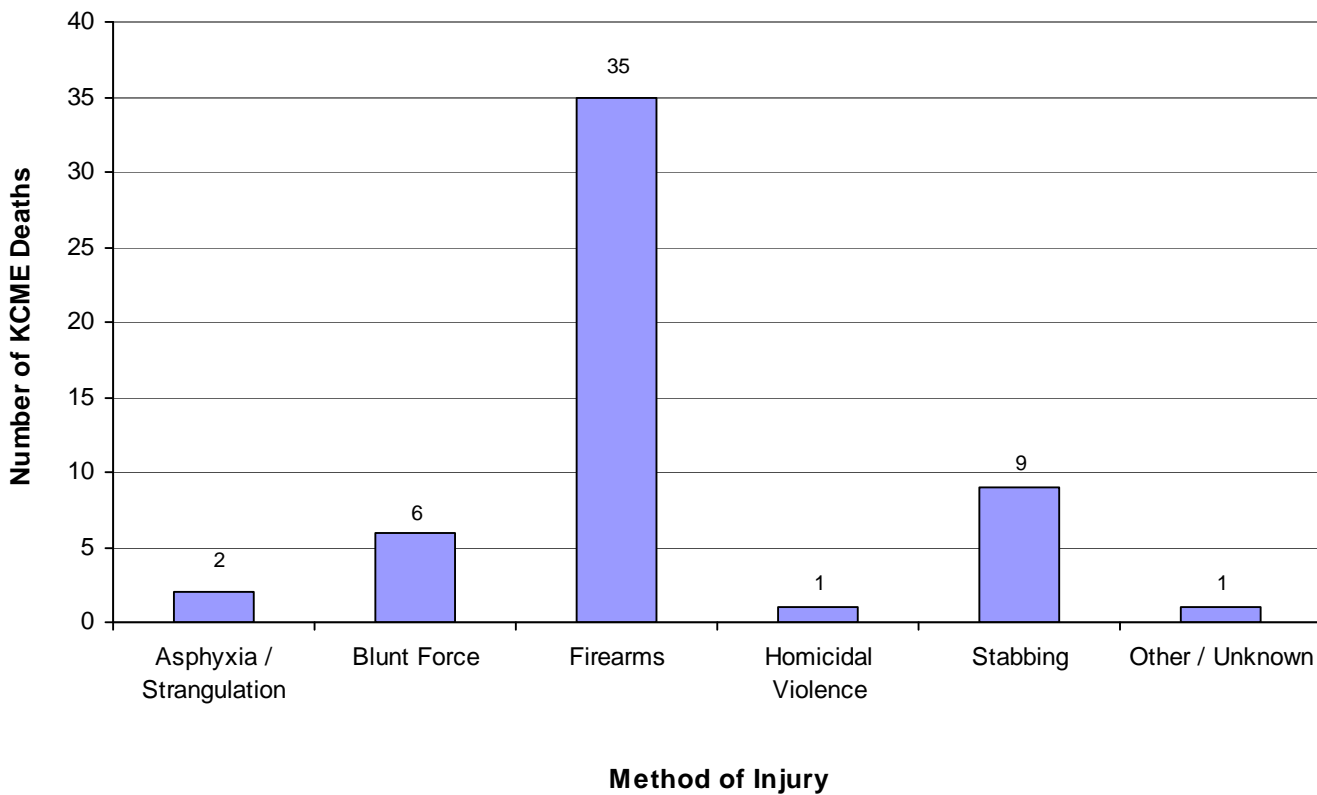


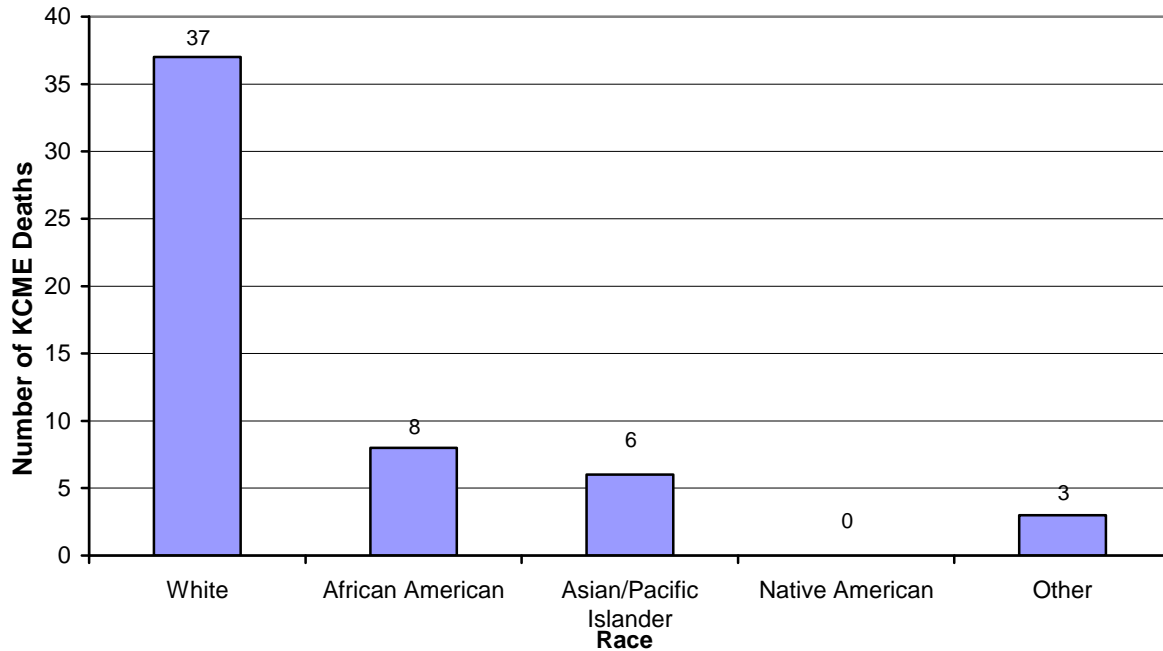
Table 4-1 Homicide Methods / Race / Sex / King County Medical Examiner / 2011

| CIRCUMSTANCES / SEX | RACE | | | | | SUB-TOTAL | TOTAL |
|-----------------------------|-----------|-----------------|------------------|-------------------------|----------|-----------|-----------|
| | WHITE | AFRICAN AMER | ASIAN/ PAC IS | AM INDIAN/ AK NATIVE | OTHER | | |
| Asphyxia / Strangulation | 1 | 1 | 0 | 0 | 0 | | 2 |
| <i>Male</i> | 0 | 0 | 0 | 0 | 0 | 0 | |
| <i>Female</i> | 1 | 1 | 0 | 0 | 0 | 2 | |
| Blunt Force | 4 | 1 | 1 | 0 | 0 | | 6 |
| <i>Male</i> | 2 | 1 | 1 | 0 | 0 | 4 | |
| <i>Female</i> | 2 | 0 | 0 | 0 | 0 | 2 | |
| Firearms | 23 | 6 | 3 | 0 | 3 | | 35 |
| <i>Male</i> | 20 | 3 | 3 | 0 | 2 | 28 | |
| <i>Female</i> | 3 | 3 | 0 | 0 | 1 | 7 | |
| Homicidal Violence | 1 | 0 | 0 | 0 | 0 | | 1 |
| <i>Male</i> | 1 | 0 | 0 | 0 | 0 | 1 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | |
| Stabbing | 7 | 0 | 2 | 0 | 0 | | 9 |
| <i>Male</i> | 5 | 0 | 1 | 0 | 0 | 6 | |
| <i>Female</i> | 2 | 0 | 1 | 0 | 0 | 3 | |
| Other / Unknown | 1 | 0 | 0 | 0 | 0 | | 1 |
| <i>Male</i> | 12 | 0 | 0 | 0 | 0 | 1 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | |
| Totals | 37 | 8 | 6 | 0 | 3 | | 54 |
| Percent | 69% | 15% | 11% | 0% | 5% | | 100% |

Table 4-2 Homicide Methods / Age / Sex / King County Medical Examiner / 2011

| METHOD / SEX | AGE GROUP (YEARS) | | | | | | | | | | | | | SUB- TOTAL | TOTAL |
|-----------------------------|-------------------|--------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------|---------------|-----------|
| | < 1 | 1 to 5 | 6 to 12 | 13 to 15 | 16 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 + | | |
| | | | | | | | | | | | | | | | |
| Asphyxia / Strangulation | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 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 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | |
| Blunt Force | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 1 | 0 | | 6 |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 4 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | |
| Firearms | 0 | 0 | 0 | 0 | 5 | 15 | 3 | 7 | 3 | 1 | 0 | 1 | 0 | | 35 |
| Male | 0 | 0 | 0 | 0 | 3 | 14 | 2 | 6 | 3 | 0 | 0 | 0 | 0 | 28 | |
| Female | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 7 | |
| Homicidal Violence | 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 | |
| Stabbing | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | | 9 |
| Male | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 6 | |
| Female | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | |
| Other / Unknown | 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 | |
| Totals | 0 | 1 | 0 | 0 | 7 | 18 | 4 | 10 | 6 | 4 | 1 | 3 | 0 | | 54 |
| Percent | 0% | 2% | 0% | 0% | 13% | 33% | 7% | 19% | 11% | 7% | 2% | 6% | 0% | | 100% |

Graph 4-2 Homicide Deaths / Race / King County Medical Examiner / 2011



Graph 4-3 Homicide Deaths / Age Group / King County Medical Examiner / 2011

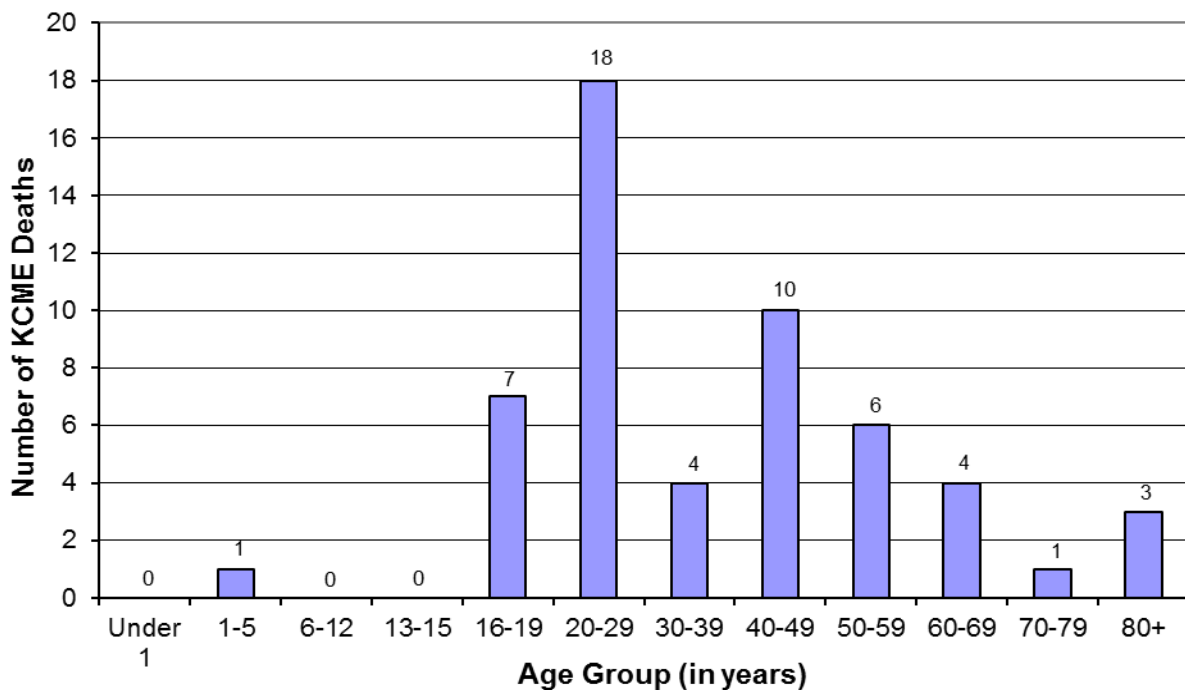


Table 4-3 Homicide Deaths / Age / Race / Sex / King County Medical Examiner / 2011

| METHOD | | < 16 | 16 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50+ | SUB- TOTAL | TOTAL |
|----------------------------|---------------|----------|----------------|----------------|----------------|----------------|-----------|---------------|-----------|
| Asphyxia/ Strangulation | White | 0 | 0 | 0 | 0 | 1 | 0 | | 1 |
| | Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Female | 0 | 0 | 0 | 0 | 1 | 0 | 1 | |
| | African Am. | 0 | 0 | 1 | 0 | 0 | 0 | | 1 |
| | Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Female | 0 | 0 | 1 | 0 | 0 | 0 | 1 | |
| Blunt Force | White | 0 | 0 | 0 | 1 | 0 | 3 | | 4 |
| | Male | 0 | 0 | 0 | 1 | 0 | 1 | 2 | |
| | Female | 0 | 0 | 0 | 0 | 0 | 2 | 2 | |
| | African Am. | 0 | 0 | 0 | 0 | 1 | 0 | | 1 |
| | Male | 0 | 0 | 0 | 0 | 1 | 0 | 1 | |
| | Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Asian/Pac Is. | 0 | 0 | 0 | 0 | 0 | 1 | | 1 |
| | Male | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| | Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firearms | White | 0 | 3 | 10 | 2 | 4 | 4 | | 23 |
| | Male | 0 | 2 | 10 | 2 | 3 | 3 | 20 | |
| | Female | 0 | 1 | 0 | 0 | 1 | 1 | 3 | |
| | African Am. | 0 | 1 | 1 | 1 | 2 | 1 | | 6 |
| | Male | 0 | 0 | 1 | 0 | 2 | 0 | 3 | |
| | Female | 0 | 1 | 0 | 1 | 0 | 1 | 3 | |
| | Asian/Pac Is. | 0 | 0 | 2 | 0 | 1 | 0 | | 3 |
| | Male | 0 | 0 | 2 | 0 | 1 | 0 | 3 | |
| | Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Other | 1 | 0 | 2 | 0 | 0 | 0 | | 3 |
| | Male | 0 | 0 | 2 | 0 | 1 | 0 | 3 | |
| | Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Homicidal/ Violence | White | 0 | 0 | 0 | 0 | 0 | 1 | | 1 |
| | Male | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| | Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Stabbing | White | 0 | 1 | 2 | 0 | 1 | 3 | | 7 |
| | Male | 0 | 0 | 2 | 0 | 0 | 3 | 5 | |
| | Female | 0 | 1 | 0 | 0 | 1 | 0 | 2 | |
| | Asian/Pac Is. | 1 | 1 | 0 | 0 | 0 | 0 | | 2 |
| | Male | 1 | 0 | 0 | 0 | 0 | 0 | 1 | |
| | Female | 0 | 1 | 0 | 0 | 0 | 0 | 1 | |
| Other | White | 0 | 0 | 0 | 0 | 0 | 1 | | 1 |
| | Male | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| | Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Totals | | 2 | 6 | 18 | 4 | 10 | 14 | | 54 |

Table 4-4 Homicide Methods / Sex / King County Medical Examiner / 2011

| SEX | | | |
|--------------------------|-----------|-----------|-----------|
| METHOD | MALE | FEMALE | TOTAL |
| Asphyxia / Strangulation | 0 | 2 | 2 |
| Blunt Force | 4 | 2 | 6 |
| Firearms | 28 | 7 | 35 |
| Homicidal Violence | 1 | 0 | 1 |
| Stabbing | 6 | 3 | 9 |
| Other / Unknown | 1 | 0 | 1 |
| Totals | 40 | 14 | 54 |
| Percent | 74% | 26% | 100% |

Table 4-5 Homicide Methods / Blood Alcohol Results / KCME / 2011

| TESTED | | | | |
|--------------------------|-----------|-----------|------------|-----------|
| METHOD | POSITIVE | NEGATIVE | NOT TESTED | TOTAL |
| Asphyxia / Strangulation | 1 | 1 | 0 | 2 |
| Blunt Force | 1 | 3 | 2 | 6 |
| Firearms | 10 | 20 | 5 | 35 |
| Homicidal Violence | 0 | 0 | 0 | 0 |
| Stabbing | 1 | 8 | 0 | 9 |
| Other / Unknown | 1 | 1 | 0 | 2 |
| Totals | 14 | 33 | 7 | 54 |
| Percent | 26% | 61% | 13% | 100% |

Manner of death: 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 2011, the King County Medical Examiner's Office assumed jurisdiction over 926 deaths attributed to natural causes, representing 45% (926/2036) of the cases investigated. The King County Medical Examiner certified 66% (615/926) of these deaths; attending physicians who had knowledge of the decedent's medical condition certified 34% (311/926). It should be noted that when a death is initially reported, there may be no evidence of an attending physician. A thorough scene investigation often reveals that the deceased did, in fact, have a physician with knowledge of the decedent's medical condition. In that case, this physician would then be contacted to certify the death. The King County Medical Examiner performed autopsies in 74% (457/615) of the deaths certified as natural, which included autopsies performed in 100% (10/10) of deaths classified as Sudden Infant Death Syndrome (SIDS). In this context, it is important to recognize that there are changes occurring in the classification of sudden infant deaths. The term "Sudden Unexplained Infant Death" (SUID) is used by some as an alternative to SIDS. Whatever the designation, it is important to recognize that an autopsy is performed on all sudden infant deaths.

The data presented in this section are derived from the 926 natural deaths in which the King County Medical Examiner assumed jurisdiction in 2011. Cardiovascular disease accounted for the greatest proportion of natural deaths. Most deaths in which an autopsy was not performed were certified as due to "probable arteriosclerotic cardiovascular disease."

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

As an example, a patient who dies after an operation for colon cancer in whom there is an infection complicating the colectomy, the death would be classified as Complication of Therapy, manner Natural. Contrast this example with the case of a hospital patient for whom a proper prescription for a heart medication is written, but is given an unintentional overdose of the medication. In this second case, the manner of death would be Accident, not Complication of Therapy.

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

Complication of Therapy deaths have increased in the previous ten years, from 17 in 2001 to 83 in 2011 and can be divided into three general categories: drug-related, consequence of medical procedure, and consequence of surgery. Drug-related includes anaphylactic/allergic reaction, hemorrhagic complications of anticoagulants, anesthesia related events, and other adverse drug reactions. Consequence of medical procedure refers to complications from procedures that are therapeutic or diagnostic, but do not meet the criteria for surgery, such as placement of catheters, penetration of body cavities by needles, or manipulation of body regions, etc. Consequence of surgery refers to direct anatomic damage during a procedure and usually involves a diseased organ system, such as perforation of a viscus or vessel or hemorrhagic complications of surgery.

In 2011, 83 deaths were classified as Complication of Therapy. Graph 5-4 shows the Complication of Therapy deaths by general category and Graph 5-5 further divides the general category of surgical injury into “type of surgery” and “comorbidity.” (Comorbidity is defined as the coexistence of natural disease serious enough to be listed on the death certificate as a contributing condition.)

There may be multiple reasons for this apparent upward trend in the incidence of Complication of Therapy over the last ten years, but one of the most important factors is probably the rate at which non-natural deaths are reported to the KCMEO. The Medical Examiner is dependent on clinical providers to report deaths that may have been a consequence of medical therapy. Another important factor for the increase in cases from 2007 to 2011 is the inclusion of *Clostridium difficile* colitis as a complication of antibiotic therapy. Though the 2011 Complication of Therapy deaths show an increase since 2007 they have decreased compared to 2010 when there were 129.

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

Table 5-1 Disease Processes Causing Natural Deaths / KCME / 2011

| NUMBER OF DEATHS | DISEASE DESCRIPTION |
|--------------------------------------|--|
| CARDIOVASCULAR | |
| 3 | Aortic aneurysm |
| 8 | Aortic dissection |
| 144 | Arteriosclerotic cardiovascular disease (ASCVD) |
| 9 | Bacterial endocarditis |
| 10 | Cardiac dysrhythmia |
| 28 | Cardiomyopathy |
| 5 | Congenital heart disease |
| 5 | Congestive heart failure |
| 89 | Hypertensive ASCVD / Hypertensive heart disease |
| 3 | Myocarditis |
| 141 | Probable arteriosclerotic cardiovascular disease |
| 9 | Valvular heart disease |
| 3 | Other |
| 457 | TOTAL CARDIOVASCULAR |
| CENTRAL NERVOUS SYSTEM | |
| 7 | Epilepsy (idiopathic & other non-traumatic etiologies) |
| 3 | Infarct |
| 3 | Meningitis |
| 7 | Spontaneous intracerebral hemorrhage |
| 5 | Spontaneous rupture of aneurysm |
| 22 | Other |
| 47 | TOTAL CENTRAL NERVOUS SYSTEM |
| COMPLICATION OF THERAPY (COT) | |
| 31 | C. Difficile Colitis COT |
| 3 | Cardiothoracic Surgery COT |
| 19 | Drug Related COT |
| 16 | General Surgery COT |
| 3 | Neurosurgery COT |
| 3 | Orthopedic Surgery COT |
| 8 | Procedure Related COT |
| 83 | TOTAL COMPLICATION OF THERAPY |
| ENDOCRINE | |
| 10 | Diabetic ketoacidosis |
| 12 | Diabetes mellitus |
| 0 | Pancreatitis |
| 3 | Other |
| 25 | TOTAL ENDOCRINE |

Table 5-1 Disease Processes Causing Natural Deaths / KCME / 2011

| NUMBER OF DEATHS | DISEASE DESCRIPTION |
|-------------------------------------|---------------------------------------|
| GASTROINTESTINAL | |
| 2 | Bacterial peritonitis |
| 4 | Gastrointestinal hemorrhage |
| 1 | Obstruction |
| 3 | Perforating ulcer |
| 10 | Other |
| 20 | TOTAL GASTROINTESTINAL |
| HEPATIC | |
| 7 | Cirrhosis |
| 4 | Cirrhosis and fatty liver |
| 1 | Fatty liver |
| 1 | Hepatic failure |
| 8 | Hepatitis |
| 2 | Other |
| 23 | TOTAL HEPATIC |
| MALIGNANCY | |
| 5 | Breast |
| 2 | Colon |
| 14 | Lung |
| 1 | Pancreas |
| 1 | Prostate |
| 3 | Rectum |
| 33 | Other |
| 59 | TOTAL MALIGNANCY |
| RESPIRATORY | |
| 5 | Asthma |
| 24 | Chronic obstructive pulmonary disease |
| 31 | Pneumonia |
| 18 | Pulmonary thromboembolus |
| 2 | Other |
| 80 | TOTAL RESPIRATORY |
| SUDDEN INFANT DEATH SYNDROME | |
| 10 | SIDS |

Table 5-1 Disease Processes Causing Natural Deaths / KCME / 2011 (continued)

| NUMBER OF DEATHS | DISEASE DESCRIPTION |
|------------------------|---|
| OTHER PROCESSES | |
| 45 | Chronic ethanolism (alcoholism) |
| 1 | Chronic renal disease |
| 1 | HIV / AIDS |
| 10 | Infection |
| 3 | Labor / Delivery / Prematurity |
| 6 | Necrotizing fasciitis |
| 14 | No anatomic or toxicological cause of death |
| 22 | Sepsis |
| 20 | Other |
| 122 | TOTAL OTHER PROCESSES |
| 469 | TOTAL Non-Cardiovascular Cause of Death |
| 457 | TOTAL Cardiovascular Cause of Death |
| 926 | Total NATURAL DEATHS under KCME Jurisdiction, 2011 |

