VDH VIRGINIA DEPARTMENT OF HEALTH
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Office of the Chief Medical Examiner's Annual Report, 2008

Commonwealth of Virginia
Virginia Department of Health
Office of the Chief Medical Examiner
November 2009

OFFICE OF THE CHIEF MEDICAL EXAMINER'S ANNUAL REPORT, 2008

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Department of Health

Commonwealth of Virginia

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Letter from the Chief Medical Examiner

The Virginia Department of Health's Office of the Chief Medical Examiner (OCME) is pleased to present our annual report for 2008. This report details the cases investigated by the OCME and is an opportunity for Virginia's leaders and citizens to enhance prevention efforts aimed at improving and protecting the lives of all Virginians.

The OCME is mandated by the Code of Virginia, § 32.1-283, to investigate deaths that occur in Virginia suddenly and unexpectedly, while unattended by a physician, violently, under suspicious circumstances or in law enforcement custody.

There are two primary missions of the OCME, a public health one as well as a medicolegal mission. The medicolegal mission is the one most familiar to the public and requires the OCME to determine and certify the cause and manner of death, collect medical and forensic evidence, and reconstruct how injury and death occurred. OCME district forensic pathologists and local medical examiners also testify as expert witnesses in both criminal and civil courts about cases they investigate.

Through the public health mission, the OCME improves prevention efforts by documenting potentially preventable injury and death and by conducting surveillance for deaths from disease processes hazardous to the public. As part of this public health mission, the OCME is also responsible for mass fatality management resulting from natural disasters, terrorist acts, large scale accidents and mass murder or suicide.

Many parts of the Code of Virginia enacted to prevent accidental deaths and domestic related homicide have been developed from data presented in prior annual reports. As a statewide medical examiner system, the Virginia OCME is a unique and model death investigation system that produces relevant and precise statewide statistics.

The Virginia model for death investigation allows all citizens of Virginia access to the expertise of trained death investigators and forensic pathologists regardless of where in the Commonwealth they live or the resources of their community. Therefore, the Virginia OCME is truly the voice of the deceased and thereby, through death investigation, lives can be saved by developing prevention strategies. In other words, the death may teach living. The dedicated staff members of the OCME are the true heroes in this endeavor as they compassionately and truthfully fulfill the missions of our agency.

I am optimistic that the good work of the OCME will inspire others to become involved in efforts to enhance and protect the lives of Virginia's citizens.

Leah Bush, M.S., M.D.
Chief Medical Examiner
Commonwealth of Virginia
November 1, 2009

Introduction

This report represents the deaths investigated by the Virginia Department of Health, Office of the Chief Medical Examiner in 2008.

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 2008 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 (Residential 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
    - Indian refers to subcontinental India
- Percents may equal to above or below 100 percent due to rounding

SECTION 1: OVERVIEW – OFFICE OF THE CHIEF MEDICAL EXAMINER

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

Jurisdictional Authority

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

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

In Virginia local medical examiners, the backbone of our medical examiner system, conduct medicolegal death investigations, serving as the principal case investigators in their localities for deaths falling within their jurisdiction and statutory authority. The OCME currently supports approximately 230 local medical examiners who receive the majority of initial notifications of death and determine if the death should come under the jurisdiction of the medical examiner. Local medical examiners may 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.

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. The 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 lives through organ 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 2008 calendar year.

Virginia 2008

In 2008, the estimated population of the Commonwealth was 7,769,089, ranking 12th among the states. Virginia has a land area of 39,594 square miles, ranking 37th among the states. Virginia's population density is 196 persons per square mile, although an estimated 85.5 percent of the population lives in urban areas. Non-Hispanic whites constituted 67.7 percent of the population, non-Hispanic blacks 20.0 percent, non-Hispanic Asians 5.2 percent, non-Hispanic Native Americans 0.3 percent and Hispanics, who may be of any race, were 6.8 percent of Virginia's people. The median household income in 2008 was $59,562.

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) and the Virginia Violent Death Reporting System (VVDRS). 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 something good to come from the violence and destruction of human life. A description of each of these efforts follows.

The **Family and Intimate Partner Violence Homicide Surveillance Project** (FIPV) was established in 1999 to describe the magnitude of lethal domestic violence in Virginia. Using death investigation records and news reports, the project captures six forms of domestic violence-related homicide: intimate partner, intimate partner associated, child by caregiver, elder by caregiver, other family, and family associated.

Tracking these deaths over a nine-year period reveals the following:

- Approximately one in three homicides involve conflict and violence between family members or intimate partners.
- One out of five family and intimate partner homicide victims was killed during a homicide-suicide. A homicide-suicide is when one person kills another and then takes his or her own life within seven days of the homicide.
- Like other public health indicators, patterns in intimate partner homicide reveal clear racial disparities. Black Virginians are more likely to die from intimate partner violence than White Virginians.
- Infants continue to be our most vulnerable citizens.
- 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/Violence.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, accidental firearm discharge, deaths of an undetermined manner, and deaths due to terrorism) and correlates victim information with the circumstances surrounding the death. Data from several sources, among them forensic pathology, forensic science, law enforcement, vital records, and health statistics, are linked to provide a comprehensive picture of violent death in the Commonwealth of Virginia.

Data from the VVDRS have illustrated an increased suicide risk for older adults, especially males; 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.htm.

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, 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. 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. Twelve local or regional teams have been established, and a number of teams are currently in development. 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* (2nd Edition, 2002) which has served as a resource guide to help teams get started and work effectively. The growing body of information on this powerful public health tool is now being compiled by the OCME in an updated and expanded protocol and resource manual (3rd Edition, 2009), which will be the first of its kind in the state and in the country.

Information on local/regional domestic violence fatality review teams can be found at www.vdh.virginia.gov/medExam/Violence.htm#ViolenceReports.

Virginia's 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.

Virginia's Team reviews all cases of death occurring in women who were pregnant at the time of death or who died within one year of a pregnancy, regardless of the cause or manner of death or outcome of the pregnancy. Systematic, retrospective review of all maternal 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 racial disparities in maternal mortality and has identified intimate partner violence, substance abuse, mental illness, and obesity as risk factors for premature and preventable maternal death. In addition, motor vehicle incidents were identified as a major cause of death among women within one year of a pregnancy. 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 six board-certified forensic pathologists of the Central and Tidewater 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 rotations.

During the last academic year 2008-2009, the OCME trained three fellows and six pathology residents as well as several medical students.

Virginia Institute of Forensic Science and Medicine

Website — http://www.vifsm.org/

The Virginia Institute of Forensic Science and Medicine, a 501(c) (3) organization founded in 1999, is a premier provider of hands on training in a working forensic environment for aspiring forensic scientists and pathologists. To the nation, VIFSM promotes a Virginia brand of justice forged from the cooperative efficiencies and innovations of its medical examiner system and forensic science laboratories. Over 200 world-renowned faculty members, many of whom are staff members of the Division of Forensic Science and Office of the Chief Medical Examiner, lend their expertise as foremost practitioners of all disciplines of forensic science and medicine. VIFSM offers state-of-the-art postgraduate fellowships as preparation for careers in these forensic disciplines. Through its training seminars, VIFSM enhances the knowledge and performance of those engaged in the investigation of death and violent crime.

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:

A. Deaths reported:	7607 cases
B. Cases accepted:	5811 cases (plus 213 retrospectives)
C. Manners of death:	Accident- 2293, Homicide- 399, Natural- 2027, Suicide- 949, Undetermined- 139
D. Scene visits:	786 or 13.5% of cases
E. Bodies transported by office:	Central- 1232, Western- 917, Tidewater- 859, Northern- 851
F. External examinations:	2992 cases
G. Complete examinations (autopsy):	2790 cases
H. Partial examinations:	29 cases
I. Hospital autopsies under ME jurisdiction:	10 cases
J. Cases with toxicology:	5352 or 92% of cases
K. Unidentified bodies after examination:	4 cases
L. Organ, tissue & eye donations:	436 donations
M. Unclaimed bodies:	13 cases
N. Exhumations:	0 case
O. Bodies transported to office:	Central- 1273, Western- 927, Tidewater- 916, Northern- 873

SECTION 2: TOTAL CASES (N=5811)

In 2008, the Office of the Chief Medical Examiner (OCME) investigated 5,811 deaths, representing 9.9 percent of the estimated total deaths in Virginia. [NOTE: Retrospective cases are not included in the total case count, but are instead examined separately in Section 10 because while these deaths were investigated in 2008, the deaths may not necessarily have occurred in 2008.] While the caseload for 2008 represented a decrease from 2007, it was still an overall increase of 12.1 percent since 1999. Of the deaths investigated by the OCME in 2008:

- The total number of deaths investigated represented a 2.6 percent decrease from the 2007 total.
- Overall the numbers of accidents, homicides, and naturals decreased compared to 2007 while the total numbers of suicides and undetermined cases increased.
- Males represented almost 70 percent of cases.
- Blacks were overrepresented in homicides.
- The 45-54 year old age group had the greatest number of cases representing 20.1 percent of OCME cases.
- September had the least number of cases while February had the most.
- Thursdays had the least number of cases while Saturdays had the most.
- Fairfax County had the most number of residents die (n=397) but Bedford City had the highest rate (206 residents per 100,000).

Figure 1. Total Cases by Year of Death, 1999-2008

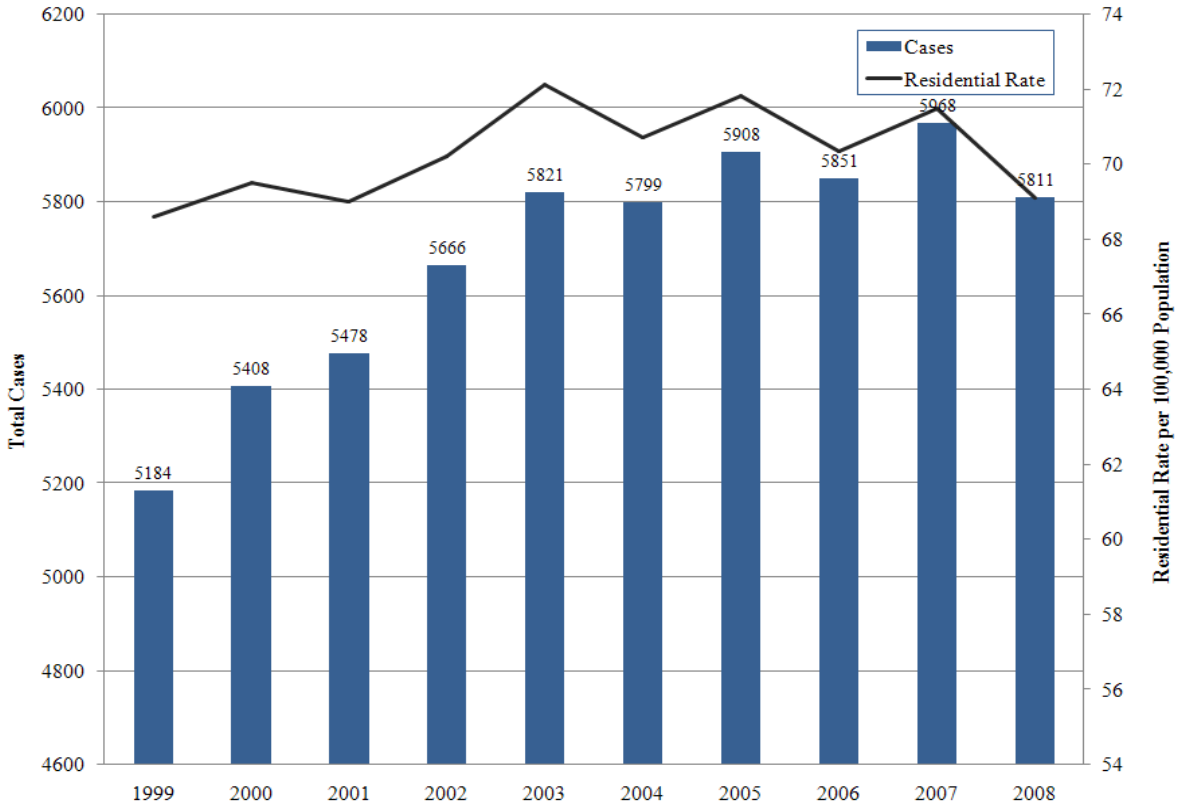


Figure 2. Total Cases by Year of Death by Manner of Death, 1999-2008

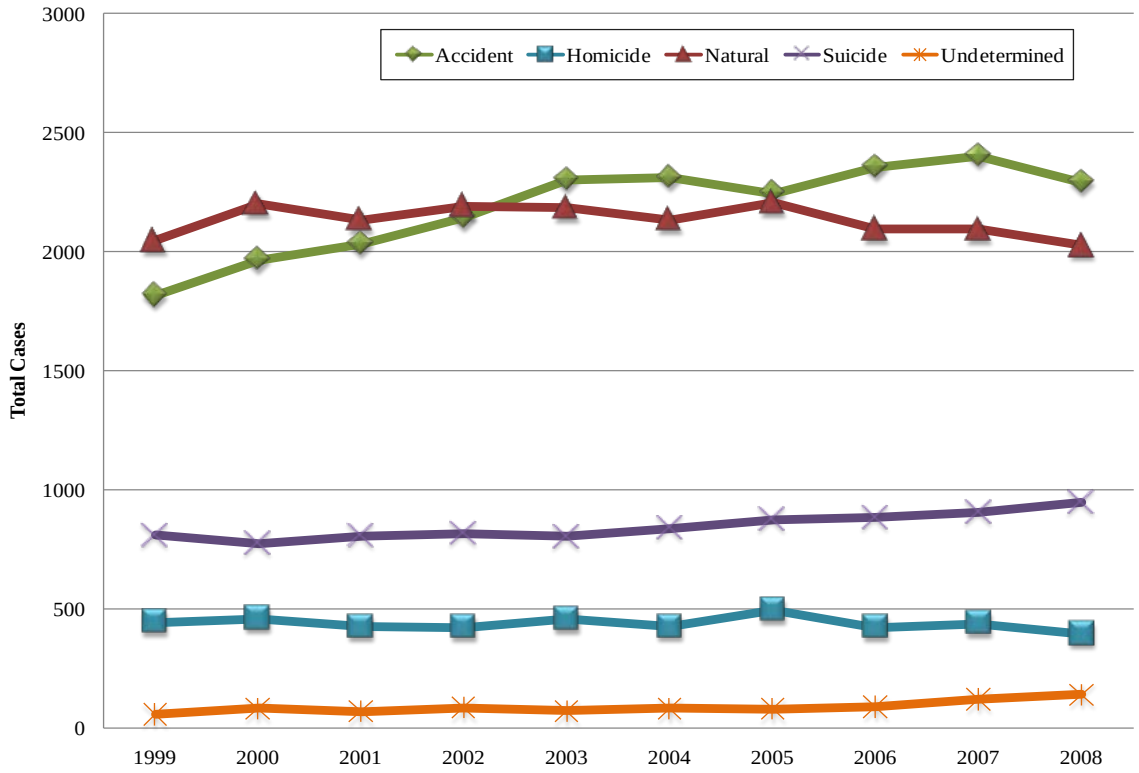


Figure 3. Proportion of Cases by Manner of Death, 2008

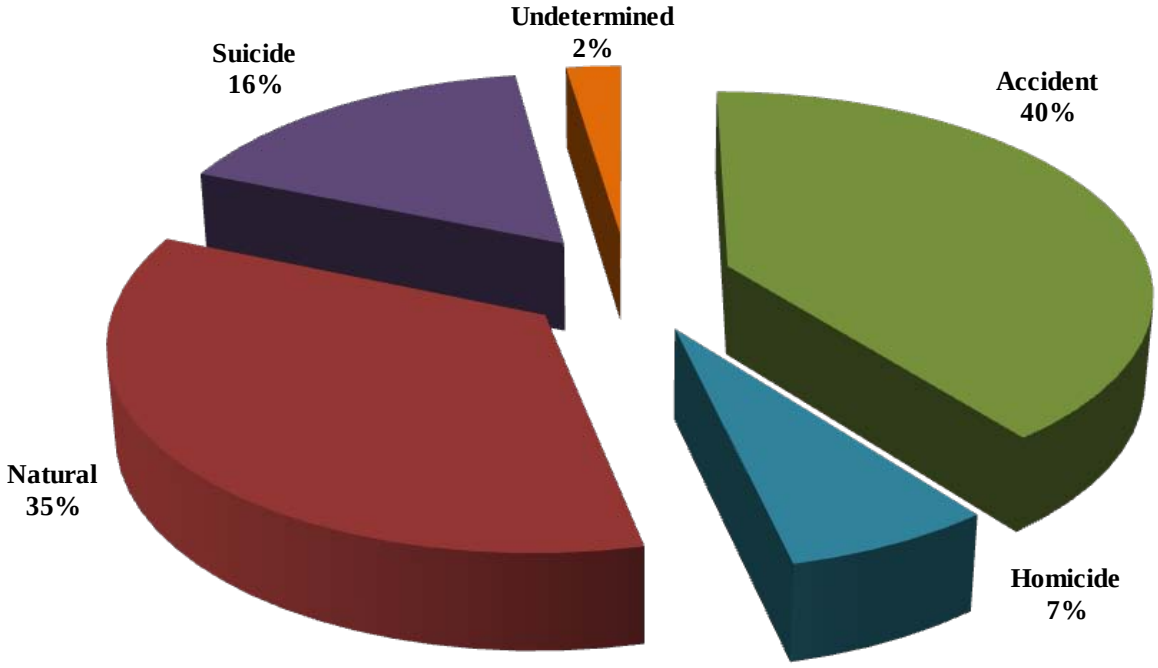


Table 1. Total Cases by OCME District by Manner of Death, 2008

	OCME District				
Manner	**Central**	**Northern**	**Tidewater**	**Western**	**Total**
Accident	794	452	402	649	2297
Homicide	137	63	114	85	399
Natural	608	460	514	445	2027
Suicide	267	253	169	260	949
Undetermined	23	27	43	46	139
Total	**1829**	**1255**	**1242**	**1485**	**5811**

Table 2. Total Cases by Autopsy Status by OCME District, 2008

	Autopsy Performed		
OCME District	**Yes**	**No**	**Total**
Central	887	942	1829
Northern	644	611	1255
Tidewater	594	648	1242
Western	694	791	1485
Total	**2819**	**2992**	**5811**

Table 3. Total Cases by Manner of Death by Autopsy Status, 2008

	Manner of Death					
Autopsy	**Accident**	**Homicide**	**Natural**	**Suicide**	**Undetermined**	**Total**
Yes	842	397	681	764	135	2819
No	1455	2	1346	185	4	2992
%Yes	36.7%	99.5%	33.6%	80.5%	97.1%	48.5%
Total	**2297**	**399**	**2027**	**949**	**139**	**5811**

Table 4. Total Cases by Race/Ethnicity, 2008

Race/Ethnicity	Cases	Percent
Asian	110	1.89%
Black	1315	22.63%
Hispanic	189	3.25%
Indian	18	0.31%
Native American	3	0.05%
Other	9	0.15%
White	4164	71.66%
Unknown	3	0.05%
Total	**5811**	**100%**

Figure 4. Total Cases by Manner of Death by Race/Ethnicity, 2008

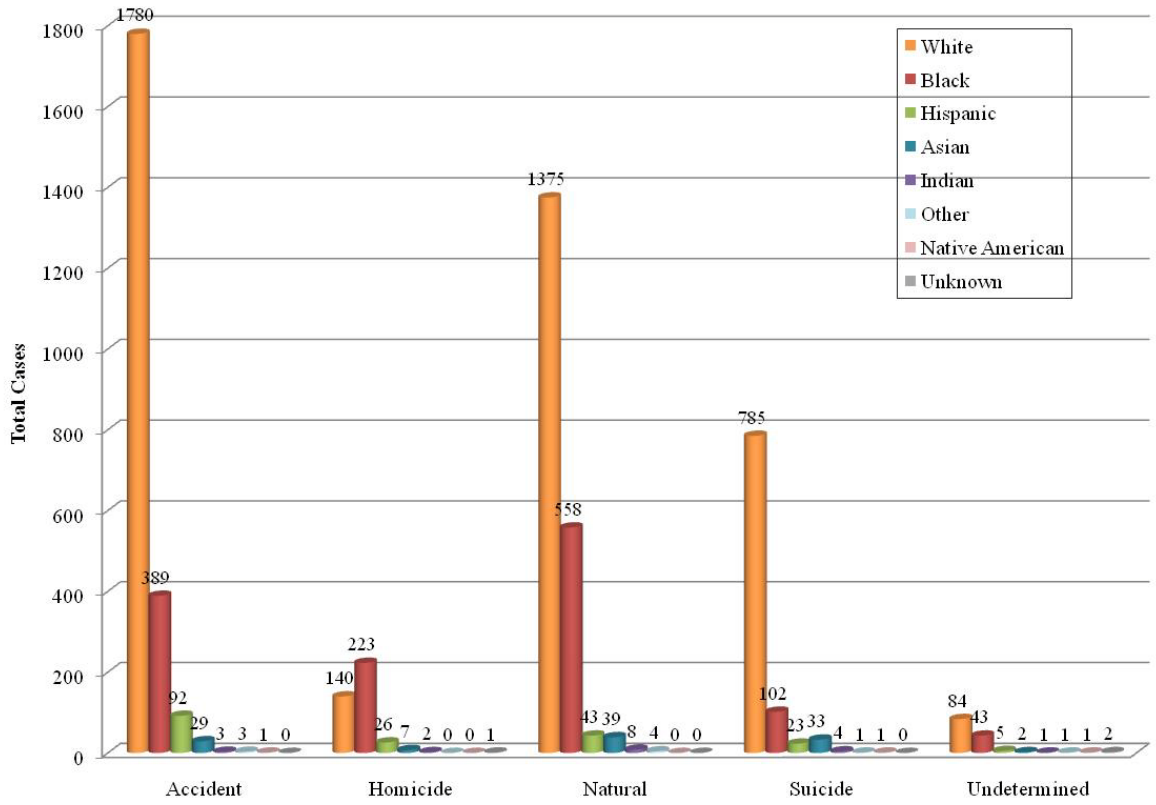


Figure 5. Total Cases by Age Group, 2008

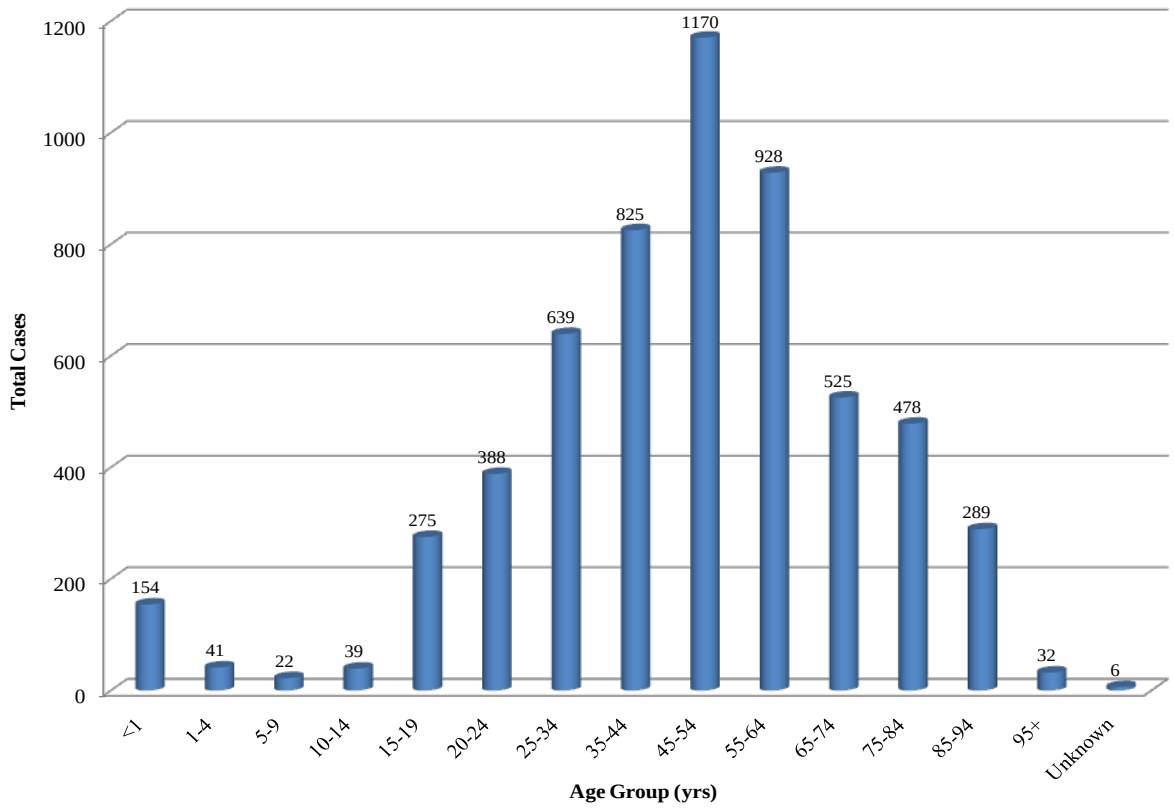


Table 5. Total Cases by Gender, 2008

Gender	Cases	Percent
Male	4048	69.66%
Female	1760	30.29%
Unknown	3	0.05%
Total	**5811**	**100**

Table 6. Total Cases by Manner of Death by Gender, 2008

	Manner of Death					
Gender	**Accident**	**Homicide**	**Natural**	**Suicide**	**Undetermined**	**Total**
Male	1550 (67.5%)	299 (74.9%)	1381 (68.1%)	740 (78.0%)	78 (56.1%)	4048 (69.7%)
Female	747 (32.5%)	99 (24.8%)	646 (31.9%)	209 (22.0%)	59 (42.4%)	1760 (30.3%)
Unknown	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	2 (1.4%)	3 (0.1%)
Total	**2297**	**399**	**2027**	**949**	**139**	**5811**

Figure 6. Total Cases by Manner of Death by Gender, 2008

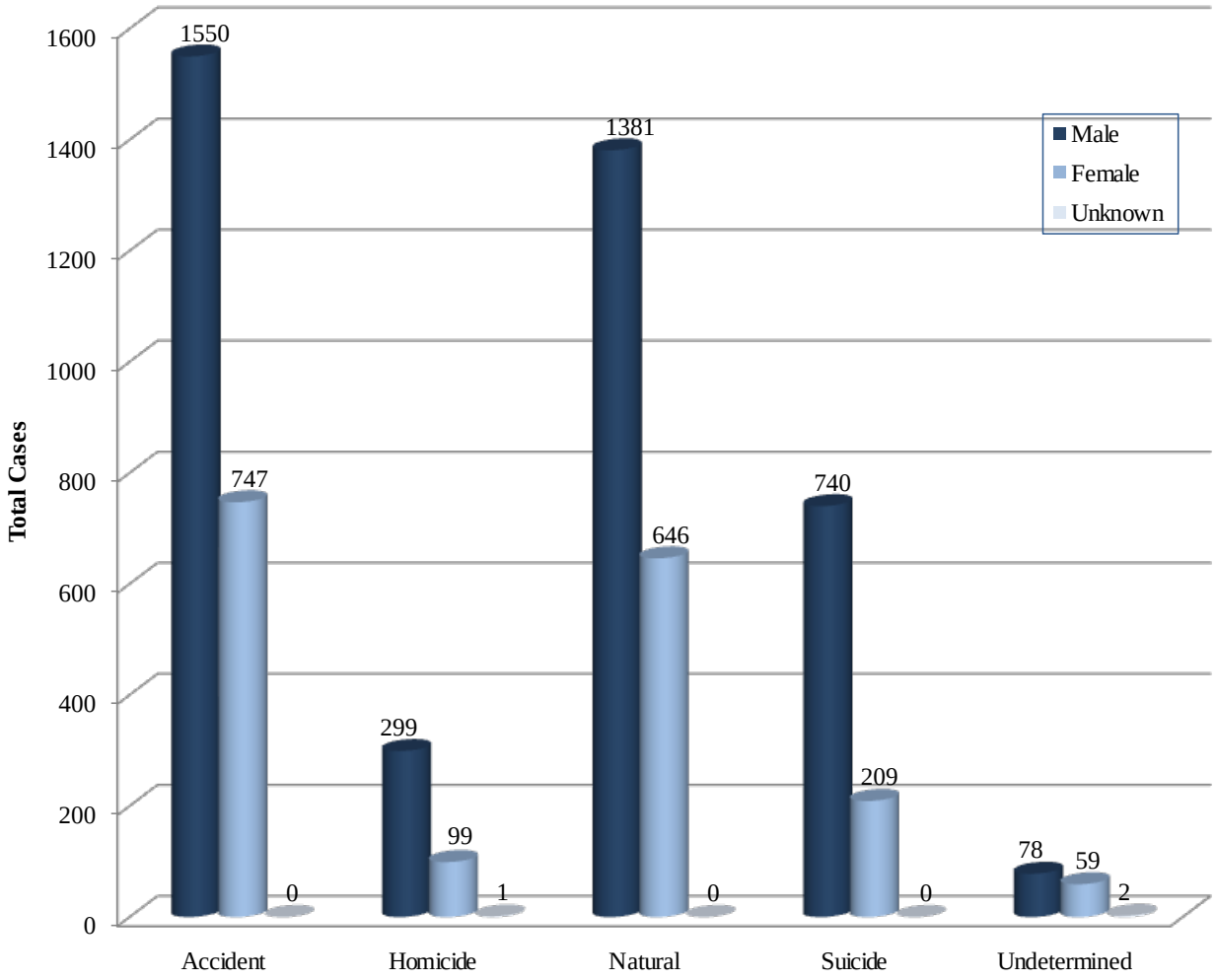


Table 7. Total Cases by Manner of Death by Gender by Age Group, 2008

		Manner of Death					
Gender	**Age Group**	**Accident**	**Homicide**	**Natural**	**Suicide**	**Undetermined**	**Total**
Male	<1	14	3	28	0	33	78
	1-4	10	3	9	0	2	24
	5-9	8	0	4	0	0	12
	10-14	13	5	5	6	0	29
	15-19	123	42	6	41	1	213
	20-24	156	61	23	64	2	306
	25-34	230	74	50	107	9	470
	35-44	234	43	162	123	4	566
	45-54	273	43	377	169	13	875
	55-64	176	12	387	94	4	673
	65-74	113	7	174	71	5	370
	75-84	119	4	115	51	1	290
	85-94	73	1	37	14	2	127
	95+	8	0	4	0	0	12
	Unknown	0	1	0	0	2	3
	Subtotal	**1550**	**299**	**1381**	**740**	**78**	**4048**
Female	<1	14	8	27	0	29	78
	1-4	8	3	2	0	2	15
	5-9	8	1	1	0	0	10
	10-14	6	1	1	2	1	11
	15-19	38	7	9	9	0	63
	20-24	42	13	13	12	1	81
	25-34	77	20	30	34	9	170
	35-44	103	17	82	52	6	260
	45-54	113	9	126	40	6	294
	55-64	70	10	134	41	1	256
	65-74	57	4	83	7	2	153
	75-84	100	5	79	6	2	192
	85-94	98	1	53	6	0	158
	95+	13	0	6	0	0	19
	Subtotal	**747**	**99**	**646**	**209**	**59**	**1760**
Unknown	Unknown	0	1	0	0	2	3
	Subtotal	**0**	**1**	**0**	**0**	**2**	**3**
TOTAL		**2297**	**399**	**2027**	**949**	**139**	**5811**

