
Manner: ACCIDENT

The Medical Examiner certified 602 deaths as non-traffic accidents for the calendar year 2005. The largest group of accidental deaths was those who died as a result of a fall, 38% (230/602). Of the 230 deaths attributed to injury sustained in falls, 80% (185/230) occurred in the age group 70 years and over. A large percentage of these falls were ground-level falls in elderly individuals, which resulted in fractures leading to complications such as pneumonia.

The second largest group of non-traffic accidental deaths was individuals who died as a result of accidental overdoses of drugs and/or poisons, representing 36% (216/602). By age, the largest percentage of these accidental drug deaths, 32% (68/216), occurred among adults between 50-59 years. The second largest group, 26% (57/216), included adults between the ages of 40-49. Twenty-one percent (45/216) were adults between 30-39 years of age. Four accidental drug deaths were between the ages of 16-19 years and one accidental drug death occurred in an infant under one year of age.

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

Twenty-six (26) deaths resulted from fire or thermal injury, an increase from 24 in 2004 and 19 in 2003. Of the 26 fire-related deaths, 58% (15/26) were the result of accidents that occurred outside of King County. The injured were transported to Harborview Medical Center's Burn Intensive Care Unit where they died.

Another category of accidental deaths worthy of comment is death resulting from drowning. There were 19 drowning deaths in 2005, as compared to 17 drowning deaths in 2004, 27 in 2003, and 32 in 2002.

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

Of the 602 accidental deaths in 2005, 16% (97/602) were the result of incidents which occurred outside of King County, but the death took place within King County. These deaths were the result of the injured being transported from outside King County to medical facilities within King County where they died. Since these deaths occurred in King County, they come under the jurisdiction of the King County Medical Examiner

A special subset of deaths designated "Complication of Therapy" has been incorporated in the statistical analyses of Accidental deaths but warrants special mention because of an apparent upward trend in incidence and increased public interest. A Complication of Therapy is defined as a death that arises as a predictable consequence of appropriate medical therapy. Circumstances that are excluded from this category include falls and mechanical injuries in hospitals, inadvertent misadministration of drugs, wrong-sided surgeries, and wholly unexpected procedure related injuries, etc.

For example, the manner of death in the case of a person with no known drug allergies and a minor infection who is administered an appropriate dose of penicillin but subsequently develops a fatal allergic reaction to the drug and dies would be Complication of Therapy. Contrast this example with the case of a hospital patient who is written a proper prescription for a heart medication but is administered an overdose of the medication by a healthcare provider, and the manner of death would be Accident, not Complication of Therapy.

It is important to note that the classification of a death as a Complication of Therapy is a 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 three (3) in 1996 to 45 in 2005 (see table on p. 27, Ten Year Perspective of Non-Traffic Accidental Death Circumstances) and can be divided into three general categories: drug-related, surgical injury, and consequence of surgery. Drug related includes anaphylactic/allergic reaction, hemorrhagic complications of anticoagulants, anesthesia related events, and other adverse drug reactions. Surgical injury refers to direct anatomic damage during a procedure and usually involves a diseased organ system, such as perforation of a viscus or vessel or hemorrhagic complications of a surgery. Consequence of surgery refers to such things as pulmonary embolism/deep venous thrombosis and wound infections.

For 2005, there were 45 deaths classified as Complication of Therapy. Graph 3-4 shows the Complication of Therapy deaths by general category and Graph 3-5 further divides the general category of Surgical Injury into "type of surgery" and "comorbidity" (comorbidity is defined as the coexistence of significant natural disease).

There may be multiple reasons for this apparent upward trend in the incidence of Complications of Therapy over the last ten years but the most important factor is probably the rate at which non-natural deaths are reported to the KCMEO. The medical examiner is dependent on clinical providers to report deaths that may have been a consequence of medical therapy. Recognition of the importance of identifying and reporting these deaths by the medical community has surged since the Institute of Medicine of the National Academy of Sciences published a report in 1999 that estimated that up to 98,000 preventable deaths may occur each year in the United States due to medical errors. The subsequent public interest and efforts by the healthcare system to address issues of patient safety may be resulting in a greater percentage of these cases being reported to the medical examiner.

