

Office of the Chief Medical Examiner's Annual Report, 2011



Commonwealth of Virginia
Virginia Department of Health
Office of the Chief Medical Examiner
December 2011

OFFICE OF THE CHIEF MEDICAL EXAMINER'S ANNUAL REPORT, 2011

**Leah L. E. Bush, MD
Chief Medical Examiner**

Central District

400 East Jackson Street
Richmond, VA 23219
(804) 786-3174

OCME_CENT@vdh.virginia.gov

Assistant Chief Medical Examiners
William T. Gormley, MD, PhD
Deborah Kay, MD
Kevin D. Whaley, MD

Northern District

10850 Pyramid Place, Suite 121
Manassas, VA 20110
(703) 530-2600

OCME_NOVA@vdh.virginia.gov

Assistant Chief Medical Examiners
Constance R. DiAngelo, MD
Shane Chittenden, DO
A. Wayne Williams, MD
Frances Field, MD

<http://www.vdh.state.va.us/medexam/index.asp>

Tidewater District

830 Southampton Ave., Suite 100
Norfolk, VA 23510
(757) 683-8366

OCME_TIDE@vdh.virginia.gov

Assistant Chief Medical Examiners
Elizabeth L. Kinnison, MD
Wendy M. Gunther, MD
Jeffery Gofton, MD

Western District

6600 Northside High School Road
Roanoke, VA 24019
(540) 561-6615

OCME_WEST@vdh.virginia.gov

Assistant Chief Medical Examiners
Amy Tharp, MD
Paul Benson, MD
Gayle Suzuki, MD
Micheline Lubin, MD

Office of the Chief Medical Examiner's Annual Report, 2011

Department of Health

Commonwealth of Virginia

Table of Contents

Table of Contents.....	1
Letter from the Chief Medical Examiner.....	8
Introduction.....	10
Data Collection and Preparation	10
Statistical Summary	10
SECTION 1: OVERVIEW – OFFICE OF THE CHIEF MEDICAL EXAMINER.....	11
<i>Jurisdictional Authority</i>	11
<i>Medicolegal Mission</i>	12
<i>Public Health Mission</i>	12
<i>Virginia 2011</i>	12
Fatality Review and Surveillance Programs	13
The Family and Intimate Partner Violence Homicide Surveillance Project (FIPV)	13
The Virginia Violent Death Reporting System (VVDRS)	14
The State Child Fatality Review Team.....	15
Domestic Violence Fatality Review	16
Virginia’s Pregnancy-Associated Mortality Surveillance System (PAMSS) and Maternal Mortality Review Team (MMRT).....	17
Training and Education.....	18
<i>Forensic Pathology Training Programs</i>	18
National Association of Medical Examiners Accreditation.....	20
SECTION 2: TOTAL CASES (N=5670)	21
Figure 1. Total Cases by Year of Death, 1999-2011	21
Figure 2. Total Cases by Year of Death by Manner, 1999-2011	22
Figure 3. Total Cases by Manner, 2011	22

Table 1. Total Cases by OCME District by Manner, 2011.....	23
Table 2. Total Cases by Autopsy Status by OCME District, 2011.....	23
Table 3. Total Cases by Manner by Autopsy Status, 2011	23
Table 4. Total Cases by Race/Ethnicity, 2011	23
Figure 4. Total Cases by Manner by Race/Ethnicity, 2011	24
Figure 5. Total Cases by Age Group, 2011	25
Table 5. Total Cases by Gender, 2011	25
Table 6. Total Cases by Manner by Gender, 2011	26
Figure 6. Total Cases by Manner by Gender, 2011	26
Table 7. Total Cases by Manner by Gender by Age Group, 2011.....	27
Figure 7. Total Cases by Month of Death, 2011	28
Figure 8. Total Cases by Month of Death by Manner, 2011	28
Figure 9. Total Cases by Day of Death, 2011	29
Figure 10. Total Cases by Day of Death by Manner, 2011	29
Table 8. Total Cases by Manner by City/County of Residence, 2011.....	30
Figure 11. Total Cases by City/County of Residence, 2011	36
Figure 12. Rate of Total Cases by City/County of Residence, 2011	37
Table 9. Total Cases by Manner by City/County of Injury/Acute Illness, 2011	38
Figure 13. Total Cases by City/County of Injury/Acute Illness, 2011	42
Table 10. Total Cases by Manner by City/County of Death, 2011.....	43
Figure 14. Total Cases by City/County of Death, 2011.....	47
Table 11. Total Cases by Cause of Death, 2011	48
SECTION 3: MANNER OF DEATH.....	51
NATURAL DEATH (N=1756)	51
Figure 15. Natural Deaths & Rate by Year of Death, 2011	51
Figure 16. Natural Deaths by Age Group by Gender, 2011	52
ACCIDENTAL DEATHS (N=2341)	53
Figure 17. Accidental Deaths & Rate by Year of Death, 1999-2011	53
Figure 18. Accidental Deaths by Age Group by Gender, 2011	54
Figure 19. Accidental Deaths by Race/Ethnicity, 2011	54
Table 12. Accidental Deaths by Method of Death, 2011.....	55
Table 13. Top 5 Accidental Methods of Death by Age Group with Corresponding Rates, 2011	56
Figure 20. Accidental Deaths by Age Group by Ethanol Level, 2011	57
Figure 21. Accidental Deaths by Gender by Ethanol Level, 2011	57
Figure 22. Top 5 Accidental Methods of Death by Alcohol Presence, 2011	58

Figure 23. Accidental Deaths by Month of Death, 2011	59
Figure 24. Accidental Deaths by Day of Death, 2011	59
Table 14. Accidental Deaths by City/County of Injury/Acute Illness, 2006-2011.....	60
SUICIDE DEATHS (N=1067)	64
Figure 25. Suicide Deaths & Rate by Year of Death, 2011	64
Figure 26. Suicide Deaths & Rates by Age Group by Gender, 2011	65
Figure 27. Suicide Deaths by Race/Ethnicity, 2011	65
Figure 28. Suicide Deaths by Race/Ethnicity by Gender, 2011	66
Table 15. Suicide Deaths by Method of Death, 2011	67
Figure 29. Suicide Deaths by Age Group by Ethanol Level, 2011.....	68
Figure 30. Suicide Deaths by Gender by Ethanol Level, 2011.....	68
Table 16. Suicide Deaths by Method of Death by Ethanol Level, 2011	69
Figure 31. Suicide Deaths by Month of Death, 2011	70
Figure 32. Suicide Deaths by Day of Death, 2011	70
Table 17. Suicide Deaths & Rates by City/County of Residence, 2011	71
Figure 33. Suicide Deaths by City/County of Residence, 2011	73
Figure 34. Suicide Rates by City/County of Residence, 2011.....	73
Table 18. Suicide Deaths by City/County of Injury by Year of Death, 2006-2011	74
HOMICIDE DEATHS (N=345).....	78
Figure 35. Homicide Deaths & Rate by Year of Death, 1999-2011.....	78
Figure 36. Homicide Deaths by Age Group by Gender, 2011.....	79
Figure 37. Homicide Deaths by Race/Ethnicity, 2011	79
Figure 38. Homicide Deaths by Race/Ethnicity by Gender, 2011	80
Table 19. Homicide Deaths by Method of Death, 2011	81
Figure 39. Homicide Deaths by Leading Methods of Death, 2011	82
Figure 40. Homicide Deaths by Age Group by Ethanol Level, 2011	83
Figure 41. Homicide Deaths by Gender by Ethanol Level, 2011	83
Table 20. Homicide Deaths by Method of Death by Ethanol Level, 2011.....	84
Figure 42. Homicide Deaths by Month of Death, 2011	85
Figure 43. Homicide Deaths by Day of Death, 2011.....	85
Table 21. Homicide Deaths by City/County of Residence, 2011	86
Table 22. Top 10 Homicide Deaths by City/County of Residence, 2011.....	88
Table 23. Top 10 Homicide Rates by City/County of Residence, 2011	88
Figure 44. Homicide Deaths by City/County of Residence, 2011	89
Figure 45. Homicide Rates by City/County of Residence, 2011	90

Figure 46. Homicide Deaths by City/County of Injury, 2006-2011	91
Table 24. Top 10 Homicide Deaths by City/County of Injury, 2011	94
Figure 47. Homicide Cases by City/County of Injury, 2011	95
UNDETERMINED DEATHS (N=161)	96
Figure 48. Undetermined Deaths by Year of Death, 1999-2011	96
Figure 49. Undetermined Deaths by Age Group by Gender, 2011	97
Figure 50. Undetermined Deaths by Race/Ethnicity, 2011	97
Table 25. Undetermined Deaths by Cause of Death, 2011.....	98
SECTION 4: DEATHS OF CHILDREN (17 Years of Age & Younger) (N=348)	99
Figure 51. Child Deaths by Manner, 2011.....	99
Figure 52. Child Deaths by Age by Gender, 2011.....	100
Figure 53. Child Deaths by Race/Ethnicity, 2011	100
Figure 54. Child Deaths by Manner by Race/Ethnicity, 2011	101
Table 26. Child Deaths by Cause of Death, 2011	102
NATURAL DEATHS OF CHILDREN (N=63).....	104
Figure 55. Natural Child Deaths by Age Group by Gender, 2011	104
Figure 56. Natural Child Deaths by Race/Ethnicity, 2011	105
Figure 57. SIDS Cases by Year of Death, 2003-2011	105
ACCIDENTAL DEATHS OF CHILDREN (N=134)	106
Figure 58. Accidental Child Deaths by Age Group by Gender, 2011	106
Figure 59. Accidental Child Deaths by Race/Ethnicity, 2011	106
Figure 60. Accidental Child Deaths by Month of Death, 2011	107
Figure 61. Accidental Child Deaths by Day of Death, 2011	107
Table 27. Accidental Child Deaths by Method of Death, 2011.....	108
SUICIDE DEATHS OF CHILDREN (N=30).....	109
Figure 62. Child Suicide Deaths by Year of Death, 1999-2011	109
Figure 63. Child Suicide Deaths by Age by Gender, 2011.....	110
Figure 64. Child Suicide Deaths by Race/Ethnicity, 2011	110
Figure 65. Child Suicide Deaths by Month of Death, 2011.....	111
Figure 66. Child Suicide Deaths by Day of Death, 2011.....	111
Table 28. Child Suicide Deaths by Method of Death, 2011	112
HOMICIDE DEATHS OF CHILDREN (N=35).....	113
Figure 67. Child Homicide Deaths by Year of Death, 1999-2011	113
Figure 68. Child Homicide Deaths by Age by Gender, 2011	114
Figure 69. Child Homicide Deaths by Race/Ethnicity, 2011.....	114

Figure 70. Child Homicide Deaths by Month of Death, 2011	115
Figure 71. Child Homicide Deaths by Day of Death, 2011	115
Table 29. Child Homicide Deaths by Method of Death, 2011	116
UNDETERMINED DEATHS OF CHILDREN (N=80).....	117
Figure 72. Undetermined Child Deaths by Year of Death, 2006-2011	117
Figure 73. Undetermined Child Deaths by Age by Gender, 2011	118
Figure 74. Undetermined Child Deaths by Race/Ethnicity, 2011	118
Table 30. Undetermined Child Deaths by Cause of Death, 2011	119
SECTION 5: MOTOR VEHICLE COLLISIONS RELATED DEATHS (N=875).....	120
Figure 75. Motor Vehicle Deaths by Year of Death, 2003-2011.....	120
Figure 76. Motor Vehicle Deaths by Manner, 2011	121
Figure 77. Motor Vehicle Deaths by Age Group by Gender, 2011	121
Figure 78. Motor Vehicle Deaths by Age Group by Gender by Ethanol Presence, 2011	122
Figure 79. Motor Vehicle Deaths by Ethanol Level, 2011	122
Figure 80. Motor Vehicle Deaths by Race/Ethnicity, 2011	123
Figure 81. Motor Vehicle Deaths by Race/Ethnicity by Ethanol Presence, 2011	123
Table 31. Motor Vehicle Deaths by Age Group by Position In or Out of Vehicle, 2011	124
Figure 82. Motor Vehicle Deaths by Position In or Out of Vehicle by Ethanol Level, 2011	124
Table 32. Motor Vehicle Deaths by Decedent Status by Vehicle Type by Ethanol Level, 2011.....	125
Table 33. Motor Vehicle Deaths by County of Residence, 2011	127
SECTION 6: DRUG/POISON CAUSED DEATHS	129
OVERALL DRUG/POISON DEATHS (N=818)	129
Figure 83. Total Drug/Poison Deaths by Year of Death, 1999-2011	129
Table 34. Drug/Poison Deaths by OCME District, 2011.....	130
Figure 84. Drug/Poison Deaths by Manner, 2011	130
Figure 85. Drug/Poison Deaths by Age Group by Gender, 2011	131
Table 35. Drug/Poison Deaths by Age Group by Manner, 2011	131
Figure 86. Drug/Poison Deaths by Race/Ethnicity, 2011	132
Table 36. Drug/Poison Deaths by Cause of Death by OCME District, 2011	132
Table 37. Drug/Poison Deaths by Cause of Death by Manner, 2011	133
Figure 87. Specific Type of Drug Category Deaths by Year of Death, 2011	133
Figure 88. Drug/Poison Deaths by Drug Category by Gender, 2011	134
Figure 89. Specific Drug Category Deaths by Race/Ethnicity, 2011	134
Figure 90. Specific Drug Category Deaths by Ethanol Level, 2011	135
Table 38. Drug/Poison Deaths by Cause of Death by Alcohol Also Causing Death, 2011	135

Figure 91. Classes of All Drugs/Poisons Present* in Drug/Poison Deaths, 2011	136
Table 39. All Drugs/Poisons/Active Metabolites Present* in Drug/Poison Deaths, 2011	136
Figure 92. Classes of All Drugs/Poisons Causing Death in Drug/Poison Deaths, 2011	141
Table 40. Drugs/Poisons/Active Metabolites Causing Death in Drug/Poison Deaths, 2011	141
Table 41. Drug/Poison Deaths by City/County of Residence, 2011.....	145
Figure 93. Drug/Poison Deaths by City/County of Residence, 2011	147
Figure 94. Drug/Poison Death Rates by City/County of Residence, 2011	148
FENTANYL, HYDROCODONE, METHADONE & OXYCODONE DEATHS (N=394)	149
Figure 95. Comparison of FHMO, Prescription and All Drug Deaths by Year of Death, 1999-2011	149
Table 42. FHMO Combination Deaths, 2011	150
Table 43. FHMO Combination Deaths by District, 2011	150
Table 44. FHMO Combination Deaths by Race/Ethnicity, 2011	151
Table 45. FHMO Combination Deaths by Gender, 2011	151
Figure 96. FHMO Deaths by Age Group, 2011.....	152
Table 46. FHMO Combination Deaths by Alcohol Also Caused Death, 2011	152
Table 47. FHMO Deaths & Rates by City/County of Residence, 2011	153
Figure 97. FHMO Deaths by City/County of Residence, 2011	155
Figure 98. FHMO Death Rates by City/County of Residence, 2011.....	156
COCAINE & HEROIN DEATHS (N=199)	157
Table 48. Cocaine & Heroin Combination Deaths, 2011	157
Table 49. Cocaine & Heroin Combination Deaths by District, 2011	157
Table 50. Cocaine & Heroin Combination Deaths by Race/Ethnicity, 2011	158
Table 51. Cocaine & Heroin Combination Deaths by Gender, 2011	158
Figure 99. Cocaine & Heroin Combination Deaths by Age Group, 2011	158
Table 52. Cocaine & Heroin Combination Deaths by Alcohol Also Causing Death, 2011	159
Table 53. Cocaine & Heroin Combination Deaths by City/County, 2011	159
Figure 100. Cocaine & Heroin Deaths by City/County of Residence, 2011	161
Figure 101. Cocaine & Heroin Death Rates by City/County of Residence, 2011.....	161
SECTION 7: IN CUSTODY (PRISONER) POPULATION (N=143).....	162
Figure 102. Prisoner Deaths by Manner, 2011	162
Figure 103. Prisoner Deaths by Race/Ethnicity, 2011	163
Figure 104. Prisoner Deaths by Age Group by Gender, 2011	163
Figure 105. Prisoner Deaths by Manner by Race/Ethnicity, 2011	164
Table 54. Prisoner Deaths by Cause of Death, 2011	164
SECTION 9: STATE MENTAL HEALTH CASES (N=80)	166

Figure 106. State Mental Health Deaths by Manner, 2011.....	166
Figure 107. State Mental Health Deaths by Race, 2011	167
Figure 108. State Mental Health Deaths by Age Group by Gender, 2011	167
Table 55. State Mental Health Deaths by Facility Type by Gender, 2011	168
Table 56. State Mental Health Deaths by Facility Type by Race, 2011	168
Table 57. State Mental Health Deaths by Cause of Death, 2011.....	168
SECTION 10: RECOVERED UNREPORTED CASES (N=146).....	170
Figure 109. Retrospective Cases by Manner, 2011	170
Figure 110. Retrospective Cases by Race/Ethnicity, 2011	171
Figure 111. Retrospective Cases by Age Group by Gender, 2011	171
Table 58/ Retrospective Cases by Method of death and by Classification of Death, 2011	172
GLOSSARY	173

Letter from the Chief Medical Examiner

The Department of Health's Office of the Chief Medical Examiner (OCME) is proud to present the 2011 annual report. Dr. Anna Noller, the OCME State Epidemiologist, and Mr. Curtis Conway, the OCME Case Database Manager, were instrumental in collating data and preparing this detailed report. The OCME annual report not only provides specific information about deaths occurring within the Commonwealth of Virginia but also fulfills a requirement for the statewide accreditation of the Virginia OCME by the National Association of Medical Examiners. This report details the cases investigated by the OCME and identifies deadly trends in Virginia providing a valuable resource to Virginia's leader and citizens to enhance death prevention and surveillance efforts and protect the lives of all Virginians.

As a model statewide death investigation system with four district offices, the OCME fulfills a core function mandated by the Code of Virginia, § 32.1-283. By Code, the OCME is tasked with investigating the deaths of individuals occurring in Virginia from trauma or violence, when sudden and unexpected, while unattended by a physician, violently, under suspicious circumstances or in law enforcement custody. When cases falling under the jurisdiction of the OCME are reported to one of the four district OCME offices, the case information is immediately entered into the Virginia Medical Examiner Database (VMEDS) and the case is managed through this statewide data system allowing for consistent, reliable case data that can be reviewed and interpreted for this annual report. Critical analysis of this data by Dr. Noller has revealed several trends that I want to share with the citizens and leaders of Virginia.

Some of the important trends for 2011 recognized through VMEDS data analysis include:

- The number of homicides in Virginia has decreased 11.8 percent from 2010 levels. Similar to previous years, homicides most frequently occurred in males (74.5%) and in the African American population (55.9%). For the second year in a row, there was a decrease in child homicide deaths to the lowest number of child homicides in 13 years.
- The elderly are at risk for accidental deaths with high rates of death from falls in those over 75.
- The overall suicide rate is the highest in 13 years. Older males are at a very high risk for suicide after 65 while elderly female suicide rates decline in that age group. The months showing the highest numbers of suicide deaths are April and October, not the winter holiday months.

- Drug deaths continue to be a problem with the overall number of drug/poisoning cases increasing significantly, by 18.2%, from the 2010 level giving 2011 the highest rate (9.6 per 100,000) of drug deaths to date. For the first time, the overall rate of drug/poison deaths for Virginia residents (9.6 per 100,000) exceeds the rate of death of Virginia residents from motor vehicle collisions (9.4 per 100,000) occurring in Virginia. Again, the Western Office handled the greatest proportion of drug deaths in Virginia as 1/3 of these cases occurred in that district.
- Deaths from illegal drugs skyrocketed this year with 143 deaths, up 70.2% from 2010 levels.
- Deaths from any cause are most frequent on Mondays. When broken down by manner of death, most natural and suicide deaths occurred on Monday and most accidental deaths occurred on Friday.

Final thanks must go to the dedicated and caring staff of the Office of the Chief Medical Examiner who must everyday help grieving families navigate the tragedy of their loved one's death. Their commitment to our mission allows the Virginia OCME to remain a respected, model system for the nation.

Introduction

This report represents the deaths investigated by the Virginia Department of Health, Office of the Chief Medical Examiner in 2011.

Data Collection and Preparation

The data in this report reflects deaths accepted by the Office of the Chief Medical Examiner (OCME) pursuant to §32.1-283 of the Code of Virginia for the 2011 calendar year. These deaths are both Virginia residents and non-residents whose deaths generally occurred within the borders of the Commonwealth of Virginia. The Virginia OCME classifies these deaths by its own coding schema which differs from mortality data published by other OCME surveillance groups, law enforcement agencies, the Virginia Center for Health Statistics, and the Centers for Disease Control & Prevention. Therefore, any discrepancies between data presented by the OCME and other nosology groups are the result of data collection and analytic variations among these groups.

Statistical Summary

- Data entitled “Total Cases” is based on both Virginia residents and non-Virginia residents who have come under the jurisdiction of the Office of the Chief Medical Examiner
- Rates
 - Based on only Virginia residents (Resident Rates)
 - Are per 100,000 of the specific population being described
- Race/Ethnicity
 - Hispanic ethnicity may be of any race
 - All races (Asian, Black, Native American White, Other) represent those who have been identified as non-Hispanic ethnicity
- Percents may equal to above or below 100 percent due to rounding
- Toxicology
 - Results are based on blood specimens

SECTION 1: OVERVIEW – OFFICE OF THE CHIEF MEDICAL EXAMINER

The General Assembly of Virginia abolished the Office of Coroner's Physician in 1946 and appointed a Chief Medical Examiner. Four years later, the Office of the Chief Medical Examiner (OCME) became an agency within the Virginia Department of Health. The OCME has 4 district offices, all accredited by the National Association of Medical Examiners, to serve the citizens of the Commonwealth.

Jurisdictional Authority

Pursuant to § 32.1-283 of the Code of Virginia, all of the following deaths are investigated by the OCME:

- Any death from trauma, injury, violence, or poisoning attributable to accident, suicide or homicide
- Sudden deaths of persons in apparent good health and deaths unattended by a physician
- Deaths of persons in jail, prison, or another correctional institution, or in police custody (this includes deaths during legal intervention such as a death following a police pursuit)
- Deaths of patients/residents of state mental health facilities
- Sudden death of any infant less than eighteen months of age whose death might be attributable to Sudden Infant Death Syndrome and
- Any other suspicious, unusual, or unnatural death

In Virginia, local medical examiners, the backbone of our medical examiner system, conduct medicolegal death investigations, many serving as the principal case investigators in their localities for deaths falling within the OCME's jurisdiction and statutory authority. In 2011, the OCME supported approximately 210 local medical examiners who received the majority of initial notifications of death and determine if the death should come under the jurisdiction of the medical examiner. After information gathering, local medical examiners may externally examine the body, collect a toxicology sample, and sign the certificate of death on medical examiner cases or, using professionally established guidelines, refer certain classes of cases for more intensive death investigation and medicolegal autopsy, which includes both an internal and external examination.

When an autopsy is required, it is conducted at one of four district offices: Northern, Tidewater, Central or Western. Each district is staffed by American Board of Pathology certified forensic pathologists, investigators

certified by the American Board of Medicolegal Death Investigators and administrative and morgue personnel. Virginia's fifth Chief Medical Examiner, Dr. Leah L.E. Bush, is based in the Richmond office and is responsible for the overall operations of the state's medical examiner system.

The overall vision of the Virginia OCME is to be a model medical examiner system. There are two separate parts of the mission that form the core of OCME staff members' efforts in accomplishing this goal:

Medicolegal Mission

- Conduct medicolegal death investigations
- Perform autopsies to certify cause and manner of death and recover evidence
- Testify in court proceedings
- Provide public service to citizens and professional colleagues throughout the Commonwealth
- Educate peers and professionals on subjects related to death investigation

Public Health Mission

- Reduce violent death by conducting surveillance and fatality review
- Provide support and technical assistance to local fatality review teams
- Identify index cases and pathogens in disease outbreaks in the interest of public health
- Cooperate with organ procurement organizations to save and enhance lives through organ and tissue donation and transplantation
- Administer the State Anatomical Program to provide cadavers for medical education

Virginia's local medical examiners and forensic pathologists are committed to public safety and public health. To promote public safety, they testify to their findings in criminal and civil courts throughout the Commonwealth. They advance public health through their investigations of deaths that present a hazard to Virginia's citizens, such as emerging infections and bioterrorism. This report describes medical examiner activities for the 2011 calendar year.

Virginia 2011

In 2011, the estimated population of the Commonwealth was 8,096,604, ranking 12th among the states. Virginia's population density is 205 persons per square mile, with an estimated 86% of the population living in

urban areas. Non-Hispanic whites constituted 64.5% of the population, non-Hispanic blacks 19.8%, non-Hispanic Asians 5.8%, non-Hispanic Native Americans 0.5% and Hispanics, who may be of any race, were 8.2% of Virginia's people.

Fatality Review and Surveillance Programs

In addition to conducting medico-legal death investigations to identify the cause and manner of death, the OCME oversees several public health surveillance projects and fatality review teams. Surveillance projects include the Family and Intimate Partner Violence Homicide Surveillance Project (FIPV), the Virginia Violent Death Reporting System (VVDRS), and the Pregnancy-Associated Mortality Surveillance System (PAMSS). Fatality review is performed on child and maternal deaths at the state level and on child and domestic violence related deaths at the local and regional level.

These activities are designed to provide a better understanding of the circumstances of death so that legislators, policy makers, and other stakeholders can make informed decisions for injury and violence prevention. Surveillance projects and fatality review teams allow for something good to come from the violence and destruction of human life. A description of each of these efforts follows.

The Family and Intimate Partner Violence Homicide Surveillance Project (FIPV) was established in 1999 to describe the magnitude of lethal domestic violence in Virginia. Project staff members examine death investigation records and news reports to identify cases in which the alleged offender was an intimate partner or family member. After cases are identified, they are placed in one of six violence-related homicide categories: intimate partner, intimate partner associated, child by caregiver, elder by caregiver, other family, and family associated. Information collected through this project is analyzed and published by the OCME. Reports are disseminated to stakeholders and used to support public policy and prevention activities.

Twelve years of data reveal the following trends:

- On average, one-third of all homicides were due to family or intimate partner conflict.
- Males and females were both vulnerable; however, women had a greater probability of being killed by current or former intimate partners, whereas males had a greater probability of being killed in the crossfire of an intimate partner relationship or by a family member.

- Racial disparities continued to exist: Black Virginians were at significantly greater risk for family and intimate partner homicide than White Virginians.
- Infants were our most vulnerable citizens.
- Most victims were killed with a firearm and while in a residence.
- Risk factors associated with intimate partner violence, such as prior acts of violence, substance abuse, and periods of separation or divorce, are also associated with intimate partner homicide.
- The majority of homicide-suicide in Virginia is related to intimate partner conflict. Approximately 30% of intimate partner homicides involve the suicide of the alleged offender.

Published reports from this project are available at

<http://www.vdh.virginia.gov/medExam/familyintimatepartnerviolencehomicidesurveillance.htm>

The Virginia Violent Death Reporting System (VVDRS) was implemented in 2003 as part of the National Violent Death Report System (NVDRS). Virginia was among the first six states, and the first state-wide medical examiner system, to be funded for this project.

The VVDRS collects information about deaths due to violence (suicide, homicide, legal intervention, unintentional firearm discharge, deaths of an undetermined manner, and deaths due to terrorism) and correlates victim information with the circumstances surrounding the death. Data from several sources, among them forensic pathology, forensic science, law enforcement, vital records, and health statistics, are linked to provide a comprehensive picture of violent death in the Commonwealth of Virginia.

Data from the VVDRS have illustrated suicide risk for active duty military and veterans; an increased suicide risk for older adults, especially males; the prevalence of mental health problems and subsequent treatment among persons who commit suicide; a link between suicide and criminal legal problems and physical health problems; and warning signs that precede many suicides, such as disclosing intent to harm oneself or having prior suicide attempts. VVDRS data is currently being utilized to update Virginia's Suicide Prevention across the Lifespan plan.

Funded by the Centers for Disease Control and Prevention (CDC), VVDRS published reports are available at
<http://www.vdh.virginia.gov/medExam/NVDRS.html/>.

The State Child Fatality Review Team was established in 1995 by the Virginia General Assembly and the Governor of Virginia. Working in the spirit of public health, the Team conducts multidisciplinary, retrospective reviews of the circumstances surrounding violent and unexpected child death and develops consensus recommendations for the prevention of future deaths. Team members include representatives from pediatrics, emergency medicine, child psychiatry, law enforcement, mental health, social services, forensic pathology, Commonwealth's attorneys, local fire and emergency medical services providers, injury prevention groups, child advocacy organizations, and state agencies.

The Team has completed reviews and developed recommendations for intervention and prevention in the following areas of child death: firearm; suicide; unintentional injury to children under the age of five; caretaker homicide; motor vehicle collision; and child deaths from heat-related motor vehicle entrapment. It is currently reviewing infant deaths attributed to Sudden Infant Death Syndrome, Sudden Unexplained Infant Death, and those related to unsafe sleeping environments. Among other findings, the Team has identified family violence and economic instability as risk factors for homicide of young children and the significance of diligent adult supervision in preventing unintentional injury death. It has recognized the prevalence of motor vehicle collisions as the most frequent cause of child unintentional injury deaths.

In 2012, Virginia established regional child fatality review teams in all five Virginia Department of Social Services (VDSS) regions in the Commonwealth. These teams review all child deaths taken for investigation of child abuse or neglect by Child Protective Services (CPS), regardless of finding. The OCME provides training and technical assistance to these teams, assisting them with the theory and practice of effective child fatality review, and develops guidance documents and trainings for team members, coordinators, and recorders. The OCME also assists these regional teams with the process of developing recommendations for intervention and prevention of child deaths.

Child fatality review is supported by the Virginia Department of Health, Office of Family Services with Title V funds from the U.S. Department of Health and Human Services, Maternal and Child Health Bureau. Published reports are available at: <http://www.vdh.virginia.gov/medExam/ChildFatality.htm>.

Domestic Violence Fatality Review was established in 1999 when the General Assembly enacted §32.1-283.3 of the Code of Virginia. This statute provides for the establishment of local/regional domestic violence fatality review teams, and directs the OCME to provide technical assistance and support to these teams.

Domestic violence fatality review has gained prominence and momentum in the last decade, both here in Virginia and across the United States. The purpose of domestic violence fatality review is to prevent future deaths by carefully examining the events that led to a fatality; by analyzing system responses to those deaths; and by improving a community's coordinated response to domestic violence. Multidisciplinary teams are formed at the local or regional level. Membership in these teams varies among localities, but generally includes representatives from law enforcement, Commonwealth's attorneys, social services, courts, probation and parole, domestic violence programs, and mental health/healthcare.

Virginia has made great progress in the area of domestic violence fatality review. Seventeen local or regional teams have been established throughout the Commonwealth. Reports published by Virginia's local teams provide information on the victims and perpetrators in these fatal incidents, as well as the lethality factors that shaped these tragedies. Teams have developed recommendations for improved community response when deadly violence occurs among family members or intimate partners.

In 2012, the OCME continued work with the Virginia Partnership for Community Defined Solutions to Sexual and Domestic Violence to begin development of a state-wide database for collecting data on cases reviewed by local and regional teams. This database will allow the state to track and analyze more than 120 data elements related to domestic violence homicide collected during the fatality review process, which will add to the quality of information already collected through surveillance. Data collection and reporting tools created as part of this project will also assist local and regional teams in the review process, and improve their ability to share findings and recommendations with their communities.

Information on Virginia's domestic violence fatality review effort, as well as links to state and national resources, can be found at www.vdh.virginia.gov/medExam/Violence.htm.

Virginia's Pregnancy-Associated Mortality Surveillance System (PAMSS) and Maternal Mortality Review Team (MMRT) are housed in the OCME. Surveillance of all deaths of women occurring during pregnancy or within one year of pregnancy (termed "pregnancy-associated death") is conducted to provide up-to-date information on patterns and trends. Data from PAMSS indicates pregnancy-associated maternal death in Virginia remains a significant public health problem. Deaths due to motor vehicle accidents and other accidents such as fire and falls have shown consistent reductions across the past ten years. Deaths due to natural causes, accidental overdoses, homicides, and suicides have fluctuated across time but are currently at their highest levels.

Rising maternal mortality rates throughout the United States have led to renewed interest in expanding state-based review Teams. Virginia's Maternal Mortality Review Team is one of the longest continuously functioning multidisciplinary review Teams in the U.S. The Team was established in March of 2002 as a partnership between the Office of Family Health Services and the OCME. The OCME provides coordination for the Team. Our Team is often asked to provide resources to other states considering undertaking maternal mortality reviews.

The Maternal Mortality Review Team reviews all cases of pregnancy-associated death, regardless of the cause or manner of death or outcome of the pregnancy. Systematic, retrospective review of these deaths is undertaken for the purpose of understanding the circumstances surrounding the death so that recommendations and interventions can be made to prevent future deaths.

The Team is a multidisciplinary group of professionals and includes representatives from the Medical Society of Virginia; Virginia Section of the American College of Obstetricians and Gynecologists; Virginia Chapter of the American College of Nurse Midwives; Association of Women's Health, Obstetrics and Neonatal Nurses; Virginia Chapter of the National Association of Social Workers; Virginia Hospital and Healthcare Association; Virginia Sexual and Domestic Violence Action Alliance; Virginia Dietetic Association; Regional Perinatal Councils; local health departments; and state planning agencies. To date, the Team has focused on intimate partner violence, substance abuse, mental illness, and obesity as risk factors for premature and preventable death. In addition, motor vehicle incidents were identified as a major cause of death among women within one year of a pregnancy. The Team has also focused on deaths that were directly related to pregnancy and

recently published a report on deaths associated with cardiovascular disease. Recommendations for prevention and intervention to address these factors have been promulgated.

Maternal mortality review is supported by the Virginia Department of Health, Office of Family Health Services with Title V funds from the U.S. Department of Health and Human Services, Maternal and Child Health Bureau. Published reports are available at: <http://www.vdh.virginia.gov/medexam/maternalmortality.htm>.

Training and Education

Forensic Pathology Training Programs

Website — <http://www.vdh.state.va.us/medExam/training.htm>

The Virginia Commonwealth University School of Medicine (VCU), in conjunction with the OCME, offers an Accreditation Council for Graduate Medical Education (ACGME) accredited fellowship in the subspecialty of forensic pathology. The nine board-certified forensic pathologists of the Central, Tidewater, and Western District offices are the core faculty of the Department of Legal Medicine at VCU, chaired by the Chief Medical Examiner, Dr. Leah Bush. Medical Examiner's office staff has full access to facilities at VCU and its medical, dental, pharmacy, hospital administration, nursing, and other health science schools. The forensic pathology training program is designed to provide flexibility in training and experience depending upon the individual physician's career objectives.

- A 12-month forensic pathology fellowship for the trainee desiring eligibility to take the American Board of Pathology examination in forensic pathology

It is the aim of the forensic pathology training program that, by the end of the fellowship year, the trainee can adequately manage the great majority of medicolegal death investigations with self-assurance and technical competence. The trainee will be ready to accept a position in all types of Medical Examiner/Coroner systems.

- A 1-month rotation for medical resident who needs exposure to forensic pathology as part of a general anatomic pathology program. The residents usually are from the Virginia Commonwealth University and University of Virginia pathology programs, but residents from other in-state or out of state programs may be accepted for training
- Medical students may also rotate through the OCME on month long elective rotations

During the last academic year 2011-2012, the OCME trained three fellows and ten pathology residents as well as several medical students.

National Association of Medical Examiners Accreditation

The National Association of Medical Examiners (NAME) is the professional organization for physician medical examiners, medicolegal death investigators and death investigation system administrators who investigate deaths of public interest, either legal or public health, in the United States. NAME has developed an accreditation process to improve the quality of death investigation within medical examiner offices and systems. When an office is accredited by NAME, it is an endorsement that the office has provided an environment adequate for a medical examiner to practice his or her profession and that the office can adequately serve its jurisdiction. The accreditation process includes but is not limited to: inspection of facilities, review of facility and personnel safety, qualification of medical examiners, review of medical legal procedures, and review of reports and records. One requirement within the reports and records section is an annual statistical report, which OCME fulfills with this report. The following data is needed for the NAME requirement for the annual statistical report:

	Central	Northern	Tidewater	Western	Total
A. Deaths reported:	2947	1785	1564	1966	8262
B. Cases accepted:	1626	1287	1263	1494	5670
Retrospectives (handled separately)	14	12	28	92	146
C. Manners of death:					
Accident	667	555	467	652	2341
Homicide	116	38	113	78	345
Natural	520	384	424	428	1756
Suicide	297	271	207	292	1067
Undetermined	26	39	52	44	161
D. Scene Visits	329	42	264	118	753
E. Bodies transported by office:	1626	1287	1263	1494	5670
F. External examinations:	789	587	630	587	2593
G. Complete examinations (autopsy):	822	670	628	906	3026
H. Partial examinations:	15	30	5	1	51
I. Hospital autopsies under ME jurisdiction:	0	0	6	0	6
J. Cases with toxicology:	877	1255	1133	1510	4775
K. Unidentified bodies after examination:	4	1	0	1	6
L. Organ & tissue donations:	45	69	49	24	187
L2. Eye donations:	18	1	132	8	27
M. Unclaimed bodies:	8	3	2	8	21
N. Exhumations:	0	0	0	0	0
O. Bodies transported to office:	1181	871	808	1111	3971

SECTION 2: TOTAL CASES (N=5670)

In 2011, the Office of the Chief Medical Examiner (OCME) investigated 8,262 deaths, representing 13.7% of the estimated total deaths in Virginia and accepted 5,670 or 68% of these deaths as either autopsies or external examinations (views). [NOTE: Retrospective cases are not included in the total case count, but are examined separately in Section 9 because while these deaths were investigated in 2011, they may not necessarily have occurred in 2011.]

The caseload for 2011 represented a 1.8% increase from 2010. Of the deaths investigated by the OCME in 2011:

- ❖ The numbers of homicide and natural deaths decreased compared to 2010 while accidents, suicides and undetermined deaths increased
- ❖ Blacks continue to share a higher burden of homicides compared to their percentage of the general population
- ❖ Males continue to represent approximately 70% of all OCME deaths
- ❖ The 45-54 year old age group had the greatest number of cases representing 20.1 percent of cases
- ❖ Fairfax County had the most number of residents die (n=416) but Dickenson County had the highest rate (177.9 residents per 100,000)

Figure 1. Total Cases by Year of Death, 1999-2011

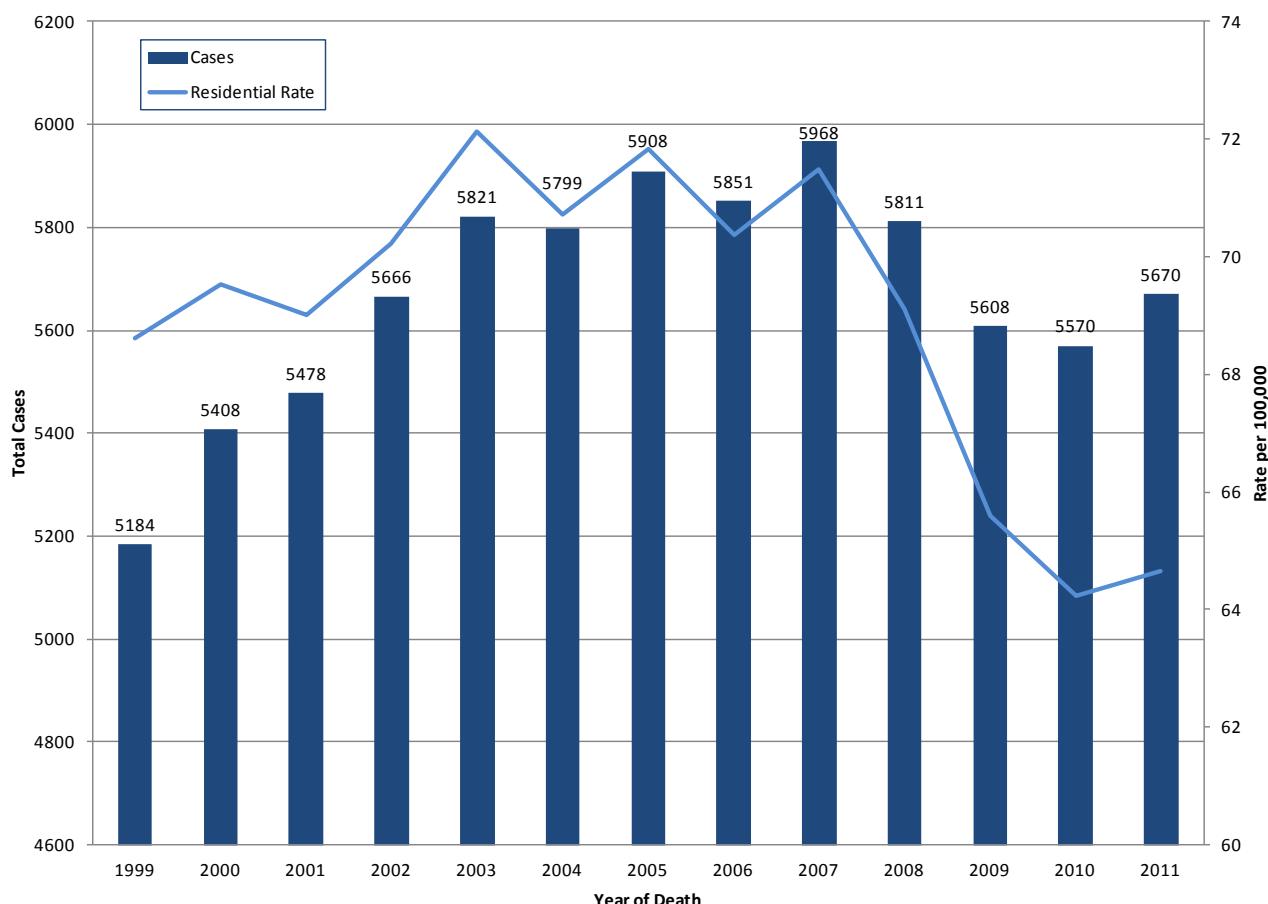


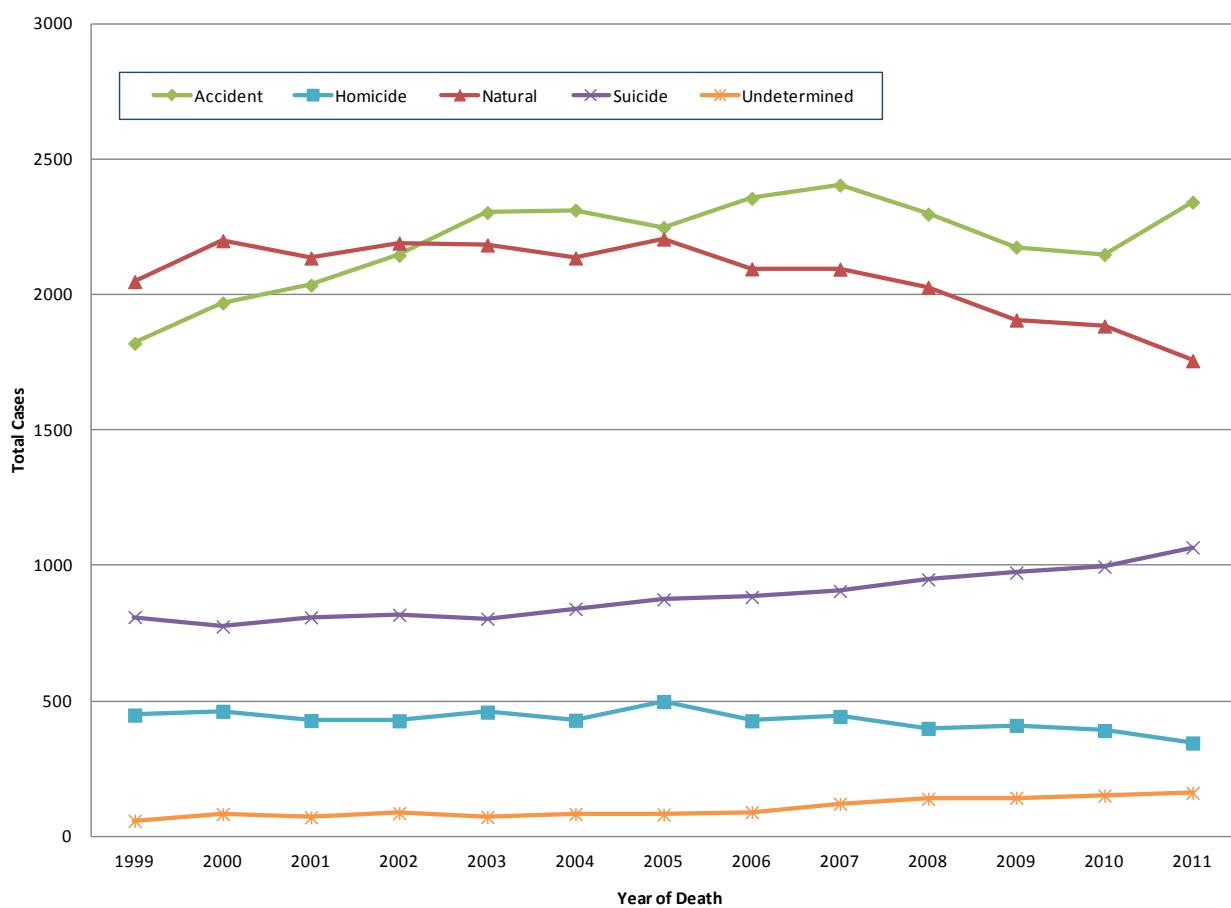
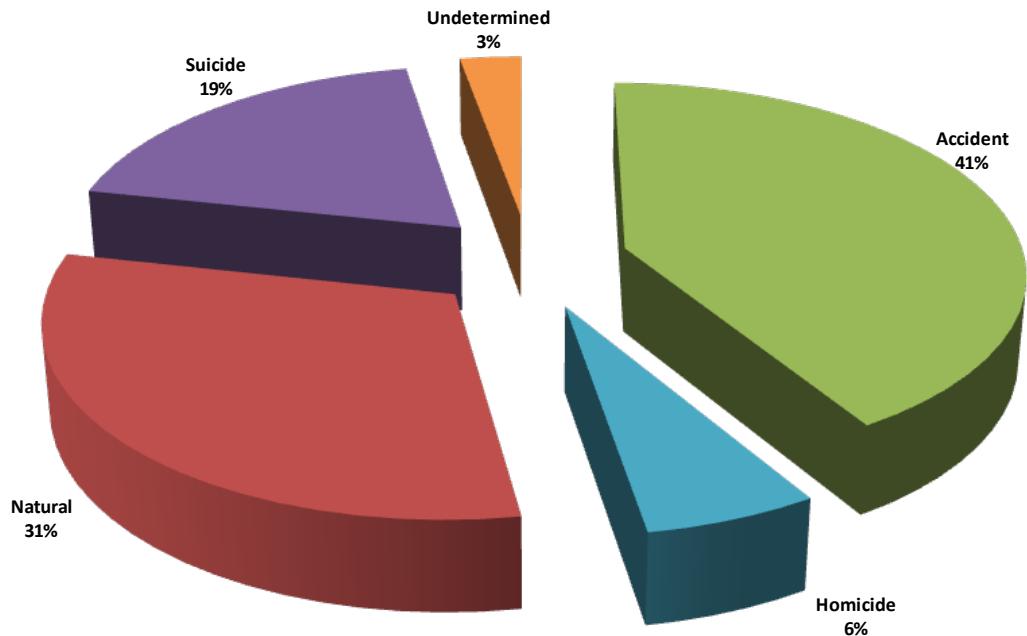
Figure 2. Total Cases by Year of Death by Manner, 1999-2011**Figure 3. Total Cases by Manner, 2011**

Table 1. Total Cases by OCME District by Manner, 2011

OCME District					
Manner	Central	Northern	Tidewater	Western	Total
Accident	667	555	467	652	2341
Homicide	116	38	113	78	345
Natural	520	384	424	428	1756
Suicide	297	271	207	292	1067
Undetermined	26	39	52	44	161
Total	1626	1287	1263	1494	5670

Table 2. Total Cases by Autopsy Status by OCME District, 2011

OCME District	Autopsy Performed		
	Yes	No	Total
Central	837	789	1626
Northern	700	587	1287
Tidewater	633	630	1263
Western	907	587	1494
Total	3077	2593	5670

Table 3. Total Cases by Manner by Autopsy Status, 2011

Manner of Death						
Autopsy	Accident	Homicide	Natural	Suicide	Undetermined	Total
Yes	962	344	805	817	149	3077
No	1379	1	951	250	12	2593
%Yes	41.1%	99.7%	45.8%	76.6%	92.5%	54.3%
Total	2341	345	1756	1067	161	5670

Table 4. Total Cases by Race/Ethnicity, 2011

Race/Ethnicity	Cases	Percent
Asian	122	2.2%
Black	1183	20.9%
Hispanic	165	2.9%
Native American	7	0.1%
Other	3	0.1%
Unknown	4	0.1%
White	4186	73.8%
Total	5670	100%

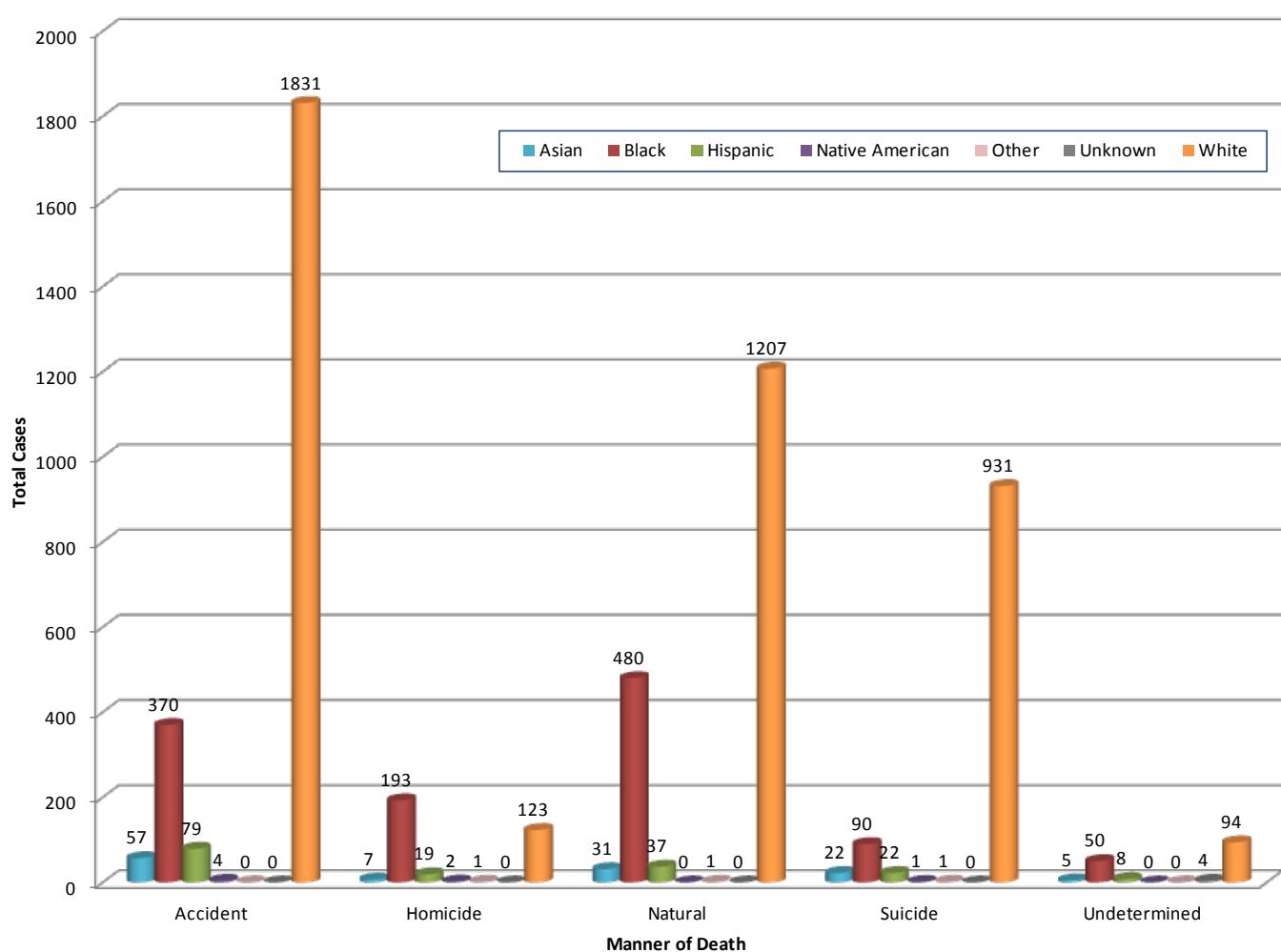
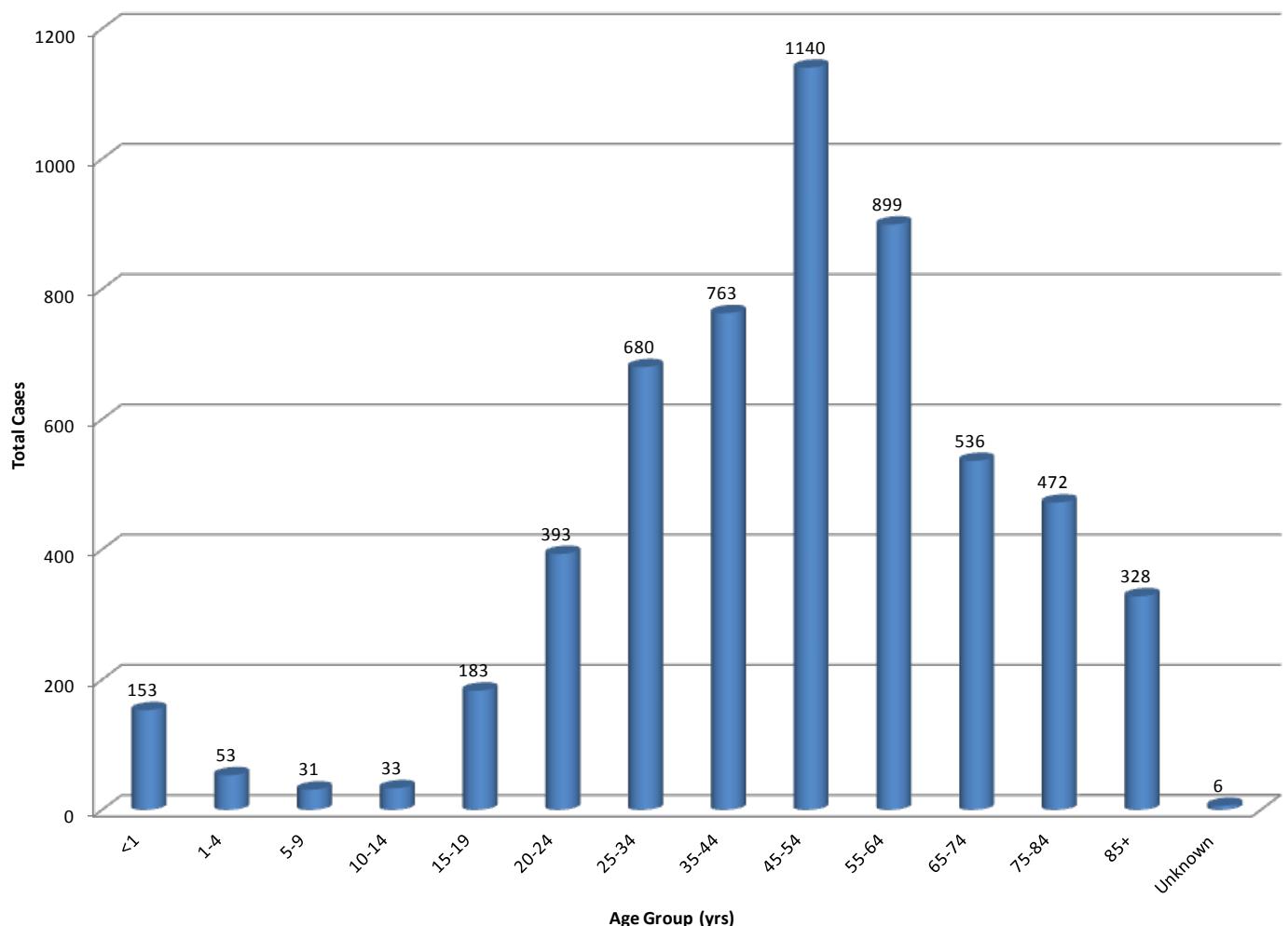
Figure 4. Total Cases by Manner by Race/Ethnicity, 2011

Figure 5. Total Cases by Age Group, 2011**Table 5. Total Cases by Gender, 2011**

Gender	Cases	Percent
Male	3945	69.6%
Female	1722	30.4%
Unknown	3	0.1%
Total	5670	100%

Table 6. Total Cases by Manner, 2011

	Manner of Death					
	Accident	Homicide	Natural	Suicide	Undetermined	Total
Male	1572 (67.2%)	257 (74.5%)	1205 (68.6%)	828 (77.6%)	83 (51.6%)	3945 (69.6%)
Female	769 (32.8%)	88 (25.5%)	551 (31.4%)	239 (22.4%)	75 (46.6%)	1722 (30.4%)
Unknown	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (1.9%)	3 (0.1%)
Total	2341	345	1756	1067	161	5670

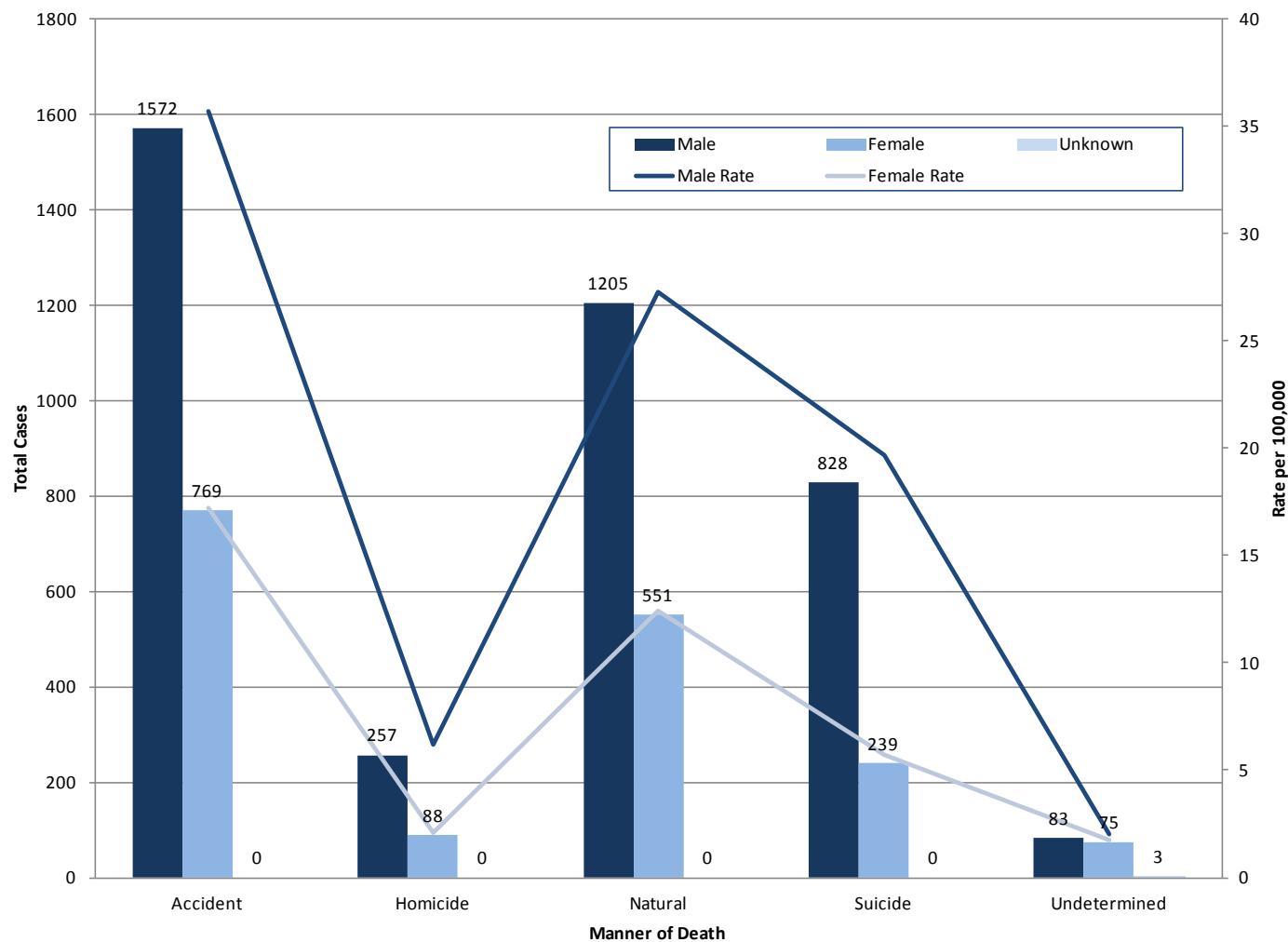
Figure 6. Total Cases by Manner by Gender, 2011

Table 7. Total Cases by Manner by Gender by Age Group, 2011

Gender	Age Group	Manner of Death					Total
		Accident	Homicide	Natural	Suicide	Undetermined	
Male	<1	17	5	24	0	38	84
	1-4	13	3	7	0	4	27
	5-9	10	3	2	0	1	16
	10-14	15	3	1	2	1	22
	15-19	60	24	8	41	0	133
	20-24	156	48	25	70	3	302
	25-34	242	64	71	127	5	509
	35-44	225	43	136	114	6	524
	45-54	268	32	345	191	10	846
	55-64	210	19	312	126	8	675
	65-74	119	3	160	76	5	363
	75-84	151	7	83	60	1	302
	85+	86	2	30	21	0	139
	Unknown	0	1	1	0	1	3
Subtotal		1572	257	1205	828	83	3945
Female	<1	11	6	20	0	32	69
	1-4	11	4	8	0	3	26
	5-9	9	1	4	0	1	15
	10-14	7	0	2	2	0	11
	15-19	34	5	4	7	0	50
	20-24	47	9	13	22	0	91
	25-34	82	15	34	30	10	171
	35-44	101	16	71	45	6	239
	45-54	115	12	101	59	7	294
	55-64	66	9	96	43	10	224
	65-74	68	4	75	25	1	173
	75-84	91	4	68	4	3	170
	85+	127	3	55	2	2	189
Subtotal		769	88	551	239	75	1722
Unknown	Unknown	0	0	0	0	3	3
	Subtotal	0	0	0	0	3	3
TOTAL		2341	345	1756	1067	161	5670

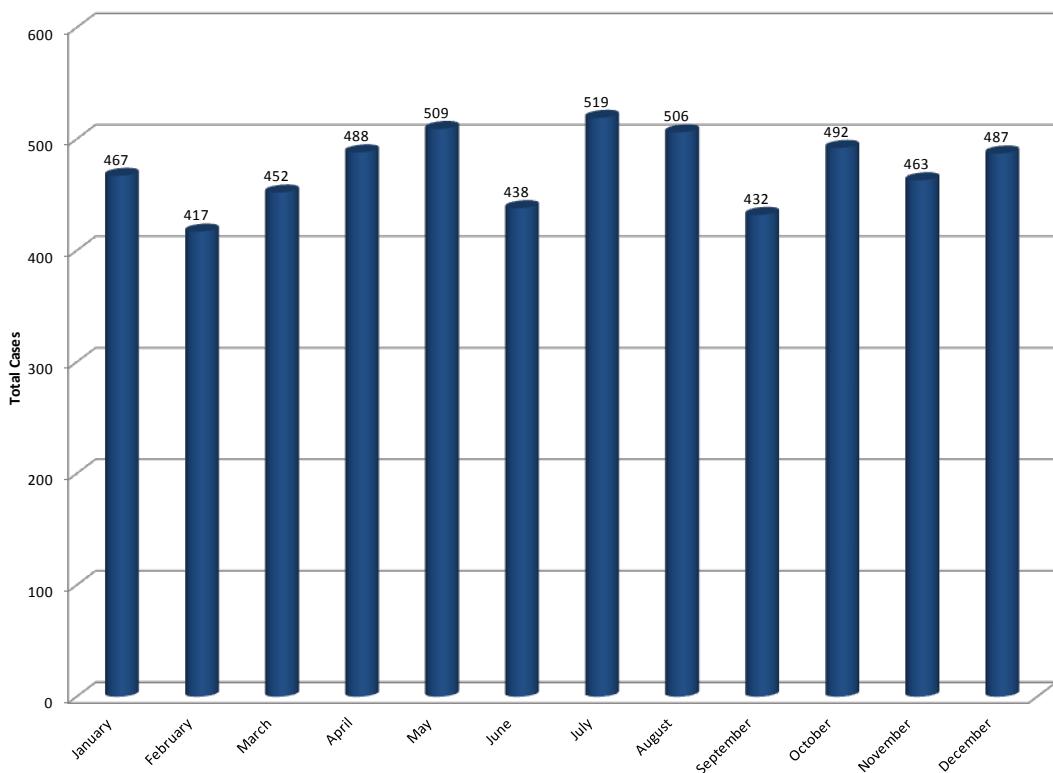
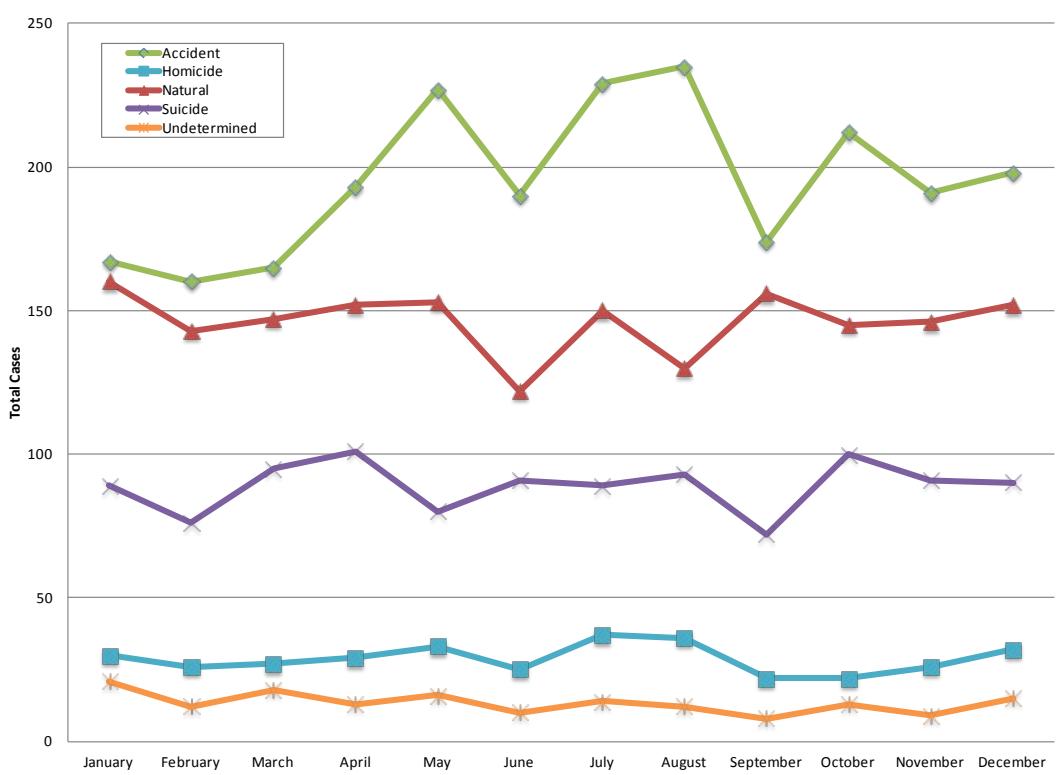
Figure 7. Total Cases by Month of Death, 2011**Figure 8. Total Cases by Month of Death by Manner, 2011**