Figure 7. Total Cases by Month of Death, 2008

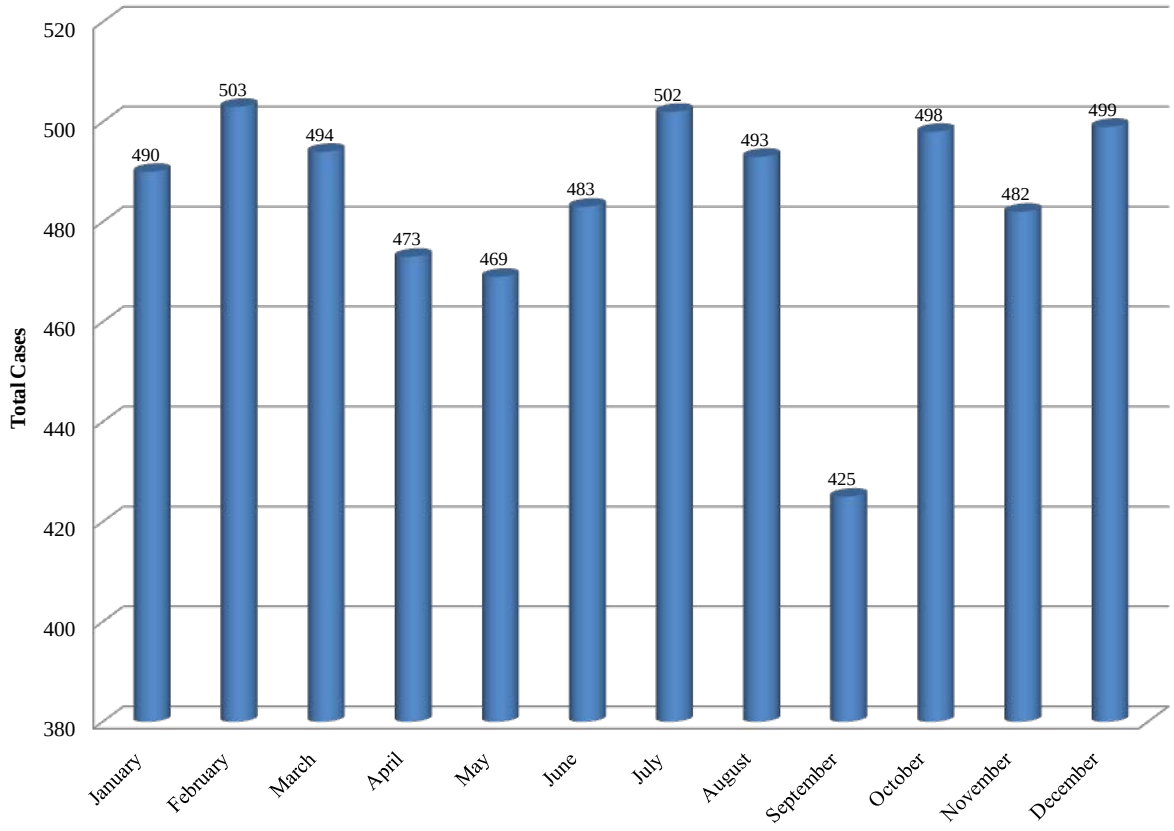


Figure 8. Total Cases by Month of Death by Manner of Death, 2008

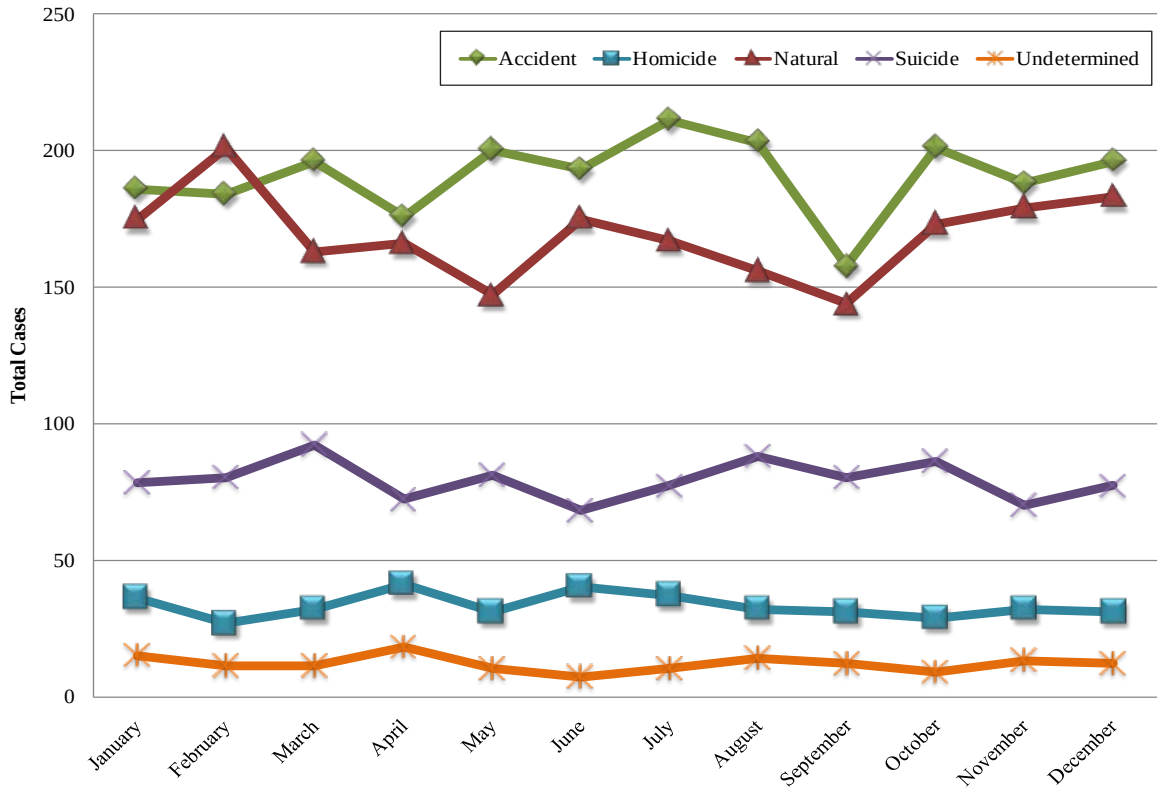


Figure 9. Total Cases by Day of Death, 2008

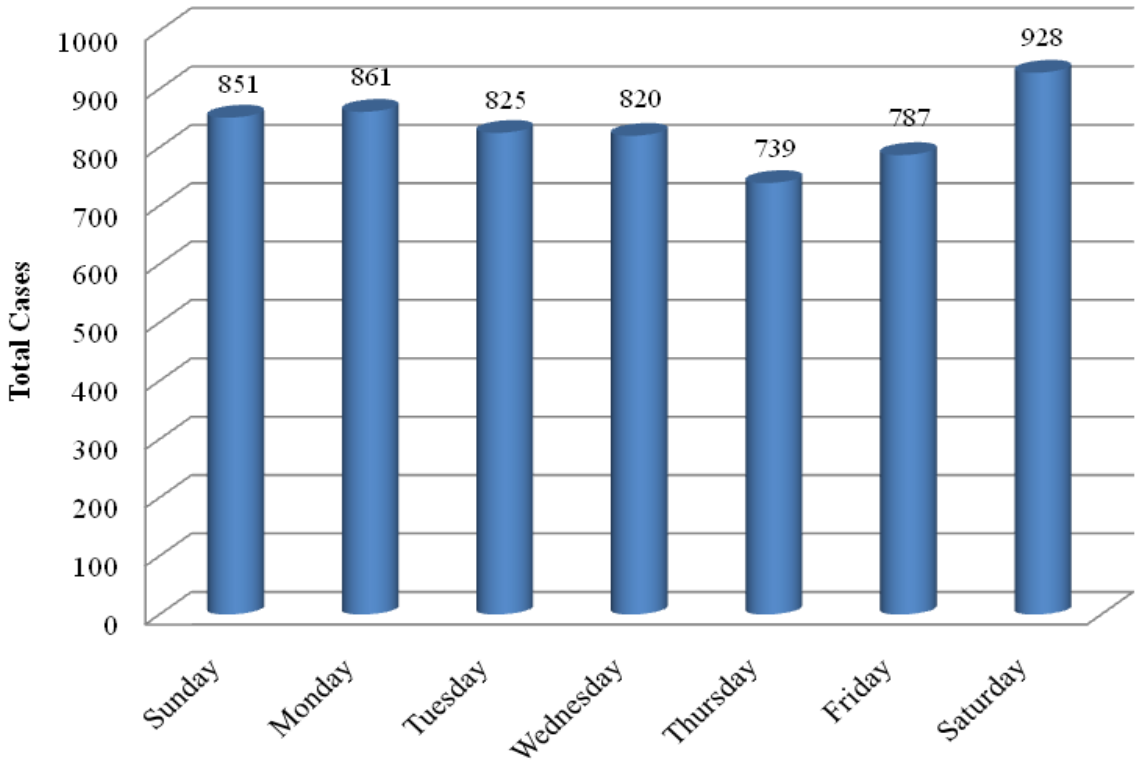


Figure 10. Total Cases by Day of Death by Manner of Death, 2008

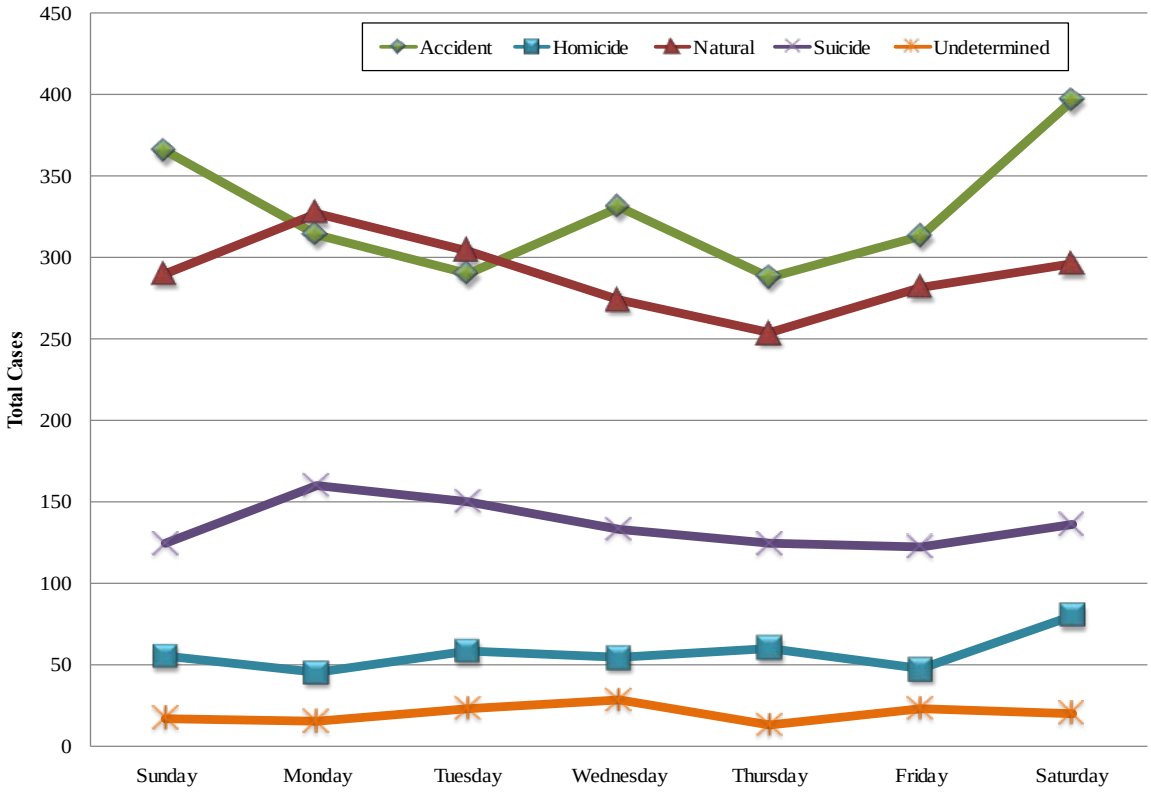


Table 8. Total Cases by Manner by City/County of Residence, 2008

	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	8	21.0	3	7.9	14	36.7	1	2.6	0	0.0	26	68.1
Albemarle	27	28.7	1	1.1	15	15.9	8	8.5	3	3.2	54	57.4
Alexandria	19	13.2	5	3.5	34	23.6	11	7.6	0	0.0	69	48.0
Alleghany	8	49.4	1	6.2	5	30.9	0	0.0	0	0.0	14	86.4
Amelia	10	78.1	1	7.8	3	23.4	2	15.6	0	0.0	16	124.9
Amherst	14	43.0	1	3.1	18	55.3	5	15.4	3	9.2	41	126.0
Appomattox	8	55.2	1	6.9	1	6.9	0	0.0	0	0.0	10	69.0
Arlington	22	10.5	4	1.9	42	20.0	26	12.4	1	0.5	95	45.2
Augusta	31	43.5	3	4.2	11	15.4	13	18.2	0	0.0	58	81.4
Bath	0	0.0	1	22.0	2	44.0	0	0.0	0	0.0	3	66.0
Bedford City	4	63.4	1	15.8	5	79.2	3	47.5	0	0.0	13	206.0
Bedford	14	20.9	2	3.0	22	32.9	9	13.5	1	1.5	48	71.8
Bland	3	43.4	0	0.0	3	43.4	0	0.0	0	0.0	6	86.7
Botetourt	8	24.8	1	3.1	8	24.8	3	9.3	1	3.1	21	65.1
Bristol	2	11.5	0	0.0	7	40.2	1	5.7	0	0.0	10	57.4
Brunswick	5	28.4	3	17.1	4	22.8	1	5.7	0	0.0	13	73.9
Buchanan	19	80.8	2	8.5	5	21.3	6	25.5	0	0.0	32	136.0
Buckingham	5	31.3	0	0.0	3	18.8	6	37.6	0	0.0	14	87.6
Buena Vista	1	15.5	0	0.0	1	15.5	2	30.9	0	0.0	4	61.8
Campbell	28	52.8	3	5.7	15	28.3	8	15.1	1	1.9	55	103.7
Caroline	12	43.4	0	0.0	7	25.3	3	10.9	0	0.0	22	79.6
Carroll	13	44.6	0	0.0	6	20.6	7	24.0	0	0.0	26	89.2
Charles City	4	55.5	1	13.9	3	41.6	2	27.7	0	0.0	10	138.7
Charlotte	10	81.6	0	0.0	5	40.8	1	8.2	0	0.0	16	130.6
Charlottesville	7	16.9	4	9.6	11	26.5	5	12.1	0	0.0	27	65.1
Chesapeake	49	22.3	12	5.5	55	25.0	21	9.5	8	3.6	145	65.9
Chesterfield	88	29.0	12	4.0	57	18.8	30	9.9	2	0.7	189	62.3
Clarke	2	13.8	0	0.0	1	6.9	2	13.8	1	6.9	6	41.5

Continued

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
Colonial Heights	6	33.8	0	0.0	6	33.8	3	16.9	0	0.0	15	84.4
Covington	5	81.7	0	0.0	2	32.7	1	16.3	1	16.3	9	147.1
Craig	3	59.0	0	0.0	1	19.7	1	19.7	0	0.0	5	98.3
Culpeper	19	41.1	0	0.0	20	43.3	2	4.3	1	2.2	42	90.9
Cumberland	4	41.4	0	0.0	2	20.7	2	20.7	0	0.0	8	82.7
Danville	20	44.8	10	22.4	14	31.3	4	9.0	3	6.7	51	114.2
Dickenson	14	85.3	1	6.1	2	12.2	4	24.4	0	0.0	21	128.0
Dinwiddie	15	57.5	0	0.0	14	53.7	0	0.0	1	3.8	30	115.0
Emporia	0	0.0	1	17.7	1	17.7	2	35.4	0	0.0	4	70.9
Essex	5	45.1	0	0.0	0	0.0	3	27.0	0	0.0	8	72.1
Fairfax City	7	29.4	1	4.2	9	37.7	4	16.8	0	0.0	21	88.1
Fairfax	139	13.7	22	2.2	153	15.1	79	7.8	4	0.4	397	39.1
Falls Church	0	0.0	0	0.0	0	0.0	3	26.9	1	9.0	4	35.8
Fauquier	17	25.4	1	1.5	18	26.9	8	12.0	0	0.0	44	65.8
Floyd	5	33.7	2	13.5	7	47.2	1	6.7	0	0.0	15	101.2
Fluvanna	13	50.9	4	15.7	4	15.7	4	15.7	1	3.9	26	101.8
Franklin City	3	33.8	0	0.0	2	22.5	0	0.0	0	0.0	5	56.3
Franklin	23	44.7	1	1.9	19	36.9	5	9.7	3	5.8	51	99.1
Frederick	21	28.4	2	2.7	20	27.1	6	8.1	3	4.1	52	70.4
Fredericksburg	18	78.9	1	4.4	13	57.0	2	8.8	0	0.0	34	149.0
Galax	0	0.0	2	29.4	3	44.1	1	14.7	0	0.0	6	88.1
Giles	9	52.2	0	0.0	3	17.4	3	17.4	0	0.0	15	87.0
Gloucester	14	36.2	1	2.6	7	18.1	9	23.3	0	0.0	31	80.2
Goochland	6	28.6	1	4.8	7	33.4	2	9.5	0	0.0	16	76.4
Grayson	0	0.0	2	12.5	5	31.3	4	25.0	0	0.0	11	68.9
Greene	5	27.8	0	0.0	1	5.6	2	11.1	1	5.6	9	50.1
Greensville	3	25.1	3	25.1	18	150.6	0	0.0	0	0.0	24	200.8
Halifax	18	50.8	3	8.5	8	22.6	4	11.3	0	0.0	33	93.2
Hampton	33	22.7	10	6.9	47	32.3	17	11.7	4	2.7	111	76.3
Hanover	24	24.1	2	2.0	13	13.0	18	18.1	0	0.0	57	57.2

Continued

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
Harrisonburg	3	6.8	1	2.3	1	2.3	3	6.8	1	2.3	9	20.4
Henrico	76	26.0	17	5.8	57	19.5	26	8.9	3	1.0	179	61.2
Henry	35	63.3	7	12.7	24	43.4	17	30.7	2	3.6	85	153.7
Highland	1	41.2	0	0.0	2	82.4	0	0.0	0	0.0	3	123.7
Hopewell	6	25.9	3	13.0	7	30.2	1	4.3	0	0.0	17	73.5
Isle of Wight	7	19.7	3	8.5	3	8.5	1	2.8	1	2.8	15	42.3
James City	15	24.0	1	1.6	26	41.7	9	14.4	0	0.0	51	81.7
King and Queen	4	58.6	0	0.0	0	0.0	2	29.3	0	0.0	6	87.8
King George	6	25.9	1	4.3	5	21.6	2	8.6	0	0.0	14	60.4
King William	6	37.4	0	0.0	2	12.5	0	0.0	0	0.0	8	49.9
Lancaster	6	52.3	0	0.0	5	43.6	4	34.9	0	0.0	15	130.8
Lee	7	29.9	2	8.5	11	46.9	7	29.9	1	4.3	28	119.4
Loudoun	28	9.7	4	1.4	19	6.6	14	4.8	3	1.0	68	23.4
Louisa	19	58.1	1	3.1	10	30.6	2	6.1	2	6.1	34	103.9
Lunenburg	6	46.4	2	15.5	5	38.6	1	7.7	0	0.0	14	108.2
Lynchburg	26	35.8	3	4.1	13	17.9	13	17.9	2	2.8	57	78.5
Madison	8	58.7	1	7.3	4	29.3	3	22.0	0	0.0	16	117.3
Manassas	8	22.7	2	5.7	5	14.2	9	25.6	1	2.8	25	71.0
Martinsville	8	55.0	1	6.9	9	61.9	0	0.0	1	6.9	19	130.6
Mathews	1	11.1	0	0.0	3	33.2	3	33.2	1	11.1	8	88.5
Mecklenburg	7	21.8	4	12.4	14	43.5	7	21.8	0	0.0	32	99.5
Middlesex	6	56.7	0	0.0	2	18.9	1	9.4	0	0.0	9	85.0
Montgomery	27	30.0	3	3.3	11	12.2	9	10.0	0	0.0	50	55.6
Nelson	5	32.6	0	0.0	4	26.1	3	19.6	0	0.0	12	78.3
New Kent	10	56.1	2	11.2	4	22.4	2	11.2	0	0.0	18	101.0
Newport News	33	18.4	13	7.2	59	32.8	18	10.0	7	3.9	130	72.4
Norfolk	55	23.5	27	11.5	88	37.6	28	12.0	13	5.6	211	90.1
Northampton	10	74.5	0	0.0	6	44.7	1	7.5	0	0.0	17	126.7
Northumberland	7	54.2	0	0.0	3	23.2	3	23.2	0	0.0	13	100.7
Norton	1	27.0	0	0.0	1	27.0	1	27.0	0	0.0	3	81.0

Continued

County/City of Residence	Manner of Death											
	Accident Total	Accident Rate	Homicide Total	Homicide Rate	Natural Total	Natural Rate	Suicide Total	Suicide Rate	Undetermined Total	Undetermined Rate	Total	Total Rate
Nottoway	1	6.3	0	0.0	3	18.9	3	18.9	1	6.3	8	50.3
Orange	11	33.2	1	3.0	12	36.2	6	18.1	1	3.0	31	93.5
Page	6	24.8	0	0.0	3	12.4	4	16.6	1	4.1	14	57.9
Patrick	5	26.5	0	0.0	5	26.5	5	26.5	0	0.0	15	79.6
Petersburg	16	48.6	4	12.2	21	63.8	8	24.3	0	0.0	49	148.9
Pittsylvania	40	65.4	3	4.9	20	32.7	6	9.8	2	3.3	71	116.2
Poquoson	1	8.5	0	0.0	0	0.0	1	8.5	0	0.0	2	16.9
Portsmouth	16	15.9	13	12.9	39	38.8	8	8.0	4	4.0	80	79.5
Powhatan	10	35.7	5	17.9	17	60.7	4	14.3	1	3.6	37	132.1
Prince Edward	4	18.3	2	9.2	7	32.1	1	4.6	0	0.0	14	64.2
Prince George	10	27.7	0	0.0	7	19.4	7	19.4	0	0.0	24	66.5
Prince William	69	18.9	13	3.6	47	12.9	36	9.9	6	1.6	171	46.9
Pulaski	16	45.7	1	2.9	9	25.7	2	5.7	4	11.4	32	91.5
Radford	11	68.2	2	12.4	2	12.4	1	6.2	0	0.0	16	99.2
Rappahannock	2	27.9	0	0.0	3	41.9	3	41.9	0	0.0	8	111.8
Richmond City	84	41.6	40	19.8	98	48.5	23	11.4	0	0.0	245	121.3
Richmond	4	43.7	0	0.0	1	10.9	3	32.8	0	0.0	8	87.5
Roanoke City	31	33.3	9	9.7	27	29.0	17	18.3	4	4.3	88	94.7
Roanoke	21	23.1	4	4.4	13	14.3	17	18.7	0	0.0	55	60.5
Rockbridge	10	46.4	0	0.0	8	37.1	5	23.2	1	4.6	24	111.3
Rockingham	16	21.5	0	0.0	10	13.4	9	12.1	4	5.4	39	52.4
Russell	16	55.5	1	3.5	8	27.7	9	31.2	1	3.5	35	121.4
Salem	10	39.3	1	3.9	4	15.7	7	27.5	0	0.0	22	86.4
Scott	5	21.9	1	4.4	8	35.0	5	21.9	0	0.0	19	83.2
Shenandoah	20	49.0	2	4.9	9	22.1	7	17.2	0	0.0	38	93.2
Smyth	10	31.3	3	9.4	5	15.7	6	18.8	0	0.0	24	75.2
Southampton	9	48.7	0	0.0	17	92.0	3	16.2	0	0.0	29	156.9
Spotsylvania	31	25.8	1	0.8	25	20.8	15	12.5	2	1.7	74	61.7
Stafford	21	17.3	7	5.8	14	11.5	18	14.8	1	0.8	61	50.1
Staunton	8	33.4	1	4.2	5	20.9	1	4.2	0	0.0	15	62.6

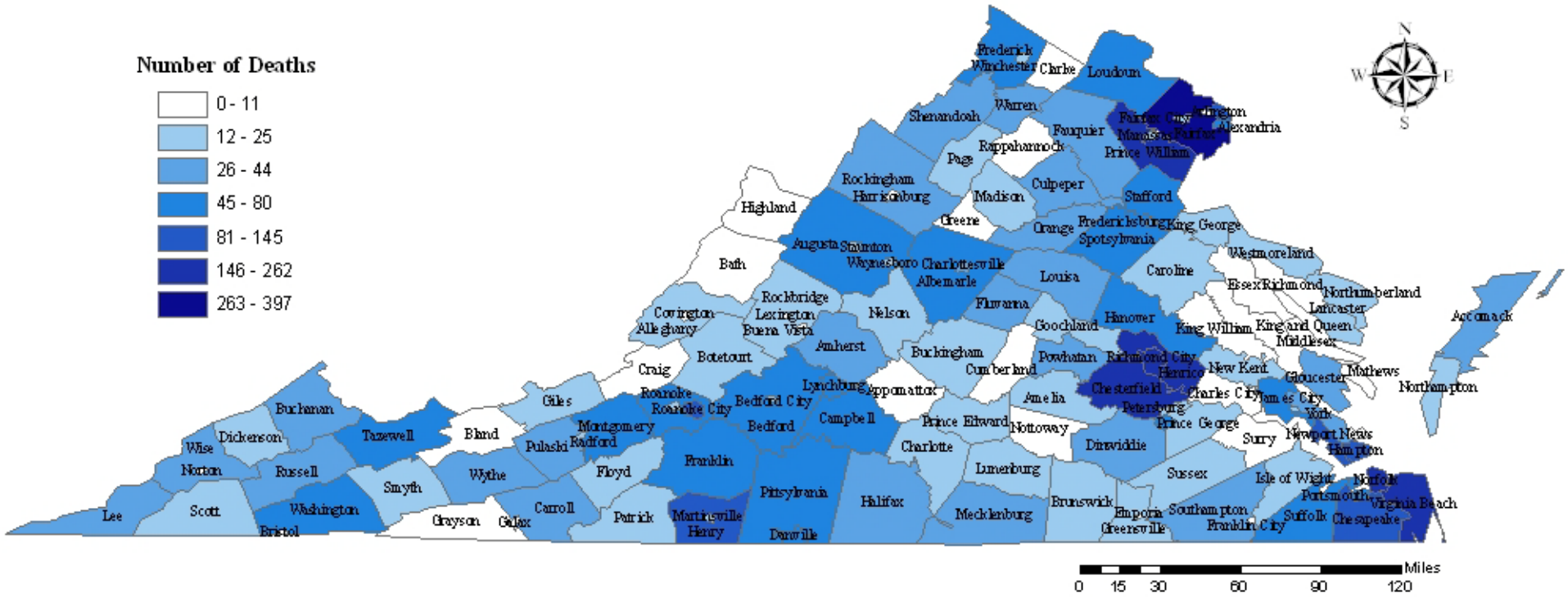
Continued

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
Suffolk	16	19.4	6	7.3	28	34.0	10	12.2	0	0.0	60	72.9
Surry	3	42.1	1	14.0	0	0.0	0	0.0	0	0.0	4	56.1
Sussex	13	107.0	0	0.0	7	57.6	1	8.2	1	8.2	22	181.1
Tazewell	20	45.7	2	4.6	18	41.1	5	11.4	1	2.3	46	105.1
Virginia Beach	106	24.4	20	4.6	86	19.8	45	10.4	5	1.2	262	60.4
Warren	16	43.6	0	0.0	12	32.7	8	21.8	2	5.5	38	103.6
Washington	19	35.8	0	0.0	19	35.8	9	17.0	3	5.7	50	94.3
Waynesboro	9	41.0	0	0.0	7	31.9	3	13.7	0	0.0	19	86.5
Westmoreland	10	57.3	1	5.7	6	34.4	4	22.9	0	0.0	21	120.3
Williamsburg	7	56.1	0	0.0	7	56.1	1	8.0	0	0.0	15	120.2
Winchester	6	23.2	0	0.0	6	23.2	6	23.2	1	3.9	19	73.4
Wise	14	33.6	0	0.0	17	40.8	9	21.6	2	4.8	42	100.7
Wythe	14	48.7	2	7.0	7	24.3	5	17.4	0	0.0	28	97.3
York	8	13.1	1	1.6	12	19.7	9	14.7	0	0.0	30	49.2
TOTAL FOR STATE RESIDENTS	**2082**	**26.8**	**377**	**4.9**	**1864**	**24.0**	**915**	**11.8**	**130**	**1.7**	**5368**	**69.1**
Out of Country	13	ND*	0	ND	14	ND	3	ND	0	ND	30	ND
Out of State	198	ND	21	ND	153	ND	31	ND	6	ND	409	ND
Unknown	0	ND	1	ND	0	ND	0	ND	3	ND	4	ND
TOTAL FOR NON-RESIDENTS	**211**	**ND**	**22**	**ND**	**167**	**ND**	**34**	**ND**	**9**	**ND**	**443**	**ND**
TOTAL	**2293**	**ND**	**399**	**ND**	**2031**	**ND**	**949**	**ND**	**139**	**ND**	**5811**	**ND**

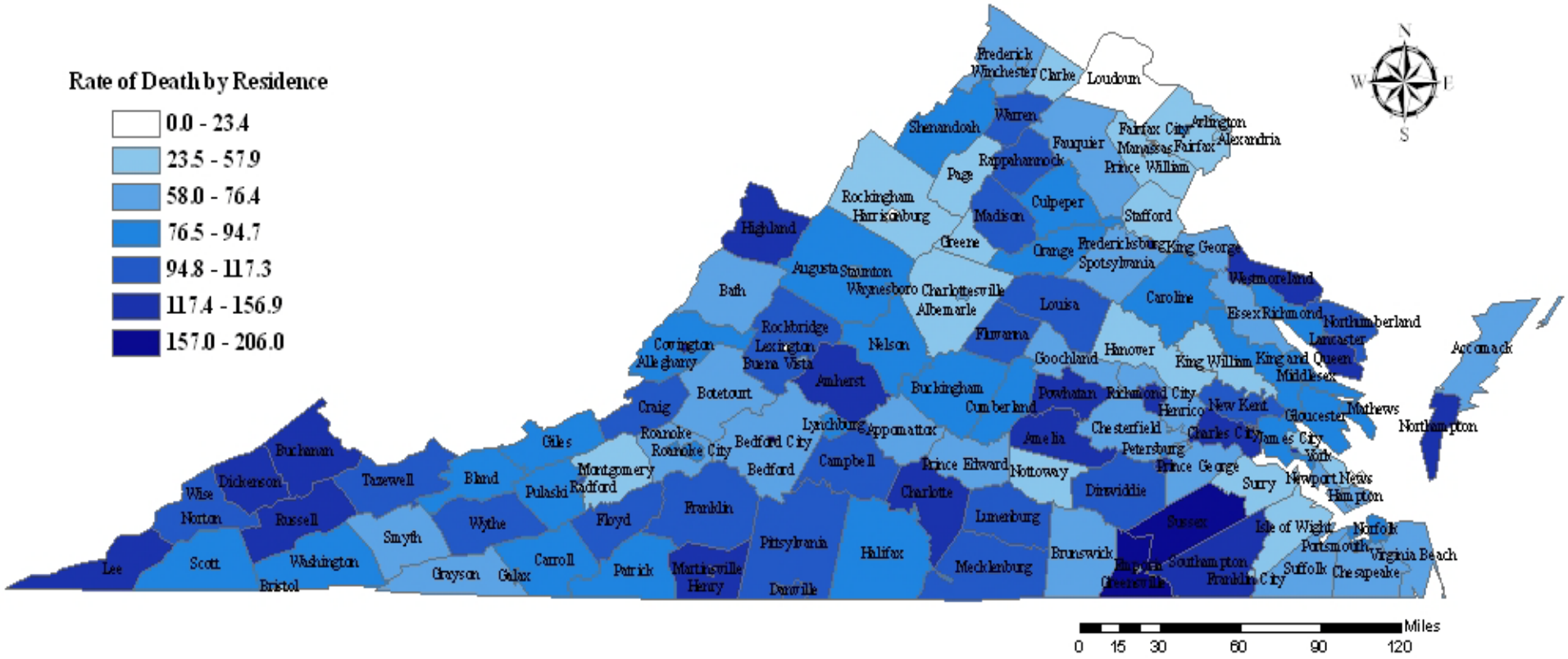
*ND = No Denominator

Figure 11. Total Cases by City/County of Residence, 2008



Map shows City/County of residence but not necessarily where injury and/or death occurred.
443 cases of a total 5,811 cases were from out-of-state residents or where residency was unknown.

Figure 12. Rate of Total Cases by City/County of Residence, 2008



Rate is per 100,000 population.
Map shows City/County of residence but not necessarily where injury and/or death occurred.
443 cases of a total 5,811 cases were from out-of-state residents or where residency was unknown.

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

	Manner of Death					
County/City of Injury/Illness	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Accomack	11	2	17	1	1	32
Albemarle	33	2	16	8	3	62
Alexandria	21	4	48	13	0	86
Alleghany	8	1	4	0	0	13
Amelia	11	0	3	1	0	15
Amherst	16	1	18	6	3	44
Appomattox	7	1	0	0	0	8
Arlington	30	4	44	28	1	107
Augusta	38	0	12	13	0	63
Bath	1	0	3	1	0	5
Bedford City	5	1	4	1	0	11
Bedford	16	0	19	9	1	45
Bland	2	0	3	0	0	5
Botetourt	13	0	9	3	1	26
Bristol	3	0	6	1	1	11
Brunswick	6	2	5	1	0	14
Buchanan	19	2	4	7	0	32
Buckingham	6	0	4	5	0	15
Buena Vista	1	0	1	1	0	3
Campbell	31	2	12	7	2	54
Caroline	8	0	16	3	1	28
Carroll	19	1	9	6	0	35
Charles City	7	1	2	2	0	12
Charlotte	6	2	3	1	0	12
Charlottesville	11	5	11	5	1	33
Chesapeake	47	12	54	18	8	139
Chesterfield	92	12	58	32	1	195
Clarke	5	1	2	3	1	12
Colonial Heights	4	0	7	3	1	15
Covington	2	0	2	1	1	6
Craig	2	1	1	2	0	6
Culpeper	12	0	19	2	1	34
Cumberland	4	0	2	2	0	8
Danville	22	10	14	4	2	52
Dickenson	13	1	3	5	0	22
Dinwiddie	20	1	11	1	1	34
Emporia	2	1	3	2	0	8
Essex	4	0	0	3	0	7
Fairfax City	5	1	7	1	0	14
Fairfax	144	25	161	88	5	423
Falls Church	0	0	2	3	1	6
Fauquier	26	1	17	8	1	53
Floyd	5	2	8	1	0	16
Fluvanna	14	1	8	4	0	27
Franklin City	1	0	1	0	0	2
Franklin	23	1	20	6	3	53
Frederick	26	2	21	7	3	59

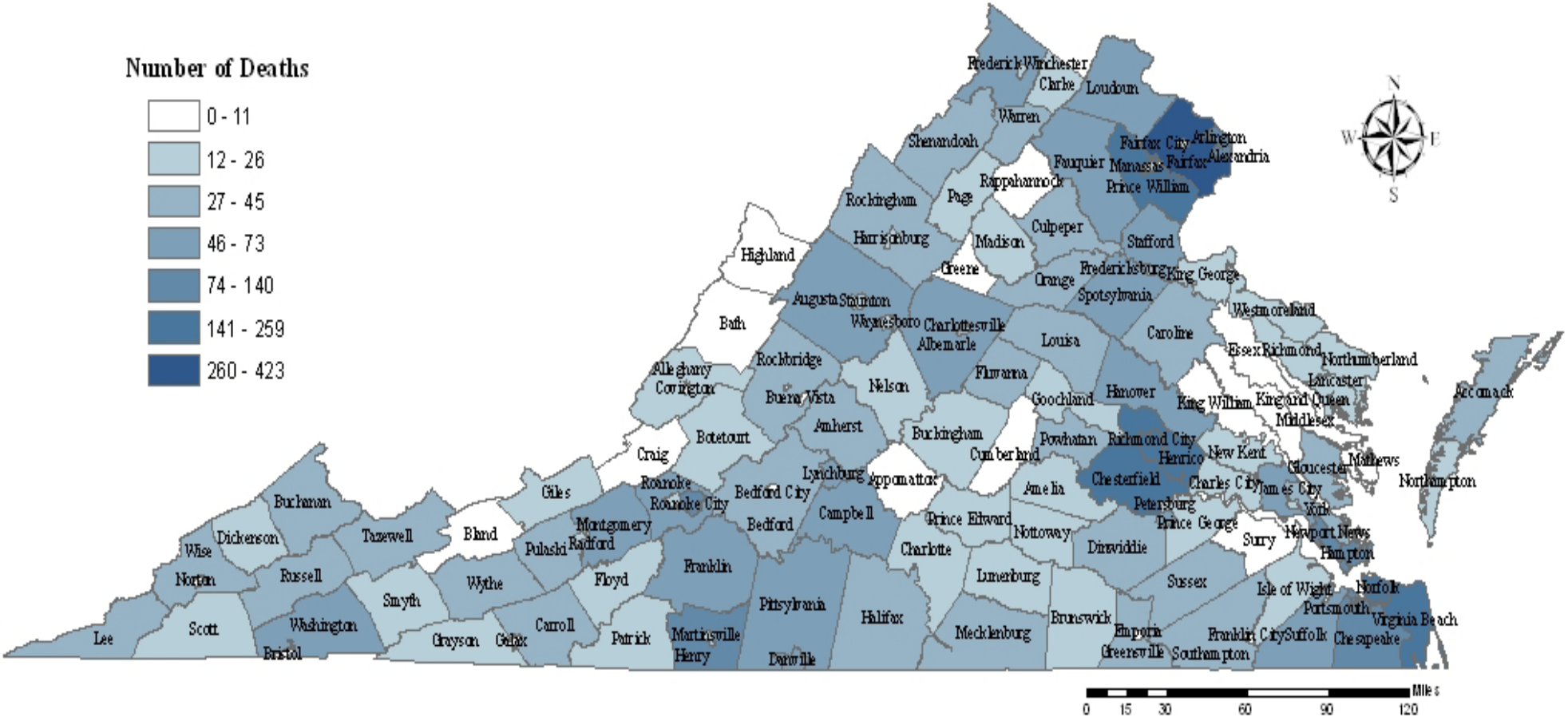
Continued

County/City of Injury/Illness	Manner of Death					
	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Fredericksburg	15	2	18	5	0	40
Galax	0	0	3	2	0	5
Giles	9	0	2	3	1	15
Gloucester	16	1	7	9	0	33
Goochland	10	2	7	2	0	21
Grayson	2	7	3	5	0	17
Greene	5	0	2	2	0	9
Greensville	2	6	20	0	0	28
Halifax	27	4	10	4	0	45
Hampton	28	9	50	18	5	110
Hanover	26	1	14	17	0	58
Harrisonburg	3	1	3	4	2	13
Henrico	76	16	58	25	3	178
Henry	34	6	23	19	3	85
Highland	2	0	2	0	0	4
Hopewell	6	3	8	2	0	19
Isle of Wight	15	2	6	0	0	23
James City	24	1	34	9	0	68
King and Queen	5	0	0	2	0	7
King George	8	0	5	2	0	15
King William	5	0	4	1	0	10
Lancaster	6	1	4	4	0	15
Lee	10	2	11	7	1	31
Lexington	1	0	0	0	0	1
Loudoun	27	4	26	13	2	72
Louisa	17	1	10	2	2	32
Lunenburg	9	2	4	1	1	17
Lynchburg	24	4	18	13	1	60
Madison	6	1	5	3	0	15
Manassas	6	4	6	9	1	26
Martinsville	8	2	11	0	1	22
Mathews	1	0	3	2	1	7
Mecklenburg	11	4	12	7	0	34
Middlesex	6	0	2	1	0	9
Montgomery	27	3	17	8	0	55
Nelson	6	0	4	3	0	13
New Kent	7	1	7	2	0	17
Newport News	36	16	65	18	5	140
Norfolk	59	29	101	29	10	228
Northampton	10	0	5	1	0	16
Northumberland	8	0	3	2	0	13
Norton	1	0	1	2	0	4
Nottoway	3	0	10	4	0	17
Orange	13	1	8	5	2	29
Page	4	0	1	7	1	13
Patrick	11	0	5	4	0	20
Petersburg	14	5	23	7	0	49
Pittsylvania	37	3	19	6	2	67
Poquoson	1	0	1	1	0	3

Continued

County/City of Injury/Illness	Manner of Death					
	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Portsmouth	18	16	45	10	6	95
Powhatan	7	4	18	4	1	34
Prince Edward	5	1	8	1	1	16
Prince George	12	1	6	7	0	26
Prince William	65	11	48	35	5	164
Pulaski	19	2	10	2	3	36
Radford	9	1	1	2	1	14
Rappahannock	2	0	3	3	0	8
Richmond City	85	39	102	22	1	249
Richmond	6	1	1	4	0	12
Roanoke City	32	13	28	19	3	95
Roanoke	23	1	13	19	0	56
Rockbridge	10	1	11	6	1	29
Rockingham	19	1	7	9	3	39
Russell	15	1	8	10	0	34
Salem	8	2	2	5	1	18
Scott	10	1	8	5	0	24
Shenandoah	24	0	10	8	0	42
Smyth	11	3	5	5	0	24
Southampton	10	0	26	4	0	40
Spotsylvania	30	0	25	17	1	73
Stafford	25	6	14	15	0	60
Staunton	8	2	6	1	0	17
Suffolk	26	5	19	10	1	61
Surry	4	1	0	0	0	5
Sussex	17	0	9	1	1	28
Tazewell	16	2	20	4	0	42
Virginia Beach	102	18	88	45	6	259
Warren	17	0	15	8	2	42
Washington	22	2	23	11	3	61
Waynesboro	7	1	7	3	0	18
Westmoreland	11	1	5	4	0	21
Williamsburg	3	0	10	1	0	14
Winchester	4	0	6	7	1	18
Wise	15	0	16	8	3	42
Wythe	24	2	8	8	0	42
York	14	1	15	11	0	41
TOTAL FOR STATE	**2224**	**387**	**2001**	**945**	**132**	**5689**
Out of State	46	4	7	3	2	62
Unknown	27	8	19	1	5	60
TOTAL	**2297**	**399**	**2027**	**949**	**139**	**5811**

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



Map shows place of injury/acute illness but not necessarily residency and/or death location.
122 cases of a total 5,811 had the fatal injury or acute illness location occur outside of Virginia borders or was unknown.