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

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

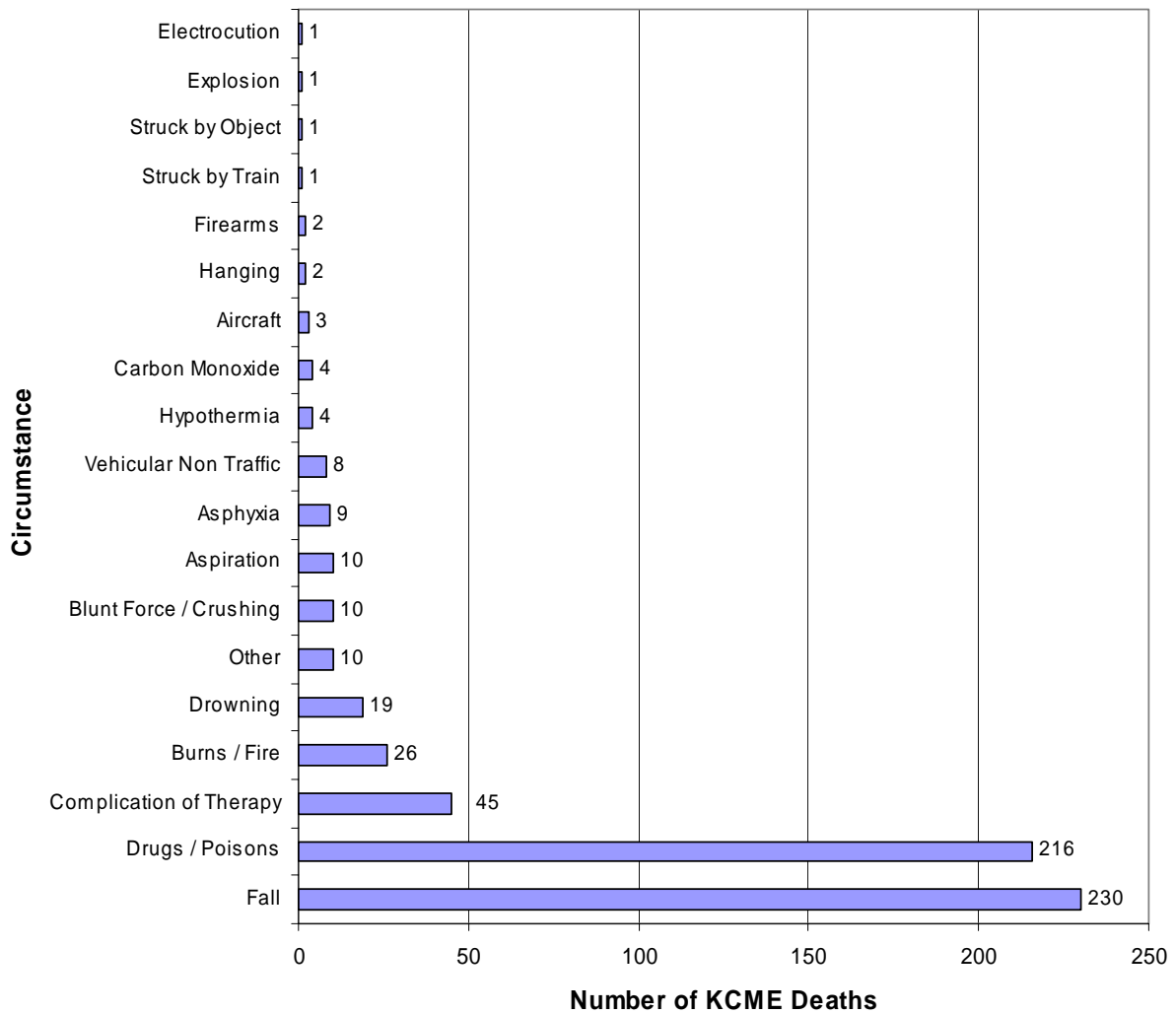