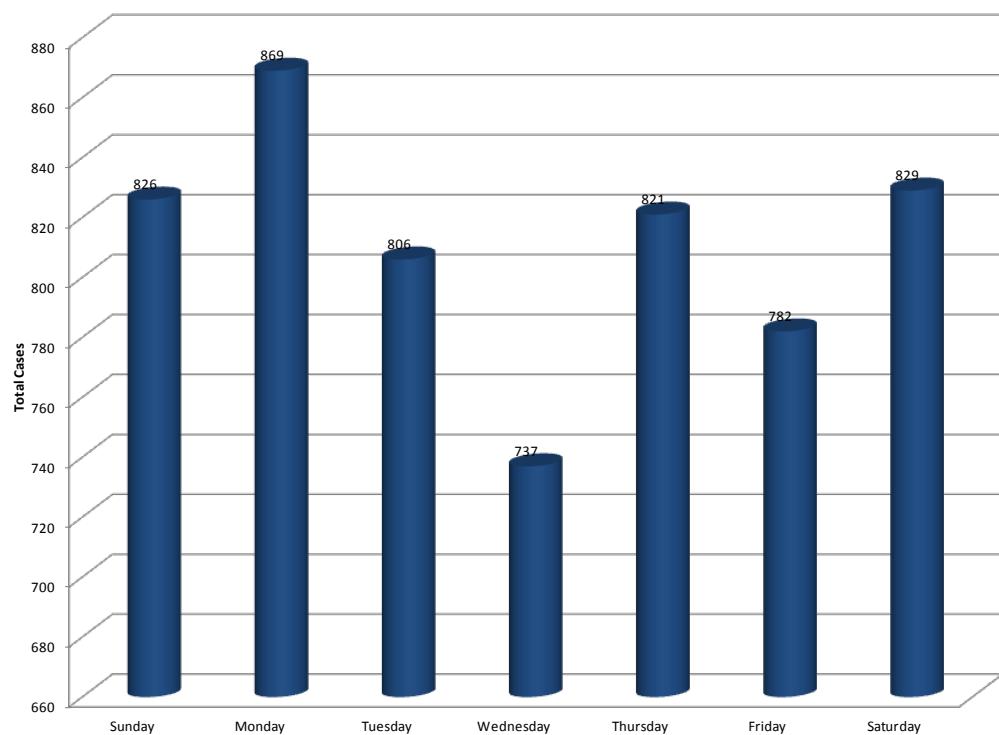
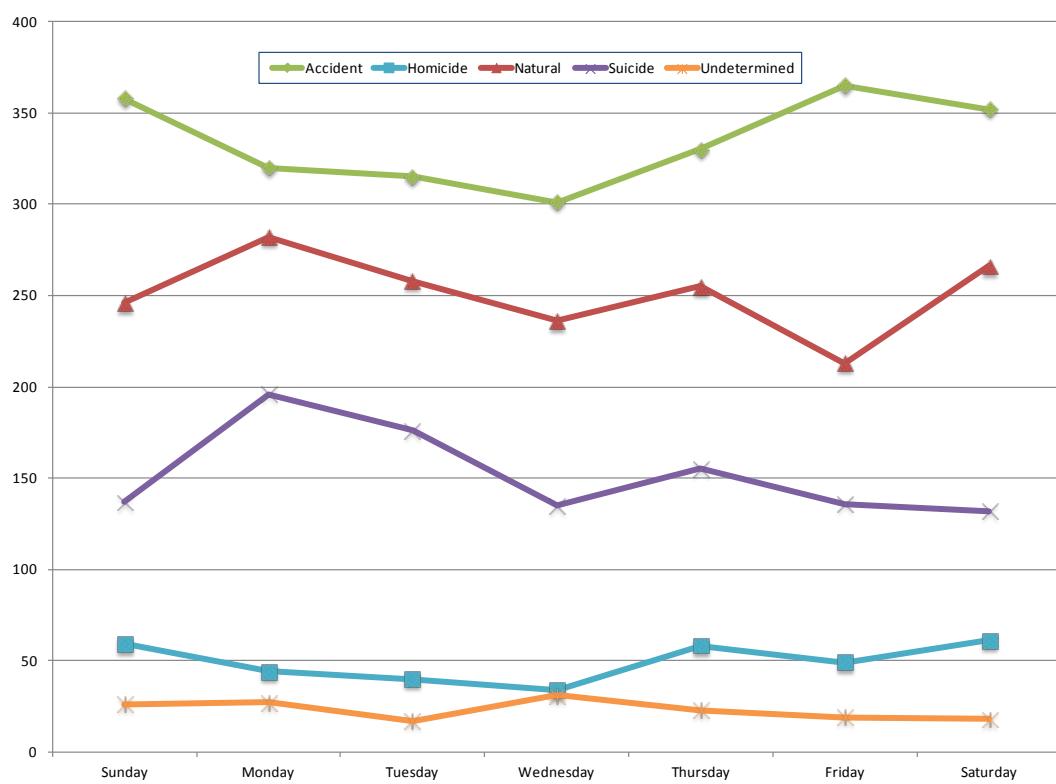
Figure 9. Total Cases by Day of Death, 2011**Figure 10. Total Cases by Day of Death by Manner, 2011**

Table 8. Total Cases by Manner by City/County of Residence, 2011

County/City of Residence	Manner of Death										Total	Total Rate
	Accident Total	Accident Rate	Homicide Total	Homicide Rate	Natural Total	Natural Rate	Suicide Total	Suicide Rate	Undetermined Total	Undetermined Rate		
Accomack	15	45.0	6	18.0	10	30.0	5	15.0	1	3.0	37	111.0
Albemarle	25	24.9	4	4.0	10	9.9	12	11.9	1	1.0	52	51.7
Alexandria	21	14.6	1	0.7	21	14.6	16	11.1	3	2.1	62	43.0
Alleghany	3	18.5	0	0.0	4	24.7	6	37.1	0	0.0	13	80.4
Amelia	6	46.9	0	0.0	4	31.2	2	15.6	0	0.0	12	93.7
Amherst	18	56.0	1	3.1	27	83.9	4	12.4	2	6.2	52	161.7
Appomattox	6	39.9	1	6.6	0	0.0	2	13.3	0	0.0	9	59.8
Arlington	24	11.1	0	0.0	28	13.0	14	6.5	2	0.9	68	31.5
Augusta	22	29.9	1	1.4	15	20.4	12	16.3	1	1.4	51	69.3
Bath	4	85.9	1	21.5	1	21.5	2	42.9	0	0.0	8	171.8
Bedford City	3	48.5	0	0.0	1	16.2	0	0.0	0	0.0	4	64.7
Bedford	19	27.4	1	1.4	14	20.2	11	15.9	1	1.4	46	66.4
Bland	4	58.7	0	0.0	0	0.0	1	14.7	0	0.0	5	73.3
Botetourt	16	48.6	0	0.0	6	18.2	5	15.2	0	0.0	27	82.0
Bristol	6	33.8	1	5.6	9	50.7	3	16.9	0	0.0	19	107.0
Brunswick	7	40.7	1	5.8	5	29.1	1	5.8	0	0.0	14	81.4
Buchanan	17	72.1	7	29.7	15	63.6	1	4.2	0	0.0	40	169.6
Buckingham	6	34.7	1	5.8	0	0.0	2	11.6	0	0.0	9	52.1
Buena Vista	1	15.1	0	0.0	3	45.2	0	0.0	0	0.0	4	60.3
Campbell	17	30.9	1	1.8	13	23.6	10	18.2	1	1.8	42	76.3
Caroline	7	24.4	1	3.5	6	20.9	4	13.9	1	3.5	19	66.3
Carroll	8	26.7	0	0.0	9	30.0	6	20.0	1	3.3	24	80.1
Charles City	4	55.2	1	13.8	3	41.4	4	55.2	0	0.0	12	165.7
Charlotte	9	72.0	0	0.0	3	24.0	3	24.0	1	8.0	16	127.9
Charlottesville	7	16.1	2	4.6	8	18.4	0	0.0	1	2.3	18	41.4
Chesapeake	55	24.4	11	4.9	50	22.2	27	12.0	0	0.0	143	63.5

Manner of Death

County/City of Residence	Accident Total	Accident Rate	Homicide Total	Homicide Rate	Natural Total	Natural Rate	Suicide Total	Suicide Rate	Undetermined Total	Undetermined Rate	Total	Total Rate
Chesterfield	72	22.5	12	3.7	54	16.9	39	12.2	0	0.0	177	55.3
Clarke	2	14.0	0	0.0	2	14.0	5	35.1	2	14.0	11	77.1
Colonial Heights	4	22.9	4	22.9	3	17.2	1	5.7	0	0.0	12	68.8
Covington	2	33.7	1	16.8	0	0.0	1	16.8	0	0.0	4	67.4
Craig	1	19.6	0	0.0	0	0.0	2	39.2	0	0.0	3	58.8
Culpeper	18	37.9	3	6.3	11	23.2	7	14.7	0	0.0	39	82.1
Cumberland	3	30.1	0	0.0	1	10.0	3	30.1	0	0.0	7	70.2
Danville	18	42.0	7	16.3	21	49.0	5	11.7	0	0.0	51	119.0
Dickenson	14	88.9	2	12.7	6	38.1	6	38.1	0	0.0	28	177.9
Dinwiddie	6	21.5	1	3.6	10	35.8	3	10.7	1	3.6	21	75.2
Emporia	2	34.1	2	34.1	2	34.1	0	0.0	0	0.0	6	102.2
Essex	8	71.4	1	8.9	0	0.0	2	17.8	0	0.0	11	98.2
Fairfax City	9	39.9	0	0.0	7	31.0	2	8.9	0	0.0	18	79.8
Fairfax	180	16.4	12	1.1	127	11.5	88	8.0	9	0.8	416	37.8
Falls Church	6	47.1	0	0.0	0	0.0	0	0.0	0	0.0	6	47.1
Fauquier	33	49.9	1	1.5	14	21.2	12	18.2	1	1.5	61	92.3
Floyd	8	52.0	1	6.5	4	26.0	1	6.5	1	6.5	15	97.5
Fluvanna	5	19.2	0	0.0	5	19.2	4	15.3	0	0.0	14	53.7
Franklin City	1	11.6	0	0.0	3	34.9	0	0.0	0	0.0	4	46.6
Franklin	24	42.5	2	3.5	10	17.7	9	16.0	4	7.1	49	86.9
Frederick	24	30.1	1	1.3	12	15.1	13	16.3	4	5.0	54	67.8
Fredericksburg	9	35.0	0	0.0	6	23.4	4	15.6	0	0.0	19	74.0
Galax	4	57.3	0	0.0	2	28.6	5	71.6	0	0.0	11	157.5
Giles	3	17.5	1	5.8	6	35.0	5	29.2	1	5.8	16	93.4
Gloucester	13	35.2	2	5.4	7	19.0	13	35.2	2	5.4	37	100.3
Goochland	4	18.3	0	0.0	3	13.7	2	9.1	0	0.0	9	41.1
Grayson	6	39.1	0	0.0	4	26.1	7	45.7	0	0.0	17	110.9
Greene	4	21.4	0	0.0	2	10.7	5	26.8	0	0.0	11	58.9

Manner of Death

County/City of Residence	Accident Total	Accident Rate	Homicide Total	Homicide Rate	Natural Total	Natural Rate	Suicide Total	Suicide Rate	Undetermined Total	Undetermined Rate	Total	Total Rate
Greenville	1	8.3	0	0.0	15	123.8	3	24.8	0	0.0	19	156.9
Halifax	16	44.4	2	5.5	10	27.7	4	11.1	1	2.8	33	91.5
Hampton	32	23.5	11	8.1	20	14.7	8	5.9	8	5.9	79	57.9
Hanover	26	25.9	4	4.0	10	10.0	13	13.0	0	0.0	53	52.8
Harrisonburg	4	8.0	2	4.0	5	10.0	1	2.0	0	0.0	12	24.0
Henrico	62	20.0	13	4.2	35	11.3	37	11.9	3	1.0	150	48.3
Henry	32	59.5	5	9.3	17	31.6	12	22.3	0	0.0	66	122.8
Highland	0	0.0	0	0.0	0	0.0	1	44.1	0	0.0	1	44.1
Hopewell	8	35.4	2	8.9	6	26.6	2	8.9	0	0.0	18	79.7
Isle of Wight	8	22.6	1	2.8	6	17.0	5	14.1	0	0.0	20	56.6
James City	28	41.1	3	4.4	16	23.5	9	13.2	0	0.0	56	82.1
King and Queen	2	28.6	0	0.0	0	0.0	1	14.3	0	0.0	3	42.9
King George	11	45.5	0	0.0	2	8.3	3	12.4	0	0.0	16	66.2
King William	5	31.3	1	6.3	1	6.3	2	12.5	0	0.0	9	56.3
Lancaster	8	70.9	1	8.9	2	17.7	2	17.7	0	0.0	13	115.2
Lee	11	43.7	3	11.9	6	23.9	5	19.9	1	4.0	26	103.4
Lexington	1	14.3	0	0.0	1	14.3	0	0.0	0	0.0	2	28.6
Loudoun	32	9.8	2	0.6	27	8.3	37	11.4	4	1.2	102	31.3
Louisa	12	35.9	0	0.0	8	24.0	7	21.0	2	6.0	29	86.8
Lunenburg	3	23.3	0	0.0	5	38.8	2	15.5	0	0.0	10	77.7
Lynchburg	23	30.1	4	5.2	14	18.3	9	11.8	1	1.3	51	66.7
Madison	5	38.0	3	22.8	1	7.6	1	7.6	0	0.0	10	75.9
Manassas	8	20.4	4	10.2	1	2.5	3	7.6	2	5.1	18	45.8
Martinsville	7	51.6	3	22.1	7	51.6	3	22.1	1	7.4	21	154.9
Mathews	0	0.0	0	0.0	3	33.5	2	22.3	0	0.0	5	55.8
Mecklenburg	10	30.7	1	3.1	18	55.2	4	12.3	0	0.0	33	101.2
Middlesex	3	27.6	1	9.2	4	36.9	2	18.4	0	0.0	10	92.1
Montgomery	34	36.0	1	1.1	14	14.8	13	13.8	1	1.1	63	66.8

Manner of Death

County/City of Residence	Accident Total	Accident Rate	Homicide Total	Homicide Rate	Natural Total	Natural Rate	Suicide Total	Suicide Rate	Undetermined Total	Undetermined Rate	Total	Total Rate
Nelson	8	53.0	1	6.6	4	26.5	2	13.2	0	0.0	15	99.4
New Kent	6	31.9	0	0.0	0	0.0	2	10.6	0	0.0	8	42.5
Newport News	43	23.9	16	8.9	48	26.7	21	11.7	8	4.5	136	75.7
Norfolk	64	26.4	27	11.1	86	35.4	25	10.3	3	1.2	205	84.5
Northampton	2	16.2	0	0.0	7	56.6	3	24.2	0	0.0	12	97.0
Northumberland	10	80.3	0	0.0	6	48.2	2	16.1	1	8.0	19	152.5
Norton	1	24.7	0	0.0	3	74.0	2	49.3	0	0.0	6	148.0
Nottoway	4	25.3	0	0.0	7	44.2	5	31.6	1	6.3	17	107.3
Orange	17	50.1	0	0.0	4	11.8	4	11.8	1	2.9	26	76.6
Page	9	37.6	0	0.0	5	20.9	10	41.7	1	4.2	25	104.3
Patrick	6	32.6	1	5.4	4	21.8	4	21.8	1	5.4	16	87.0
Petersburg	8	24.7	6	18.6	24	74.2	2	6.2	1	3.1	41	126.8
Pittsylvania	28	44.6	3	4.8	15	23.9	9	14.3	0	0.0	55	87.5
Poquoson	3	25.0	0	0.0	0	0.0	1	8.3	0	0.0	4	33.3
Portsmouth	31	32.4	16	16.7	45	47.0	6	6.3	11	11.5	109	113.9
Powhatan	6	21.3	2	7.1	13	46.2	5	17.8	0	0.0	26	92.5
Prince Edward	3	12.9	1	4.3	0	0.0	4	17.1	0	0.0	8	34.3
Prince George	9	24.6	1	2.7	7	19.1	4	10.9	0	0.0	21	57.4
Prince William	77	17.7	9	2.1	44	10.1	26	6.0	7	1.6	163	37.5
Pulaski	18	52.0	0	0.0	13	37.6	8	23.1	0	0.0	39	112.7
Radford	3	18.3	1	6.1	2	12.2	1	6.1	1	6.1	8	48.7
Rappahannock	3	40.3	0	0.0	3	40.3	2	26.9	0	0.0	8	107.5
Richmond City	79	38.4	36	17.5	70	34.1	32	15.6	5	2.4	222	108.0
Richmond	5	54.2	0	0.0	2	21.7	1	10.8	0	0.0	8	86.8
Roanoke City	35	36.2	6	6.2	30	31.0	19	19.6	7	7.2	97	100.3
Roanoke	17	18.3	1	1.1	10	10.8	14	15.1	1	1.1	43	46.4
Rockbridge	7	31.3	0	0.0	10	44.7	5	22.3	0	0.0	22	98.3
Rockingham	17	22.2	1	1.3	5	6.5	12	15.7	1	1.3	36	47.0

Manner of Death

County/City of Residence	Accident Total	Accident Rate	Homicide Total	Homicide Rate	Natural Total	Natural Rate	Suicide Total	Suicide Rate	Undetermined Total	Undetermined Rate	Total	Total Rate
Russell	20	69.6	2	7.0	17	59.1	5	17.4	2	7.0	46	160.0
Salem	6	24.0	2	8.0	2	8.0	4	16.0	1	4.0	15	60.1
Scott	9	38.9	1	4.3	5	21.6	5	21.6	2	8.6	22	95.1
Shenandoah	14	33.1	0	0.0	11	26.0	7	16.6	1	2.4	33	78.0
Smyth	11	34.3	3	9.4	13	40.6	4	12.5	1	3.1	32	99.9
Southampton	4	21.7	0	0.0	10	54.3	2	10.9	0	0.0	16	86.9
Spotsylvania	38	30.6	3	2.4	14	11.3	12	9.7	1	0.8	68	54.7
Stafford	16	12.1	2	1.5	18	13.6	10	7.6	0	0.0	46	34.8
Staunton	10	42.1	0	0.0	5	21.0	4	16.8	1	4.2	20	84.1
Suffolk	24	28.3	4	4.7	24	28.3	14	16.5	3	3.5	69	81.2
Surry	2	28.9	0	0.0	3	43.3	0	0.0	0	0.0	5	72.1
Sussex	4	33.1	0	0.0	8	66.2	1	8.3	1	8.3	14	115.8
Tazewell	28	62.6	0	0.0	18	40.3	6	13.4	4	8.9	56	125.2
Virginia Beach	106	23.9	16	3.6	68	15.4	64	14.5	13	2.9	267	60.3
Warren	20	53.0	0	0.0	9	23.8	6	15.9	0	0.0	35	92.7
Washington	24	43.8	3	5.5	14	25.5	10	18.2	2	3.6	53	96.7
Waynesboro	4	18.8	2	9.4	8	37.5	4	18.8	0	0.0	18	84.5
Westmoreland	5	28.4	0	0.0	4	22.7	3	17.1	0	0.0	12	68.2
Williamsburg	0	0.0	0	0.0	3	20.8	6	41.5	1	6.9	10	69.2
Winchester	8	30.1	0	0.0	11	41.4	5	18.8	0	0.0	24	90.3
Wise	23	55.3	1	2.4	9	21.7	9	21.7	1	2.4	43	103.5
Wythe	9	30.8	1	3.4	6	20.5	7	24.0	1	3.4	24	82.2
York	20	30.2	2	3.0	9	13.6	11	16.6	1	1.5	43	65.0
Total for State Residents	2129	26.3	332	4.1	1597	19.7	1018	12.6	151	1.9	5227	64.6
Out of Country	11	ND*	0	ND	4	ND	0	ND	0	ND	15	ND
Out of State	201	ND	12	ND	153	ND	48	ND	6	ND	420	ND
Unknown	0	ND	1	ND	2	ND	1	ND	4	ND	8	ND

Manner of Death

County/City of Residence	Accident Total	Accident Rate	Homicide Total	Homicide Rate	Natural Total	Natural Rate	Suicide Total	Suicide Rate	Undetermined Total	Undetermined Rate	Total	Total Rate
Total for Non-Residents	212	ND	13	ND	159	ND	49	ND	10	ND	443	ND
TOTAL	2341	ND	345	ND	1756	ND	1067	ND	161	ND	5670	ND

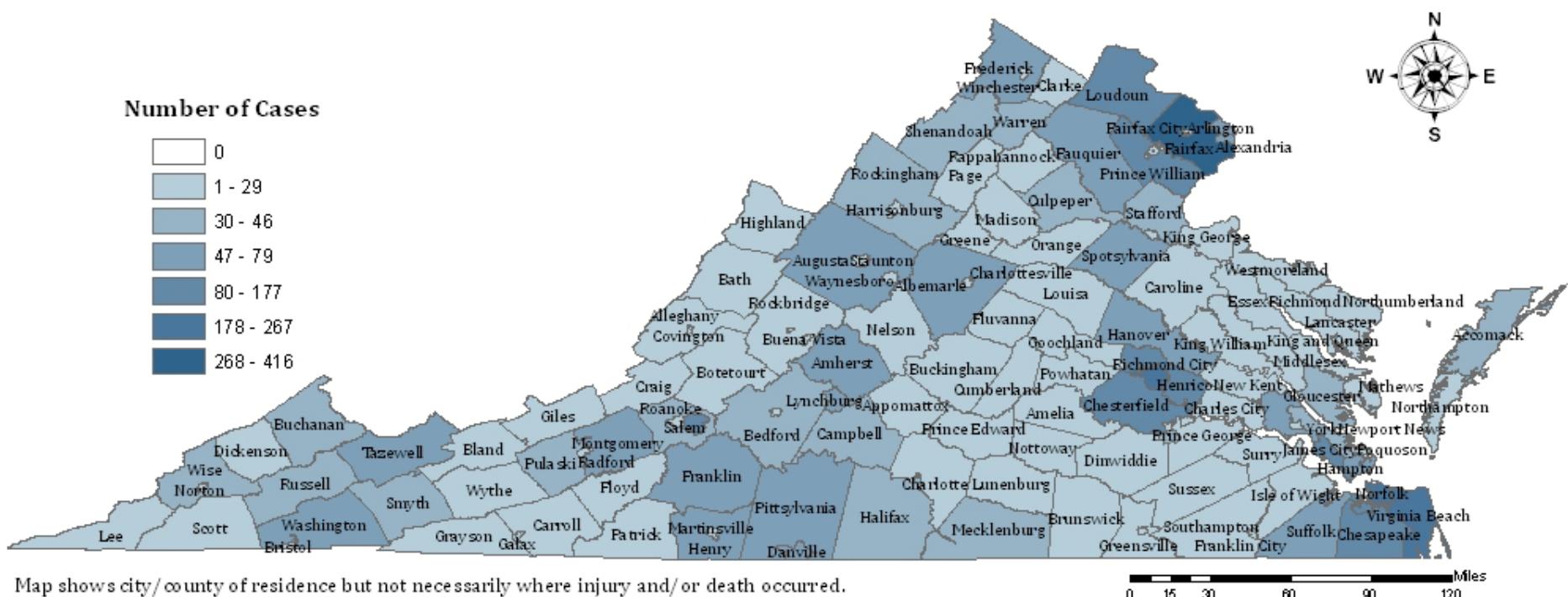
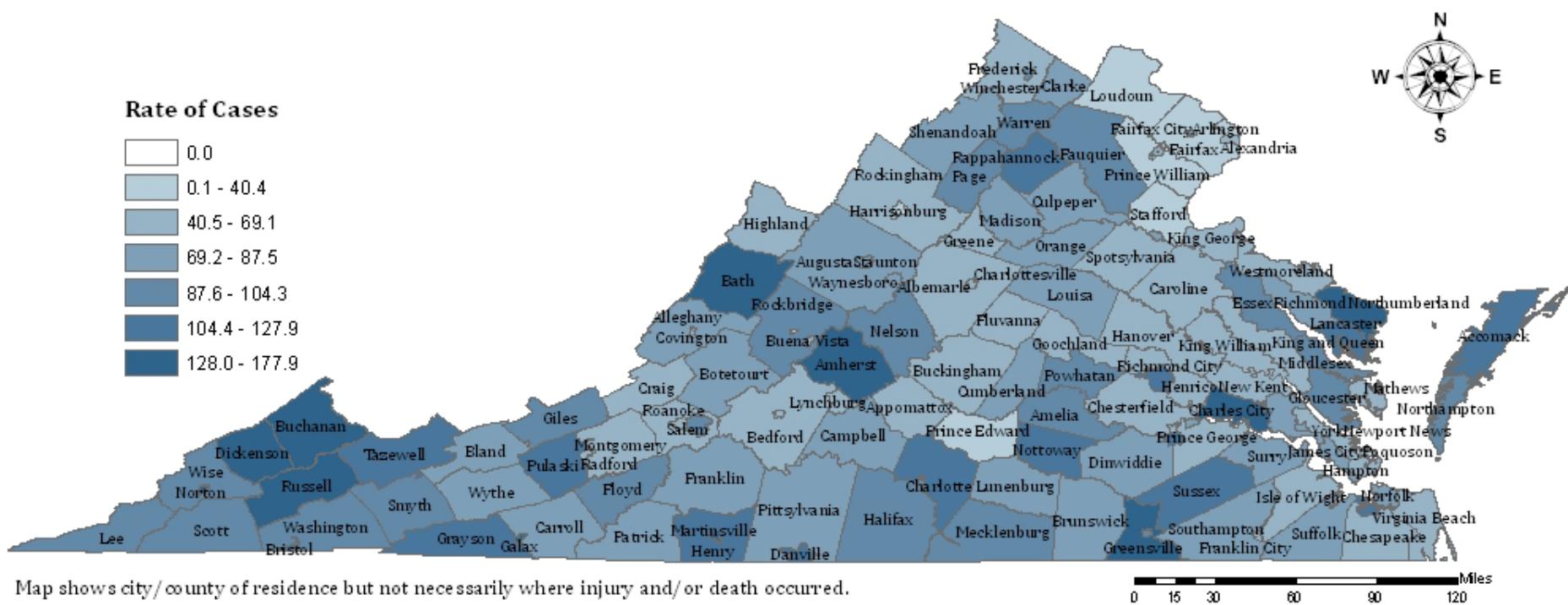
Figure 11. Total Cases by City/County of Residence, 2011

Figure 12. Rate of Total Cases by City/County of Residence, 2011



Map shows city/county of residence but not necessarily where injury and/or death occurred.

A total of 443 cases were from non-Virginia residents or where residency was unknown.

Rate is per 100,000 population.

Table 9. Total Cases by Manner by City/County of Injury/Acute Illness, 2011

County/City of Injury/Acute Illness	Manner of Death					Total
	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	
Accomack	16	6	9	6	1	38
Albemarle	34	2	12	11	0	59
Alexandria	22	1	42	14	2	81
Alleghany	4	1	2	5	0	12
Amelia	8	0	4	4	0	16
Amherst	17	1	26	5	1	50
Appomattox	5	1	0	2	0	8
Arlington	24	0	31	16	1	72
Augusta	27	2	16	14	2	61
Bath	3	0	2	1	0	6
Bedford City	2	0	2	0	1	5
Bedford	24	1	12	13	0	50
Bland	7	0	0	1	0	8
Botetourt	19	0	8	6	0	33
Bristol	5	1	10	3	0	19
Brunswick	8	1	5	1	0	15
Buchanan	18	6	16	1	0	41
Buckingham	5	1	2	2	0	10
Buena Vista	1	0	3	0	0	4
Campbell	14	1	11	10	1	37
Caroline	14	1	8	2	1	26
Carroll	13	0	9	7	1	30
Charles City	6	0	3	3	0	12
Charlotte	9	1	3	3	1	17
Charlottesville	9	1	7	1	2	20
Chesapeake	58	12	55	24	0	149
Chesterfield	74	10	56	40	0	180
Clarke	4	0	2	5	1	12
Colonial Heights	3	2	4	1	0	10
Covington	1	1	0	2	0	4
Craig	2	0	1	2	0	5
Culpeper	15	3	12	7	0	37
Cumberland	3	0	2	3	0	8
Danville	19	6	26	6	1	58
Dickenson	13	2	6	5	0	26
Dinwiddie	8	1	12	3	0	24
Emporia	3	1	2	0	0	6

Manner of Death

County/City of Injury/Acute Illness	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Essex	8	1	0	2	0	11
Fairfax City	7	0	4	2	0	13
Fairfax	195	12	134	90	10	441
Falls Church	6	0	0	0	0	6
Fauquier	33	1	14	14	1	63
Floyd	10	1	2	4	1	18
Fluvanna	5	0	11	3	0	19
Franklin City	0	0	3	0	0	3
Franklin	33	2	11	10	4	60
Frederick	29	1	18	14	4	66
Fredericksburg	12	1	9	5	0	27
Galax	3	0	2	3	0	8
Giles	3	1	4	4	1	13
Gloucester	14	2	7	13	2	38
Goochland	8	0	6	0	0	14
Grayson	5	0	5	8	0	18
Greene	2	3	3	3	0	11
Greenville	2	2	26	4	0	34
Halifax	16	2	10	4	0	32
Hampton	38	8	28	7	7	88
Hanover	30	2	6	15	0	53
Harrisonburg	8	2	5	2	0	17
Henrico	58	13	34	42	2	149
Henry	31	6	14	10	1	62
Highland	1	0	0	1	0	2
Hopewell	6	3	9	2	0	20
Isle of Wight	7	0	7	4	0	18
James City	19	2	25	6	0	52
King and Queen	1	0	0	1	0	2
King George	8	0	3	3	0	14
King William	6	1	1	2	0	10
Lancaster	8	1	2	2	0	13
Lee	15	4	6	5	1	31
Lexington	1	0	1	0	0	2
Loudoun	36	2	30	35	4	107
Louisa	11	0	9	7	2	29
Lunenburg	1	0	6	2	0	9
Lynchburg	21	4	16	10	2	53
Madison	4	3	2	1	0	10
Manassas	6	4	2	5	1	18

Manner of Death

County/City of Injury/Acute Illness	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Martinsville	7	2	9	4	1	23
Mathews	2	0	3	2	0	7
Mecklenburg	13	1	19	4	0	37
Middlesex	1	1	4	3	0	9
Montgomery	28	1	17	14	2	62
Nelson	9	1	5	3	0	18
New Kent	11	0	0	6	0	17
Newport News	45	18	53	23	9	148
Norfolk	73	29	74	28	4	208
Northampton	3	0	9	5	0	17
Northumberland	9	0	5	3	1	18
Norton	0	0	3	1	0	4
Nottoway	7	0	8	3	1	19
Orange	16	0	4	5	1	26
Page	14	0	5	8	1	28
Patrick	5	0	2	4	0	11
Petersburg	3	7	20	3	1	34
Pittsylvania	27	5	16	9	0	57
Poquoson	2	0	0	0	0	2
Portsmouth	28	12	43	8	10	101
Powhatan	7	3	23	6	0	39
Prince Edward	4	1	4	3	0	12
Prince George	11	1	7	4	0	23
Prince William	82	6	46	28	7	169
Pulaski	19	0	13	9	0	41
Radford	3	1	1	1	0	6
Rappahannock	4	0	2	2	0	8
Richmond City	88	42	86	33	5	254
Richmond	4	0	3	1	0	8
Roanoke City	39	9	24	19	7	98
Roanoke	26	1	19	14	2	62
Rockbridge	10	1	12	6	0	29
Rockingham	16	1	5	10	1	33
Russell	20	3	11	6	2	42
Salem	4	0	1	6	1	12
Scott	8	1	6	6	0	21
Shenandoah	15	0	11	9	1	36
Smyth	10	3	13	6	1	33
Southampton	6	0	19	2	0	27
Spotsylvania	36	3	16	11	1	67

County/City of Injury/Acute Illness	Manner of Death					Total
	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	
Stafford	23	2	20	9	0	54
Staunton	8	1	7	4	0	20
Suffolk	26	3	19	14	4	66
Surry	2	0	3	0	0	5
Sussex	5	0	6	1	1	13
Tazewell	30	0	15	6	4	55
Virginia Beach	112	17	68	65	13	275
Warren	23	0	7	7	0	37
Washington	28	3	17	10	2	60
Waynesboro	3	0	6	3	0	12
Westmoreland	10	0	7	5	0	22
Williamsburg	9	1	8	6	1	25
Winchester	7	0	12	5	1	25
Wise	23	1	9	9	2	44
Wythe	9	1	6	7	1	24
York	17	2	15	15	1	50
Total for In-State	2274	334	1742	1058	148	5556
Out of State	54	5	13	9	4	85
Unknown	13	6	1	0	9	29
Total for Non-Residents	67	11	14	9	13	114
TOTAL	2341	345	1756	1067	161	5670

Figure 13. Total Cases by City/County of Injury/Acute Illness, 2011

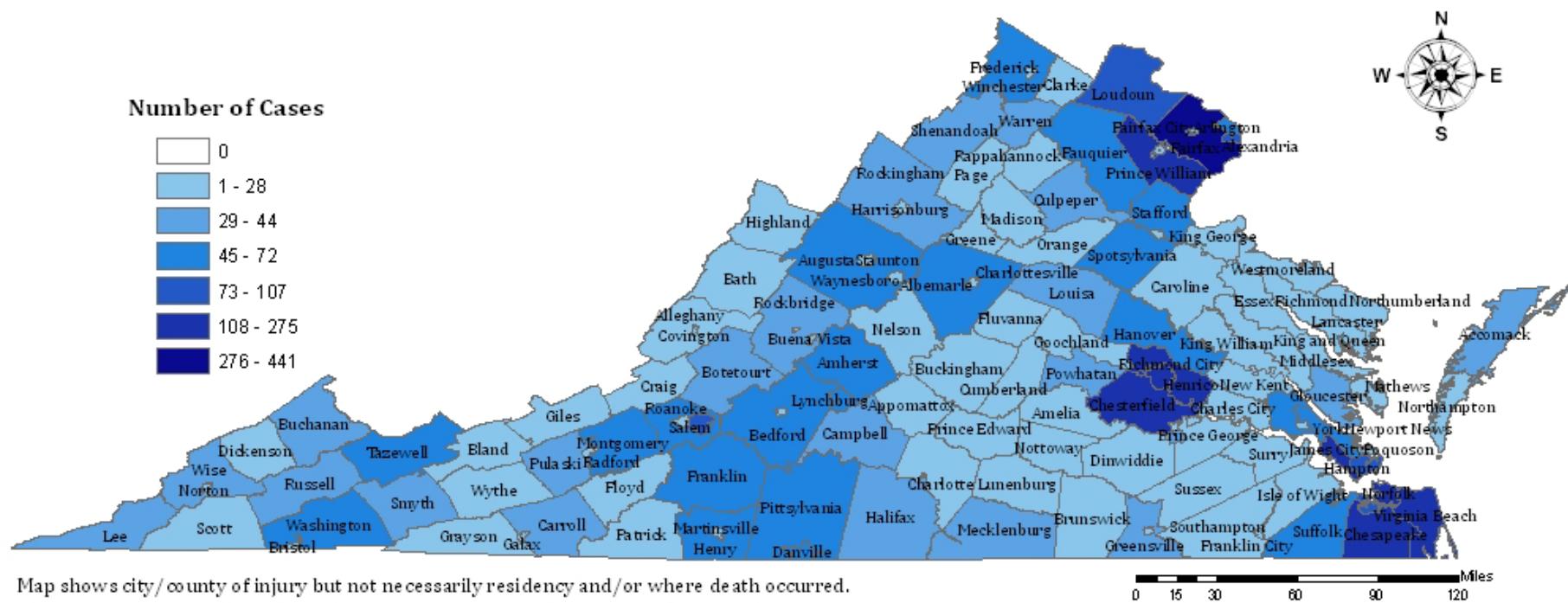


Table 10. Total Cases by Manner by City/County of Death, 2011

County/City of Death	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Accomack	15	4	8	6	1	34
Albemarle	19	0	9	11	0	39
Alexandria	19	0	45	14	3	81
Alleghany	4	2	1	4	0	11
Amelia	6	0	3	3	0	12
Amherst	13	1	15	5	0	34
Appomattox	3	1	0	1	0	5
Arlington	23	0	32	15	1	71
Augusta	27	3	14	16	2	62
Bath	2	0	2	0	0	4
Bedford City	1	0	2	0	1	4
Bedford	19	0	9	12	0	40
Bland	5	0	0	1	0	6
Botetourt	11	0	7	6	0	24
Bristol	3	1	10	2	0	16
Brunswick	8	0	5	1	0	14
Buchanan	18	6	12	1	0	37
Buckingham	4	1	1	2	0	8
Buena Vista	1	0	3	0	0	4
Campbell	4	1	10	9	0	24
Caroline	10	0	6	1	1	18
Carroll	12	0	8	8	1	29
Charles City	5	0	2	2	0	9
Charlotte	5	1	3	3	1	13
Charlottesville	56	3	18	8	3	88
Chesapeake	51	10	52	22	0	135
Chesterfield	52	11	54	34	2	153
Clarke	1	0	1	5	0	7
Colonial Heights	1	2	3	0	0	6
Covington	1	0	0	2	0	3
Craig	1	0	1	2	0	4
Culpeper	12	3	11	6	0	32
Cumberland	2	0	2	1	0	5
Danville	23	7	32	6	1	69
Dickenson	13	2	7	5	0	27
Dinwiddie	9	0	6	3	0	18
Emporia	2	1	11	1	0	15
Essex	10	1	1	2	1	15

County/City of Death	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Fairfax City	2	0	3	2	0	7
Fairfax	268	16	137	100	11	532
Falls Church	4	0	0	0	0	4
Fauquier	26	1	14	12	0	53
Floyd	5	1	1	4	1	12
Fluvanna	3	0	6	3	0	12
Franklin City	0	0	5	0	0	5
Franklin	28	2	11	8	1	50
Frederick	15	1	15	11	3	45
Fredericksburg	43	3	17	10	0	73
Galax	4	0	4	3	0	11
Giles	4	0	4	4	1	13
Gloucester	9	2	7	12	2	32
Goochland	4	0	2	0	0	6
Grayson	3	0	4	7	0	14
Greene	1	3	3	2	0	9
Greenville	2	2	13	3	0	20
Halifax	17	2	10	4	0	33
Hampton	29	3	28	6	6	72
Hanover	28	2	6	15	0	51
Harrisonburg	5	2	5	1	1	14
Henrico	48	9	35	35	1	128
Henry	20	4	9	8	1	42
Highland	1	0	0	1	0	2
Hopewell	9	1	8	3	0	21
Isle of Wight	4	1	4	2	0	11
James City	12	1	13	4	0	30
King and Queen	1	0	0	1	0	2
King George	6	0	2	3	0	11
King William	5	0	0	2	0	7
Lancaster	9	1	3	2	0	15
Lee	15	4	7	5	1	32
Lexington	1	0	2	1	0	4
Loudoun	25	2	28	34	3	92
Louisa	7	0	9	6	2	24
Lunenburg	1	0	5	2	0	8
Lynchburg	40	5	32	13	4	94
Madison	4	3	2	1	0	10
Manassas	11	3	8	7	2	31
Martinsville	13	3	14	5	1	36

County/City of Death	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Mathews	1	0	3	2	0	6
Mecklenburg	11	1	18	4	0	34
Middlesex	0	1	3	3	0	7
Montgomery	26	1	18	13	2	60
Nelson	8	1	4	3	0	16
New Kent	6	0	0	5	0	11
Newport News	62	21	56	31	9	179
Norfolk	137	40	88	40	9	314
Northampton	3	1	10	4	0	18
Northumberland	4	0	5	2	0	11
Norton	4	0	3	1	0	8
Nottoway	5	0	4	3	1	13
Orange	10	0	4	5	1	20
Page	13	0	5	8	1	27
Patrick	5	0	2	4	0	11
Petersburg	5	8	37	3	2	55
Pittsylvania	19	4	9	9	0	41
Poquoson	1	0	0	0	0	1
Portsmouth	19	13	44	7	9	92
Powhatan	4	3	17	6	0	30
Prince Edward	6	1	3	3	0	13
Prince George	10	0	4	3	0	17
Prince William	50	7	40	24	9	130
Pulaski	14	0	13	8	0	35
Radford	2	0	1	0	0	3
Rappahannock	2	0	1	2	0	5
Richmond City	166	50	112	54	7	389
Richmond	2	0	1	0	0	3
Roanoke City	116	15	37	32	12	212
Roanoke	9	0	11	10	0	30
Rockbridge	9	1	11	4	0	25
Rockingham	9	1	5	9	1	25
Russell	20	2	10	6	2	40
Salem	6	0	3	7	0	16
Scott	7	1	4	5	1	18
Shenandoah	13	0	10	8	1	32
Smyth	10	2	12	6	1	31
Southampton	6	0	15	2	0	23
Spotsylvania	25	2	16	9	1	53
Stafford	11	2	16	8	0	37

County/City of Death	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Staunton	6	0	7	3	0	16
Suffolk	21	3	28	12	4	68
Surry	0	0	1	0	0	1
Sussex	3	0	1	1	0	5
Tazewell	26	0	19	6	4	55
Virginia Beach	96	14	58	62	13	243
Warren	18	0	6	6	0	30
Washington	28	2	16	10	1	57
Waynesboro	2	0	5	2	0	9
Westmoreland	7	0	6	3	0	16
Williamsburg	0	0	5	6	0	11
Winchester	39	2	23	11	4	79
Wise	19	0	9	10	2	40
Wythe	8	1	5	6	1	21
York	23	3	28	13	1	68
Total for In-State	2335	341	1754	1066	158	5654
Out of State	6	4	2	1	1	14
Unknown	0	0	0	0	2	2
Total for Non-Residents	6	4	2	1	3	16
TOTAL	2341	345	1756	1067	161	5670

Figure 14. Total Cases by City/County of Death, 2011

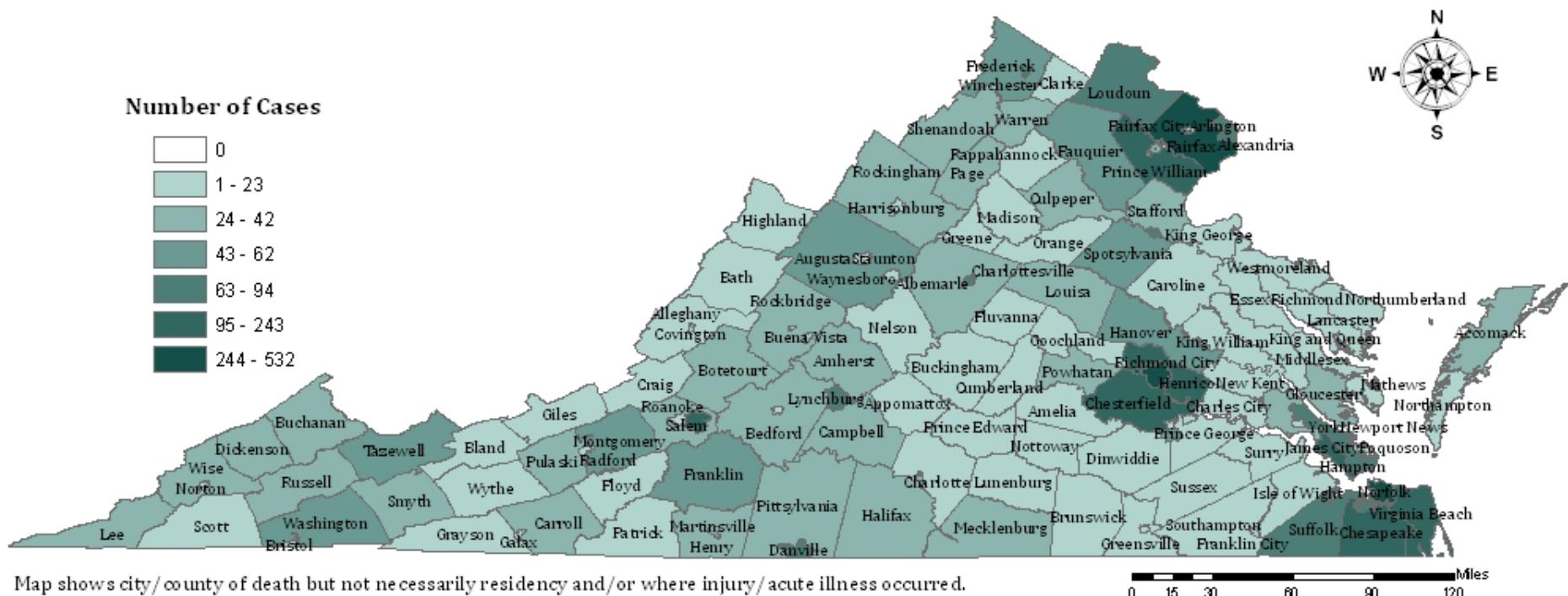


Table 11. Total Cases by Cause of Death, 2011

Natural Deaths	Total Cases	Autopsied
Pulmonary Diseases/Disorders	188	117
Asthma	13	10
COPD	28	6
Embolii	45	38
Pneumonia	68	45
Pulmonary Malignancy	23	10
Other Pulmonary Disease/Disorder	11	8
Central Nervous System Diseases/Disorders	77	49
Seizure Disorder	21	19
Vascular Disease	31	16
Degenerative Disease	12	5
Meningitis (Bacterial or Viral)	4	4
CNS Malignancy	1	0
Other CNS Disease/Disorder	8	5
Cardiovascular Diseases/Disorders	1082	431
Atherosclerosis	542	136
Hypertension	178	67
Atherosclerosis & Hypertension	167	126
Congenital Defect	6	6
Vascular Dissection/Ruptures	10	8
Valvular	11	10
Acute Coronary Insufficiency	76	2
Cardiac Dysrhythmia of Undetermined Etiology	28	23
Cardiomyopathy NOS	31	26
Arrhythmogenic Right Ventricular Dysplasia	5	5
Other Cardiac Disease/Disorder	28	22
Gastrointestinal Diseases/Disorders	103	47
GI Hemorrhage	20	5
Cirrhosis	17	8
Hepatitis	13	4
GI Malignancy	22	12
Other GI Disease/Disorder	31	18
Genitourinal Diseases/Disorders	20	3
Renal Disease	12	2
Genitourinal Malignancy	7	1
Other GU Disease/Disorder	1	0
Perinatal and Pediatric Diseases/Disorders	32	30
Maternal Complications	4	3
Fetal Complications	5	5
Sudden Infant Death Syndrome (SIDS)	16	16
Other Perinatal or Pediatric Disorder	7	6

Systemic Diseases/Disorders	238	121
Blood Disorders	5	5
Diabetes	48	22
AIDS/HIV	4	1
Sepsis	23	16
Other Infectious Disease	9	8
Metastatic Malignancy Unknown Primary	2	1
Chronic Alcoholism	123	51
Chronic Drug Abuse	5	3
Other Systemic Disease/Disorder	19	14
Other Natural Diseases/Disorders	16	7
Other Malignancy	6	2
Other Natural Disease/Disorder	10	5
Natural Subtotal	1756	805
Unnatural Deaths	Total Cases	Autopsied
Asphyxia	473	198
Choking (Aspiration: Food or Foreign Object)	33	8
Drowning	108	72
Hanging	203	42
Mechanical	28	15
Positional	12	8
Strangulation/Neck Compression	15	12
Suffocation/Smothering	18	17
Oxygen Replacement/Displacement	2	0
Helium	18	4
Plastic Bag	11	6
CO Poisoning (MV Exhaust)	14	6
CO Poisoning (Other)	9	6
Other Asphyxia	2	2
Electrocution	8	5
High Voltage	7	5
Low Voltage	1	0
Exposure	35	21
Hyperthermia	11	4
Hypothermia	24	17
Fire Injuries	79	51
Thermal Burns	11	3
Inhalation of Combustion Products	39	23
Thermal Burns & Inhalation of Combustions Products	29	25
Judicial Execution	1	1
Lethal Injection	1	1

Gunshot Wound	863	858
GSW to Head/Neck	621	617
GSW to Chest	100	99
GSW to Abdomen	17	17
GSW to Torso	70	70
GSW to Extremities	7	7
GSW Multiple	48	48
Blunt Force Injuries	1459	274
BFT to Head/Neck	643	112
BFT to Chest	93	24
BFT to Abdomen	19	11
BFT to Torso	100	27
BFT to Extremities	156	11
BFT to Multiple	448	89
Penetrating Injuries	55	48
Incised	12	7
Stab	39	38
Other Penetrating Injuries	4	3
Substance Abuse	818	703
Ethanol Poisoning	15	13
Prescription Drug Poisoning	505	446
Illegal (Street) Drug Poisoning	143	120
Mixed Category Drug Poisoning	113	96
Inhalant Poisoning	6	6
OTC Poisoning	20	14
Ethylene Glycol Poisoning	4	3
Not Otherwise Specified Poisoning	5	3
Other Poisons (Heavy Metals, etc.)	7	2
Other Unnatural Deaths	28	20
Other Unnatural	28	20
Unnatural Subtotal	3820	2180
Undetermined Deaths	Total Cases	Autopsied
Undetermined After Autopsy and/or Investigation	94	92
Sudden Unexpected Infant Death (SUID)	58	58
Skeletal/Mummified Remains	8	8
Other Undetermined	28	26
Undetermined Subtotal	94	92
TOTAL	5670	3077

SECTION 3: MANNER OF DEATH

NATURAL DEATH (N=1756)

Natural deaths enter the medical examiner system as deaths that are sudden, unexpected or suspicious, which upon examination and investigation are established as natural. These deaths may also fall under the OCME's jurisdiction when individuals do not have a primary care physician to certify their deaths.

- Natural deaths accounted for 31% of all deaths investigated by the OCME in 2011
- For the sixth year in a row the number of natural deaths accepted by OCME has decreased

Figure 15. Natural Deaths & Rate by Year of Death, 2011

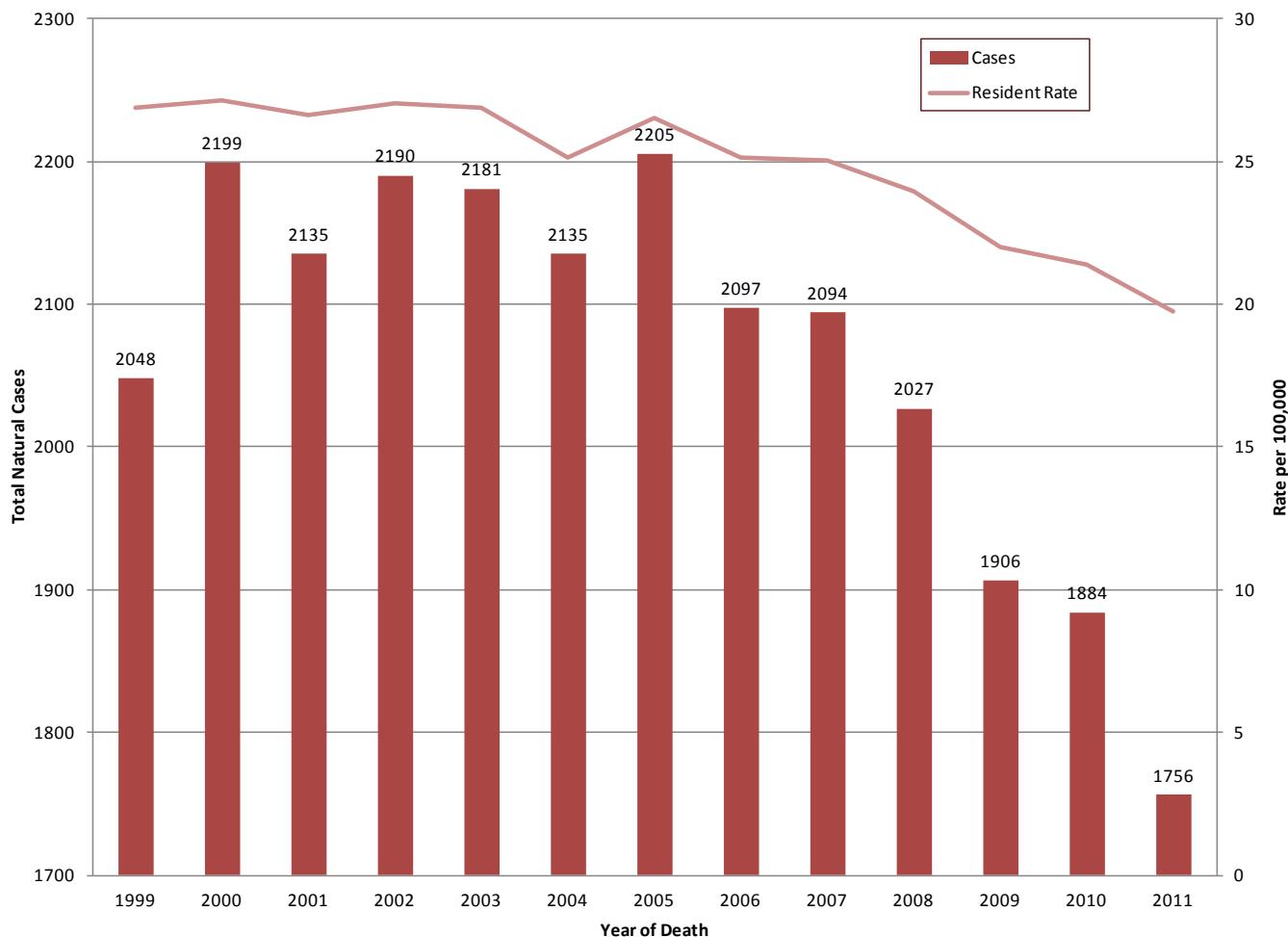
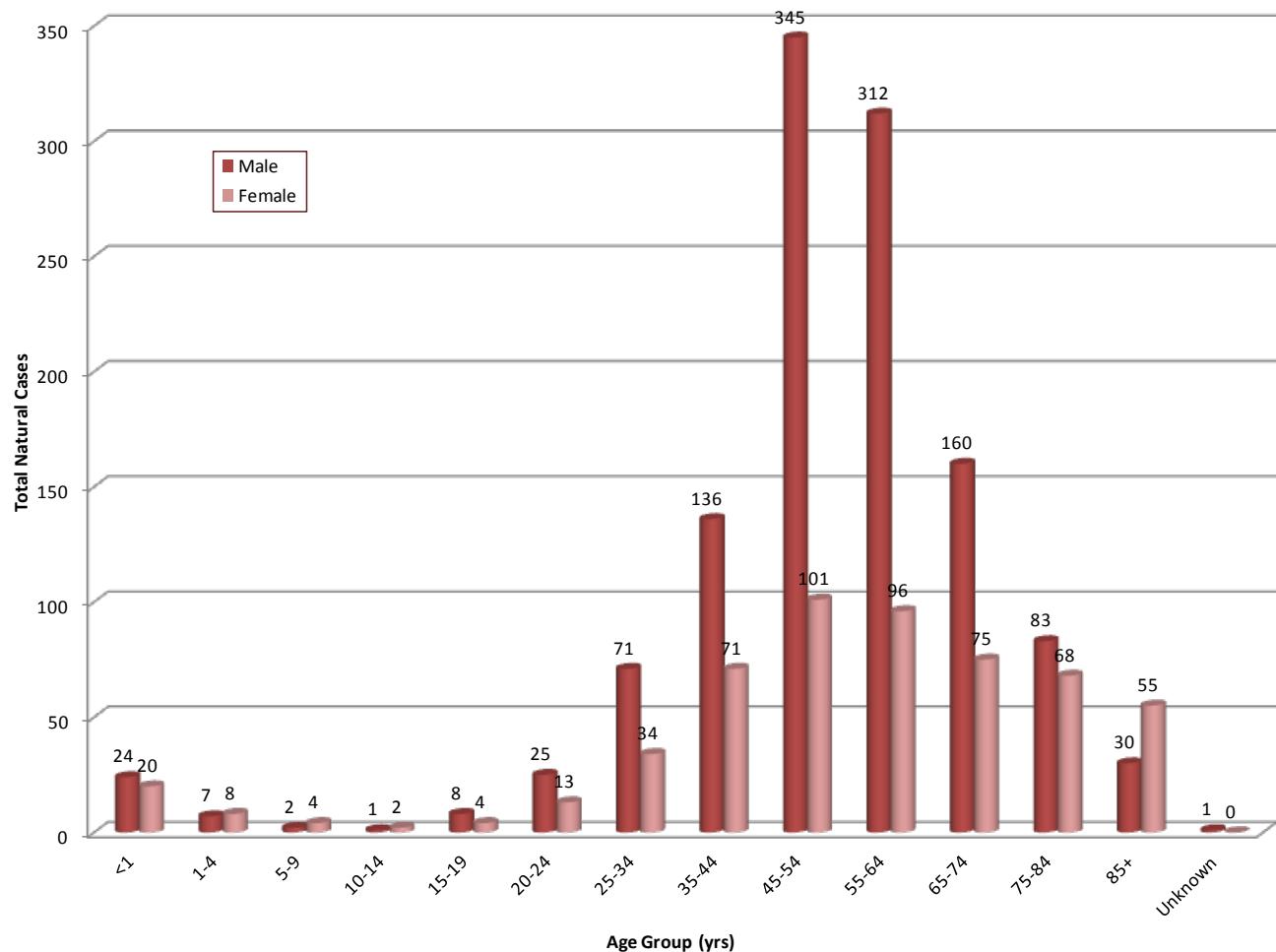


Figure 16. Natural Deaths by Age Group by Gender, 2011

ACCIDENTAL DEATHS (N=2341)

Accidents account for 41.3 percent of the deaths investigated by the OCME in 2011: the greatest proportion of deaths by any manner.