Graph 5-1 Deaths due to Natural Causes / King County Medical Examiner / 2011

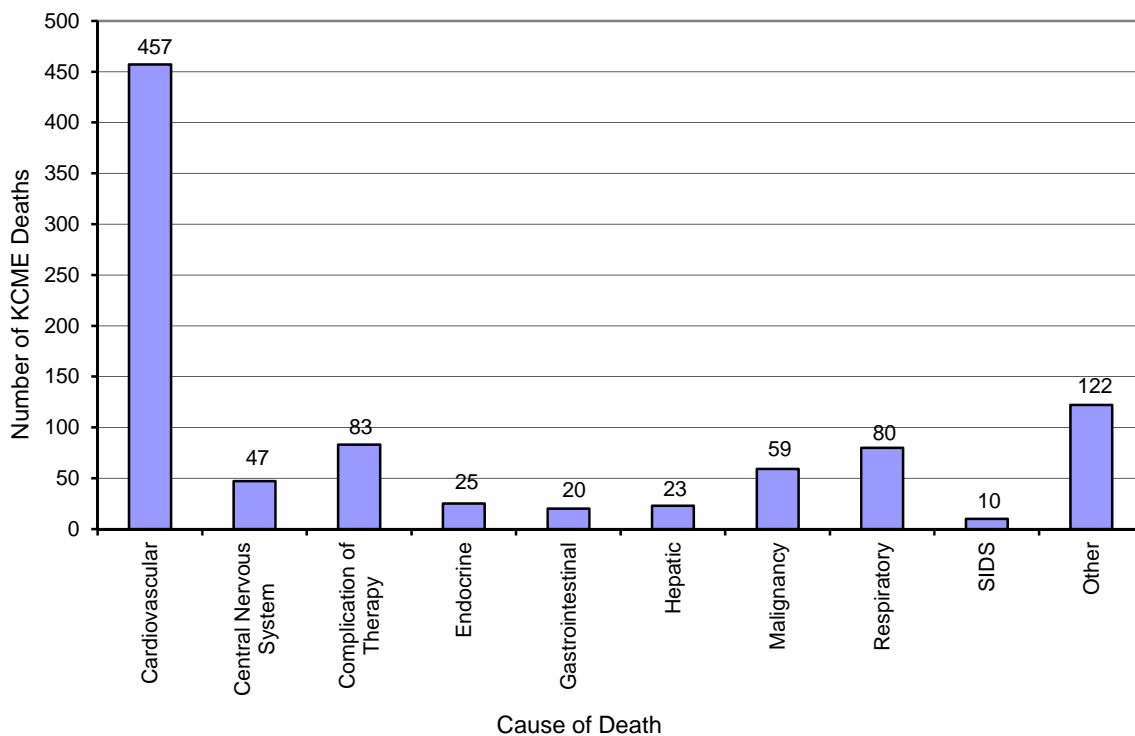


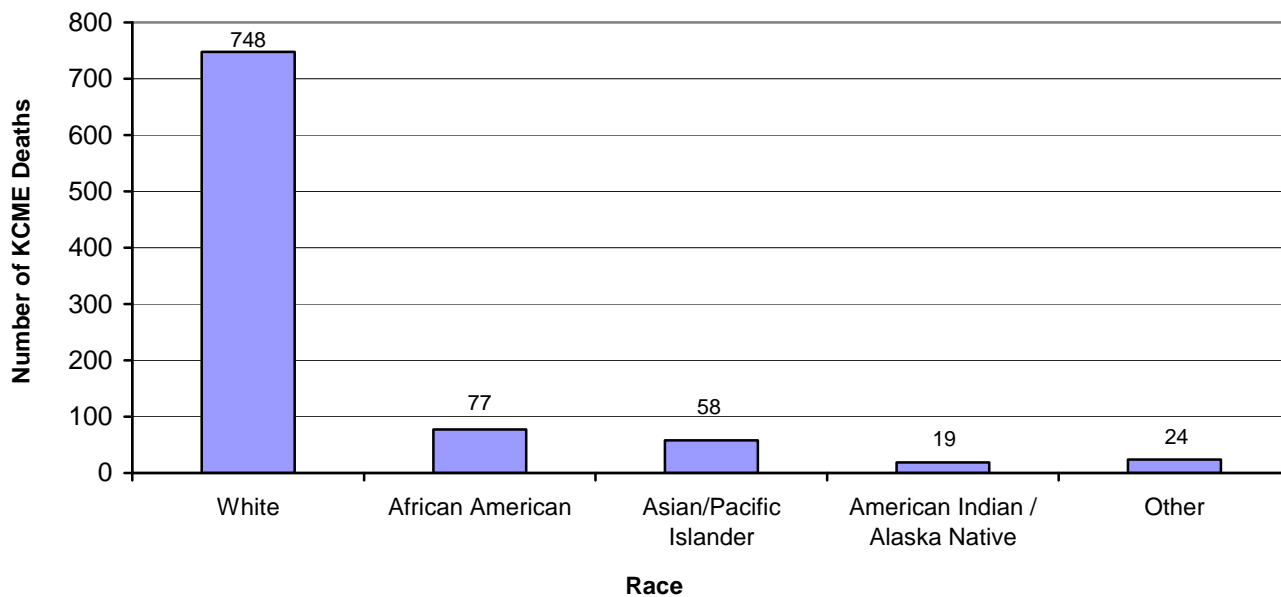
Table 5-2 Natural Deaths / Race / Sex / King County Medical Examiner / 2011

King County Medical Examiner's Office - 2011 Annual Report

| DISEASE | PROCESS / SEX | RACE | | | | | SUB-TOTAL | TOTAL |
|-------------------------|---------------|------------|---------------|------------------|-------------------------|-----------|-----------|------------|
| | | WHITE | AFRIC AMER | ASIAN/ PAC IS | AM INDIAN /AK NATIVE | OTHER | | |
| Cardiovascular | | 383 | 34 | 27 | 4 | 9 | | 457 |
| | Male | 283 | 23 | 19 | 3 | 7 | 335 | |
| | Female | 100 | 11 | 8 | 1 | 2 | 122 | |
| Central Nervous | | 39 | 3 | 5 | 0 | 0 | | 47 |
| | Male | 20 | 2 | 2 | 0 | 0 | 24 | |
| | Female | 19 | 1 | 3 | 0 | 0 | 23 | |
| Complication of Therapy | | 67 | 8 | 5 | 1 | 2 | | 83 |
| | Male | 25 | 4 | 1 | 0 | 2 | 32 | |
| | Female | 42 | 4 | 4 | 1 | 0 | 51 | |
| Endocrine | | 22 | 2 | 1 | 0 | 0 | | 25 |
| | Male | 14 | 2 | 0 | 0 | 0 | 16 | |
| | Female | 8 | 0 | 1 | 0 | 0 | 9 | |
| Gastrointestinal | | 18 | 0 | 1 | 1 | 0 | | 20 |
| | Male | 12 | 0 | 0 | 1 | 0 | 13 | |
| | Female | 6 | 0 | 1 | 0 | 0 | 7 | |
| Hepatic | | 17 | 1 | 1 | 3 | 1 | | 23 |
| | Male | 12 | 1 | 1 | 1 | 1 | 16 | |
| | Female | 5 | 0 | 0 | 2 | 0 | 7 | |
| Malignancy | | 43 | 7 | 6 | 1 | 2 | | 59 |
| | Male | 33 | 5 | 4 | 1 | 1 | 44 | |
| | Female | 10 | 2 | 2 | 0 | 1 | 15 | |
| Respiratory | | 58 | 10 | 7 | 2 | 3 | | 80 |
| | Male | 43 | 8 | 2 | 2 | 1 | 56 | |
| | Female | 15 | 2 | 5 | 0 | 2 | 24 | |
| SIDS | | 7 | 0 | 1 | 1 | 1 | | 10 |
| | Male | 6 | 0 | 1 | 0 | 1 | 8 | |
| | Female | 1 | 0 | 0 | 1 | 0 | 2 | |
| Other | | 94 | 12 | 4 | 6 | 6 | | 122 |
| | Male | 55 | 7 | 3 | 3 | 3 | 71 | |
| | Female | 39 | 5 | 1 | 3 | 3 | 51 | |
| Totals | | 748 | 77 | 58 | 19 | 24 | | 926 |
| Percent | | 81% | 8% | 6% | 2% | 3% | | 100% |

Graph 5-2

Natural Deaths / Race / King County Medical Examiner / 2011



Graph 5-3 Natural Deaths / Age Group / King County Medical Examiner / 2011

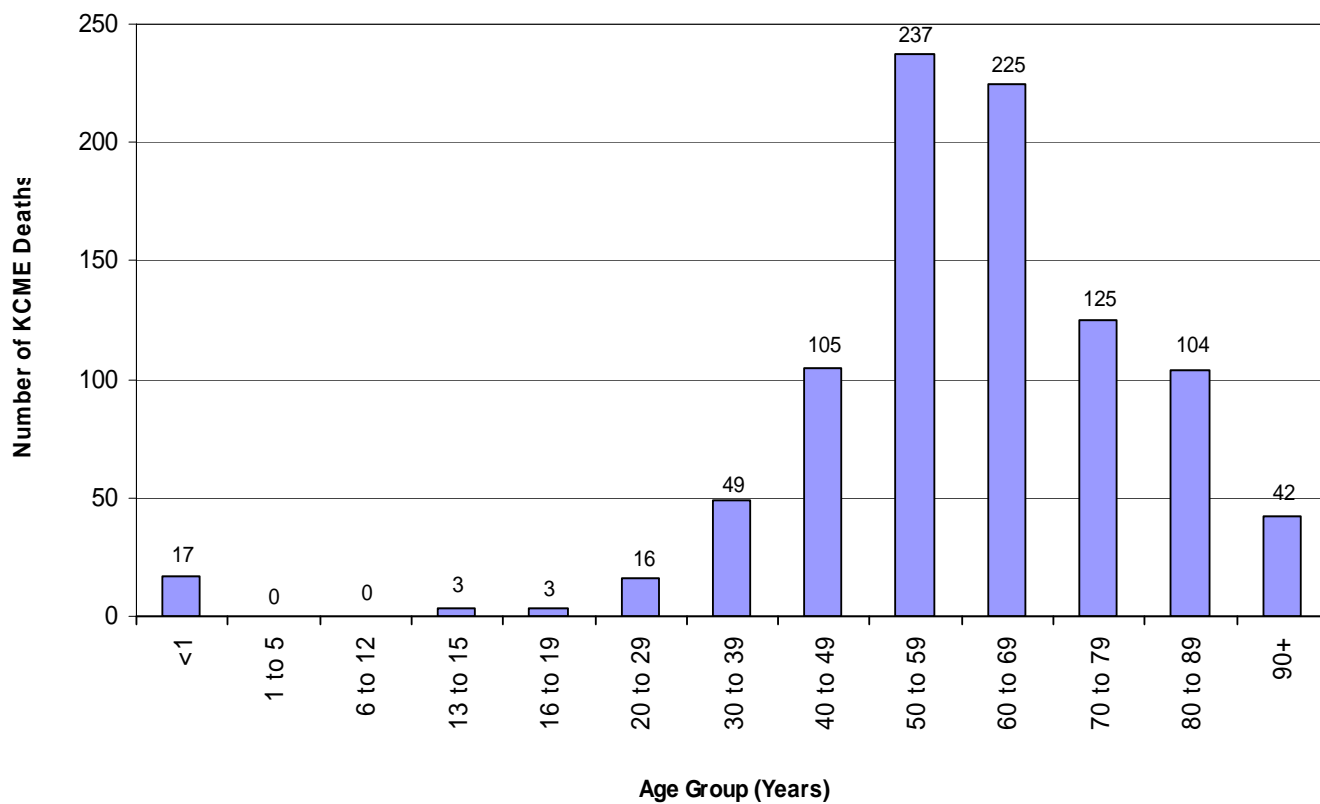


Table 5-3 Natural Deaths / Age / Sex / King County Medical Examiner / 2011

| DISEASE PROCESS/ SEX | AGE GROUP (YEARS) | | | | | | | | | | | | | SUB- TOTAL | TOTAL |
|----------------------------|-------------------|--------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------|---------------|-------------|
| | < 1 | 1 to 5 | 6 to 12 | 13 to 15 | 16 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 + | | |
| | | | | | | | | | | | | | | | |
| Cardiovascular | 1 | 0 | 0 | 1 | 0 | 6 | 21 | 55 | 106 | 122 | 67 | 49 | 29 | | 457 |
| Male | 1 | 0 | 0 | 1 | 0 | 3 | 13 | 47 | 88 | 100 | 46 | 26 | 10 | 335 | |
| Female | 0 | 0 | 0 | 0 | 0 | 3 | 8 | 8 | 18 | 22 | 21 | 23 | 19 | 122 | |
| Central Nervous | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 6 | 11 | 11 | 5 | 7 | 3 | | 47 |
| Male | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 8 | 7 | 4 | 2 | 0 | 24 | |
| Female | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 5 | 3 | 4 | 1 | 5 | 3 | 23 | |
| Complication of Therapy | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 5 | 14 | 11 | 18 | 26 | 7 | | 83 |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 5 | 8 | 8 | 2 | 32 | |
| Female | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 4 | 6 | 6 | 10 | 18 | 5 | 51 | |
| Endocrine | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 8 | 8 | 2 | 0 | 0 | | 25 |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 2 | 6 | 2 | 0 | 0 | 16 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 6 | 2 | 0 | 0 | 0 | 9 | |
| Gastrointestinal | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 5 | 7 | 2 | 3 | 0 | | 20 |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 6 | 2 | 1 | 0 | 13 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 2 | 0 | 7 | |
| Hepatic | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 12 | 4 | 0 | 1 | 0 | | 23 |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 8 | 4 | 0 | 1 | 0 | 16 | |
| Female | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 4 | 0 | 0 | 0 | 0 | 7 | |
| Malignancy | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 15 | 20 | 12 | 6 | 0 | | 59 |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 14 | 15 | 6 | 5 | 0 | 44 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 5 | 6 | 1 | 0 | 15 | |
| Respiratory | 1 | 0 | 0 | 0 | 1 | 5 | 8 | 6 | 17 | 24 | 10 | 8 | 0 | | 80 |
| Male | 1 | 0 | 0 | 0 | 1 | 1 | 5 | 4 | 10 | 17 | 9 | 8 | 0 | 56 | |
| Female | 0 | 0 | 0 | 0 | 0 | 4 | 3 | 2 | 7 | 7 | 1 | 0 | 0 | 24 | |
| 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 | |
| Other | 5 | 0 | 0 | 1 | 0 | 3 | 10 | 20 | 49 | 18 | 9 | 4 | 3 | | 122 |
| Male | 2 | 0 | 0 | 1 | 0 | 1 | 7 | 9 | 34 | 10 | 6 | 1 | 0 | 71 | |
| Female | 3 | 0 | 0 | 0 | 0 | 2 | 3 | 11 | 15 | 8 | 3 | 3 | 3 | 51 | |
| Totals | 17 | 0 | 0 | 3 | 3 | 16 | 49 | 105 | 237 | 225 | 125 | 104 | 42 | | 926 |
| Percent | 2% | 0% | 0% | 0.3% | 0.3% | 2% | 5% | 11% | 26% | 24% | 13.4% | 11% | 5% | | 100% |

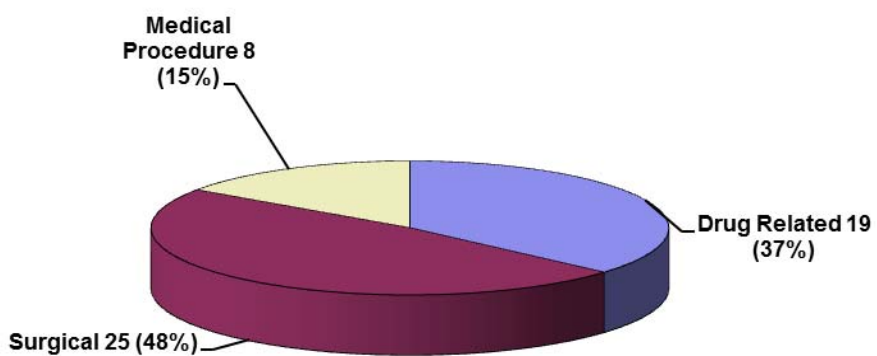
Table 5-4 Natural Deaths / Sex / King County Medical Examiner / 2011

| CIRCUMSTANCES | SEX | | TOTAL |
|-------------------------|------------|------------|------------|
| | MALE | FEMALE | |
| Cardiovascular | 335 | 122 | 457 |
| Central Nervous | 24 | 23 | 47 |
| Complication of Therapy | 32 | 51 | 83 |
| Endocrine | 16 | 9 | 25 |
| Gastrointestinal | 13 | 7 | 20 |
| Hepatic | 16 | 7 | 23 |
| Malignancy | 44 | 15 | 59 |
| Respiratory | 56 | 24 | 80 |
| SIDS | 8 | 2 | 10 |
| Other | 71 | 51 | 122 |
| Totals | 615 | 311 | 926 |
| Percent | 66% | 34% | 100% |

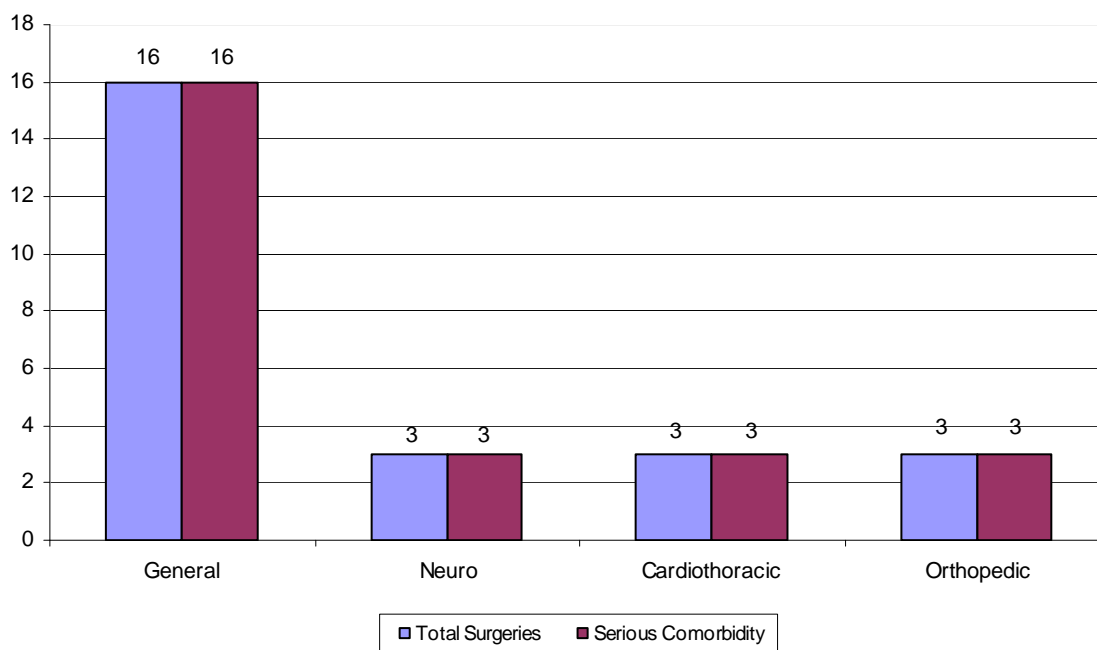
Table 5-5 Natural Deaths / Blood Alcohol / King County Medical Examiner / 2011

| METHOD | TESTED | | NOT | TOTAL |
|-------------------------|-----------|------------|------------|------------|
| | POSITIVE | NEGATIVE | TESTED | |
| Cardiovascular | 56 | 245 | 156 | 457 |
| Central Nervous System | 3 | 17 | 27 | 47 |
| Complication of Therapy | 0 | 9 | 74 | 83 |
| Endocrine | 2 | 11 | 12 | 25 |
| Gastrointestinal | 2 | 9 | 9 | 20 |
| Hepatic | 6 | 4 | 13 | 23 |
| Malignancy | 1 | 13 | 45 | 59 |
| Respiratory | 1 | 36 | 43 | 80 |
| SIDS | 0 | 9 | 1 | 10 |
| Other | 24 | 56 | 42 | 122 |
| Totals | 95 | 409 | 422 | 926 |
| Percent | 10% | 44% | 46% | 100% |

Graph 5-4 Complication of Therapy / General Categories / KCME / 2011



Graph 5-5 Complication of Therapy¹⁸ / Surgical Injuries / KCME / 2011



¹⁸Serious comorbidity indicates coexisting natural disease serious enough to contribute to death.

Manner of death: Suicide

Suicides are deaths caused by self-inflicted injuries with evidence of intent to end one's life. Evidence of intent includes an explicit expression, such as a suicide note or verbal threat, or an act constituting implicit intent, such as deliberately placing a gun to one's head or rigging a vehicle's exhaust. In 2011, there were 265 suicides, accounting for 13% (265/2,036) of the deaths that the King County Medical Examiner's Office investigated.

Firearms were responsible for 44% (116/265) of the 2011 suicide deaths. The number of gunshot suicides (116/265) in 2011 is twenty-four more than in 2010 when there were 92. Hanging accounted for 18% (48/265) of suicidal deaths, while jumping from a height accounted for 7% (19/265). Drugs and poisons accounted for 15% (41/265) of all suicides, while carbon monoxide caused death in 3% (7/265) of the cases. More information regarding drug-caused deaths is presented in the section "Deaths Due to Drugs & Poisons" beginning on page 89.

Blood alcohol tests were performed in 97% (258/265) of suicidal deaths and were positive in 32% (82/258) of cases tested.

In 2011, there were eleven suicides among persons 19 years and younger (4% of all suicides, 11/265), which is higher than in 2010 when there nine suicides in this age group. Suicides in the age group 60 years and older represented 28% (73/265) of all suicides in 2011.

Firearms were the primary method of committing suicide for all age groups over the age of 20. In the 19 years and younger age group, firearms represented 36% (4/11) of the deaths while hanging represented 64% (7/11) of the deaths.

In 2011, there were eleven deaths due to drugs and/or poisons by adults 60 years of age and over. In 2011, there were no suicides attributed to drugs and/or poisons among youths 19 years and younger. In 2010, there were two deaths from drug and/or poisons in this age group.

