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**Office of the Medical Examiner
 2008 Annual Report**

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Introduction

The Office of the Medical Examiner investigates deaths occurring in the state of Kentucky, as authorized by Kentucky's elected coroners. The staff assists Kentucky coroners and law enforcement agencies in all aspects of death investigations by determining the cause and manner of death, identification of the deceased, and collection and interpretation of trace evidence. The Medical Examiner Division performed services for approximately 2,342 deaths. A detailed summary of the case distribution is delineated in this report. **It should be noted that this annual report does not include all deaths occurring in Kentucky, but rather those cases investigated by the Kentucky Medical Examiner Program.** For total numbers of deaths occurring in the state, please contact:

Office of Vital Statistics
275 E. Main St. 1EA
Frankfort, KY 40621
(502) 564-4212

The following report is presented in two sections. The first section summarizes the activity of the Medical Examiner's Office. The second section presents data routinely collected by the Medical Examiner's Office in regards to medicolegal death investigations performed. The graphs and figures presented are designed to be self-explanatory and provide the reader with a brief understanding of the types of cases completed within this Division.

Overview—Office of the Medical Examiner—2008

The Medical Examiners Office performs death investigations and postmortem examinations at four separate regional offices around the state:

- The Office of the Chief Medical Examiner in Louisville, KY
- The Office of the Associate Chief Medical Examiner in Frankfort, KY
- The Western Kentucky Regional Medical Examiners Office in Madisonville, KY
- The Northern Kentucky Regional Medical Examiners Office in Ft. Thomas, KY

There are six basic functions of the Office of the Medical Examiner:

- determine the cause and manner of death of individual decedents in a timely fashion
- identify the dead with a high degree of certainty and written documentation
- prepare and maintain accurate, thorough and timely reports regarding examinations and opinions
- safeguard and account for evidence and personal property
- maintain confidentiality of case information
- base expert opinions on logical conclusions after considering all historical and physical evidence available, in light of current scientific and medical knowledge

All medical examiner offices in Kentucky are staffed by board certified and/or board eligible forensic pathologists. These forensic pathologists are physicians who have undergone at least five years of postgraduate training to become proficient in the subspecialty of forensic pathology. The forensic pathologists routinely perform postmortem examinations; consult with law enforcement officials and attorneys regarding aspects of investigations including blood spatter analysis, crime scene investigation and toxicology interpretation; meet with decedents' families; and provide expert testimony in courts throughout Kentucky. Additional services provided by the Office of the Medical Examiner include forensic anthropology, clinical forensic medicine and cadaver canine services for the detection and recovery of human remains.

The mission of the Kentucky Medical Examiners Office is to serve the public by:

- providing accurate, thorough and efficient medical legal investigations of death, thereby,
- insuring justice, and
- providing solace, comfort and protection to the living

Reportable Deaths

KRS 72.025 Circumstances requiring post-mortem examination to be performed by coroner.

Coroners shall require a post-mortem examination to be performed in the following circumstances:

- (1) When the death of a human being appears to be caused by homicide or violence;
- (2) When the death of a human being appears to be the result of suicide;
- (3) When the death of a human being appears to be the result of the presence of drugs or poisons in the body;
- (4) When the death of a human being appears to be the result of a motor vehicle accident and the operator of the motor vehicle left the scene of the accident or the body was found in or near a roadway or railroad;
- (5) When the death of a human being occurs while the person is in a state mental institution or mental hospital when there is no previous medical history to explain the death, or while the person is in police custody, a jail or penal institution;
- (6) When the death of a human being occurs in a motor vehicle accident and when an external examination of the body does not reveal a lethal traumatic injury;
- (7) When the death of a human being appears to be the result of a fire or explosion;
- (8) When the death of a child appears to indicate child abuse prior to the death;
- (9) When the manner of death appears to be other than natural;
- (10) When human skeletonized remains are found;
- (11) When post-mortem decomposition of a human corpse exists to the extent that external examination of the corpse cannot rule out injury or where the circumstances of death cannot rule out the commission of a crime;
- (12) When the death of a human being appears to be the result of drowning;
- (13) When the death of an infant appears to be caused by sudden infant death syndrome

- in that the infant has no previous medical history to explain the death;
- (14) When the death of a human being occurs as a result of an accident;
 - (15) When the death of a human being occurs under the age of forty (40) and there is no past medical history to explain the death;
 - (16) When the death of a human being occurs at the work site and there is no apparent cause of death such as an injury or when industrial toxics may have contributed to the cause of death;
 - (17) When the body is to be cremated and there is no past medical history to explain the death;
 - (18) When the death of a human being is sudden and unexplained; and
 - (19) When the death of a human being occurs and the decedent is not receiving treatment by a licensed physician and there is no ascertainable medical history to indicate the cause of death.

Effective: July 15, 1998

1. The coroner determines whether the case becomes a medical examiner case.
2. The medical examiner and the coroner may discuss whether a complete autopsy, a focused examination, or external inspection with toxicology specimen acquisition is warranted on certain cases. The Medical Examiner makes a MEDICAL DECISION regarding the type and amount of examination done to render a medicolegal opinion and thus provide assistance to the coroner. In all cases submitted by a coroner with an authorization, a report including a final opinion is generated.
3. In the rare event that the coroner declines to authorize an examination by the Medical Examiner's office in a case in which law enforcement investigators conclude that ME involvement is crucial, then law enforcement may obtain and authorize an examination by the ME office by procuring a court order through the Commonwealth Attorney's Office.

Statutory Duty

72.210 Purpose of Division of Kentucky State Medical Examiners Office.

In enacting legislation establishing a Division of Kentucky State Medical Examiners Office for the Commonwealth of Kentucky, it is not the intention of the General Assembly to abolish or interfere with the coroner in his role as a constitutionally elected peace officer. It is the intention of the General Assembly for the office to aid, assist, and complement the coroner in the performance of his duties by providing medical assistance to him in determining causes of death.

Effective: July 15, 1998

History: Amended 1998 Ky. Acts ch. 65, sec. 4, effective July 15, 1998. -- Created 1968 Ky. Acts ch. 114, sec. 1.

Summary Highlights

Aforementioned above, the four regional medical examiner offices together performed 2,342 postmortem examinations in 2008. In addition, there were 76 forensic anthropology consults on human remains (26 identified: 40 not applicable: 10 unidentified); 5 cadaver canine searches (no bones were located in any of the searches).

Training and Education

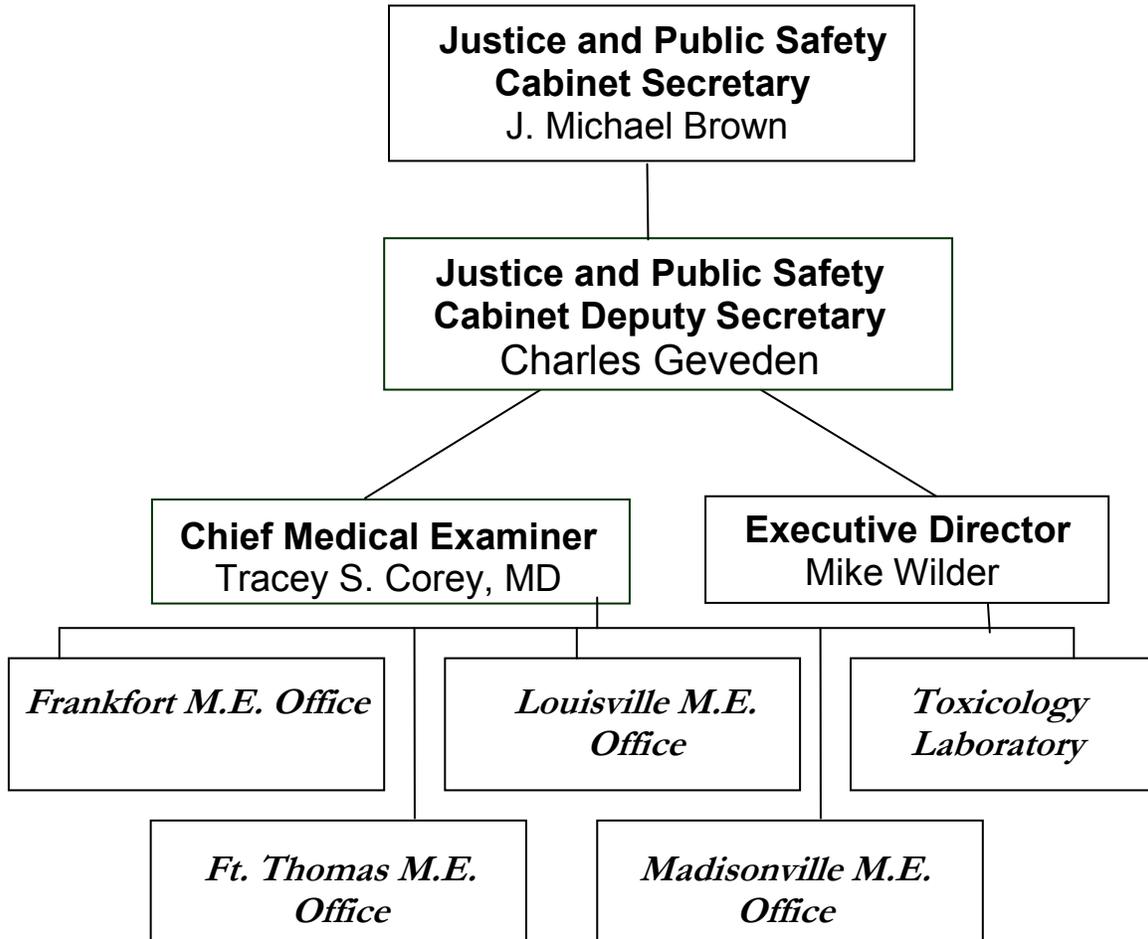
The Medical Examiner's Division provides educational instruction in death investigation to coroners, law enforcement, medical, and social service agencies throughout the state. The Office of the Chief Medical Examiner plays an active role in the University of Louisville Department of Pathology educational programs and activities. Staff pathologists participate in the training of medical students, residents and fellows.