- The total number of accidental deaths sharply increased from 2010
- Motor vehicle deaths still remained the most common cause of accidental deaths with 36.9 percent of all accidents followed by drug use with 27.5 percent
- Seniors, 85 and older, had the highest rate of accidental falls (135.9 per 100,000); a decrease from 2010
- Seventeen percent of all accidents had ethanol present at 0.08% W/V or greater, the level of legal intoxication in Virginia

Figure 17. Accidental Deaths & Rate by Year of Death, 1999-2011

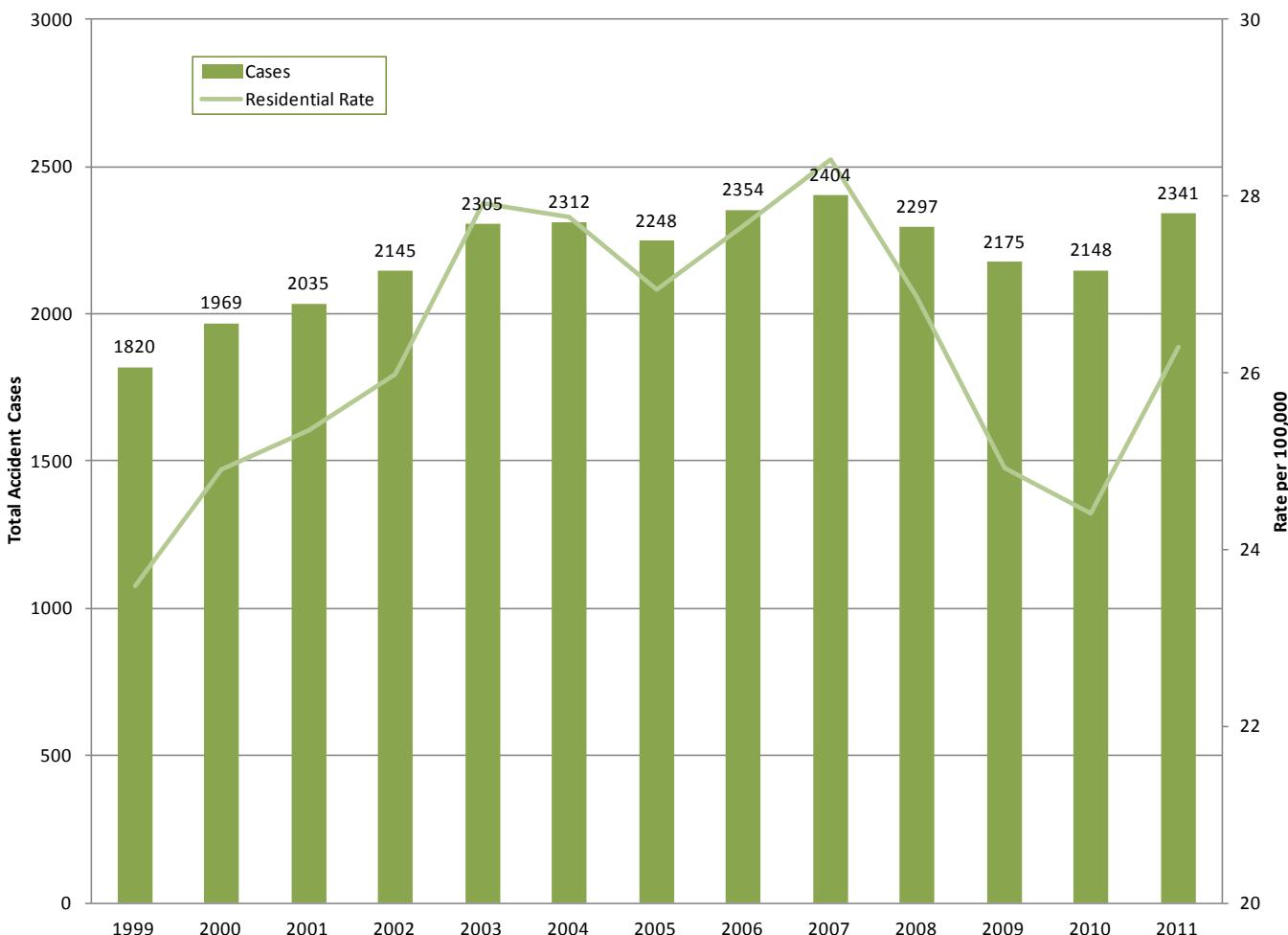


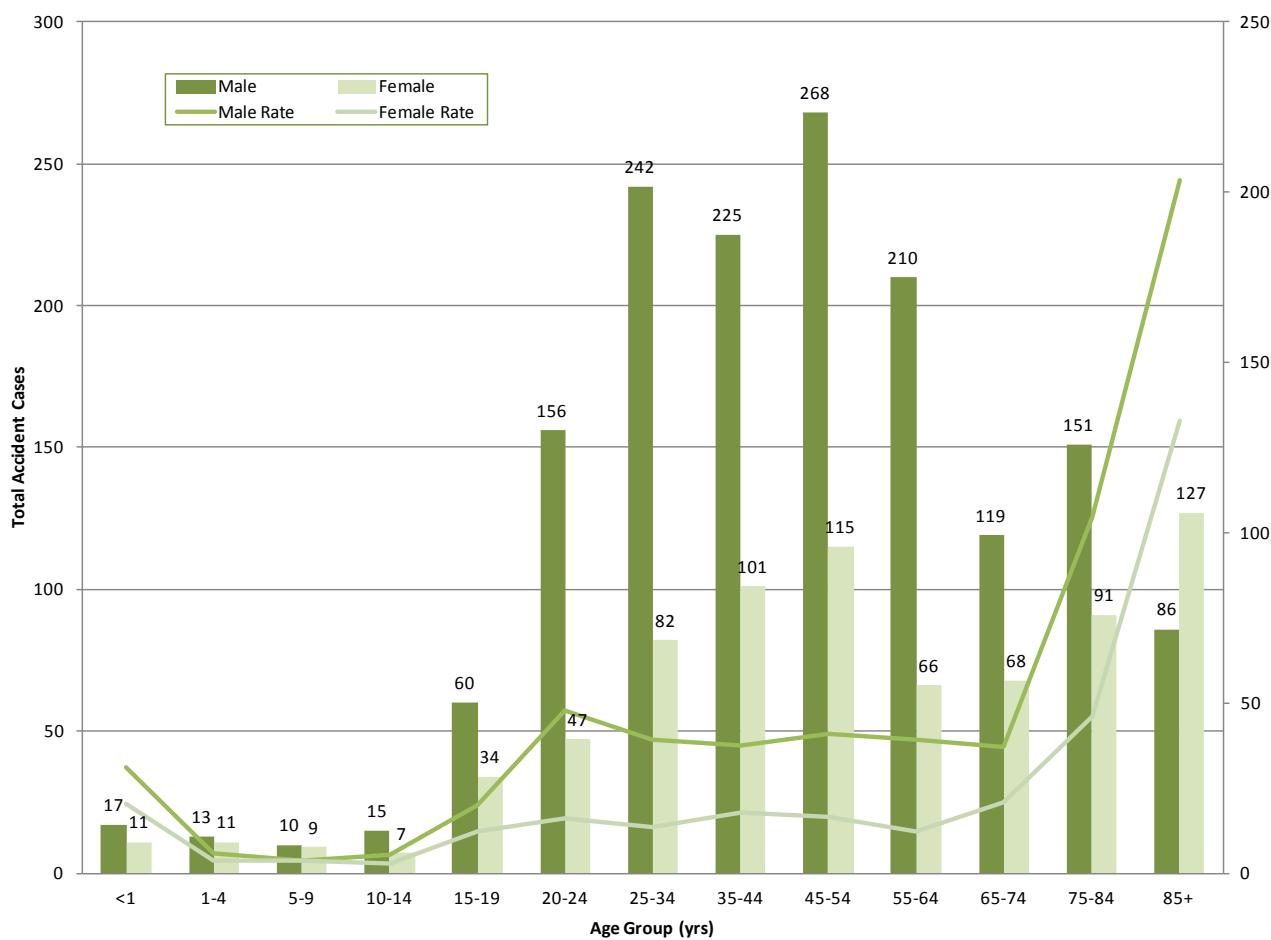
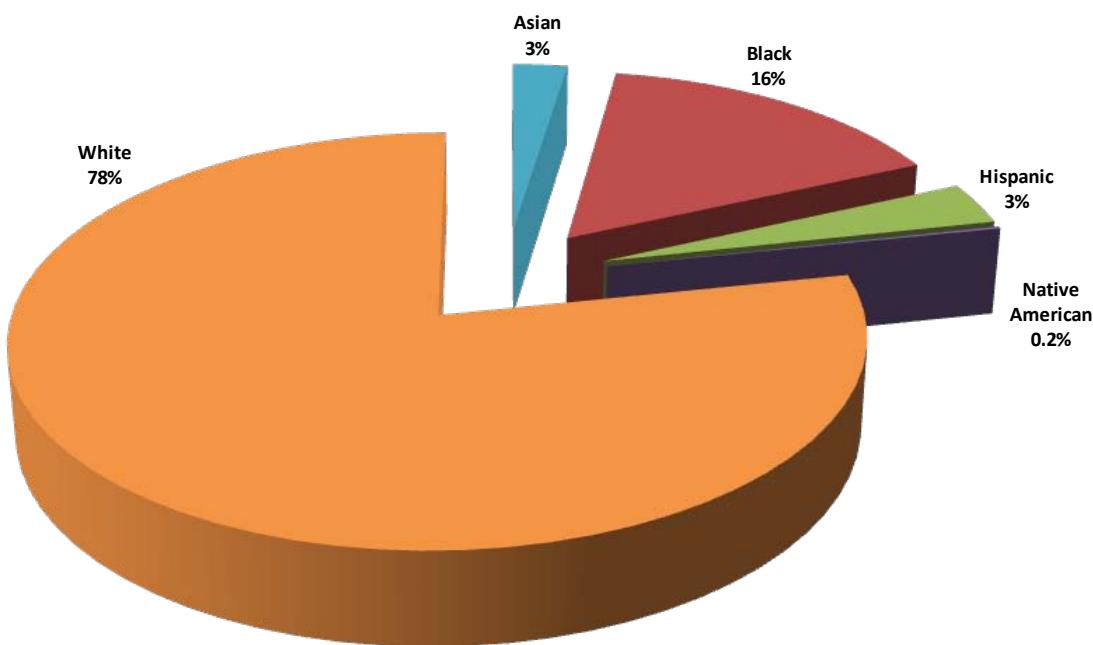
Figure 18. Accidental Deaths by Age Group by Gender, 2011**Figure 19. Accidental Deaths by Race/Ethnicity, 2011**

Table 12. Accidental Deaths by Method of Death, 2011

Method of Death		Total Cases	Autopsied
Animal/Insect			
Bitten, stung, or kicked by animal/insect		7	3
Asphyxia			
Choked on food/foreign object		32	8
Drowned		87	56
Hanging		5	1
Mechanical/Positional		23	16
Other		3	2
Strangled		3	2
Suffocation/Smothering		12	12
Drug Use			
Ingested ethanol or other alcohol		13	11
Ingested and/or injected illicit, prescription, and/or other type of drug		631	550
Electrical			
Contacted electrical current		8	5
Exposure			
Exposed to cold		24	17
Exposed to heat		11	4
Fall/Jump			
Fall/jump from any height		487	50
Fire			
Inhalation of Combustion Products		8	3
Thermal Burns		37	21
Thermal Burns & Inhalation of Combustion Products		20	16
Motor Vehicle			
Aircraft		8	7
All terrain vehicle		14	2
Bicycle		13	2
Boat		2	0
Bus		5	0
Car		403	54
Construction equipment		2	2
Farm equipment		12	1
Golf cart		1	1
Lawnmower		3	1
Mo-ped		8	2
Motorcycle		104	9
Multiple vehicles		1	1
Pickup truck		101	14
Skateboard		1	0
Sport utility vehicle		115	24

Method of Death	Total Cases	Autopsied
Tractor trailer	16	12
Train	9	4
Truck other	12	6
Van	25	3
Unknown	9	8
Poisoned		
Inhaled toxic agent (ex. Carbon monoxide)	4	4
Traumatic Injury		
Accidental discharge of firearm	7	7
Handgun	(2)	(2)
Shotgun	(5)	(5)
Explosion	2	1
Falling object	32	11
Sharp force injury	3	1
Unknown/Other		
Accidental - Unknown/Other	18	8
TOTAL	2341	962

Table 13. Top 5 Accidental Methods of Death by Age Group with Corresponding Rates, 2011

Age Group	Method of Death				
	Fire/Smoke Inhalation (Rate)	Drowning (Rate)	Fall (Rate)	Drug Use (Rate)	Motor Vehicle (Rate)
<1	0 (0.0)	2 (2.0)	0 (0.0)	1 (1.0)	6 (4.9)
1-4	0 (0.0)	6 (1.2)	1 (0.2)	0 (0.0)	7 (1.2)
5-9	1 (0.2)	5 (1.0)	1 (0.2)	0 (0.0)	11 (2.1)
10-14	1 (0.2)	2 (0.4)	0 (0.0)	1 (0.2)	9 (1.7)
15-19	0 (0.0)	3 (0.4)	3 (0.6)	13 (2.4)	73 12.3)
20-24	4 (0.7)	11 (1.7)	3 (0.3)	65 (10.4)	113 (18.1)
25-34	5 (0.4)	13 (1.1)	2 (0.1)	160 (13.2)	127 10.0)
35-44	4 (0.4)	11 (0.6)	11 (0.9)	169 (14.7)	113 (9.1)
45-54	11 (0.8)	13 1.0)	30 (2.1)	165 (13.2)	137 (9.3)
55-64	13 (1.2)	10 (0.9)	49 (4.5)	61 (5.6)	107 (9.2)
65-74	12 (2.1)	4 (0.7)	64 (9.9)	7 (1.0)	77 (10.6)
75-84	13 (4.2)	7 (1.9)	138 (40.7)	1 (0.3)	63 (17.1)
85+	1 (0.8)	0 (0.0)	185 (135.9)	1 (0.8)	21 (14.8)
Total	65 (0.8)	87 (0.9)	487 (5.5)	644 (7.5)	864 (9.3)

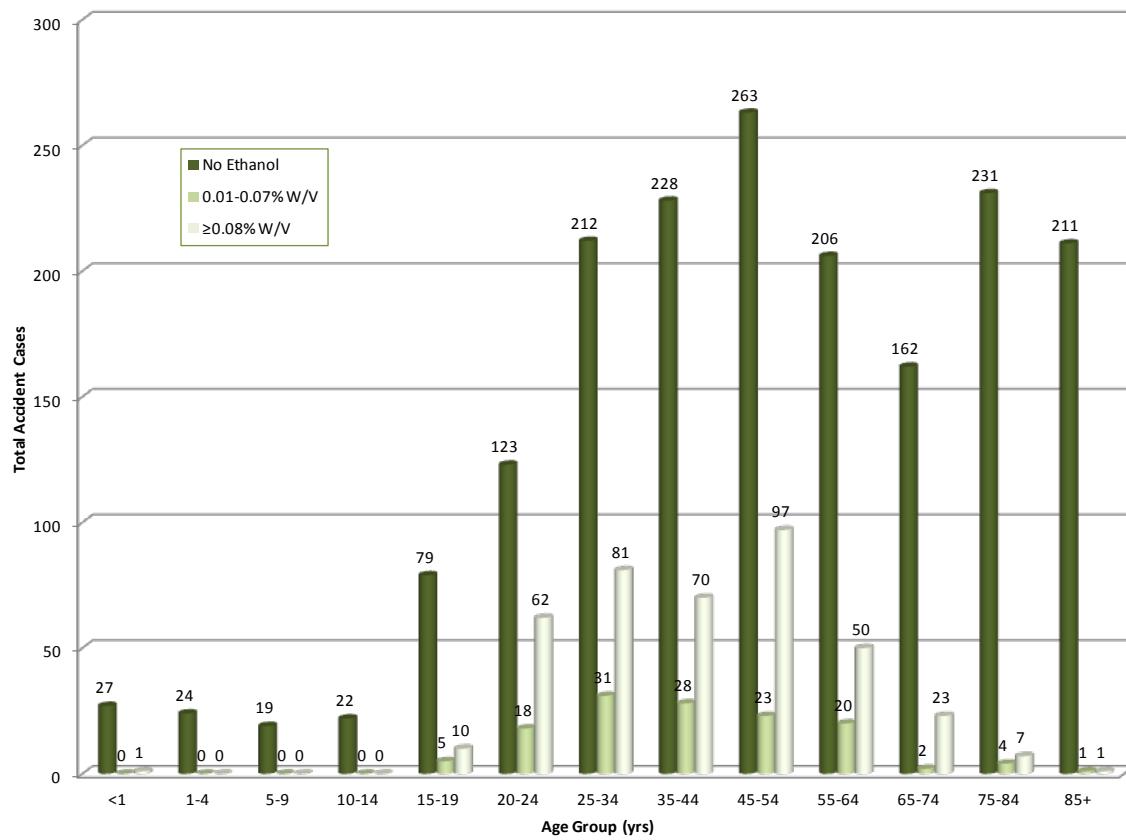
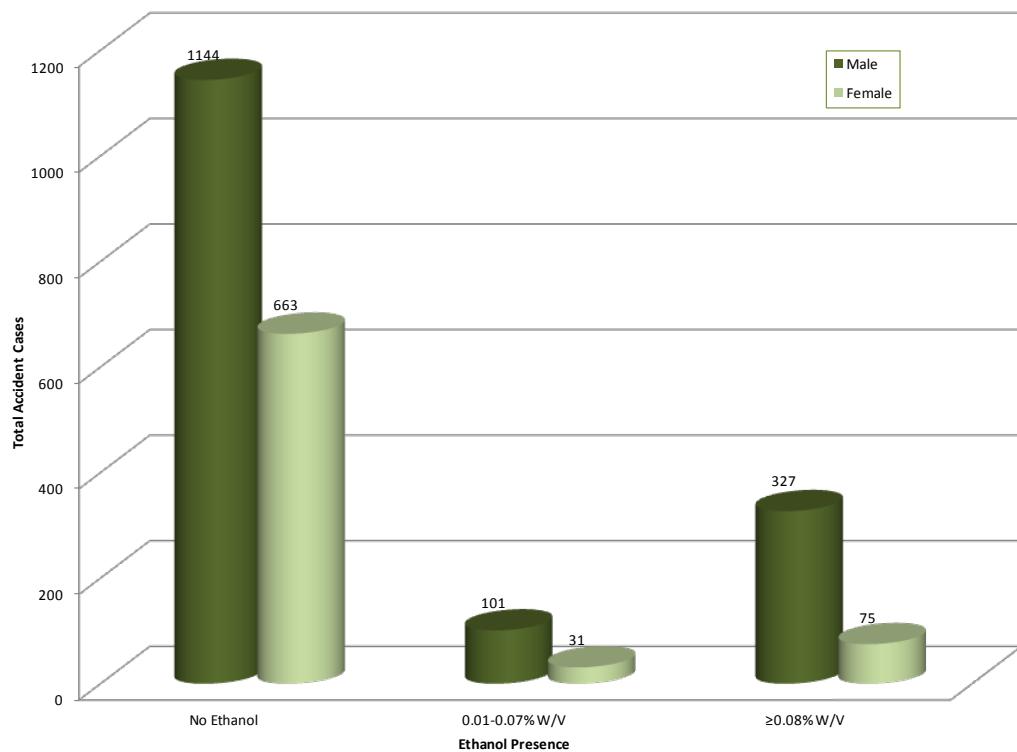
Figure 20. Accidental Deaths by Age Group by Ethanol Level, 2011**Figure 21. Accidental Deaths by Gender by Ethanol Level, 2011**

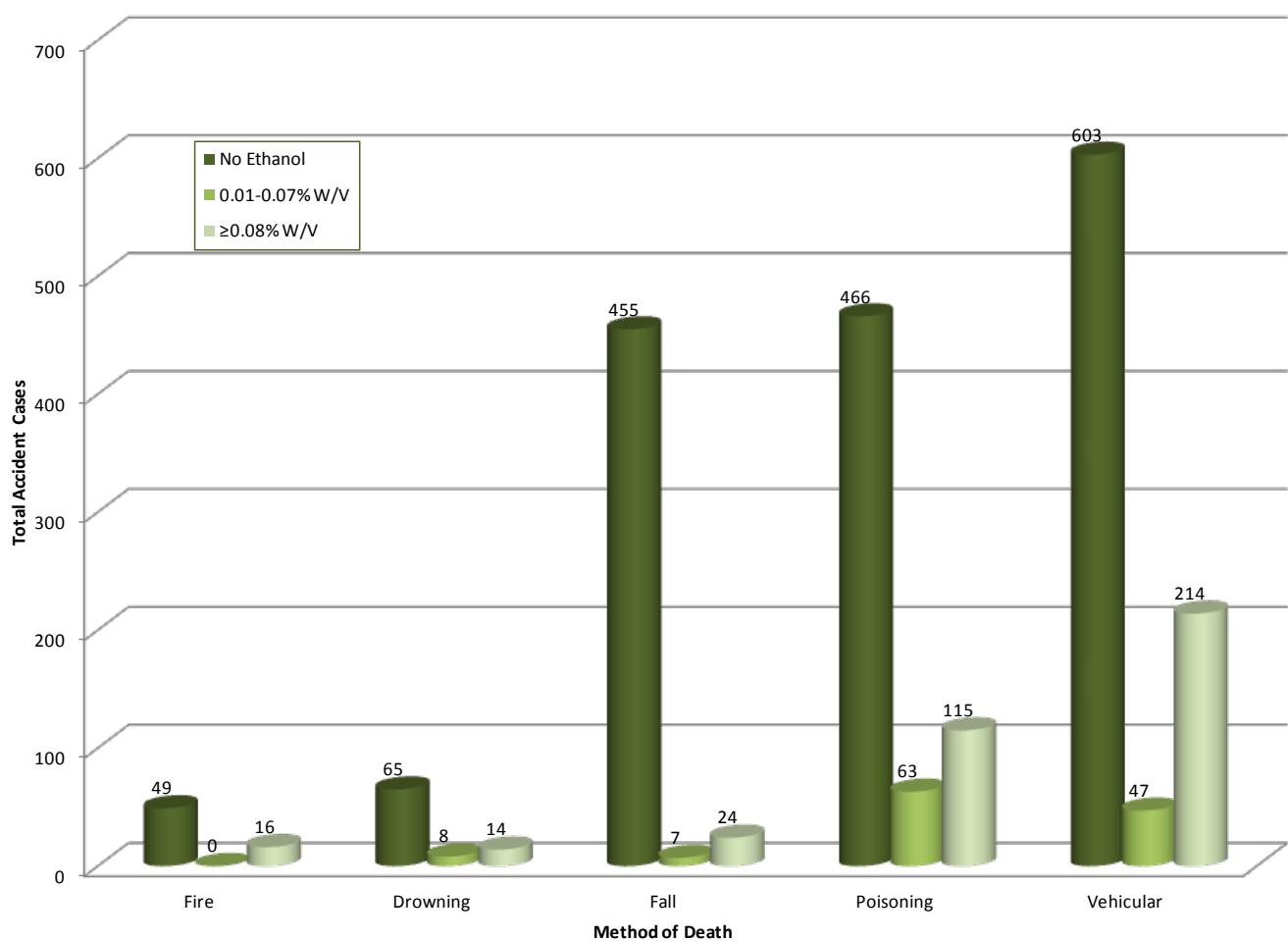
Figure 22. Top 5 Accidental Methods of Death by Alcohol Presence, 2011

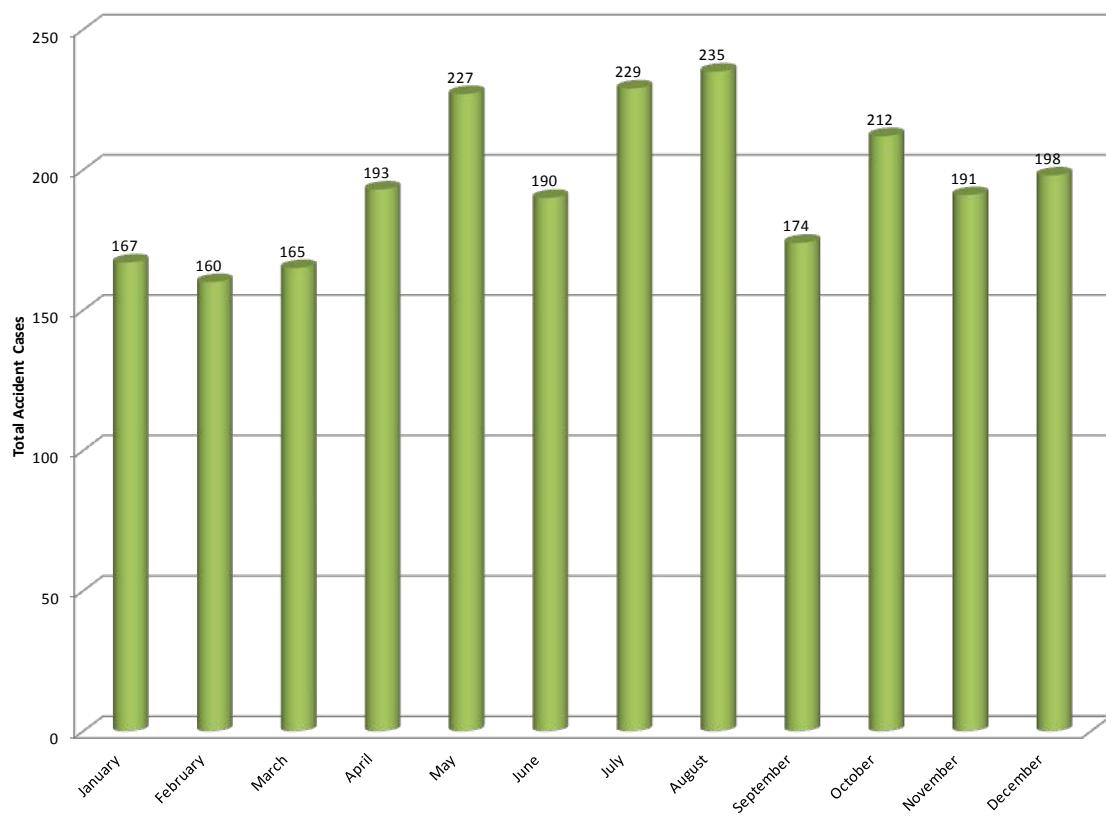
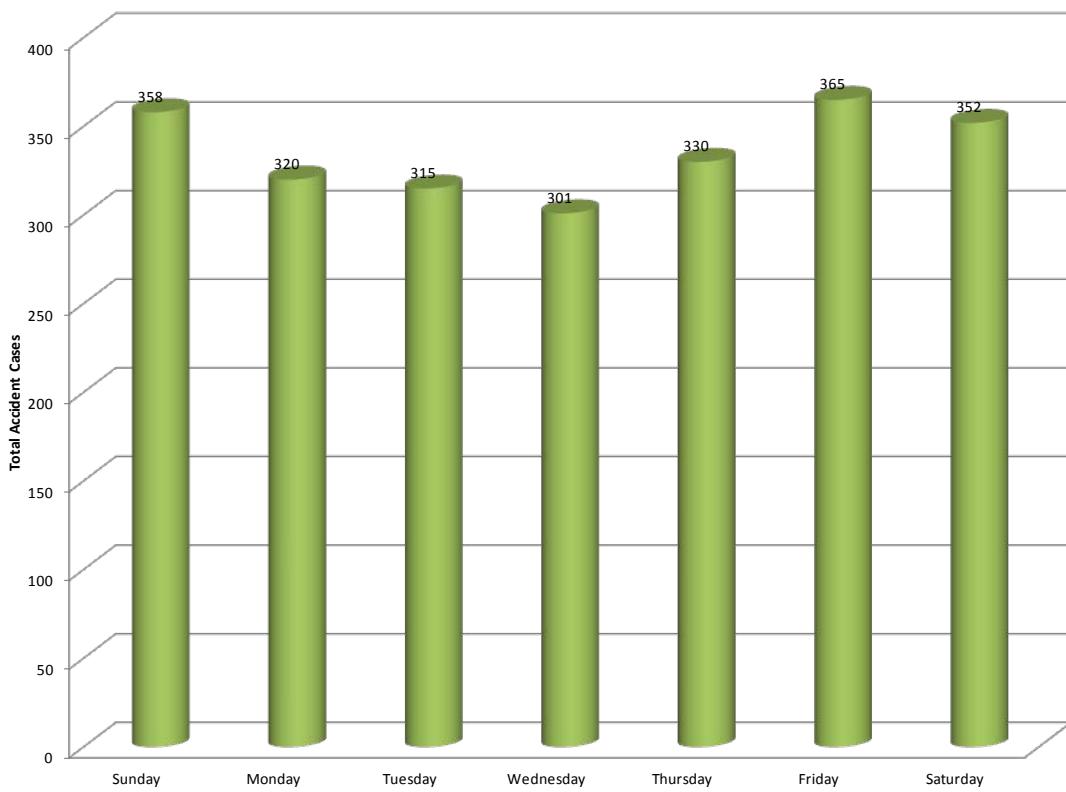
Figure 23. Accidental Deaths by Month of Death, 2011**Figure 24. Accidental Deaths by Day of Death, 2011**

Table 14. Accidental Deaths by City/County of Injury/Acute Illness, 2006-2011

County/City of Injury	Year of Death						Total
	2006	2007	2008	2009	2010	2011	
Accomack	22	20	11	19	18	16	106
Albemarle	17	20	33	25	28	34	157
Alexandria	21	21	21	22	14	22	121
Alleghany	10	14	8	5	6	4	47
Amelia	4	7	11	9	4	8	43
Amherst	11	8	16	9	5	17	66
Appomattox	2	6	7	4	3	5	27
Arlington	18	20	30	34	27	24	153
Augusta	26	35	38	33	31	27	190
Bath	2	3	1	4	3	3	16
Bedford City	3	5	5	4	4	2	23
Bedford	22	27	16	30	31	24	150
Bland	0	6	2	7	4	7	26
Botetourt	12	12	13	11	11	19	78
Bristol	6	10	3	3	7	5	34
Brunswick	16	7	6	8	13	8	58
Buchanan	21	18	19	11	23	18	110
Buckingham	3	9	6	3	5	5	31
Buena Vista	0	0	1	2	0	1	4
Campbell	32	16	31	12	17	14	122
Caroline	9	14	8	9	13	14	67
Carroll	17	15	19	11	7	13	82
Charles City	4	8	7	7	7	6	39
Charlotte	4	6	6	5	6	9	36
Charlottesville	21	28	11	16	12	9	97
Chesapeake	55	60	47	53	43	58	316
Chesterfield	56	71	92	68	70	74	431
Clarke	5	6	5	8	10	4	38
Colonial Heights	6	3	4	2	2	3	20
Covington	4	0	2	2	0	1	9
Craig	7	2	2	4	2	2	19
Culpeper	16	24	12	12	14	15	93
Cumberland	1	2	4	3	2	3	15
Danville	16	13	22	20	20	19	110
Dickenson	11	16	13	5	11	13	69
Dinwiddie	12	14	20	12	10	8	76
Emporia	2	8	2	1	3	3	19

County/City of Injury	Year of Death						Total
	2006	2007	2008	2009	2010	2011	
Essex	4	7	4	7	5	8	35
Fairfax City	3	4	5	11	5	7	35
Fairfax	221	157	144	149	152	195	1018
Falls Church	2	1	0	1	1	6	11
Fauquier	21	32	26	33	32	33	177
Floyd	13	10	5	8	5	10	51
Fluvanna	9	7	14	7	6	5	48
Franklin City	2	2	1	1	2	0	8
Franklin	27	22	23	26	21	33	152
Frederick	24	25	26	31	27	29	162
Fredericksburg	22	14	15	6	11	12	80
Galax	0	3	0	0	0	3	6
Giles	9	5	9	9	10	3	45
Gloucester	21	10	16	10	20	14	91
Goochland	6	15	10	14	8	8	61
Grayson	13	5	2	6	5	5	36
Greene	4	14	5	4	7	2	36
Greenville	10	3	2	5	6	2	28
Halifax	15	22	27	14	20	16	114
Hampton	31	28	28	25	35	38	185
Hanover	21	27	26	13	18	30	135
Harrisonburg	11	1	3	5	4	8	32
Henrico	89	66	76	73	70	58	432
Henry	34	15	34	22	26	31	162
Highland	1	2	2	2	2	1	10
Hopewell	5	8	6	7	7	6	39
Isle of Wight	16	16	15	12	13	7	79
James City	17	8	24	16	13	19	97
King and Queen	5	7	5	8	2	1	28
King George	5	7	8	10	2	8	40
King William	3	7	5	9	2	6	32
Lancaster	9	9	6	2	2	8	36
Lee	11	16	10	13	8	15	73
Lexington	3	2	1	2	4	1	13
Loudoun	23	37	27	29	32	36	184
Louisa	16	24	17	21	14	11	103
Lunenburg	6	11	9	5	2	1	34
Lynchburg	13	24	24	16	25	21	123
Madison	3	9	6	3	5	4	30

County/City of Injury	Year of Death						Total
	2006	2007	2008	2009	2010	2011	
Manassas	8	8	6	12	4	6	44
Martinsville	8	3	8	6	7	7	39
Mathews	8	4	1	4	2	2	21
Mecklenburg	18	17	11	16	10	13	85
Middlesex	3	7	6	6	6	1	29
Montgomery	15	24	27	24	30	28	148
Nelson	6	12	6	11	6	9	50
New Kent	15	6	7	8	12	11	59
Newport News	52	36	36	53	40	45	262
Norfolk	59	79	59	67	49	73	386
Northampton	6	8	10	9	5	3	41
Northumberland	2	3	8	4	6	9	32
Norton	3	0	1	1	2	0	7
Nottoway	6	8	3	14	6	7	44
Orange	6	14	13	10	14	16	73
Page	4	10	4	7	8	14	47
Patrick	5	7	11	8	8	5	44
Petersburg	16	22	14	14	13	3	82
Pittsylvania	28	30	37	29	25	27	176
Poquoson	5	1	1	3	1	2	13
Portsmouth	29	20	18	29	23	28	147
Powhatan	14	6	7	5	3	7	42
Prince Edward	9	16	5	14	11	4	59
Prince George	9	12	12	10	12	11	66
Prince William	69	57	65	64	75	82	412
Pulaski	16	23	19	15	19	19	111
Radford	2	5	9	3	8	3	30
Rappahannock	0	4	2	3	6	4	19
Richmond City	127	132	85	69	66	88	567
Richmond	2	2	6	2	4	4	20
Roanoke City	37	30	32	41	36	39	215
Roanoke	27	22	23	19	17	26	134
Rockbridge	12	14	10	13	7	10	66
Rockingham	30	21	19	16	18	16	120
Russell	19	19	15	11	16	20	100
Salem	13	7	8	8	8	4	48
Scott	6	8	10	9	5	8	46
Shenandoah	14	5	24	13	12	15	83
Smyth	13	10	11	7	12	10	63

County/City of Injury	Year of Death						Total
	2006	2007	2008	2009	2010	2011	
Southampton	10	15	10	10	11	6	62
Spotsylvania	29	39	30	29	43	36	206
Stafford	18	43	25	24	21	23	154
Staunton	7	6	8	7	5	8	41
Suffolk	16	36	26	17	30	26	151
Surry	2	7	4	1	6	2	22
Sussex	13	15	17	11	12	5	73
Tazewell	36	11	16	19	25	30	137
Virginia Beach	101	105	102	110	77	112	607
Warren	6	11	17	9	25	23	91
Washington	18	20	22	14	21	28	123
Waynesboro	7	2	7	6	7	3	32
Westmoreland	13	10	11	6	11	10	61
Williamsburg	6	5	3	6	2	9	31
Winchester	15	2	4	10	7	7	45
Wise	31	28	15	22	22	23	141
Wythe	11	14	24	12	13	9	83
York	14	17	14	7	15	17	84
TOTAL IN STATE	2316	2334	2224	2105	2080	2274	13333
Out of State	29	52	46	52	54	54	287
Unknown	8	18	27	18	14	13	98
TOTAL	2353	2404	2297	2175	2148	2341	13718

SUICIDE DEATHS (N=1067)

The rate of suicides (12.6/100,000) is the highest it has been in the past 13 years. In 2011, as in previous years, suicides were most frequently in males (77.6%), white (87%), and those aged 45-54 years old (23.4%).

- Whites committed suicide 5.2 times that of Hispanics, 4 times that of Asians, and 3.3 times that of blacks
- Males were 3.4 times more likely to commit suicide than females
- Handguns were used in 45.2 percent of suicides, followed by 18.4 percent by hangings, then 12.9 percent by drug use
- Ethanol was present in 29.3% of all suicides

Figure 25. Suicide Deaths & Rate by Year of Death, 2011

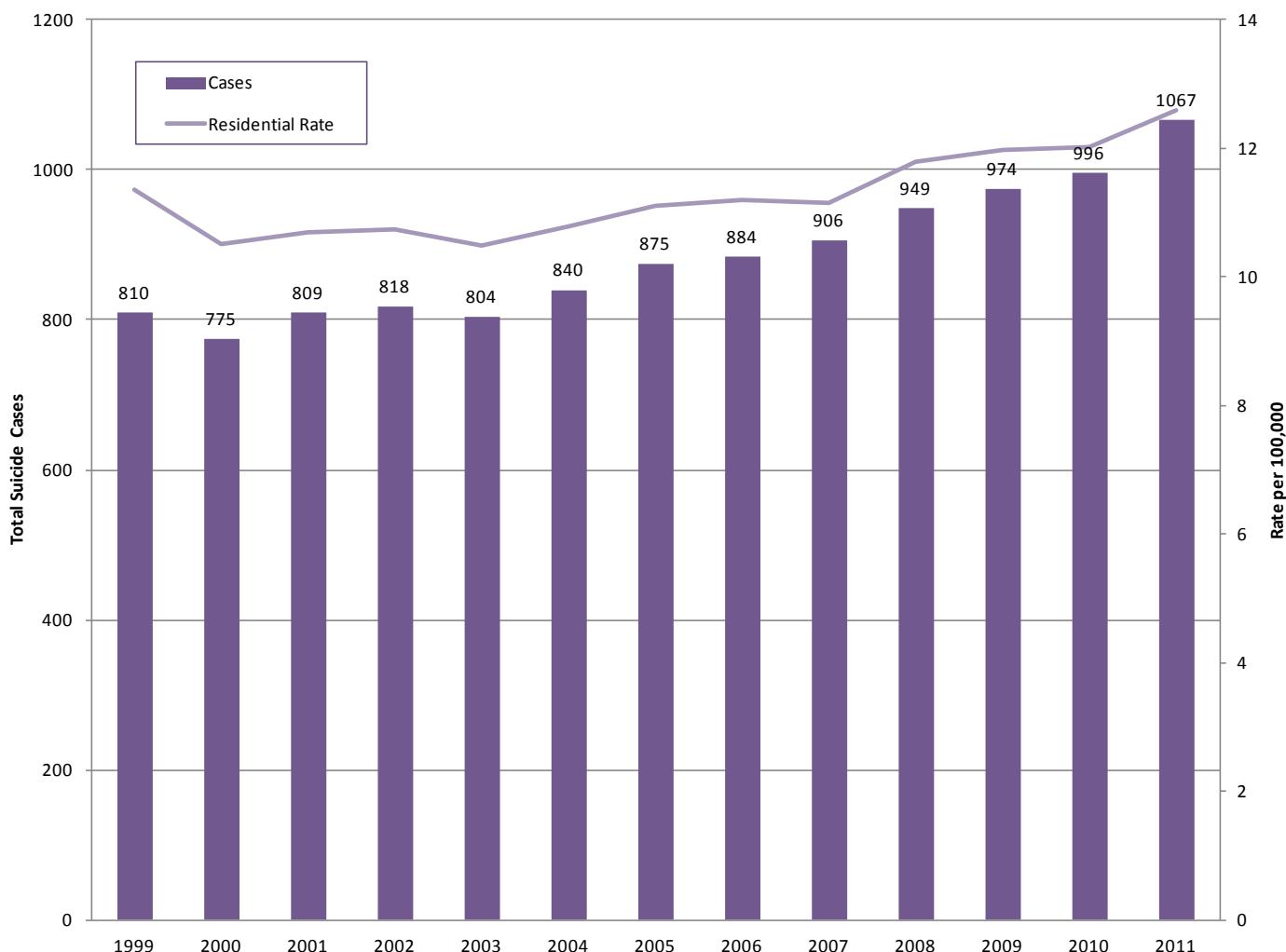


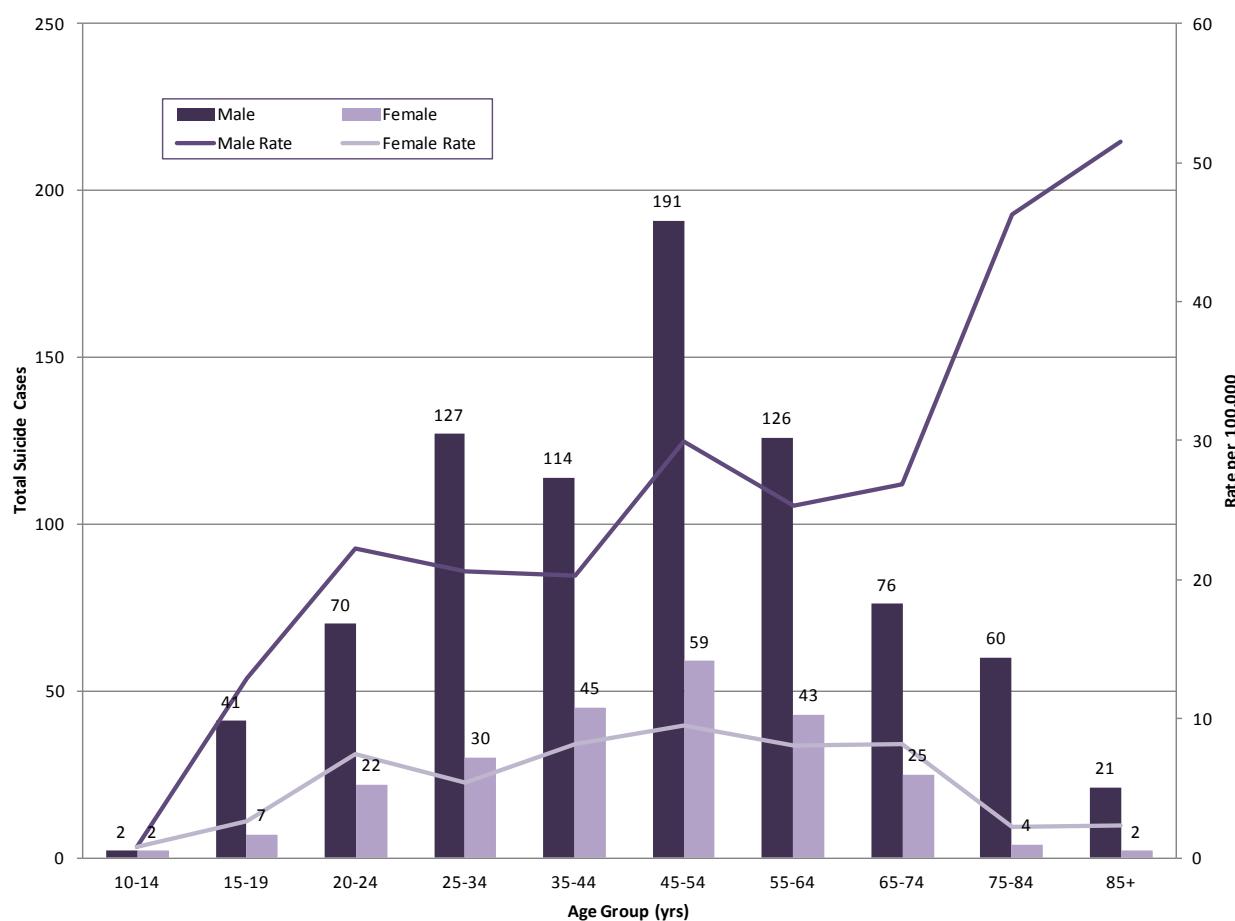
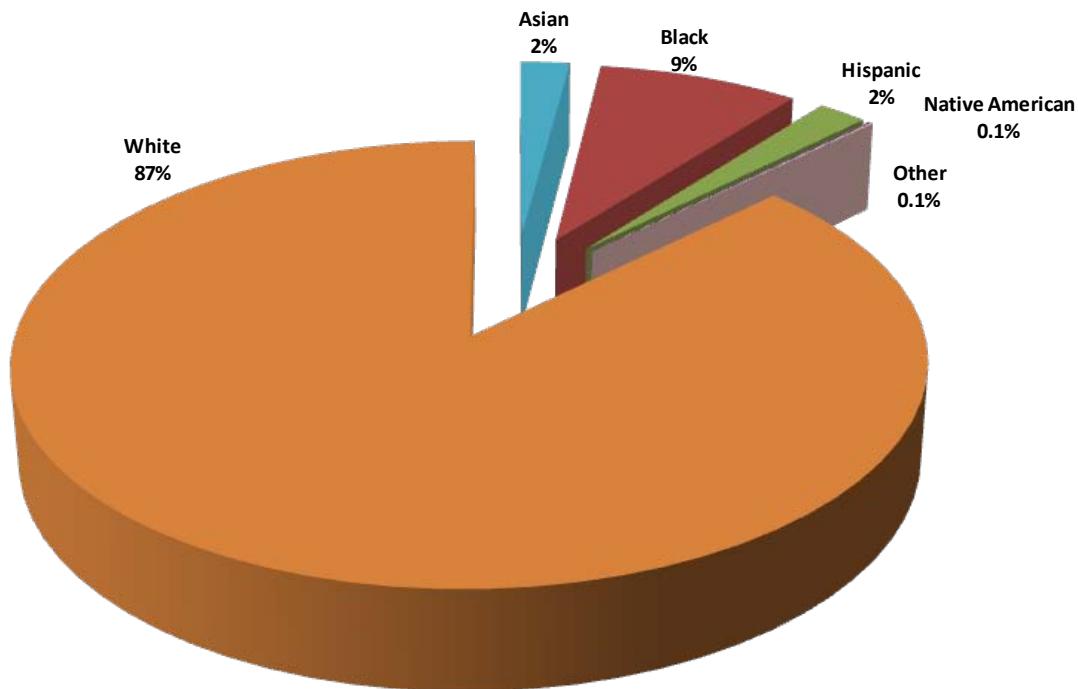
Figure 26. Suicide Deaths & Rates by Age Group by Gender, 2011**Figure 27. Suicide Deaths by Race/Ethnicity, 2011**

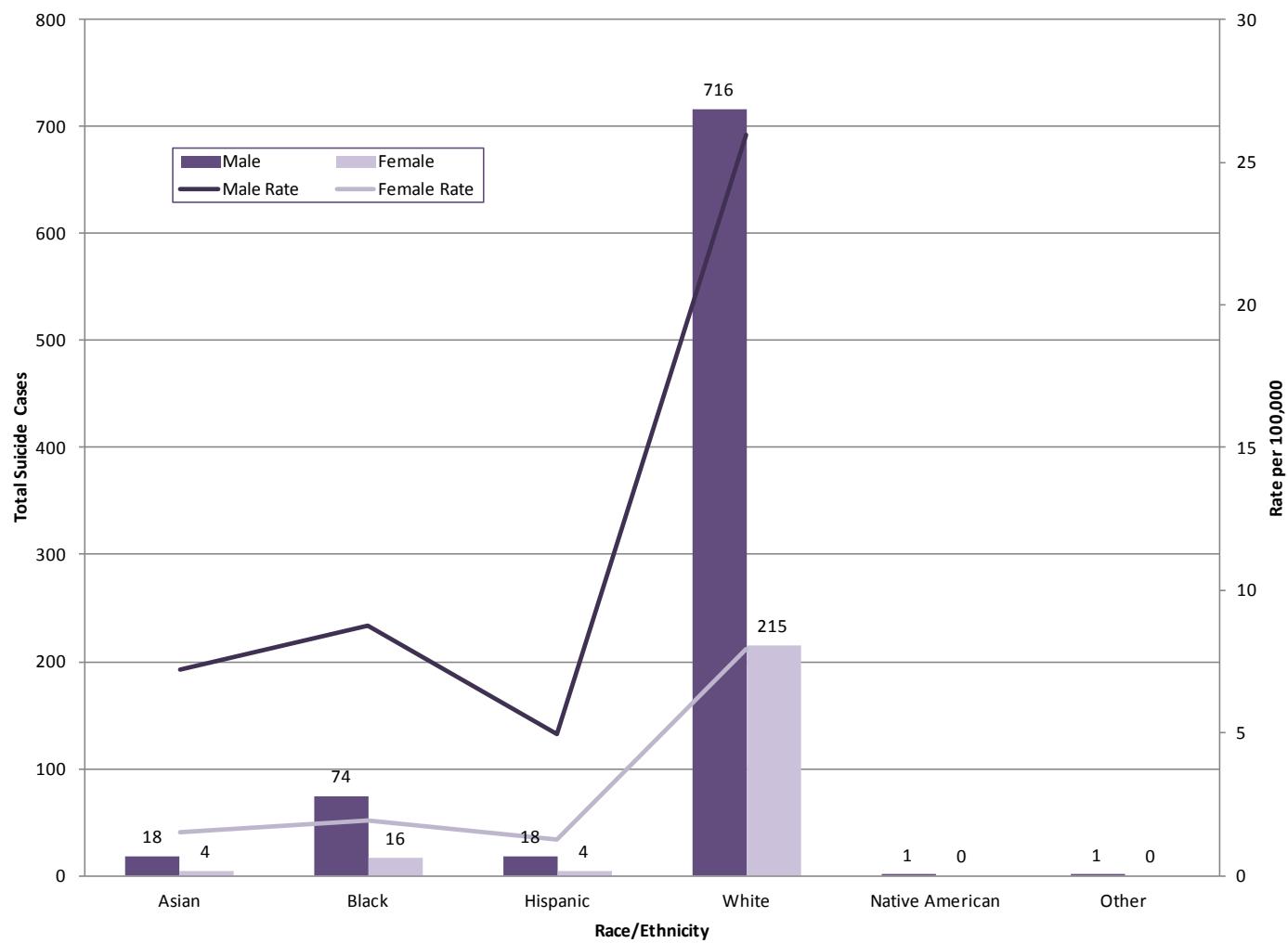
Figure 28. Suicide Deaths by Race/Ethnicity by Gender, 2011

Table 15. Suicide Deaths by Method of Death, 2011

Method of Death		Total Cases	Autopsied
Asphyxia			
Drowned		12	10
Hanging		196	39
Helium		18	4
Plastic bag		10	5
Oxygen replacement/displacement		2	0
Other asphyxia		5	1
Drug Use			
Ingested and/or injected illicit, prescription, and/or other type of drug		138	118
Jump			
Jumped from height		24	8
Poisoned			
Carbon monoxide poisoning		17	7
Ingested ethylene glycol		3	2
Ingested other poison (ex. heavy metals, etc.)		7	2
Traumatic Injury			
Cut/Stabbed self		14	7
Shot self with firearm		609	605
Handgun		(482)	(479)
Rifle		(53)	(53)
Shotgun		(74)	(73)
Other			
Other		1	1
Vehicular			
Car		4	3
Pickup Truck		1	1
Sport Utility Vehicle		1	0
Train		5	4
TOTAL		1067	817

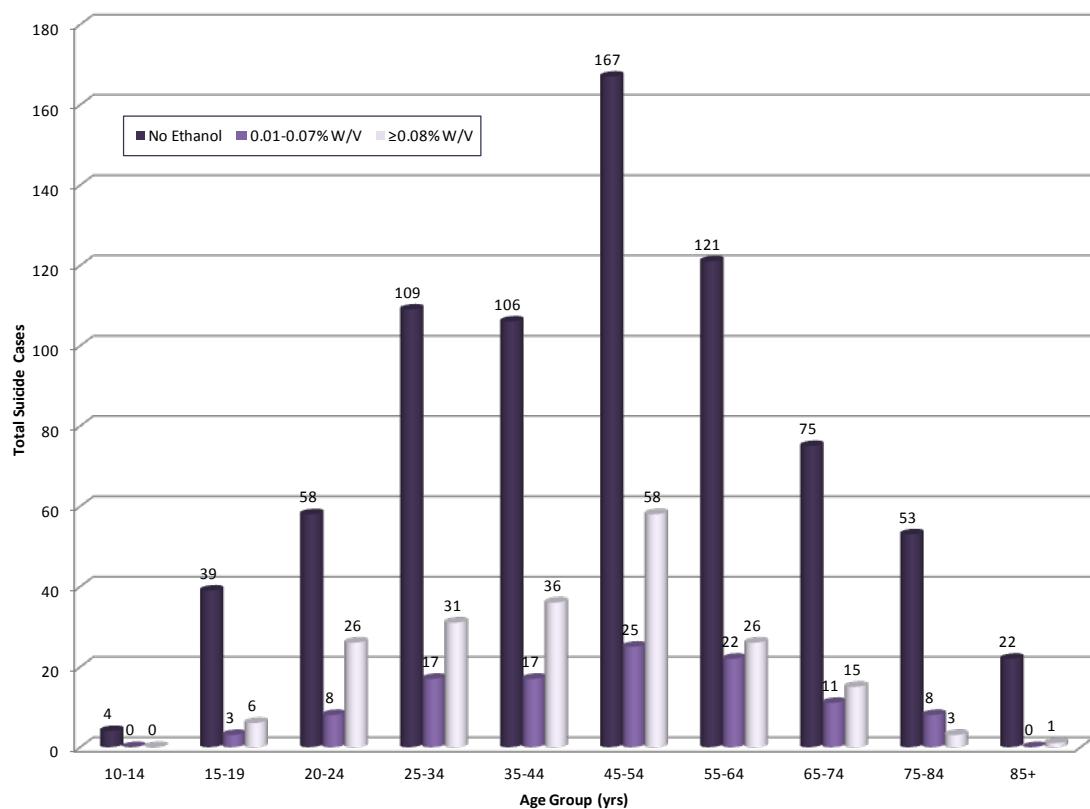
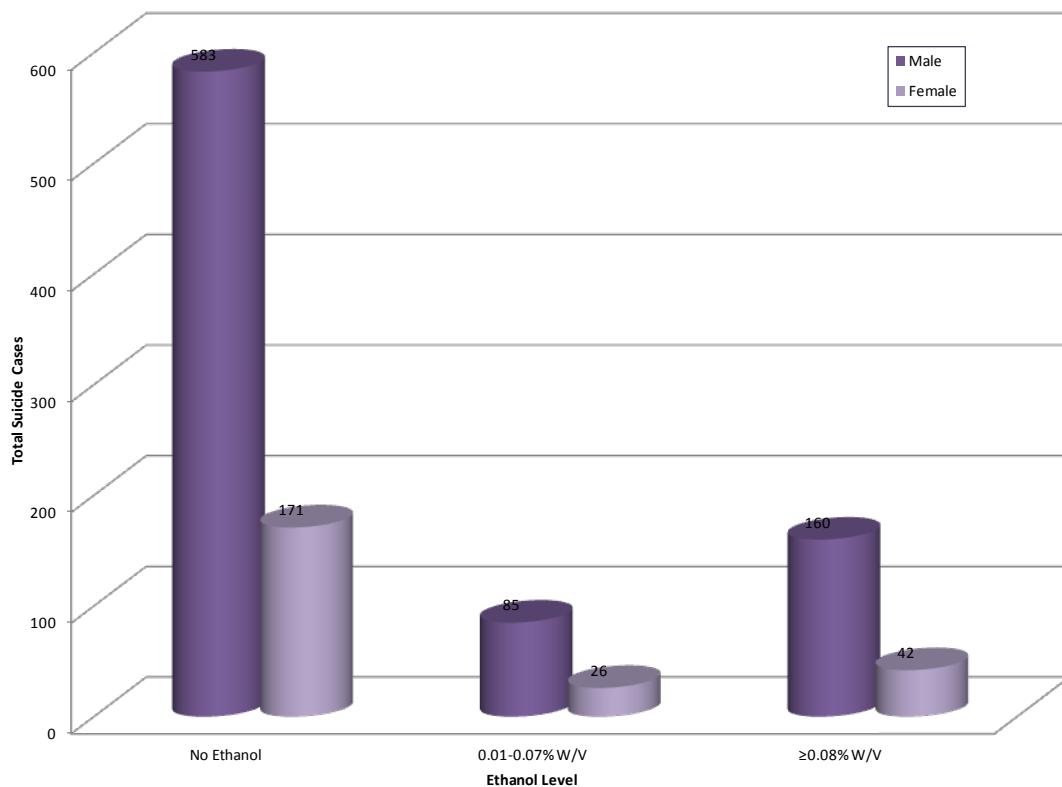
Figure 29. Suicide Deaths by Age Group by Ethanol Level, 2011**Figure 30. Suicide Deaths by Gender by Ethanol Level, 2011**

Table 16. Suicide Deaths by Method of Death by Ethanol Level, 2011

Method of Death	Total Cases	No Ethanol	Ethanol 0.01-0.07% W/V	Ethanol ≥0.08% W/V
Asphyxia				
Drowned	12	9	1	2
Hanging	196	142	18	36
Helium	18	10	6	2
Plastic bag	10	7	2	1
Oxygen replacement/displacement	2	1	1	0
Other asphyxia	5	4	0	1
Drug Use				
Ingested and/or injected illicit, prescription, and/or other type of drug	138	100	14	24
Jump				
Jumped from height	24	19	4	1
Poisoned				
Carbon monoxide poisoning	17	9	5	3
Ingested ethylene glycol	3	3	0	0
Ingested other poison (ex. heavy metals, etc.)	7	5	1	1
Traumatic Injury				
Cut/Stabbed self	14	8	2	4
Shot self with firearm	609	430	56	123
Handgun	(482)	(333)	(47)	(102)
Rifle	(53)	(39)	(5)	(9)
Shotgun	(74)	(58)	(4)	(12)
Other				
Other	1	1	0	0
Vehicular				
Car	4	1	1	2
Pickup Truck	1	1	0	0
Sport Utility Vehicle	1	1	0	0
Train	5	3	0	2
TOTAL	1067	754	111	202

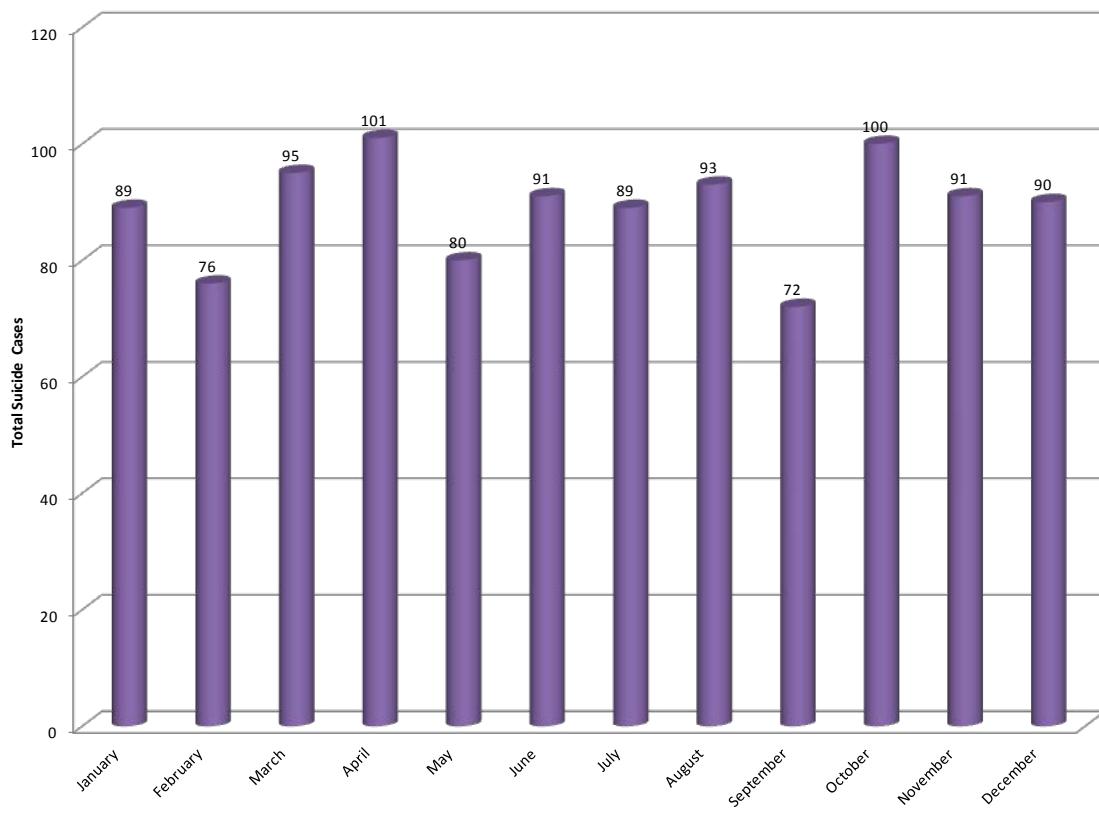
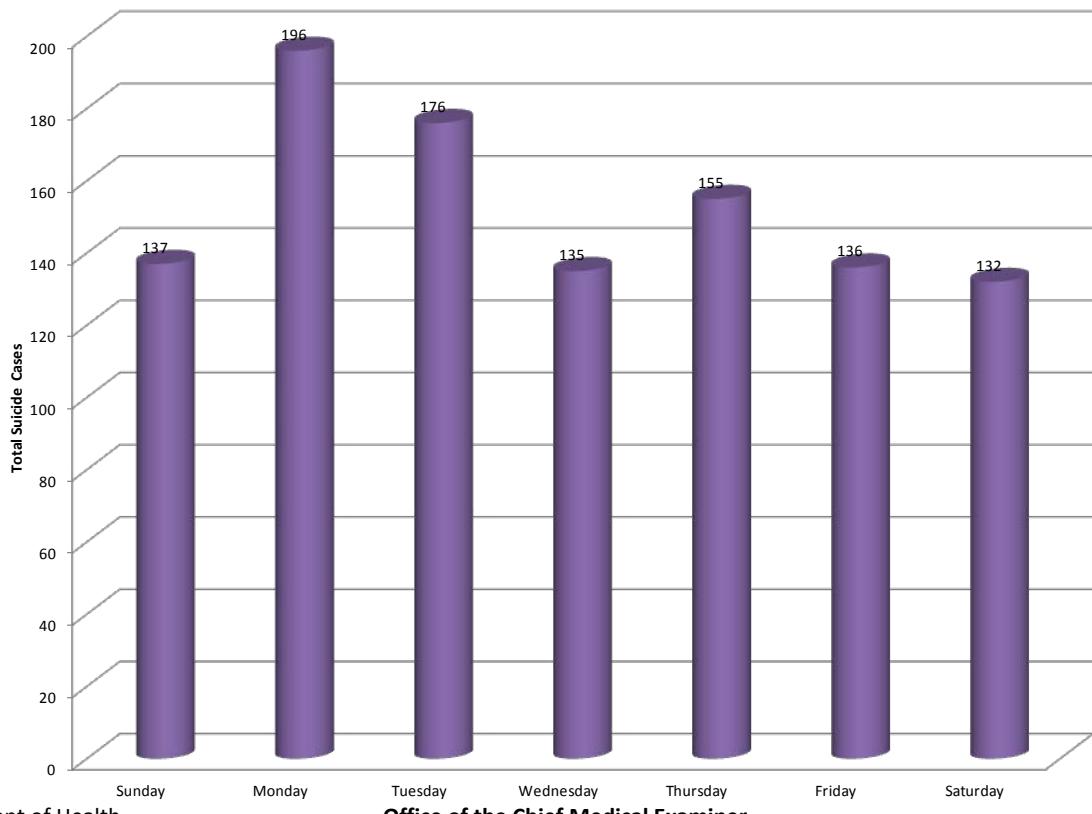
Figure 31. Suicide Deaths by Month of Death, 2011**Figure 32. Suicide Deaths by Day of Death, 2011**

Table 17. Suicide Deaths & Rates by City/County of Residence, 2011

City/County of Residence	Total	Rate
Accomack	5	15.0
Albemarle	12	11.9
Alexandria	16	11.1
Alleghany	6	37.1
Amelia	2	15.6
Amherst	4	12.4
Appomattox	2	13.3
Arlington	14	6.5
Augusta	12	16.3
Bath	2	42.9
Bedford City	0	0.0
Bedford	11	15.9
Bland	1	14.7
Botetourt	5	15.2
Bristol	3	16.9
Brunswick	1	5.8
Buchanan	1	4.2
Buckingham	2	11.6
Buena Vista	0	0.0
Campbell	10	18.2
Caroline	4	13.9
Carroll	6	20.0
Charles City	4	55.2
Charlotte	3	24.0
Charlottesville	0	0.0
Chesapeake	27	12.0
Chesterfield	39	12.2
Clarke	5	35.1
Colonial Heights	1	5.7
Covington	1	16.8
Craig	2	39.2
Culpeper	7	14.7
Cumberland	3	30.1
Danville	5	11.7
Dickenson	6	38.1
Dinwiddie	3	10.7
Emporia	0	0.0
Essex	2	17.8
Fairfax City	2	8.9
Fairfax	88	8.0

City/County of Residence	Total	Rate
Falls Church	0	0.0
Fauquier	12	18.2
Floyd	1	6.5
Fluvanna	4	15.3
Franklin City	0	0.0
Franklin	9	16.0
Frederick	13	16.3
Fredericksburg	4	15.6
Galax	5	71.6
Giles	5	29.2
Gloucester	13	35.2
Goochland	2	9.1
Grayson	7	45.7
Greene	5	26.8
Greenville	3	24.8
Halifax	4	11.1
Hampton	8	5.9
Hanover	13	13.0
Harrisonburg	1	2.0
Henrico	37	11.9
Henry	12	22.3
Highland	1	44.1
Hopewell	2	8.9
Isle of Wight	5	14.1
James City	9	13.2
King and Queen	1	14.3
King George	3	12.4
King William	2	12.5
Lancaster	2	17.7
Lee	5	19.9
Lexington	0	0.0
Loudoun	37	11.4
Louisa	7	21.0
Lunenburg	2	15.5
Lynchburg	9	11.8
Madison	1	7.6
Manassas	3	7.6
Martinsville	3	22.1
Mathews	2	22.3
Mecklenburg	4	12.3

City/County of Residence	Total	Rate
Middlesex	2	18.4
Montgomery	13	13.8
Nelson	2	13.2
New Kent	2	10.6
Newport News	21	11.7
Norfolk	25	10.3
Northampton	3	24.2
Northumberland	2	16.1
Norton	2	49.3
Nottoway	5	31.6
Orange	4	11.8
Page	10	41.7
Patrick	4	21.8
Petersburg	2	6.2
Pittsylvania	9	14.3
Poquoson	1	8.3
Portsmouth	6	6.3
Powhatan	5	17.8
Prince Edward	4	17.1
Prince George	4	10.9
Prince William	26	6.0
Pulaski	8	23.1
Radford	1	6.1
Rappahannock	2	26.9
Richmond City	32	15.6
Richmond	1	10.8
Roanoke City	19	19.6
Roanoke	14	15.1
Rockbridge	5	22.3

City/County of Residence	Total	Rate
Rockingham	12	15.7
Russell	5	17.4
Salem	4	16.0
Scott	5	21.6
Shenandoah	7	16.6
Smyth	4	12.5
Southampton	2	10.9
Spotsylvania	12	9.7
Stafford	10	7.6
Staunton	4	16.8
Suffolk	14	16.5
Surry	0	0.0
Sussex	1	8.3
Tazewell	6	13.4
Virginia Beach	64	14.5
Warren	6	15.9
Washington	10	18.2
Waynesboro	4	18.8
Westmoreland	3	17.1
Williamsburg	6	41.5
Winchester	5	18.8
Wise	9	21.7
Wythe	7	24.0
York	11	16.6
TOTAL FOR STATE RESIDENTS	1018	12.6
Out of State	48	ND†
Unknown	1	ND
TOTAL	1067	ND

† ND- No Denominator

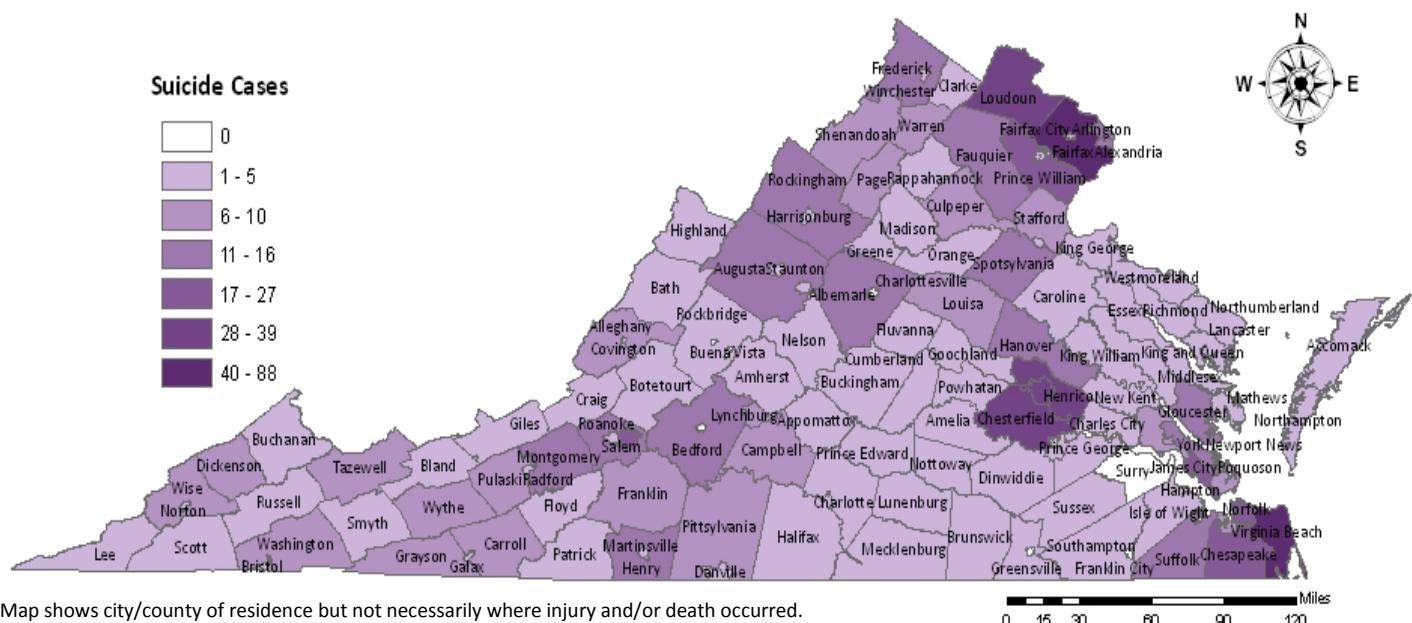
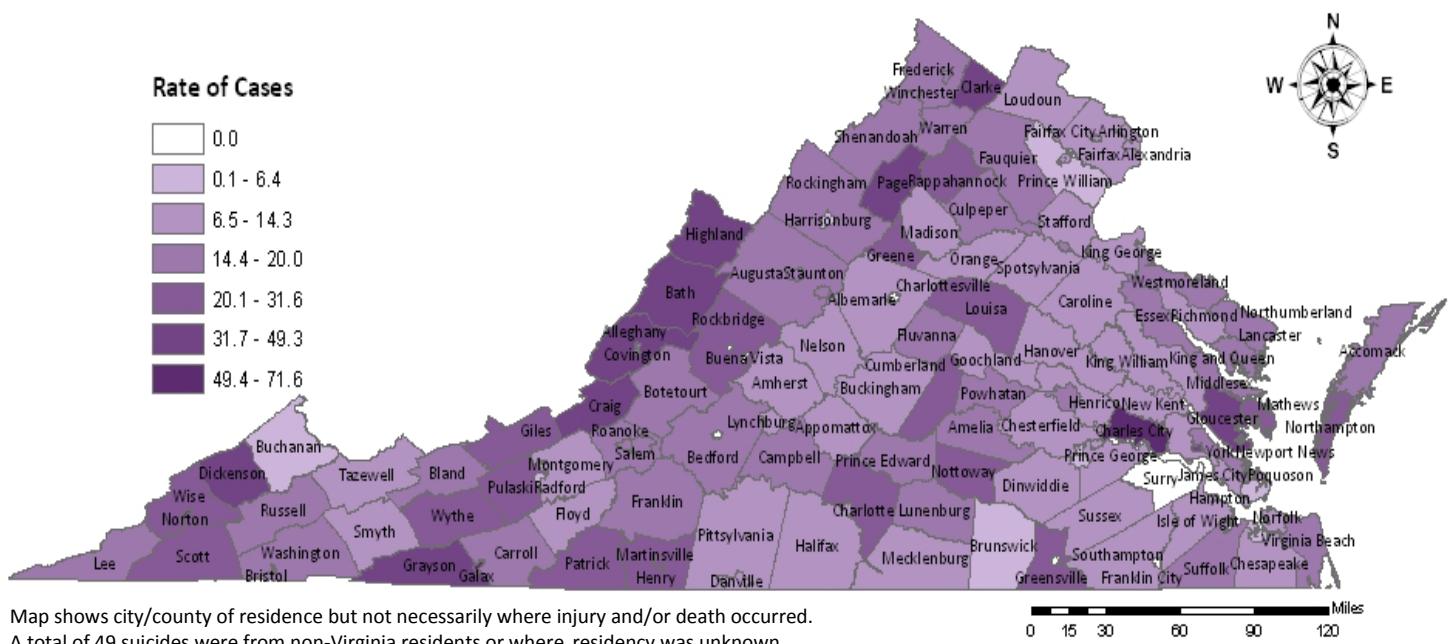
Figure 33. Suicide Deaths by City/County of Residence, 2011**Figure 34. Suicide Rates by City/County of Residence, 2011**

Table 18. Suicide Deaths by City/County of Injury by Year of Death, 2006-2011

County/City of Injury	Year of Death						Total
	2006	2007	2008	2009	2010	2011	
Accomack	4	2	1	4	6	6	23
Albemarle	2	6	8	13	6	11	46
Alexandria	12	11	13	14	14	14	78
Alleghany	3	2	0	4	6	5	20
Amelia	2	1	1	3	1	4	12
Amherst	4	6	6	7	7	5	35
Appomattox	2	0	0	3	3	2	10
Arlington	14	12	28	10	21	16	101
Augusta	12	11	13	16	11	14	77
Bath	1	0	1	0	0	1	3
Bedford City	1	1	1	2	2	0	7
Bedford	7	6	9	14	14	13	63
Bland	2	1	0	3	1	1	8
Botetourt	3	4	3	5	2	6	23
Bristol	4	4	1	2	3	3	17
Brunswick	2	2	1	1	3	1	10
Buchanan	5	6	7	7	10	1	36
Buckingham	3	3	5	1	3	2	17
Buena Vista	0	0	1	1	1	0	3
Campbell	6	3	7	6	6	10	38
Caroline	3	6	3	3	5	2	22
Carroll	6	8	6	10	9	7	46
Charles City	0	0	2	2	2	3	9
Charlotte	3	2	1	3	2	3	14
Charlottesville	11	7	5	4	3	1	31
Chesapeake	19	20	18	25	26	24	132
Chesterfield	29	25	32	32	34	40	192
Clarke	2	1	3	3	3	5	17
Colonial Heights	1	2	3	1	2	1	10
Covington	2	2	1	0	0	2	7
Craig	0	1	2	4	0	2	9
Culpeper	6	10	2	11	5	7	41
Cumberland	0	1	2	2	0	3	8
Danville	7	3	4	8	7	6	35
Dickenson	2	5	5	8	7	5	32
Dinwiddie	3	3	1	1	7	3	18
Emporia	3	0	2	1	1	0	7
Essex	0	1	3	2	3	2	11

County/City of Injury	Year of Death						Total
	2006	2007	2008	2009	2010	2011	
Fairfax City	2	2	1	6	4	2	17
Fairfax	85	86	88	104	87	90	540
Falls Church	0	1	3	0	1	0	5
Fauquier	7	4	8	9	14	14	56
Floyd	2	2	1	3	4	4	16
Fluvanna	2	3	4	2	2	3	16
Franklin City	0	0	0	0	1	0	1
Franklin	5	8	6	7	3	10	39
Frederick	9	7	7	8	8	14	53
Fredericksburg	6	4	5	2	4	5	26
Galax	1	1	2	1	3	3	11
Giles	2	3	3	5	3	4	20
Gloucester	7	6	9	4	8	13	47
Goochland	2	5	2	4	2	0	15
Grayson	3	2	5	2	2	8	22
Greene	4	2	2	3	4	3	18
Greenville	2	0	0	2	2	4	10
Halifax	8	4	4	5	5	4	30
Hampton	13	16	18	16	9	7	79
Hanover	12	15	17	11	6	15	76
Harrisonburg	2	4	4	6	6	2	24
Henrico	37	26	25	39	30	42	199
Henry	11	12	19	13	16	10	81
Highland	0	0	0	0	1	1	2
Hopewell	1	1	2	3	3	2	12
Isle of Wight	5	1	0	3	2	4	15
James City	5	4	9	7	9	6	40
King and Queen	2	4	2	1	1	1	11
King George	3	2	2	3	6	3	19
King William	1	1	1	4	0	2	9
Lancaster	0	3	4	1	2	2	12
Lee	5	4	7	5	2	5	28
Lexington	0	1	0	0	0	0	1
Loudoun	20	23	13	24	20	35	135
Louisa	5	8	2	5	9	7	36
Lunenburg	6	1	1	3	1	2	14
Lynchburg	8	6	13	5	9	10	51
Madison	2	4	3	1	3	1	14
Manassas	2	3	9	3	1	5	23
Martinsville	0	4	0	1	1	4	10

County/City of Injury	Year of Death						Total
	2006	2007	2008	2009	2010	2011	
Mathews	1	0	2	0	1	2	6
Mecklenburg	4	6	7	5	8	4	34
Middlesex	0	1	1	5	1	3	11
Montgomery	11	22	8	5	9	14	69
Nelson	2	1	3	4	4	3	17
New Kent	3	3	2	3	1	6	18
Newport News	11	15	18	14	20	23	101
Norfolk	27	34	29	22	29	28	169
Northampton	0	4	1	0	1	5	11
Northumberland	1	3	2	0	4	3	13
Norton	0	0	2	1		1	4
Nottoway	1	0	4	4	3	3	15
Orange	6	4	5	2	4	5	26
Page	6	5	7	3	4	8	33
Patrick	3	4	4	4	7	4	26
Petersburg	1	4	7	3	4	3	22
Pittsylvania	13	9	6	13	9	9	59
Poquoson	1	1	1	0	0	0	3
Portsmouth	8	14	10	11	16	8	67
Powhatan	5	2	4	2	8	6	27
Prince Edward	3	3	1	5	3	3	18
Prince George	6	7	7	7	5	4	36
Prince William	32	29	35	41	42	28	207
Pulaski	11	10	2	6	9	9	47
Radford	1	0	2	0	2	1	6
Rappahannock	0	4	3	1	3	2	13
Richmond City	32	25	22	35	21	33	168
Richmond	1	1	4	0	2	1	9
Roanoke City	10	15	19	13	18	19	94
Roanoke	11	7	19	9	20	14	80
Rockbridge	5	4	6	5	5	6	31
Rockingham	9	10	9	4	12	10	54
Russell	5	4	10	7	5	6	37
Salem	4	7	5	0	2	6	24
Scott	3	12	5	4	5	6	35
Shenandoah	7	5	8	8	5	9	42
Smyth	3	11	5	3	3	6	31
Southampton	4	1	4	3	4	2	18
Spotsylvania	13	18	17	10	22	11	91
Stafford	6	14	15	15	5	9	64

County/City of Injury	Year of Death						Total
	2006	2007	2008	2009	2010	2011	
Staunton	4	7	1	6	4	4	26
Suffolk	11	1	10	6	5	14	47
Surry	0	1	0	4	1	0	6
Sussex	1	2	1	4	4	1	13
Tazewell	11	4	4	12	6	6	43
Virginia Beach	61	50	45	60	64	65	345
Warren	3	12	8	6	5	7	41
Washington	6	10	11	13	10	10	60
Waynesboro	6	3	3	4	2	3	21
Westmoreland	4	2	4	2	2	5	19
Williamsburg	10	2	1	1	8	6	28
Winchester	6	1	7	2	6	5	27
Wise	9	13	8	4	5	9	48
Wythe	4	4	8	5	2	7	30
York	3	8	11	6	11	15	54
Total in State	882	900	945	969	991	1058	5745
Out of State	2	6	3	4	4	9	28
Unknown	0	0	1	1	1	0	3
TOTAL	884	906	949	974	996	1067	5776

HOMICIDE DEATHS (N=345)

The number of homicides decreased 11.8 percent from the previous year. As previous years have shown, homicides most frequently occurred in males (74.5%) and in blacks (55.9%). Males also demonstrate 3 peaks of homicide deaths over the life span at the <1 year, 20-24 year, and 75-84 year age group. This pattern is seen with a lesser degree in females.