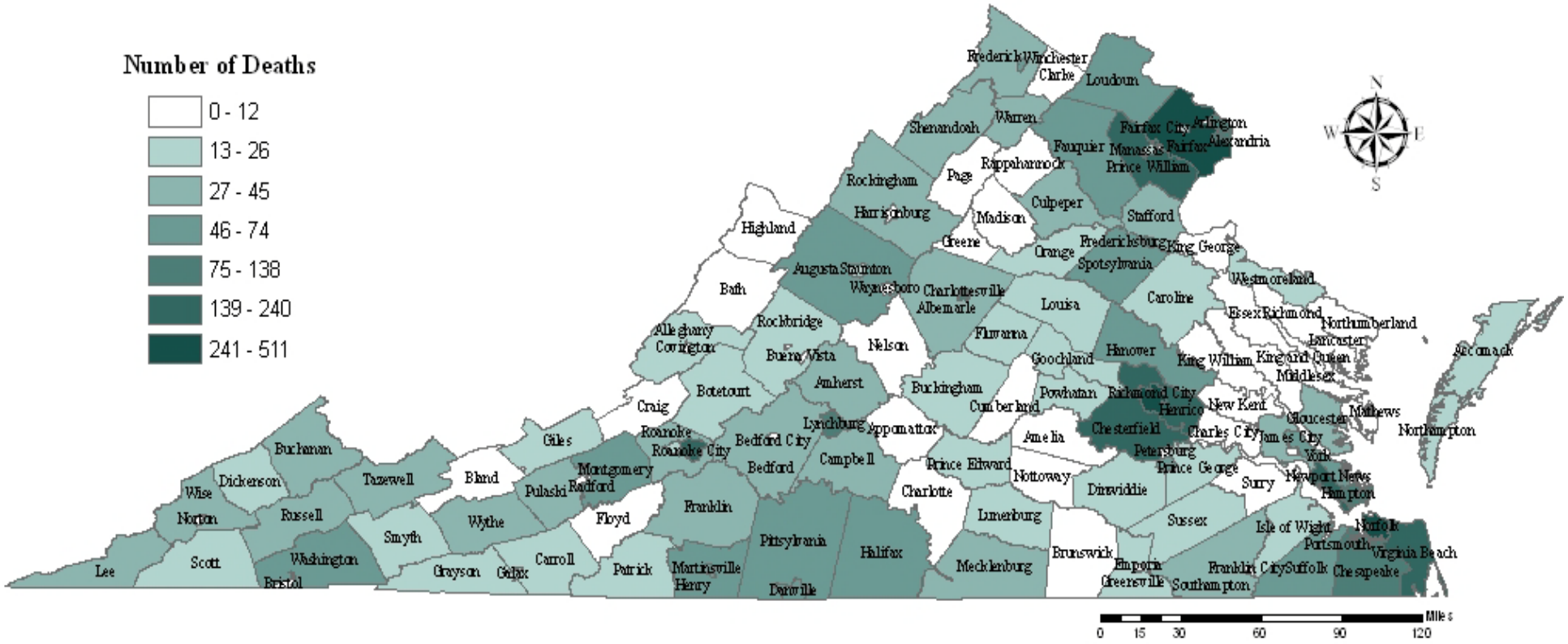
Table 10. Total Cases by City/County of Death, 2008

	Manner of Death					
County/City of Death	Accident Total	Homicide Total	Natural Total	Suicide Total	Undetermined Total	Total
Accomack	7	2	10	1	1	21
Albemarle	22	1	13	5	2	43
Alexandria	13	4	54	13	0	84
Alleghany	6	1	5		1	13
Amelia	8	0	3	1	0	12
Amherst	8	1	16	4	3	32
Appomattox	1	1	0	0	0	2
Arlington	34	4	42	28	1	109
Augusta	35	1	14	12	0	62
Bath	1	0	3	1	0	5
Bedford City	2	0	4	1	0	7
Bedford	11	0	19	9	0	39
Bland	1	0	1	0	0	2
Botetourt	8	0	8	2	1	19
Bristol	3	0	6	1	1	11
Brunswick	3	2	2	1	0	8
Buchanan	18	2	3	7	0	30
Buckingham	5	0	4	5	0	14
Buena Vista	1	0	1	1	0	3
Campbell	17	2	9	4	1	33
Caroline	4	0	13	3	1	21
Carroll	13	1	5	5	0	24
Charles City	5	1	1	2	0	9
Charlotte	5	1	3	1	0	10
Charlottesville	83	12	22	16	5	138
Chesapeake	35	7	47	17	4	110
Chesterfield	74	9	54	30	0	167
Clarke	2	1	1	3	1	8
Colonial Heights	1	0	4	3	1	9
Covington	0	0	1	1	0	2
Craig	1	1	1	2	0	5
Culpeper	13	0	18	2	1	34
Cumberland	1	0	0	2	0	3
Danville	26	8	21	4	4	63
Dickenson	12	1	3	4	0	20
Dinwiddie	11	1	7	1	1	21
Emporia	2	2	6	2	0	12
Essex	4	0	2	4	0	10
Fairfax City	4	1	7	1	0	13
Fairfax	212	28	171	92	8	511
Falls Church	0	0	1	3	1	5
Fauquier	24	1	19	7	1	52
Floyd	1	2	6	1	0	10
Fluvanna	8	1	4	4	0	17
Franklin City	1	0	4	0	0	5
Franklin	17	0	20	5	3	45

Manner of Death *Continued*						
County/City of Death	**Accident Total**	**Homicide Total**	**Natural Total**	**Suicide Total**	**Undetermined Total**	**Total**
Frederick	15	1	16	8	2	42
Fredericksburg	35	3	34	9	1	82
Galax	5	0	7	2	0	14
Giles	7	0	2	3	1	13
Gloucester	14	1	10	9	0	34
Goochland	6	2	5	1	0	14
Grayson	2	7	2	5	0	16
Greene	5	0	2	0	0	7
Greensville	2	5	16	0	0	23
Halifax	29	5	11	3	1	49
Hampton	16	4	54	16	6	96
Hanover	29	1	17	17	0	64
Harrisonburg	2	0	3	3	3	11
Henrico	72	15	58	24	2	171
Henry	17	3	12	16	1	49
Highland	2	0	2	0	0	4
Hopewell	7	4	8	2	0	21
Isle of Wight	9	0	5	0	0	14
James City	14	1	18	7	0	40
King and Queen	3	0	0	2	0	5
King George	4	0	2	2	0	8
King William	4	0	4	0	0	8
Lancaster	3	1	4	4	0	12
Lee	9	2	10	7	1	29
Lexington	0	0	1	0	1	2
Loudoun	21	3	23	11	3	61
Louisa	9	1	10	2	1	23
Lunenburg	8	2	2	1	1	14
Lynchburg	53	5	22	18	5	103
Madison	2	1	5	3	0	11
Manassas	7	5	6	6	1	25
Martinsville	20	3	22	1	2	48
Mathews	1	0	1	2	0	4
Mecklenburg	10	4	15	7	0	36
Middlesex	4	0	1	1	0	6
Montgomery	26	2	18	9	0	55
Nelson	4	0	3	3	0	10
New Kent	4	1	5	2	0	12
Newport News	52	23	66	24	5	170
Norfolk	121	40	106	36	16	319
Northampton	8	0	12	0	0	20
Northumberland	4	0	3	2	0	9
Norton	2	0	4	2	1	9
Nottoway	1	0	5	4	0	10
Orange	7	1	7	5	1	21
Page	2	0	1	7	1	11
Patrick	10	0	5	4	0	19
Petersburg	26	4	36	7	1	74
Pittsylvania	28	3	13	6	1	51

Manner of Death *Continued*						
County/City of Death	**Accident Total**	**Homicide Total**	**Natural Total**	**Suicide Total**	**Undetermined Total**	**Total**
Poquoson	1	0	0	0	0	1
Portsmouth	21	14	50	8	6	99
Powhatan	4	3	14	4	1	26
Prince Edward	4	1	13	1	1	20
Prince George	6	0	4	7	0	17
Prince William	46	10	49	37	3	145
Pulaski	13	2	9	2	2	28
Radford	5	0	1	1	2	9
Rappahannock	0	0	1	3	0	4
Richmond City	182	47	130	29	4	392
Richmond	4	1	1	3	0	9
Roanoke City	103	22	34	27	3	189
Roanoke	11	0	11	16	0	38
Rockbridge	8	0	10	6	0	24
Rockingham	13	1	7	8	1	30
Russell	14	1	8	10	0	33
Salem	10	1	4	5	1	21
Scott	10	1	6	5	0	22
Shenandoah	16	0	10	7	0	33
Smyth	10	1	5	5	0	21
Southampton	7	0	21	4	0	32
Spotsylvania	17	0	20	14	0	51
Stafford	15	3	9	13	0	40
Staunton	7	1	4	1	0	13
Suffolk	20	5	21	10	1	57
Surry	4	1	0	0	0	5
Sussex	13	1	4	1	0	19
Tazewell	16	2	21	4	2	45
Virginia Beach	89	18	85	44	4	240
Warren	14	0	13	8	2	37
Washington	21	2	23	10	3	59
Waynesboro	3	0	6	2	0	11
Westmoreland	10	1	3	4	0	18
Williamsburg	1	0	4	0	0	5
Winchester	21	2	16	9	1	49
Wise	17	0	15	8	2	42
Wythe	20	2	9	8	0	39
York	15	1	31	9	0	56
TOTAL FOR STATE	**2295**	**396**	**2024**	**947**	**139**	**5801**
Out of State	2	2	3	2	0	9
Unknown	0	1	0	0	0	1
TOTAL	**2297**	**399**	**2027**	**949**	**139**	**5811**

Figure 14. Total Cases by City/County of Death, 2008



Map shows place of death but not necessarily residency and/or injury/acute illness location.
10 deaths occurred outside of Virginia borders, ex. death at sea.

Table 11. Total Cases by Cause of Death, 2008

Natural Deaths	Total Cases	Autopsied
Pulmonary Diseases/Disorders	**152**	**85**
Asthma	12	6
COPD	22	3
Emboli	26	19
Pneumonia	61	39
Pulmonary Malignancy	14	4
Other Pulmonary Disease/Disorder	17	14
Central Nervous System Diseases/Disorders	**110**	**53**
Seizure Disorder	36	20
Vascular Disease	42	17
Degenerative Disease	7	1
Meningitis (Bacterial or Viral)	3	3
CNS Malignancy	4	2
Other CNS Disease/Disorder	18	10
Cardiovascular Diseases/Disorders	**1354**	**366**
Atherosclerosis	788	122
Hypertension	150	65
Atherosclerosis & Hypertension	177	94
Congenital Defect	5	4
Vascular Dissection/Ruptures	6	3
Valvular	8	7
Acute Coronary Insufficiency	138	6
Other Cardiac Disease/Disorder	82	65
Gastrointestinal Diseases/Disorders	**229**	**78**
GI Hemorrhage	38	11
Cirrhosis	19	6
Chronic Ethanolism	116	35
Hepatitis	7	2
GI Malignancy	20	7
Other GI Disease/Disorder	29	17
Genitourinal Diseases/Disorders	**9**	**4**
Renal Disease	5	2
Genitourinal Malignancy	4	2
Perinatal and Pediatric Diseases/Disorders	**30**	**30**
Maternal Complications	4	4
Fetal Complications	4	4
Sudden Infant Death Syndrome (SIDS)	22	22
Systemic Diseases/Disorders	**114**	**49**
Blood Disorders	6	3

Continued

Diabetes	42	11
AIDS/HIV	11	6
Sepsis	24	12
Other Infectious Disease	6	6
Metastatic Malignancy Unknown Primary	9	3
Other Systemic Disease/Disorder	16	8
Other Natural Diseases/Disorders	**29**	**16**
Other Malignancy	5	1
Other Natural Disease/Disorder	24	15
Natural Subtotal	**2027**	**681**
Unnatural Deaths	**Total Cases**	**Autopsied**
Asphyxia	**402**	**188**
Choking (Aspiration: Food or Foreign Object)	37	7
Drowning	99	58
Hanging	185	71
Mechanical	30	14
Positional	9	7
Strangulation/Neck Compression	11	11
Suffocation/Smothering	23	16
Oxygen Replacement/Displacement	5	3
Other Asphyxia	3	1
Electrocution	**13**	**11**
High Voltage	9	7
Low Voltage	4	4
Exposure	**19**	**11**
Hyperthermia	9	3
Hypothermia	10	8
Fire Injuries	**116**	**77**
Thermal Burns	20	5
Inhalation of Combustion Products	54	36
Thermal Burns & Inhalation of Combustions Products	42	36
Judicial Execution	**3**	**3**
Lethal Injection	3	3
Gunshot Wound	**817**	**813**
Handgun	606	604
Rifle	65	65
Shotgun	100	99
Unknown Gun	45	44
Other Gun	1	1
Blunt Force Injuries	**1467**	**266**
Head/Neck	741	130
Chest	92	11
Abdomen	15	3

Continued

Trunk	51	22
Extremeties	129	20
Multiple	439	80
Penetrating Injuries	**92**	**86**
Incised	26	22
Stab	64	63
Other Penetrating Injuries	2	1
Substance Abuse	**753**	**585**
Ethanol Poisoning	23	18
Prescription Drug Poisoning	451	352
Illegal (Street) Drug Poisoning	139	117
CO Poisoning (Excludes Fires)	18	7
Mixed Category Drug Poisoning	85	69
Inhalant Poisoning	7	6
OTC Poisoning	12	5
Ethylene Glycol Poisoning	5	5
Not Otherwise Specified Poisoning	8	4
Other Poisons (Heavy Metals, etc.)	5	2
Other Unnatural Deaths	**16**	**12**
Other Unnatural	16	12
Unnatural Subtotal	**3698**	**2052**
Undetermined Deaths	**Total Cases**	**Autopsied**
Undetermined After Autopsy and/or Investigation	**86**	**86**
Sudden Unexpected Infant Death (SUID)	55	55
Skeletal/Mummified Remains	7	7
Other Undetermined	24	24
Undetermined Subtotal	**86**	**86**
TOTAL	**5811**	**2819**

SECTION 3: MANNER OF DEATH

NATURAL DEATH (N=2,027)

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 35% of all deaths investigated by the OCME in 2008.
- The number of natural deaths investigated by the OCME is at a 10-year low.
- For children 17 years and younger, the highest number of deaths occurred for those under the age of 1 year, but overall it was the 55-64 year old age group that had the highest number of OCME natural deaths.

Figure 15. Natural Deaths & Rate by Year of Death, 1999-2008

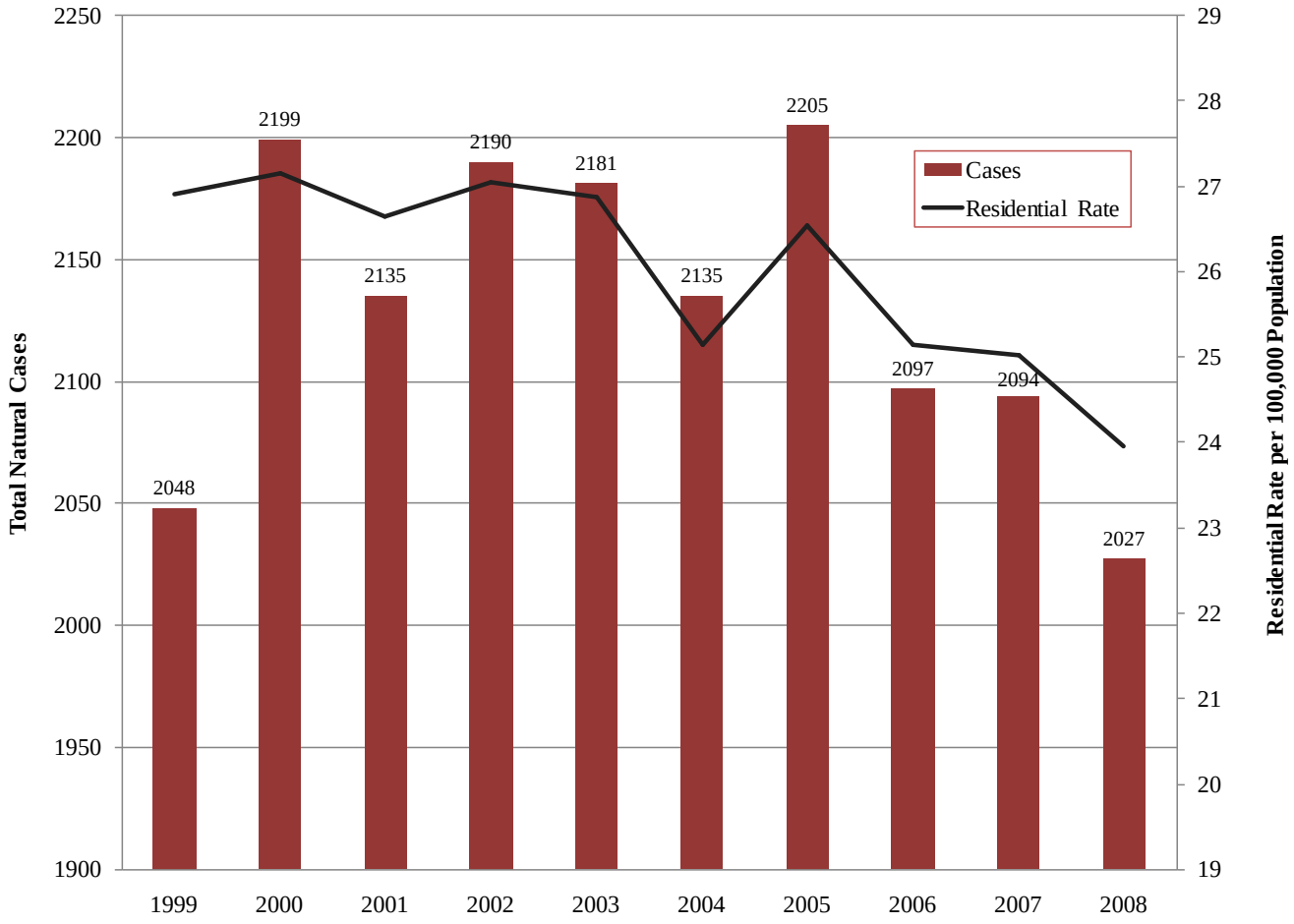


Figure 16. Natural Deaths by Age Group by Gender, 2008

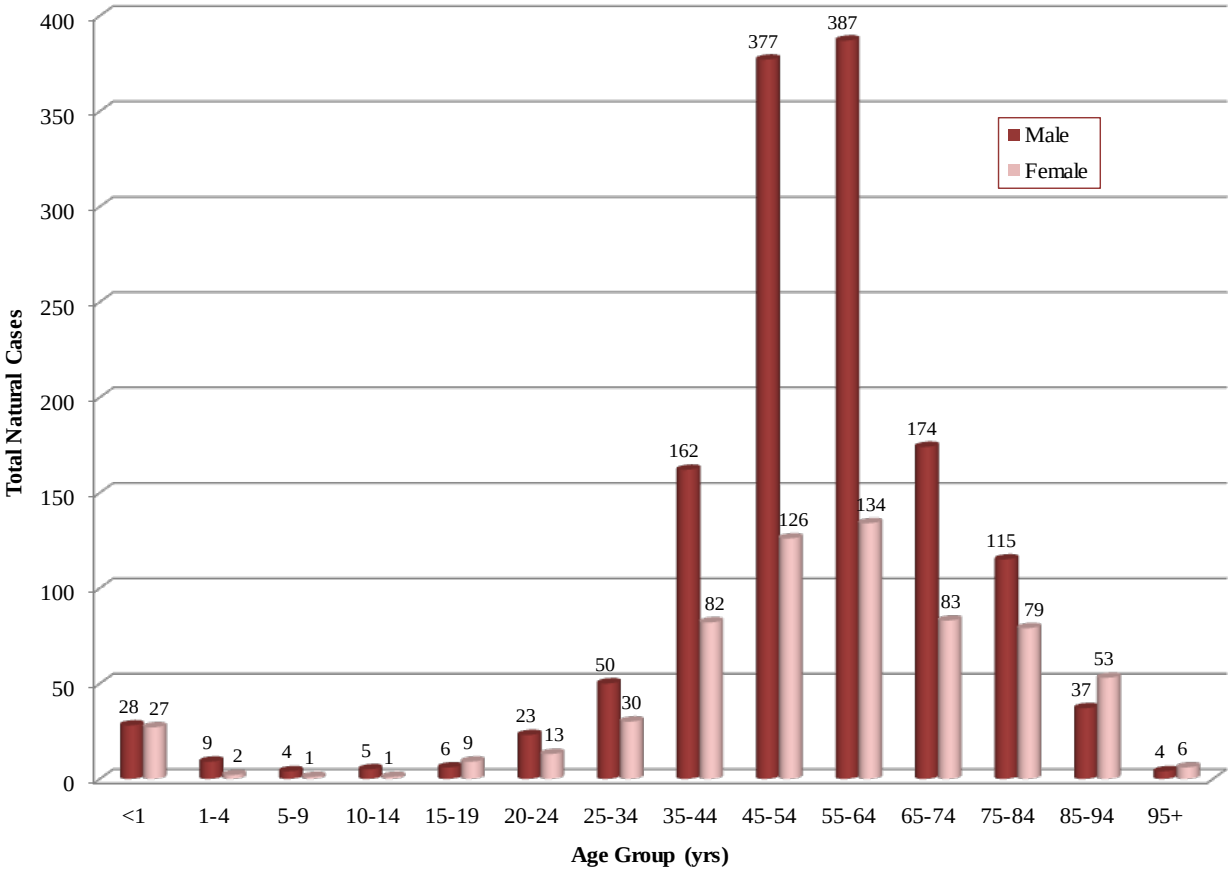
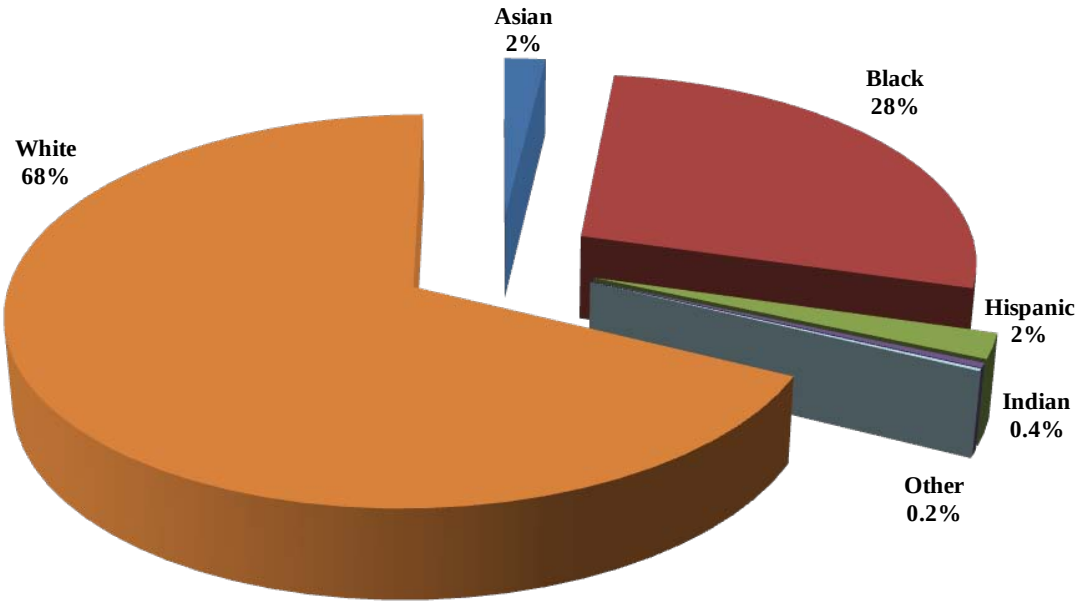


Figure 17. Natural Deaths by Race/Ethnicity, 2008



ACCIDENTAL DEATHS (N=2,297)

Accidents account for 39.4 percent of the deaths investigated by the OCME in 2008: the greatest proportion of deaths by any manner.

- The total number of accidental deaths has increased over the past 10 years, but there was a decrease from 2007.
- Residential rates decreased to 26.8 per 100,000 in 2008 from last year's high of 28.4 per 100,000.
- Motor vehicle deaths were the most common cause of accidental deaths with 39.9 percent of all accidents followed by drug use with 23.8 percent.
- Seniors, 85 and older, had the highest rate of accidental falls (113.4 per 100,000).

Figure 18. Accidental Deaths & Rate by Year of Death, 1999-2008

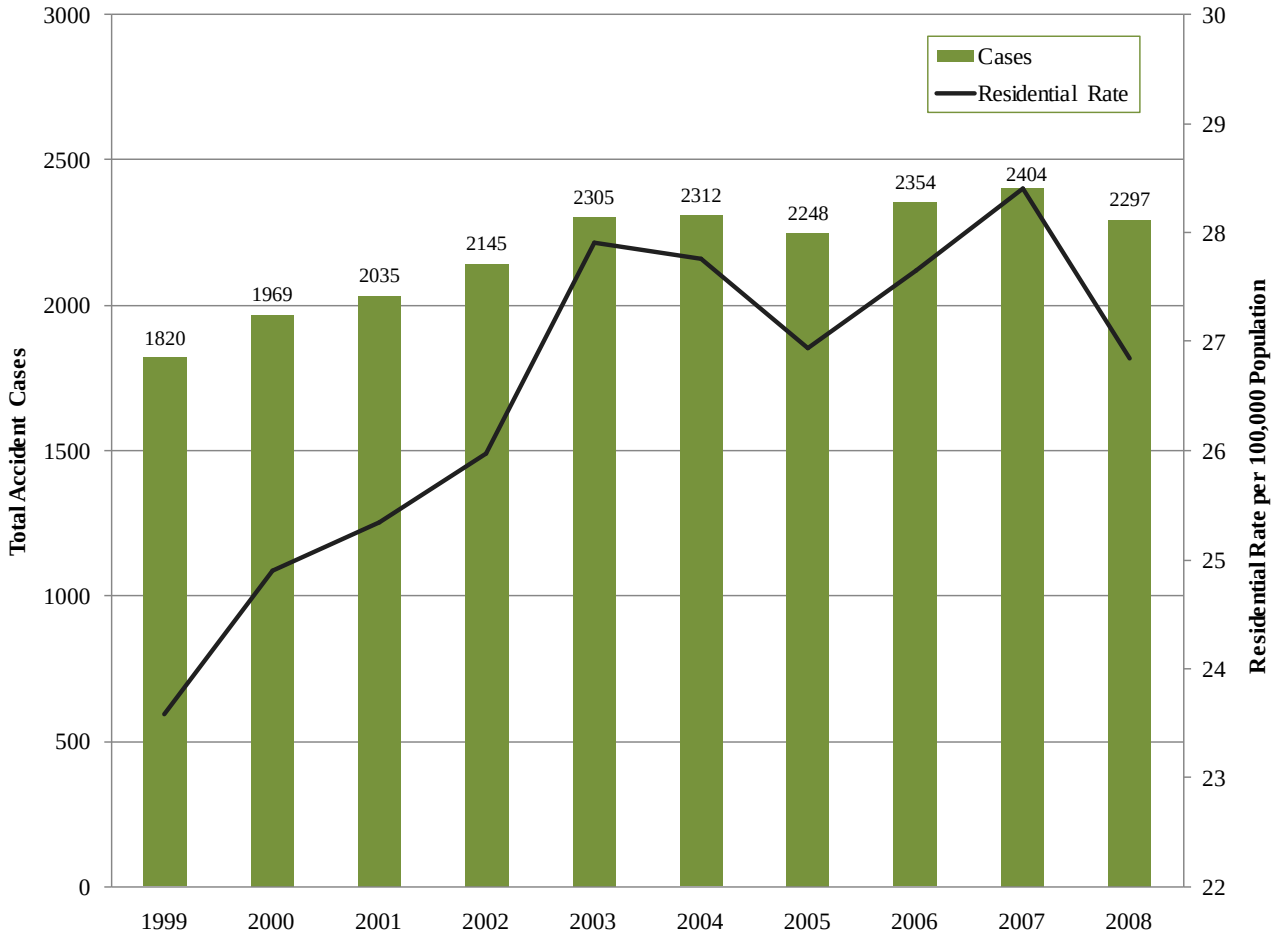


Figure 19. Accidental Deaths by Gender by Age Group, 2008

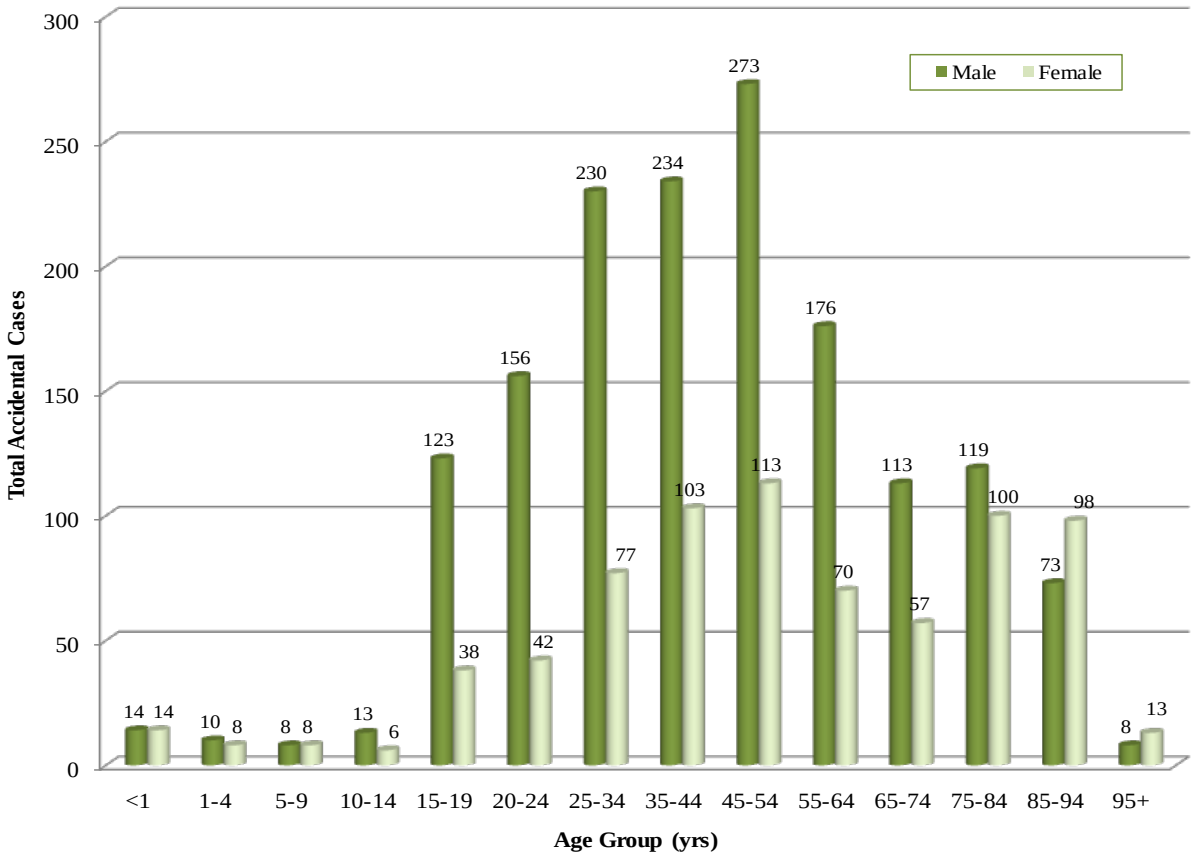


Figure 20. Proportion of Accidental Deaths by Race/Ethnicity, 2008

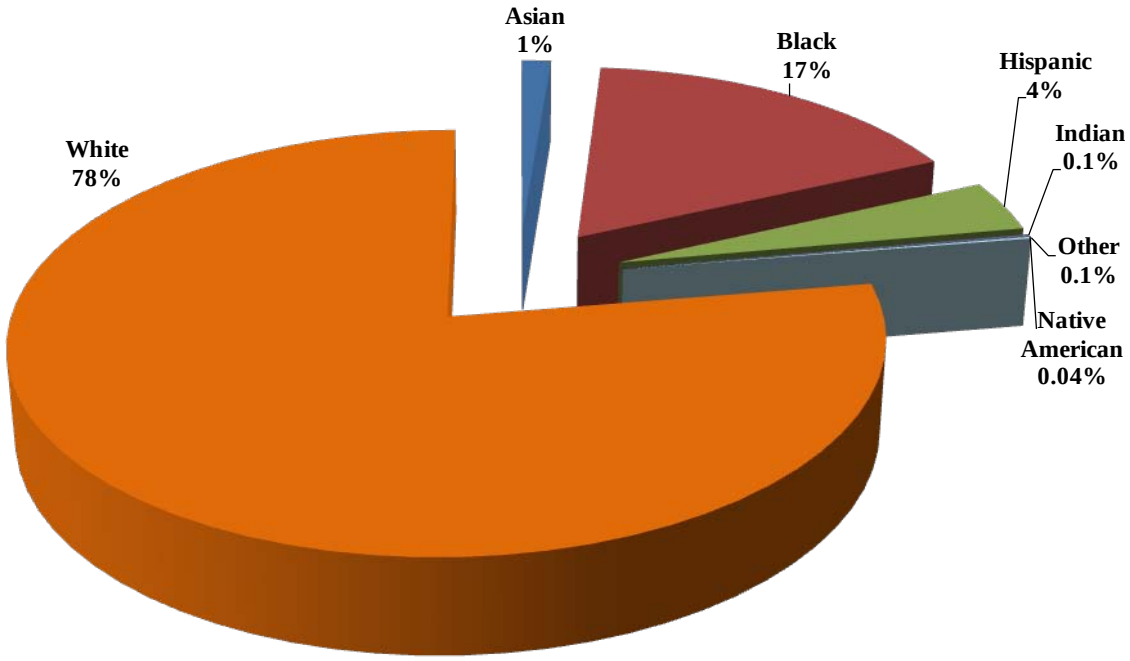


Table 12. Accidental Deaths by Method of Death, 2008

Method of Death	Total Cases	Autopsied
Animal Related		
Animal related (bitten, stung, kicked)	2	0
Asphyxia		
Choked on food/foreign object	37	7
Drowned	81	48
Hanging	3	2
Mechanical/Positional	24	16
Strangled	1	1
Suffocation/Smothering	14	12
Drug Use		
Ingested ethanol or other alcohol	21	16
Ingested and/or injected illicit, prescription, and/or OTC medication	545	423
Electrical		
Contacted electrical current	12	10
Exposure		
Exposed to cold	10	8
Exposed to heat	9	3
Fall		
Fall from any height	459	76
Fire		
Smoke inhalation	31	20
Steam/Scald	1	0
Victim of explosion	3	2
Victim of fire/burns	56	32
Motor Vehicle		
Aircraft	11	10
All Terrain Vehicle	16	0
Bicycle	13	2
Boat	2	0
Bus	4	2
Car	459	44
Dump Truck	8	4
Farm Equipment	10	0
Lawnmower	2	0
Moped	10	1
Motorcycle	86	9
Multiple	2	0
Pickup Truck	107	10
Sport Utility Vehicle	89	14
Tractor Trailer	17	6

Continued

Method of Death	Total Cases	Autopsied
Train	6	2
Truck Other	10	4
Unknown	24	11
Van	38	5
Poisoned		
Inhaled toxic agent (Carbon monoxide)	2	0
Other (Eg. Ethylene glycol)	8	6
Traumatic Injury		
Accidental discharge of firearm	12	12
Handgun	(2)	(2)
Rifle	(4)	(4)
Shotgun	(6)	(6)
Accidental cut injury	1	0
Beatings/Blows	7	2
Cave-in	3	3
Falling object	31	11
Jump	1	0
Unknown/Other		
Accidental - Unknown/Other	9	8
TOTAL	**2297**	**842**

Table 13. Top 5 Accidental Methods of Death by Age Group with Corresponding Rates, 2008

	Method of Death				
Age Group	**Drowning (Rate)**	**Fire/Smoke Inhalation (Rate)**	**Fall (Rate)**	**Drug Use (Rate)**	**Motor Vehicle (Rate)**
<1	2 (1.9)	0 (0)	0 (0)	0 (0)	3 (1.9)
1-4	2 (0.5)	2 (0.2)	1 (0.2)	0 (0)	6 (1.4)
5-9	2 (0.2)	3 (0.6)	0 (0)	0 (0)	9 (1.6)
10-14	4 (0.8)	1 (0.2)	1 (0.2)	1 (0.2)	11 (1.8)
15-19	7 (0.9)	3 (0.6)	4 (0.7)	22 (4.1)	117 (19.6)
20-24	8 (1.5)	2 (0.4)	2 (0.2)	53 (9.0)	126 (21.1)
25-34	12 (1.1)	5 (0.4)	6 (0.5)	140 (12.0)	123 (10.3)
35-44	11 (0.8)	4 (0.4)	16 (1.1)	144 (12.5)	133 (10.3)
45-54	12 (0.9)	11 (1.0)	38 (3.0)	148 (12.3)	147 (10.7)
55-64	9 (0.8)	20 (2.1)	44 (4.8)	33 (3.8)	105 (10.2)
65-74	8 (1.4)	14 (2.7)	63 (11.7)	4 (0.8)	64 (8.8)
75-84	2 (0.7)	15 (4.9)	137 (41.9)	0 (0)	48 (12.8)
85+	2 (1.6)	7 (5.8)	147 (113.4)	0 (0)	22 (16.4)
Total	**81 (0.9)**	**87 (1.1)**	**457 (5.5)**	**545 (6.7)**	**914 (10.2)**

Figure 21. Accidental Deaths by Month of Death, 2008

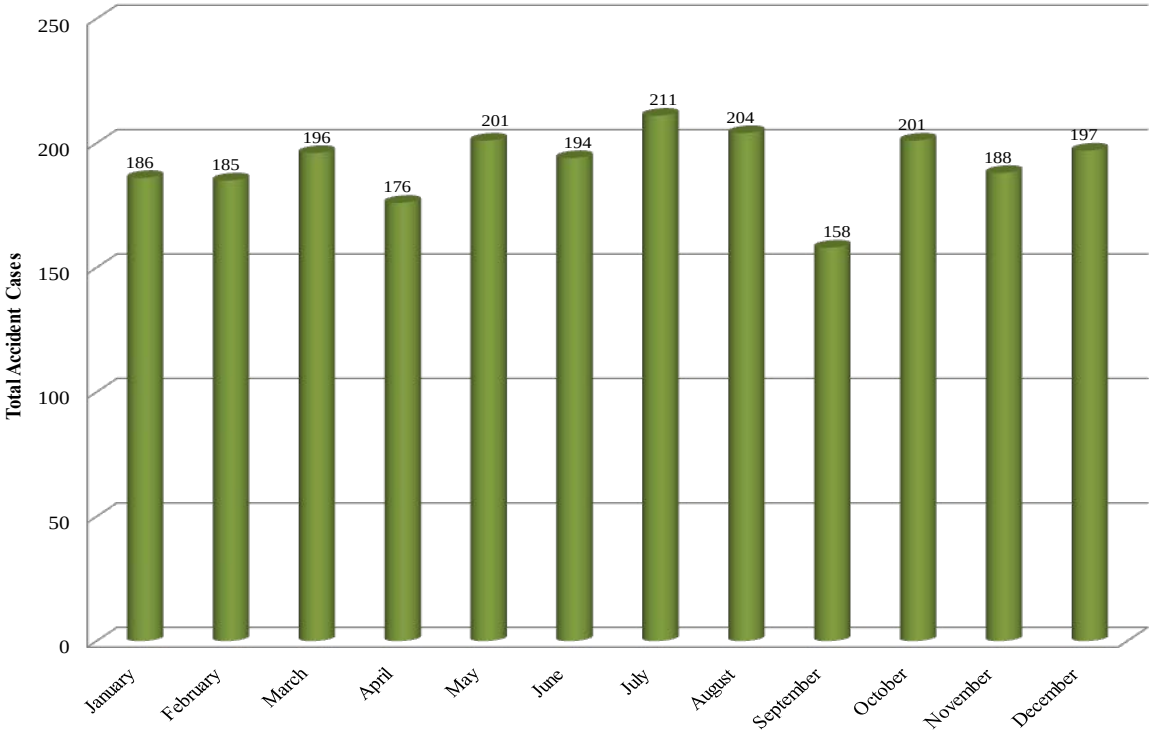


Figure 22. Accidental Deaths by Day of Death, 2008

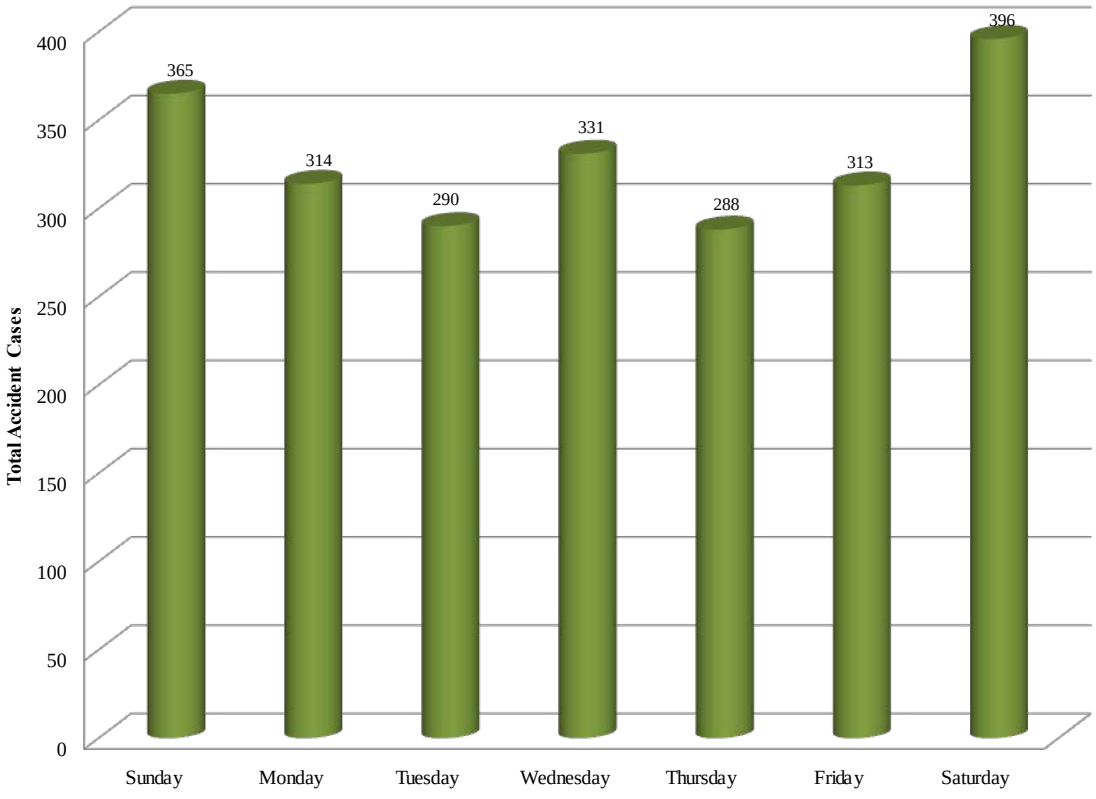


Table 14. Accidental Deaths by City/County of Injury by Year of Death, 2006-2008

	Year of Death			
County/City of Injury	**2006**	**2007**	**2008**	**Total**
Accomack	22	20	11	53
Albemarle	17	20	33	70
Alexandria	21	21	21	63
Alleghany	10	14	8	32
Amelia	4	7	11	22
Amherst	11	8	16	35
Appomattox	2	6	7	15
Arlington	18	20	30	68
Augusta	26	35	38	99
Bath	2	3	1	6
Bedford City	3	5	5	13
Bedford	22	27	16	65
Bland	0	6	2	8
Botetourt	12	12	13	37
Bristol	6	10	3	19
Brunswick	16	7	6	29
Buchanan	21	18	19	58
Buckingham	3	9	6	18
Buena Vista	0	0	1	1
Campbell	32	16	31	79
Caroline	9	14	8	31
Carroll	17	15	19	51
Charles City	4	8	7	19
Charlotte	4	6	6	16
Charlottesville	21	28	11	60
Chesapeake	55	60	47	162
Chesterfield	56	71	92	219
Clarke	5	6	5	16
Colonial Heights	6	3	4	13
Covington	4	0	2	6
Craig	7	2	2	11
Culpeper	16	24	12	52
Cumberland	1	2	4	7
Danville	16	13	22	51
Dickenson	11	16	13	40
Dinwiddie	12	14	20	46