Forensic Pathologist Fellowship Program

The University of Louisville Division of Forensic Pathology Fellowship program is a one-year extensive training program in the subspecialty of forensic pathology. The trainee works with all of the attending physicians, gaining exposure to a wide spectrum of cases with various histories, causes, manners and mechanisms of death. The trainee is always staffed by one of the attending physicians in the autopsy room. The gross findings are discussed during the dissection, dictated at the table, and are signed out at the end of dissection. Case discussions are initiated prior to autopsy, and continued with staff and investigators through the multi-step process to the final report. The trainee is supervised throughout the process of interpretation of radiographs, microscopic slides, and toxicologic analysis. The trainees' dictations are critiqued and modified as needed by the attending physicians. Early in training, the trainee accompanies the attending physician to death scenes as requested by coroners. As the training year progresses, the fellow may accompany coroners to death scenes without an attending physician; even when the fellow conducts a scene visit without an attending physician, an attending physician remains available to provide telephone consultation regarding scene findings, or go to the scene as circumstances indicate.

**Office of the Medical Examiner
Organizational Chart**

Figure 1



Total Cases

The remainder of this report will present data routinely collected by the Medical Examiner Offices. The graphs summarize data collected on all cases performed throughout the four regional offices.

Statewide Medical Examiner Case Totals 2008

The totals listed below do not represent all deaths occurring in Kentucky but rather the total cases undergoing autopsy by the Kentucky Medical Examiner Offices.

**TOTAL STATEWIDE CASES UNDERGOING AUTOPSY BY KENTUCKY
MEDICAL EXAMINER OFFICES = 2,342**

SUMMARY OF TOTAL STATEWIDE CASES UNDERGOING AUTOPSY BY KENTUCKY MEDICAL EXAMINER OFFICES		
Manner	Total	Percentage
Accidents	1,015	43.34%
Homicides	223	9.52%
Naturals	635	27.11%
Suicides	299	12.77%
Undetermined	157	6.7%
Unclassified	11	0.47%
Pending	2	0.09%

SUMMARY OF TOTAL STATEWIDE OVERDOSES UNDERGOING AUTOPSY BY KENTUCKY MEDICAL EXAMINER OFFICES		
Manner	Total	Percentage
Accidents	485	91.86%
Homicides	1	0.19%
Suicides	15	2.84%
Undetermined	14	2.65%
Complications of Chronic Use	13	2.46%

Louisville Totals by Specific Fatal Event

Fatal Event	Total Cases	Percentage
<i>Overdoses</i>	195	
Accidental	179	91.79%
Suicide	1	0.51%
Complications of Chronic Use	10	5.13%
Undetermined	4	2.05%
Lethal Injection	1	0.51%
<i>MVC</i>	139	
Accident	139	100%
<i>GSW</i>	174	
Accident	1	0.57%
Homicide	73	41.95%
Suicide	97	55.75%
Undetermined	2	1.15%
Pending	1	0.57%
<i>DROWNING</i>	17	
Accident	16	93.33%
Suicide	1	6.67%
<i>FIRE</i>	12	
Accident	11	94.12%
Suicide	1	8.33%
<i>SIDS</i>	26	
Undetermined	26	100%
<i>All other Louisville Accidents</i>	42	

Frankfort Totals by Specific Fatal Event

Fatal Event	Total	Percentage
<i>Overdoses</i>	196	
Accidental	177	90.31%
Complications of Chronic Use	3	1.53%
Suicide	7	3.57%
Undetermined	9	4.59%
<i>MVC</i>	75	
Accidental	74	98.67%
Homicide*	1	1.33%
*(Auto v. Auto/passenger K-9)		
<i>GSW</i>	100	
Accidental	1	1.00%
Homicide	57	57.00%
Suicide	40	40.00%
Undetermined	2	2.00%
<i>Drowning</i>	14	
Accidental	12	85.71%
Suicide	2	14.29%
<i>Fire</i>	34	
Accidental	23	67.65%
Homicide	1	2.94%
Undetermined	10	29.41%
<i>SIDS</i>	28	
Undetermined	28	100%
<i>All other FFT Accidents</i>	78	

NKY Totals by Specific Fatal Event

Fatal Event	Total	Percentage
<i>Overdoses</i>	94	
Accidental	94	100%
<i>MVC</i>	44	
Accidental	43	97.73%
Homicide	1	2.27%
<i>GSW</i>	31	
Accident	1	3.23%
Homicide	3	9.68%
Suicide	26	83.87%
Undetermined	1	3.23%
<i>Drowning</i>	12	
Accident	10	83.33%
Suicide	2	16.67%
<i>Fire</i>	2	
Accident	2	100%
<i>SIDS</i>	5	
Undetermined	5	100%
<i>All other NKY Accidents</i>	20	

WKY Totals by Specific Fatal Event

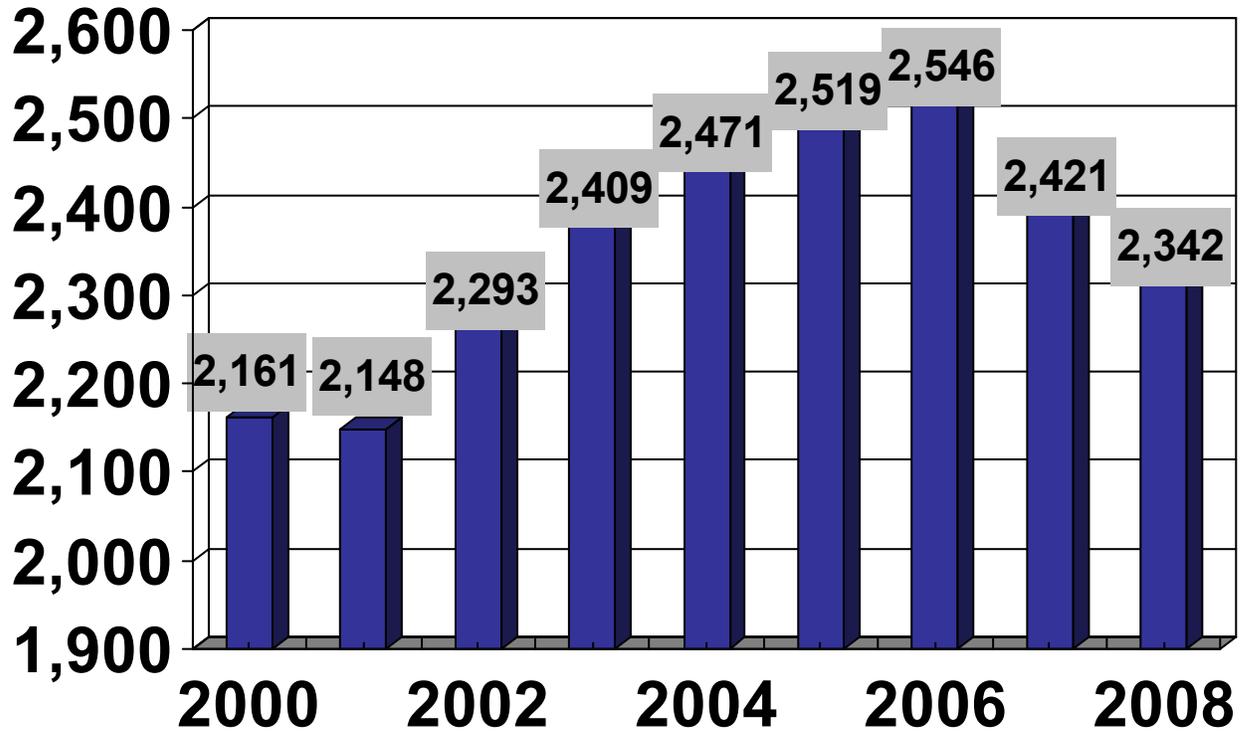
Fatal Event	Total	Percentage
<i>Overdoses</i>	43	
Accidental	35	81.4%
Complications of Chronic Use	0	0%
Suicide	7	16.28%
Undetermined	1	2.33%
<i>MVC</i>	26	
Accidental	26	100%
<i>GSW</i>	41	
Homicide	16	39.02%
Suicide	25	60.98%
<i>Drowning</i>	7	
Accident	6	85.71%
Suicide	1	14.29%
<i>Fire</i>	5	
Accident	5	100%
<i>SIDS</i>	1	
Undetermined	1	100%
<i>All other WKY Accidents</i>	16	