- Black males died from homicidal violence at a rate of 20.3 per 100,000; this was 7 times that of Hispanic and white males and 16 times that of Asian males
- Seventy percent of homicides were committed using a firearm, with handguns the most common type used in 51.6% of all homicide cases and 73.6% of all firearm homicides
- Richmond City has the greatest number of homicide injuries leading to death with 42 followed by Norfolk with 29 and Newport News with 18
- One hundred sixteen or 33.6% of all homicide victims had ethanol present

Figure 35. Homicide Deaths & Rate by Year of Death, 1999-2011

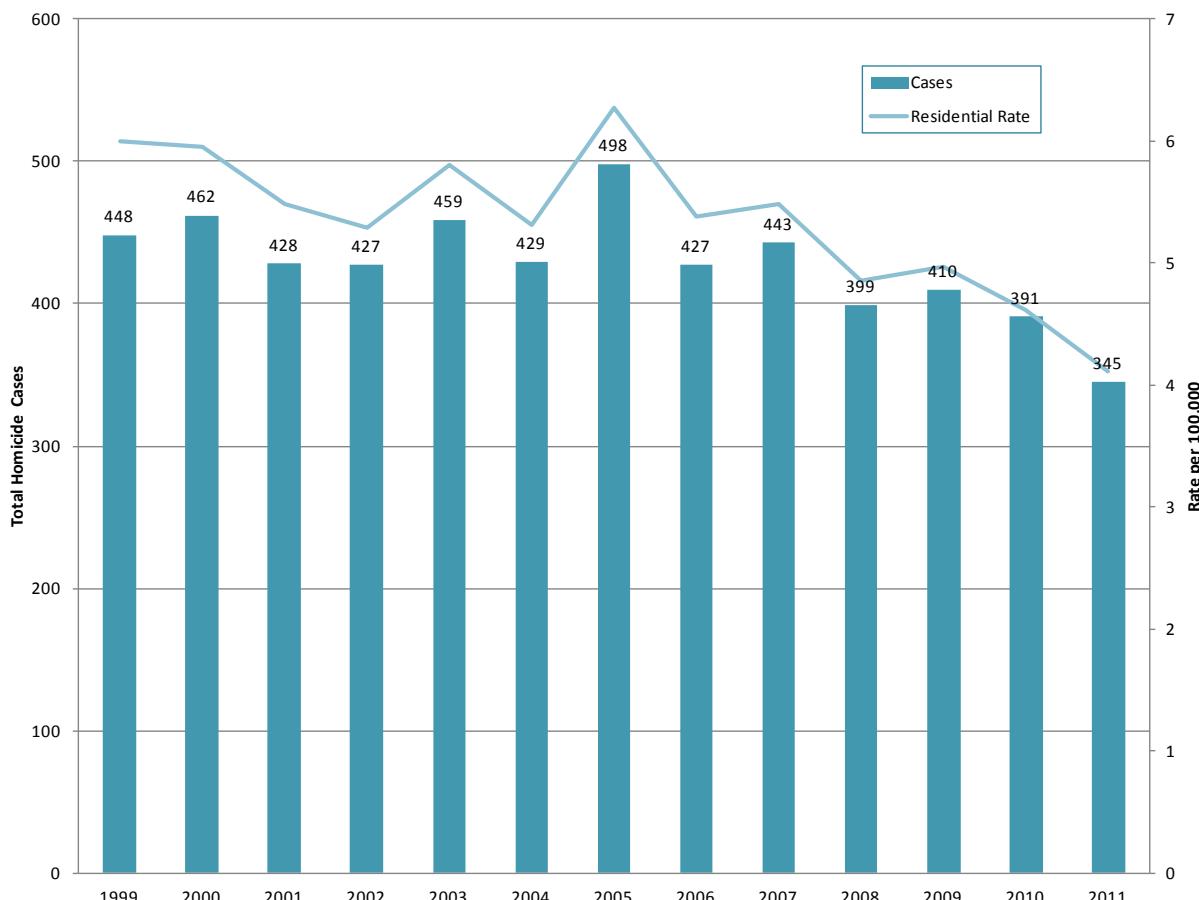


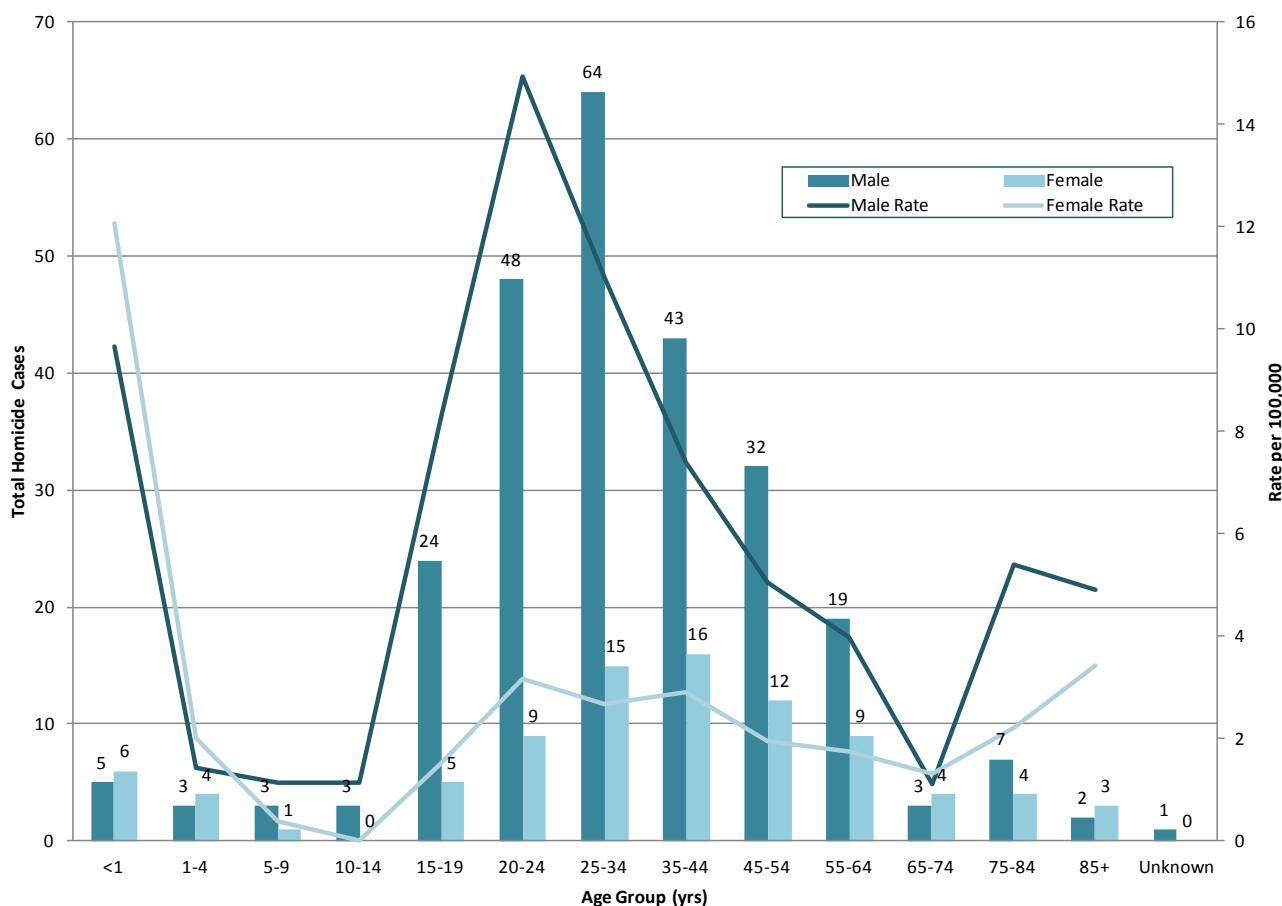
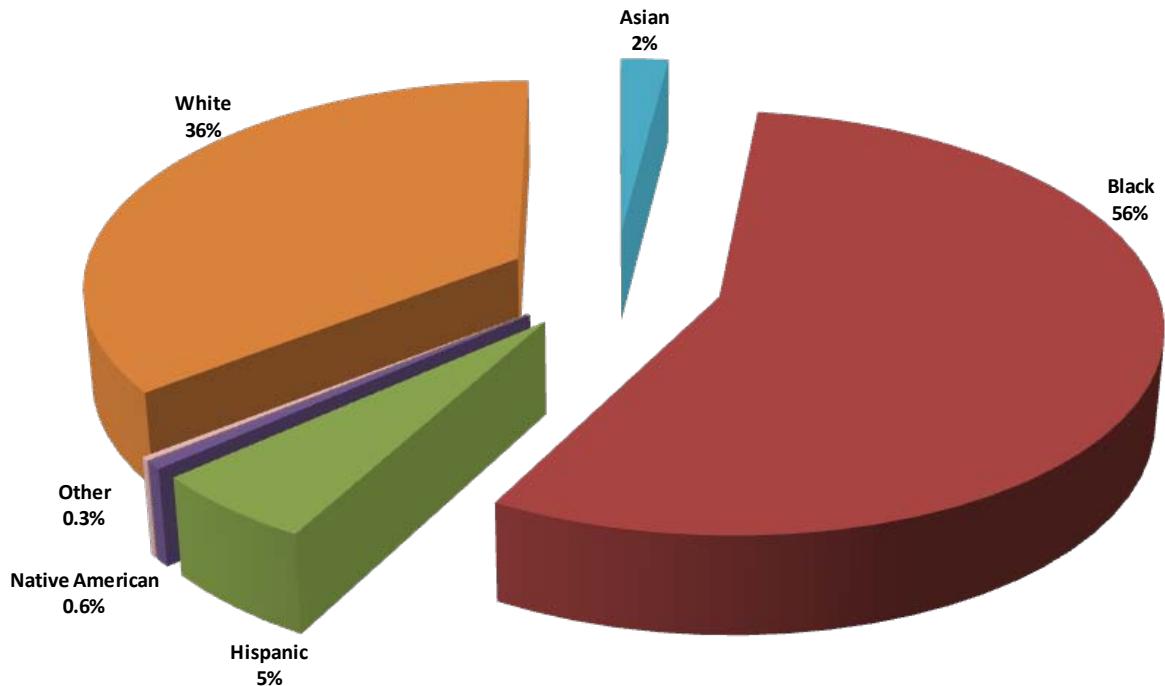
Figure 36. Homicide Deaths by Age Group by Gender, 2011**Figure 37. Homicide Deaths by Race/Ethnicity, 2011**

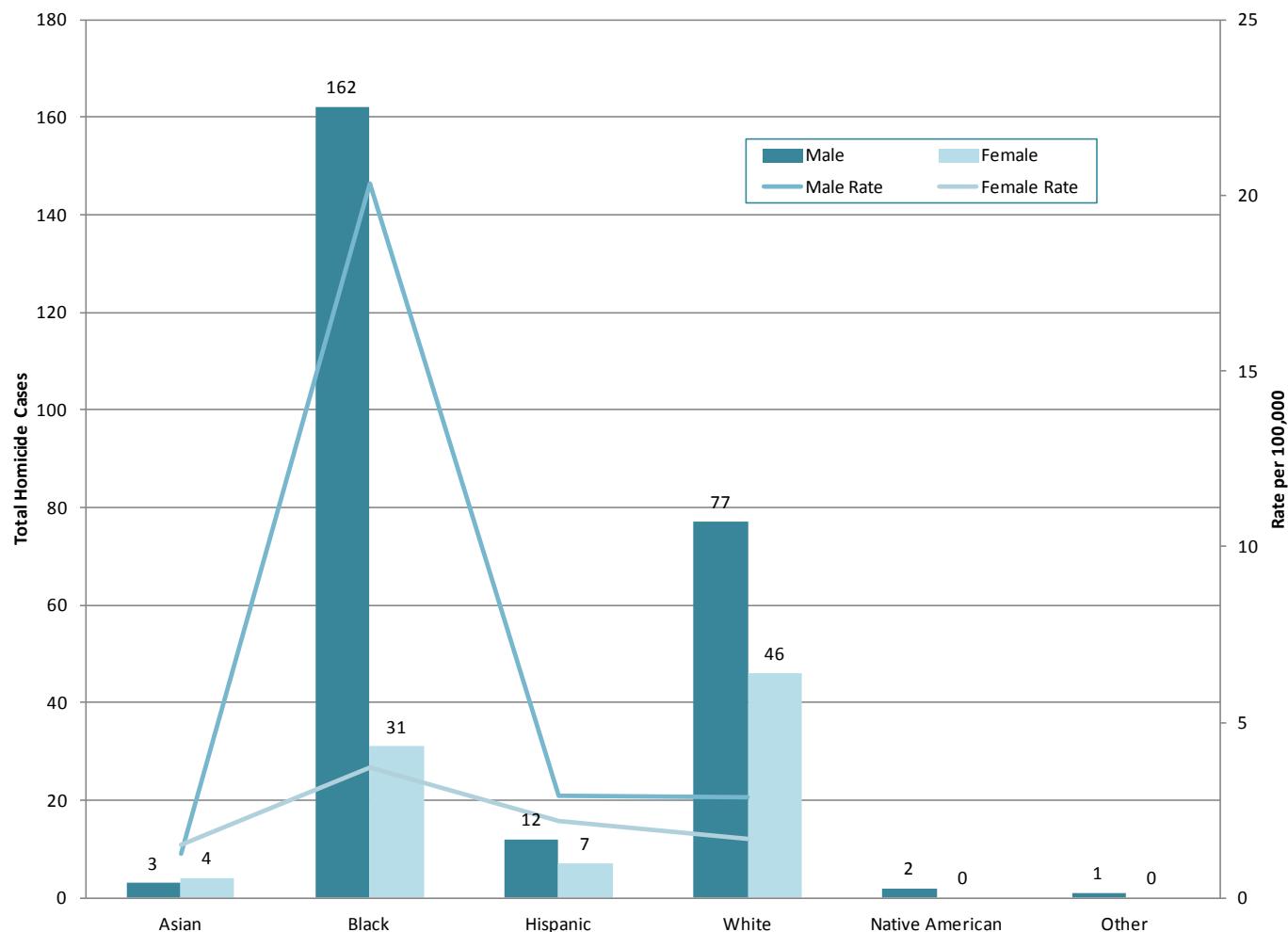
Figure 38. Homicide Deaths by Race/Ethnicity by Gender, 2011

Table 19. Homicide Deaths by Method of Death, 2011*

Method of Death		Total Cases	Autopsied
<i>Asphyxia</i>			
Strangled by assailant(s)	10	10	
Suffocate/Smothered by assailant(s)	3	3	
Other	1	1	
<i>Fire</i>			
Thermal and/or inhalational injuries	2	2	
<i>Legal Intervention</i>			
Lethal injection	1	1	
<i>Poisoned</i>			
Poisoned by ethanol and/or drugs	1	1	
<i>Traumatic Injury</i>			
Beaten by assailant(s)	35	35	
Other traumatic violence	6	6	
Stabbed by assailant(s)	38	38	
Shot by assailant(s)	242	241	
Assault Rifle*	(0)	(0)	
Handgun	(178)	(177)	
Multiple	(1)	(1)	
Rifle*	(18)	(18)	
Shotgun	(22)	(22)	
Unspecified	(23)	(23)	
<i>Unknown</i>			
Undetermined method	6	6	
TOTAL	345	344	

*Per OCME Policy 9.1-2 effective 3/5/13, the one assault rifle case was amended to rifle as it did not meet policy requirements.

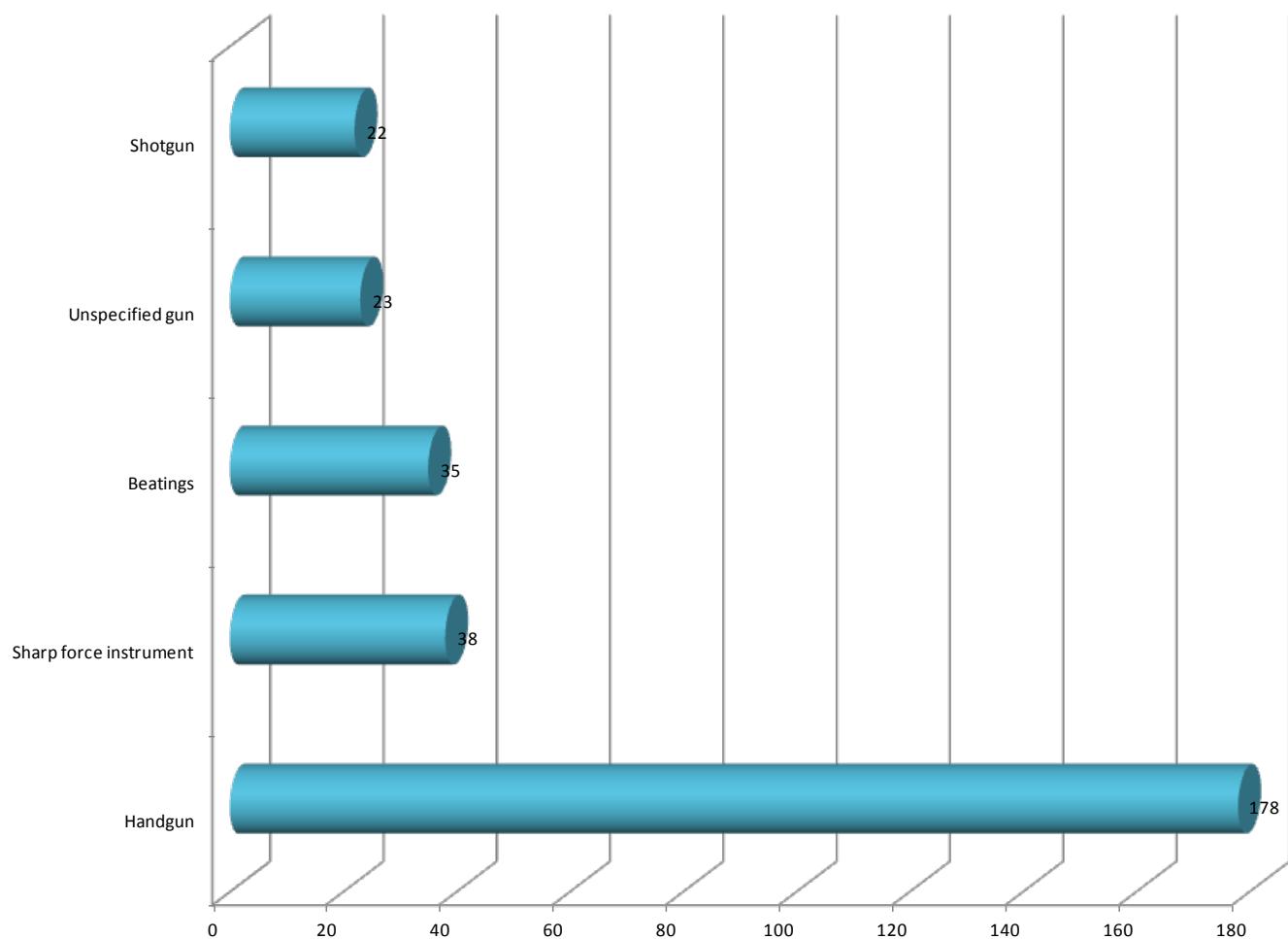
Figure 39. Homicide Deaths by Leading Methods of Death, 2011

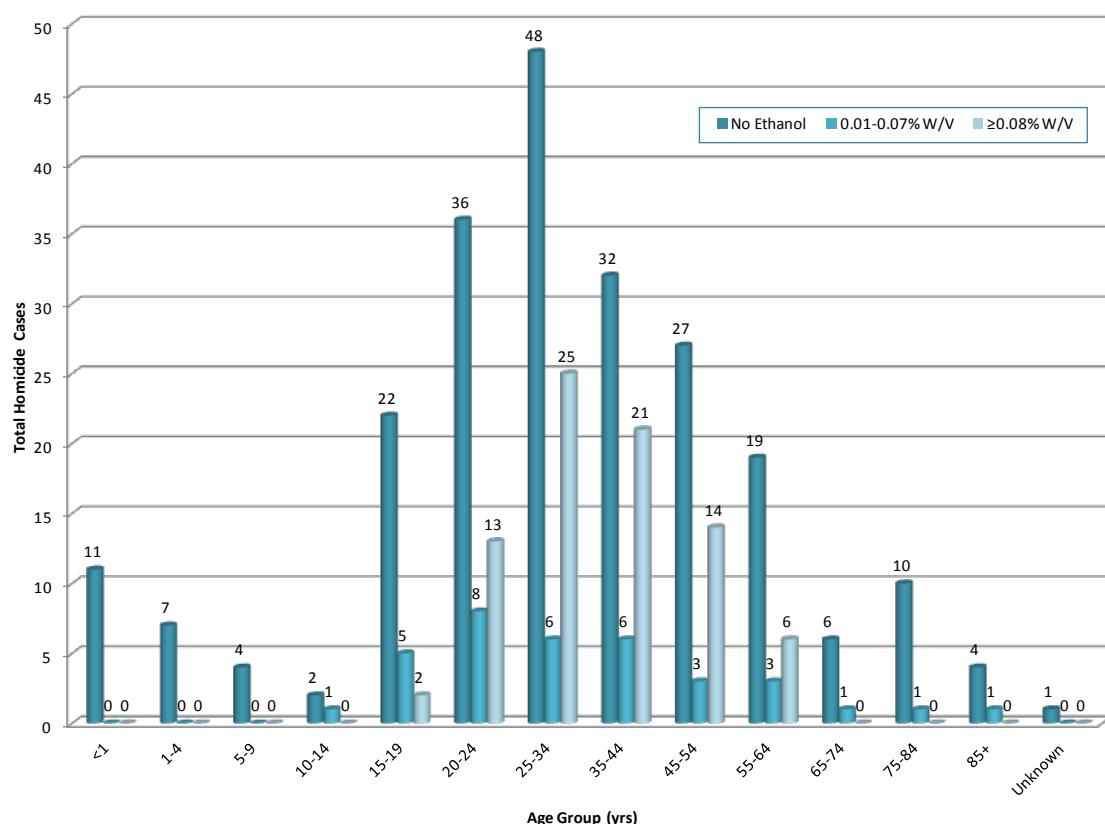
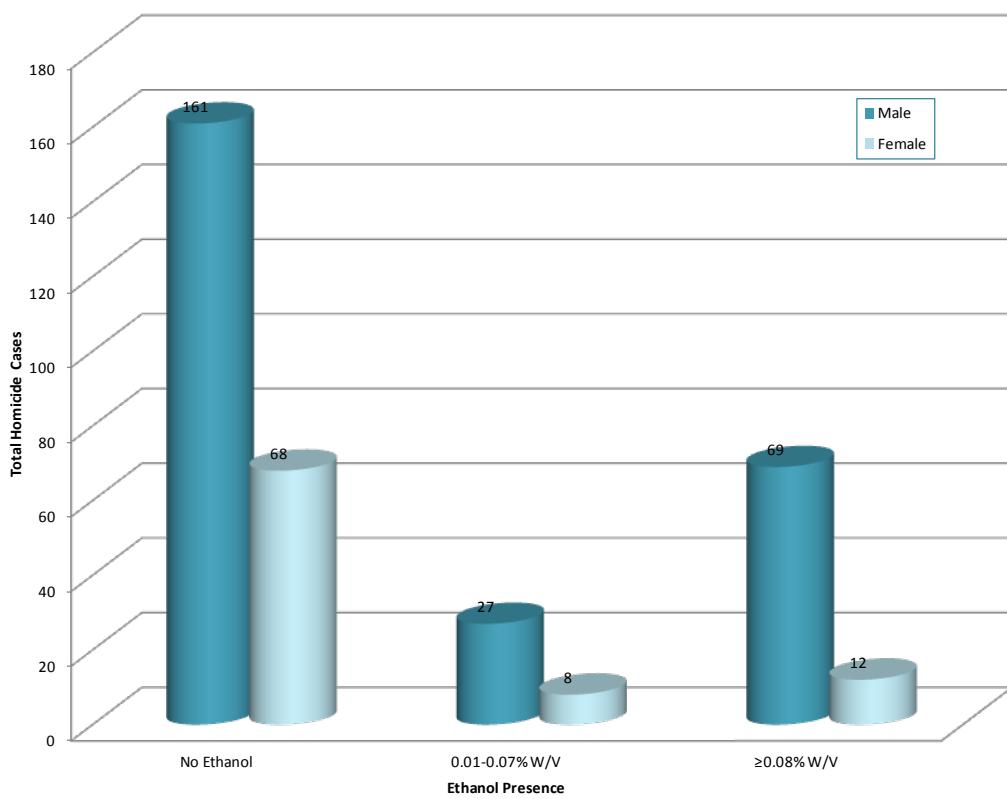
Figure 40. Homicide Deaths by Age Group by Ethanol Level, 2011**Figure 41. Homicide Deaths by Gender by Ethanol Level, 2011**

Table 20. Homicide Deaths by Method of Death by Ethanol Level, 2011

Method of Death	Total Cases	No Ethanol	Ethanol 0.01-0.07% W/V	Ethanol ≥0.08% W/V
<i>Asphyxia</i>				
Strangled by assailant(s)	10	8	1	1
Suffocate/Smothered by assailant(s)	3	2	0	1
Other	1	1	0	0
<i>Fire</i>				
Thermal and/or inhalational injuries	2	0	1	1
<i>Legal Intervention</i>				
Lethal injection	1	1	0	0
<i>Poisoned</i>				
Poisoned by ethanol and/or drugs	1	1	0	0
<i>Traumatic Injury</i>				
Beaten by assailant(s)	35	29	1	5
Other traumatic violence	6	5	0	1
Stabbed by assailant(s)	38	17	6	15
Shot by assailant(s)	242	159	26	57
Assault Rifle*	(0)	(0)	(0)	(0)
Handgun	(178)	(114)	(18)	(46)
Multiple	(1)	(0)	(0)	(1)
Rifle*	(18)	(13)	(2)	(3)
Shotgun	(22)	(14)	(4)	(4)
Unspecified	(23)	(18)	(2)	(3)
<i>Unknown</i>				
Undetermined method	6	6	0	0
TOTAL	345	229	35	81

*Per OCME Policy 9.1-2 effective 3/5/13, the one assault rifle case was amended to rifle as it did not meet policy requirements.

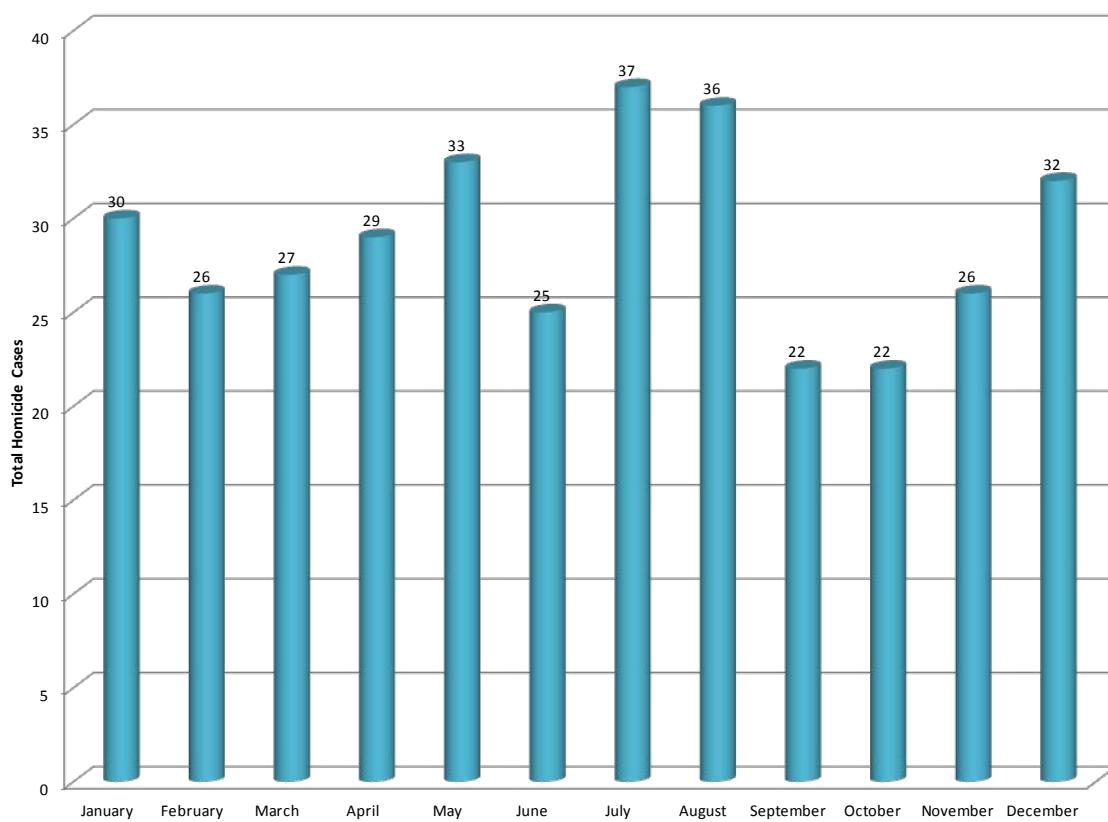
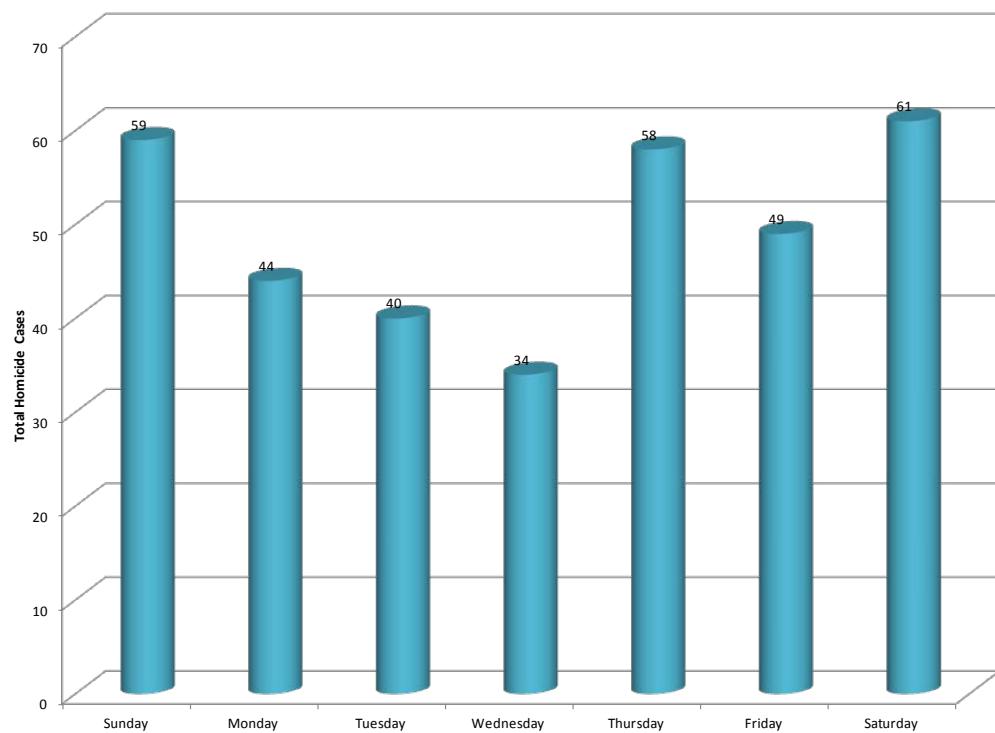
Figure 42. Homicide Deaths by Month of Death, 2011**Figure 43. Homicide Deaths by Day of Death, 2011**

Table 21. Homicide Deaths by City/County of Residence, 2011

County/City of Residency	Total	Rate
Accomack	6	18.0
Albemarle	4	4.0
Alexandria	1	0.7
Alleghany	0	0.0
Amelia	0	0.0
Amherst	1	3.1
Appomattox	1	6.6
Arlington	0	0.0
Augusta	1	1.4
Bath	1	21.5
Bedford City	0	0.0
Bedford	1	1.4
Bland	0	0.0
Botetourt	0	0.0
Bristol	1	5.6
Brunswick	1	5.8
Buchanan	7	29.7
Buckingham	1	5.8
Buena Vista	0	0.0
Campbell	1	1.8
Caroline	1	3.5
Carroll	0	0.0
Charles City	1	13.8
Charlotte	0	0.0
Charlottesville	2	4.6
Chesapeake	11	4.9
Chesterfield	12	3.7
Clarke	0	0.0
Colonial Heights	4	22.9
Covington	1	16.8
Craig	0	0.0
Culpeper	3	6.3
Cumberland	0	0.0
Danville	7	16.3
Dickenson	2	12.7
Dinwiddie	1	3.6
Emporia	2	34.1
Essex	1	8.9
Fairfax City	0	0.0
Fairfax	12	1.1

County/City of Residency	Total	Rate
Falls Church	0	0.0
Fauquier	1	1.5
Floyd	1	6.5
Fluvanna	0	0.0
Franklin City	0	0.0
Franklin	2	3.5
Frederick	1	1.3
Fredericksburg	0	0.0
Galax	0	0.0
Giles	1	5.8
Gloucester	2	5.4
Goochland	0	0.0
Grayson	0	0.0
Greene	0	0.0
Greenville	0	0.0
Halifax	2	5.5
Hampton	11	8.1
Hanover	4	4.0
Harrisonburg	2	4.0
Henrico	13	4.2
Henry	5	9.3
Highland	0	0.0
Hopewell	2	8.9
Isle of Wight	1	2.8
James City	3	4.4
King and Queen	0	0.0
King George	0	0.0
King William	1	6.3
Lancaster	1	8.9
Lee	3	11.9
Lexington	0	0.0
Loudoun	2	0.6
Louisa	0	0.0
Lunenburg	0	0.0
Lynchburg	4	5.2
Madison	3	22.8
Manassas	4	10.2
Martinsville	3	22.1
Mathews	0	0.0
Mecklenburg	1	3.1

County/City of Residency	Total	Rate
Middlesex	1	9.2
Montgomery	1	1.1
Nelson	1	6.6
New Kent	0	0.0
Newport News	16	8.9
Norfolk	27	11.1
Northampton	0	0.0
Northumberland	0	0.0
Norton	0	0.0
Nottoway	0	0.0
Orange	0	0.0
Page	0	0.0
Patrick	1	5.4
Petersburg	6	18.6
Pittsylvania	3	4.8
Poquoson	0	0.0
Portsmouth	16	16.7
Powhatan	2	7.1
Prince Edward	1	4.3
Prince George	1	2.7
Prince William	9	2.1
Pulaski	0	0.0
Radford	1	6.1
Rappahannock	0	0.0
Richmond City	36	17.5
Richmond	0	0.0
Roanoke City	6	6.2
Roanoke	1	1.1
Rockbridge	0	0.0

County/City of Residency	Total	Rate
Rockingham	1	1.3
Russell	2	7.0
Salem	2	8.0
Scott	1	4.3
Shenandoah	0	0.0
Smyth	3	9.4
Southampton	0	0.0
Spotsylvania	3	2.4
Stafford	2	1.5
Staunton	0	0.0
Suffolk	4	4.7
Surry	0	0.0
Sussex	0	0.0
Tazewell	0	0.0
Virginia Beach	16	3.6
Warren	0	0.0
Washington	3	5.5
Waynesboro	2	9.4
Westmoreland	0	0.0
Williamsburg	0	0.0
Winchester	0	0.0
Wise	1	2.4
Wythe	1	3.4
York	2	3.0
Total in State	332	4.1
Out of State	12	ND†
Unknown	1	ND
TOTAL	345	ND
† ND- No Denominator		

Table 22. Top 10 Homicide Deaths by City/County of Residence, 2011

County/City of Residency	Total
Richmond City	36
Norfolk	27
Newport News	16
Portsmouth	16
Virginia Beach	16
Henrico	13
Chesterfield	12
Fairfax	12
Chesapeake	11
Hampton	11

Table 23. Top 10 Homicide Rates by City/County of Residence, 2011

County/City of Residency	Rate
Emporia	34.1
Buchanan	29.7
Colonial Heights	22.9
Madison	22.8
Martinsville	22.1
Bath	21.5
Petersburg	18.6
Accomack	18.0
Richmond City	17.5
Covington	16.8

Figure 44. Homicide Deaths by City/County of Residence, 2011

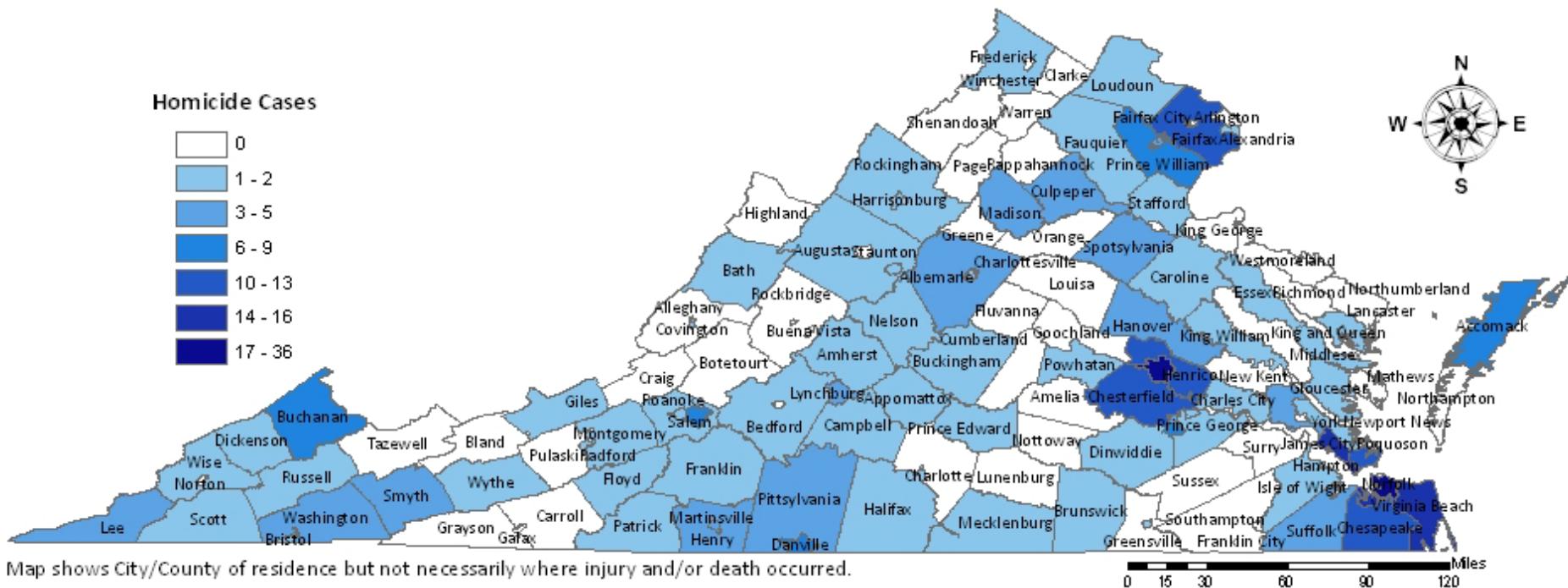


Figure 45. Homicide Rates by City/County of Residence, 2011

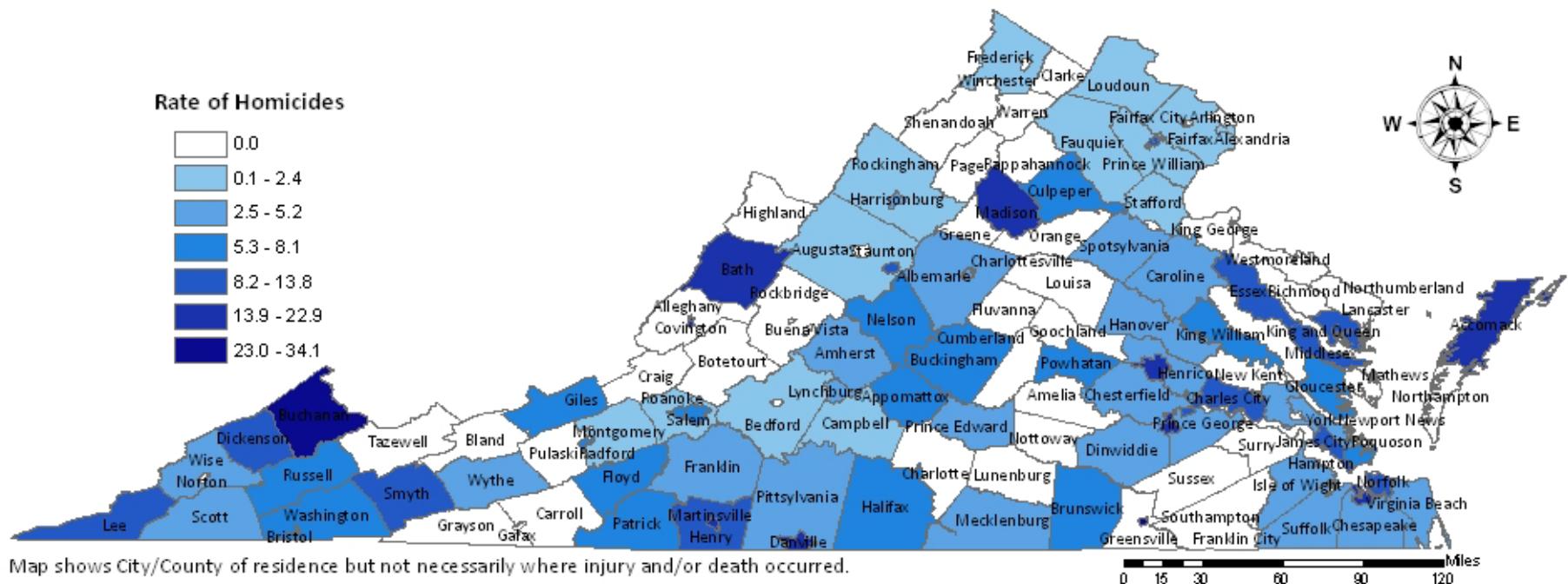


Figure 46. Homicide Deaths by City/County of Injury, 2006-2011

County/City of Injury	Year of Death						Total
	2006	2007	2008	2009	2010	2011	
Accomack	5	6	2	2	3	6	24
Albemarle	1	1	2	1	2	2	9
Alexandria	4	7	4	5	2	1	23
Alleghany	0	3	1	0	1	1	6
Amelia	0	0	0	0	1	0	1
Amherst	0	1	1	0	0	1	3
Appomattox	0	2	1	0	8	1	12
Arlington	3	2	4	2	0	0	11
Augusta	3	1	0	2	2	2	10
Bath	0	0	0	2	0	0	2
Bedford City	0	0	1	0	0	0	1
Bedford	1	2	0	0	2	1	6
Bland	0	0	0	1	0	0	1
Botetourt	0	1	0	1	1	0	3
Bristol	4	0	0	0	1	1	6
Brunswick	3	1	2	1	0	1	8
Buchanan	1	0	2	6	3	6	18
Buckingham	1	2	0	0	0	1	4
Buena Vista	0	0	0	0	0	0	0
Campbell	2	2	2	5	2	1	14
Caroline	5	4	0	0	0	1	10
Carroll	1	4	1	1	1	0	8
Charles City	0	0	1	0	0	0	1
Charlotte	0	0	2	1	0	1	4
Charlottesville	5	3	5	0	3	1	17
Chesapeake	7	15	12	17	14	12	77
Chesterfield	5	9	12	4	10	10	50
Clarke	0	0	1	1	0	0	2
Colonial Heights	0	0	0	0	0	2	2
Covington	0	0	0	0	1	1	2
Craig	0	0	1	0	0	0	1
Culpeper	1	1	0	0	0	3	5
Cumberland	0	2	0	2	0	0	4
Danville	5	6	10	8	9	6	44
Dickenson	0	1	1	1	1	2	6
Dinwiddie	5	1	1	1	2	1	11
Emporia	1	2	1	0	1	1	6

County/City of Injury	Year of Death						Total
	2006	2007	2008	2009	2010	2011	
Essex	0	0	0	0	0	1	1
Fairfax City	1	1	1	0	0	0	3
Fairfax	29	16	25	19	16	12	117
Falls Church	0	0	0	0	0	0	0
Fauquier	2	4	1	3	1	1	12
Floyd	0	0	2	2	0	1	5
Fluvanna	0	0	1	0	0	0	1
Franklin City	0	0	0	2	1	0	3
Franklin	2	1	1	4	3	2	13
Frederick	7	0	2	2	1	1	13
Fredericksburg	0	2	2	1	0	1	6
Galax	1	1	0	1	0	0	3
Giles	1	0	0	0	0	1	2
Gloucester	0	1	1	0	1	2	5
Goochland	1	0	2	0	1	0	4
Grayson	0	1	7	0	0	0	8
Greene	0	1	0	0	0	3	4
Greenville	5	0	6	4	4	2	21
Halifax	1	3	4	0	2	2	12
Hampton	14	7	9	11	17	8	66
Hanover	2	0	1	0	1	2	6
Harrisonburg	4	0	1	0	1	2	8
Henrico	10	15	16	12	12	13	78
Henry	7	3	6	5	7	6	34
Highland	0	0	0	0	0	0	0
Hopewell	4	3	3	4	2	3	19
Isle of Wight	1	0	2	1	0	0	4
James City	1	1	1	1	0	2	6
King and Queen	0	0	0	0	0	0	0
King George	0	0	0	2	0	0	2
King William	0	2	0	0	0	1	3
Lancaster	2	0	1	0	3	1	7
Lee	0	1	2	1	4	4	12
Lexington	0	0	0	0	0	0	0
Loudoun	4	2	4	4	1	2	17
Louisa	0	4	1	1	3	0	9
Lunenburg	1	1	2	1	0	0	5
Lynchburg	2	1	4	0	3	4	14

Year of Death

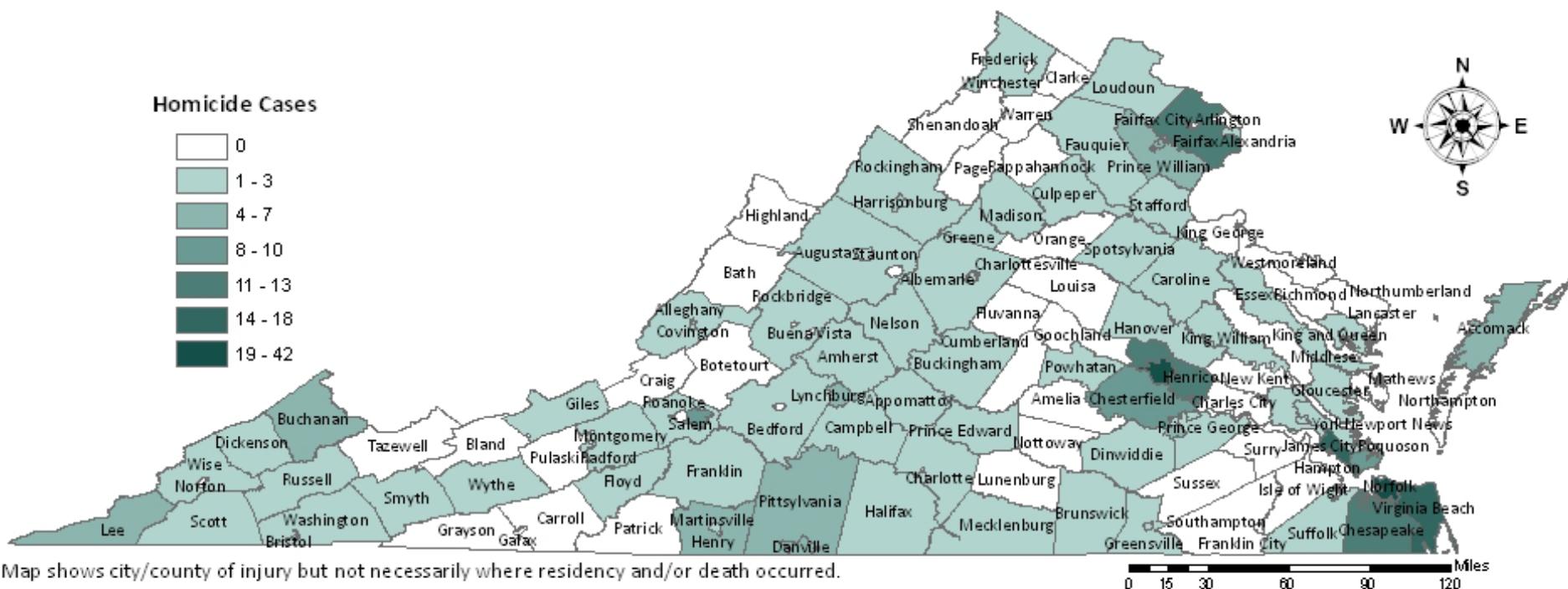
County/City of Injury	2006	2007	2008	2009	2010	2011	Total
Madison	0	0	1	0	1	3	5
Manassas	1	1	4	1	1	4	12
Martinsville	0	2	2	0	3	2	9
Mathews	0	0	0	1	0	0	1
Mecklenburg	0	1	4	1	2	1	9
Middlesex	1	0	0	0	0	1	2
Montgomery	3	33	3	7	2	1	49
Nelson	0	1	0	1	1	1	4
New Kent	0	0	1	1	0	0	2
Newport News	20	30	16	24	23	18	131
Norfolk	34	53	29	50	34	29	229
Northampton	2	1	0	0	2	0	5
Northumberland	0	1	0	0	0	0	1
Norton	0	0	0	0	0	0	0
Nottoway	0	1	0	1	1	0	3
Orange	2	1	1	1	1	0	6
Page	1	0	0	0	1	0	2
Patrick	0	1	0	0	0	0	1
Petersburg	10	7	5	11	13	7	53
Pittsylvania	2	4	3	4	4	5	22
Poquoson	0	0	0	0	0	0	0
Portsmouth	18	17	16	18	14	12	95
Powhatan	0	0	4	1	1	3	9
Prince Edward	0	1	1	7	0	1	10
Prince George	0	0	1	3	2	1	7
Prince William	12	14	11	11	10	6	64
Pulaski	1	0	2	1	2	0	6
Radford	1	0	1	0	1	1	4
Rappahannock	1	0	0	0	1	0	2
Richmond City	85	61	39	44	44	42	315
Richmond	0	0	1	0	0	0	1
Roanoke City	13	8	13	12	8	9	63
Roanoke	1	2	1	2	6	1	13
Rockbridge	0	1	1	0	1	1	4
Rockingham	1	0	1	1	0	1	4
Russell	2	0	1	1	0	3	7
Salem	0	0	2	1	1	0	4
Scott	0	2	1	0	1	1	5

County/City of Injury	Year of Death						Total
	2006	2007	2008	2009	2010	2011	
Shenandoah	0	0	0	1	0	0	1
Smyth	0	0	3	1	0	3	7
Southampton	1	3	0	2	1	0	7
Spotsylvania	4	4	0	4	6	3	21
Stafford	1	3	6	6	2	2	20
Staunton	0	0	2	3	2	1	8
Suffolk	8	3	5	8	4	3	31
Surry	0	0	1	0	2	0	3
Sussex	1	0	0	0	0	0	1
Tazewell	0	3	2	6	4	0	15
Virginia Beach	20	18	18	17	15	17	105
Warren	2	0	0	1	0	0	3
Washington	0	1	2	1	2	3	9
Waynesboro	0	1	1	0	2	0	4
Westmoreland	2	1	1	0	0	0	4
Williamsburg	1	0	0	0	0	1	2
Winchester	2	2	0	0	0	0	4
Wise	0	2	0	1	1	1	5
Wythe	1	0	2	0	0	1	4
York	3	1	1	2	0	2	9
Total in State	422	435	387	403	376	334	2357
Out of State	1	6	4	1	6	5	23
Unknown	4	2	8	6	9	6	35
TOTAL	427	443	399	410	391	345	2415

Table 24. Top 10 Homicide Deaths by City/County of Injury, 2011

County/City of Injury	Total Cases
Richmond City	42
Norfolk	29
Newport News	18
Virginia Beach	17
Henrico	13
Chesapeake	12
Fairfax County	12
Portsmouth	12
Chesterfield	10
Roanoke City	9

Figure 47. Homicide Cases by City/County of Injury, 2011



Map shows city/county of injury but not necessarily where residency and/or death occurred.

A total of 11 cases had the fatal homicide injury occur outside of Virginia borders or was unknown.

UNDETERMINED DEATHS (N=161)

Undetermined deaths increased for the 6th year in a row with a 6.6% rise from 2010.