Continued

County/City of Injury	Year of Death 2006	2007	2008	Total
Emporia	2	8	2	12
Essex	4	7	4	15
Fairfax City	3	4	5	12
Fairfax	221	157	144	522
Falls Church	2	1	0	3
Fauquier	21	32	26	79
Floyd	13	10	5	28
Fluvanna	9	7	14	30
Franklin City	2	2	1	5
Franklin	27	22	23	72
Frederick	24	25	26	75
Fredericksburg	22	14	15	51
Galax	0	3	0	3
Giles	9	5	9	23
Gloucester	21	10	16	47
Goochland	6	15	10	31
Grayson	13	5	2	20
Greene	4	14	5	23
Greensville	10	3	2	15
Halifax	15	22	27	64
Hampton	31	28	28	87
Hanover	21	27	26	74
Harrisonburg	11	1	3	15
Henrico	89	66	76	231
Henry	34	15	34	83
Highland	1	2	2	5
Hopewell	5	8	6	19
Isle of Wight	16	16	15	47
James City	17	8	24	49
King and Queen	5	7	5	17
King George	5	7	8	20
King William	3	7	5	15
Lancaster	9	9	6	24
Lee	11	16	10	37
Lexington	3	2	1	6
Loudoun	23	37	27	87
Louisa	16	24	17	57
Lunenburg	6	11	9	26
Lynchburg	13	24	24	61
Madison	3	9	6	18

Continued

	Year of Death			
County/City of Injury	**2006**	**2007**	**2008**	**Total**
Manassas	8	8	6	22
Martinsville	8	3	8	19
Mathews	8	4	1	13
Mecklenburg	18	17	11	46
Middlesex	3	7	6	16
Montgomery	15	24	27	66
Nelson	6	12	6	24
New Kent	15	6	7	28
Newport News	52	36	36	124
Norfolk	59	79	59	197
Northampton	6	8	10	24
Northumberland	2	3	8	13
Norton	3	0	1	4
Nottoway	6	8	3	17
Orange	6	14	13	33
Page	4	10	4	18
Patrick	5	7	11	23
Petersburg	16	22	14	52
Pittsylvania	28	30	37	95
Poquoson	5	1	1	7
Portsmouth	29	20	18	67
Powhatan	14	6	7	27
Prince Edward	9	16	5	30
Prince George	9	12	12	33
Prince William	69	57	65	191
Pulaski	16	23	19	58
Radford	2	5	9	16
Rappahannock	0	4	2	6
Richmond City	127	132	85	344
Richmond	2	2	6	10
Roanoke City	37	30	32	99
Roanoke	27	22	23	72
Rockbridge	12	14	10	36
Rockingham	30	21	19	70
Russell	19	19	15	53
Salem	13	7	8	28
Scott	6	8	10	24
Shenandoah	14	5	24	43
Smyth	13	10	11	34
Southampton	10	15	10	35

Continued

	Year of Death			
County/City of Injury	**2006**	**2007**	**2008**	**Total**
Spotsylvania	29	39	30	98
Stafford	18	43	25	86
Staunton	7	6	8	21
Suffolk	16	36	26	78
Surry	2	7	4	13
Sussex	13	15	17	45
Tazewell	36	11	16	63
Virginia Beach	101	105	102	308
Warren	6	11	17	34
Washington	18	20	22	60
Waynesboro	7	2	7	16
Westmoreland	13	10	11	34
Williamsburg	6	5	3	14
Winchester	15	2	4	21
Wise	31	28	15	74
Wythe	11	14	24	49
York	14	17	14	45
TOTAL IN STATE	**2316**	**2334**	**2224**	**6874**
Out of State	29	52	46	127
Unknown	8	18	27	53
TOTAL	**2353**	**2404**	**2297**	**7054**

SUICIDE DEATHS (N=949)

The number of suicides in Virginia has been increasing over the past ten years while the rate has had a modest increase. In 2008, as in previous years, suicides were most frequently in males (78%) and those aged 45-54 years old (22%).

- Whites committed suicide 3.7 times that of Hispanics, 2.3 times that of blacks, and 2.1 times that of Asians.
- Males were 3.7 times more likely to commit suicide than females.
- The female Asian suicide rate was higher than their male counterpart; this was the only racial/ethnic group where female rates were higher than the male rates where population numbers were available.
- Handguns were used in 42 percent of suicides, followed by 19.1 percent by hangings, then 14.3 percent by drug use.

Figure 23. Suicide Deaths & Rate by Year of Death, 1999-2008

Figure 24. Suicide Deaths by Age Group by Gender, 2008

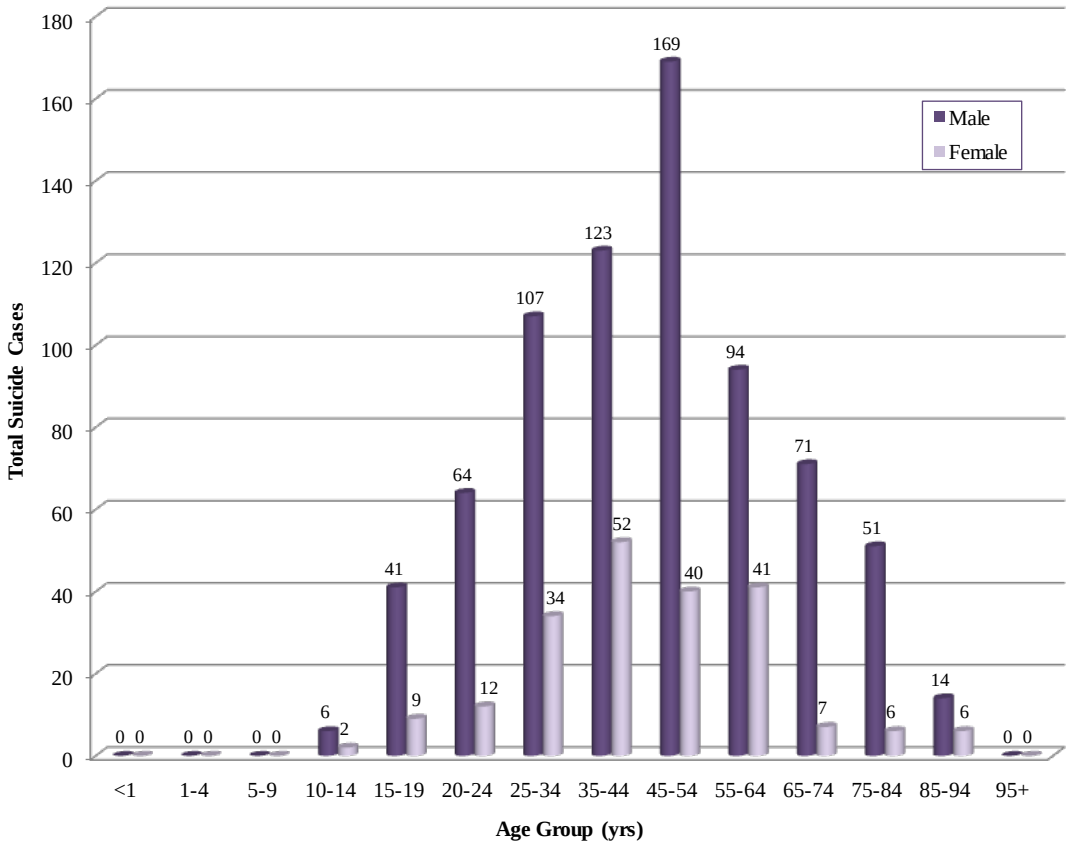


Figure 25. Suicide Deaths by Race/Ethnicity, 2008

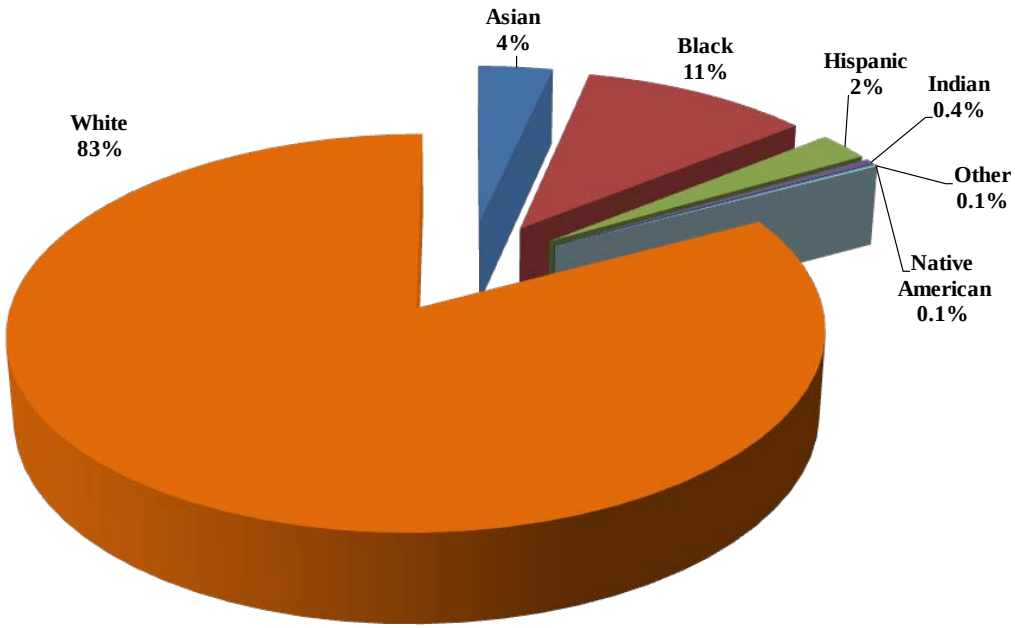


Figure 26. Suicide Deaths & Rate by Race/Ethnicity, 2008

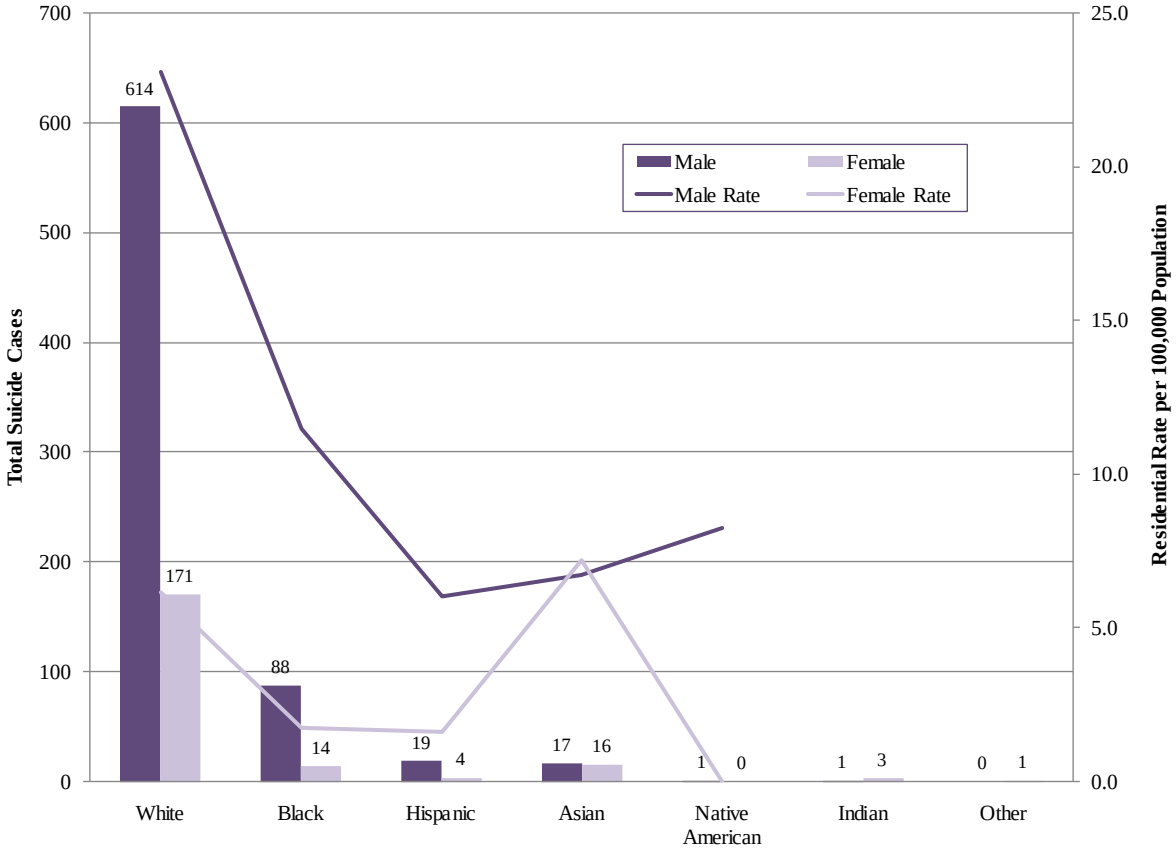


Table 15. Suicide Deaths by Method of Death, 2008

Method of Death	Total Cases	Autopsied
Asphyxia		
Drowned	15	10
Hanging	181	69
Helium	6	1
Plastic bag	8	4
Mechanical/Positional	1	0
Drug Use		
Ingested and/or injected illicit, prescription, and/or OTC medication	136	113
Electricity		
Contacted electrical current	1	1
Fall or Jump		
Jumped or fell from height	20	9
Fire		
Smoke inhalation (Carbon monoxide)	4	2
Motor Vehicle		
Car	2	1
Pickup truck	1	0
Tractor trailer	1	0
Train	3	3
Poisoned		
Carbon Monoxide - Generator or motor vehicle exhaust	15	6
Ingested and/or injected other type of poison (Ethylene glycol, etc.)	9	7
Traumatic Injury		
Cut/Stabbed self	22	17
Shot self with firearm	523	520
Handgun	(399)	(398)
Rifle	(50)	(50)
Shotgun	(73)	(72)
Unspecified	(1)	(0)
Other		
Other traumatic causes	1	1
Total	**949**	**764**

Figure 27. Suicide Deaths by Month of Death, 2008

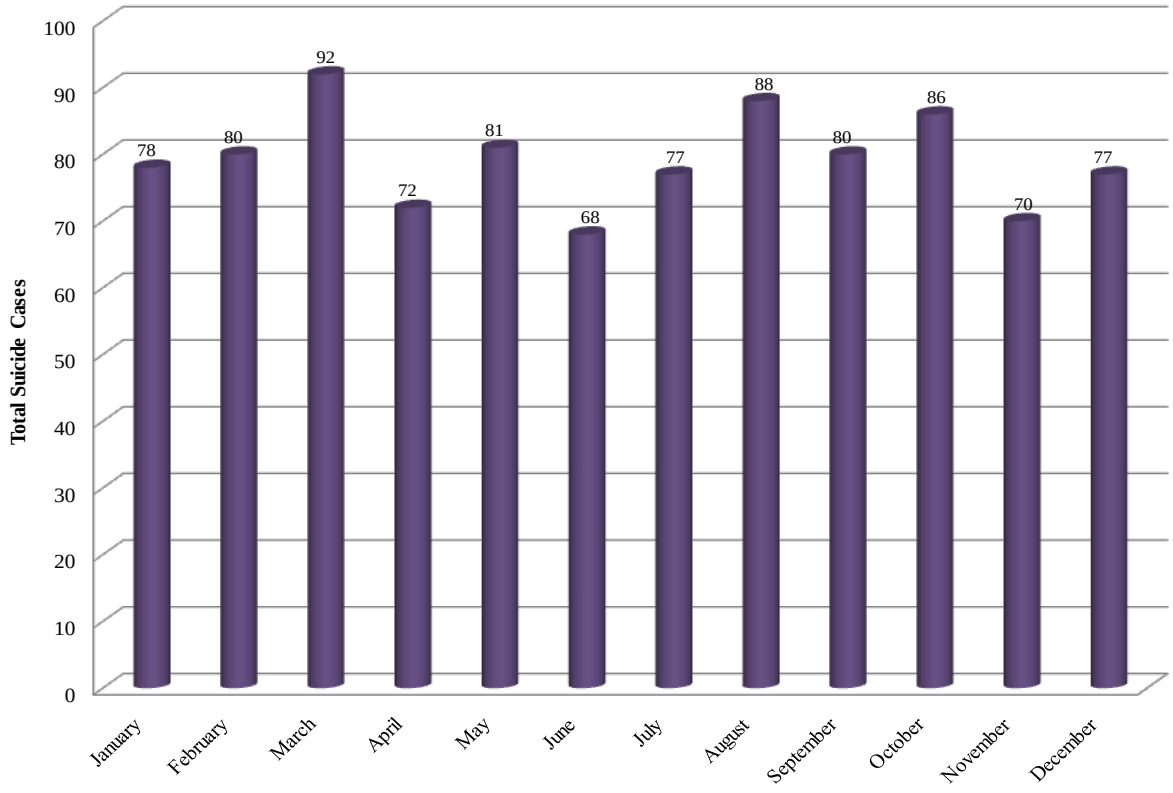


Figure 28. Suicide Deaths by Day of Death, 2008

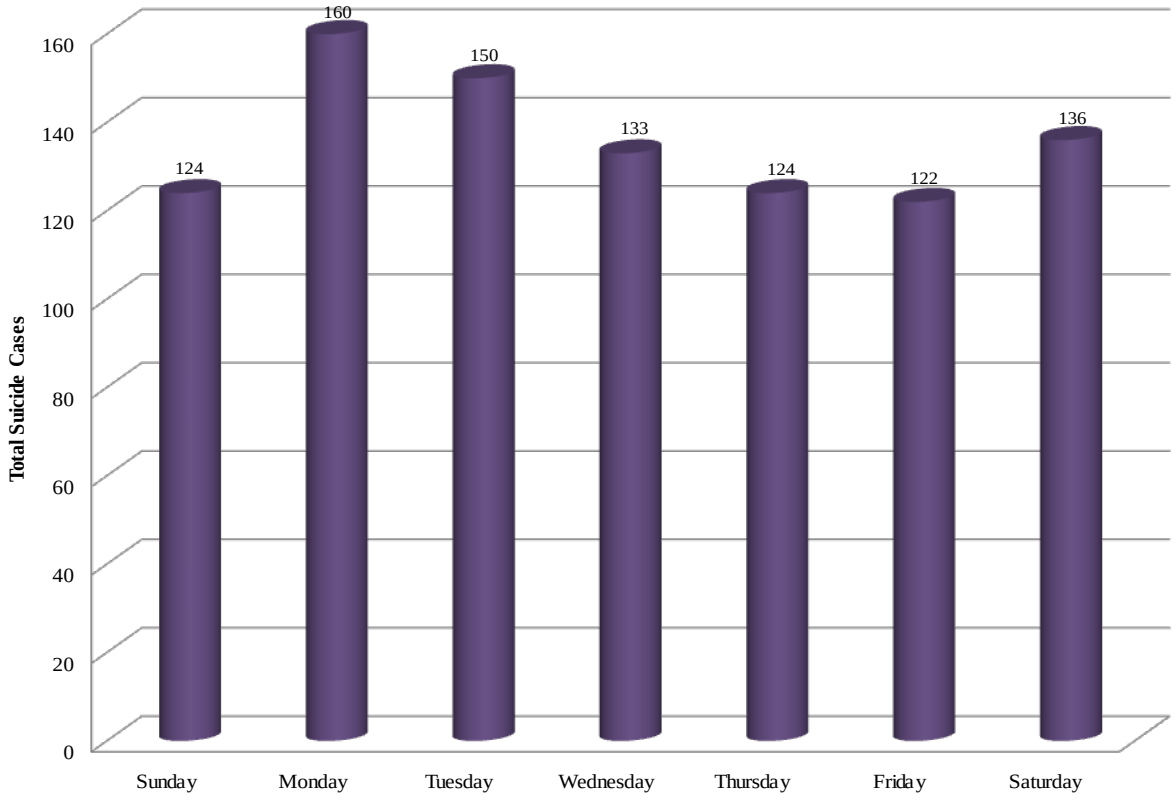


Table 16. Suicide Deaths & Rates by City/County of Residence, 2008

City/County of Residence	Total	Rate
Accomack	1	2.6
Albemarle	8	8.5
Alexandria	11	7.6
Alleghany	0	0.0
Amelia	2	15.6
Amherst	5	15.4
Appomattox	0	0.0
Arlington	26	12.4
Augusta	13	18.2
Bath	0	0.0
Bedford City	3	47.5
Bedford	9	13.5
Bland	0	0.0
Botetourt	3	9.3
Bristol	1	5.7
Brunswick	1	5.7
Buchanan	6	25.5
Buckingham	6	37.6
Buena Vista	2	30.9
Campbell	8	15.1
Caroline	3	10.9
Carroll	7	24.0
Charles City	2	27.7
Charlotte	1	8.2
Charlottesville	5	12.1
Chesapeake	21	9.5
Chesterfield	30	9.9
Clarke	2	13.8
Colonial Heights	3	16.9
Covington	1	16.3
Craig	1	19.7
Culpeper	2	4.3
Cumberland	2	20.7
Danville	4	9.0
Dickenson	4	24.4
Dinwiddie	0	0.0
Emporia	2	35.4
Essex	3	27.0
Fairfax City	4	16.8
Fairfax	79	7.8

City/County of Residence	Total	Rate
Falls Church	3	26.9
Fauquier	8	12.0
Floyd	1	6.7
Fluvanna	4	15.7
Franklin City	0	0.0
Franklin	5	9.7
Frederick	6	8.1
Fredericksburg	2	8.8
Galax	1	14.7
Giles	3	17.4
Gloucester	9	23.3
Goochland	2	9.5
Grayson	4	25.0
Greene	2	11.1
Greensville	0	0.0
Halifax	4	11.3
Hampton	17	11.7
Hanover	18	18.1
Harrisonburg	3	6.8
Henrico	26	8.9
Henry	17	30.7
Highland	0	0.0
Hopewell	1	4.3
Isle of Wight	1	2.8
James City	9	14.4
King and Queen	2	29.3
King George	2	8.6
King William	0	0.0
Lancaster	4	34.9
Lee	7	29.9
Lexington	0	0.0
Loudoun	14	4.8
Louisa	2	6.1
Lunenburg	1	7.7
Lynchburg	13	17.9
Madison	3	22.0
Manassas	9	25.6
Martinsville	0	0.0
Mathews	3	33.2
Mecklenburg	7	21.8

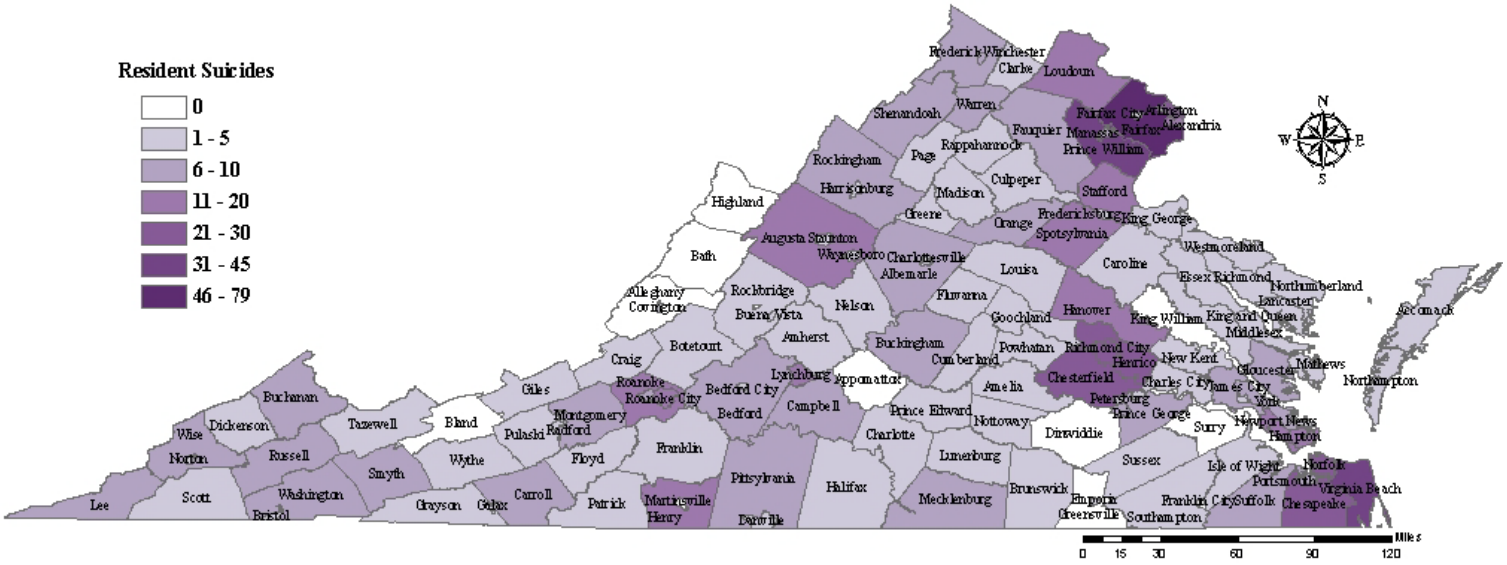
City/County of Residence	Total	Rate
Middlesex	1	9.4
Montgomery	9	10.0
Nelson	3	19.6
New Kent	2	11.2
Newport News	18	10.0
Norfolk	28	12.0
Northampton	1	7.5
Northumberland	3	23.2
Norton	1	27.0
Nottoway	3	18.9
Orange	6	18.1
Page	4	16.6
Patrick	5	26.5
Petersburg	8	24.3
Pittsylvania	6	9.8
Poquoson	1	8.5
Portsmouth	8	8.0
Powhatan	4	14.3
Prince Edward	1	4.6
Prince George	7	19.4
Prince William	36	9.9
Pulaski	2	5.7
Radford	1	6.2
Rappahannock	3	41.9
Richmond City	23	11.4
Richmond	3	32.8
Roanoke City	17	18.3
Roanoke	17	18.7
Rockbridge	5	23.2

Continued

City/County of Residence	Total	Rate
Rockingham	9	12.1
Russell	9	31.2
Salem	7	27.5
Scott	5	21.9
Shenandoah	7	17.2
Smyth	6	18.8
Southampton	3	16.2
Spotsylvania	15	12.5
Stafford	18	14.8
Staunton	1	4.2
Suffolk	10	12.2
Surry	0	0.0
Sussex	1	8.2
Tazewell	5	11.4
Virginia Beach	45	10.4
Warren	8	21.8
Washington	9	17.0
Waynesboro	3	13.7
Westmoreland	4	22.9
Williamsburg	1	8.0
Winchester	6	23.2
Wise	9	21.6
Wythe	5	17.4
York	9	14.7
TOTAL FOR STATE RESIDENTS	**915**	**11.8**
OUT OF STATE	34	ND†
TOTAL	**949**	**ND**

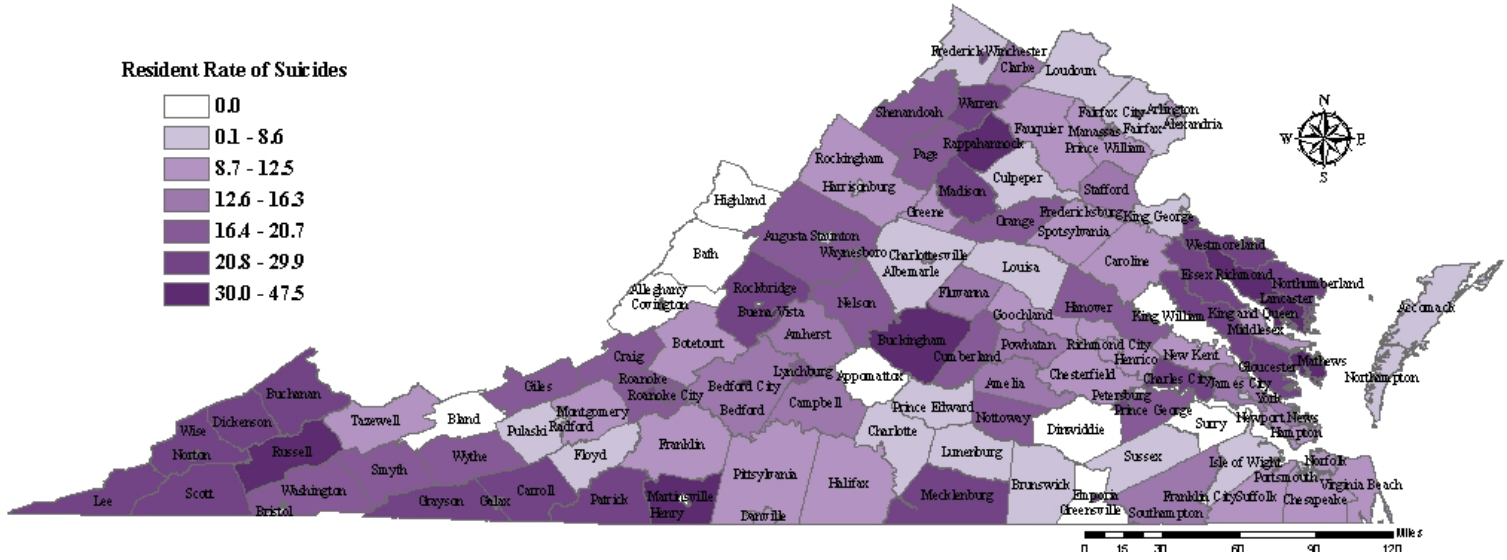
† ND- No Denominator

Figure 29. Suicide Deaths by City/County of Residence, 2008



Thirty-four suicides were non-residents. Map reflects residency but not necessarily where the fatal injury and/or death occurred.

Figure 30. Suicide Rates by City/County of Residence, 2008



Rate is per 100,000 residents. Thirty-four suicides were by non-residents.

Table 17. Suicide Deaths by City/County of Injury by Year of Death, 2006-2008

	Year of Death			
County/City of Injury	**2006**	**2007**	**2008**	**Total**
Accomack	4	2	1	7
Albemarle	2	6	8	16
Alexandria	12	11	13	36
Alleghany	3	2	0	5
Amelia	2	1	1	4
Amherst	4	6	6	16
Appomattox	2	0	0	2
Arlington	14	12	28	54
Augusta	12	11	13	36
Bath	1	0	1	2
Bedford City	1	1	1	3
Bedford	7	6	9	22
Bland	2	1	0	3
Botetourt	3	4	3	10
Bristol	4	4	1	9
Brunswick	2	2	1	5
Buchanan	5	6	7	18
Buckingham	3	3	5	11
Buena Vista	0	0	1	1
Campbell	6	3	7	16
Caroline	3	6	3	12
Carroll	6	8	6	20
Charles City	0	0	2	2
Charlotte	3	2	1	6
Charlottesville	11	7	5	23
Chesapeake	19	20	18	57
Chesterfield	29	25	32	86
Clarke	2	1	3	6
Colonial Heights	1	2	3	6
Covington	2	2	1	5
Craig	0	1	2	3
Culpeper	6	10	2	18
Cumberland	0	1	2	3
Danville	7	3	4	14
Dickenson	2	5	5	12
Dinwiddie	3	3	1	7
Emporia	3	0	2	5
Essex	0	1	3	4
Fairfax City	2	2	1	5

County/City of Injury	Year of Death 2006	2007	2008	Total
Fairfax	85	86	88	259
Falls Church	0	1	3	4
Fauquier	7	4	8	19
Floyd	2	2	1	5
Fluvanna	2	3	4	9
Franklin City	0	0	0	0
Franklin	5	8	6	19
Frederick	9	7	7	23
Fredericksburg	6	4	5	15
Galax	1	1	2	4
Giles	2	3	3	8
Gloucester	7	6	9	22
Goochland	2	5	2	9
Grayson	3	2	5	10
Greene	4	2	2	8
Greensville	2	0	0	2
Halifax	8	4	4	16
Hampton	13	16	18	47
Hanover	12	15	17	44
Harrisonburg	2	4	4	10
Henrico	37	26	25	88
Henry	11	12	19	42
Highland	0	0	0	0
Hopewell	1	1	2	4
Isle of Wight	5	1	0	6
James City	5	4	9	18
King and Queen	2	4	2	8
King George	3	2	2	7
King William	1	1	1	3
Lancaster	0	3	4	7
Lee	5	4	7	16
Lexington	0	1	0	1
Loudoun	20	23	13	56
Louisa	5	8	2	15
Lunenburg	6	1	1	8
Lynchburg	8	6	13	27
Madison	2	4	3	9
Manassas	2	3	9	14
Martinsville	0	4	0	4
Mathews	1	0	2	3
Mecklenburg	4	6	7	17
Middlesex	0	1	1	2

Continued

	Year of Death			
County/City of Injury	**2006**	**2007**	**2008**	**Total**
Montgomery	11	22	8	41
Nelson	2	1	3	6
New Kent	3	3	2	8
Newport News	11	15	18	44
Norfolk	27	34	29	90
Northampton	0	4	1	5
Northumberland	1	3	2	6
Norton	0	0	2	2
Nottoway	1	0	4	5
Orange	6	4	5	15
Page	6	5	7	18
Patrick	3	4	4	11
Petersburg	1	4	7	12
Pittsylvania	13	9	6	28
Poquoson	1	1	1	3
Portsmouth	8	14	10	32
Powhatan	5	2	4	11
Prince Edward	3	3	1	7
Prince George	6	7	7	20
Prince William	32	29	35	96
Pulaski	11	10	2	23
Radford	1	0	2	3
Rappahannock	0	4	3	7
Richmond City	32	25	22	79
Richmond	1	1	4	6
Roanoke City	10	15	19	44
Roanoke	11	7	19	37
Rockbridge	5	4	6	15
Rockingham	9	10	9	28
Russell	5	4	10	19
Salem	4	7	5	16
Scott	3	12	5	20
Shenandoah	7	5	8	20
Smyth	3	11	5	19
Southampton	4	1	4	9
Spotsylvania	13	18	17	48
Stafford	6	14	15	35
Staunton	4	7	1	12
Suffolk	11	1	10	22
Surry	0	1	0	1
Sussex	1	2	1	4
Tazewell	11	4	4	19

Continued

	Year of Death			
County/City of Injury	**2006**	**2007**	**2008**	**Total**
Virginia Beach	61	50	45	156
Warren	3	12	8	23
Washington	6	10	11	27
Waynesboro	6	3	3	12
Westmoreland	4	2	4	10
Williamsburg	10	2	1	13
Winchester	6	1	7	14
Wise	9	13	8	30
Wythe	4	4	8	16
York	3	8	11	22
Total in State	**882**	**900**	**945**	**2727**
Out of State	2	6	3	11
Unknown	0	0	1	1
TOTAL	**884**	**906**	**949**	**2739**

Continued

HOMICIDE DEATHS (N=399)

The number of homicides decreased 9.9 percent from the previous year. As previous years have shown, homicides most frequently occurred in males (74.9%), in blacks (55.9%), and those aged 25-34 years old (23.6%).

- Sixty-six percent of homicides were committed using a firearm, with handguns the most common type used in 47.1 percent of all homicides cases and 71.2 percent of all firearm homicides.
- Black males died from homicidal violence at a rate of 23.2 per 100,000; this was 3.1 times that of Hispanic males, 7.5 times that of white males, and 9.0 times that of Asian males.
- Richmond City had a substantial drop in homicide injuries leading to death from 2007 to 2008; however, the city still had the greatest number of homicide injuries leading to death with 39 followed by Norfolk with 29 and Fairfax County with 22.

