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Office of the Chief Medical Examiner's Annual Report, 2010

Commonwealth of Virginia
Virginia Department of Health
Office of the Chief Medical Examiner
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OFFICE OF THE CHIEF MEDICAL EXAMINER'S ANNUAL REPORT, 2010

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Department of Health

Commonwealth of Virginia

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Letter from the Chief Medical Examiner

The Department of Health's Office of the Chief Medical Examiner (OCME) is proud to announce that its 2010 annual report has been prepared, primarily through the efforts of Dr. Anna Noller, the OCME State Epidemiologist, and Mr. Curtis Conway, the OCME Case Database Manager. This substantive and detailed report not only provides specific information about the way people die in Virginia but also fulfills a requirement for the statewide accreditation of the Virginia OCME by the National Association of Medical Examiners. This report identifies deadly trends in Virginia and, in so doing, provides valuable information to Virginia's leader and citizens for their use in the prevention of deaths and the enhancement of the lives of all Virginians.

As a statewide death investigation system, the OCME is mandated by the Code of Virginia, § 32.1-283 to investigates the deaths of individuals that occur in Virginia suddenly and unexpectedly, 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 information is immediately entered into our Virginia Medical Examiner Database (VMEDS) and the case is managed through this statewide data system allowing for consistent, reliable case data that can be detailed and interpreted for this annual report. Dr. Noller's analysis of this data has revealed trends that I want to share with the citizens and leaders of Virginia.

Some of the important trends for 2010 recognized through VMEDS data analysis include:

- Oxycodone has exceeded methadone in the number of fentanyl, hydrocodone, methadone and oxycodone (FHMO) deaths it has caused with 154 deaths from oxycodone versus 134 deaths from methadone. This new pattern of drug deaths has never before been reported in Virginia as methadone has traditionally caused more deaths that oxycodone. Prescription drug deaths continue to plague the Western part of Virginia as they have for the past several years.
- Though the total number of homicides has decreased significantly since 2005, once again Richmond City has the greatest number of homicides with 43 followed by Norfolk with 27 and Newport News with 23. In 2009, Norfolk led the state in homicides, though Richmond City has traditionally had that unfortunate distinction for many years.
- There has been a continual increase in the total number of suicides investigated by the OCME every year from 2003 (804 total suicides) through 2010 (996 total suicides), as well as in the Virginia resident

rate of suicides. The greatest number of suicides is occurring in urban areas (Northern Virginia, Richmond Metropolitan Area and Tidewater) because of the dense urban population, but the resident rate is highest in rural areas. One of the most startling facts is that the majority of all suicides are completed by white males between the ages of 25-64 with the greatest number occurring between ages 45-54. To date, most suicide prevention efforts have been focused on children and the elderly but it appears intervention strategies need to include middle-aged white men.

- There was a significant decrease in the number of natural deaths investigated by the OCME in both 2009 and 2010. This trend does not mean the number of natural deaths statewide is decreasing but rather that cases are being more accurately reported to the OCME as more natural deaths are being properly certified by primary treating physicians instead of being referred to the OCME. This trend may reflect the efforts of the Virginia Department of Health, Board of Health Professions, and others to educate physicians on appropriate natural death certification.

The mission and hard work of the Virginia OCME provides valuable data about deaths occurring in Virginia so trends may be identified and prevention strategies undertaken. Virginia is a forward thinking state and legislators from years past had the vision to transform Virginia's death investigation system from the Office of the Coroner's Physician to the statewide Office of the Chief Medical Examiner in 1946. The elected and appointed leaders of Virginia continue to value and support the competent, statewide death investigation system in Virginia and use the data provided to prevent deaths and improve lives within the Commonwealth. The unsung heroes in medico-legal death investigation are the patient and compassionate staff of the four OCME district offices who take care of grieving families and their deceased love ones every day with knowledge and empathy.

Introduction

This report represents the deaths investigated by the Virginia Department of Health, Office of the Chief Medical Examiner in 2010.

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 2010 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 represent those who are not of 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 office 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, serving as the principal case investigators in their localities for deaths falling within their jurisdiction and statutory authority. In 2010, the OCME supported approximately 213 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 the best medical examiner system in the world. 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 2010 calendar year.

Virginia 2010

In 2010, the estimated population of the Commonwealth was 8,001,024, ranking 12th among the states. Virginia has a land area of 39,490 square miles, ranking 37th among the states. Virginia's population density is 202 persons per square mile, although an estimated 86 percent of the population lives in urban areas. Non-

Hispanic whites constituted 64.8 percent of the population, non-Hispanic blacks 19.4 percent, non-Hispanic Asians 5.5 percent, non-Hispanic Native Americans 0.4 percent and Hispanics, who may be of any race, were 7.9 percent 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 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 (FIVP)** 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 inform public policy and prevention activities.

Ten-years of data reveal the following trends:

- A 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 while in the crossfire of an intimate partner relationship

- Racial disparities continued to exist: Black Virginians were at significantly greater risk 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 and periods of separation or divorce, are also associated with intimate partner homicide

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 within the Commonwealth of Virginia.

Data from the VVDRS have illustrated an increased suicide risk for older adults, especially males; the types of poisons used in suicides; the prevalence of mental health problems and subsequent treatment among persons who commit suicide; the warning signs that precede many suicides, such as disclosing intent to harm oneself or having prior suicide attempts; and an association between homicides with no clear precipitating circumstances and cocaine usage.

The VVDRS is funded by the Centers for Disease Control and Prevention (CDC). 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.

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.

The OCME published the Family and Intimate Partner Violence Fatality Review: Team Protocol and Resource Manual (3rd Edition, December 2009). This manual, an updated and expanded version of the previous 2002 edition, is a comprehensive and practical "how-to" guide for new and established teams. It features ten detailed chapters covering all aspects of starting and running a team, and includes time-saving, downloadable team documents and resources.

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 and Maternal Mortality Review Team 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. The Maternal Mortality Review 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.

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 are currently focusing 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 deaths 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 the resident who needs exposure to forensic pathology as part of a general anatomic pathology program. The residents usually are from the VCU and UVA pathology programs, however, residents from out of state may be accepted for training
- Medical students may also rotate through the OCME on month long elective rotations

During the last academic year 2010-2011, the OCME trained two fellows and eleven 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:	2834	1592	1431	1801	**7658**
B. Cases accepted:	1714	1210	1184	1462	**5570**
Retrospectives (handled separately)	11	9	41	85	**146**
C. Manners of death:					
Accident	684	481	382	601	**2148**
Homicide	130	37	130	94	**391**
Natural	590	402	444	448	**1884**
Suicide	278	249	194	275	**996**
Undetermined	32	41	34	44	**151**
D. Scene Visits	230	74	158	172	**634**
E. Bodies transported by office:	1714	1210	1184	1462	**5570**
F. External examinations:	881	572	617	674	**2744**
G. Complete examinations (autopsy):	823	622	564	783	**2792**
H. Partial examinations:	10	16	3	5	**34**
I. Hospital autopsies under ME jurisdiction:	1	0	2	1	**4**
J. Cases with toxicology:	878	1162	1073	1476	**4589**
K. Unidentified bodies after examination:	1	1	0	1	**3**
L. Organ & tissue donations:	49	58	40	45	**192**
L2. Eye donations:	41	21	145	29	**236**
M. Unclaimed bodies:	2	2	8	4	**16**
N. Exhumations:	0	0	0	0	**0**
O. Bodies transported to office:	1273	775	741	1016	**3805**

SECTION 2: TOTAL CASES (N=5570)

In 2010, the Office of the Chief Medical Examiner (OCME) investigated 5570 deaths, representing 9.5 percent of the estimated total deaths in Virginia and almost three-quarters of the total number of deaths reported to the OCME, 7658. [NOTE: Retrospective cases are not included in the total case count, but are examined separately in Section 10 because while these deaths were investigated in 2010, they may not necessarily have occurred in 2010.] The caseload for 2010 represented a 0.7 percent decrease from 2009. Of the deaths investigated by the OCME in 2010:

- The numbers of accident, homicide and natural deaths decreased compared to 2009 while suicides and undetermined deaths increased
- Blacks share a higher burden of homicides compared to their percentage of the general population
- Males continue to represent approximately 70 percent of all OCME deaths
- The 45-54 year old age group had the greatest number of cases representing 20.7 percent of cases
- Fairfax County had the most number of residents die (n=396) but Greensville County had the highest rate (187.9 residents per 100,000)

Figure 1. Total Cases by Year of Death, 1999-2010

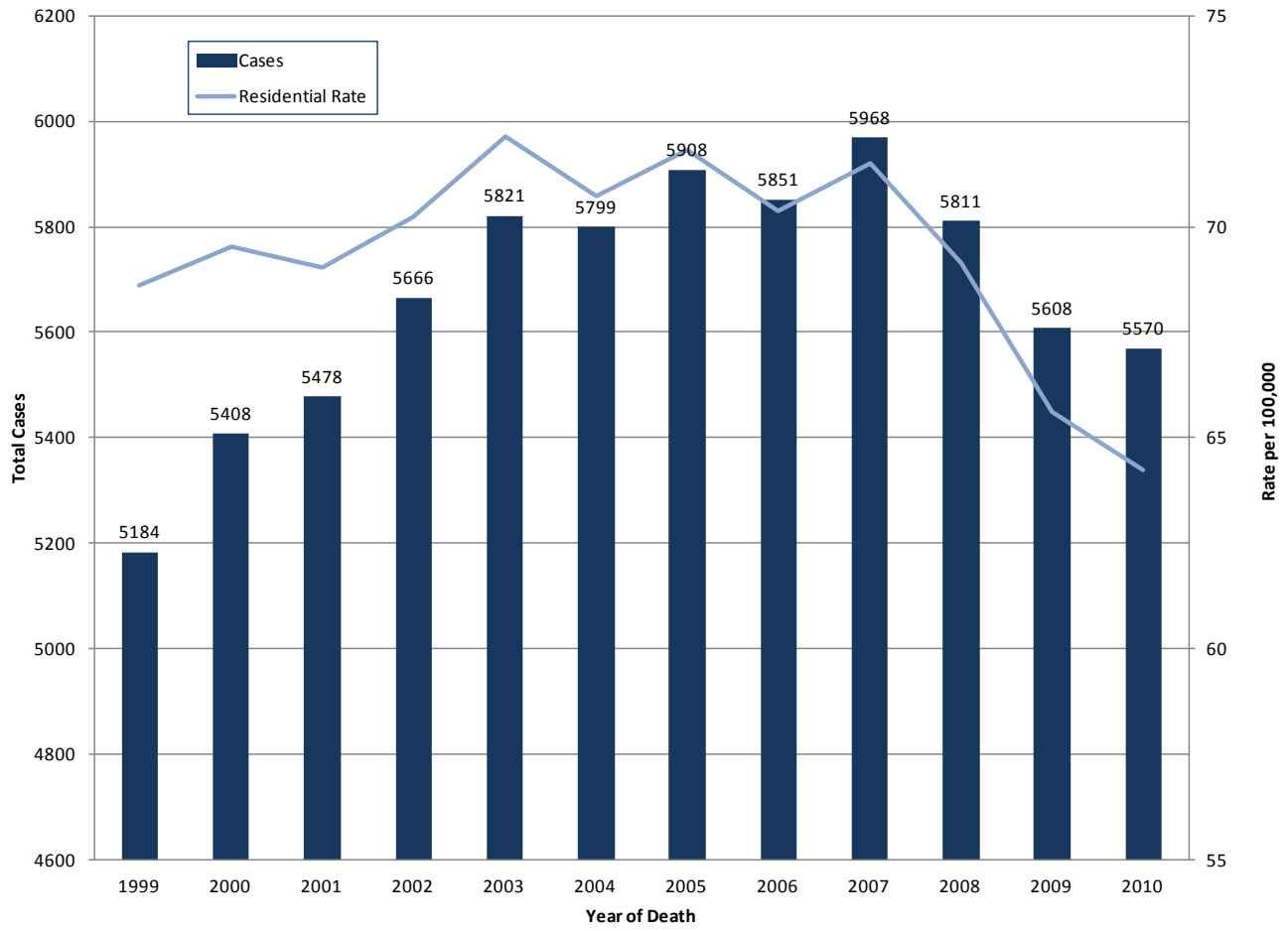


Figure 2. Total Cases by Year of Death by Manner, 1999-2010

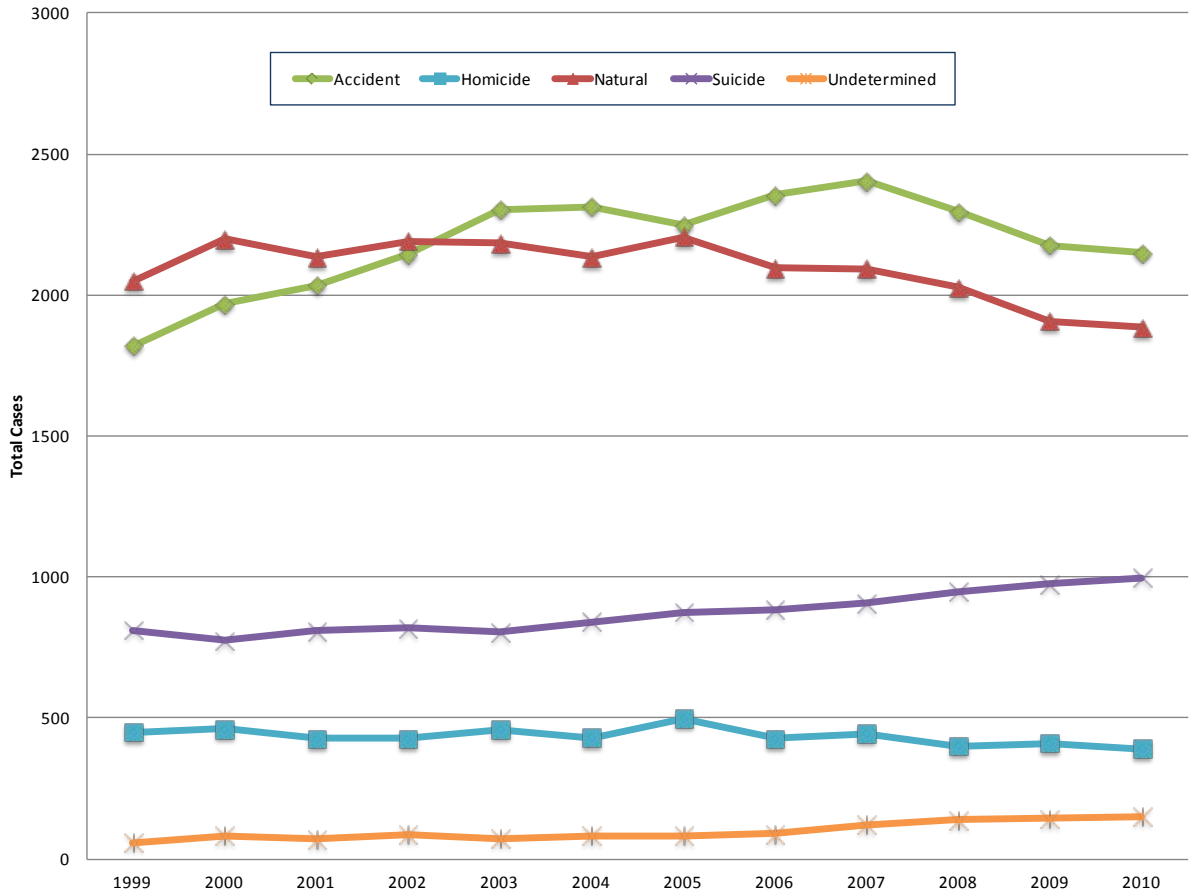


Figure 3. Total Cases by Manner, 2010

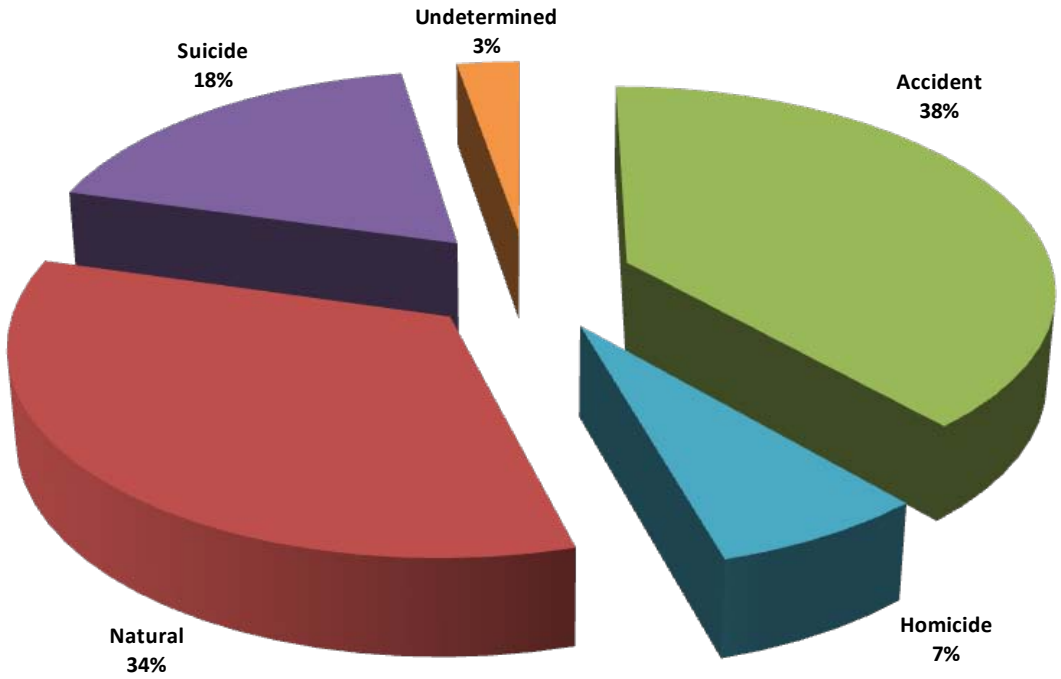


Table 1. Total Cases by OCME District by Manner, 2010

	OCME District				
Manner	**Central**	**Northern**	**Tidewater**	**Western**	**Total**
Accident	684	481	382	601	**2148**
Homicide	130	37	130	94	**391**
Natural	590	402	444	448	**1884**
Suicide	278	249	194	275	**996**
Undetermined	32	41	34	44	**151**
Total	**1714**	**1210**	**1184**	**1462**	**5570**

Table 2. Total Cases by Autopsy Status by OCME District, 2010

	Autopsy Performed		
OCME District	**Yes**	**No**	**Total**
Central	833	881	**1714**
Northern	638	572	**1210**
Tidewater	567	617	**1184**
Western	788	674	**1462**
Total	**2826**	**2744**	**5570**

Table 3. Total Cases by Manner by Autopsy Status, 2010

	Manner of Death					
Autopsy	**Accident**	**Homicide**	**Natural**	**Suicide**	**Undetermined**	**Total**
Yes	805	387	729	767	138	**2826**
No	1343	4	1155	229	13	**2744**
%Yes	37.5%	99.0%	38.7%	77.0%	91.4%	**50.7%**
Total	**2148**	**391**	**1884**	**996**	**151**	**5570**

Table 4. Total Cases by Race/Ethnicity, 2010

Race/Ethnicity	**Cases**	**Percent**
Asian	122	2.2%
Black	1260	22.6%
Hispanic	208	3.7%
Native American	3	0.1%
Other	1	0.02%
Unknown	3	0.1%
White	3973	71.3%
Total	**5570**	**100%**

Figure 4. Total Cases by Manner by Race/Ethnicity, 2010

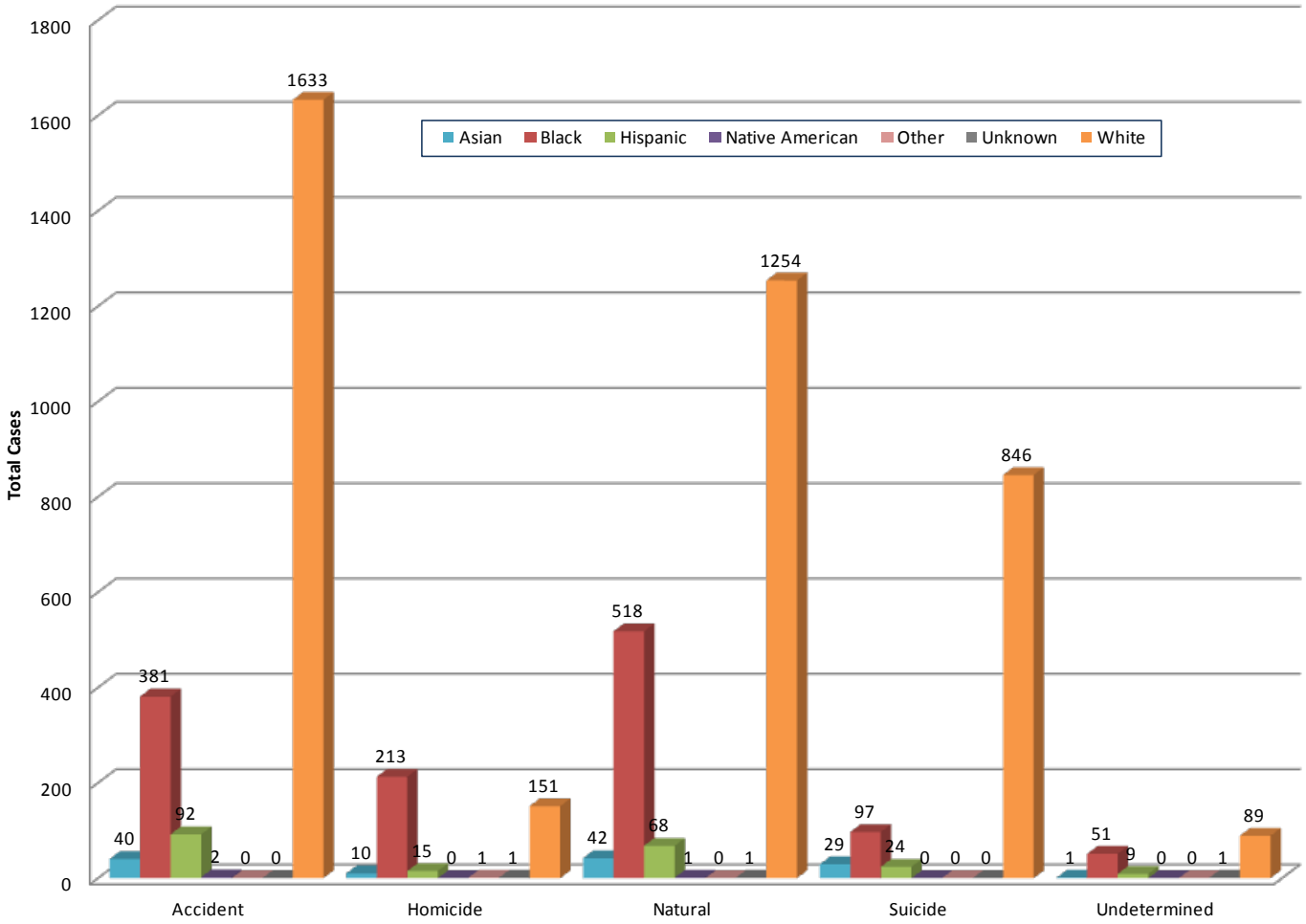


Figure 5. Total Cases by Age Group, 2010

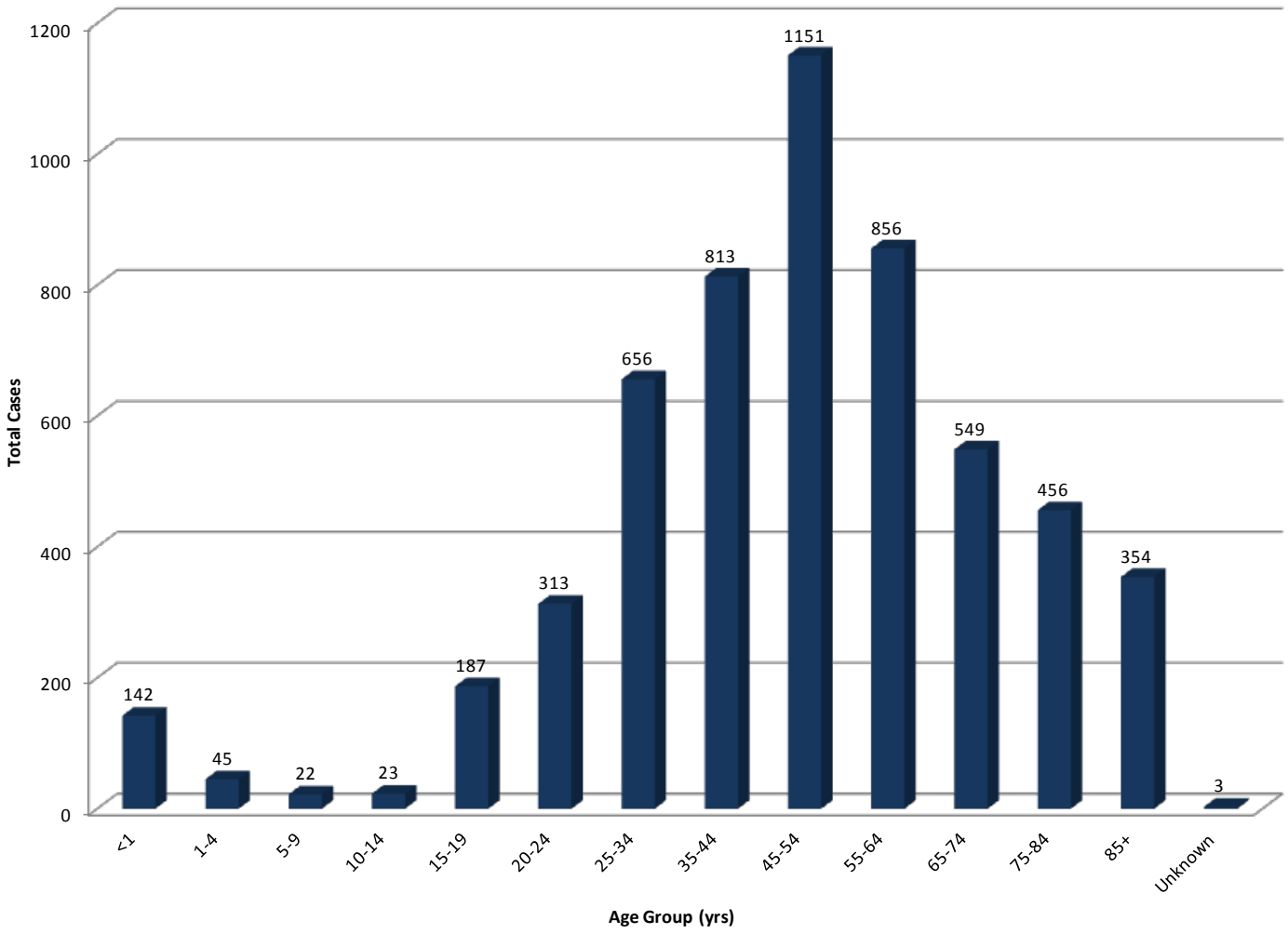


Table 5. Total Cases by Gender, 2010

Gender	Cases	Percent
Male	3879	69.64%
Female	1690	30.34%
Unknown	1	0.02%
Total	**5570**	**100%**

Table 6. Total Cases by Manner by Gender, 2010

	Manner of Death					
	Accident	Homicide	Natural	Suicide	Undetermined	Total
Male	1438 (66.9%)	282 (72.1%)	1293 (68.6%)	780 (78.3%)	86 (57.0%)	3879 (69.6%)
Female	710 (33.1%)	109 (27.9%)	591 (31.4%)	216 (21.7%)	64 (42.4%)	1690 (30.3%)
Unknown	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.7%)	1 (0.02%)
Total	2148	391	1884	996	151	5570

Figure 6. Total Cases by Manner by Gender, 2010

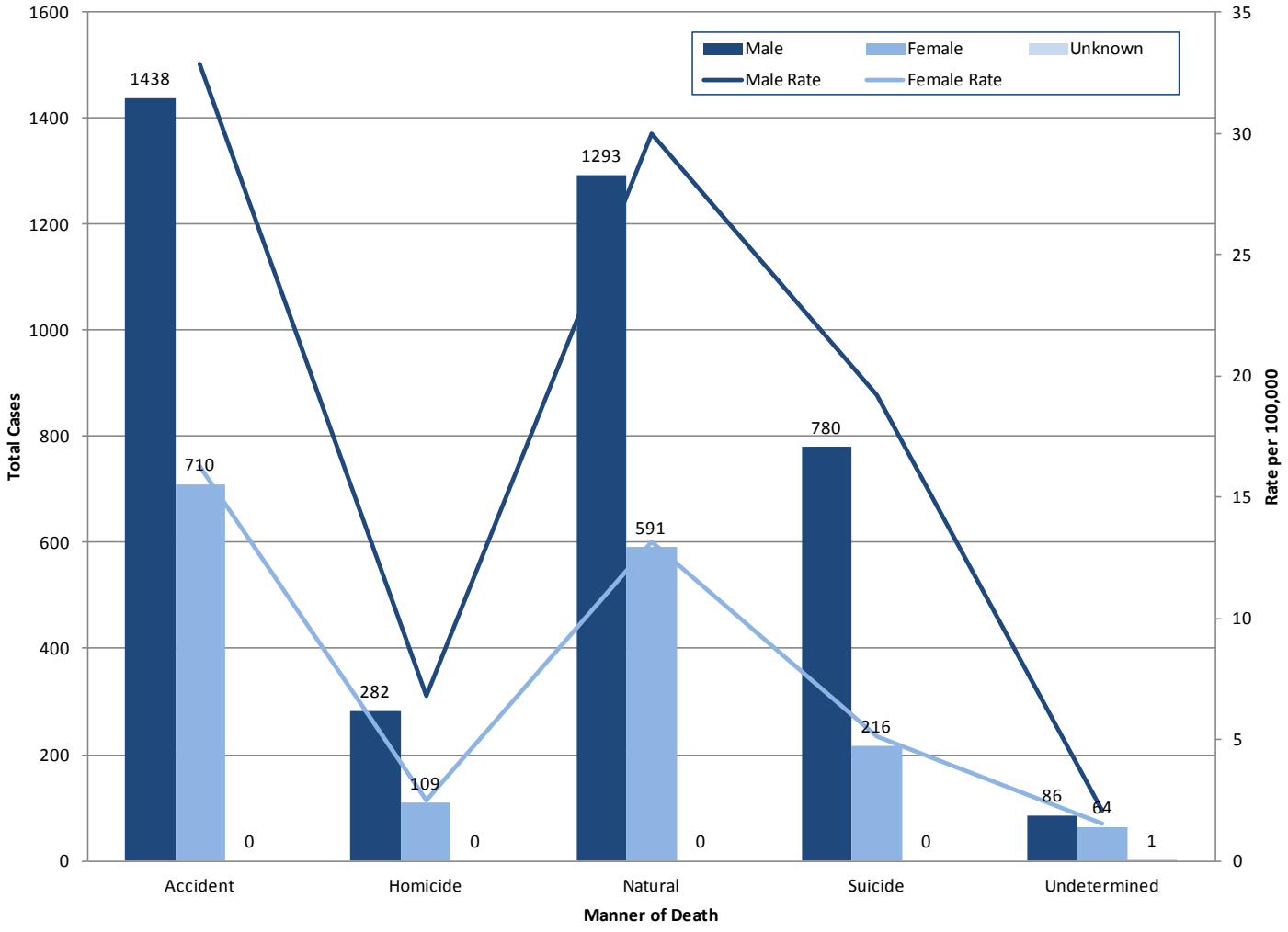


Table 7. Total Cases by Manner by Gender by Age Group, 2010

		Manner of Death					
Gender	**Age Group**	**Accident**	**Homicide**	**Natural**	**Suicide**	**Undetermined**	**Total**
Male	<1	18	10	28	0	37	**93**
	1-4	22	3	5	0	2	**32**
	5-9	11	2	2	0	0	**15**
	10-14	8	0	3	4	1	**16**
	15-19	70	31	5	33	3	**142**
	20-24	109	64	11	53	1	**238**
	25-34	229	62	59	132	6	**488**
	35-44	220	49	166	126	9	**570**
	45-54	257	32	332	183	14	**818**
	55-64	169	17	341	114	3	**644**
	65-74	106	4	207	70	7	**394**
	75-84	127	4	107	39	1	**278**
	85+	92	3	27	26	1	**149**
	Unknown	0	1	0	0	1	**2**
	Subtotal	**1438**	**282**	**1293**	**780**	**86**	**3879**
Female	<1	4	3	15	0	27	**49**
	1-4	7	3	3	0	0	**13**
	5-9	3	0	3	0	1	**7**
	10-14	5	0	1	0	1	**7**
	15-19	20	10	5	8	2	**45**
	20-24	41	20	3	10	1	**75**
	25-34	74	17	42	30	5	**168**
	35-44	99	23	63	51	7	**243**
	45-54	122	15	127	60	9	**333**
	55-64	69	11	95	33	4	**212**
	65-74	41	4	96	10	4	**155**
	75-84	92	2	74	9	1	**178**
	85+	133	1	64	5	2	**205**
	Subtotal	**710**	**109**	**591**	**216**	**64**	**1690**
Unknown	Unknown	0	0	0	0	1	1
	Subtotal	**0**	**0**	**0**	**0**	**1**	**1**
TOTAL		**2148**	**391**	**1884**	**996**	**151**	**5570**

Figure 7. Total Cases by Month of Death, 2010

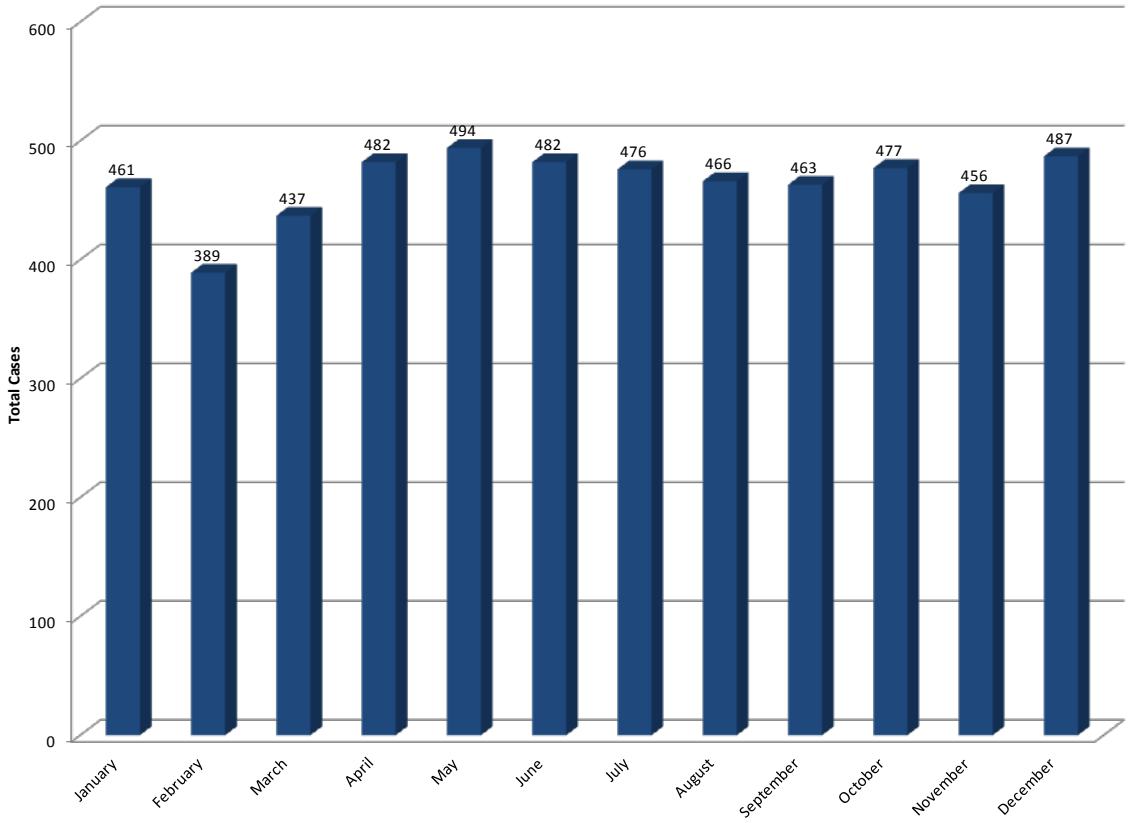


Figure 8. Total Cases by Month of Death by Manner, 2010

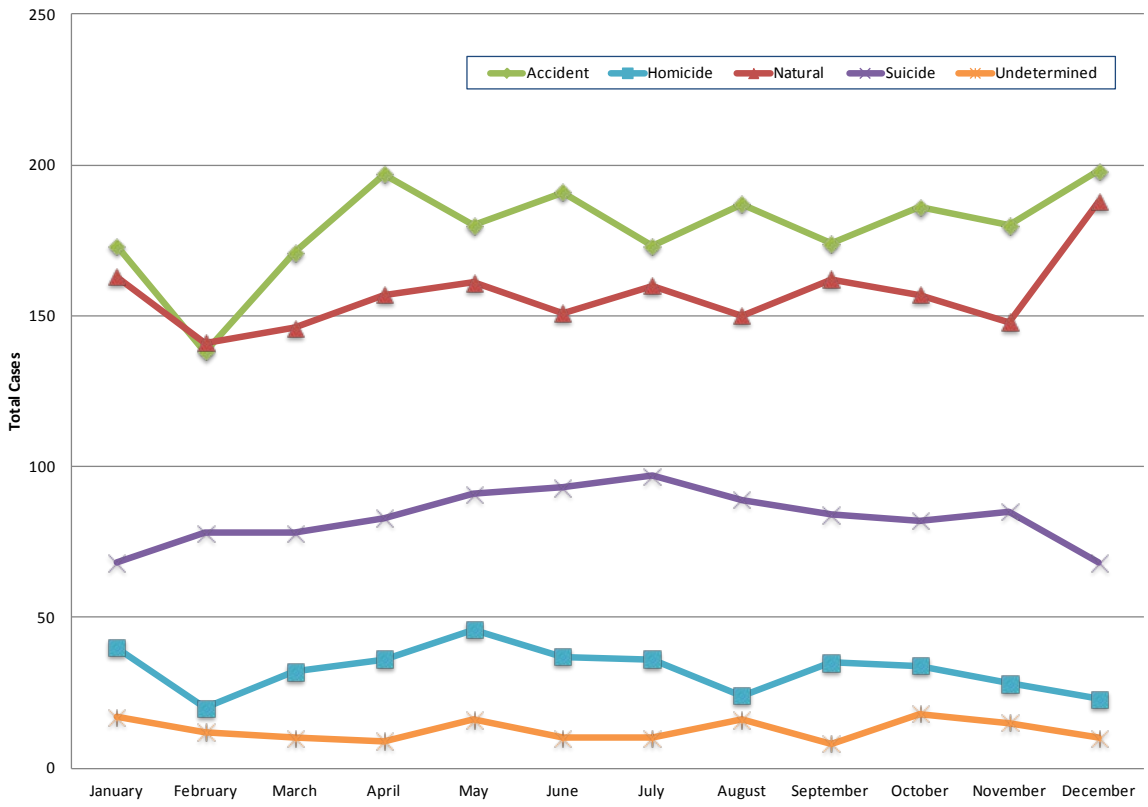


Figure 9. Total Cases by Day of Death, 2010

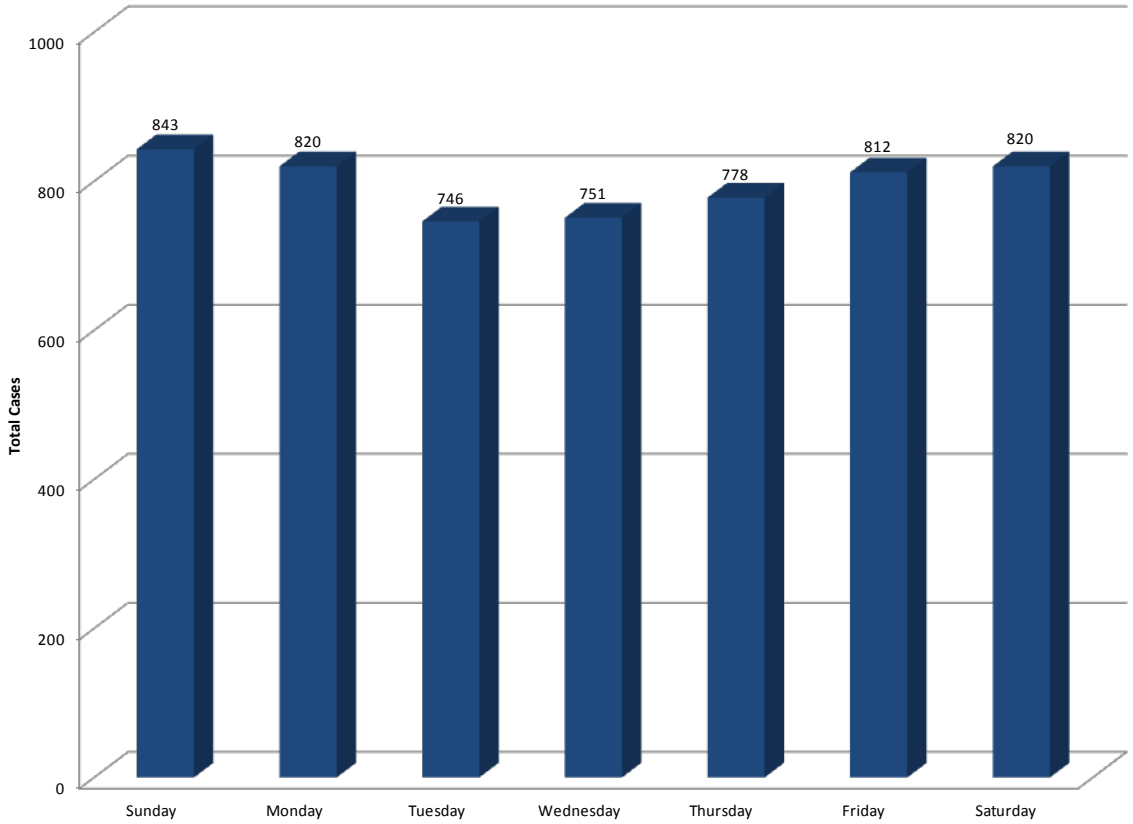


Figure 10. Total Cases by Day of Death by Manner, 2010

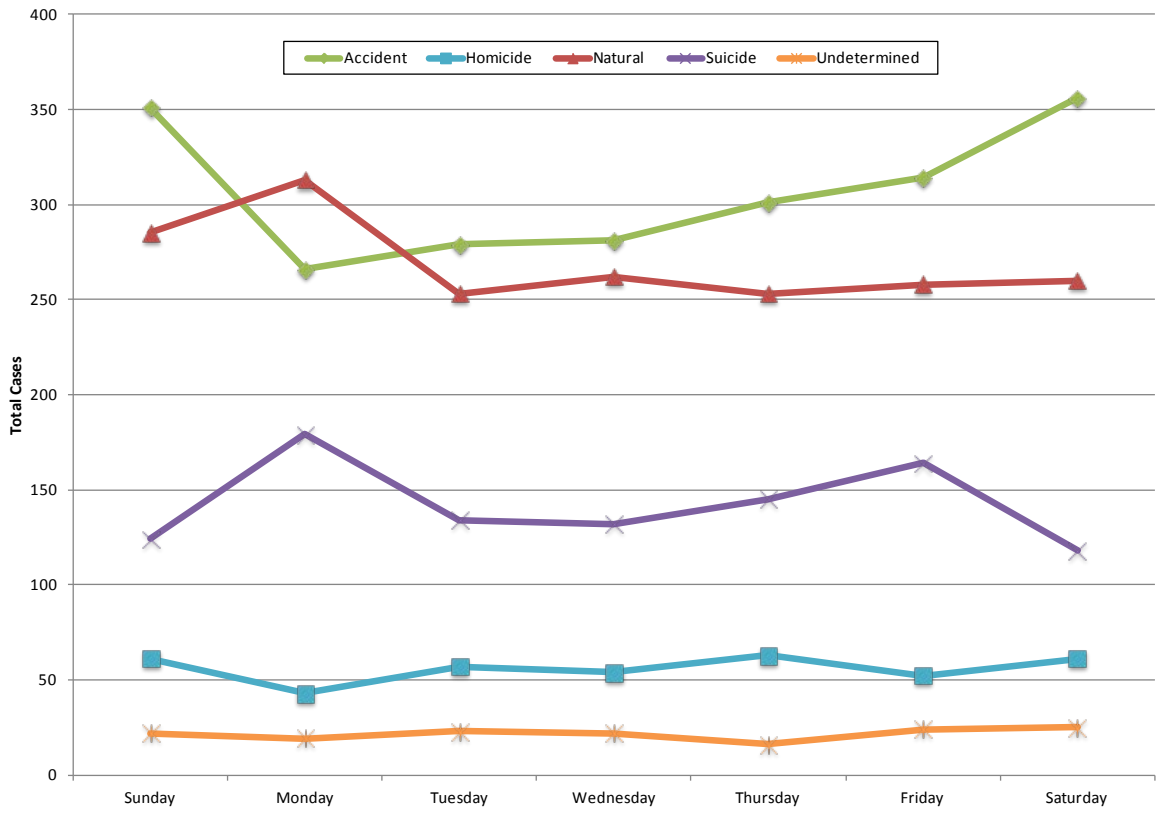


Table 8. Total Cases by Manner by City/County of Residence, 2010

	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
Accomack	13	39.2	2	6.0	12	36.2	5	15.1	1	3.0	**33**	**99.5**
Albemarle	25	25.3	1	1.0	16	16.2	6	6.1	0	0.0	**48**	**48.5**
Alexandria	13	9.3	2	1.4	24	17.1	13	9.3	2	1.4	**54**	**38.6**
Alleghany	3	18.5	1	6.2	1	6.2	6	36.9	0	0.0	**11**	**67.7**
Amelia	3	23.6	2	15.8	2	15.8	1	7.9	1	7.9	**9**	**70.9**
Amherst	5	15.5	0	0.0	25	77.3	5	15.5	0	0.0	**35**	**108.2**
Appomattox	6	40.1	7	46.8	2	13.4	3	20.0	0	0.0	**18**	**120.2**
Arlington	22	10.6	0	0.0	37	17.8	16	7.7	1	0.5	**76**	**36.6**
Augusta	23	31.2	2	2.7	7	9.5	11	14.9	0	0.0	**43**	**58.3**
Bath	3	63.4	0	0.0	2	42.3	0	0.0	0	0.0	**5**	**105.7**
Bedford City	5	80.4	0	0.0	1	16.1	2	32.1	0	0.0	**8**	**128.6**
Bedford	28	40.8	1	1.5	18	26.2	15	21.8	3	4.4	**65**	**94.6**
Bland	5	73.3	0	0.0	1	14.7	1	14.7	0	0.0	**7**	**102.6**
Botetourt	12	36.2	2	6.0	4	12.1	1	3.0	0	0.0	**19**	**57.3**
Bristol	3	16.8	1	5.6	8	44.9	2	11.2	1	5.6	**15**	**84.1**
Brunswick	8	45.9	0	0.0	7	40.2	2	11.5	0	0.0	**17**	**97.5**
Buchanan	17	70.5	2	8.3	13	53.9	11	45.6	1	4.1	**44**	**182.6**
Buckingham	4	23.3	1	5.8	3	17.5	3	17.5	0	0.0	**11**	**64.2**
Buena Vista	2	30.1	0	0.0	0	0.0	1	15.0	0	0.0	**3**	**45.1**
Campbell	19	34.6	3	5.5	7	12.8	7	12.8	1	1.8	**37**	**67.5**
Caroline	8	28.0	1	3.5	5	17.5	5	17.5	1	3.5	**20**	**70.1**
Carroll	4	13.3	1	3.3	10	33.3	9	30.0	0	0.0	**24**	**79.9**
Charles City	3	41.3	0	0.0	2	27.6	0	0.0	0	0.0	**5**	**68.9**
Charlotte	8	63.6	0	0.0	6	47.7	2	15.9	0	0.0	**16**	**127.1**
Charlottesville	13	29.9	2	4.6	7	16.1	3	6.9	1	2.3	**26**	**59.8**
Chesapeake	40	18.0	16	7.2	51	23.0	23	10.4	5	2.3	**135**	**60.8**
Chesterfield	84	26.6	12	3.8	51	16.1	33	10.4	1	0.3	**181**	**57.2**

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
Clarke	8	57.0	0	0.0	4	28.5	2	14.3	1	7.1	**15**	**106.9**
Colonial Heights	4	23.0	0	0.0	4	23.0	2	11.5	0	0.0	**10**	**57.4**
Covington	1	16.8	1	16.8	4	67.1	0	0.0	0	0.0	**6**	**100.7**
Craig	2	38.5	0	0.0	2	38.5	0	0.0	0	0.0	**4**	**77.1**
Culpeper	10	21.4	0	0.0	8	17.1	4	8.6	1	2.1	**23**	**49.3**
Cumberland	2	19.9	0	0.0	3	29.8	0	0.0	0	0.0	**5**	**49.7**
Danville	15	34.8	7	16.3	13	30.2	6	13.9	0	0.0	**41**	**95.2**
Dickenson	12	75.5	1	6.3	4	25.2	7	44.0	0	0.0	**24**	**150.9**
Dinwiddie	8	28.6	0	0.0	9	32.1	8	28.6	0	0.0	**25**	**89.3**
Emporia	3	50.6	1	16.9	3	50.6	1	16.9	1	16.9	**9**	**151.8**
Essex	4	35.9	1	9.0	3	26.9	2	17.9	0	0.0	**10**	**89.7**
Fairfax City	9	39.9	0	0.0	3	13.3	3	13.3	0	0.0	**15**	**66.5**
Fairfax	146	13.5	14	1.3	140	12.9	86	8.0	10	0.9	**396**	**36.6**
Falls Church	0	0.0	0	0.0	1	8.1	0	0.0	0	0.0	**1**	**8.1**
Fauquier	31	47.5	2	3.1	15	23.0	17	26.1	6	9.2	**71**	**108.9**
Floyd	5	32.7	0	0.0	2	13.1	4	26.2	1	6.5	**12**	**78.5**
Fluvanna	4	15.6	1	3.9	3	11.7	2	7.8	0	0.0	**10**	**38.9**
Franklin City	2	23.3	1	11.7	2	23.3	2	23.3	0	0.0	**7**	**81.6**
Franklin	24	42.7	3	5.3	15	26.7	3	5.3	0	0.0	**45**	**80.1**
Frederick	29	37.0	1	1.3	13	16.6	7	8.9	3	3.8	**53**	**67.7**
Fredericksburg	9	37.1	0	0.0	4	16.5	3	12.4	0	0.0	**16**	**65.9**
Galax	0	0.0	0	0.0	1	14.2	3	42.6	0	0.0	**4**	**56.8**
Giles	8	46.3	0	0.0	3	17.4	3	17.4	1	5.8	**15**	**86.8**
Gloucester	15	40.7	1	2.7	9	24.4	8	21.7	0	0.0	**33**	**89.5**
Goochland	8	36.8	1	4.6	6	27.6	2	9.2	0	0.0	**17**	**78.3**
Grayson	3	19.3	0	0.0	4	25.8	2	12.9	1	6.4	**10**	**64.4**
Greene	7	38.0	1	5.4	9	48.9	3	16.3	0	0.0	**20**	**108.7**
Greensville	6	49.0	2	16.3	13	106.2	1	8.2	1	8.2	**23**	**187.9**
Halifax	18	49.7	4	11.0	13	35.9	5	13.8	1	2.8	**41**	**113.1**
Hampton	35	25.5	16	11.6	48	34.9	11	8.0	5	3.6	**115**	**83.7**

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
Hanover	14	14.0	3	3.0	16	16.0	8	8.0	0	0.0	**41**	**41.1**
Harrisonburg	5	10.2	1	2.0	2	4.1	3	6.1	0	0.0	**11**	**22.5**
Henrico	72	23.5	10	3.3	47	15.3	33	10.8	2	0.7	**164**	**53.4**
Henry	22	40.6	4	7.4	17	31.4	17	31.4	3	5.5	**63**	**116.3**
Highland	2	86.2	0	0.0	0	0.0	0	0.0	0	0.0	**2**	**86.2**
Hopewell	10	44.3	5	22.1	9	39.8	2	8.9	0	0.0	**26**	**115.1**
Isle of Wight	16	45.4	0	0.0	4	11.3	1	2.8	0	0.0	**21**	**59.5**
James City	17	25.4	0	0.0	15	22.4	10	14.9	0	0.0	**42**	**62.7**
King and Queen	1	14.4	0	0.0	1	14.4	2	28.8	0	0.0	**4**	**57.6**
King George	3	12.7	0	0.0	4	17.0	6	25.4	1	4.2	**14**	**59.4**
King William	2	12.6	0	0.0	4	25.1	1	6.3	0	0.0	**7**	**43.9**
Lancaster	3	26.3	2	17.6	2	17.6	2	17.6	0	0.0	**9**	**79.0**
Lee	7	27.4	4	15.6	8	31.3	2	7.8	1	3.9	**22**	**86.0**
Lexington	3	42.6	0	0.0	3	42.6	0	0.0	0	0.0	**6**	**85.2**
Loudoun	31	9.9	1	0.3	26	8.3	22	7.0	5	1.6	**85**	**27.2**
Louisa	8	24.1	3	9.0	7	21.1	10	30.2	0	0.0	**28**	**84.5**
Lunenburg	5	38.7	0	0.0	2	15.5	1	7.7	0	0.0	**8**	**61.9**
Lynchburg	27	35.7	1	1.3	8	10.6	10	13.2	3	4.0	**49**	**64.8**
Madison	6	45.1	0	0.0	4	30.1	2	15.0	0	0.0	**12**	**90.2**
Manassas	4	10.6	1	2.6	3	7.9	2	5.3	0	0.0	**10**	**26.4**
Martinsville	8	57.9	3	21.7	9	65.1	1	7.2	0	0.0	**21**	**151.9**
Mathews	4	44.6	0	0.0	3	33.4	1	11.1	0	0.0	**8**	**89.1**
Mecklenburg	8	24.4	2	6.1	7	21.4	7	21.4	2	6.1	**26**	**79.4**
Middlesex	6	54.7	0	0.0	8	73.0	2	18.2	0	0.0	**16**	**146.0**
Montgomery	27	28.6	3	3.2	20	21.2	9	9.5	2	2.1	**61**	**64.6**
Nelson	6	39.9	1	6.7	7	46.6	4	26.6	0	0.0	**18**	**119.8**
New Kent	6	32.6	0	0.0	4	21.7	1	5.4	0	0.0	**11**	**59.7**
Newport News	46	25.5	23	12.7	56	31.0	18	10.0	5	2.8	**148**	**81.9**
Norfolk	39	16.1	27	11.1	79	32.5	27	11.1	8	3.3	**180**	**74.1**
Northampton	3	24.2	2	16.1	2	16.1	1	8.1	0	0.0	**8**	**64.6**

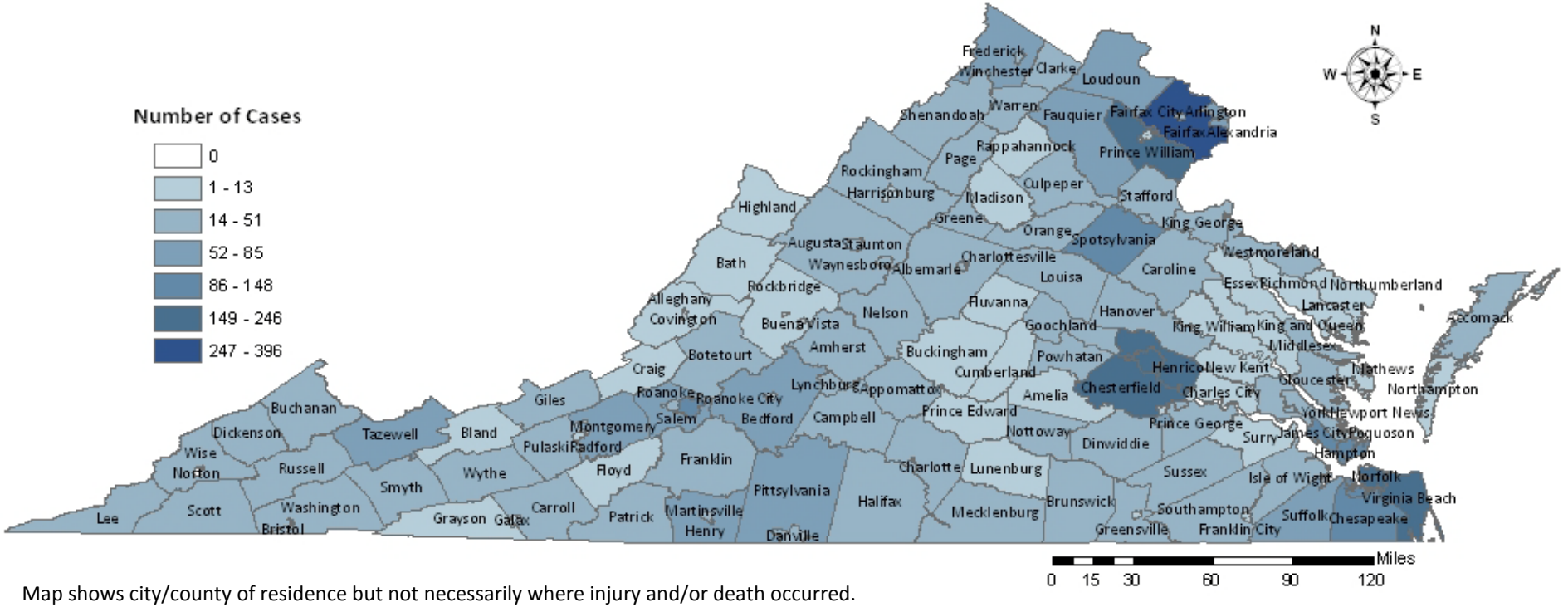
Manner of Death

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
Northumberland	5	40.6	0	0.0	1	8.1	4	32.4	0	0.0	**10**	**81.1**
Norton	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	**0**	**0.0**
Nottoway	3	18.9	0	0.0	9	56.8	3	18.9	0	0.0	**15**	**94.6**
Orange	17	50.8	2	6.0	7	20.9	4	11.9	0	0.0	**30**	**89.6**
Page	9	37.4	1	4.2	3	12.5	3	12.5	0	0.0	**16**	**66.6**
Patrick	6	32.4	0	0.0	2	10.8	6	32.4	2	10.8	**16**	**86.5**
Petersburg	12	37.0	12	37.0	27	83.3	4	12.3	4	12.3	**59**	**182.0**
Pittsylvania	28	44.1	4	6.3	23	36.2	8	12.6	0	0.0	**63**	**99.2**
Poquoson	1	8.2	0	0.0	2	16.5	1	8.2	0	0.0	**4**	**32.9**
Portsmouth	22	23.0	14	14.7	40	41.9	14	14.7	3	3.1	**93**	**97.3**
Powhatan	5	17.8	1	3.6	11	39.2	7	25.0	0	0.0	**24**	**85.6**
Prince Edward	7	30.0	0	0.0	3	12.8	3	12.8	0	0.0	**13**	**55.6**
Prince George	9	25.2	0	0.0	7	19.6	6	16.8	0	0.0	**22**	**61.6**
Prince William	77	19.2	10	2.5	54	13.4	44	10.9	9	2.2	**194**	**48.3**
Pulaski	22	63.1	2	5.7	11	31.5	9	25.8	2	5.7	**46**	**131.9**
Radford	3	18.3	1	6.1	3	18.3	1	6.1	0	0.0	**8**	**48.8**
Rappahannock	6	81.4	1	13.6	2	27.1	1	13.6	0	0.0	**10**	**135.6**
Richmond City	57	27.9	43	21.1	80	39.2	21	10.3	9	4.4	**210**	**102.8**
Richmond	3	32.4	1	10.8	2	21.6	1	10.8	1	10.8	**8**	**86.4**
Roanoke City	38	39.2	10	10.3	26	26.8	18	18.6	3	3.1	**95**	**97.9**
Roanoke	16	17.3	3	3.2	20	21.7	21	22.7	1	1.1	**61**	**66.0**
Rockbridge	5	22.4	1	4.5	3	13.4	4	17.9	0	0.0	**13**	**58.3**
Rockingham	17	22.3	0	0.0	7	9.2	10	13.1	1	1.3	**35**	**45.9**
Russell	16	55.4	0	0.0	14	48.4	4	13.8	2	6.9	**36**	**124.6**
Salem	6	24.2	1	4.0	7	28.2	1	4.0	1	4.0	**16**	**64.5**
Scott	5	21.6	0	0.0	4	17.3	5	21.6	0	0.0	**14**	**60.4**
Shenandoah	10	23.8	0	0.0	6	14.3	5	11.9	1	2.4	**22**	**52.4**
Smyth	11	34.2	0	0.0	13	40.4	3	9.3	1	3.1	**28**	**86.9**
Southampton	7	37.7	2	10.8	15	80.8	4	21.5	1	5.4	**29**	**156.2**
Spotsylvania	39	31.9	4	3.3	20	16.3	24	19.6	2	1.6	**89**	**72.7**

Manner of Death

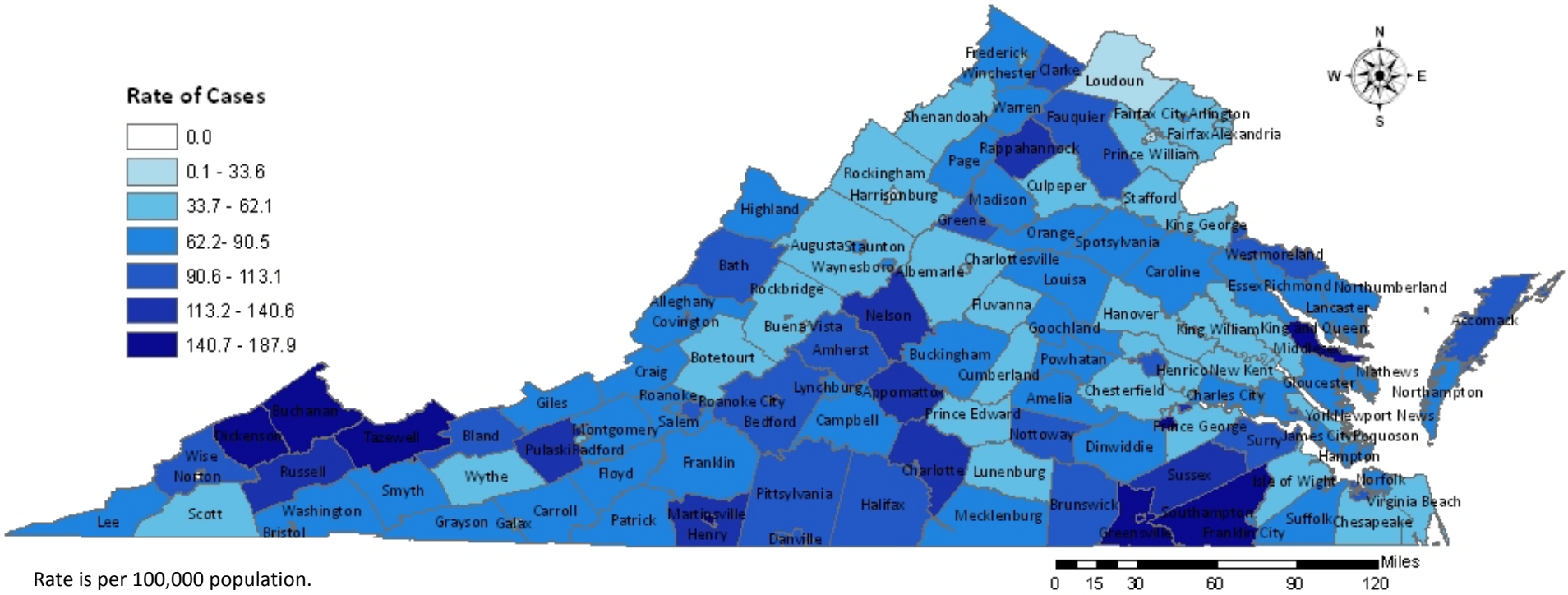
County/City of Residence	Accident Total	Accident Rate	Homicide Total	Homicide Rate	Natural Total	Natural Rate	Suicide Total	Suicide Rate	Undetermined Total	Undetermined Rate	Total	Total Rate
Stafford	18	14.0	2	1.6	21	16.3	8	6.2	2	1.6	**51**	**39.5**
Staunton	7	29.5	2	8.4	5	21.1	4	16.8	0	0.0	**18**	**75.8**
Suffolk	26	30.7	7	8.3	22	26.0	7	8.3	0	0.0	**62**	**73.3**
Surry	3	42.5	2	28.3	1	14.2	1	14.2	0	0.0	**7**	**99.2**
Sussex	8	66.2	1	8.3	6	49.6	2	16.5	0	0.0	**17**	**140.6**
Tazewell	27	59.9	6	13.3	23	51.0	5	11.1	5	11.1	**66**	**146.4**
Virginia Beach	83	19.0	18	4.1	79	18.0	64	14.6	2	0.5	**246**	**56.2**
Warren	18	47.9	0	0.0	10	26.6	5	13.3	1	2.7	**34**	**90.5**
Washington	18	32.8	2	3.6	15	27.3	8	14.6	2	3.6	**45**	**82.0**
Waynesboro	8	38.1	1	4.8	7	33.3	2	9.5	0	0.0	**18**	**85.7**
Westmoreland	7	40.1	1	5.7	9	51.6	2	11.5	0	0.0	**19**	**108.9**
Williamsburg	3	21.3	0	0.0	5	35.5	6	42.6	0	0.0	**14**	**99.5**
Winchester	5	19.1	0	0.0	6	22.9	4	15.3	0	0.0	**15**	**57.2**
Wise	22	53.1	1	2.4	12	28.9	6	14.5	2	4.8	**43**	**103.7**
Wythe	10	34.2	0	0.0	5	17.1	1	3.4	1	3.4	**17**	**58.1**
York	10	15.3	0	0.0	4	6.1	8	12.2	2	3.1	**24**	**36.7**
Total for State Residents	**1953**	**24.4**	**369**	**4.6**	**1712**	**21.4**	**960**	**12.0**	**143**	**1.8**	**5137**	**64.2**
Out of Country	7	ND*	1	ND	7	ND	0	ND	0	ND	**15**	**ND**
Out of State	187	ND	20	ND	164	ND	35	ND	6	ND	**412**	**ND**
Unknown	1	ND	1	ND	1	ND	1	ND	2	ND	**6**	**ND**
Total for Non-Residents	**195**	**ND**	**22**	**ND**	**172**	**ND**	**36**	**ND**	**8**	**ND**	**433**	**ND**
TOTAL	**2148**	**ND**	**391**	**ND**	**1884**	**ND**	**996**	**ND**	**151**	**ND**	**5570**	**ND**

Figure 11. Total Cases by City/County of Residence, 2010



Map shows city/county of residence but not necessarily where injury and/or death occurred.
A total of 433 cases were from non-Virginia residents or where residency was unknown.