Total Statewide Cases Sent for Autopsy by Locality of Death, 2008 Figure 2



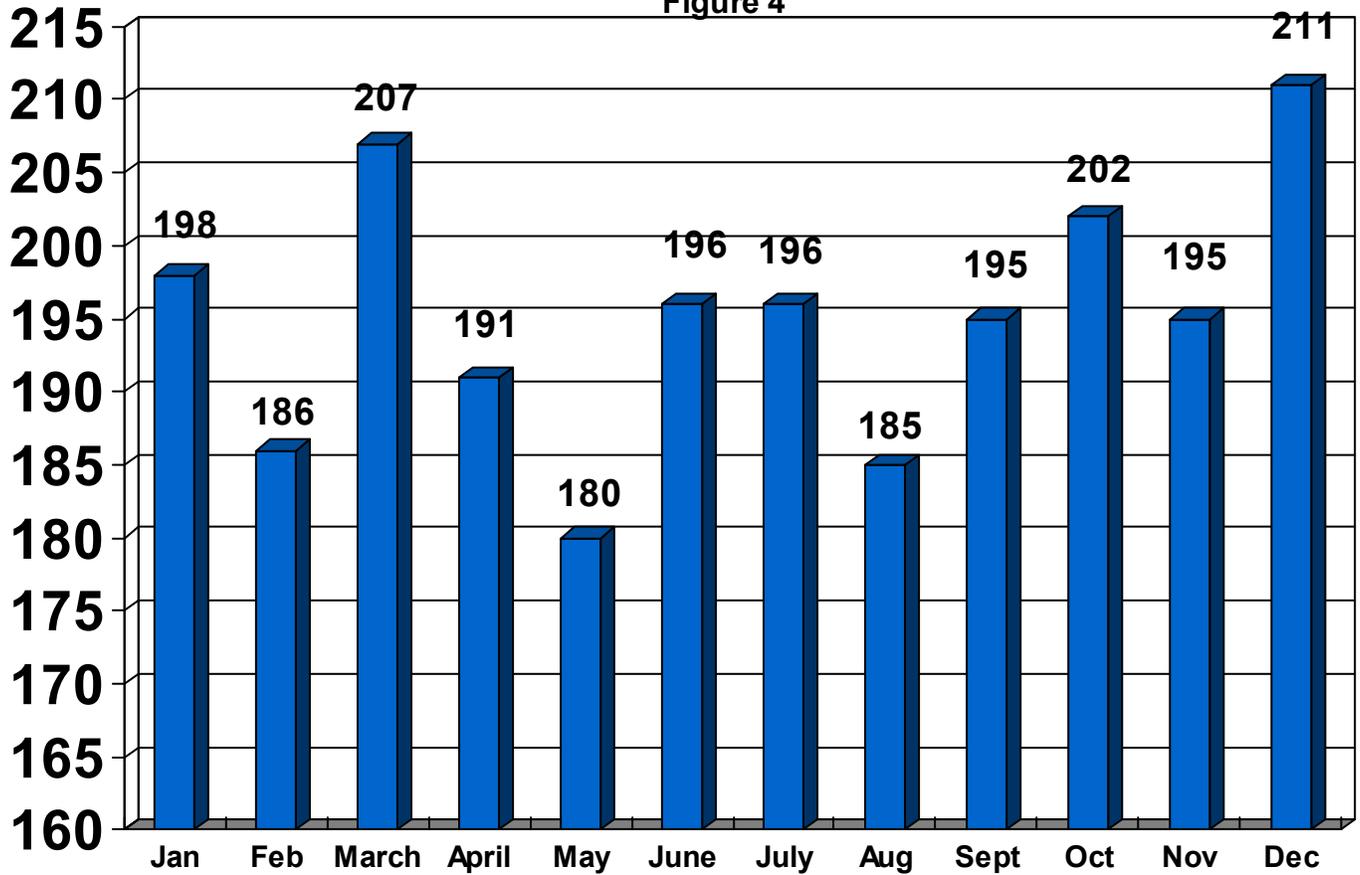
Total Statewide Cases by Year of Autopsy, 2000-2008

Figure 3



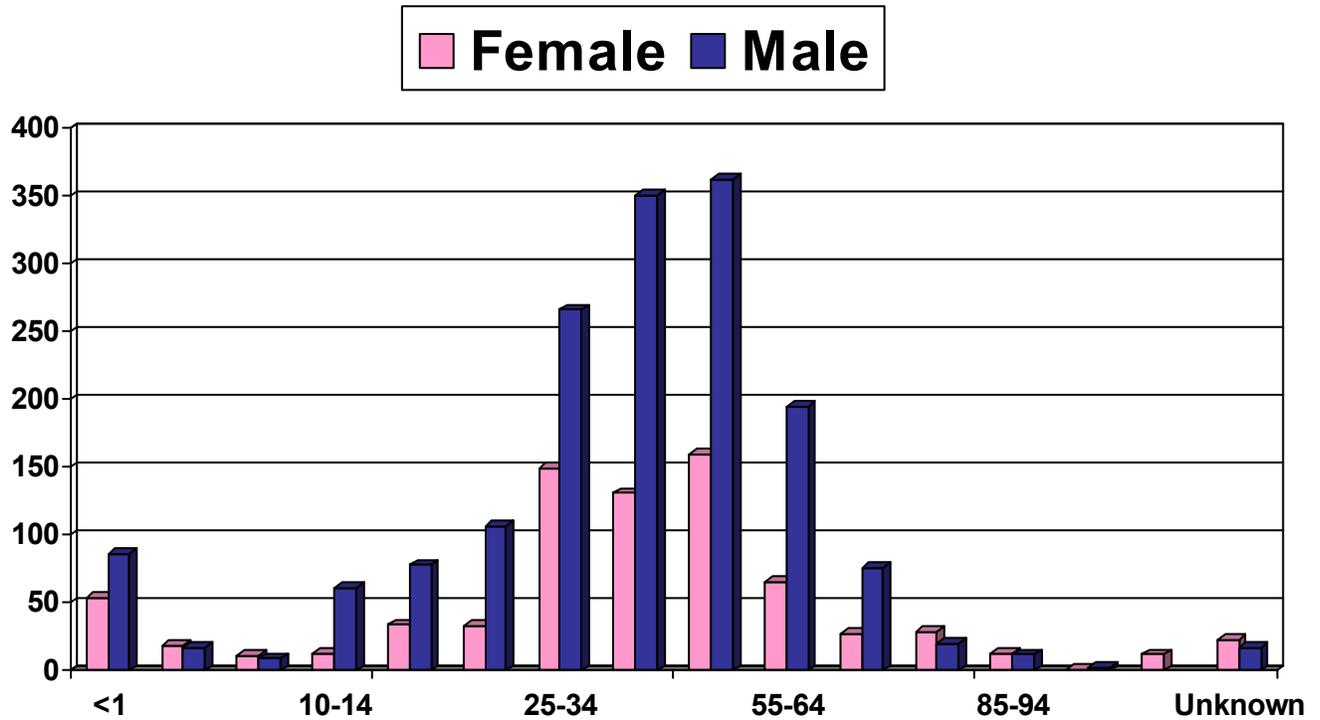
Total Statewide Cases by Month of Autopsy, 2008

Figure 4



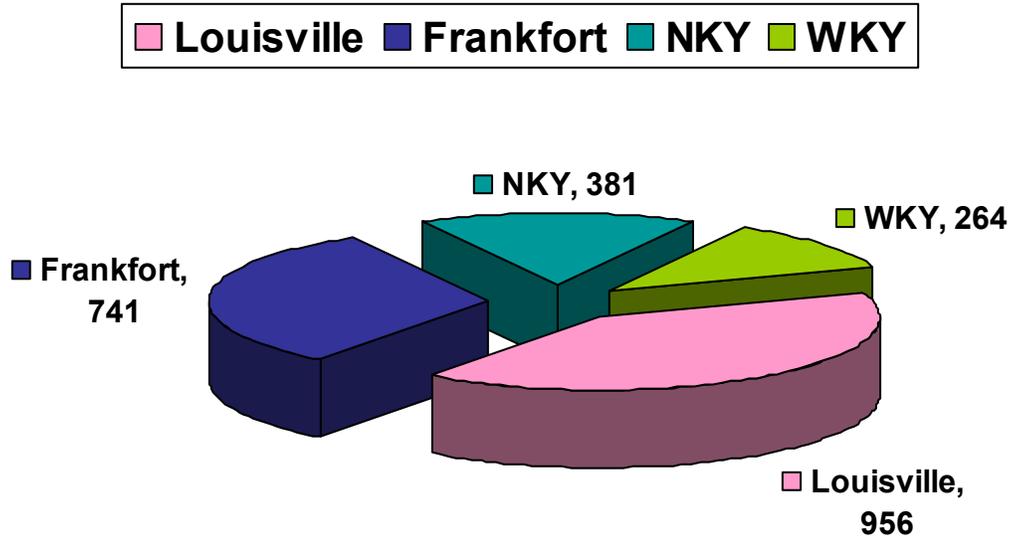
2008 Statewide Cases by Age and Gender

Figure 5



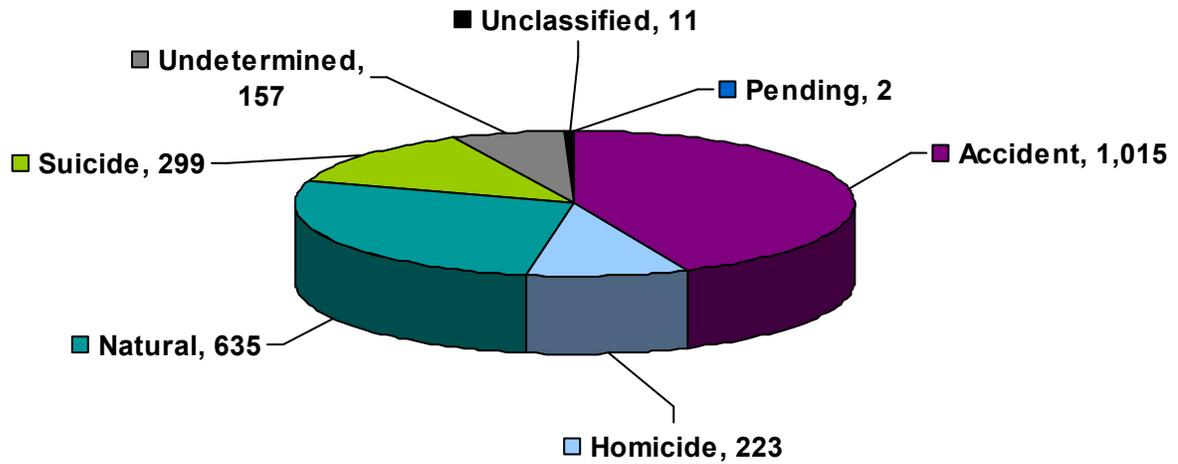
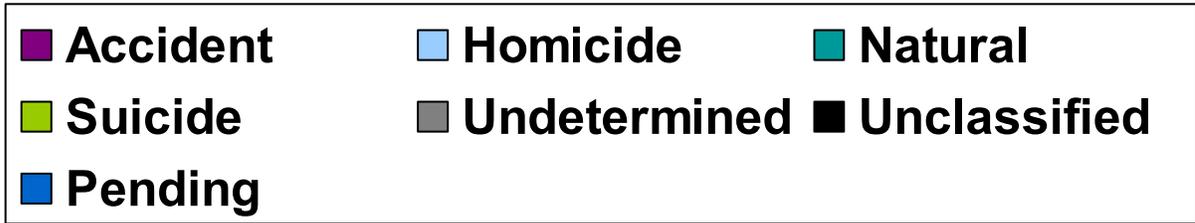
2008 Statewide Autopsy Examinations