Figure 31. Homicide Deaths & Rate by Year of Death, 1999-2008

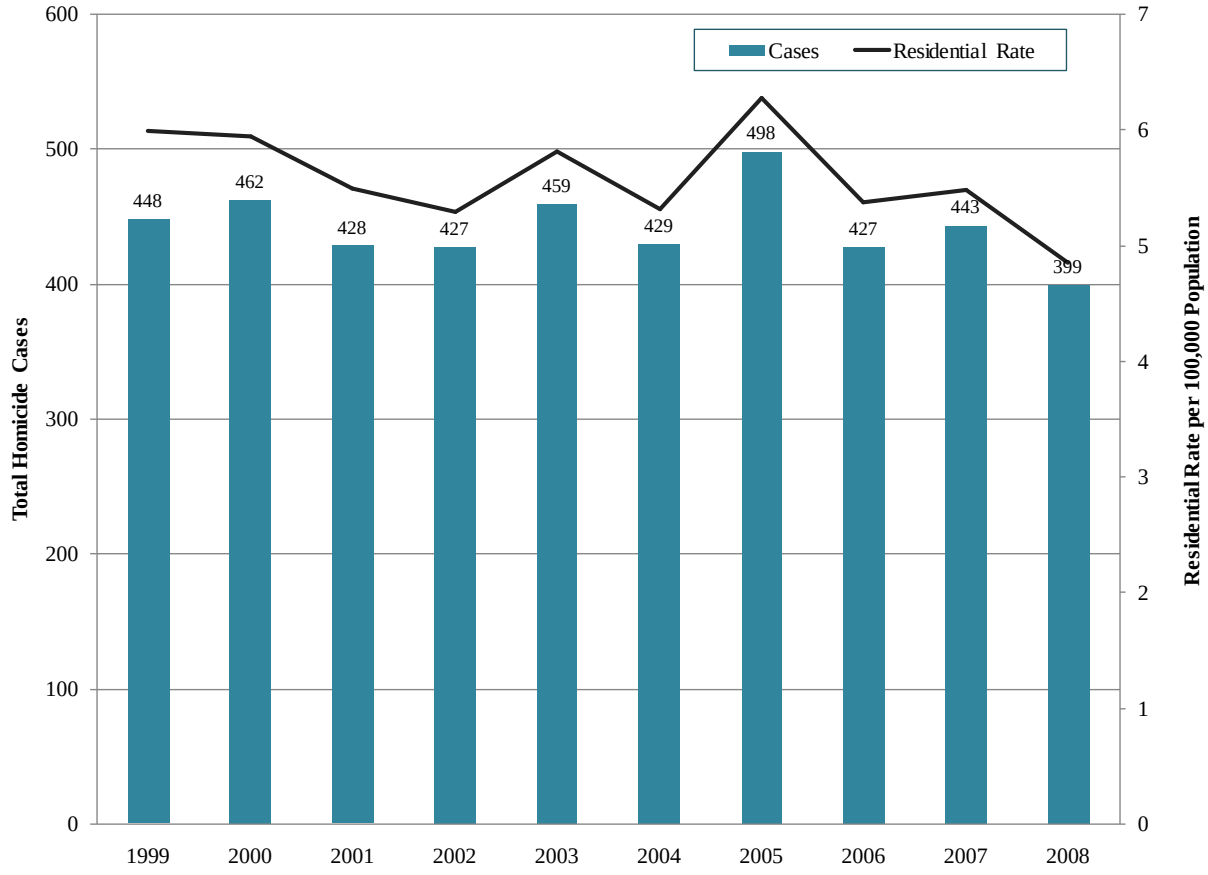


Figure 32. Homicide Deaths by Gender by Age Group, 2008

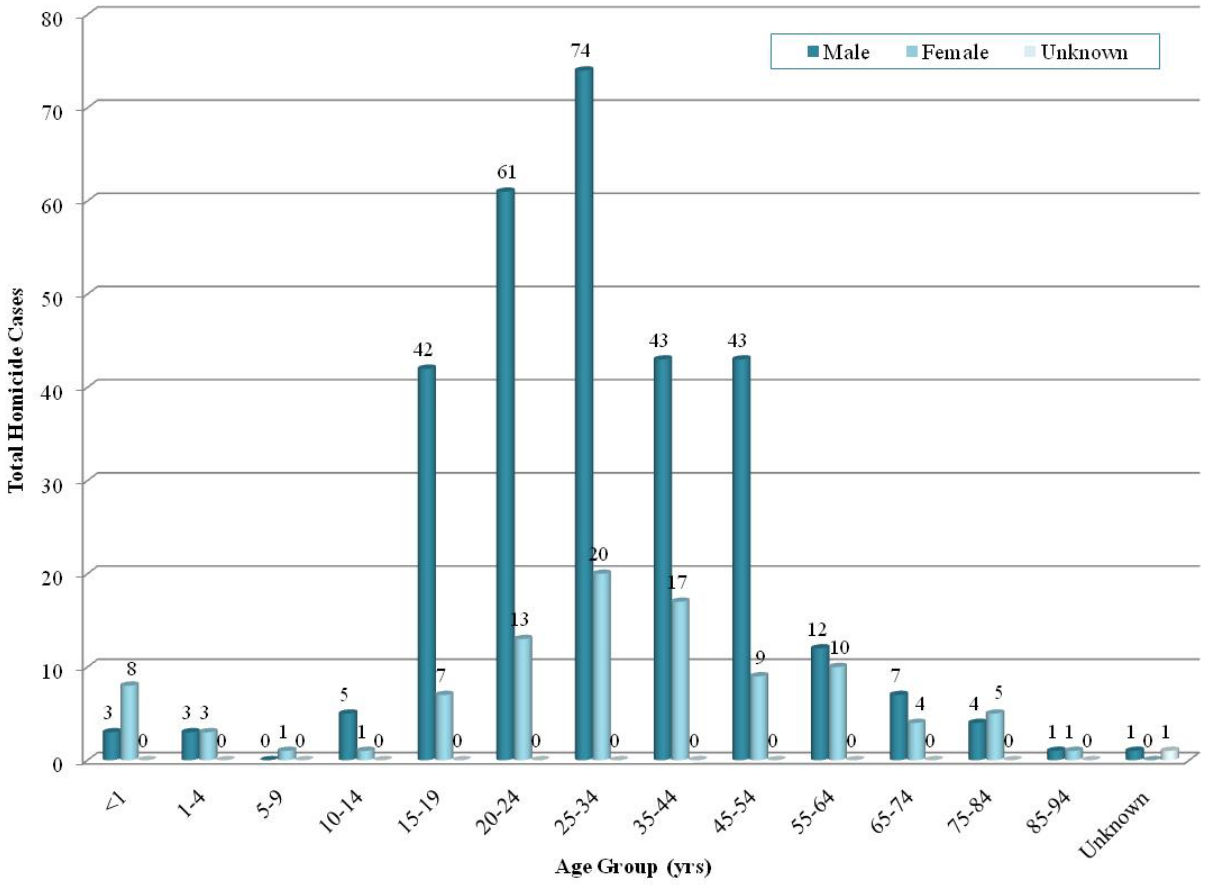


Figure 33. Homicide Deaths by Race/Ethnicity, 2008

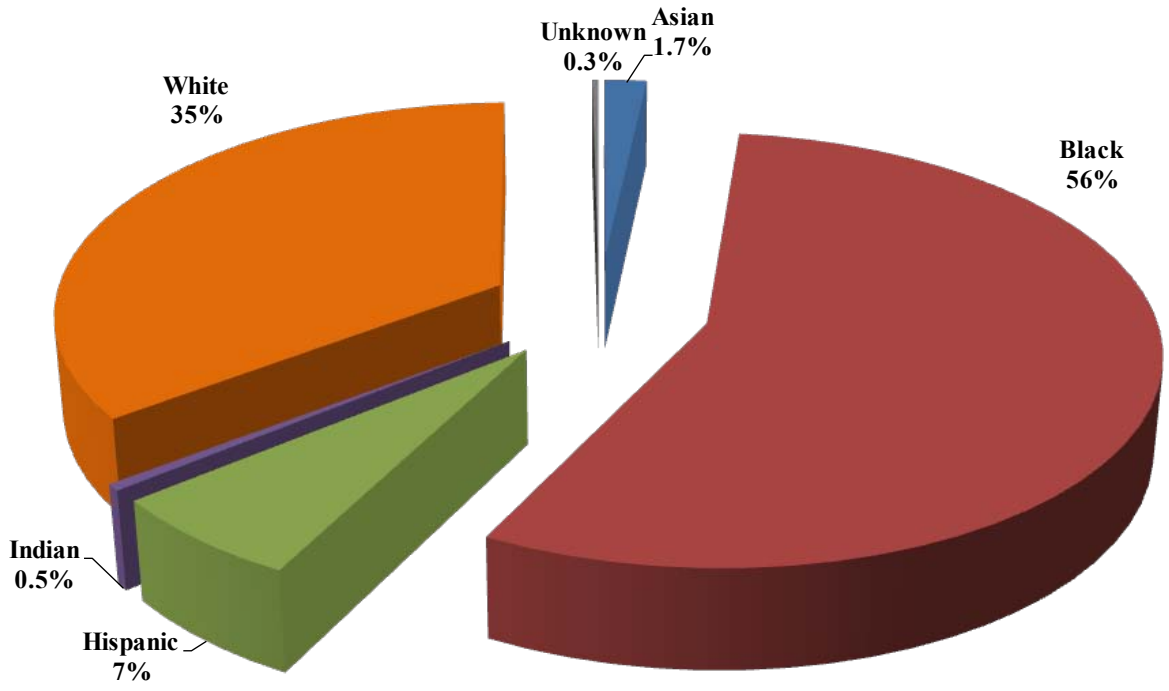


Figure 34. Homicide Deaths & Rates by Race/Ethnicity by Gender, 2008

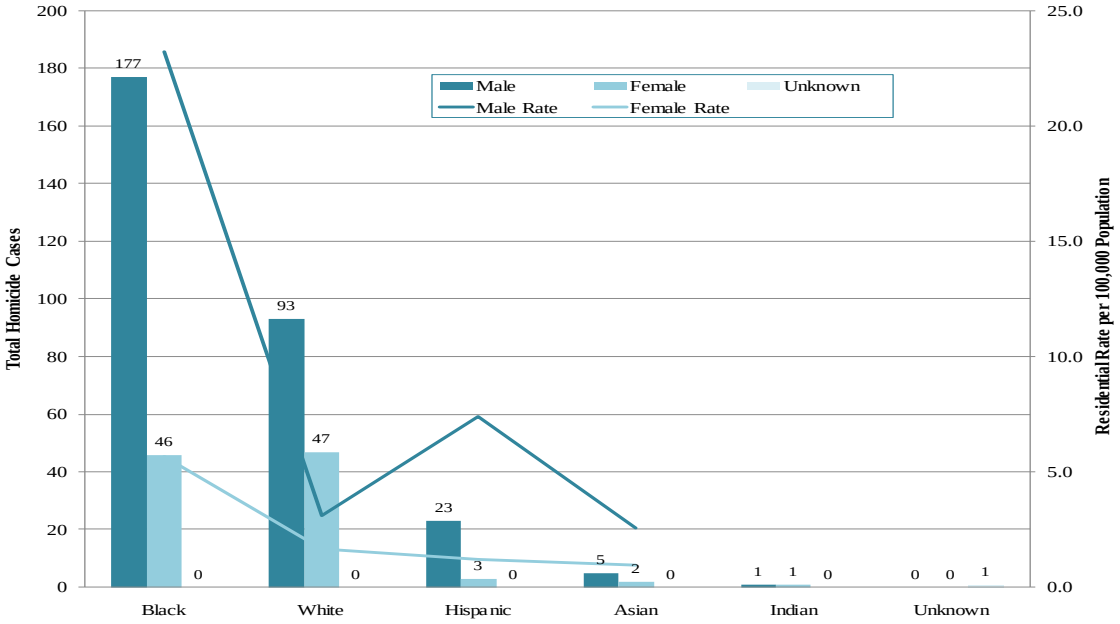


Table 18. Homicide Deaths by Method of Death, 2008

Method of Death	Total Cases	Autopsied
Asphyxia		
Strangled by assailant(s)	10	10
Suffocated/Smothered by assailant(s)	1	1
Fire		
Thermal and/or inhalation injuries	2	2
Legal Intervention		
Lethal injection	3	3
Motor Vehicle		
Run over by vehicle	4	3
Poisoned		
Poisoned by ethanol and/or drugs	2	2
Traumatic Injury		
Beaten by assailant(s)	35	35
Fall/Push	1	1
Other traumatic violence	8	8
Stabbed by assailant(s)	66	66
Shot by assailant(s)	264	263
Handgun	(188)	(188)
Multiple	(2)	(2)
Rifle	(14)	(14)
Shotgun	(17)	(17)
Unspecified	(43)	(42)
Unknown		
Undetermined method	3	3
TOTAL	**399**	**397**

Figure 35. Homicide Deaths by Leading Methods of Death, 2008

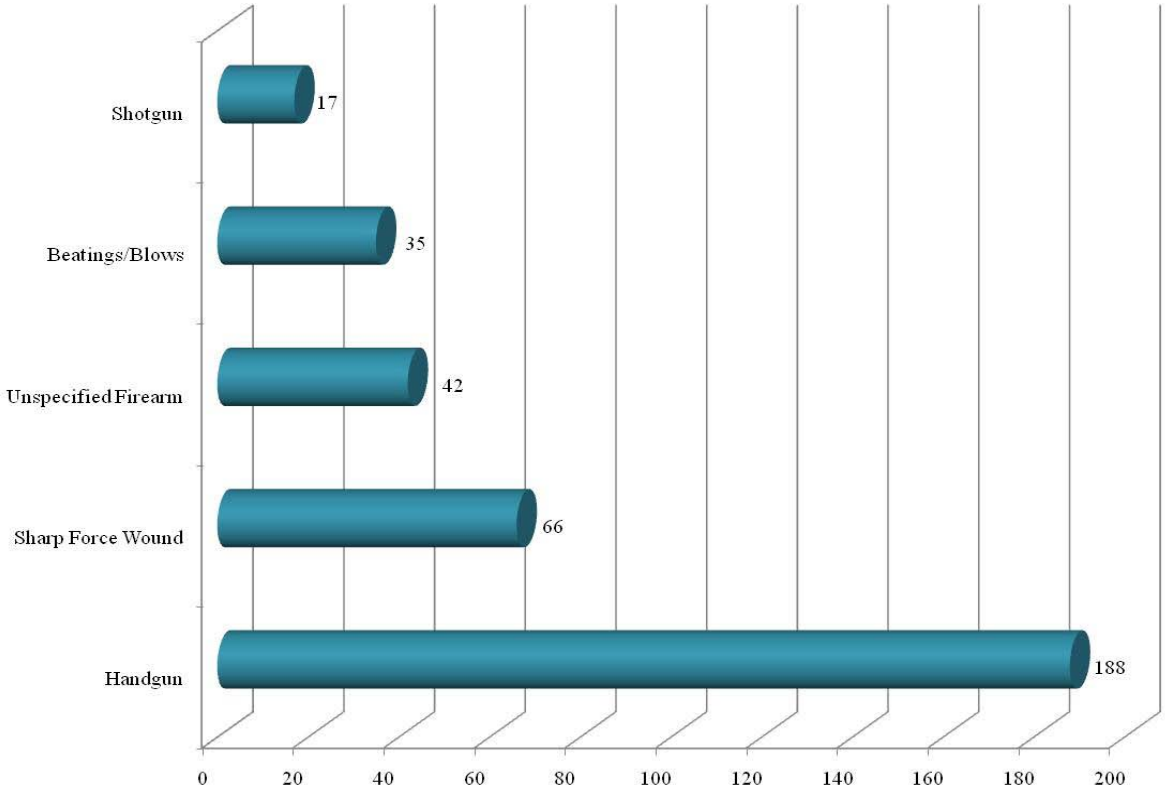


Table 19. Homicide Deaths by City/County of Residence, 2008

City/County of Residency	Total	Rate
Accomack	3	7.9
Albemarle	1	1.1
Alexandria	5	3.5
Alleghany	1	6.2
Amelia	1	7.8
Amherst	1	3.1
Appomattox	1	6.9
Arlington	4	1.9
Augusta	3	4.2
Bath	1	22.0
Bedford City	1	15.8
Bedford	2	3.0
Bland	0	0.0
Botetourt	1	3.1
Bristol	0	0.0
Brunswick	3	17.1
Buchanan	2	8.5

City/County of Residency	Total	Rate
Buckingham	0	0.0
Buena Vista	0	0.0
Campbell	3	5.7
Caroline	0	0.0
Carroll	0	0.0
Charles City	1	13.9
Charlotte	0	0.0
Charlottesville	4	9.6
Chesapeake	12	5.5
Chesterfield	12	4.0
Clarke	0	0.0
Colonial Heights	0	0.0
Covington	0	0.0
Craig	0	0.0
Culpeper	0	0.0
Cumberland	0	0.0
Danville	10	22.4

City/County of Residency	Total	Rate
Dickenson	1	6.1
Dinwiddie	0	0.0
Emporia	1	17.7
Essex	0	0.0
Fairfax City	1	4.2
Fairfax	22	2.2
Falls Church	0	0.0
Fauquier	1	1.5
Floyd	2	13.5
Fluvanna	4	15.7
Franklin City	0	0.0
Franklin	1	1.9
Frederick	2	2.7
Fredericksburg	1	4.4
Galax	2	29.4
Giles	0	0.0
Gloucester	1	2.6
Goochland	1	4.8
Grayson	2	12.5
Greene	0	0.0
Greensville	3	25.1
Halifax	3	8.5
Hampton	10	6.9
Hanover	2	2.0
Harrisonburg	1	2.3
Henrico	17	5.8
Henry	7	12.7
Highland	0	0.0
Hopewell	3	13.0
Isle of Wight	3	8.5
James City	1	1.6
King and Queen	0	0.0
King George	1	4.3
King William	0	0.0
Lancaster	0	0.0
Lee	2	8.5
Lexington	0	0.0
Loudoun	4	1.4
Louisa	1	3.1
Lunenburg	2	15.5
Lynchburg	3	4.1

Continued

City/County of Residency	Total	Rate
Madison	1	7.3
Manassas	2	5.7
Martinsville	1	6.9
Mathews	0	0.0
Mecklenburg	4	12.4
Middlesex	0	0.0
Montgomery	3	3.3
Nelson	0	0.0
New Kent	2	11.2
Newport News	13	7.2
Norfolk	27	11.5
Northampton	0	0.0
Northumberland	0	0.0
Norton	0	0.0
Nottoway	0	0.0
Orange	1	3.0
Page	0	0.0
Patrick	0	0.0
Petersburg	4	12.2
Pittsylvania	3	4.9
Poquoson	0	0.0
Portsmouth	13	12.9
Powhatan	5	17.9
Prince Edward	2	9.2
Prince George	0	0.0
Prince William	13	3.6
Pulaski	1	2.9
Radford	2	12.4
Rappahannock	0	0.0
Richmond City	40	19.8
Richmond	0	0.0
Roanoke City	9	9.7
Roanoke	4	4.4
Rockbridge	0	0.0
Rockingham	0	0.0
Russell	1	3.5
Salem	1	3.9
Scott	1	4.4
Shenandoah	2	4.9
Smyth	3	9.4
Southampton	0	0.0

City/County of Residency	Total	Rate
Spotsylvania	1	0.8
Stafford	7	5.8
Staunton	1	4.2
Suffolk	6	7.3
Surry	1	14.0
Sussex	0	0.0
Tazewell	2	4.6
Virginia Beach	20	4.6
Warren	0	0.0
Washington	0	0.0
Waynesboro	0	0.0
Westmoreland	1	5.7

Continued

City/County of Residency	Total	Rate
Williamsburg	0	0.0
Winchester	0	0.0
Wise	0	0.0
Wythe	2	7.0
York	1	1.6
TOTAL FOR STATE RESIDENTS	**377**	**4.9**
Out of Country	21	ND†
Out of State	0	ND
Unknown	1	ND
TOTAL	**399**	**ND**

† ND- No Denominator

Table 20. Top 10 Homicide Deaths by City/County of Residence, 2008

City/County of Residency	Total
Richmond City	40
Norfolk	27
Fairfax	22
Virginia Beach	20
Henrico	17
Newport News	13
Portsmouth	13
Prince William	13
Chesapeake	12
Chesterfield	12

Table 21. Top 10 Homicide Rates by City/County of Residence, 2008

City/County of Residency	Rate
Galax	29.4
Greensville	25.1
Danville	22.4
Bath	22.0
Richmond City	19.8
Powhatan	17.9
Emporia	17.7
Brunswick	17.1
Bedford City	15.8
Fluvanna	15.7

Table 22. Homicide Deaths by City/County of Injury, 2006-2008

	Year of Death			
County/City of Injury	**2006**	**2007**	**2008**	**Total**
Accomack	5	6	2	13
Albemarle	1	1	2	4
Alexandria	4	7	4	15
Alleghany	0	3	1	4
Amelia	0	0	0	0
Amherst	0	1	1	2
Appomattox	0	2	1	3
Arlington	3	2	4	9
Augusta	3	1	0	4
Bath	0	0	0	0
Bedford City	0	0	1	1
Bedford	1	2	0	3
Bland	0	0	0	0
Botetourt	0	1	0	1
Bristol	4	0	0	4
Brunswick	3	1	2	6
Buchanan	1	0	2	3
Buckingham	1	2	0	3
Buena Vista	0	0	0	0
Campbell	2	2	2	6
Caroline	5	4	0	9
Carroll	1	4	1	6
Charles City	0	0	1	1
Charlotte	0	0	2	2
Charlottesville	5	3	5	13
Chesapeake	7	15	12	34
Chesterfield	5	9	12	26
Clarke	0	0	1	1
Colonial Heights	0	0	0	0
Covington	0	0	0	0
Craig	0	0	1	1
Culpeper	1	1	0	2
Cumberland	0	2	0	2
Danville	5	6	10	21
Dickenson	0	1	1	2
Dinwiddie	5	1	1	7
Emporia	1	2	1	4
Essex	0	0	0	0
Fairfax City	1	1	1	3

	Year of Death			*Continued*
County/City of Injury	**2006**	**2007**	**2008**	**Total**
Fairfax	29	16	25	70
Falls Church	0	0	0	0
Fauquier	2	4	1	7
Floyd	0	0	2	2
Fluvanna	0	0	1	1
Franklin City	0	0	0	0
Franklin	2	1	1	4
Frederick	7	0	2	9
Fredericksburg	0	2	2	4
Galax	1	1	0	2
Giles	1	0	0	1
Gloucester	0	1	1	2
Goochland	1	0	2	3
Grayson	0	1	7	8
Greene	0	1	0	1
Greensville	5	0	6	11
Halifax	1	3	4	8
Hampton	14	7	9	30
Hanover	2	0	1	3
Harrisonburg	4	0	1	5
Henrico	10	15	16	41
Henry	7	3	6	16
Highland	0	0	0	0
Hopewell	4	3	3	10
Isle of Wight	1	0	2	3
James City	1	1	1	3
King and Queen	0	0	0	0
King George	0	0	0	0
King William	0	2	0	2
Lancaster	2	0	1	3
Lee	0	1	2	3
Lexington	0	0	0	0
Loudoun	4	2	4	10
Louisa	0	4	1	5
Lunenburg	1	1	2	4
Lynchburg	2	1	4	7
Madison	0	0	1	1
Manassas	1	1	4	6
Martinsville	0	2	2	4
Mathews	0	0	0	0

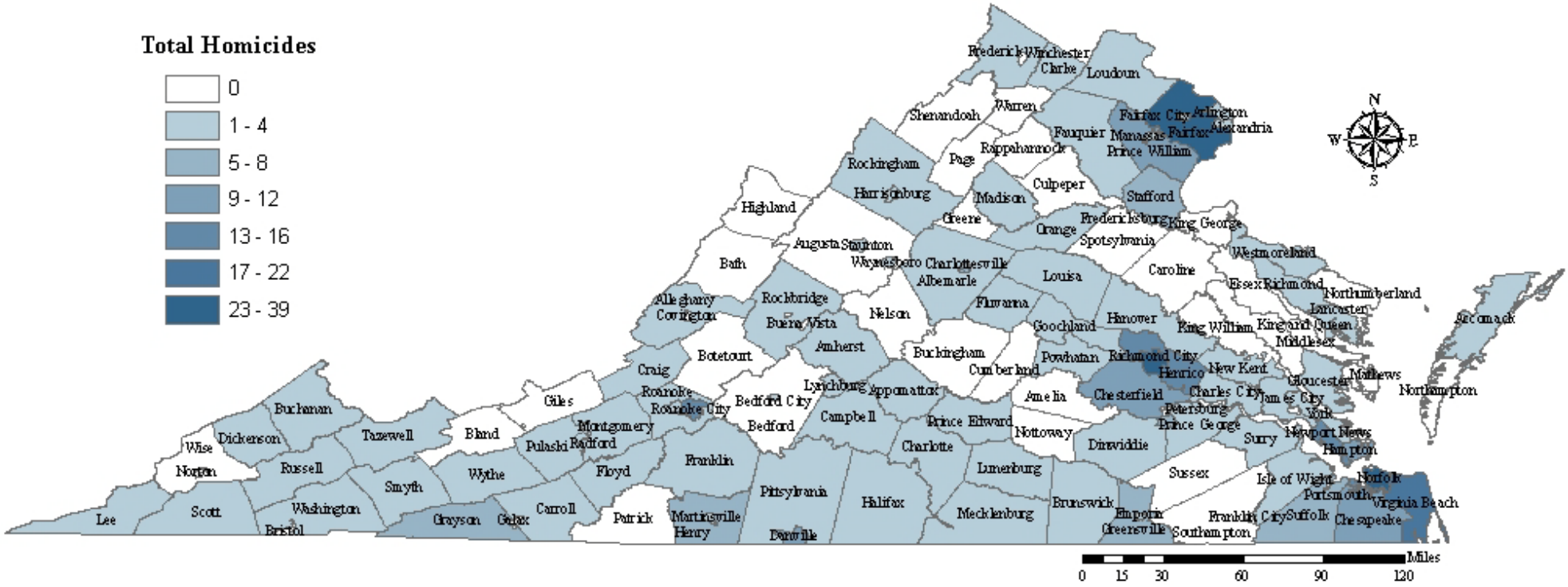
	Year of Death			*Continued*
County/City of Injury	**2006**	**2007**	**2008**	**Total**
Mecklenburg	0	1	4	5
Middlesex	1	0	0	1
Montgomery	3	33	3	39
Nelson	0	1	0	1
New Kent	0	0	1	1
Newport News	20	30	16	66
Norfolk	34	53	29	116
Northampton	2	1	0	3
Northumberland	0	1	0	1
Norton	0	0	0	0
Nottoway	0	1	0	1
Orange	2	1	1	4
Page	1	0	0	1
Patrick	0	1	0	1
Petersburg	10	7	5	22
Pittsylvania	2	4	3	9
Poquoson	0	0	0	0
Portsmouth	18	17	16	51
Powhatan	0	0	4	4
Prince Edward	0	1	1	2
Prince George	0	0	1	1
Prince William	12	14	11	37
Pulaski	1	0	2	3
Radford	1	0	1	2
Rappahannock	1	0	0	1
Richmond City	85	61	39	185
Richmond	0	0	1	1
Roanoke City	13	8	13	34
Roanoke	1	2	1	4
Rockbridge	0	1	1	2
Rockingham	1	0	1	2
Russell	2	0	1	3
Salem	0	0	2	2
Scott	0	2	1	3
Shenandoah	0	0	0	0
Smyth	0	0	3	3
Southampton	1	3	0	4
Spotsylvania	4	4	0	8
Stafford	1	3	6	10
Staunton	0	0	2	2

	Year of Death			*Continued*
County/City of Injury	**2006**	**2007**	**2008**	**Total**
Suffolk	8	3	5	16
Surry	0	0	1	1
Sussex	1	0	0	1
Tazewell	0	3	2	5
Virginia Beach	20	18	18	56
Warren	2	0	0	2
Washington	0	1	2	3
Waynesboro	0	1	1	2
Westmoreland	2	1	1	4
Williamsburg	1	0	0	1
Winchester	2	2	0	4
Wise	0	2	0	2
Wythe	1	0	2	3
York	3	1	1	5
Total in State	**422**	**435**	**387**	**1244**
Out of State	1	6	4	11
Unknown	4	2	8	14
TOTAL	**427**	**443**	**399**	**1269**

Table 23. Top 10 Homicide Deaths by City/County of Injury, 2008

County/City of Injury	Total Cases
Richmond City	39
Norfolk	29
Fairfax	25
Virginia Beach	18
Henrico	16
Newport News	16
Portsmouth	16
Roanoke City	13
Chesapeake	12
Chesterfield	12

Figure 36. Homicide Deaths by City/County of Injury, 2008



UNDETERMINED DEATHS (N=139)

Undetermined deaths have increased substantially in the last few years mostly due to establishing the category of death, Sudden Unexpected Infant Death (SUID). Cases where the cause of death was established but the manner of death was undetermined represented 33.8 percent of deaths with handguns the most frequently associated cause of death (40.4%) followed by drug use (29.8%).

- Forty-five percent of the undetermined manner and cause of death deaths were in children under the age of one.
- Sixty percent of the undetermined manner and cause of death cases were designated as SUID
  - SUID cases increased 27.9 percent from 2007

Figure 37. Undetermined Deaths & Rate by Year of Death, 1999-2008

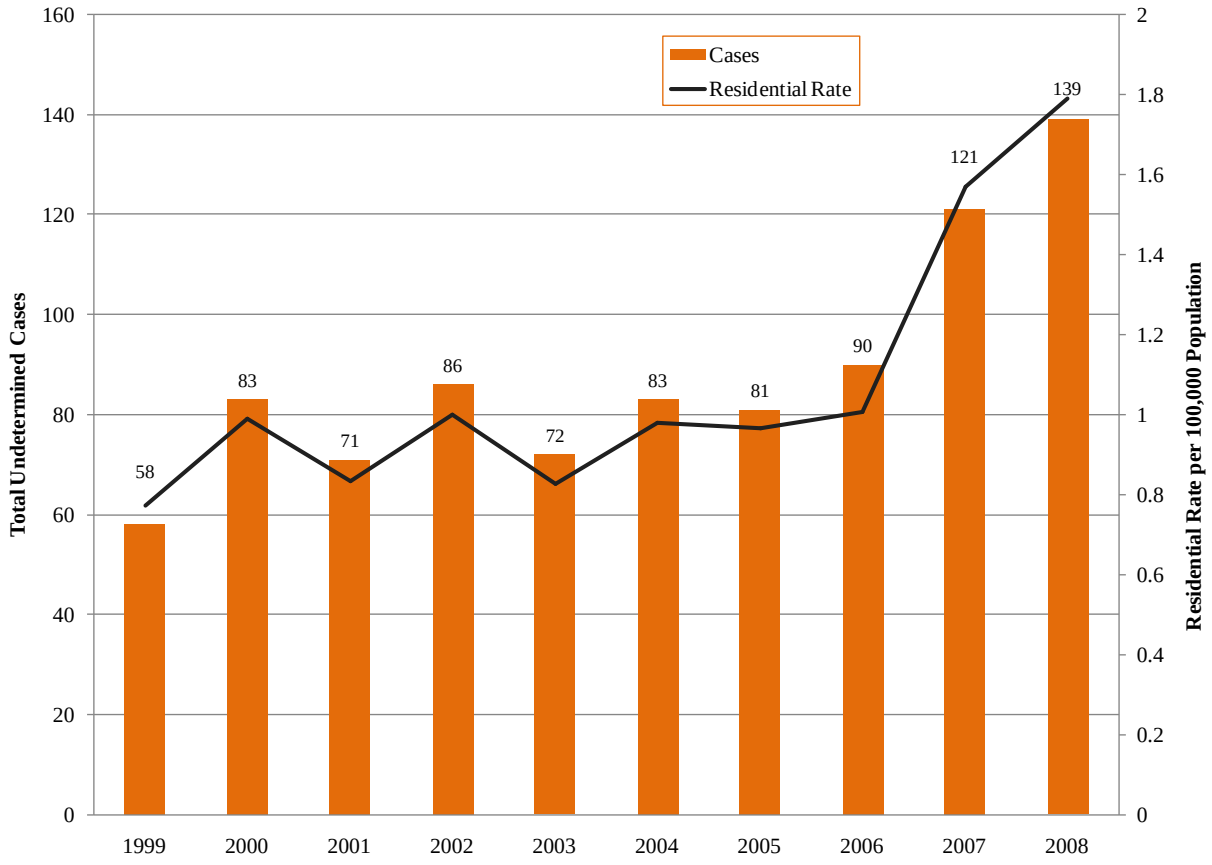


Figure 38. Undetermined Deaths by Age Group by Gender, 2008

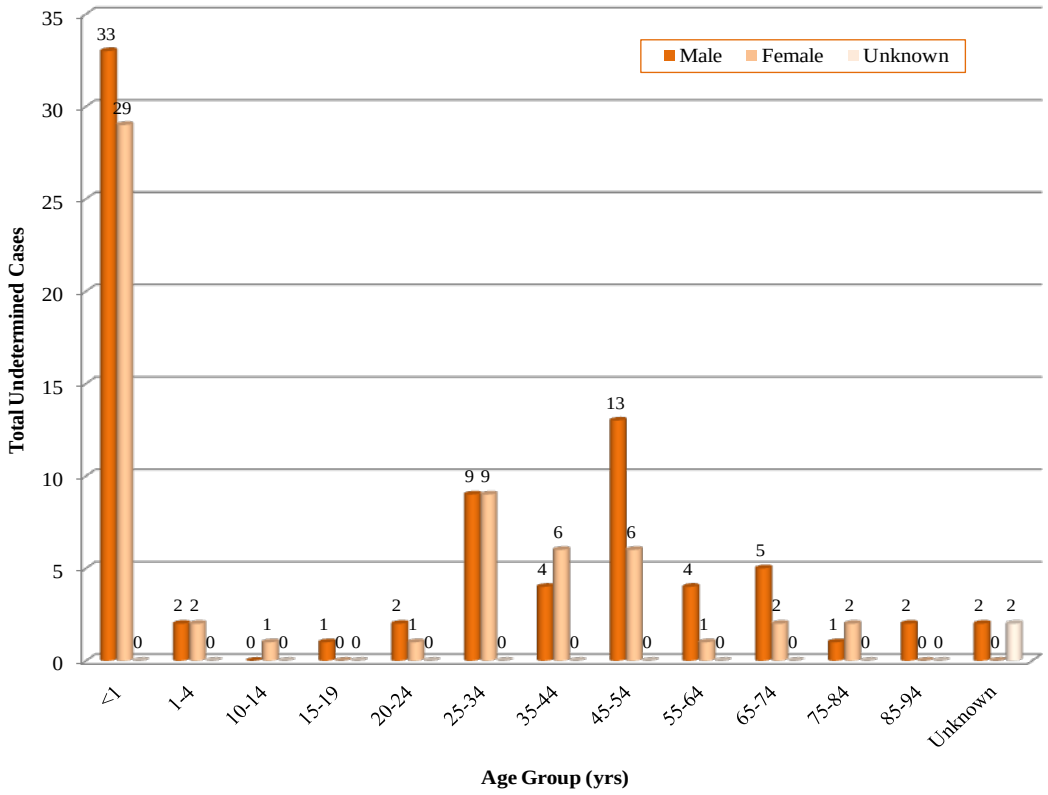


Figure 39. Undetermined Deaths by Race/Ethnicity, 2008

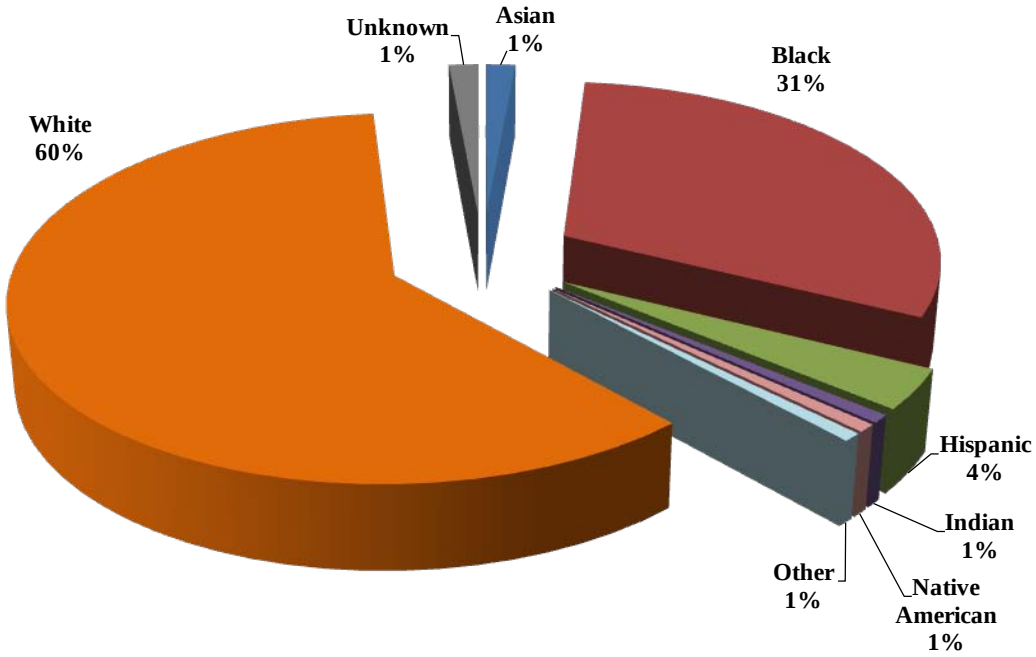


Table 24. Undetermined Deaths by Method of Death, 2008

	Total Cases	Autopsied
Undetermined Manner & Cause of Death		
Undetermined after autopsy and/or toxicology	92	92
Subtotal for Undetermined Manner & Cause of Death	92	92
Undetermined Manner but Cause of Death Determined		
Asphyxia		
Strangulation	2	2
Drug Use		
Ingested and/or injected illicit, prescription, and/or OTC medication	14	11
Fire		
Smoke inhalation	1	1
Victim of fire	4	4
Motor Vehicle		
Pickup Truck	1	0
Sport Utility Vehicle	1	1
Traumatic Injury		
Beatings/Blows	4	4
Gunshot Wound	19	19
Handgun	16	16
Shotgun	3	3
Other Traumatic Causes	1	1
Subtotal for Undetermined Manner but Cause of Death Determined	47	43
Total	**139**	**135**

SECTION 4: DEATHS OF CHILDREN (17 Years of Age & Younger) (N=373)

The 373 deaths of children represented 6.4 percent of all deaths investigated by the OCME in 2008. This is a decrease of 4 percent from the number of children deaths in 2007.