Figure 12. Rate of Total Cases by City/County of Residence, 2010



Rate is per 100,000 population.
Map shows city/county of residence but not necessarily where injury and/or death occurred.
A total of 433 cases were from non-Virginia residents or where residency was unknown.

Table 9. Total Cases by Manner by City/County of Injury/Acute Illness, 2010

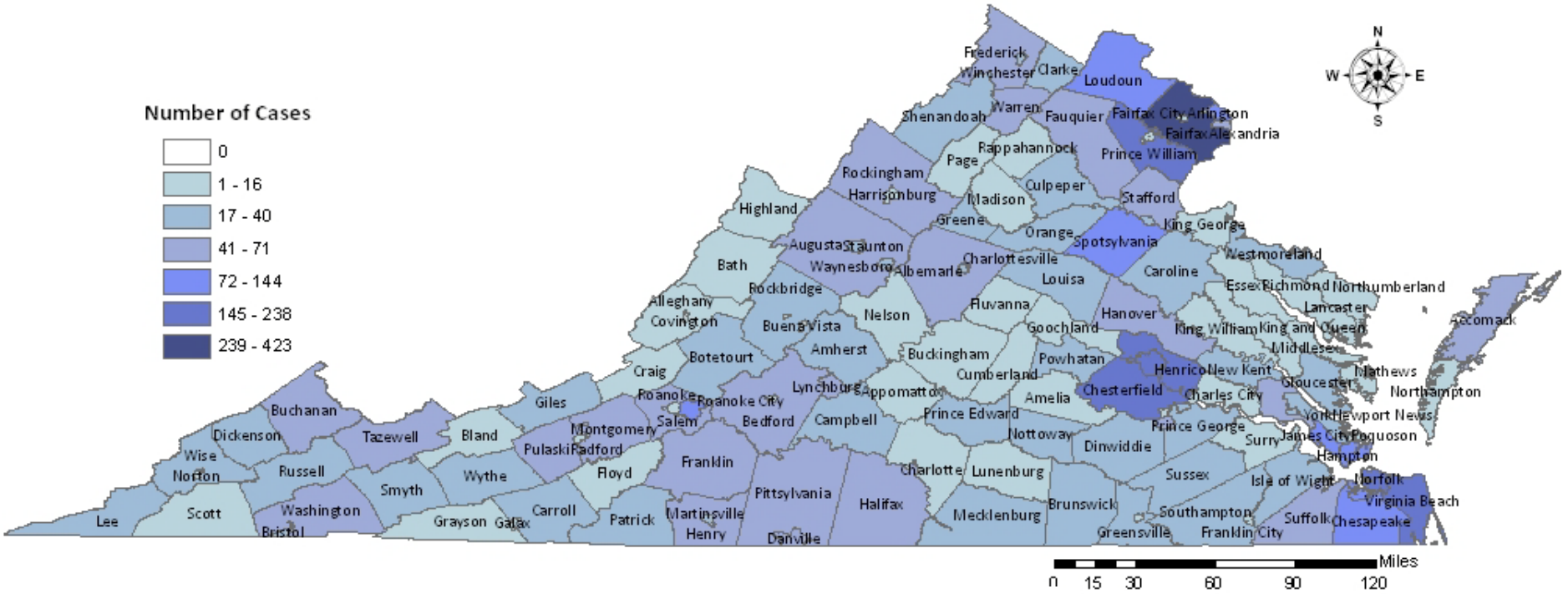
	Manner of Death					
County/City of Injury/Acute Illness	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Accomack	18	3	13	6	1	**41**
Albemarle	28	2	17	6	0	**53**
Alexandria	14	2	32	14	2	**64**
Alleghany	6	1	1	6	0	**14**
Amelia	4	1	2	1	1	**9**
Amherst	5	0	23	7	0	**35**
Appomattox	3	8	2	3	0	**16**
Arlington	27	0	42	21	0	**90**
Augusta	31	2	14	11	0	**58**
Bath	3	0	1	0	0	**4**
Bedford City	4	0	2	2	0	**8**
Bedford	31	2	16	14	3	**66**
Bland	4	0	0	1	0	**5**
Botetourt	11	1	6	2	0	**20**
Bristol	7	1	5	3	1	**17**
Brunswick	13	0	10	3	0	**26**
Buchanan	23	3	11	10	1	**48**
Buckingham	5	0	6	3	0	**14**
Buena Vista	0	0	0	1	0	**1**
Campbell	17	2	6	6	1	**32**
Caroline	13	0	9	5	1	**28**
Carroll	7	1	10	9	0	**27**
Charles City	7	0	1	2	0	**10**
Charlotte	6	0	5	2	0	**13**
Charlottesville	12	3	11	3	1	**30**
Chesapeake	43	14	53	26	5	**141**
Chesterfield	70	10	61	34	1	**176**
Clarke	10	0	3	3	1	**17**
Colonial Heights	2	0	2	2	0	**6**
Covington	0	1	4	0	0	**5**
Craig	2	0	3	0	0	**5**
Culpeper	14	0	9	5	1	**29**
Cumberland	2	0	2	0	0	**4**
Danville	20	9	14	7	0	**50**
Dickenson	11	1	4	7	1	**24**
Dinwiddie	10	2	7	7	1	**27**
Emporia	3	1	6	1	1	**12**
Essex	5	0	3	3	0	**11**

	Manner of Death					
County/City of Injury/Acute Illness	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Fairfax City	5	0	4	4	0	**13**
Fairfax	152	16	156	87	12	**423**
Falls Church	1	0	1	1	0	**3**
Fauquier	32	1	14	14	5	**66**
Floyd	5	0	1	4	1	**11**
Fluvanna	6	0	3	2	0	**11**
Franklin City	2	1	3	1	0	**7**
Franklin	21	3	16	3	1	**44**
Frederick	27	1	14	8	3	**53**
Fredericksburg	11	0	4	4	1	**20**
Galax	0	0	1	3	0	**4**
Giles	10	0	3	3	1	**17**
Gloucester	20	1	9	8	0	**38**
Goochland	8	1	5	2	0	**16**
Grayson	5	0	5	2	1	**13**
Greene	7	0	7	4	0	**18**
Greensville	6	4	25	2	1	**38**
Halifax	20	2	13	5	1	**41**
Hampton	35	17	44	9	4	**109**
Hanover	18	1	17	6	0	**42**
Harrisonburg	4	1	2	6	0	**13**
Henrico	70	12	48	30	3	**163**
Henry	26	7	19	16	3	**71**
Highland	2	0	0	1	0	**3**
Hopewell	7	2	11	3	1	**24**
Isle of Wight	13	0	7	2	0	**22**
James City	13	0	20	9	0	**42**
King and Queen	2	0	1	1	0	**4**
King George	2	0	7	6	1	**16**
King William	2	0	5	0	0	**7**
Lancaster	2	3	2	2	0	**9**
Lee	8	4	9	2	1	**24**
Lexington	4	0	2	0	0	**6**
Loudoun	32	1	30	20	5	**88**
Louisa	14	3	7	9	0	**33**
Lunenburg	2	0	2	1	0	**5**
Lynchburg	25	3	12	9	3	**52**
Madison	5	1	4	3	0	**13**
Manassas	4	1	2	1	0	**8**
Martinsville	7	3	8	1	0	**19**
Mathews	2	0	3	1	0	**6**

	Manner of Death					
County/City of Injury/Acute Illness	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Mecklenburg	10	2	10	8	2	**32**
Middlesex	6	0	7	1	0	**14**
Montgomery	30	2	23	9	2	**66**
Nelson	6	1	3	4	0	**14**
New Kent	12	0	5	1	0	**18**
Newport News	40	23	54	20	7	**144**
Norfolk	49	34	85	29	7	**204**
Northampton	5	2	2	1	0	**10**
Northumberland	6	0	1	4	0	**11**
Norton	2	0	2	0	0	**4**
Nottoway	6	1	16	3	0	**26**
Orange	14	1	6	4	0	**25**
Page	8	1	3	4	0	**16**
Patrick	8	0	2	7	1	**18**
Petersburg	13	13	31	4	1	**62**
Pittsylvania	25	4	23	9	0	**61**
Poquoson	1	0	2	0	0	**3**
Portsmouth	23	14	31	16	3	**87**
Powhatan	3	1	21	8	0	**33**
Prince Edward	11	0	4	3	0	**18**
Prince George	12	2	7	5	0	**26**
Prince William	75	10	52	42	8	**187**
Pulaski	19	2	14	9	2	**46**
Radford	8	1	2	2	0	**13**
Rappahannock	6	1	3	3	0	**13**
Richmond City	66	44	92	21	9	**232**
Richmond	4	0	2	2	1	**9**
Roanoke City	36	8	25	18	3	**90**
Roanoke	17	6	24	20	1	**68**
Rockbridge	7	1	4	5	0	**17**
Rockingham	18	0	10	12	1	**41**
Russell	16	0	16	5	2	**39**
Salem	8	1	4	2	1	**16**
Scott	5	1	4	5	0	**15**
Shenandoah	12	0	7	5	0	**24**
Smyth	12	0	18	3	1	**34**
Southampton	11	1	20	4	1	**37**
Spotsylvania	43	6	23	22	1	**95**
Stafford	21	2	20	5	1	**49**
Staunton	5	2	6	4	0	**17**
Suffolk	30	4	19	5	0	**58**

	Manner of Death					
County/City of Injury/Acute Illness	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Surry	6	2	0	1	0	**9**
Sussex	12	0	3	4	0	**19**
Tazewell	25	4	27	6	5	**67**
Virginia Beach	77	15	78	64	4	**238**
Warren	25	0	10	5	2	**42**
Washington	21	2	18	10	3	**54**
Waynesboro	7	2	7	2	0	**18**
Westmoreland	11	0	9	2	0	**22**
Williamsburg	2	0	17	8	0	**27**
Winchester	7	0	8	6	1	**22**
Wise	22	1	10	5	2	**40**
Wythe	13	0	6	2	1	**22**
York	15	0	9	11	1	**36**
Total for In-State	**2080**	**376**	**1867**	**991**	**145**	**5459**
Out of State	54	6	11	4	2	**77**
Unknown	14	9	6	1	4	**34**
Total for Non-Residents	**68**	**15**	**17**	**5**	**6**	**111**
TOTAL	**2148**	**391**	**1884**	**996**	**151**	**5570**

Figure 13. Total Cases by City/County of Injury/Acute Illness, 2010



Map shows city/county of injury but not necessarily residency and/or where death occurred.
A total of 111 cases had the fatal injury or acute illness location occur outside of Virginia borders or was unknown.

Table 10. Total Cases by Manner by City/County of Death, 2010

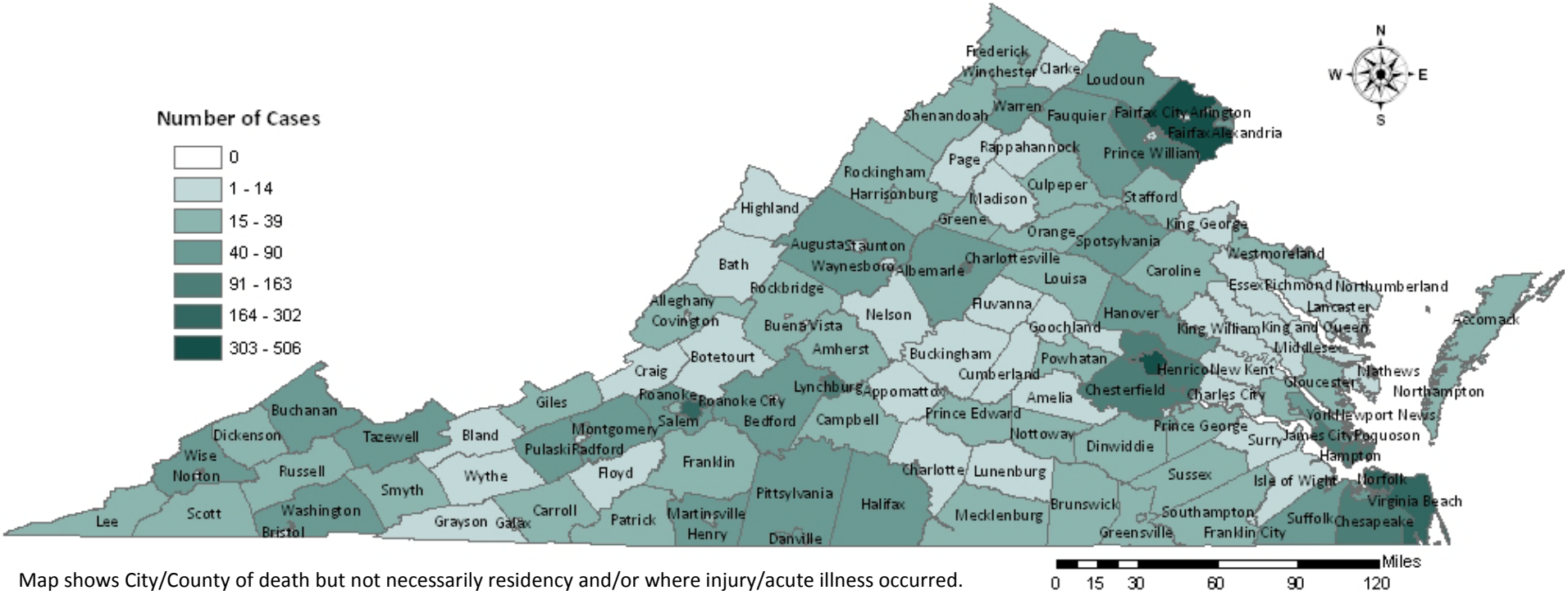
County/City of Death	Manner of Death					
	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Accomack	15	2	9	5	0	**31**
Albemarle	20	3	15	5	0	**43**
Alexandria	16	2	33	12	2	**65**
Alleghany	5	2	2	6	0	**15**
Amelia	2	0	2	0	1	**5**
Amherst	3	0	11	7	0	**21**
Appomattox	0	7	1	2	0	**10**
Arlington	30	0	42	20	1	**93**
Augusta	24	3	15	8	0	**50**
Bath	1	0	1	0	0	**2**
Bedford City	3	0	1	2	1	**7**
Bedford	19	2	15	9	2	**47**
Bland	4	1	0	1	0	**6**
Botetourt	5	0	3	2	0	**10**
Bristol	6	1	4	3	0	**14**
Brunswick	9	0	5	3	0	**17**
Buchanan	22	3	10	9	1	**45**
Buckingham	3	0	3	2	0	**8**
Buena Vista	0	0	0	1	0	**1**
Campbell	4	2	4	5	1	**16**
Caroline	7	0	5	4	0	**16**
Carroll	5	1	8	7	0	**21**
Charles City	5	1	1	3	0	**10**
Charlotte	2	0	4	0	0	**6**
Charlottesville	74	5	18	11	1	**109**
Chesapeake	35	9	46	25	3	**118**
Chesterfield	53	6	54	32	1	**146**
Clarke	7	0	2	2	0	**11**
Colonial Heights	0	0	0	2	0	**2**
Covington	0	1	3	0	0	**4**
Craig	1	0	3	0	0	**4**
Culpeper	10	0	8	5	1	**24**
Cumberland	1	0	2	0	0	**3**
Danville	30	7	24	7	0	**68**
Dickenson	11	2	3	7	0	**23**
Dinwiddie	9	2	7	7	1	**26**
Emporia	3	2	18	1	2	**26**
Essex	5	1	5	3	0	**14**

County/City of Death	Manner of Death					Total
	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	
Fairfax City	1	0	2	3	0	**6**
Fairfax	212	19	164	96	15	**506**
Falls Church	0	0	1	1	0	**2**
Fauquier	27	1	14	14	5	**61**
Floyd	4	0	1	4	1	**10**
Fluvanna	2	0	3	2	0	**7**
Franklin City	0	1	8	1	1	**11**
Franklin	14	4	16	2	0	**36**
Frederick	17	1	13	5	2	**38**
Fredericksburg	47	3	17	8	3	**78**
Galax	1	0	3	5	1	**10**
Giles	8	0	3	3	1	**15**
Gloucester	17	1	10	7	0	**35**
Goochland	5	1	5	2	0	**13**
Grayson	5	0	5	2	0	**12**
Greene	7	0	6	3	0	**16**
Greensville	6	3	7	2	0	**18**
Halifax	16	2	12	7	2	**39**
Hampton	28	9	48	8	5	**98**
Hanover	16	2	23	6	0	**47**
Harrisonburg	6	1	2	5	1	**15**
Henrico	59	9	40	25	2	**135**
Henry	16	6	13	13	1	**49**
Highland	2	0	0	1	0	**3**
Hopewell	7	2	10	3	0	**22**
Isle of Wight	8	0	3	2	0	**13**
James City	10	0	13	8	0	**31**
King and Queen	1	0	1	1	0	**3**
King George	1	0	3	5	0	**9**
King William	2	0	3	0	0	**5**
Lancaster	4	2	2	2	0	**10**
Lee	7	4	9	2	1	**23**
Lexington	3	0	2	0	0	**5**
Loudoun	21	1	26	18	5	**71**
Louisa	10	3	7	8	0	**28**
Lunenburg	1	0	2	1	0	**4**
Lynchburg	48	4	29	13	3	**97**
Madison	3	1	4	3	0	**11**
Manassas	8	0	2	2	0	**12**
Martinsville	13	4	14	1	1	**33**
Mathews	1	0	2	1	0	**4**

	Manner of Death					
County/City of Death	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Mecklenburg	9	2	12	8	1	**32**
Middlesex	3	0	7	1	0	**11**
Montgomery	22	2	25	8	2	**59**
Nelson	4	1	3	4	0	**12**
New Kent	7	0	3	1	0	**11**
Newport News	49	30	52	26	6	**163**
Norfolk	109	47	99	35	12	**302**
Northampton	4	2	6	2	1	**15**
Northumberland	4	0	0	3	0	**7**
Norton	3	0	3	0	0	**6**
Nottoway	4	0	12	2	0	**18**
Orange	11	1	6	4	0	**22**
Page	4	1	2	4	0	**11**
Patrick	6	0	2	6	2	**16**
Petersburg	18	11	35	4	1	**69**
Pittsylvania	13	4	15	8	0	**40**
Poquoson	0	0	1	0	0	**1**
Portsmouth	17	13	38	14	2	**84**
Powhatan	1	1	14	8	0	**24**
Prince Edward	10	1	9	3	0	**23**
Prince George	7	2	6	5	0	**20**
Prince William	49	8	52	37	5	**151**
Pulaski	14	2	13	9	2	**40**
Radford	7	1	1	2	0	**11**
Rappahannock	3	1	3	3	0	**10**
Richmond City	153	56	126	34	15	**384**
Richmond	1	0	0	1	1	**3**
Roanoke City	115	14	33	33	6	**201**
Roanoke	6	4	18	18	1	**47**
Rockbridge	6	1	5	5	0	**17**
Rockingham	12	0	10	12	0	**34**
Russell	15	0	15	5	2	**37**
Salem	12	1	8	4	0	**25**
Scott	5	1	4	5	0	**15**
Shenandoah	9	0	7	5	1	**22**
Smyth	13	0	18	3	1	**35**
Southampton	8	1	14	3	0	**26**
Spotsylvania	23	6	22	20	0	**71**
Stafford	13	1	15	5	1	**35**
Staunton	4	0	3	4	0	**11**
Suffolk	23	3	22	5	0	**53**

	Manner of Death					
County/City of Death	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Surry	6	2	0	1	0	**9**
Sussex	9	0	3	3	0	**15**
Tazewell	24	3	29	6	5	**67**
Virginia Beach	71	13	72	60	3	**219**
Warren	22	0	10	5	2	**39**
Washington	19	2	18	10	3	**52**
Waynesboro	3	1	6	1	0	**11**
Westmoreland	6	0	9	2	0	**17**
Williamsburg	2	0	10	8	0	**20**
Winchester	30	0	11	10	2	**53**
Wise	22	0	10	6	3	**41**
Wythe	7	0	5	1	0	**13**
York	14	0	25	9	1	**49**
Total for In-State	**2144**	**388**	**1882**	**994**	**149**	**5557**
Out of State	4	2	2	2	1	**11**
Unknown	0	1	0	0	1	**2**
Total for Non-Residents	**4**	**3**	**2**	**2**	**2**	**13**
TOTAL	**2148**	**391**	**1884**	**996**	**151**	**5570**

Figure 14. Total Cases by City/County of Death, 2010



Map shows City/County of death but not necessarily residency and/or where injury/acute illness occurred.
A total of 13 cases occurred outside of Virginia borders, ex. death at sea.

Table 11. Total Cases by Cause of Death, 2010

Natural Deaths	Total Cases	Autopsied
Pulmonary Diseases/Disorders	**160**	**76**
Asthma	5	1
COPD	23	2
Emboli	44	38
Pneumonia	63	28
Pulmonary Malignancy	20	4
Other Pulmonary Disease/Disorder	5	3
Central Nervous System Diseases/Disorders	**100**	**60**
Seizure Disorder	24	16
Vascular Disease	47	30
Degenerative Disease	9	1
Meningitis (Bacterial or Viral)	3	3
CNS Malignancy	3	2
Other CNS Disease/Disorder	14	8
Cardiovascular Diseases/Disorders	**1274**	**443**
Atherosclerosis	647	135
Hypertension	206	72
Atherosclerosis & Hypertension	204	127
Congenital Defect	14	12
Vascular Dissection/Ruptures	10	7
Valvular	14	14
Acute Coronary Insufficiency	98	3
Cardiac Dysrythmia of Undetermined Etiology	16	15
Cardiomyopathy NOS	24	24
Arrythmogenic Right Ventricular Dysplasia	4	4
Other Cardiac Disease/Disorder	37	30
Gastrointestinal Diseases/Disorders	**70**	**20**
GI Hemorrhage	17	2
Cirrhosis	10	3
Hepatitis	7	0
GI Malignancy	20	9
Other GI Disease/Disorder	16	6
Genitourinal Diseases/Disorders	**16**	**9**
Renal Disease	8	4
Genitourinal Malignancy	7	5
Other GU Disease/Disorder	1	0
Perinatal and Pediatric Diseases/Disorders	**32**	**30**
Maternal Complications	3	3
Fetal Complications	3	3
Sudden Infant Death Syndrome (SIDS)	14	14
Other Perinatal or Pediatric Disorder	12	10
Systemic Diseases/Disorders	**211**	**81**
Blood Disorders	5	4

Diabetes	50	15
AIDS/HIV	7	0
Sepsis	10	6
Other Infectious Disease	6	5
Metastatic Malignancy Unknown Primary	4	0
Chronic Alcoholism	107	43
Chronic Drug Abuse	3	1
Other Systemic Disease/Disorder	19	7
Other Natural Diseases/Disorders	**21**	**10**
Other Malignancy	10	4
Other Natural Disease/Disorder	11	6
Natural Subtotal	**1884**	**729**
Unnatural Deaths	**Total Cases**	**Autopsied**
Asphyxia	**435**	**180**
Choking (Aspiration: Food or Foreign Object)	23	6
Drowning	102	66
Hanging	192	52
Mechanical	22	9
Positional	4	2
Strangulation/Neck Compression	15	13
Suffocation/Smothering	16	15
Oxygen Replacement/Displacement	2	0
Helium	15	3
Plastic Bag	11	3
CO Poisoning (MV Exhaust)	11	2
CO Poisoning (Other)	15	3
Other Asphyxia	7	6
Electrocution	**11**	**8**
High Voltage	8	7
Low Voltage	3	1
Exposure	**44**	**30**
Hyperthermia	13	6
Hypothermia	31	24
Fire Injuries	**98**	**52**
Thermal Burns	19	1
Inhalation of Combustion Products	28	14
Thermal Burns & Inhalation of Combustions Products	51	37
Judicial Execution	**3**	**2**
Lethal Injection	2	2
Electrocution	1	0
Gunshot Wound	**867**	**860**
Head/Neck	601	597
Chest	124	122
Abdomen	13	13
Torso	81	81

Extremities	4	4
Multiple	44	43
Blunt Force Injuries	**1386**	**245**
Head/Neck	648	110
Chest	85	14
Abdomen	25	7
Torso	67	24
Extremities	140	12
Multiple	421	78
Penetrating Injuries	**53**	**51**
Incised	7	6
Stab	43	42
Other Penetrating Injuries	3	3
Substance Abuse	**692**	**580**
Ethanol Poisoning	21	16
Prescription Drug Poisoning	479	412
Illegal (Street) Drug Poisoning	84	68
Mixed Category Drug Poisoning	85	68
Inhalant Poisoning	4	3
OTC Poisoning	14	10
Ethylene Glycol Poisoning	3	2
Not Otherwise Specified Poisoning	2	1
Other Unnatural Deaths	**13**	**7**
Other Unnatural	13	7
Unnatural Subtotal	**3602**	**2015**
Undetermined Deaths	**Total Cases**	**Autopsied**
Undetermined After Autopsy and/or Investigation	**84**	**82**
Sudden Unexpected Infant Death (SUID)	60	60
Skeletal/Mummified Remains	9	8
Other Undetermined	15	14
Undetermined Subtotal	**84**	**82**
TOTAL	**5570**	**2826**

SECTION 3: MANNER OF DEATH

NATURAL DEATH (N=1884)

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 as the individuals may not have had a primary care physician.

- Natural deaths accounted for 33.8% of all deaths investigated by the OCME in 2010
- The number of natural deaths investigated by the OCME continues to decline, likely due to a policy instituted by OCME and VDH in which local health directors, not local MEs, are called by funeral homes for assistance when a private practice physician is delinquent in signing natural deaths certificates on their private patients

Figure 15. Natural Deaths & Rate by Year of Death, 1999-2010

Figure 16. Natural Deaths by Age Group by Gender, 2010

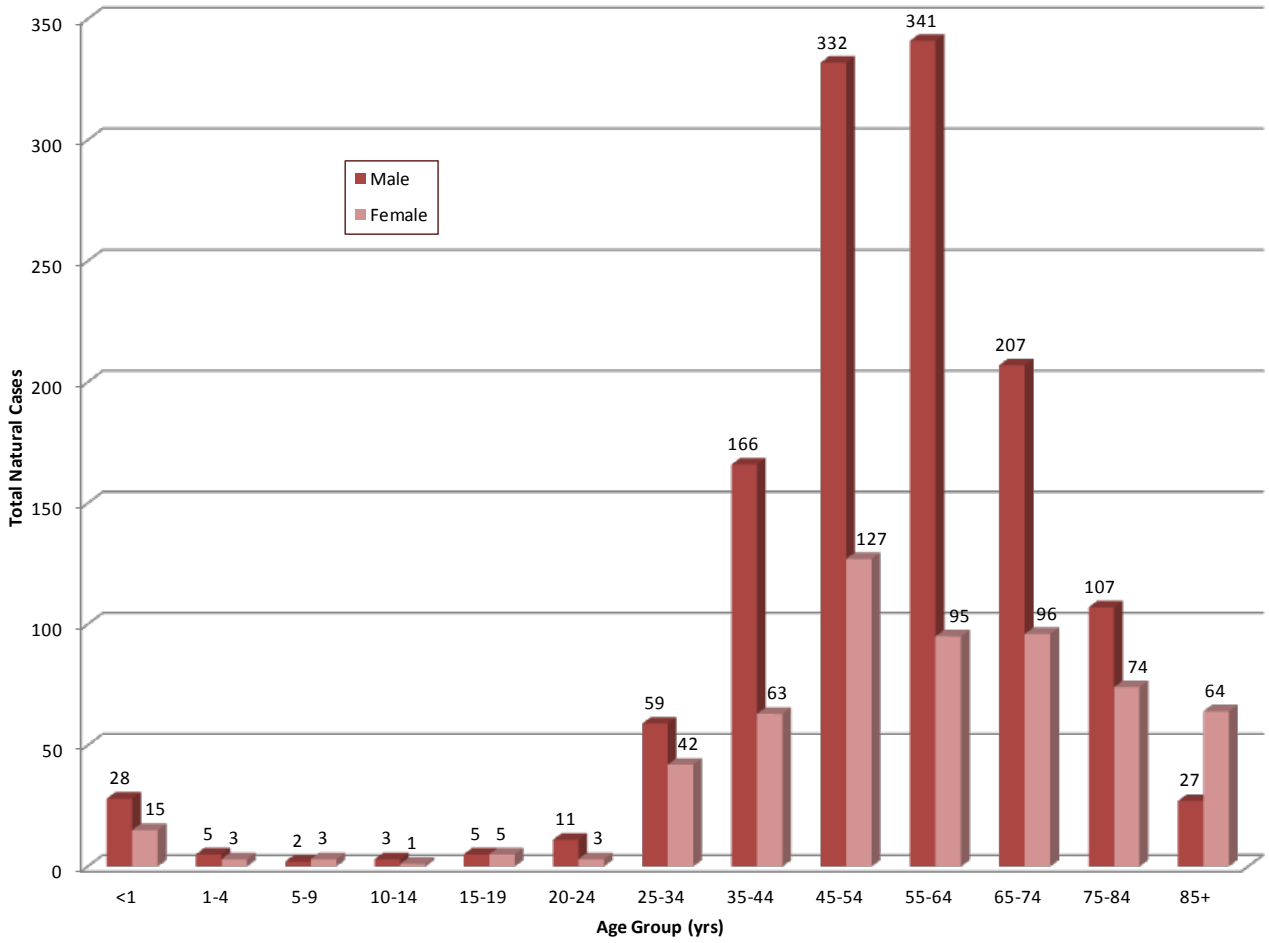
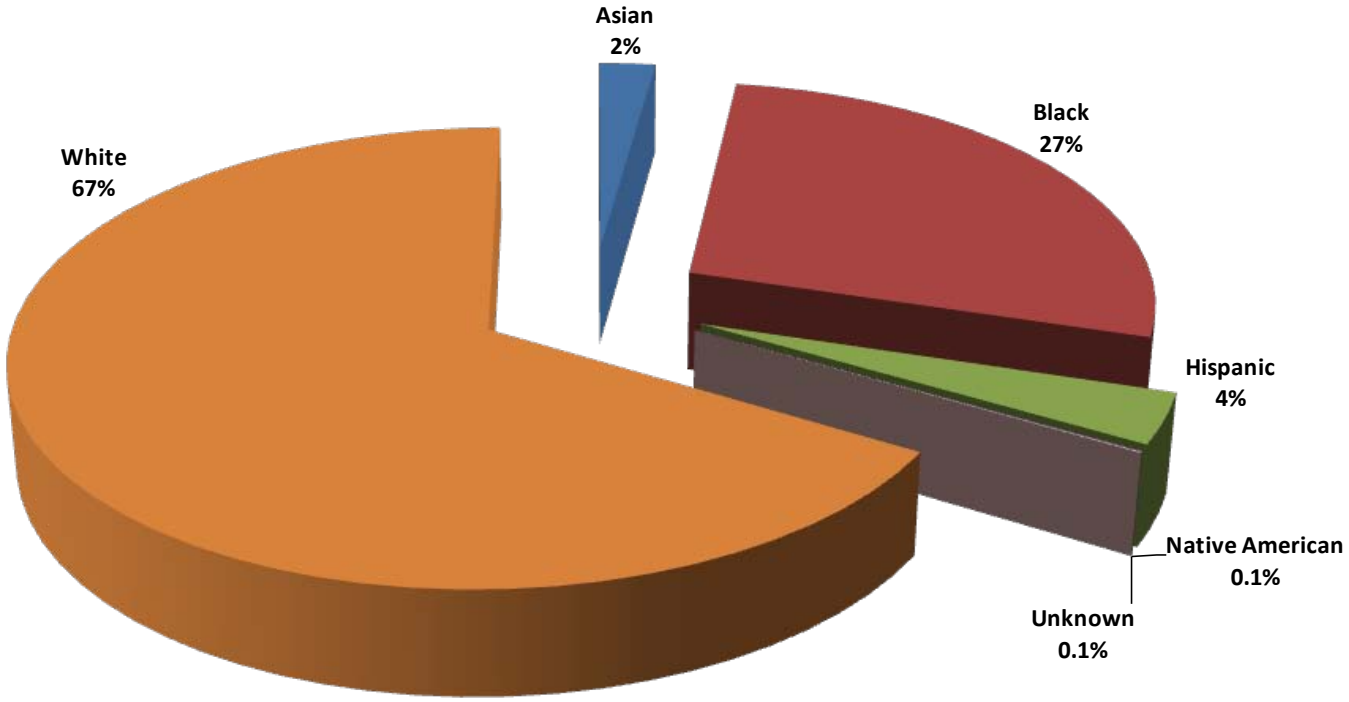


Figure 17. Natural Deaths by Race/Ethnicity, 2010



ACCIDENTAL DEATHS (N=2148)

Accidents account for 38.6 percent of the deaths investigated by the OCME in 2010: the greatest proportion of deaths by any manner.

- The total number of accidental deaths has decreased for the third year in a row mainly due to the decrease in motor vehicle deaths
- Motor vehicle deaths still remained the most common cause of accidental deaths with 37.4 percent of all accidents followed by drug use with 24.1 percent
- Seniors, 85 and older, had the highest rate of accidental falls (151 per 100,000); a substantial increase from 2009

Figure 18. Accidental Deaths & Rate by Year of Death, 1999-2010

Figure 19. Accidental Deaths by Age Group by Gender, 2010

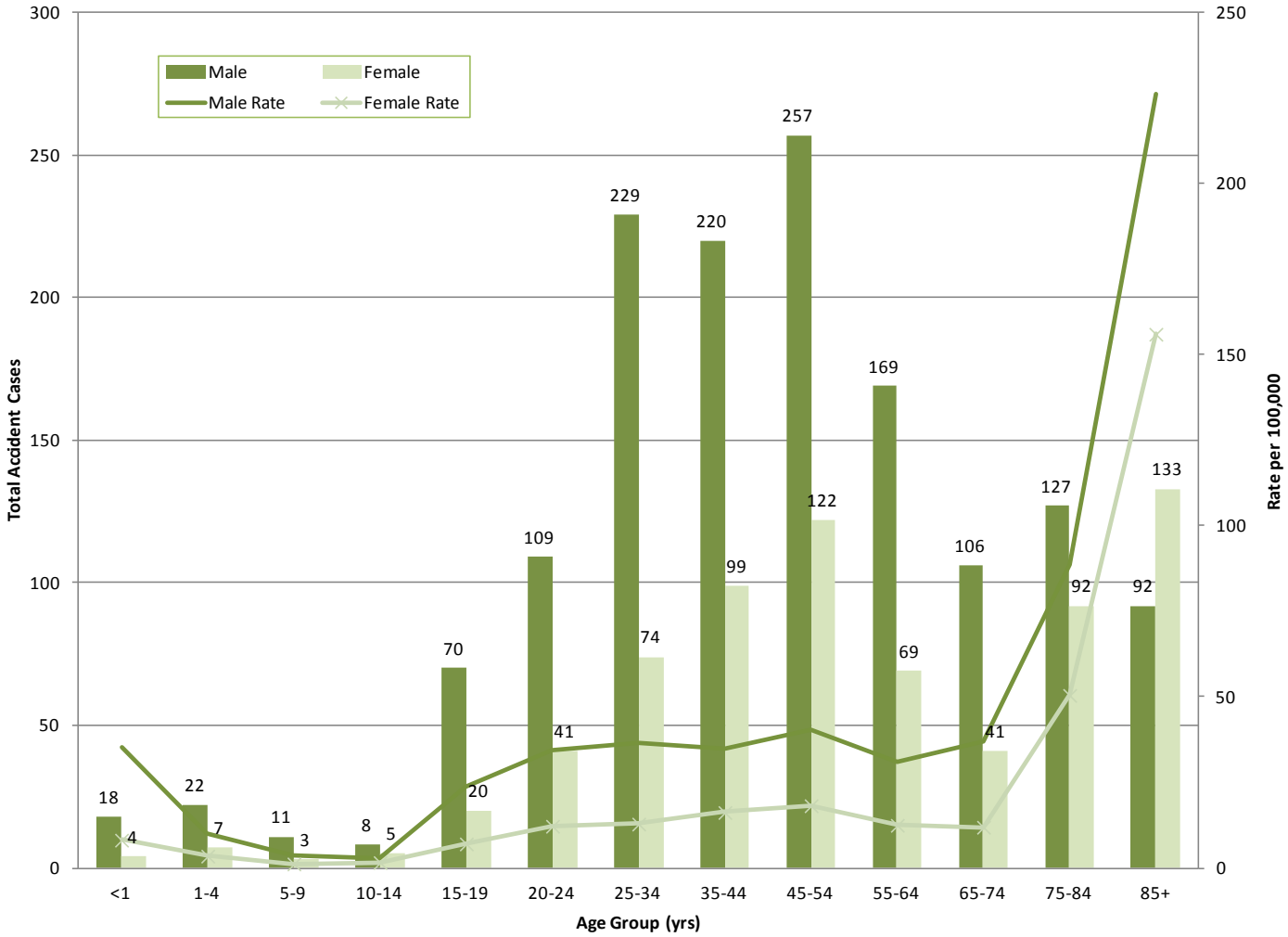


Figure 20. Accidental Deaths by Race/Ethnicity, 2010

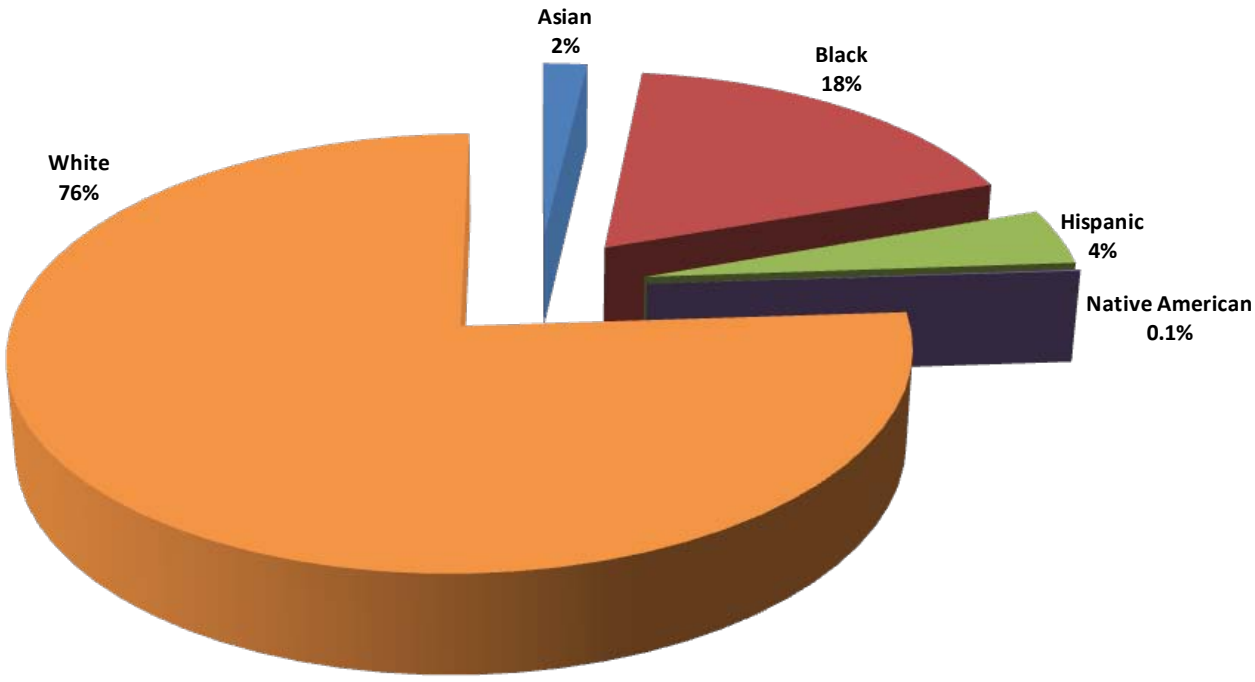


Table 12. Accidental Deaths by Method of Death, 2010

Method of Death		Total Cases	Autopsied
Asphyxia			
	Choked on food/foreign object	23	6
	Drowned	80	47
	Hanging	8	5
	Mechanical/Positional	10	6
	Other	3	2
	Strangled	1	0
	Suffocation/Smothering	14	14
Drug Use			
	Ingested ethanol or other alcohol	21	16
	Ingested and/or injected illicit, prescription, and/or other type of drug	517	435
Electrical			
	Contacted electrical current	11	8
Exposure			
	Exposed to cold	30	23
	Exposed to heat	13	6
Fall/Jump			
	Fall/jump from any height	476	52
Fire			
	Inhalation of Combustion Products	27	13
	Thermal Burns	16	0
	Thermal Burns & Inhalation of Combustion Products	34	22
Motor Vehicle			
	Aircraft	8	8
	All terrain vehicle	14	1
	Bicycle	17	2
	Boat	5	3
	Bus	2	0
	Car	375	47
	Construction equipment	4	4
	Farm equipment	11	1
	Golf cart	2	0
	Lawnmower	3	1
	Mo-ped	14	1
	Motorcycle	84	12
	Multiple vehicles	2	0
	Pickup truck	92	0
	Recreational Vehicle	1	9
	Skateboard	1	0
	Sport utility vehicle	83	7
	Tractor trailer	23	10
	Train	5	3
	Truck other	12	5

Method of Death	Total Cases	Autopsied
Van	37	7
Unknown	8	3
Poisoned		
Inhaled toxic agent (ex. Carbon monoxide)	11	6
Ingested toxic agent	1	0
Traumatic Injury		
Accidental discharge of firearm	5	5
Rifle	(1)	(1)
Shotgun	(4)	(4)
Beatings/Blows	4	2
Explosion	2	1
Falling object	25	4
Unknown/Other		
Accidental - Unknown/Other	13	8
TOTAL	**2148**	**805**

Table 13. Top 5 Accidental Methods of Death by Age Group with Corresponding Rates, 2010

	Method of Death				
Age Group	Fire/Smoke Inhalation (Rate)	Drowning (Rate)	Fall (Rate)	Drug Use (Rate)	Motor Vehicle (Rate)
<1	1 (1.0)	0 (0.0)	0 (0.0)	0 (0.0)	4 (4.0)
1-4	6 (1.5)	9 (2.2)	1 (0.2)	0 (0.0)	8 (2.0)
5-9	2 (0.4)	4 (0.8)	0 (0.0)	0 (0.0)	6 (1.2)
10-14	1 (0.2)	1 (0.2)	0 (0.0)	1 (0.2)	6 (1.2)
15-19	1 (0.2)	5 (0.9)	1 (0.2)	13 (2.4)	68 (12.3)
20-24	4 (0.7)	8 (1.4)	5 (0.9)	39 (6.8)	84 (14.7)
25-34	2 (0.2)	10 (0.9)	13 (1.2)	130 (11.9)	128 (11.7)
35-44	3 (0.3)	12 (1.1)	11 (1.0)	133 (12.0)	132 (11.9)
45-54	14 (1.2)	8 (0.7)	34 (2.8)	152 (12.0)	129 (10.6)
55-64	14 (1.5)	11 (0.2)	39 (4.1)	45 (12.5)	92 (9.6)
65-74	13 (2.4)	6 (1.1)	48 (8.7)	4 (4.7)	62 (11.3)
75-84	8 (2.6)	5 (1.6)	139 (45.6)	0 (0.0)	57 (18.7)
85+	8 (6.5)	1 (0.8)	185 (151.1)	0 (0.0)	27 (22.1)
Total	**77 (1.0)**	**80 (1.0)**	**476 (5.9)**	**517 (6.5)**	**803 (10.0)**

Figure 21. Accidental Deaths by Month of Death, 2010

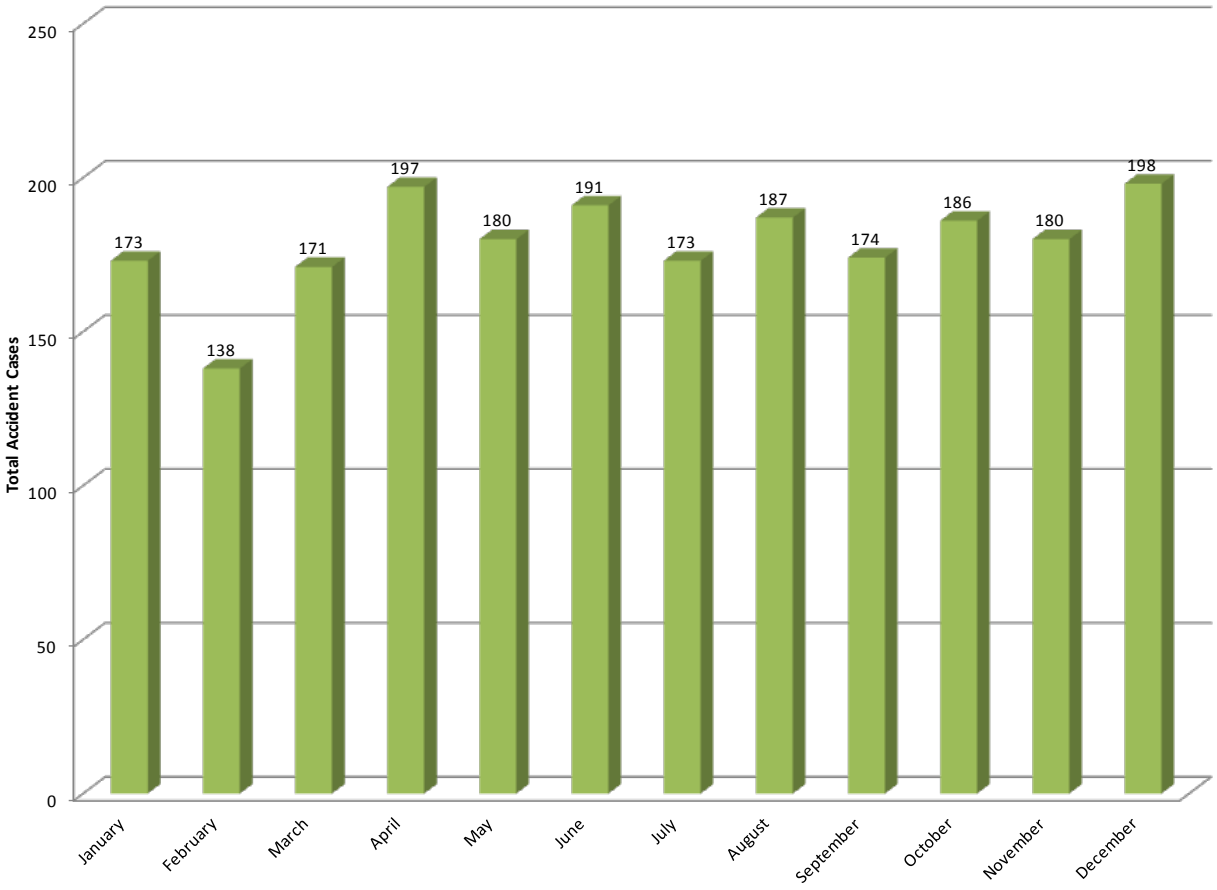


Figure 22. Accidental Deaths by Day of Death, 2010

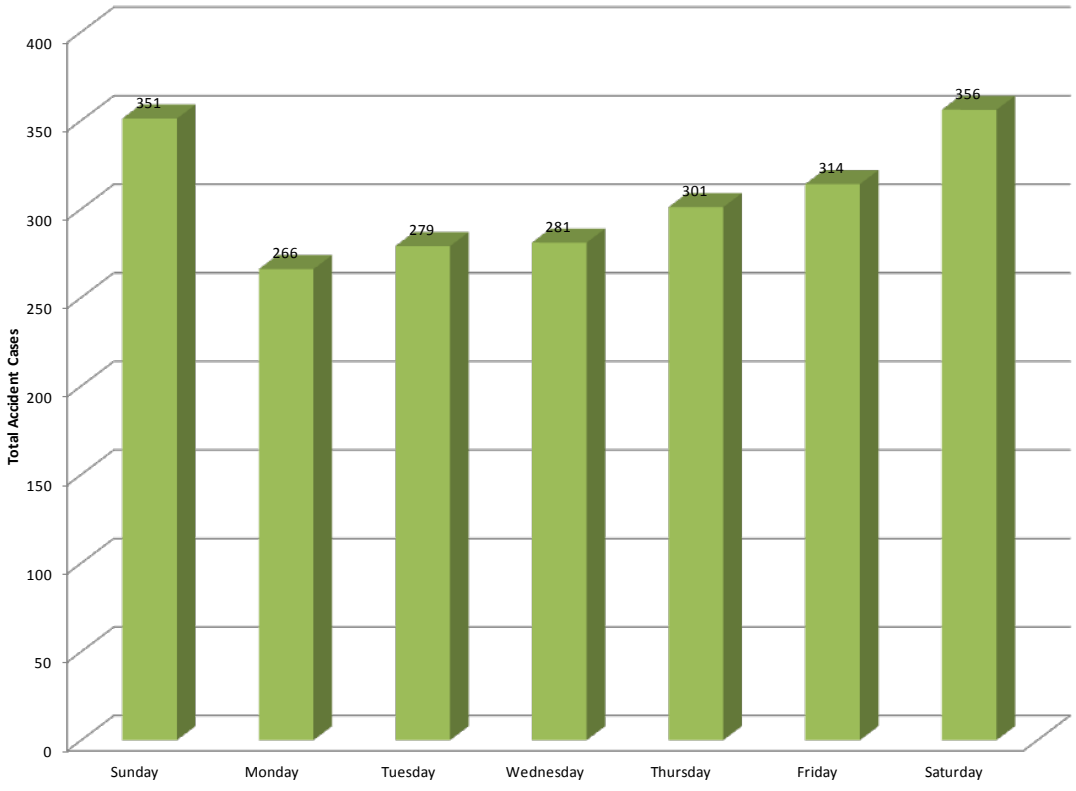


Table 14. Accidental Deaths by City/County of Injury /Acute Illness, 2006-2010

	Year of Death					
County/City of Injury	**2006**	**2007**	**2008**	**2009**	**2010**	**Total**
Accomack	22	20	11	19	18	**90**
Albemarle	17	20	33	25	28	**123**
Alexandria	21	21	21	22	14	**99**
Alleghany	10	14	8	5	6	**43**
Amelia	4	7	11	9	4	**35**
Amherst	11	8	16	9	5	**49**
Appomattox	2	6	7	4	3	**22**
Arlington	18	20	30	34	27	**129**
Augusta	26	35	38	33	31	**163**
Bath	2	3	1	4	3	**13**
Bedford City	3	5	5	4	4	**21**
Bedford	22	27	16	30	31	**126**
Bland	0	6	2	7	4	**19**
Botetourt	12	12	13	11	11	**59**
Bristol	6	10	3	3	7	**29**
Brunswick	16	7	6	8	13	**50**
Buchanan	21	18	19	11	23	**92**
Buckingham	3	9	6	3	5	**26**
Buena Vista	0	0	1	2	0	**3**
Campbell	32	16	31	12	17	**108**
Caroline	9	14	8	9	13	**53**
Carroll	17	15	19	11	7	**69**
Charles City	4	8	7	7	7	**33**
Charlotte	4	6	6	5	6	**27**
Charlottesville	21	28	11	16	12	**88**
Chesapeake	55	60	47	53	43	**258**
Chesterfield	56	71	92	68	70	**357**
Clarke	5	6	5	8	10	**34**
Colonial Heights	6	3	4	2	2	**17**
Covington	4	0	2	2	0	**8**
Craig	7	2	2	4	2	**17**
Culpeper	16	24	12	12	14	**78**
Cumberland	1	2	4	3	2	**12**
Danville	16	13	22	20	20	**91**
Dickenson	11	16	13	5	11	**56**
Dinwiddie	12	14	20	12	10	**68**
Emporia	2	8	2	1	3	**16**
Essex	4	7	4	7	5	**27**

	Year of Death					
County/City of Injury	**2006**	**2007**	**2008**	**2009**	**2010**	**Total**
Fairfax City	3	4	5	11	5	**28**
Fairfax	221	157	144	149	152	**823**
Falls Church	2	1	0	1	1	**5**
Fauquier	21	32	26	33	32	**144**
Floyd	13	10	5	8	5	**41**
Fluvanna	9	7	14	7	6	**43**
Franklin City	2	2	1	1	2	**8**
Franklin	27	22	23	26	21	**119**
Frederick	24	25	26	31	27	**133**
Fredericksburg	22	14	15	6	11	**68**
Galax	0	3	0	0	0	**3**
Giles	9	5	9	9	10	**42**
Gloucester	21	10	16	10	20	**77**
Goochland	6	15	10	14	8	**53**
Grayson	13	5	2	6	5	**31**
Greene	4	14	5	4	7	**34**
Greensville	10	3	2	5	6	**26**
Halifax	15	22	27	14	20	**98**
Hampton	31	28	28	25	35	**147**
Hanover	21	27	26	13	18	**105**
Harrisonburg	11	1	3	5	4	**24**
Henrico	89	66	76	73	70	**374**
Henry	34	15	34	22	26	**131**
Highland	1	2	2	2	2	**9**
Hopewell	5	8	6	7	7	**33**
Isle of Wight	16	16	15	12	13	**72**
James City	17	8	24	16	13	**78**
King and Queen	5	7	5	8	2	**27**
King George	5	7	8	10	2	**32**
King William	3	7	5	9	2	**26**
Lancaster	9	9	6	2	2	**28**
Lee	11	16	10	13	8	**58**
Lexington	3	2	1	2	4	**12**
Loudoun	23	37	27	29	32	**148**
Louisa	16	24	17	21	14	**92**
Lunenburg	6	11	9	5	2	**33**
Lynchburg	13	24	24	16	25	**102**
Madison	3	9	6	3	5	**26**
Manassas	8	8	6	12	4	**38**
Martinsville	8	3	8	6	7	**32**
Mathews	8	4	1	4	2	**19**

	Year of Death					
County/City of Injury	**2006**	**2007**	**2008**	**2009**	**2010**	**Total**
Mecklenburg	18	17	11	16	10	**72**
Middlesex	3	7	6	6	6	**28**
Montgomery	15	24	27	24	30	**120**
Nelson	6	12	6	11	6	**41**
New Kent	15	6	7	8	12	**48**
Newport News	52	36	36	53	40	**217**
Norfolk	59	79	59	67	49	**313**
Northampton	6	8	10	9	5	**38**
Northumberland	2	3	8	4	6	**23**
Norton	3	0	1	1	2	**7**
Nottoway	6	8	3	14	6	**37**
Orange	6	14	13	10	14	**57**
Page	4	10	4	7	8	**33**
Patrick	5	7	11	8	8	**39**
Petersburg	16	22	14	14	13	**79**
Pittsylvania	28	30	37	29	25	**149**
Poquoson	5	1	1	3	1	**11**
Portsmouth	29	20	18	29	23	**119**
Powhatan	14	6	7	5	3	**35**
Prince Edward	9	16	5	14	11	**55**
Prince George	9	12	12	10	12	**55**
Prince William	69	57	65	64	75	**330**
Pulaski	16	23	19	15	19	**92**
Radford	2	5	9	3	8	**27**
Rappahannock	0	4	2	3	6	**15**
Richmond City	127	132	85	69	66	**479**
Richmond	2	2	6	2	4	**16**
Roanoke City	37	30	32	41	36	**176**
Roanoke	27	22	23	19	17	**108**
Rockbridge	12	14	10	13	7	**56**
Rockingham	30	21	19	16	18	**104**
Russell	19	19	15	11	16	**80**
Salem	13	7	8	8	8	**44**
Scott	6	8	10	9	5	**38**
Shenandoah	14	5	24	13	12	**68**
Smyth	13	10	11	7	12	**53**
Southampton	10	15	10	10	11	**56**
Spotsylvania	29	39	30	29	43	**170**
Stafford	18	43	25	24	21	**131**
Staunton	7	6	8	7	5	**33**
Suffolk	16	36	26	17	30	**125**

	Year of Death					
County/City of Injury	**2006**	**2007**	**2008**	**2009**	**2010**	**Total**
Surry	2	7	4	1	6	**20**
Sussex	13	15	17	11	12	**68**
Tazewell	36	11	16	19	25	**107**
Virginia Beach	101	105	102	110	77	**495**
Warren	6	11	17	9	25	**68**
Washington	18	20	22	14	21	**95**
Waynesboro	7	2	7	6	7	**29**
Westmoreland	13	10	11	6	11	**51**
Williamsburg	6	5	3	6	2	**22**
Winchester	15	2	4	10	7	**38**
Wise	31	28	15	22	22	**118**
Wythe	11	14	24	12	13	**74**
York	14	17	14	7	15	**67**
TOTAL IN STATE	**2316**	**2334**	**2224**	**2105**	**2080**	**11059**
Out of State	29	52	46	52	54	**233**
Unknown	8	18	27	18	14	**85**
TOTAL	**2353**	**2404**	**2297**	**2175**	**2148**	**11377**

SUICIDE DEATHS (N=996)

The number of suicides in Virginia overall has been increasing over the past twelve years while the rate has had a modest increase. In 2010, as in previous years, suicides were most frequently in males (78.3%) and those aged 45-54 years old (24.4%).