The Washington Death with Dignity Act, Initiative 1000, codified as RCW 70.245, passed on November 4, 2008 and took effect on March 5, 2011. This act allows terminally ill adults seeking to end their life to request lethal doses of medication from medical and osteopathic physicians. These terminally ill patients must be Washington state residents who have less than six months to live.¹⁹

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

¹⁹ Washington State Department of Health website: <http://www.doh.wa.gov/dwda>

Graph 6-1 Suicide Injury Methods / King County Medical Examiner / 2011

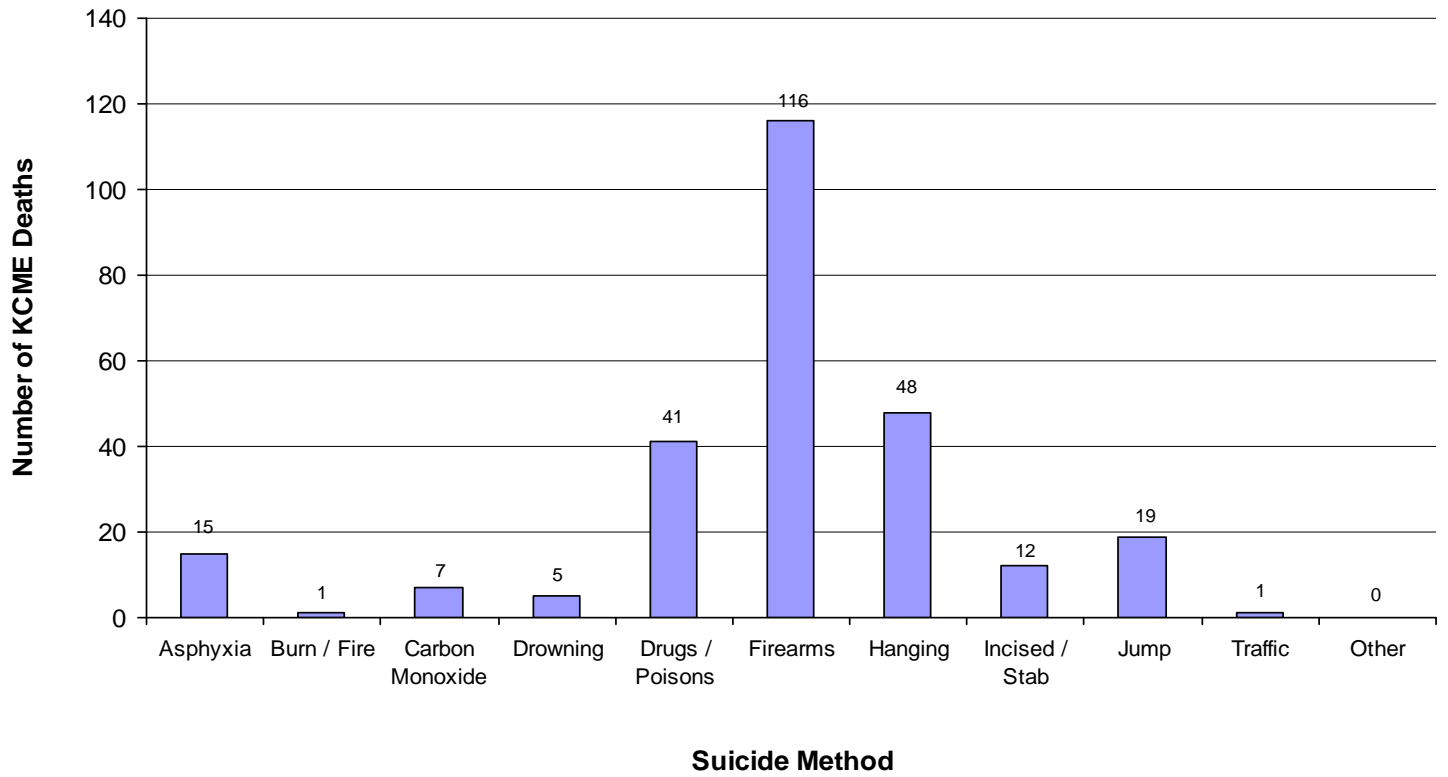
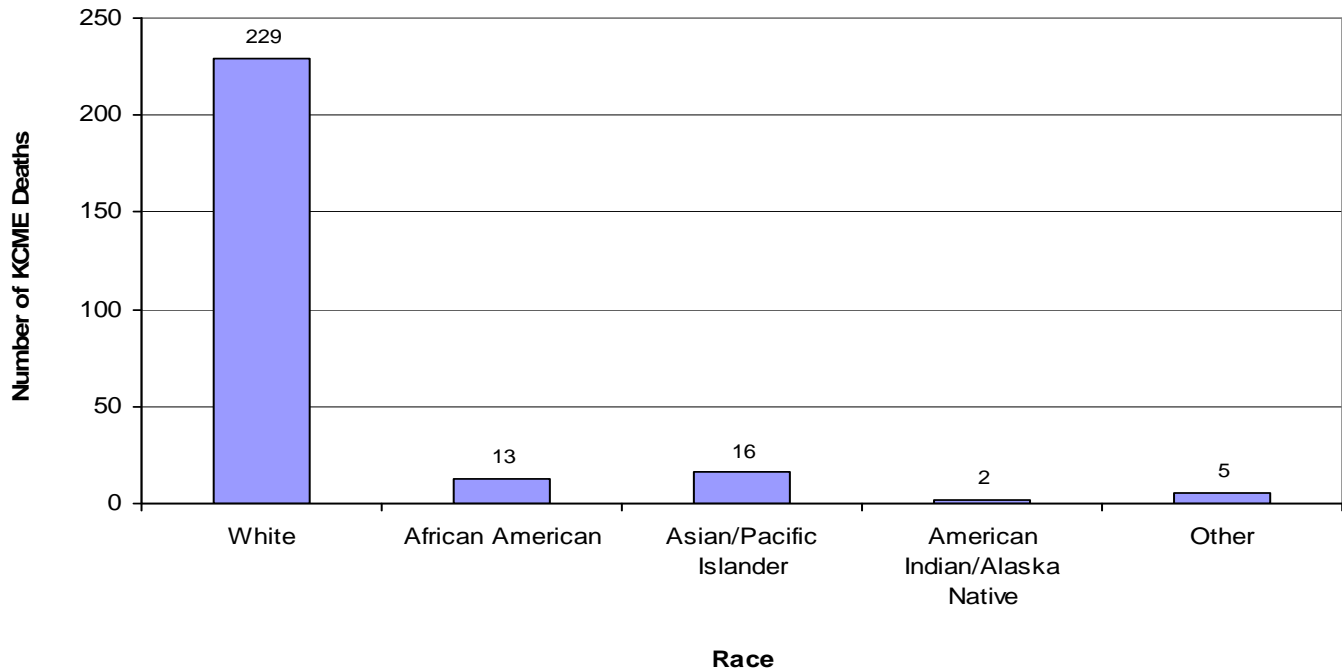


Table 6-1 Suicide Injury Methods / Race / Sex / King County Medical Examiner / 2011

| CIRCUMSTANCES / SEX | RACE | | | | | SUB-TOTAL | TOTAL |
|-------------------------|------------|---------------|------------------|-------------------------|----------|-----------|------------|
| | WHITE | AFRIC AMER | ASIAN/ PAC IS | AM INDIAN/ AK NATIVE | OTHER | | |
| Asphyxia | 13 | 1 | 1 | 0 | 0 | | 15 |
| Male | 9 | 0 | 0 | 0 | 0 | 9 | |
| Female | 4 | 1 | 1 | 0 | 0 | 6 | |
| Burns / Fire | 1 | 0 | 0 | 0 | 0 | | 1 |
| Male | 1 | 0 | 0 | 0 | 0 | 1 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | |
| Carbon Monoxide | 5 | 1 | 1 | 0 | 0 | | 7 |
| Male | 3 | 0 | 1 | 0 | 0 | 4 | |
| Female | 2 | 1 | 0 | 0 | 0 | 3 | |
| Drowning | 3 | 2 | 0 | 0 | 0 | | 5 |
| Male | 1 | 2 | 0 | 0 | 0 | 3 | |
| Female | 2 | 0 | 0 | 0 | 0 | 2 | |
| Drugs / Poisons | 35 | 3 | 2 | 0 | 1 | | 41 |
| Male | 15 | 1 | 0 | 0 | 1 | 17 | |
| Female | 20 | 2 | 2 | 0 | 0 | 24 | |
| Firearms | 108 | 2 | 4 | 1 | 1 | | 116 |
| Male | 93 | 2 | 3 | 1 | 1 | 100 | |
| Female | 15 | 0 | 1 | 0 | 0 | 16 | |
| Hanging | 37 | 2 | 5 | 1 | 3 | | 48 |
| Male | 28 | 1 | 4 | 1 | 2 | 36 | |
| Female | 9 | 1 | 1 | 0 | 1 | 12 | |
| Incised / Stab Wound(s) | 10 | 1 | 1 | 0 | 0 | | 12 |
| Male | 9 | 1 | 1 | 0 | 0 | 11 | |
| Female | 1 | 0 | 0 | 0 | 0 | 1 | |
| Jumping | 16 | 1 | 2 | 0 | 0 | | 19 |
| Male | 8 | 1 | 1 | 0 | 0 | 10 | |
| Female | 8 | 0 | 1 | 0 | 0 | 9 | |
| Other | 0 | 0 | 0 | 0 | 0 | | 0 |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | |
| Traffic | 1 | 0 | 0 | 0 | 0 | | 1 |
| Male | 1 | 0 | 0 | 0 | 0 | 0 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | |
| Totals | 229 | 13 | 16 | 2 | 5 | | 265 |
| Percent | 86% | 5% | 6% | 1% | 2% | | 100% |

Graph 6-2 Suicide Deaths / Race / King County Medical Examiner / 2011



Graph 6-3 Suicide Deaths / Age Group / King County Medical Examiner / 2011

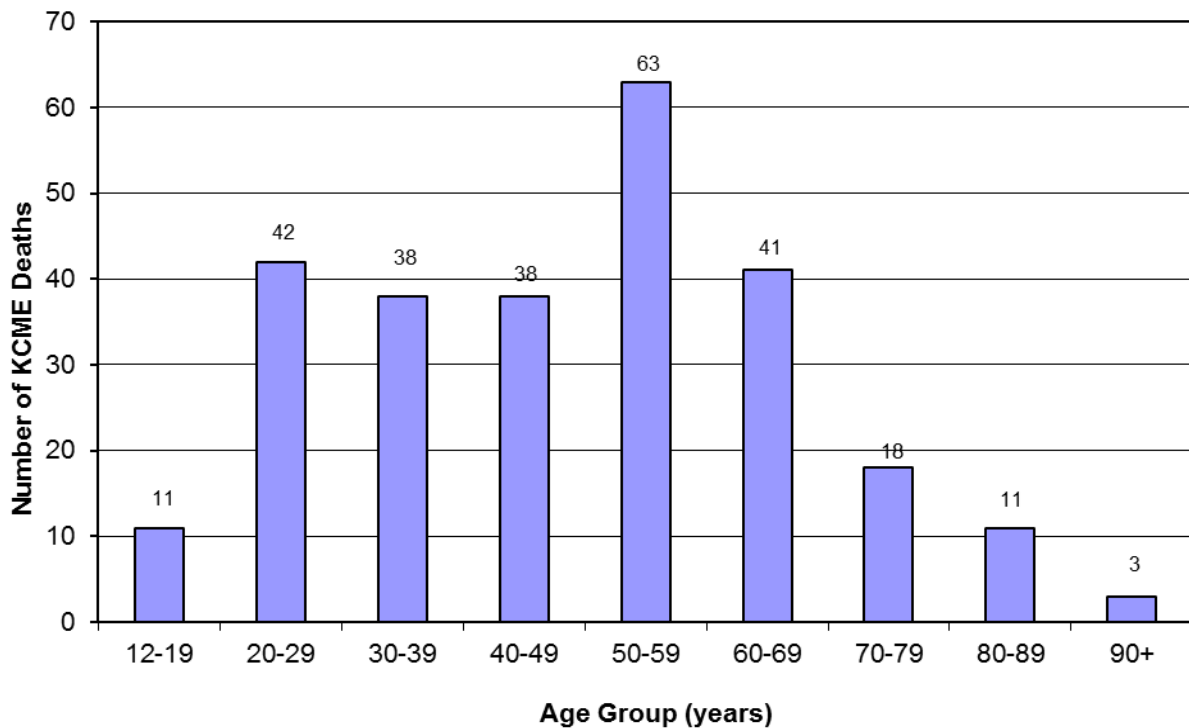


Table 6-2 Suicide Injury Methods / Age / Sex / King County Medical Examiner / 2011

| INJURY METHOD/ SEX | AGE GROUP (YEARS) | | | | | | | | | SUB-TOTAL | TOTAL |
|----------------------------|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------|-----------|------------|
| | 12 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 + | | |
| Asphyxia | 0 | 3 | 4 | 2 | 4 | 1 | 1 | 0 | 0 | | 15 |
| Male | 0 | 2 | 3 | 1 | 2 | 0 | 1 | 0 | 0 | 9 | |
| Female | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 6 | |
| Burns / Fire | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | | 1 |
| Male | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Carbon Monoxide | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 1 | 0 | | 7 |
| Male | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 4 | |
| Female | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 3 | |
| Drowning | 0 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | | 5 |
| Male | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 3 | |
| Female | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | |
| Drugs / Poisons | 0 | 8 | 3 | 10 | 9 | 8 | 3 | 0 | 0 | | 41 |
| Male | 0 | 3 | 1 | 3 | 6 | 3 | 1 | 0 | 0 | 17 | |
| Female | 0 | 5 | 2 | 7 | 3 | 5 | 2 | 0 | 0 | 24 | |
| Firearms | 4 | 18 | 16 | 15 | 25 | 16 | 13 | 7 | 2 | | 116 |
| Male | 4 | 15 | 15 | 12 | 19 | 14 | 12 | 7 | 2 | 100 | |
| Female | 0 | 3 | 1 | 3 | 6 | 2 | 1 | 0 | 0 | 16 | |
| Hanging | 7 | 7 | 6 | 7 | 10 | 7 | 1 | 2 | 1 | | 48 |
| Male | 3 | 6 | 6 | 7 | 6 | 6 | 1 | 0 | 1 | 36 | |
| Female | 4 | 1 | 0 | 0 | 4 | 1 | 0 | 2 | 0 | 12 | |
| Incised / Stab Wound(s) | 0 | 2 | 1 | 0 | 4 | 4 | 0 | 1 | 0 | | 12 |
| Male | 0 | 2 | 1 | 0 | 3 | 4 | 0 | 1 | 0 | 11 | |
| Female | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | |
| Jumping | 0 | 3 | 4 | 2 | 7 | 3 | 0 | 0 | 0 | | 19 |
| Male | 0 | 2 | 3 | 1 | 3 | 1 | 0 | 0 | 0 | 10 | |
| Female | 0 | 1 | 1 | 1 | 4 | 2 | 0 | 0 | 0 | 9 | |
| Other | 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 | |
| Traffic | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | | 1 |
| Male | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Totals | 11 | 42 | 38 | 38 | 63 | 41 | 18 | 11 | 3 | | 265 |
| Percent | 4% | 16% | 14% | 14% | 24% | 16% | 7% | 4% | 1% | | 100% |

**Table 6-3 Suicide Injury Methods / Sex / King County Medical Examiner / 2011**

| INJURY METHOD | SEX | | TOTAL |
|-------------------------|------------|-----------|------------|
| | MALE | FEMALE | |
| Asphyxia | 9 | 6 | 15 |
| Burns/ Fire | 1 | 0 | 1 |
| Carbon Monoxide | 4 | 3 | 7 |
| Drowning | 3 | 2 | 5 |
| Drugs / Poisons | 17 | 24 | 41 |
| Firearms | 100 | 16 | 116 |
| Hanging | 36 | 12 | 48 |
| Incised / Stab Wound(s) | 11 | 1 | 12 |
| Jumping | 10 | 9 | 19 |
| Other | 0 | 0 | 0 |
| Traffic | 1 | 0 | 1 |
| Totals | 192 | 73 | 265 |
| Percent | 72% | 28% | 100% |

Table 6-4 Suicide Injury Methods / Marital Status / Sex / KCME / 2011

| CIRCUMSTANCES / SEX | MARITAL STATUS | | | | | Sub-Total | Total |
|-------------------------|----------------|-----------|-----------|-----------|-----------|-----------|------------|
| | Never Married | Married | Divorced | Widowed | Unknown | | |
| Asphyxia | 0 | 10 | 3 | 1 | 1 | | 15 |
| <i>Male</i> | 0 | 6 | 2 | 1 | 0 | 9 | |
| <i>Female</i> | 0 | 4 | 1 | 0 | 1 | 6 | |
| Burns/ Fire | 0 | 1 | 0 | 0 | 0 | | 1 |
| <i>Male</i> | 0 | 1 | 0 | 0 | 0 | 1 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | |
| Carbon Monoxide | 0 | 4 | 2 | 1 | 0 | | 7 |
| <i>Male</i> | 0 | 3 | 1 | 0 | 0 | 4 | |
| <i>Female</i> | 0 | 1 | 1 | 1 | 0 | 3 | |
| Drowning | 0 | 3 | 2 | 0 | 0 | | 5 |
| <i>Male</i> | 0 | 2 | 1 | 0 | 0 | 3 | |
| <i>Female</i> | 0 | 1 | 1 | 0 | 0 | 2 | |
| Drugs / Poisons | 18 | 7 | 10 | 2 | 4 | | 41 |
| <i>Male</i> | 12 | 2 | 1 | 1 | 1 | 17 | |
| <i>Female</i> | 6 | 5 | 9 | 1 | 3 | 24 | |
| Firearms | 43 | 31 | 28 | 9 | 5 | | 116 |
| <i>Male</i> | 35 | 28 | 24 | 9 | 4 | 100 | |
| <i>Female</i> | 8 | 3 | 4 | 0 | 1 | 16 | |
| Hanging | 23 | 13 | 8 | 2 | 2 | | 48 |
| <i>Male</i> | 17 | 10 | 7 | 0 | 2 | 36 | |
| <i>Female</i> | 6 | 3 | 1 | 2 | 0 | 12 | |
| Incised / Stab Wound(s) | 7 | 3 | 0 | 1 | 1 | | 12 |
| <i>Male</i> | 7 | 2 | 0 | 1 | 1 | 11 | |
| <i>Female</i> | 0 | 1 | 0 | 0 | 0 | 1 | |
| Jumping | 9 | 5 | 4 | 1 | 0 | | 19 |
| <i>Male</i> | 5 | 3 | 2 | 0 | 0 | 10 | |
| <i>Female</i> | 4 | 2 | 2 | 1 | 0 | 9 | |
| Other | 0 | 0 | 0 | 0 | 0 | | 0 |
| <i>Male</i> | 0 | 0 | 0 | 0 | 0 | 0 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | |
| Traffic | 0 | 1 | 0 | 0 | 0 | | 1 |
| <i>Male</i> | 0 | 1 | 0 | 0 | 0 | 1 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | |
| Totals | 100 | 78 | 57 | 17 | 13 | | 265 |
| Percent | 38% | 29% | 22% | 6% | 5% | | 100% |

Table 6-5

Suicide Injury Methods / Blood Alcohol / KCME / 2011

| METHOD | TESTED | | NOT TESTED | TOTAL |
|-------------------------|-----------|------------|------------|------------|
| | POSITIVE | NEGATIVE | | |
| Asphyxia | 5 | 10 | 0 | 15 |
| Burns/ Fire | 0 | 1 | 0 | 1 |
| Carbon Monoxide | 3 | 4 | 0 | 7 |
| Drowning | 3 | 2 | 0 | 5 |
| Drugs / Poisons | 10 | 31 | 0 | 41 |
| Firearms | 39 | 72 | 5 | 116 |
| Hanging | 17 | 29 | 2 | 48 |
| Incised / Stab Wound(s) | 2 | 10 | 0 | 12 |
| Jumping | 3 | 16 | 0 | 19 |
| Other | 0 | 0 | 0 | 0 |
| Traffic | 0 | 1 | 0 | 1 |
| Totals | 82 | 176 | 7 | 265 |
| Percent | 31% | 66% | 3% | 100% |

Traffic deaths

During the calendar year 2011, the Medical Examiner's Office participated in the investigation of 135 traffic fatalities. In 61% (83/135) of the traffic deaths in 2011, the collisions occurred in King County, compared to 65% (97/150) of the collisions in 2010. In 2011, 39% (52/135) of the traffic deaths that the Medical Examiner investigated were the result of collisions that occurred outside of King County, with the injured transported to hospitals in King County, primarily Harborview Medical Center. Because the deaths occurred in King County, it falls under the jurisdiction of the King County Medical Examiner. Although these deaths are classified "Accident" for death certification purposes, the more accurate term is "motor vehicle collision."

In 2011, 41% (55/135) of the traffic fatalities were motor vehicle drivers. Teenage drivers (16-19 years of age) were 7% (4/55) of the driver deaths in 2011 and 7% (5/69) in 2010. By age, 16% of vehicle driver deaths (9/55) were people between the ages of 20 and 29. Thirteen percent of driver deaths (7/55) were adults between the ages of 30 and 39. Five percent (3/55) were adults between the ages of 40 and 49. Male drivers represented 76% (42/55) of driver deaths and female drivers represented 24% of driver deaths (13/55).

Of the 135 traffic fatalities in 2011, 22 were motor vehicle passengers, representing 16% of the total (22/135). In 2011, teenagers (13-19 years old) accounted for 7 motor vehicle passenger deaths. There was 1 passenger death of an infant (less than one year of age), no deaths of a child between the ages of 1-5 years, and 2 deaths of children between the ages of 6-12 years.

Blood ethanol (alcohol) statistics are presented to describe the role of alcohol in traffic deaths. However, it should be noted that in many cases someone other than the person who died was under the influence of alcohol and directly responsible for the accident. The Medical Examiner determines the blood alcohol levels of persons who die, not of everyone involved in the incident. In addition, blood alcohol is not tested in persons who die after surviving more than 24 hours, because in those deaths the alcohol has had time to metabolize.²⁰ Therefore, blood alcohol figures presented in this report are not a total description of the role of alcohol in traffic collisions. In 22% (12/55) of drivers tested, blood ethanol was present. In 13 vehicle driver deaths, no alcohol determination was performed. Passenger fatalities showed the presence of alcohol in 29% (5/17) of victims tested.

Of cases in which seatbelt restraint status was known, 24% (13/55) of drivers in vehicle deaths were not restrained. The figures for drivers not wearing seatbelts for the previous three years are: 35% (23/65) in 2010, 32% (15/47) in 2009, and 31% (20/65) in 2008. Of the vehicle drivers who died at the scene of the collision and who tested positive for blood alcohol, 47% (7/15) were unrestrained.

Motorcycle riders accounted for 19% (26/135) of traffic fatalities. In 2011, there were 26 motorcycle driver fatalities and 1 motorcycle passenger fatality. Twenty-six of the motorcycle driver deaths were male and none were female. Of the 26 motorcycle fatality, 73% (19/26) of the motorcyclists were wearing a helmet; in seven cases, it was unknown if the motorcycle driver was wearing a helmet. Nineteen of the motorcyclist fatalities

²⁰See "Explanation of Data" for criteria for blood alcohol testing, page 6.

were tested for the presence of blood alcohol. Two, or 11% (2/19), had a detectable amount of alcohol at the time of autopsy.

Pedestrians constituted 13% (17/135) of traffic fatalities. The majority of pedestrian deaths, 59% (10/17), were male. Of the pedestrian fatalities that were tested, 18% (3/17) had detectable amounts of alcohol present in their blood at the time of death.

There were eight bicyclist deaths in 2011; 6 riders were wearing helmets and 2 were not wearing helmets. Of the bicyclist fatalities that were tested, none had a detectable amount of alcohol present in his/her blood at the time of death.