Figure 6



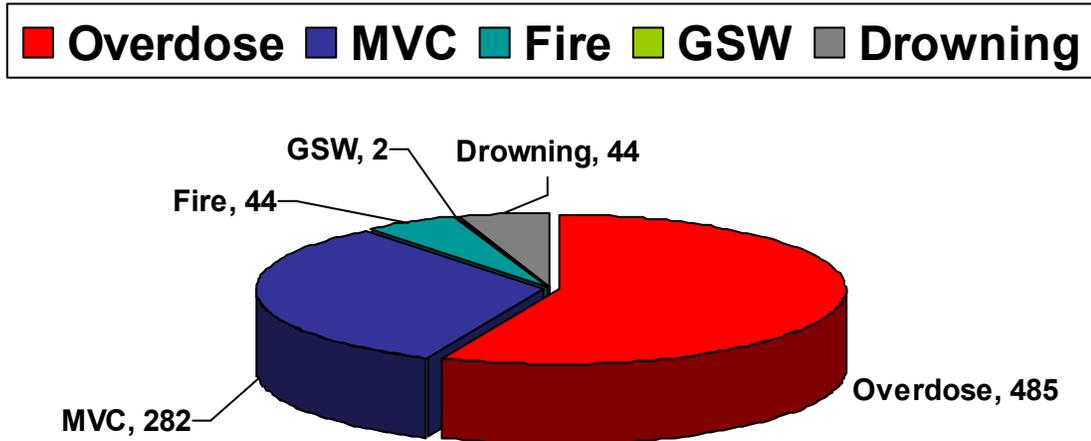
2008 Statewide Cases by Manner of Death

Figure 7



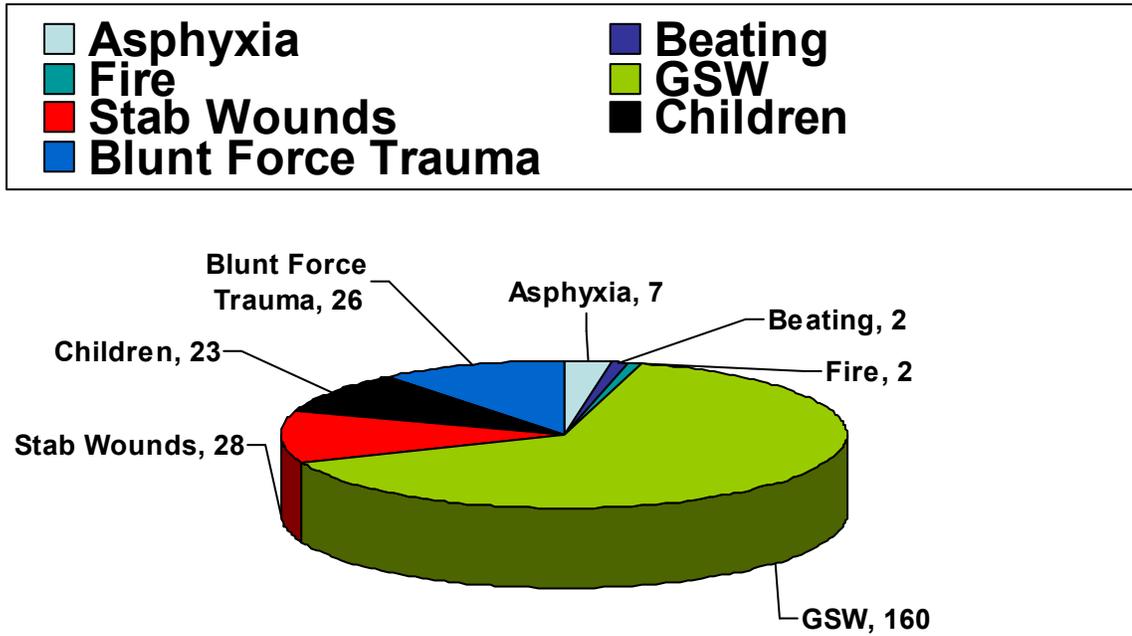
2008 Statewide Accidents by Cause of Death

Figure 8



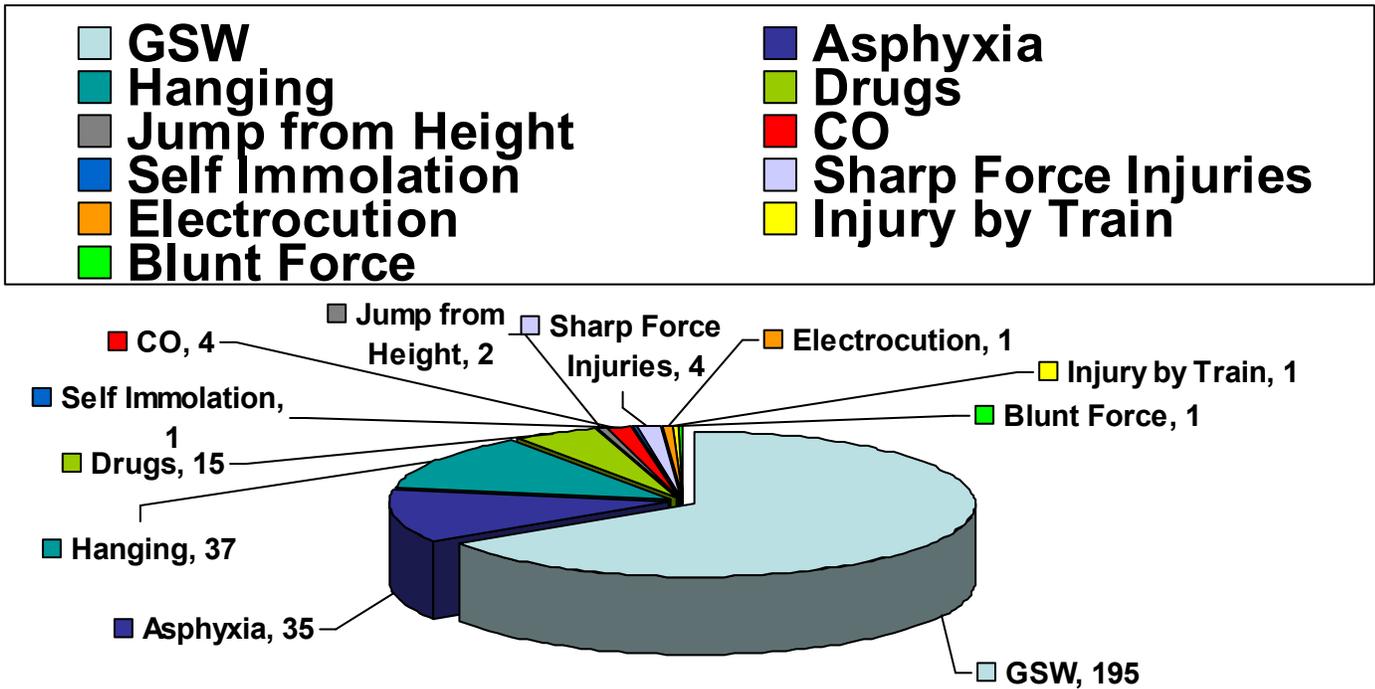
2008 Statewide Homicides by Cause of Death

Figure 9



2008 Statewide Suicides by Cause of Death

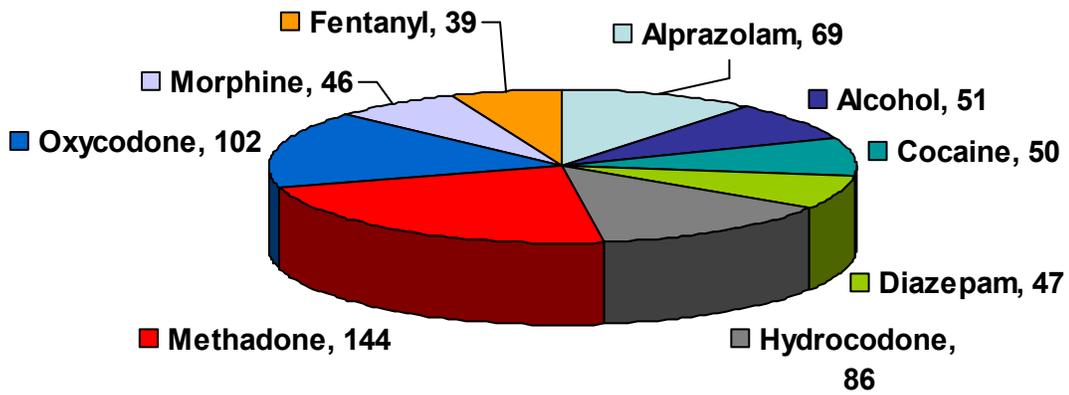
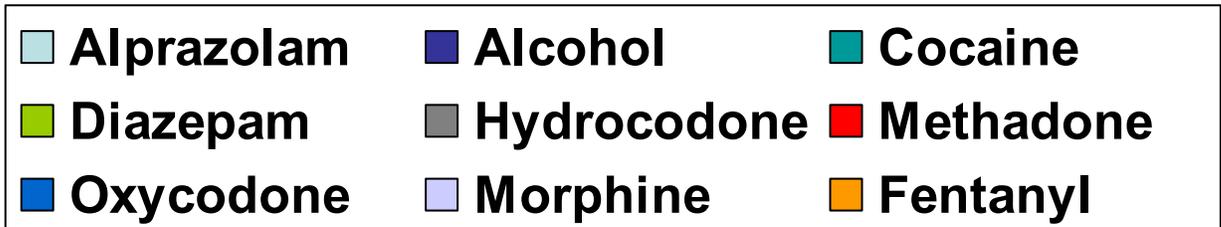
Figure 10