- Whites committed suicide 4.2 times that of Hispanics, 2.6 times that of blacks and Asians
- Males were 3.7 times more likely to commit suicide than females
- Handguns were used in 44.0 percent of suicides, followed by 18.6 percent by hangings, then 11.9 percent by drug use

Figure 23. Suicide Deaths & Rate by Year of Death, 2010

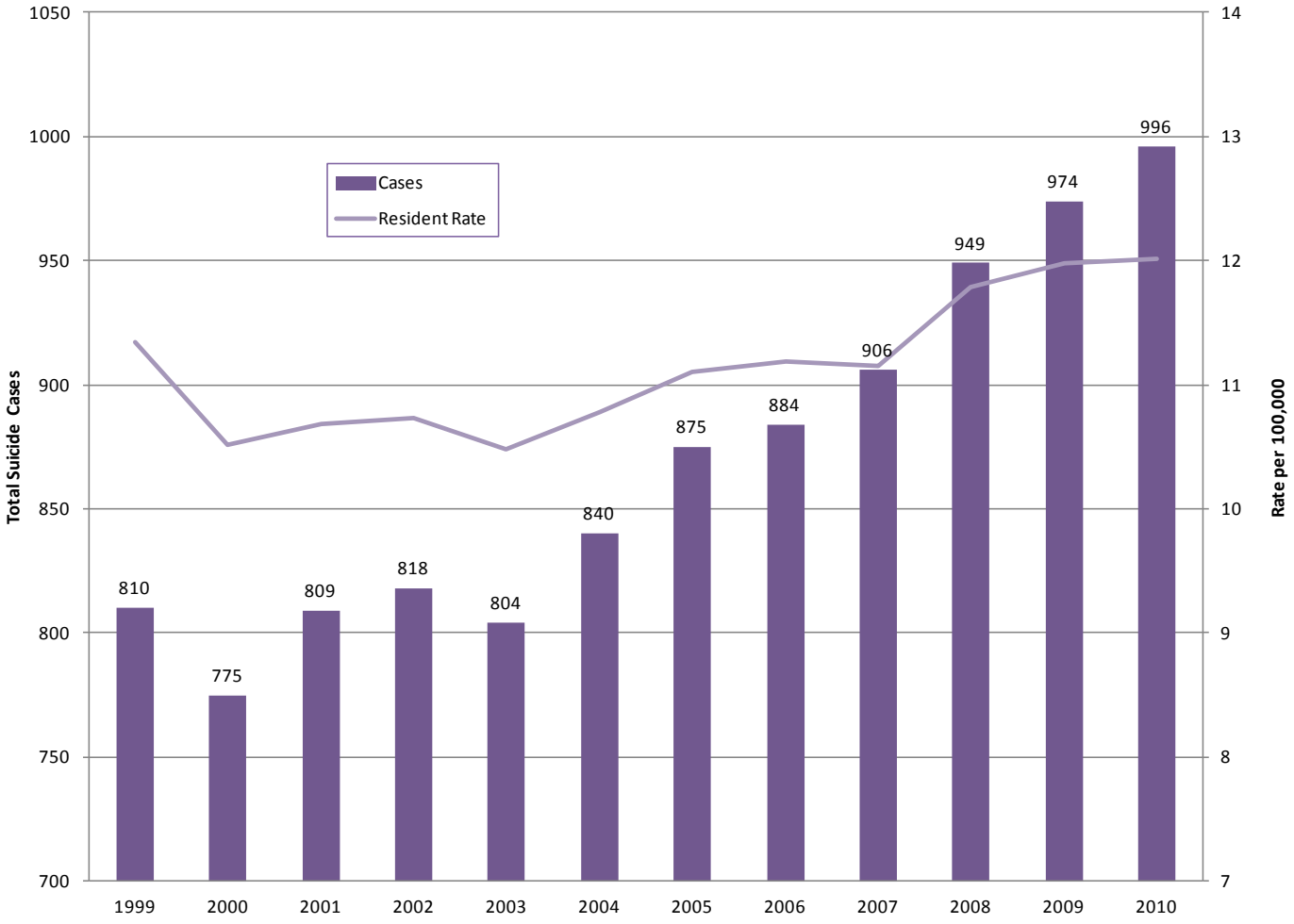


Figure 24. Suicide Deaths & Rates by Age Group by Gender, 2010

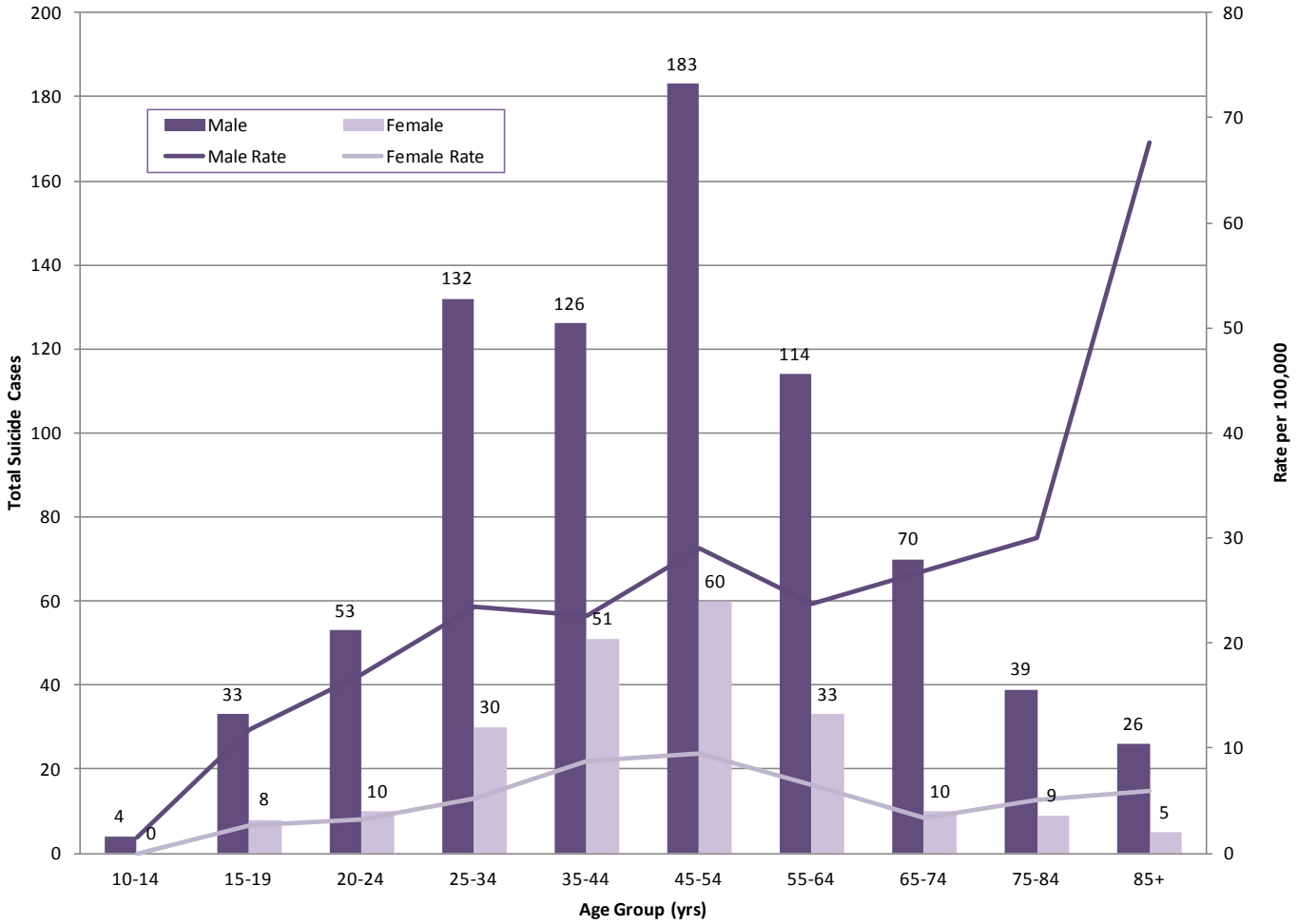


Figure 25. Suicide Deaths by Race/Ethnicity, 2010

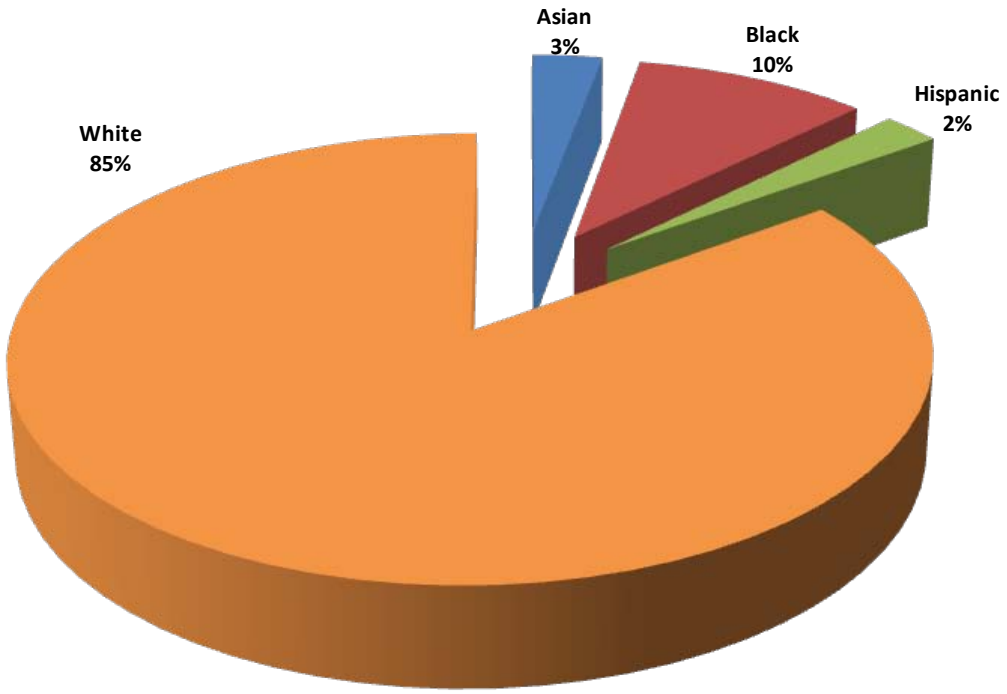


Figure 26. Suicide Deaths & Rates by Race/Ethnicity by Gender, 2010

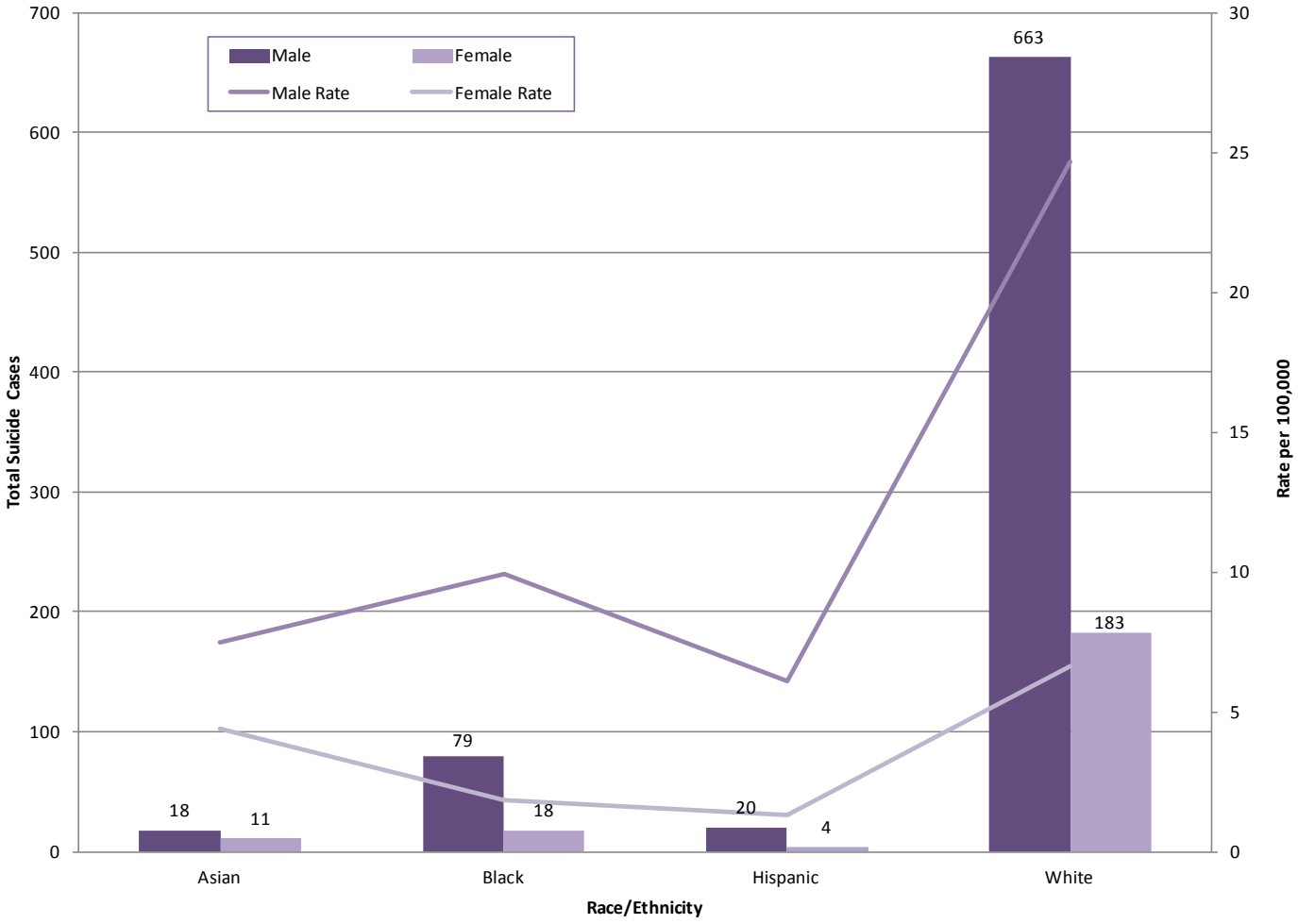


Table 15. Suicide Deaths by Method of Death, 2010

Method of Death		Total Cases	Autopsied
Asphyxia			
	Drowned	12	10
	Hanging	185	47
	Helium	15	3
	Plastic bag	11	3
	Oxygen replacement/displacement	1	0
	Suffocation/Smothering	1	0
Drug Use			
	Ingested and/or injected illicit, prescription, and/or other type of drug	119	103
Exposure			
	Exposed to cold	1	1
Jump			
	Jumped from height	21	8
Fire			
	Inhalation of Combustion Products	1	1
	Thermal Burns	2	0
	Thermal Burns & Inhalation of Combustion Products	6	4
Poisoned			
	Carbon monoxide poisoning	17	1
	Ingested ethylene glycol	3	2
Traumatic Injury			
	Cut/Stabbed self	13	11
	Shot self with firearm	575	569
	Handgun	(438)	(432)
	Rifle	(49)	(49)
	Shotgun	(88)	(88)
Vehicular			
	Car	4	2
	Pickup Truck	1	0
	Sport Utility Vehicle	1	0
	Tractor Trailer	1	1
	Train	5	1
	Truck-Other	1	0
TOTAL		**996**	**767**

Figure 27. Suicide Deaths by Month of Death, 2010

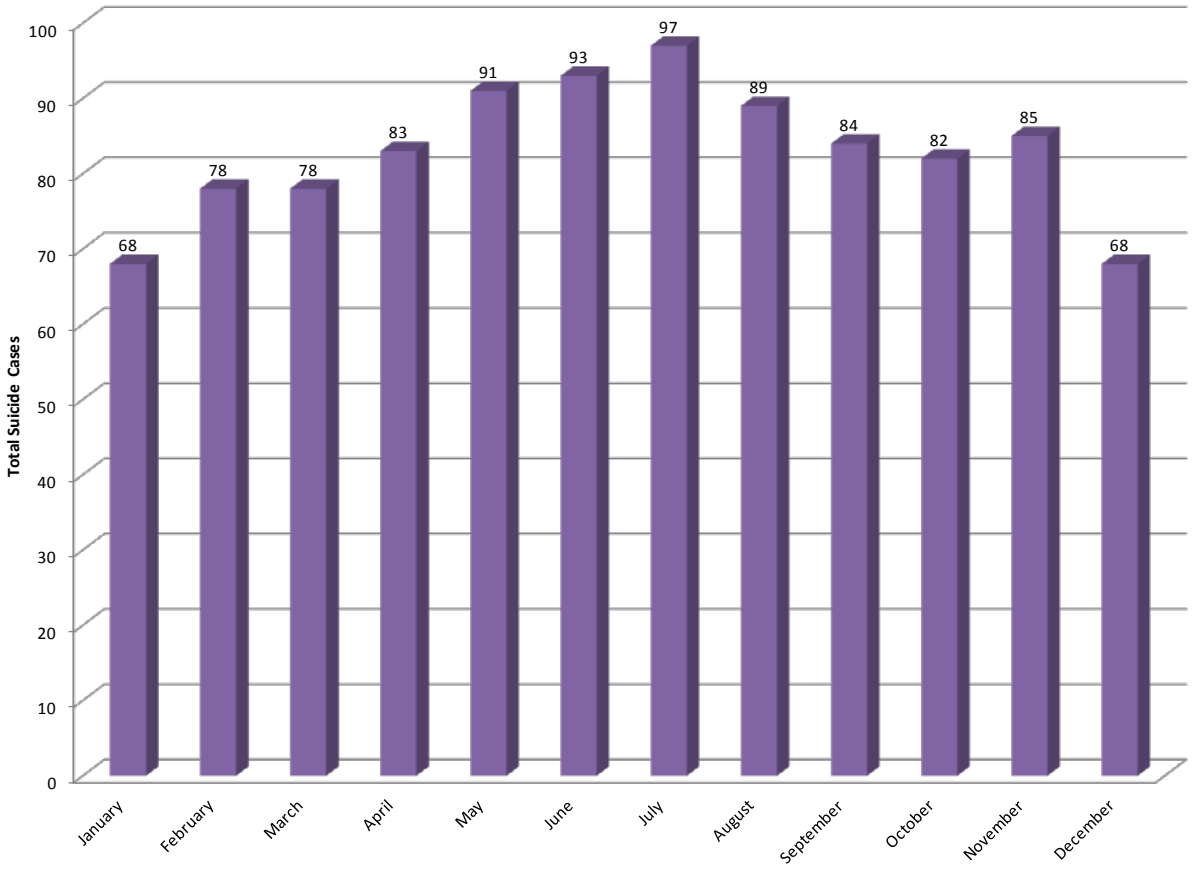


Figure 28. Suicide Deaths by Day of Death, 2010

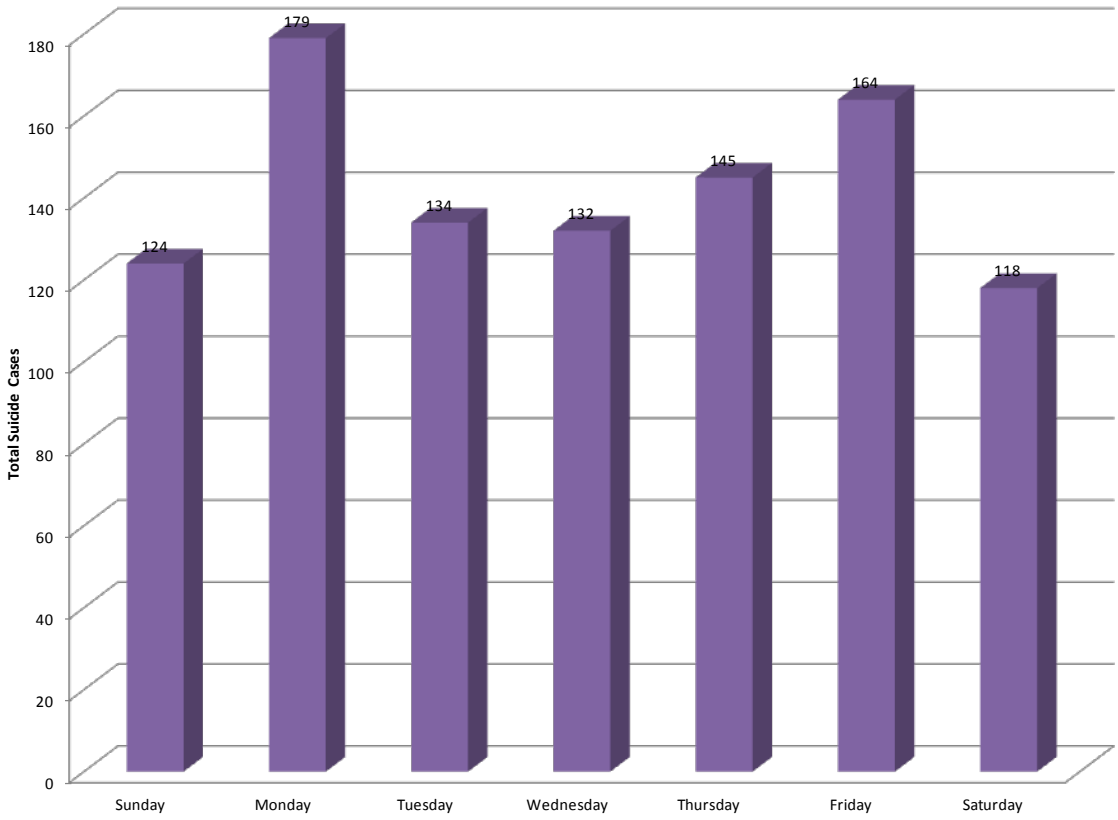


Table 16. Suicide Deaths & Rates by City/County of Residence, 2010

City/County of Residence	Total	Rate
Accomack	5	15.1
Albemarle	6	6.1
Alexandria	13	9.3
Alleghany	1	6.2
Amelia	5	39.4
Amherst	1	3.1
Appomattox	5	33.4
Arlington	3	1.4
Augusta	16	21.7
Bath	11	232.5
Bedford City	2	32.1
Bedford	15	21.8
Bland	1	14.7
Botetourt	1	3.0
Bristol	2	11.2
Brunswick	2	11.5
Buchanan	11	45.6
Buckingham	3	17.5
Buena Vista	1	15.0
Campbell	7	12.8
Caroline	5	17.5
Carroll	9	30.0
Charles City	0	0.0
Charlotte	2	15.9
Charlottesville	3	6.9
Chesapeake	23	10.4
Chesterfield	33	10.4
Clarke	2	14.3
Colonial Heights	2	11.5
Covington	0	0.0
Craig	0	0.0
Culpeper	4	8.6
Cumberland	0	0.0
Danville	6	13.9
Dickenson	7	44.0
Dinwiddie	8	28.6
Emporia	1	16.9
Essex	2	17.9
Fairfax City	3	13.3
Fairfax	86	8.0
Falls Church	0	0.0
Fauquier	17	26.1

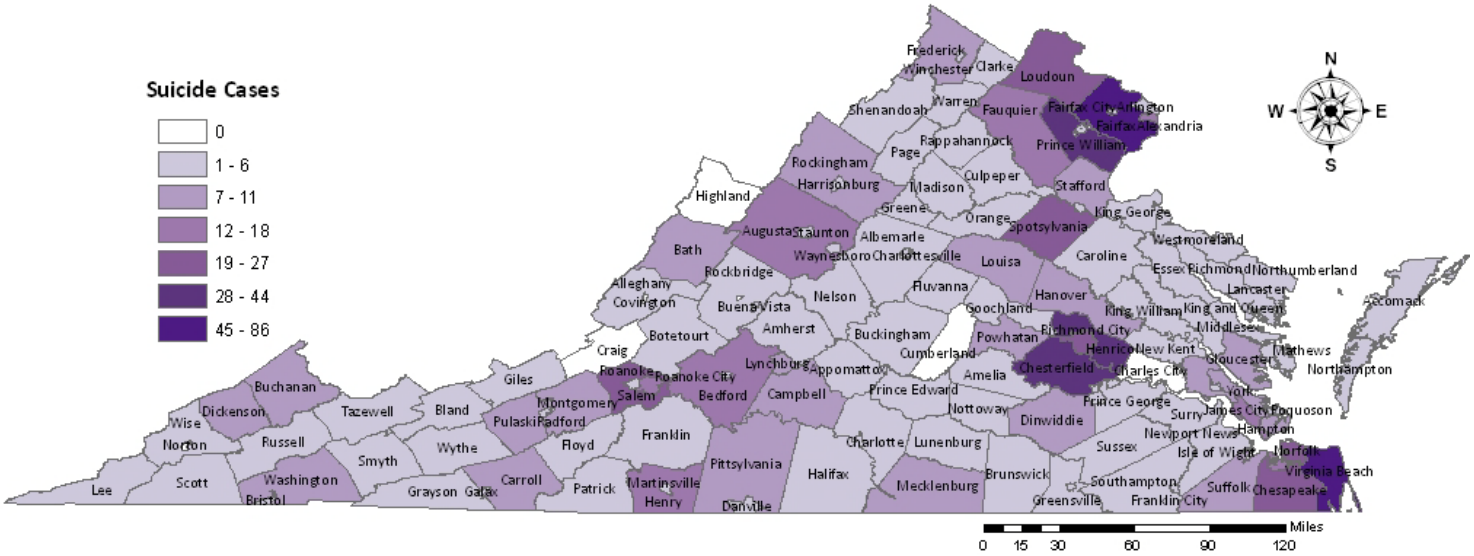
City/County of Residence	Total	Rate
Floyd	4	26.2
Fluvanna	2	7.8
Franklin City	2	23.3
Franklin	3	5.3
Frederick	7	8.9
Fredericksburg	3	12.4
Galax	3	42.6
Giles	3	17.4
Gloucester	8	21.7
Goochland	2	9.2
Grayson	2	12.9
Greene	3	16.3
Greensville	1	8.2
Halifax	5	13.8
Hampton	11	8.0
Hanover	8	8.0
Harrisonburg	3	6.1
Henrico	33	10.8
Henry	17	31.4
Highland	0	0.0
Hopewell	2	8.9
Isle of Wight	1	2.8
James City	10	14.9
King and Queen	2	28.8
King George	6	25.4
King William	1	6.3
Lancaster	2	17.6
Lee	2	7.8
Lexington	0	0.0
Loudoun	22	7.0
Louisa	10	30.2
Lunenburg	1	7.7
Lynchburg	10	13.2
Madison	2	15.0
Manassas	2	5.3
Martinsville	1	7.2
Mathews	1	11.1
Mecklenburg	7	21.4
Middlesex	2	18.2
Montgomery	9	9.5
Nelson	4	26.6
New Kent	1	5.4

City/County of Residence	Total	Rate
Newport News	18	10.0
Norfolk	27	11.1
Northampton	1	8.1
Northumberland	4	32.4
Norton	0	0.0
Nottoway	3	18.9
Orange	4	11.9
Page	3	12.5
Patrick	6	32.4
Petersburg	4	12.3
Pittsylvania	8	12.6
Poquoson	1	8.2
Portsmouth	14	14.7
Powhatan	7	25.0
Prince Edward	3	12.8
Prince George	6	16.8
Prince William	44	10.9
Pulaski	9	25.8
Radford	1	6.1
Rappahannock	1	13.6
Richmond City	21	10.3
Richmond	1	10.8
Roanoke City	18	18.6
Roanoke	21	22.7
Rockbridge	4	17.9
Rockingham	10	13.1
Russell	4	13.8
Salem	1	4.0
Scott	5	21.6

City/County of Residence	Total	Rate
Shenandoah	5	11.9
Smyth	3	9.3
Southampton	4	21.5
Spotsylvania	24	19.6
Stafford	8	6.2
Staunton	4	16.8
Suffolk	7	8.3
Surry	1	14.2
Sussex	2	16.5
Tazewell	5	11.1
Virginia Beach	64	14.6
Warren	5	13.3
Washington	8	14.6
Waynesboro	2	9.5
Westmoreland	2	11.5
Williamsburg	6	42.6
Winchester	4	15.3
Wise	6	14.5
Wythe	1	3.4
York	8	12.2
TOTAL FOR STATE RESIDENTS	**960**	**12.0**
Out of State	35	ND†
Unknown	1	ND
TOTAL	**996**	**ND**

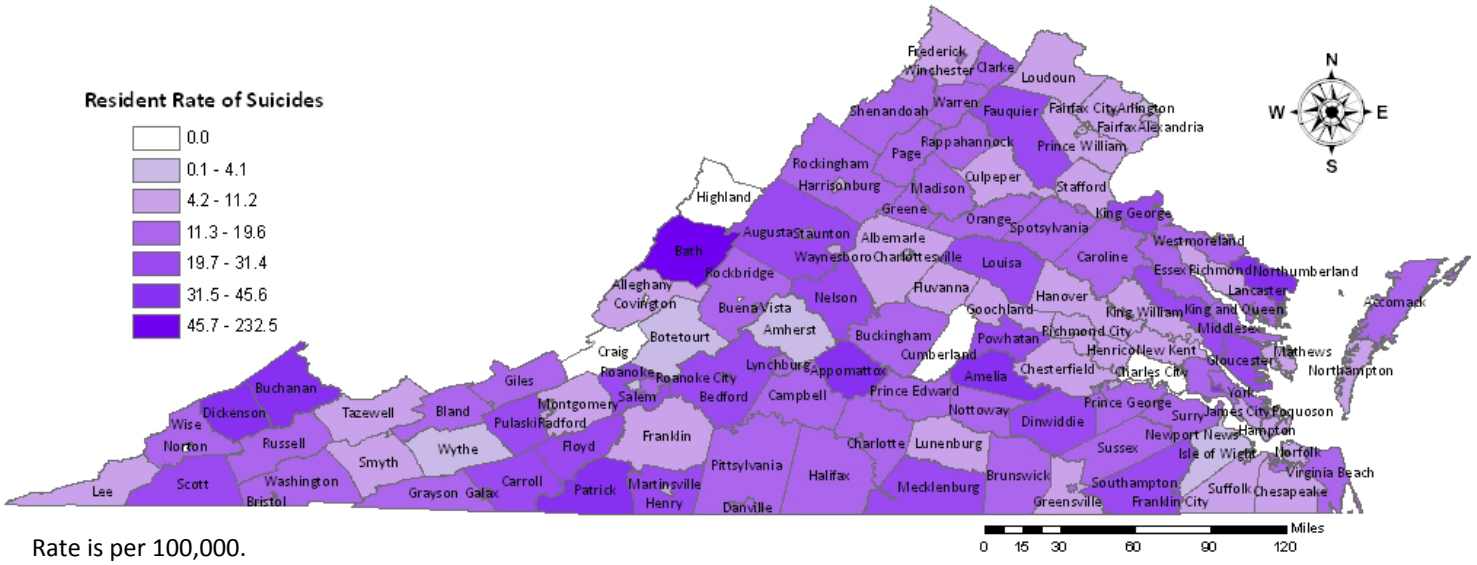
† ND- No Denominator

Figure 29. Suicide Deaths by City/County of Residence, 2010



Map shows City/County of residence but not necessarily where injury and/or death occurred.
A total of 36 suicides were from non-Virginia residents or where residency was unknown.

Figure 30. Suicide Rates by City/County of Residence, 2010



Rate is per 100,000.
Map shows City/County of residence but not necessarily where injury and/or death occurred.
A total of 36 suicides were from non-Virginia residents or where residency was unknown.

Table 17. Suicide Deaths by City/County of Injury by Year of Death, 2006-2010

	Year of Death					
County/City of Injury	**2006**	**2007**	**2008**	**2009**	**2010**	**Total**
Accomack	4	2	1	4	6	**17**
Albemarle	2	6	8	13	6	**35**
Alexandria	12	11	13	14	14	**64**
Alleghany	3	2	0	4	6	**15**
Amelia	2	1	1	3	1	**8**
Amherst	4	6	6	7	7	**30**
Appomattox	2	0	0	3	3	**8**
Arlington	14	12	28	10	21	**85**
Augusta	12	11	13	16	11	**63**
Bath	1	0	1	0	0	**2**
Bedford City	1	1	1	2	2	**7**
Bedford	7	6	9	14	14	**50**
Bland	2	1	0	3	1	**7**
Botetourt	3	4	3	5	2	**17**
Bristol	4	4	1	2	3	**14**
Brunswick	2	2	1	1	3	**9**
Buchanan	5	6	7	7	10	**35**
Buckingham	3	3	5	1	3	**15**
Buena Vista	0	0	1	1	1	**3**
Campbell	6	3	7	6	6	**28**
Caroline	3	6	3	3	5	**20**
Carroll	6	8	6	10	9	**39**
Charles City	0	0	2	2	2	**6**
Charlotte	3	2	1	3	2	**11**
Charlottesville	11	7	5	4	3	**30**
Chesapeake	19	20	18	25	26	**108**
Chesterfield	29	25	32	32	34	**152**
Clarke	2	1	3	3	3	**12**
Colonial Heights	1	2	3	1	2	**9**
Covington	2	2	1	0	0	**5**
Craig	0	1	2	4	0	**7**
Culpeper	6	10	2	11	5	**34**
Cumberland	0	1	2	2	0	**5**
Danville	7	3	4	8	7	**29**
Dickenson	2	5	5	8	7	**27**
Dinwiddie	3	3	1	1	7	**15**
Emporia	3	0	2	1	1	**7**
Essex	0	1	3	2	3	**9**
Fairfax City	2	2	1	6	4	**15**
Fairfax	85	86	88	104	87	**450**

County/City of Injury	Year of Death 2006	2007	2008	2009	2010	Total
Falls Church	0	1	3	0	1	**5**
Fauquier	7	4	8	9	14	**42**
Floyd	2	2	1	3	4	**12**
Fluvanna	2	3	4	2	2	**13**
Franklin City	0	0	0	0	1	**1**
Franklin	5	8	6	7	3	**29**
Frederick	9	7	7	8	8	**39**
Fredericksburg	6	4	5	2	4	**21**
Galax	1	1	2	1	3	**8**
Giles	2	3	3	5	3	**16**
Gloucester	7	6	9	4	8	**34**
Goochland	2	5	2	4	2	**15**
Grayson	3	2	5	2	2	**14**
Greene	4	2	2	3	4	**15**
Greensville	2	0	0	2	2	**6**
Halifax	8	4	4	5	5	**26**
Hampton	13	16	18	16	9	**72**
Hanover	12	15	17	11	6	**61**
Harrisonburg	2	4	4	6	6	**22**
Henrico	37	26	25	39	30	**157**
Henry	11	12	19	13	16	**71**
Highland	0	0	0	0	1	**1**
Hopewell	1	1	2	3	3	**10**
Isle of Wight	5	1	0	3	2	**11**
James City	5	4	9	7	9	**34**
King and Queen	2	4	2	1	1	**10**
King George	3	2	2	3	6	**16**
King William	1	1	1	4	0	**7**
Lancaster	0	3	4	1	2	**10**
Lee	5	4	7	5	2	**23**
Lexington	0	1	0	0	0	**1**
Loudoun	20	23	13	24	20	**100**
Louisa	5	8	2	5	9	**29**
Lunenburg	6	1	1	3	1	**12**
Lynchburg	8	6	13	5	9	**41**
Madison	2	4	3	1	3	**13**
Manassas	2	3	9	3	1	**18**
Martinsville	0	4	0	1	1	**6**
Mathews	1	0	2	0	1	**4**
Mecklenburg	4	6	7	5	8	**30**
Middlesex	0	1	1	5	1	**8**
Montgomery	11	22	8	5	9	**55**
Nelson	2	1	3	4	4	**14**

	Year of Death					
County/City of Injury	**2006**	**2007**	**2008**	**2009**	**2010**	**Total**
New Kent	3	3	2	3	1	**12**
Newport News	11	15	18	14	20	**78**
Norfolk	27	34	29	22	29	**141**
Northampton	0	4	1	0	1	**6**
Northumberland	1	3	2	0	4	**10**
Norton	0	0	2	1	01	**3**
Nottoway	1	0	4	4	3	**12**
Orange	6	4	5	2	4	**21**
Page	6	5	7	3	4	**25**
Patrick	3	4	4	4	7	**22**
Petersburg	1	4	7	3	4	**19**
Pittsylvania	13	9	6	13	9	**50**
Poquoson	1	1	1	0	0	**3**
Portsmouth	8	14	10	11	16	**59**
Powhatan	5	2	4	2	8	**21**
Prince Edward	3	3	1	5	3	**15**
Prince George	6	7	7	7	5	**32**
Prince William	32	29	35	41	42	**179**
Pulaski	11	10	2	6	9	**38**
Radford	1	0	2	0	2	**5**
Rappahannock	0	4	3	1	3	**11**
Richmond City	32	25	22	35	21	**135**
Richmond	1	1	4	0	2	**8**
Roanoke City	10	15	19	13	18	**75**
Roanoke	11	7	19	9	20	**66**
Rockbridge	5	4	6	5	5	**25**
Rockingham	9	10	9	4	12	**44**
Russell	5	4	10	7	5	**31**
Salem	4	7	5	0	2	**18**
Scott	3	12	5	4	5	**29**
Shenandoah	7	5	8	8	5	**33**
Smyth	3	11	5	3	3	**25**
Southampton	4	1	4	3	4	**16**
Spotsylvania	13	18	17	10	22	**80**
Stafford	6	14	15	15	5	**55**
Staunton	4	7	1	6	4	**22**
Suffolk	11	1	10	6	5	**33**
Surry	0	1	0	4	1	**6**
Sussex	1	2	1	4	4	**12**
Tazewell	11	4	4	12	6	**37**
Virginia Beach	61	50	45	60	64	**280**
Warren	3	12	8	6	5	**34**
Washington	6	10	11	13	10	**50**

	Year of Death					
County/City of Injury	**2006**	**2007**	**2008**	**2009**	**2010**	**Total**
Waynesboro	6	3	3	4	2	**18**
Westmoreland	4	2	4	2	2	**14**
Williamsburg	10	2	1	1	8	**22**
Winchester	6	1	7	2	6	**22**
Wise	9	13	8	4	5	**39**
Wythe	4	4	8	5	2	**23**
York	3	8	11	6	11	**39**
Total in State	**882**	**900**	**945**	**969**	**991**	**4687**
Out of State	2	6	3	4	4	**19**
Unknown	0	0	1	1	1	**3**
TOTAL	**884**	**906**	**949**	**974**	**996**	**4709**

HOMICIDE DEATHS (N=391)

The number of homicides decreased 4.6 percent from the previous year. As previous years have shown, homicides most frequently occurred in males (72.1%) and in blacks (54.5%).

- Black males died from homicidal violence at a rate of 23.1 per 100,000; this was 5.9 times that of Hispanic males, 6.9 times that of white males, and 17.5 times that of Asian males
- Seventy-one percent of homicides were committed using a firearm, with handguns the most common type used in 57.0 percent of all homicides cases and 79.9 percent of all firearm homicides
- Richmond City has the greatest number of homicide injuries leading to death with 43 followed by Norfolk with 27 and Newport News with 23

Figure 31. Homicide Deaths & Rate by Year of Death, 1999-2010

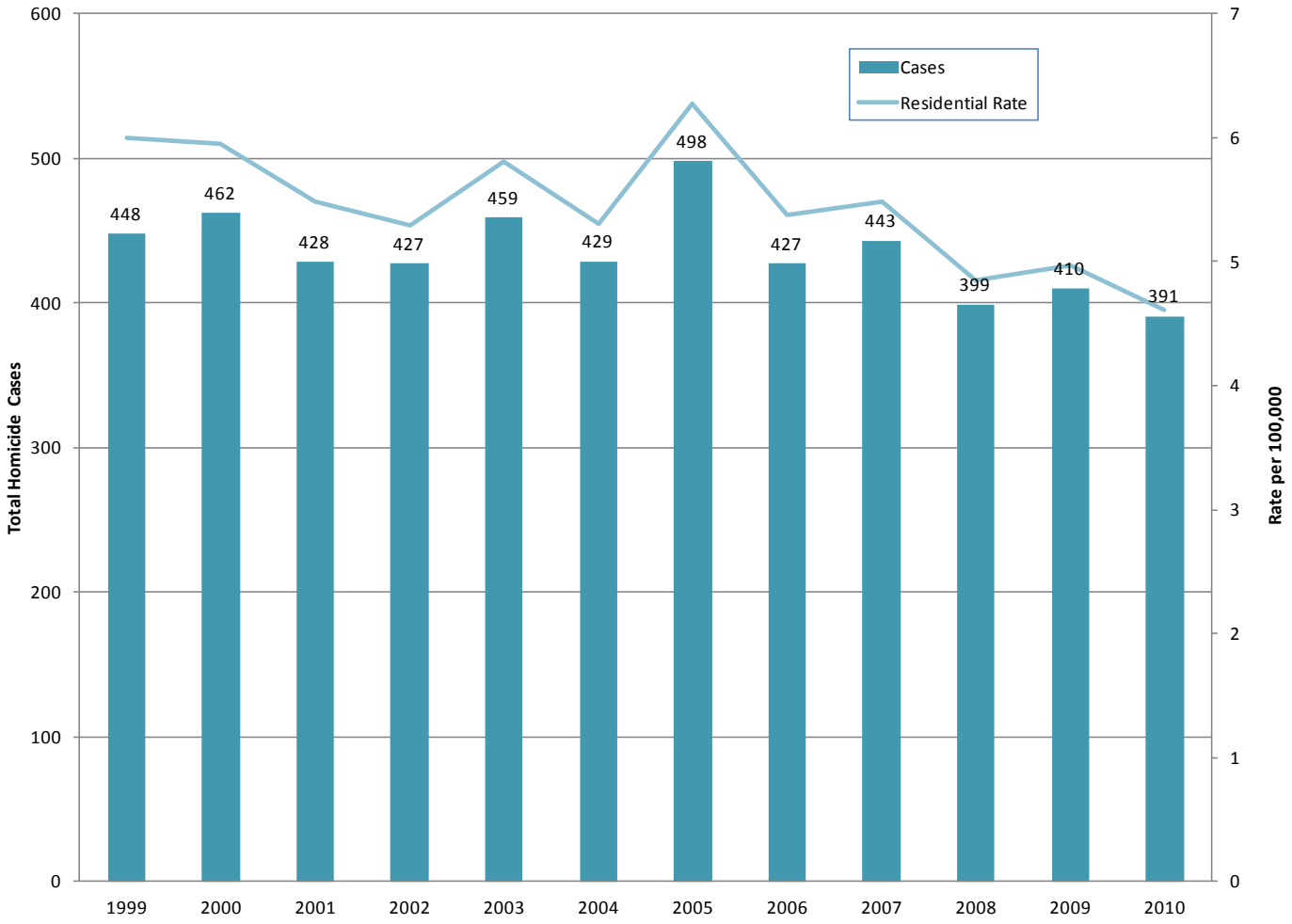


Figure 32. Homicide Deaths & Rates by Age Group by Gender, 2010

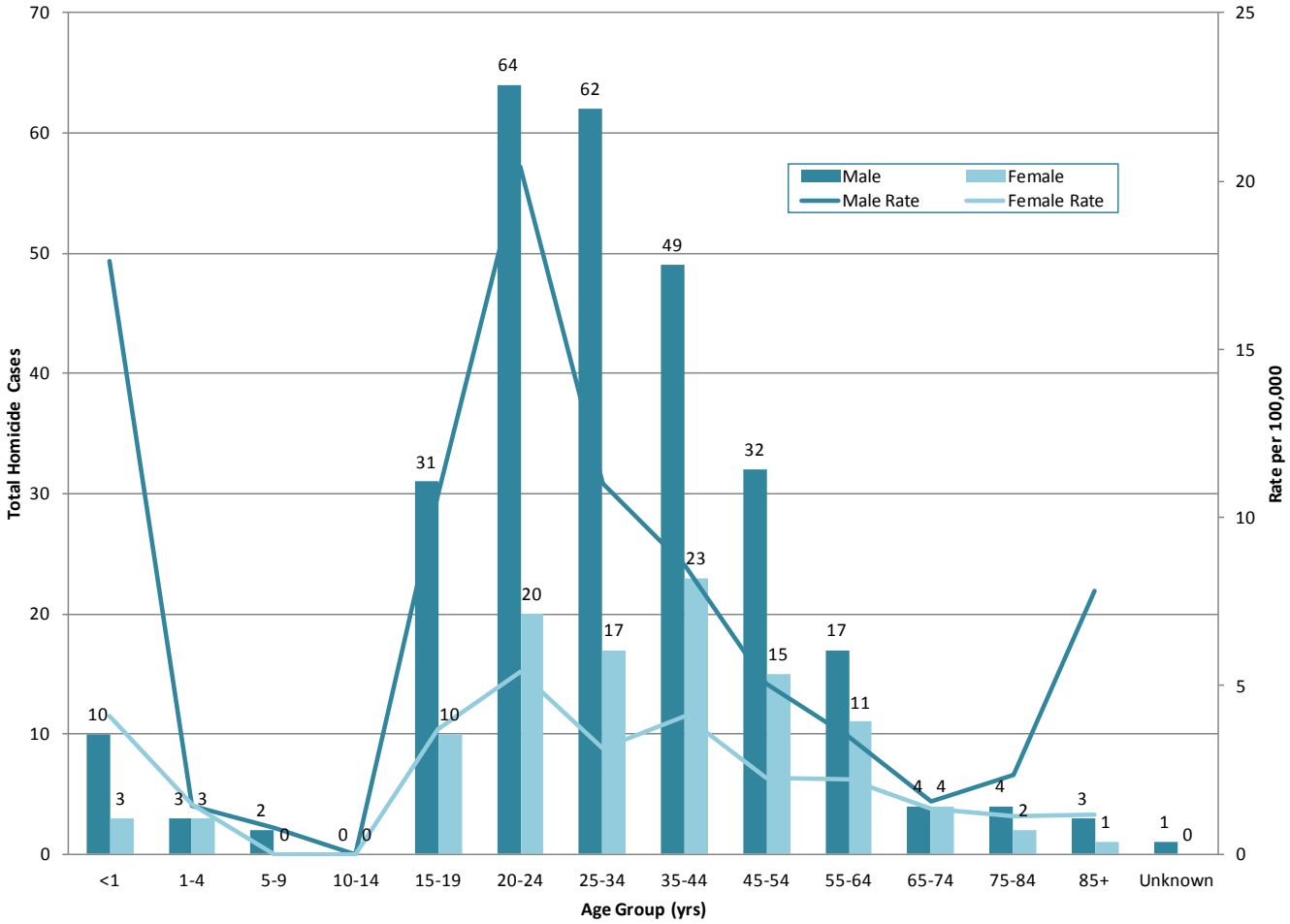


Figure 33. Homicide Deaths by Race/Ethnicity, 2010

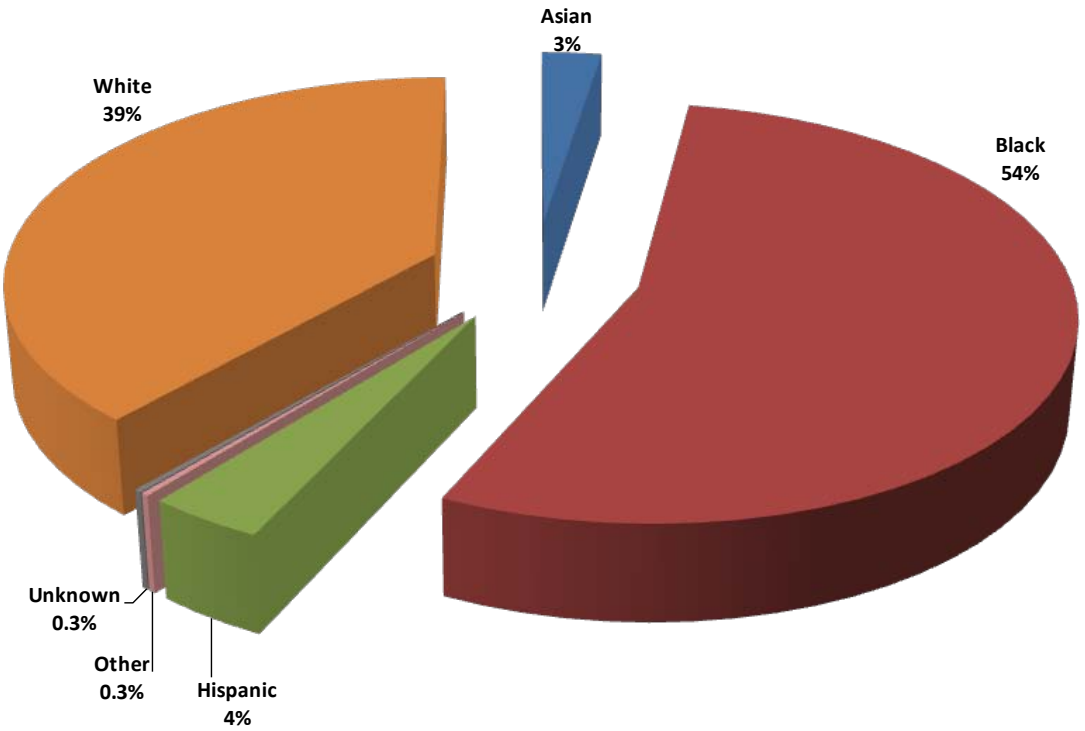


Figure 34. Homicide Deaths & Rates by Race/Ethnicity by Gender, 2010

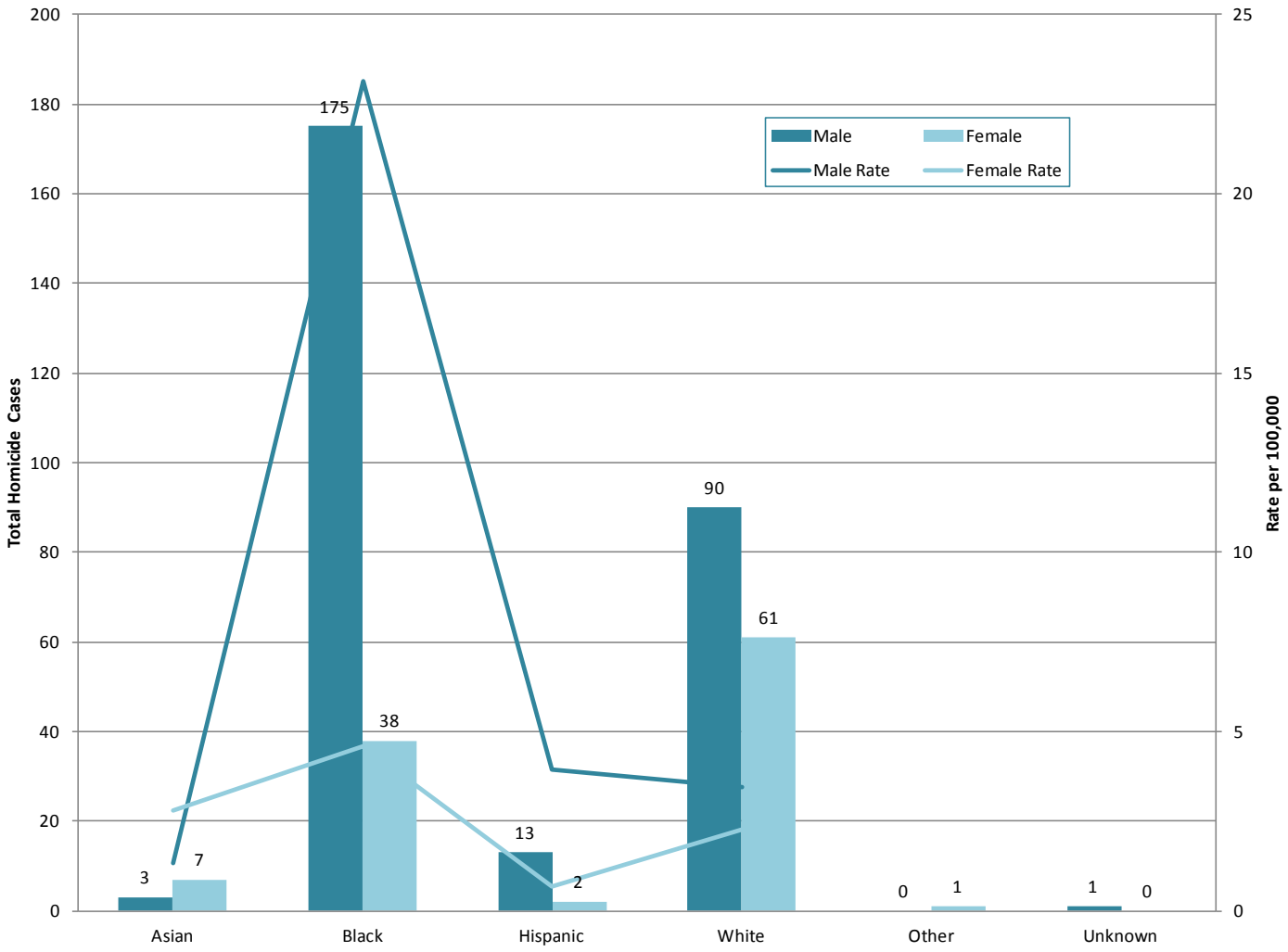


Table 18. Homicide Deaths by Method of Death, 2010

Method of Death	Total Cases	Autopsied
Asphyxia		
Drowned	1	1
Strangled by assailant(s)	12	12
Suffocate/Smothered by assailant(s)	1	1
Other	1	1
Legal Intervention		
Electrocution	1	0
Lethal injection	2	2
Poisoned		
Poisoned by ethanol and/or drugs	2	2
Traumatic Injury		
Beaten by assailant(s)	40	39
Fall/Push	3	3
Other traumatic violence	5	5
Run over by motor vehicle	2	1
Stabbed by assailant(s)	39	39
Shot by assailant(s)	279	278
Handgun	(223)	(222)
Multiple	(1)	(1)
Rifle	(20)	(20)
Shotgun	(11)	(11)
Unspecified	(24)	(24)
Unknown		
Undetermined method	3	3
TOTAL	**391**	**387**

Figure 35. Homicide Deaths by Leading Methods of Death, 2010

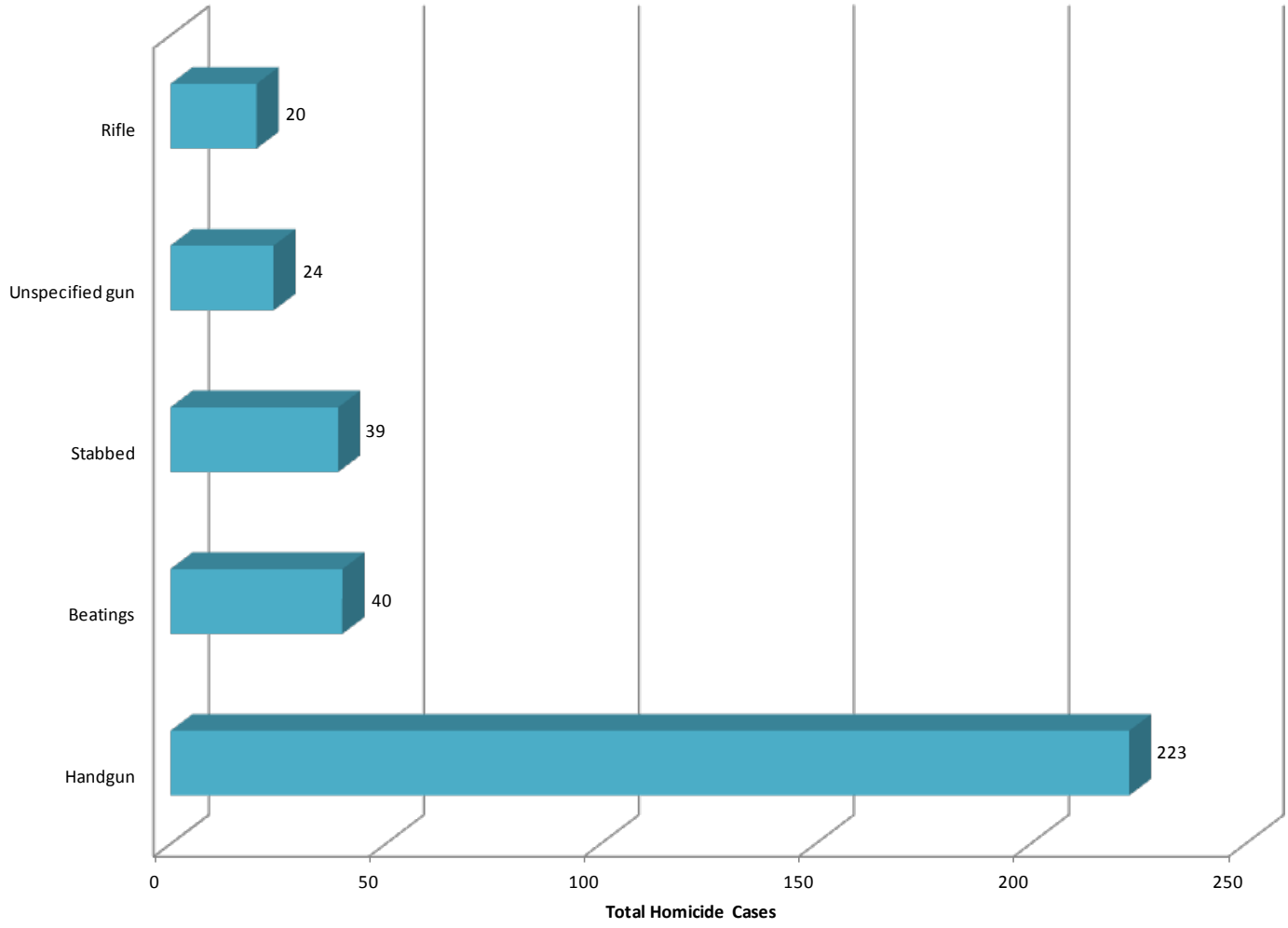


Table 19. Homicide Deaths by City/County of Residence, 2010

County/City of Residency	Total	Rate
Accomack	2	6.0
Albemarle	1	1.0
Alexandria	2	1.4
Alleghany	1	6.2
Amelia	2	15.8
Amherst	0	0.0
Appomattox	7	46.8
Arlington	0	0.0
Augusta	2	2.7
Bath	0	0.0
Bedford City	0	0.0
Bedford	1	1.5
Bland	0	0.0
Botetourt	2	6.0

County/City of Residency	Total	Rate
Bristol	1	5.6
Brunswick	0	0.0
Buchanan	2	8.3
Buckingham	1	5.8
Buena Vista	0	0.0
Campbell	3	5.5
Caroline	1	3.5
Carroll	1	3.3
Charles City	0	0.0
Charlotte	0	0.0
Charlottesville	2	4.6
Chesapeake	16	7.2
Chesterfield	12	3.8
Clarke	0	0.0

County/City of Residency	Total	Rate
Colonial Heights	0	0.0
Covington	1	16.8
Craig	0	0.0
Culpeper	0	0.0
Cumberland	0	0.0
Danville	7	16.3
Dickenson	1	6.3
Dinwiddie	0	0.0
Emporia	1	16.9
Essex	1	9.0
Fairfax City	0	0.0
Fairfax	14	1.3
Falls Church	0	0.0
Fauquier	2	3.1
Floyd	0	0.0
Fluvanna	1	3.9
Franklin City	1	11.7
Franklin	3	5.3
Frederick	1	1.3
Fredericksburg	0	0.0
Galax	0	0.0
Giles	0	0.0
Gloucester	1	2.7
Goochland	1	4.6
Grayson	0	0.0
Greene	1	5.4
Greensville	2	16.3
Halifax	4	11.0
Hampton	16	11.6
Hanover	3	3.0
Harrisonburg	1	2.0
Henrico	10	3.3
Henry	4	7.4
Highland	0	0.0
Hopewell	5	22.1
Isle of Wight	0	0.0
James City	0	0.0
King and Queen	0	0.0
King George	0	0.0
King William	0	0.0
Lancaster	2	17.6
Lee	4	15.6
Lexington	0	0.0

County/City of Residency	Total	Rate
Loudoun	1	0.3
Louisa	3	9.0
Lunenburg	0	0.0
Lynchburg	1	1.3
Madison	0	0.0
Manassas	1	2.6
Martinsville	3	21.7
Mathews	0	0.0
Mecklenburg	2	6.1
Middlesex	0	0.0
Montgomery	3	3.2
Nelson	1	6.7
New Kent	0	0.0
Newport News	23	12.7
Norfolk	27	11.1
Northampton	2	16.1
Northumberland	0	0.0
Norton	0	0.0
Nottoway	0	0.0
Orange	2	6.0
Page	1	4.2
Patrick	0	0.0
Petersburg	12	37.0
Pittsylvania	4	6.3
Poquoson	0	0.0
Portsmouth	14	14.7
Powhatan	1	3.6
Prince Edward	0	0.0
Prince George	0	0.0
Prince William	10	2.5
Pulaski	2	5.7
Radford	1	6.1
Rappahannock	1	13.6
Richmond City	43	21.1
Richmond	1	10.8
Roanoke City	10	10.3
Roanoke	3	3.2
Rockbridge	1	4.5
Rockingham	0	0.0
Russell	0	0.0
Salem	1	4.0
Scott	0	0.0
Shenandoah	0	0.0

County/City of Residency	Total	Rate
Smyth	0	0.0
Southampton	2	10.8
Spotsylvania	4	3.3
Stafford	2	1.6
Staunton	2	8.4
Suffolk	7	8.3
Surry	2	28.3
Sussex	1	8.3
Tazewell	6	13.3
Virginia Beach	18	4.1
Warren	0	0.0
Washington	2	3.6
Waynesboro	1	4.8
Westmoreland	1	5.7
Williamsburg	0	0.0
Winchester	0	0.0
Wise	1	2.4
Wythe	0	0.0
York	0	0.0
Total in State	369	4.6
Out of State	21	ND†
Unknown	1	ND
TOTAL	**391**	**ND**

† ND- No Denominator

Table 20. Top 10 Homicide Deaths by City/County of Residence, 2010

County/City of Residency	Total
Richmond City	43
Norfolk	27
Newport News	23
Virginia Beach	18
Chesapeake	16
Hampton	16
Fairfax	14
Portsmouth	14
Chesterfield	12
Petersburg	12

Table 21. Top 10 Homicide Rates by City/County of Residence, 2010

County/City of Residency	Rate
Appomattox	46.8
Petersburg	37.0
Surry	28.3
Hopewell	22.1
Martinsville	21.7
Richmond City	21.1
Lancaster	17.6
Emporia	16.9
Covington	16.8
Greensville	16.3

Table 22. Homicide Deaths by City/County of Injury, 2010

	Year of Death					
County/City of Injury	**2006**	**2007**	**2008**	**2009**	**2010**	**Total**
Accomack	5	6	2	2	3	**18**
Albemarle	1	1	2	1	2	**7**
Alexandria	4	7	4	5	2	**22**
Alleghany	0	3	1	0	1	**5**
Amelia	0	0	0	0	1	**1**
Amherst	0	1	1	0	0	**2**
Appomattox	0	2	1	0	8	**11**
Arlington	3	2	4	2	0	**11**
Augusta	3	1	0	2	2	**8**
Bath	0	0	0	2	0	**2**
Bedford City	0	0	1	0	0	**1**
Bedford	1	2	0	0	2	**5**
Bland	0	0	0	1	0	**1**
Botetourt	0	1	0	1	1	**3**
Bristol	4	0	0	0	1	**5**
Brunswick	3	1	2	1	0	**7**
Buchanan	1	0	2	6	3	**12**
Buckingham	1	2	0	0	0	**3**
Buena Vista	0	0	0	0	0	**0**
Campbell	2	2	2	5	2	**13**
Caroline	5	4	0	0	0	**9**
Carroll	1	4	1	1	1	**8**
Charles City	0	0	1	0	0	**1**
Charlotte	0	0	2	1	0	**3**
Charlottesville	5	3	5	0	3	**16**
Chesapeake	7	15	12	17	14	**65**
Chesterfield	5	9	12	4	10	**40**
Clarke	0	0	1	1	0	**2**
Colonial Heights	0	0	0	0	0	**0**
Covington	0	0	0	0	1	**1**
Craig	0	0	1	0	0	**1**
Culpeper	1	1	0	0	0	**2**
Cumberland	0	2	0	2	0	**4**
Danville	5	6	10	8	9	**38**
Dickenson	0	1	1	1	1	**4**
Dinwiddie	5	1	1	1	2	**10**
Emporia	1	2	1	0	1	**5**
Essex	0	0	0	0	0	**0**
Fairfax City	1	1	1	0	0	**3**

	Year of Death					
County/City of Injury	**2006**	**2007**	**2008**	**2009**	**2010**	**Total**
Fairfax	29	16	25	19	16	**105**
Falls Church	0	0	0	0	0	**0**
Fauquier	2	4	1	3	1	**11**
Floyd	0	0	2	2	0	**4**
Fluvanna	0	0	1	0	0	**1**
Franklin City	0	0	0	2	1	**3**
Franklin	2	1	1	4	3	**11**
Frederick	7	0	2	2	1	**12**
Fredericksburg	0	2	2	1	0	**5**
Galax	1	1	0	1	0	**3**
Giles	1	0	0	0	0	**1**
Gloucester	0	1	1	0	1	**3**
Goochland	1	0	2	0	1	**4**
Grayson	0	1	7	0	0	**8**
Greene	0	1	0	0	0	**1**
Greensville	5	0	6	4	4	**19**
Halifax	1	3	4	0	2	**10**
Hampton	14	7	9	11	17	**58**
Hanover	2	0	1	0	1	**4**
Harrisonburg	4	0	1	0	1	**6**
Henrico	10	15	16	12	12	**65**
Henry	7	3	6	5	7	**28**
Highland	0	0	0	0	0	**0**
Hopewell	4	3	3	4	2	**16**
Isle of Wight	1	0	2	1	0	**4**
James City	1	1	1	1	0	**4**
King and Queen	0	0	0	0	0	**0**
King George	0	0	0	2	0	**2**
King William	0	2	0	0	0	**2**
Lancaster	2	0	1	0	3	**6**
Lee	0	1	2	1	4	**8**
Lexington	0	0	0	0	0	**0**
Loudoun	4	2	4	4	1	**15**
Louisa	0	4	1	1	3	**9**
Lunenburg	1	1	2	1	0	**5**
Lynchburg	2	1	4	0	3	**10**
Madison	0	0	1	0	1	**2**
Manassas	1	1	4	1	1	**8**
Martinsville	0	2	2	0	3	**7**
Mathews	0	0	0	1	0	**1**
Mecklenburg	0	1	4	1	2	**8**

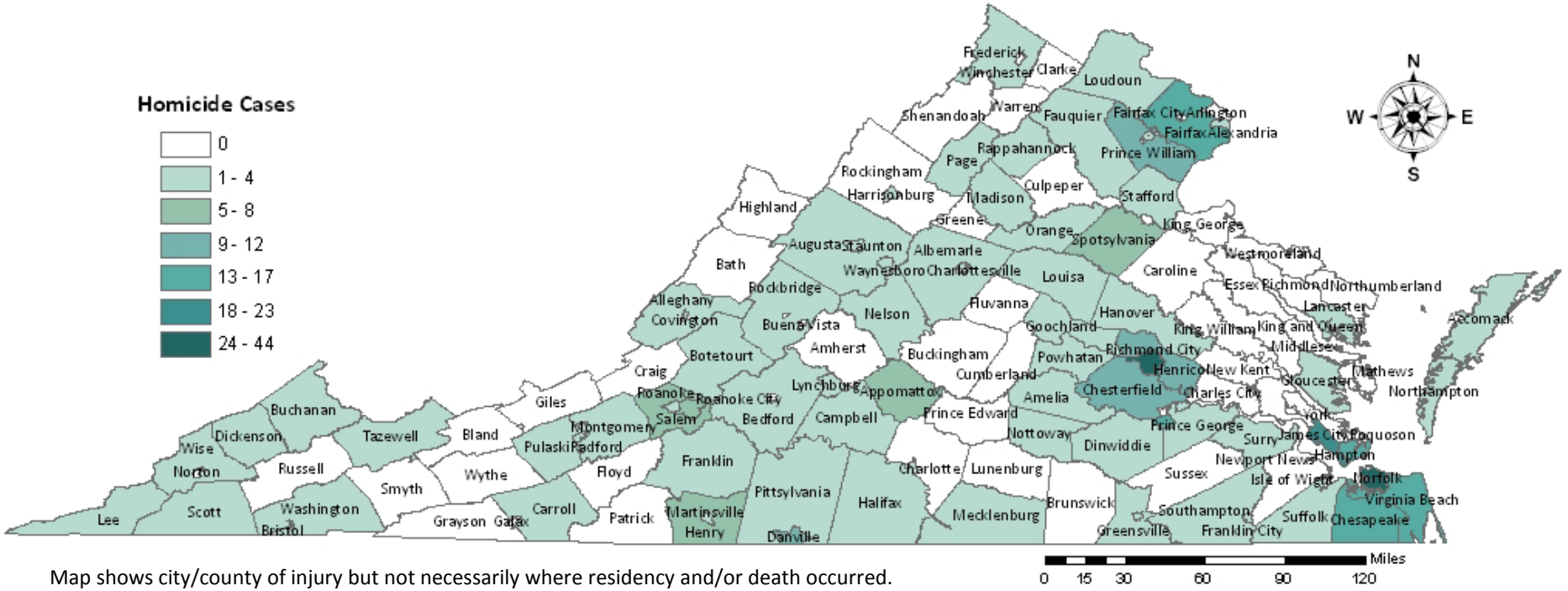
	Year of Death					
County/City of Injury	**2006**	**2007**	**2008**	**2009**	**2010**	**Total**
Middlesex	1	0	0	0	0	**1**
Montgomery	3	33	3	7	2	**48**
Nelson	0	1	0	1	1	**3**
New Kent	0	0	1	1	0	**2**
Newport News	20	30	16	24	23	**113**
Norfolk	34	53	29	50	34	**200**
Northampton	2	1	0	0	2	**5**
Northumberland	0	1	0	0	0	**1**
Norton	0	0	0	0	0	**0**
Nottoway	0	1	0	1	1	**3**
Orange	2	1	1	1	1	**6**
Page	1	0	0	0	1	**2**
Patrick	0	1	0	0	0	**1**
Petersburg	10	7	5	11	13	**46**
Pittsylvania	2	4	3	4	4	**17**
Poquoson	0	0	0	0	0	**0**
Portsmouth	18	17	16	18	14	**83**
Powhatan	0	0	4	1	1	**6**
Prince Edward	0	1	1	7	0	**9**
Prince George	0	0	1	3	2	**6**
Prince William	12	14	11	11	10	**58**
Pulaski	1	0	2	1	2	**6**
Radford	1	0	1	0	1	**3**
Rappahannock	1	0	0	0	1	**2**
Richmond City	85	61	39	44	44	**273**
Richmond	0	0	1	0	0	**1**
Roanoke City	13	8	13	12	8	**54**
Roanoke	1	2	1	2	6	**12**
Rockbridge	0	1	1	0	1	**3**
Rockingham	1	0	1	1	0	**3**
Russell	2	0	1	1	0	**4**
Salem	0	0	2	1	1	**4**
Scott	0	2	1	0	1	**4**
Shenandoah	0	0	0	1	0	**1**
Smyth	0	0	3	1	0	**4**
Southampton	1	3	0	2	1	**7**
Spotsylvania	4	4	0	4	6	**18**
Stafford	1	3	6	6	2	**18**
Staunton	0	0	2	3	2	**7**
Suffolk	8	3	5	8	4	**28**
Surry	0	0	1	0	2	**3**

	Year of Death					
County/City of Injury	**2006**	**2007**	**2008**	**2009**	**2010**	**Total**
Sussex	1	0	0	0	0	**1**
Tazewell	0	3	2	6	4	**15**
Virginia Beach	20	18	18	17	15	**88**
Warren	2	0	0	1	0	**3**
Washington	0	1	2	1	2	**6**
Waynesboro	0	1	1	0	2	**4**
Westmoreland	2	1	1	0	0	**4**
Williamsburg	1	0	0	0	0	**1**
Winchester	2	2	0	0	0	**4**
Wise	0	2	0	1	1	**4**
Wythe	1	0	2	0	0	**3**
York	3	1	1	2	0	**7**
Total in State	**422**	**435**	**387**	**403**	**376**	**2023**
Out of State	1	6	4	1	6	**18**
Unknown	4	2	8	6	9	**29**
TOTAL	**427**	**443**	**399**	**410**	**391**	**2070**

Table 23. Top 10 Homicide Deaths by City/County of Injury, 2010

County/City of Injury	Total Cases
Richmond City	44
Norfolk	34
Newport News	23
Hampton	17
Fairfax	16
Virginia Beach	15
Chesapeake	14
Portsmouth	14
Petersburg	13
Henrico	12

Figure 36. Homicide Deaths by City/County of Injury, 2010



Map shows city/county of injury but not necessarily where residency and/or death occurred.
A total of 15 cases had the fatal homicide injury occur outside of Virginia borders or was unknown.