Graph 7-1 Traffic Fatality Circumstances / King County Medical Examiner / 2011

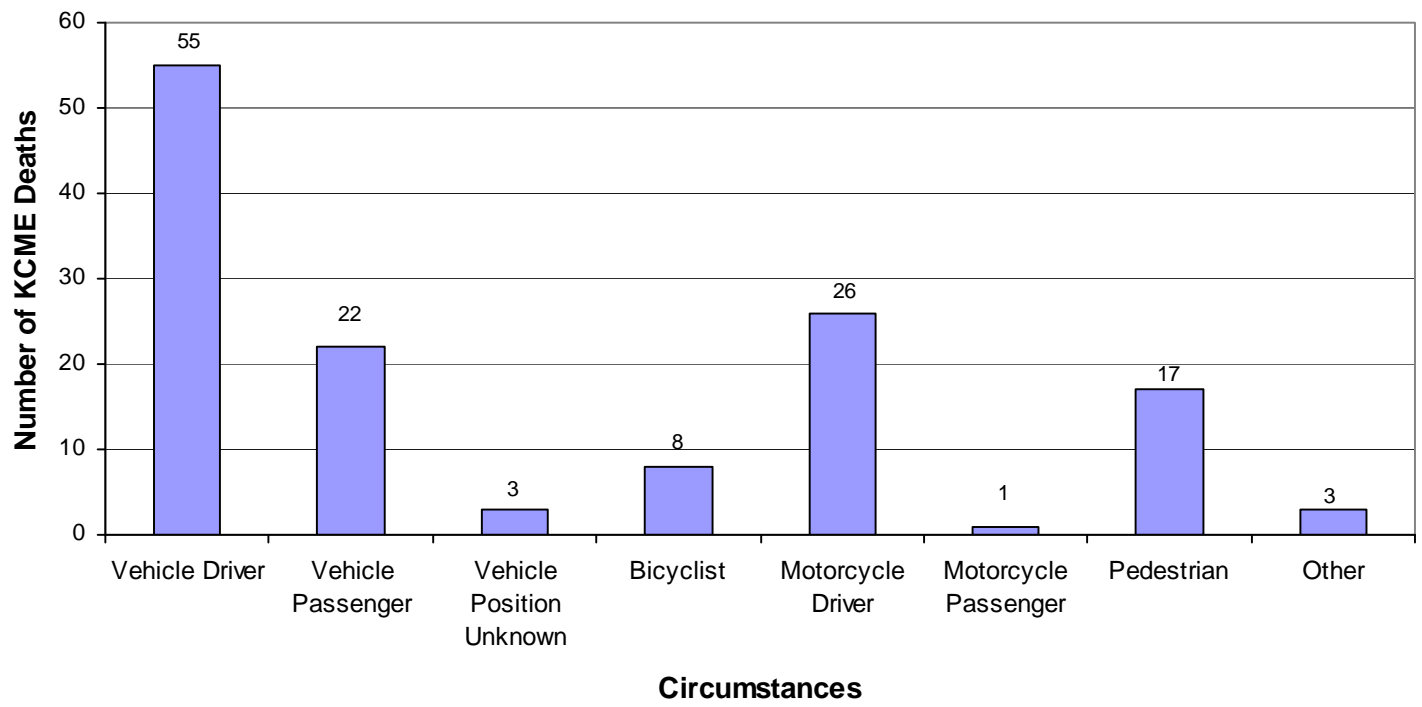
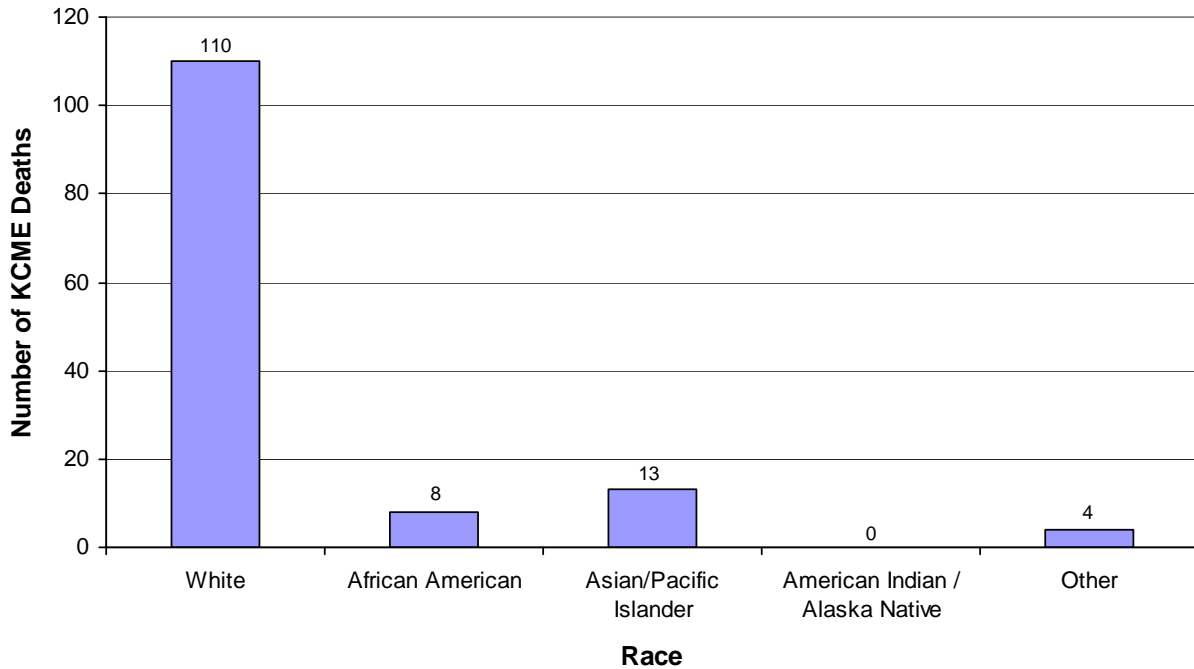


Table 7-1 Traffic Fatality Circumstances / Race / Sex / KCME / 2011

| CIRCUMSTANCES / SEX | RACE | | | | | SUB-TOTAL | TOTAL |
|--------------------------|------------|-----------------|------------------|-------------------------|----------|-----------|------------|
| | WHITE | AFRICAN AMER | ASIAN/ PAC IS | AM INDIAN /AK NATIVE | OTHER | | |
| Vehicle Driver | 47 | 2 | 4 | 0 | 2 | | 55 |
| <i>Male</i> | 36 | 2 | 3 | 0 | 1 | 42 | |
| <i>Female</i> | 11 | 0 | 1 | 0 | 1 | 13 | |
| Vehicle Passenger | 16 | 3 | 2 | 0 | 1 | | 22 |
| <i>Male</i> | 5 | 0 | 2 | 0 | 1 | 8 | |
| <i>Female</i> | 11 | 0 | 1 | 0 | 0 | 12 | |
| Vehicle Unknown Position | 3 | 0 | 0 | 0 | 0 | | 3 |
| <i>Male</i> | 2 | 0 | 0 | 0 | 0 | 2 | |
| <i>Female</i> | 1 | 0 | 0 | 0 | 0 | 1 | |
| Bicycle | 5 | 0 | 2 | 0 | 1 | | 8 |
| <i>Male</i> | 5 | 0 | 2 | 0 | 1 | 8 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | |
| Motorcycle Driver | 23 | 3 | 0 | 0 | 0 | | 26 |
| <i>Male</i> | 23 | 3 | 0 | 0 | 0 | 26 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | |
| Motorcycle Passenger | 0 | 0 | 1 | 0 | 0 | | 1 |
| <i>Male</i> | 0 | 0 | 0 | 0 | 0 | 0 | |
| <i>Female</i> | 0 | 0 | 1 | 0 | 0 | 1 | |
| Pedestrian | 13 | 0 | 4 | 0 | 0 | | 17 |
| <i>Male</i> | 9 | 0 | 1 | 0 | 0 | 10 | |
| <i>Female</i> | 4 | 0 | 3 | 0 | 0 | 7 | |
| Other | 3 | 0 | 0 | 0 | 0 | | 3 |
| <i>Male</i> | 3 | 0 | 0 | 0 | 0 | 3 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | |
| Totals | 110 | 8 | 13 | 0 | 4 | | 135 |
| Percent | 81% | 6% | 10% | 0% | 3% | | |

Graph 7-2 Traffic Fatalities / Race / King County Medical Examiner / 2011



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

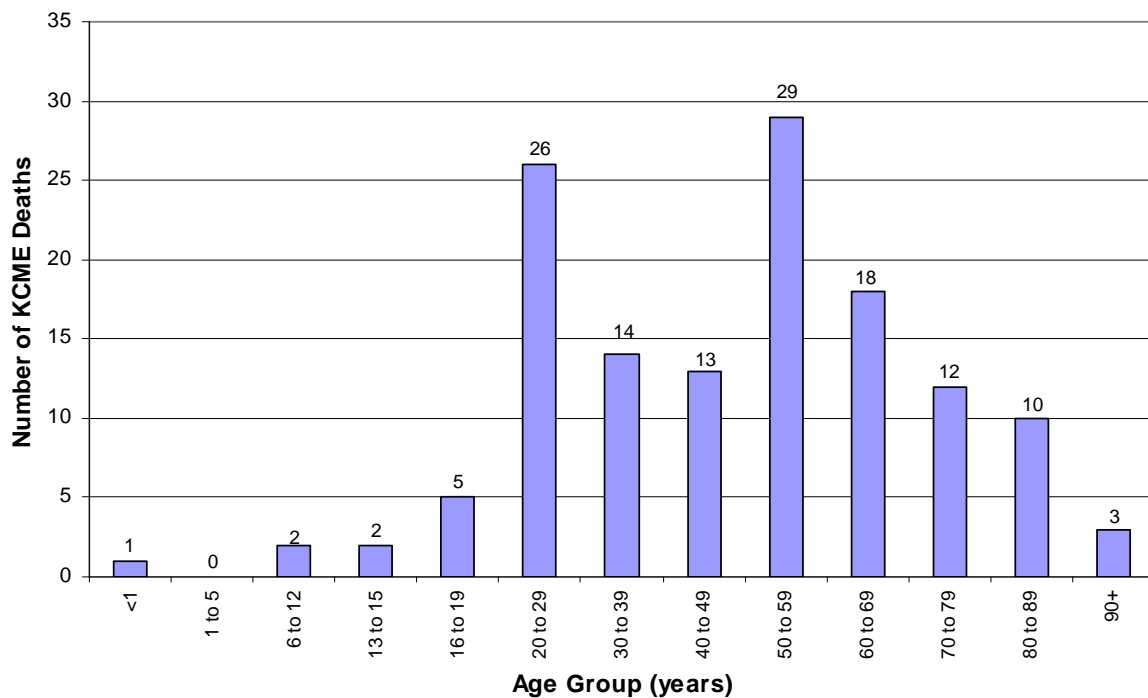


Table 7-2 Traffic Fatality Circumstances / Age / Sex / KCME / 2011

| Circumstances/Sex | AGE GROUP (YEARS) | | | | | | | | | | | | | SUB-TOTAL | TOTAL |
|--------------------------|-------------------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|------------|
| | < 1 | 1 to 5 | 6 to 12 | 13 to 15 | 16 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 + | | |
| Vehicle Driver | 0 | 0 | 0 | 0 | 4 | 9 | 7 | 3 | 11 | 8 | 7 | 5 | 1 | | 55 |
| Male | 0 | 0 | 0 | 0 | 3 | 6 | 6 | 2 | 8 | 8 | 5 | 4 | 0 | 42 | |
| Female | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 1 | 3 | 0 | 2 | 1 | 1 | 13 | |
| Vehicle Passenger | 1 | 0 | 1 | 0 | 1 | 7 | 1 | 2 | 3 | 1 | 1 | 3 | 1 | | 22 |
| Male | 1 | 0 | 0 | 0 | 0 | 4 | 1 | 1 | 2 | 0 | 1 | 0 | 0 | 10 | |
| Female | 0 | 0 | 1 | 0 | 1 | 3 | 0 | 1 | 1 | 1 | 0 | 3 | 1 | 12 | |
| Vehicle Position Unknown | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | |
| Bicyclist | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 3 | 1 | 1 | 0 | 0 | 0 | | 8 |
| Male | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 3 | 1 | 1 | 0 | 0 | 0 | 8 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Motorcycle Driver | 0 | 0 | 0 | 0 | 0 | 6 | 5 | 3 | 7 | 4 | 1 | 0 | 0 | | 26 |
| Male | 0 | 0 | 0 | 0 | 0 | 6 | 5 | 3 | 7 | 4 | 1 | 0 | 0 | 26 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Motorcycle Passenger | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 1 |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Female | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Pedestrian | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 6 | 2 | 3 | 1 | 1 | | 17 |
| Male | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 4 | 1 | 1 | 0 | 1 | 10 | |
| Female | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 2 | 1 | 0 | 7 | |
| Other | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | | 3 |
| Male | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 3 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Totals | 1 | 0 | 2 | 2 | 5 | 26 | 14 | 13 | 29 | 18 | 12 | 10 | 3 | | 135 |
| Percent | 1% | 0% | 2% | 2% | 4% | 19% | 10% | 10% | 21% | 13% | 9% | 7% | 2% | | 100% |

Table 7-3 Traffic Fatality Circumstances / Sex / King County Medical Examiner / 2011

| CIRCUMSTANCES | SEX | | TOTAL |
|--------------------------|------------|-----------|------------|
| | MALE | FEMALE | |
| Vehicle Driver | 42 | 13 | 55 |
| Vehicle Passenger | 10 | 12 | 22 |
| Vehicle Position Unknown | 2 | 1 | 3 |
| Bicyclist | 8 | 0 | 8 |
| Motorcycle Driver | 26 | 0 | 26 |
| Motorcycle Passenger | 0 | 1 | 1 |
| Pedestrian | 10 | 7 | 17 |
| Other Mode | 3 | 0 | 3 |
| Totals | 101 | 24 | 135 |
| Percent | 75% | 25% | 100% |

Table 7-4 Traffic Fatality Circumstances / Use of Restraint / Helmet / KCME / 2011²

| CIRCUMSTANCES | Used Safety Device | No Safety Device Used | Unknown | TOTAL |
|----------------------|--------------------|-----------------------|-----------|------------|
| Vehicle Driver | 26 | 13 | 16 | 55 |
| Vehicle Passenger | 12 | 5 | 5 | 22 |
| Bicyclist | 6 | 2 | 0 | 8 |
| Motorcycle Driver | 19 | 7 | 0 | 26 |
| Motorcycle Passenger | 0 | 0 | 1 | 1 |
| Totals | 63 | 27 | 22 | 112 |
| Percent | 56% | 24% | 20% | 100% |

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

Table 7-5 Traffic Fatality Circumstances / Blood Alcohol / KCME / 2011

| CIRCUMSTANCES | TESTED | | NOT TESTED | TOTAL |
|--------------------------|-----------|-----------|------------|------------|
| | POSITIVE | NEGATIVE | | |
| Vehicle Driver | 12 | 30 | 13 | 55 |
| Vehicle Passenger | 5 | 12 | 5 | 22 |
| Vehicle Position Unknown | 0 | 1 | 2 | 3 |
| Bicyclist | 0 | 8 | 0 | 8 |
| Motorcycle Driver | 2 | 17 | 7 | 26 |
| Motorcycle Passenger | 0 | 1 | 0 | 1 |
| Pedestrian | 3 | 14 | 0 | 17 |
| Other Mode | 0 | 2 | 1 | 3 |
| Totals | 22 | 85 | 28 | 135 |
| Percent | 16% | 63% | 21% | 100% |

Table 7-6 Blood Alcohol Levels of Traffic Fatalities who Died at the Scene of the Collision / King County Medical Examiner / 2011

| CIRCUMSTANCES | BLOOD ALCOHOL LEVEL (g/100mL) | | | | | TOTAL |
|-------------------|-------------------------------|----------|----------|----------|----------|-----------|
| | NONE | .01-.09 | .10-.19 | .20-.29 | .30+ | |
| Vehicle Driver | 8 | 1 | 4 | 2 | 0 | 15 |
| Vehicle Passenger | 4 | 0 | 1 | 2 | 0 | 7 |
| Bicyclist | 2 | 0 | 0 | 0 | 0 | 2 |
| Motorcycle Driver | 5 | 0 | 0 | 0 | 0 | 5 |
| Pedestrian | 2 | 0 | 0 | 2 | 0 | 4 |
| Totals | 21 | 1 | 5 | 6 | 0 | 33 |
| Percent | 64% | 3% | 15% | 18% | 0% | 100% |

Graph 7-4 Blood Alcohol Levels of Traffic Fatalities who Died at the Scene

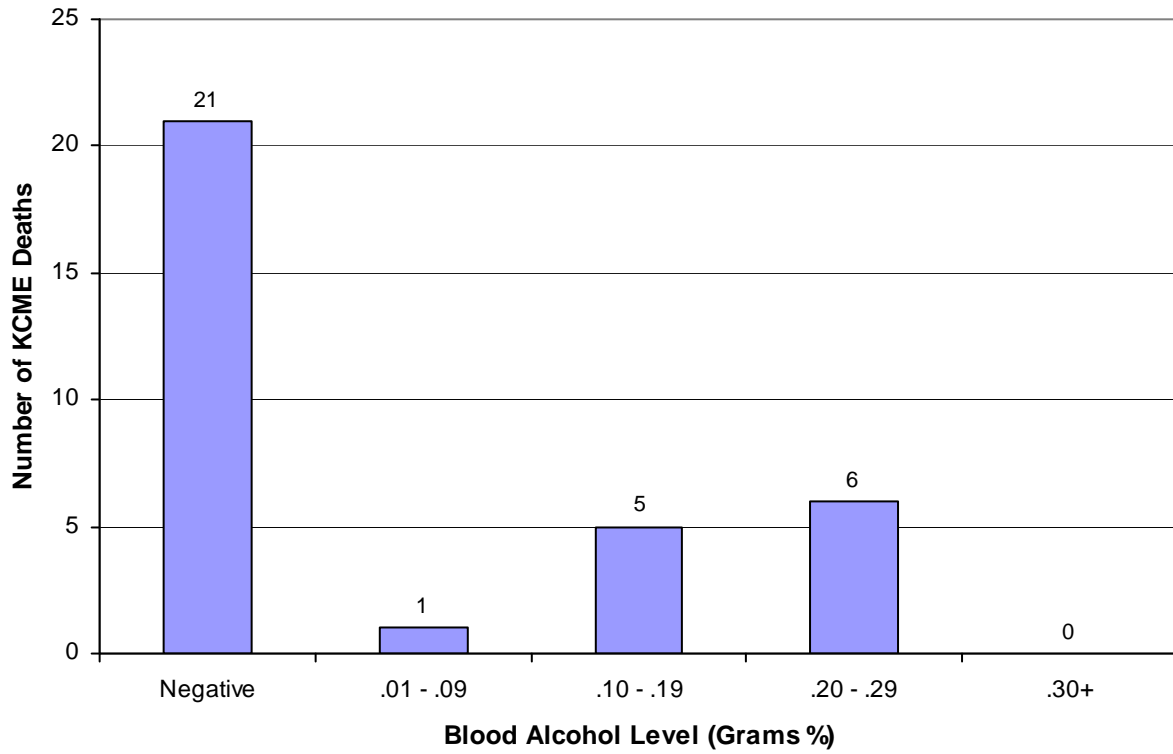
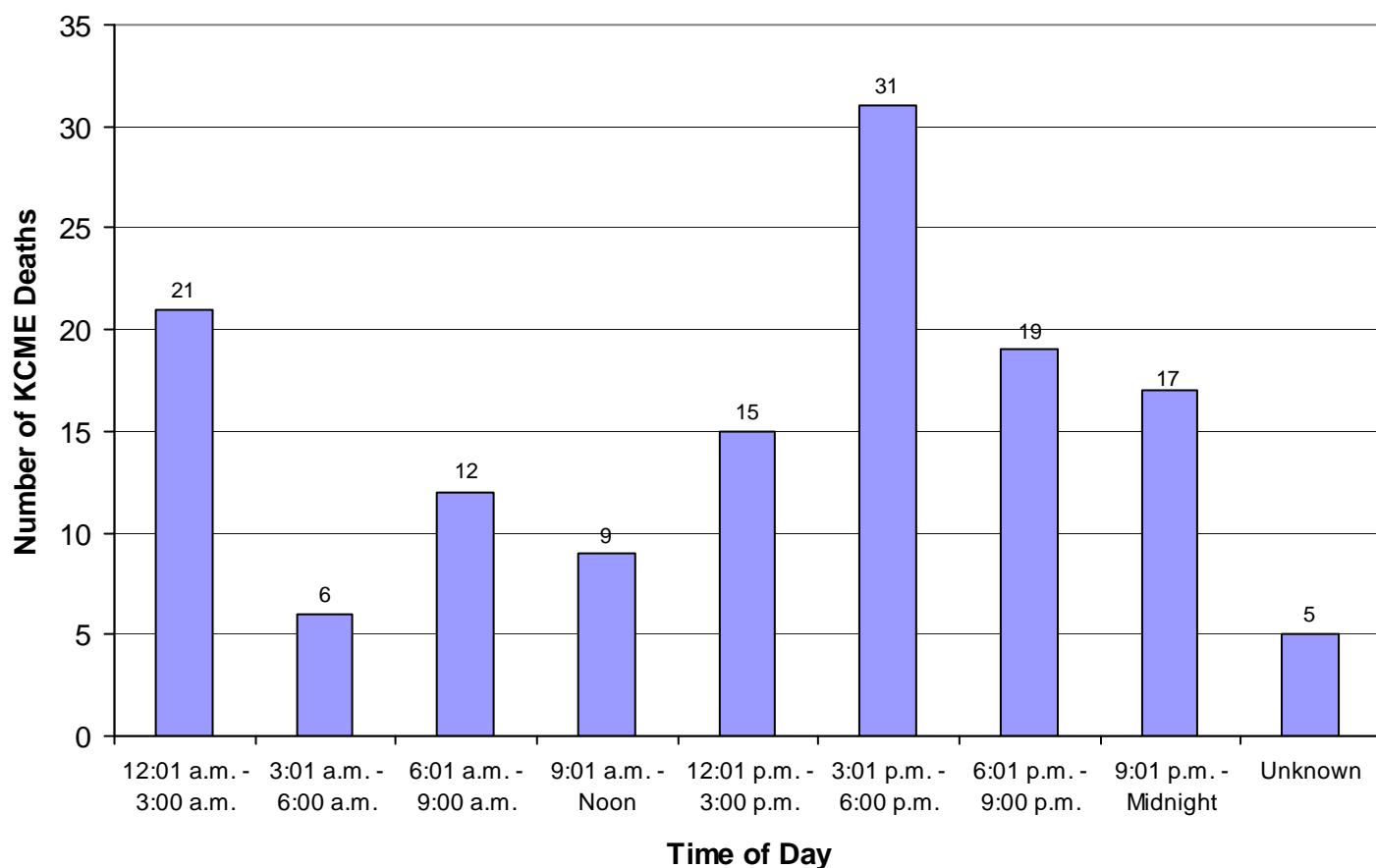


Table 7-7 Time of Fatal Traffic Collision / King County Medical Examiner / 2011

| TIME OF DAY | TOTAL | PERCENT |
|------------------------|------------|-------------|
| 12:01 a.m. - 3:00 a.m. | 21 | 15% |
| 3:01 a.m. - 6:00 a.m. | 6 | 4% |
| 6:01 a.m. - 9:00 a.m. | 12 | 9% |
| 9:01 a.m. - Noon | 9 | 7% |
| 12:01 p.m. - 3:00 p.m. | 15 | 11% |
| 3:01 p.m. - 6:00 p.m. | 31 | 23% |
| 6:01 p.m. - 9:00 p.m. | 19 | 14% |
| 9:01 p.m. - Midnight | 17 | 13% |
| Unknown | 5 | 4% |
| TOTALS | 135 | 100% |

Graph 7-5 Time of Fatal Traffic Collision / King County Medical Examiner / 2011


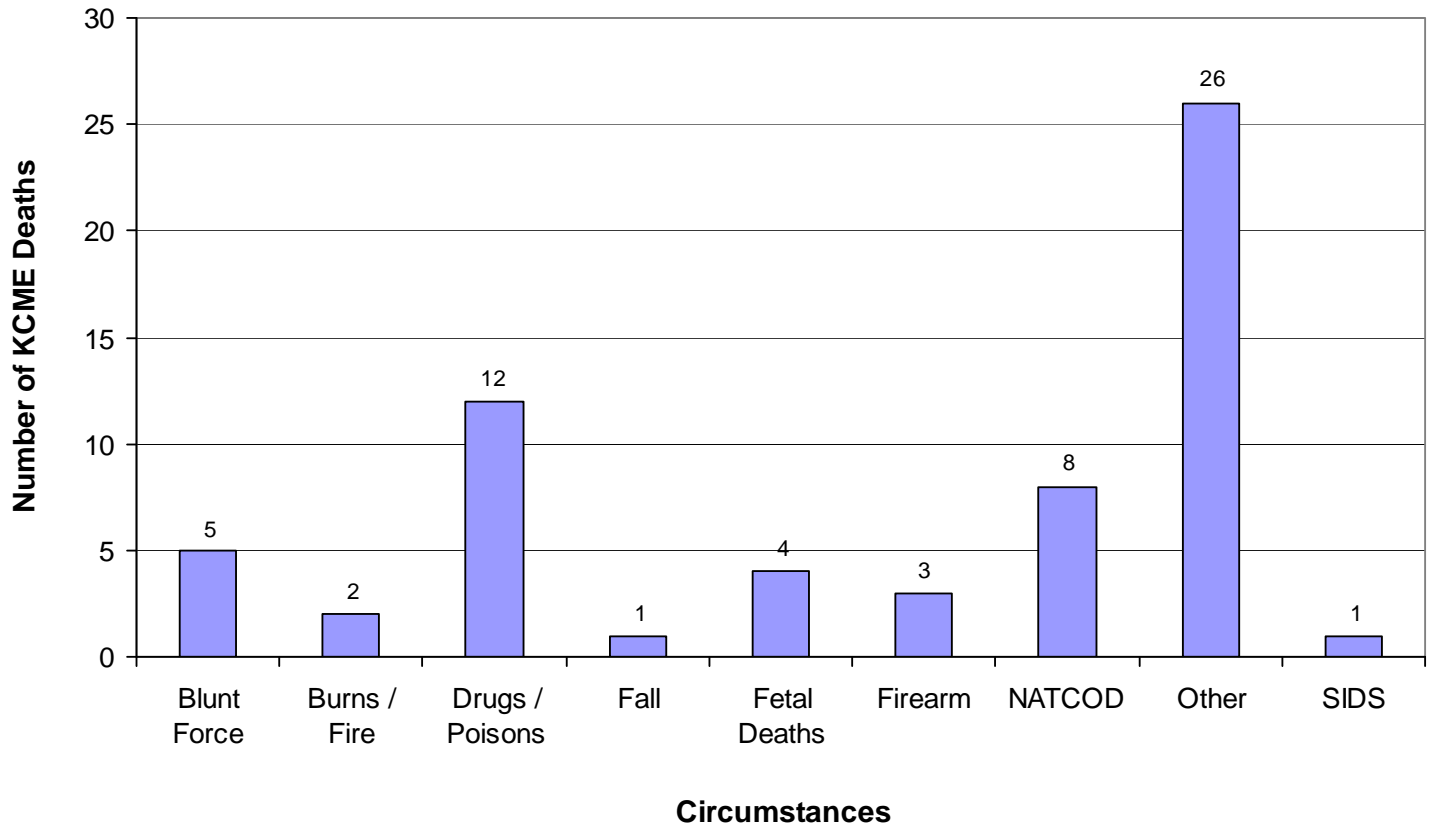
Manner of death: Undetermined

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

The King County Medical Examiner's Office certified 62 deaths with manner undetermined, accounting for 3% (62/2036) of the deaths investigated in 2011. Drugs and poisons caused 19% (12/62) of the deaths classified as undetermined. For a more detailed review of drug-caused deaths in 2011, see the discussion in the section on Drugs and Poisons on pages 89 and 90.