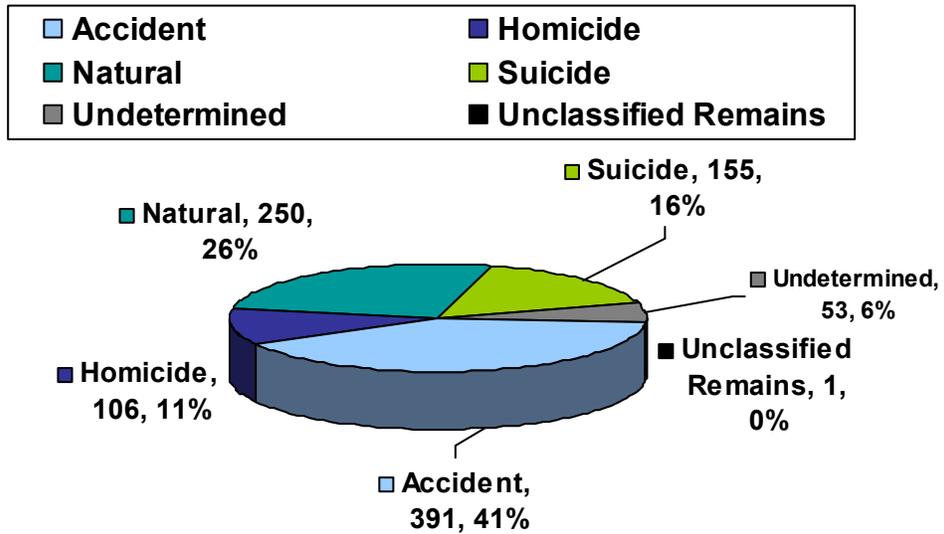
2008 Statewide Drugs Most Frequently Detected in the Blood of Overdose Victims

Victims

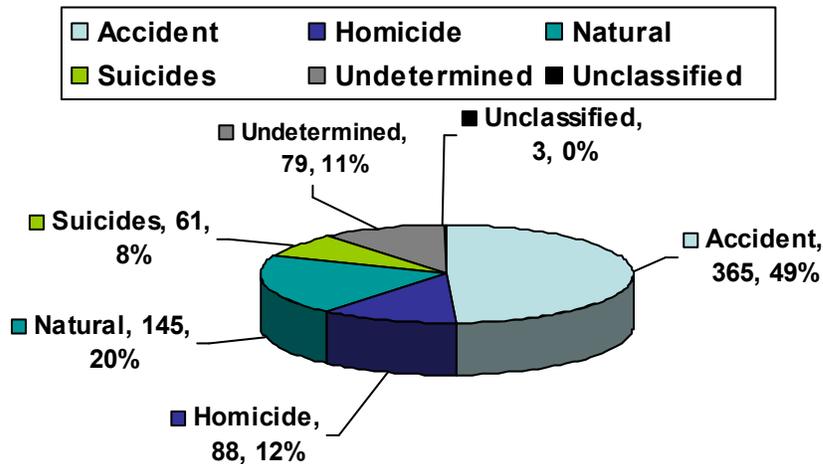
Figure 11



2008 Louisville Cases by Manner of Death Figure 12

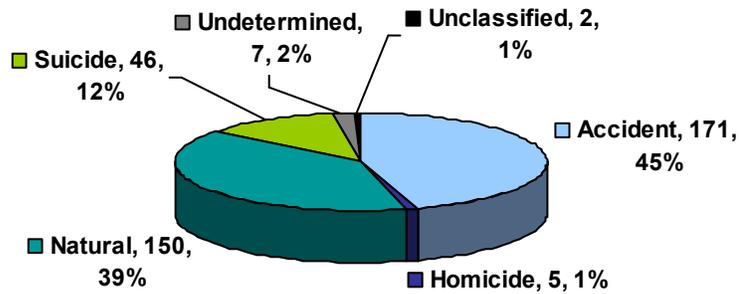


2008 Frankfort Cases by Manner of Death Figure 13



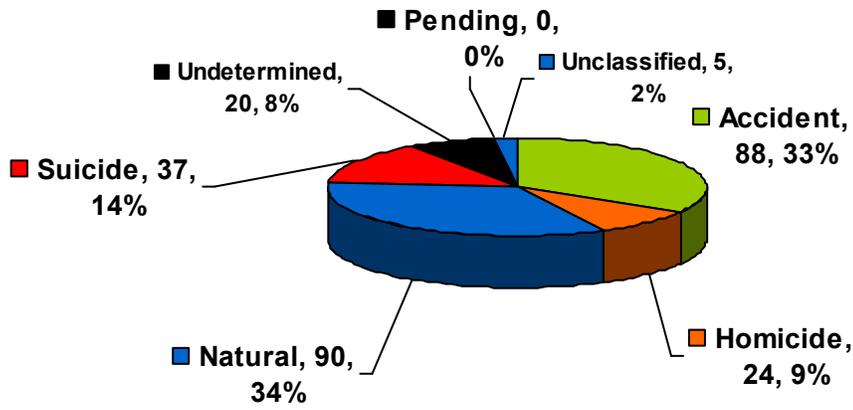
2008 Northern Kentucky Cases by Manner of Death

Figure 14



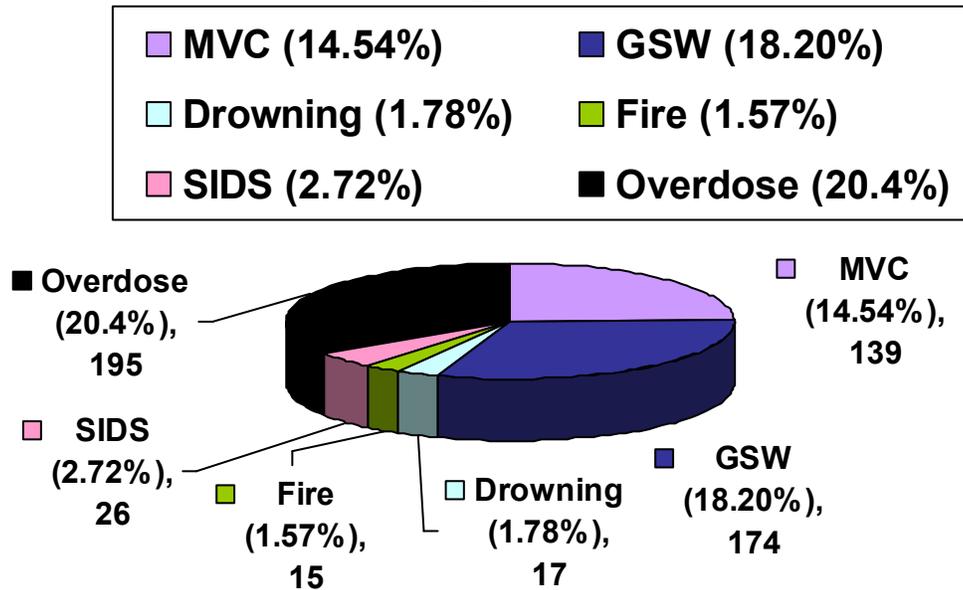
2008 Western Kentucky Cases by Manner of Death

Figure 15



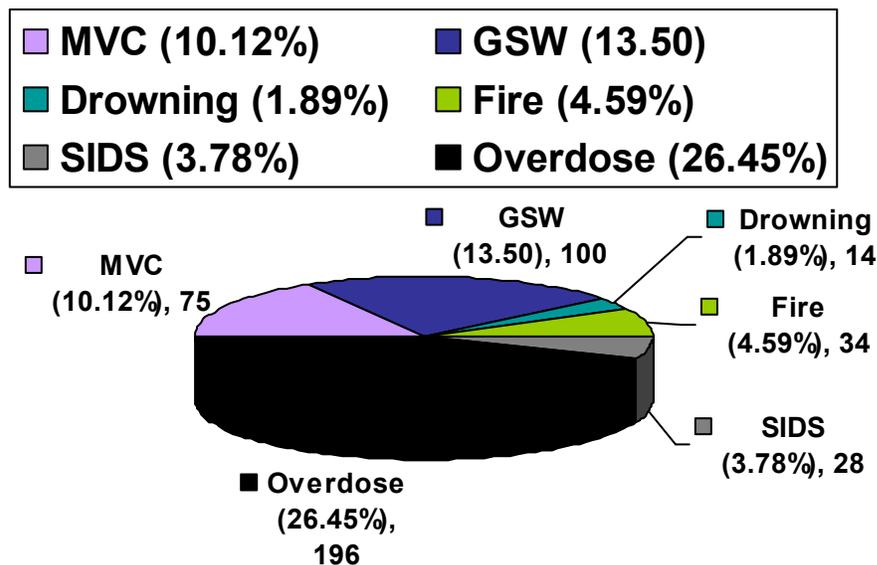
2008 Specific Common Causes of Death: Louisville Cases by Type

Figure 16



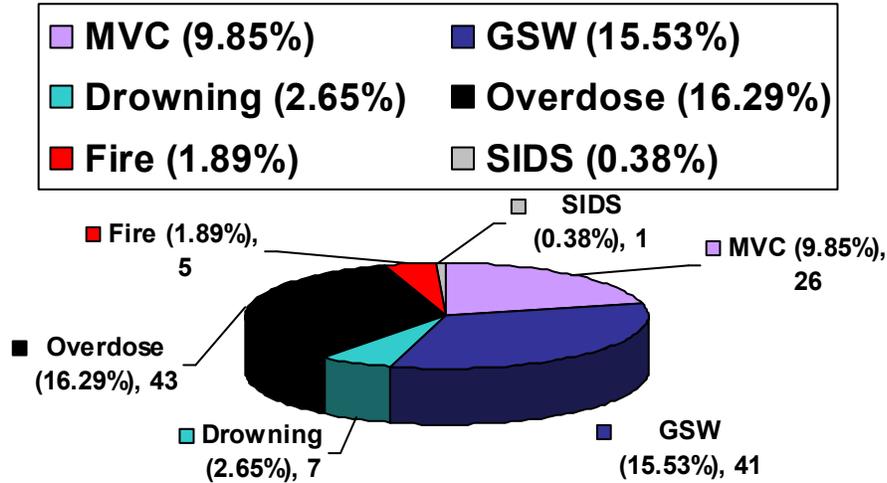
2008 Specific Common Causes of Death: Frankfort Cases by Type