UNDETERMINED DEATHS (N=151)

Undetermined deaths continue to increase although not as substantially as when the category of death, Sudden Unexpected Infant Death (SUID) was established statewide in 2007. There was a 5.6% increase in undetermined deaths from 2009.

- Forty-five percent of the cases assigned an undetermined manner had a determined cause of death
- Sixty-five percent of the undetermined manner and cause of death cases were designated as SUID

Figure 37. Undetermined Deaths & Rate by Year of Death, 1999-2010

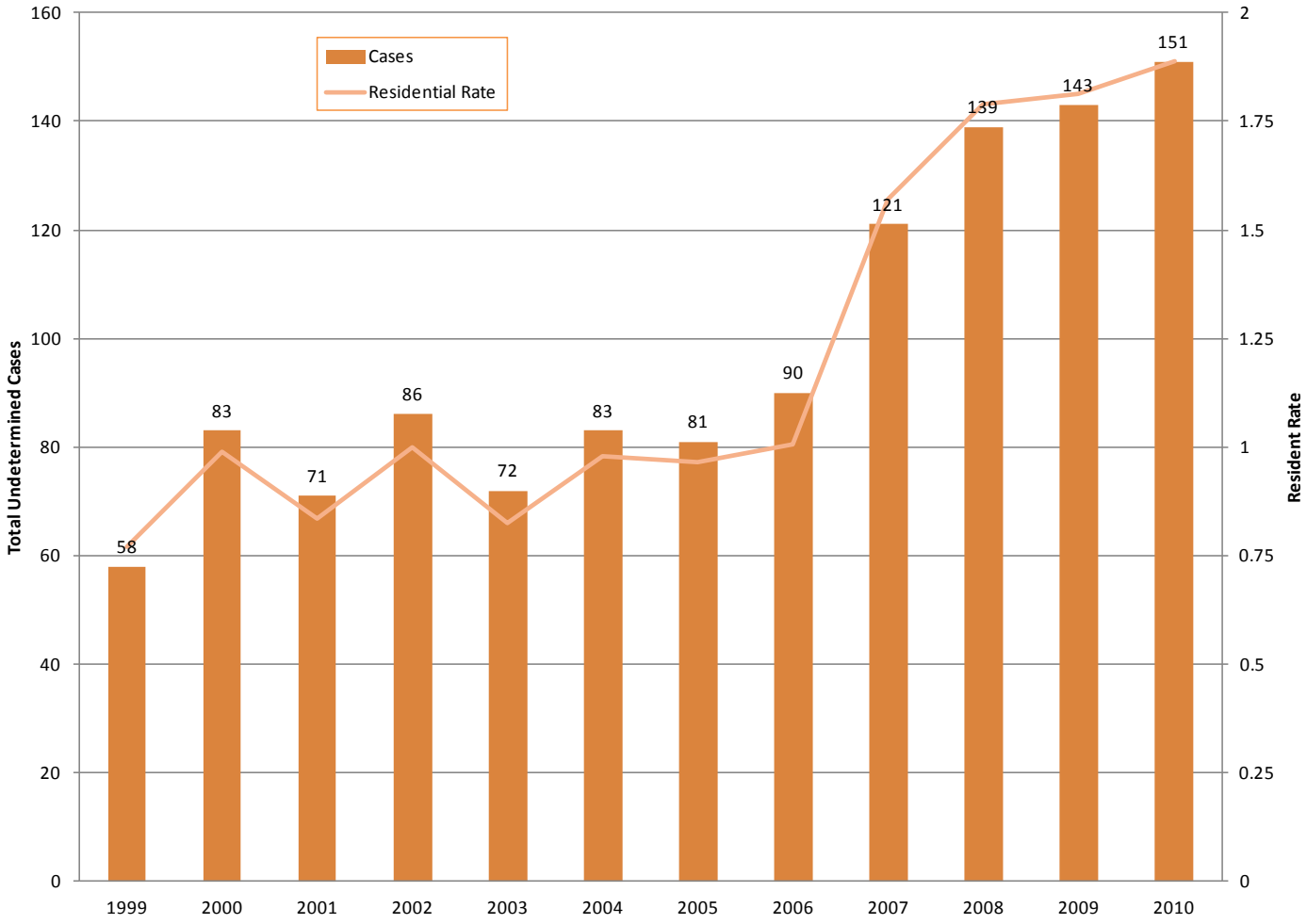


Figure 38. Undetermined Deaths by Age Group by Gender, 2010

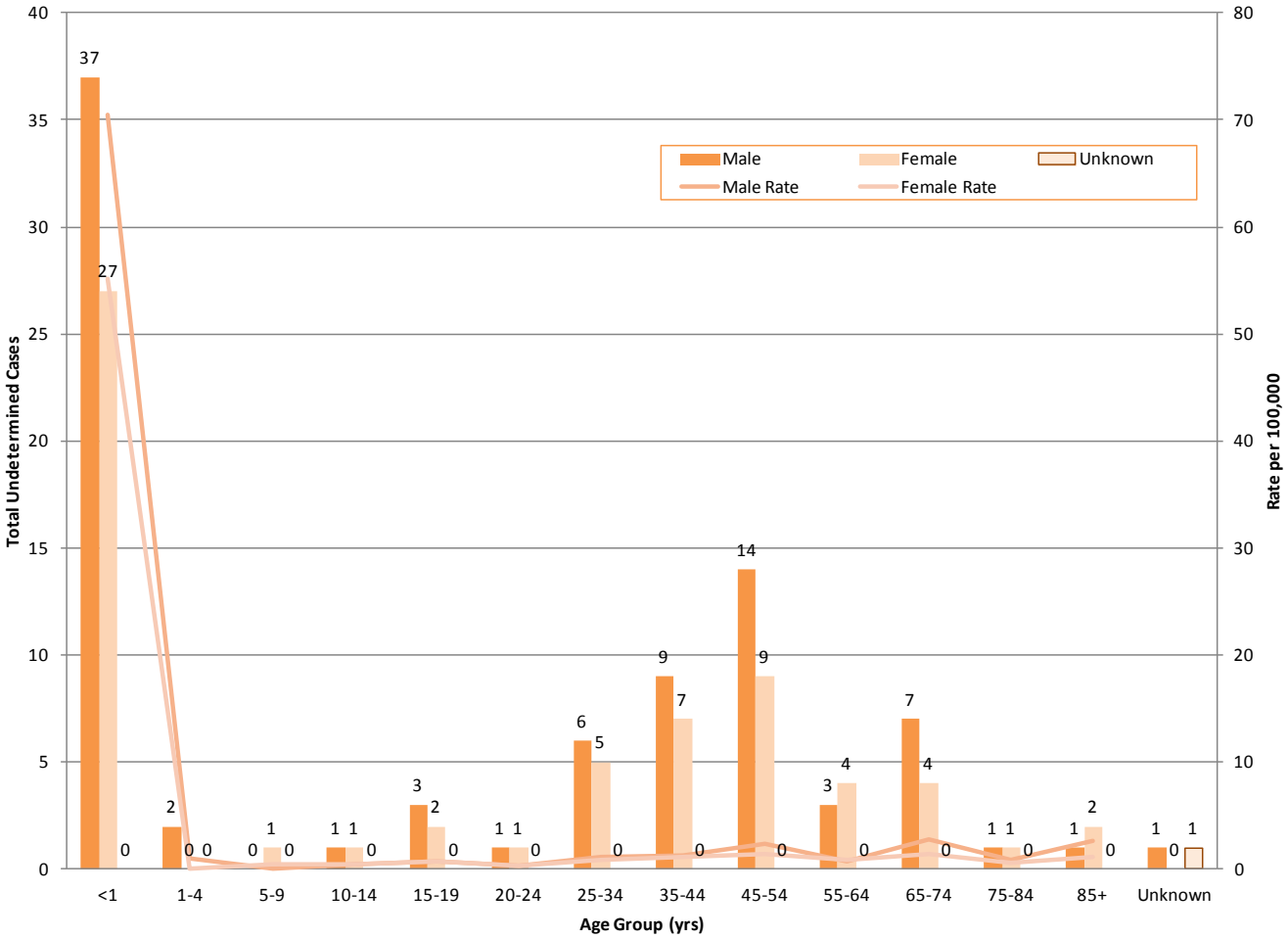


Figure 39. Undetermined Deaths by Race/Ethnicity, 2010

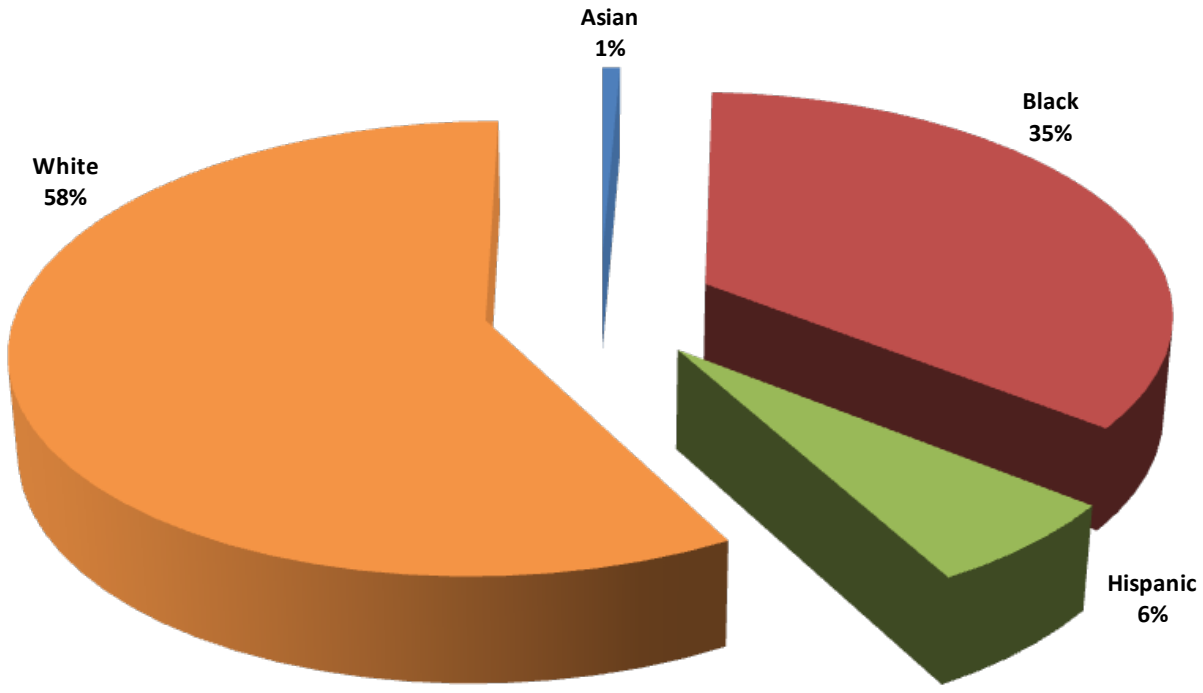


Table 24. Undetermined Deaths by Cause of Death, 2010

	Total Cases	Autopsied
Undetermined Manner & Cause of Death		
Undetermined after autopsy and/or toxicology	82	80
Subtotal for Undetermined Manner & Cause of Death	**82**	**80**
Undetermined Manner but Cause of Death Determined		
Asphyxia		
Drowning	3	3
Other asphyxia	1	1
Drug Use		
Ingested and/or injected illicit, prescription, and/or OTC medication	26	19
Fire		
Thermal burns and/or inhalation of combustions products	6	6
Motor Vehicle		
Bicycle	1	1
Car	1	1
Dump Truck	1	0
Pickup Truck	2	2
Poisoning		
Carbon monoxide poisoning	2	1
Traumatic Injury		
Fall	2	2
Gunshot Wound	8	8
Handgun	(6)	(6)
Rifle	(1)	(1)
Shotgun	(1)	(1)
Other Traumatic Causes	16	14
Subtotal for Undetermined Manner but Cause of Death Determined	**69**	**59**
Total	**151**	**138**

SECTION 4: DEATHS OF CHILDREN (17 Years of Age & Younger) (N=309)

The 309 deaths of children represented 5.5 percent of all deaths investigated by the OCME in 2010.

- Males represented 69.3 percent of all child cases
- The less than one year age group had the largest percentage of cases (46.0%)
- The leading causes of death were SUID cases (60 or 19.4%), followed by blunt force injuries to the head or neck (47 or 15.2%), and then multiple blunt force injuries to the body with 21 cases each or 6.8% of cases

Figure 40. Child Deaths by Manner, 2010

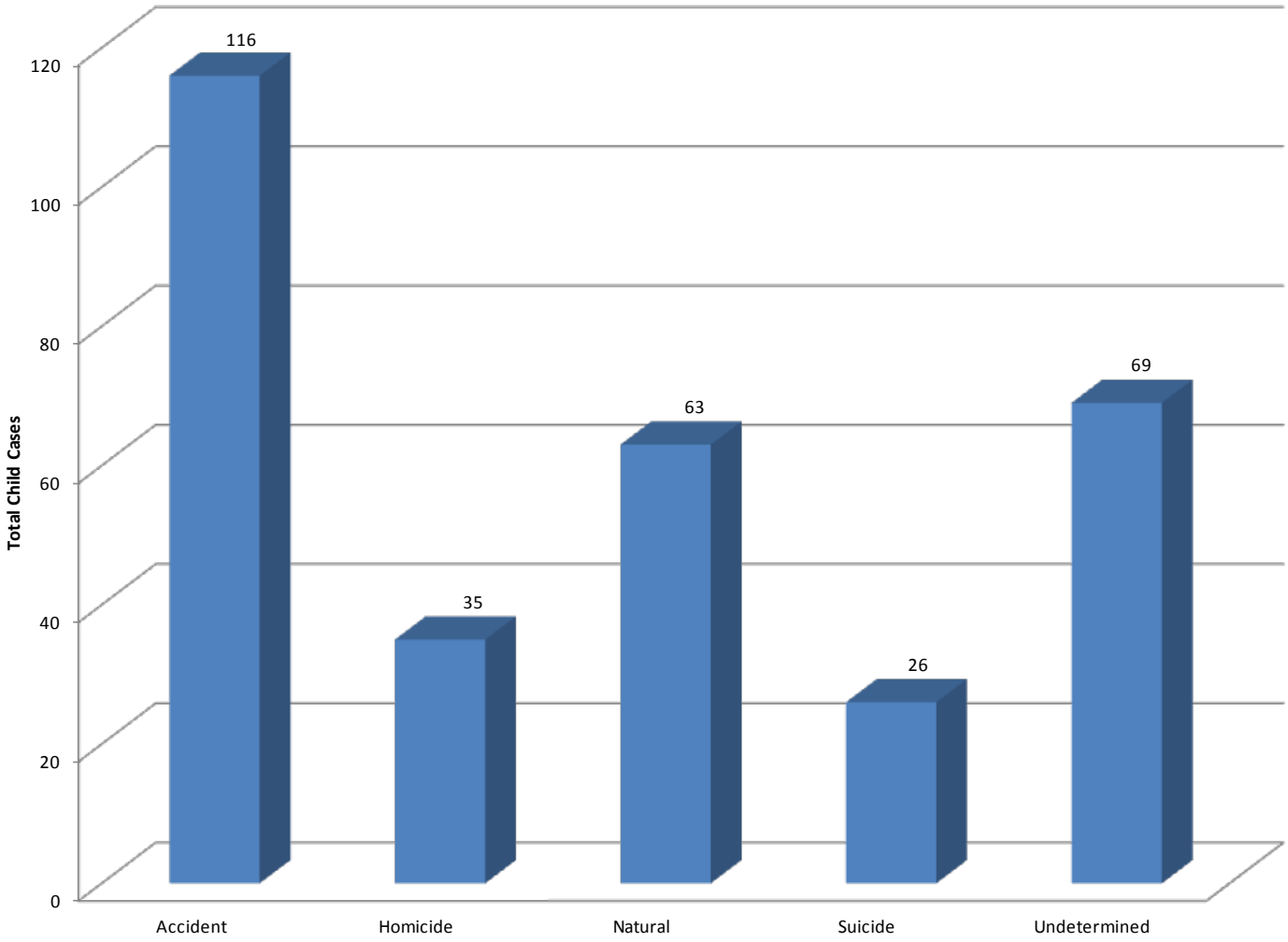


Figure 41. Child Deaths by Age by Gender, 2010

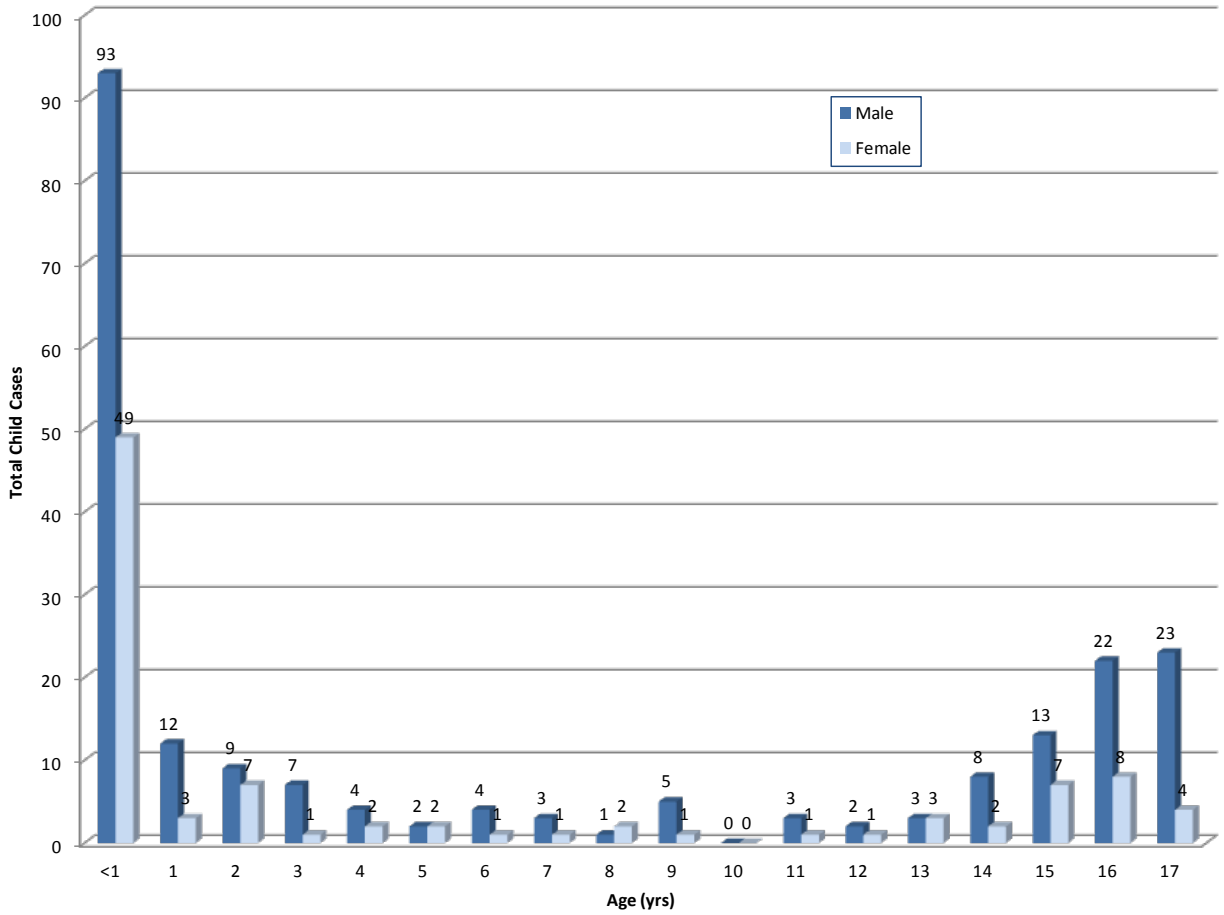


Figure 42. Child Deaths by Race/Ethnicity, 2010

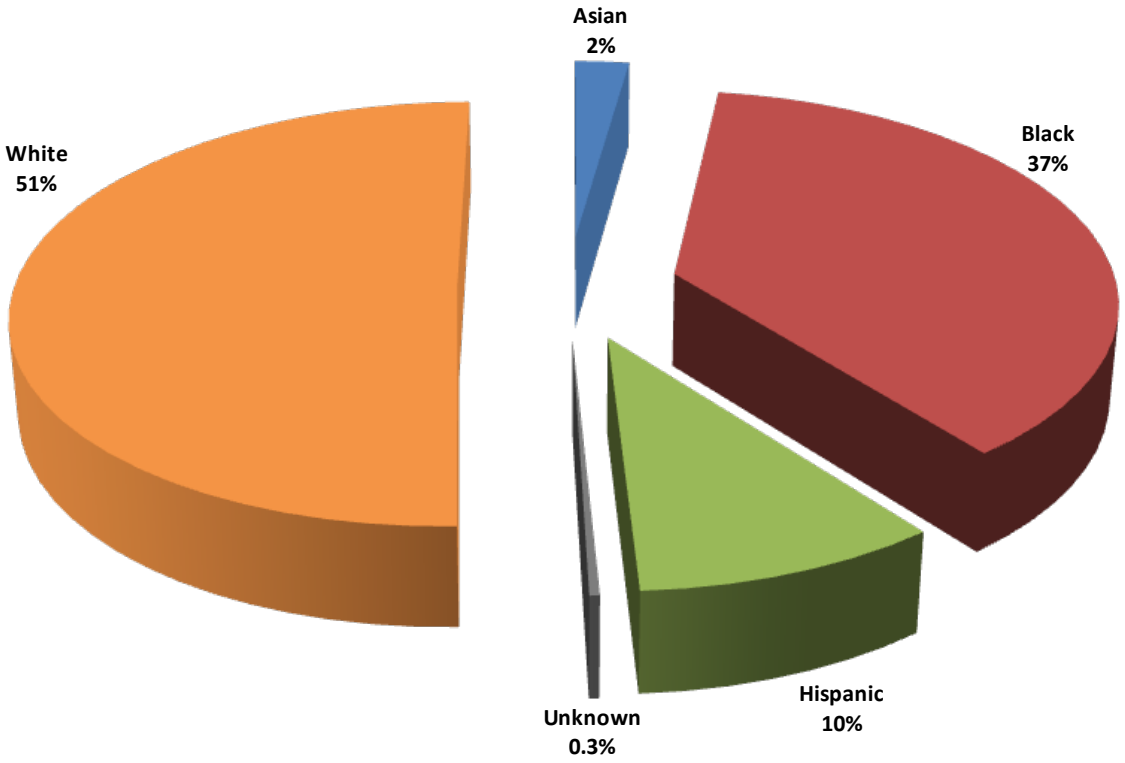


Figure 43. Child Deaths by Manner by Race/Ethnicity, 2010

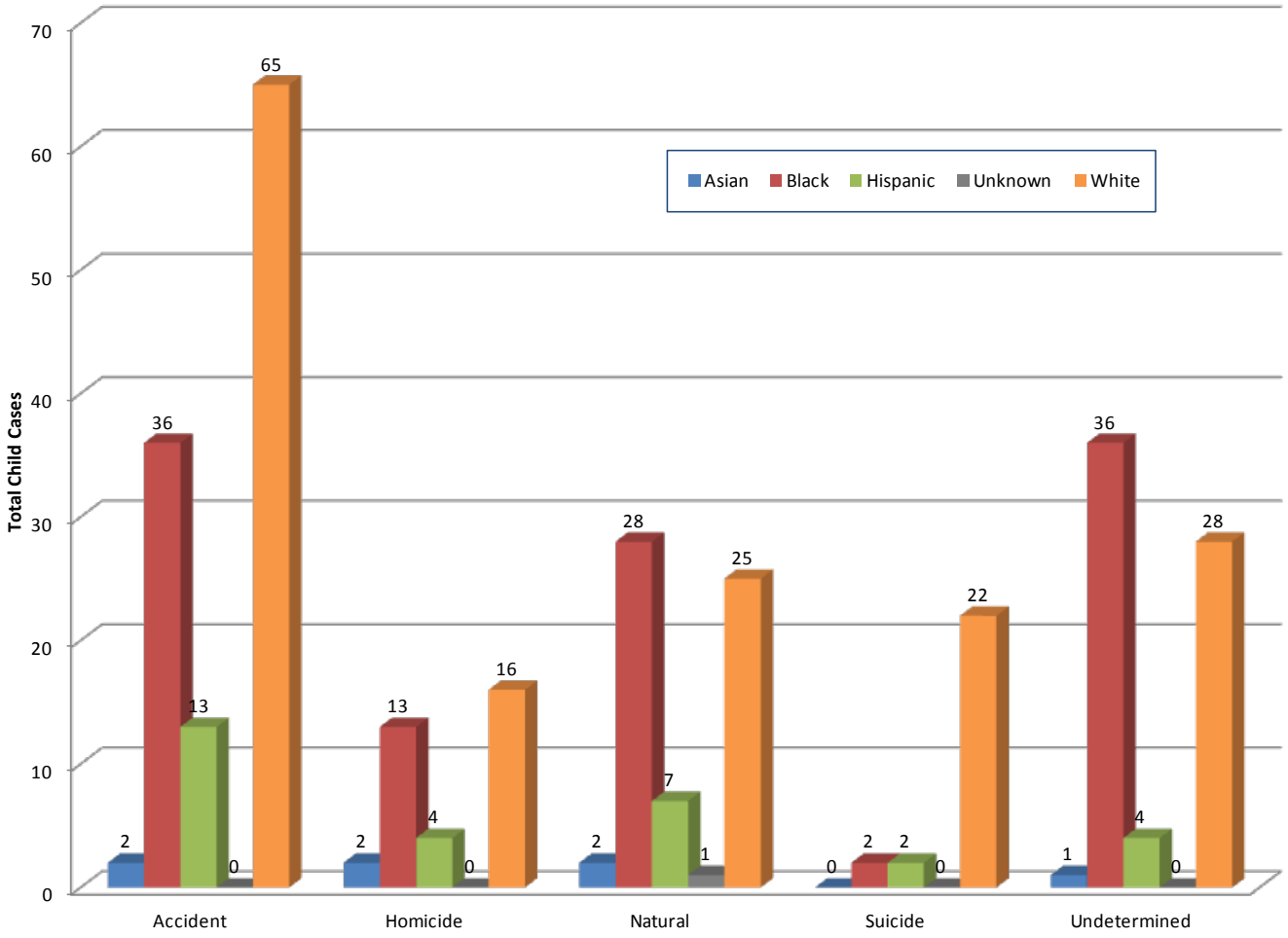


Table 25. Child Deaths by Cause of Death, 2010

Natural Deaths	Total Cases	Autopsied
Pulmonary Diseases/Disorders		
Pneumonia	4	3
Central Nervous System Diseases/Disorders		
Seizure Disorder	3	3
Degenerative Disease	1	0
Meningitis (Bacterial or Viral)	2	2
Other CNS Disease/Disorder	2	2
Cardiovascular Diseases/Disorders		
Congenital Defect	8	8
Cardiac Dysrythmia of Undetermined Etiology	1	1
Cardiomyopathy NOS	1	1
Other Cardiac Disease/Disorder	5	5
Perinatal and Pediatric Diseases/Disorders		
Maternal Complications	2	2
Fetal Complications	3	3
Sudden Infant Death Syndrome (SIDS)	14	14
Other Perinatal or Pediatric Disorder	12	10
Systemic Diseases/Disorders		
Sepsis	1	1
Other Infectious Disease	4	4
Natural Subtotal	**63**	**59**
Unnatural Deaths	**Total Cases**	**Autopsied**
Asphyxia		
Choking (Aspiration: Food or Foreign Object)	3	2
Drowning	17	10
Hanging	18	12
Mechanical	3	3
Helium	1	1
Strangulation/Neck Compression	1	1
Suffocation/Smothering	13	13
Other Asphyxia	3	3
Blunt Force Injuries		
Head/Neck	47	17
Abdomen	2	0
Torso	2	1
Multiple	21	5
Electrocution		
Contacted electrical current	2	1
Fire Injuries		
Inhalation of Combustion Products	3	2
Thermal Burns & Inhalation of Combustions Products	9	5

Gunshot Wound		
Handgun	12	12
Rifle	7	7
Shotgun	3	3
Unspecified Gun	1	1
Penetrating Injuries		
Incised	1	1
Stab	2	2
Poisoning		
Carbon monoxide poisoning	1	1
Substance Abuse		
Prescription Drug Poisoning	5	5
Other Unnatural Deaths		
Other Unnatural	4	2
Unnatural Subtotal	**181**	**110**
Undetermined Deaths	**Total Cases**	**Autopsied**
Undetermined After Autopsy and/or Investigation		
Sudden Unexpected Infant Death (SUID)	60	60
Other Undetermined	5	5
Undetermined Subtotal	**65**	**65**
TOTAL	**309**	**234**

NATURAL DEATHS OF CHILDREN (N=63)

The less than 1 year old age group comprised 68.3 percent of all the natural deaths of children that fell under the OCME's jurisdiction.

- SIDS was the leading cause of natural deaths with 14 cases, a substantial decrease from 23 in 2009

Figure пп. Natural Child Deaths by Age Group by Gender, 2010

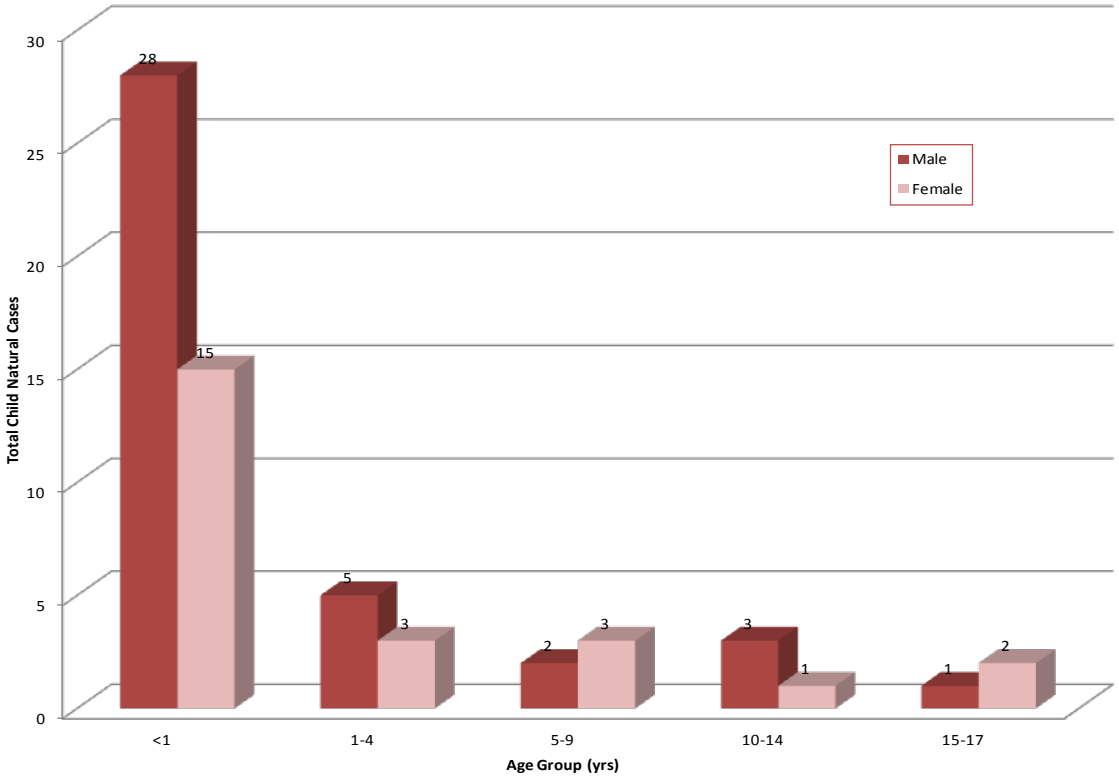
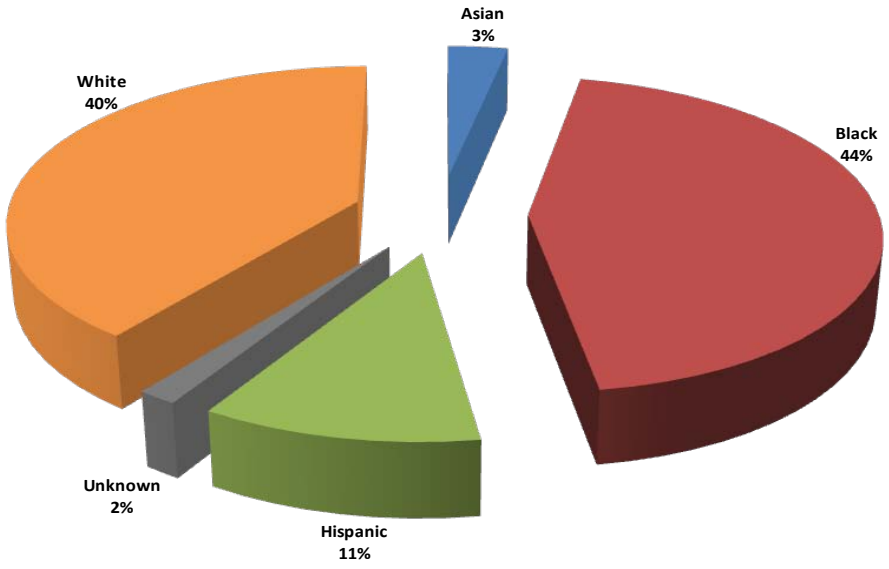


Figure пр. Natural Child Deaths by Race/Ethnicity, 2010



ACCIDENTAL DEATHS OF CHILDREN (N=116)

The number of accidental deaths of children increased slightly in 2010.

- More accidental deaths occurred in males (76.7%), whites (56.0%), and those aged 15-17 years (32.8%)
- Motor vehicles were the leading method of death (n=54) followed by drowning (n=16)

Figure 46. Accidental Child Deaths & Rates by Age Group by Gender, 2010

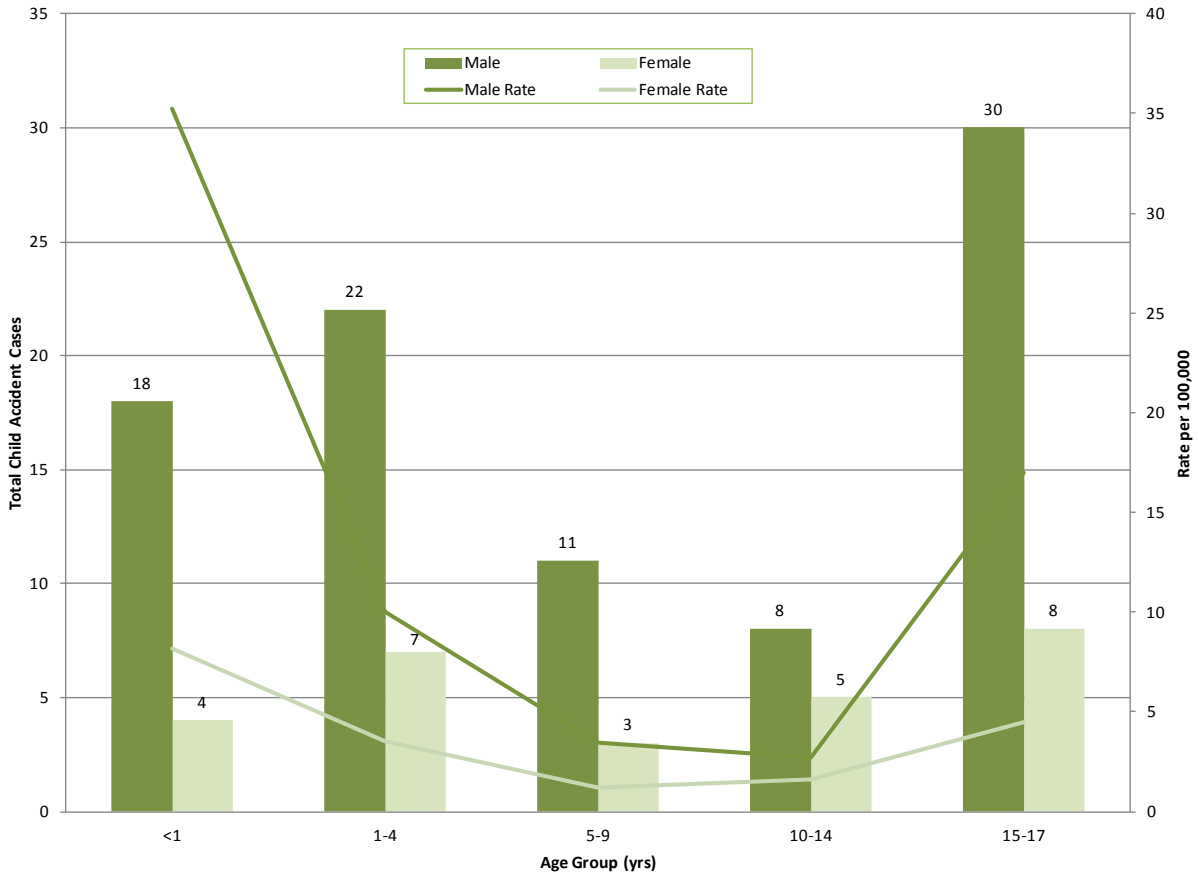


Figure 47. Accidental Child Deaths by Race/Ethnicity, 2010

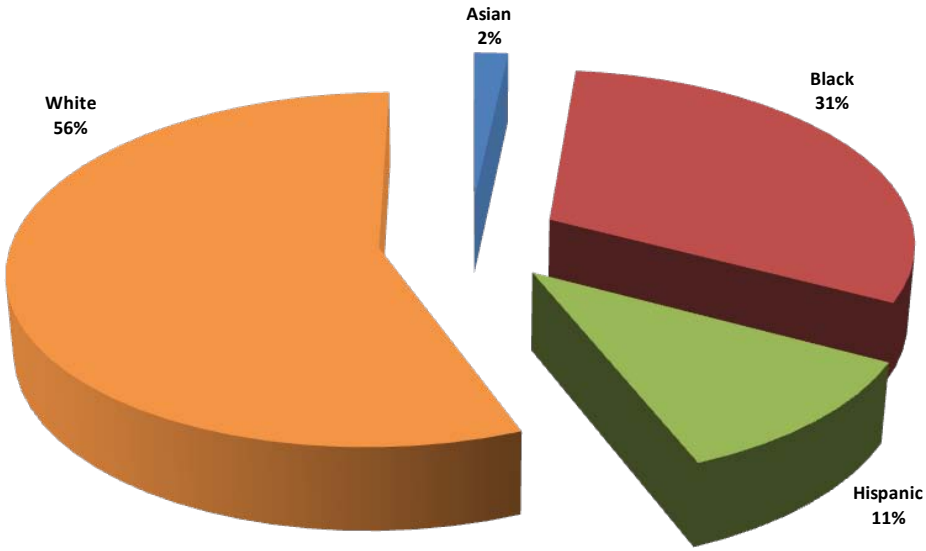


Figure пу. Accidental Child Deaths by Month of Death, 2010

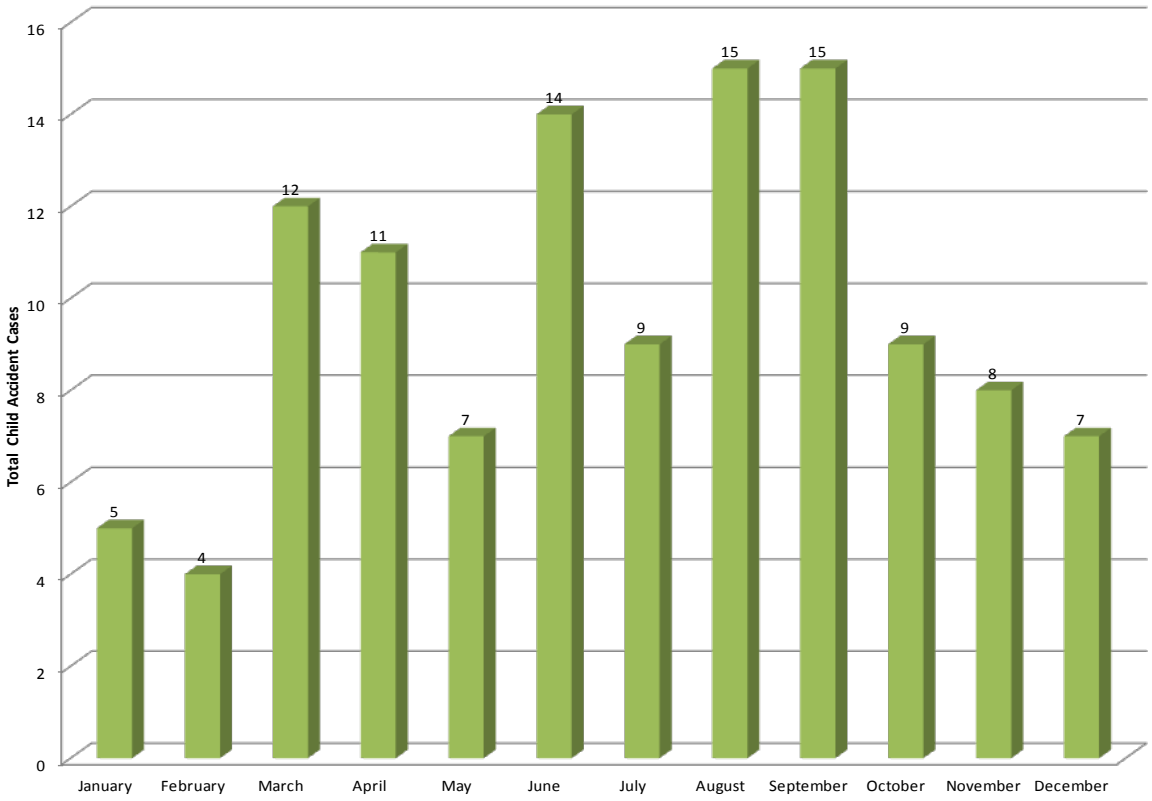


Figure 4ϕ. Accidental Child Deaths by Day of Death, 2010

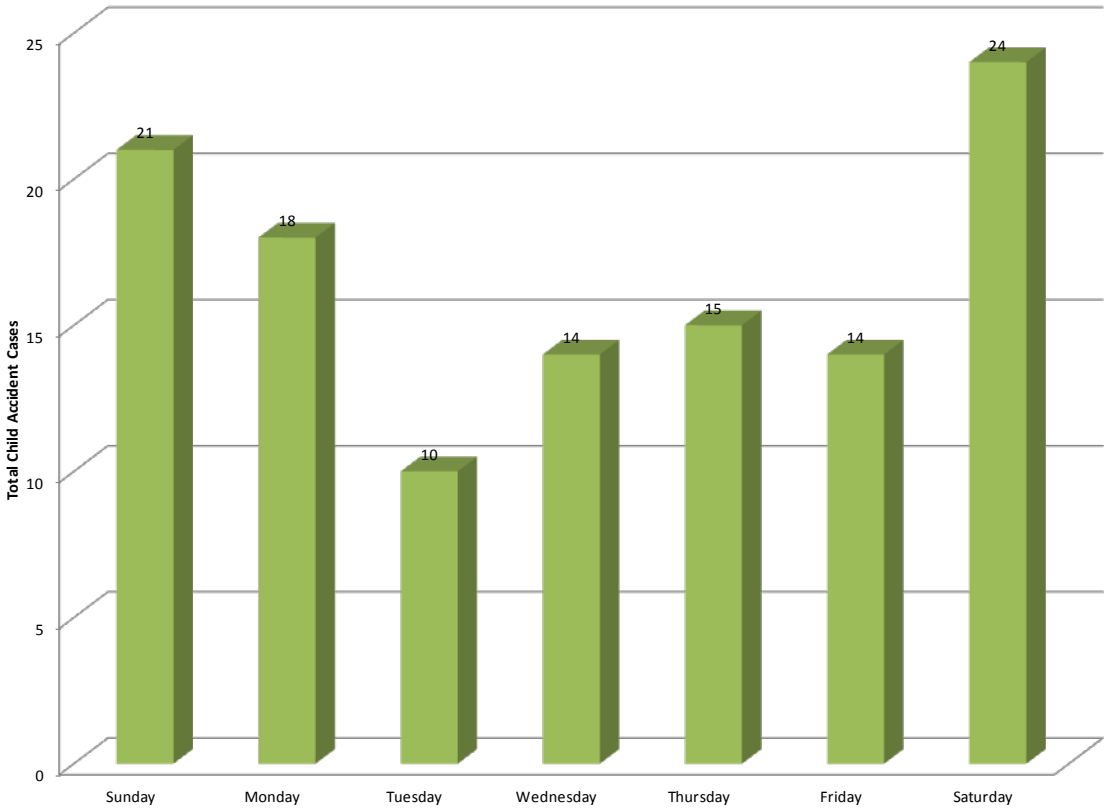


Table 26. Accidental Child Deaths by Method of Death, 2010

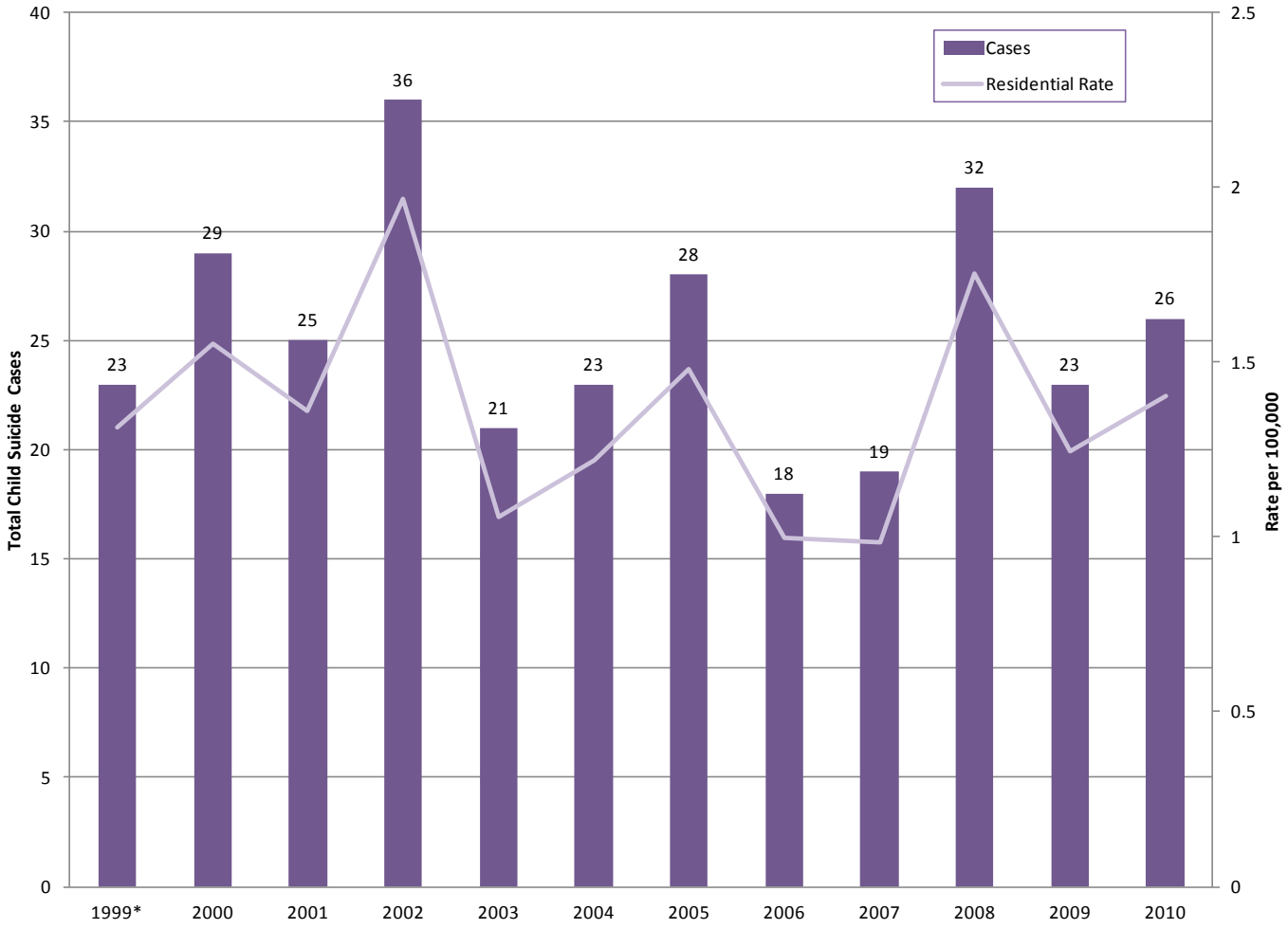
Method of Death		Total Cases	Autopsied
Asphyxia			
	Choked on food/foreign object	3	2
	Drowned	16	9
	Hanging	2	2
	Mechanical/Positional	3	3
	Suffocation/Smothering	13	13
	Other	2	2
Drug Use			
	Ingested and/or injected illicit, prescription, and/or other type of drug	5	5
Electrical			
	Contacted electrical current	2	1
Fall			
	Fall from any height	1	0
Fire			
	Thermal burns and/or inhalation of combustion products	11	6
Poisoned			
	Ingested toxic agent	1	0
Vehicular			
	All Terrain Vehicle	3	0
	Bicycle	2	1
	Boat	1	0
	Car	21	2
	Motorcycle	4	1
	Pickup Truck	8	0
	Sport Utility Vehicle	7	0
	Train	1	1
	Van	4	1
	Unknown	3	2
Traumatic Injury			
	Accidental discharge of firearm	2	2
	Rifle	(1)	(1)
	Shotgun	(1)	(1)
	Falling object	1	0
TOTAL		**116**	**53**

SUICIDE DEATHS OF CHILDREN (N=26)

The number of child suicides in 2010 increased from the previous year, although child suicides tend to vary year to year.

- Childhood suicides mimic what was seen in adults as they were most frequent in males (80.8%) and whites (84.6%)
- The overwhelming majority of children (92.3%) committed suicide either by hanging themselves (61.5%) or using a firearm (30.8%)

Figure 50. Child Suicide Deaths by Year of Death, 1999-2010



* 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 51. Child Suicide Deaths by Age by Gender, 2010

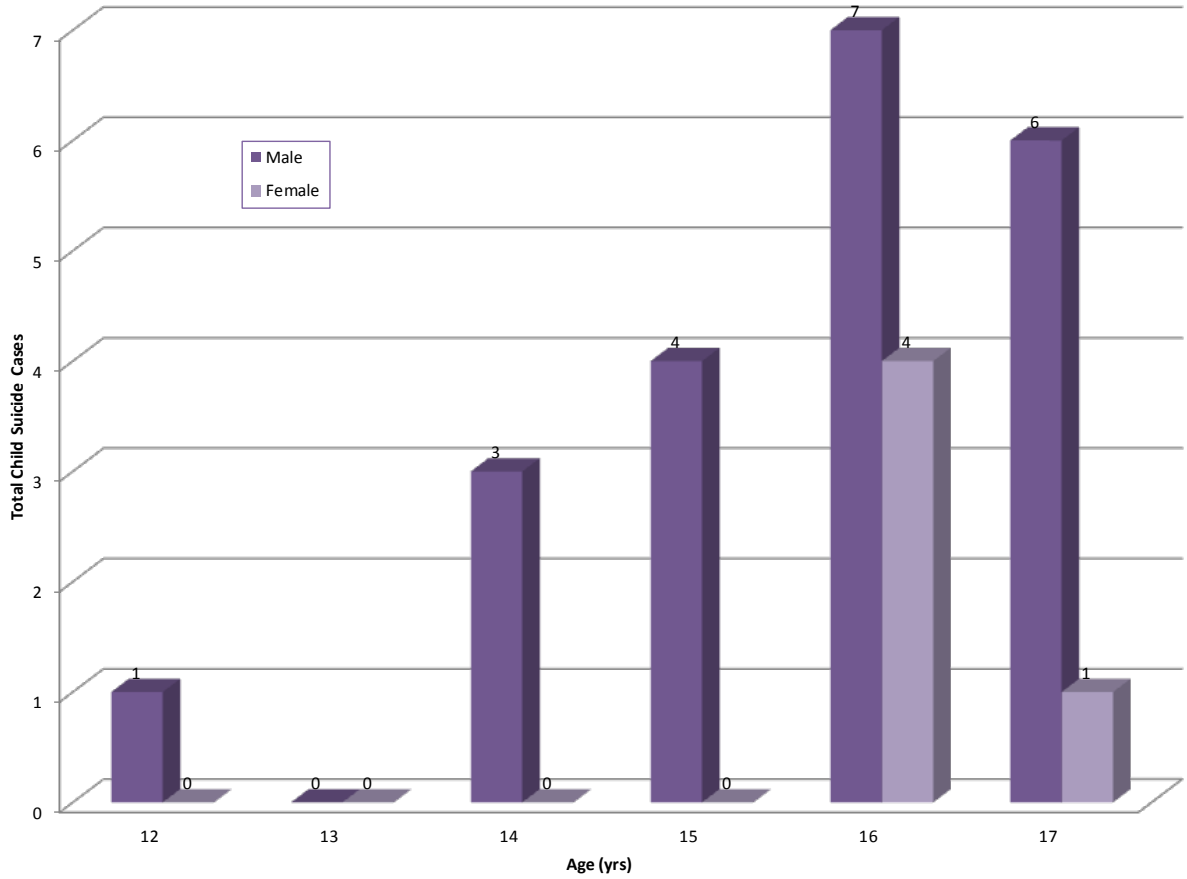


Figure 52. Child Suicide Deaths by Race/Ethnicity, 2010

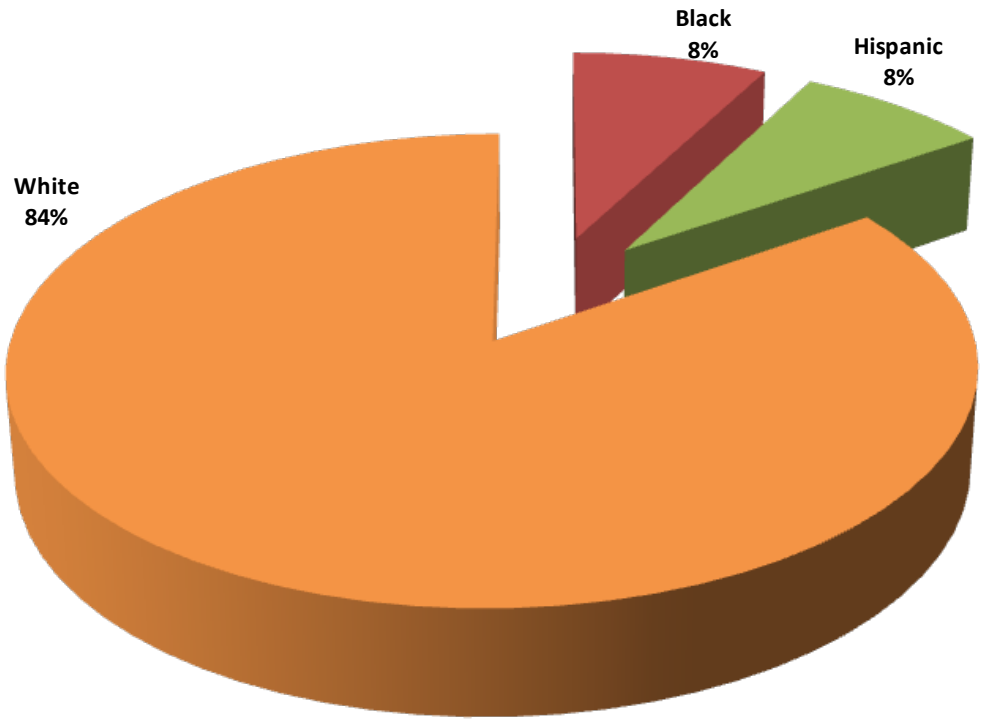


Figure 53. Child Suicide Deaths by Month of Death, 2010

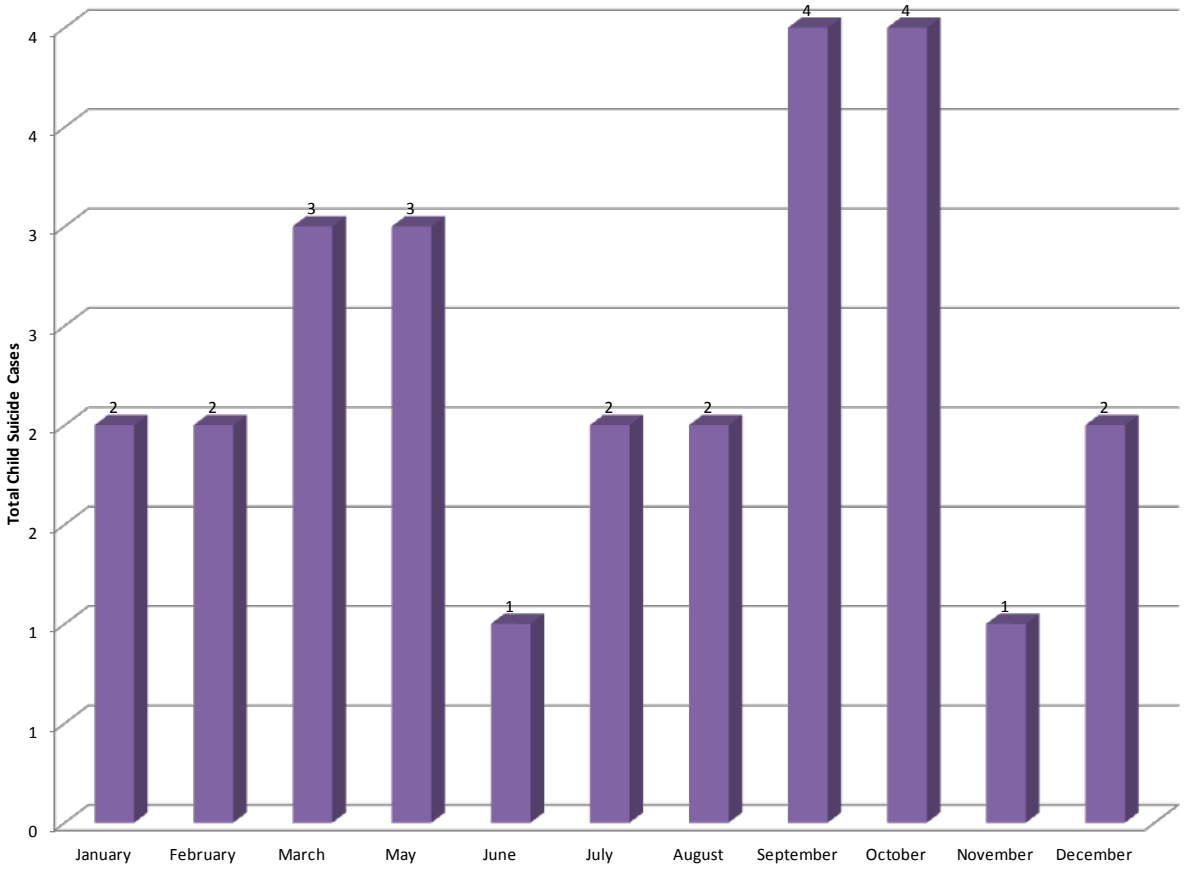


Figure 54. Child Suicide Deaths by Day of Death, 2010

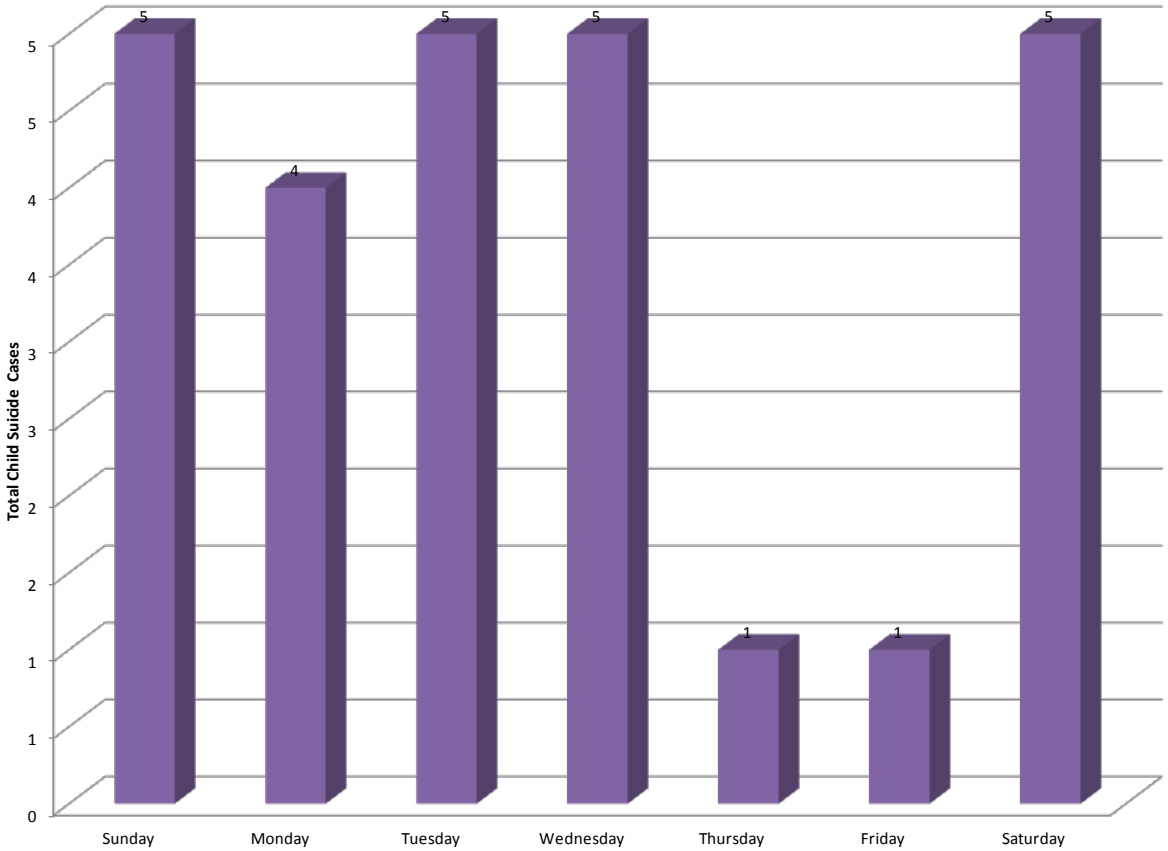


Table 27. Child Suicide Deaths by Method of Death, 2010

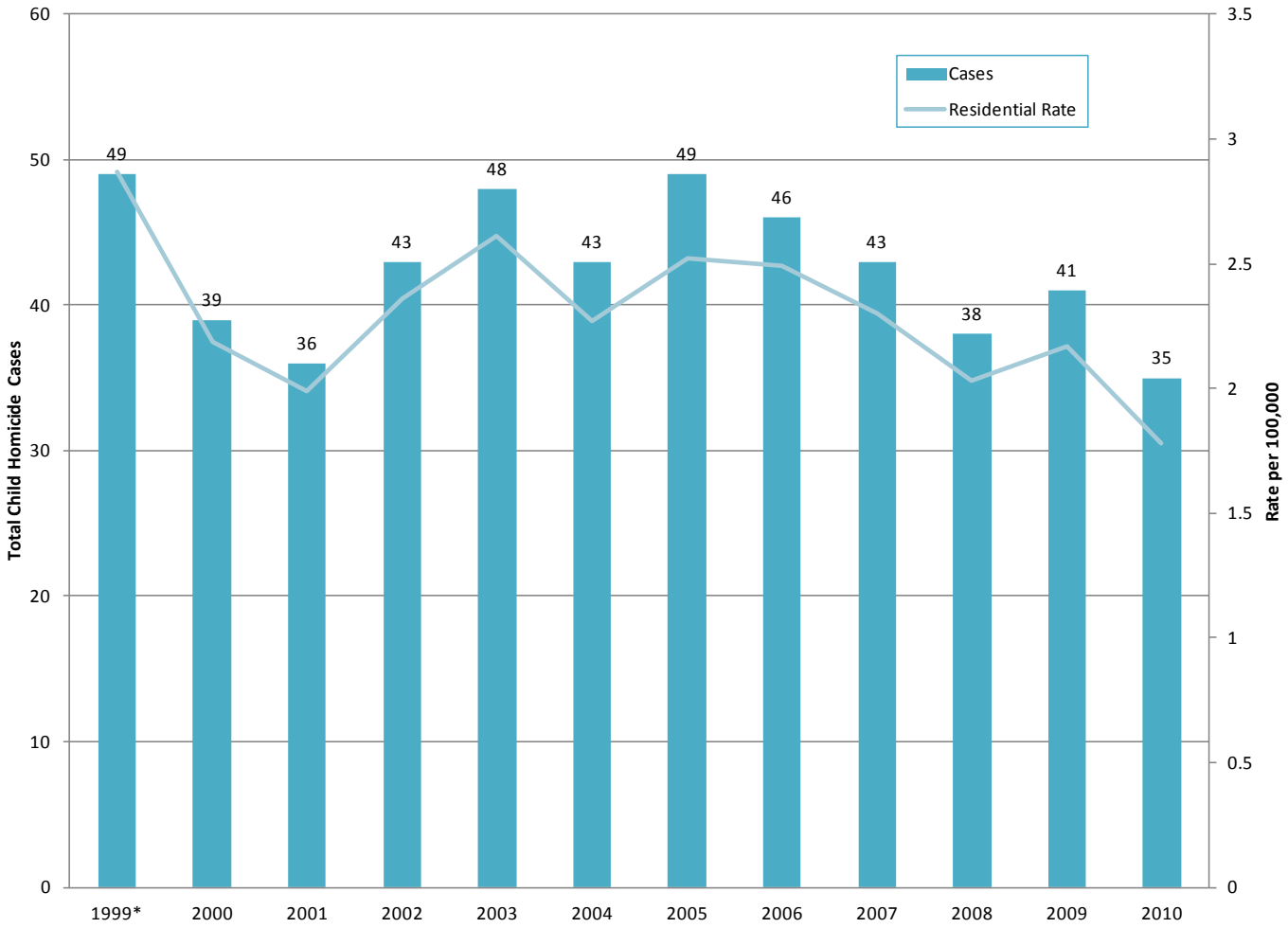
Method of Death	Total Cases	Autopsied
Asphyxia		
Hanging	16	10
Helium	1	1
Motor Vehicle		
Pickup Truck	1	0
Traumatic Injury		
Gunshot Wound	8	8
Handgun	(5)	(5)
Rifle	(1)	(1)
Shotgun	(2)	(2)
Total	**26**	**19**

HOMICIDE DEATHS OF CHILDREN (N=35)

As there was a decrease in overall homicides in 2010, there was also a decrease in homicides of children for 2010. Homicides of children represented 9% of all homicides.