The 62 deaths that were classified as undetermined for 2011 included four fetal deaths, which, in accordance with the Washington State Department of Health - Center for Health Statistics Fetal Death Certification Guidelines, are not assigned a manner of death. Fetal death certificates must be issued for every fetus of 20 weeks or more gestation. Of the four fetal deaths in 2011, three were related to maternal drug abuse.

Graph 8-1 Undetermined Manner of Death²¹ / King County Medical Examiner / 2011

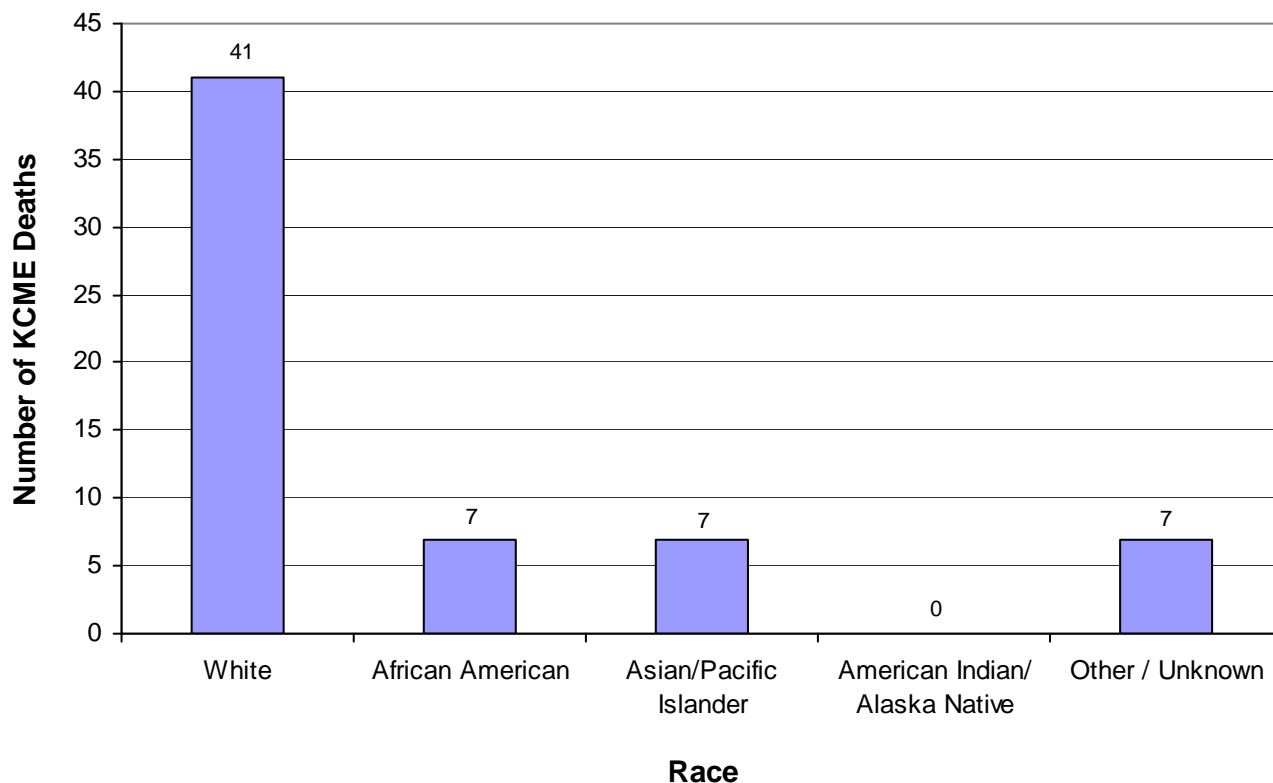


²¹NATCOD is an abbreviation for "no anatomic or toxicological cause of death," and refers to deaths in which full autopsies and toxicological analyses (if relevant) fail to identify an adequate cause of death.

Table 8-1 Undetermined Manner of Death / Race / Sex / KCME / 2011

| CIRCUMSTANCES / SEX | RACE | | | | | SUB-TOTAL | TOTAL |
|---|-----------|------------|---------------|----------------------|-------------|-----------|-----------|
| | WHITE | AFRIC AMER | ASIAN/ PAC IS | AM INDIAN/ AK NATIVE | OTHER / UNK | | |
| Blunt Force | 4 | 1 | 0 | 0 | 0 | | 5 |
| Male | 3 | 1 | 0 | 0 | 0 | 4 | |
| Female | 1 | 0 | 0 | 0 | 0 | 1 | |
| Burns / Fire | 1 | 0 | 1 | 0 | 0 | | 2 |
| Male | 1 | 0 | 1 | 0 | 0 | 2 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | |
| Drugs / Poisons | 7 | 2 | 2 | 0 | 1 | | 12 |
| Male | 7 | 1 | 1 | 0 | 0 | 9 | |
| Female | 0 | 1 | 1 | 0 | 1 | 3 | |
| Fall | 1 | 0 | 0 | 0 | 0 | | 1 |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | |
| Female | 1 | 0 | 0 | 0 | 0 | 1 | |
| Fetal Deaths | 3 | 0 | 0 | 0 | 1 | | 4 |
| Male | 2 | 0 | 0 | 0 | 0 | 2 | |
| Female | 1 | 0 | 0 | 0 | 1 | 2 | |
| Unknown | 0 | 0 | 0 | 0 | 0 | 0 | |
| Firearms | 3 | 0 | 0 | 0 | 0 | | 3 |
| Male | 1 | 0 | 0 | 0 | 0 | 1 | |
| Female | 2 | 0 | 0 | 0 | 0 | 2 | |
| No Anatomic or Toxicological Cause of Death | 8 | 0 | 0 | 0 | 0 | | 8 |
| Male | 4 | 0 | 0 | 0 | 0 | 4 | |
| Female | 4 | 0 | 0 | 0 | 0 | 4 | |
| Other | 13 | 4 | 4 | 0 | 5 | | 26 |
| Male | 5 | 3 | 1 | 0 | 2 | 11 | |
| Female | 8 | 1 | 3 | 0 | 3 | 15 | |
| SIDS | 1 | 0 | 0 | 0 | 0 | | 1 |
| Male | 1 | 0 | 0 | 0 | 0 | 1 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | |
| Totals | 41 | 7 | 7 | 0 | 7 | | 62 |
| Percent | 66.1% | 11.3% | 11.3% | 0% | 11.3% | | 100% |

Graph 8-2 Undetermined Manner / Race / King County Medical Examiner / 2011



Graph 8-3 Undetermined Manner / Age Group / King County Medical Examiner / 2011

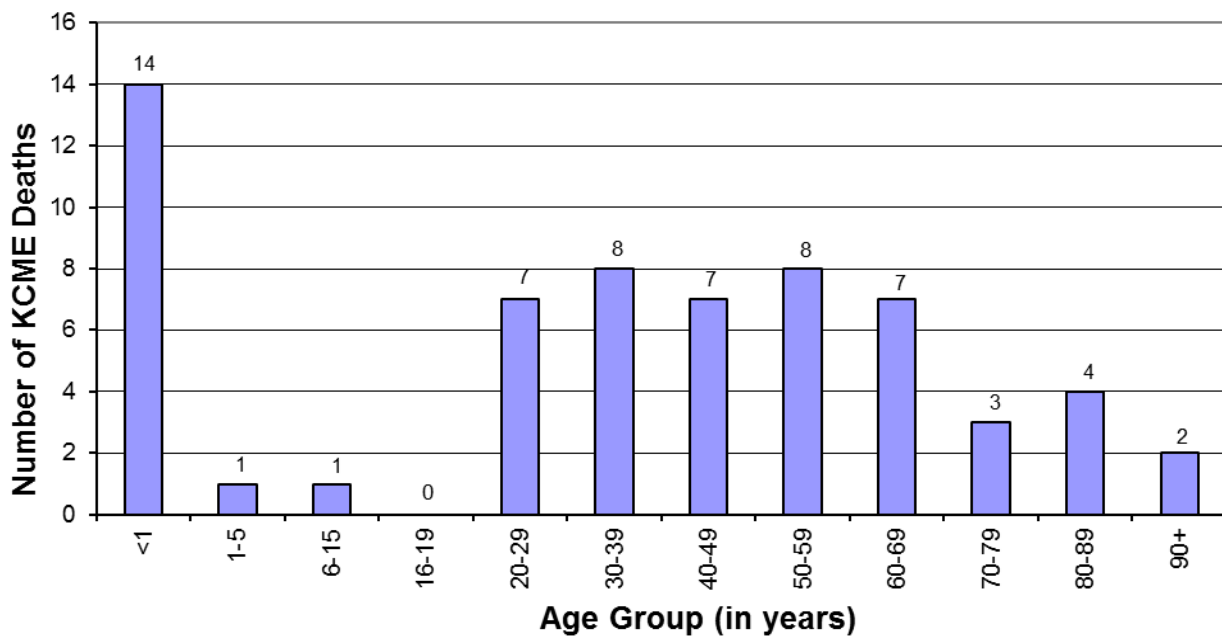


Table 8-2 Undetermined Circumstances / Age / Sex / KCME / 2011

| INJURY METHOD / SEX | AGE GROUP (YEARS) | | | | | | | | | | | | SUB- TOTAL | TOTAL |
|---|-------------------|-----------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------|---------------|-----------|
| | <1 | 1 to 5 | 6 to 15 | 16 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 + | | |
| Blunt Force | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 0 | | 5 |
| Male | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 4 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Burns / Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | | 2 |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Drugs / Poisons | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 4 | 4 | 0 | 0 | 0 | | 12 |
| Male | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 3 | 0 | 0 | 0 | 9 | |
| Female | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | |
| Fall | 0 | 0 | 0 | 0 | 1 | 0 | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Fetal Deaths | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 4 |
| Male | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | |
| Female | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | |
| Unknown | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Firearms | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | | 3 |
| Male | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Female | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | |
| No anatomic or toxicological cause of death | 0 | 0 | 0 | 0 | 2 | 4 | 1 | 1 | 0 | 0 | 0 | 0 | | 8 |
| Male | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 4 | |
| Female | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | |
| Other | 9 | 1 | 1 | 0 | 2 | 0 | 3 | 1 | 3 | 0 | 4 | 2 | | 26 |
| Male | 5 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 11 | |
| Female | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | |
| SIDS | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 1 |
| Male | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Totals | 14 | 1 | 1 | 0 | 7 | 8 | 7 | 8 | 7 | 3 | 4 | 2 | | 62 |
| Percent | 23% | 2% | 2% | 0% | 11% | 13% | 11% | 13% | 11% | 5% | 6% | 3% | | 100% |

Table 8-3 Undetermined Manner / Sex / King County Medical Examiner / 2011

| INJURY METHOD | SEX | | TOTAL |
|---|-----------|-----------|-----------|
| | MALE | FEMALE | |
| Blunt Force | 4 | 1 | 5 |
| Burns / Fire | 2 | 0 | 2 |
| Drugs / Poisons | 9 | 3 | 12 |
| Fall | 0 | 1 | 1 |
| Fetal Deaths | 2 | 2 | 4 |
| Firearms | 1 | 2 | 3 |
| No Anatomic or Toxicological Cause of Death | 4 | 4 | 8 |
| Other | 11 | 15 | 26 |
| SIDS | 1 | 0 | 1 |
| Totals | 34 | 28 | 62 |
| Percent | 55% | 45% | 100% |

Table 8-4 Undetermined Manner / Blood Alcohol / King County Medical Examiner / 2011

| METHOD | TESTED | | NOT TESTED | TOTAL |
|---|-----------|-----------|------------|-----------|
| | POSITIVE | NEGATIVE | | |
| Blunt Force | 2 | 2 | 1 | 5 |
| Burns / Fire | 0 | 2 | 0 | 2 |
| Drugs / Poisons | 1 | 9 | 2 | 12 |
| Fall | 1 | 0 | 0 | 1 |
| Fetal Deaths | 0 | 3 | 1 | 4 |
| Firearms | 1 | 2 | 0 | 3 |
| No Anatomic or Toxicological Cause of Death | 4 | 3 | 1 | 8 |
| Other | 1 | 17 | 8 | 26 |
| SIDS | 0 | 1 | 0 | 1 |
| Totals | 10 | 39 | 13 | 62 |
| Percent | 16% | 63% | 21% | 100% |

Deaths due to drugs and poisons

In 2011, it was reported in the *National Vital Statistics Report* that preliminary cause of death information from 2009 shows drug-induced deaths were the leading cause of accidental deaths of Americans. This was the first time drug-induced deaths had surpassed motor vehicle accidents as the number one cause of accidental deaths.²²

For King County in 2011, drugs and poisons caused 268 deaths, approximately 13% of all deaths investigated (268/2,036). The total number of drug-caused deaths decreased very slightly compared to 2010 when there were 271 drug deaths. In 2011, deaths due to drugs and poisons comprised 29% (268/922) of all suicidal, accidental and undetermined deaths combined.

For the purpose of this section, the term “overdose” is used to describe a death caused by a single drug or multiple drugs in combination. Multiple drug intoxication continued to cause the majority of drug deaths in 2011. Of the drug/poison deaths in 2011, a single drug or poison caused 33% of the drug related deaths (89/268), and drugs or poisons in combination caused 67% (179/268.) Multiple drug intoxication caused 68% of the drug/poison deaths in 2010. Table 9-3 displays the specific drugs that caused death in 2011. Because of their prevalence, ethanol, cocaine (a stimulant), and opiates²³ are identified as separate drug categories. Data on deaths involving methadone, oxycodone, and methamphetamine are also shown in detail.

Deaths due to drugs and poisons are represented in the manners of accident, suicide, and undetermined. There were no deaths classified as homicide in 2011 in which drugs or poisons were the primary cause of the death, although the victim may have been under the influence of drugs at the time of the fatal incident.

The classification of undetermined manner is used when the circumstances surrounding the drug death does not allow clarification of whether the fatal intoxication was intentional, unintentional ("recreational"), or due to another person's actions. In the year 2011, drugs and poisons caused 15 deaths of undetermined manner, compared to 11 in 2010. Of the 15 undetermined drug related deaths in 2011, 2 were fetal deaths attributed to maternal methamphetamine use and 1 was a fetal death attributed to maternal cocaine use.

In 2011, drugs/poisons caused 48 suicides, as compared to 43 in 2010.

²² Kenneth D. Kochanek, M.A.; Jiaquan Xu, M.D.; Sherry L. Murphy, B.S.; Arialdi M. Miniño M.P.H.; and Hsiang-Ching Kung, Ph.D., Division of Vital Statistics “Deaths: Preliminary Data 2009,” National Vital Statistics Report Volume 59 Number 4 (March 2011)

²³ When the term “opiate” is used in this section, the drug detected by analysis is a derivative of opium, usually morphine, the source of which is either pharmaceutical morphine or heroin. The term opiod refers to the general class of drugs, often called narcotics, that interact with the opioid receptor. For example, Oxycodone, and methadone are “opioids” but in this section are not “opiates.”

Drugs/poisons caused 205 accidental overdose deaths in 2011 compared to 217 in 2010. In 2011, accidental drug deaths comprised 34% (205/598) of all accidental deaths.

Ethanol (alcohol) is also a drug to be critically examined for its role in the circumstances surrounding death. In 2011, 7 accidental deaths were attributed to acute ethanol intoxication where ethanol was the single substance used. Fifty-four (54) people died in 2011 where ethanol, in combination with other drugs, was the cause of death. Blood alcohol (ethanol) tests were performed in 73% (806/1,108) 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 26% (213/806) of non-natural deaths where tests were performed.

Table 9-1 Blood Alcohol Testing / Manner / King County Medical Examiner / 2011

| Test Results | ACCIDENT | TRAFFIC | HOMICIDE | NATURAL | SUICIDE | UNDETER- MINED | TOTAL |
|-----------------|------------|------------|-----------|------------|------------|-------------------|--------------|
| Tested | 351 | 102 | 47 | 495 | 237 | 49 | 1301 |
| <i>Positive</i> | 84 | 22 | 14 | 95 | 82 | 11 | 308 |
| <i>Negative</i> | 267 | 80 | 33 | 400 | 175 | 38 | 993 |
| Not Tested | 247 | 30 | 7 | 433 | 8 | 10 | 735 |
| Totals | 598 | 132 | 54 | 928 | 265 | 59 | 2,036 |

Table 9-2 Blood Alcohol Testing / Percentage / Manner / KCME / 2011

| Test Results | ACCIDENT | TRAFFIC | HOMICIDE | NATURAL | SUICIDE | UNDETER- MINED | TOTAL |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------------|-------------|
| Tested | 59% | 77% | 87% | 53% | 97% | 83% | 64% |
| <i>Positive</i> | 24% | 22% | 30% | 19% | 32% | 22% | 24% |
| <i>Negative</i> | 76% | 78% | 70% | 81% | 68% | 78% | 76% |
| Not Tested | 41% | 23% | 13% | 47% | 3% | 17% | 36% |
| Totals | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Table 9-3 2011 Drug & Poison Caused Deaths¹

| Drug Name | Total deaths out of 2,060 cases in which drug was present | Overdose Deaths (268) – Drug Present | | | | | | Overdose Deaths (268) – Drug Causing | | | | | |
|---------------------------------|---|--------------------------------------|--|--|----------|---------|--------------|--------------------------------------|--|---|----------|---------|--------------|
| | | In which drug was present | Single drug OD in which drug was present | Multiple drug OD in which drug was present | Accident | Suicide | Undetermined | In which drug caused death | OD in which a single drug caused death | OD in which multiple drugs caused death | Accident | Suicide | Undetermined |
| Acetaminophen | 87 | 3 | 1 | 2 | 2 | 0 | 1 | 4 | 1 | 3 | 2 | 1 | 1 |
| Alprazolam | 48 | 34 | 0 | 34 | 29 | 3 | 2 | 33 | 0 | 33 | 28 | 3 | 2 |
| Amantadine | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Amitriptyline | 18 | 6 | 0 | 6 | 1 | 5 | 0 | 7 | 0 | 7 | 2 | 5 | 0 |
| Amphetamine | 52 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Benzotropine | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bupivacaine | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 3 | 0 |
| Bupropion | 15 | 2 | 0 | 2 | 0 | 2 | 0 | 3 | 0 | 3 | 0 | 3 | 0 |
| Butalbital | 3 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Cannabinoids / THC ² | 197 | 56 | 20 | 36 | 32 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Carbamazepine | 4 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| Carbon Monoxide ³ | 23 | 10 | 10 | 0 | 3 | 6 | 1 | 10 | 10 | 0 | 3 | 6 | 1 |
| Carisoprodol | 10 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| Chlordiazepoxide | 10 | 5 | 1 | 4 | 4 | 1 | 0 | 4 | 0 | 4 | 3 | 1 | 0 |
| Chlorpheniramine | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Clonidine | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| Citalopram | 71 | 29 | 0 | 29 | 20 | 7 | 2 | 29 | 0 | 29 | 20 | 7 | 2 |
| Clomipramine | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Clonazepam | 5 | 1 | 0 | 1 | 1 | 0 | 0 | 3 | 0 | 3 | 2 | 1 | 0 |
| Cocaine ⁴ | 96 | 46 | 12 | 34 | 42 | 1 | 2 | 45 | 11 | 34 | 41 | 1 | 3 |
| Codeine ⁵ | 21 | 15 | 7 | 8 | 13 | 2 | 0 | 174 | 5 | 9 | 13 | 1 | 0 |
| Cyanide | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| Cyclobenzaprine | 17 | 4 | 0 | 4 | 4 | 0 | 0 | 4 | 0 | 4 | 4 | 0 | 0 |
| Desipramine | 3 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| Dextromethorphan | 14 | 8 | 2 | 7 | 6 | 2 | 1 | 8 | 2 | 6 | 5 | 2 | 1 |