Figure 17



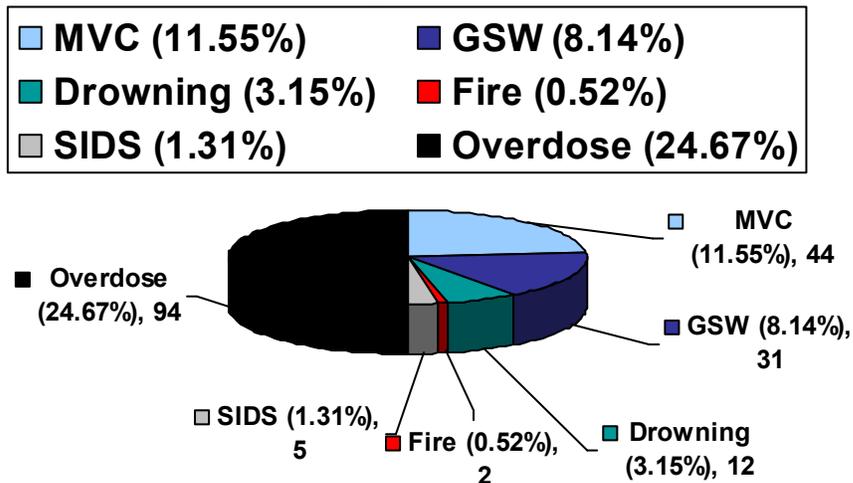
2008 Specific Common Causes of Death: Western Kentucky Cases by Type

Figure 18



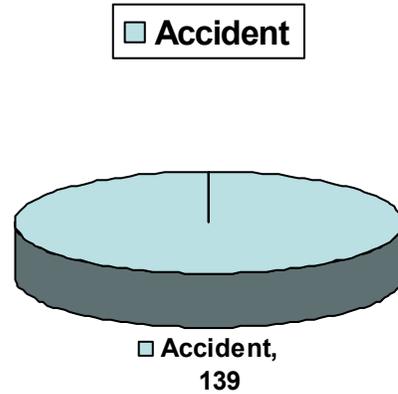
2008 Specific Common Causes of Death: Northern Kentucky Cases by Type

Figure 19



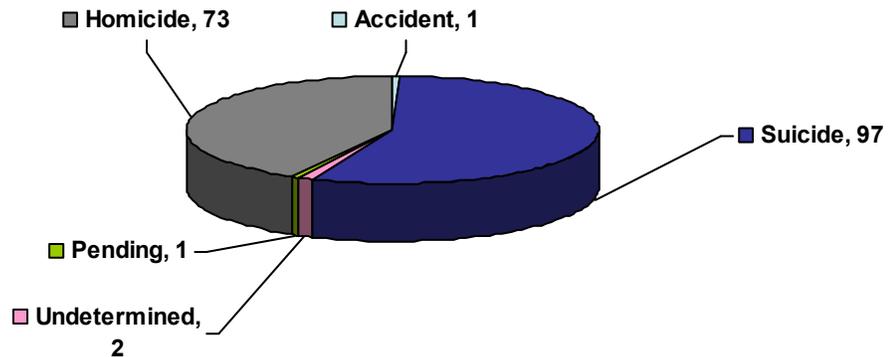
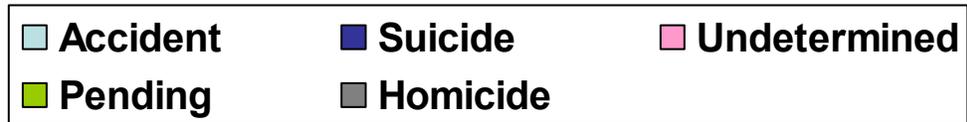
Louisville MVC by Manner of Death