- Unlike most previous years, childhood homicides were most common in whites (45.7%) although black children still were disproportionally killed compared to their portion of the general population
- Infants continued to have the highest number (n=13)
- Males accounted for 71.4% of all childhood homicides
- Beatings were responsible for 45.7% of all childhood homicides

Figure 55. Child Homicide Deaths & Rate by Year of Death, 1999-2010



* 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 56. Child Homicide Deaths by Age by Gender, 2010

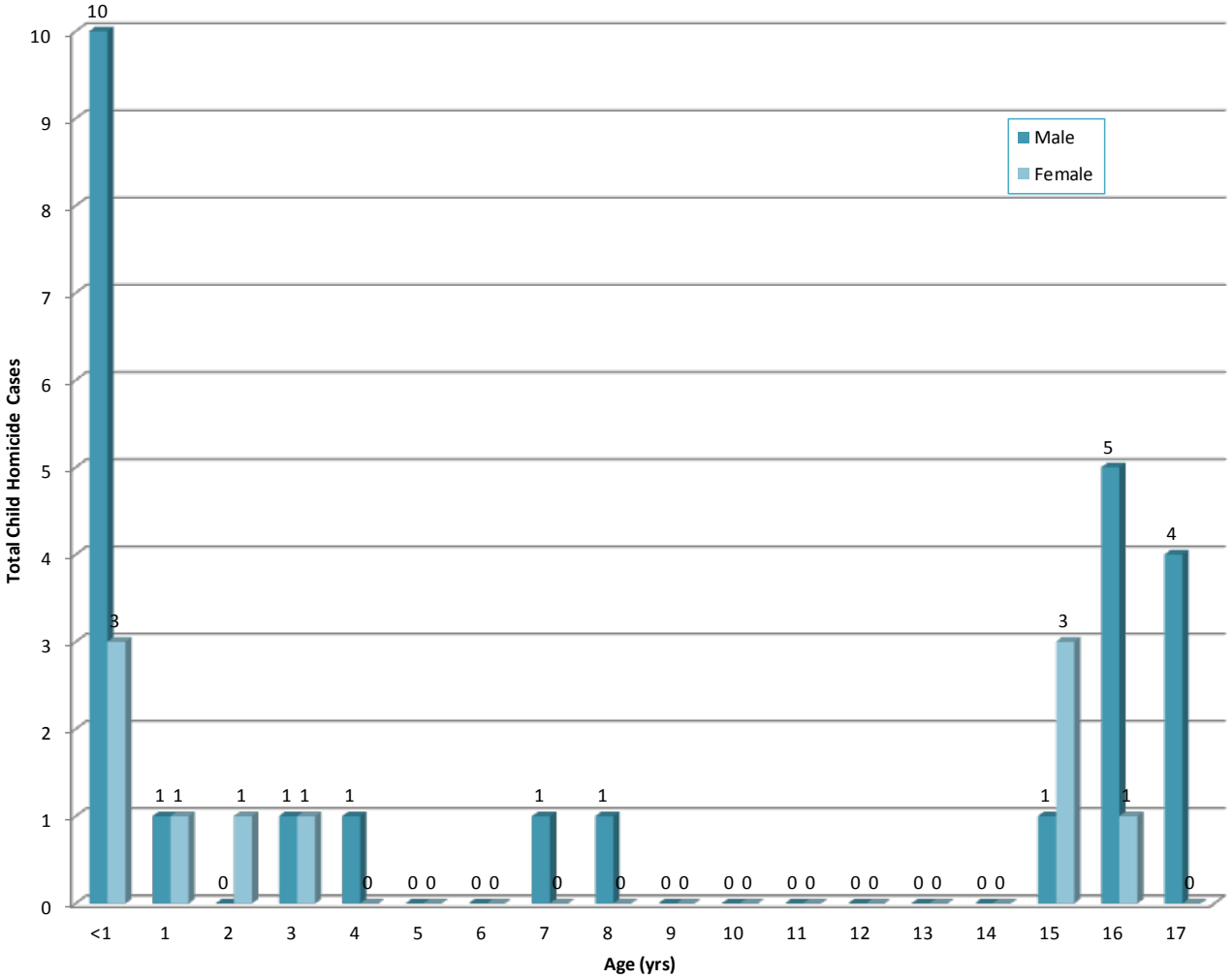


Figure 57. Child Homicide Deaths by Race/Ethnicity, 2010

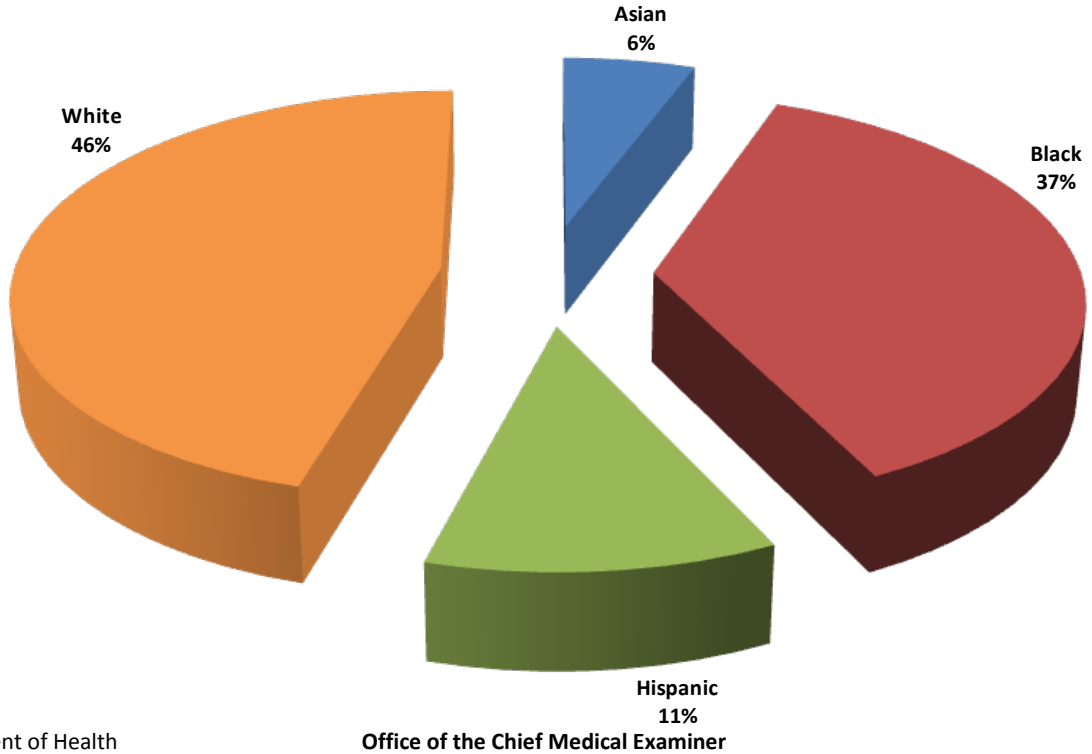


Figure 58. Child Homicide Deaths by Month of Death, 2010

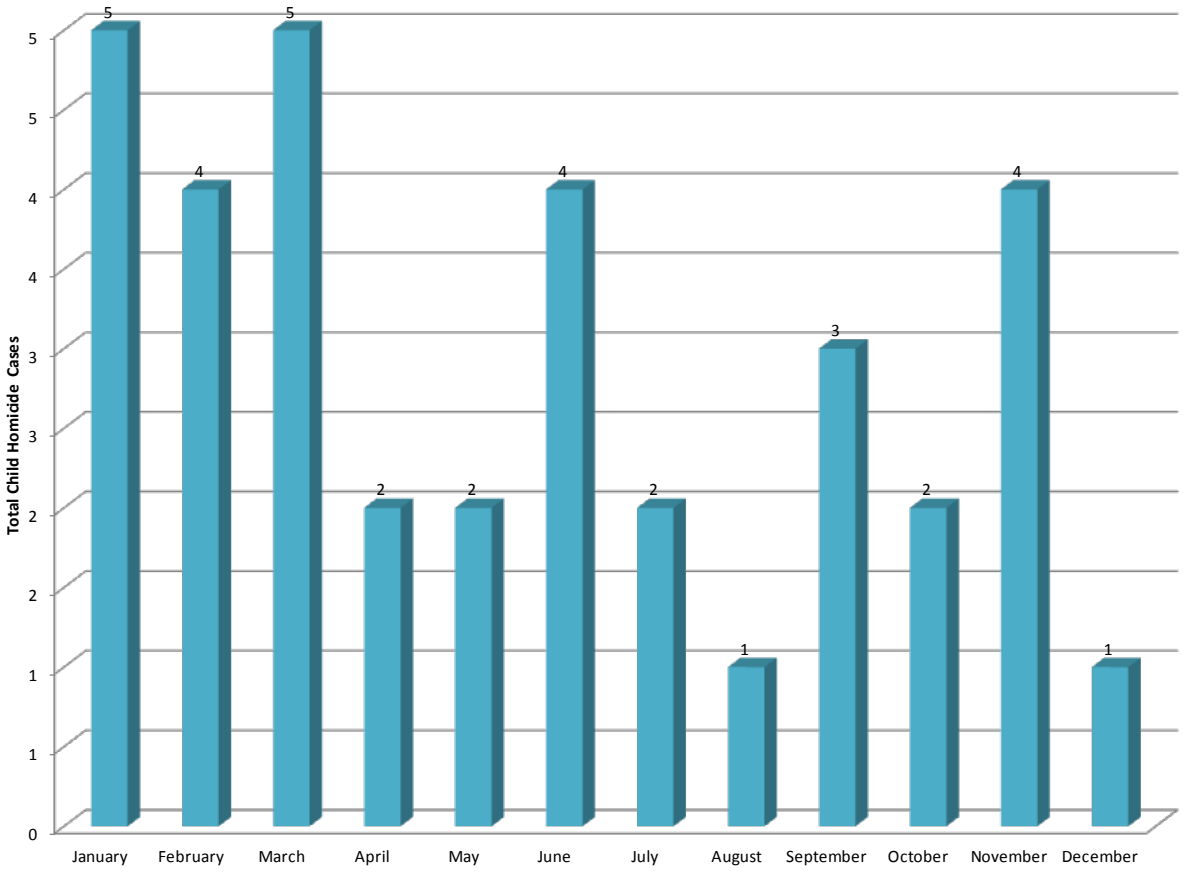


Figure 59. Child Homicide Deaths by Day of Death, 2010

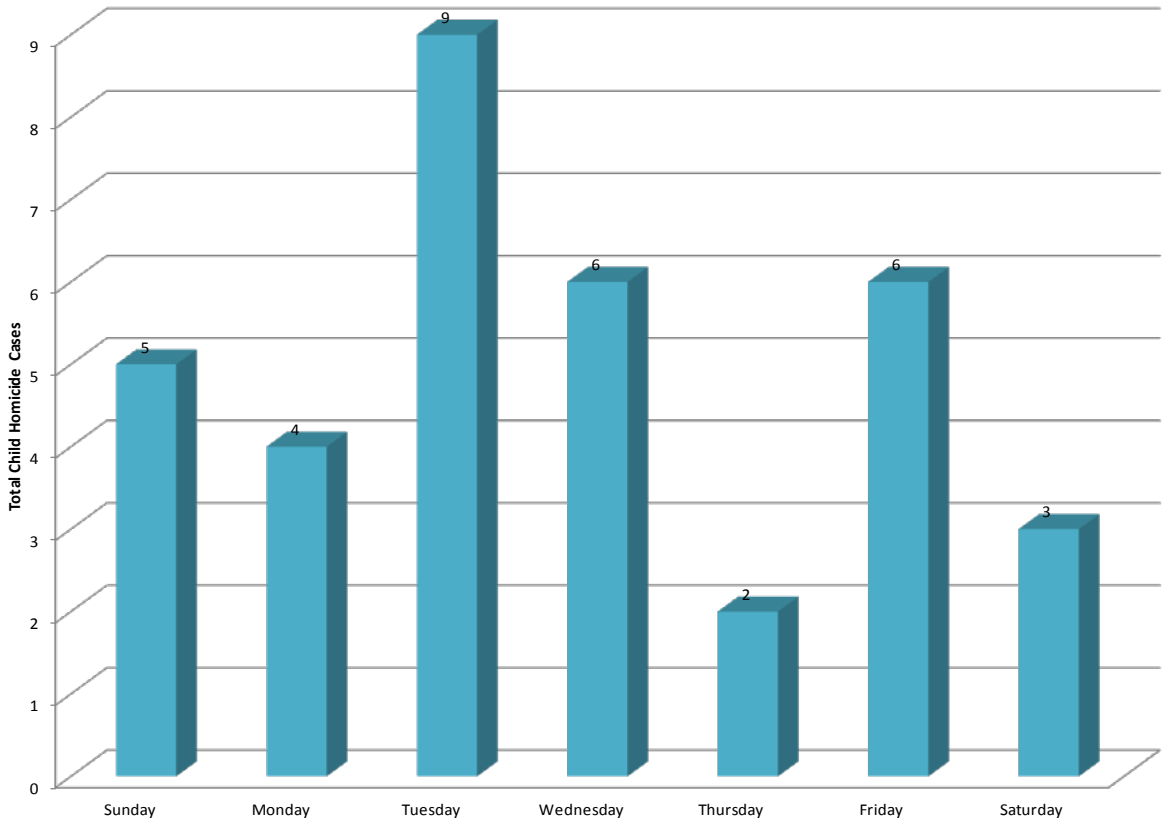


Table 28. Child Homicide Deaths by Method of Death, 2010

Method of Death	Total Cases	Autopsied
Asphyxia		
Strangulation	1	1
Traumatic Injury		
Beaten by assailant(s)	16	15
Fall/Push	1	1
Shot by assailant(s) with firearm	12	12
Handgun	(6)	(6)
Rifle	(5)	(5)
Unspecified	(1)	(1)
Stabbed by assailant(s)	3	3
Other	1	1
Unknown		
Undetermined method	1	1
Total	**35**	**34**

UNDETERMINED DEATHS OF CHILDREN (N=69)

A total of 69 undetermined deaths of children occurred in 2010; this represents 45.7 percent of all undetermined cases.

- The less than 1 year of age group accounted for 92.8% of undetermined deaths
- Eighty-seven percent had the diagnosis of SUID

Figure 60. Undetermined Child Deaths by Year of Death, 2006-2010

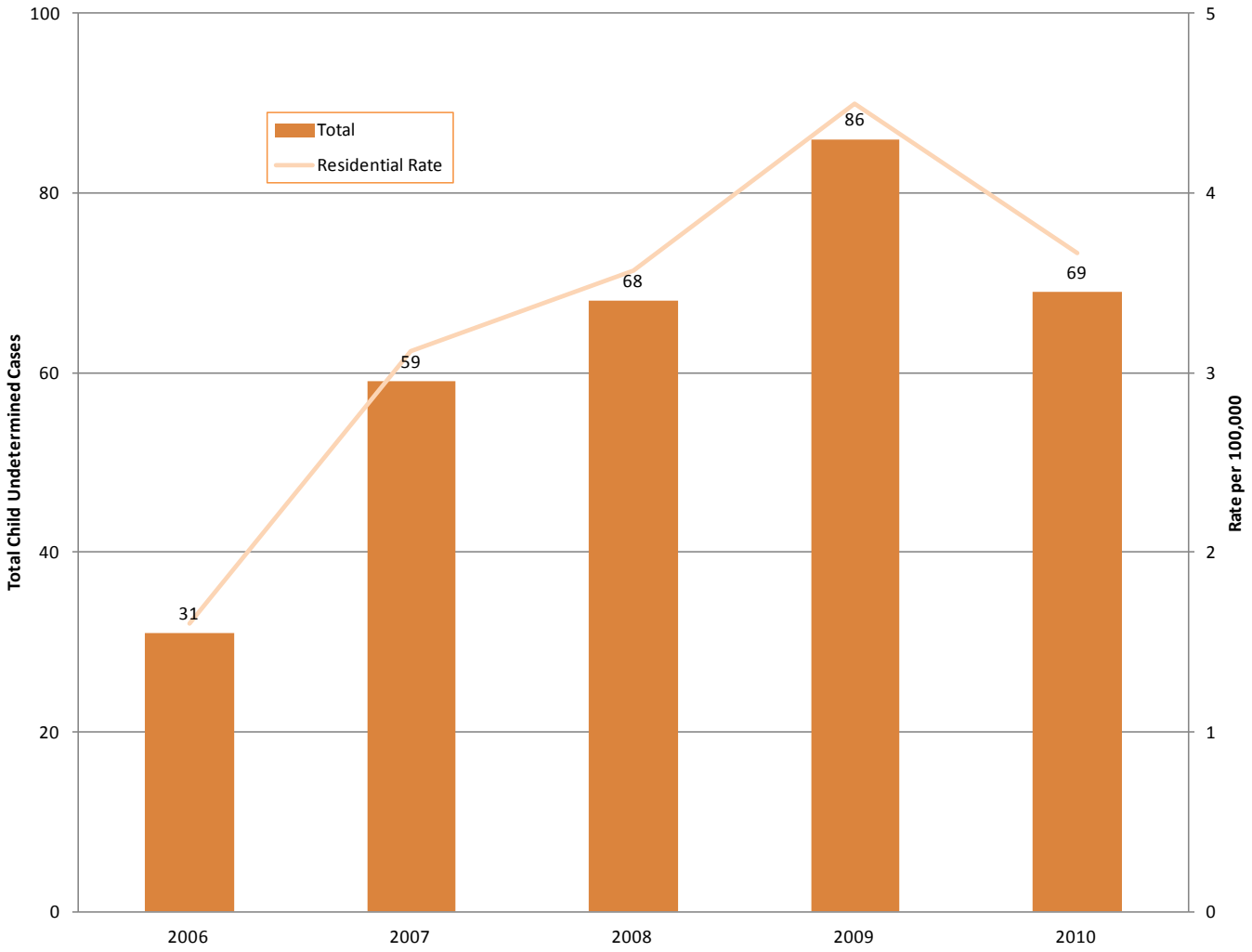


Figure 61. Undetermined Child Deaths by Age By Gender, 2010

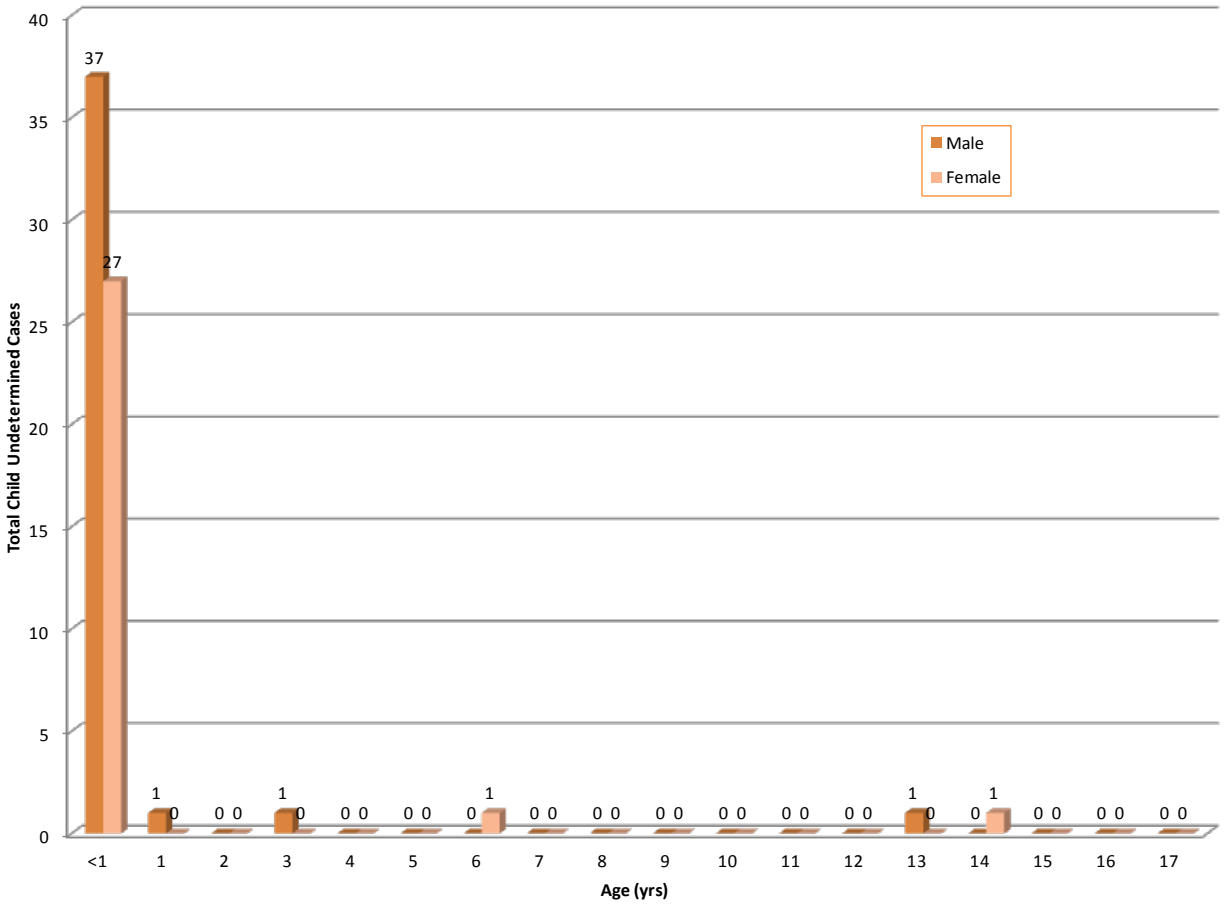


Figure 62. Undetermined Child Deaths by Race/Ethnicity, 2010

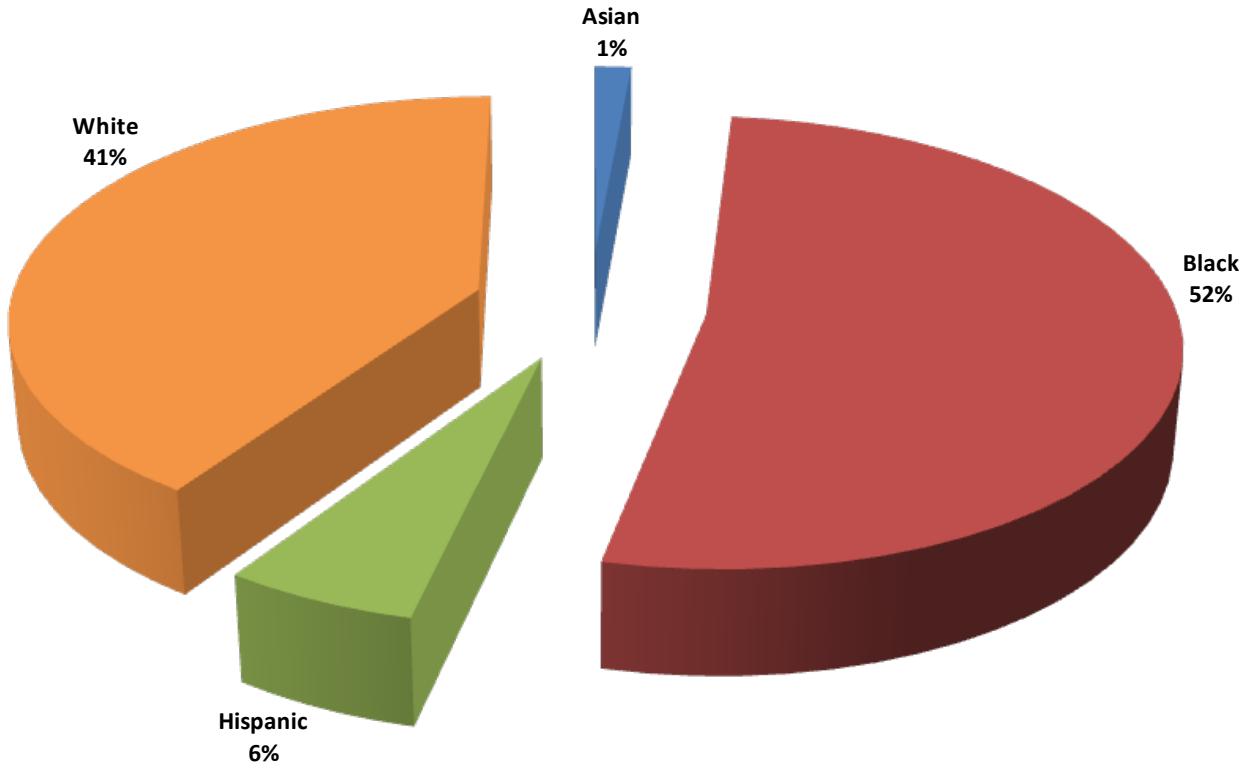


Table 29. Undetermined Child Deaths by Cause of Death, 2010

	Total Cases	Autopsied
Undetermined Manner & Cause of Death		
Sudden Unexpected Infant Death	60	60
Undetermined after autopsy and/or toxicology	4	4
Subtotal for Undetermined Manner & Cause of Death	**64**	**64**
Undetermined Manner but Cause of Death Determined		
Asphyxia		
Drowning	1	1
Other	1	1
Poisoning		
Inhaled toxic agent (ex. Carbon monoxide)	1	1
Traumatic Injury		
Handgun	1	1
Other	1	1
Subtotal for Undetermined Manner but Cause of Death Determined	**5**	**5**
Total	**69**	**69**

SECTION 5: ETHANOL ASSOCIATED DEATHS (N=1140)

Ethanol, at the level of 0.01% by weight per volume (W/V) or greater, was detectable in 1140 or 20.5% of decedents in 2010. Of those with detectable ethanol levels, 62.9% had a measured level at or above 0.08% W/V, which is the legal limit for operating a motor vehicle in Virginia.

- Males accounted for 78.7% of all ethanol associated deaths
- Forty-five percent of hypothermia cases were associated with ethanol as were 30.4% of drowning and 27.6% of all gunshot cases

Figure 63. Ethanol Presence by Manner of Death, 2010
Measured Ethanol ≥0.01% W/V

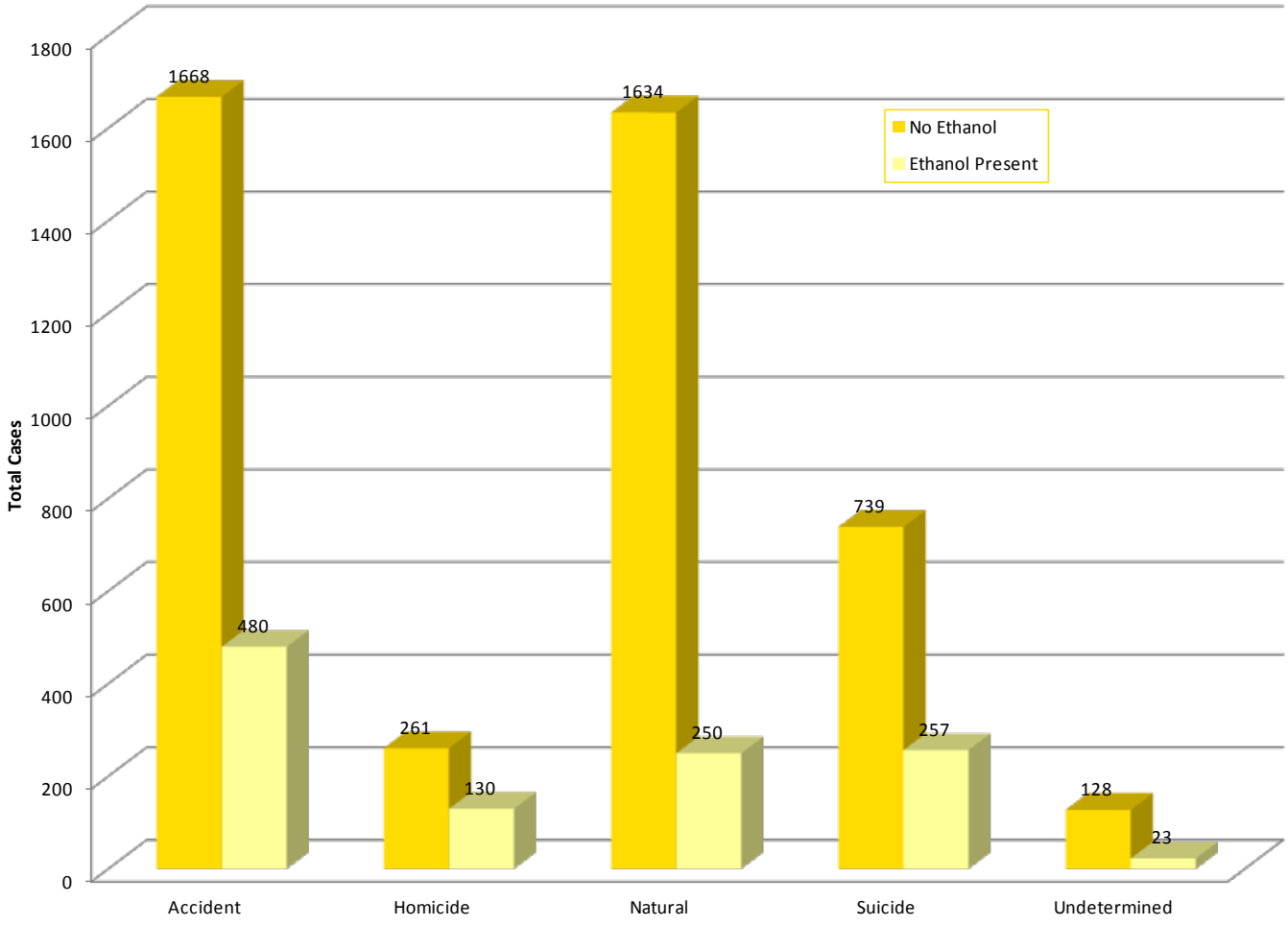


Figure 64. Ethanol Presence by Age Group by Gender, 2010
Measured Ethanol ≥0.01% W/V

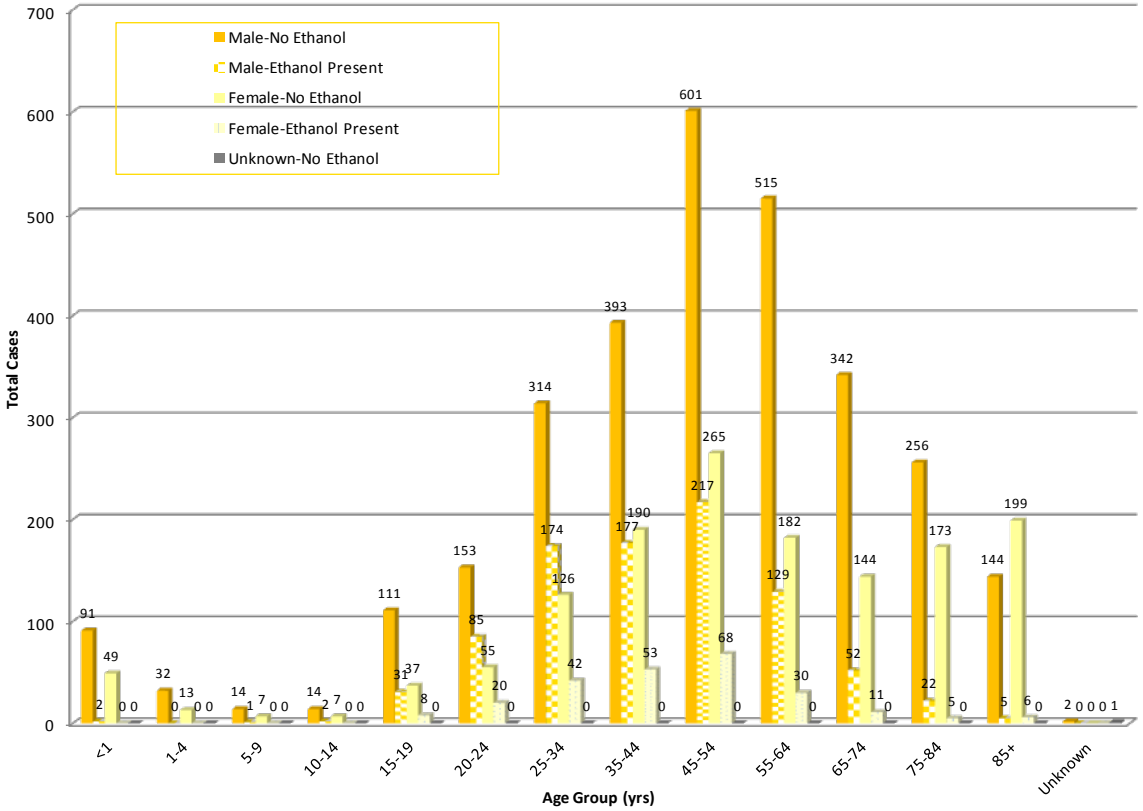


Figure 65. Ethanol Associated Deaths by Age Group by Gender, 2010
Measured Ethanol ≥0.01% W/V

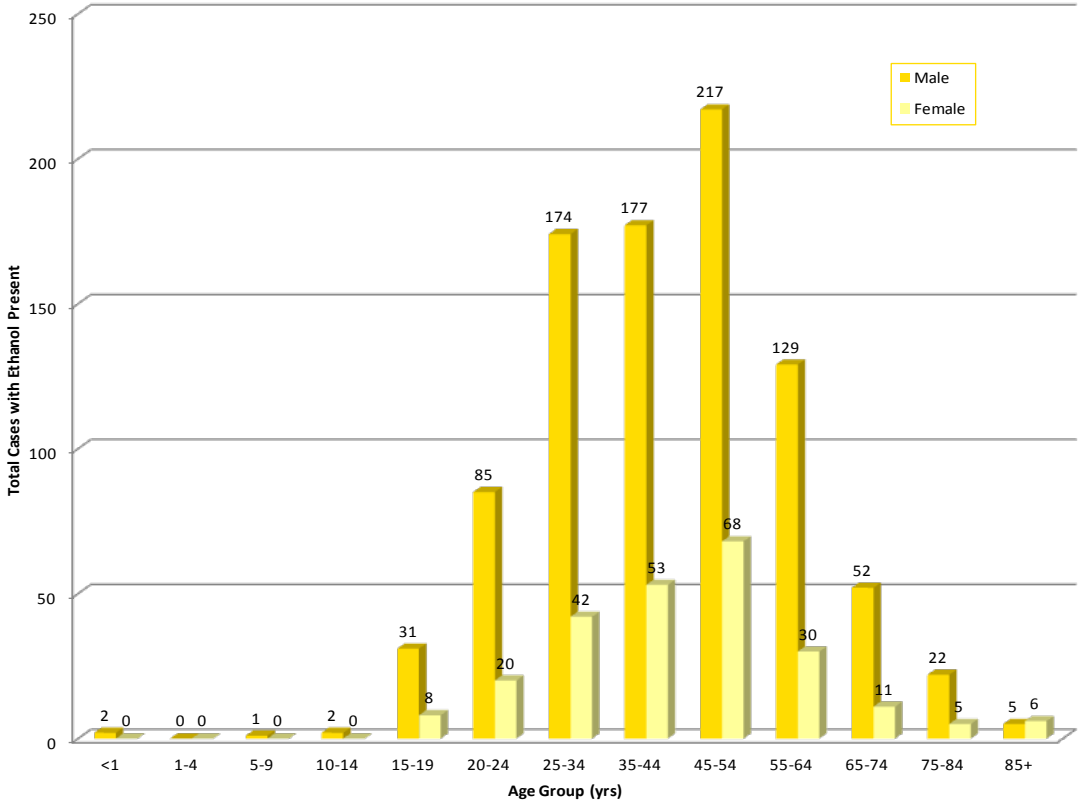


Figure 66. Ethanol Associated Deaths by Race/Ethnicity by Ethanol Presence, 2010
Measured Ethanol ≥0.01% W/V

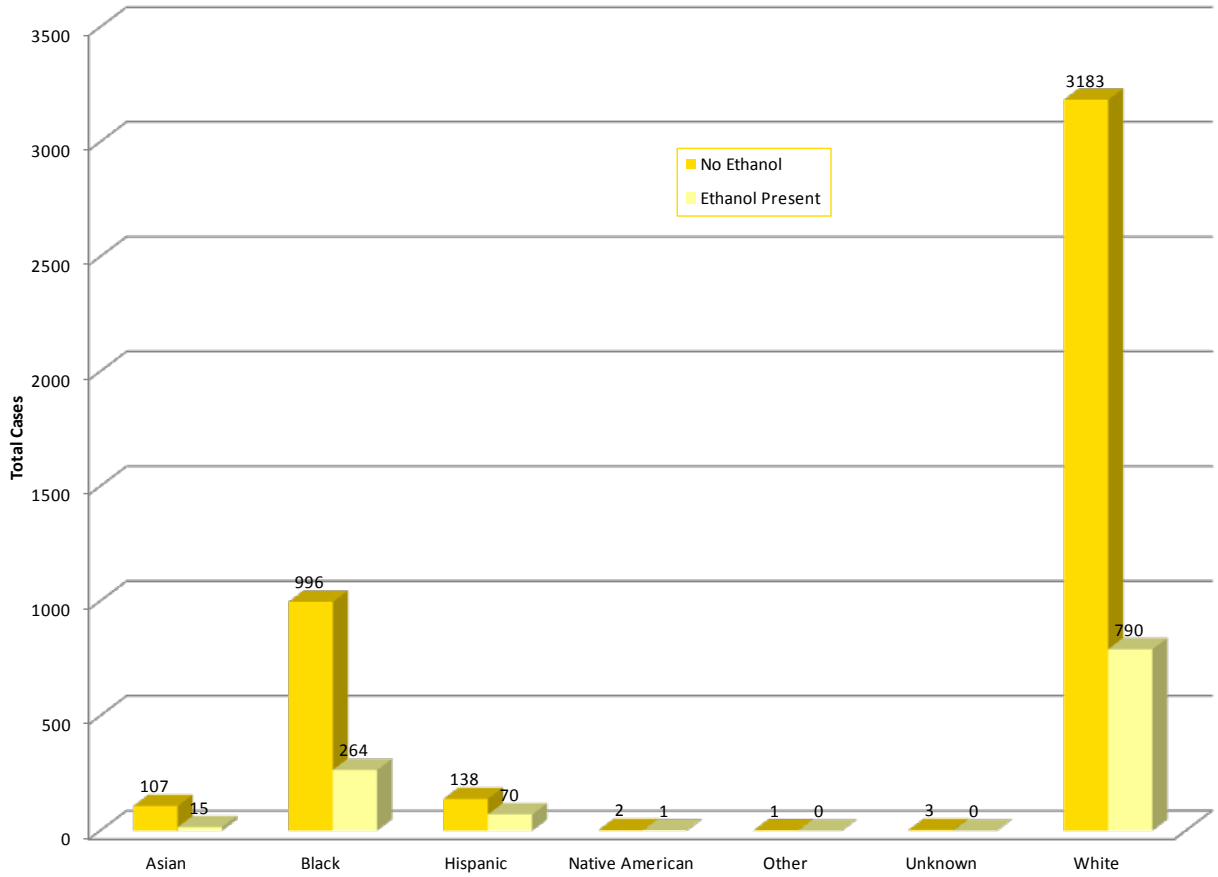


Figure 67. Ethanol Associated Deaths by Measured Ethanol Level, 2010

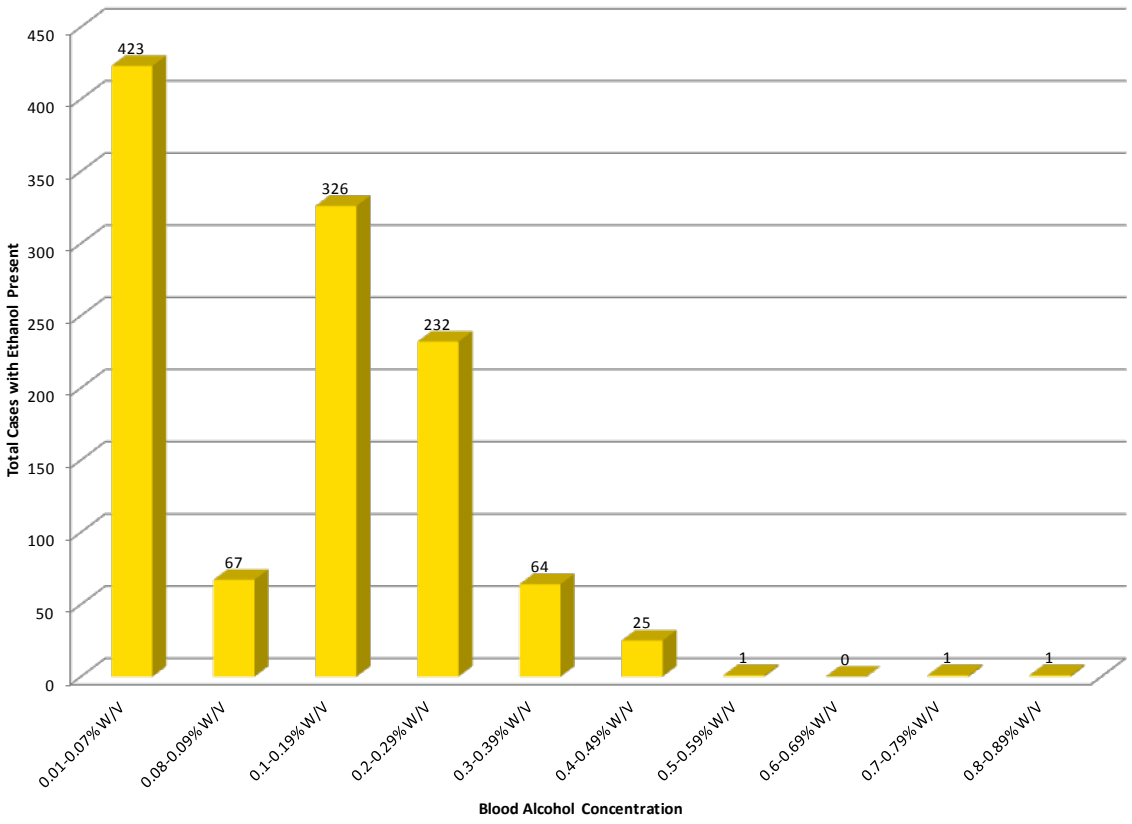


Table 30. Ethanol Presence in Natural and Unnatural Deaths by Cause of Death, 2010

Natural Deaths	Total Cases	No Ethanol	Ethanol 0.01-0.07% W/V	Ethanol ≥0.08% W/V
Pulmonary Diseases/Disorders	**160**	**152**	**5**	**3**
Asthma	5	4	0	1
COPD	23	19	3	1
Emboli	44	41	2	1
Pneumonia	63	63	0	0
Pulmonary Malignancy	20	20	0	0
Other Pulmonary Disease/Disorder	5	5	0	0
Central Nervous System Diseases/Disorders	**100**	**94**	**4**	**2**
Seizure Disorder	24	23	1	0
Vascular Disease	47	43	2	2
Degenerative Disease	9	9	0	0
Meningitis (Bacterial or Viral)	3	3	0	0
CNS Malignancy	3	3	0	0
Other CNS Disease/Disorder	14	13	1	0
Cardiovascular Diseases/Disorders	**1274**	**1109**	**102**	**63**
Atherosclerosis	647	575	42	30
Hypertension	206	176	22	8
Atherosclerosis & Hypertension	204	173	20	11
Congenital Defect	14	14	0	0
Vascular Dissection/Ruptures	10	10	0	0
Valvular	14	11	2	1
Acute Coronary Insufficiency	98	81	11	6
Cardiac Dysrythmia of Undetermined Etiology	16	12	2	2
Cardiomyopathy NOS	24	21	1	2
Arrythmogenic Right Ventricular Dysplasia	4	4	0	0
Other Cardiac Disease/Disorder	37	32	2	3
Gastrointestinal Diseases/Disorders	**70**	**64**	**4**	**2**
GI Hemorrhage	17	14	2	1
Cirrhosis	10	10	0	0
Hepatitis	7	7	0	0
GI Malignancy	20	19	0	1
Other GI Disease/Disorder	16	14	2	0
Genitourinal Diseases/Disorders	**16**	**16**	**0**	**0**
Renal Disease	8	8	0	0
Genitourinal Malignancy	7	7	0	0
Other GU Disease/Disorder	1	1	0	0
Perinatal and Pediatric Diseases/Disorders	**32**	**31**	**1**	**0**
Maternal Complications	3	3	0	0
Fetal Complications	3	3	0	0
Sudden Infant Death Syndrome (SIDS)	14	13	1	0
Other Perinatal or Pediatric Disorder	12	12	0	0

Systemic Diseases/Disorders	**211**	**148**	**31**	**32**
Blood Disorders	5	5	0	0
Diabetes	50	44	4	2
AIDS/HIV	7	7	0	0
Sepsis	10	10	0	0
Other Infectious Disease	6	6	0	0
Metastatic Malignancy Unknown Primary	4	4	0	0
Chronic Alcoholism	107	52	25	30
Chronic Drug Abuse	3	2	1	0
Other Systemic Disease/Disorder	19	18	1	0
Other Natural Diseases/Disorders	**21**	**20**	**1**	**0**
Other Malignancy	10	10	0	0
Other Natural Disease/Disorder	11	10	1	0
Natural Subtotal	**1884**	**1634**	**148**	**102**

Unnatural Deaths	Total Cases	No Ethanol	Ethanol 0.01-0.07% W/V	Ethanol ≥0.08% W/V
Asphyxia	**435**	**317**	**38**	**80**
Choking (Aspiration: Food or Foreign Object)	23	22	0	1
Drowning	102	71	11	20
Hanging	192	138	16	38
Mechanical	22	17	1	4
Positional	4	2	0	2
Strangulation/Neck Compression	15	10	2	3
Suffocation/Smothering	16	14	1	1
Oxygen Replacement/Displacement	2	2	0	0
Helium	15	10	3	2
Plastic Bag	11	10	0	1
CO Poisoning (MV Exhaust)	11	6	2	3
CO Poisoning (Other)	15	9	1	5
Other Asphyxia	7	6	1	0
Electrocution	**11**	**11**	**0**	**0**
High Voltage	8	8	0	0
Low Voltage	3	3	0	0
Exposure	**44**	**29**	**4**	**11**
Hyperthermia	13	12	1	0
Hypothermia	31	17	3	11
Fire Injuries	**98**	**76**	**4**	**18**
Thermal Burns	19	18	0	1
Inhalation of Combustion Products	28	16	3	9
Thermal Burns & Inhalation of Combustions Products	51	42	1	8
Judicial Execution	**3**	**3**	**0**	**0**
Lethal Injection	2	2	0	0
Electrocution	1	1	0	0

Gunshot Wound	**867**	**628**	**90**	**149**
Head/Neck	601	440	53	108
Chest	124	89	15	20
Abdomen	13	9	2	2
Torso	81	51	14	16
Extremities	4	3	1	0
Multiple	44	36	5	3
Blunt Force Injuries	**1386**	**1103**	**51**	**232**
Head/Neck	648	521	17	110
Chest	85	71	3	11
Abdomen	25	18	2	5
Torso	67	56	3	8
Extremities	140	133	3	4
Multiple	421	304	23	94
Penetrating Injuries	**53**	**33**	**7**	**13**
Incised	7	5	1	1
Stab	43	27	6	10
Other Penetrating Injuries	3	1	0	2
Substance Abuse	**692**	**503**	**79**	**110**
Ethanol Poisoning	22	1	0	21
Prescription Drug Poisoning	478	368	55	55
Illegal (Street) Drug Poisoning	84	47	14	23
Mixed Category Drug Poisoning	85	69	8	8
Inhalant Poisoning	4	4	0	0
OTC Poisoning	14	10	2	2
Ethylene Glycol Poisoning	3	3	0	0
Not Otherwise Specified Poisoning	2	1	0	1
Other Unnatural Deaths	**13**	**13**	**13**	**13**
Other Unnatural	13	13	0	0
Unnatural Subtotal	**3602**	**2716**	**273**	**613**

Undetermined Deaths	**Total Cases**	**No Ethanol**	**Ethanol 0.01-0.07% W/V**	**Ethanol ≥0.08% W/V**
Undetermined After Autopsy and/or Investigation	**84**	**80**	**2**	**2**
Sudden Unexpected Infant Death (SUID)	60	59	1	0
Skeletal/Mummified Remains	9	8	0	1
Other Undetermined	15	13	1	1
Undetermined Subtotal	**84**	**80**	**2**	**2**
TOTAL	**5570**	**4430**	**423**	**717**

ETHANOL ASSOCIATED ACCIDENTAL DEATHS (N=480)

Ethanol was detected in 22.3 percent of all accidental deaths.

- Ethanol was detected in 31.3 percent of all drownings
- Ethanol was detected in 28.5 percent of all motor vehicle accidents
- Ethanol was not detected in any of the firearm deaths

Figure 68. Accidental Deaths by Age Group by Ethanol Level, 2010

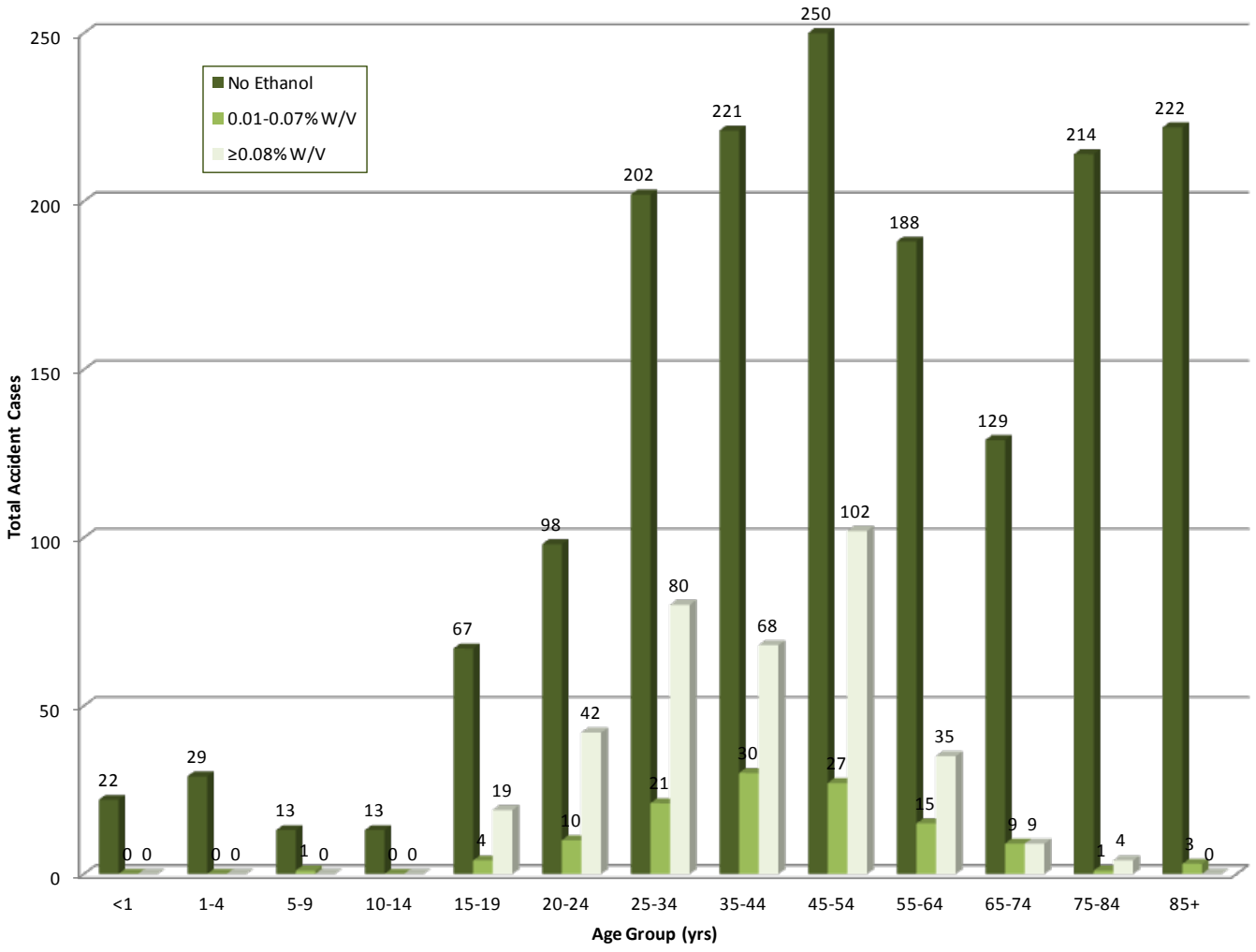


Figure 69. Accidental Deaths by Gender by Ethanol Level, 2010

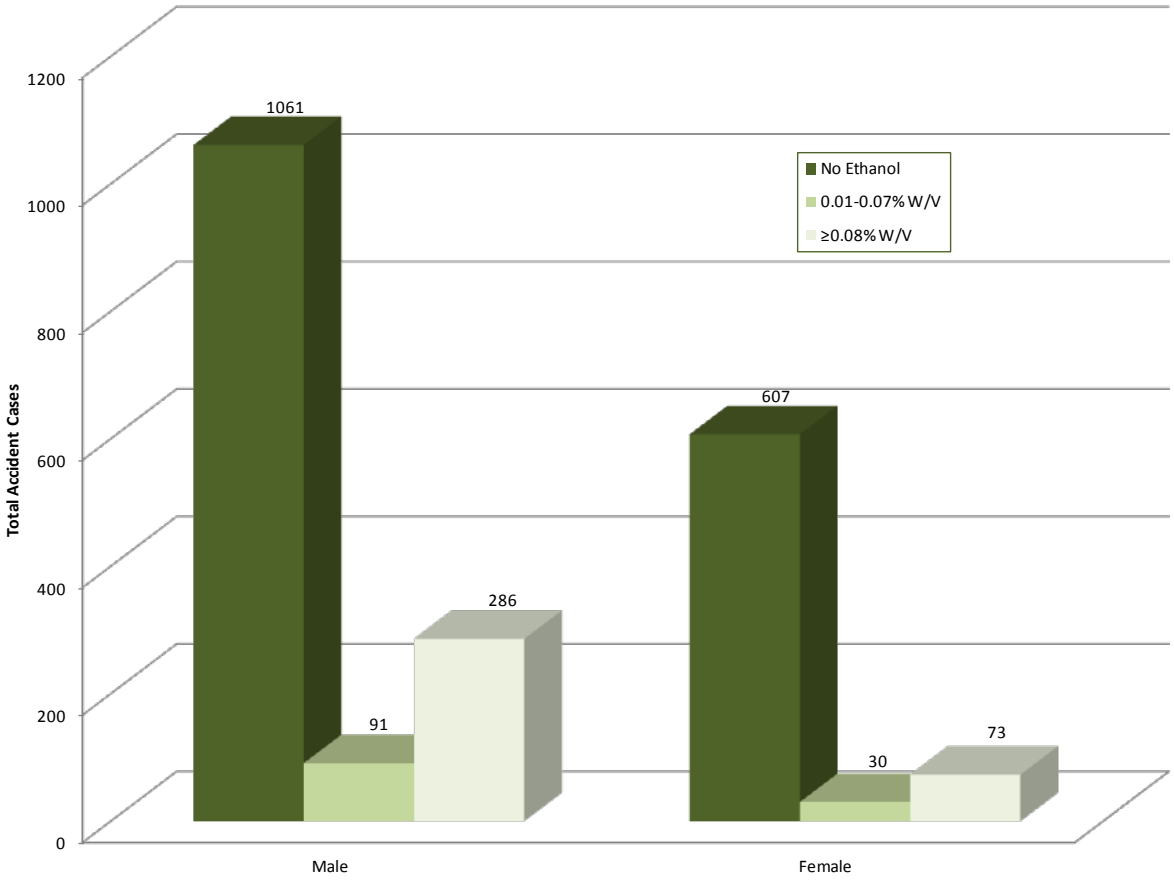


Table 31. Accidental Deaths by Method of Death by Ethanol Level, 2010

Method of Death		Total Cases	No Ethanol	Ethanol 0.01-0.07% W/V	Ethanol ≥0.08% W/V
Asphyxia					
	Choked on food/foreign object	23	22	0	1
	Drowned	80	55	10	15
	Hanging	8	6	1	1
	Mechanical/Positional	10	7	1	2
	Other	3	3	0	0
	Strangled	1	1	0	0
	Suffocation/Smothering	14	13	0	1
Drug Use					
	Ingested ethanol of other alcohol	22	1	0	21
	Ingested and/or injected illicit, prescription, and/or other type of drug	516	392	55	69
Electrical					
	Contacted electrical current	11	11	0	0
Exposure					
	Exposed to cold	30	17	3	10
	Exposed to heat	13	12	1	0

Method of Death	Total Cases	No Ethanol	Ethanol 0.01-0.07% W/V	Ethanol ≥0.08% W/V
Fall/Jump				
Fall/jump from any height	476	440	10	25
Fire				
Inhalation of Combustion Products	27	16	3	8
Thermal Burns	16	16	0	0
Thermal Burns & Inhalation of Combustion Products	34	27	1	6
Motor Vehicle				
Aircraft	8	8	0	0
All terrain vehicle	14	11	0	3
Bicycle	17	13	0	4
Boat	5	3	1	1
Bus	2	2	0	0
Car	375	260	17	99
Construction equipment	4	4	0	0
Farm equipment	11	11	0	0
Golf cart	2	2	0	0
Lawnmower	3	3	0	0
Mo-ped	14	11	0	3
Motorcycle	84	64	4	16
Multiple vehicles	2	1	0	1
Pickup truck	92	55	5	32
Recreational Vehicle	1	1	0	0
Skateboard	1	1	0	0
Sport utility vehicle	83	52	3	28
Tractor trailer	23	21	1	1
Train	5	5	0	0
Truck other	12	11	0	1
Van	37	29	1	7
Unknown	8	7	1	0
Poisoned				
Inhaled toxic agent (ex. Carbon monoxide)	11	9	0	2
Ingested toxic agent	1	1	0	0
Traumatic Injury				
Accidental discharge of firearm	5	5	0	0
Rifle	(1)	(1)	(0)	(0)
Shotgun	(4)	(4)	(0)	(0)
Beatings/Blows	4	3	1	0
Explosion	2	2	0	0
Falling object	25	24	1	0
Unknown/Other				
Accidental - Unknown/Other	13	10	1	2
TOTAL	**2148**	**1668**	**121**	**359**

ETHANOL ASSOCIATED SUICIDE DEATHS (N=257)

Ethanol was detected in 25.8 percent of all suicides.