- Thirty-two percent of the cases assigned an undetermined manner had a determined cause of death
- Forty-three percent of the undetermined deaths were in infants less than 1 year of age

Figure 48. Undetermined Deaths by Year of Death, 1999-2011

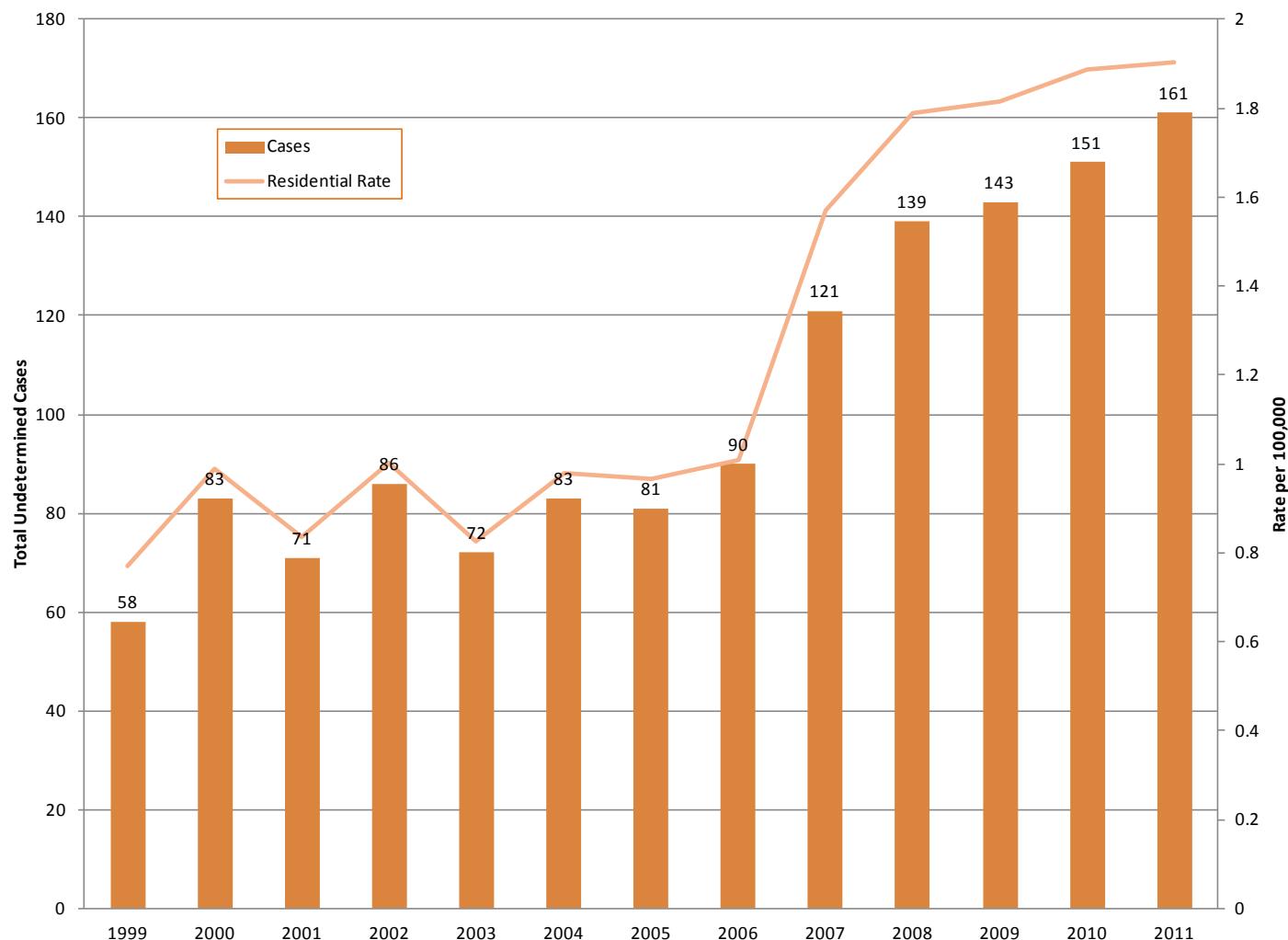


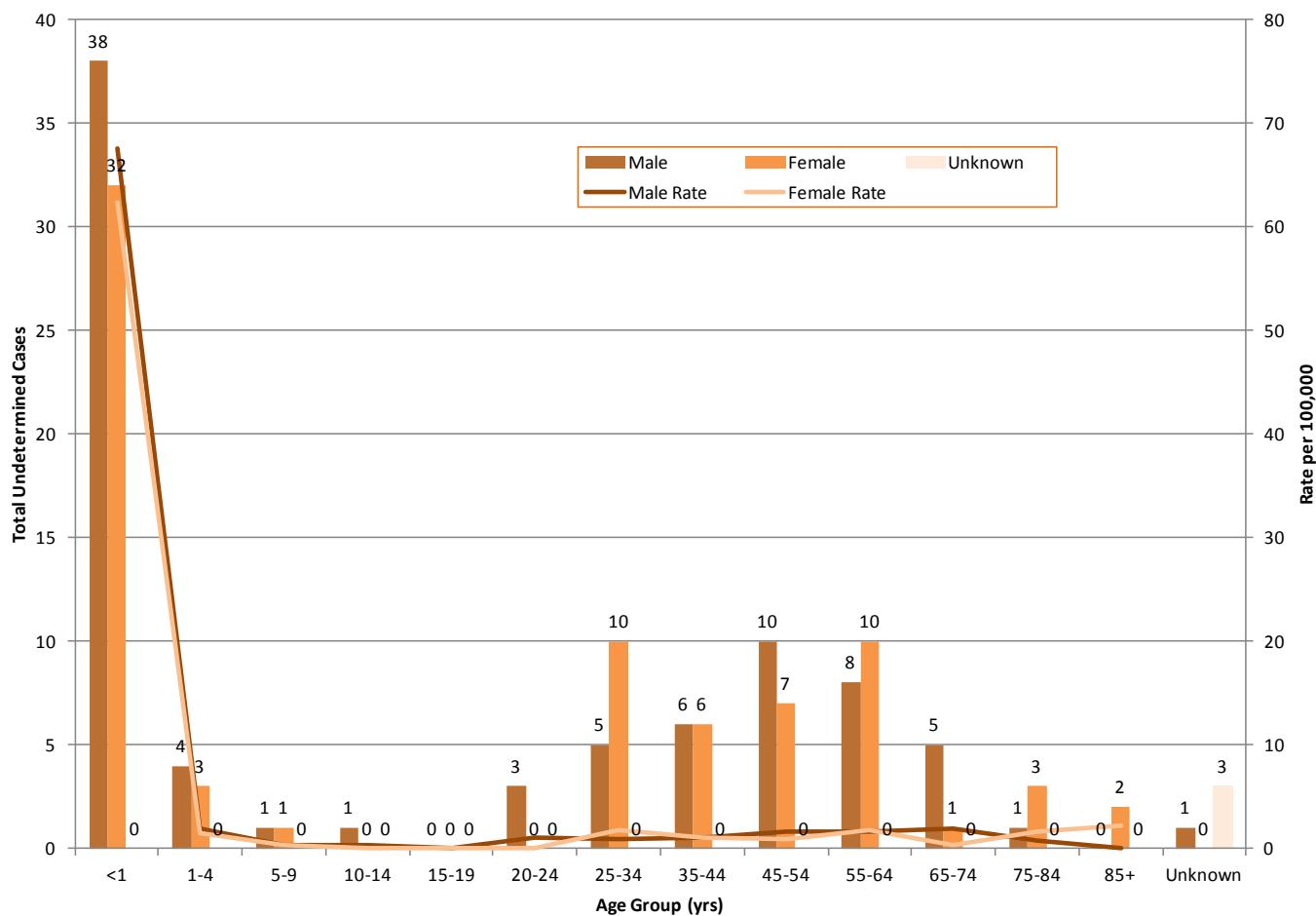
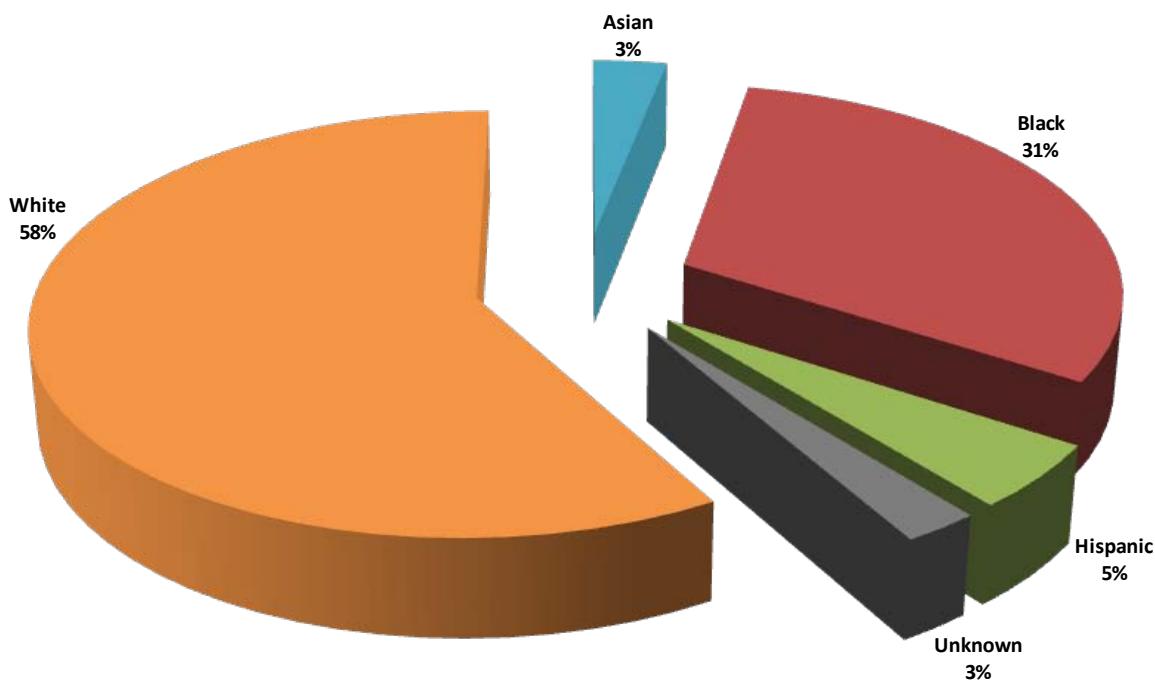
Figure 49. Undetermined Deaths by Age Group by Gender, 2011**Figure 50. Undetermined Deaths by Race/Ethnicity, 2011**

Table 25. Undetermined Deaths by Cause of Death, 2011

		Total Cases	Autopsied
Undetermined Manner & Cause of Death			
	Undetermined after autopsy and/or toxicology	109	107
	Subtotal for Undetermined Manner & Cause of Death	109	107
Undetermined Manner but Cause of Death Determined			
Asphyxia			
	Drowning	4	3
	Hanging	1	1
	Other asphyxia	3	3
Drug Use			
	Ingested and/or injected illicit, prescription, and/or OTC medication	25	19
Fire			
	Thermal burns and/or inhalation of combustion products	2	2
Motor Vehicle			
	Car	2	1
	Pickup Truck	1	1
Poisoning			
	Carbon monoxide poisoning	2	1
Traumatic Injury			
	Beatings/Blows	1	1
	Fall	3	3
	Gunshot Wound	5	5
	Handgun	(5)	(5)
	Steam/Scald	1	1
	Other Traumatic Causes	2	1
	Subtotal for Undetermined Manner but Cause of Death Determined	52	42
	Total	161	149

SECTION 4: DEATHS OF CHILDREN (17 Years of Age & Younger) (N=348)

The 348 deaths of children represented 6.1% of all deaths investigated by the OCME in 2011.

- Males represented 58% of all child cases
- The less than one year age group had the largest percentage of cases (44%)
- The leading causes of death were blunt force injuries to the head or neck (62 or 17.8%), followed by SUID cases (58 or 16.7%), and then multiple blunt force injuries to the body with 19 cases or 5.5%

Figure 51. Child Deaths by Manner, 2011

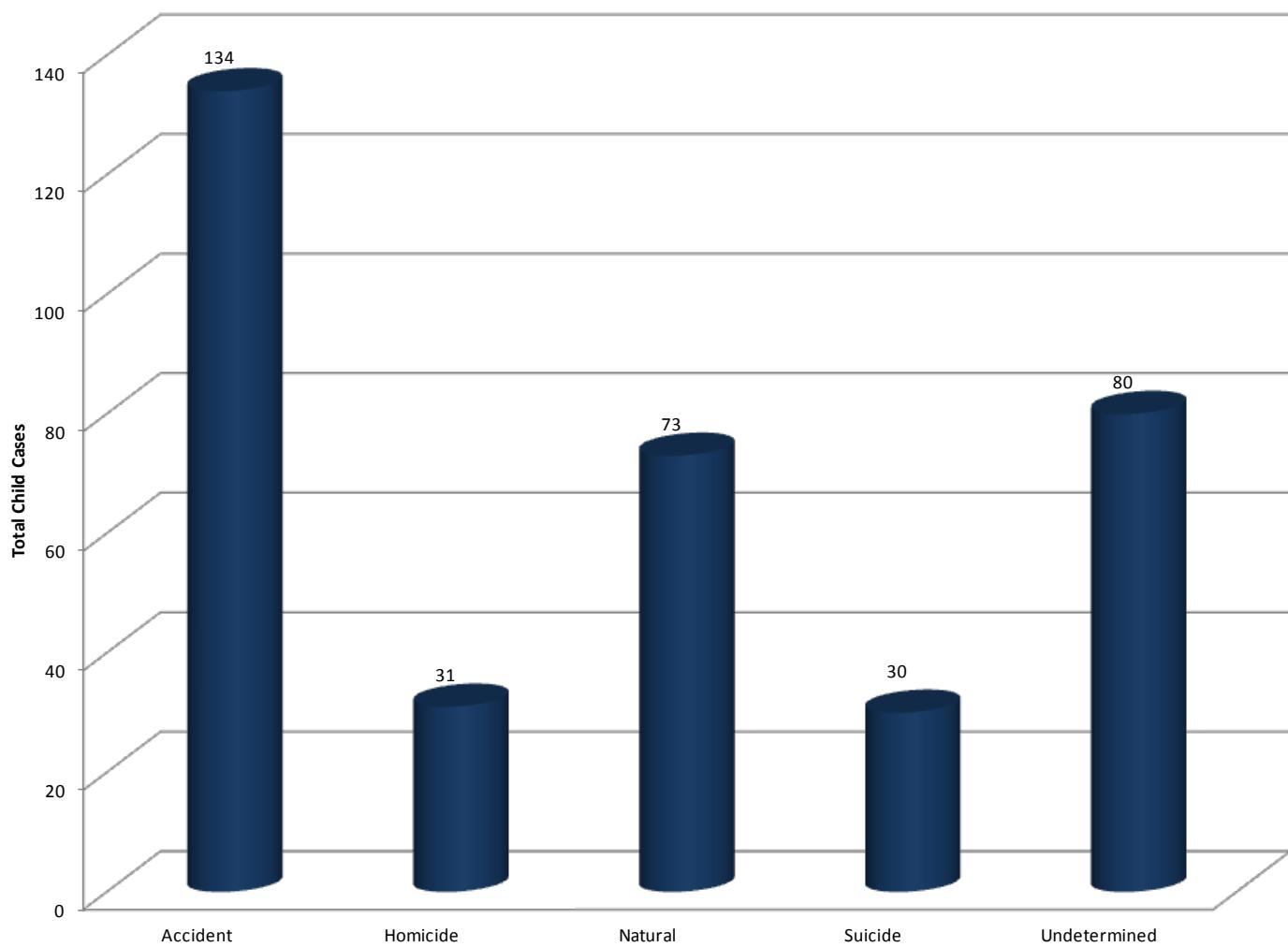


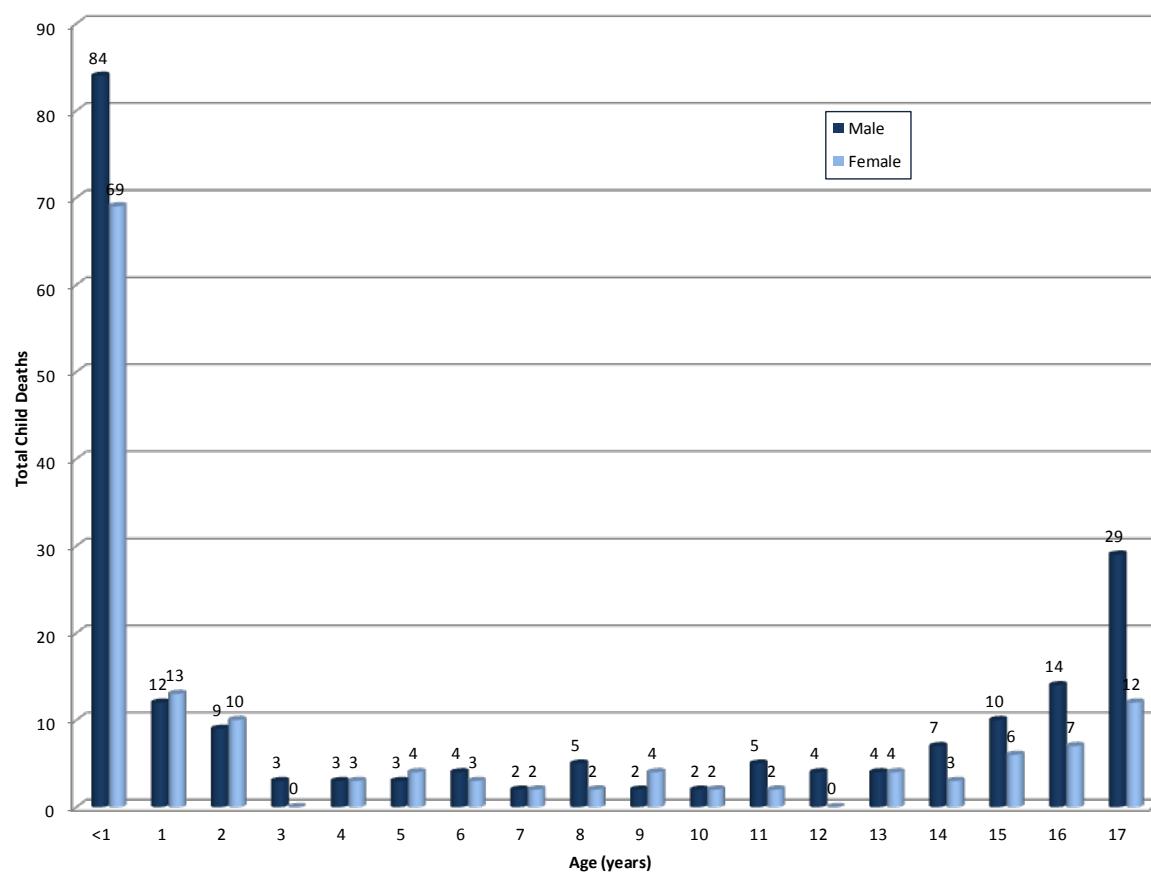
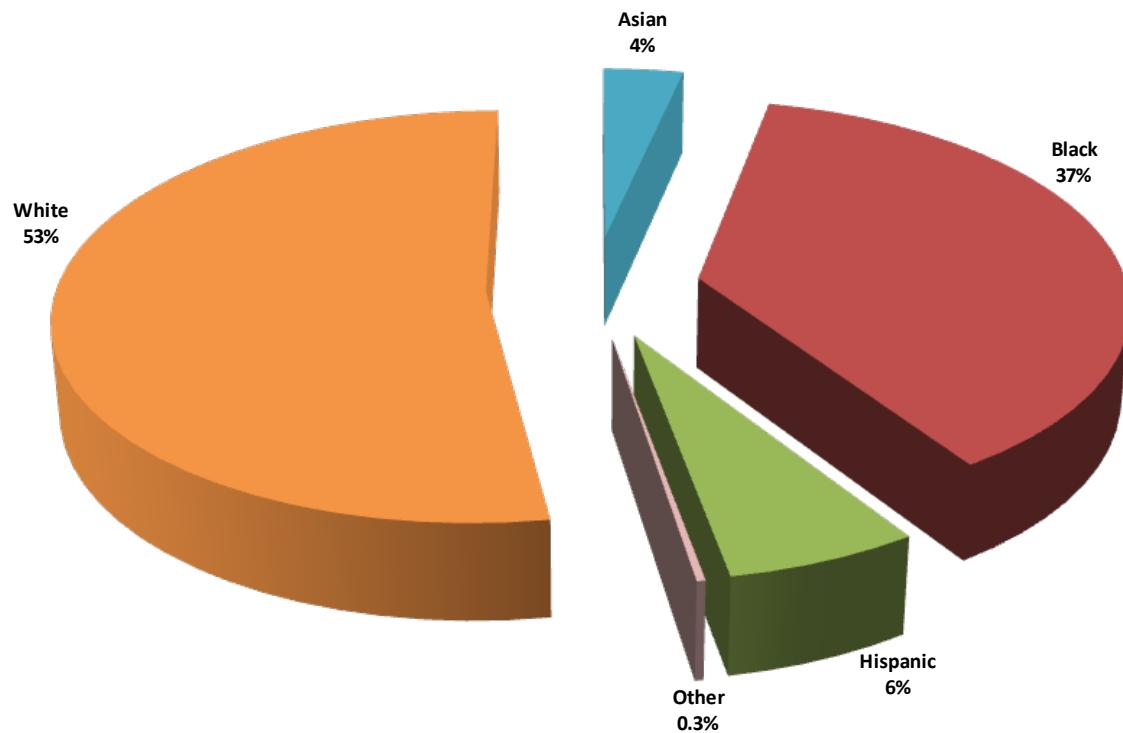
Figure 52. Child Deaths by Age by Gender, 2011**Figure 53. Child Deaths by Race/Ethnicity, 2011**

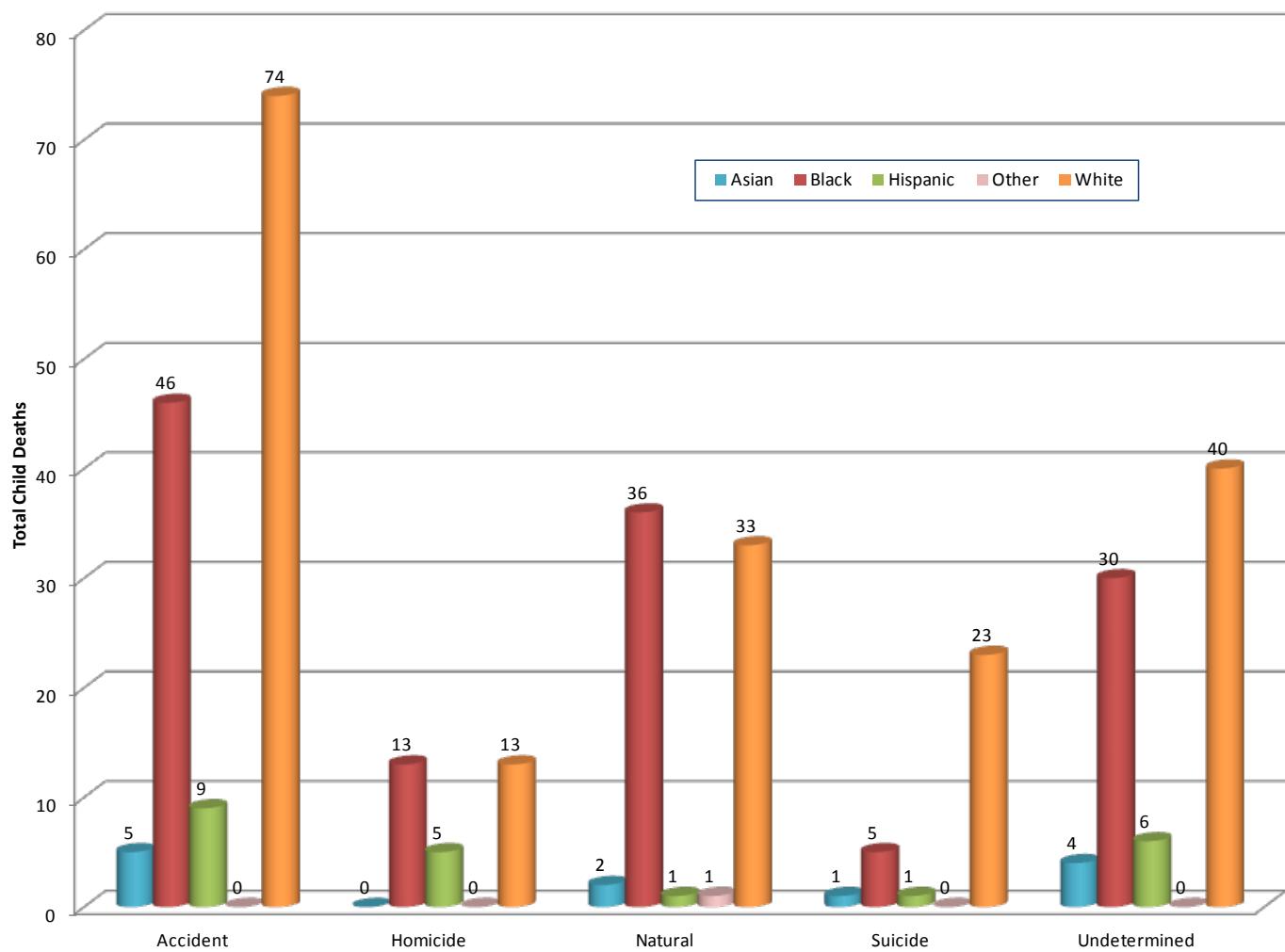
Figure 54. Child Deaths by Manner by Race/Ethnicity, 2011

Table 26. Child Deaths by Cause of Death, 2011

Natural Deaths	Total Cases	Autopsied
Pulmonary Diseases/Disorders		
Asthma	2	1
Embolii	1	1
Pneumonia	8	8
Other Pulmonary Disease/Disorder	2	2
Central Nervous System Diseases/Disorders		
Meningitis (Bacterial or Viral)	1	1
Other CNS Disease/Disorder	1	1
Cardiovascular Diseases/Disorders		
Congenital Defect	2	2
Vascular Dissection/Rupture	1	1
Cardiomyopathy NOS	2	2
Other Cardiac Disease/Disorder	3	3
Gastrointestinal Diseases/Disorders		
Other GI Disease/Disorder	3	3
Perinatal and Pediatric Diseases/Disorders		
Maternal Complications	3	2
Fetal Complications	5	5
Sudden Infant Death Syndrome (SIDS)	16	16
Other Perinatal or Pediatric Disorder	7	6
Systemic Diseases/Disorders		
Blood Disorder	1	1
Sepsis	8	8
Other Infectious Disease	3	3
Other Systemic Disease/Disorder	3	2
Other Natural Disease/Disorder		
Other Natural Disease/Disorder	1	1
Natural Subtotal	73	69
Unnatural Deaths	Total Cases	Autopsied
Asphyxia		
Choking (Aspiration: Food or Foreign Object)	3	2
Drowning	17	12
Hanging	14	4
Mechanical/Positional	11	11
Strangulation/Neck Compression	1	1
Suffocation/Smothering	13	13
Plastic Bag	2	0

Blunt Force Injuries			
Head/Neck	62	16	
Chest	2	0	
Abdomen	3	2	
Torso	4	2	
Extremities	1	0	
Multiple	19	5	
Exposure			
Hyperthermia	2	2	
Fire Injuries			
Inhalation of Combustion Products	2	2	
Gunshot Wound			
Handgun	14	14	
Rifle	2	2	
Shotgun	8	8	
Penetrating Injuries			
Stab	3	3	
Other Penetrating Injuries	1	1	
Substance Abuse			
Prescription Drug Poisoning	10	10	
Mixed Category Drug Poisoning	1	1	
OTC Poisoning	1	1	
Other Unnatural Deaths			
Other Unnatural	11	9	
Unnatural Subtotal	207	121	
Undetermined Deaths		Total Cases	Autopsied
Undetermined After Autopsy and/or Investigation			
Sudden Unexpected Infant Death (SUID)	58	58	
Skeletal/Mummified Remains	1	1	
Other Undetermined	9	9	
Undetermined Subtotal	68	68	
TOTAL	348		258

NATURAL DEATHS OF CHILDREN (N=63)

The less than 1 year old age group comprised 69.8% of all the natural deaths of children that fell under the OCME's jurisdiction.

- SIDS was the leading cause of natural deaths with 16 cases, a slight increase from 14 in 2010 but a significant less amount since OCME initiated the SUID classification statewide in 2007

Figure 55. Natural Child Deaths by Age Group by Gender, 2011

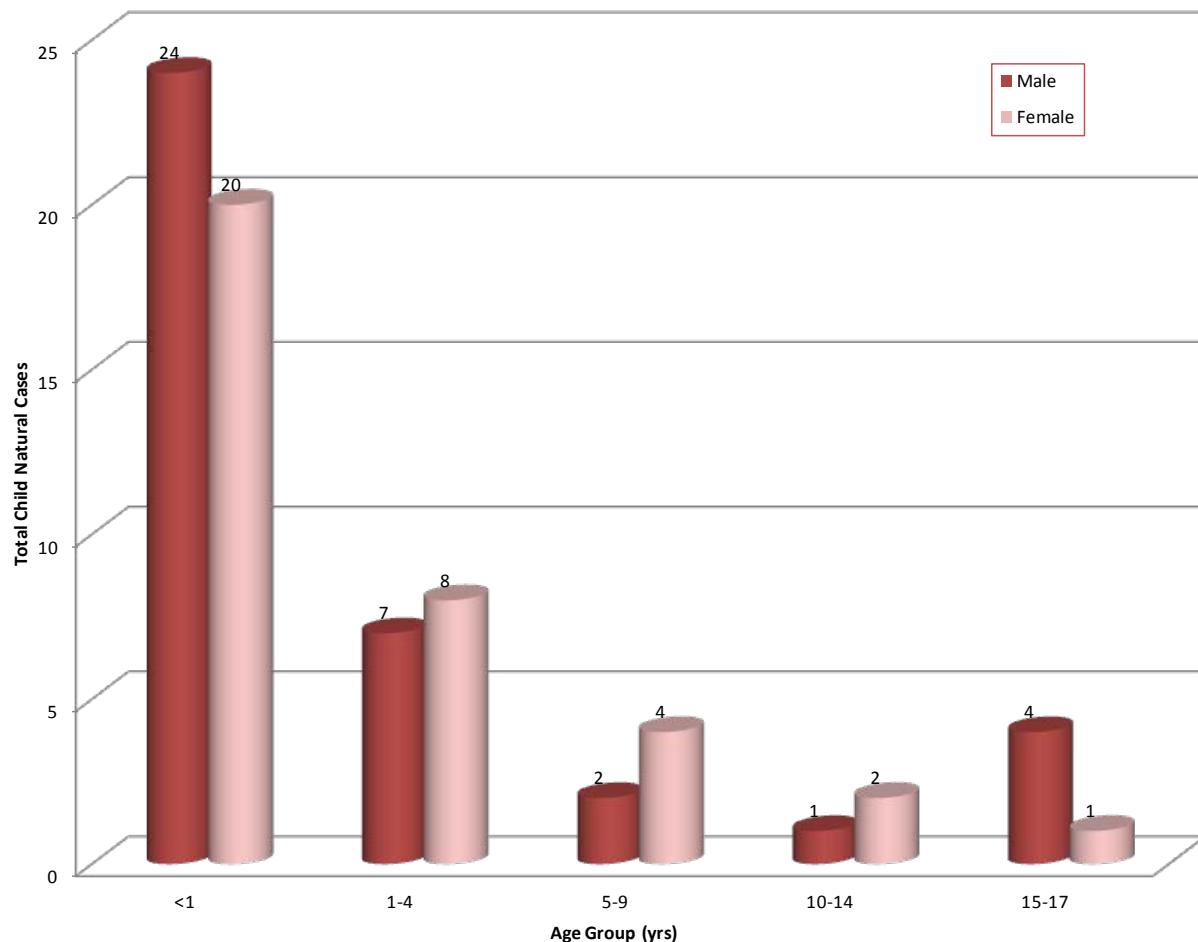
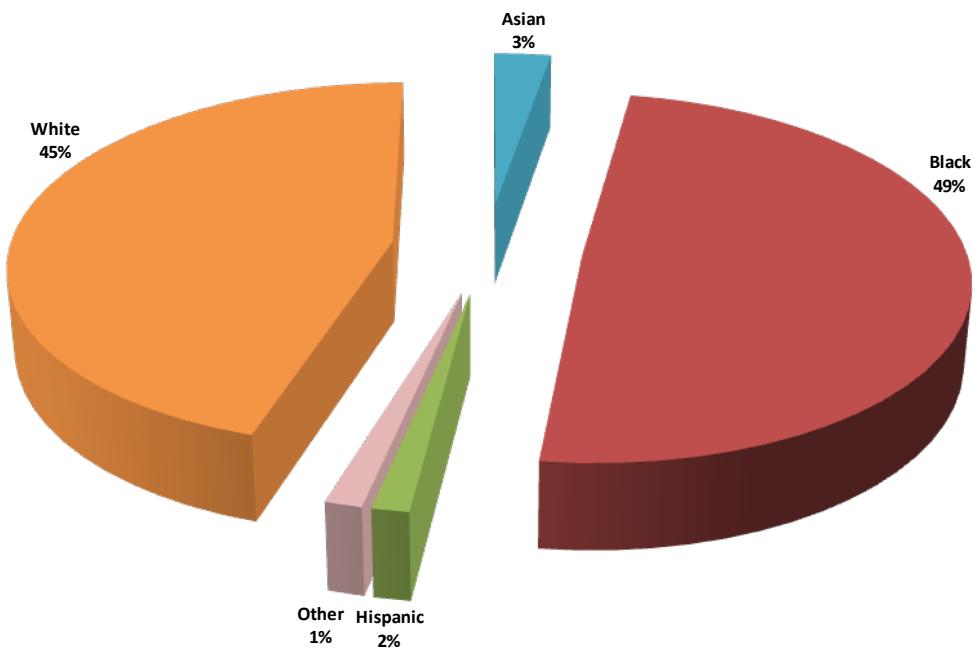
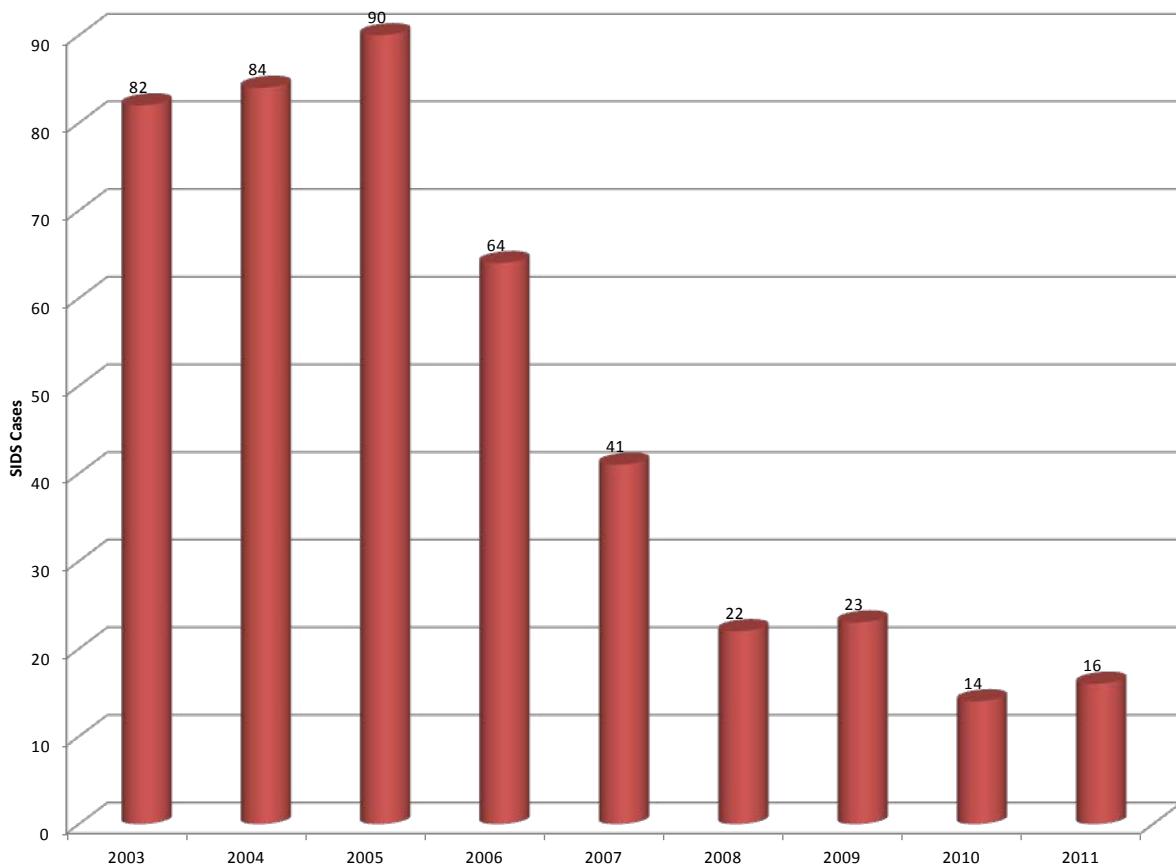


Figure 56. Natural Child Deaths by Race/Ethnicity, 2011**Figure 57. SIDS Cases by Year of Death, 2003-2011**

ACCIDENTAL DEATHS OF CHILDREN (N=134)

The number of accidental deaths of children increased 15.5% from 2010.

- More accidental deaths occurred in males (59%), whites (55.2%), and those aged 15-17 years (30.9%)
- Motor vehicles were the leading method of death (n=68) followed by drowning (n=16)

Figure 58. Accidental Child Deaths by Age Group by Gender, 2011

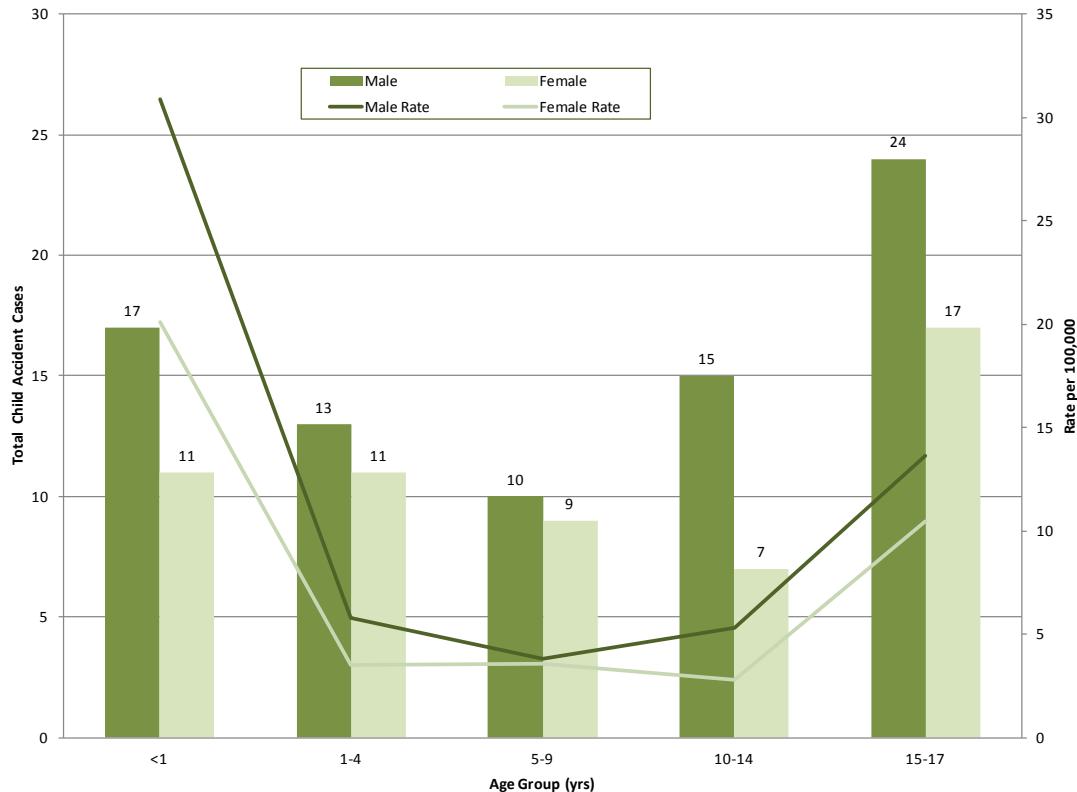


Figure 59. Accidental Child Deaths by Race/Ethnicity, 2011

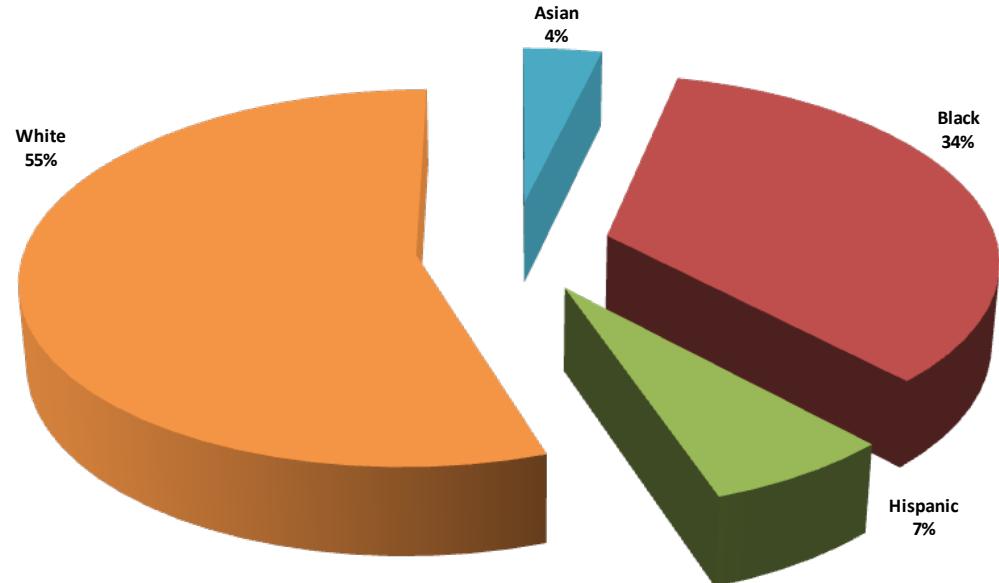


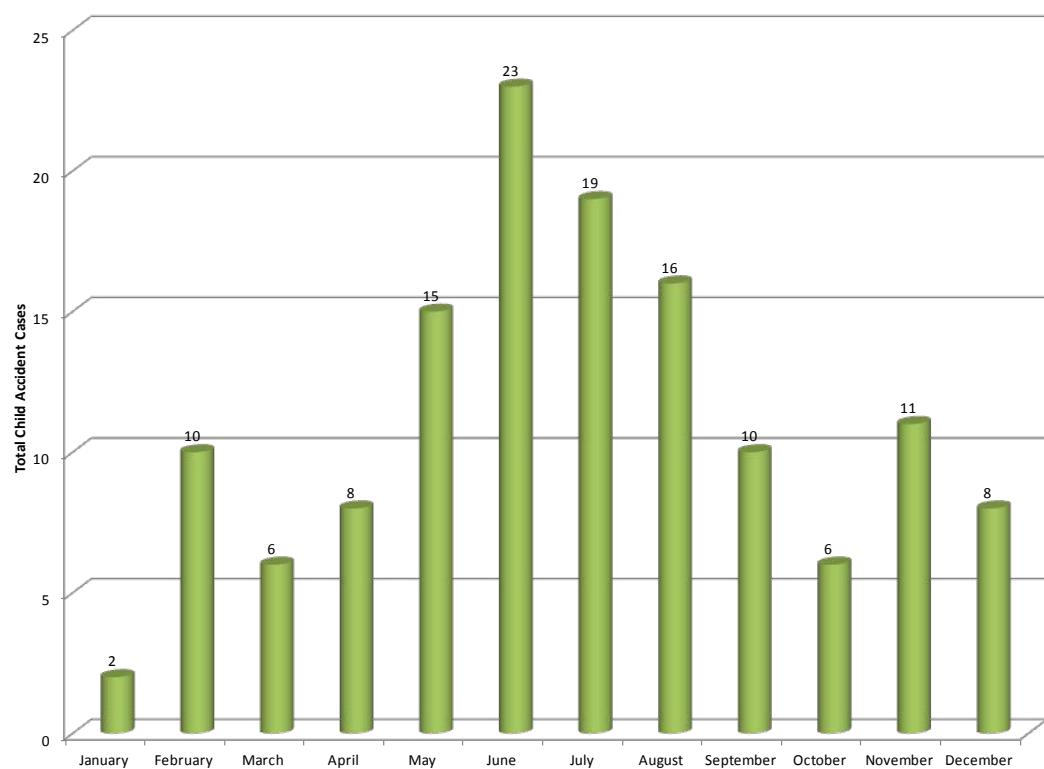
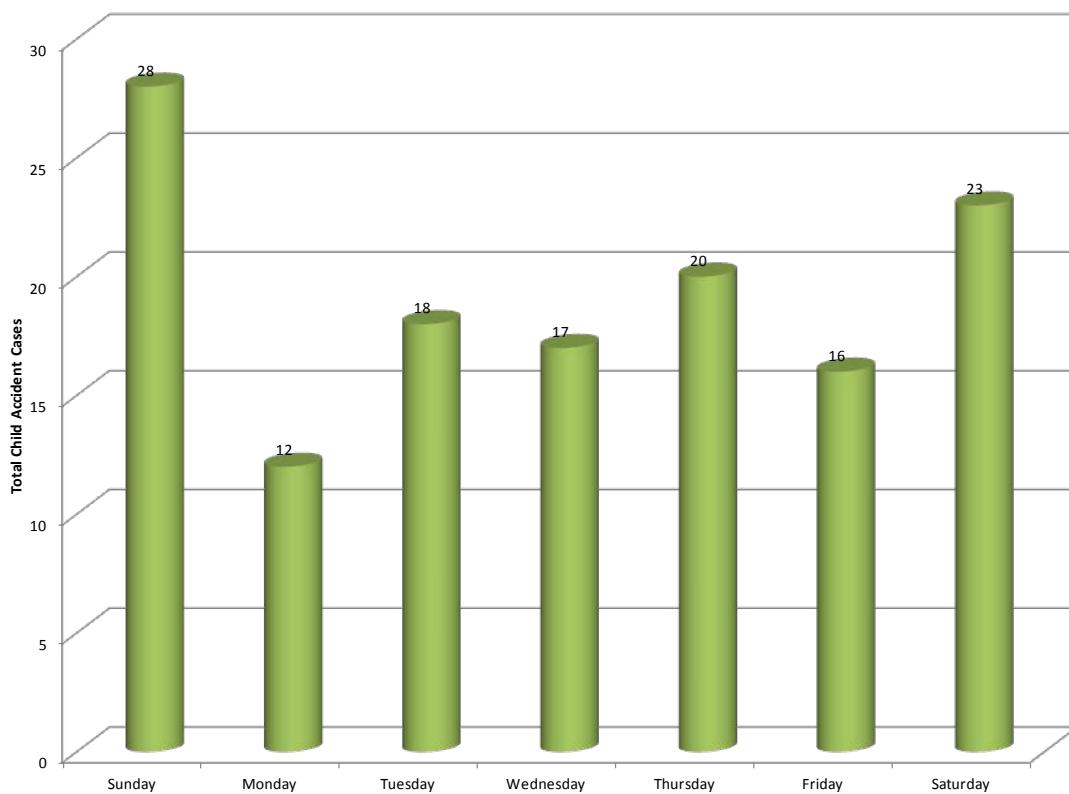
Figure 60. Accidental Child Deaths by Month of Death, 2011**Figure 61. Accidental Child Deaths by Day of Death, 2011**

Table 27. Accidental Child Deaths by Method of Death, 2011

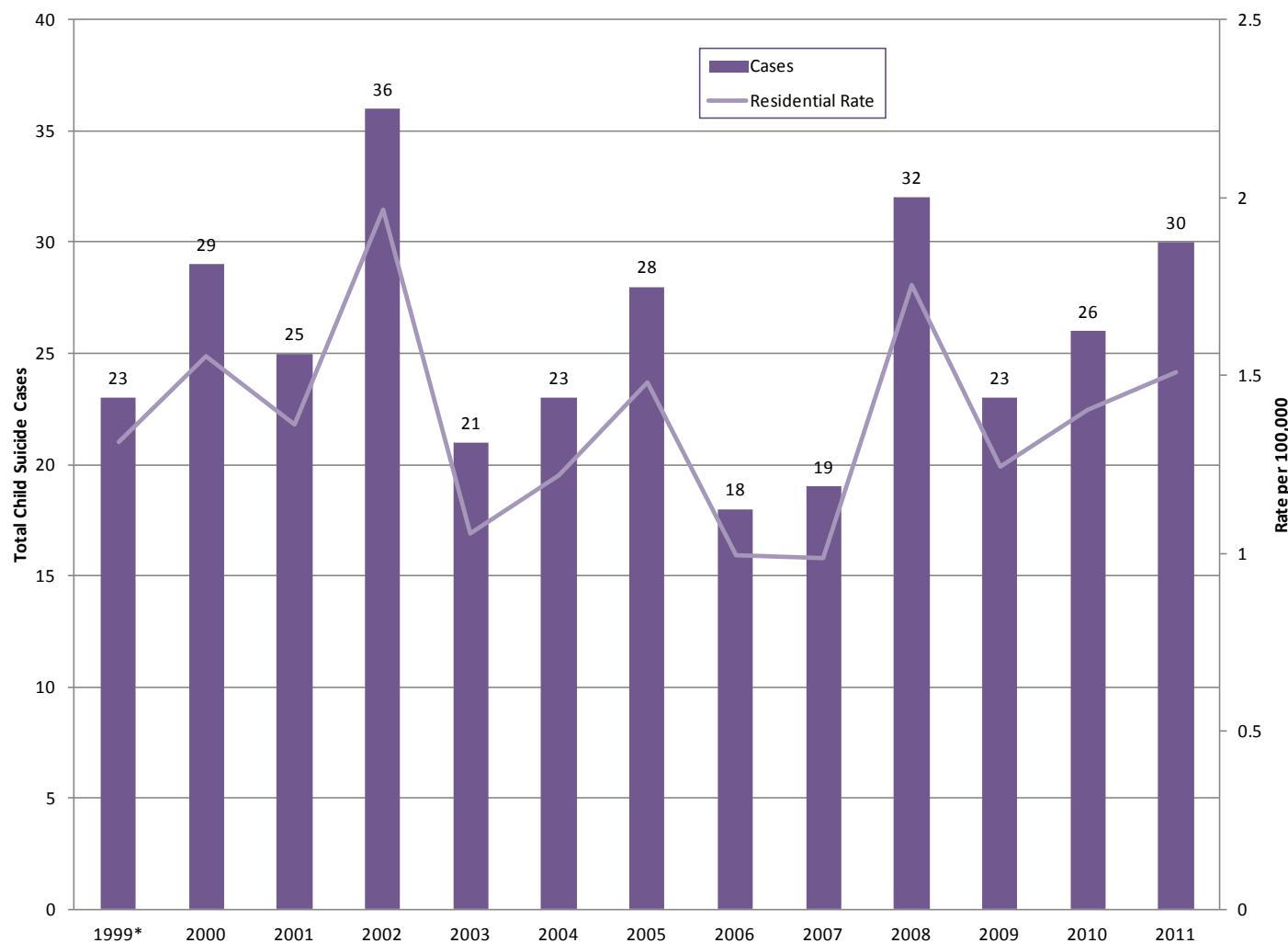
Method of Death		Total Cases	Autopsied
Animal/Insect	Bitten, stung, or kicked by animal/insect	4	1
Asphyxia			
	Choked on food/foreign object	3	2
	Drowned	16	11
	Hanging	2	1
	Mechanical/Positional	9	9
	Suffocation/Smothering	12	12
Drug Use	Ingested and/or injected illicit, prescription, and/or other type of drug	5	5
Environmental Exposure			
	Hyperthermia	2	2
Fall			
	Fall from any height	3	0
Fire			
	Thermal burns and/or inhalation of combustion products	2	2
Vehicular			
	All terrain vehicle	1	0
	Bicycle	1	0
	Car	37	6
	Farm equipment	1	0
	Motorcycle	2	0
	Pickup Truck	6	0
	Skateboard	1	0
	Sport Utility Vehicle	15	4
	Train	2	0
	Van	2	0
Traumatic Injury			
	Accidental discharge of firearm	2	2
	Handgun	(1)	(1)
	Shotgun	(1)	(1)
	Falling object	4	1
	Other	2	2
TOTAL		134	60

SUICIDE DEATHS OF CHILDREN (N=30)

The number of child suicides in 2011 increased from the previous year, although child suicides tend to vary year to year.

- Childhood suicides mirror what is seen in adults as they were most frequent in males (76.78%) and whites (76.7%)
- The majority of children (80%) committed suicide either by using a firearm (43.3%) or hanging themselves (36.7%)

Figure 62. Child Suicide Deaths by Year of Death, 1999-2011



* The 1999 population data is an estimate from VDH's Center for Health Statistics' data. The 15-17 year olds were contained within the age group for 15-19 year olds; therefore, 60 percent of the 15-19 age group was added to the 0-14 year old age group to estimate the total 1999 population of <1-17 year olds.

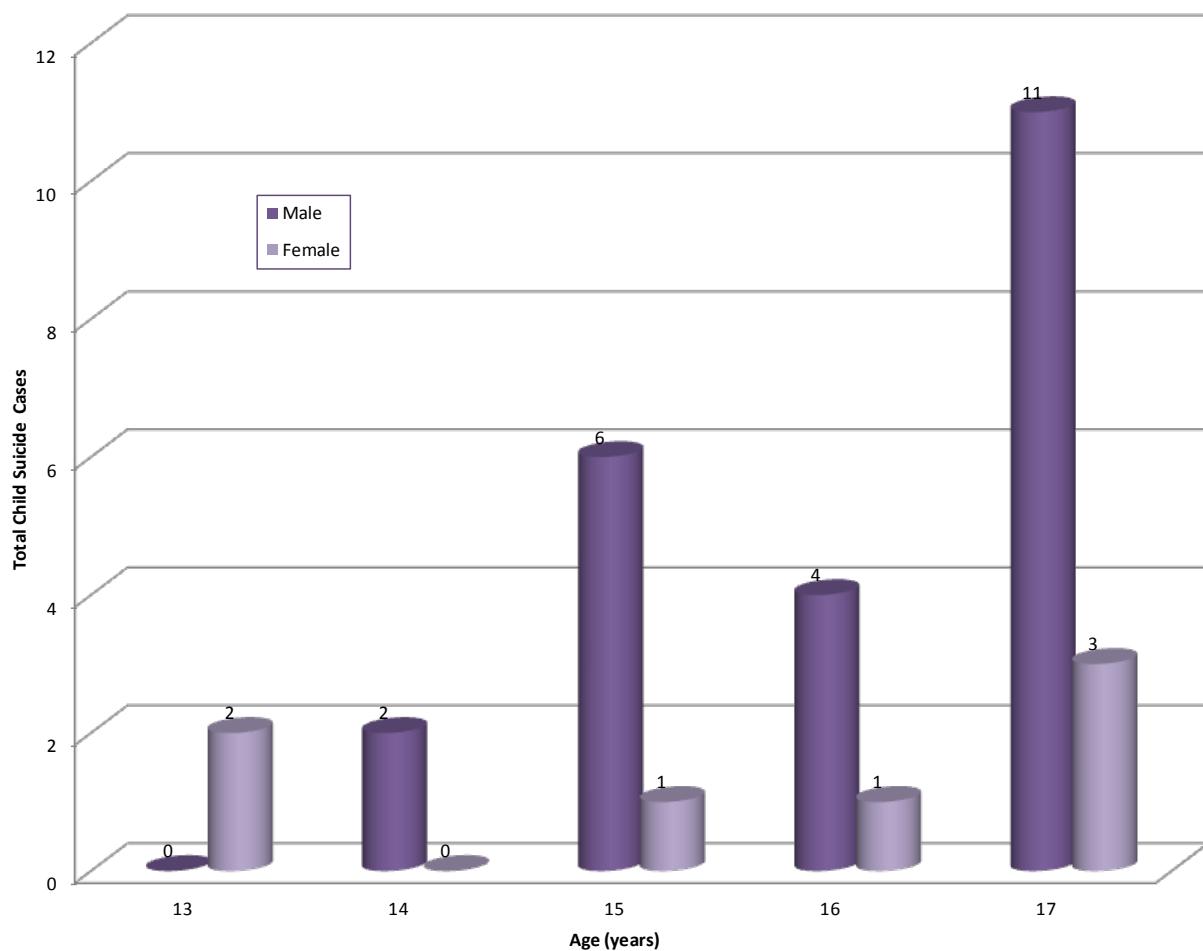
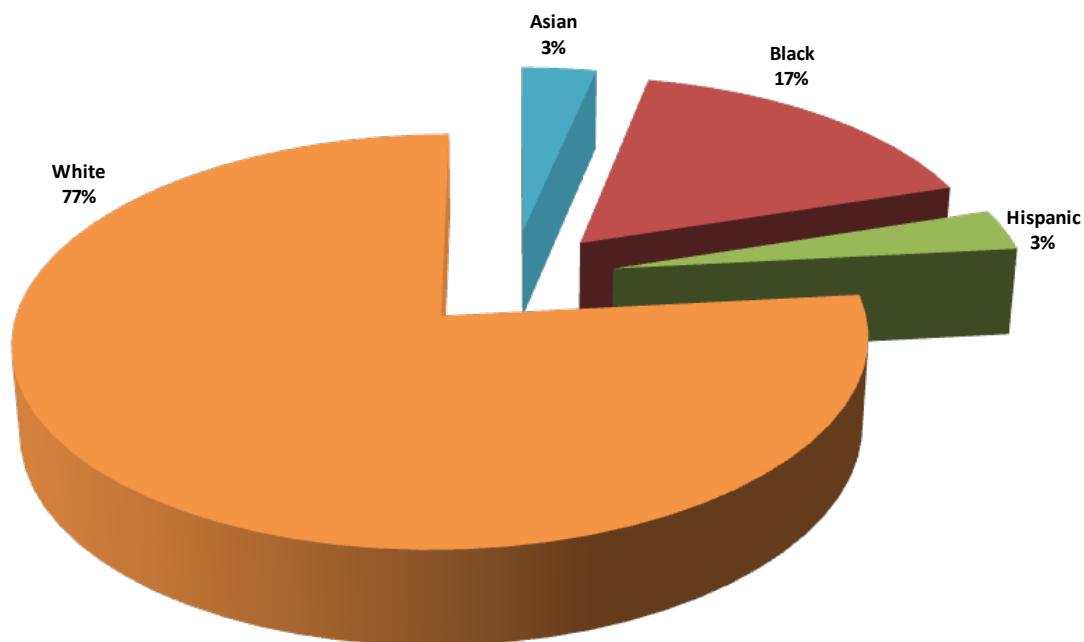
Figure 63. Child Suicide Deaths by Age by Gender, 2011**Figure 64. Child Suicide Deaths by Race/Ethnicity, 2011**

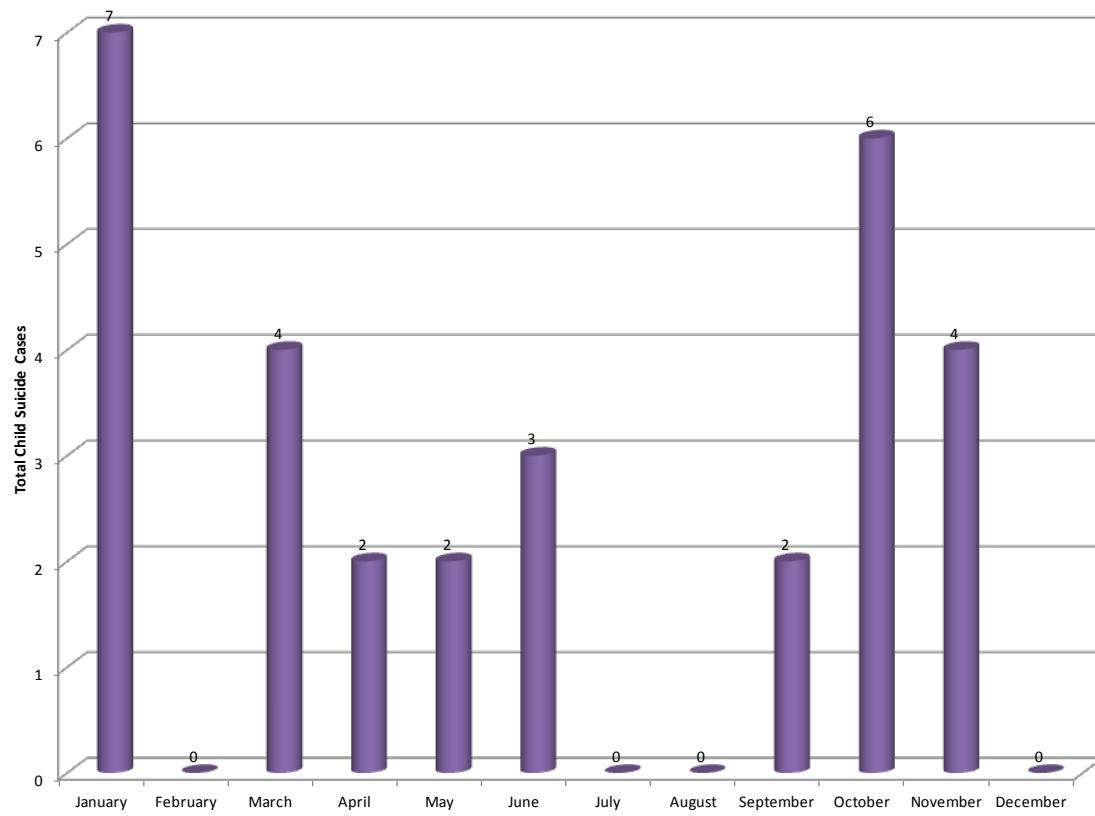
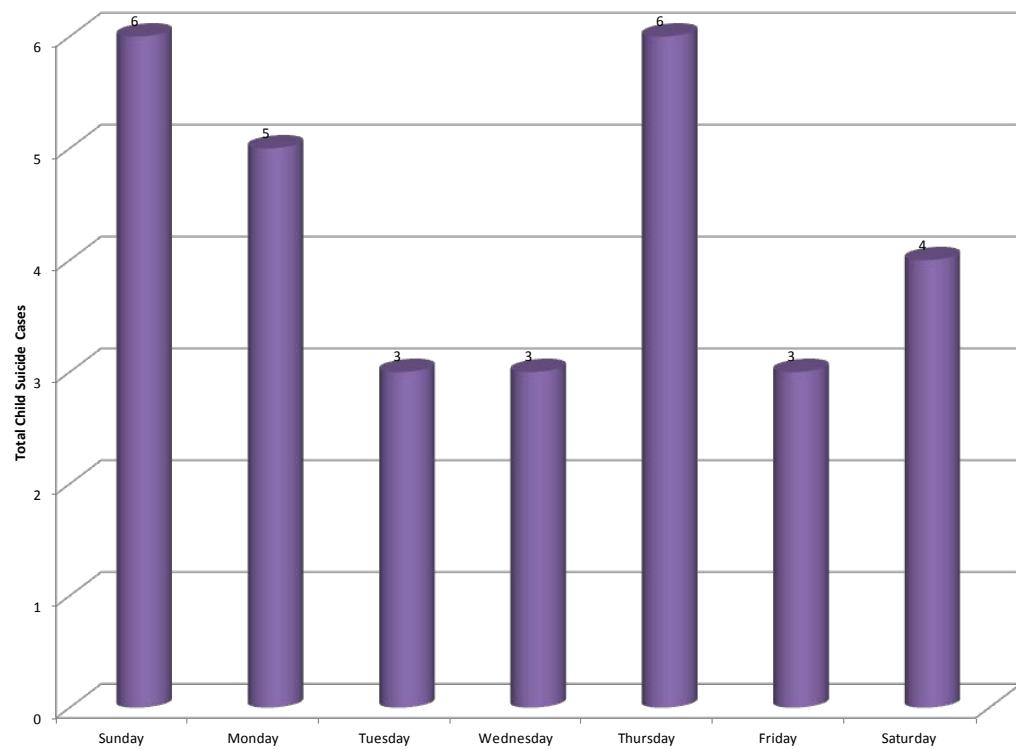
Figure 65. Child Suicide Deaths by Month of Death, 2011**Figure 66. Child Suicide Deaths by Day of Death, 2011**

Table 28. Child Suicide Deaths by Method of Death, 2011

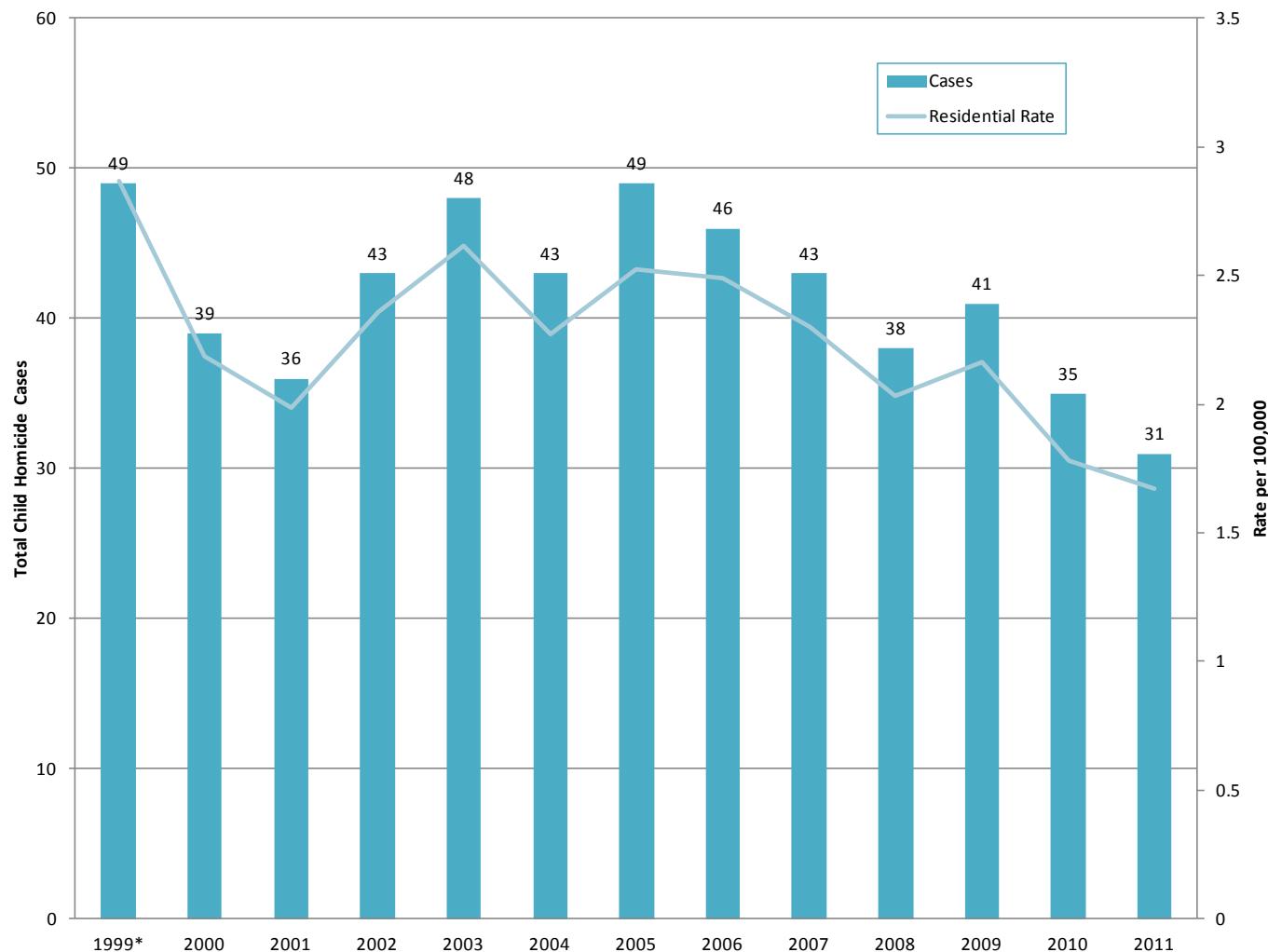
Method of Death		Total Cases	Autopsied
Asphyxia			
Drowning		1	1
Hanging		11	2
Plastic bag		2	0
Drug Use			
Ingested and/or injected illicit, prescription, and/or other type of drug		2	2
Motor Vehicle			
Sport Utility Vehicle		1	0
Traumatic Injury			
Gunshot Wound		13	13
Handgun		(6)	(6)
Rifle		(2)	(2)
Shotgun		(5)	(5)
Total		30	18

HOMICIDE DEATHS OF CHILDREN (N=35)

For a second year in a row, there was a decrease in homicides of children for 2011 and the lowest number of child homicides in the last 13 years. Homicides of children represented 10% of all homicides.

- Black and white children had the same number of homicides (n=13), although black children still were disproportionately killed compared to their portion of the general population
- Infants continued to have the highest number (n=11)
- Males accounted for 58.1% of all childhood homicides
- Beatings were responsible for 32.3% of all childhood homicides followed closely by being shot (29%)

Figure 67. Child Homicide Deaths by Year of Death, 1999-2011



* The 1999 population data is an estimate from VDH's Center for Health Statistics' data. The 15-17 year olds were contained within the age group for 15-19 year olds; therefore, 60 percent of the 15-19 age group was added to the 0-14 year old age group to estimate the total 1999 population of <17 year olds.