- Males represented 60.9 percent of all child cases.
- The less than one year age group had the largest percentage of cases (40.1%).
- The leading causes of death were blunt force injuries to the head or neck (68 or 18.2%), followed by SUID cases (55 or 14.7%), then multiple blunt force injuries (28 or 7.5%).
- For OCME cases, black children died at a rate 1.5 times greater than that of white children, 3.7 times greater than that of Hispanic children, and 4 times that of Asian children

Figure 40. Deaths of Children by Manner of Death, 2008

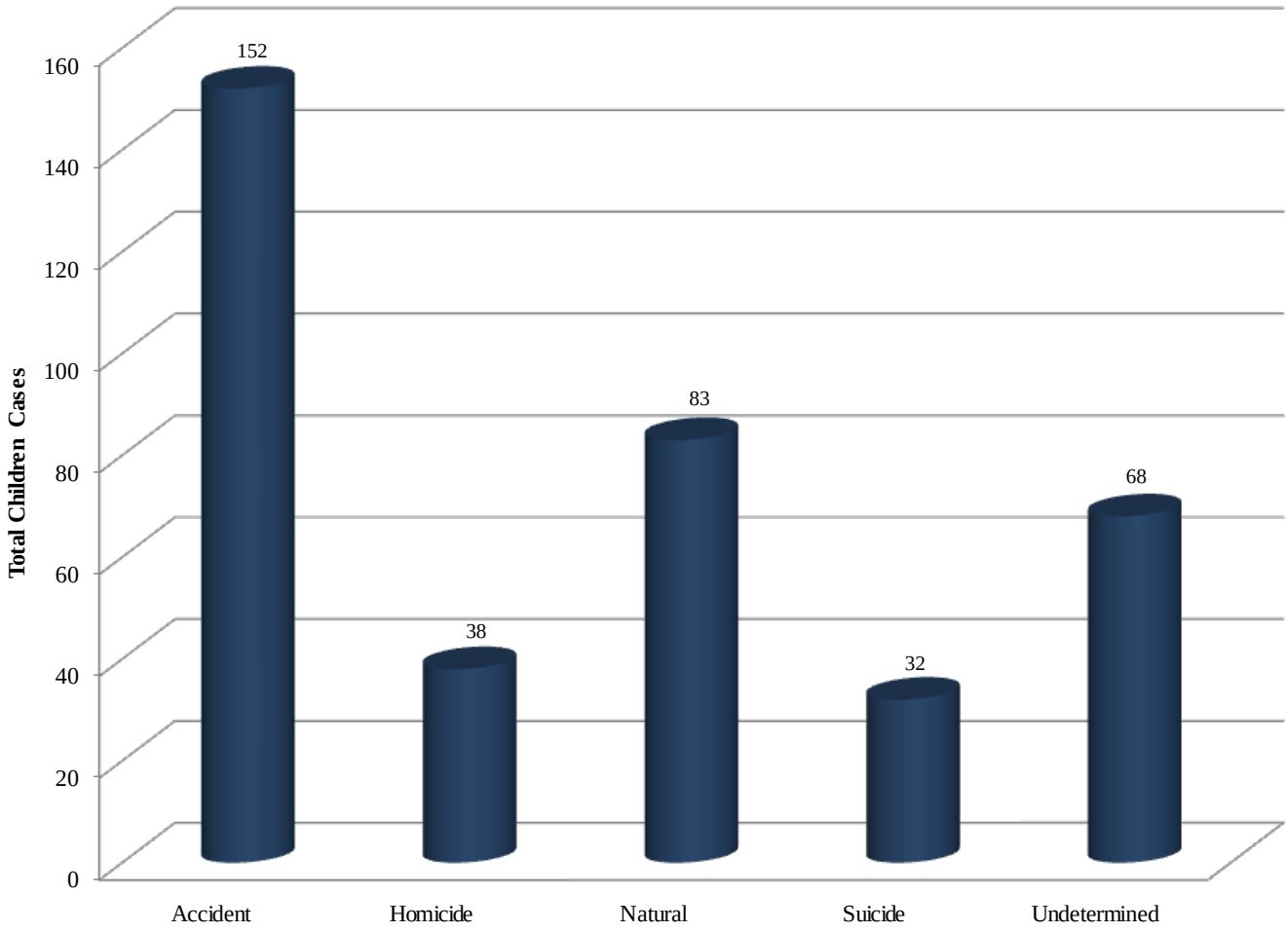


Figure 41. Deaths of Children by Age by Gender, 2008

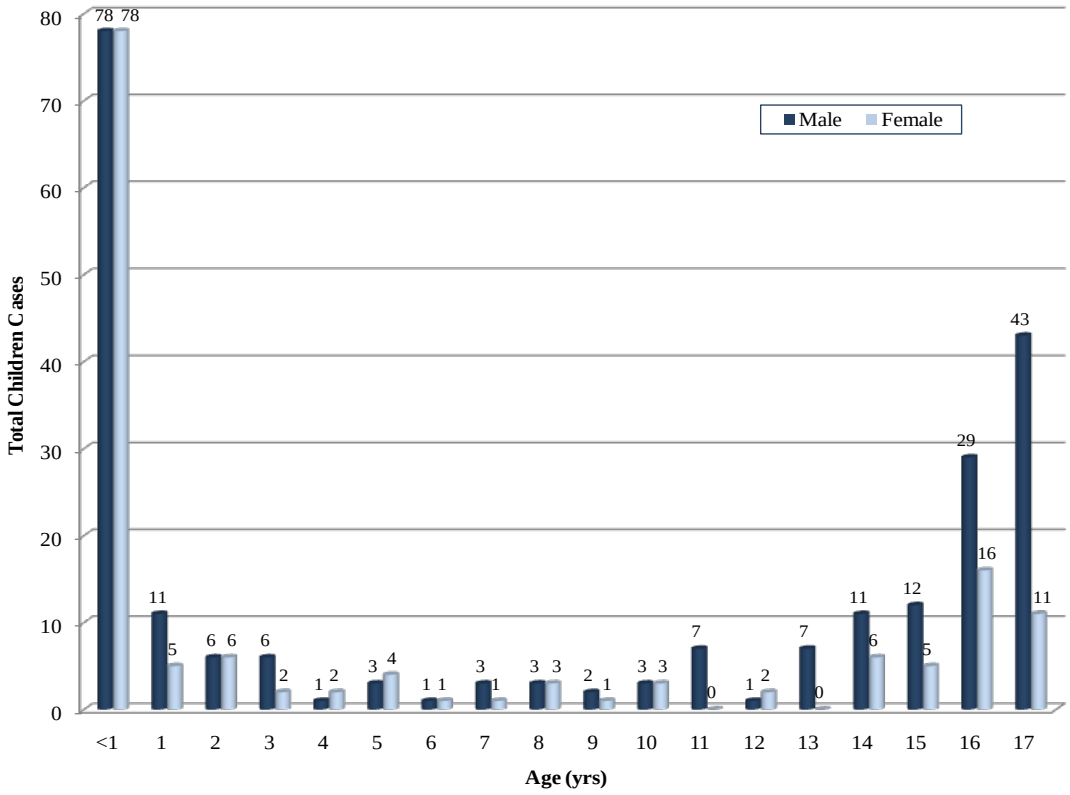


Figure 42. Proportion of Deaths by Race/Ethnicity, 2008

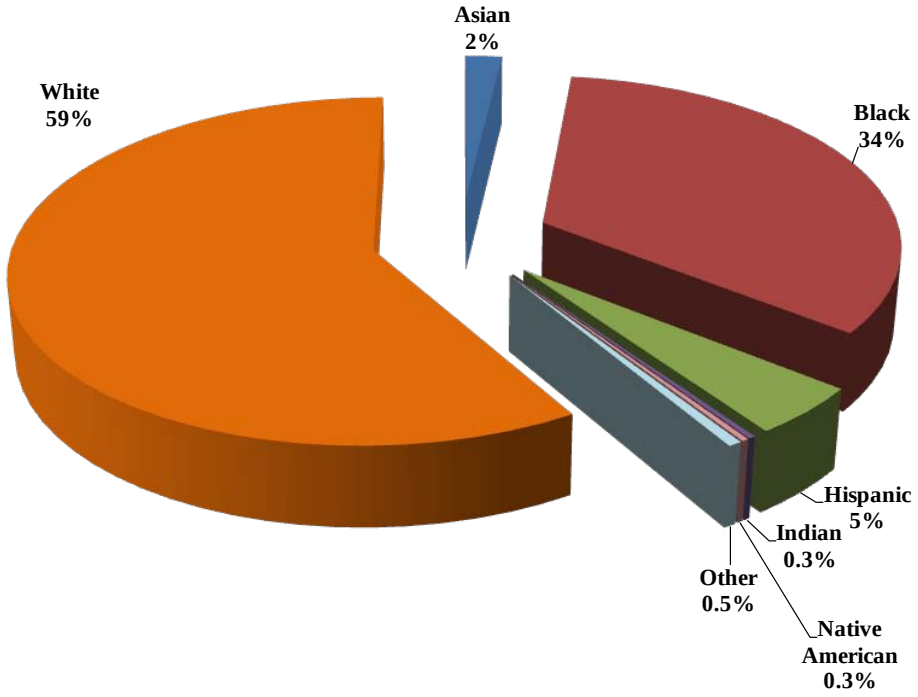


Figure 43. Deaths of Children by Manner of Death by Race/Ethnicity, 2008

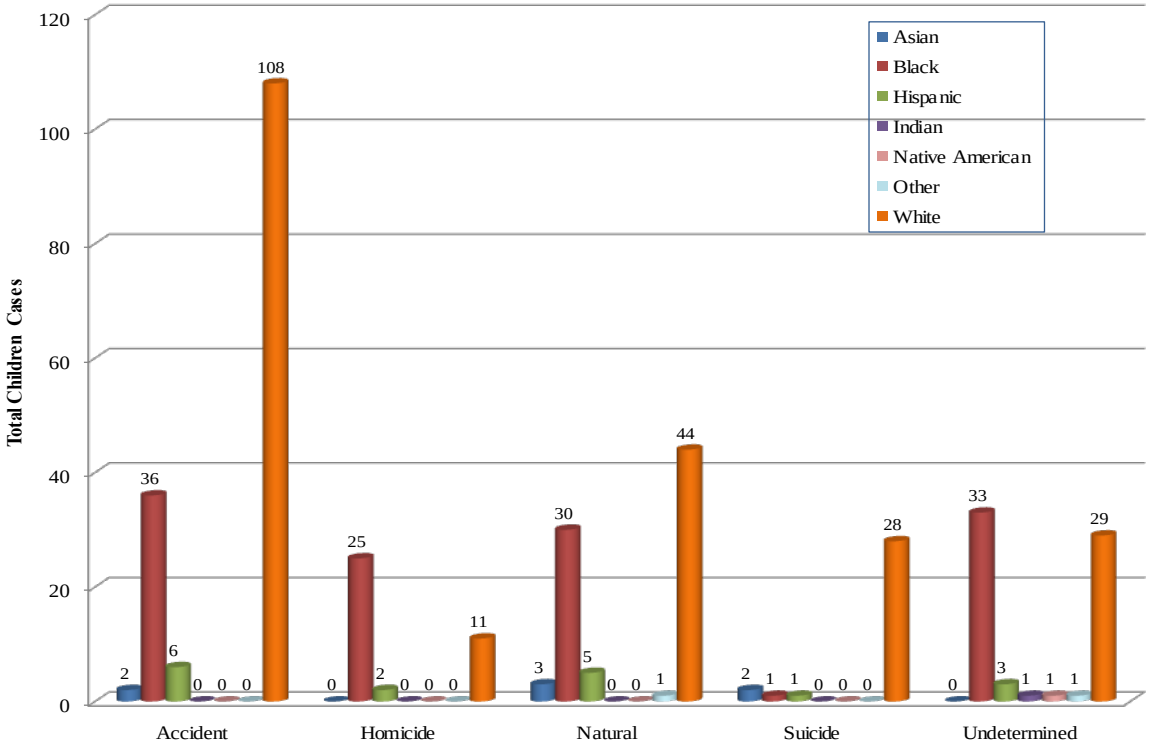


Table 25. Deaths of Children by Cause of Death, 2008

Natural Deaths	Total Cases	Autopsied
Pulmonary Diseases/Disorders	**16**	**16**
Asthma	2	2
Emboli	1	1
Pneumonia	8	8
Other Pulmonary Disease/Disorder	5	5
Central Nervous System Diseases/Disorders	**7**	**7**
Seizure Disorder	2	2
CNS Malignancy	1	1
Other CNS Disease/Disorder	4	4
Cardiovascular Diseases/Disorders	**11**	**11**
Congenital Defect	2	2
Other Cardiac Disease/Disorder	9	9
Gastrointestinal Diseases/Disorders	**4**	**4**
Other GI Disease/Disorder	4	4
Perinatal and Pediatric Diseases/Disorders	**29**	**29**
Maternal Complications	4	4
Fetal Complications	3	3
Sudden Infant Death Syndrome (SIDS)	22	22

Continued

Systemic Diseases/Disorders	**8**	**7**
Diabetes	1	1
Sepsis	3	2
Other Infectious Disease	2	2
Other Systemic Disease/Disorder	2	2
Other Natural Diseases/Disorders	**8**	**8**
Other Natural Disease/Disorder	8	8
Natural Subtotal	**83**	**82**
Unnatural Deaths	**Total Cases**	**Autopsied**
Asphyxia	**55**	**44**
Choking (Aspiration: Food or Foreign Object)	1	1
Drowning	13	7
Hanging	15	10
Mechanical	5	5
Positional	7	7
Suffocation/Smothering	14	14
Exposure	**4**	**4**
Hyperthermia	3	3
Hypothermia	1	1
Fire Injuries	**8**	**7**
Thermal Burns	2	2
Inhalation of Combustion Products	4	3
Thermal Burns & Inhalation of Combustions Products	2	2
Gunshot Wound	**39**	**39**
Handgun	26	25
Rifle	4	4
Shotgun	9	9
Unknown Gun	1	1
Blunt Force Injuries	**103**	**21**
Head/Neck	68	13
Chest	2	0
Abdomen	2	1
Trunk	2	2
Extremeties	1	1
Multiple	29	4
Penetrating Injuries	**3**	**3**
Incised	2	2
Stab	1	1
Substance Abuse	**7**	**6**
Prescription Drug Poisoning	5	5
Illegal (Street) Drug Poisoning	1	1
Other Poisons (Heavy Metals, etc.)	1	0

Continued

Other Unnatural Deaths	**2**	**2**
Other Unnatural	2	2
Unnatural Subtotal	**224**	**126**
Undetermined Deaths	**Total Cases**	**Autopsied**
Undetermined After Autopsy and/or Investigation	**66**	**66**
Sudden Unexpected Infant Death (SUID)	55	55
Other Undetermined	11	11
Undetermined Subtotal	**66**	**66**
TOTAL	**373**	**274**

NATURAL DEATHS OF CHILDREN (N=83)

The less than 1 year old age group comprised 66.3 percent of all the natural deaths of children that fell under the OCME's jurisdiction.

- The number of SIDS cases decreased from 41 cases in 2007 to 22 cases in 2008.

Figure 44. Natural Deaths of Children by Age Group by Gender, 2008

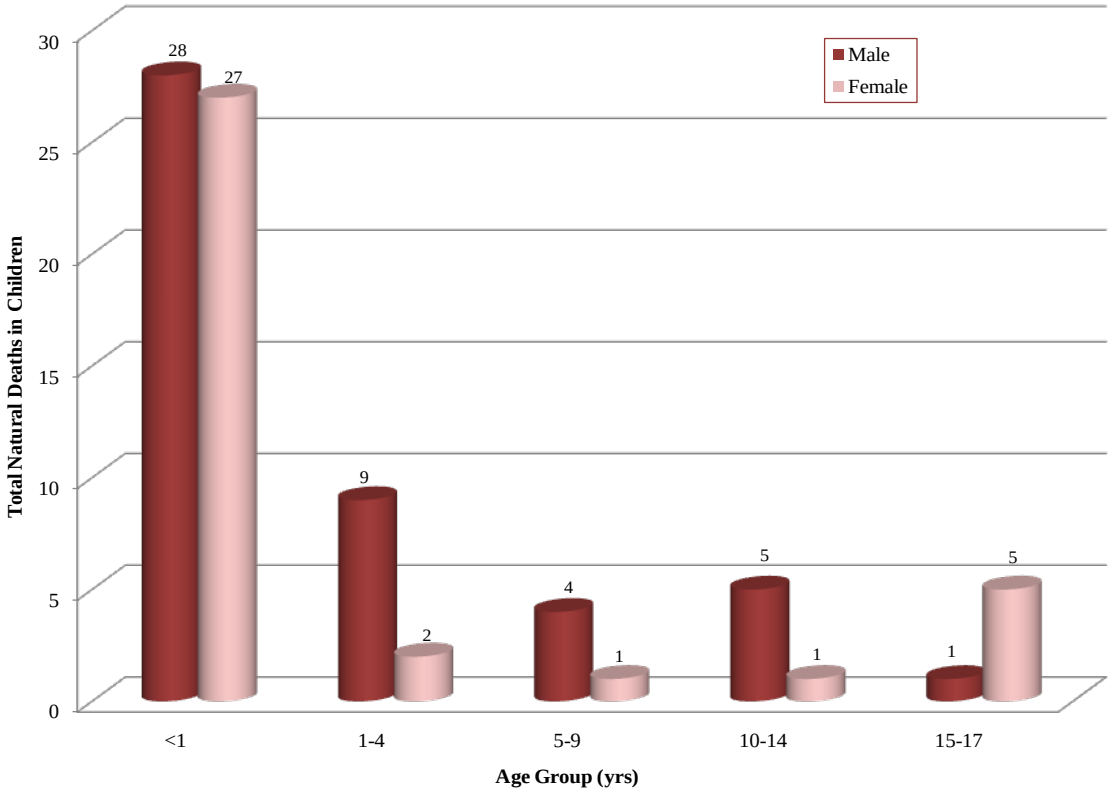
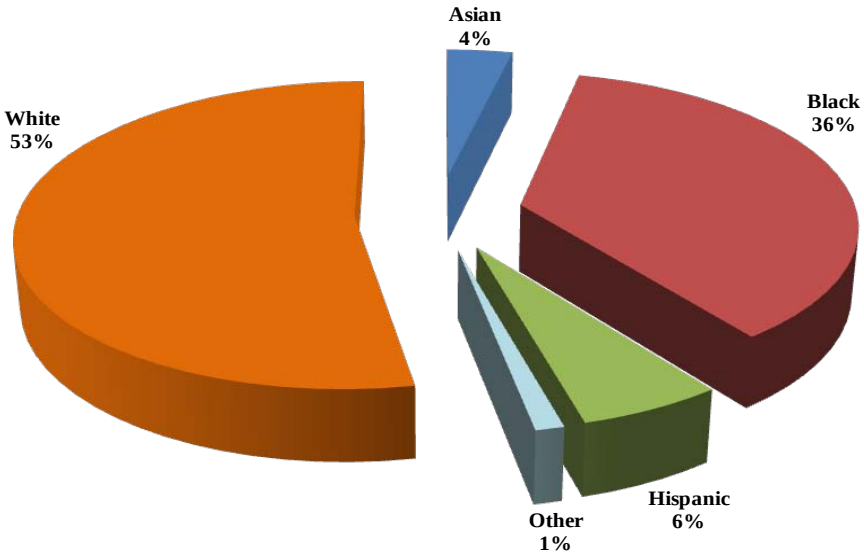


Figure 45. Proportion of Natural Deaths of Children by Race/Ethnicity, 2008



ACCIDENTAL DEATHS OF CHILDREN (N=152)

The number of accidental deaths of children decreased in 2008 as did the overall number of accidents.

- More accidental deaths occurred in males (63.3%), whites (71%), and those aged 15-17 years (47.3%).
- More accidents occurred on Saturdays (24.7%) and in August (12%).
- Being the driver of a vehicle accounted for nearly a quarter of all accidental deaths.

Figure 46. Accidental Deaths of Children by Age Group by Gender, 2008

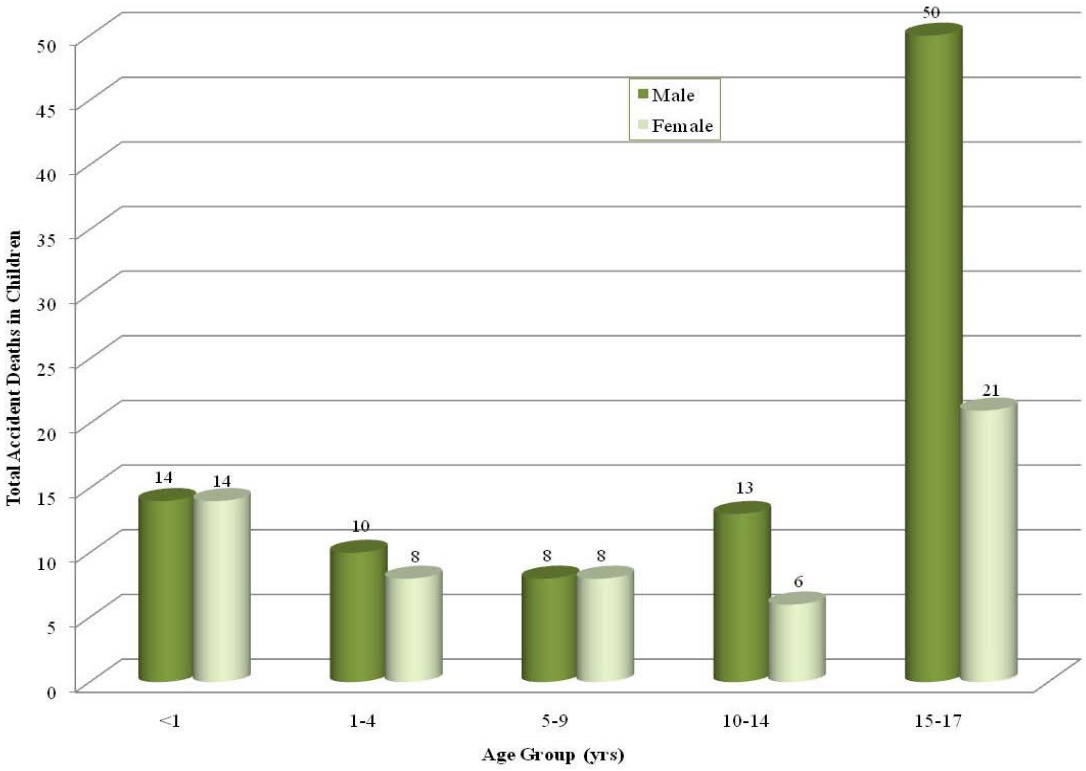


Figure 47. Proportion of Accidental Deaths of Children by Race/Ethnicity, 2008

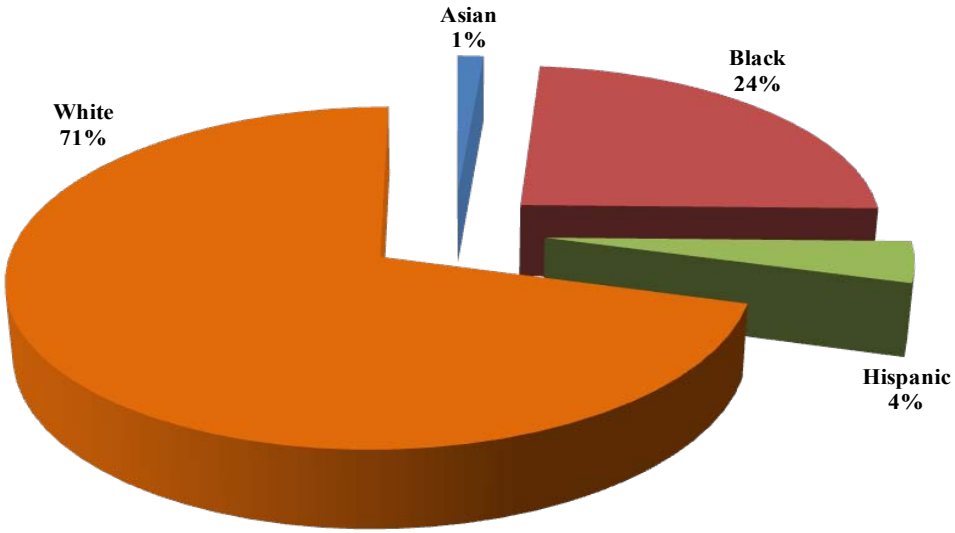


Figure 48. Accidental Deaths of Children by Month of Death, 2008

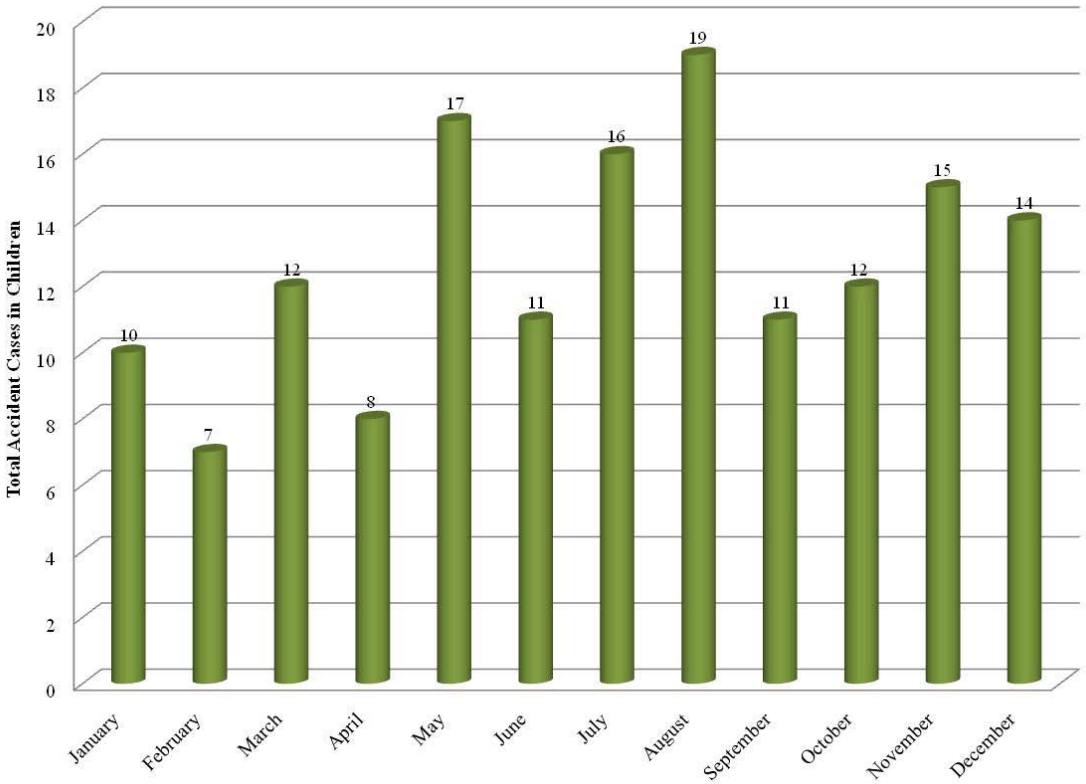


Figure 49. Accidental Deaths of Children by Day of Death, 2008

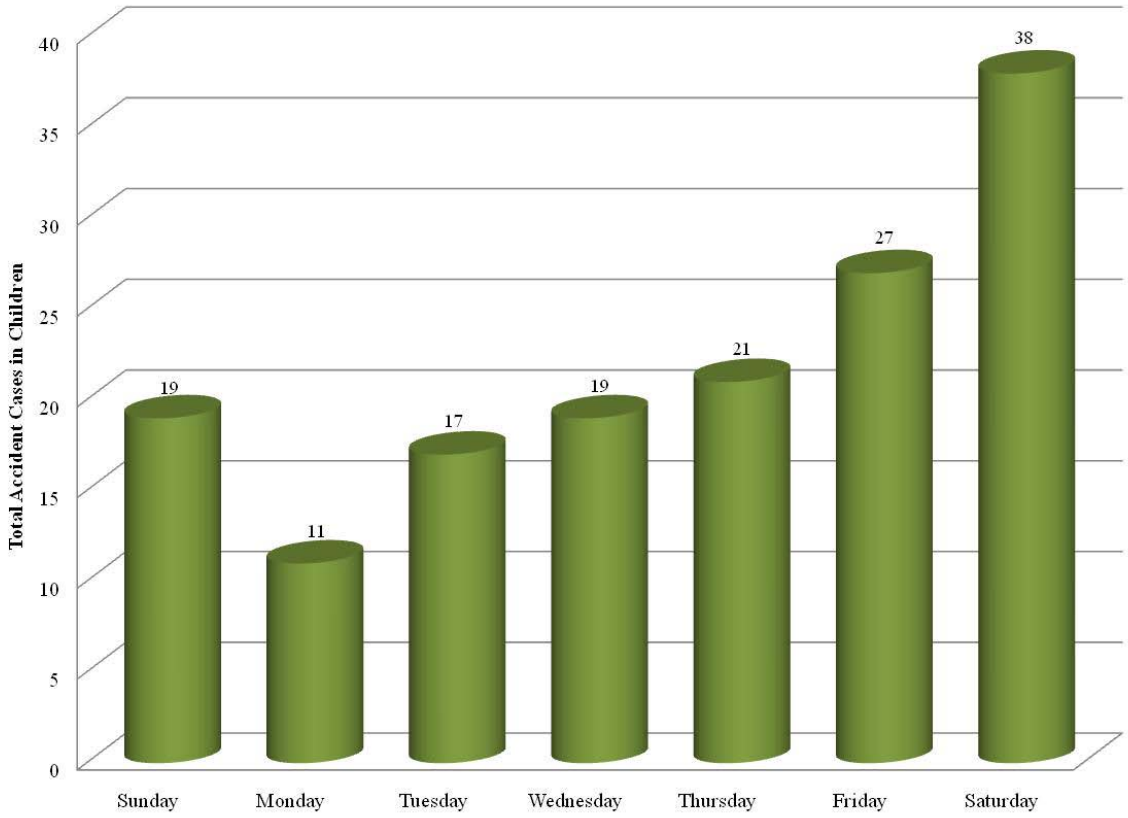


Table 26. Accidental Deaths of Children by Method of Death, 2008

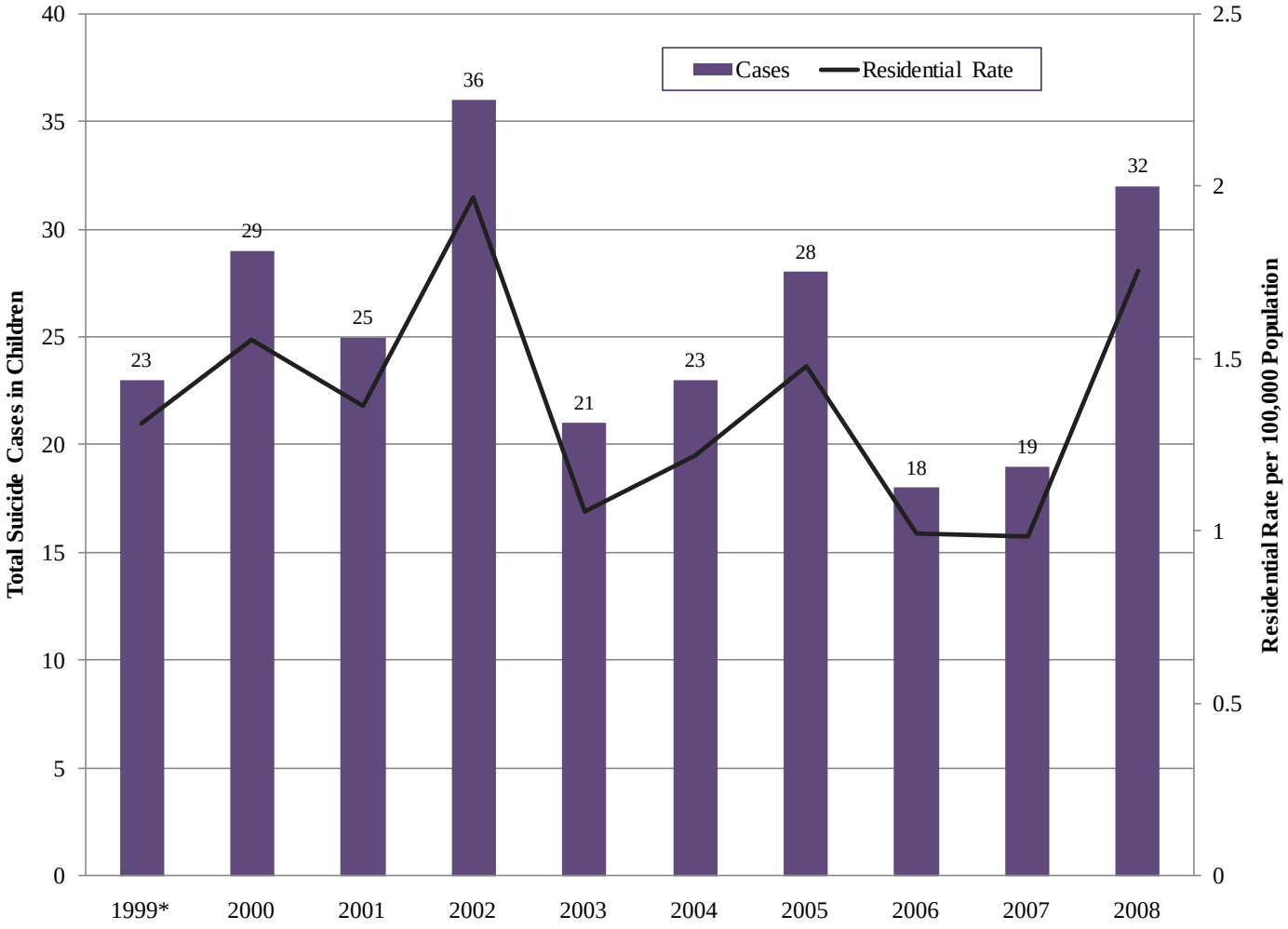
Method of Death	Total Cases	Autopsied
Asphyxia		
Choked on food/foreign object	1	1
Drowned	13	7
Hanging	1	1
Mechanical/Positional	12	12
Suffocated/Smothering	11	11
Drug Use		
Ingested and/or injected illicit, prescription, and/or OTC medication	5	5
Exposure		
Exposed to cold	1	1
Exposed to heat	3	3
Fall		
Fall from any height	4	2
Fire		
Smoke inhalation	1	0
Victim of fire/burns	5	5
Motor Vehicle		
Aircraft	1	1
All Terrain Vehicle	4	0
Bicycle	2	0
Car	47	3
Pickup Truck	13	0
Sport Utility Vehicle	13	4
Train	1	0
Truck Other	1	0
Unknown	2	1
Van	3	0
Poisoned		
Other (Eg. Ethylene glycol)	1	0
Traumatic Injury		
Accidental discharge of firearm	4	4
Rifle	(2)	(2)
Shotgun	(2)	(2)
Falling Object	2	0
Other	1	1
Total	**152**	**62**

SUICIDE DEATHS OF CHILDREN (N=32)

The number of child suicides in 2008 was the highest it has been in 6 years and the second highest in 10 years.

- Childhood suicides were most frequent in males (84.3%), whites (87.5%), and those 17 years old (37.5%).
- The majority of children (87.5%) committed suicide either by hanging themselves (43.8%) or using a firearm (43.8%).

Figure 50. Suicide Deaths of Children by Year of Death, 1999-2008



*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 0-17 year olds.