- Almost 53 percent of individuals who used carbon monoxide to commit suicide had ethanol on board
- Twenty-eight percent of individuals who hanged themselves had ethanol on board

Figure 70. Suicide Deaths by Age Group by Ethanol Level, 2010

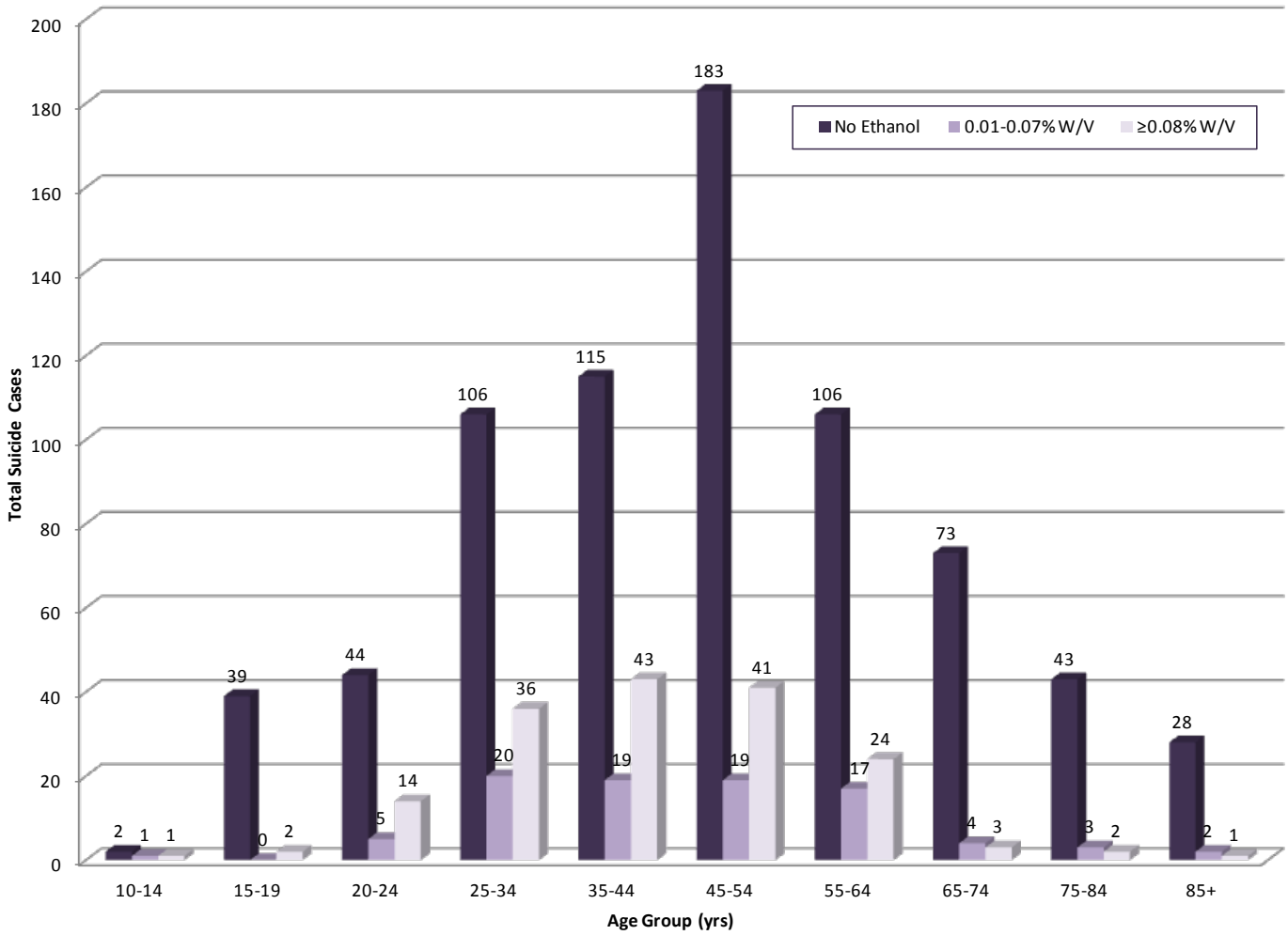


Figure 71. Suicide Deaths by Gender by Ethanol Level, 2010

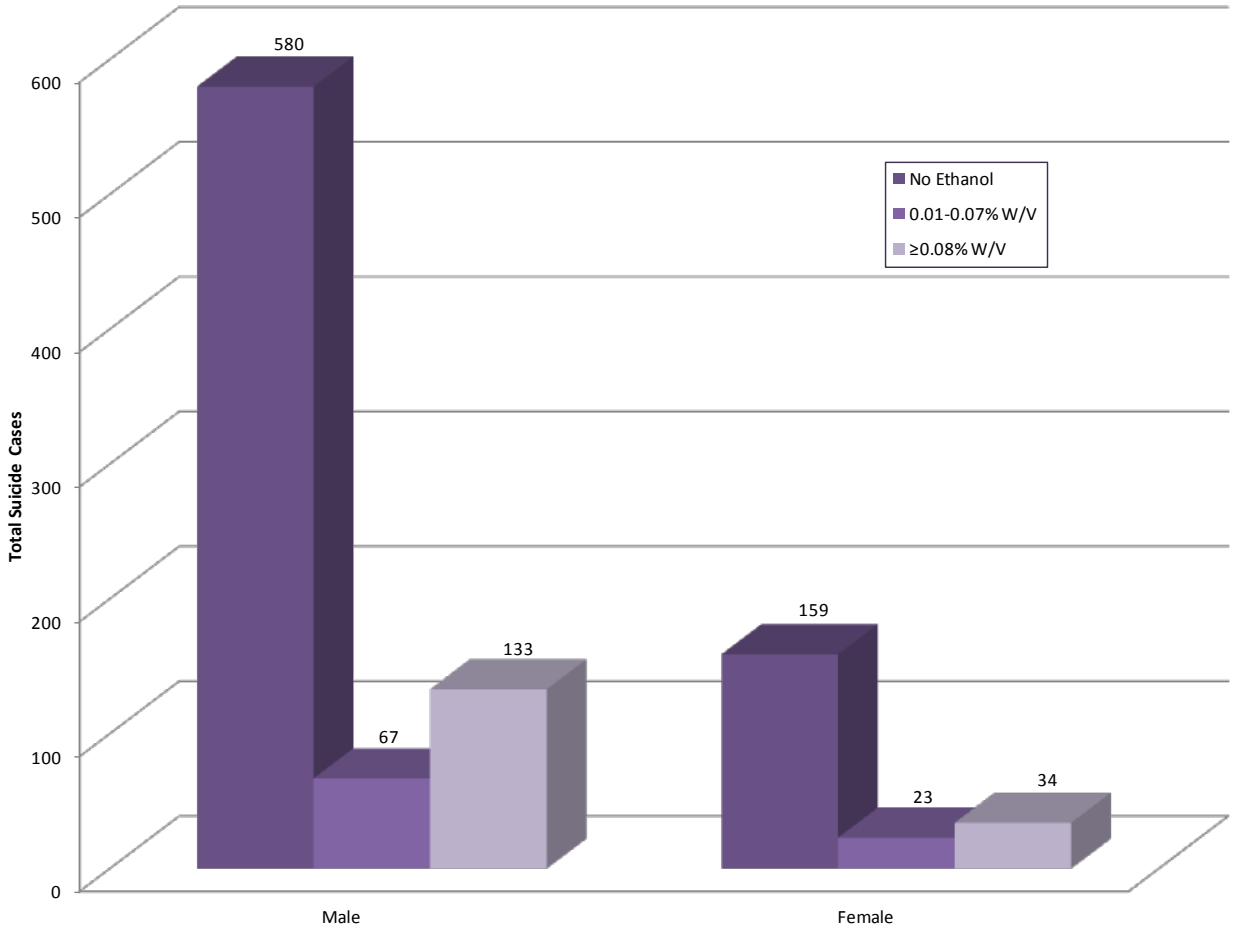


Table 32. Suicide Deaths by Method of Death by Ethanol Level, 2010

Method of Death		Total Cases	No Ethanol	Ethanol 0.01-0.07% W/V	Ethanol ≥0.08% W/V
Asphyxia					
	Drowned	12	11	1	0
	Hanging	185	133	15	37
	Helium	15	10	3	2
	Plastic bag	11	10	0	1
	Oxygen replacement/displacement	1	1	0	0
	Suffocation/Smothering	1	0	1	0
Drug Use					
	Ingested and/or injected illicit, prescription, and/or other type of drug	119	81	21	17
Exposure					
	Exposed to cold	1	0	0	1
Jump					
	Jumped from height	21	18	1	2
Fire					
	Inhalation of Combustion Products	1	0	0	1
	Thermal Burns	2	2	0	0
	Thermal Burns & Inhalation of Combustion Products	6	6	0	0
Poisoned					
	Carbon monoxide poisoning	17	8	3	6
	Ingested ethylene glycol	3	3	0	0
Traumatic Injury					
	Cut/Stabbed self	13	10	2	1
	Shot self with firearm	575	435	43	97
	Handgun	(438)	(333)	(35)	(70)
	Rifle	(49)	(33)	(2)	(14)
	Shotgun	(88)	(69)	(6)	(13)
Vehicular					
	Car	4	3	0	1
	Pickup Truck	1	1	0	0
	Sport Utility Vehicle	1	0	0	1
	Tractor Trailer	1	1	0	0
	Train	5	5	0	0
	Truck-Other	1	1	0	0
TOTAL		**996**	**739**	**90**	**167**

ETHANOL ASSOCIATED HOMICIDE DEATHS (N=130)

Ethanol was detected in 33.2 percent of all homicides.

- Ethanol was detected in 41.0 percent of all homicide victims who were stabbed
- Ethanol was detected in 35.1 percent of all homicide victims who were shot

Figure 72. Homicide Deaths by Age Group by Ethanol Level, 2010

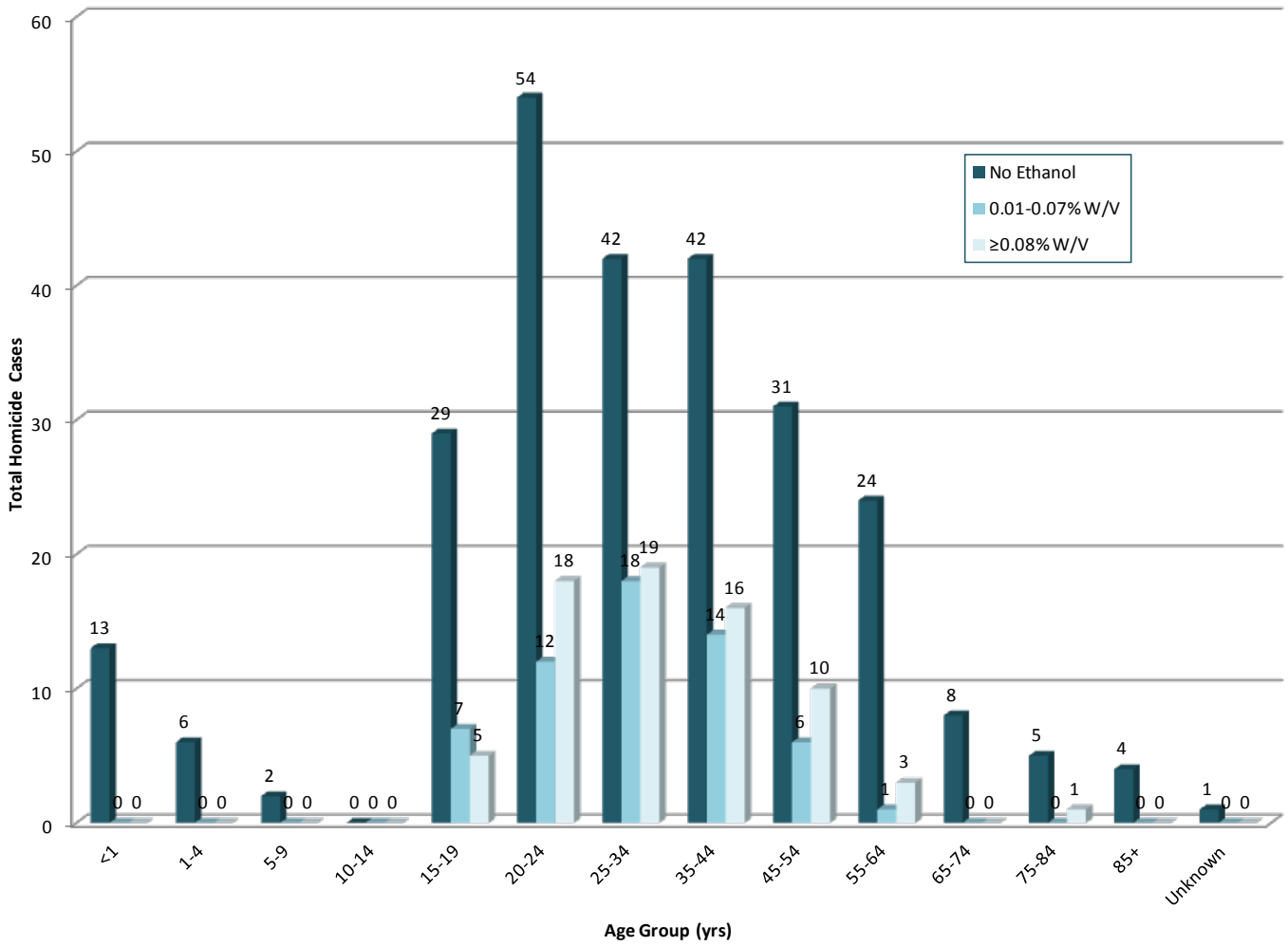


Figure 73. Homicide Deaths by Gender by Ethanol Level, 2010

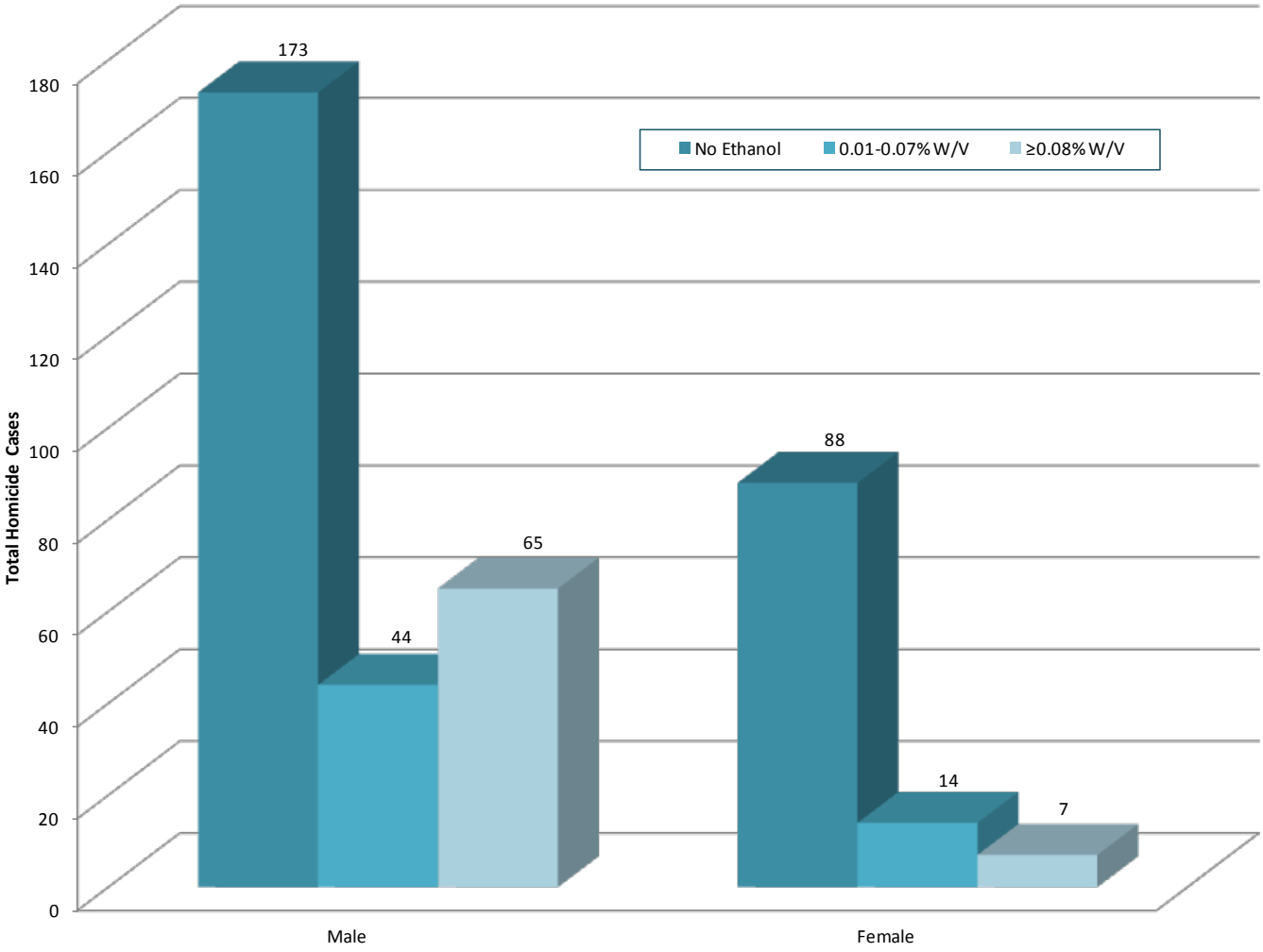


Table 33. Homicide Deaths by Method of Death by Ethanol Level, 2010

Method of Death	Total Cases	No Ethanol	Ethanol 0.01-0.07% W/V	Ethanol ≥0.08% W/V
Asphyxia				
Drowned	1	0	0	1
Strangled by assailant(s)	12	8	1	3
Suffocate/Smothered by assailant(s)	1	1	0	0
Other	1	0	1	0
Legal Intervention				
Electrocution	1	1	0	0
Lethal injection	2	2	0	0
Poisoned				
Poisoned by ethanol and/or drugs	2	2	0	0
Traumatic Injury				
Beaten by assailant(s)	40	32	3	5
Fall/Push	3	3	0	0
Other traumatic violence	5	4	1	0
Run over by motor vehicle	2	2	0	0
Stabbed by assailant(s)	39	23	5	11
Shot by assailant(s)	279	181	47	51
Handgun	(223)	(144)	(36)	(43)
Multiple	(1)	(1)	(0)	(0)
Rifle	(20)	(17)	(2)	(1)
Shotgun	(11)	(8)	(1)	(2)
Unspecified	(24)	(11)	(8)	(5)
Unknown				
Undetermined method	3	2	0	1
TOTAL	**391**	**261**	**58**	**72**

ETHANOL ASSOCIATED UNDETERMINED DEATHS (N=23)

Ethanol was detected in 15.2 percent of all undetermined deaths.

Figure 74. Undetermined Deaths by Age Group by Ethanol Level, 2010

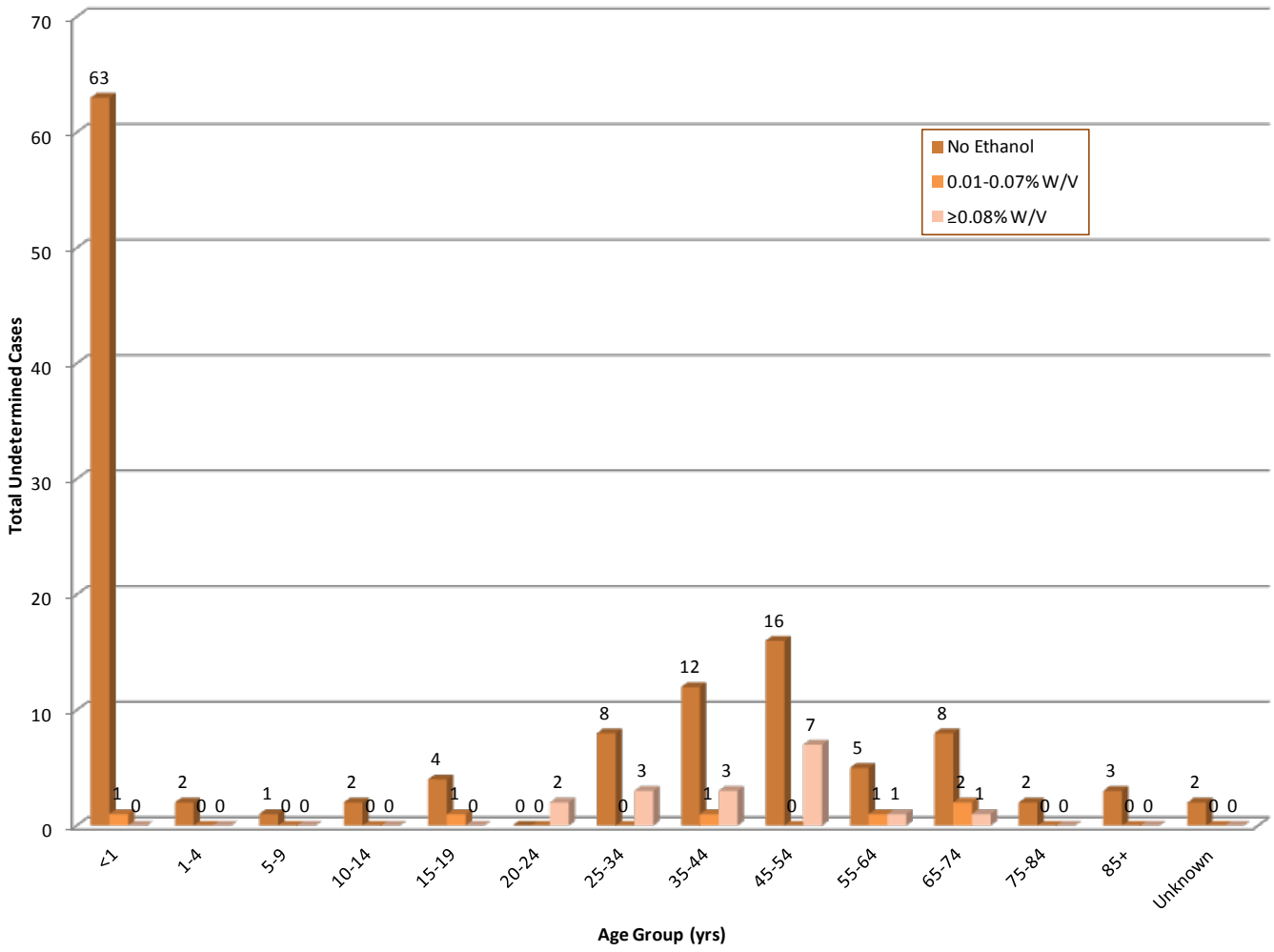


Figure 75. Undetermined Deaths by Gender by Ethanol Level, 2010

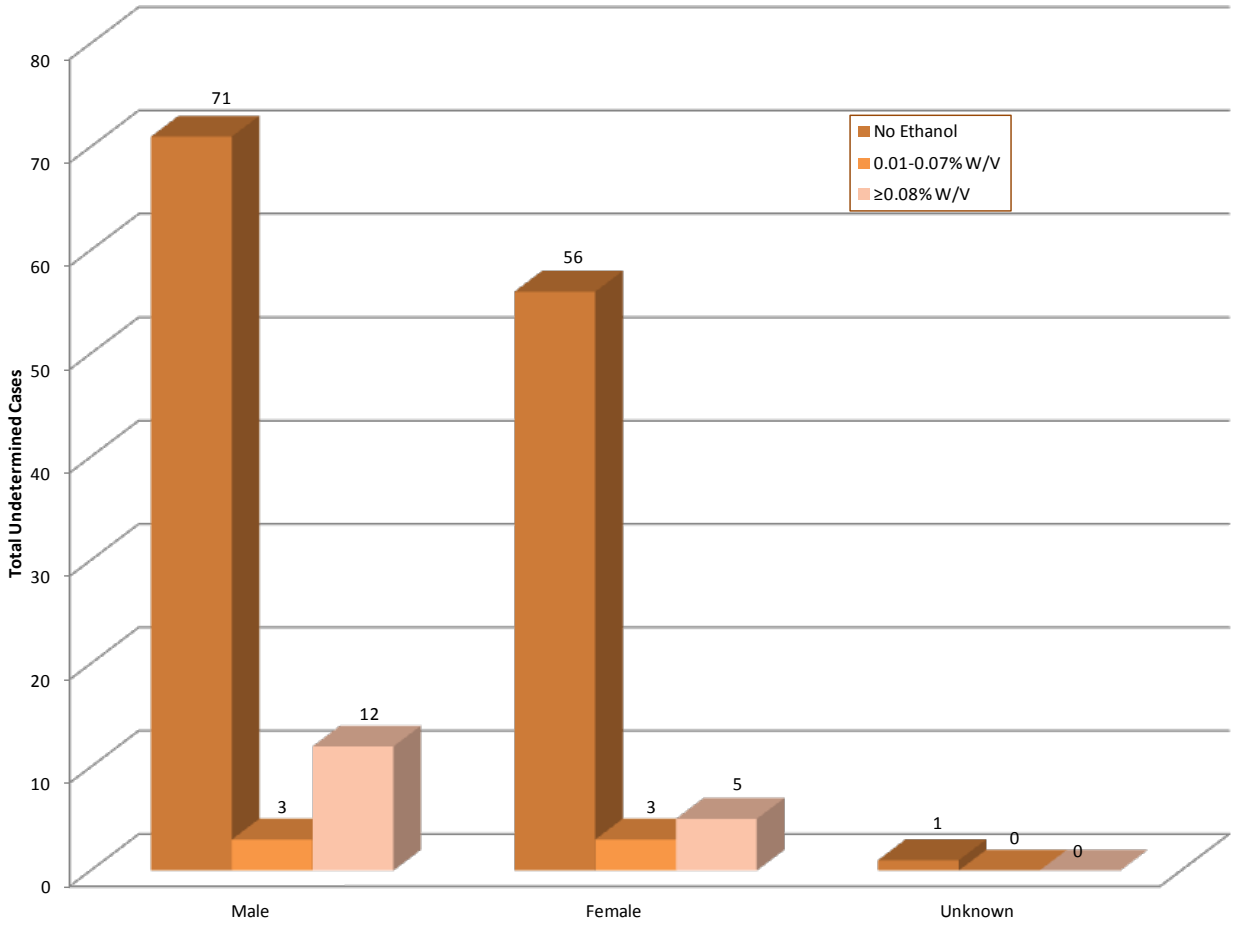


Table 34. Undetermined Deaths by Cause of Death by Ethanol Level, 2010

	Total Cases	No Ethanol	Ethanol 0.01-0.07% W/V	Ethanol ≥0.08% W/V
Undetermined Manner & Cause of Death				
Undetermined after autopsy and/or toxicology	82	78	2	2
Subtotal for Undetermined Manner & Cause of Death	**82**	**78**	**2**	**2**
Undetermined Manner but Cause of Death Determined				
Asphyxia				
Drowning	3	1	0	2
Other asphyxia	1	1	0	0
Drug Use				
Ingested and/or injected illicit, prescription, and/or OTC medication	26	20	3	3
Fire				
Thermal burns and/or inhalation of combustions products	6	4	0	2
Motor Vehicle				
Bicycle	1	1	0	0
Car	1	0	0	1
Dump Truck	1	1	0	0
Pickup Truck	2	0	0	2
Poisoning				
Carbon monoxide poisoning	2	2	0	0
Traumatic Injury				
Fall	2	1	0	1
Gunshot Wound	8	7	0	1
Handgun	(6)	(5)	(0)	(1)
Rifle	(1)	(1)	(0)	(0)
Shotgun	(1)	(1)	(0)	(0)
Other Traumatic Causes	16	12	1	3
Subtotal for Undetermined Manner but Cause of Death Determined	**69**	**50**	**4**	**15**
Total	**151**	**128**	**6**	**17**

SECTION 6: MOTOR VEHICLE COLLISIONS RELATED DEATHS (N=817)

The OCME investigated 817 motor vehicle collision (MVC) related deaths in 2010. [NOTE: Six cases were not included in the MVC section as they were not traditional vehicular crashes (ex. skateboards)]. This is a 3.3% decrease from 2009 and the third year of a decrease from 2007's high of 1140. Not only has the overall number decreased, but the rate of MVC deaths decreased from a high of 13 per 100,000 in 2007 to 8.8.

- The vast majority of cases were accidents (97.6%) and males (72.7%)
- In 24.6 percent of all motor vehicle deaths, the decedent had a blood alcohol content greater than or equal to 0.08% W/V and 73.6 percent of them were drivers
- Persons aged 45-54 years old had slightly more deaths (16.4%) in motor vehicle incidents than any other age group, but they were closely followed by the 25-34 and 35-44 age groups
- Eighteen children under the age of 10 died in MVC-related incidents with 2 or 11.1 percent of them being drivers and 5 or twenty-eight percent being pedestrians

Figure 76. Motor Vehicle Deaths & Rate by Year of Death, 2010

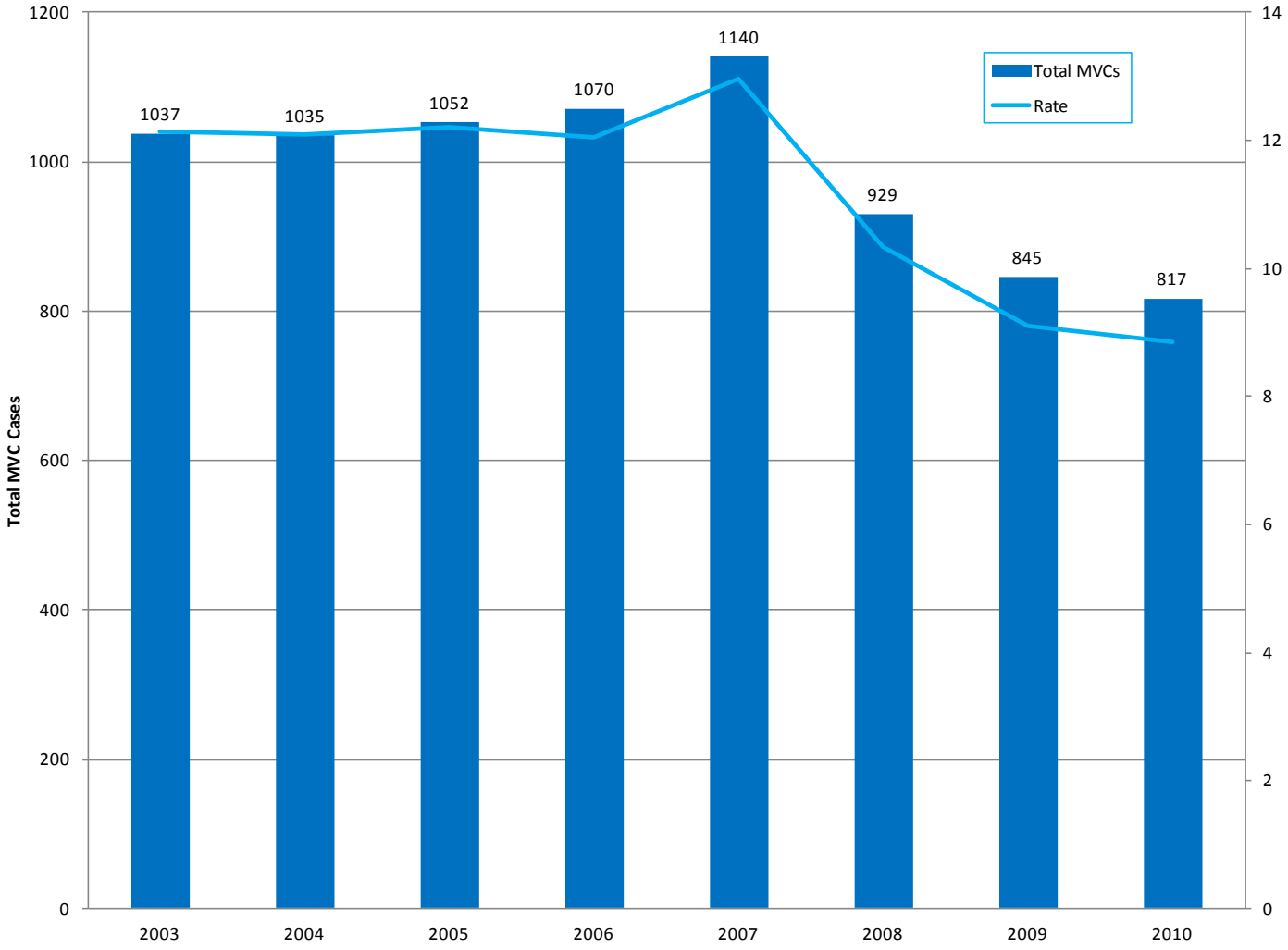


Figure 77. Motor Vehicle Deaths by Manner, 2010

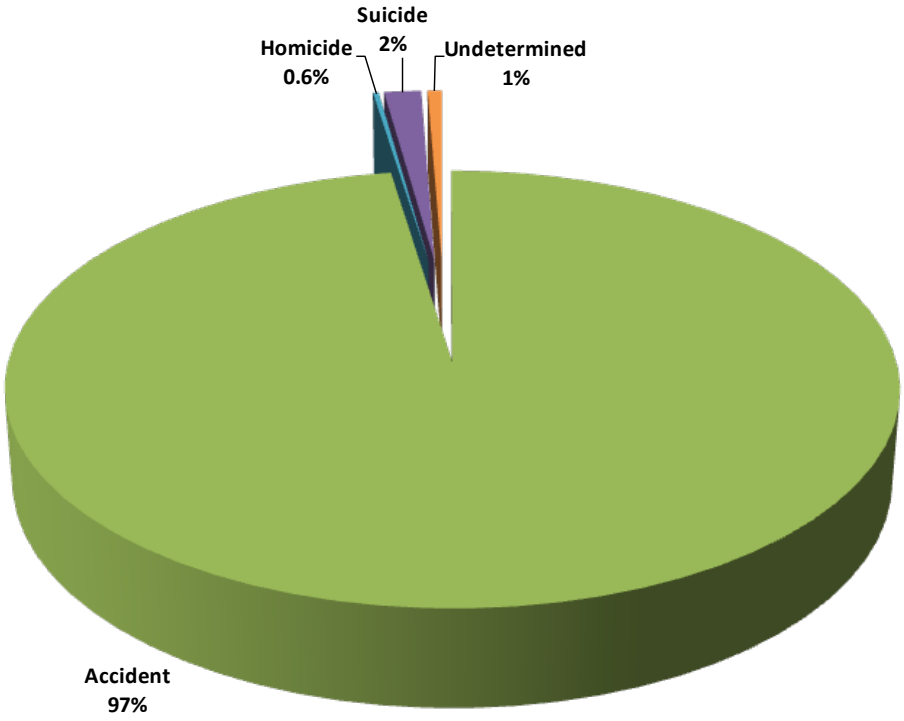


Figure 78. Motor Vehicle Deaths by Age Group by Gender, 2010

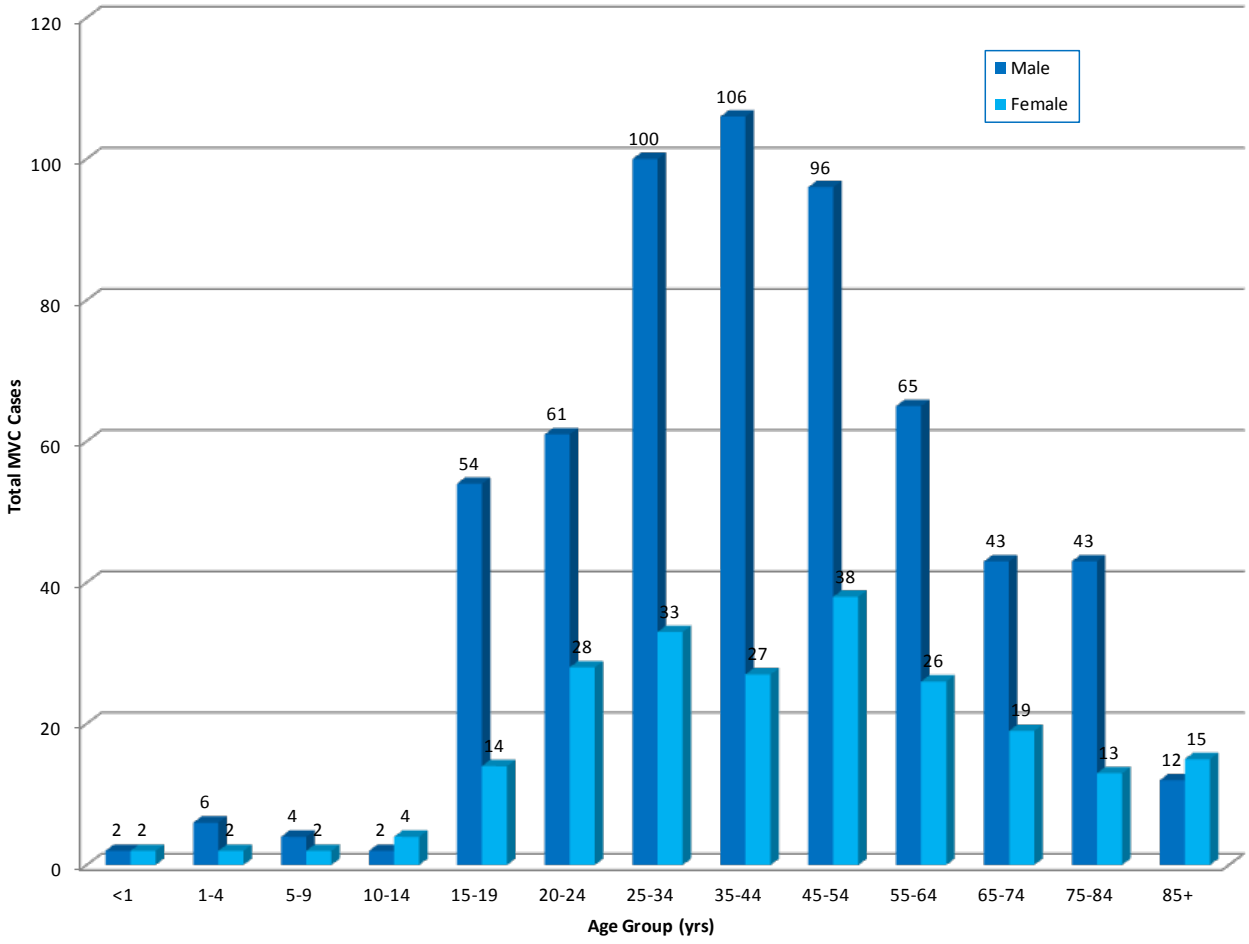


Figure 79. Motor Vehicle Deaths by Age Group by Gender by Ethanol Presence, 2010

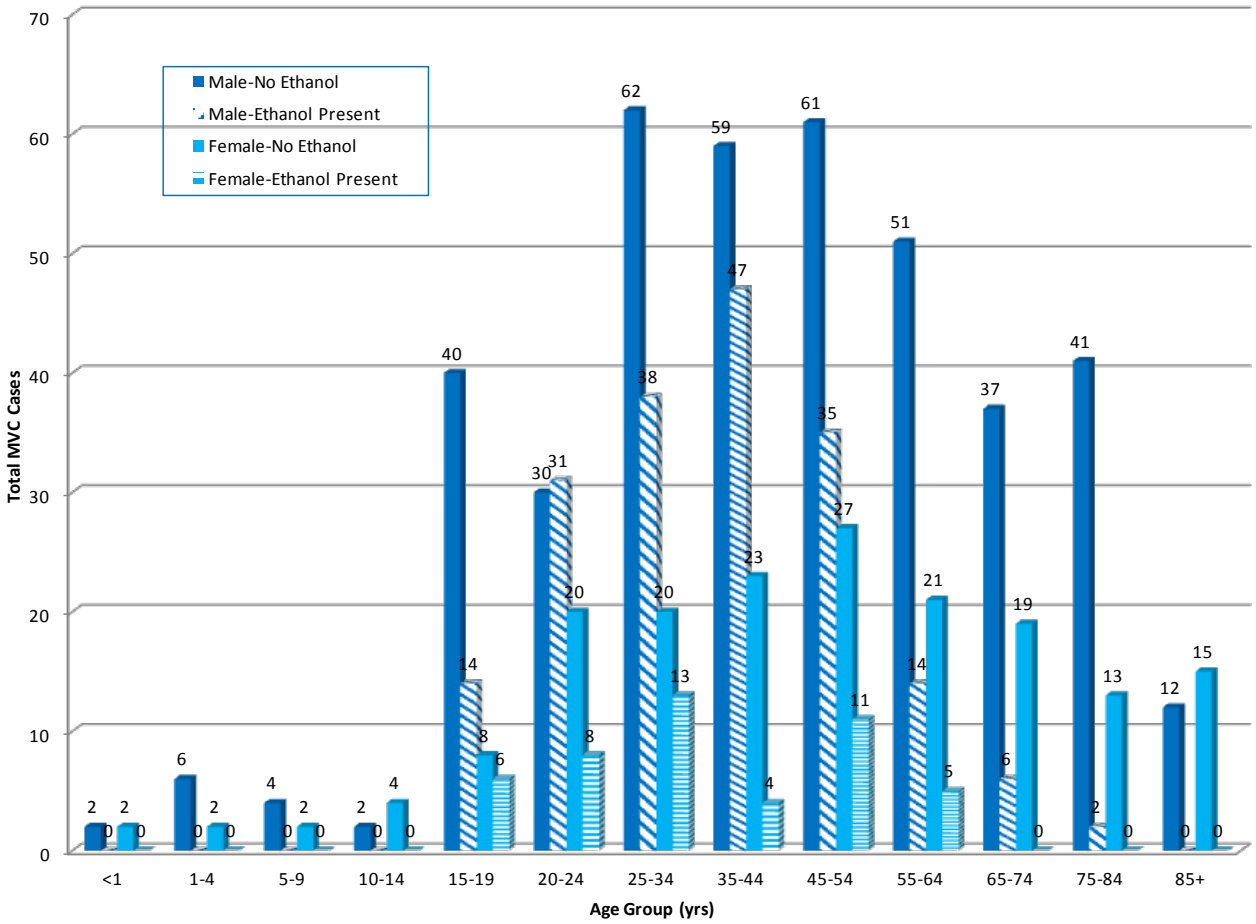


Figure 80. Motor Vehicle Deaths by Ethanol Level, 2010

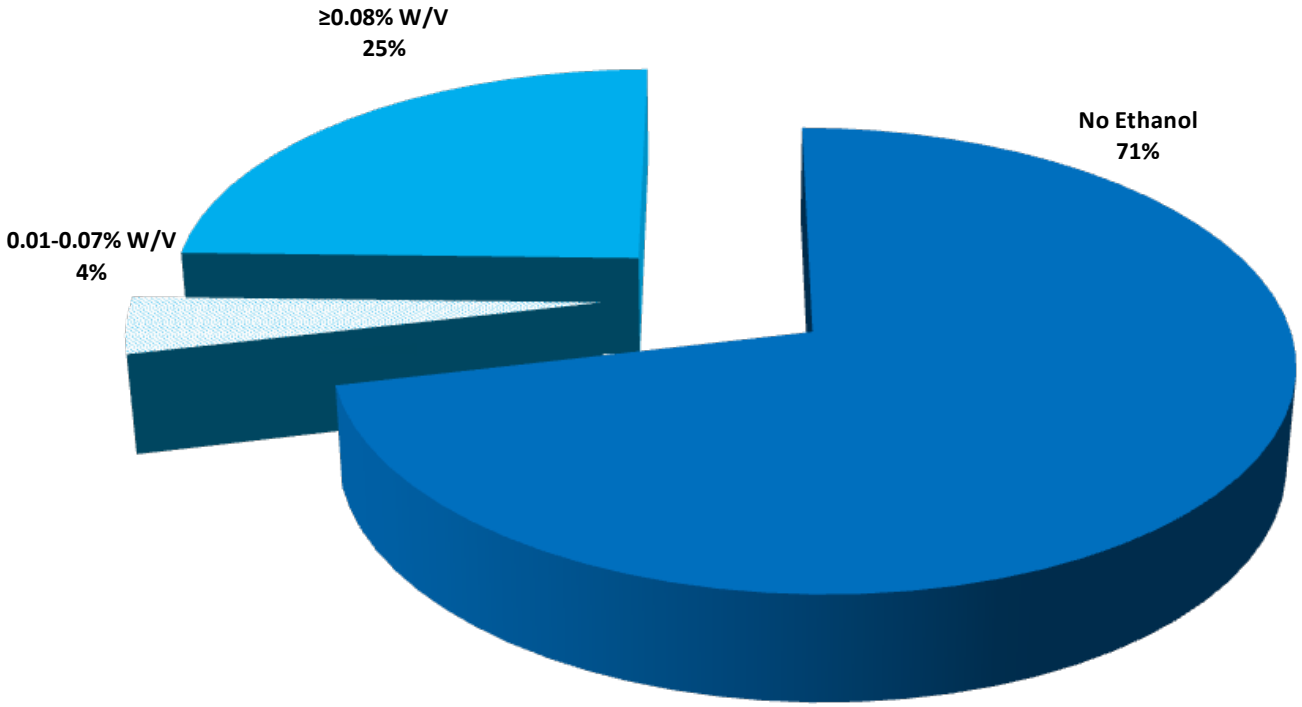


Figure 81. Motor Vehicle Deaths by Race/Ethnicity, 2010

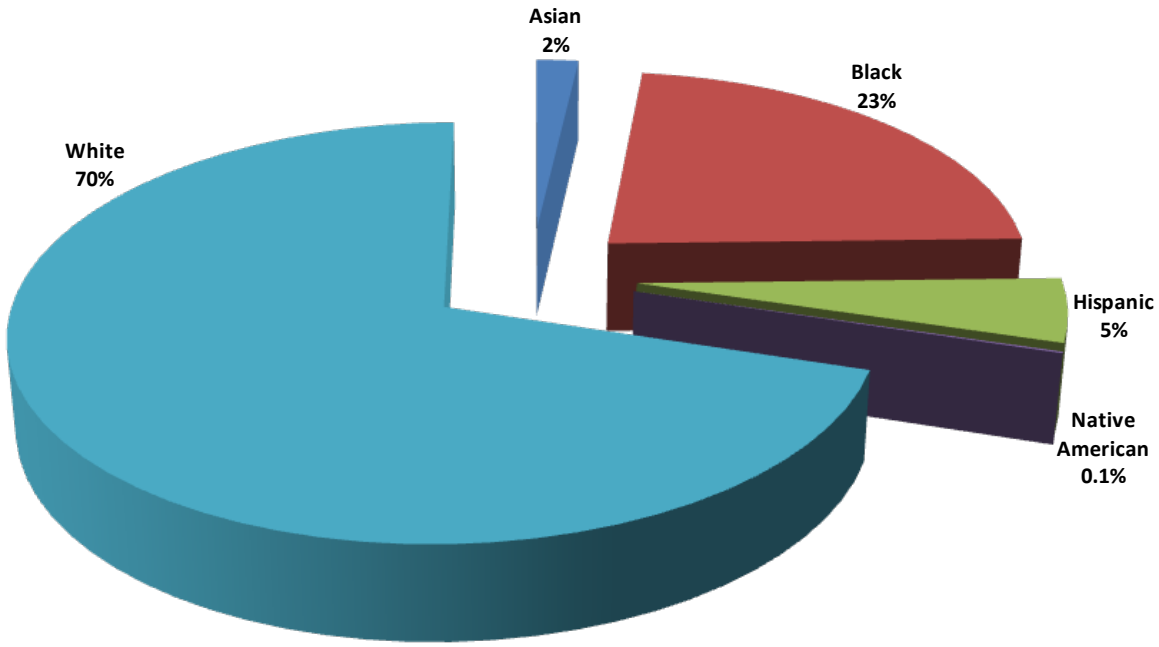


Figure 82. Motor Vehicle Deaths by Race/Ethnicity by Ethanol Presence, 2010

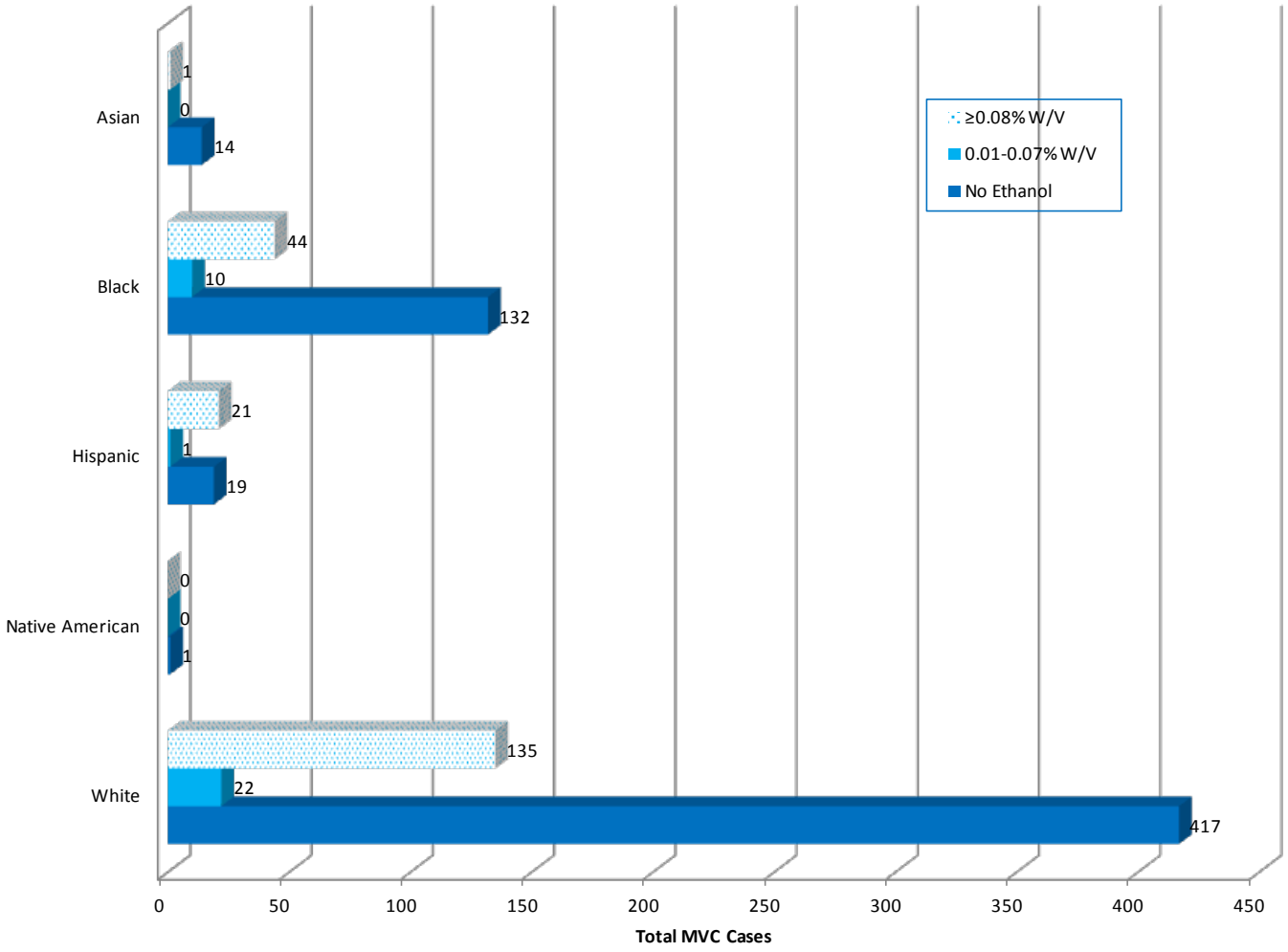


Table 35. Motor Vehicle Deaths by Age Group by Position In or Out of Vehicle, 2010

Age Group	Driver	Passenger-Front	Passenger-Rear	Passenger-Other	Passenger-Cargo	Pedestrian	Unknown Status	Total
<1	0	1	0	3	0	0	0	**4**
1-4	0	1	2	1	0	4	0	**8**
5-9	2	0	3	0	0	1	0	**6**
10-14	0	4	1	0	1	0	0	**6**
15-19	35	15	3	3	2	10	0	**68**
20-24	58	11	2	2	6	10	0	**89**
25-34	101	9	6	1	4	12	0	**133**
35-44	96	13	2	1	1	19	1	**133**
45-54	87	14	5	3	2	22	1	**134**
55-64	77	4	0	2	0	7	1	**91**
65-74	45	8	1	1	0	7	0	**62**
75-84	39	7	1	1	1	7	0	**56**
85+	18	4	0	1	1	3	0	**27**
Total	**558**	**18**	**91**	**19**	**26**	**102**	**3**	**817**

Figure 83. Motor Vehicle Deaths by Position In or Out of Vehicle by Ethanol Level, 2010

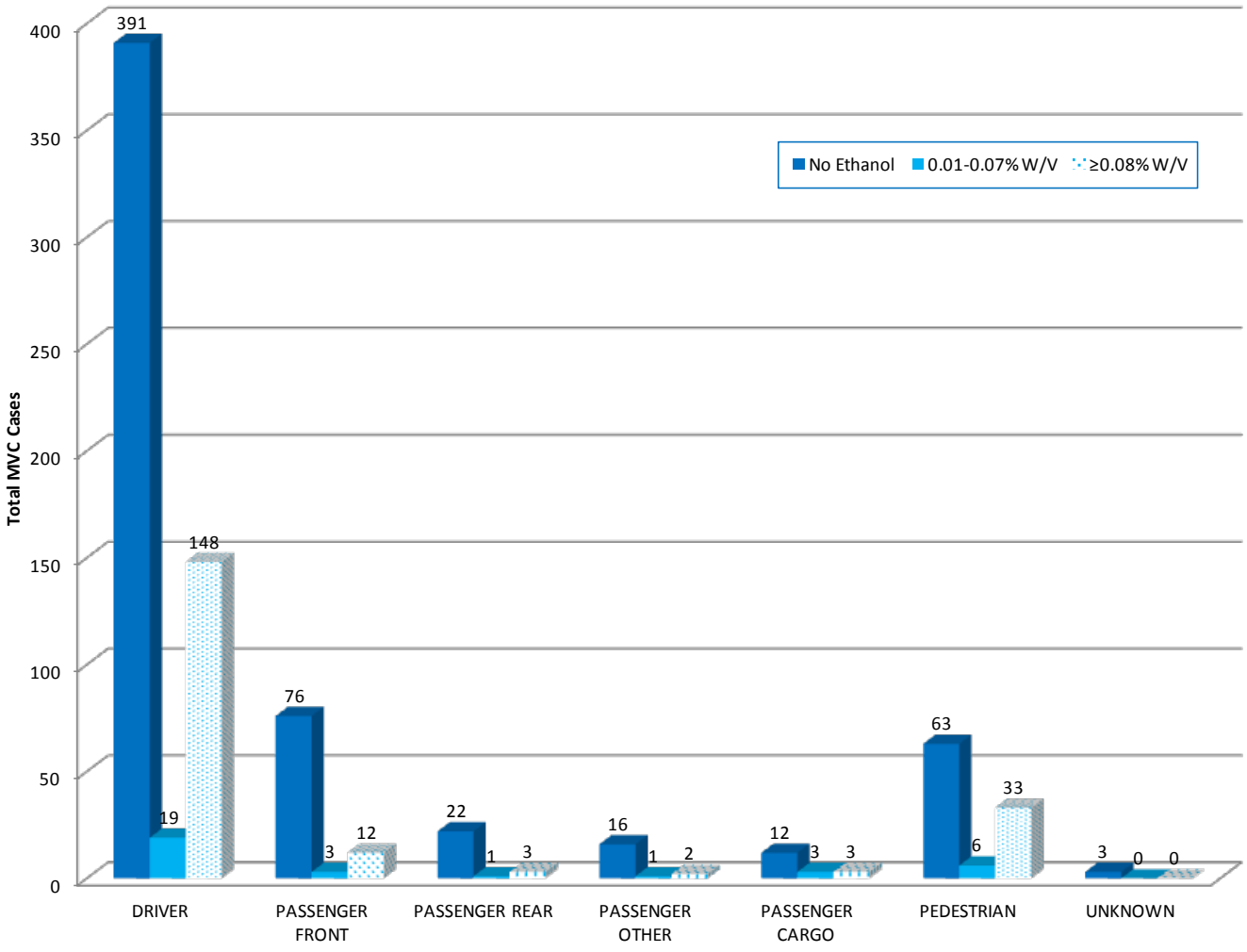


Table 36. Motor Vehicle Deaths by Decedent Status by Vehicle Type by Ethanol Level, 2010

Status of Decedent	Vehicle	Ethanol Presence: No Ethanol	0.01-0.07% W/V	≥0.08% W/V	Total
Driver	Aircraft	7	0	0	**7**
	All terrain vehicle	9	0	3	**12**
	Bicycle	14	0	4	**18**
	Car	176	11	72	**259**
	Farm equipment	11	0	0	**11**
	Mo-ped	11	0	3	**14**
	Motorcycle	63	4	16	**83**
	Pickup truck	35	2	26	**63**
	Sport utility vehicle	27	1	20	**48**
	Tractor trailer	15	1	1	**17**
	Truck other	5	0	0	**5**
	Unknown	1	0	0	**1**
	Van	17	0	3	**20**
	Subtotal	**391**	**19**	**148**	**558**
Passenger-Front	All terrain vehicle	1	0	0	**1**
	Boat	2	0	0	**2**
	Car	50	2	7	**59**
	Motorhome	1	0	0	**1**
	Pickup truck	7	1	2	**10**
	Sport utility vehicle	10	0	2	**12**
	Unknown	1	0	0	**1**
	Van	4	0	1	**5**
	Subtotal	**76**	**3**	**12**	**91**
Passenger-Rear	Aircraft	1	0	0	**1**
	Car	9	1	2	**12**
	Motorcycle	1	0	0	**1**
	Pickup truck	1	0	0	**1**
	Sport utility vehicle	4	0	1	**5**
	Unknown	1	0	0	**1**
	Van	5	0	0	**5**
	Subtotal	**22**	**1**	**3**	**26**
Passenger-Cargo	Car	4	2	1	**7**
	Pickup truck	3	1	2	**6**
	Sport utility vehicle	2	0	0	**2**
	Tractor trailer	1	0	0	**1**
	Train	1	0	0	**1**
	Truck other	1	0	0	**1**
	Subtotal	**12**	**3**	**3**	**18**
Passenger-Other	All terrain vehicle	1	0	0	**1**
	Boat	1	1	0	**2**

Status of Decedent	Vehicle	Ethanol Presence: No Ethanol	0.01-0.07% W/V	≥0.08% W/V	Total
	Car	6	0	2	**8**
	Pickup truck	1	0	0	**1**
	Sport utility vehicle	4	0	0	**4**
	Tractor trailer	1	0	0	**1**
	Truck other	1	0	0	**1**
	Unknown	1	0	0	**1**
	Subtotal	**16**	**1**	**2**	**19**
Pedestrian	Boat	0	0	1	1
	Bus	2	0	0	**2**
	Car	17	1	17	**35**
	Construction vehicle	6	0	0	**6**
	Multiple	1	0	1	**2**
	Pickup truck	9	1	4	**14**
	Sport utility vehicle	5	2	6	**13**
	Tractor trailer	5	0	0	**5**
	Train	9	0	0	**9**
	Truck other	5	0	1	**6**
	Unknown	1	1	0	**2**
	Van	3	1	3	**7**
	Subtotal	**63**	**6**	**33**	**102**
Unknown Status	Car	1	0	0	**1**
	Unknown	2	0	0	**2**
	Subtotal	**3**	**0**	**0**	**3**
TOTAL		**583**	**33**	**201**	**817**

Table 37. Motor Vehicle Deaths by County of Residence, 2010

County/City of Residency	Total	Rate
Accomack	6	18.1
Albemarle	11	11.1
Alexandria	3	2.1
Alleghany	0	0.0
Amelia	1	7.9
Amherst	1	3.1
Appomattox	4	26.7
Arlington	5	2.4
Augusta	6	8.1
Bath	1	21.1
Bedford City	3	48.2
Bedford	9	13.1
Bland	2	29.3
Botetourt	4	12.1
Bristol	0	0.0
Brunswick	5	28.7
Buchanan	3	12.4
Buckingham	2	11.7
Buena Vista	0	0.0
Campbell	9	16.4
Caroline	6	21.0
Carroll	2	6.7
Charles City	1	13.8
Charlotte	4	31.8
Charlottesville	7	16.1
Chesapeake	11	5.0
Chesterfield	25	7.9
Clarke	3	21.4
Colonial Heights	2	11.5
Covington	0	0.0
Craig	0	0.0
Culpeper	7	15.0
Cumberland	1	9.9
Danville	3	7.0
Dickenson	1	6.3
Dinwiddie	5	17.9
Emporia	1	16.9
Essex	1	9.0
Fairfax City	3	13.3
Fairfax	39	3.6
Falls Church	0	0.0
Fauquier	11	16.9
Floyd	2	13.1

County/City of Residency	Total	Rate
Fluvanna	0	0.0
Franklin City	1	11.7
Franklin	11	19.6
Frederick	9	11.5
Fredericksburg	2	8.2
Galax	0	0.0
Giles	1	5.8
Gloucester	10	27.1
Goochland	6	27.6
Grayson	2	12.9
Greene	2	10.9
Greensville	2	16.3
Halifax	6	16.6
Hampton	10	7.3
Hanover	8	8.0
Harrisonburg	0	0.0
Henrico	25	8.1
Henry	10	18.5
Highland	1	43.1
Hopewell	4	17.7
Isle of Wight	10	28.4
James City	9	13.4
King and Queen	1	14.4
King George	1	4.2
King William	2	12.6
Lancaster	3	26.3
Lee	3	11.7
Lexington	1	14.2
Loudoun	13	4.2
Louisa	4	12.1
Lunenburg	4	31.0
Lynchburg	9	11.9
Madison	3	22.5
Manassas	0	0.0
Martinsville	2	14.5
Mathews	3	33.4
Mecklenburg	4	12.2
Middlesex	2	18.2
Montgomery	7	7.4
Nelson	3	20.0
New Kent	4	21.7
Newport News	14	7.7
Norfolk	7	2.9

County/City of Residency	Total	Rate
Northampton	1	8.1
Northumberland	2	16.2
Norton	0	0.0
Nottoway	2	12.6
Orange	9	26.9
Page	4	16.6
Patrick	2	10.8
Petersburg	6	18.5
Pittsylvania	11	17.3
Poquoson	0	0.0
Portsmouth	4	4.2
Powhatan	3	10.7
Prince Edward	4	17.1
Prince George	7	19.6
Prince William	23	5.7
Pulaski	10	28.7
Radford	0	0.0
Rappahannock	2	27.1
Richmond City	17	8.3
Richmond	1	10.8
Roanoke City	11	11.3
Roanoke	4	4.3
Rockbridge	2	9.0
Rockingham	13	17.0
Russell	2	6.9
Salem	1	4.0
Scott	1	4.3

County/City of Residency	Total	Rate
Shenandoah	4	9.5
Smyth	2	6.2
Southampton	5	26.9
Spotsylvania	17	13.9
Stafford	10	7.8
Staunton	3	12.6
Suffolk	16	18.9
Surry	2	28.3
Sussex	6	49.6
Tazewell	10	22.2
Virginia Beach	25	5.7
Warren	8	21.3
Washington	9	16.4
Waynesboro	3	14.3
Westmoreland	2	11.5
Williamsburg	2	14.2
Winchester	1	3.8
Wise	5	12.1
Wythe	4	13.7
York	3	4.6
Total in State	**708**	**8.8**
Out of Country	5	ND†
Out of State	104	ND
TOTAL	**817**	**ND**

† ND- No Denominator

SECTION 7: DRUG/POISON CAUSED DEATHS

OVERALL DRUG/POISON DEATHS (N=692)

For the second year in a row, the overall number of drug/poisoning cases decreased 3 percent but with an overall increase of 80.2 percent since 1999. However, the number of prescription drug deaths increased from last year.