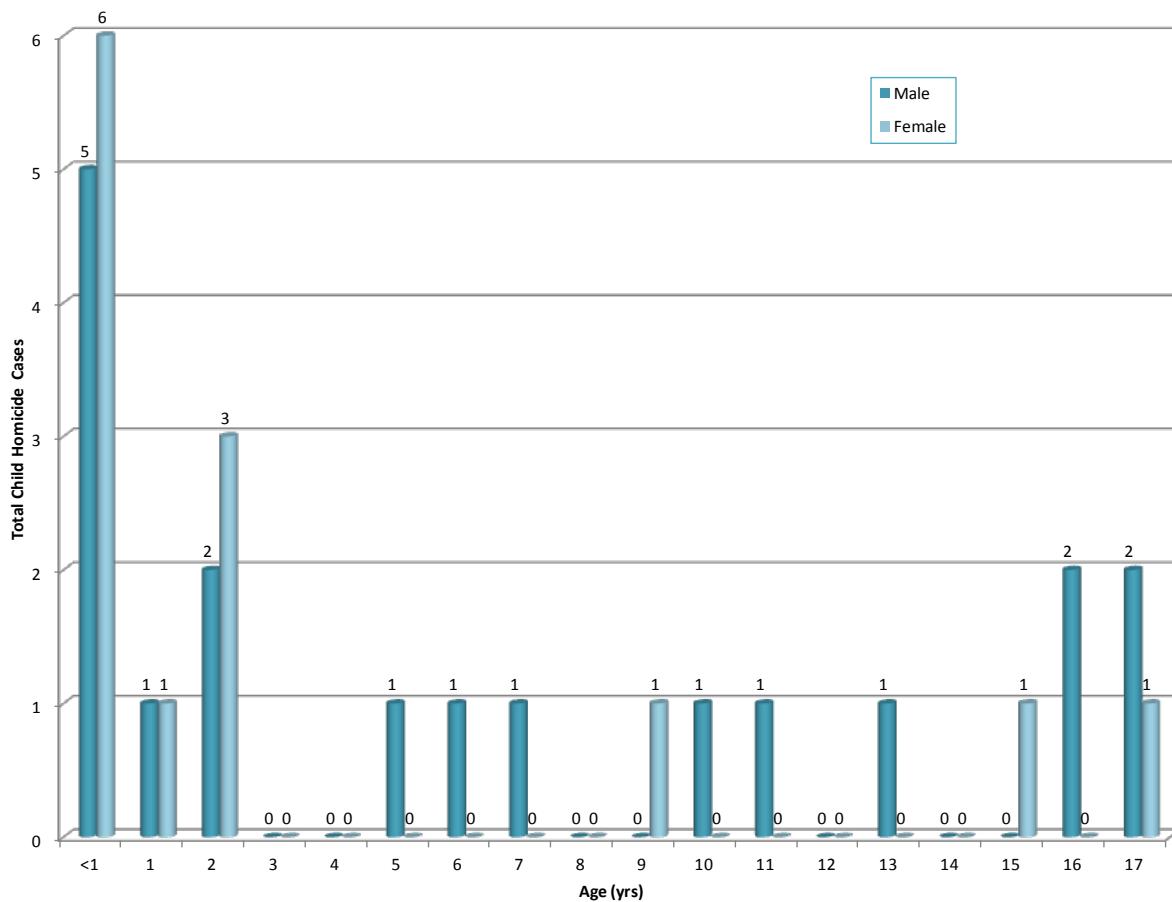
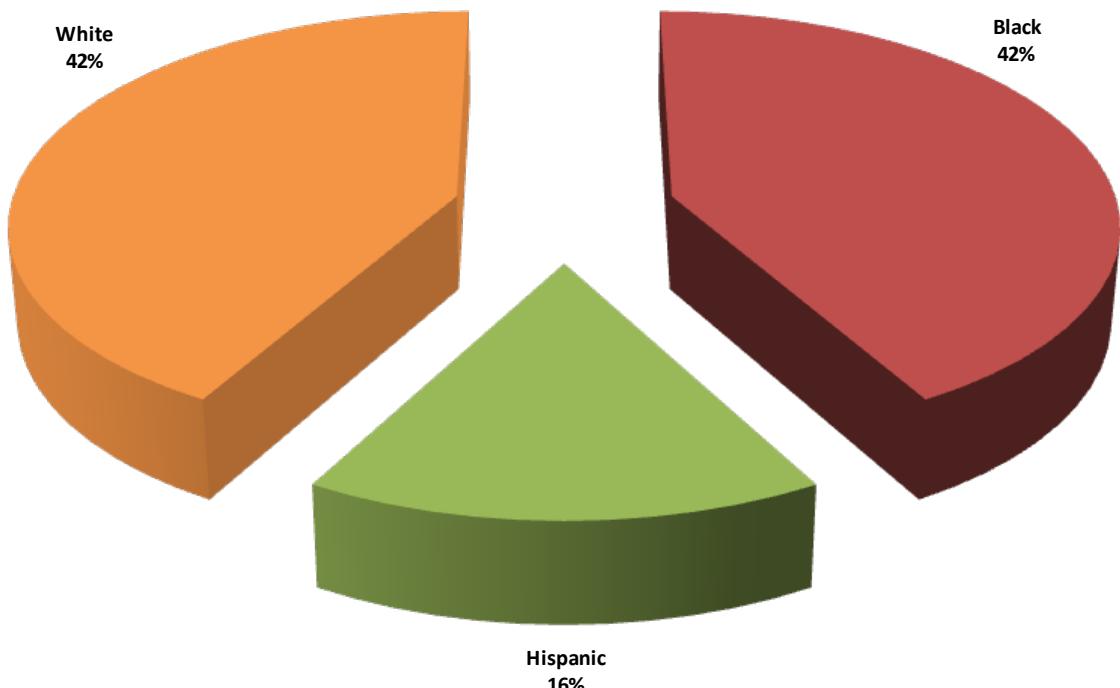
Figure 68. Child Homicide Deaths by Age by Gender, 2011**Figure 69. Child Homicide Deaths by Race/Ethnicity, 2011**

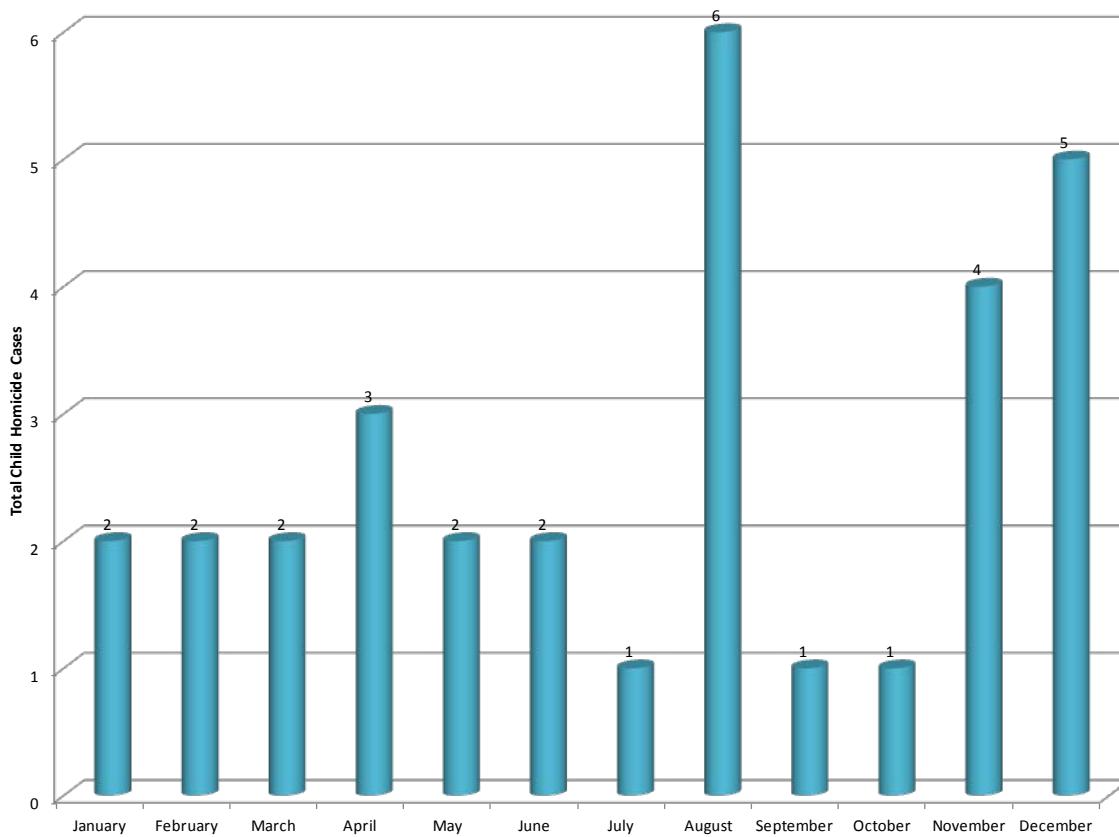
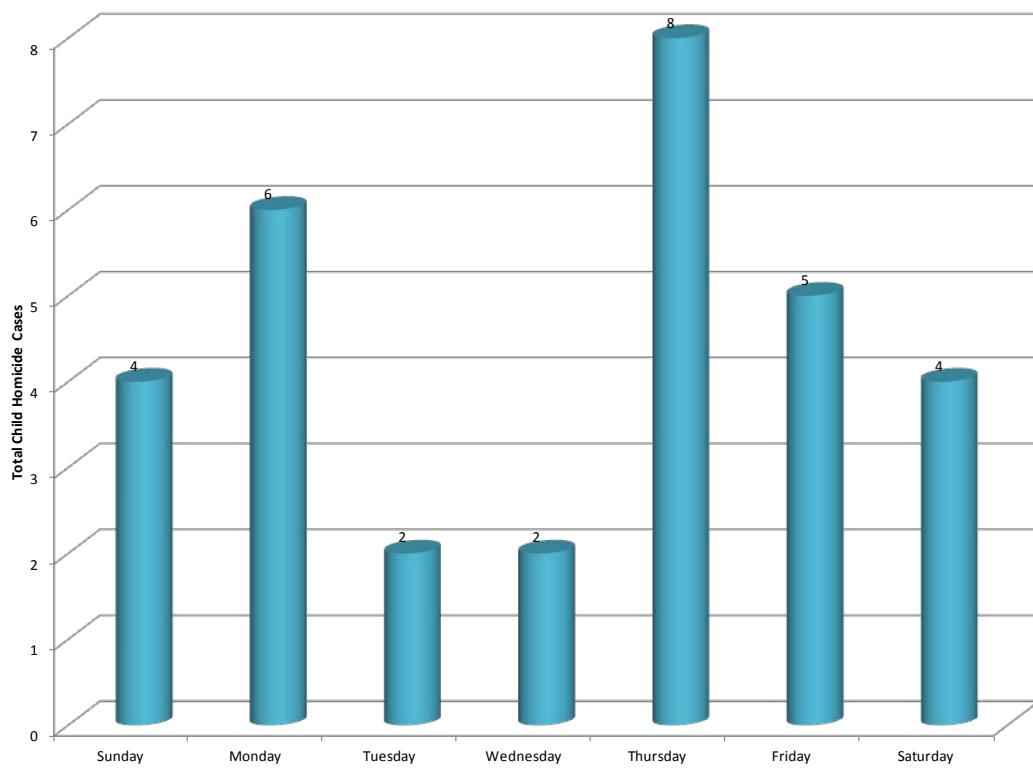
Figure 70. Child Homicide Deaths by Month of Death, 2011**Figure 71. Child Homicide Deaths by Day of Death, 2011**

Table 29. Child Homicide Deaths by Method of Death, 2011

Method of Death		Total Cases	Autopsied
<i>Asphyxia</i>			
Mechanical		1	1
Strangulation		1	1
<i>Traumatic Injury</i>			
Beaten by assailant(s)		10	10
Fall/Push			
Shot by assailant(s) with firearm		9	9
Handgun		(7)	(7)
Shotgun		(2)	(2)
Stabbed by assailant(s)		3	3
Other		4	4
<i>Unknown</i>			
Undetermined method		3	3
Total		31	31

UNDETERMINED DEATHS OF CHILDREN (N=80)

A total of 80 undetermined deaths of children occurred in 2011; this represents approximately half of all undetermined cases.

- The less than 1 year of age group accounted for 97.5% of undetermined deaths
- Seventy-three percent had the diagnosis of SUID

Figure 72. Undetermined Child Deaths by Year of Death, 2006-2011

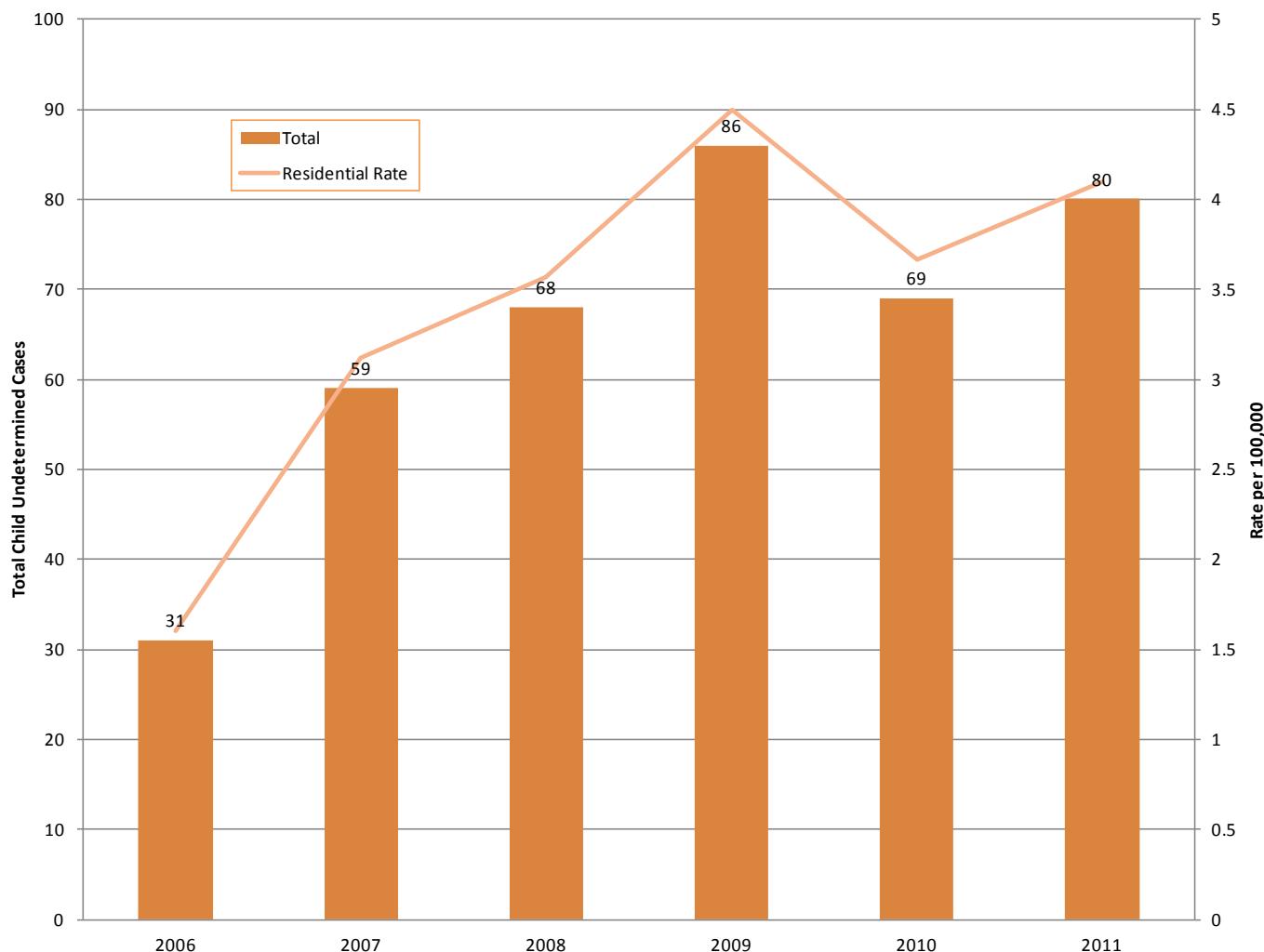


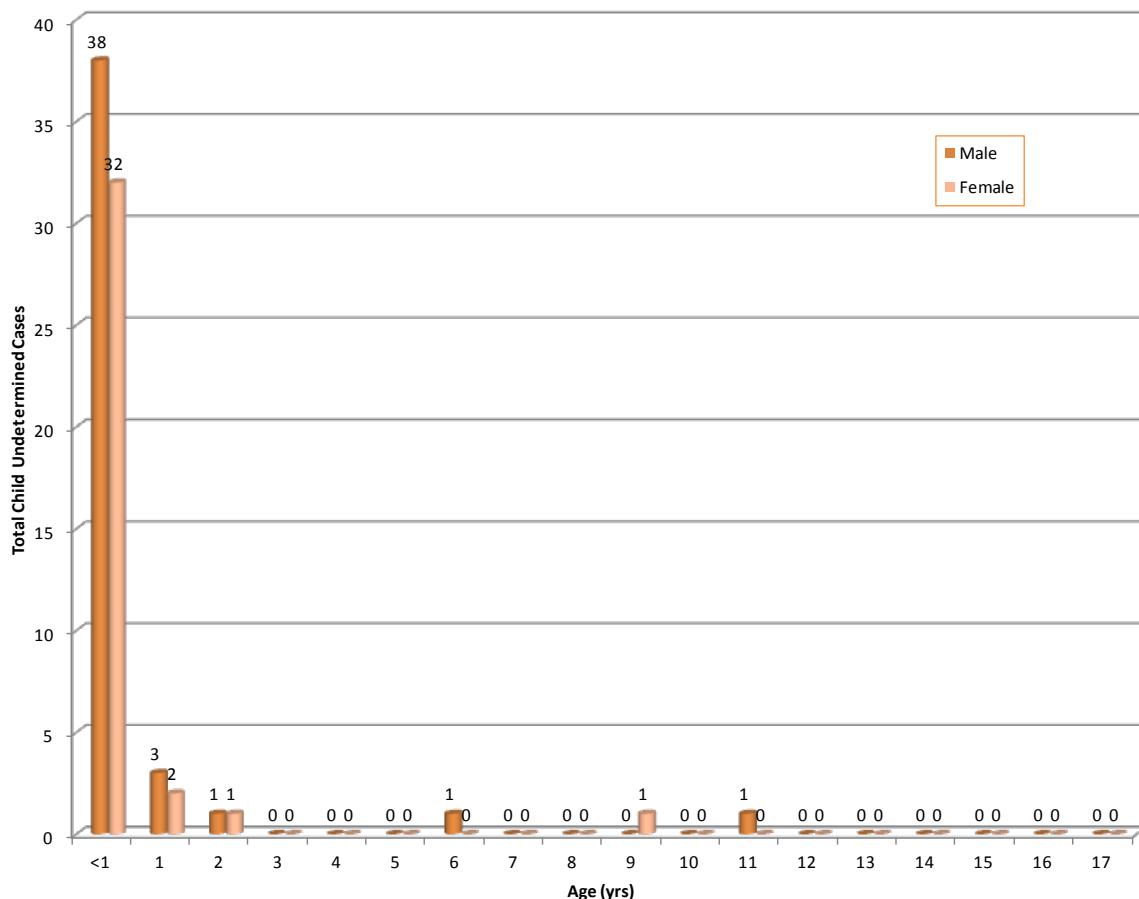
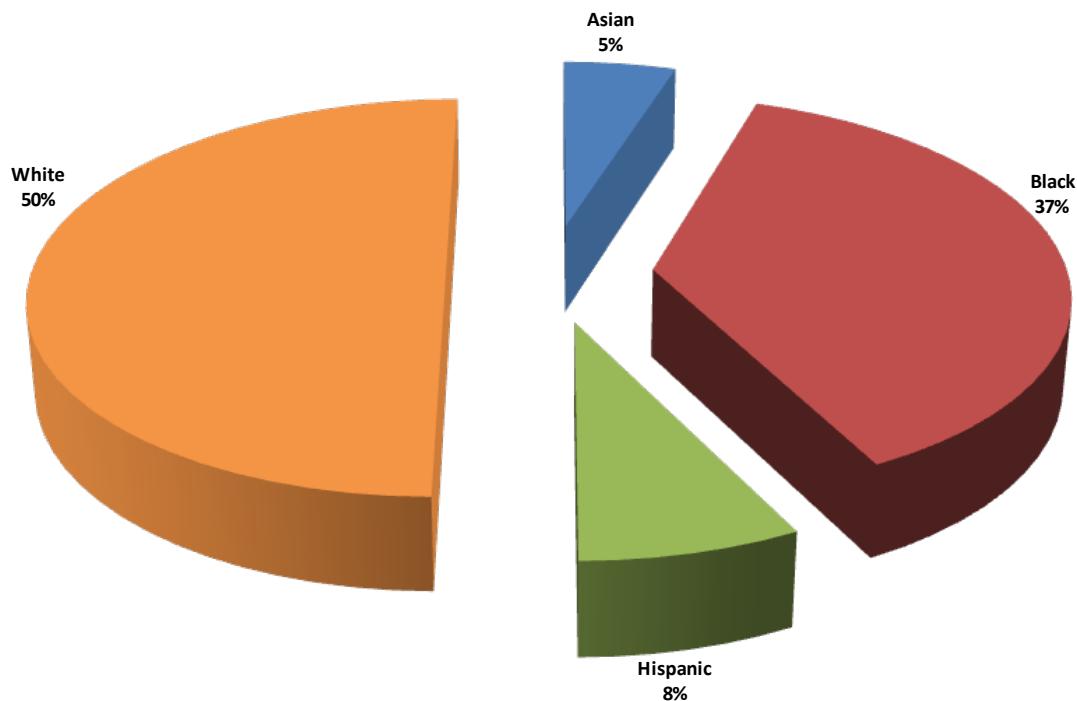
Figure 73. Undetermined Child Deaths by Age by Gender, 2011**Figure 74. Undetermined Child Deaths by Race/Ethnicity, 2011**

Table 30. Undetermined Child Deaths by Cause of Death, 2011

Method of Death	Total Cases	Autopsied
Undetermined Manner & Cause of Death		
Skeletal/Mummified Remains	1	1
Sudden Unexpected Infant Death	58	58
Undetermined after autopsy and/or toxicology	9	9
Subtotal for Undetermined Manner & Cause of Death	68	68
Undetermined Manner but Cause of Death Determined		
Asphyxia		
Hanging	1	1
Positional	1	1
Suffocation/Smothering	1	1
Drug Use		
Ingested and/or injected illicit, prescription, and/or other type of drug	5	5
Traumatic Injury		
Beatings/Blows	1	1
Other	3	3
Subtotal for Undetermined Manner but Cause of Death Determined	12	12
Total	80	80

SECTION 5: MOTOR VEHICLE COLLISIONS RELATED DEATHS (N=875)

The OCME investigated 875 motor vehicle collision (MVC) related deaths in 2011. [NOTE: Three cases were not included in the MVC section as they were not traditional vehicular crashes (ex. skateboards)]. This is a 7.1% increase from 2010 reversing the last few years of a downward trend.

- The vast majority of cases were accidents (98.4%) and males (72.7%)
- In 23% of all motor vehicle deaths, the decedent had a blood alcohol content greater than or equal to 0.08% W/V and 69.5% of them were drivers
- Persons aged 45-54 years old had slightly more deaths (16.1%) in motor vehicle incidents than any other age group, but they were closely followed by the 25-34 age group
- Thirty-three children under the age of 15 died in MVC-related incidents with 9 or 27.3% of them being pedestrians

Figure 75. Motor Vehicle Deaths by Year of Death, 2003-2011

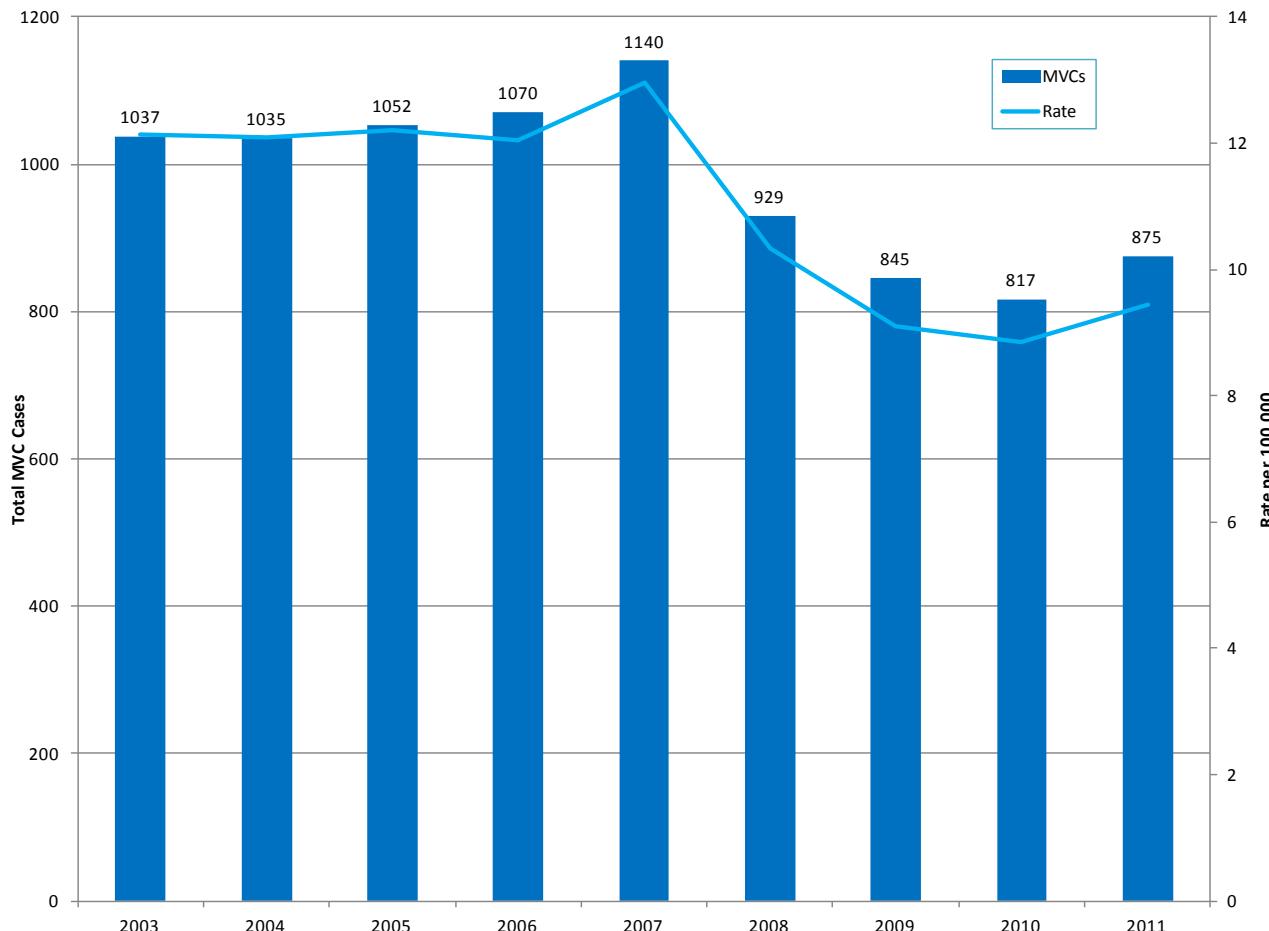


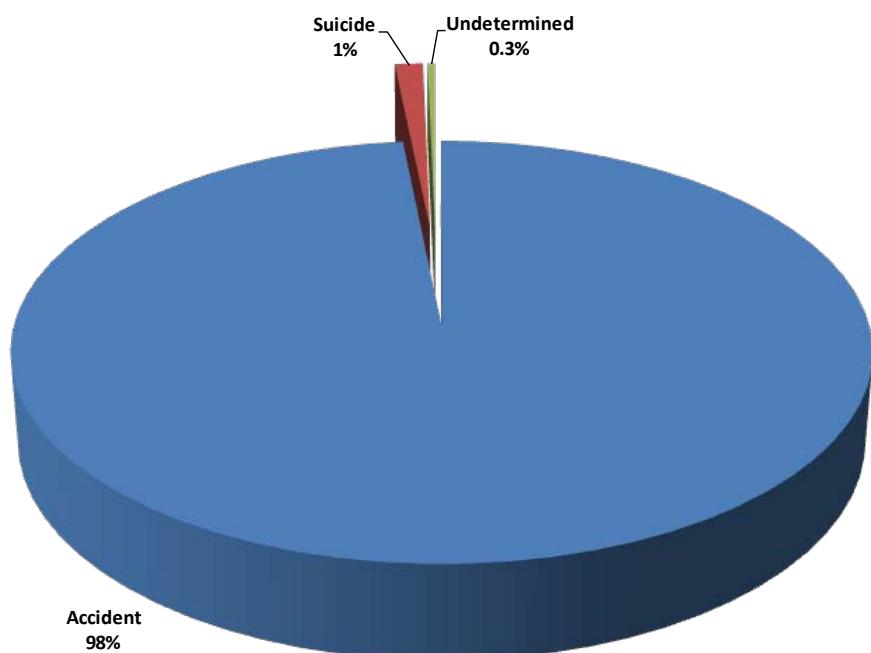
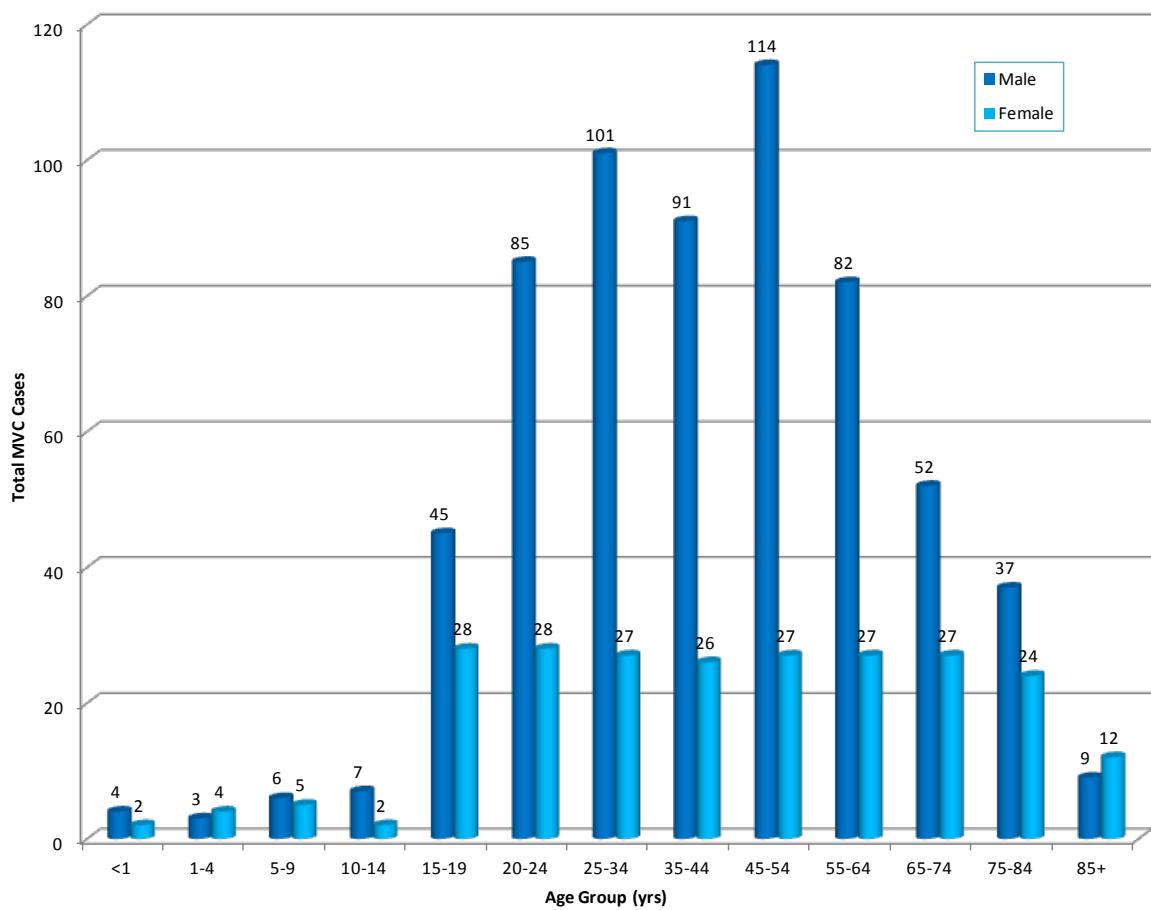
Figure 76. Motor Vehicle Deaths by Manner, 2011**Figure 77. Motor Vehicle Deaths by Age Group by Gender, 2011**

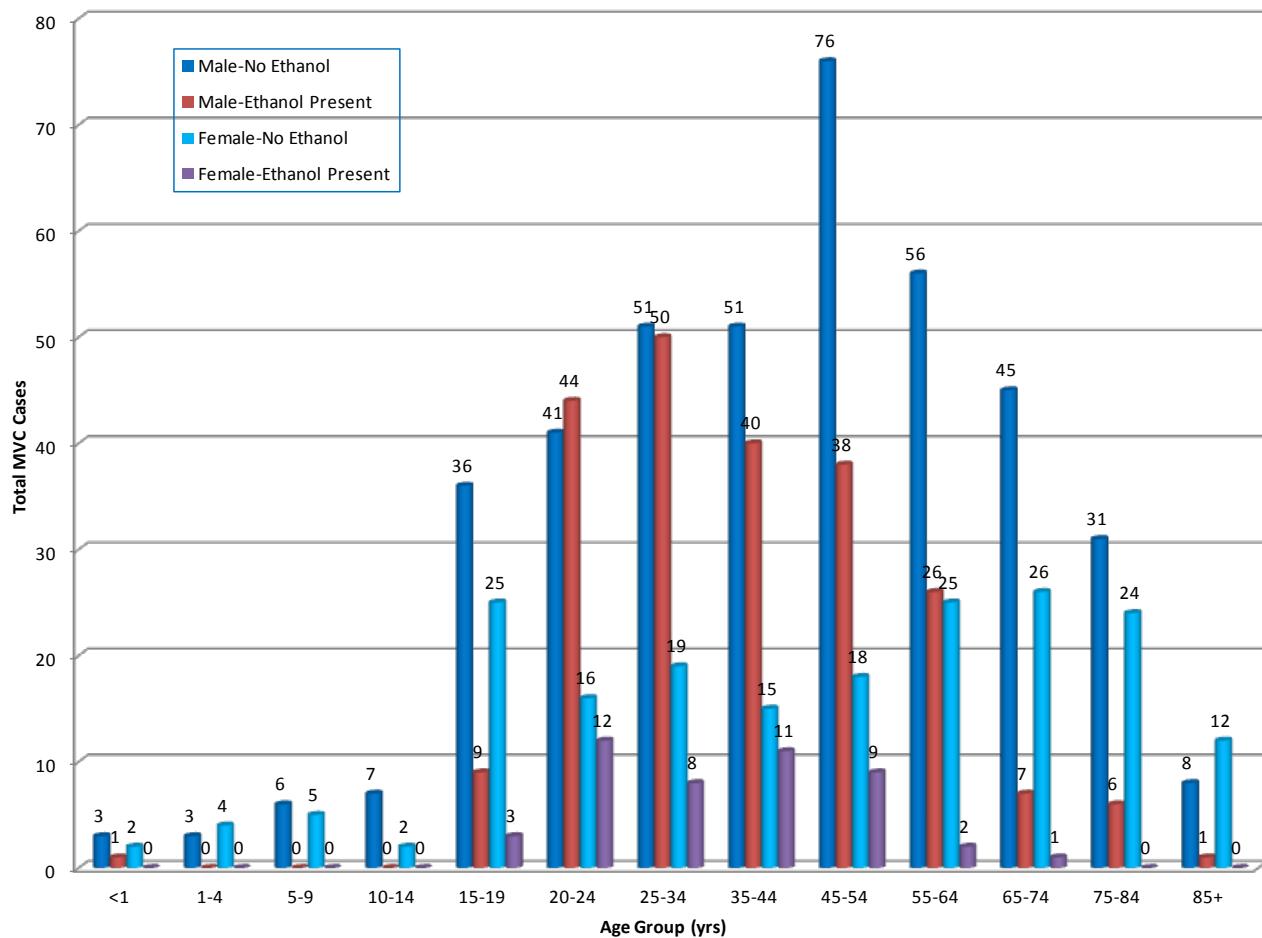
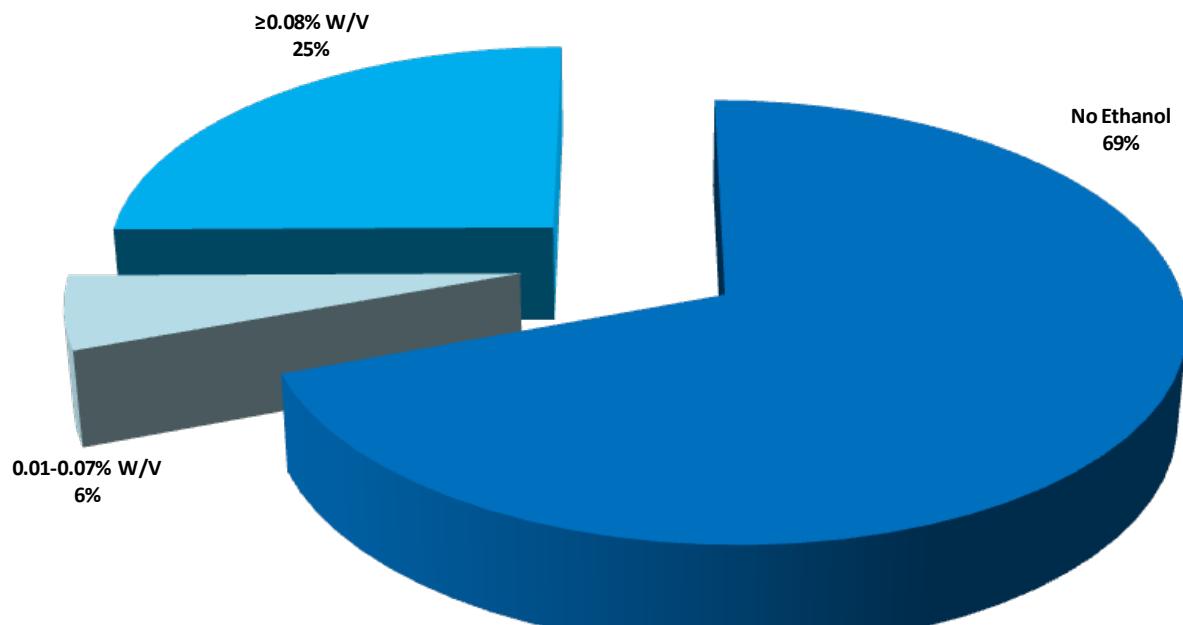
Figure 78. Motor Vehicle Deaths by Age Group by Gender by Ethanol Presence, 2011**Figure 79. Motor Vehicle Deaths by Ethanol Level, 2011**

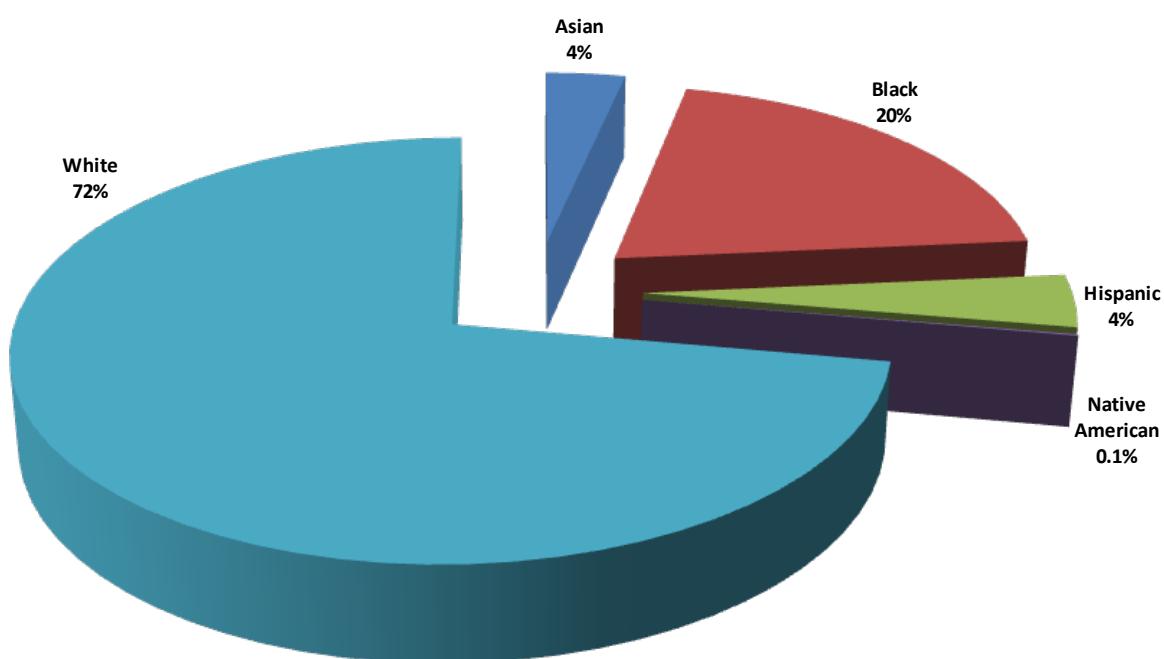
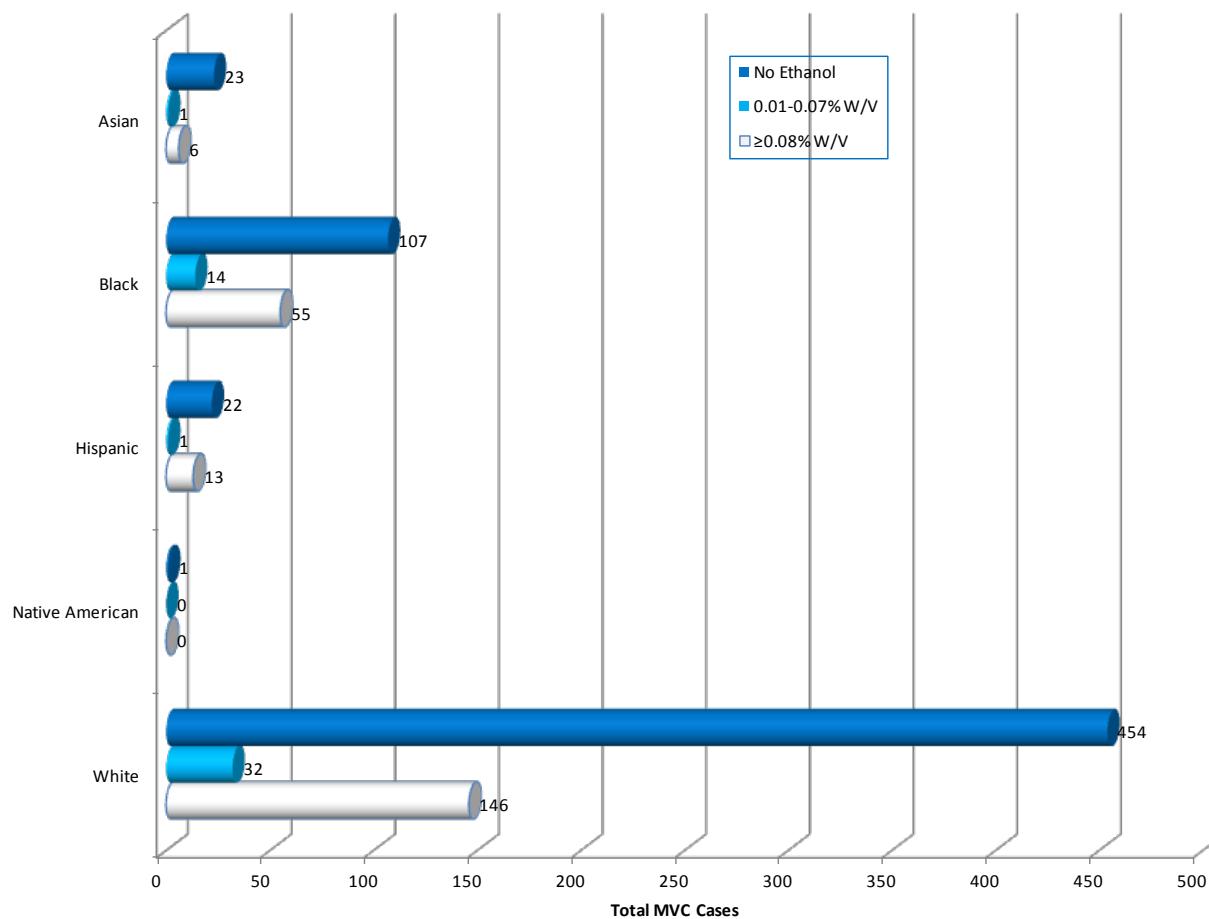
Figure 80. Motor Vehicle Deaths by Race/Ethnicity, 2011**Figure 81. Motor Vehicle Deaths by Race/Ethnicity by Ethanol Presence, 2011**

Table 31. Motor Vehicle Deaths by Age Group by Position In or Out of Vehicle, 2011

Age Group	Driver	Passenger-Front	Passenger-Rear	Passenger-Other	Passenger-Cargo	Pedestrian	Unknown Status	Total
<1	0	1	1	4	0	0	0	6
1-4	0	0	4	0	0	3	0	7
5-9	1	1	5	1	0	3	0	11
10-14	1	3	2	0	0	3	0	9
15-19	33	15	7	2	1	15	0	73
20-24	80	15	4	0	3	10	1	113
25-34	96	7	3	1	6	15	0	128
35-44	83	7	6	5	1	14	1	117
45-54	102	9	2	0	3	23	2	141
55-64	76	8	4	0	3	17	1	109
65-74	56	11	2	0	1	9	0	79
75-84	43	10	3	0	2	3	0	61
85+	15	4	0	0	0	2	0	21
Total	586	91	43	13	20	117	5	875

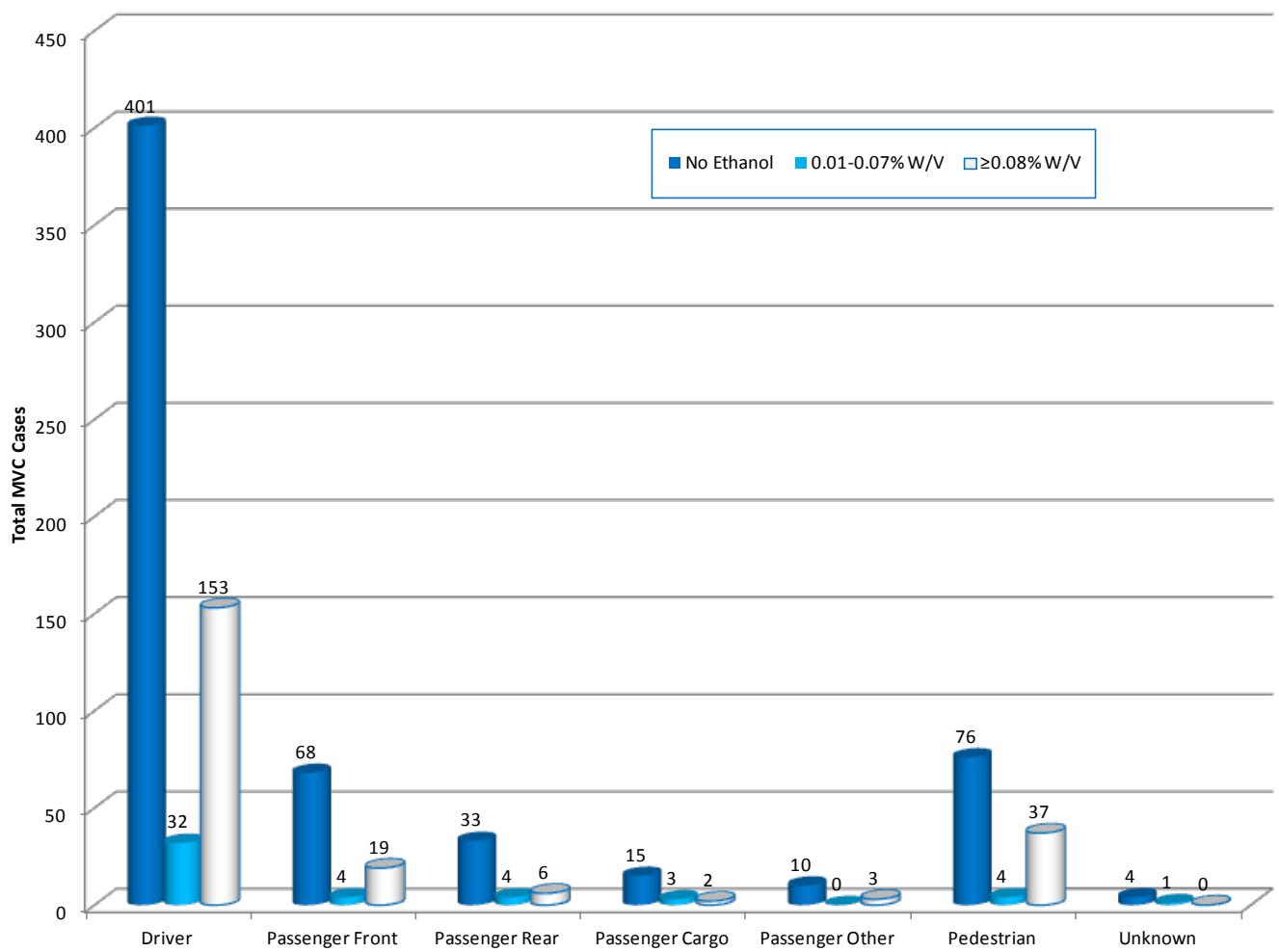
Figure 82. Motor Vehicle Deaths by Position In or Out of Vehicle by Ethanol Level, 2011

Table 32. Motor Vehicle Deaths by Decedent Status by Vehicle Type by Ethanol Level, 2011

Status of Decedent	Vehicle	Ethanol Presence			Total
		No Ethanol	0.01-0.07% W/V	≥0.08% W/V	
Driver	Aircraft	6	0	0	6
	All terrain vehicle	10	1	3	14
	Bicycle	11	0	2	13
	Boat	0	0	1	1
	Car	176	18	75	269
	Farm equipment	8	1	0	9
	Lawnmower	2	0	0	2
	Mo-ped	8	0	0	8
	Motorcycle	72	7	21	100
	Multiple	1	0	0	1
	Pickup Truck	47	1	18	66
	Sport Utility Vehicle	34	3	28	65
	Tractor Trailer	12	0	0	12
	Truck other	7	0	0	7
Passenger-Front	Unknown	1	1	0	2
	Van	6	0	5	11
	Subtotal	401	32	153	586
	Aircraft	1	0	0	1
	Car	41	2	9	52
Passenger-Rear	Pickup Truck	11	2	6	19
	Sport Utility Vehicle	11	0	4	15
	Van	4	0	0	4
	Subtotal	68	4	19	91
	Car	20	3	3	26
Passenger-Cargo	Motorcycle	1	0	1	2
	Pickup Truck	2	0	0	2
	Sport Utility Vehicle	7	1	2	10
	Van	3	0	0	3
	Subtotal	33	4	6	43
	Aircraft	1	0	0	1
	Bus	4	0	0	4
	Car	5	1	1	7
	Motorcycle	1	0	0	1
	Sport Utility Vehicle	2	2	1	5
	Van	2	0	0	2
	Subtotal	15	3	2	20

Status of Decedent	Vehicle	Ethanol Presence			Total
		No Ethanol	0.01-0.07% W/V	≥0.08% W/V	
Passenger-Other	Boat	0	0	1	1
	Car	3	0	1	4
	Farm equipment	1	0	0	1
	Motorcycle	1	0	0	1
	Pickup Truck	1	0	0	1
	Sport Utility Vehicle	2	0	1	3
	Van	2	0	0	2
	Subtotal	10	0	3	13
Pedestrian	Bus	1	0	0	1
	Car	33	2	14	49
	Farm equipment	2	0	0	2
	Heavy equipment	2	0	0	2
	Pickup Truck	9	0	6	15
	Sport Utility Vehicle	9	1	8	18
	Tractor Trailer	3	1	0	4
	Train	8	0	6	14
	Truck other	4	0	1	5
	Unknown	2	0	2	4
	Van	3	0	0	3
	Subtotal	76	4	37	117
Unknown Status	Car	1	1	0	2
	Unknown	3	0	0	3
	Subtotal	4	1	0	5
TOTAL		607	48	220	875

Table 33. Motor Vehicle Deaths by County of Residence, 2011

County/City of Residency	Total	Rate	County/City of Residency	Total	Rate
Accomack	10	30.0	Fauquier	16	24.2
Albemarle	14	13.9	Floyd	4	26.0
Alexandria	6	4.2	Fluvanna	1	3.8
Alleghany	2	12.4	Franklin City	1	11.6
Amelia	4	31.2	Franklin	5	8.9
Amherst	8	24.9	Frederick	11	13.8
Appomattox	1	6.6	Fredericksburg	4	15.6
Arlington	6	2.8	Galax	2	28.6
Augusta	10	13.6	Giles	1	5.8
Bath	3	64.4	Gloucester	8	21.7
Bedford City	3	48.5	Goochland	1	4.6
Bedford	9	13.0	Grayson	0	0.0
Bland	0	0.0	Greene	1	5.4
Botetourt	7	21.3	Greenville	1	8.3
Bristol	1	5.6	Halifax	7	19.4
Brunswick	3	17.4	Hampton	11	8.1
Buchanan	7	29.7	Hanover	12	12.0
Buckingham	5	28.9	Harrisonburg	1	2.0
Buena Vista	0	0.0	Henrico	15	4.8
Campbell	7	12.7	Henry	12	22.3
Caroline	2	7.0	Highland	0	0.0
Carroll	3	10.0	Hopewell	1	4.4
Charles City	3	41.4	Isle of Wight	5	14.1
Charlotte	4	32.0	James City	10	14.7
Charlottesville	2	4.6	King and Queen	1	14.3
Chesapeake	24	10.7	King George	3	12.4
Chesterfield	28	8.7	King William	2	12.5
Clarke	1	7.0	Lancaster	2	17.7
Colonial Heights	2	11.5	Lee	5	19.9
Covington	1	16.8	Lexington	0	0.0
Craig	0	0.0	Loudoun	10	3.1
Culpeper	7	14.7	Louisa	9	27.0
Cumberland	0	0.0	Lunenburg	2	15.5
Danville	4	9.3	Lynchburg	8	10.5
Dickenson	4	25.4	Madison	1	7.6
Dinwiddie	3	10.7	Manassas	2	5.1
Emporia	0	0.0	Martinsville	2	14.8
Essex	5	44.6	Mathews	0	0.0
Fairfax City	3	13.3	Mecklenburg	4	12.3
Fairfax	53	4.8	Middlesex	0	0.0
Falls Church	0	0.0	Montgomery	13	13.8

County/City of Residency	Total	Rate
Nelson	5	33.1
New Kent	3	15.9
Newport News	18	10.0
Norfolk	14	5.8
Northampton	1	8.1
Northumberland	3	24.1
Norton	0	0.0
Nottoway	2	12.6
Orange	6	17.7
Page	3	12.5
Patrick	4	21.8
Petersburg	3	9.3
Pittsylvania	15	23.9
Poquoson	1	8.3
Portsmouth	13	13.6
Powhatan	3	10.7
Prince Edward	2	8.6
Prince George	7	19.1
Prince William	18	4.1
Pulaski	3	8.7
Radford	1	6.1
Rappahannock	2	26.9
Richmond City	27	13.1
Richmond	3	32.5
Roanoke City	9	9.3
Roanoke	6	6.5
Rockbridge	3	13.4
Rockingham	9	11.8
Russell	4	13.9

County/City of Residency	Total	Rate
Salem	1	4.0
Scott	4	17.3
Shenandoah	7	16.6
Smyth	5	15.6
Southampton	3	16.3
Spotsylvania	16	12.9
Stafford	3	2.3
Staunton	4	16.8
Suffolk	9	10.6
Surry	1	14.4
Sussex	3	24.8
Tazewell	5	11.2
Virginia Beach	30	6.8
Warren	7	18.5
Washington	5	9.1
Waynesboro	1	4.7
Westmoreland	1	5.7
Williamsburg	0	0.0
Winchester	1	3.8
Wise	9	21.7
Wythe	3	10.3
York	9	13.6
Total in State	764	9.4
Out of Country	9	ND†
Out of State	102	ND
TOTAL	875	ND

† ND- No Denominator

SECTION 6: DRUG/POISON CAUSED DEATHS

OVERALL DRUG/POISON DEATHS (N=818)

The overall number of drug/poisoning cases increased significantly (18.2%) from 2010 with the highest rate (9.6 per 100,000) experienced in Virginia. Prescription drug deaths continued to rise as well as a large increase in illegal drugs, which had been decreasing for several years.