Figure 51. Suicide Deaths of Children by Age by Gender, 2008

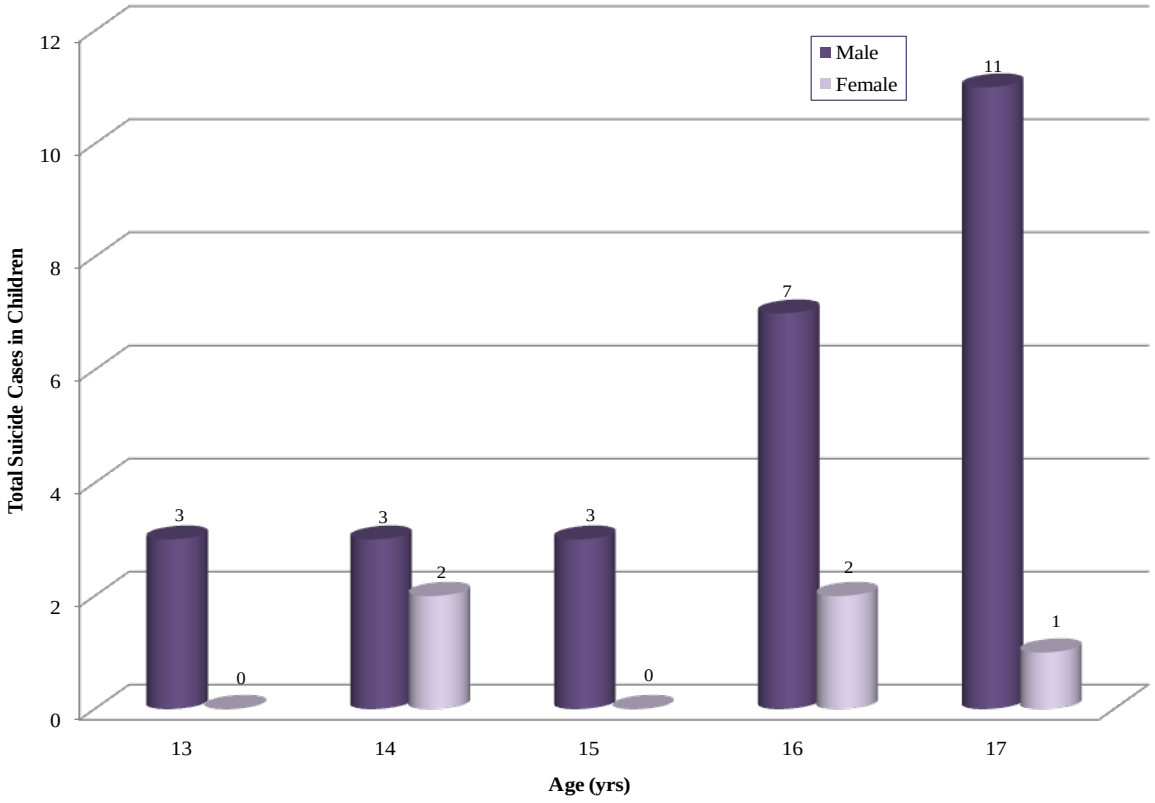


Figure 52. Proportion of Suicide Deaths of Children by Race/Ethnicity, 2008

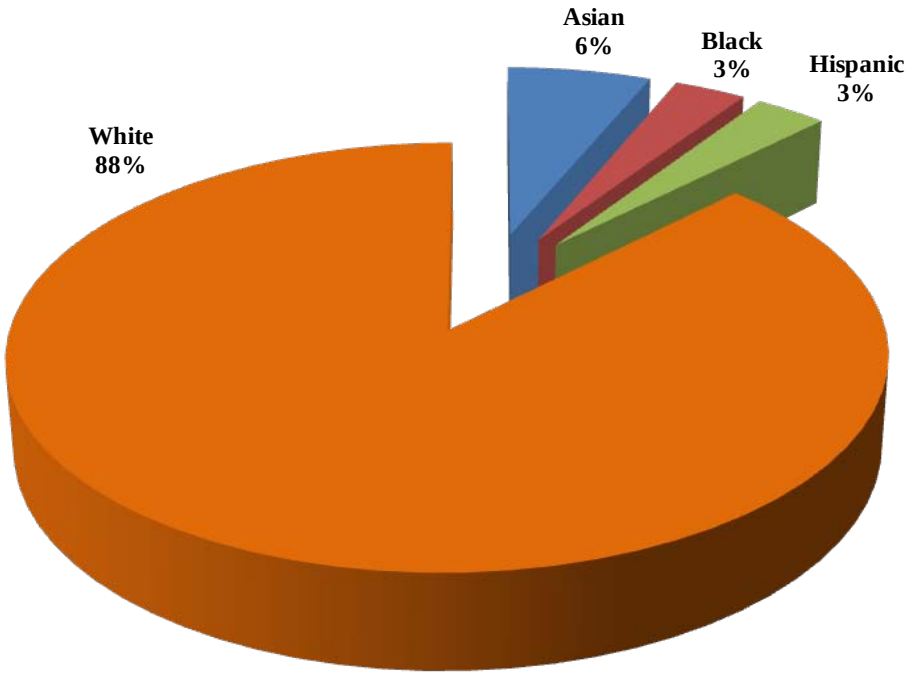


Figure 53. Suicide Deaths of Children by Month of Death, 2008

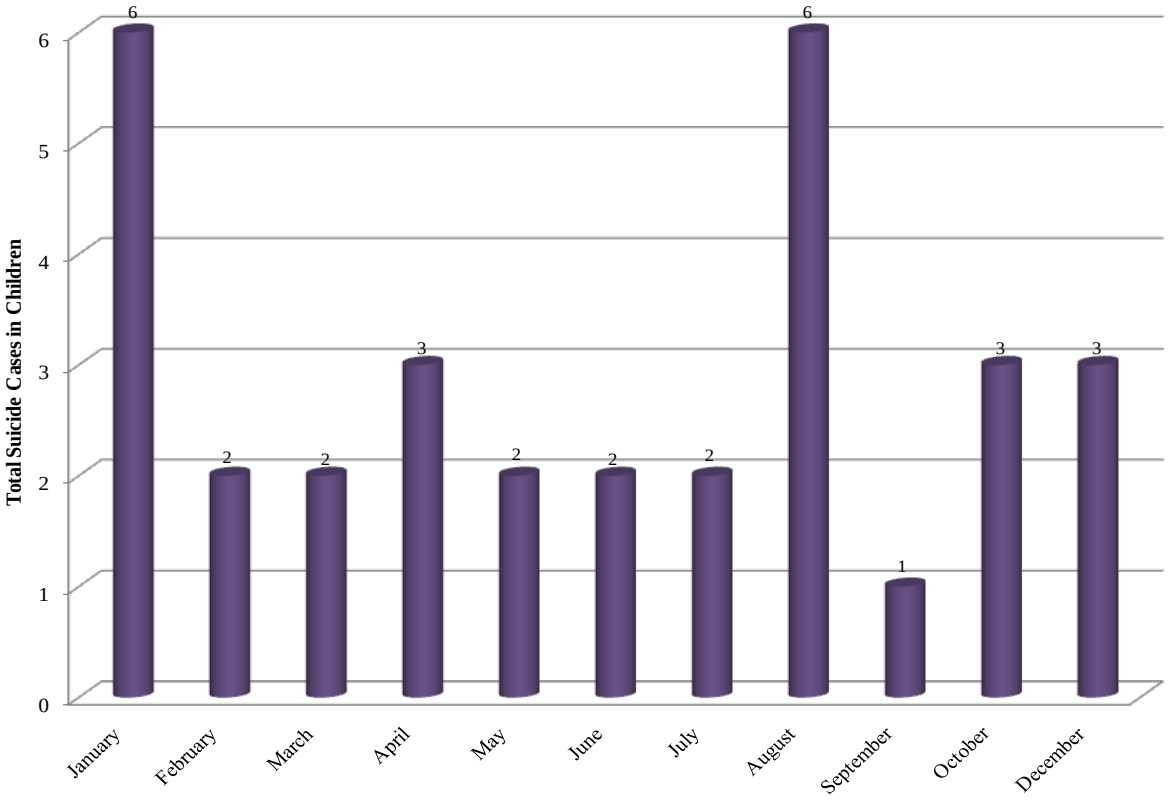


Figure 54. Suicide Deaths of Children by Day of Death, 2008

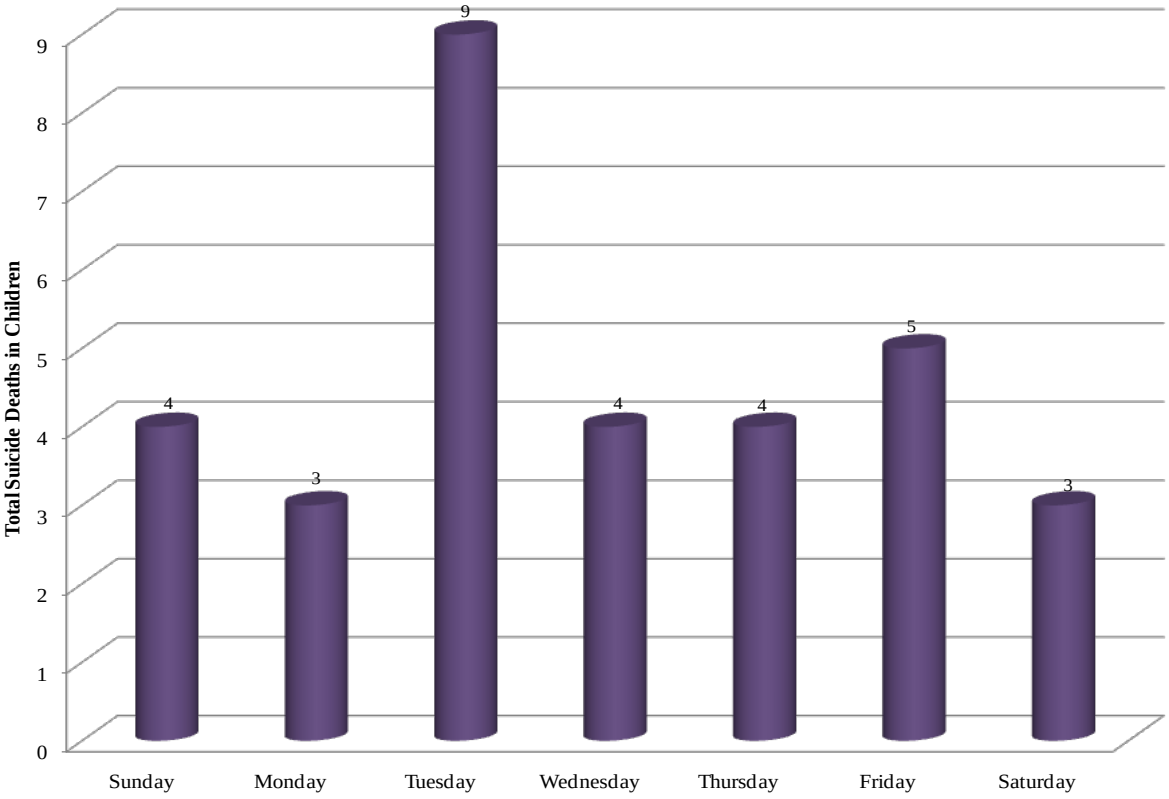


Table 27. Suicide Deaths of Children by Method, 2008

Method of Death	Total Cases	Autopsied
Asphyxia		
Hanging	14	9
Plastic bag	2	2
Drug Use		
Ingested and/or injected illicit, prescription, and/or OTC medication	1	1
Motor Vehicle		
Car	1	1
Traumatic Injury		
Gunshot Wound	14	14
Handgun	(8)	(8)
Rifle	(1)	(1)
Shotgun	(5)	(5)
Total	**32**	**27**

HOMICIDE DEATHS OF CHILDREN (N=38)

As there was a marked decrease in overall homicides in 2008, there was also a decrease in homicides of children for 2008 along with an overall four year decline. Homicides of children represented 9.5% of all homicides.

- Childhood homicides were most common in blacks (65.8%), and infants under a year old (28.9%).
- Males accounted for 57.9% of all childhood homicides.
  - However, females accounted for 72.7% of homicides for infants under the age of one.
  - In the older age group of 13-17 years old, 83.3% of cases were male.
- Black children died from homicides at a rate of 6 per 100,000.
  - Black children were murdered 5.4 times that of whites and 6.7 times that of Hispanics.
- Firearms were responsible for 52.6% of all childhood homicides.

Figure 55. Homicide Deaths & Rate of Children by Year of Death, 1999-2008

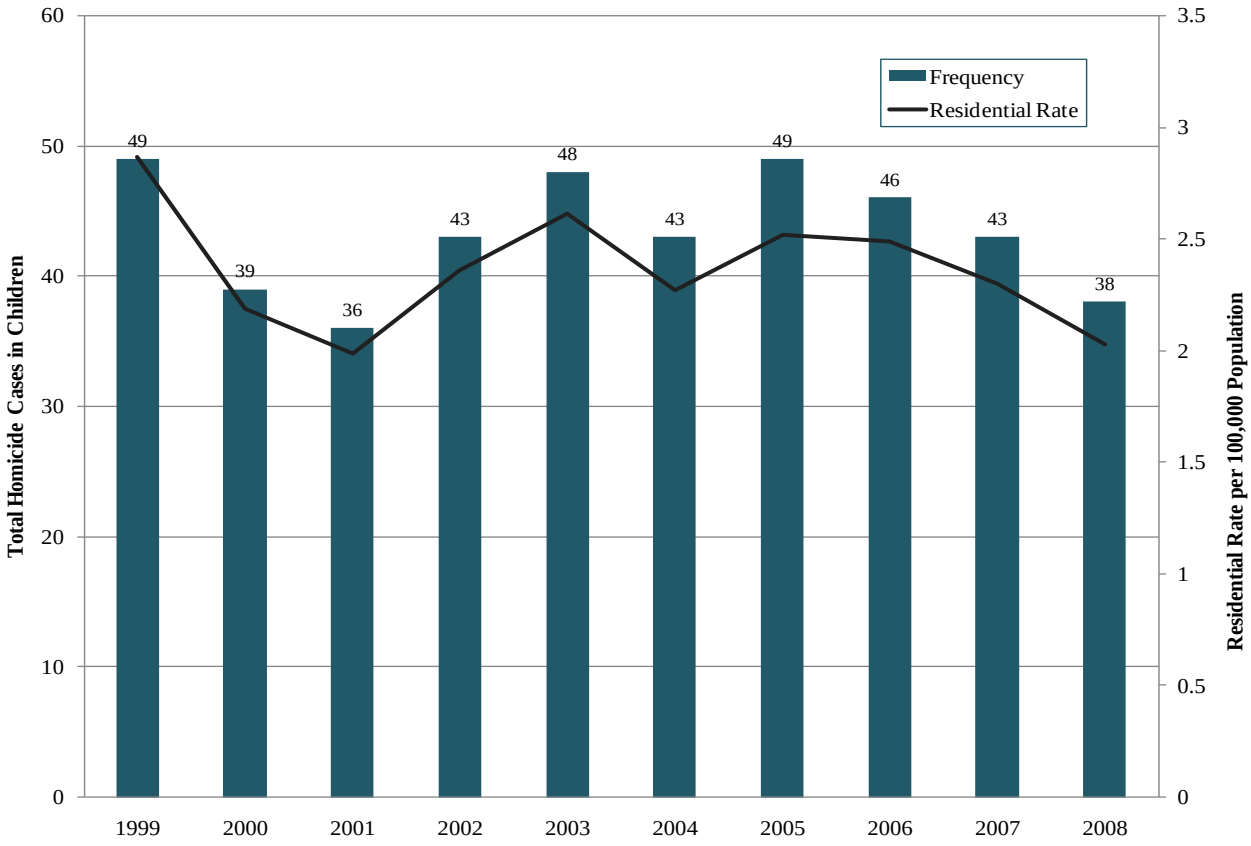


Figure 56. Homicide Deaths of Children by Age by Gender, 2008

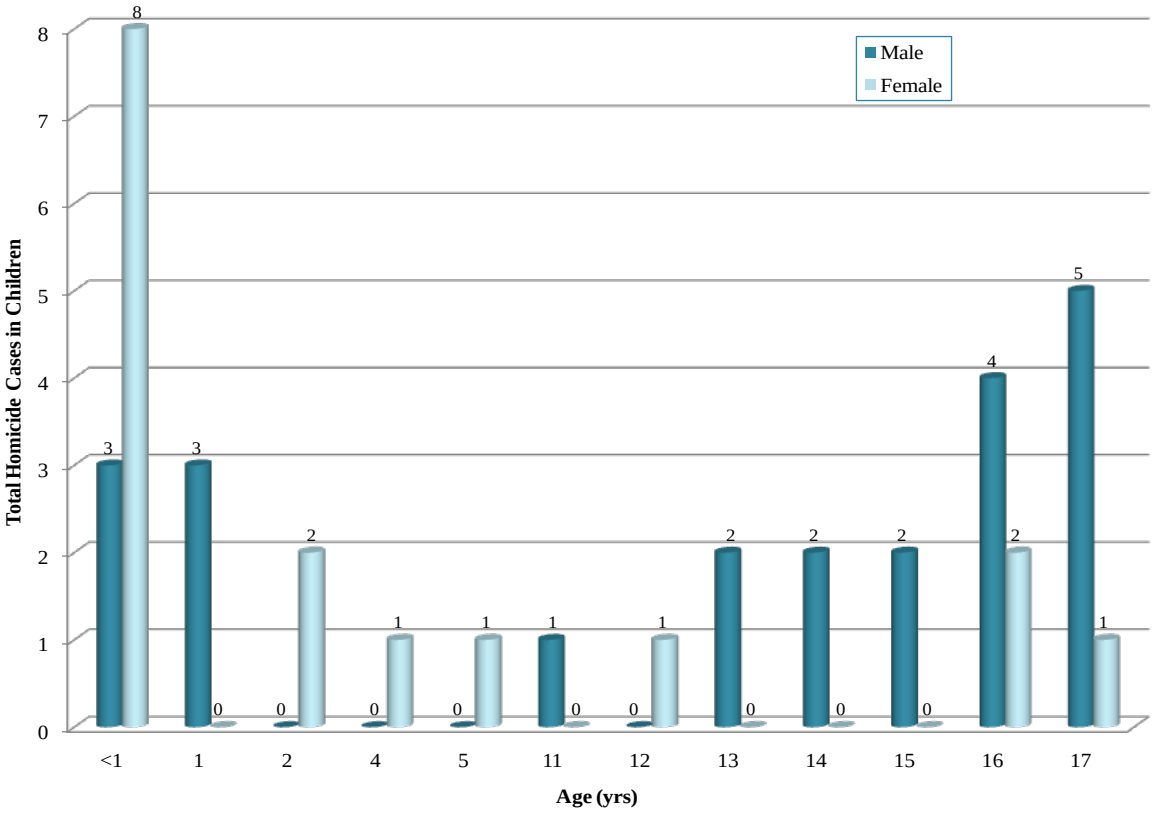


Figure 57. Proportion of Homicide Deaths of Children by Race/Ethnicity, 2008

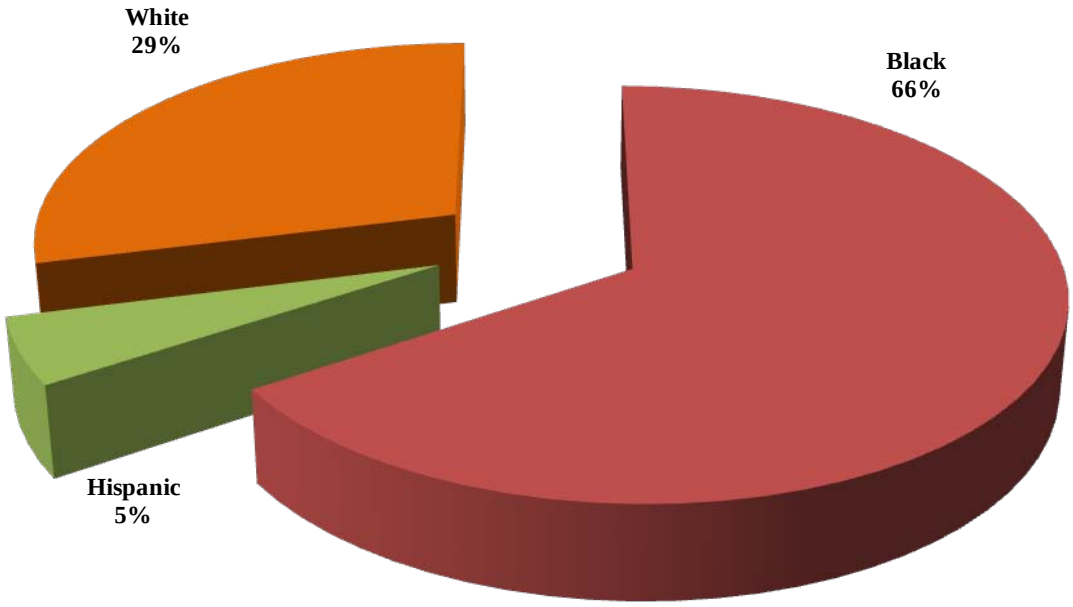


Figure 58. Homicide Deaths of Children by Month of Death, 2008

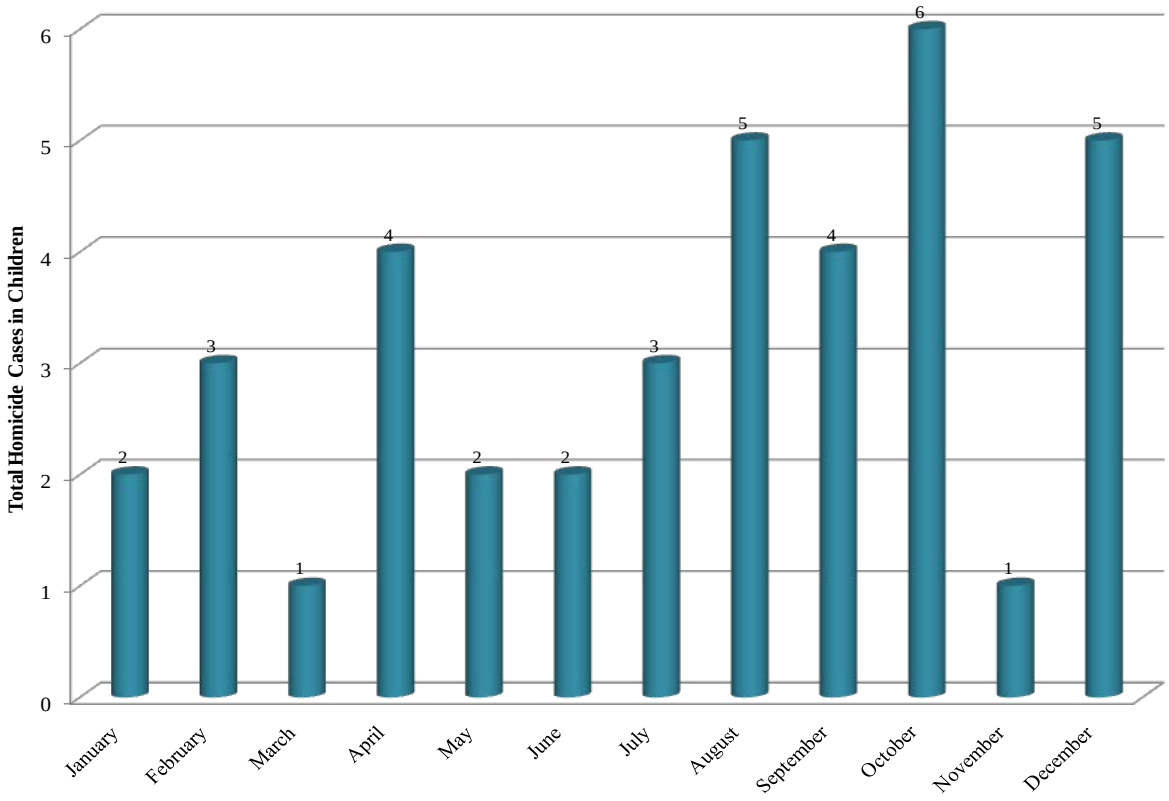


Figure 59. Homicide Deaths of Children by Day of Death, 2008

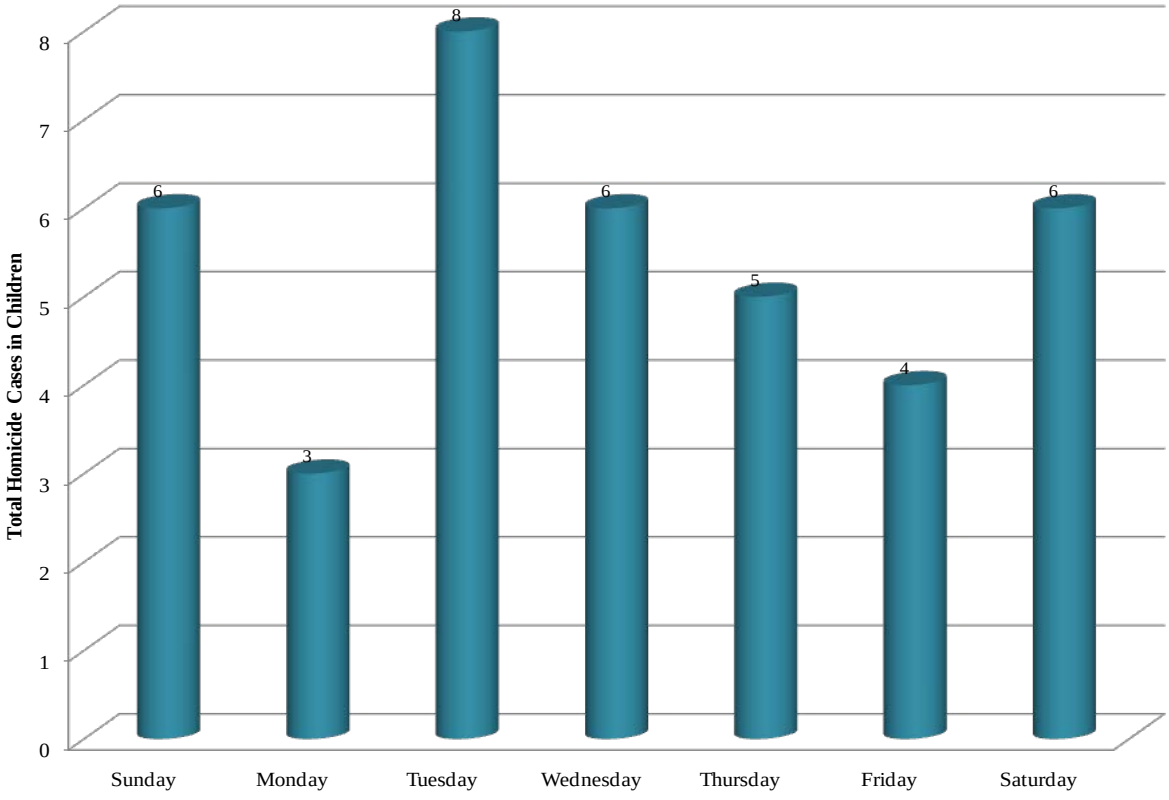


Table 28. Homicide Deaths of Children by Method of Death, 2008

Method of Death		Total Cases	Autopsied
Drug Use			
	Ingested and/or injected illicit, prescription, and/or OTC medication	1	1
Traumatic Injury			
	Beaten by assailant(s)	10	10
	Shot by assailant(s) with firearm	20	20
	Handgun	(16)	(16)
	Rifle	(1)	(1)
	Shotgun	(2)	(2)
	Unknown	(1)	(1)
	Stabbed by assailant(s)	3	3
	Other	4	4
Total		**38**	**38**

UNDETERMINED DEATHS OF CHILDREN (N=68)

A total of 68 undetermined deaths of children occurred in 2007; this represents 48.9 percent of all undetermined cases.

- 91.2% of undetermined deaths were less than 1 year of age.
- 80.9% had the diagnosis of SUID.

Figure 60. Undetermined Deaths of Children by Age by Gender, 2008

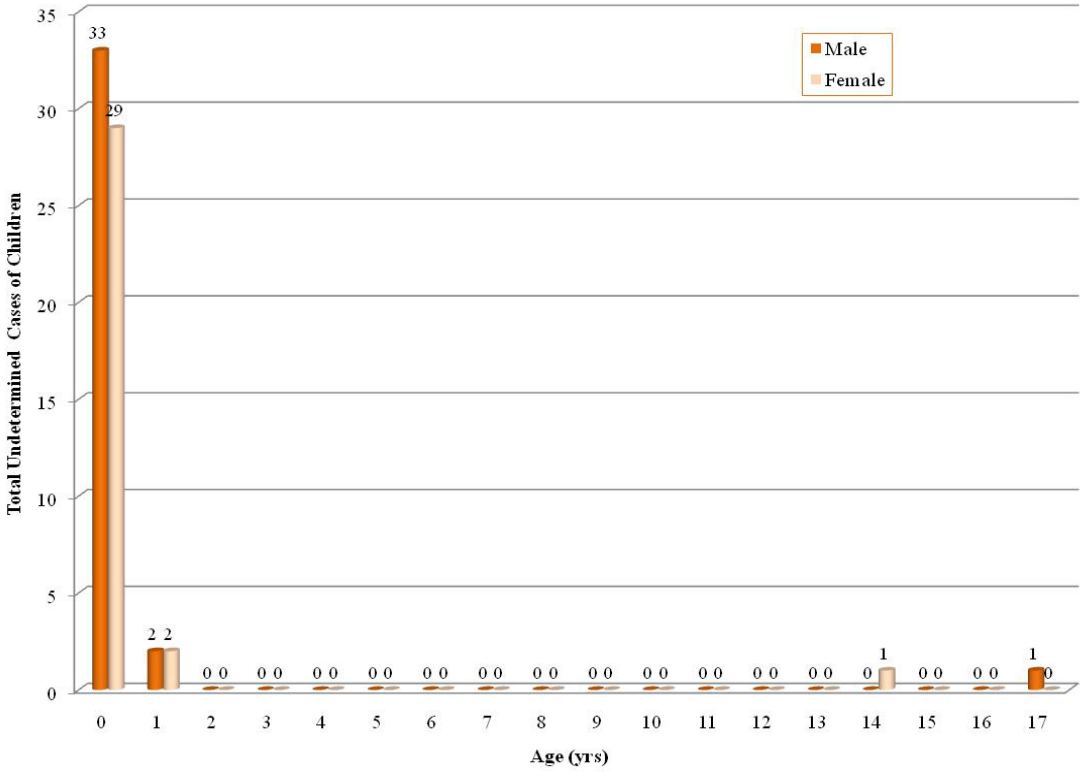


Figure 61. Proportion of Undetermined Deaths of Children by Race/Ethnicity, 2008

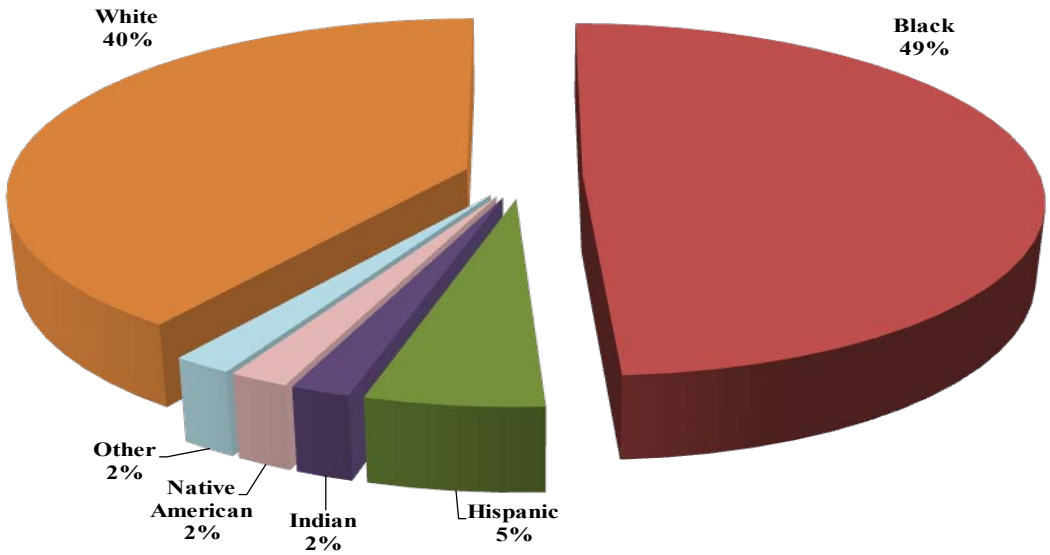


Table 29. Undetermined Deaths of Children by Method of Death and by Age, 2008

Method of Death	Total Cases	Autopsied
Undetermined Manner & Cause of Death		
Sudden Unexpected Infant Death	55	55
Undetermined after autopsy and/or toxicology	11	11
Subtotal for Undetermined Manner & Cause of Death	**66**	**66**
Undetermined Manner but Cause of Death Determined		
Traumatic Injury		
Handgun	2	2
Subtotal for Undetermined Manner but Cause of Death Determined	2	2
Total	**68**	**68**
Age		
0	62	62
1	4	4
14	1	1
17	1	1
Total	**68**	**68**

SECTION 5: ETHANOL ASSOCIATED DEATHS (N=1357)

Ethanol, at the level of 0.01% by weight per volume (W/V) or greater, was detectable in 1357 or 23.4% of decedents in 2008. Of those with detectable ethanol levels, 60.2% had a measured level at or above 0.08% W/V, which is the legal limit for operating a motor vehicle in Virginia.

- Almost a third of homicides and suicides had ethanol present.
- Males accounted for 80.8% of all ethanol associated deaths.
- Forty percent of hypothermia cases were associated with ethanol as were 36.4% of drownings and 35.5% of all gunshot cases.

Figure 62. Ethanol Associated Deaths by Manner of Death, 2008
Measured Ethanol ≥ 0.01% W/V

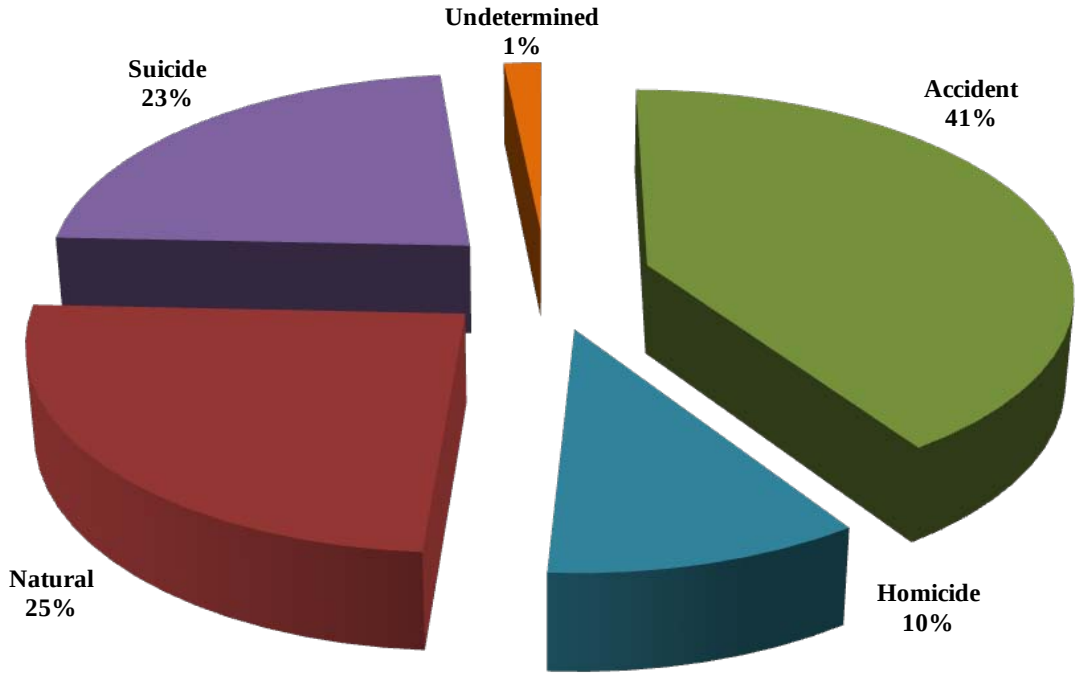


Figure 63. Ethanol Associated Deaths by Age Group by Gender, 2008
Measured Ethanol ≥ 0.01% W/V

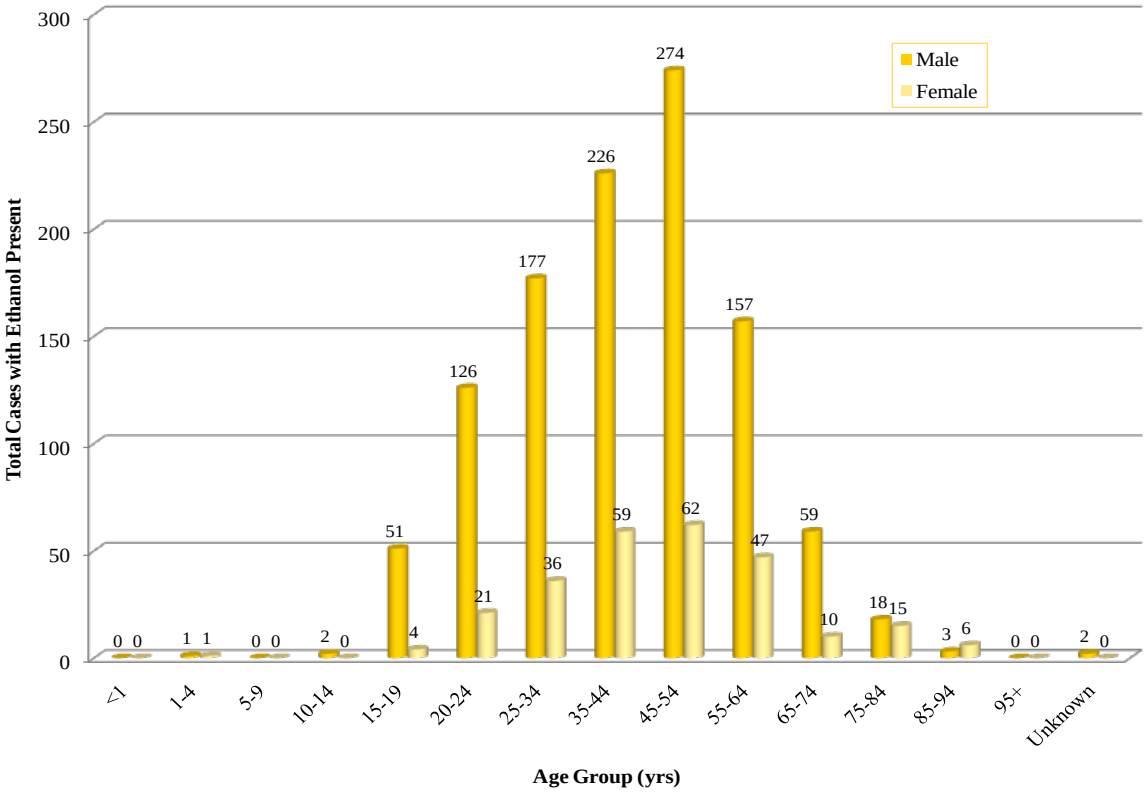


Figure 64. Ethanol Associated Deaths by Race/Ethnicity, 2008
Measured Ethanol ≥ 0.01% W/V

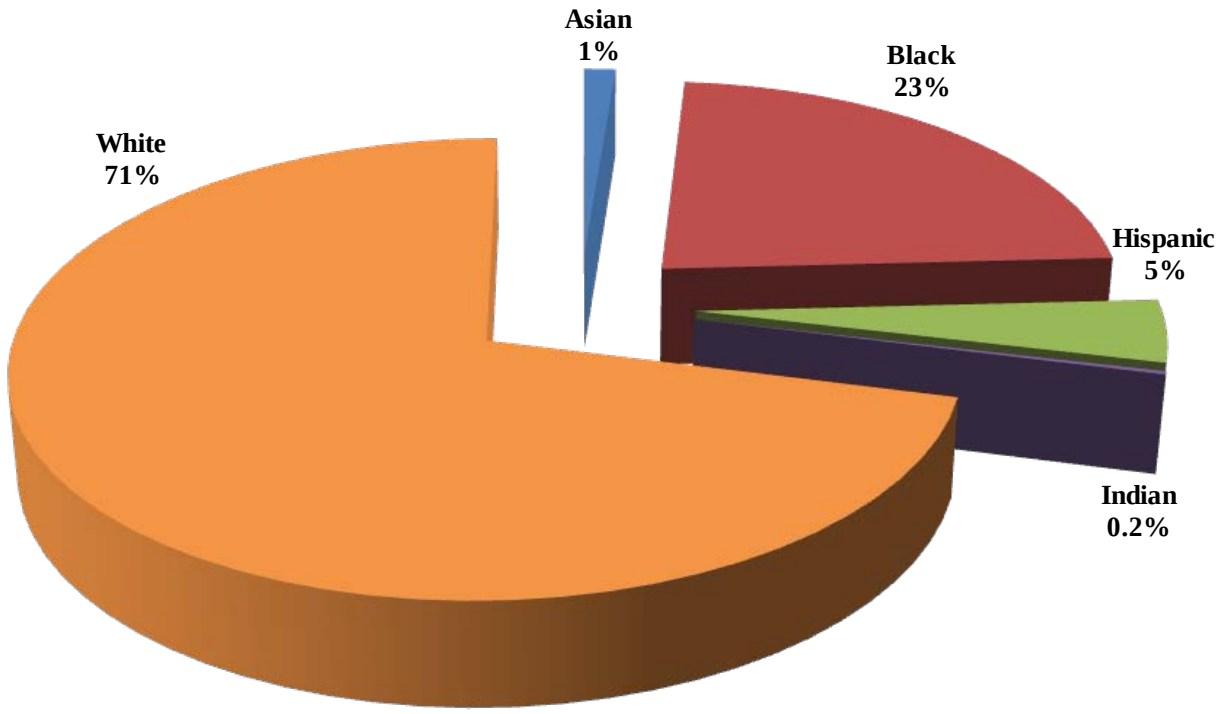
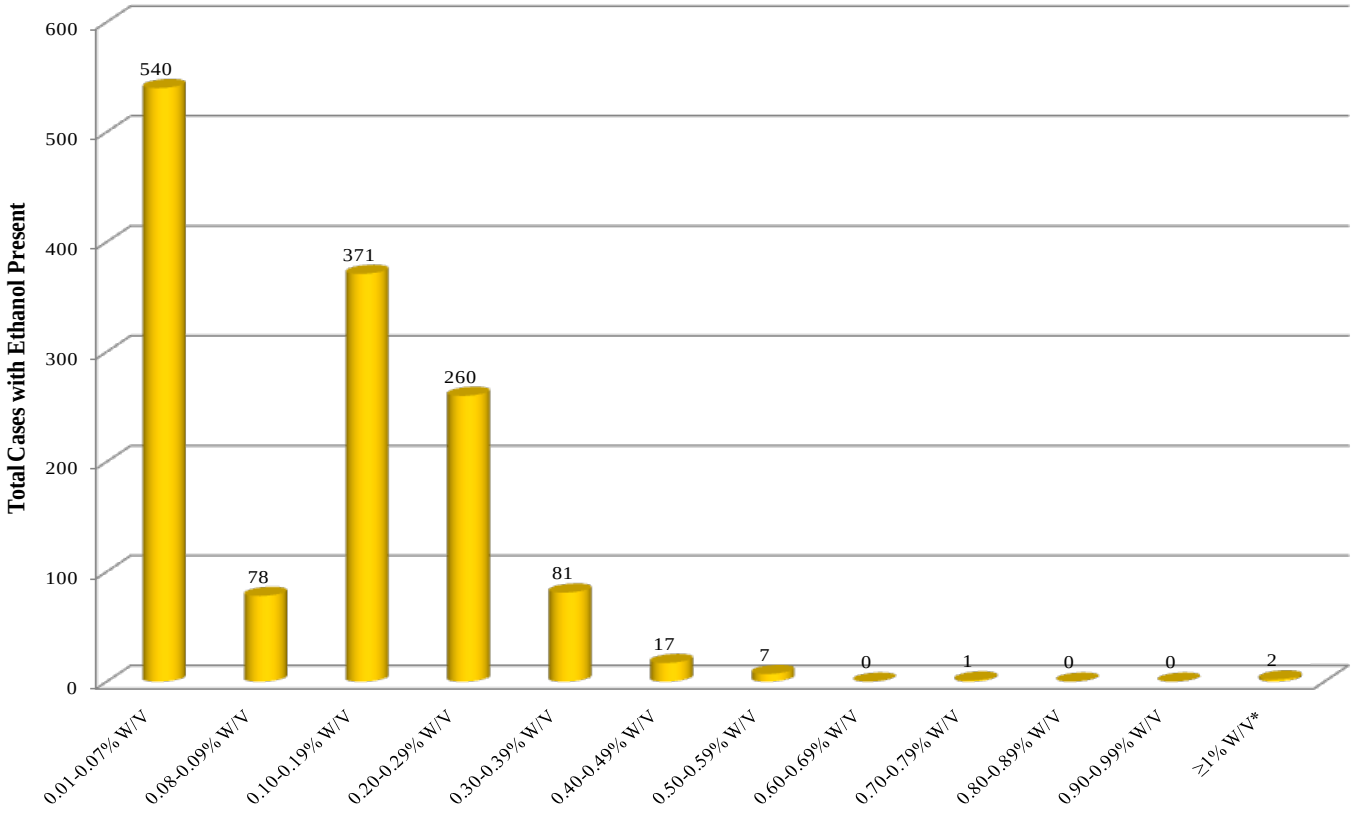


Figure 65. Ethanol Associated Deaths by Measured Ethanol Level, 2008



*Ethanol concentrations greater than or equal to 1% W/V is incompatible with life and is due to contamination of the toxicology sample with gastric contents.