- The overall rate of drug/poison caused deaths for Virginia residents was 8.2 per 100,000 people
- The majority of cases were accidents (78.3%), males (55.9%), whites (86.8%), and 45-54 year olds (29.9%)
- The Western OCME district handled over one-third of all drug/poison deaths
- Narcotics were the most frequently identified class of compounds (33.1%) followed by anti-anxiety medications (16.7%)
- Twenty-one of the 692 or 3% of drug/poison deaths were ethanol-only deaths
- Whites died from prescription drugs 5.1 times more than blacks while blacks died from illegal drugs 1.6 times that of whites

Figure 84. Total Drug/Poison Deaths & Rate by Year of Death, 1999-2010

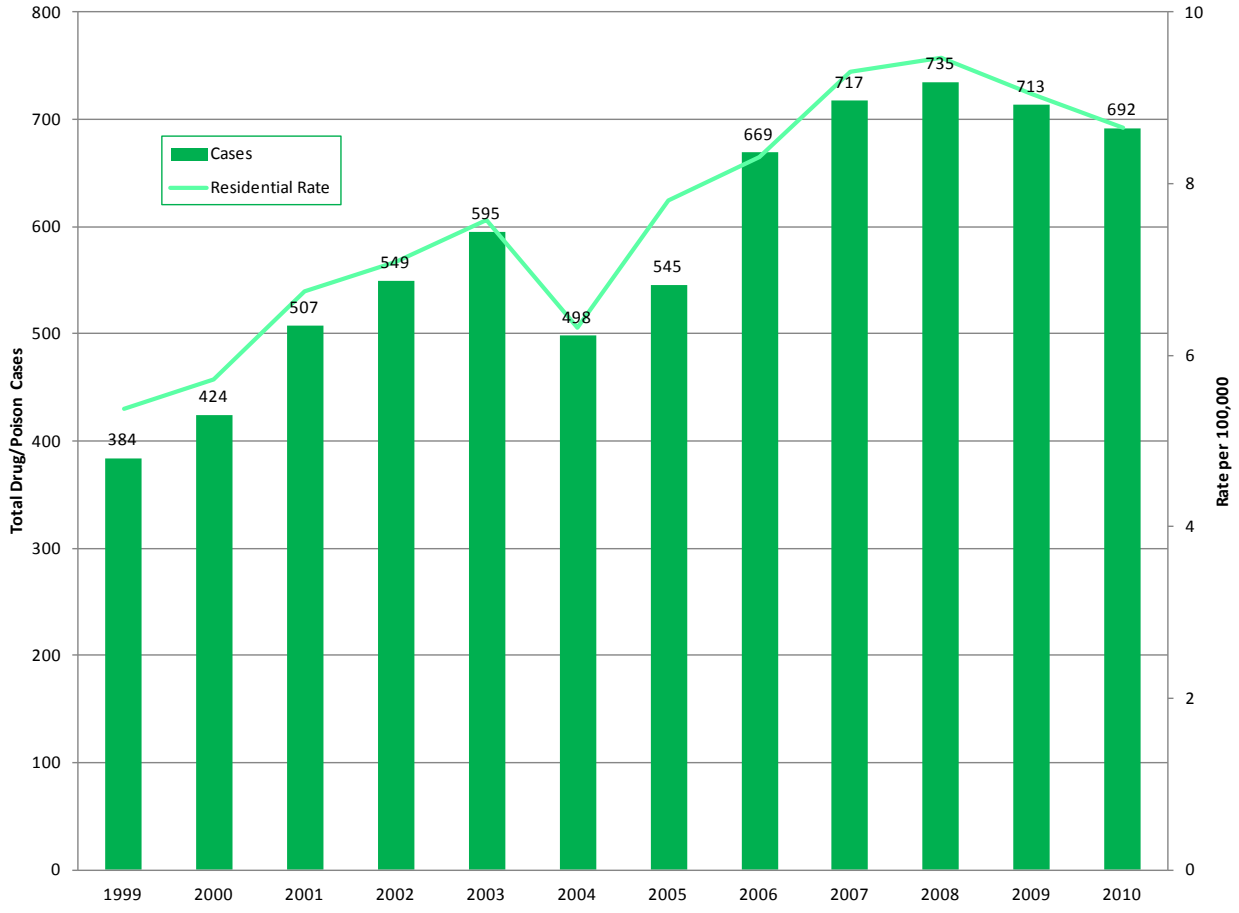


Table 38. Drug/Poison Deaths by OCME District, 2010

OCME District	Cases	Percent
Central	164	23.7%
Northern	151	21.8%
Tidewater	121	17.5%
Western	256	37.0%
Total	**692**	**100%**

Figure 85. Drug/Poison Deaths by Manner, 2010

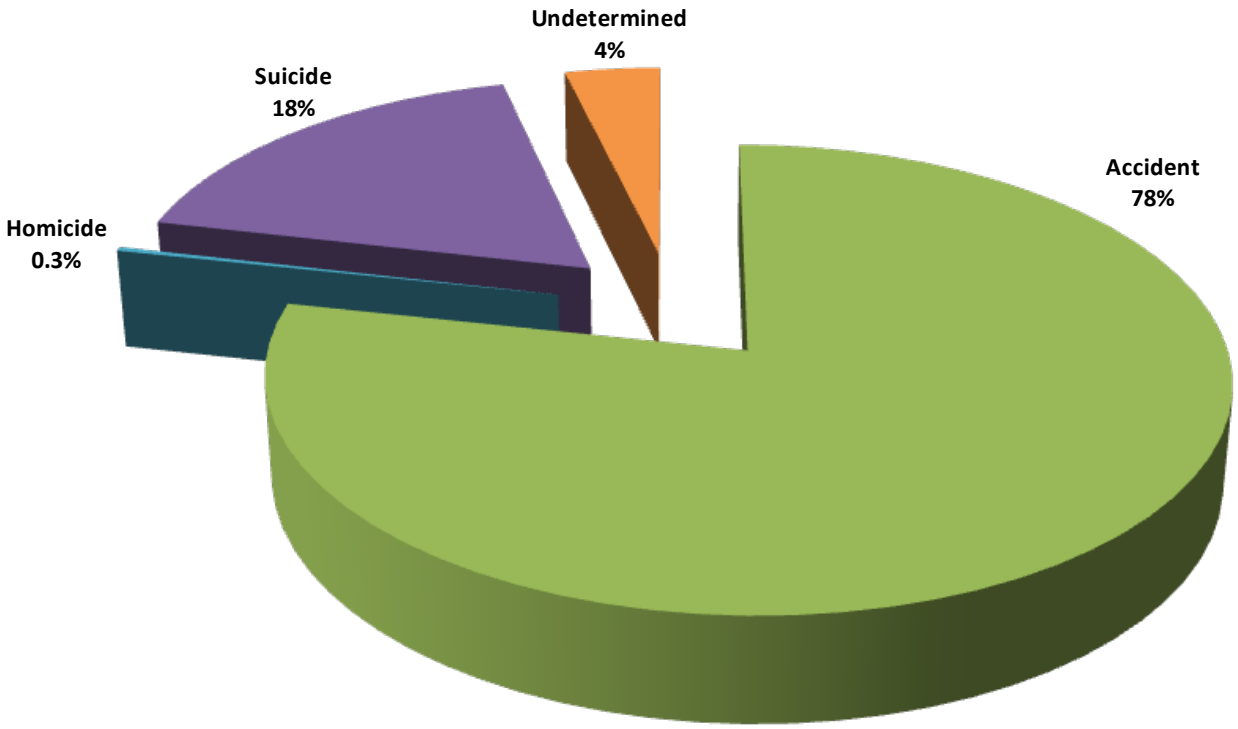


Figure 86. Drug/Poison Deaths by Age Group by Gender, 2010

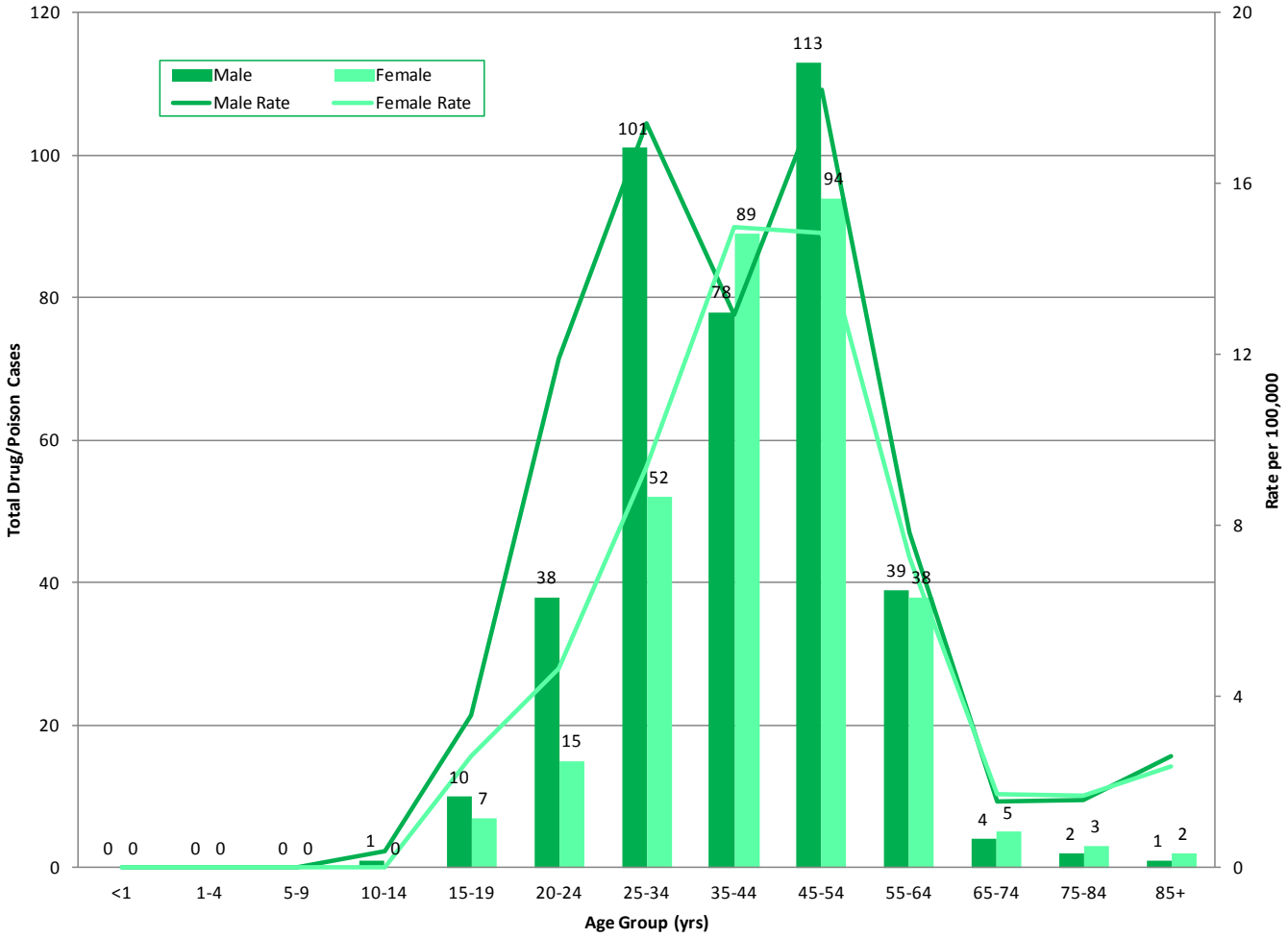


Table 39. Drug/Poison Deaths by Age Group by Manner, 2010

	Manner of Death				
Age Group	**Accident**	**Homicide**	**Suicide**	**Undetermined**	**Total**
<1	0	0	0	0	**0**
1-4	0	0	0	0	**0**
5-9	0	0	0	0	**0**
10-14	1	0	0	0	**1**
15-19	13	0	3	1	**17**
20-24	43	0	10	0	**53**
25-34	136	0	14	3	**153**
35-44	137	0	23	7	**167**
45-54	158	0	43	6	**207**
55-64	50	0	22	5	**77**
65-74	4	0	2	3	**9**
75-84	0	1	4	0	**5**
85+	0	1	1	1	**3**
Total	**542**	**2**	**122**	**26**	**692**

Figure 87. Drug/Poison Deaths by Race/Ethnicity, 2010

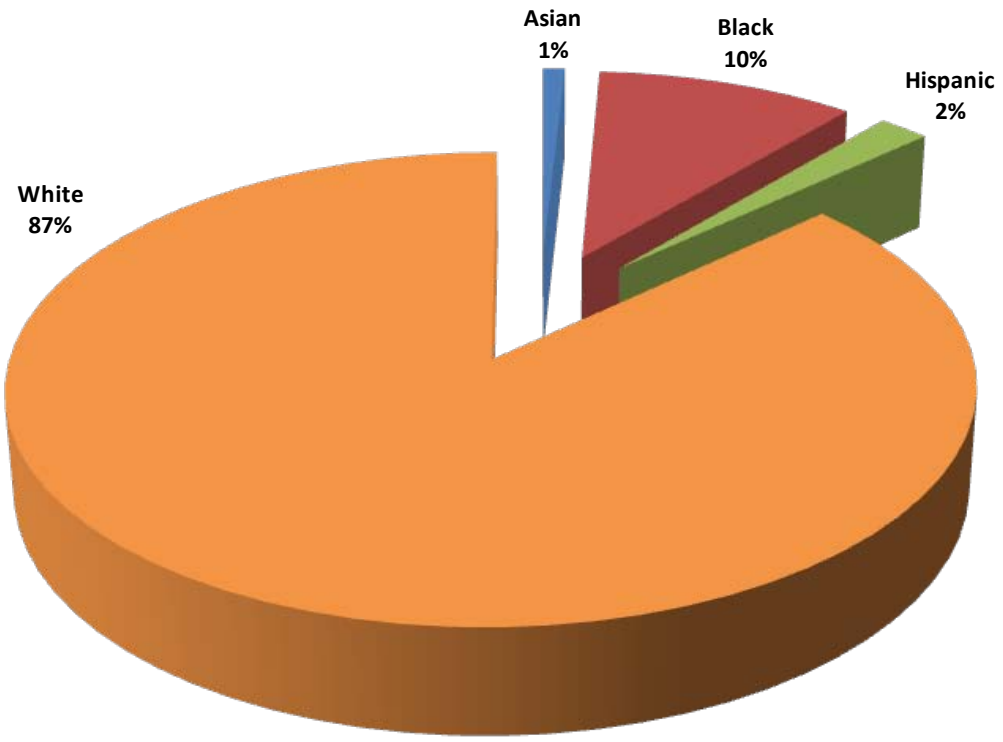


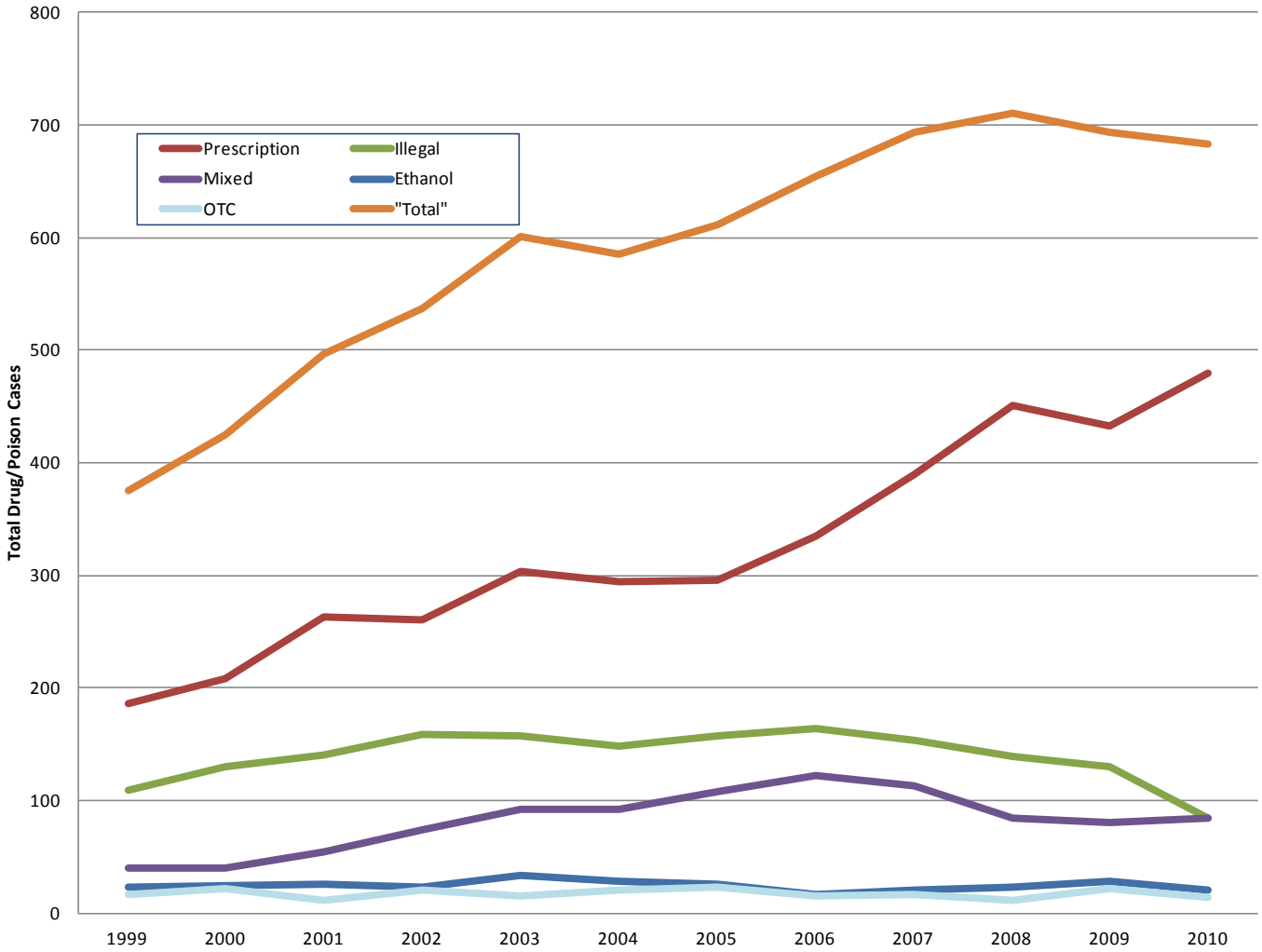
Table 40. Drug/Poison Deaths by Cause of Death by OCME District, 2010

	District				
Cause of Death	**Central**	**Northern**	**Tidewater**	**Western**	**Total**
Ethanol Poisoning	7	3	4	7	**21**
Prescription Drug Poisoning	111	102	60	206	**479**
Illegal (Street) Drug Poisoning	34	17	25	8	**84**
Mixed Category Drug Poisoning	6	24	26	29	**85**
Inhalant Poisoning	0	1	1	2	**4**
OTC Poisoning	4	3	4	3	**14**
Ethylene Glycol Poisoning	1	1	0	1	**3**
Not Otherwise Specified Poisoning	1	0	1	0	**2**
Total	**164**	**151**	**121**	**256**	**692**

Table 41. Drug/Poison Deaths by Cause of Death by Manner, 2010

	Manner of Death				
Cause of Death	**Accident**	**Homicide**	**Suicide**	**Undetermined**	**Total**
Ethanol Poisoning	21	0	0	0	**21**
Prescription Drug Poisoning	365	2	92	20	**479**
Illegal (Street) Drug Poisoning	84	0	0	0	**84**
Mixed Category Drug Poisoning	63	0	16	6	**85**
Inhalant Poisoning	4	0	0	0	**4**
OTC Poisoning	3	0	11	0	**14**
Ethylene Glycol Poisoning	0	0	3	0	**3**
Not Otherwise Specified Poisoning	2	0	0	0	**2**
TOTAL	**542**	**2**	**122**	**26**	**692**

Figure 88. Specific Type of Drug Category Deaths by Year of Death, 2010



"Total" equals the total of the 5 drug categories highlighted in this figure and does not include inhalants, ethylene glycol or NOS.

Figure 89. Drug/Poison Deaths by Drug Type by Gender, 2010

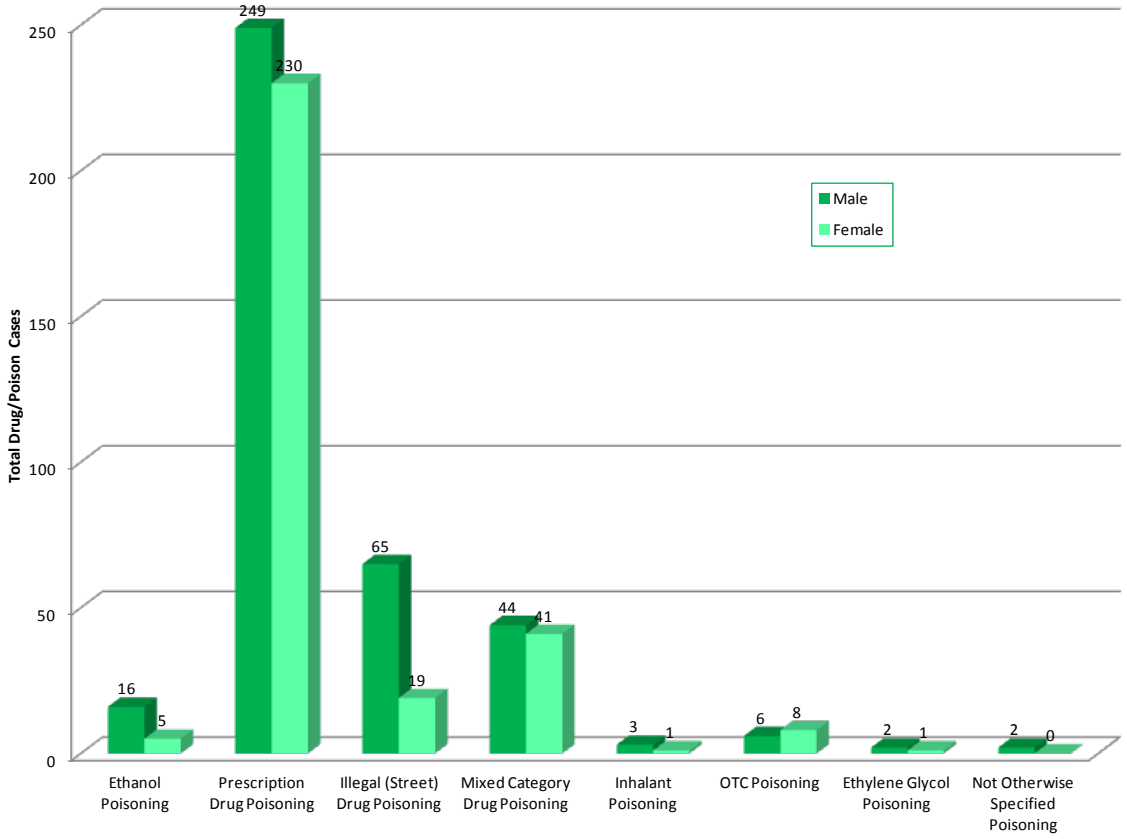


Figure 90. Specific Drug Category Deaths & Rates by Race/Ethnicity, 2010

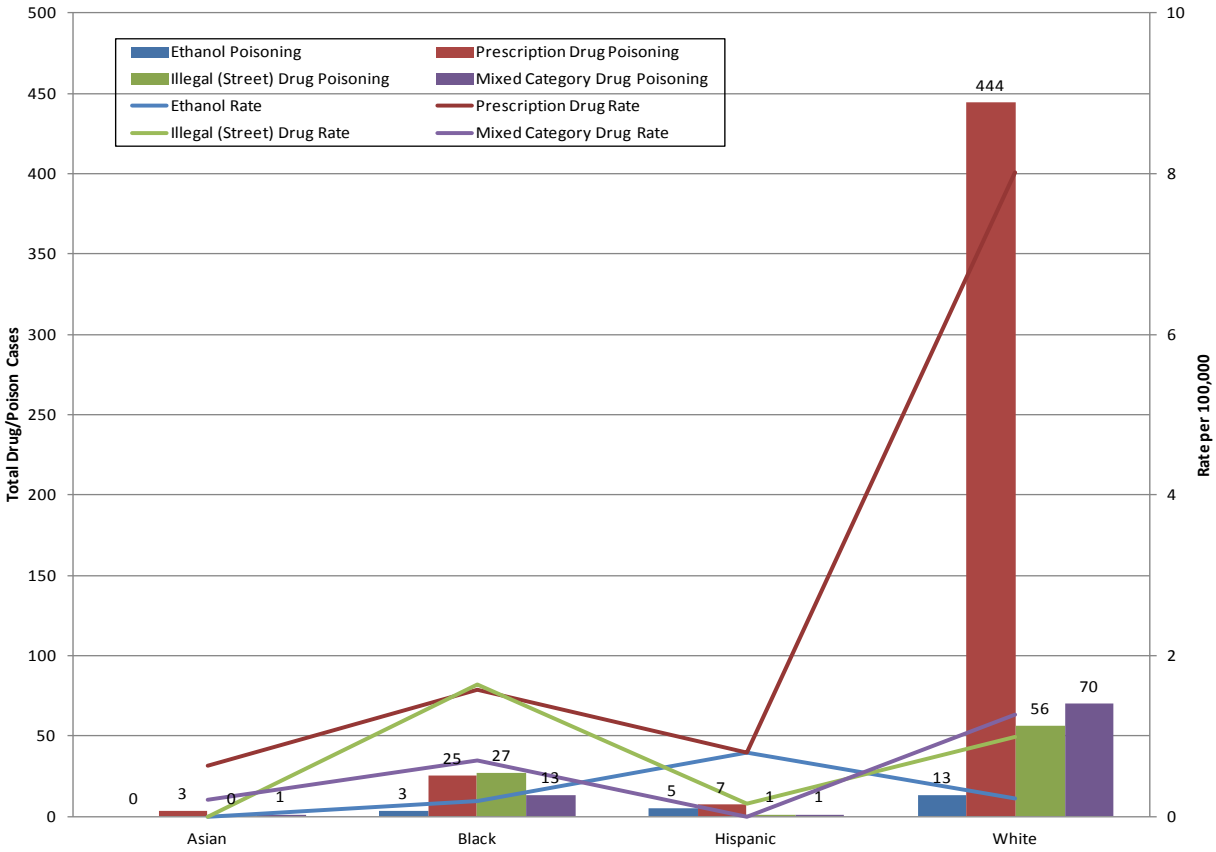


Figure 91. Specific Drug Category Deaths by Ethanol Level, 2010

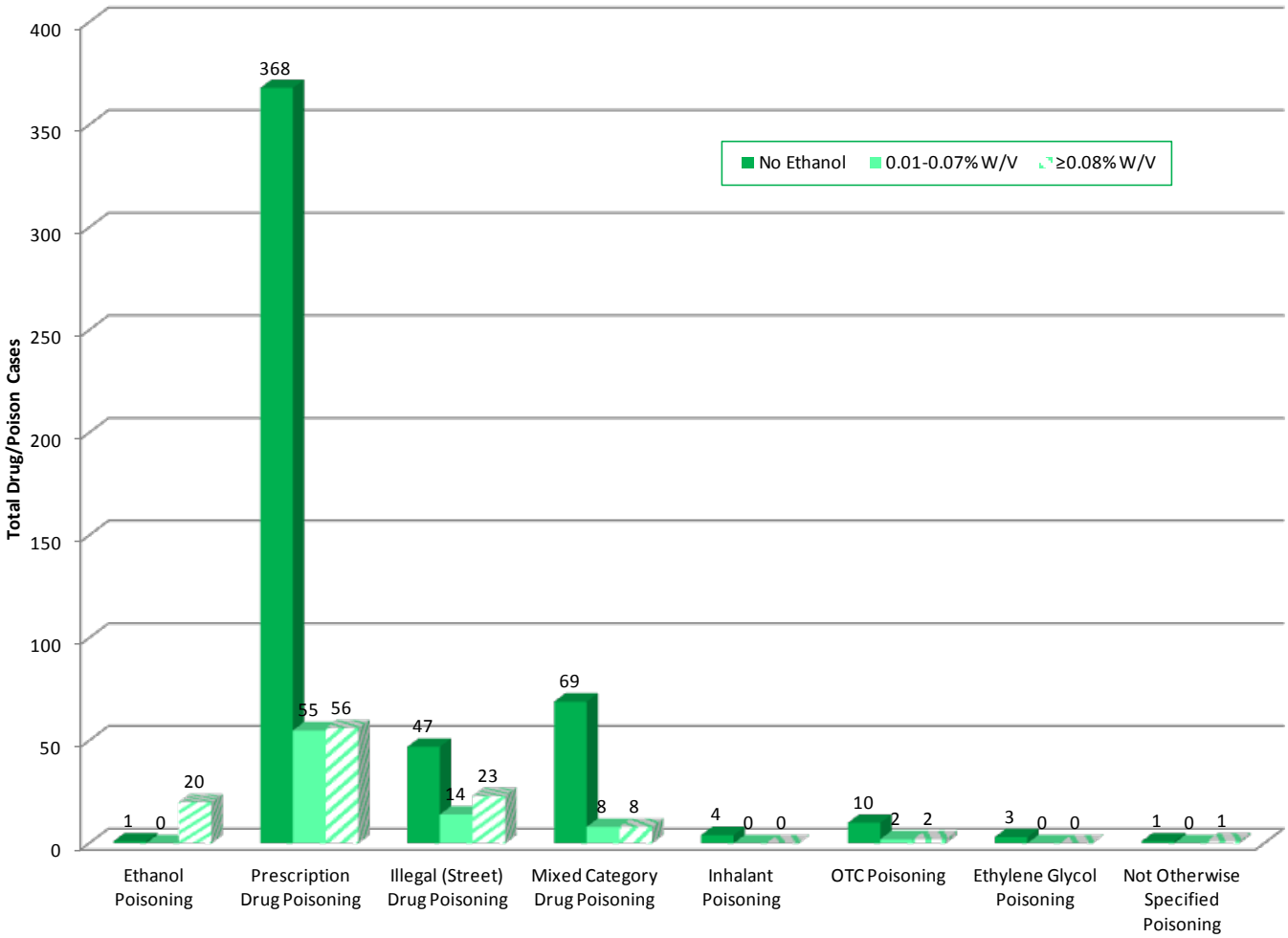
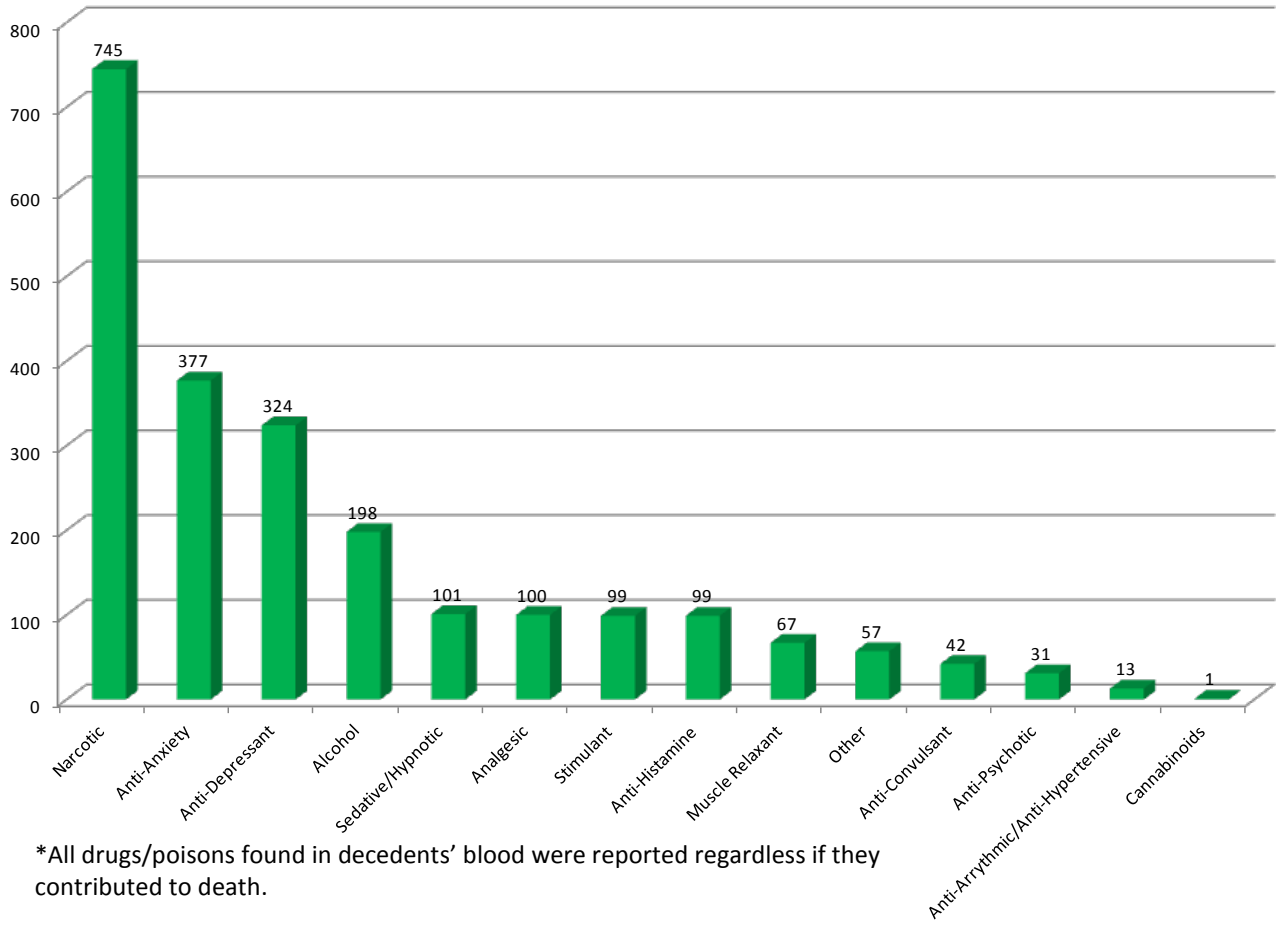


Table 42. Drug/Poison Deaths by Cause of Death by Alcohol Also Causing Death, 2010

	Alcohol Also Caused Death				
Cause of Death	**Yes**	**No**	**Contributed**	**Unknown**	**Total**
Ethanol Poisoning	20	1*	0	0	**21**
Prescription Drug Poisoning	70	401	6	2	**479**
Illegal (Street) Drug Poisoning	22	60	2	0	**84**
Mixed Category Drug Poisoning	12	73	0	0	**85**
Inhalant Poisoning	0	4	0	0	**4**
OTC Poisoning	1	13	0	0	**14**
Ethylene Glycol Poisoning	0	3	0	0	**3**
Not Otherwise Specified Poisoning	1	1	0	0	**2**
TOTAL	**126**	**556**	**8**	**2**	**692**

*No toxicology was run on decedent by OCME & data is based on OCME toxicology results.

Figure 92. Classes of All Drugs/Poisons Present* in Drug/Poison Deaths, 2010



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

Table 43. All Drugs/Poisons/Active Metabolites Present* in Drug/Poison Deaths, 2010

Class	Drug/Poison/Active Metabolite	Total
Alcohol		
	ETHANOL	192
	ISOPROPANOL	2
	METHANOL	4
	Alcohol Total	**198**
Analgesic		
	ACETAMINOPHEN	12
	ACETYL SALICYLIC ACID	6
	ANTIPYRINE	1
	BUPIVACAINE	2
	BUPRENORPHINE	1
	DEXTROMETHORPHAN	23
	IBUPROFEN	1
	KETAMINE	1
	MEPERIDINE	5
	NAPROXEN	2
	NORBUPRENORPHINE (Buprenorphine Metabolite)	1
	PENTAZOCINE	1

Class	Drug/Poison/Active Metabolite	Total
	TRAMADOL	44
	Analgesic Total	**100**
Anti-Anxiety		
	ALPRAZOLAM	165
	CHLORDIAZEPOXIDE	5
	DIAZEPAM	79
	LORAZEPAM	6
	MEPROBAMATE	26
	NORDIAZEPAM (Diazepam Metabolite)	90
	OXAZEPAM	6
	Anti-Anxiety Total	**377**
Anti-Arrythmic/Anti-Hypertensive		
	DILTIAZEM	6
	METOPROLOL	3
	VERAPAMIL	4
	Anti-Arrythmic/Anti-Hypertensive Total	**13**
Anti-Convulsant		
	CARBAMAZEPINE	5
	CLONAZEPAM	4
	GABAPENTIN	5
	LAMOTRIGINE	10
	LEVETIRACETAM	1
	MIDAZOLAM	2
	OXCARBAZEPINE	1
	PHENOBARBITAL	4
	PHENYTOIN	3
	PRIMIDONE	1
	TOPIRAMATE	6
	Anti-Convulsant Total	**42**
Anti-Depressant		
	AMITRIPTYLINE	42
	BUPROPION (WELLBUTRIN)	17
	CITALOPRAM	73
	CLOMIPRAMINE	1
	DESIPRAMINE	3
	DOXEPIN	9
	FLUOXETINE	44
	FLUVOXAMINE	1
	HYDROXYBUPROPRION (Buproprion Metabolite)	1
	IMIPRAMINE	3
	MIRTAZAPINE	13
	NORFLUOXETINE (Fluoxetine Metabolite)	4
	NORTRIPTYLINE (Amitriptyline Metabolite)	33
	PAROXETINE	6
	SERTRALINE	22

Class	Drug/Poison/Active Metabolite	Total
	TRAZODONE	34
	VENLAFAXINE	18
	Anti-Depressant Total	**324**
Anti-Histamine		
	CHLORPHENIRAMINE	7
	DIPHENHYDRAMINE	73
	DOXYLAMINE	12
	HYDROXYZINE	3
	MECLIZINE	2
	ORPHENADRINE	2
	Anti-Histamine Total	**99**
Anti-Psychotic		
	CHLORPROMAZINE	2
	LITHIUM	1
	OLANZAPINE	3
	QUETIAPINE	25
	Anti-Psychotic Total	**31**
Cannabinoids		
	TETRAHYDROCANNABINOL CARBOXYLIC ACID	1
	Cannabinoids Total	**1**
Muscle Relaxant		
	CARISOPRODOL	21
	CYCLOBENZAPRINE	38
	METAXALONE	3
	METHOCARBAMOL	1
	PAPAVERINE	1
	TIZANIDINE	2
	VECURONIUM	1
	Muscle Relaxant Total	**67**
Narcotic		
	ACETYLMORPHINE (Heroin Metabolite)	24
	CODEINE	34
	FENTANYL	64
	HYDROCODONE	102
	HYDROMORPHONE	26
	METHADONE	138
	MORPHINE	104
	NORPROPOXYPHENE (Propoxyphene Metabolite)	11
	OXYCODONE	162
	OXYMORPHONE	59
	PROPOXYPHENE	21
	Narcotic Total	**745**
Other		
	CARBOXYHEMOGLOBIN	5
	DICYCLOMINE	4

Class	Drug/Poison/Active Metabolite	Total
	DIFLUOROETHANE	3
	DONEPEZIL	1
	ETHYLENE GLYCOL	4
	FLUCONAZOLE	2
	INSULIN	1
	LEVAMISOLE	5
	LIDOCAINE	11
	METOCLOPRAMIDE	1
	PHENCYCLIDINE	3
	PRILOCAINE	1
	PROPRANOLOL	5
	PROPYLENE GLYCOL	3
	QUININE	1
	TAMOXIFEN	1
	TETRAMISOLE	3
	TRIMETHOPRIM	1
	VOLATILE HYDROCARBONS	2
	Other Total	**57**
Sedative/Hypnotic		
	BUTABARBITAL	1
	BUTALBITAL	7
	ESTAZOLAM	1
	PENTOBARBITAL	2
	PROMETHAZINE	41
	PROPOFOL	1
	TEMAZEPAM	13
	TRIAZOLAM	1
	TRICHLOROETHANOL	1
	ZOLPIDEM	34
	Sedative/Hypnotic Total	**101**
Stimulant		
	AMPHETAMINE	4
	CAFFEINE	1
	COCAETHYLENE	23
	COCAINE	65
	METHAMPHETAMINE	2
	METHYLENEDIOXYMETHAMPHETAMINE - ECSTASY	2
	PHENTERMINE	2
	Stimulant Total	**99**
Total		**2254**

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

Table 44. Drugs/Poisons/Active Metabolites Causing Death in Drug/Poison Deaths, 2010

Class	Drug/Poison/Active Metabolite	Total
Alcohol		
	ETHANOL	129
	Alcohol Total	**129**
Analgesic		
	ACETAMINOPHEN	6
	ACETYL SALICYLIC ACID	4
	ANTIPYRINE	1
	BUPIVACAINE	1
	BUPRENORPHINE	1
	DEXTROMETHORPHAN	18
	IBUPROFEN	1
	KETAMINE	1
	MEPERIDINE	2
	NAPROXEN	1
	NORBUPRENORPHINE (Buprenorphine Metabolite)	1
	PENTAZOCINE	1
	TRAMADOL	36
	Analgesic Total	**74**
Anti-Anxiety		
	ALPRAZOLAM	126
	CHLORDIAZEPOXIDE	2
	DIAZEPAM	46
	LORAZEPAM	5
	MEPROBAMATE	15
	NORDIAZEPAM (Diazepam Metabolite)	46
	OXAZEPAM	6
	Anti-Anxiety Total	**246**
Anti-Arrythmic/Anti-Hypertensive		
	DILTIAZEM	2
	METOPROLOL	2
	VERAPAMIL	1
	Anti-Arrythmic/Anti-Hypertensive Total	**5**
Anti-Convulsant		
	CARBAMAZEPINE	3
	CLONAZEPAM	3
	GABAPENTIN	2
	LAMOTRIGINE	5
	OXCARBAZEPINE	1
	PHENOBARBITAL	3
	PHENYTOIN	2
	PRIMIDONE	1
	TOPIRAMATE	5
	Anti-Convulsant Total	**25**

Anti-Depressant		
	AMITRIPTYLINE	28
	BUPROPION (WELLBUTRIN)	10
	CITALOPRAM	46
	DESIPRAMINE	1
	DOXEPIN	7
	FLUOXETINE	32
	FLUVOXAMINE	1
	HYDROXYBUPROPRION (Buproprion Metabolite)	1
	IMIPRAMINE	1
	MIRTAZAPINE	9
	NORFLUOXETINE (Fluoxetine Metabolite)	3
	NORTRIPTYLINE (Amitriptyline Metabolite)	16
	PAROXETINE	5
	SERTRALINE	16
	TRAZODONE	21
	VENLAFAXINE	9
	Anti-Depressant Total	**206**
Anti-Histamine		
	CHLORPHENIRAMINE	5
	DIPHENHYDRAMINE	40
	DOXYLAMINE	12
	HYDROXYZINE	2
	Anti-Histamine Total	**59**
Anti-Psychotic		
	CHLORPROMAZINE	1
	LITHIUM	1
	OLANZAPINE	3
	QUETIAPINE	18
	Anti-Psychotic Total	**23**
Muscle Relaxant		
	CARISOPRODOL	13
	CYCLOBENZAPRINE	25
	METAXALONE	2
	METHOCARBAMOL	1
	VECURONIUM	1
	Muscle Relaxant Total	**42**
Narcotic		
	ACETYLMORPHINE (Heroin Metabolite)	15
	CODEINE	18
	FENTANYL	62
	HYDROCODONE	87
	HYDROMORPHONE	22
	METHADONE	130
	MORPHINE	93
	NORPROPOXYPHENE (Propoxyphene Metabolite)	9

	OXYCODONE	148
	OXYMORPHONE	44
	PROPOXYPHENE	18
	Narcotic Total	**646**
Other		
	DICYCLOMINE	2
	DIFLUOROETHANE	3
	DONEPEZIL	1
	ETHYLENE GLYCOL	4
	INSULIN	1
	LIDOCAINE	3
	METOCLOPRAMIDE	1
	PHENCYCLIDINE	3
	PROPRANOLOL	1
	PROPYLENE GLYCOL	2
	VOLATILE HYDROCARBONS	1
	Other Total	**22**
Sedative/Hypnotic		
	BUTABARBITAL	1
	BUTALBITAL	3
	ESTAZOLAM	1
	PENTOBARBITAL	1
	PROMETHAZINE	24
	PROPOFOL	1
	TEMAZEPAM	10
	TRIAZOLAM	1
	TRICHLOROETHANOL	1
	ZOLPIDEM	29
	Sedative/Hypnotic Total	**72**
Stimulant		
	AMPHETAMINE	3
	COCAETHYLENE	17
	COCAINE	61
	METHYLENEDIOXYMETHAMPHETAMINE - ECSTASY	1
	PHENTERMINE	1
	Stimulant Total	**83**
Total		**1632**

Table 45. Drug/Poison Deaths by City/County of Residence, 2010

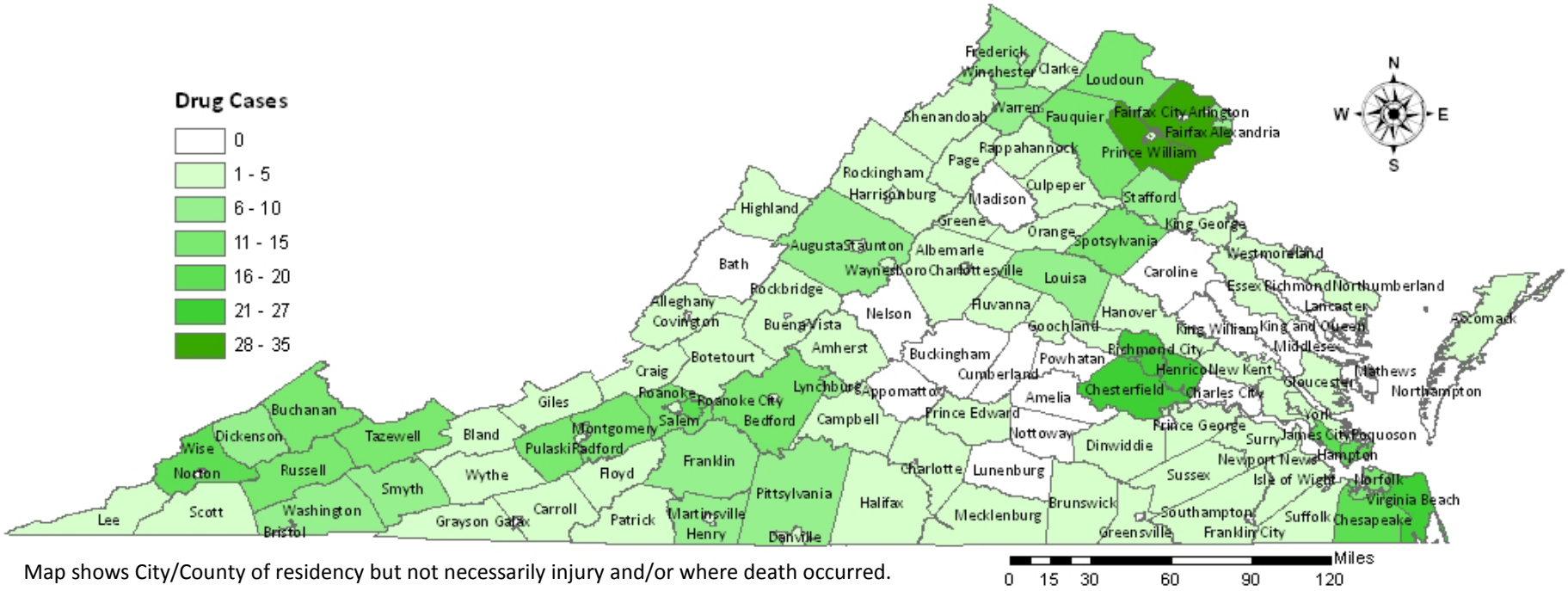
City/County of Residence	Deaths	Rate
Accomack	1	3.0
Albemarle	5	5.1
Alexandria	7	5.0
Alleghany	2	12.3
Amelia	0	0.0
Amherst	3	9.3
Appomattox	0	0.0
Arlington	9	4.3
Augusta	9	12.2
Bath	0	0.0
Bedford City	1	16.1
Bedford	13	18.9
Bland	3	44.0
Botetourt	2	6.0
Bristol	1	5.6
Brunswick	2	11.5
Buchanan	12	49.8
Buckingham	0	0.0
Buena Vista	1	15.0
Campbell	4	7.3
Caroline	0	0.0
Carroll	1	3.3
Charles City	0	0.0
Charlotte	2	15.9
Charlottesville	2	4.6
Chesapeake	17	7.7
Chesterfield	25	7.9
Clarke	2	14.3
Colonial Heights	1	5.7
Covington	0	0.0
Craig	2	38.5
Culpeper	2	4.3
Cumberland	0	0.0
Danville	5	11.6
Dickenson	7	44.0
Dinwiddie	2	7.1
Emporia	0	0.0
Essex	1	9.0
Fairfax City	1	4.4
Fairfax	35	3.2
Falls Church	0	0.0

City/County of Residence	Deaths	Rate
Fauquier	11	16.9
Floyd	3	19.6
Fluvanna	1	3.9
Franklin City	0	0.0
Franklin	7	12.5
Frederick	9	11.5
Fredericksburg	2	8.2
Galax	0	0.0
Giles	3	17.4
Gloucester	3	8.1
Goochland	3	13.8
Grayson	1	6.4
Greene	3	16.3
Greensville	4	32.7
Halifax	3	8.3
Hampton	16	11.6
Hanover	4	4.0
Harrisonburg	4	8.2
Henrico	27	8.8
Henry	8	14.8
Highland	1	43.1
Hopewell	4	17.7
Isle of Wight	2	5.7
James City	3	4.5
King and Queen	0	0.0
King George	2	8.5
King William	0	0.0
Lancaster	0	0.0
Lee	2	7.8
Lexington	0	0.0
Loudoun	10	3.2
Louisa	6	18.1
Lunenburg	0	0.0
Lynchburg	6	7.9
Madison	0	0.0
Manassas	1	2.6
Martinsville	2	14.5
Mathews	0	0.0
Mecklenburg	2	6.1
Middlesex	0	0.0
Montgomery	10	10.6

City/County of Residence	Deaths	Rate
Nelson	0	0.0
New Kent	1	5.4
Newport News	17	9.4
Norfolk	14	5.8
Northampton	0	0.0
Northumberland	1	8.1
Norton	0	0.0
Nottoway	0	0.0
Orange	4	11.9
Page	3	12.5
Patrick	3	16.2
Petersburg	0	0.0
Pittsylvania	7	11.0
Poquoson	0	0.0
Portsmouth	10	10.5
Powhatan	0	0.0
Prince Edward	1	4.3
Prince George	1	2.8
Prince William	31	7.7
Pulaski	11	31.5
Radford	2	12.2
Rappahannock	1	13.6
Richmond City	21	10.3
Richmond	0	0.0
Roanoke City	20	20.6
Roanoke	12	13.0
Rockbridge	3	13.4
Rockingham	1	1.3
Russell	13	45.0
Salem	3	12.1
Scott	2	8.6
Shenandoah	4	9.5
Smyth	8	24.8
Southampton	2	10.8
Spotsylvania	12	9.8
Stafford	6	4.7
Staunton	2	8.4
Suffolk	5	5.9
Surry	1	14.2
Sussex	1	8.3
Tazewell	14	31.1
Virginia Beach	26	5.9
Warren	6	16.0
Washington	9	16.4
Waynesboro	3	14.3
Westmoreland	3	17.2
Williamsburg	1	7.1
Winchester	5	19.1
Wise	15	36.2
Wythe	4	13.7
York	4	6.1
Total in State	**656**	**8.2**
Out of State	35	ND*
Unknown	1	ND
TOTAL	**692**	**ND**

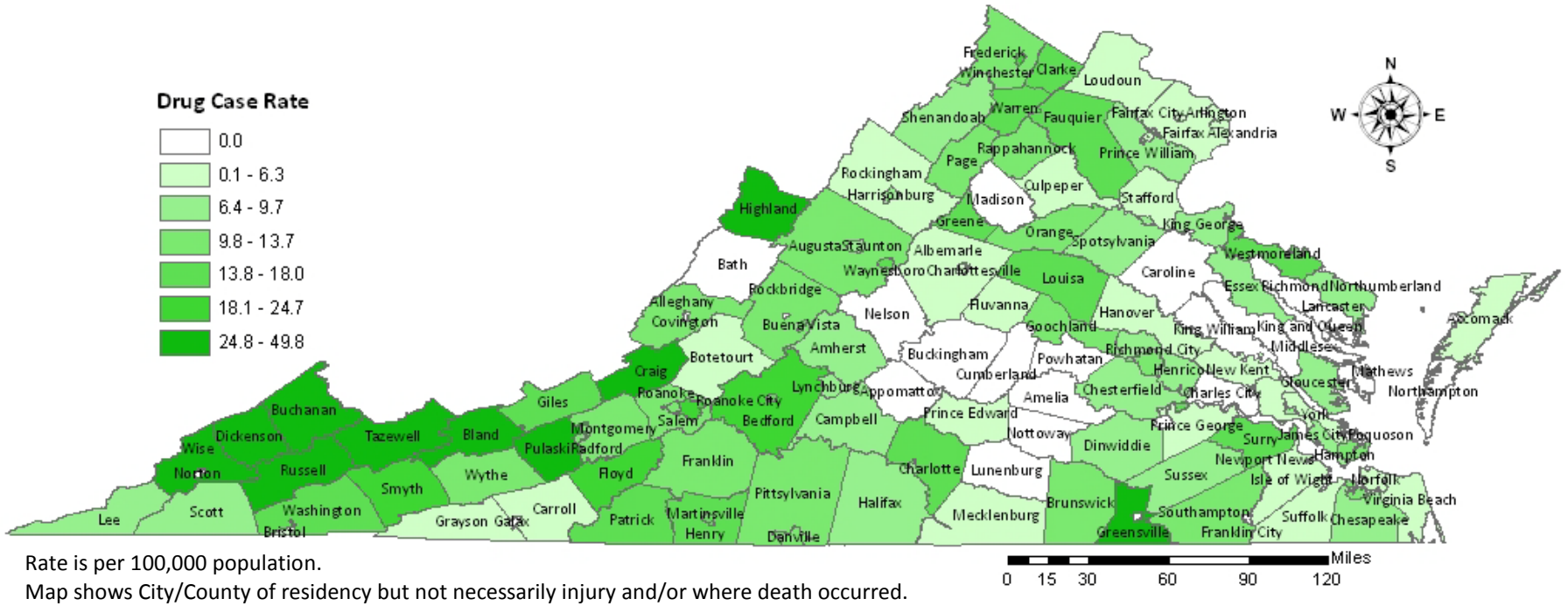
*ND-No denominator

Figure 93. Drug/Poison Deaths by City/County of Residence, 2010



Map shows City/County of residency but not necessarily injury and/or where death occurred.
A total of 36 cases were from out of state residents or residency was unknown.

Figure 94. Drug/Poison Death Rates by City/County of Residence, 2010



Rate is per 100,000 population.
Map shows City/County of residency but not necessarily injury and/or where death occurred.
A total of 36 cases were from out of state residents or residency was unknown.

FENTANYL, HYDROCODONE, METHADONE & OXYCODONE DEATHS (N=372)

Prescription drug deaths have become an increasing cause of injury and death in Virginia accounting for at least 69.2 percent of all drug/poison deaths. Fentanyl, hydrocodone, methadone, and oxycodone (FHMO) were found to be partly or wholly responsible for 53.8 percent 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.]

- Ninety-three percent of FHMO deaths were white and 57.3 percent were male
- Oxycodone has exceeded methadone in the number of FHMO deaths it has caused, 154 versus 134, respectively
- The western portion of the state had 44.6% of all the FHMO cases

Figure 95. Comparison of FHMO, Prescription, & All Drug Deaths by Year of Death, 1999-2010

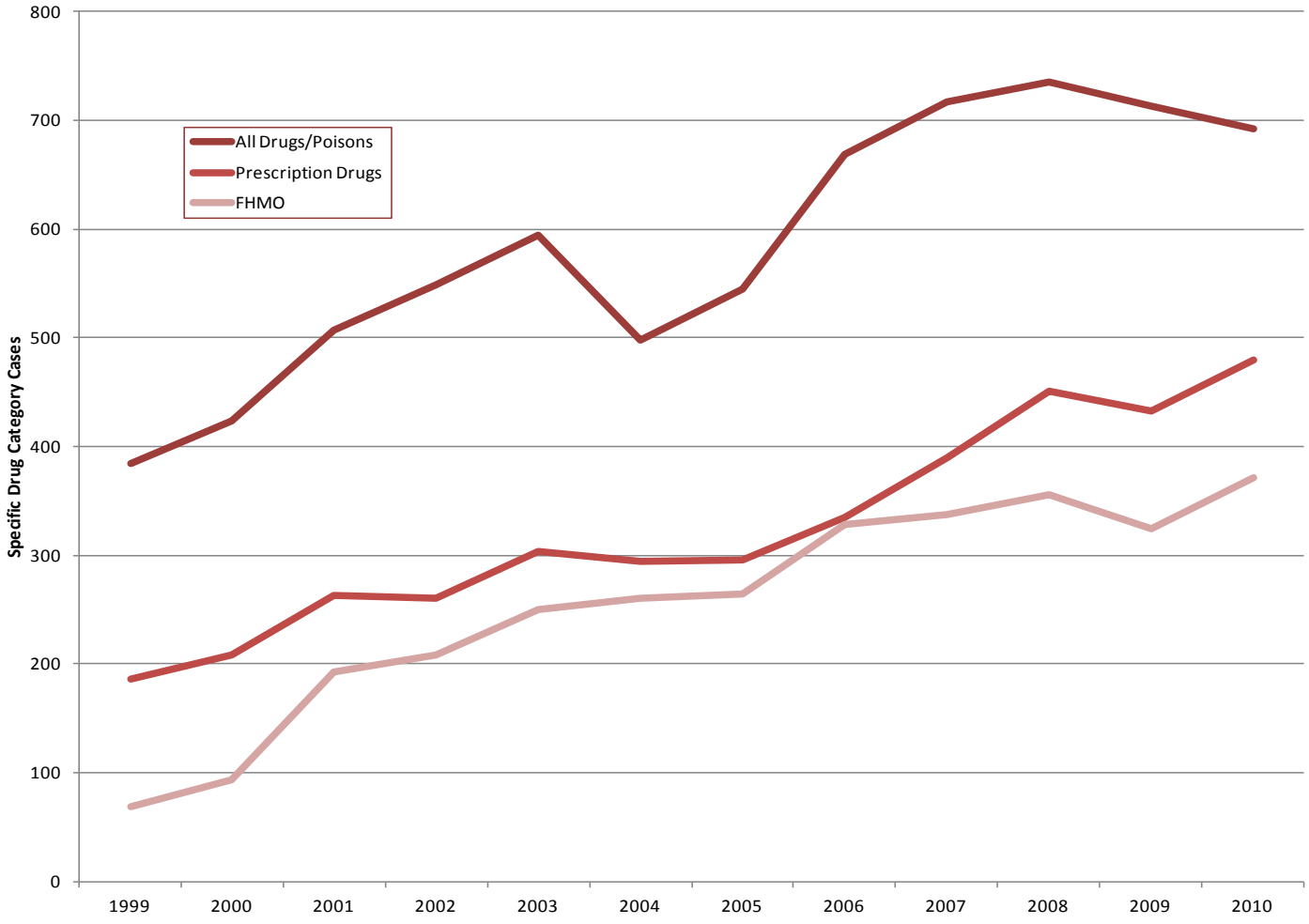


Table 46. FHMO Combination Deaths, 2010

FHMO Combination	Total
Oxycodone	107
Methadone	103
Fentanyl	47
Hydrocodone	52
Oxycodone & Methadone	16
Oxycodone & Fentanyl	7
Oxycodone & Hydrocodone	17
Methadone & Fentanyl	1
Methadone & Hydrocodone	10
Fentanyl & Hydrocodone	5
Oxycodone, Methadone & Fentanyl	1
Oxycodone, Methadone & Hydrocodone	3
Oxycodone, Fentanyl & Hydrocodone	3
FHMO Subtotal	**372**
Non-FHMO Drug/Poison Combinations	320
Total	**692**

Table 47. FHMO Combination Deaths by Race/Ethnicity, 2010

	District				
FHMO Combination	**Central**	**Northern**	**Tidewater**	**Western**	**Total**
Oxycodone	21	28	12	46	**107**
Methadone	31	21	13	38	**103**
Fentanyl	13	8	10	16	**47**
Hydrocodone	5	10	11	26	**52**
Oxycodone & Methadone	0	5	3	8	**16**
Oxycodone & Fentanyl	1	1	0	5	**7**
Oxycodone & Hydrocodone	0	3	1	13	**17**
Methadone & Fentanyl	1	0	0	0	**1**
Methadone & Hydrocodone	1	1	2	6	**10**
Fentanyl & Hydrocodone	1	1	1	2	**5**
Oxycodone, Methadone & Fentanyl	0	0	0	1	**1**
Oxycodone, Methadone & Hydrocodone	0	0	0	3	**3**
Oxycodone, Fentanyl & Hydrocodone	1	0	0	2	**3**
Total	**75**	**78**	**53**	**166**	**372**

Table 48. FHMO Combination Deaths by Race/Ethnicity, 2010

	Race/Ethnicity			
FHMO Combination	**Black**	**Hispanic**	**White**	**Total**
Oxycodone	5	2	100	**107**
Methadone	8	2	93	**103**
Fentanyl	3	0	44	**47**
Hydrocodone	3	0	49	**52**
Oxycodone & Methadone	1	0	15	**16**
Oxycodone & Fentanyl	0	0	7	**7**
Oxycodone & Hydrocodone	2	0	15	**17**
Methadone & Fentanyl	1	0	0	**1**
Methadone & Hydrocodone	0	0	10	**10**
Fentanyl & Hydrocodone	0	0	5	**5**
Oxycodone, Methadone & Fentanyl	0	0	1	**1**
Oxycodone, Methadone & Hydrocodone	0	0	3	**3**
Oxycodone, Fentanyl & Hydrocodone	0	0	3	**3**
Total	**23**	**4**	**345**	**372**

Table 49. FHMO Combination Deaths by Gender, 2010

	Gender	
FHMO Combination	**Male**	**Female**
Oxycodone	53	54
Methadone	75	28
Fentanyl	21	26
Hydrocodone	25	27
Oxycodone & Methadone	8	8
Oxycodone & Fentanyl	4	3
Oxycodone & Hydrocodone	12	5
Methadone & Fentanyl	1	0
Methadone & Hydrocodone	6	4
Fentanyl & Hydrocodone	3	2
Oxycodone, Methadone & Fentanyl	1	0
Oxycodone, Methadone & Hydrocodone	3	0
Oxycodone, Fentanyl & Hydrocodone	1	2
Total	**213**	**159**

Figure 96. FHMO Deaths by Age Group, 2010

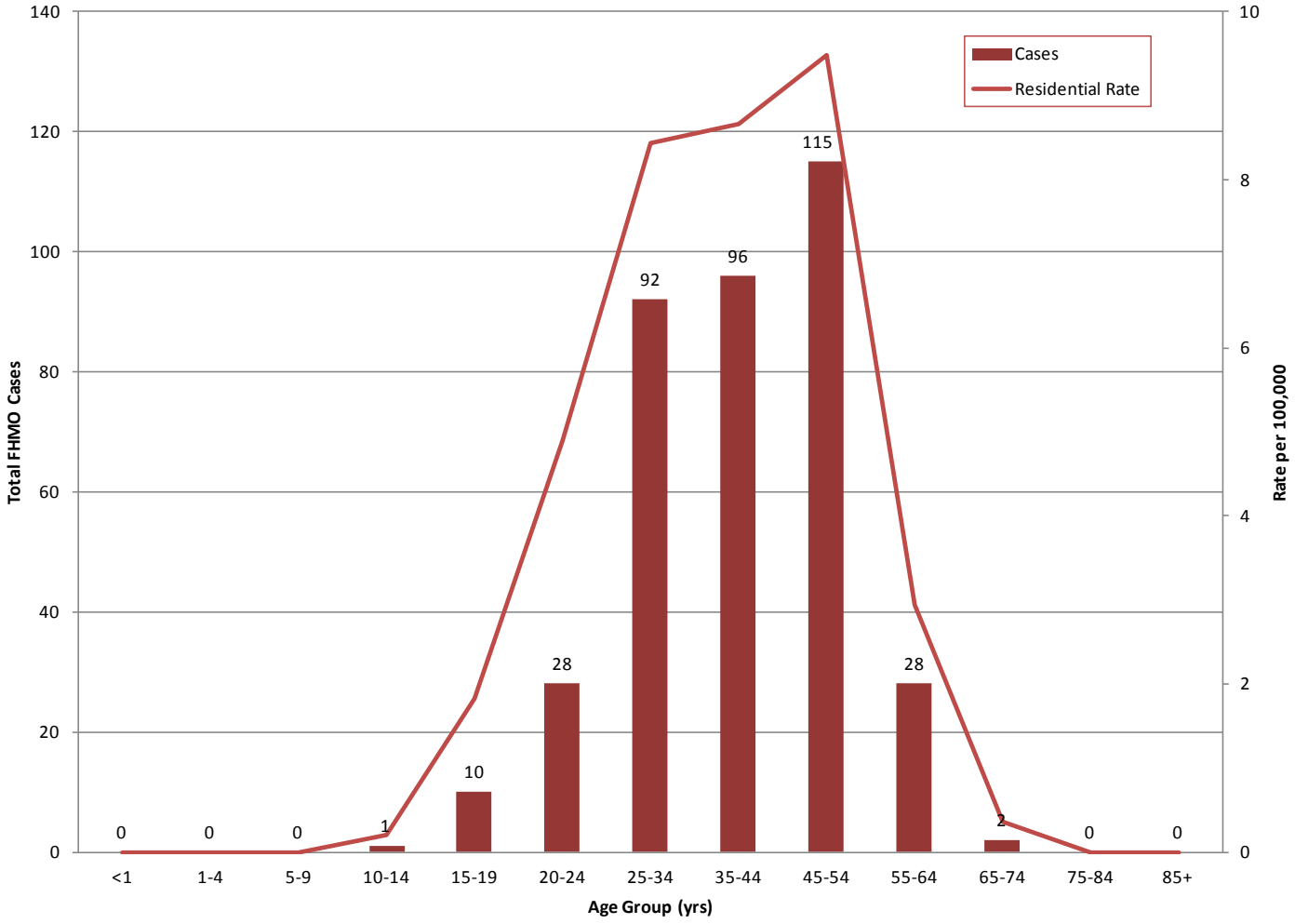


Table 50. FHMO Combination Deaths by Alcohol Also Caused Death, 2010

	Alcohol Caused Death				
FHMO Combination	**Yes**	**No**	**Contributed**	**Unknown**	**Total**
Oxycodone	18	88	1	0	**107**
Methadone	10	92	0	1	**103**
Fentanyl	2	45	0	0	**47**
Hydrocodone	11	39	1	1	**52**
Oxycodone & Methadone	1	14	1	0	**16**
Oxycodone & Fentanyl	1	6	0	0	**7**
Oxycodone & Hydrocodone	4	13	0	0	**17**
Methadone & Fentanyl	0	1	0	0	**1**
Methadone & Hydrocodone	1	9	0	0	**10**
Fentanyl & Hydrocodone	1	4	0	0	**5**
Oxycodone, Methadone & Fentanyl	0	1	0	0	**1**
Oxycodone, Methadone & Hydrocodone	0	3	0	0	**3**
Oxycodone, Fentanyl & Hydrocodone	0	3	0	0	**3**
TOTAL	**49**	**318**	**3**	**2**	**372**