Figure 20



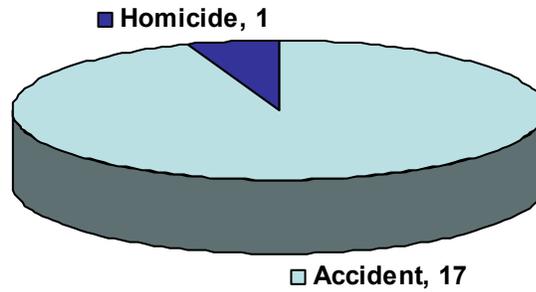
Louisville GSW by Manner of Death

Figure 21



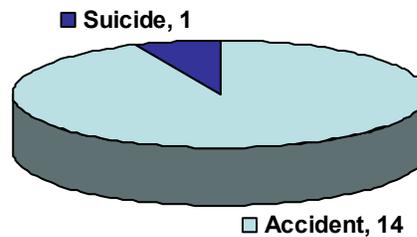
Louisville Drowning by Manner of Death

Figure 22



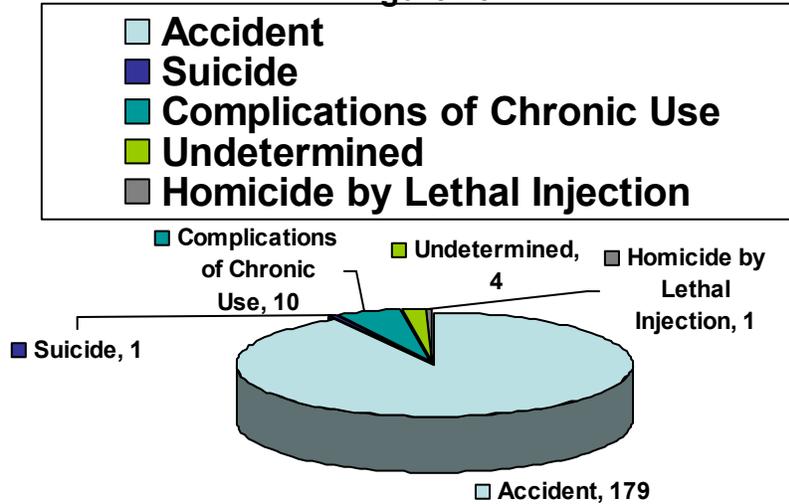
Louisville Fire by Manner of Death

Figure 23



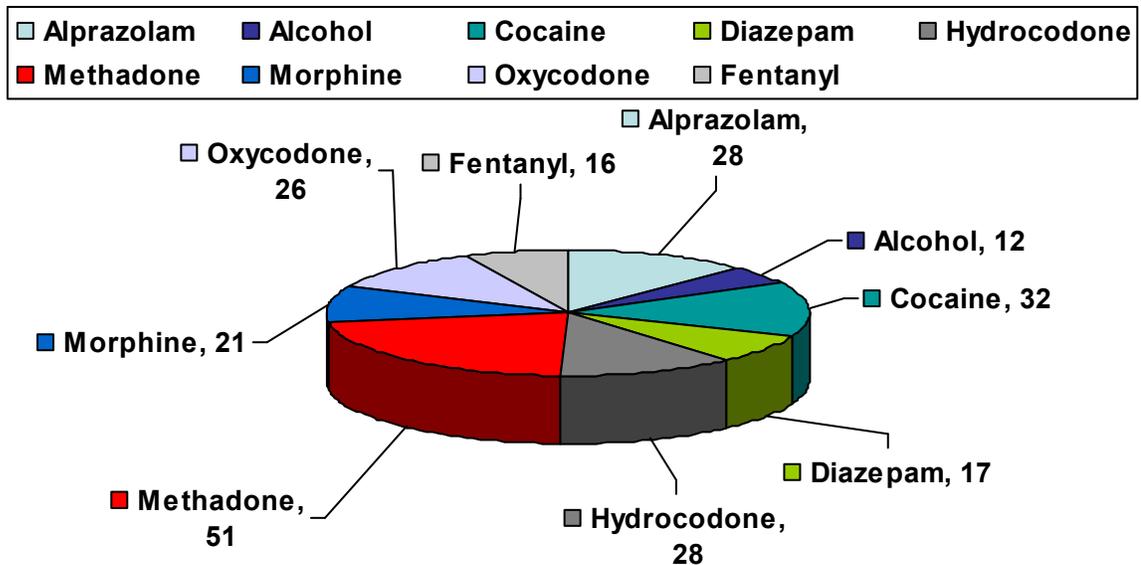
Louisville Overdose by Manner of Death

Figure 25



Louisville Most Frequently Detected Drugs in the Blood of Overdose Victims

Figure 26



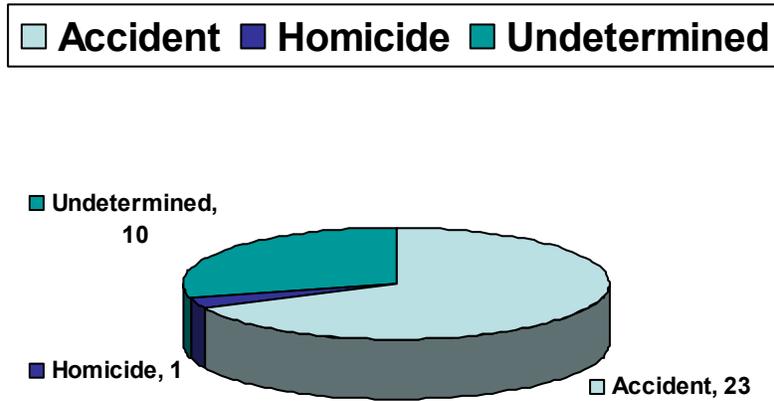
Frankfort Drowning by Manner of Death

Figure 27



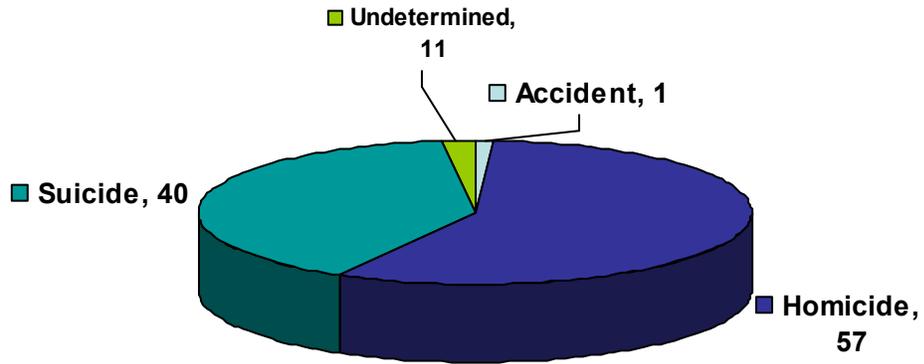
Frankfort Fire by Manner of Death

Figure 28



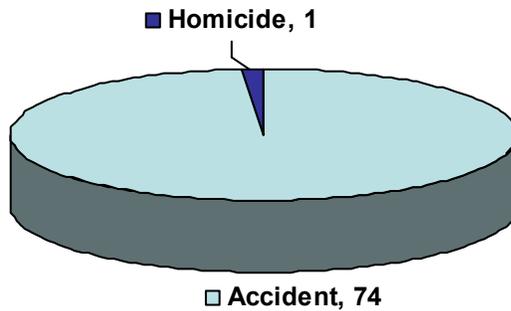
Frankfort GSW by Manner of Death

Figure 30



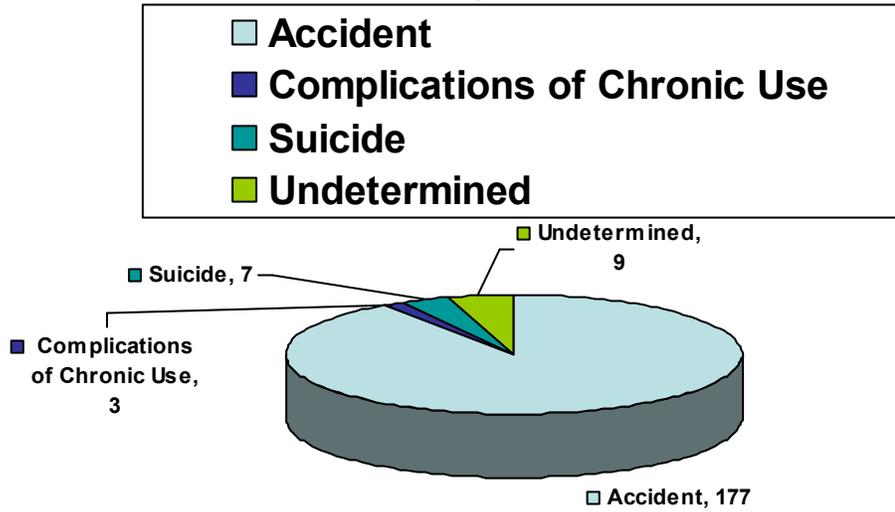
Frankfort MVC by Manner of Death

Figure 31



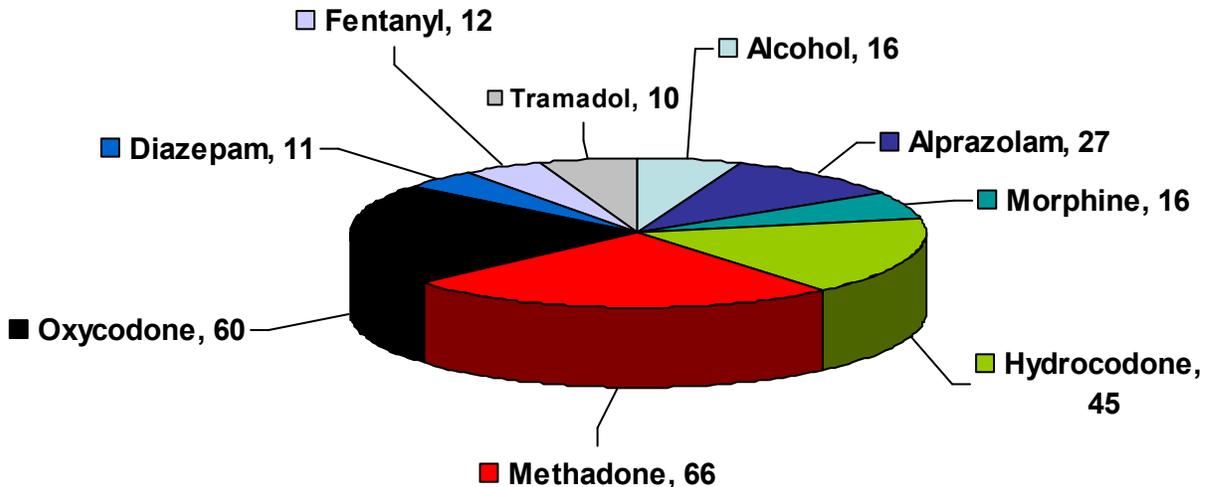
Frankfort Overdose by Manner of Death

Figure 32



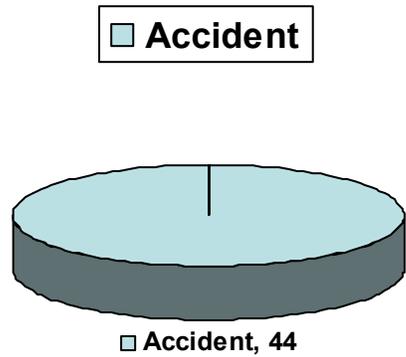
Frankfort Most Frequently Detected Drugs in the Blood of Overdose Victims

Figure 33



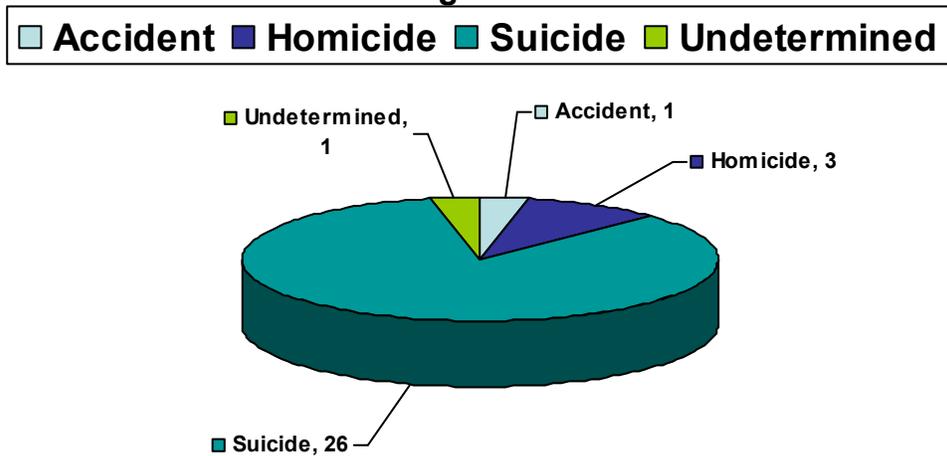
Northern Kentucky MVC by Manner of Death

Figure 34



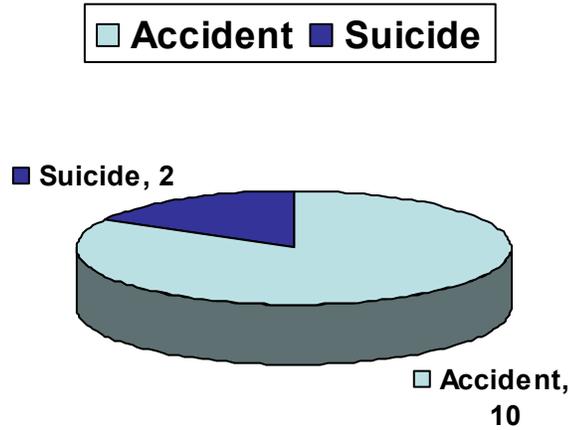
Northern Kentucky GSW by Manner of Death

Figure 35



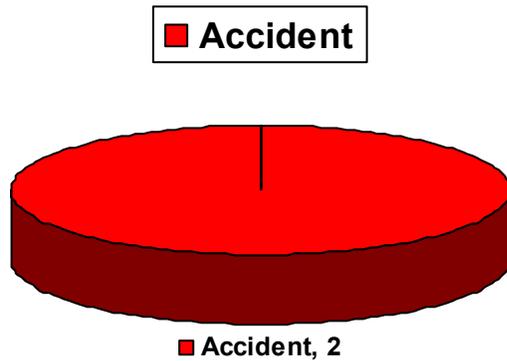
Northern Kentucky Drowning by Manner of Death

Figure 36



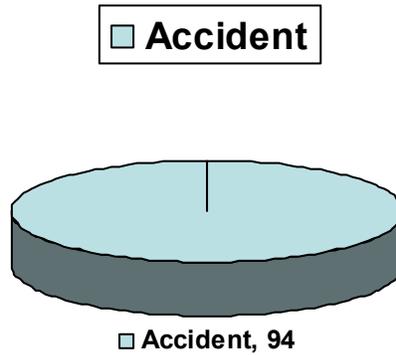
Northern Kentucky Fire by Manner of Death