Table 9-3 2011 Drug & Poison Caused Deaths, page 2

| Drug Name | Total deaths out of 2,060 cases in which drug was present | Overdose Deaths (268) – Drug Present | | | | | | Overdose Deaths (268) – Drug Causing | | | | | |
|-------------------------|---|--------------------------------------|--|--|----------|---------|--------------|--------------------------------------|--|---|----------|---------|--------------|
| | | In which drug was present | Single drug OD in which drug was present | Multiple drug OD in which drug was present | Accident | Suicide | Undetermined | In which drug caused death | OD in which a single drug caused death | OD in which multiple drugs caused death | Accident | Suicide | Undetermined |
| Diazepam | 64 | 26 | 3 | 23 | 21 | 5 | 0 | 23 | 0 | 23 | 19 | 4 | 0 |
| Diltiazem | 6 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| Diphenhydramine | 60 | 25 | 4 | 21 | 15 | 10 | 0 | 21 | 0 | 21 | 14 | 7 | 0 |
| Doxepin | 10 | 5 | 0 | 5 | 4 | 1 | 0 | 6 | 0 | 6 | 4 | 2 | 0 |
| Doxylamine | 11 | 4 | 0 | 4 | 3 | 0 | 1 | 4 | 0 | 4 | 3 | 0 | 1 |
| Ethanol - Ethyl Alcohol | 313 | 71 | 19 | 52 | 57 | 13 | 1 | 54 | 8 | 46 | 38 | 7 | 1 |
| Ethylene Glycol | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| Fentanyl | 14 | 11 | 2 | 9 | 10 | 1 | 0 | 11 | 2 | 9 | 10 | 1 | 0 |
| Fluoxetine | 16 | 7 | 0 | 7 | 7 | 0 | 0 | 8 | 0 | 8 | 8 | 0 | 0 |
| Guaifenesin | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hydrocodone | 33 | 12 | 1 | 11 | 5 | 5 | 1 | 12 | 0 | 12 | 5 | 5 | 2 |
| Hydromorphone | 20 | 7 | 0 | 7 | 4 | 3 | 0 | 8 | 0 | 8 | 5 | 3 | 0 |
| Hydroxyzine | 8 | 5 | 0 | 5 | 1 | 3 | 1 | 5 | 0 | 5 | 1 | 3 | 1 |
| Ibuprofen | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Imipramine | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| Isopropanol | 9 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 |
| Ketamine | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lamotrigine | 13 | 5 | 0 | 5 | 2 | 3 | 0 | 5 | 0 | 5 | 2 | 3 | 0 |
| Lidocaine | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lisinopril | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Lorazepam | 19 | 7 | 0 | 7 | 4 | 2 | 1 | 7 | 0 | 7 | 4 | 2 | 1 |
| MDMA | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Meperidine | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Meprobamate | 13 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Methadone | 88 | 49 | 2 | 47 | 46 | 2 | 1 | 54 | 2 | 52 | 50 | 3 | 1 |

Table 9-3 2011 Drug & Poison Caused Deaths, page 3

| Drug Name | Total deaths out of 2,060 cases in which drug was present | Overdose Deaths (268) – Drug Present | | | | | | Overdose Deaths (268) – Drug Causing | | | | | |
|---------------------------------|---|--------------------------------------|--|--|----------|---------|--------------|--------------------------------------|--|---|----------|---------|--------------|
| | | In which drug was present | Single drug OD in which drug was present | Multiple drug OD in which drug was present | Accident | Suicide | Undetermined | In which drug caused death | OD in which a single drug caused death | OD in which multiple drugs caused death | Accident | Suicide | Undetermined |
| Methamphetamine | 43 | 22 | 9 | 13 | 19 | 2 | 1 | 22 | 9 | 13 | 19 | 2 | 1 |
| Methanol | 3 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Methocarbamol | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Methylphenidate | 3 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Metoclopramide | 8 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| Midazolam | 18 | 2 | 1 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| Monoacetylmorphine ⁶ | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 9 | 14 | 23 | 0 | 0 |
| Morphine ⁷ | 126 | 81 | 22 | 59 | 76 | 3 | 2 | 81 | 22 | 59 | 76 | 3 | 2 |
| Nortriptyline ⁸ | 27 | 9 | 0 | 9 | 5 | 4 | 0 | 4 | 0 | 4 | 3 | 1 | 0 |
| Olanzapine | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Oxazepam | 15 | 9 | 0 | 9 | 7 | 2 | 0 | 5 | 0 | 5 | 4 | 1 | 0 |
| Oxycodone | 85 | 42 | 1 | 41 | 30 | 10 | 2 | 42 | 1 | 41 | 30 | 10 | 12 |
| Paroxetine | 6 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 2 | 0 | 1 | 1 |
| Phenobarbital | 9 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| Phenytoin | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Propoxyphene | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Quetiapine | 21 | 10 | 0 | 10 | 4 | 4 | 2 | 10 | 0 | 10 | 4 | 4 | 2 |
| Sertraline | 12 | 2 | 0 | 2 | 1 | 1 | 0 | 2 | 0 | 2 | 1 | 1 | 0 |
| Temazepam | 20 | 5 | 0 | 5 | 3 | 2 | 0 | 4 | 0 | 4 | 3 | 1 | 0 |
| Topiramate | 6 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| Tramadol | 14 | 7 | 0 | 7 | 3 | 3 | 1 | 8 | 0 | 7 | 3 | 3 | 1 |
| Trazodone | 22 | 7 | 0 | 7 | 3 | 4 | 0 | 8 | 0 | 8 | 3 | 5 | 0 |
| Venlafaxine | 22 | 9 | 1 | 8 | 3 | 5 | 1 | 9 | 1 | 8 | 3 | 5 | 1 |
| Zolpidem | 26 | 16 | 0 | 16 | 6 | 9 | 1 | 16 | 0 | 16 | 6 | 9 | 1 |

Table 9-3 2011 Drug & Poison Caused Deaths, page 4

¹Table 9-3 is constructed on the basis of finding each of the listed drugs by laboratory analysis of the decedent's blood. The first column represents the total number of cases in which the specific drug was detected, regardless of cause and manner of death. The rest of the columns represent only drug overdose deaths and are divided into two parts. The part that lists "Drug Present" represents the number of cases in drug overdose deaths in which the drug was present in quantifiable amounts. The other part that lists "Drug Causing" represents the number of drug overdose deaths in which the specific drug caused or contributed to death in the opinion of the certifying Medical Examiner, i.e., the drug was included on the death certificate. In many cases, the numbers in the first part are more than those in the second part because the drug, although present, was not considered to contribute significantly to death, i.e., the drug was not listed on the death certificate even though it was detected in the decedent. In a few cases, the column that lists "In which drug caused death" is greater than the column that lists "In which drug was present," because the drug was detected but not in quantifiable levels, and the certifying Medical Examiner considered the drug to have contributed to death. Furthermore, there were eleven additional cases of drug overdose deaths in which no sample was available for analysis. All of these cases represent deaths due to anoxic brain injury that occurred in a hospital after the admission blood sample had been discarded, precluding a confirmatory laboratory analysis. These cases were certified on the basis of the medical records rather than laboratory analysis. These cases included delayed overdose deaths of the following drugs: (1) cocaine; (2) cocaine; (3) acetaminophen; (4) acetaminophen; (5) cocaine, opiate and amitriptyline; (6) combined effects of methadone, Oxycodone, unspecified benzodiazepine and unspecified opiate, and possibly fentanyl ; (7) benzodiazepine, methadone, and opiate (unknown type); (8) methamphetamine; (9) barbiturate, benzodiazepine, opiate, and ethanol; (10) insulin; (11) opiate (probable heroin.)

²Cannabinoids 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.

³Carbon monoxide fatalities are listed in the first column (Total deaths out of 2,036 cases in which drug was present) if the level of carboxyhemoglobin was 5% or greater. The rest of the columns represent only drug overdose deaths and are divided into two parts, "Drug Present" and "Drug Causing". Suicides due to intentional inhalation of carbon monoxide accounted for six of the carbon monoxide deaths. In five of the six carbon monoxide suicides, other drugs may have been present, but they did not contribute to the death. Accidental deaths due to inhalation of carbon monoxide accounted for three of the carbon monoxide overdose deaths. One of the accidental carbon monoxide overdose deaths was attributed solely to inhalation of carbon monoxide and the other two accidental carbon monoxide overdose deaths involved ethanol and cannabinoids in addition to the carbon monoxide. There was one undetermined death due solely to inhalation of carbon monoxide. Other sources of carbon monoxide included in this table are 11 accidental residential fire fatalities and two traffic accidents with vehicle fires. There were no homicidal deaths due to carbon monoxide in 2011.

⁴Includes benzoylcegonine.

⁵Out of the 15 overdose deaths involving codeine, in 9 cases, the source of the drug was likely small quantities of codeine present in heroin used by illicit drug users. In six cases the source of the drug was likely pharmaceutical codeine.

⁶Monoacetylmorphine (MAM), otherwise known as diacetylmorphine, is the first breakdown product of heroin. The presence of MAM, therefore, proves the source of opiate to be heroin. However, the absence of MAM does not imply that the source of the opiate was not heroin.

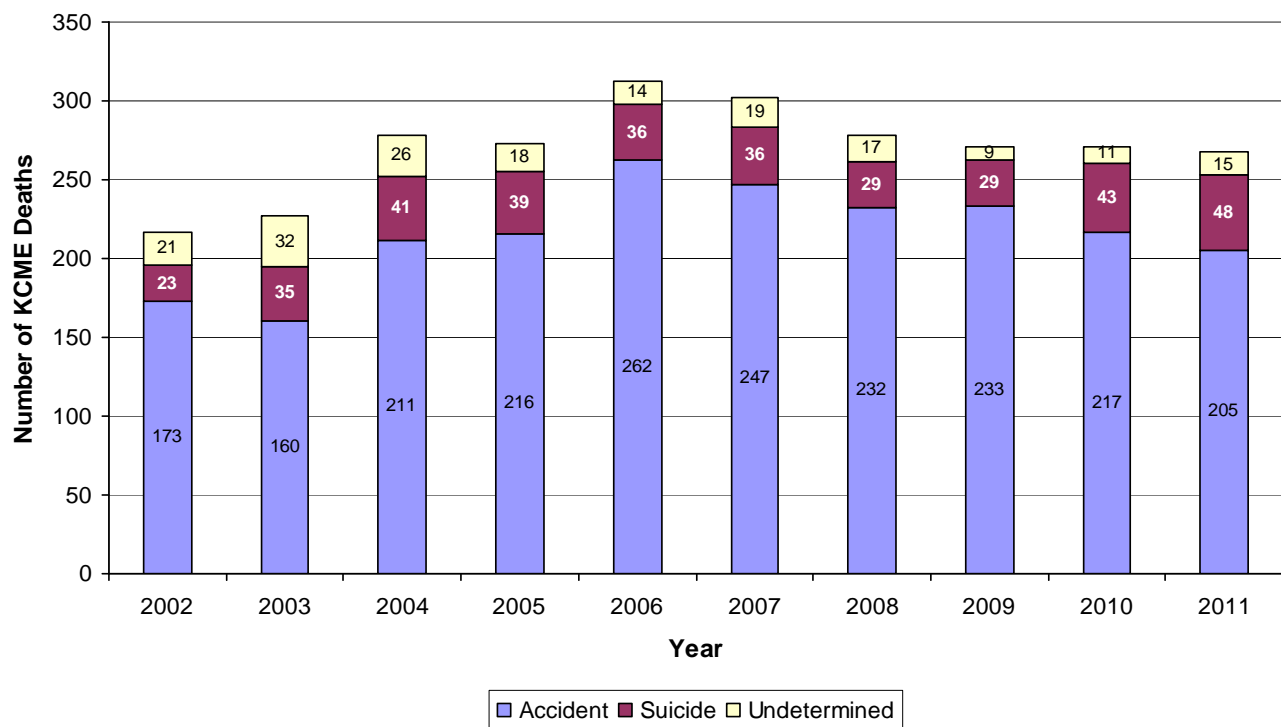
⁷There were 81 overdose deaths involving morphine. In 49 of these cases, the source of the drug was likely the morphine derived from heroin preparations used by illicit drug users. In 18 of these cases the source of the morphine was likely pharmaceutical morphine, and in 14 of these cases the source of the morphine was not indicated.

⁸In 4 of the 9 total cases, nortriptyline was present without the presence of amitriptyline, indicating that the source of the drug was, in fact, nortriptyline. In the other 5 cases, amitriptyline was also present, indicating that the nortriptyline was present due to the breakdown of amitriptyline. There were a total of 4 nortriptyline overdose deaths; 3 accidental multiple drug overdoses and 1 multiple drug overdose suicide.

Table 9-4 Total Overdose Deaths / Accident, Suicide, Undetermined / 2002 – 2011⁹

| Overdose Deaths | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|-----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Accident | 173 | 160 | 211 | 216 | 262 | 247 | 232 | 233 | 217 | 205 |
| Suicide | 23 | 35 | 41 | 39 | 36 | 36 | 29 | 29 | 43 | 48 |
| Undetermined | 21 | 32 | 26 | 18 | 14 | 19 | 17 | 9 | 11 | 15 |
| Totals | 217 | 227 | 278 | 273 | 312 | 302 | 278 | 271 | 271 | 268 |

Graph 9-2 Drug & Poison Caused Deaths / Accident, Suicide, Undetermined / King County Medical Examiner / 2002- 2011



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

Table 9-5

Overdose Deaths Caused by Cocaine, Methadone, Opiates, Methamphetamine, or Oxycodone¹⁰ / KCME / 2002 - 2011

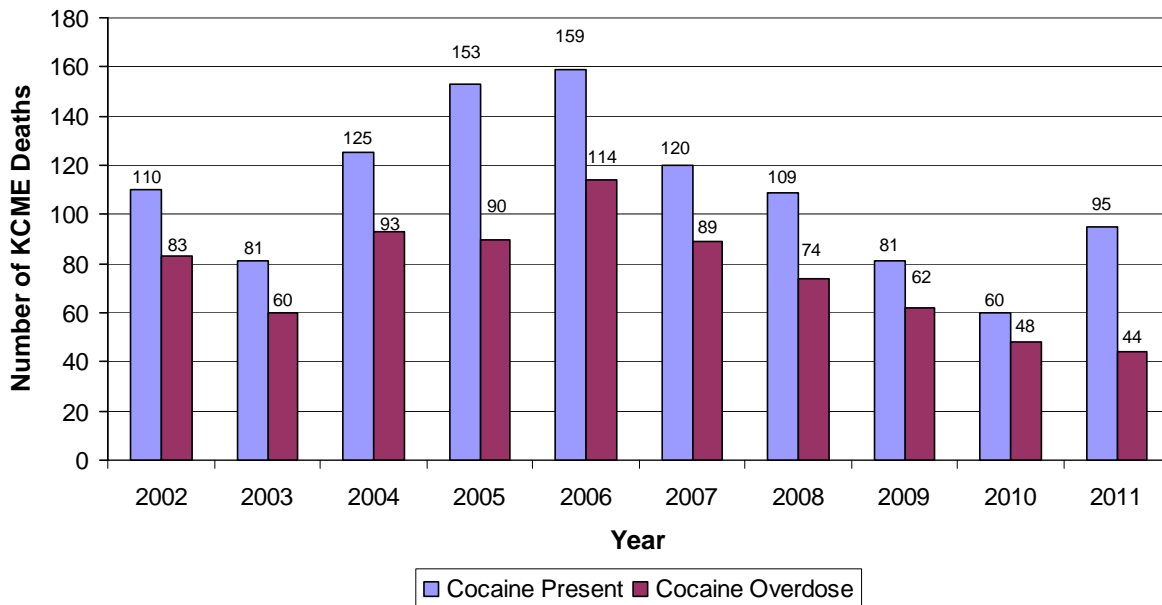
| DRUG | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|-----------------|------|------|------|------|------|------|------|------|------|------|
| Cocaine | 83 | 60 | 93 | 90 | 114 | 89 | 74 | 62 | 48 | 44 |
| Methadone | 37 | 51 | 68 | 86 | 96 | 84 | 86 | 85 | 67 | 54 |
| Methamphetamine | 16 | 19 | 18 | 29 | 21 | 21 | 15 | 19 | 19 | 22 |
| Opiates | 97 | 75 | 89 | 88 | 83 | 87 | 83 | 71 | 72 | 87 |
| Oxycodone | 21 | 17 | 32 | 34 | 47 | 51 | 44 | 60 | 35 | 42 |

Graph 9-2 Drug & Poison Caused Deaths / Accident, Suicide, Undetermined / King County Medical Examiner / 2002 - 2011

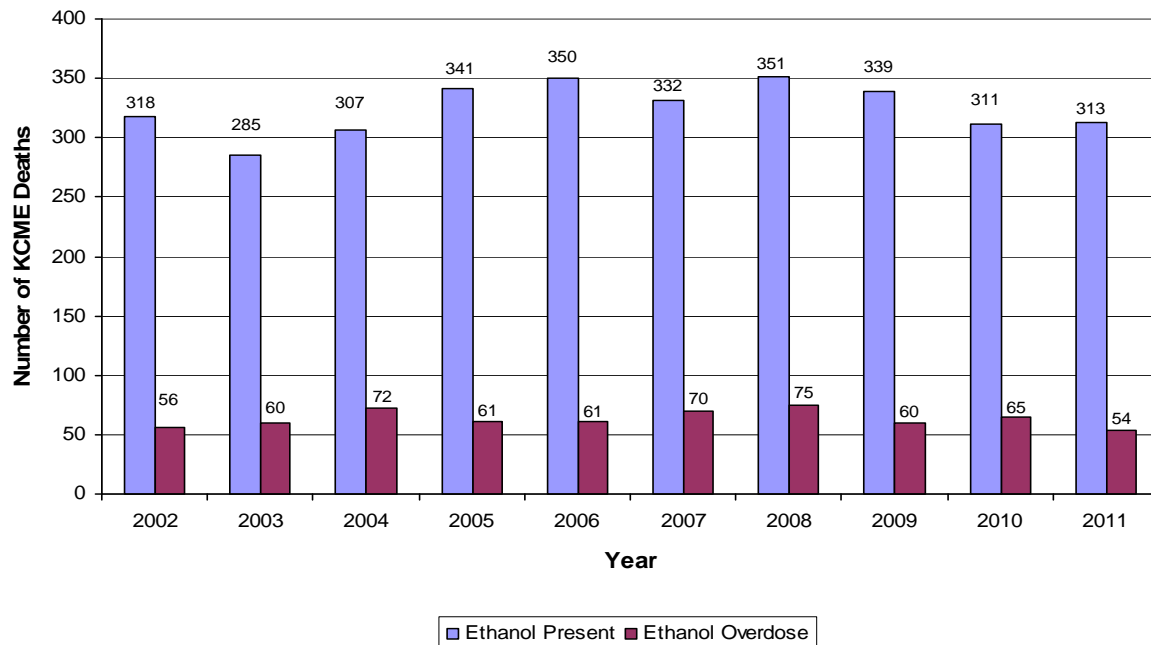


¹⁰ In this context, "caused by" refers to single or multiple drug overdoses in which the drug was listed on the death certificate.

Graph 9-3 Cocaine Involved Deaths¹¹ / King County Medical Examiner / 2002 – 2011

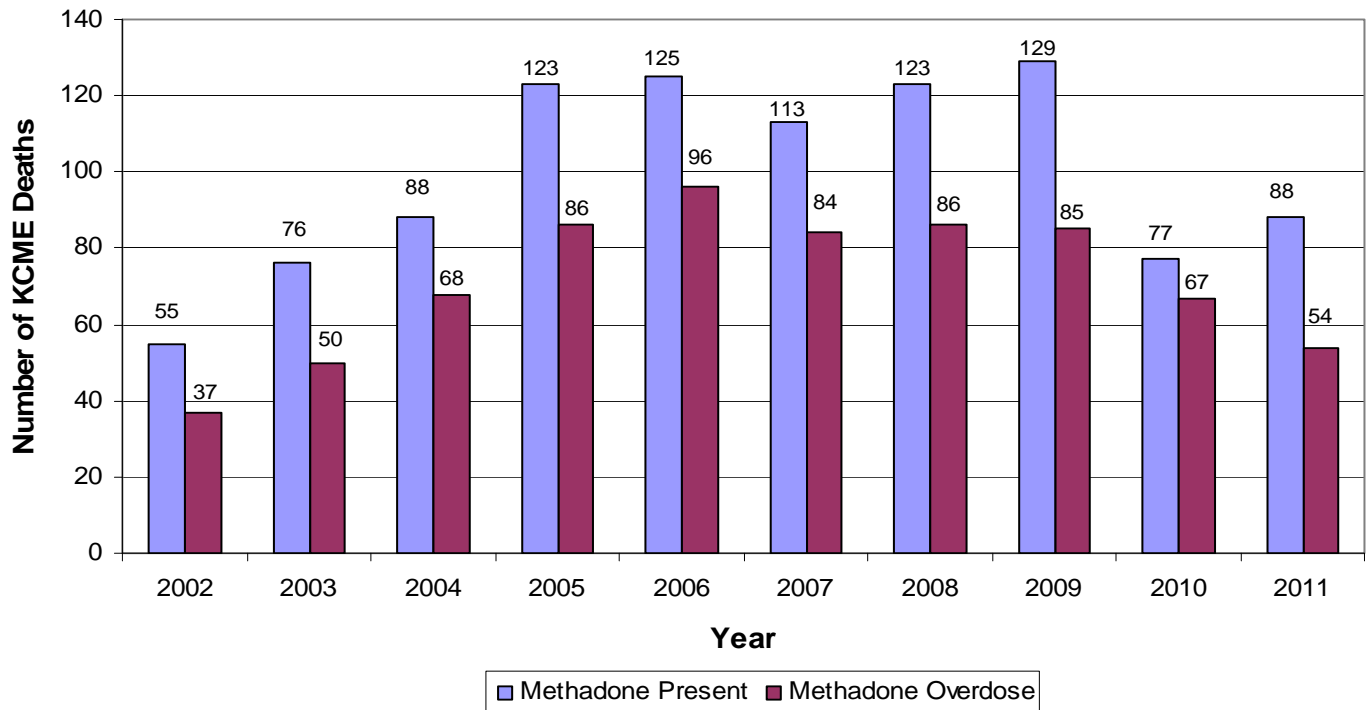


**Graph 9-4 Ethanol Involved Deaths / King County Medical Examiner
2002– 2011**

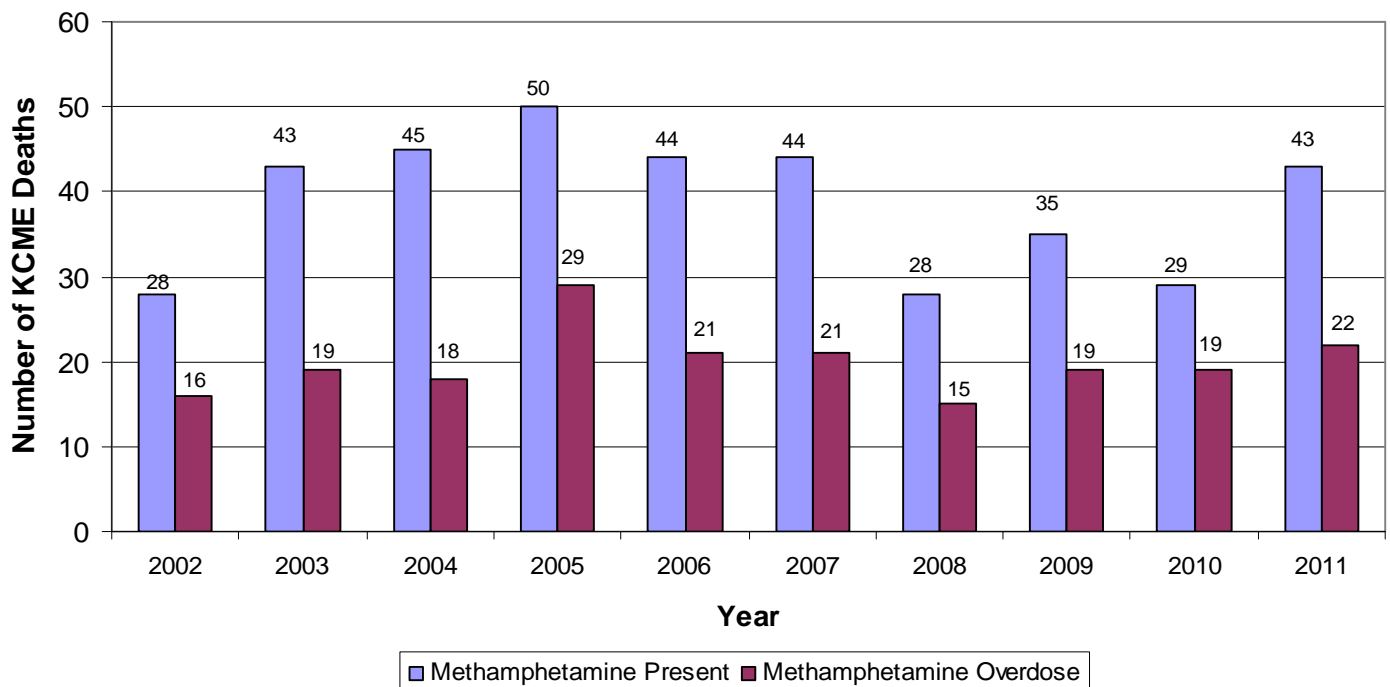


¹¹In Graphs 9-3, 9-4, 9-5 and 9-6, "overdose" refers to deaths due to the listed drug or ethanol in single or multiple drug overdose deaths where the listed drug or ethanol was listed on the death certificate.