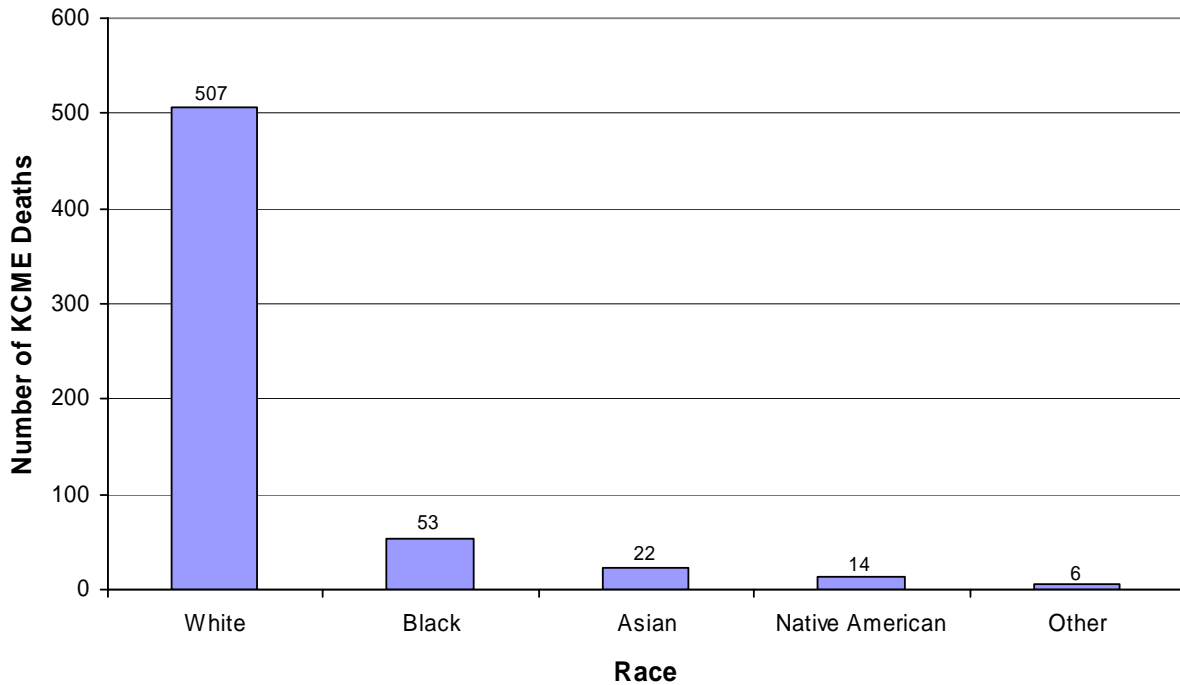
Table 3-1 Circumstances of Accidental Death / Race / Sex / KCME / 2005