Figure 37



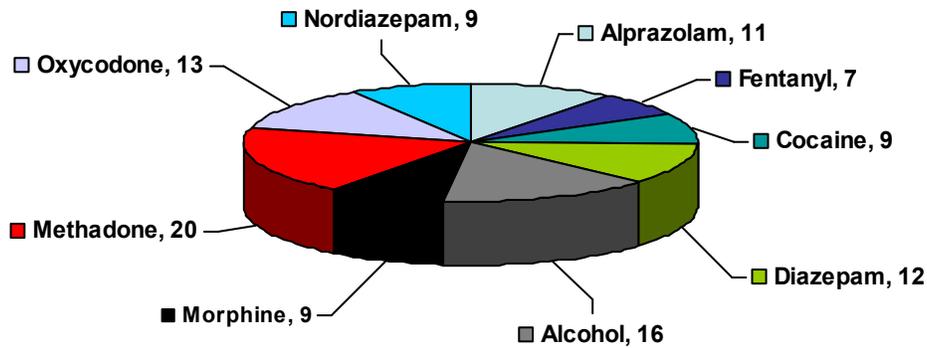
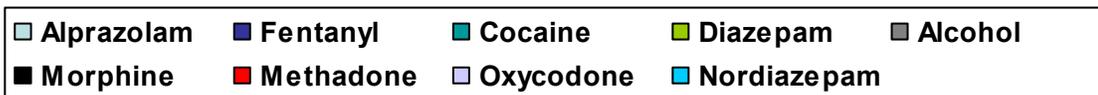
Northern Kentucky Overdose by Manner of Death

Figure 39



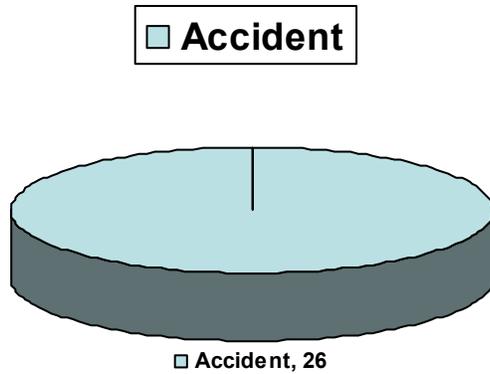
Northern Kentucky Most Frequently Detected Drugs in the Blood of Overdose Victims

Figure 40



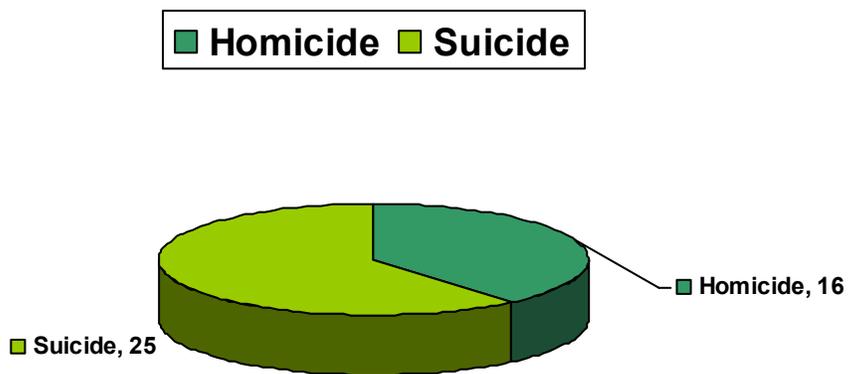
Western Kentucky MVC by Manner of Death

Figure 41



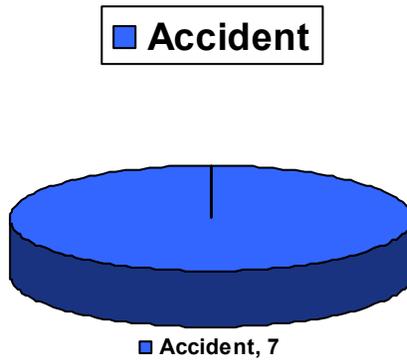
Western Kentucky GSW by Manner of Death

Figure 42



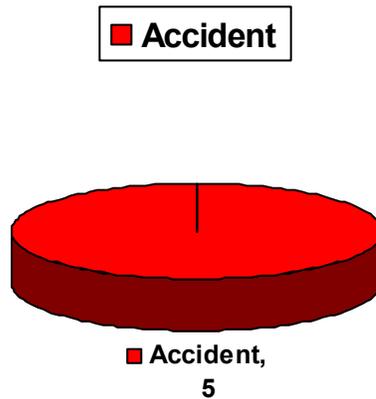
Western Kentucky Drowning by Manner of Death

Figure 43



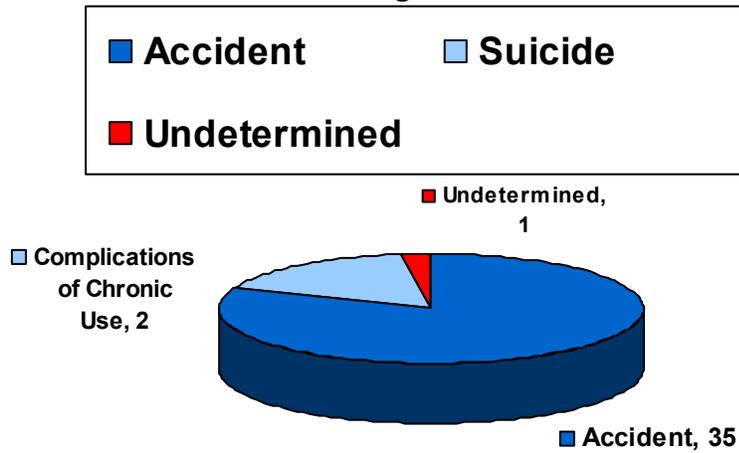
Western Kentucky Fire by Manner of Death

Figure 44



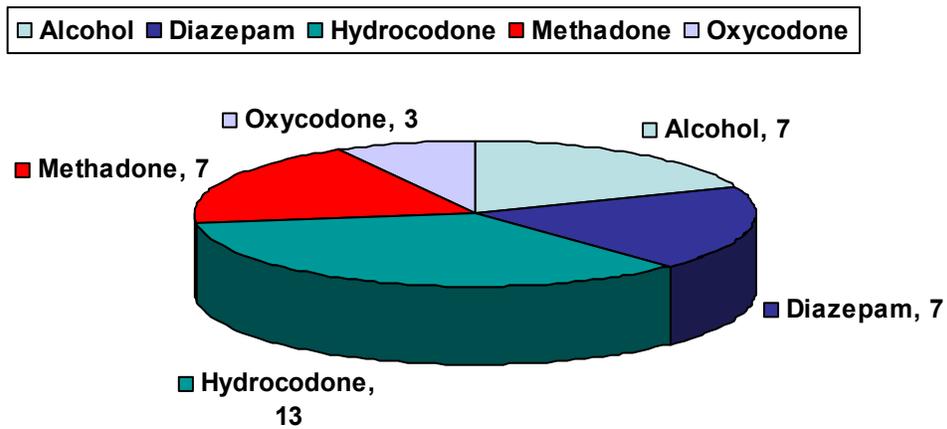
Western Kentucky Overdose by Manner of Death

Figure 46



Western Kentucky Most Frequently Detected Drugs in the Blood of Overdose Victims

Figure 47



Glossary

Accident – The *manner of death* used when, in other than *natural deaths*, there is no evidence of intent. The death occurs as a result of an unforeseen event.

Autopsy – A detailed postmortem external and internal examination of a body to determine cause of death.

Homicide – The *manner of death* in which death results from the intentional harm of one person by another. The medical examiner does not determine whether or not a criminal act has occurred.

Manner of Death – The general category of the condition, circumstances or event, which causes the death. The categories are *natural, accident, homicide, suicide and undetermined*.

Natural – The *manner of death* used when solely a disease causes death. If death is hastened by an injury, the *manner of death* is not considered natural.

Office of the Medical Examiner - the Office of the Medical Examiner investigates deaths occurring in the state of Kentucky, as authorized by Kentucky's elected coroners. The staff assists Kentucky coroners and law enforcement agencies in all aspects of death investigations by determining the cause and manner of death, identification of the deceased, and collection and interpretation of trace evidence.

Suicide – The *manner of death* in which death results from intentional act by one's self.

Unclassified – Are cases in which Medical Examiner involvement was for purposes other than for determining the *cause and manner* of death—e.g. tissue where no products of conception were identified; exhumation for DNA sampling only.

Undetermined – The *manner of death* for deaths in which there is insufficient information to assign another manner.

MEDICAL EXAMINER DISTRICTS

The **Office of the Chief Medical Examiner** in Louisville covers the following **CENTRAL** *counties* in Kentucky and Southern IN:

Adair, Allen, Barren, Breckinridge, Bullitt, Butler, Carroll, Casey, Clinton, Cumberland, Edmonson, Grayson, Green, Hancock, Hardin, Hart, Henry, Jefferson, Larue, Marion, Meade, Metcalfe, Monroe, Nelson, Oldham, Russell, Shelby, Simpson, Spencer, Taylor, Trimbell, and Warren.

Southern Indiana counties: Clark, Crawford, Dearborn, Dubois, Floyd, Harrison, Jackson, Jefferson, Ohio, Orange, Perry, Scott, Switzerland, Warrick, and Washington.

*Additionally, the OCME provides weekend, holiday, and vacation coverage for the **Western** counties delineated below.

The **Madisonville** office covers the following **WESTERN** *counties*:

Ballard, Caldwell, Calloway, Carlisle, Christian, Crittenden, Daviess, Fulton, Graves, Henderson, Hickman, Hopkins, Livingston, Logan, Lyon, Marshall, McCracken, McLean, Muhlenberg, Ohio, Todd, Trigg, Union, and Webster.

The **Frankfort** office covers the following **EASTERN** *counties*:

Anderson, Bath, Bell, Bourbon, Boyle, Boyd, Breathitt, Carter, Clark, Clay, Elliott, Estill, Fayette, Floyd, Franklin, Garrard, Harlan, Harrison, Jackson, Jessamine, Johnson, Knott, Knox, Laurel, Lawrence, Lee, Leslie, Letcher, Lincoln, Madison, Magoffin, Martin, McCreary, Menifee, Mercer, Montgomery, Morgan, Nicholas, Owsley, Perry, Pike, Powell, Pulaski, Rockcastle, Rowan, Scott, Washington, Wayne, Whitley, Wolf, and Woodford.

The **Northern Kentucky** office covers the following **NORTHERN** *counties*:

Boone, Bracken, Campbell, Fleming, Gallatin, Grant, Greenup, Kenton, Lewis, Mason, Owen, Pendleton, and Robertson.