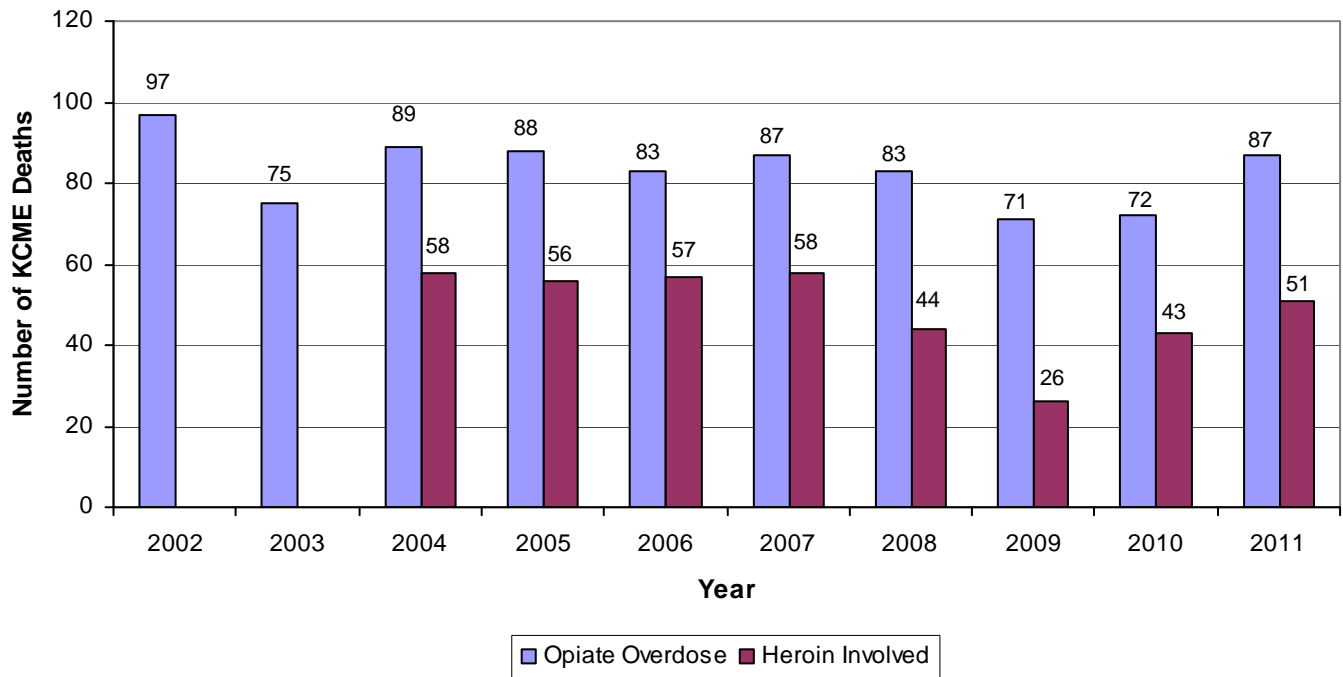
Graph 9-5 Methadone Involved Deaths / King County Medical Examiner / 2002 - 2011



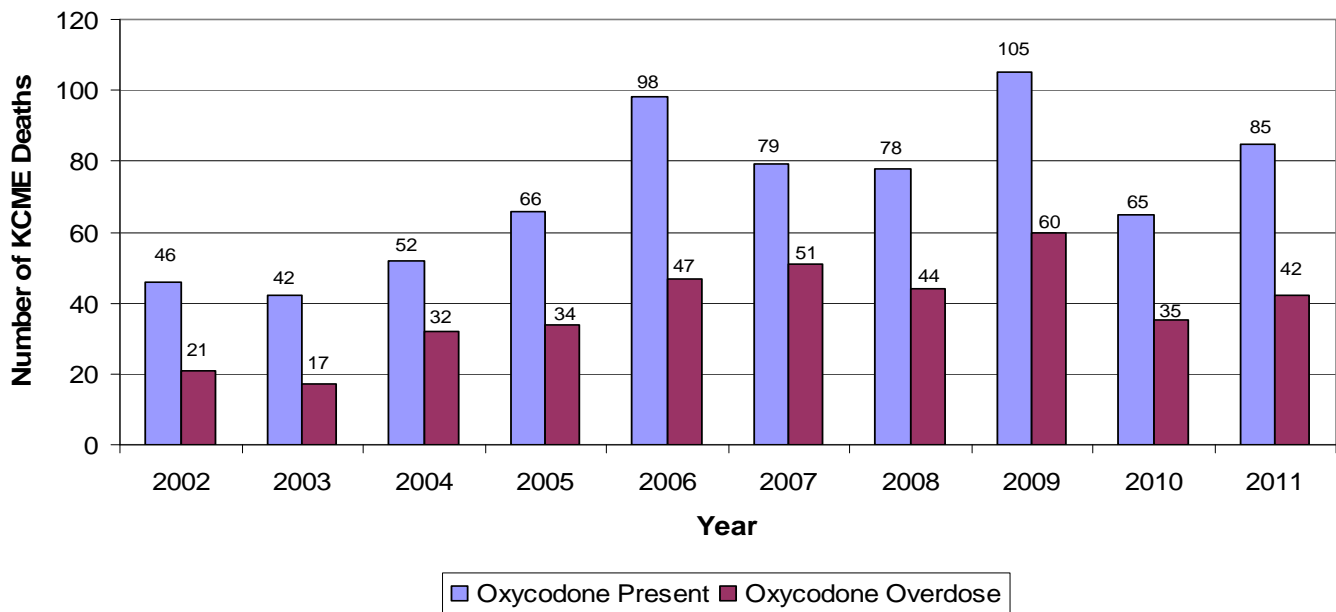
Graph 9-6 Methamphetamine Involved Deaths / KCME / 2002 – 2011



Graph 9-7 Opiate Overdose Deaths & Heroin-Related Deaths / KCME / 2002 - 2011¹²



Graph 9-8 Oxycodone Involved Deaths / King County Medical Examiner / 2002 - 2011



¹²In 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 / 2002 – 2011

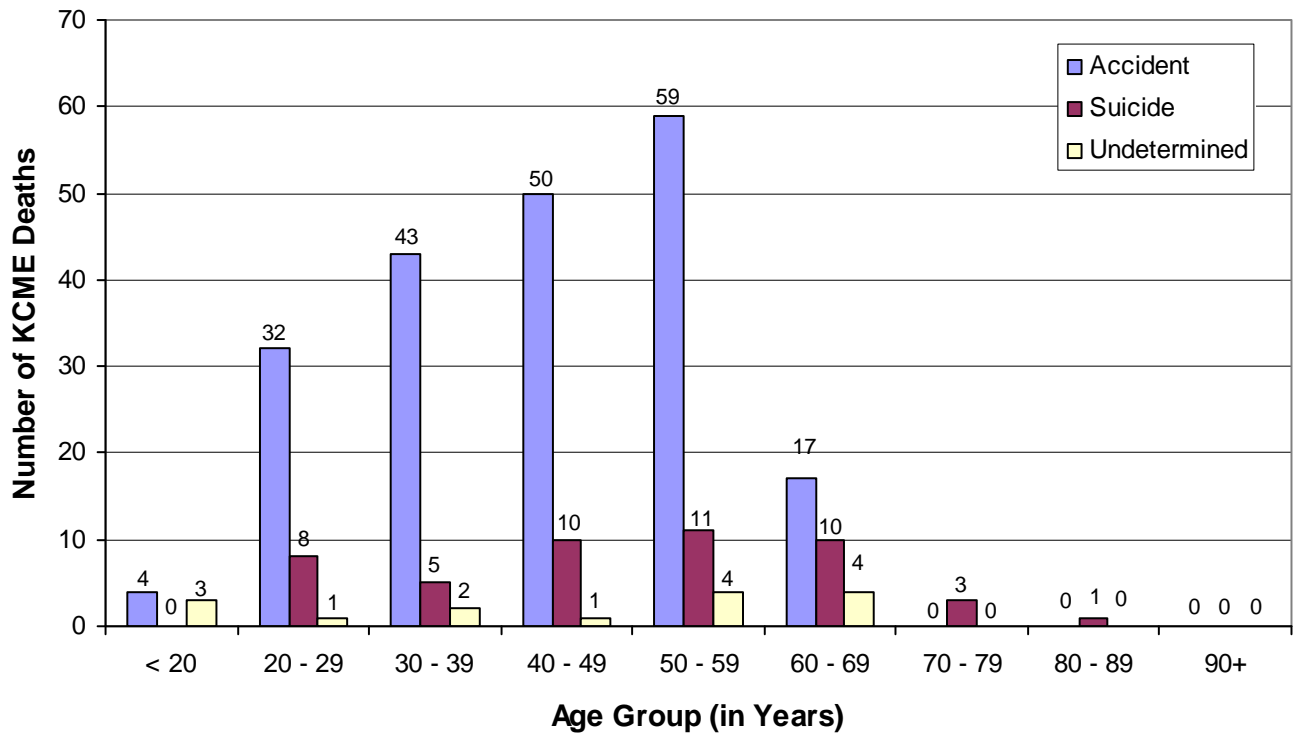


Table 9-6 Drug / Poison Deaths / Age / King County Medical Examiner / 2011

| AGE GROUP | | MANNER OF DEATH | | | SUB-TOTAL | TOTAL |
|---------------|--|-----------------|-----------|--------------|-----------|------------|
| (YEARS) / SEX | | ACCIDENT | SUICIDE | UNDETERMINED | | |
| <20 | | 4 | 0 | 3 | | 7 |
| Male | | 4 | 0 | 2 | 6 | |
| Female | | 0 | 0 | 1 | 1 | |
| 20-29 | | 32 | 8 | 1 | | 41 |
| Male | | 22 | 3 | 0 | 25 | |
| Female | | 10 | 5 | 1 | 16 | |
| 30-39 | | 43 | 5 | 2 | | 50 |
| Male | | 27 | 2 | 1 | 30 | |
| Female | | 16 | 3 | 1 | 20 | |
| 40-49 | | 50 | 10 | 1 | | 61 |
| Male | | 36 | 3 | 1 | 40 | |
| Female | | 14 | 7 | 0 | 21 | |
| 50-59 | | 59 | 11 | 4 | | 74 |
| Male | | 34 | 7 | 4 | 45 | |
| Female | | 25 | 4 | 0 | 29 | |
| 60-69 | | 17 | 10 | 4 | | 31 |
| Male | | 8 | 5 | 3 | 16 | |
| Female | | 9 | 5 | 1 | 15 | |
| 70-79 | | 0 | 3 | 0 | | 3 |
| Male | | 0 | 1 | 0 | 1 | |
| Female | | 0 | 2 | 0 | 2 | |
| 80-89 | | 0 | 1 | 0 | | 1 |
| Male | | 0 | 0 | 0 | 0 | |
| Female | | 0 | 1 | 0 | 1 | |
| 90+ | | 0 | 0 | 0 | | 0 |
| Male | | 0 | 0 | 0 | 0 | |
| Female | | 0 | 0 | 0 | 0 | |
| Totals | | 205 | 48 | 15 | | 268 |

Deaths due to firearms

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

In 2011, the Medical Examiner investigated 154 firearm deaths. In 2010, firearms caused 135 deaths. Of the 154 firearm deaths in 2011, 35 (23%) were homicides and 116 (75%) were suicides. No firearm deaths were classified as accidents in 2011. In 2010, there was one firearm death classified as an accident. In 2011, there were three firearm deaths that were classified as undetermined; there were three also in 2010.

In 2011, gunshot wounds were the leading cause of death for homicides and suicides. Firearm deaths comprised 65% (35/54) of homicides, compared to 66% (39/59) in 2010. In 2011, suicides by firearms represented 44% (116/265) of suicide deaths compared to 40% (92/232) in 2010.

In 2011, of the 35 firearm homicide victims, 14% (5/35) were 19 years old and younger – a decrease from 2010 when 28% of firearm homicide victims were 19 years old and younger. In 2011, it is estimated that a disproportionate number of firearm homicide victims were African American (17%, 6/35) compared to the percentage of African Americans in the general population (see discussions on pages 8 and 44). Of the 6 African American firearm homicide victims, none were males 19 years old and younger and one was a male between 20 and 29 years of age. In comparison, 66% (23/35) of the homicide firearm victims were white. Of the 23 white homicide victims, 43% (10/23) were males between 20 and 29 years old.

Of the 116 firearm suicide victims in 2011, 93% (108/116) were white and 95% (110/116) were males. Four of the firearm suicide victims were 19 years old and under (3%, 4/116). Thirty-four (29%, 34/116) of the gunshot suicide victims were between the ages of 20 and 39 years of age, 40 (34%, 40/116) were between 40 and 59 years, and 38 (33%, 38/116) were 60 years and older.

Table 10-1 Firearm Deaths / Manner / Age / Sex / King County Medical Examiner / 2011

| AGE GROUP / SEX | MANNER OF DEATH | | | | SUB-TOTAL | TOTAL |
|-----------------|-----------------|-----------|------------|----------|-----------|------------|
| | A | H | S | U | | |
| <13 years | 0 | 0 | 1 | 0 | | 1 |
| Male | 0 | 0 | 1 | 0 | 1 | |
| Female | 0 | 0 | 0 | 0 | 0 | |
| 13-15 years | 0 | 0 | 0 | 0 | | 0 |
| Male | 0 | 0 | 0 | 0 | 0 | |
| Female | 0 | 0 | 0 | 0 | 0 | |
| 16-19 years | 0 | 5 | 3 | 0 | | 8 |
| Male | 3 | 3 | 0 | 0 | 6 | |
| Female | 0 | 2 | 0 | 0 | 2 | |
| 20-29 years | 0 | 15 | 18 | 1 | | 34 |
| Male | 0 | 14 | 15 | 1 | 30 | |
| Female | 0 | 1 | 3 | 0 | 4 | |
| 30-39 years | 0 | 3 | 16 | 1 | | 20 |
| Male | 0 | 2 | 15 | 0 | 17 | |
| Female | 0 | 1 | 1 | 1 | 3 | |
| 40-49 years | 0 | 7 | 15 | 0 | | 22 |
| Male | 0 | 6 | 12 | 0 | 18 | |
| Female | 0 | 1 | 3 | 0 | 4 | |
| 50-59 years | 0 | 3 | 25 | 0 | | 28 |
| Male | 0 | 3 | 19 | 0 | 22 | |
| Female | 0 | 0 | 6 | 0 | 6 | |
| 60-69 years | 0 | 1 | 16 | 0 | | 17 |
| Male | 0 | 0 | 14 | 0 | 14 | |
| Female | 0 | 1 | 2 | 0 | 3 | |
| 70-79 years | 0 | 0 | 13 | 1 | | 14 |
| Male | 0 | 0 | 12 | 0 | 12 | |
| Female | 0 | 0 | 1 | 1 | 2 | |
| 80-89 years | 0 | 1 | 7 | 0 | | 8 |
| Male | 0 | 0 | 7 | 0 | 7 | |
| Female | 0 | 1 | 0 | 0 | 1 | |
| 90+ | 0 | 0 | 2 | 0 | | 2 |
| Male | 0 | 0 | 2 | 0 | 2 | |
| Female | 0 | 0 | 0 | 0 | 0 | |
| Totals | 0 | 35 | 116 | 3 | | 154 |
| Percent | 0% | 23% | 75% | 2% | | 100% |

Graph 10-1 Firearm Deaths / Manner / Age Group / King County Medical Examiner / 2011

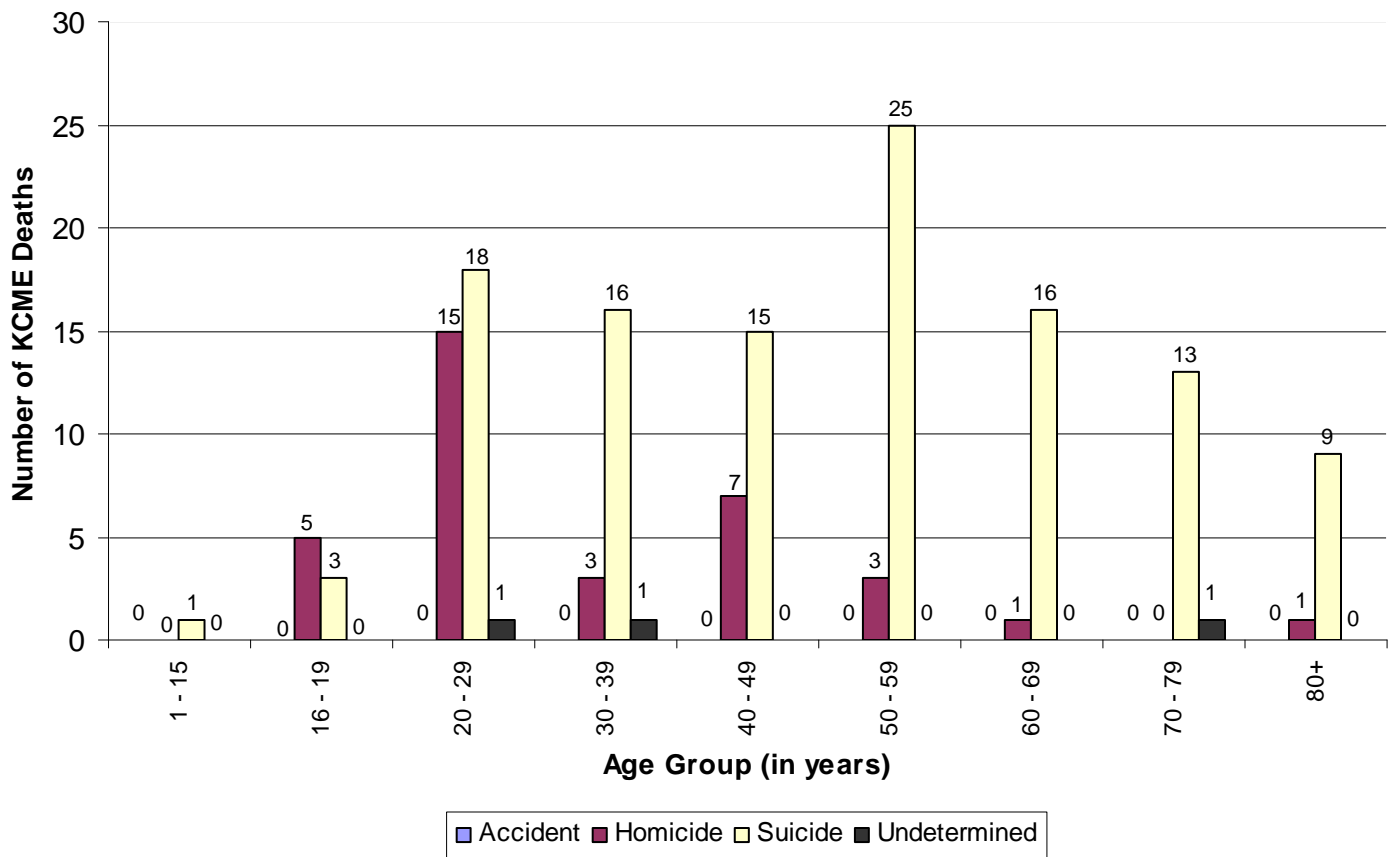


Table 10-2 Firearm Deaths / Manner / Race / Sex / KCME / 2011

| RACE / SEX | MANNER OF DEATH | | | | SUB-TOTAL | TOTAL |
|------------------------|-----------------|-----------|------------|----------|-----------|------------|
| | A | H | S | U | | |
| Asian/Pacific Islander | 0 | 3 | 4 | 0 | | 7 |
| <i>Male</i> | 0 | 3 | 3 | 0 | 6 | |
| <i>Female</i> | 0 | 0 | 1 | 0 | 1 | |
| African American | 0 | 6 | 2 | 0 | | 8 |
| <i>Male</i> | 0 | 3 | 2 | 0 | 5 | |
| <i>Female</i> | 0 | 3 | 0 | 0 | 3 | |
| Am Indian / AK Native | 0 | 0 | 1 | 0 | | 1 |
| <i>Male</i> | 0 | 0 | 1 | 0 | 1 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | |
| White | 0 | 23 | 108 | 3 | | 134 |
| <i>Male</i> | 0 | 20 | 93 | 1 | 114 | |
| <i>Female</i> | 0 | 3 | 15 | 2 | 20 | |
| Other | 0 | 3 | 1 | 0 | | 4 |
| <i>Male</i> | 0 | 2 | 1 | 0 | 3 | |
| <i>Female</i> | 0 | 1 | 0 | 0 | 1 | |
| Totals | 0 | 35 | 116 | 3 | | 154 |

Causes of death in children and youth

In 2011, the King County Medical Examiner's Office investigated 81 deaths of children and youth ages 19 years or younger, which represented 4% (81/2036) of the total deaths investigated. Of these deaths, 31% (25/81) were natural, 21% (17/81) were accidental (non-traffic), 10% (8/81) were homicides, 12% (10/81) were traffic-related, 14% (11/81) were suicides, and 15% (12/81) were classified as manner undetermined. In addition to investigating childhood deaths, the King County Medical Examiner participates in Child Death Review, a process which discusses these deaths in detail and formulates prevention strategies.

Of the 23 natural deaths of children and youth investigated by the Medical Examiner, 74% (17/23) were of infants less than one year of age. Of these 17 infants who died of natural causes, ten were due to Sudden Infant Death Syndrome (SIDS). In addition, nine infant deaths were classified as "Sudden Unexplained Infant Death" (SUID), manner undetermined, due to the inability to exclude if external factors contributed to death.

There were 8 homicides among children and youth. Of these eight homicide victims, seven were teenagers (13 - 19 years of age), one was a child (one to 12 years of age), and zero were infants less than one year of age. Sixty-three percent (5/8) of the children and youth homicide victims died by firearms.

There were 11 youth suicides, all between the ages of 12 and 19 years. Males comprised 64% (7/11) of the victims. Regarding the methods used to commit suicide by youth, four were by firearm and seven were by hanging.

Ten children and youth (19 years and under) died in traffic-related accidents, of whom 7 (70%) were teenagers 13 - 19 years of age. There were four motor vehicle driver deaths, three motor vehicle passenger deaths, one teenage pedestrian death, one child operating a sled that was struck by a vehicle and one bicyclist death. Of the 7 children and youth who died in motor vehicles, four were known to be restrained, one unrestrained and two whose restraint was unknown.