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

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

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

Graph 3-2 Accidental Deaths / Race / King County Medical Examiner / 2005



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

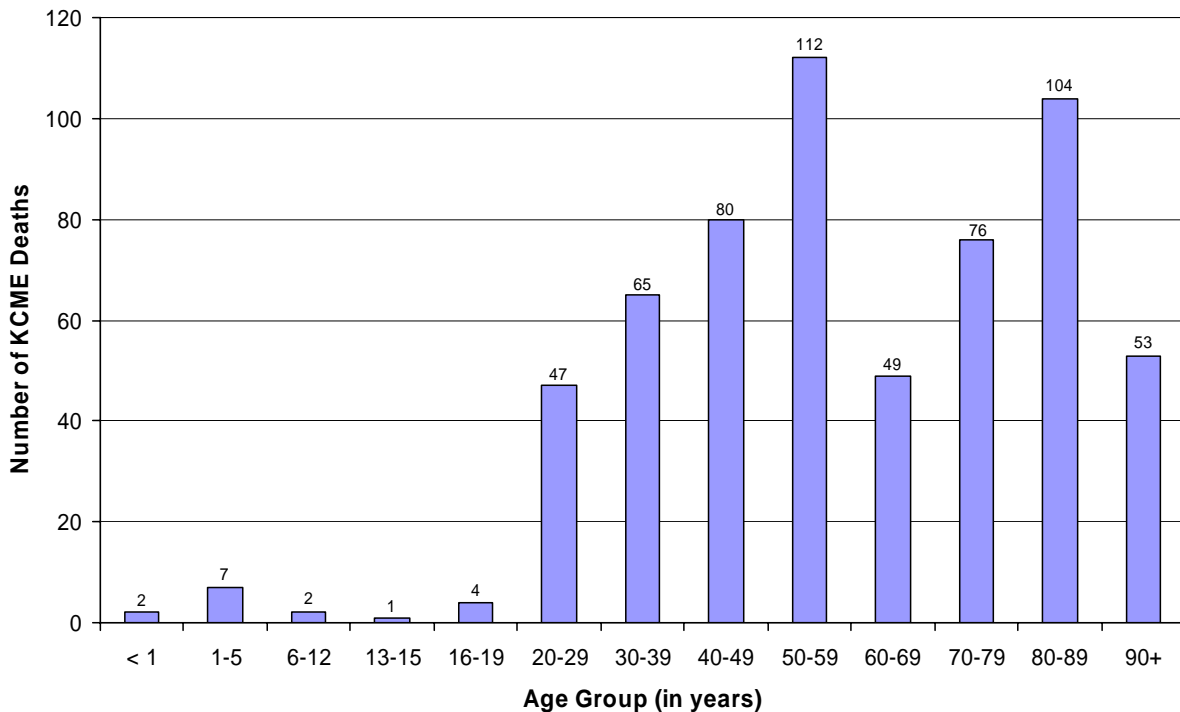


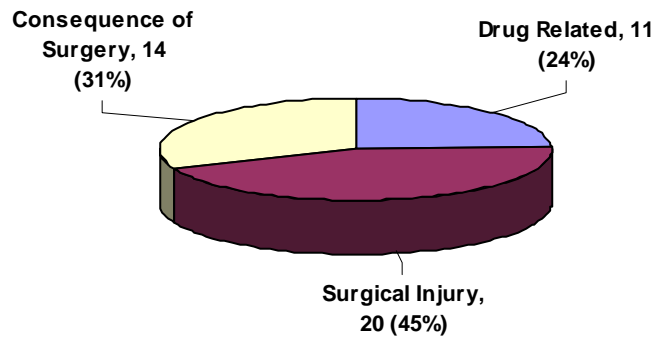
Table 3-2 Circumstances of Accidental Death / Age / Sex / KCME / 2005

| 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 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | |
| Male | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Asphyxia (compress/positional/mech) | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 2 | 1 | 0 | 1 | 0 | 2 | 9 | |
| Male | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 6 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 3 | |
| Aspiration | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 3 | 1 | 10 | |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 4 | |
| Female | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 6 | |
| Blunt Force / Crushing | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 2 | 0 | 0 | 3 | 0 | 10 | |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 2 | 0 | 0 | 2 | 0 | 8 | |
| Female | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | |
| Burns / Fire | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 7 | 4 | 8 | 3 | 0 | 26 | |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 3 | 4 | 2 | 0 | 18 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 4 | 1 | 0 | 8 | |
| Carbon Monoxide | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 4 | |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 3 | |
| Female | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Complication of Therapy | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 4 | 14 | 8 | 8 | 5 | 2 | 45 | |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 4 | 2 | 2 | 0 | 17 | |
| Female | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 6 | 4 | 6 | 3 | 2 | 28 | |
| Drowning | 0 | 2 | 1 | 0 | 0 | 2 | 5 | 3 | 4 | 0 | 2 | 0 | 0 | 19 | |
| Male | 0 | 1 | 0 | 0 | 0 | 2 | 4 | 3 | 3 | 0 | 2 | 0 | 0 | 15 | |
| Female | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | |
| Drugs / Poisons | 1 | 0 | 0 | 0 | 4 | 35 | 45 | 57 | 68 | 4 | 2 | 0 | 0 | 216 | |
| Male | 0 | 0 | 0 | 0 | 3 | 29 | 31 | 38 | 48 | 3 | 1 | 0 | 0 | 153 | |
| Female | 1 | 0 | 0 | 0 | 1 | 6 | 14 | 19 | 20 | 1 | 1 | 0 | 0 | 63 | |
| Electrocution | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Explosion | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | |
| Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Fall | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 6 | 11 | 24 | 53 | 86 | 46 | 230 | |
| Male | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 6 | 13 | 31 | 51 | 19 | 127 | |
| Female | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 5 | 11 | 22 | 35 | 27 | 103 | |