- The overall rate of drug/poison caused deaths for Virginia residents was 9.6 per 100,000 which exceeded the MVC rate of 9.4
- The majority of cases were accidents (78.7%), males (55.9%), whites (87.2%), and 45-54 year olds (29.9%)
- The Western OCME district handled one-third of all drug/poison deaths
- Illegal drugs caused 143 deaths, up 70.2% from 2010
- Whites died from prescription drugs 4.1 times more than blacks while blacks died from illegal drugs 1.4 times that of whites

Figure 83. Total Drug/Poison Deaths by Year of Death, 1999-2011

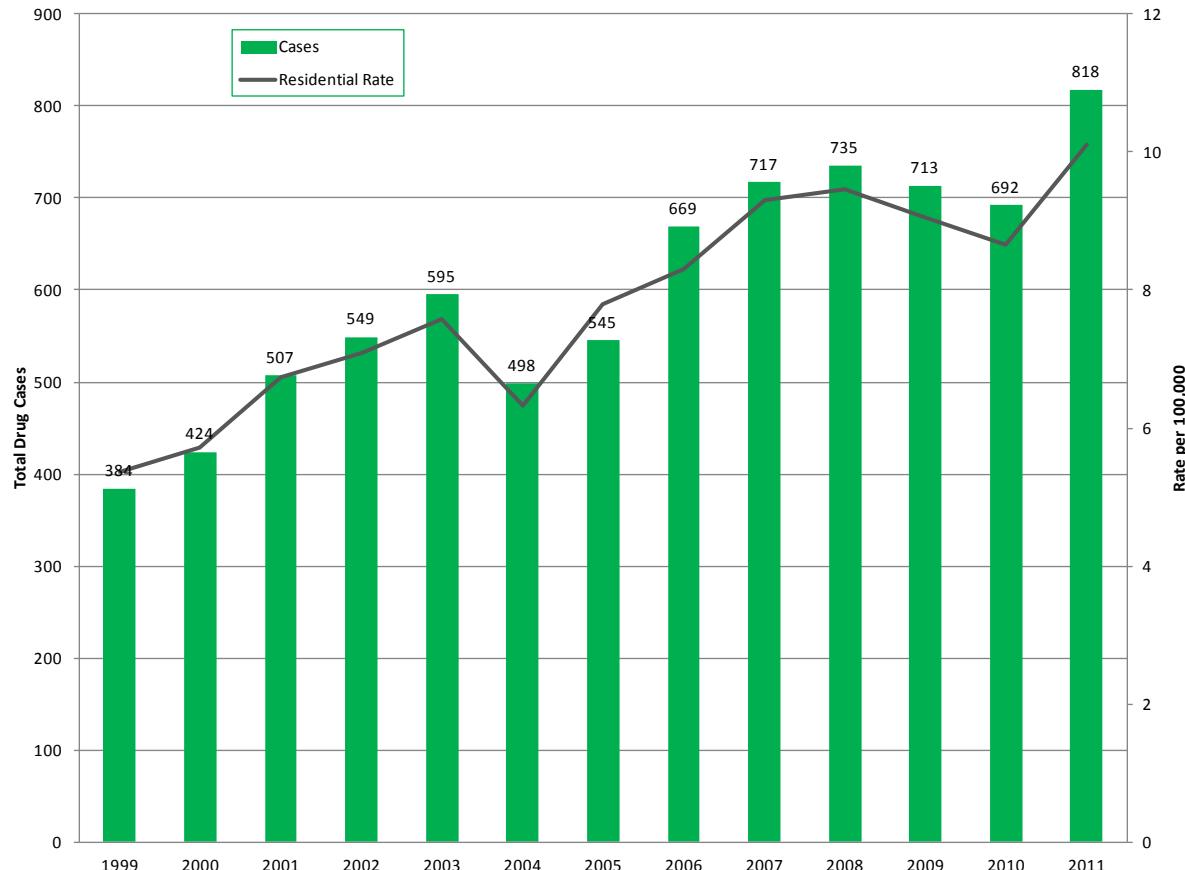


Table 34. Drug/Poison Deaths by OCME District, 2011

OCME District	Cases	Percent
Central	187	22.9%
Northern	202	24.7%
Tidewater	155	18.9%
Western	274	33.5%
Total	818	100%

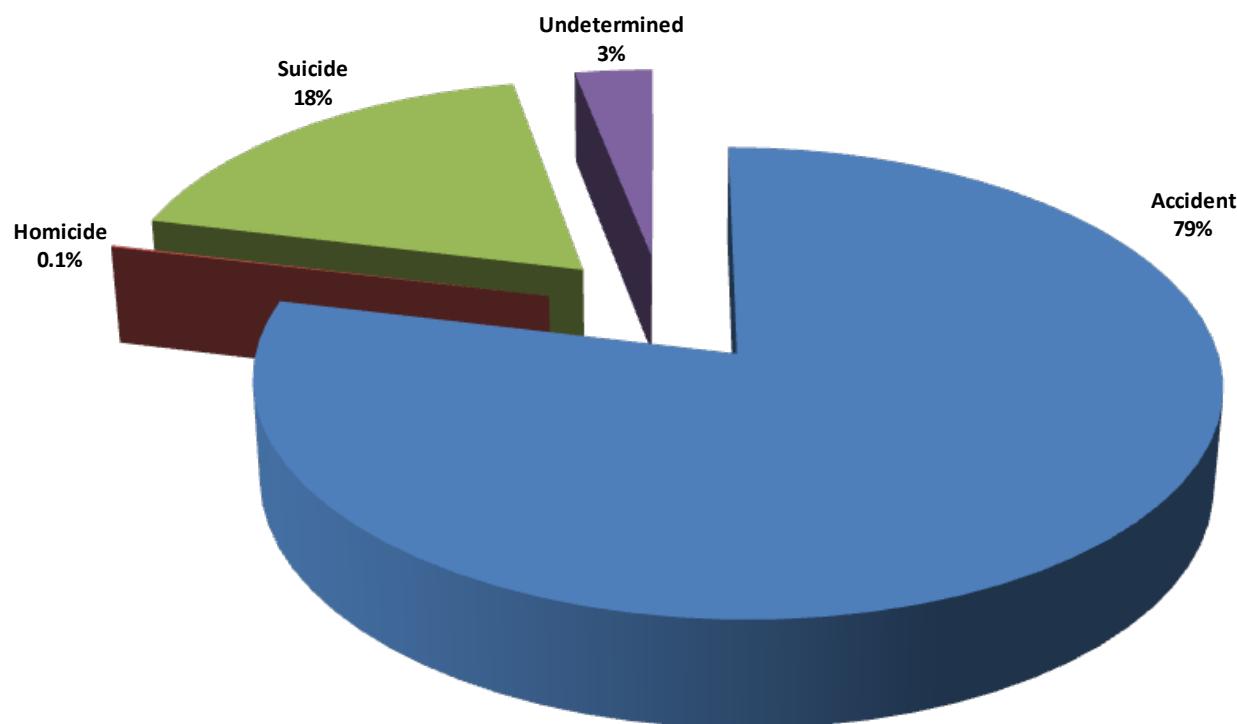
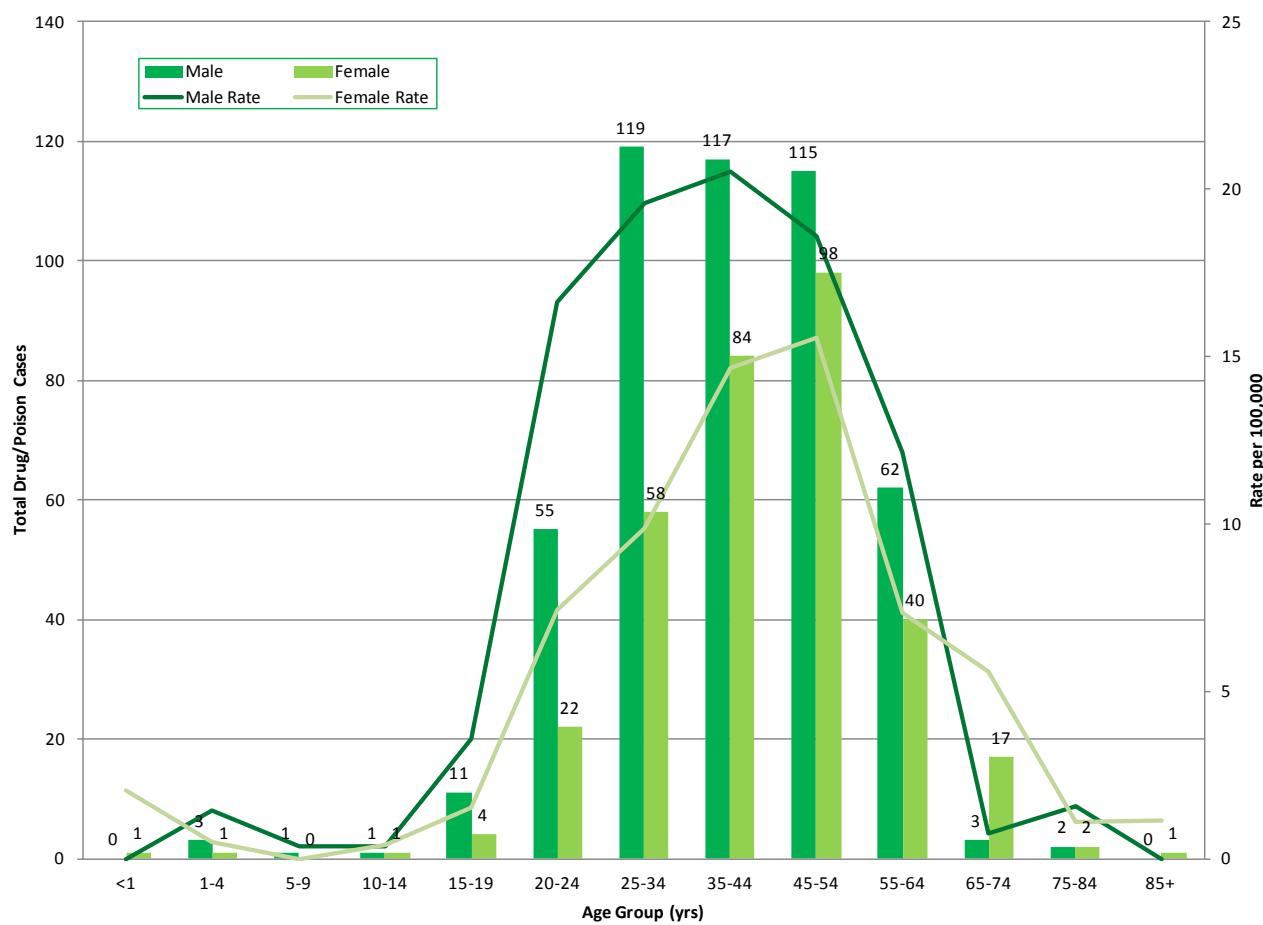
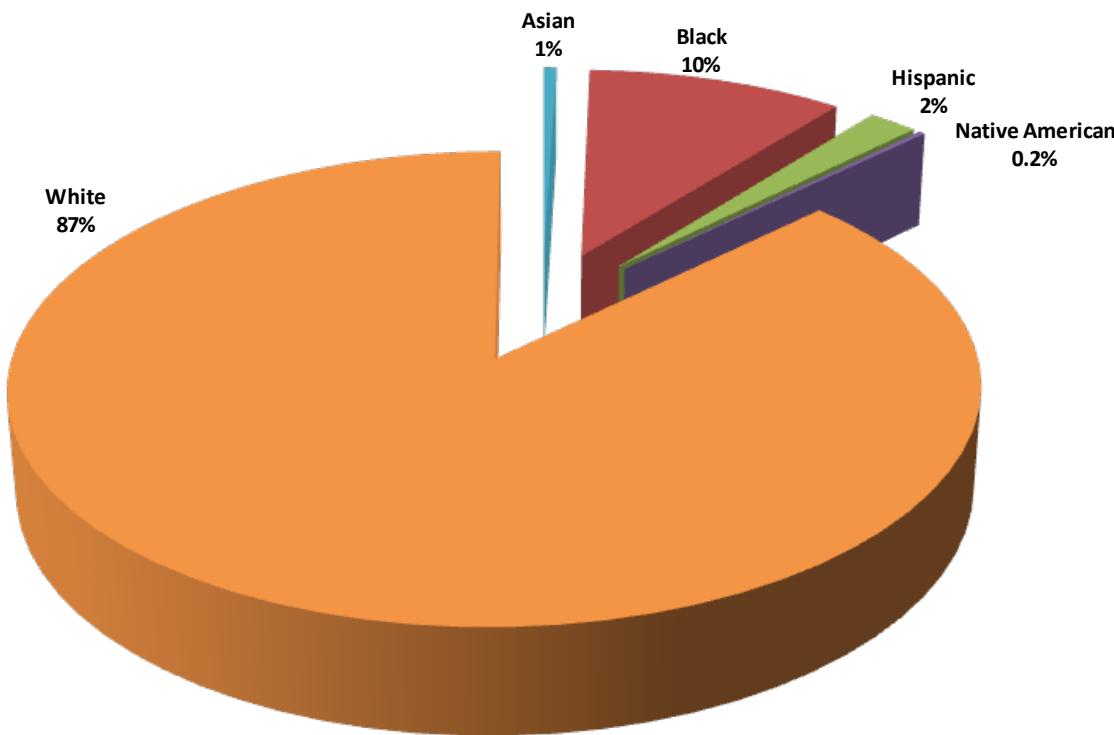
Figure 84. Drug/Poison Deaths by Manner, 2011

Figure 85. Drug/Poison Deaths by Age Group by Gender, 2011**Table 35. Drug/Poison Deaths by Age Group by Manner, 2011**

Age Group	Manner of Death				Total
	Accident	Homicide	Suicide	Undetermined	
<1	1	0	0	0	1
1-4	0	0	0	4	4
5-9	0	0	0	1	1
10-14	1	0	1	0	2
15-19	13	0	2	0	15
20-24	65	0	12	0	77
25-34	160	0	13	4	177
35-44	169	0	27	5	201
45-54	165	1	43	4	213
55-64	61	0	34	7	102
65-74	7	0	13	0	20
75-84	1	0	3	0	4
85+	1	0	0	0	1
Total	644	1	148	25	818

Figure 86. Drug/Poison Deaths by Race/Ethnicity, 2011**Table 36. Drug/Poison Deaths by Cause of Death by OCME District, 2011**

Cause of Death	District				Total
	Central	Northern	Tidewater	Western	
Ethanol Poisoning	4	7	2	2	15
Prescription Drug Poisoning	106	115	72	212	505
Illegal (Street) Drug Poisoning	50	30	41	22	143
Mixed Category Drug Poisoning	14	37	29	33	113
Inhalant Poisoning	3	1	2	0	6
OTC Poisoning	6	9	3	2	20
Ethylene Glycol Poisoning	1	1	2	0	4
Not Otherwise Specified Poisoning	0	0	2	3	5
Other Poisons (Heavy Metals, etc.)	3	2	2	0	7
Total	187	202	155	274	818

Table 37. Drug/Poison Deaths by Cause of Death by Manner, 2011

Cause of Death	Manner of Death				Total
	Accident	Homicide	Suicide	Undetermined	
Ethanol Poisoning	13	0	2	0	15
Prescription Drug Poisoning	383	1	100	21	505
Illegal (Street) Drug Poisoning	142	0	1	0	143
Mixed Category Drug Poisoning	89	0	21	3	113
Inhalant Poisoning	6	0	0	0	6
OTC Poisoning	7	0	13	0	20
Ethylene Glycol Poisoning	0	0	3	1	4
Not Otherwise Specified Poisoning	4	0	1	0	5
Other Poisons (Heavy Metals, etc.)	0	0	7	0	7
TOTAL	644	1	148	25	818

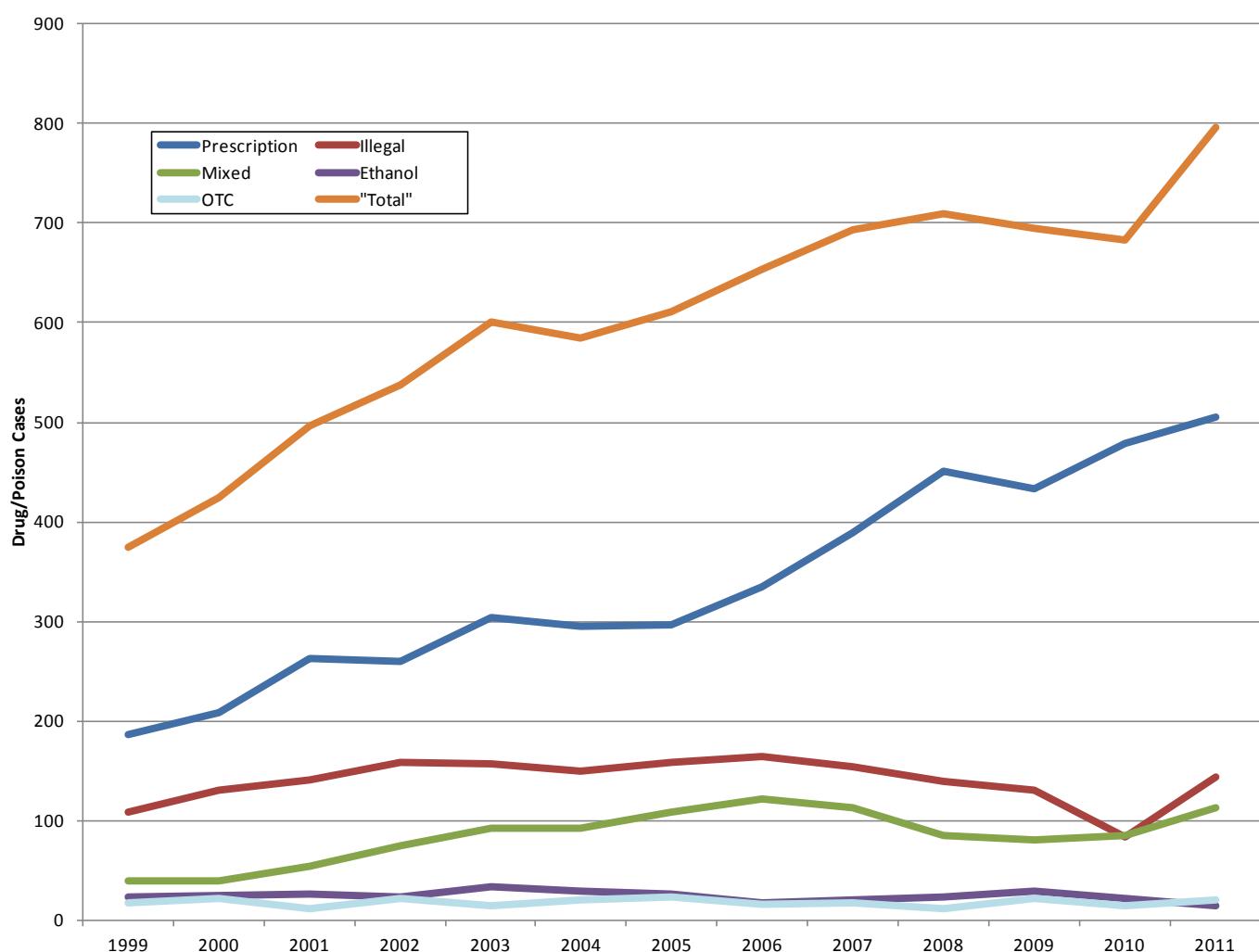
Figure 87. Specific Type of Drug Category Deaths by Year of Death, 2011

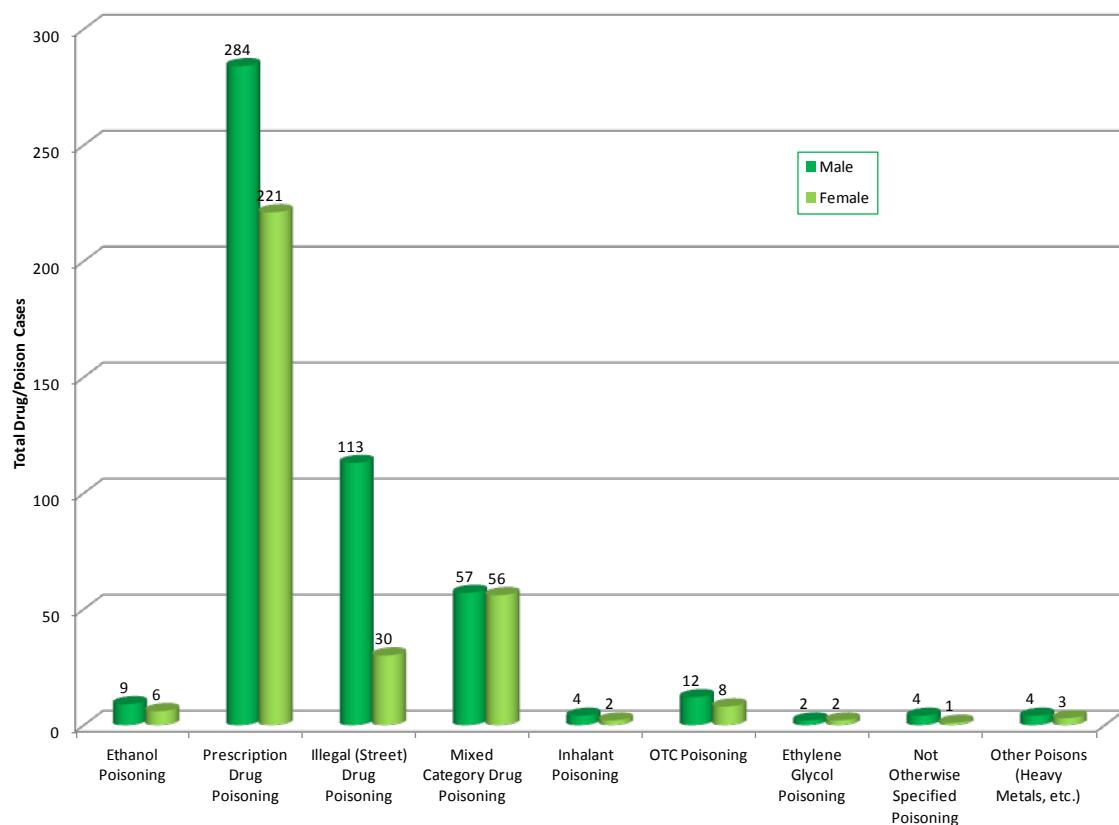
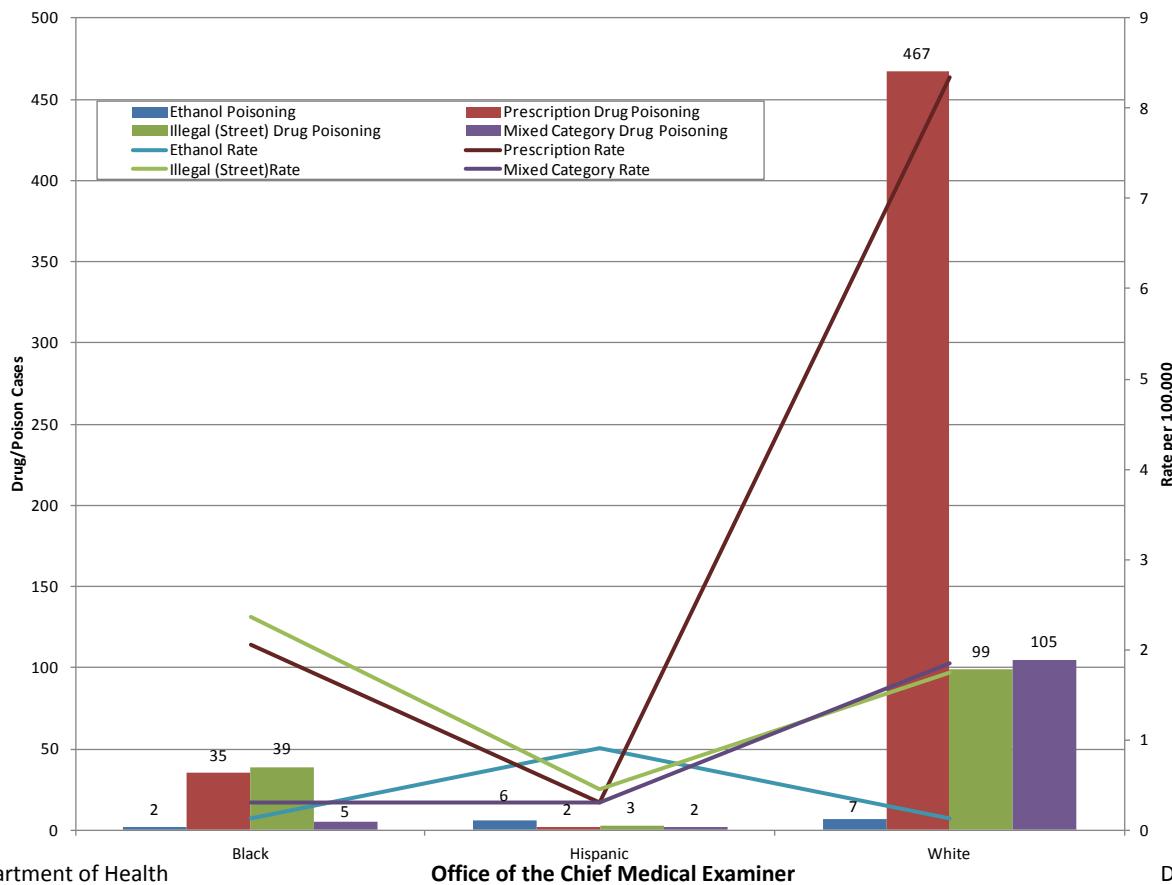
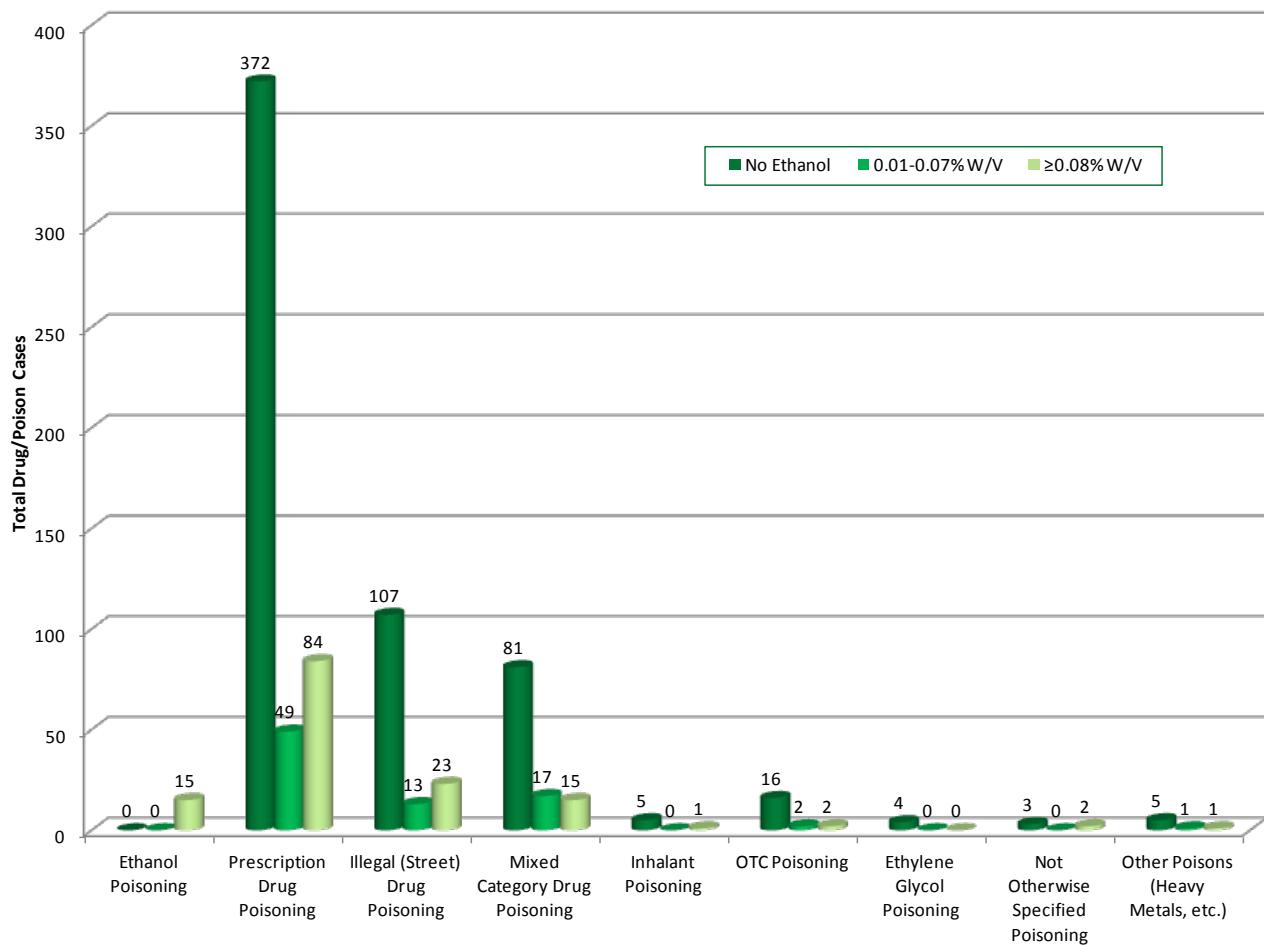
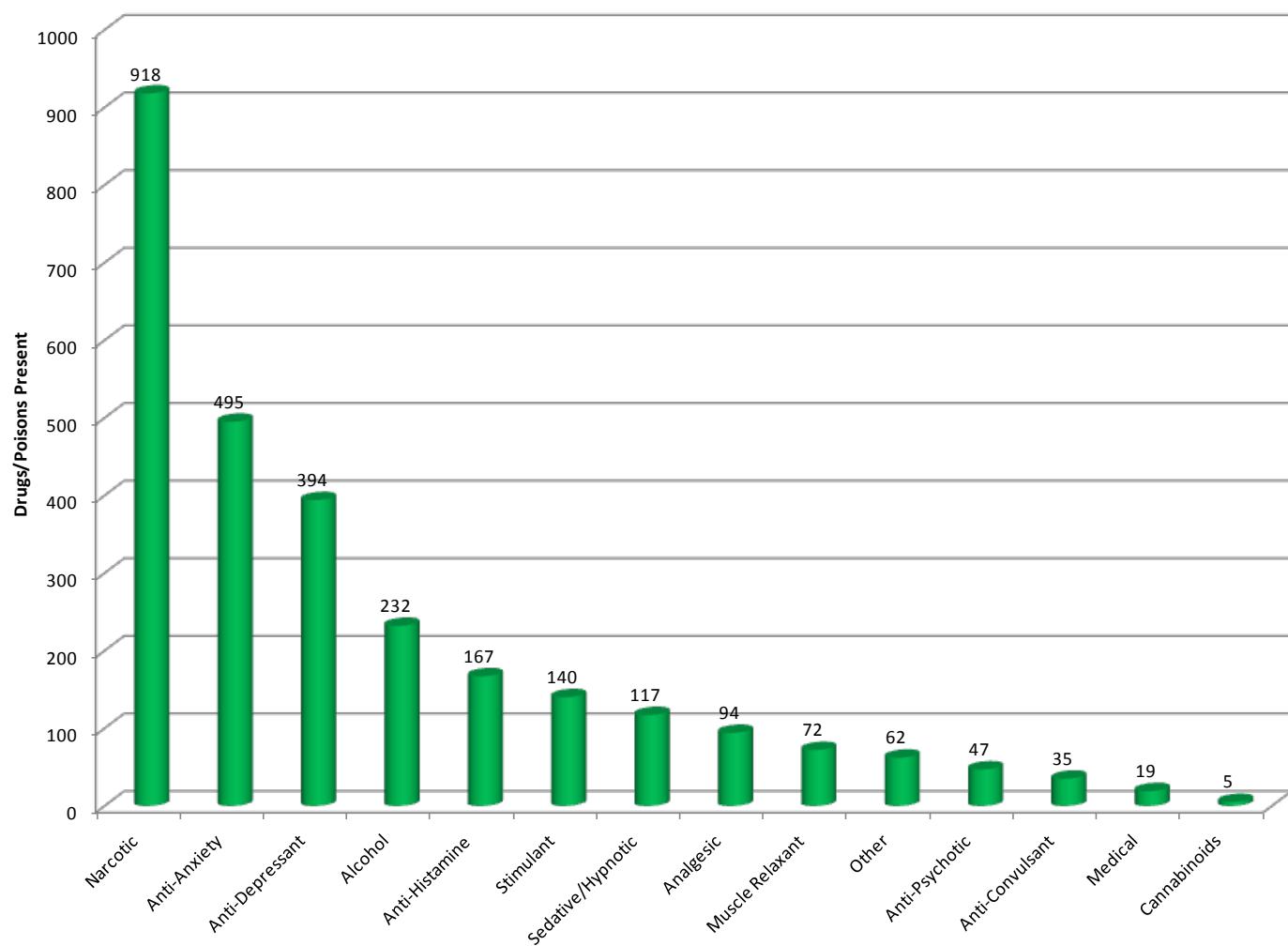
Figure 88. Drug/Poison Deaths by Drug Category by Gender, 2011**Figure 89. Specific Drug Category Deaths by Race/Ethnicity, 2011**

Figure 90. Specific Drug Category Deaths by Ethanol Level, 2011**Table 38. Drug/Poison Deaths by Cause of Death by Alcohol Also Causing Death, 2011**

Cause of Death	Alcohol Also Caused Death			Total
	Yes	No	Contributed	
Ethanol Poisoning	15	0	0	15
Prescription Drug Poisoning	93	29	10	132
Illegal (Street) Drug Poisoning	20	14	2	36
Mixed Category Drug Poisoning	26	6	0	32
Inhalant Poisoning	0	1	0	1
OTC Poisoning	3	1	0	4
Not Otherwise Specified Poisoning	2	0	0	2
Other Poisons (Heavy Metals, etc.)	0	2	0	2
TOTAL*	159	53	12	224

*Total equals number of cases in which alcohol was present in decedent.

Figure 91. Classes of All Drugs/Poisons Present* in Drug/Poison Deaths, 2011

*All drugs/poisons found in decedents' blood were reported regardless if they contributed to death.

Table 39. All Drugs/Poisons/Active Metabolites Present* in Drug/Poison Deaths, 2011

Class	Drug/Poison/Active Metabolite	Total
Alcohol		
	ACETONE	3
	ETHANOL	225
	ISOPROPANOL	2
	METHANOL	2
	Alcohol Total	232
Analgesic		
	ACETAMINOPHEN	11
	ACETYL SALICYLIC ACID	2
	BUPIVACAINE	1
	BUPRENORPHINE	7

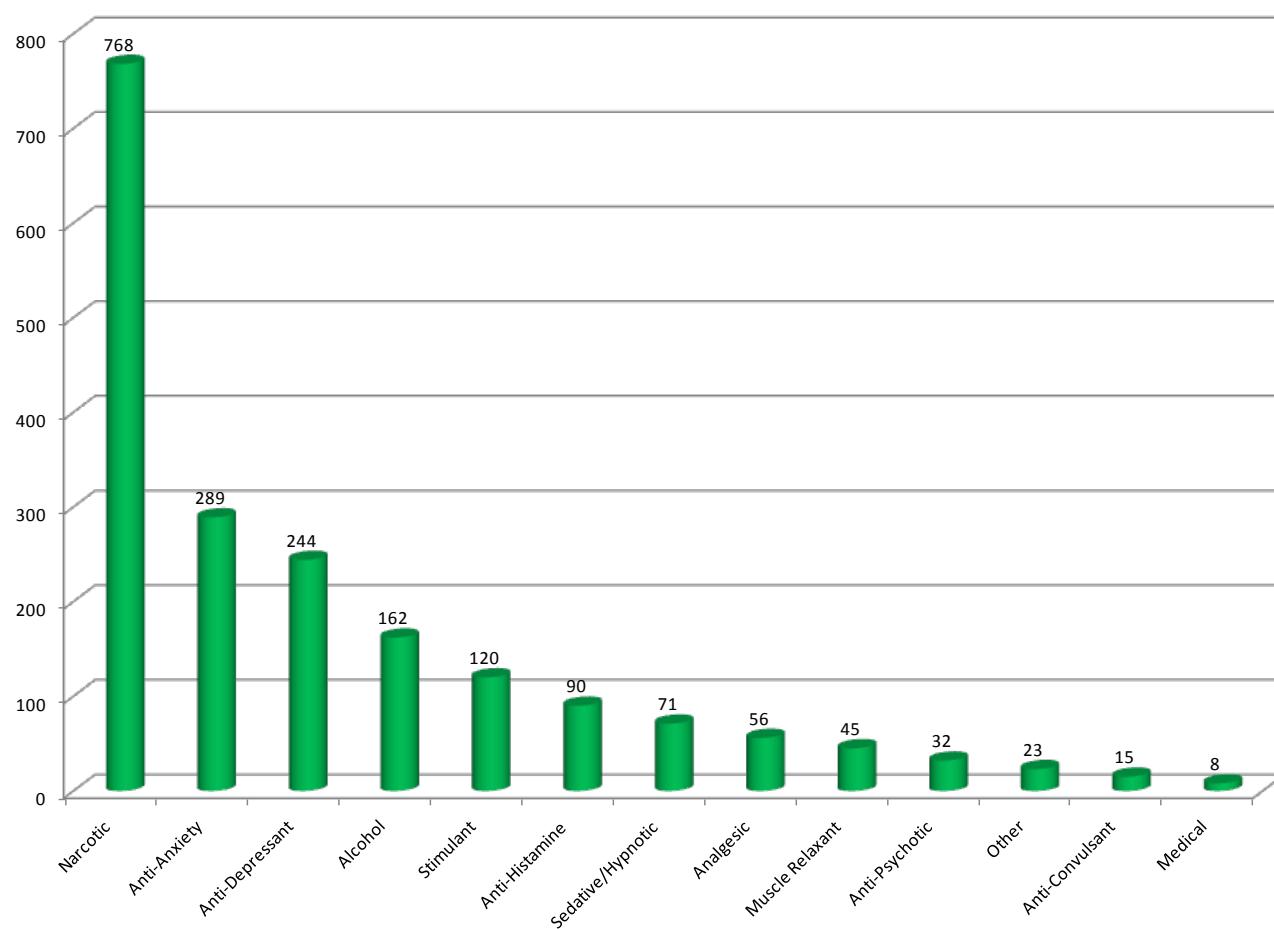
Class	Drug/Poison/Active Metabolite	Total
	DEXTROMETHORPHAN	34
	IBUPROFEN	1
	KETAMINE	2
	MEPERIDINE	2
	NAPROXEN	1
	NORBUPRENORPHINE (Buprenorphine Metabolite)	5
	NORMEPPERIDINE (Meperidine Metabolite)	1
	TAPENTADOL	3
	TRAMADOL	24
	Analgesic Total	94
Anti-Anxiety		
	ALPRAZOLAM	206
	BUSPIRONE	1
	CHLORDIAZEPOXIDE	5
	DIAZEPAM	109
	LORAZEPAM	15
	MEPROBAMATE	26
	NORDIAZEPAM (Diazepam Metabolite)	120
	OXAZEPAM	13
	Anti-Anxiety Total	495
Anti-Convulsant		
	CARBAMAZEPINE	8
	CLONAZEPAM	5
	GABAPENTIN	3
	LAMOTRIGINE	3
	LEVETIRACETAM	1
	MIDAZOLAM	4
	OXCARBAZEPINE	3
	PHENOBARBITAL	7
	PHENYTOIN	1
	Anti-Convulsant Total	35
Anti-Depressant		
	AMITRIPTYLINE	54
	ATOMOXETINE	1
	BUPROPION (WELLBUTRIN)	31
	CITALOPRAM	85
	CLOMIPRAMINE	2
	m-CHLOROPHENYLPIPERAZINE	1
	DESIPRAMINE	3
	DOXEPIN	8
	FLUOXETINE	35

Class	Drug/Poison/Active Metabolite	Total
	HYDROXYBUPROPRION (Bupropion Metabolite)	4
	IMIPRAMINE	3
	MIRTAZAPINE	22
	NORFLUOXETINE (Fluoxetine Metabolite)	6
	NORTRIPTYLINE	52
	NORVENLAFAKINE (Venlafaxine Metabolite)	1
	PAROXETINE	9
	SERTRALINE	27
	TRAZODONE	31
	VENLAFAKINE	19
	Anti-Depressant Total	394
Anti-Histamine		
	BROMPHENIRAMINE	1
	CHLORPHENIRAMINE	12
	DIPHENHYDRAMINE	116
	DOXYLAMINE	26
	HYDROXYZINE	3
	MECLIZINE	2
	NORCHLORCYCLIZINE (Chlorcyclizine Metabolite)	4
	NORCLOMIPRAMINE (Clomipramine Metabolite)	1
	PHENIRAMINE	1
	ORPHENADRINE	1
	Anti-Histamine Total	167
Anti-Psychotic		
	CHLORPROMAZINE	1
	CLOZAPINE	4
	HALOPERIDOL	2
	LOXAPINE	2
	OLANZAPINE	8
	QUETIAPINE	29
	ZIPRASIDONE	1
	Anti-Psychotic Total	47
Cannabinoids		
	AM-2201	1
	TETRAHYDROCANNABINOL CARBOXYLIC ACID	4
	Cannabinoids Total	5
Medical		
	ATROPINE	4
	BENZTROPINE	1
	DILTIAZEM	3
	ETOMIDATE	1

Class	Drug/Poison/Active Metabolite	Total
	ISONIAZID	1
	MEMANTINE	1
	TILMICOSIN	1
	TRIHEXYPHENIDYL	1
	VERAPAMIL	6
	Medical Total	19
<hr/>		
Muscle Relaxant		
	CARISOPRODOL	20
	CYCLOBENZAPRINE	47
	METAXALONE	3
	METHOCARBAMOL	1
	PAPAVERINE	1
	Muscle Relaxant Total	72
<hr/>		
Narcotic		
	6-ACETYLMORPHINE (Heroin Metabolite)	52
	CODEINE	60
	FENTANYL	57
	HYDROCODONE	114
	HYDROMORPHONE	24
	METHADONE	158
	MORPHINE	179
	NORPROPOXYPHENE (Propoxyphene Metabolite)	3
	OXYCODONE	177
	OXYMORPHONE	91
	PROPOXYPHENE	3
	Narcotic Total	918
<hr/>		
Other		
	CARBOXYHEMOGLOBIN	9
	DICYCLOMINE	3
	DIFLUOROETHANE	9
	DONEPEZIL	2
	ETHYLENE GLYCOL	3
	FLUCONAZOLE	4
	LEVAMISOLE	4
	LIDOCAINE	15
	LOPERAMIDE	1
	METOCLOPRAMIDE	3
	NALOXONE	1
	PROPRANOLOL	1
	TETRAMISOLE	4
	THIOSULFATE	1

Class	Drug/Poison/Active Metabolite	Total
	TRIMETHOPRIM	1
	VOLATILE HYDROCARBONS	1
	Other Total	62
Sedative/Hypnotic		
	BUTABARBITAL	1
	BUTALBITAL	11
	PENTOBARBITAL	1
	PROMETHAZINE	50
	PROPOFOL	1
	TEMAZEPAM	27
	ZOLPIDEM	26
	Sedative/Hypnotic Total	117
Stimulant		
	AMPHETAMINE	13
	CAFFEINE	2
	COCAETHYLENE	22
	COCAINE	82
	METHAMPHETAMINE	10
	METHYLENEDIOXYPYROVALERONE	3
	METHYLPHENIDATE	2
	PHENCYCLIDINE	4
	PHENTERMINE	2
	Stimulant Total	140
	Total	2797

*All drugs/poisons/active metabolites found in drug/poison deaths are reported regardless if they contributed to death.

Figure 92. Classes of All Drugs/Poisons Causing Death in Drug/Poison Deaths, 2011**Table 40. Drugs/Poisons/Active Metabolites Causing Death in Drug/Poison Deaths, 2011**

Class	Drug/Poison/Active Metabolite	Total
Alcohol		
	ACETONE	1
	ETHANOL	159
	ISOPROPANOL	1
	METHANOL	1
	Alcohol Total	162
Analgesic		
	ACETAMINOPHEN	6
	ACETYL SALICYLIC ACID	2
	BUPIVACAINE	1
	BUPRENORPHINE	6
	DEXTROMETHORPHAN	14
	KETAMINE	1
	NORBUPRENORPHINE (Buprenorphine Metabolite)	5
	NORMEPERIDINE (Meperidine Metabolite)	1

Class	Drug/Poison/Active Metabolite	Total
	TAPENTADOL	3
	TRAMADOL	17
	Analgesic Total	56
Anti-Anxiety		
	ALPRAZOLAM	144
	CHLORDIAZEPOXIDE	3
	DIAZEPAM	54
	LORAZEPAM	4
	MEPROBAMATE	18
	NORDIAZEPAM (Diazepam Metabolite)	58
	OXAZEPAM	8
	Anti-Anxiety Total	289
Anti-Convulsant		
	CARBAMAZEPINE	3
	CLONAZEPAM	4
	LAMOTRIGINE	1
	MIDAZOLAM	2
	OXCARBAZEPINE	2
	PHENOBARBITAL	3
	Anti-Convulsant Total	15
Anti-Depressant		
	AMITRIPTYLINE	30
	ATOMOXETINE	1
	BUPROPION (WELLBUTRIN)	18
	CITALOPRAM	51
	CLOMIPRAMINE	2
	m-CHLOROPHENYLPIPERAZINE	1
	DESIPRAMINE	2
	DOXE PIN	7
	FLUOXETINE	25
	HYDROXYBUPROPRION (Bupropion Metabolite)	4
	IMIPRAMINE	3
	MIRTAZAPINE	11
	NORFLUOXETINE (Fluoxetine Metabolite)	6
	NORTRIPTYLINE	31
	PAROXETINE	7
	SERTRALINE	11
	TRAZODONE	21
	VENLAFA XINE	13
	Anti-Depressant Total	244
Anti-Histamine		
	BROMPHENIRAMINE	1
	CHLORPHENIRAMINE	7

Class	Drug/Poison/Active Metabolite	Total
	DIPHENHYDRAMINE	62
	DOXYLAMINE	15
	HYDROXYZINE	1
	NORCHLORCYCLIZINE (Chlorcyclizine Metabolite)	2
	NORCLOMIPRAMINE (Clomipramine Metabolite)	1
	ORPHENADRINE	1
	Anti-Histamine Total	90
Anti-Psychotic		
	CHLORPROMAZINE	1
	CLOZAPINE	4
	HALOPERIDOL	2
	OLANZAPINE	7
	QUETIAPINE	17
	ZIPRASIDONE	1
	Anti-Psychotic Total	32
Medical		
	BENZTROPINE	1
	DILTIAZEM	1
	ISONIAZID	1
	MEMANTINE	1
	TILMICOSIN	1
	TRIHEXYPHENIDYL	1
	VERAPAMIL	2
	Medical Total	8
Muscle Relaxant		
	CARISOPRODOL	14
	CYCLOBENZAPRINE	29
	METAXALONE	2
	Muscle Relaxant Total	45
Narcotic		
	6-ACETYLMORPHINE (Heroin Metabolite)	36
	CODEINE	39
	FENTANYL	51
	HYDROCODONE	85
	HYDROMORPHONE	19
	METHADONE	154
	MORPHINE	163
	NORPROPOXYPHENE (Propoxyphene Metabolite)	1
	OXYCODONE	146
	OXYMORPHONE	73
	PROPOXYPHENE	1
	Narcotic Total	768

Class	Drug/Poison/Active Metabolite	Total
Other		
	DICYCLOMINE	1
	DIFLUOROETHANE	9
	DONEPEZIL	1
	ETHYLENE GLYCOL	3
	LOPERAMIDE	1
	METHYLPHENIDATE	2
	METOCLOPRAMIDE	3
	PROPRANOLOL	1
	THIOSULFATE	1
	VOLATILE HYDROCARBONS	1
	Other Total	23
Sedative/Hypnotic		
	BUTALBITAL	6
	PENTOBARBITAL	1
	PROMETHAZINE	27
	PROPOFOL	1
	TEMAZEPAM	18
	ZOLPIDEM	18
	Sedative/Hypnotic Total	71
Stimulant		
	AMPHETAMINE	10
	CAFFEINE	1
	COCAETHYLENE	16
	COCAINE	76
	METHAMPHETAMINE	9
	METHYLENEDIOXYPYROVALERONE	2
	PHENCYCLIDINE	4
	PHENTERMINE	2
	Stimulant Total	120
Total		1923

Table 41. Drug/Poison Deaths by City/County of Residence, 2011

City/County of Residence	Deaths	Rate	City/County of Residence	Deaths	Rate
Accomack	3	9.0	Fairfax	51	4.6
Albemarle	4	4.0	Falls Church	2	15.7
Alexandria	10	6.9	Fauquier	12	18.2
Alleghany	0	0.0	Floyd	1	6.5
Amelia	0	0.0	Fluvanna	0	0.0
Amherst	3	9.3	Franklin City	0	0.0
Appomattox	1	6.6	Franklin	13	23.0
Arlington	10	4.6	Frederick	8	10.0
Augusta	10	13.6	Fredericksburg	3	11.7
Bath	1	21.5	Galax	2	28.6
Bedford City	0	0.0	Giles	4	23.4
Bedford	8	11.6	Gloucester	3	8.1
Bland	3	44.0	Goochland	1	4.6
Botetourt	2	6.1	Grayson	4	26.1
Bristol	4	22.5	Greene	4	21.4
Brunswick	0	0.0	Greenville	0	0.0
Buchanan	9	38.2	Halifax	2	5.5
Buckingham	0	0.0	Hampton	11	8.1
Buena Vista	1	15.1	Hanover	9	9.0
Campbell	3	5.5	Harrisonburg	1	2.0
Caroline	2	7.0	Henrico	38	12.2
Carroll	0	0.0	Henry	13	24.2
Charles City	2	27.6	Highland	0	0.0
Charlotte	1	8.0	Hopewell	3	13.3
Charlottesville	0	0.0	Isle of Wight	1	2.8
Chesapeake	16	7.1	James City	6	8.8
Chesterfield	28	8.7	King and Queen	0	0.0
Clarke	1	7.0	King George	4	16.6
Colonial Heights	3	17.2	King William	1	6.3
Covington	1	16.8	Lancaster	2	17.7
Craig	0	0.0	Lee	5	19.9
Culpeper	3	6.3	Lexington	1	14.3
Cumberland	0	0.0	Loudoun	16	4.9
Danville	8	18.7	Louisa	2	6.0
Dickenson	9	57.2	Lunenburg	0	0.0
Dinwiddie	2	7.2	Lynchburg	3	3.9
Emporia	0	0.0	Madison	3	22.8
Essex	2	17.8	Manassas	6	15.3
Fairfax City	1	4.4	Martinsville	1	7.4

City/County of Residence	Deaths	Rate
Mathews	1	11.2
Mecklenburg	3	9.2
Middlesex	1	9.2
Montgomery	13	13.8
Nelson	1	6.6
New Kent	0	0.0
Newport News	14	7.8
Norfolk	33	13.6
Northampton	0	0.0
Northumberland	0	0.0
Norton	1	24.7
Nottoway	2	12.6
Orange	4	11.8
Page	9	37.6
Patrick	1	5.4
Petersburg	1	3.1
Pittsylvania	6	9.5
Poquoson	1	8.3
Portsmouth	14	14.6
Powhatan	2	7.1
Prince Edward	1	4.3
Prince George	2	5.5
Prince William	29	6.7
Pulaski	10	28.9
Radford	1	6.1
Rappahannock	2	26.9
Richmond City	34	16.5
Richmond	0	0.0
Roanoke City	16	16.5
Roanoke	8	8.6

City/County of Residence	Deaths	Rate
Rockbridge	2	8.9
Rockingham	5	6.5
Russell	14	48.7
Salem	4	16.0
Scott	4	17.3
Shenandoah	6	14.2
Smyth	5	15.6
Southampton	0	0.0
Spotsylvania	11	8.8
Stafford	6	4.5
Staunton	4	16.8
Suffolk	6	7.1
Surry	0	0.0
Sussex	1	8.3
Tazewell	22	49.2
Virginia Beach	38	8.6
Warren	6	15.9
Washington	13	23.7
Waynesboro	2	9.4
Westmoreland	1	5.7
Williamsburg	1	6.9
Winchester	6	22.6
Wise	13	31.3
Wythe	4	13.7
York	5	7.6
Total in State	776	9.6
Out of State	42	ND*
TOTAL	818	ND

*ND-No denominator

Figure 93. Drug/Poison Deaths by City/County of Residence, 2011

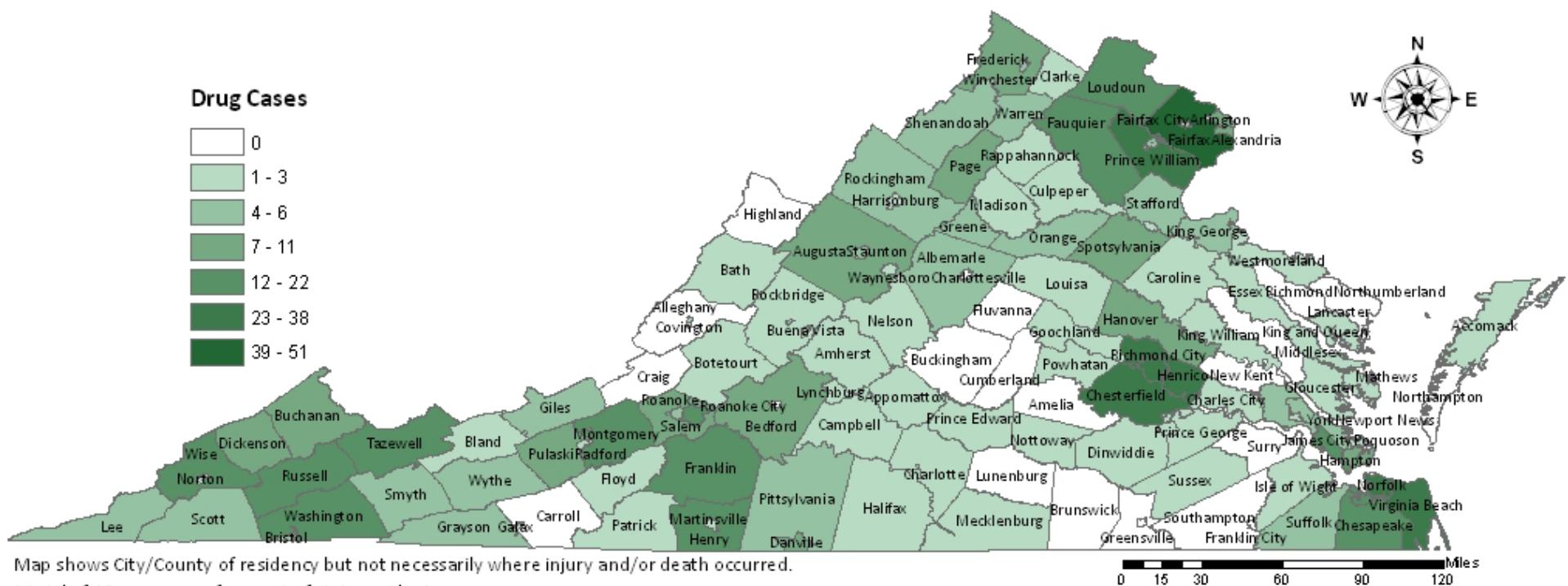
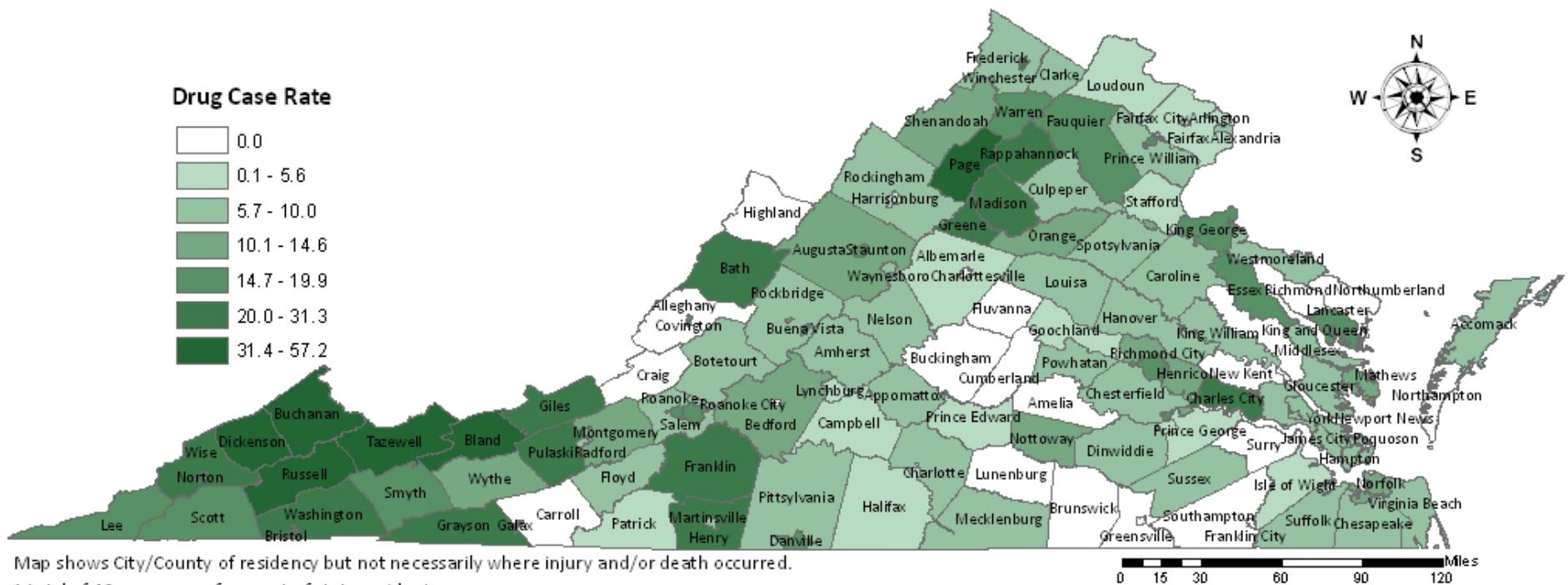


Figure 94. Drug/Poison Death Rates by City/County of Residence, 2011



FENTANYL, HYDROCODONE, METHADONE & OXYCODONE DEATHS (N=394)

Prescription drug deaths are significant causes of injury and death in Virginia accounting for at least 61.7% of all drug/poison deaths. Fentanyl, hydrocodone, methadone, and oxycodone (FHMO) were found to be partly or wholly responsible for 48.2% of drug only deaths. [NOTE: The FHMO tables and figures represent deaths in which one or a combination of the FHMO drugs caused death; but other drugs/poisons may also have caused death.] Next year this section may be expanded to include oxymorphone and alprazolam as their impacts are being increasingly felt.

- Ninety-three percent of FHMO deaths were white and 58.6% were male
- Oxycodone again exceeded methadone in the number of FHMO deaths it has caused, 163 versus 155, respectively; this even with the reformulation of Oxycontin®
- The western portion of the state had 40.1% of all the FHMO cases

Figure 95. Comparison of FHMO, Prescription and All Drug Deaths by Year of Death, 1999-2011

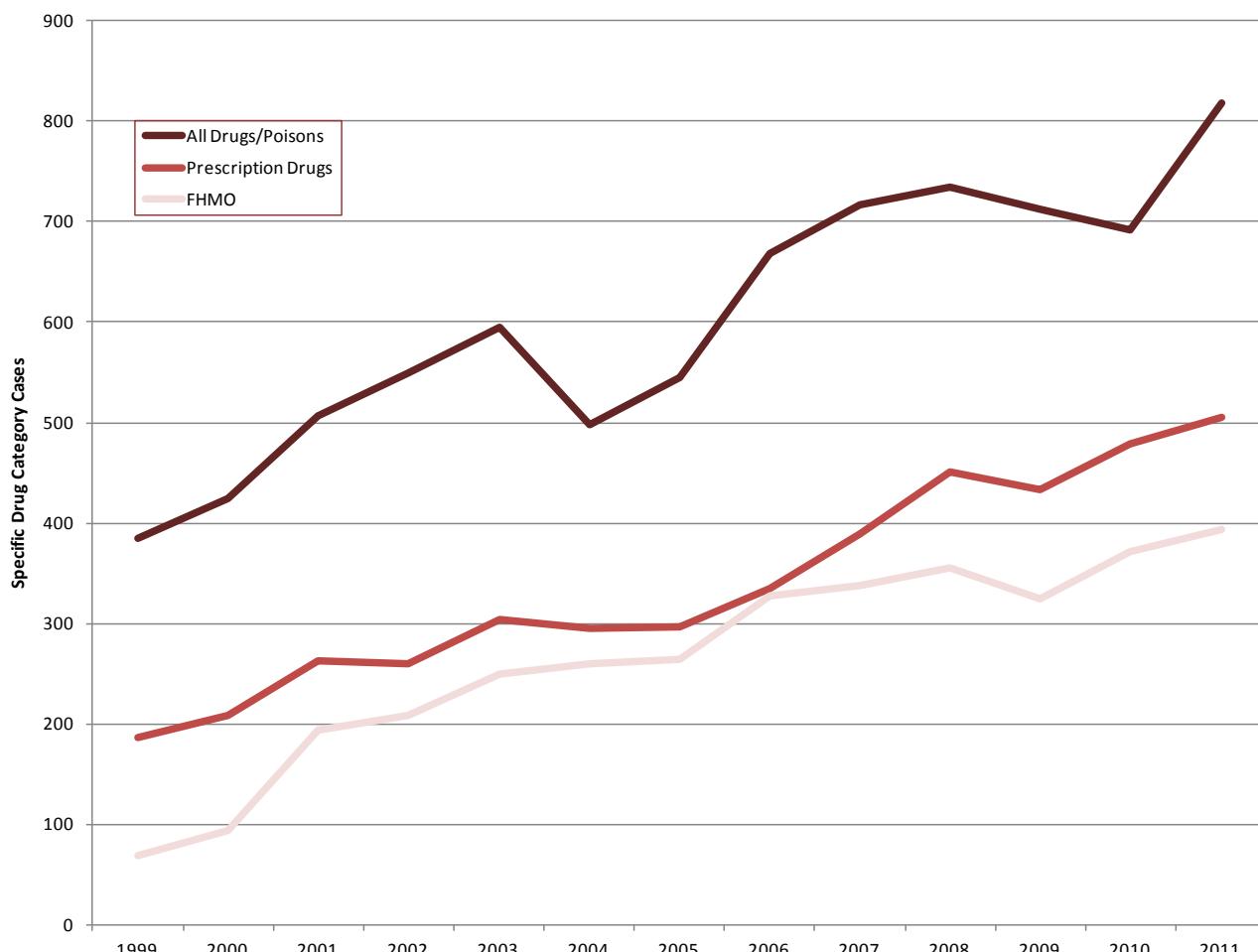


Table 42. FHMO Combination Deaths, 2011

FHMO Combination	Total
Oxycodone	122
Methadone	117
Fentanyl	38
Hydrocodone	58
Oxycodone & Methadone	21
Oxycodone & Fentanyl	5
Oxycodone & Hydrocodone	11
Methadone & Fentanyl	5
Methadone & Hydrocodone	9
Fentanyl & Hydrocodone	4
Oxycodone, Fentanyl & Hydrocodone	1
Oxycodone, Methadone & Hydrocodone	2
Oxycodone, Methadone & Fentanyl	1
FHMO Subtotal	394
Non-FHMO Drug/Poison Combinations	424
Total	818

Table 43. FHMO Combination Deaths by District, 2011

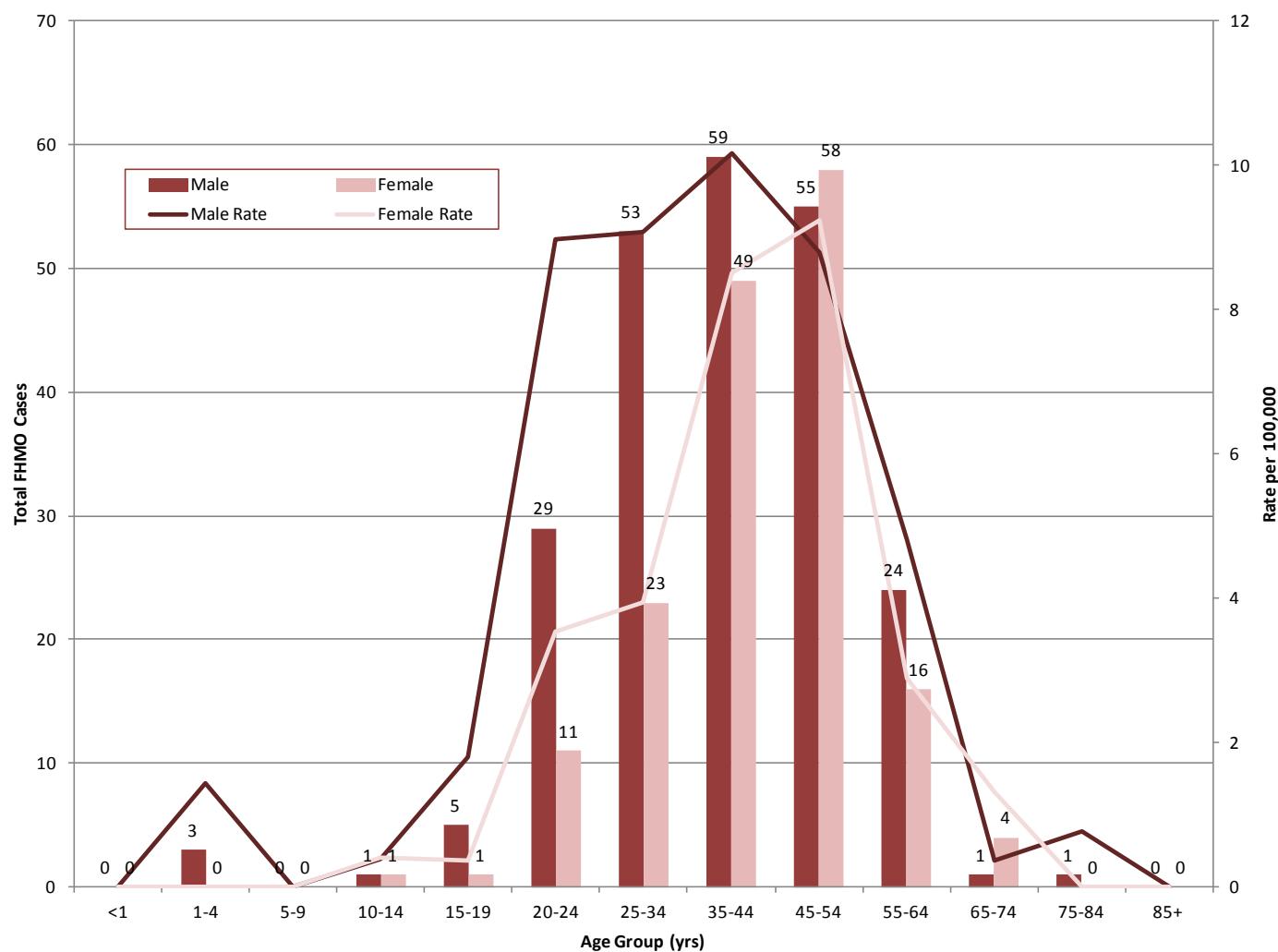
FHMO Combination	District				Total
	Central	Northern	Tidewater	Western	
Oxycodone	21	50	18	33	122
Methadone	35	17	20	45	117
Fentanyl	10	5	9	14	38
Hydrocodone	3	10	10	35	58
Oxycodone & Methadone	3	7	4	7	21
Oxycodone & Fentanyl	1	0	3	1	5
Oxycodone & Hydrocodone	0	1	0	10	11
Methadone & Fentanyl	0	1	0	4	5
Methadone & Hydrocodone	0	2	0	7	9
Fentanyl & Hydrocodone	1	3	0	0	4
Oxycodone, Fentanyl & Hydrocodone	0	1	0	0	1
Oxycodone, Methadone & Hydrocodone	0	0	0	2	2
Oxycodone, Methadone & Fentanyl	0	1	0	0	1
Total	74	98	64	158	394

Table 44. FHMO Combination Deaths by Race/Ethnicity, 2011

FHMO Combination	Race/Ethnicity				Total
	Black	Hispanic	Native American	White	
Oxycodone	5	0	0	117	122
Methadone	12	1	0	104	117
Fentanyl	3	0	0	35	38
Hydrocodone	2	0	0	56	58
Oxycodone & Methadone	1	1	0	19	21
Oxycodone & Fentanyl	0	0	1	4	5
Oxycodone & Hydrocodone	1	0	0	10	11
Methadone & Fentanyl	0	0	0	5	5
Methadone & Hydrocodone	0	1	0	8	9
Fentanyl & Hydrocodone	1	0	0	3	4
Oxycodone, Fentanyl & Hydrocodone	0	0	0	1	1
Oxycodone, Methadone & Hydrocodone	0	0	0	2	2
Oxycodone, Methadone & Fentanyl	0	0	0	1	1
Total	25	3	1	365	394

Table 45. FHMO Combination Deaths by Gender, 2011

FHMO Combination	Gender	
	Male	Female
Oxycodone	75	47
Methadone	74	43
Fentanyl	23	15
Hydrocodone	23	35
Oxycodone & Methadone	14	7
Oxycodone & Fentanyl	2	3
Oxycodone & Hydrocodone	7	4
Methadone & Fentanyl	4	1
Methadone & Hydrocodone	5	4
Fentanyl & Hydrocodone	2	2
Oxycodone, Fentanyl & Hydrocodone	0	1
Oxycodone, Methadone & Hydrocodone	2	0
Oxycodone, Methadone & Fentanyl	0	1
Total	231	163

Figure 96. FHMO Deaths by Age Group, 2011**Table 46. FHMO Combination Deaths by Alcohol Also Caused Death, 2011**

FHMO Combination	Alcohol Caused Death			Total
	Yes	No	Contributed	
Oxycodone	25	6	0	31
Methadone	15	6	2	23
Fentanyl	4	3	1	8
Hydrocodone	12	2	1	15
Oxycodone & Methadone	4	0	0	4
Oxycodone & Fentanyl	1	0	0	1
Oxycodone & Hydrocodone	1	1	0	2
Methadone & Fentanyl	1	0	0	1
Methadone & Hydrocodone	1	1	0	2
TOTAL	64	19	4	87

*Total equals number of cases in which alcohol was present in decedent.