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

Graph 11-1 Causes of Death in Children & Youth / King County Medical Examiner / 2011

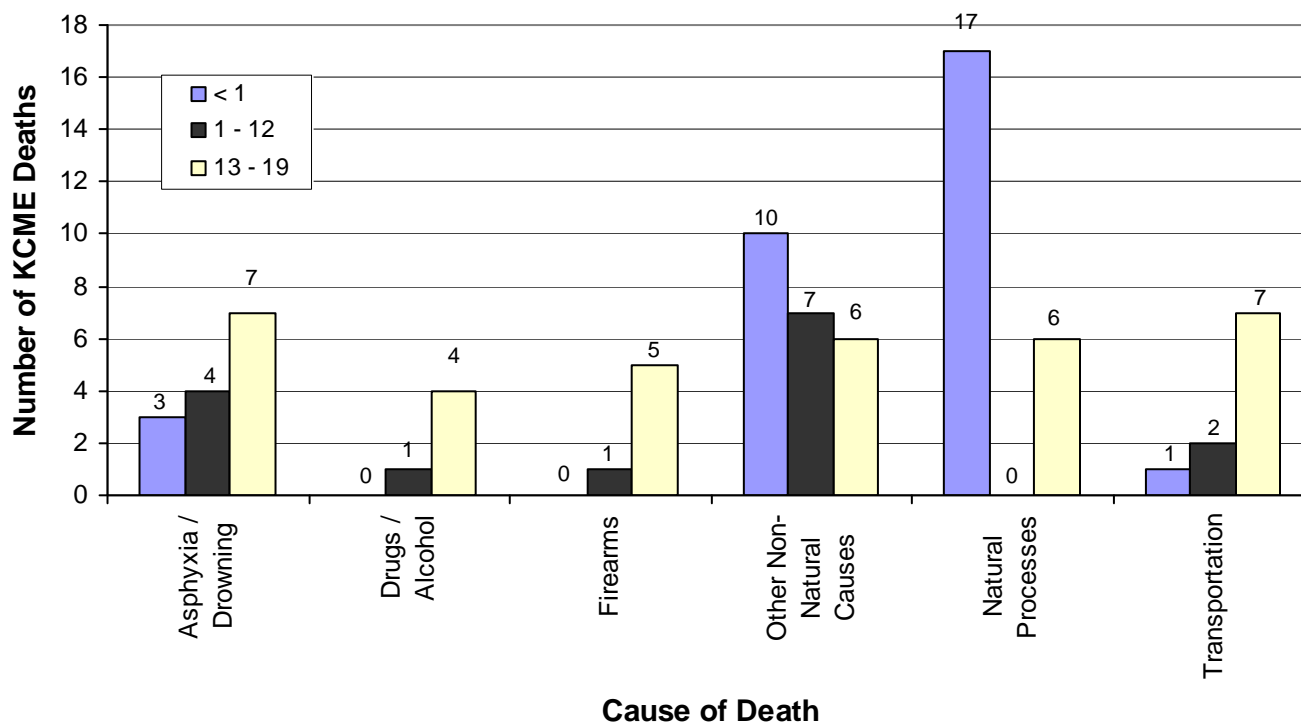


Table 11-1 Causes of Death: Children Under 1 Year of Age / KCME / 2011

| CIRCUMSTANCES | MANNER OF DEATH | | | | | | SUB- | |
|-----------------------|-----------------|----------|----------|----------|-----------------|-----------|-------|-----------|
| | A | H | S | T | U | N | TOTAL | TOTAL |
| Miscellaneous | 3 | 0 | 0 | 1 | 10 | 17 | | 31 |
| Asphyxia | 1 | 0 | 0 | 1 | 0 | 0 | 1 | |
| Drowning | 2 | 0 | 0 | 0 | 0 | 0 | 2 | |
| Prematurity | 0 | 0 | 0 | 0 | 0 | 3 | 3 | |
| Other | 0 | 0 | 0 | 0 | 9 ²⁴ | 1 | 10 | |
| SIDS | 0 | 0 | 0 | 0 | 1 | 10 | 11 | |
| Other Natural Disease | 0 | 0 | 0 | 0 | 0 | 3 | | |
| Totals | 3 | 0 | 0 | 1 | 10 | 17 | | 31 |

²⁴ Includes 5 cases classified as Sudden Unexplained Infant Death with the possibility of bed sharing listed as a significant condition contributing to the cause of death.

Table 11-2 Causes of Death: Children 1 to 12 Years of Age / KCME / 2011

| CIRCUMSTANCES | MANNER OF DEATH | | | | | | SUB-TOTAL | TOTAL |
|-------------------------|-----------------|----------|----------|----------|----------|----------|-----------|-----------|
| | A | H | S | T | U | N | | |
| Asphyxia | 3 | 0 | 1 | 0 | 1 | 0 | | 5 |
| Carbon Monoxide | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Drowning | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Hanging | 1 | 0 | 1 | 0 | 1 | 0 | 3 | |
| Mechanical | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Other | 1 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Positional | 1 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Miscellaneous | 1 | 0 | 0 | 0 | 1 | 0 | | 2 |
| Complication of Therapy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Drugs / Poisons | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Fall | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Fire / Explosion | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Hyperthermia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Jump | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Non Traffic -Vehicle | 1 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Other | 0 | 0 | 0 | 0 | 1 | 0 | 1 | |
| Physical Trauma | 4 | 1 | 1 | 0 | 0 | 0 | | 6 |
| Abuse | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Blunt Force / Crushing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Burns / Fire | 4 | 0 | 0 | 0 | 0 | 0 | 4 | |
| Firearms | 0 | 0 | 1 | 0 | 0 | 0 | 1 | |
| Incised / Stab Wound(s) | 0 | 1 | 0 | 0 | 0 | 0 | 1 | |
| Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transportation Related | 0 | 0 | 0 | 2 | 0 | 0 | | 2 |
| Bicycle | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Motor Vehicle Driver | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Motor Vehicle Passenger | 0 | 0 | 0 | 1 | 0 | 0 | 1 | |
| Sled | 0 | 0 | 0 | 1 | 0 | 0 | 1 | |
| Pedestrian | 0 | 0 | 0 | 0 | 0 | 0 | 2 | |
| Natural Disease | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| Totals | 8 | 1 | 2 | 2 | 2 | 0 | | 15 |

Table 11-3 Causes of Death: Children 13 to 19 Years of Age / KCME / 2011

| CIRCUMSTANCES | MANNER OF DEATH | | | | | | SUB- | |
|--------------------------------|-----------------|----------|----------|----------|----------|----------|-------|-----------|
| | A | H | S | T | U | N | TOTAL | TOTAL |
| Asphyxia | 1 | 0 | 6 | 0 | 0 | 0 | | 7 |
| <i>Carbon Monoxide</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <i>Drowning</i> | 1 | 0 | 0 | 0 | 0 | 0 | 1 | |
| <i>Hanging</i> | 0 | 0 | 6 | 0 | 0 | 0 | 6 | |
| <i>Smothering</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <i>Positional</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <i>Other</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Drugs / Alcohol | 4 | 0 | 0 | 0 | 0 | 0 | | 4 |
| Miscellaneous | 1 | 0 | 0 | 0 | 0 | 0 | | 1 |
| <i>Complication of Therapy</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <i>Fall</i> | 1 | 0 | 0 | 0 | 0 | 0 | 1 | |
| <i>Jump</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <i>Non-Traffic Vehicular</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <i>Other</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Physical Trauma | 0 | 7 | 3 | 0 | 0 | 0 | | 10 |
| <i>Blunt Force / Crushing</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <i>Burns / Fire</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <i>Firearms</i> | 0 | 5 | 3 | 0 | 0 | 0 | 8 | |
| <i>Homicidal Violence</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <i>Incised / Stab Wound(s)</i> | 0 | 2 | 0 | 0 | 0 | 0 | 2 | |
| <i>Strangulation</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transportation Related | 0 | 0 | 0 | 7 | 0 | 0 | | 7 |
| <i>Bicycle</i> | 0 | 0 | 0 | 1 | 0 | 0 | 1 | |
| <i>Motor Vehicle Driver</i> | 0 | 0 | 0 | 4 | 0 | 0 | 4 | |
| <i>Motor Vehicle Passenger</i> | 0 | 0 | 0 | 1 | 0 | 0 | 1 | |
| <i>Motorcycle</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <i>Pedestrian</i> | 0 | 0 | 0 | 1 | 0 | 0 | 1 | |
| <i>Other</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Natural Disease | 0 | 0 | 0 | 0 | 0 | 6 | | 6 |
| Totals | 6 | 7 | 9 | 7 | 0 | 6 | | 35 |

Organ donation

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

In 2011, the King County Medical Examiner's Office was notified of 52 deaths that were eligible for organ donation in King County. The KCMEO gave release on all 52 of these deaths. Altogether, there were 136 organs transplanted from King County Medical Examiner cases. The number of specific organs transplanted in 2011 is shown in Table 12-1. In addition to the living organs listed in Table 12-1 that were donated in 2011, the KCMEO approved the donation of skin, bone, cartilage, heart valves, corneas and other tissues through the tissue procurement agency, Northwest Tissue Service. Altogether, there were 99 donors who, on average, were able to provide between 25-50 donations each (2475-4950) to tissue transplant recipients.

| Table 12-1 | Organs Transplanted / KCME / 2011 |
|--------------|-----------------------------------|
| ORGAN | # Transplanted |
| Heart | 8 |
| Intestine | 1 |
| Kidney | 76 |
| Liver | 27 |
| Lung | 19 |
| Pancreas | 5 |
| Total | 136 |

Disposition review

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

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

In 2011, the Medical Examiner's Office handled 10,050 cremation review requests. In 126 cases the Medical Examiner took jurisdiction to investigate further and determine correct cause and manner of death. Without this cremation review, these cases would not have been seen and the correct determination of death missed.

Beginning January 1, 2011, the King County Council authorized the Medical Examiner's Office to review the death certificates of all decedents to be buried in order to rule out the need for additional investigation and ensure the proper determination of cause and manner of death.

In 2011, the Medical Examiner's Office handled 3,470 burial review requests. In 27 cases the Medical Examiner took jurisdiction to investigate further and determine correct cause and manner of death. Without this burial review, these cases would not have been seen and the correct determination of death missed.

Medical Examiner activity

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

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

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

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

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

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

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

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

In 2011, 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

Academic Appointment

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

Preceptorships & Faculty Positions

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

Professional Organizations

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

Scientific Publications

- Case series of completed suicides by burning over a 13-year period. Cimino PJ, Williams TL, Fusaro A, Harruff R. Journal of Forensic Sciences 2011; 56 Suppl 1:S109-11.
- Trends in suicide by carbon monoxide inhalation in King County, Washington: 1996-2009. Schmitt MW, Williams TL, Woodard KR, Harruff R. Journal of Forensic Sciences 2011; 56(3):652-6.
- Peliosis hepatis presenting as liver rupture in a vulnerable adult: a case report. Buelow B, Otjen J, Sabath AP, Harruff RC. American Journal of Forensic Medicine and Pathology 2011 Nov. 18. [Epub ahead of print].

Educational Presentations

- Lectures in forensic pathology: infant deaths and traffic fatalities. University of Washington Continuing Education Extension, Seattle, February 2.
- Role of the medical examiner's office. Richard Harruff and Greg Hewett. King County Police Chief's Association. Washington State Criminal Justice Training Center, Burien, Washington, February 10.
- Forensic markers of elder abuse. Harvard/National Institute of Justice Webinar: Elder Abuse Series - Forensic Markers, March 22.
- Traffic fatality investigation. Seattle Police Department Training Academy, Seattle, Washington, March 23.
- Medical-legal investigations of deaths in infants and young children. Provider Grand Rounds, Seattle Children's Hospital and Medical Center, Seattle, Washington, April 7.
- Excited delirium panel workshop. National Institute of Justice Working Group (Less-Lethal Devices), Seattle, Washington, April 12 & 13.
- Pattern Injuries and Strangulation. Core Sexual Assault Nurse Examiner Training. Harborview Center for Sexual Assault and Traumatic Stress, Seattle, Washington, April 19.
- Medicolegal homicide investigation. Presentation for Society of Counsel, King County Medical Examiner's Office, Seattle, Washington, April 25.
- Child death investigation by the forensic pathologist/medical examiner. 19th Annual Children's Justice Conference, Seattle, Washington, May 9 & 10.
- Introduction to the medical examiner. Presentation for Bellevue Community College Sociology course on death, dying and bereavement, King County Medical Examiner's Office, Seattle, Washington, May 13.
- What is a SUID? Washington State Criminal Justice Training Commission, Burien, Washington, June 14.
- Strangulation injuries. Presentation for King County Prosecuting Attorney's Office, Seattle, Washington, October 3.

- Partnering to fight criminal neglect in long term care facilities. Larita Paulsen, Page Ulrey and Richard Harruff. Association of Health Facility Survey Agencies. Seattle, Washington, October 4.
- Mechanism of injury in traffic fatalities. Washington State Patrol Accident Reconstruction Course, Shelton, Washington, October 20.
- Mock trial. Seattle University, Seattle, Washington, November 15.
- Review of KCMEO Annual Report. King County Prosecuting Attorney's Office Continuing Legal Education, Seattle, Washington, November 21.
- Introduction to the medical examiner. Presentation for Associated Council for the Accused. King County Medical Examiner's Office, Seattle, Washington, December 8.

Aldo Fusaro, DO, Associate Medical Examiner

Academic Appointment

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

Preceptorships

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

Associations, Committees and Boards

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

Professional Meetings, Trainings and Certifications

- Forensic Investigations Council Meetings
January, February, April, September, October & November
- Annual Blood Borne Pathogens Training, Public Health - Seattle & King County
September
- Health Information Privacy and Security Training, Public Health - Seattle & King County
December

Educational Presentations

- Natural Deaths. Introduction to the Forensic Sciences
University of Washington Continuing Education – Seattle, WA - March
- RISE Examination Review Lectures
University of Washington Department of Pathology – Seattle, WA - April
- Basic Homicide Investigation
Washington State Attorney General's Office -Regional Justice Center Training Center - Burien, WA – June

Timothy L. Williams, MD, Associate Medical Examiner

Academic Appointment

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

Preceptorships

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

Associations, Committees and Boards

- Member, National Association of Medical Examiners

Scientific Publications

- Schmitt M, Williams TL, Woodard KR, Harruff R. Trends in Suicide by Carbon Monoxide Inhalation in King County , Washington: 1996-2009. *Journal of Forensic Sciences*. 2011 May;56(3):652-5.
- Cimino P, Williams TL, Fusaro A, Harruff R. Case series of completed suicides by burning over a 13 year period. *Journal of Forensic Sciences*. 2011 Jan; 56 Suppl 1:S109-11.

Educational Presentation

- Gunshot Wounds – University of Washington Medicolegal Death Investigation Class
University of Washington – Seattle, WA – February 23

Katherine Taylor, PhD, Forensic Anthropologist

Academic Affiliation

- University of Washington Department of Anthropology: Affiliate Faculty
- Seattle University Department of Criminal Justice: Adjunct Faculty

Associations, Committees and Boards

- Member, Family and Friends of Violent Crimes Victims
- Member, Seattle University Criminal Justice Advisory Board
- Member, Society of Forensic Anthropologist
- Fellow, American Academy of Forensic Sciences

Educational Presentations

- Determination of Postmortem Interval, Human versus Nonhuman Remains, and Processing Outdoor Body Recovery Scenes Basic Crime Scene class for law enforcement – Criminal Justice Training Commission. Burien, WA – February 9
- King County Mass Fatality Plan
Presented with Onora Lien to the King County Emergency Management Region 1- Mercer Island, WA – February 16
- Forensic Anthropology, Evidence Collection and Body Recovery, Human versus Nonhuman Skeletal Remains
A workshop presented to the Whatcom County Sheriff's Office – Bellingham, WA – March 1
- Healthcare Mass Fatality Management: Strategies for Building Capability
Presented to Washington State Hospital Association's Annual Disaster Preparedness Conference – Wenatchee, WA – May 9
- Forensic Anthropology and Homicide Investigations
Basic Homicide Investigation Class sponsored by the Washington State Attorney General's Office – Burien, WA – May 17
- Determination of Postmortem Interval, Human versus Nonhuman remains, and Processing Outdoor Body Recovery Scenes

Basic Crime Scene class for law enforcement. Criminal Justice Training Commission – Burien, WA – June 15

- Discovery and Recovery of Human Remains
Workshop for law enforcement sponsored by the Washington State Attorney General's Office and King County Sheriff's Office– Ravensdale, WA – August 15-18
- Death Investigation in Washington State
Crime Scene Investigation class sponsored by the Federal Bureau of Investigation – Burien, WA – October 5
- Forensic Anthropology and Missing Persons Investigations
Presentations for the Violent Crime Investigations Conference. Criminal Justice Training Commission – Burien, WA – November 1
- Determination of Postmortem Interval, Human versus Nonhuman Remains, and Processing Outdoor Body Recovery Scenes
Basic Crime Scene class for law enforcement. Criminal Justice Training Commission – Burien, WA – November 16

Greg Hewett, Mdiv, Administrator

Associations, Committees & Boards

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

Educational Presentation

- Investigation Surge Team Role in a Multiple Fatality Incident
Public Health Reserve Corps Training, Medical Examiner's Office
Seattle, Washington
January 12, 2011

R. Colin Jones, BA, Program Manager III

Associations

- Member, Washington Association of Coroners and Medical Examiners
- Notary Public, State of Washington

Educational Presentation

- Investigations Surge Team Role in a Multiple Fatality Incident
Public Health Reserve Corps Training – KCMEO – January 12

Nathan Geerdes, BA, D-ABMDI, Medicolegal Investigator I

Association

- Diplomate, American Board of Medicolegal Death Investigators

Educational Presentation

- The Role & Responsibility of the King County Medical Examiner's Office
Seattle University- KCMEO-Seattle, WA January 19

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

Associations

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

Educational Presentations

- Notification of Next of Kin
Public Health Reserve Corps Training - KCMEO - Seattle, WA January 2
- Investigating Accident and Homicide Scenes
Public Health Reserve Corps Training - KCMEO - Seattle, WA March 2
- Role and Responsibility of the King County Medical Examiner's Office
Seattle University - KCMEO - Seattle, WA January 26
Seattle University - KCMEO - Seattle, WA - February 2
Everest College - KCMEO - Seattle, WA - May 18

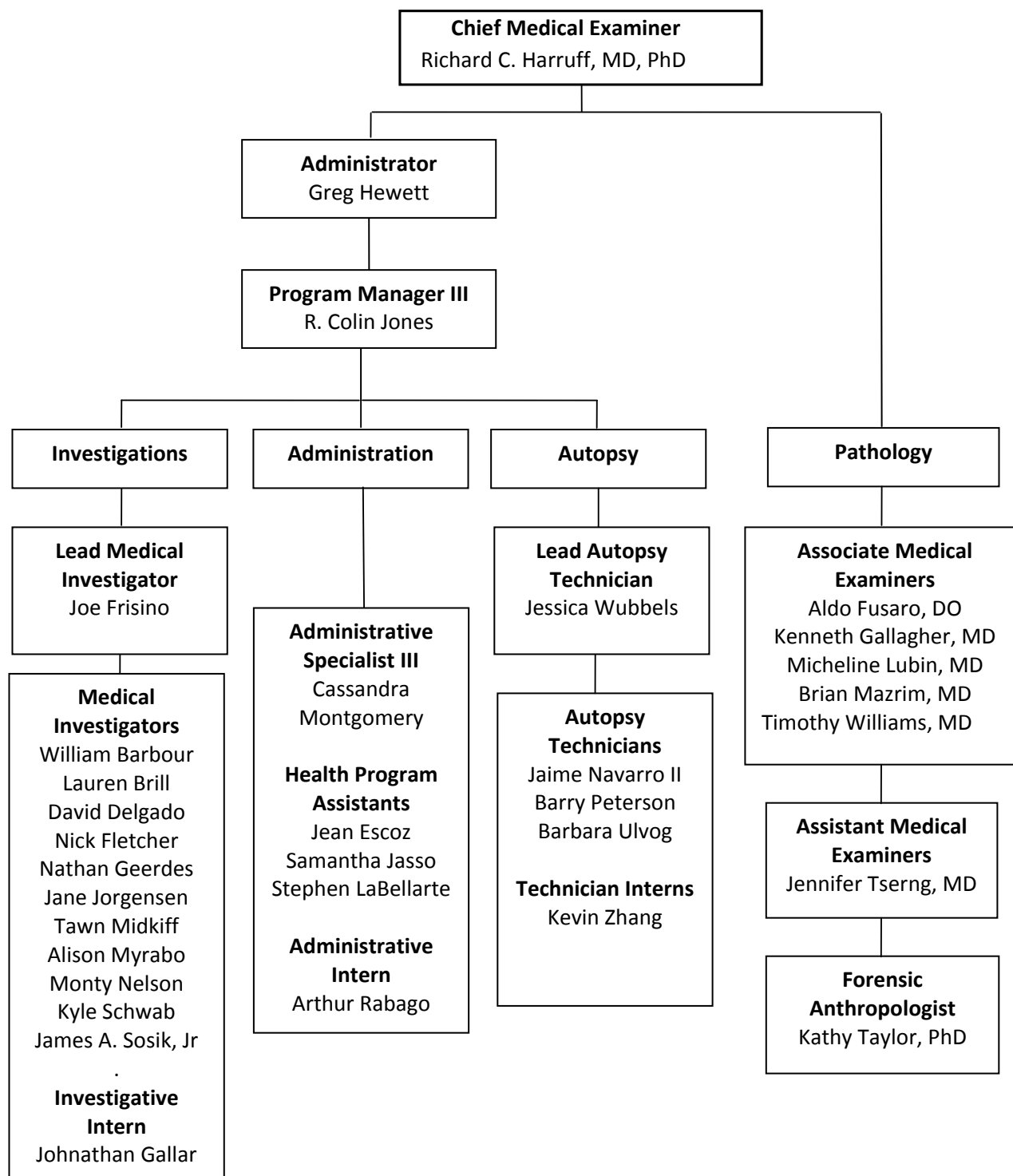
Table 14-1 Weekly Variation of Deaths Investigated by the King County Medical Examiner's Office

| | TOTAL |
|---|-------|
| Number of weeks studied | 52 |
| Mean number of ME jurisdiction cases per week | 39 |
| Maximum ME jurisdiction cases in any one week | 54 |
| Minimum ME jurisdiction cases in any one week | 24 |

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

| | TOTAL |
|---|-------|
| Number of weeks studied | 52 |
| Mean number of autopsies performed per week | 23 |
| Maximum # autopsies performed in any one week | 33 |
| Minimum # autopsies performed in any one week | 13 |

Organization of the King County Medical Examiner's Office 2011



Glossary of Terms

Blood alcohol level:

The concentration of ethanol (alcohol) found in blood following ingestion. Measured in grams per 100 ml of blood or grams %. In the State of Washington, 0.08 grams % is considered the legally intoxicated level while driving.

Cause of Death:

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

Drug:

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

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

Drug-caused death:

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

Fetal Death:

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

Jurisdiction:

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

¹DiMaio, Vincent J. & DiMaio, Dominick. Forensic Pathology, Second Edition. CRC Press, 2001.

Manner of Death:

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

Manner: Accident

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

Manner: Homicide

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

Manner: Natural

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

Manner: Suicide

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

Manner: Traffic

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

Manner: Undetermined

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

²Ibid, p. 3.

Opiate:

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

Poison:

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

Race:

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