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

| Circumstance / 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 + | | |
| Firearms | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | |
| <i>Male</i> | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Hanging | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | |
| <i>Male</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <i>Female</i> | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | |
| Hypothermia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 0 | 4 | |
| <i>Male</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 3 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | |
| Struck by Object | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| <i>Male</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| Struck by Train | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | |
| <i>Male</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Vehicular Non-Traffic | 0 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 2 | 0 | 8 | |
| <i>Male</i> | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 6 | |
| <i>Female</i> | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | |
| Other | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 10 | |
| <i>Male</i> | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 9 | |
| <i>Female</i> | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Totals | 2 | 7 | 2 | 1 | 4 | 47 | 65 | 80 | 112 | 49 | 76 | 104 | 53 | 602 | |
| Percent | 0.3 | 1.2 | 0.3 | 0.2 | 0.7 | 7.8 | 10.8 | 13.3 | 18.6 | 8.1 | 12.6 | 17.3 | 8.8 | 100% | |

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



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

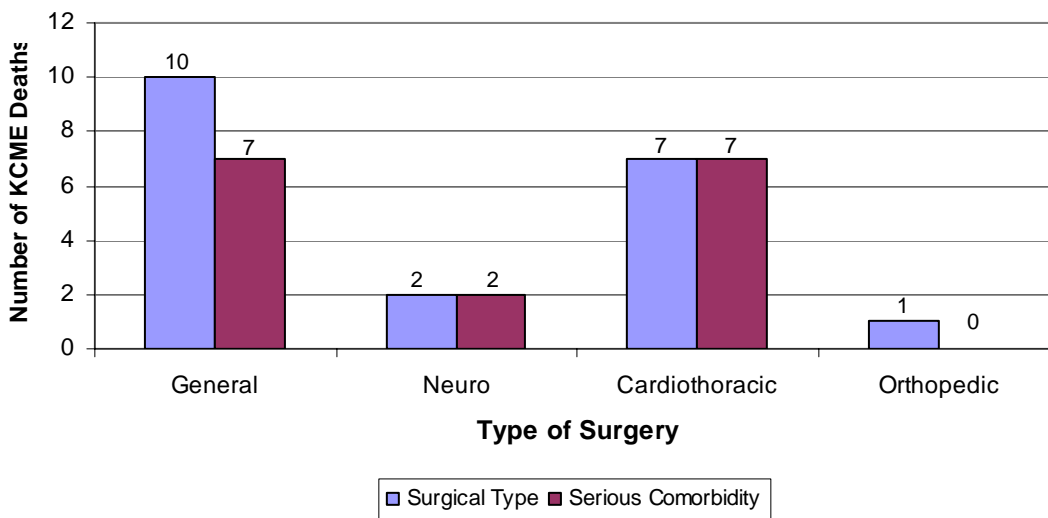


Table 3-3 Circumstances of Accidental Death / Sex / KCME / 2005

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

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

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