Table 47. FHMO Deaths & Rates by City/County of Residence, 2011

City/County of Residence	Deaths	Rate
Accomack	1	3.0
Albemarle	2	2.0
Alexandria	6	4.2
Alleghany	0	0.0
Amelia	0	0.0
Amherst	1	3.1
Appomattox	0	0.0
Arlington	4	1.9
Augusta	6	8.2
Bath	0	0.0
Bedford City	0	0.0
Bedford	4	5.8
Bland	2	29.3
Botetourt	1	3.0
Bristol	3	16.9
Brunswick	0	0.0
Buchanan	6	25.4
Buckingham	0	0.0
Buena Vista	0	0.0
Campbell	1	1.8
Caroline	1	3.5
Carroll	0	0.0
Charles City	1	13.8
Charlotte	0	0.0
Charlottesville	0	0.0
Chesapeake	8	3.6
Chesterfield	9	2.8
Clarke	0	0.0
Colonial Heights	1	5.7
Covington	1	16.8
Craig	0	0.0
Culpeper	3	6.3
Cumberland	0	0.0
Danville	2	4.7
Dickenson	7	44.5
Dinwiddie	1	3.6
Emporia	0	0.0
Essex	0	0.0

City/County of Residence	Deaths	Rate
Fairfax City	0	0.0
Fairfax	21	1.9
Falls Church	0	0.0
Fauquier	7	10.6
Floyd	1	6.5
Fluvanna	0	0.0
Franklin City	0	0.0
Franklin	4	7.1
Frederick	2	2.5
Fredericksburg	1	3.9
Galax	1	14.3
Giles	2	11.7
Gloucester	1	2.7
Goochland	1	4.6
Grayson	1	6.5
Greene	2	10.7
Greenville	0	0.0
Halifax	1	2.8
Hampton	7	5.1
Hanover	2	2.0
Harrisonburg	1	2.0
Henrico	16	5.2
Henry	5	9.3
Highland	0	0.0
Hopewell	0	0.0
Isle of Wight	0	0.0
James City	3	4.4
King and Queen	0	0.0
King George	3	12.4
King William	0	0.0
Lancaster	0	0.0
Lee	4	15.9
Lexington	0	0.0
Loudoun	5	1.5
Louisa	1	3.0
Lunenburg	0	0.0
Lynchburg	2	2.6
Madison	3	22.8

City/County of Residence	Deaths	Rate
Manassas	3	7.6
Martinsville	0	0.0
Mathews	1	11.2
Mecklenburg	0	0.0
Middlesex	0	0.0
Montgomery	8	8.5
Nelson	0	0.0
New Kent	0	0.0
Newport News	7	3.9
Norfolk	10	4.1
Northampton	0	0.0
Northumberland	0	0.0
Norton	0	0.0
Nottoway	2	12.6
Orange	3	8.8
Page	7	29.2
Patrick	1	5.4
Petersburg	1	3.1
Pittsylvania	5	8.0
Poquoson	0	0.0
Portsmouth	5	5.2
Powhatan	2	7.1
Prince Edward	1	4.3
Prince George	2	5.5
Prince William	13	3.0
Pulaski	7	20.2
Radford	0	0.0
Rappahannock	2	26.9
Richmond City	14	6.8
Richmond	0	0.0
Roanoke City	8	8.3

City/County of Residence	Deaths	Rate
Roanoke	5	5.4
Rockbridge	1	4.5
Rockingham	4	5.2
Russell	11	38.3
Salem	2	8.0
Scott	3	13.0
Shenandoah	3	7.1
Smyth	4	12.5
Southampton	0	0.0
Spotsylvania	6	4.8
Stafford	1	0.8
Staunton	1	4.2
Suffolk	1	1.2
Surry	0	0.0
Sussex	1	8.3
Tazewell	16	35.8
Virginia Beach	16	3.6
Warren	4	10.6
Washington	7	12.8
Waynesboro	1	4.7
Westmoreland	1	5.7
Williamsburg	0	0.0
Winchester	3	11.3
Wise	8	19.2
Wythe	4	13.7
York	3	4.5
Total in State	376	4.6
Out of State	18	ND*
TOTAL	394	ND

*ND-No denominator

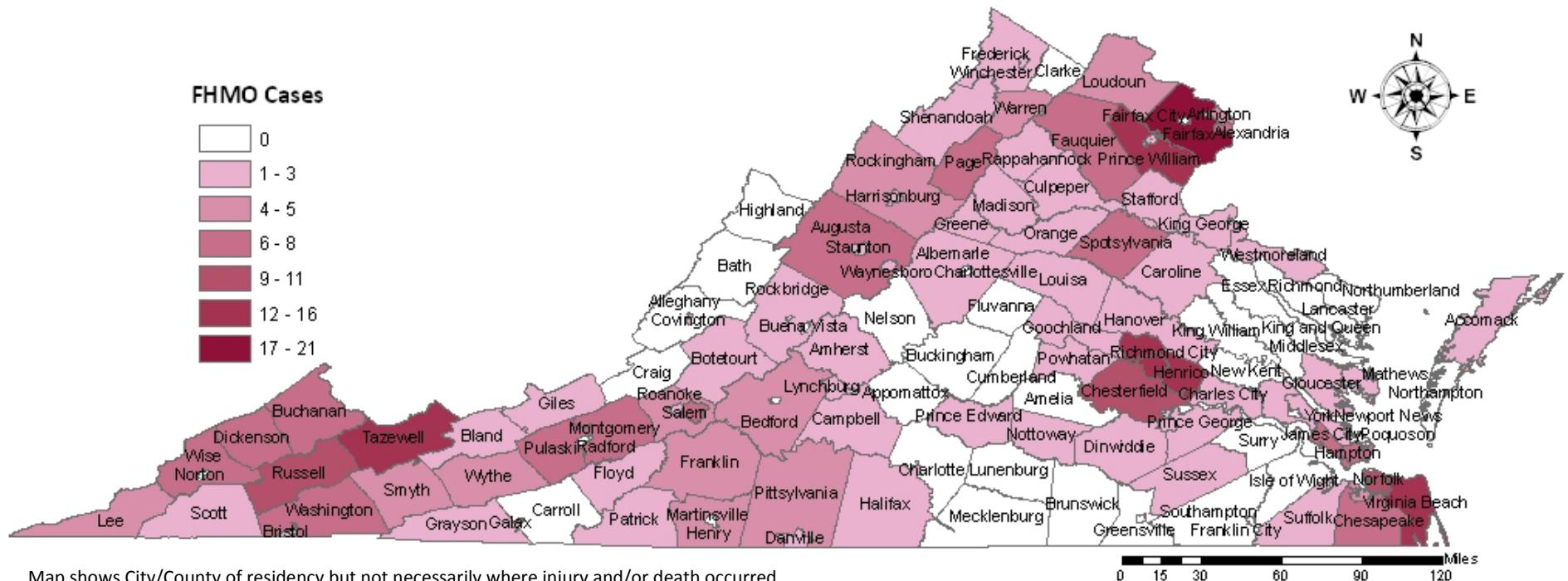
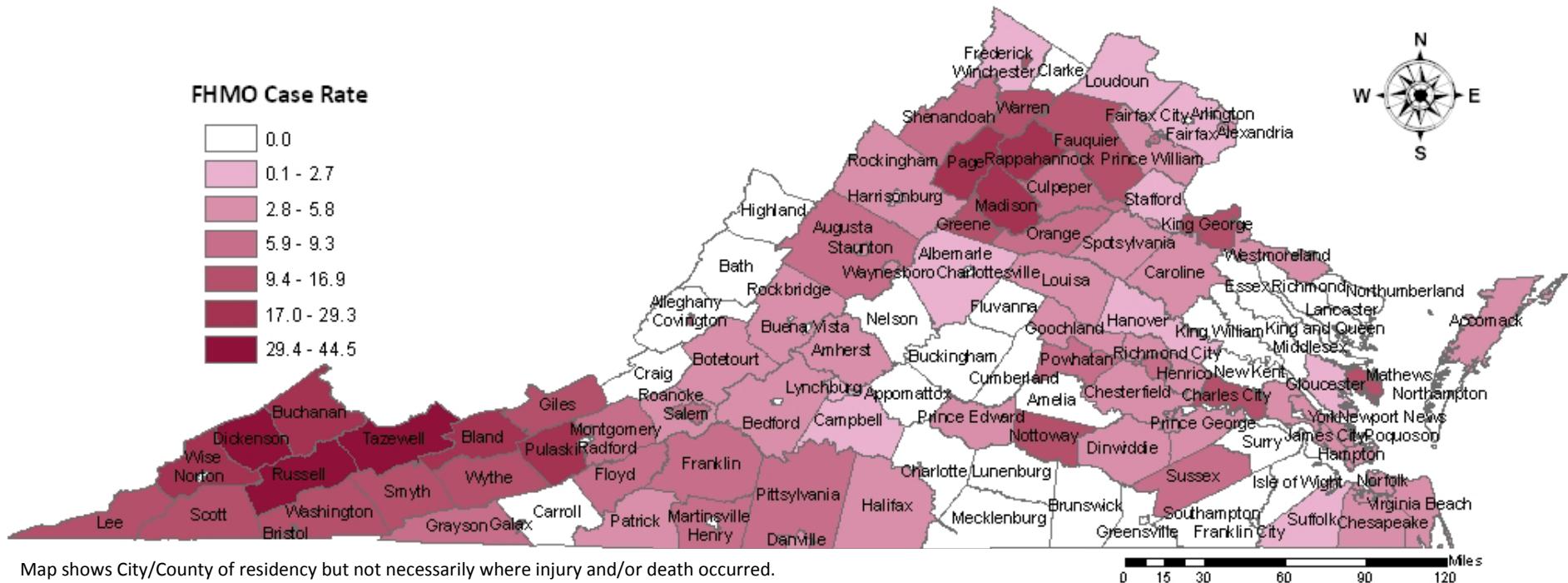
Figure 97. FHMO Deaths by City/County of Residence, 2011

Figure 98. FHMO Death Rates by City/County of Residence, 2011



Map shows City/County of residency but not necessarily where injury and/or death occurred.

A total of 18 cases were from out of state residents.

Rate is per 100,000.

COCAINE & HEROIN DEATHS (N=199)

Cocaine and heroin are not the only illegal drugs used in Virginia; however, they are the main compounds found in deaths by illegal drugs. Additionally, heroin deaths are typically underestimated because heroin is very rapidly metabolized into morphine. Therefore, without known heroin history, circumstances, and/or the presence of a specific heroin metabolite; heroin cases may be missed. [NOTE: Cocaine & heroin tables and figures represent deaths in which one or both illegal drugs caused death; but other drugs/poisons also may have caused death.]

- Approximately 75% of the cases were from males
- Cocaine and/or heroin were involved in 24.3% of all drug/poison cases
- The Tidewater and Central OCME districts had the greatest amount of cases (30.2% each)

Table 48. Cocaine & Heroin Combination Deaths, 2011

Cocaine & Heroin Combinations	Total
Cocaine	90
Heroin	87
Cocaine & Heroin	22
Subtotal	199
Non-Cocaine or Heroin Drugs/Poisons	619
Total	818

Table 49. Cocaine & Heroin Combination Deaths by District, 2011

Drug Combination	District			
	Central	Northern	Tidewater	Western
Cocaine	21	22	25	22
Heroin	31	22	30	4
Cocaine & Heroin	8	8	5	1
Total	60	52	60	27

Table 50. Cocaine & Heroin Combination Deaths by Race/Ethnicity, 2011

Drug Combination	Race/Ethnicity				
	Asian	Black	Hispanic	Native American	White
Cocaine	0	25	1	1	63
Heroin	1	13	1	0	72
Cocaine & Heroin	1	4	1	0	16
Total	2	42	3	1	151

Table 51. Cocaine & Heroin Combination Deaths by Gender, 2011

Drug Combination	Gender	
	Male	Female
Cocaine	66	24
Heroin	64	23
Cocaine & Heroin	18	4
Total	148	51

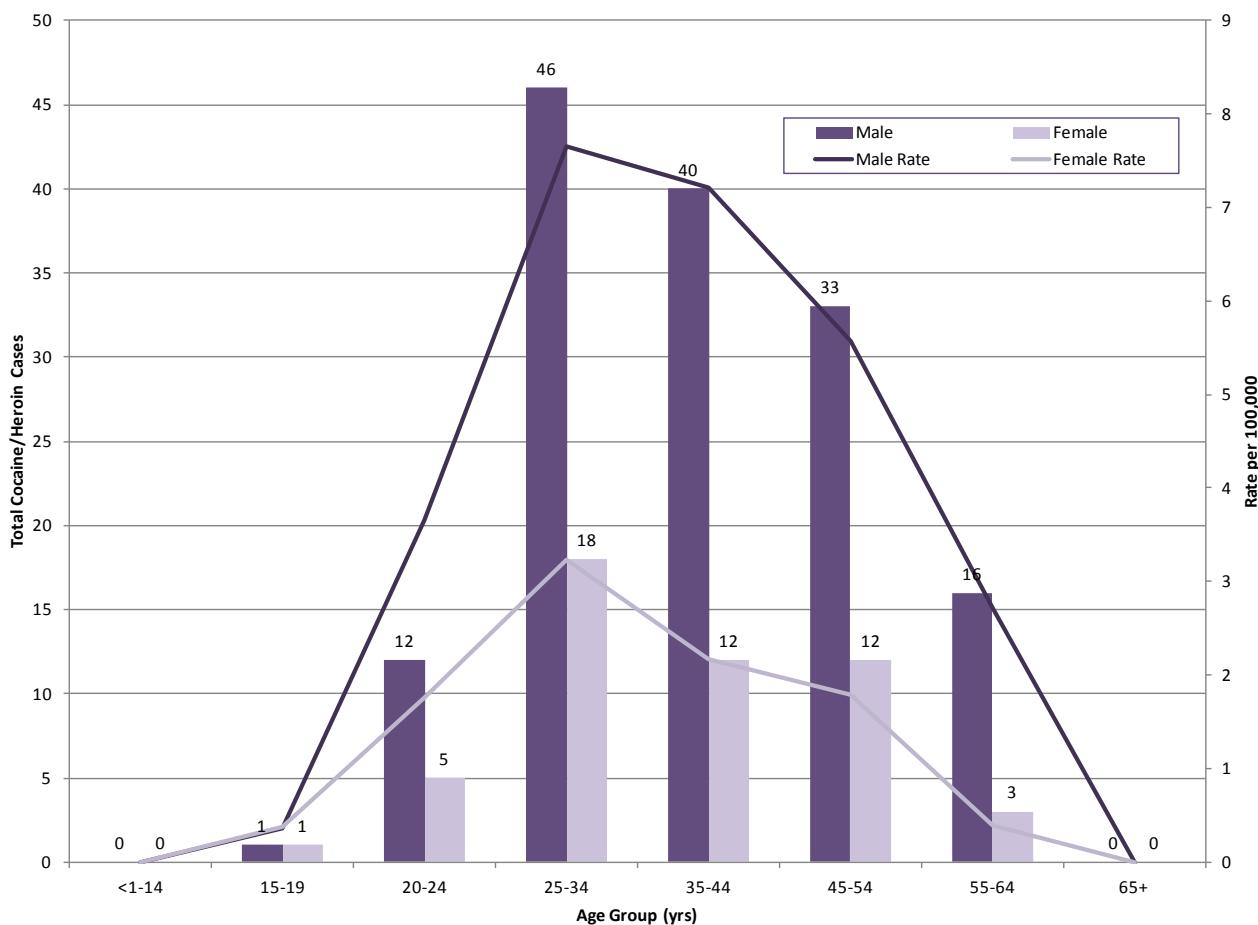
Figure 99. Cocaine & Heroin Combination Deaths by Age Group, 2011

Table 52. Cocaine & Heroin Combination Deaths by Alcohol Also Causing Death, 2011

Alcohol Caused Death				
Drug Combination	Yes	No	Contributed	Total
Cocaine	14	6	0	20
Heroin	17	9	1	27
Cocaine & Heroin	4	2	1	7
Total	35	17	2	54

*Total equals number of cases in which alcohol was present in decedent.

Table 53. Cocaine & Heroin Combination Deaths by City/County, 2011

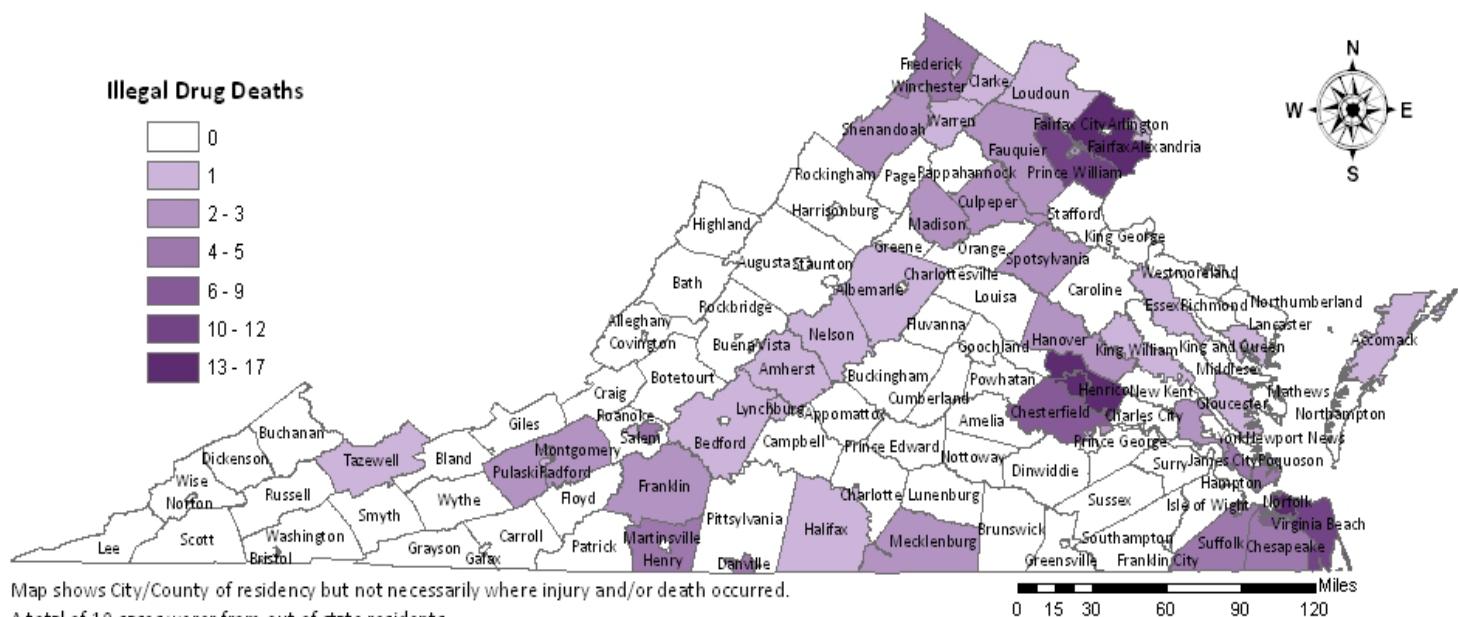
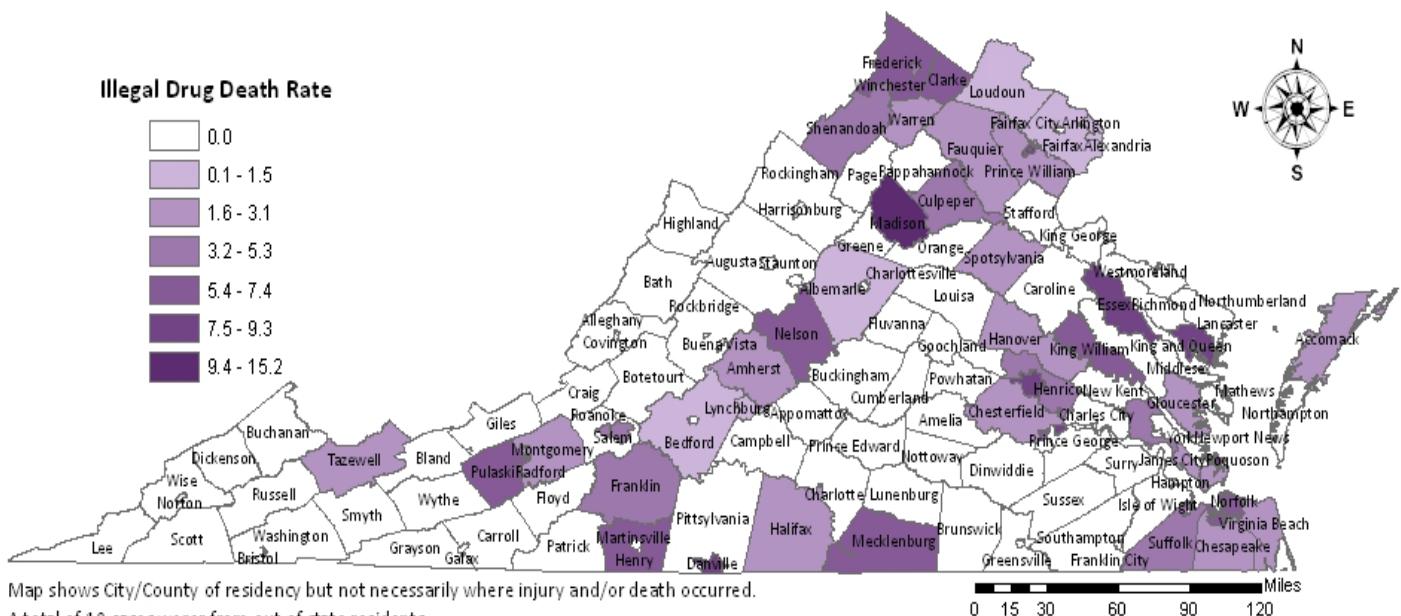
City/County of Residence	Deaths	Rate
Accomack	1	3.0
Albemarle	1	1.0
Alexandria	1	0.7
Alleghany	0	0.0
Amelia	0	0.0
Amherst	1	3.1
Appomattox	0	0.0
Arlington	1	0.5
Augusta	0	0.0
Bath	0	0.0
Bedford City	0	0.0
Bedford	1	1.4
Bland	0	0.0
Botetourt	0	0.0
Bristol	0	0.0
Brunswick	0	0.0
Buchanan	0	0.0
Buckingham	0	0.0
Buena Vista	0	0.0
Campbell	0	0.0
Caroline	0	0.0
Carroll	0	0.0
Charles City	0	0.0
Charlotte	0	0.0
Charlottesville	0	0.0
Chesapeake	5	2.2
Chesterfield	9	2.8
Clarke	1	7.0
Colonial Heights	1	5.7
Covington	0	0.0

City/County of Residence	Deaths	Rate
Craig	0	0.0
Culpeper	2	4.2
Cumberland	0	0.0
Danville	4	9.3
Dickenson	0	0.0
Dinwiddie	0	0.0
Emporia	0	0.0
Essex	1	8.9
Fairfax City	0	0.0
Fairfax	15	1.4
Falls Church	0	0.0
Fauquier	2	3.0
Floyd	0	0.0
Fluvanna	0	0.0
Franklin City	0	0.0
Franklin	3	5.3
Frederick	5	6.3
Fredericksburg	0	0.0
Galax	0	0.0
Giles	0	0.0
Gloucester	1	2.7
Goochland	0	0.0
Grayson	0	0.0
Greene	0	0.0
Greenville	0	0.0
Halifax	1	2.8
Hampton	4	2.9
Hanover	3	3.0
Harrisonburg	0	0.0
Henrico	15	4.8

City/County of Residence	Deaths	Rate
Henry	4	7.4
Highland	0	0.0
Hopewell	2	8.9
Isle of Wight	0	0.0
James City	3	4.4
King and Queen	0	0.0
King George	0	0.0
King William	1	6.3
Lancaster	1	8.9
Lee	0	0.0
Lexington	0	0.0
Loudoun	1	0.3
Louisa	0	0.0
Lunenburg	0	0.0
Lynchburg	1	1.3
Madison	2	15.2
Manassas	3	7.6
Martinsville	0	0.0
Mathews	0	0.0
Mecklenburg	2	6.1
Middlesex	0	0.0
Montgomery	2	2.1
Nelson	1	6.6
New Kent	0	0.0
Newport News	5	2.8
Norfolk	17	7.0
Northampton	0	0.0
Northumberland	0	0.0
Norton	0	0.0
Nottoway	0	0.0
Orange	0	0.0
Page	0	0.0
Patrick	0	0.0
Petersburg	0	0.0
Pittsylvania	0	0.0
Poquoson	1	8.3
Portsmouth	7	7.3
Powhatan	0	0.0
Prince Edward	0	0.0

City/County of Residence	Deaths	Rate
Prince George	0	0.0
Prince William	12	2.8
Pulaski	2	5.8
Radford	1	6.1
Rappahannock	0	0.0
Richmond City	17	8.3
Richmond	0	0.0
Roanoke City	4	4.1
Roanoke	0	0.0
Rockbridge	0	0.0
Rockingham	0	0.0
Russell	0	0.0
Salem	1	4.0
Scott	0	0.0
Shenandoah	2	4.7
Smyth	0	0.0
Southampton	0	0.0
Spotsylvania	2	1.6
Stafford	0	0.0
Staunton	0	0.0
Suffolk	4	4.7
Surry	0	0.0
Sussex	0	0.0
Tazewell	1	2.2
Virginia Beach	10	2.3
Warren	1	2.6
Washington	0	0.0
Waynesboro	0	0.0
Westmoreland	0	0.0
Williamsburg	0	0.0
Winchester	1	3.8
Wise	0	0.0
Wythe	0	0.0
York	0	0.0
Total in State	189	2.3
Out of State	10	ND*
TOTAL	199	ND

*ND-No denominator

Figure 100. Cocaine & Heroin Deaths by City/County of Residence, 2011**Figure 101. Cocaine & Heroin Death Rates by City/County of Residence, 2011**

SECTION 7: IN CUSTODY (PRISONER) POPULATION (N=143)

Pursuant to § 32.1-283 of the Code of Virginia, the OCME investigates deaths of persons in jail, prison, or other correctional institution, or in police custody. The OCME took jurisdiction of 143 prisoners in 2011.

- The majority (87.4%) of prisoner cases were natural
- The vast majority of cases were male (88.8%) and white (53.8%)

Figure 102. Prisoner Deaths by Manner, 2011

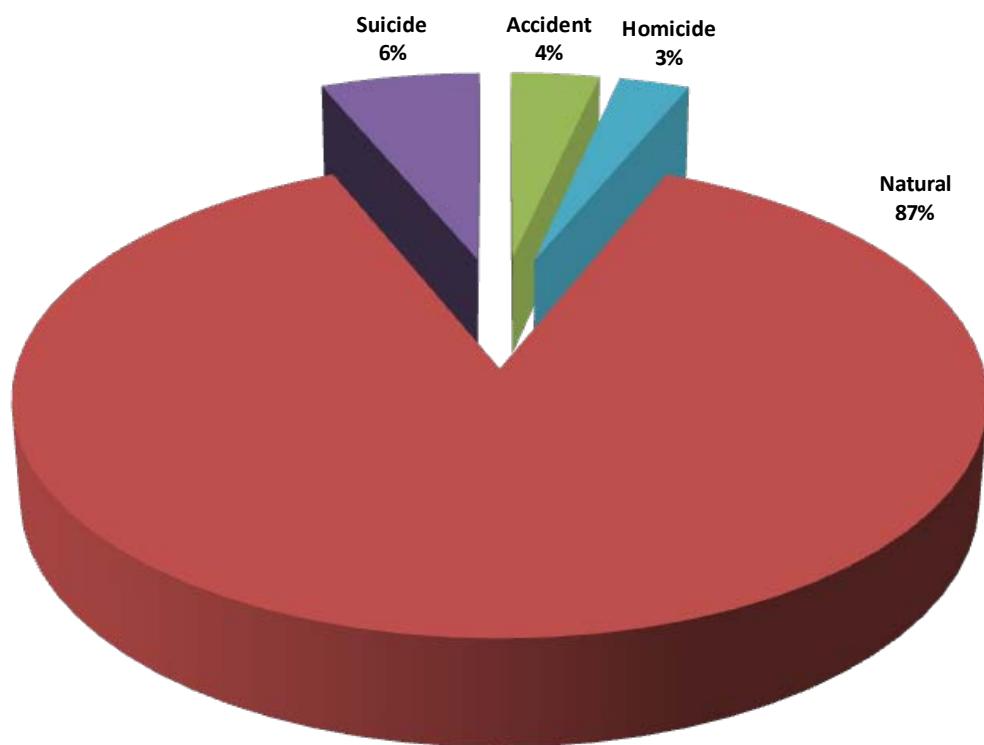


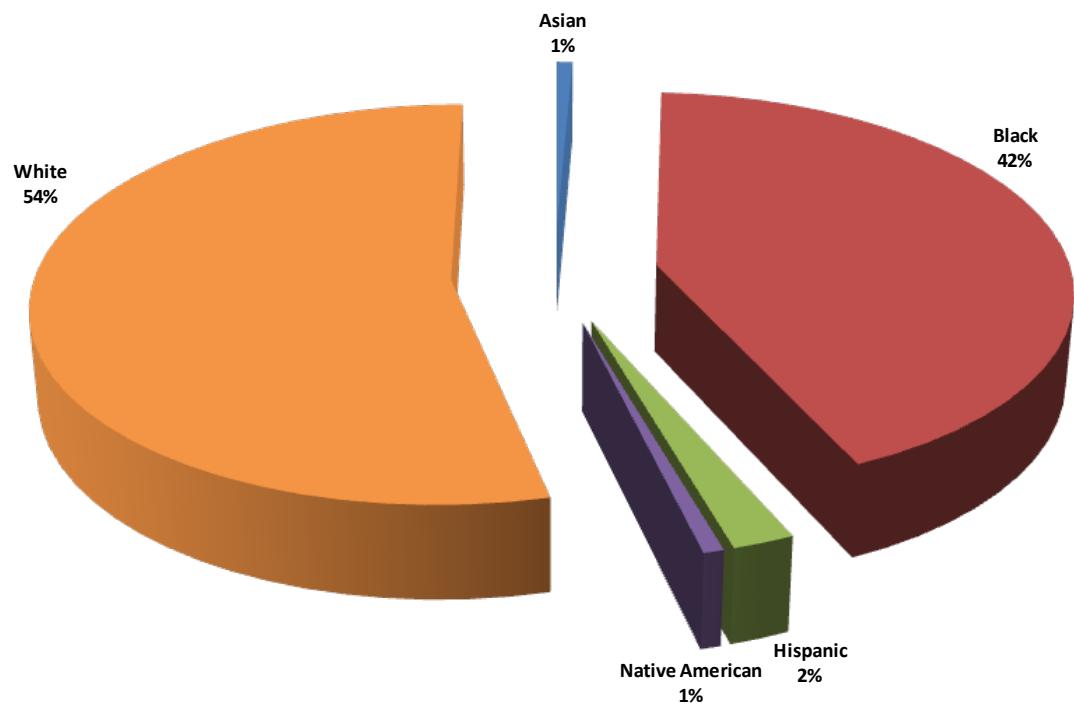
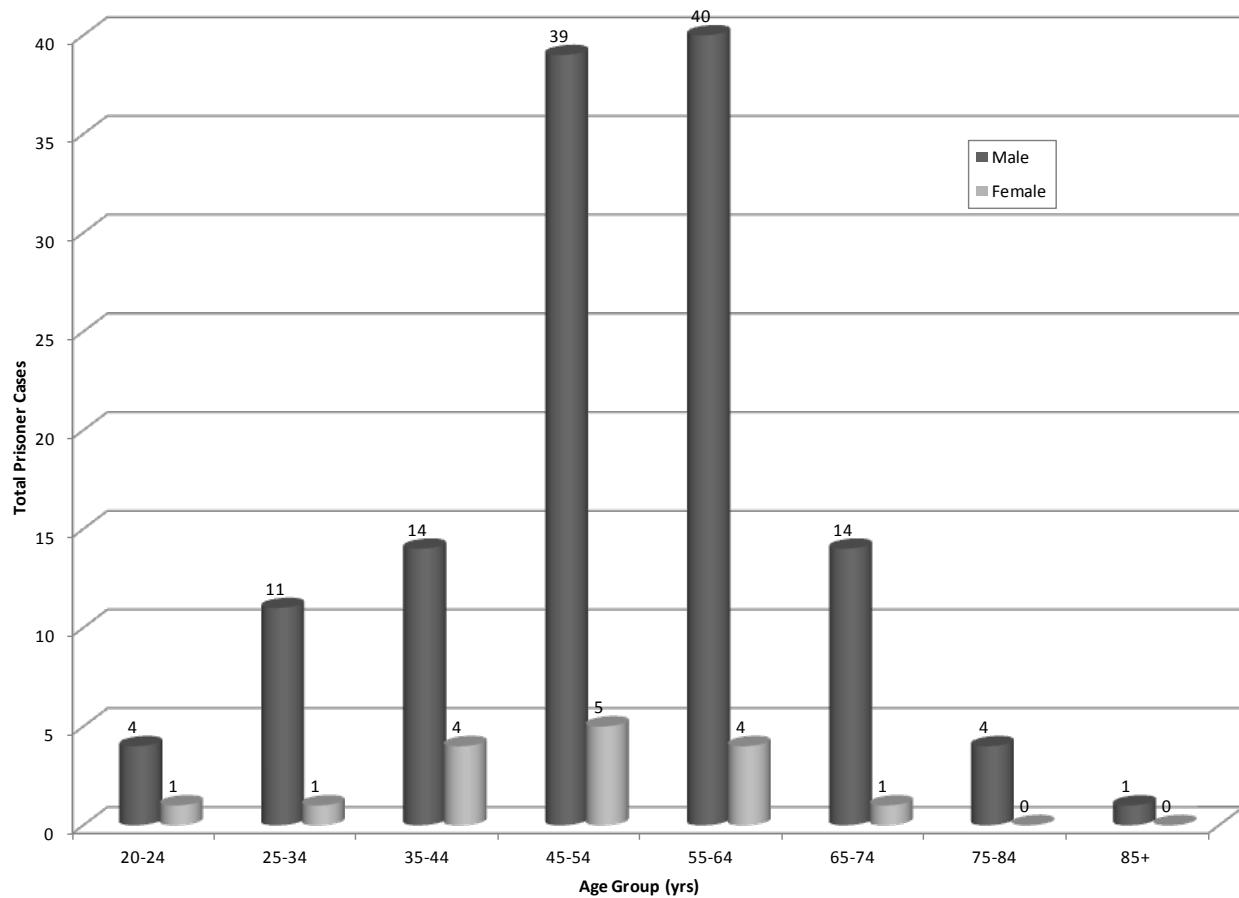
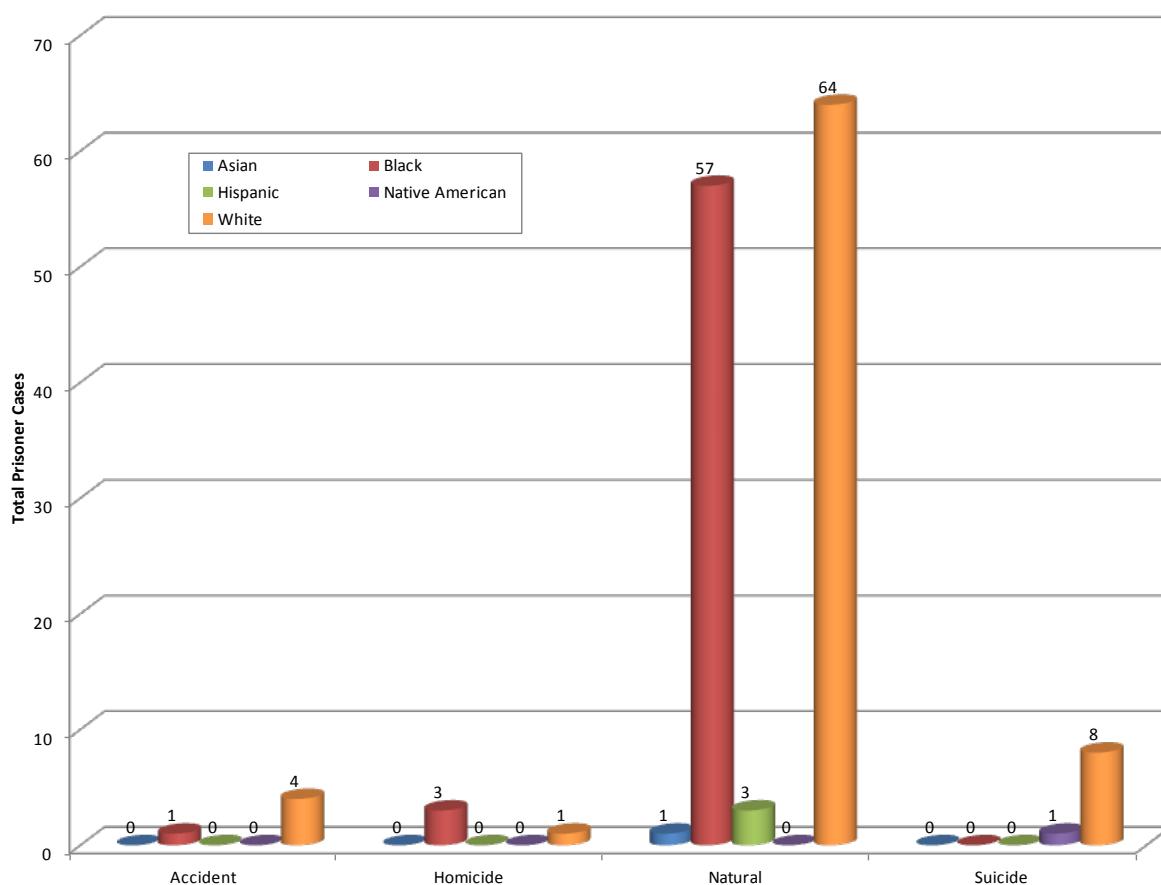
Figure 103. Prisoner Deaths by Race/Ethnicity, 2011**Figure 104. Prisoner Deaths by Age Group by Gender, 2011**

Figure 105. Prisoner Deaths by Manner by Race/Ethnicity, 2011**Table 54. Prisoner Deaths by Cause of Death, 2011**

Natural Deaths	Total Cases	Autopsied
Pulmonary Diseases/Disorders	26	18
Asthma	2	2
COPD	4	3
Embolii	2	2
Pneumonia	3	2
Pulmonary Malignancy	13	8
Other Pulmonary Disease/Disorder	2	1
Central Nervous System Diseases/Disorders	9	3
Seizure Disorder	2	2
Vascular Disease	4	0
Meningitis (Bacterial or Viral)	1	1
CNS Malignancy	1	0
Other CNS Disease/Disorder	1	0
Cardiovascular Diseases/Disorders	33	26
Atherosclerosis	16	13
Hypertension	8	5

Atherosclerosis & Hypertension	6	5
Cardiac Dysrhythmia of Undetermined Etiology	2	2
Cardiomyopathy NOS	1	1
Gastrointestinal Diseases/Disorders	37	20
GI Hemorrhage	2	2
Cirrhosis	5	3
Hepatitis	9	4
GI Malignancy	15	9
Other GI Disease/Disorder	6	2
Genitourinal Diseases/Disorders	7	2
Renal Disease	4	1
Genitourinal Malignancy	3	1
Systemic Diseases/Disorders	11	5
Blood Disorders	2	2
Diabetes	1	1
AIDS/HIV	2	0
Sepsis	3	1
Metastatic Malignancy Unknown Primary	1	1
Chronic Alcoholism	1	0
Other Systemic Disease/Disorder	1	0
Other Natural Diseases/Disorders	2	1
Other Malignancy	2	1
Natural Subtotal	125	75
Unnatural Deaths	Total Cases	Autopsied
Asphyxia	11	11
Choking (Aspiration: Food or Foreign Object)	1	1
Hanging	9	9
Strangulation/Neck Compression	1	1
Blunt Force Injuries	2	2
Head/Neck	2	2
Drug Abuse	3	3
Ingested and/or injected illicit, prescription, and/or other type of drug	3	3
Exposure	1	0
Exposed to heat	1	0
Judicial Execution	1	1
Lethal Injection	1	1
Unnatural Subtotal	18	17
TOTAL	143	92

SECTION 9: STATE MENTAL HEALTH CASES (N=80)

Pursuant to § 32.1-283 of the Code of Virginia, the OCME investigates the death of any patient or resident of a state mental health facility. The OCME took jurisdiction of 80 state mental health residents.

- The majority of state mental health cases were natural (87.5%), white (73.8%) and male (61.3%)

Figure 106. State Mental Health Deaths by Manner, 2011

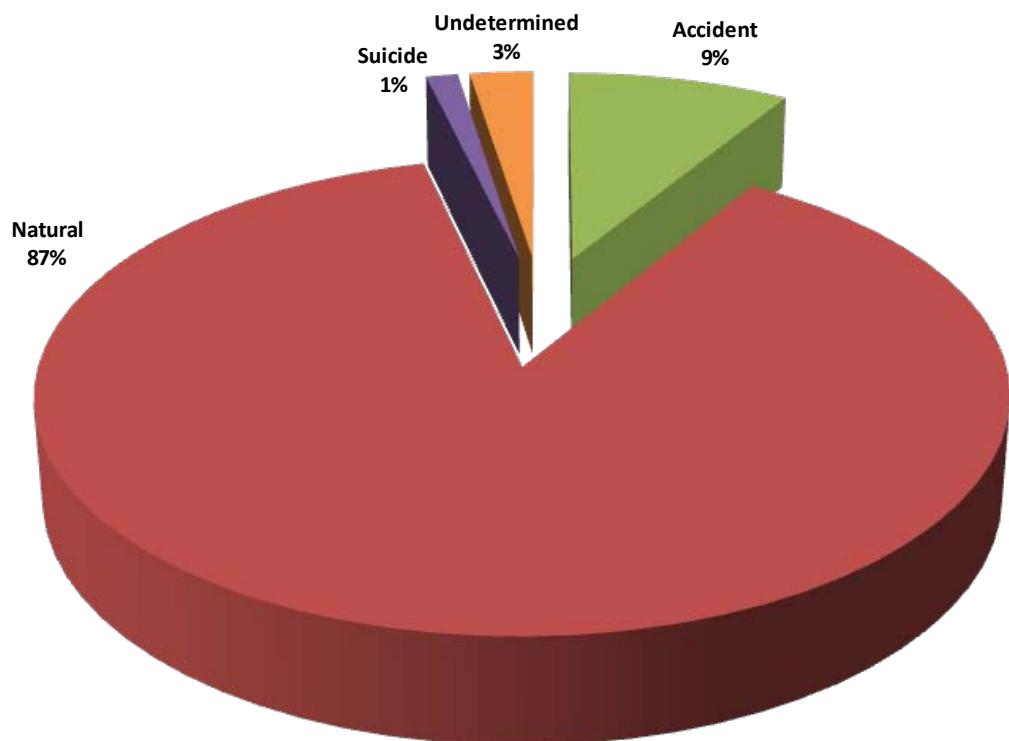


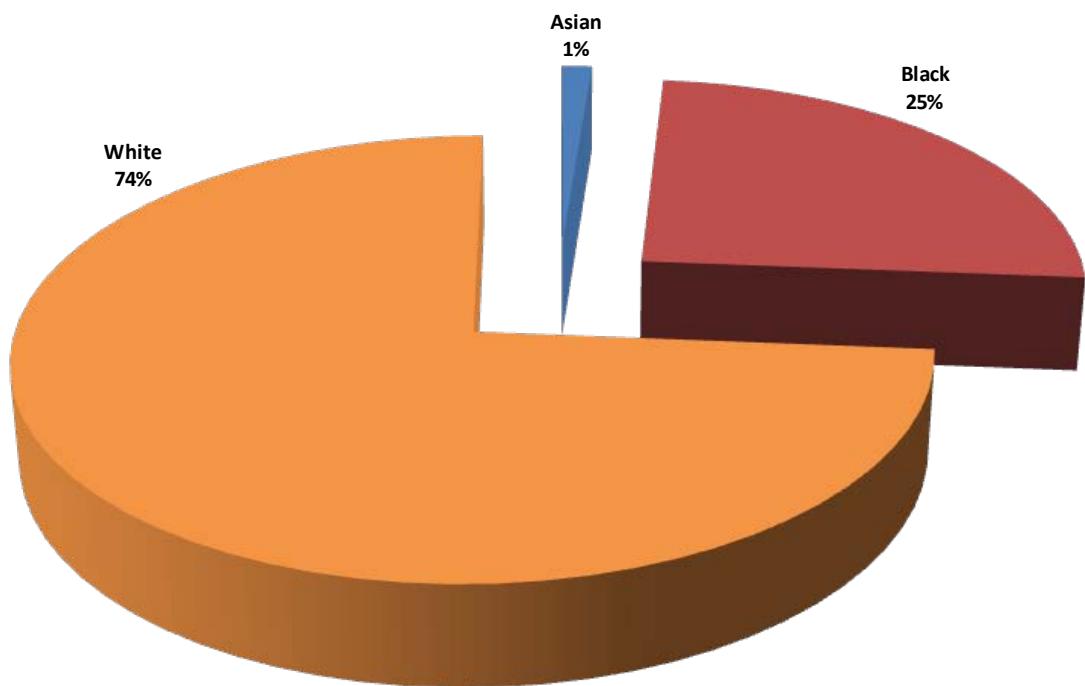
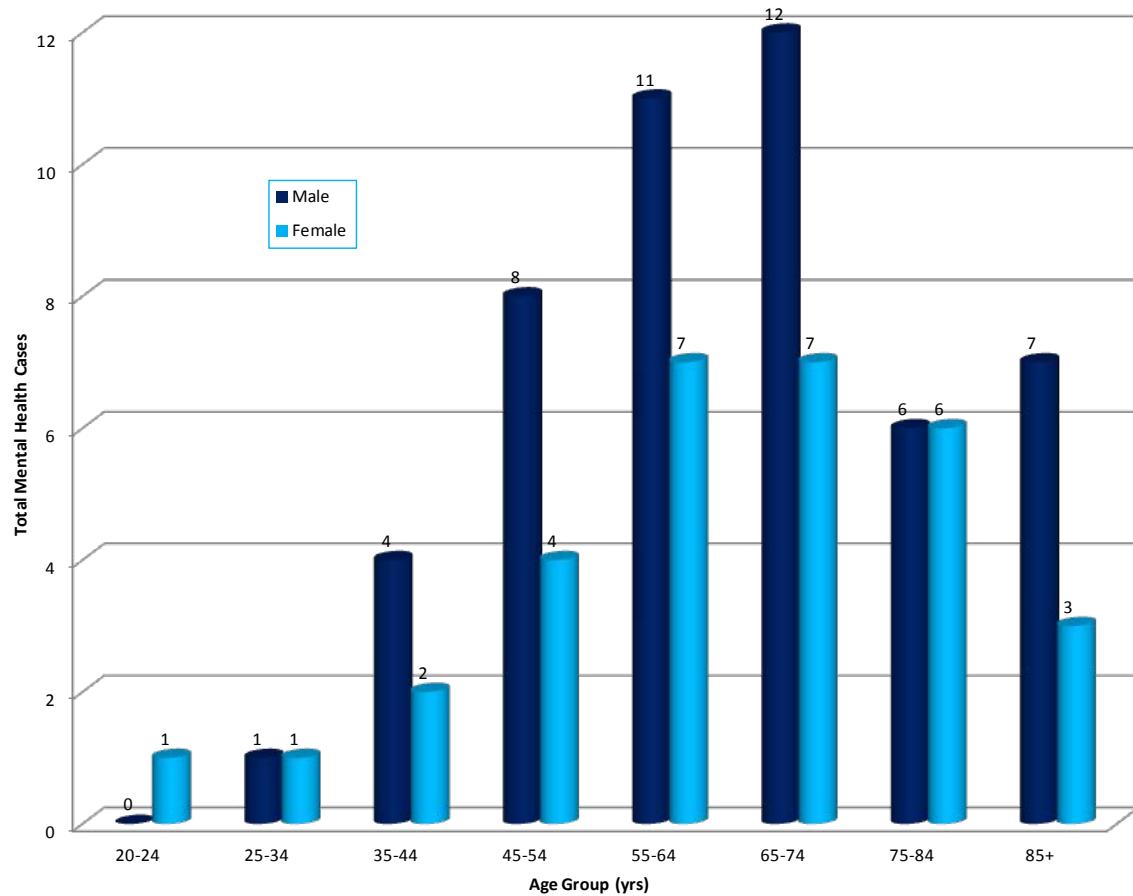
Figure 107. State Mental Health Deaths by Race, 2011**Figure 108. State Mental Health Deaths by Age Group by Gender, 2011**

Table 55. State Mental Health Deaths by Facility Type by Gender, 2011

State Facility Type	Gender		
	Male	Female	Total
Training Centers	21	20	41
All Others	28	11	39
Total	49	31	80

Table 56. State Mental Health Deaths by Facility Type by Race, 2011

State Facility Type	Race			
	Asian	Black	White	Total
Training Centers	0	11	30	41
All Others	1	9	29	39
Total	1	20	59	80

Table 57. State Mental Health Deaths by Cause of Death, 2011

Natural Deaths	Total Cases	Autopsied
Pulmonary Diseases/Disorders	30	8
COPD	1	0
Embolii	3	2
Pneumonia	26	6
Central Nervous System Diseases/Disorders	8	3
Seizure Disorder	1	1
Degenerative Disease	4	1
Other CNS Disease/Disorder	3	1
Cardiovascular Diseases/Disorders	12	6
Atherosclerosis	4	1
Hypertension	4	1
Atherosclerosis & Hypertension	3	3
Cardiac Dysrhythmia of Undetermined Etiology	1	1
Gastrointestinal Diseases/Disorders	12	3
GI Hemorrhage	2	0
GI Malignancy	3	1
Other GI Disease/Disorder	7	2
Genitourinary Diseases/Disorders	1	0
Renal Disease	1	0
Systemic Diseases/Disorders	4	1
Sepsis	3	0
Other Systemic Disease/Disorder	1	1

Other Natural Diseases/Disorders	3	1
Other Malignancy	2	1
Other Natural Disease/Disorder	1	0
Natural Subtotal	70	22
Unnatural Deaths	Total Cases	Autopsied
Asphyxia	3	1
Choking (Aspiration: Food or Foreign Object)	2	0
Hanging	1	1
Blunt Force Injuries	4	4
Head	2	2
Extremities	1	1
Multiple	1	1
Drug Use	2	2
Ingested and/or injected illicit, prescription, and/or other type of drug	2	2
Other Unnatural Deaths	1	1
Other Unnatural	1	1
Unnatural Subtotal	10	8
TOTAL	80	30

SECTION 10: RECOVERED UNREPORTED CASES (N=146)

Recovered unreported cases are those cases that the OCME investigates retrospectively. At times, medical care providers or death reporters misunderstand what type of case falls under the jurisdiction of the OCME and do not refer a case to the OCME. The OCME typically learns about these cases from VDH's Division of Vital Records, funeral homes, or local medical examiners.

While these 146 cases are in the annual report reflective of calendar year 2011, retrospective cases may have been deaths from other years but the OCME investigation of the case began in 2011.

- The majority of the OCME's retrospective cases are accidents (73.3%).
- Most common unreported type of death is due to a jump/fall (43.2%) followed by motor vehicle collisions (20.5%).

Figure 109. Retrospective Cases by Manner, 2011

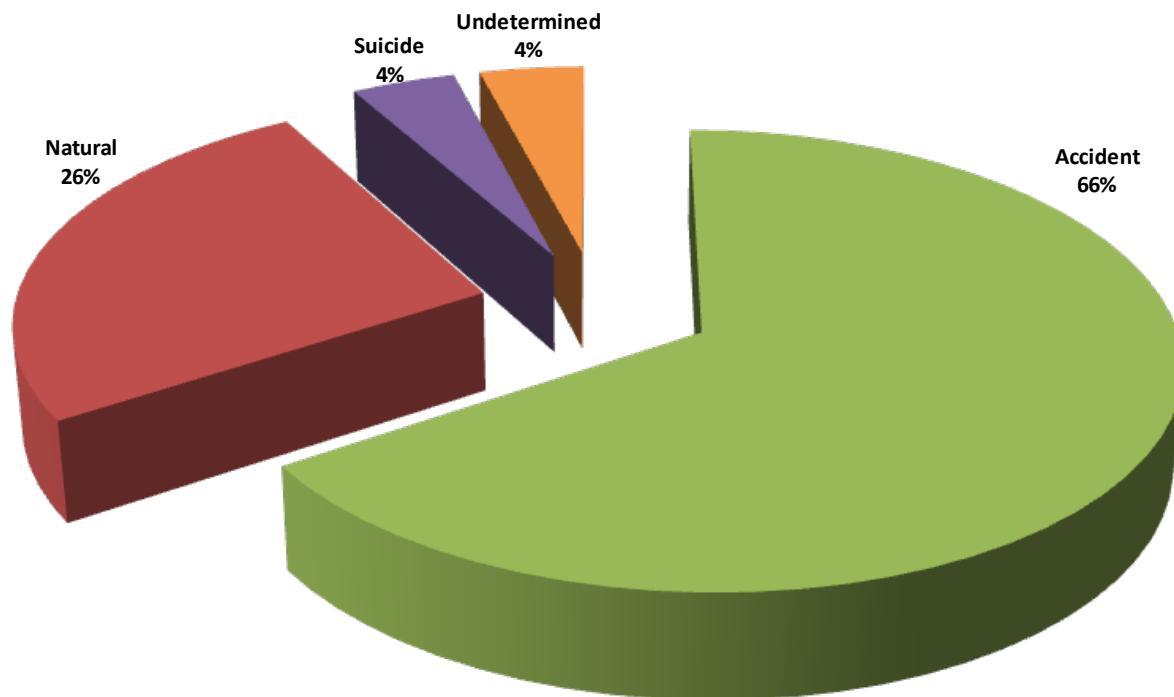


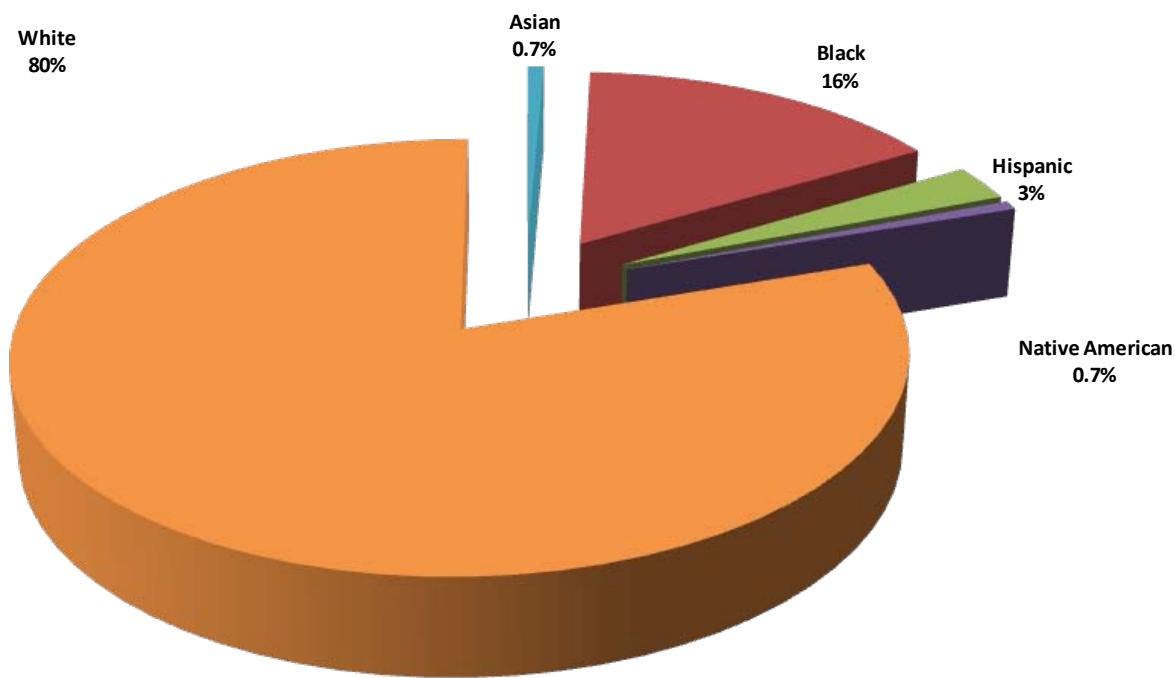
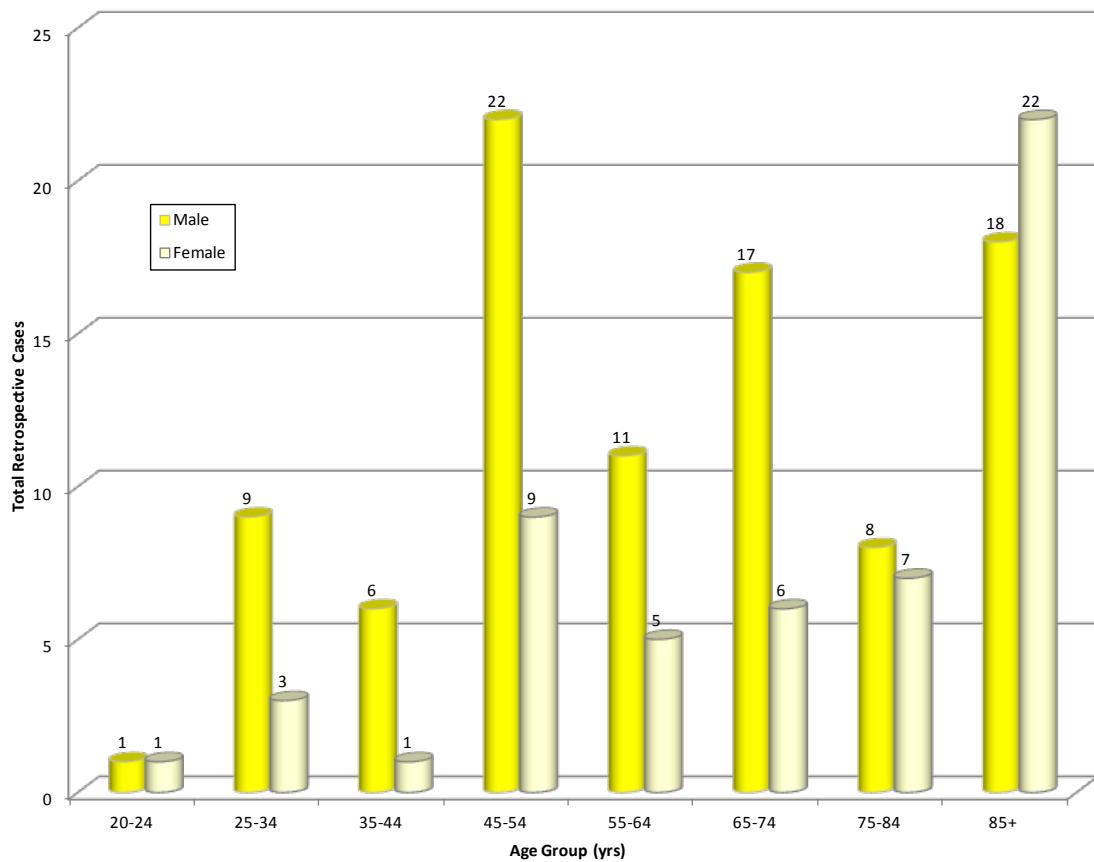
Figure 110. Retrospective Cases by Race/Ethnicity, 2011**Figure 111. Retrospective Cases by Age Group by Gender, 2011**

Table 58. Retrospective Cases by Method of death and by Classification of Death, 2011

Method of Death		Total Cases
Animal/Insect		
Bitten, stung or kicked by animal/insect		1
Asphyxia		
Choked on food/foreign object		1
Hanging		1
Drug Use		
Ingested ethanol or other alcohol		1
Ingested and/or injected illicit, prescription, and/or OTC medication		16
Ingested and/or injected other type of poison (Ethylene glycol, etc.)		1
Exposure		
Exposed to heat		1
Fall/Jump		
Jumped or fell from height		57
Motor Vehicle		
Car		6
Mo-ped		1
Motorcycle		1
Pickup Truck		3
Sport Utility Vehicle		4
Tractor Trailer		1
Van		1
Construction Vehicle		2
Unknown		1
Traumatic Injury		
Falling object		1
Unknown/Other		
Other traumatic cases		8
Subtotal		108
Death Classification		
Natural Deaths		38
Unnatural Deaths		108
TOTAL DEATHS		146

GLOSSARY

Accident – The *manner of death* used when, in other than *natural deaths*, there is no evidence of intent; an undesigned, sudden, and unexpected death.

Assistant Chief Medical Examiner – A forensic pathologist who has the duty of performing autopsies and investigating deaths that fall under the *jurisdiction* of the *Office of the Chief Medical Examiner*, and determining *cause* and *manner of death*.

Autopsy – A detailed postmortem external and internal examination of a body to determine cause of death, collect evidence, determine the presence or absence of injury.

Cause of Death – The disease, injury, or poison that results in a physiological derangement or biochemical disturbance that is incompatible with life. The result of post-mortem examination, including autopsy and toxicological findings, combined with information about the medical history of the decedent serves to establish the *cause of death*.

Chief Medical Examiner – The head of the *Office of the Chief Medical Examiner*. The Chief Medical Examiner must be a forensic pathologist licensed to practice medicine in Virginia and may appoint *Assistant Chief Medical Examiners* who are forensic pathologists, and *Local Medical Examiners*.

Children – Individuals 17 years of age and younger.

County/City of Death – The county/city where the death occurred. The county/city where the decedent legally resided, the county/city where the decedent was fatally injured, and the county/city where the decedent died may be the same or different.

County/City of Residence – The county/city where a person legally resides. If not a resident of Virginia, the decedent is listed as “out of state”.

Drug Caused Death – A death caused by a drug or combination of drugs.

Ethanol – An alcohol, which is the principal intoxicant in beer, liquor, and wine. A person with an alcohol concentration in blood of 0.08 percent by weight by volume (0.08%) is legally intoxicated in Virginia.

Ethanol Present – Deaths in which toxicological tests reveal a reportable level of *ethanol* (0.01% W/V or greater) at the time of death.

Homicide – The *manner of death* in which death results from the intentional harm of one person by another.

Jurisdiction – The extent of the Office of the Chief Medical Examiner’s authority over deaths. The OCME authority covers every death which is due or which might reasonably have been due to a violent or traumatic injury or accident, or is of public health interest and will be investigated by the Medical Examiner.

Local Medical Examiner – A physician appointed by the *Chief Medical Examiner* for a city or county to assist in the investigation of deaths and determine *jurisdiction* of the Office of the Chief Medical Examiner. There is a local medical examiner in most counties in Virginia.

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

Method of Death – The means, fatal agency or item causing death, present at the time of injury or death.

Motor Vehicle Collision Related Death – A death involving a motor vehicle. Motor vehicles include automobiles, vans, motorcycles, trucks, aircraft, and trains. The decedent is usually a driver of, a passenger in, or a pedestrian who is struck by a motor vehicle. The death of a bicyclist that is struck by a motor vehicle is considered to be a motor vehicle related death.

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 Chief Medical Examiner – The office within the Virginia Department of Health that is responsible for the investigation of sudden, violent, or unexpected death.

Opiate – A class of drugs, including morphine, codeine, and heroin, derived from the opium poppy plant (*Papaver somniferum*).

Stimulant – A class of drugs, including cocaine and oral amphetamines, whose principal action is the stimulation of the central nervous system.

Sudden and Unexpected Infant Death – A diagnosis designated for infants under the age of 1 year. Sudden and Unexpected Infant Death (SUID) is a diagnosis made in cases in which autopsy does not reveal a definitive medical or traumatic cause of death and the circumstances surrounding the death suggest that there is an associated risk factor for dying, such as unsafe bedding or co-sleep, or some other external factor, but the contribution of this factor cannot be determined with certainty. The diagnosis may also be used in the situation where a medical disease is identified, but it is uncertain that this disease caused death. The cause of death in suspected but not proven homicides would be undetermined.

Sudden Infant Death Syndrome – Sudden Infant Death Syndrome (SIDS) is defined as the sudden death of an infant less than one year of age that cannot be explained after a thorough investigation is conducted, including a complete autopsy, examination of the death scene which includes no external risk factors, and review of the clinical history.

Suicide – The *manner of death* in which death results from the purposeful attempt to end one's life.

Undetermined – The *manner of death* for deaths in which there is insufficient information to assign another manner. An undetermined death may have an undetermined cause of death & an unknown manner, an undetermined cause of death and a known manner, or a determined cause of death and an unknown manner.

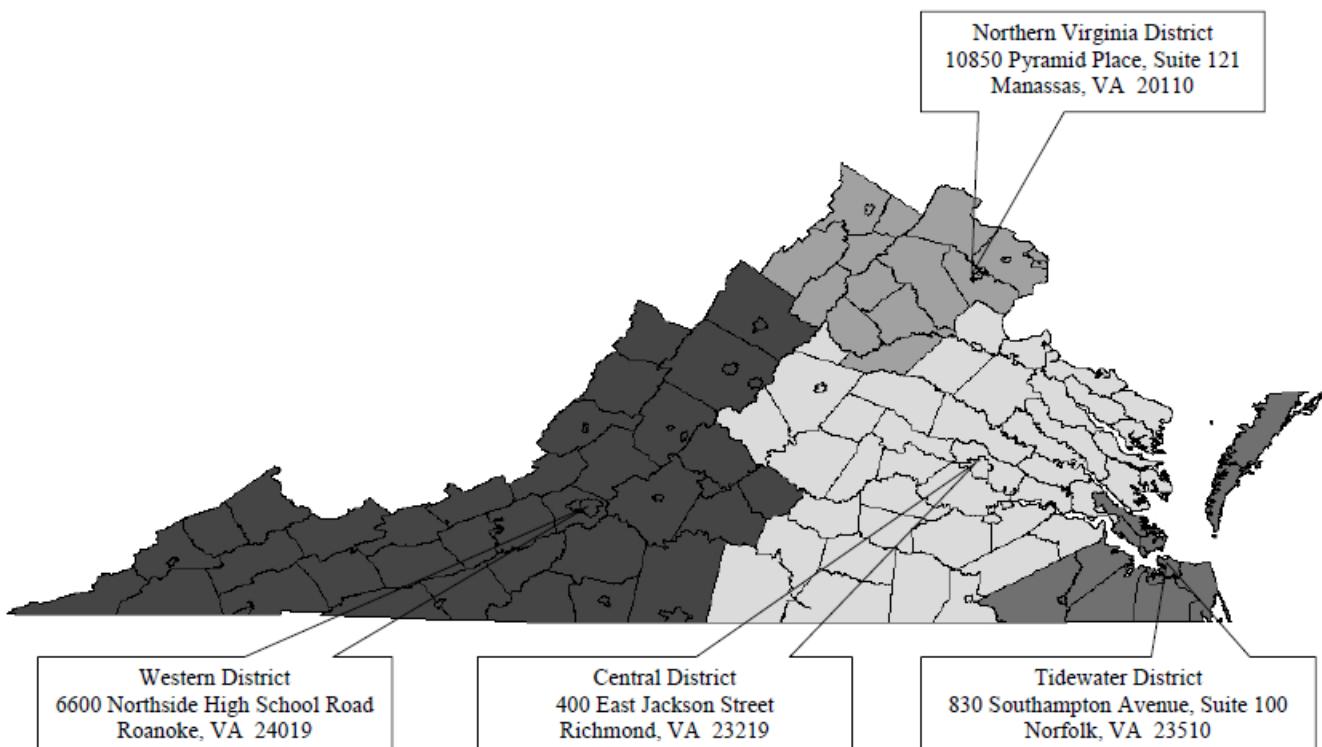
MEDICAL EXAMINER DISTRICTS

CENTRAL *Counties* of Albemarle, Amelia, Brunswick, Buckingham, Caroline, Charles City, Charlotte, Chesterfield, Cumberland, Dinwiddie, Essex, Fluvanna, Gloucester, Goochland, Greene, Greensville, Halifax, Hanover, Henrico, James City, King and Queen, King George, King William, Lancaster, Louisa, Lunenburg, Mathews, Mecklenburg, Middlesex, Nelson, New Kent, Northumberland, Nottoway, Powhatan, Prince Edward, Prince George, Spotsylvania, Stafford, Surry, Sussex, Richmond, and Westmoreland. *Cities* of Charlottesville, Colonial Heights, Emporia, Fredericksburg, Hopewell, Petersburg, Richmond, and Williamsburg.

NORTHERN *Counties* of Arlington, Clarke, Culpeper, Fairfax, Fauquier, Frederick, Loudoun, Madison, Orange, Page, Prince William, Rappahannock, Shenandoah, and Warren. *Cities* of Alexandria, Fairfax, Falls Church, Manassas, Manassas Park, and Winchester.

TIDEWATER *Counties* of Accomack, Isle of Wight, Northampton, Southampton, and York. *Cities* of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, and Virginia Beach.

WESTERN *Counties* of Alleghany, Amherst, Appomattox, Augusta, Bath, Bedford, Bland, Botetourt, Buchanan, Campbell, Carroll, Craig, Dickenson, Floyd, Franklin, Giles, Grayson, Henry, Highland, Lee, Montgomery, Patrick, Pittsylvania, Pulaski, Roanoke, Rockbridge, Rockingham, Russell, Scott, Smyth, Tazewell, Washington, Wise, and Wythe. *Cities* of Bedford, Bristol, Buena Vista, Covington, Danville, Galax, Harrisonburg, Lexington, Lynchburg, Martinsville, Norton, Radford, Roanoke, Salem, Staunton, and Waynesboro.



Additional copies of this report are available at the following website:
<http://www.vdh.virginia.gov/medExam/Reports.htm>

Or by contacting:

Commonwealth of Virginia
Virginia Department of Health
Office of the Chief Medical Examiner
400 E. Jackson Street
Richmond, VA 23219
(804)786-3174