Table 51. FHMO Deaths & Rates by City/County of Residence, 2010

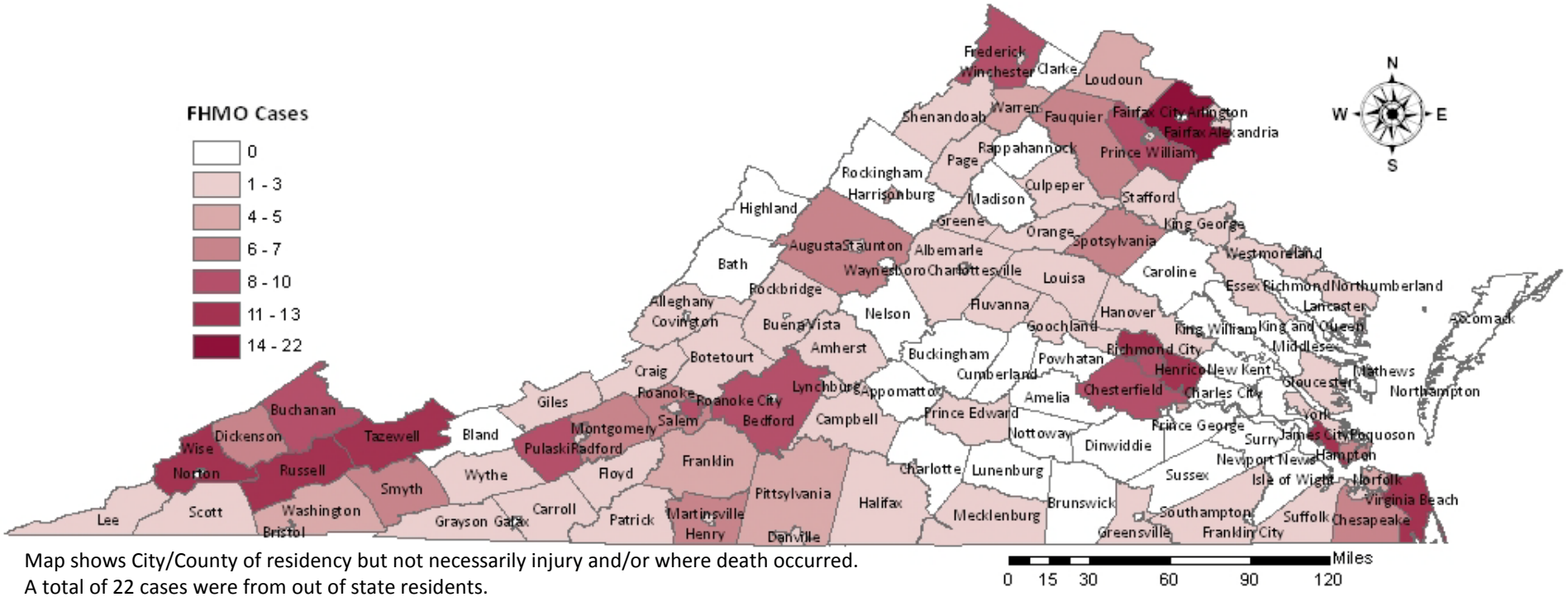
City/County of Residence	Deaths	Rate
Accomack	0	0.0
Albemarle	3	3.0
Alexandria	2	1.4
Alleghany	2	12.3
Amelia	0	0.0
Amherst	1	3.1
Appomattox	0	0.0
Arlington	2	1.0
Augusta	7	9.5
Bath	0	0.0
Bedford City	1	16.1
Bedford	8	11.6
Bland	0	0.0
Botetourt	1	3.0
Bristol	1	5.6
Brunswick	0	0.0
Buchanan	8	33.2
Buckingham	0	0.0
Buena Vista	1	15.0
Campbell	2	3.6
Caroline	0	0.0
Carroll	1	3.3
Charles City	0	0.0
Charlotte	0	0.0
Charlottesville	1	2.3
Chesapeake	7	3.2
Chesterfield	9	2.8
Clarke	0	0.0
Colonial Heights	0	0.0
Covington	0	0.0
Craig	1	19.3
Culpeper	2	4.3
Cumberland	0	0.0
Danville	1	2.3
Dickenson	6	37.7
Dinwiddie	0	0.0
Emporia	0	0.0
Essex	1	9.0
Fairfax City	0	0.0

City/County of Residence	Deaths	Rate
Fairfax	22	2.0
Falls Church	0	0.0
Fauquier	6	9.2
Floyd	1	6.5
Fluvanna	1	3.9
Franklin City	0	0.0
Franklin	5	8.9
Frederick	8	10.2
Fredericksburg	1	4.1
Galax	0	0.0
Giles	1	5.8
Gloucester	1	2.7
Goochland	2	9.2
Grayson	1	6.4
Greene	3	16.3
Greensville	3	24.5
Halifax	1	2.8
Hampton	7	5.1
Hanover	3	3.0
Harrisonburg	4	8.2
Henrico	12	3.9
Henry	6	11.1
Highland	0	0.0
Hopewell	4	17.7
Isle of Wight	0	0.0
James City	0	0.0
King and Queen	0	0.0
King George	1	4.2
King William	0	0.0
Lancaster	0	0.0
Lee	1	3.9
Lexington	0	0.0
Loudoun	5	1.6
Louisa	2	6.0
Lunenburg	0	0.0
Lynchburg	3	4.0
Madison	0	0.0
Manassas	1	2.6
Martinsville	2	14.5

City/County of Residence	Deaths	Rate
Mathews	0	0.0
Mecklenburg	2	6.1
Middlesex	0	0.0
Montgomery	6	6.4
Nelson	0	0.0
New Kent	0	0.0
Newport News	11	6.1
Norfolk	4	1.6
Northampton	0	0.0
Northumberland	1	8.1
Norton	0	0.0
Nottoway	0	0.0
Orange	1	3.0
Page	1	4.2
Patrick	2	10.8
Petersburg	0	0.0
Pittsylvania	4	6.3
Poquoson	0	0.0
Portsmouth	3	3.1
Powhatan	0	0.0
Prince Edward	1	4.3
Prince George	0	0.0
Prince William	10	2.5
Pulaski	8	22.9
Radford	2	12.2
Rappahannock	0	0.0
Richmond City	9	4.4
Richmond	0	0.0
Roanoke City	8	8.2
Roanoke	7	7.6
Rockbridge	3	13.4
Rockingham	0	0.0
Russell	13	45.0
Salem	2	8.1
Scott	1	4.3
Shenandoah	3	7.1
Smyth	6	18.6
Southampton	1	5.4
Spotsylvania	6	4.9
Stafford	2	1.6
Staunton	1	4.2
Suffolk	1	1.2
Surry	0	0.0
Sussex	0	0.0
Tazewell	12	26.6
Virginia Beach	12	2.7
Warren	5	13.3
Washington	5	9.1
Waynesboro	0	0.0
Westmoreland	2	11.5
Williamsburg	0	0.0
Winchester	1	3.8
Wise	13	31.4
Wythe	3	10.3
York	3	4.6
Total in State	**350**	**4.4**
Out of State	22	ND*
TOTAL	**372**	**ND**

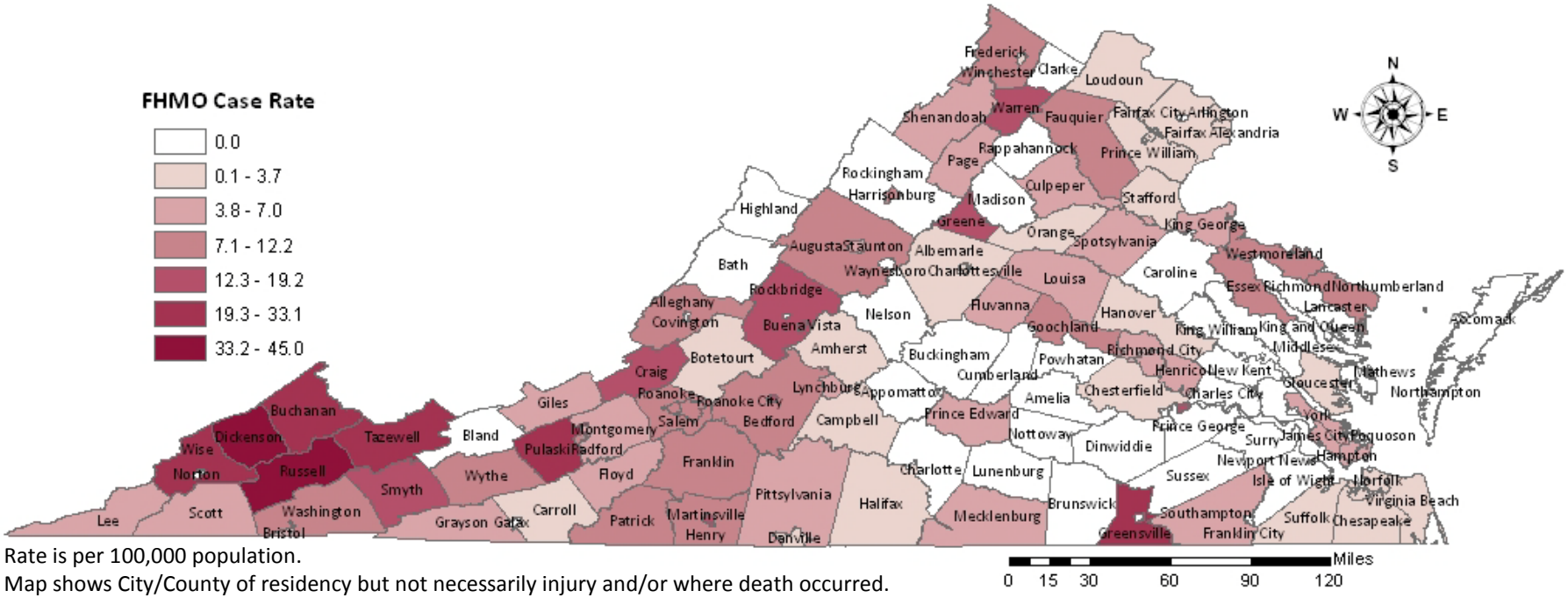
*ND-No denominator

Figure 97. FHMO Deaths by City/County of Residence, 2010



Map shows City/County of residency but not necessarily injury and/or where death occurred.
A total of 22 cases were from out of state residents.

Figure 98.FHMO Death Rates by City/County of Residence, 2010



Rate is per 100,000 population.
Map shows City/County of residency but not necessarily injury and/or where death occurred.
A total of 22 cases were from out of state residents.

COCAINE & HEROIN DEATHS (N=122)

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.]

- Cocaine and/or heroin were involved in 17.6% of all drug/poison cases, a substantial decrease in both numbers and percentages compared to 2009 (168 or 23.6%)
- The Tidewater OCME district had the greatest amount of cases (17.6%)

Table 52. Cocaine & Heroin Combination Deaths, 2010

Cocaine & Heroin Combinations	Total
Cocaine	73
Heroin	35
Cocaine & Heroin	14
Subtotal	**122**
Non-Cocaine or Heroin Drugs/Poisons	570
Total	**692**

Table 53. Cocaine & Heroin Combination Deaths by District, 2010

	District			
Drug Combination	Central	Northern	Tidewater	Western
Cocaine	20	19	18	16
Heroin	12	9	11	3
Cocaine & Heroin	3	3	8	0
Total	**35**	**31**	**37**	**19**

Table 54. Cocaine & Heroin Combination Deaths by Race/Ethnicity, 2010

	Race/Ethnicity			
Drug Combination	Asian	Black	Hispanic	White
Cocaine	1	23	2	47
Heroin	0	6	0	29
Cocaine & Heroin	0	4	0	10
Total	**1**	**33**	**2**	**86**

Table 55. Cocaine & Heroin Combination Deaths by Gender, 2010

	Gender	
Drug Combination	**Male**	**Female**
Cocaine	52	21
Heroin	25	10
Cocaine & Heroin	11	3
Total	**88**	**34**

Figure 99. Cocaine & Heroin Combination Deaths by Age Group, 2010

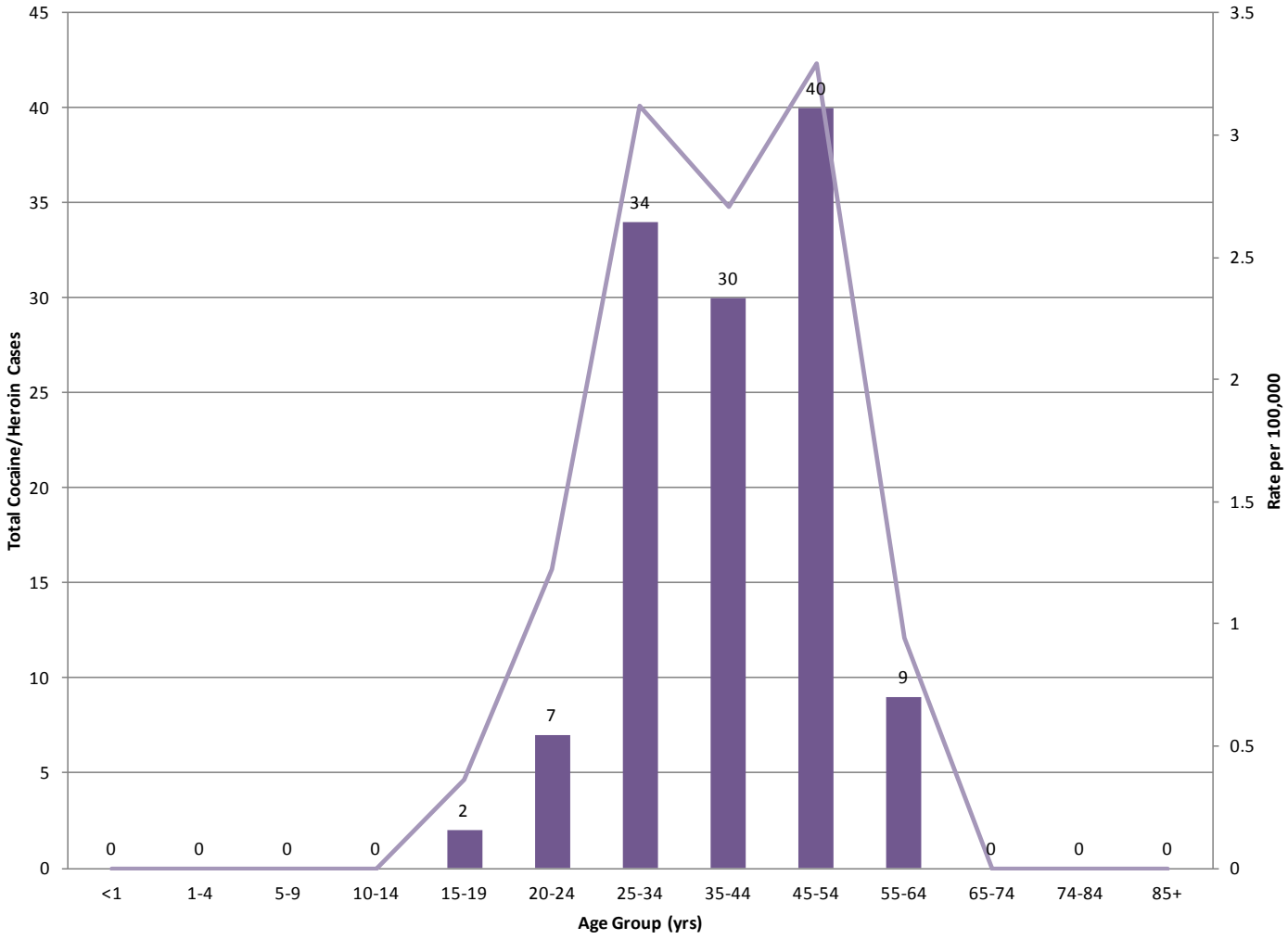


Table 56. Cocaine & Heroin Combination Deaths by Alcohol Also Causing Death, 2010

	Alcohol Caused Death			
Drug Combination	**Yes**	**No**	**Contributed**	**Total**
Cocaine	12	60	1	**73**
Heroin	11	24	0	**35**
Cocaine & Heroin	3	10	1	**14**
Total	**26**	**94**	**2**	**122**

Table 57. Cocaine & Heroin Combination Deaths by City/County of Residence, 2010

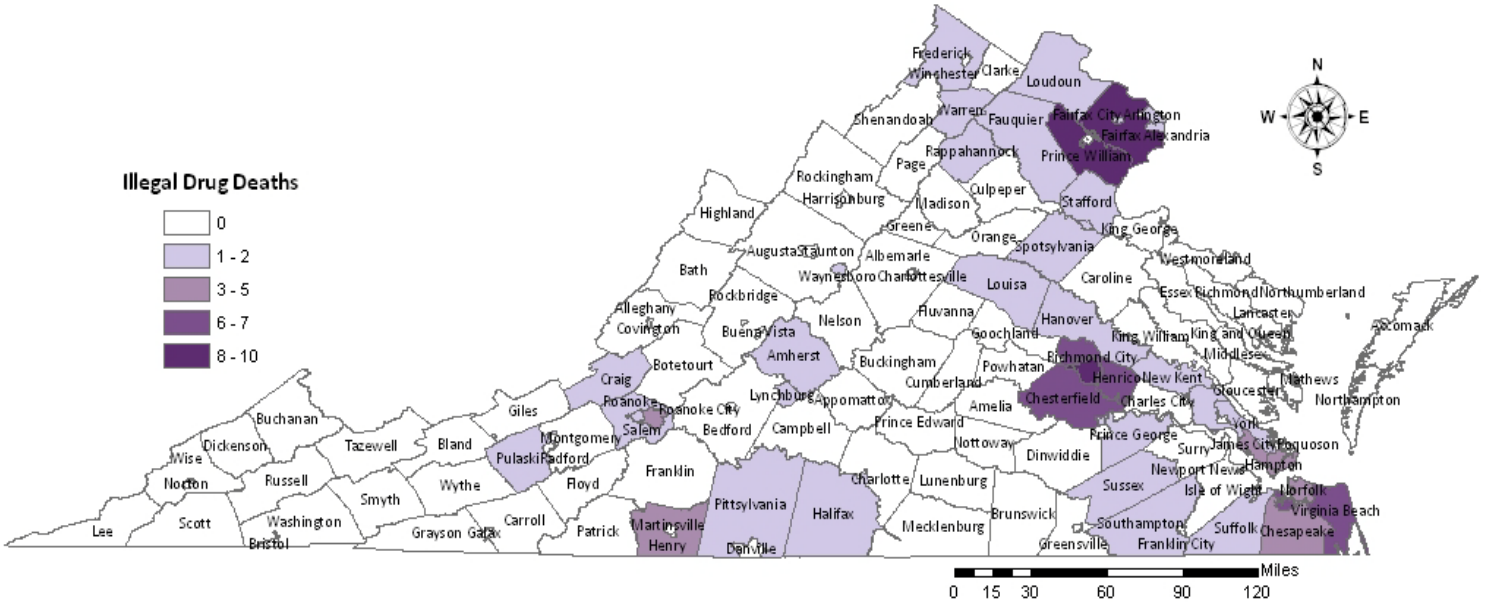
City/County of Residence	Deaths	Rate
Accomack	0	0.0
Albemarle	0	0.0
Alexandria	1	0.7
Alleghany	0	0.0
Amelia	0	0.0
Amherst	1	3.1
Appomattox	0	0.0
Arlington	1	0.5
Augusta	0	0.0
Bath	0	0.0
Bedford City	0	0.0
Bedford	0	0.0
Bland	0	0.0
Botetourt	0	0.0
Bristol	0	0.0
Brunswick	0	0.0
Buchanan	0	0.0
Buckingham	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	2.3
Chesterfield	7	2.2
Clarke	0	0.0
Colonial Heights	1	5.7
Covington	0	0.0

City/County of Residence	Deaths	Rate
Craig	2	38.5
Culpeper	0	0.0
Cumberland	0	0.0
Danville	0	0.0
Dickenson	0	0.0
Dinwiddie	0	0.0
Emporia	0	0.0
Essex	0	0.0
Fairfax City	1	4.4
Fairfax	8	0.7
Falls Church	0	0.0
Fauquier	2	3.1
Floyd	0	0.0
Fluvanna	0	0.0
Franklin City	0	0.0
Franklin	0	0.0
Frederick	2	2.6
Fredericksburg	1	4.1
Galax	0	0.0
Giles	0	0.0
Gloucester	0	0.0
Goochland	0	0.0
Grayson	0	0.0
Greene	0	0.0
Greensville	0	0.0
Halifax	1	2.8
Hampton	3	2.2
Hanover	1	1.0
Harrisonburg	0	0.0
Henrico	7	2.3

City/County of Residence	Deaths	Rate
Henry	3	5.5
Highland	0	0.0
Hopewell	0	0.0
Isle of Wight	0	0.0
James City	1	1.5
King and Queen	0	0.0
King George	0	0.0
King William	0	0.0
Lancaster	0	0.0
Lee	0	0.0
Lexington	0	0.0
Loudoun	1	0.3
Louisa	1	3.0
Lunenburg	0	0.0
Lynchburg	1	1.3
Madison	0	0.0
Manassas	0	0.0
Martinsville	0	0.0
Mathews	0	0.0
Mecklenburg	0	0.0
Middlesex	0	0.0
Montgomery	0	0.0
Nelson	0	0.0
New Kent	1	5.4
Newport News	4	2.2
Norfolk	5	2.1
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	0	0.0
Petersburg	0	0.0
Pittsylvania	2	3.1
Poquoson	0	0.0
Portsmouth	6	6.3
Powhatan	0	0.0
Prince Edward	0	0.0
Prince George	1	2.8
Prince William	10	2.5
Pulaski	2	5.7
Radford	0	0.0
Rappahannock	1	13.6
Richmond City	9	4.4
Richmond	0	0.0
Roanoke City	4	4.1
Roanoke	1	1.1
Rockbridge	0	0.0
Rockingham	0	0.0
Russell	0	0.0
Salem	1	4.0
Scott	0	0.0
Shenandoah	0	0.0
Smyth	0	0.0
Southampton	1	5.4
Spotsylvania	1	0.8
Stafford	1	0.8
Staunton	0	0.0
Suffolk	2	2.4
Surry	0	0.0
Sussex	1	8.3
Tazewell	0	0.0
Virginia Beach	6	1.4
Warren	1	2.7
Washington	0	0.0
Waynesboro	2	9.5
Westmoreland	0	0.0
Williamsburg	0	0.0
Winchester	0	0.0
Wise	0	0.0
Wythe	0	0.0
York	1	1.5
Total in State	**114**	**1.4**
Out of State	7	ND*
Unknown	1	ND
TOTAL	**122**	**ND**

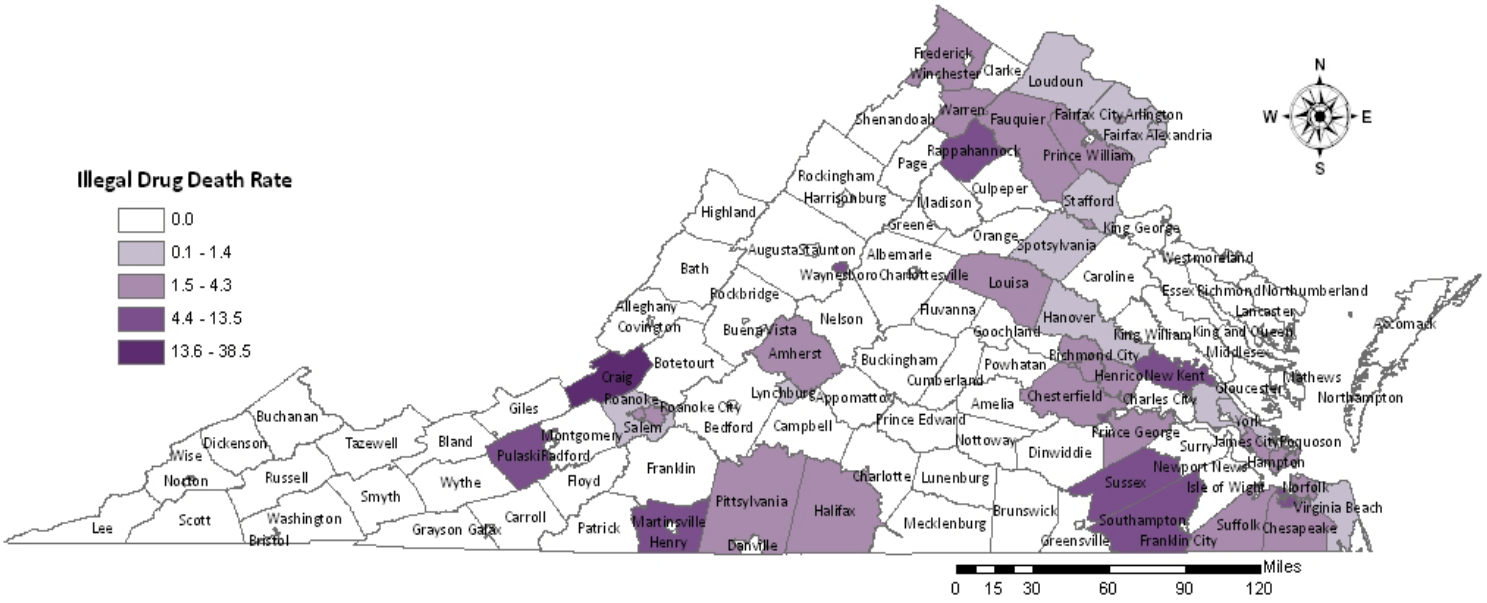
*ND-No denominator

Figure 100. Cocaine & Heroin Deaths by City/County of Residence, 2010



Map shows City/County of residency but not necessarily injury and/or where death occurred.
A total of 8 cases were from out of state residents or where residency was unknown.

Figure 101. Cocaine & Heroin Death Rates by City/County of Residence, 2010



Rate is per 100,000 population.
Map shows City/County of residency but not necessarily injury and/or where death occurred.
A total of 8 cases were from out of state residents or where residency was unknown.

SECTION 8: IN CUSTODY (PRISONER) POPULATION (N=148)

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 148 prisoners in 2010.

- The majority (77.7%) of prisoner cases were natural
- The vast majority of cases were males (94.6%) and blacks and white had similar percentages of cases (50.0% versus 49.3%, respectively)

Figure 102. Prisoner Deaths by Manner, 2010

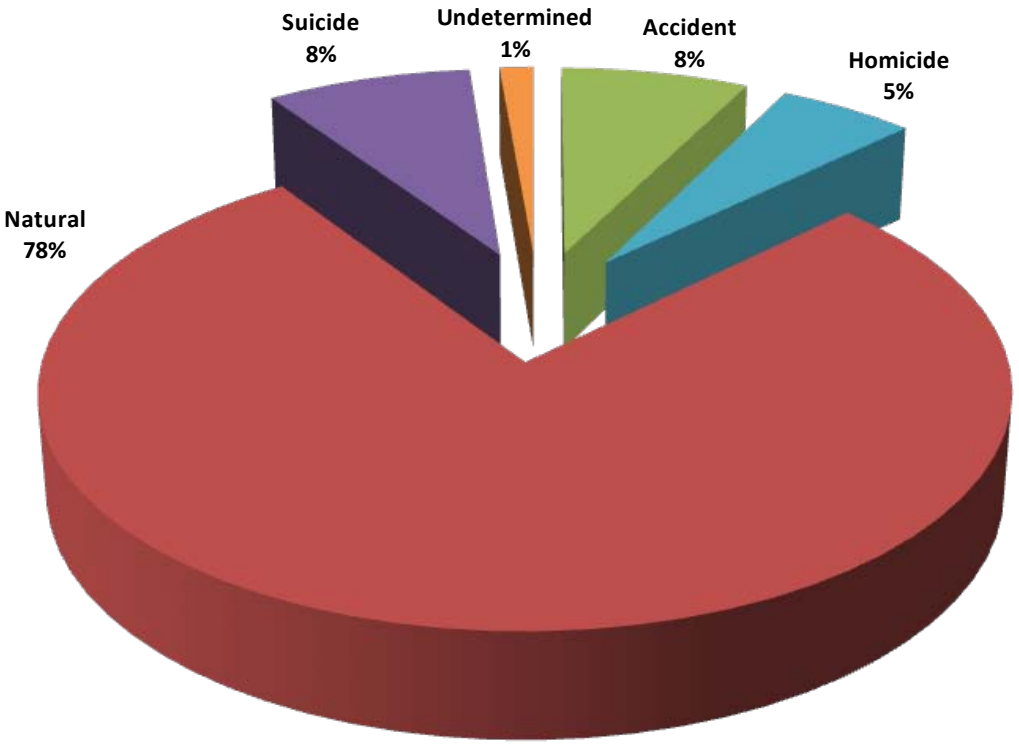


Figure 103. Prisoner Deaths by Race/Ethnicity, 2010

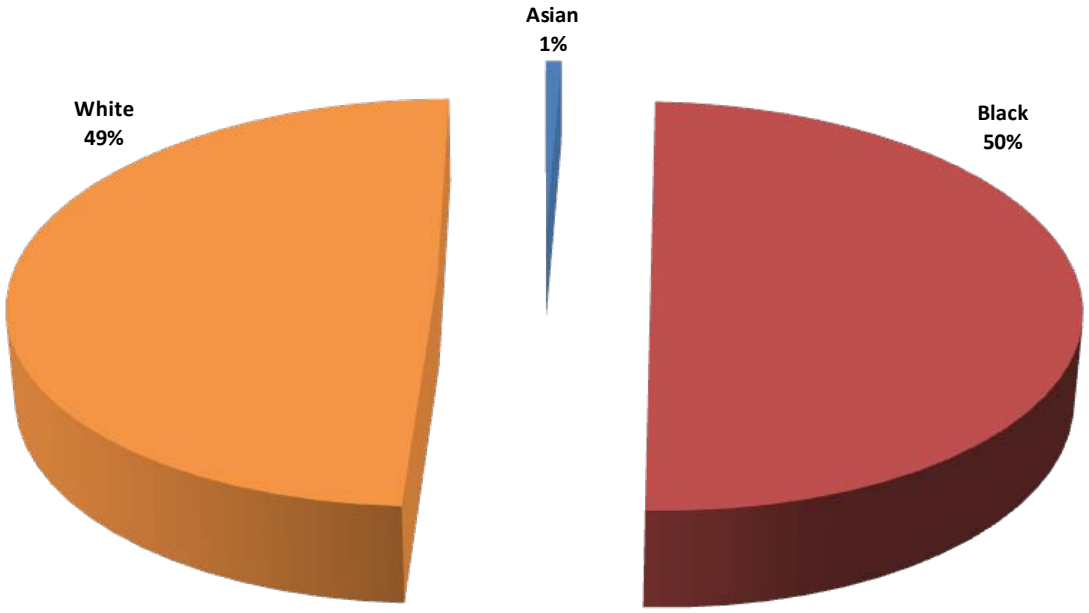


Figure 104. Prisoner Deaths by Age Group by Gender, 2010

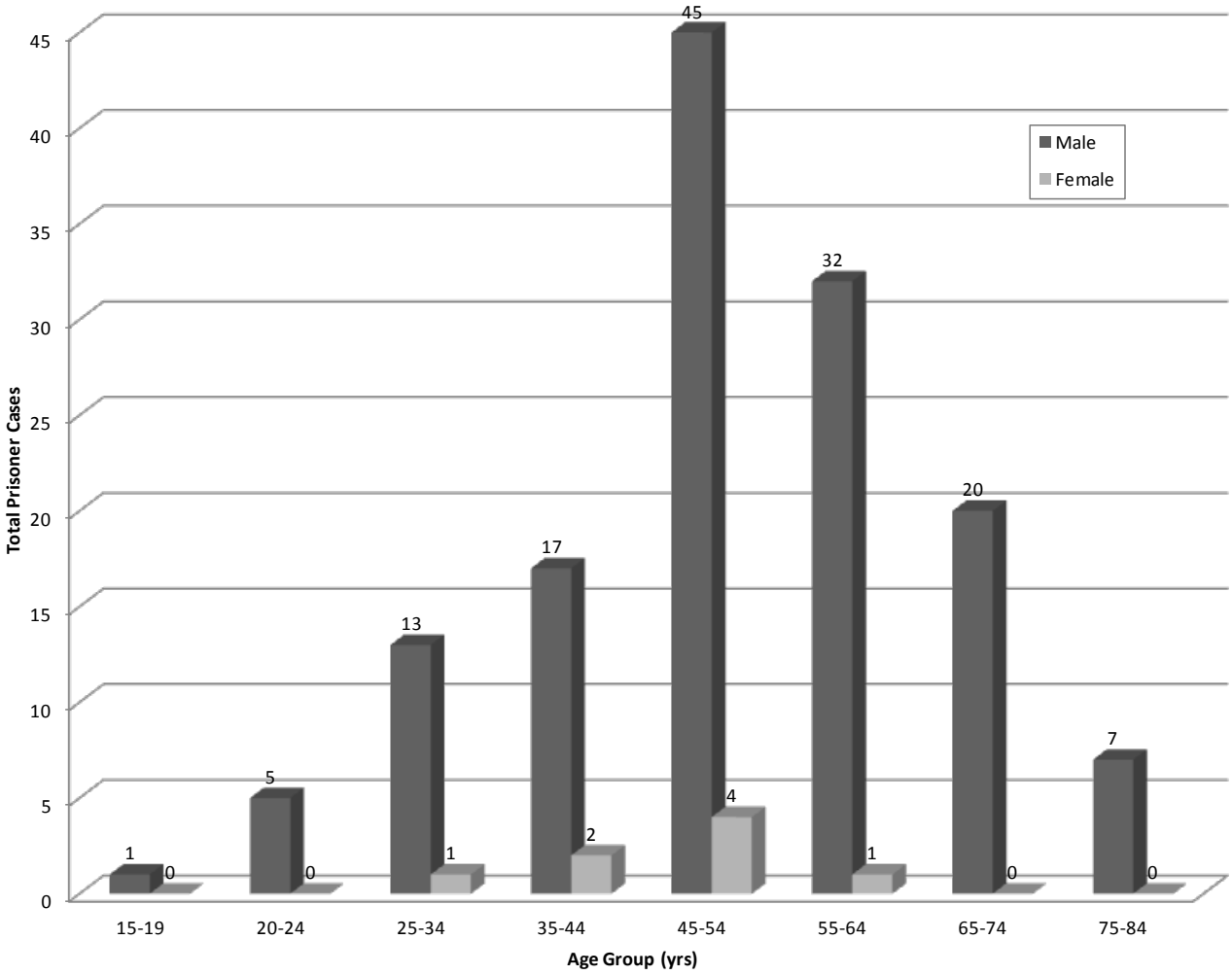


Figure 105. Prisoner Deaths by Manner of Death by Race/Ethnicity, 2010

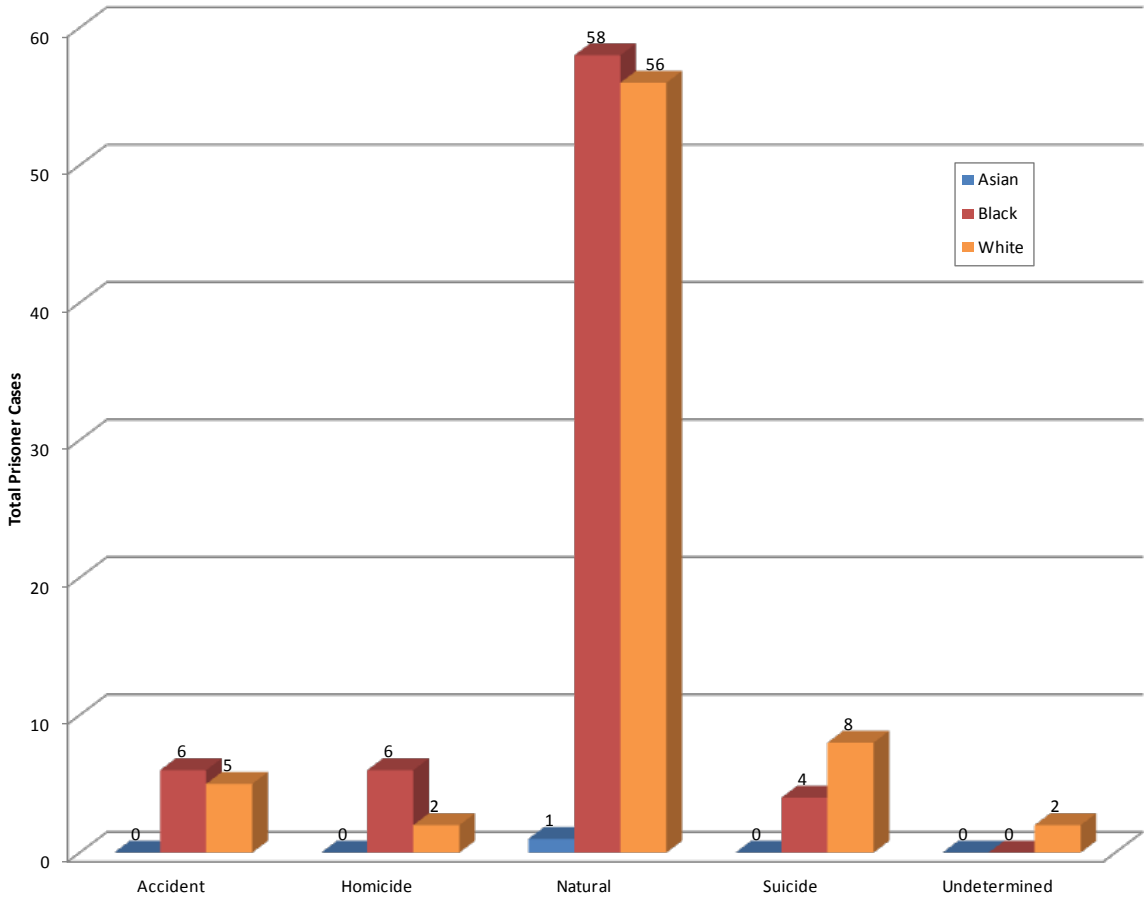


Table 58. Prisoner Deaths by Cause of Death, 2010

Natural Deaths	Total Cases	Autopsied
Pulmonary Diseases/Disorders	**24**	**9**
Emboli	4	3
Pneumonia	7	4
Pulmonary Malignancy	13	2
Central Nervous System Diseases/Disorders	**10**	**5**
Seizure Disorder	1	1
Vascular Disease	7	3
Degenerative Disease	1	1
Other CNS Disease/Disorder	1	0
Cardiovascular Diseases/Disorders	**42**	**28**
Atherosclerosis	15	11
Hypertension	10	7
Atherosclerosis & Hypertension	11	7
Vascular Dissection/Ruptures	1	0
Valvular	2	2
Cardiomyopathy NOS	1	1
Other Cardiac Disease/Disorder	2	0

Gastrointestinal Diseases/Disorders	**18**	**6**
Cirrhosis	3	0
Hepatitis	5	0
GI Malignancy	10	6
Genitourinal Diseases/Disorders	**2**	**2**
Renal Disease	1	1
Genitourinal Malignancy	1	1
Systemic Diseases/Disorders	**15**	**6**
Blood Disorders	3	2
Chronic Alcoholism	2	2
Diabetes	2	1
AIDS/HIV	6	0
Sepsis	1	1
Metastatic Malignancy Unknown Primary	1	0
Other Natural Diseases/Disorders	**4**	**2**
Other Malignancy	3	1
Other Natural Disease/Disorder	1	1
Natural Subtotal	**115**	**58**
Unnatural Deaths	**Total Cases**	**Autopsied**
Asphyxia	**16**	**15**
Choking (Aspiration: Food or Foreign Object)	2	2
Hanging	11	10
Strangulation/Neck Compression	1	1
Other Asphyxia	2	2
Blunt Force Injuries	**5**	**4**
Head/Neck	3	2
Abdomen	1	1
Multiple	1	1
Drug Abuse	**2**	**2**
Ingested and/or injected illicit, prescription, and/or other type of drug	2	2
Exposure	**1**	**1**
Exposed to heat	1	1
Judicial Execution	**3**	**2**
Electrocution	2	2
Lethal Injection	1	0
Traumatic Injury	**5**	**5**
Shot with firearm	3	3
Stab	2	2
Other Unnatural Deaths	**1**	**1**
Other Unnatural	1	1
Unnatural Subtotal	**33**	**29**
TOTAL	**148**	**87**

SECTION 9: STATE MENTAL HEALTH CASES (N=85)

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 85 state mental health residents.

- The majority of state mental health cases were natural (96.5%), white (70.6%) and male (57.6%)

Figure 106. State Mental Health Deaths by Manner, 2010

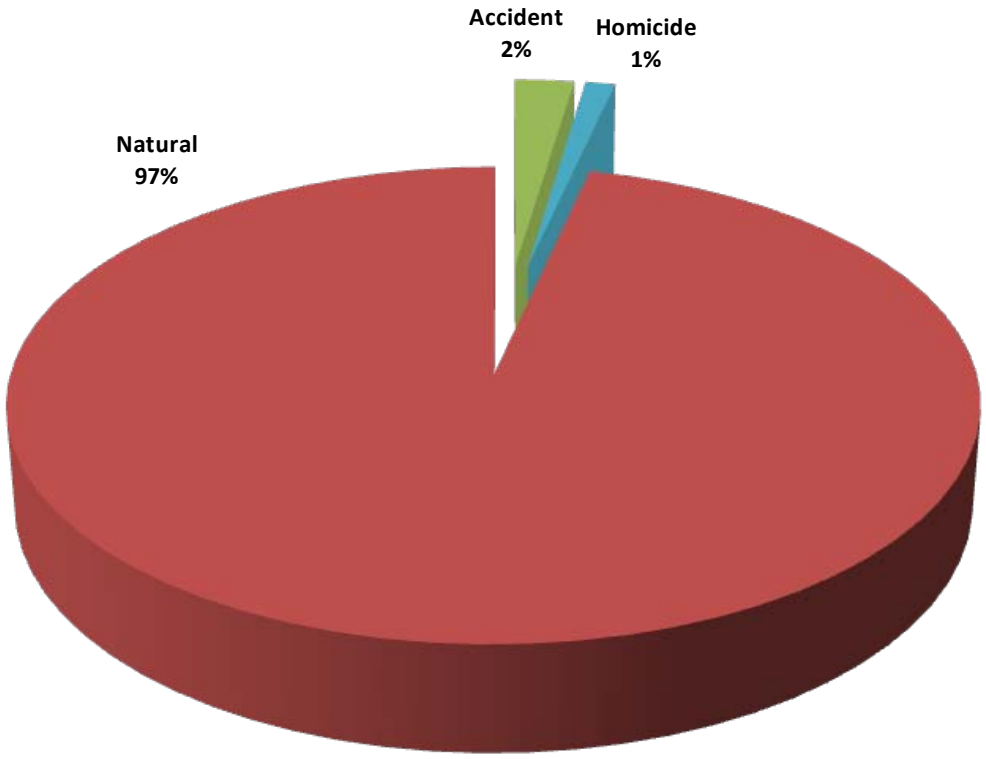


Figure 107. State Mental Health Deaths by Race, 2010

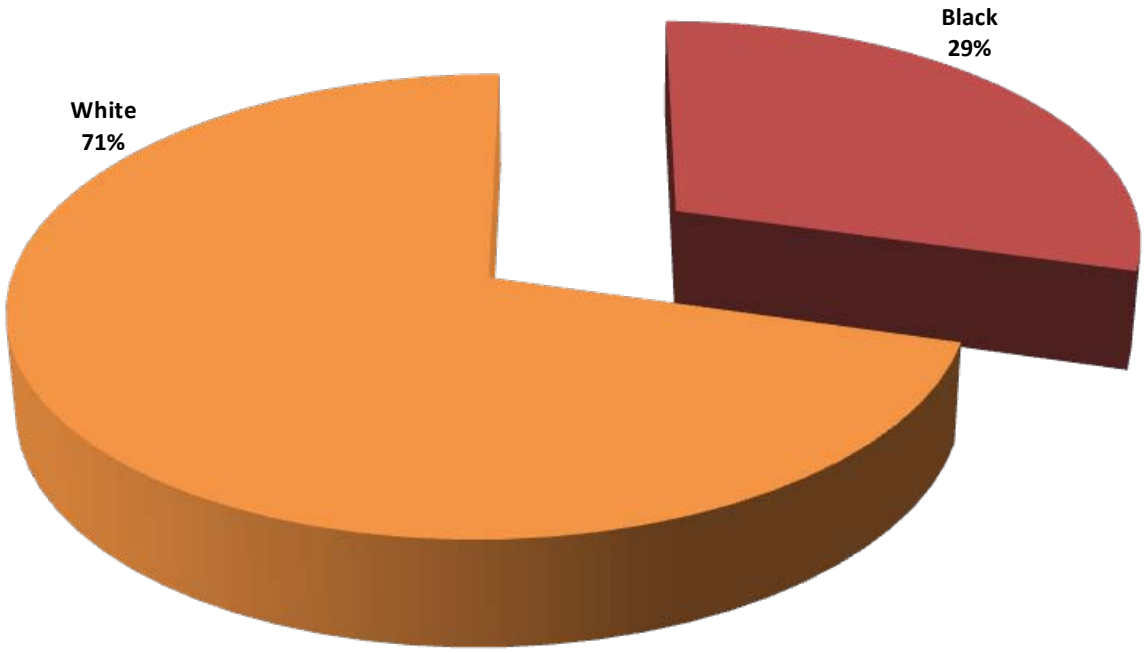


Figure 108. State Mental Health Deaths by Age Group by Gender, 2010

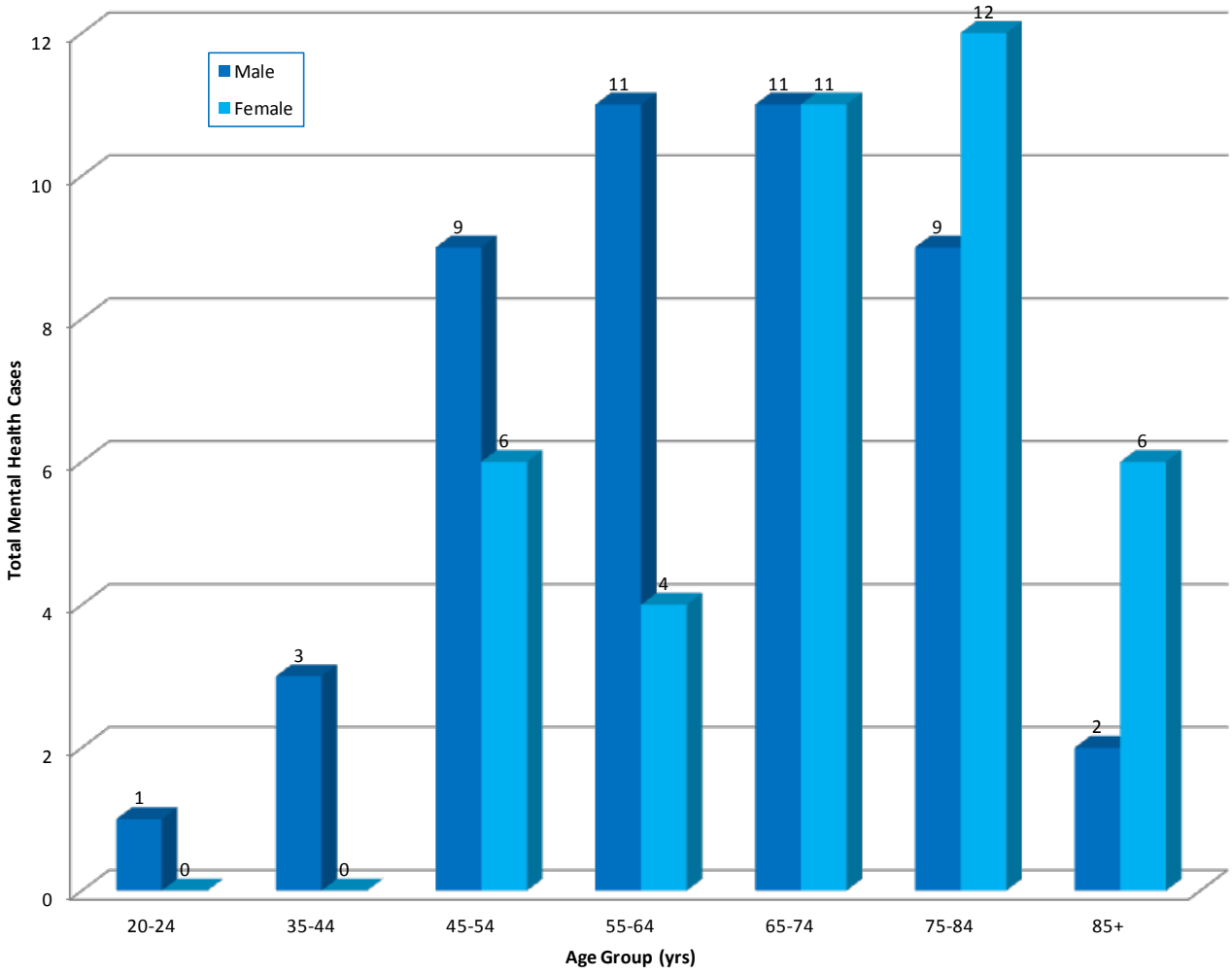


Table 59. State Mental Health Deaths by Facility Type by Gender, 2010

	Gender		
State Facility Type	Male	Female	Total
Training Centers	22	14	**36**
All Others	24	25	**49**
Total	**46**	**39**	**85**

Table 60. State Mental Health Deaths by Facility Type by Race, 2010

	Race		
State Facility Type	Black	White	Total
Training Centers	7	29	**36**
All Others	18	31	**49**
Total	**25**	**60**	**85**

Table 61. State Mental Health Deaths by Cause of Death, 2010

Natural Deaths	Total Cases	Autopsied
Pulmonary Diseases/Disorders	**37**	**7**
COPD	1	0
Emboli	2	2
Pneumonia	31	3
Pulmonary Malignancy	3	2
Central Nervous System Diseases/Disorders	**9**	**0**
Vascular Disease	3	0
Degenerative Disease	3	0
Other CNS Disease/Disorder	3	0
Cardiovascular Diseases/Disorders	**15**	**10**
Atherosclerosis	8	6
Hypertension	4	2
Vascular Dissection/Ruptures	1	0
Cardiac Dysrythmia of Undetermined Etiology	1	1
Other Cardiac Disease/Disorder	1	1
Gastrointestinal Diseases/Disorders	**6**	**2**
GI Hemorrhage	1	0
GI Malignancy	3	1
Other GI Disease/Disorder	2	1
Genitourinal Diseases/Disorders	**3**	**2**
Renal Disease	1	1
Genitourinal Malignancy	1	1
Other GU Disease/Disorder	1	0

Systemic Diseases/Disorders	**10**	**2**
Diabetes	1	0
AIDS/HIV	1	0
Sepsis	2	0
Metastatic Malignancy Unknown Primary	1	0
Other Systemic Disease/Disorder	5	2
Other Natural Diseases/Disorders	**2**	**1**
Other Malignancy	1	0
Other Natural Disease/Disorder	1	1
Natural Subtotal	**82**	**24**
Unnatural Deaths	**Total Cases**	**Autopsied**
Asphyxia	**1**	**1**
Strangulation/Neck Compression	1	1
Blunt Force Injuries	**1**	**1**
Head	1	1
Drug Use	**1**	**1**
Ingested and/or injected illicit, prescription, and/or other type of drug	1	1
Unnatural Subtotal	**3**	**3**
TOTAL	**85**	**27**

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 2010, retrospective cases may have been deaths from other years but the OCME investigation of the case began in 2010.

- 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, 2010

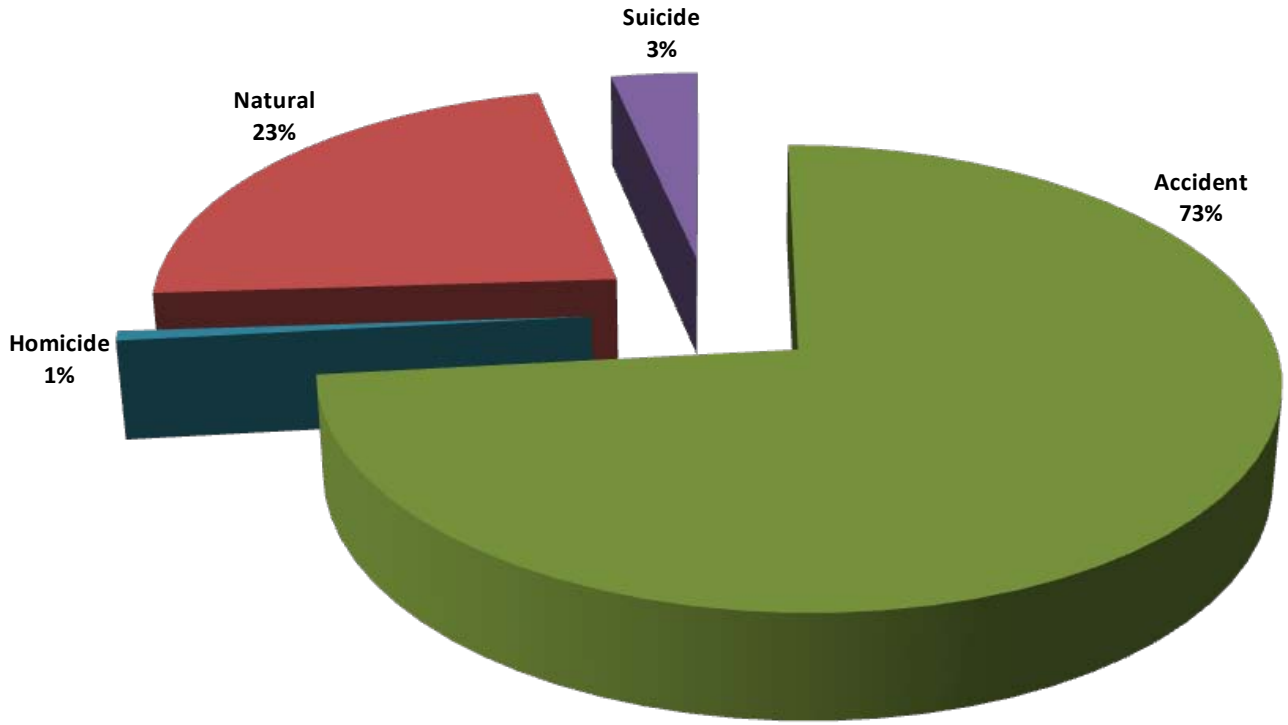


Figure 110. Retrospective Cases by Race/Ethnicity, 2010

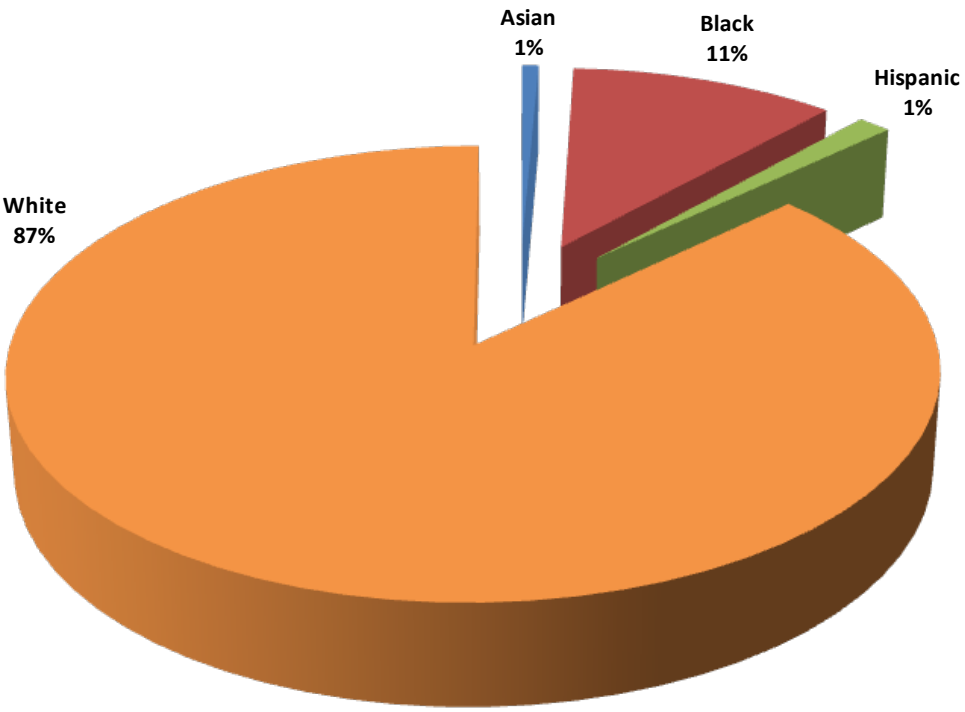


Figure 111. Retrospective Cases by Age Group by Gender, 2010

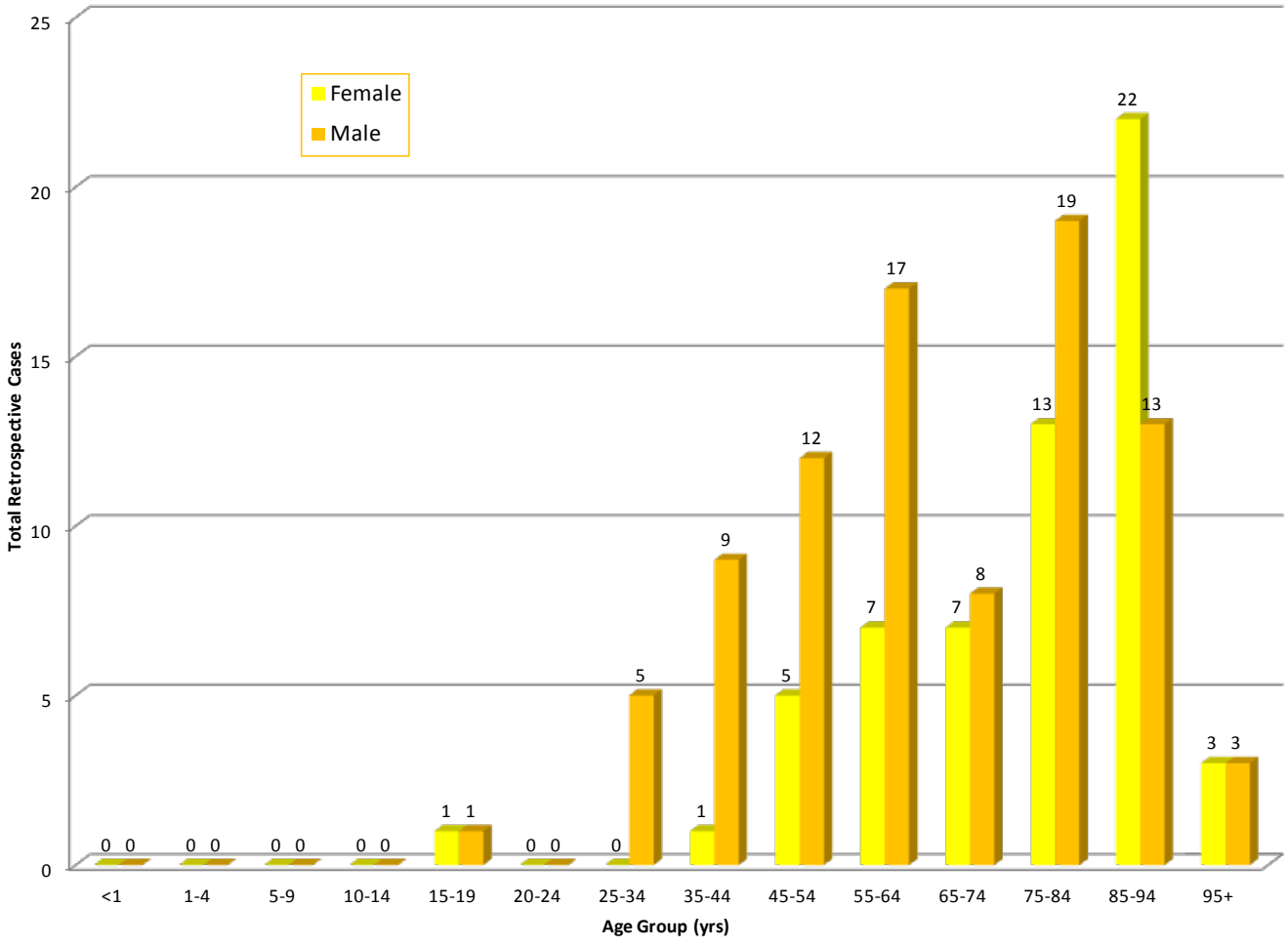


Table 62. Retrospective Cases by Method of Death and by Classification of Death, 2010

Method of Death	Total Cases
Asphyxia	
Choked on food/foreign object	8
Drowned	1
Hanging	2
Drug Use	
Ingested ethanol or other alcohol	1
Ingested and/or injected illicit, prescription, and/or OTC medication	3
Ingested and/or injected other type of poison (Ethylene glycol, etc.)	2
Fall/Jump	
Jumped or fell from height	63
Motor Vehicle	
Bus	1
Car	11
Lawnmower	1
Mo-ped	1
Motorcycle	3
Pickup Truck	3
Sport Utility Vehicle	6
Tractor Trailer	1
Truck Other	1
Van	2
Traumatic Injury	
Shot with firearm	1
Handgun	(1)
Unknown/Other	
Other traumatic cases	2
Subtotal	**113**
Death Classification	
Natural Deaths	33
Unnatural Deaths	113
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 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 which 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.

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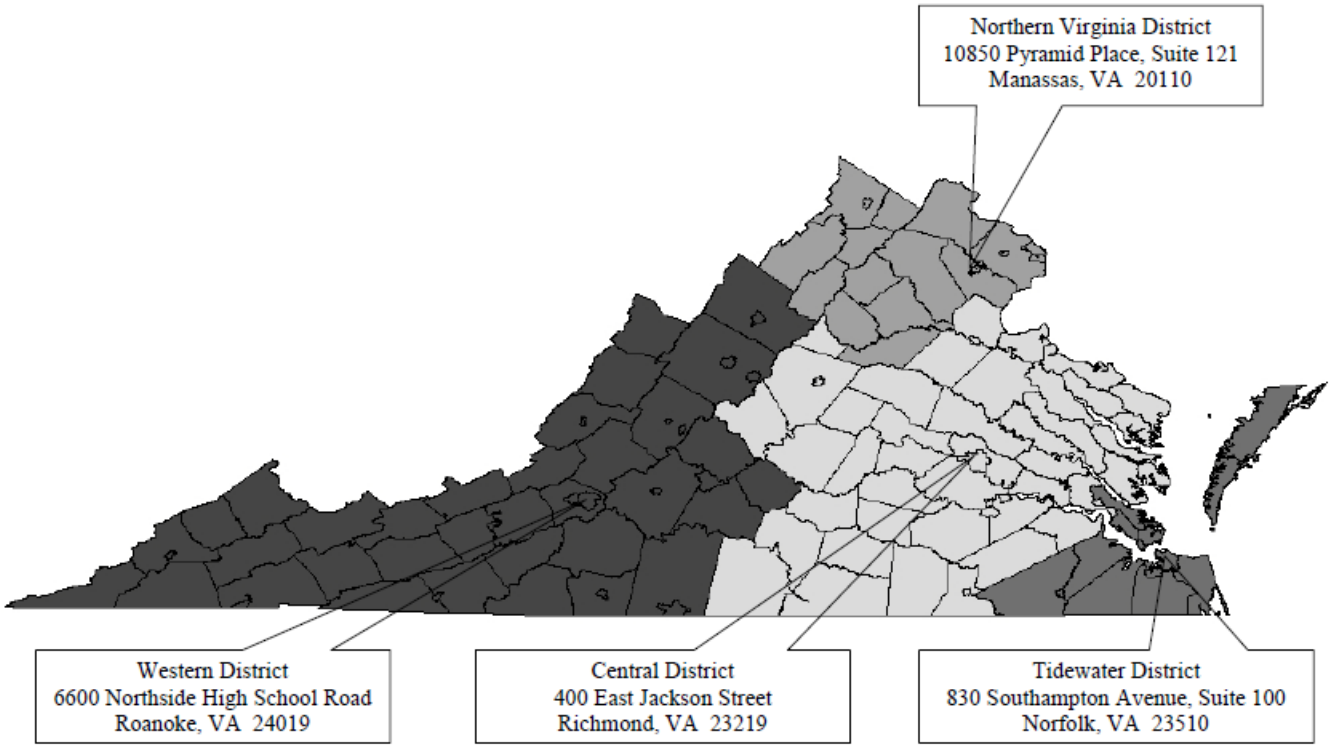
CENTRAL *Counties* of Albemarle, Amelia, Brunswick, Buckingham, Caroline, Charles City, Charlotte, Chesterfield, Cumberland, Dinwiddie, Essex, Fluvanna, Gloucester, Goochland, Greene, Greensville, Halifax, Hanover, Henrico, James City, King and Queen, King George, King William, Lancaster, Louisa, Lunenburg, 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.



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Commonwealth of Virginia
Virginia Department of Health
Office of the Chief Medical Examiner
400 E. Jackson Street
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