Table 30. Ethanol Presence in Natural and Unnatural Deaths by Cause of Death, 2008

		Ethanol ≥0.01% W/V	
Natural Deaths	**Total Cases**	**Yes**	**No**
Pulmonary Diseases/Disorders	**152**	**8**	**144**
Asthma	12	0	12
COPD	22	3	19
Emboli	26	0	26
Pneumonia	61	3	58
Pulmonary Malignancy	14	1	13
Other Pulmonary Disease/Disorder	17	1	16
Central Nervous System Diseases/Disorders	**110**	**9**	**101**
Seizure Disorder	36	5	31
Vascular Disease	42	2	40
Degenerative Disease	7	0	7
Meningitis (Bacterial or Viral)	3	0	3
CNS Malignancy	4	0	4
Other CNS Disease/Disorder	18	2	16

Continued

	Total Cases	Ethanol ≥0.01% W/V Yes	No
Cardiovascular Diseases/Disorders	**1354**	**217**	**1137**
Atherosclerosis	788	108	680
Hypertension	150	41	109
Atherosclerosis & Hypertension	177	29	148
Congenital Defect	5	0	5
Vascular Dissection/Ruptures	6	0	6
Valvular	8	1	7
Acute Coronary Insufficiency	138	26	112
Other Cardiac Disease/Disorder	82	12	70
Gastrointestinal Diseases/Disorders	**229**	**81**	**148**
GI Hemorrhage	38	12	26
Cirrhosis	19	6	13
Chronic Ethanolism	116	60	56
Hepatitis	7	1	6
GI Malignancy	20	0	20
Other GI Disease/Disorder	29	2	27
Genitourinal Diseases/Disorders	**9**	**1**	**8**
Renal Disease	5	1	4
Genitourinal Malignancy	4	0	4
Perinatal and Pediatric Diseases/Disorders	**30**	**0**	**30**
Maternal Complications	4	0	4
Fetal Complications	4	0	4
Sudden Infant Death Syndrome (SIDS)	22	0	22
Systemic Diseases/Disorders	**114**	**17**	**97**
Blood Disorders	6	0	6
Diabetes	42	7	35
AIDS/HIV	11	2	9
Sepsis	24	5	19
Other Infectious Disease	6	1	5
Metastatic Malignancy Unknown Primary	9	1	8
Other Systemic Disease/Disorder	16	1	15
Other Natural Diseases/Disorders	**29**	**2**	**27**
Other Malignancy	5	0	5
Other Natural Disease/Disorder	24	2	22
Natural Subtotal	**2027**	**335**	**1692**
Unnatural Deaths	**Total Cases**	**Yes**	**No**
Asphyxia	**402**	**104**	**298**
Choking (Aspiration: Food or Foreign Object)	37	3	34
Drowning	99	36	63
Hanging	185	53	132
Mechanical	30	5	25

Continued

	Total Cases	Ethanol ≥0.01% W/V Yes	No
Positional	9	0	9
Strangulation/Neck Compression	11	4	7
Suffocation/Smothering	23	1	22
Oxygen Replacement/Displacement	5	2	3
Other Asphyxia	3	0	3
Electrocution	**13**	**1**	**12**
High Voltage	9	0	9
Low Voltage	4	1	3
Exposure	**19**	**6**	**13**
Hyperthermia	9	2	7
Hypothermia	10	4	6
Fire Injuries	**116**	**35**	**81**
Thermal Burns	20	0	20
Inhalation of Combustion Products	54	19	35
Thermal Burns & Inhalation of Combustions Products	42	16	26
Judicial Execution	**3**	**0**	**3**
Lethal Injection	3	0	3
Gunshot Wound	**817**	**289**	**528**
Handgun	606	212	394
Rifle	65	25	40
Shotgun	100	36	64
Unknown Gun	45	16	29
Other Gun	1	0	1
Blunt Force Injuries	**1467**	**340**	**1127**
Head/Neck	741	156	585
Chest	92	21	71
Abdomen	15	4	11
Trunk	51	12	39
Extremeties	129	3	126
Multiple	439	144	295
Penetrating Injuries	**92**	**34**	**58**
Incised	26	6	20
Stab	64	27	37
Other Penetrating Injuries	2	1	1
Substance Abuse	**753**	**207**	**546**
Ethanol Poisoning	23	21	2
Prescription Drug Poisoning	451	103	348
Illegal (Street) Drug Poisoning	139	46	93
CO Poisoning (Excludes Fires)	18	5	13
Mixed Category Drug Poisoning	85	28	57
Inhalant Poisoning	7	1	6
OTC Poisoning	12	0	12
Ethylene Glycol Poisoning	5	0	5

Continued

		Ethanol ≥0.01% W/V	
	Total Cases	**Yes**	**No**
Not Otherwise Specified Poisoning	8	2	6
Other Poisons (Heavy Metals, etc.)	5	1	4
Other Unnatural Deaths	**16**	**1**	**15**
Other Unnatural	16	1	15
Unnatural Subtotal	**3698**	**1017**	**2678**
Undetermined Deaths	**Total Cases**	**Yes**	**No**
Undetermined After Autopsy and/or Investigation	**86**	**5**	**81**
Sudden Unexpected Infant Death (SUID)	55	0	55
Skeletal/Mummified Remains	7	0	7
Other Undetermined	24	5	19
Undetermined Subtotal	**86**	**5**	**81**
TOTAL	**5811**	**1357**	**4454**

ETHANOL ASSOCIATED ACCIDENTAL DEATHS (N=552)

Ethanol was detected in 24 percent of all accidental deaths.

- Ethanol was detected in 37 percent of all drowning.
- Ethanol was detected in a third of all motor vehicle accidents.
- Ethanol was detected in 28.6 percent of all fire-related deaths.

Figure 66. Accidental Deaths by Age Group by Ethanol Level, 2008

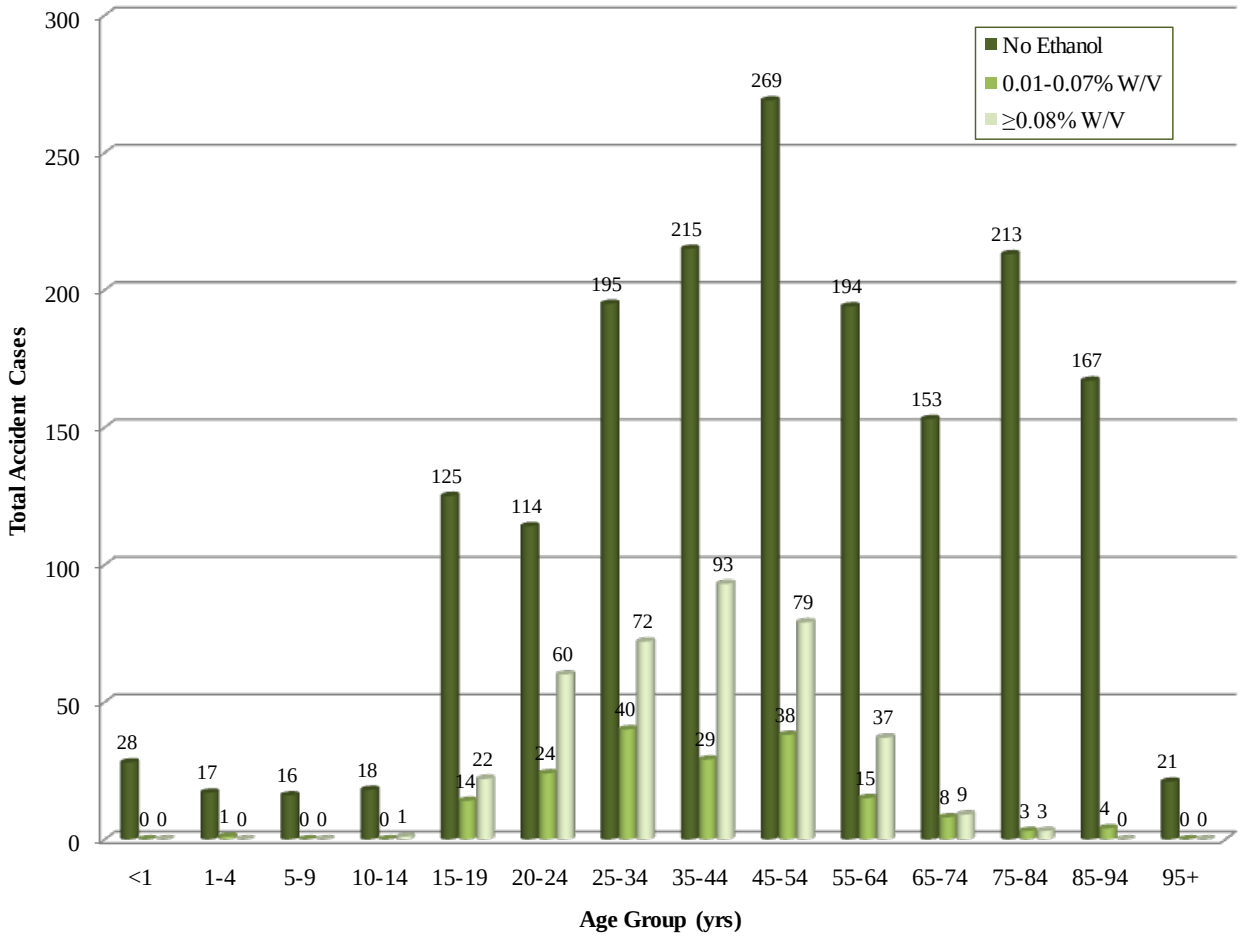


Table 31. Accidental Deaths by Method of Death by Presence of Ethanol, 2008

Method of Death	Total Cases	Ethanol ≥0.01% W/V	
		Yes	No
Animal Related			
Animal related (bitten, stung, kicked)	2	0	2
Asphyxia			
Choked on food/foreign object	37	3	34
Drowned	81	30	51
Hanging	3	0	3
Mechanical/Positional	24	0	24
Strangled	1	0	1
Suffocation/Smothering	14	0	14
Drug Use			
Ingested ethanol or other alcohol	21	19	2
Ingested and/or injected illicit, prescription, and/or OTC medication	547	137	410
Electrical			
Contacted electrical current	12	0	12
Exposure			
Exposed to cold	10	4	6
Exposed to heat	9	2	7
Fall			
Fall from any height	459	25	434
Fire			
Smoke inhalation	31	12	19
Steam/Scald	1	0	1
Victim of explosion	3	1	2
Victim of fire/burns	56	13	43
Motor Vehicle			
Aircraft	11	1	10
All Terrain Vehicle	16	7	9
Bicycle	13	2	11
Boat	2	1	1
Bus	4	1	3
Car	459	169	290
Dump Truck	8	1	7
Farm Equipment	10	2	8
Lawnmower	2	0	2
Moped	10	3	7
Motorcycle	86	29	57
Pickup Truck	107	37	70
Sport Utility Vehicle	89	30	59

Continued

Method of Death	Total Cases	Ethanol ≥0.01% W/V Yes	No
Tractor Trailer	17	2	15
Train	6	2	4
Truck Other	10	3	7
Unknown	24	3	21
Van	38	8	30
Poisoned			
Inhaled toxic agent (Carbon monoxide)	2	0	2
Other (Eg. Ethylene glycol)	8	1	7
Traumatic Injury			
Accidental discharge of firearm	12	2	10
Handgun	(2)	(0)	(2)
Rifle	(4)	(2)	(2)
Shotgun	(6)	(0)	(6)
Accidental cut injury	1	0	1
Beatings/Blows	7	0	7
Cave-in	3	0	3
Falling object	31	1	30
Jump	1	0	1
Unknown/Other			
Accidental - Unknown/Other	9	1	8
TOTAL	**2297**	**552**	**1745**

ETHANOL ASSOCIATED SUICIDE DEATHS (N=308)

Ethanol was detected in 32.5 percent of all suicides.

- Five out of 7 individuals (71.4%) who used a motor vehicle to commit suicide had ethanol on board.

Figure 67. Suicide Deaths by Age Group by Ethanol Level, 2008

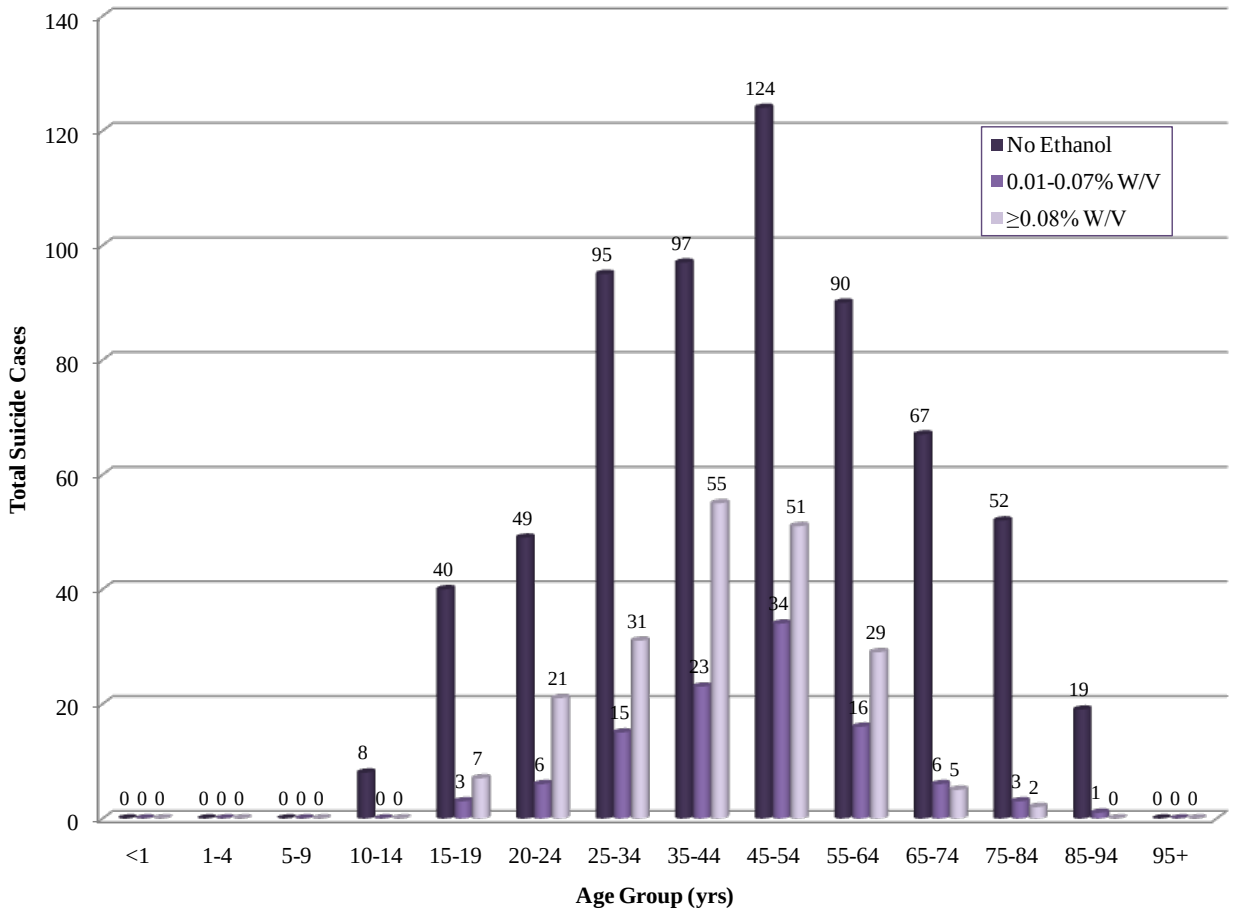


Table 32. Suicide Deaths by Alcohol Presence by Method of Death, 2008

Method of Death	Total Cases	Ethanol ≥0.01% W/V Yes	Ethanol ≥0.01% W/V No
Asphyxia			
Drowned	15	4	11
Hanging	181	53	128
Helium	6	2	4
Mechanical/Positional	1	0	1
Plastic bag	8	1	7
Drug Use			
Ingested and/or injected illicit, prescription, and/or OTC medication	136	43	93
Electricity			
Contacted electrical current	1	1	0
Fall or Jump			
Jumped or fell from height	20	6	14
Fire			
Smoke inhalation (Carbon monoxide)	4	3	1
Motor Vehicle			
Car	2	2	0
Pickup truck	1	1	0
Tractor trailer	1	0	1
Train	3	2	1
Poisoned			
Carbon Monoxide - Generator or motor vehicle exhaust	15	5	10
Ingested and/or injected other type of poison (Ethylene glycol, etc.)	9	1	8
Traumatic Injury			
Cut/Stabbed self	22	4	18
Shot self with firearm	523	180	343
Handgun	(399)	(132)	(267)
Rifle	(50)	(19)	(31)
Shotgun	(73)	(29)	(44)
Unspecified	(1)	(0)	(1)
Other			
Other traumatic causes	1	0	1
Total	**949**	**308**	**641**

ETHANOL ASSOCIATED HOMICIDE DEATHS (N=140)

Ethanol was detected in 35.1 percent of all homicides.

- Ethanol was detected in 42.4 percent of all homicide victims who were stabbed.

Figure 68. Homicide Deaths by Age Group by Ethanol Level, 2008

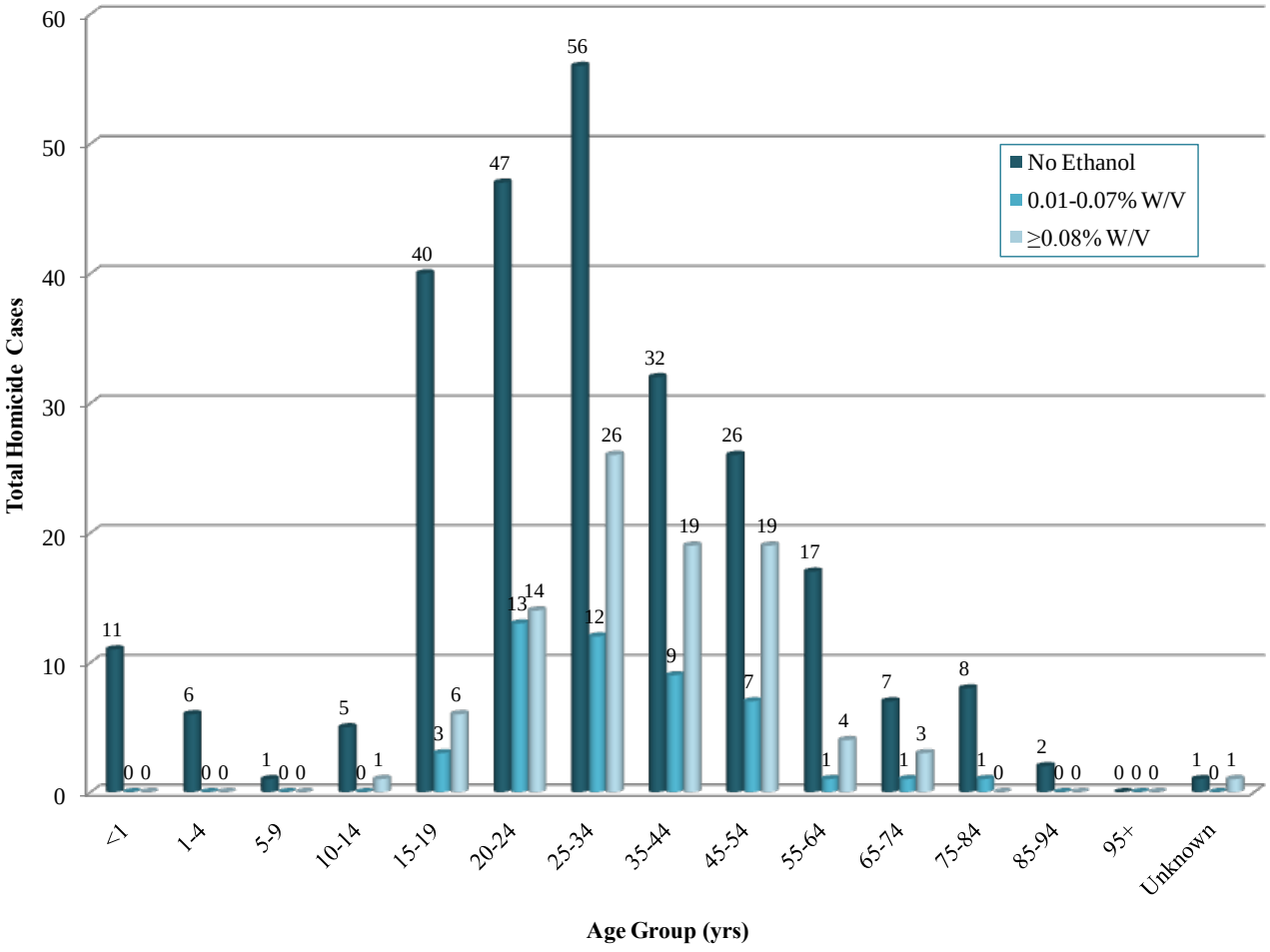


Table 32. Homicide Deaths by Ethanol Presence by Method of Death, 2008

Method of Death		Total Cases	Ethanol ≥0.01% W/V Yes	No
Asphyxia				
	Strangled by assailant(s)	10	3	7
	Suffocated/Smothered by assailant(s)	1	0	1
Fire				
	Thermal and/or inhalation injuries	2	1	1
Legal Intervention				
	Lethal injection	3	0	3
Motor Vehicle				
	Run over by vehicle	4	1	3
Poisoned				
	Poisoned by ethanol and/or drugs	2	0	2
Traumatic Injury				
	Beaten by assailant(s)	35	7	28
	Fall/Push	1	1	0
	Other traumatic violence	8	0	8
	Stabbed by assailant(s)	66	28	38
	Shot by assailant(s)	264	97	167
	Handgun	(188)	(71)	(117)
	Multiple	(2)	(0)	(2)
	Rifle	(14)	(4)	(10)
	Shotgun	(17)	(6)	(11)
	Unspecified	(43)	(16)	(27)
Unknown				
	Undetermined method	3	2	1
TOTAL		**399**	**140**	**259**

ETHANOL ASSOCIATED UNDETERMINED DEATHS (N=22)

Ethanol was detected in 15.8 percent of all undetermined deaths.

Figure 69. Undetermined Deaths by Ethanol Level by Age Group, 2008

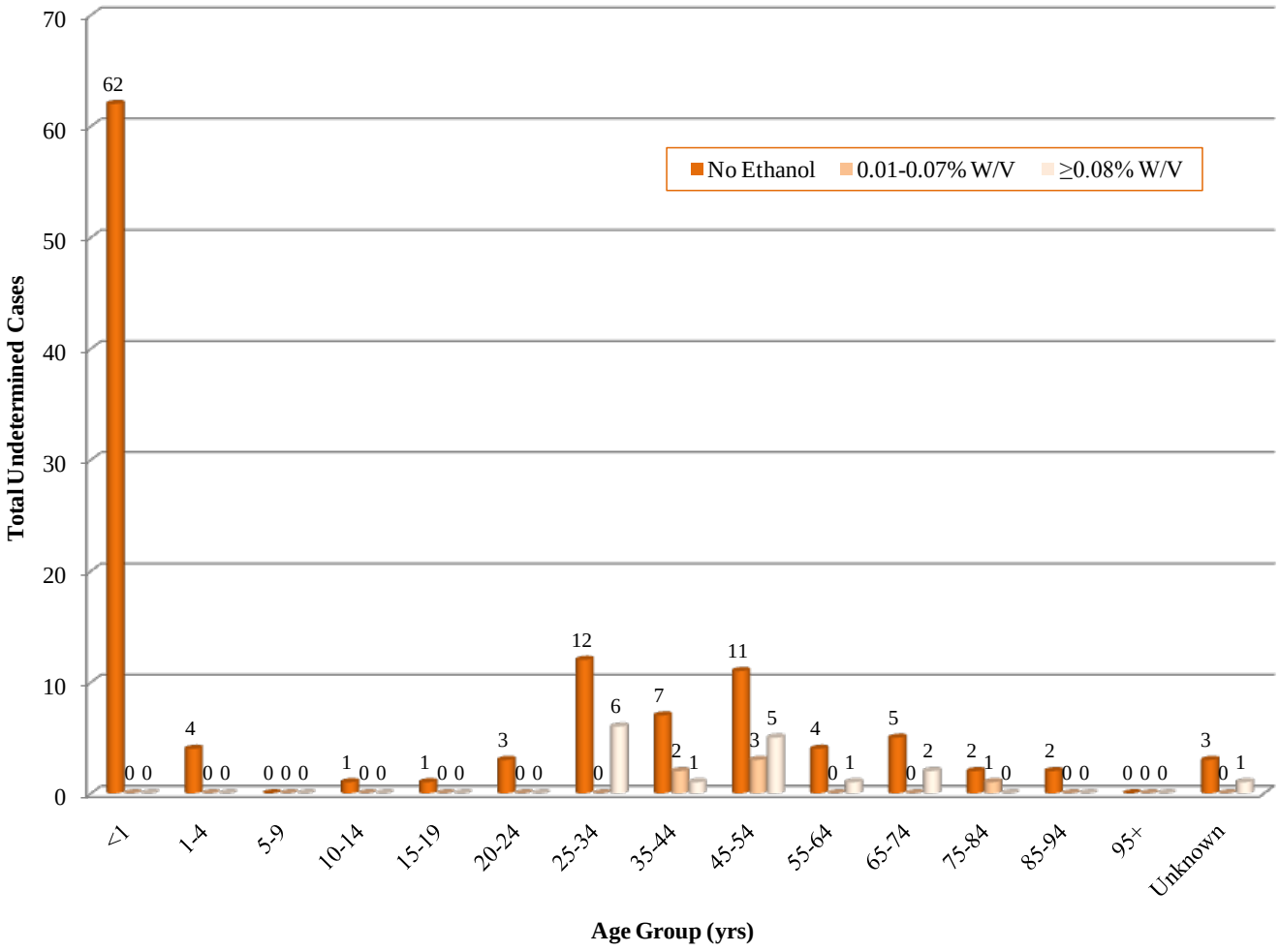


Table 33. Undermined Deaths by Ethanol Presence by Method of Death, 2008

	Total Cases	Ethanol ≥0.01% W/V Yes	No
Undetermined Manner & Cause of Death			
Undetermined after autopsy and/or toxicology	92	6	86
Subtotal for Undetermined Manner & Cause of Death	92	6	86
Undetermined Manner but Cause of Death Determined			
Asphyxia			
Strangulation	2	2	0
Drug Use			
Ingested and/or injected illicit, prescription, and/or OTC medication	14	1	13
Fire			
Smoke inhalation	1	0	1
Victim of fire	4	0	4
Motor Vehicle			
Pickup Truck	1	0	1
Sport Utility Vehicle	1	0	1
Traumatic Injury			
Beatings/Blows	4	2	2
Gunshot Wound	19	10	9
Handgun	(16)	(9)	(7)
Shotgun	(3)	(1)	(2)
Other Traumatic Causes	1	1	0
Subtotal for Undetermined Manner but Cause of Death Determined	47	16	31
Total	**139**	**22**	**117**

SECTION 6: MOTOR VEHICLE COLLISIONS RELATED DEATHS (N=929)

The OCME investigated 929 motor vehicle collision (MVC) related deaths in 2008. This is a 17.6% decrease from the previous year's high of 1,140 MVC deaths. Not only has the overall numbers decreased, but the rate of MVC deaths decreased from 13 per 100,000 to 10.3; the first substantial decrease in resident rate in 6 years.

- The vast majority of cases were accidents (98.4%) and males (73.1%).
- In 25.6 percent of all motor vehicle deaths, the decedent had a blood alcohol content greater than or equal to 0.08% W/V and 69.7% of them were drivers
- Persons aged 45-54 years old had more deaths (16%) in motor vehicle incidents than any other age group.
- Eighteen children under the age of 10 died in MVC-related incidents with 4 or 22.2% of them being drivers or front seat passengers.

Figure 70. Motor Vehicle Deaths & Rate by Year of Death, 2003-2008

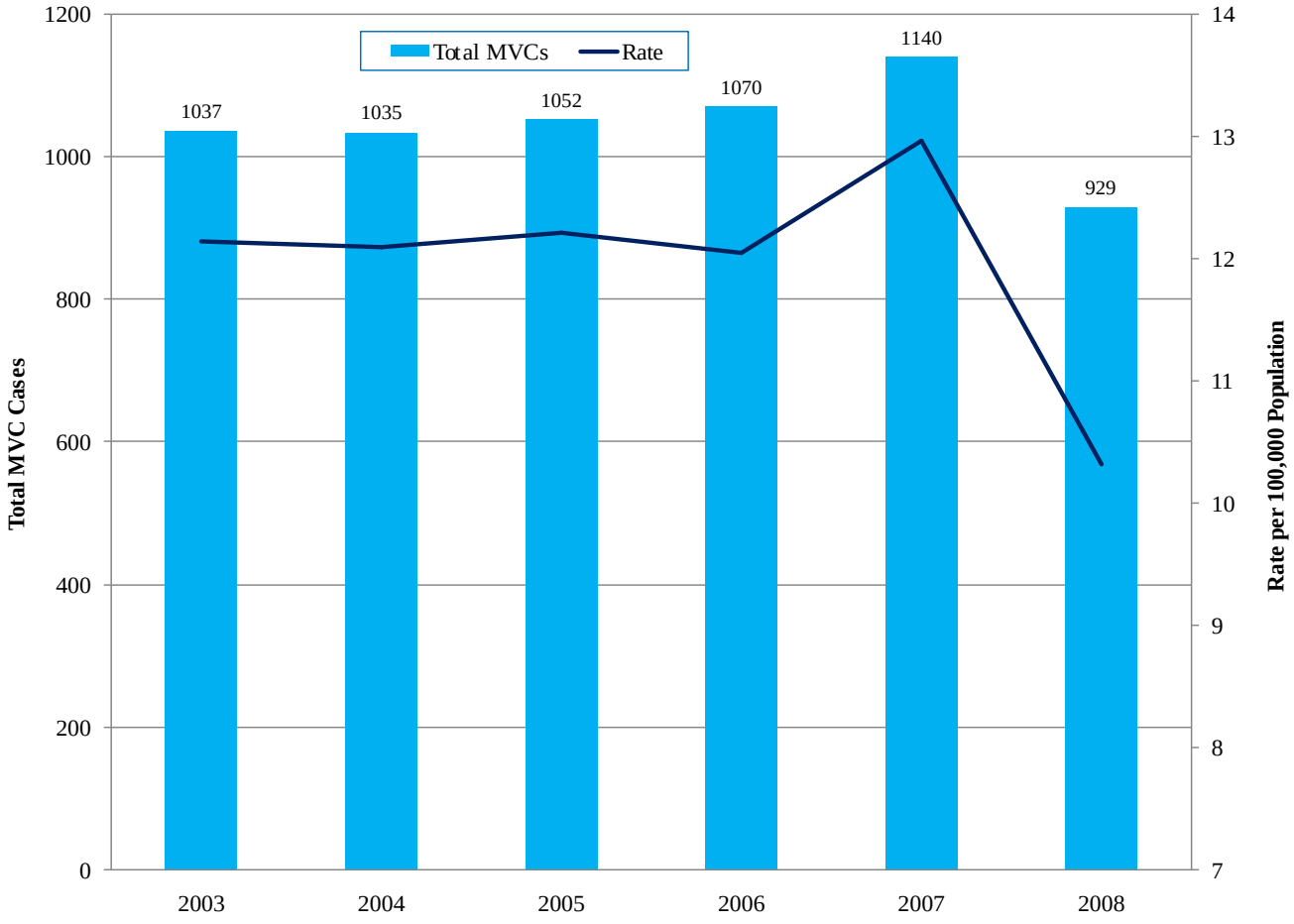


Figure 71. Motor Vehicle Deaths by Manner, 2008

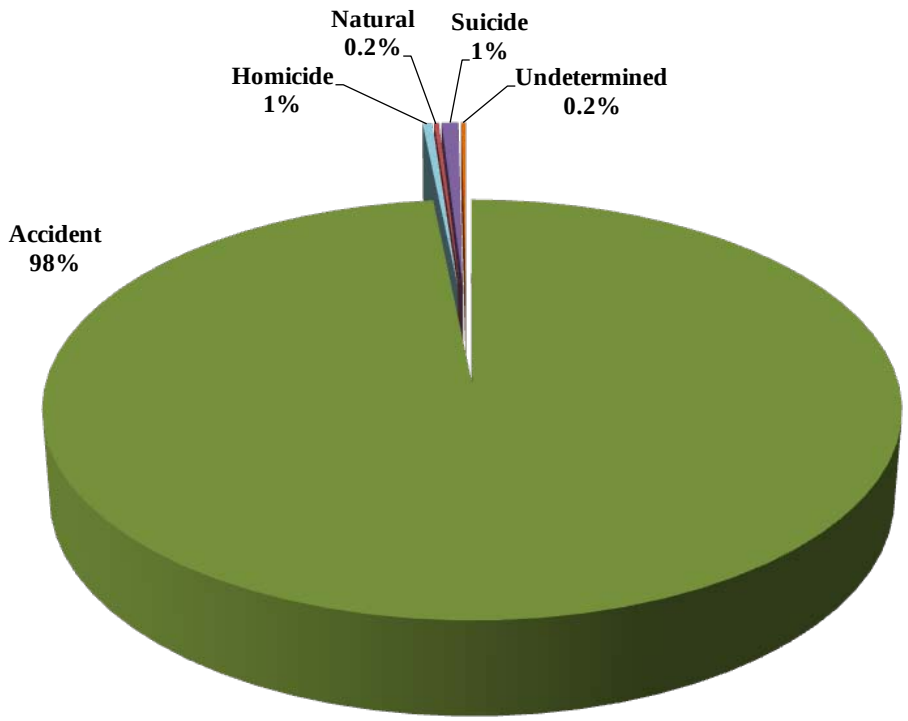


Figure 72. Motor Vehicle Deaths by Age Group by Gender, 2008

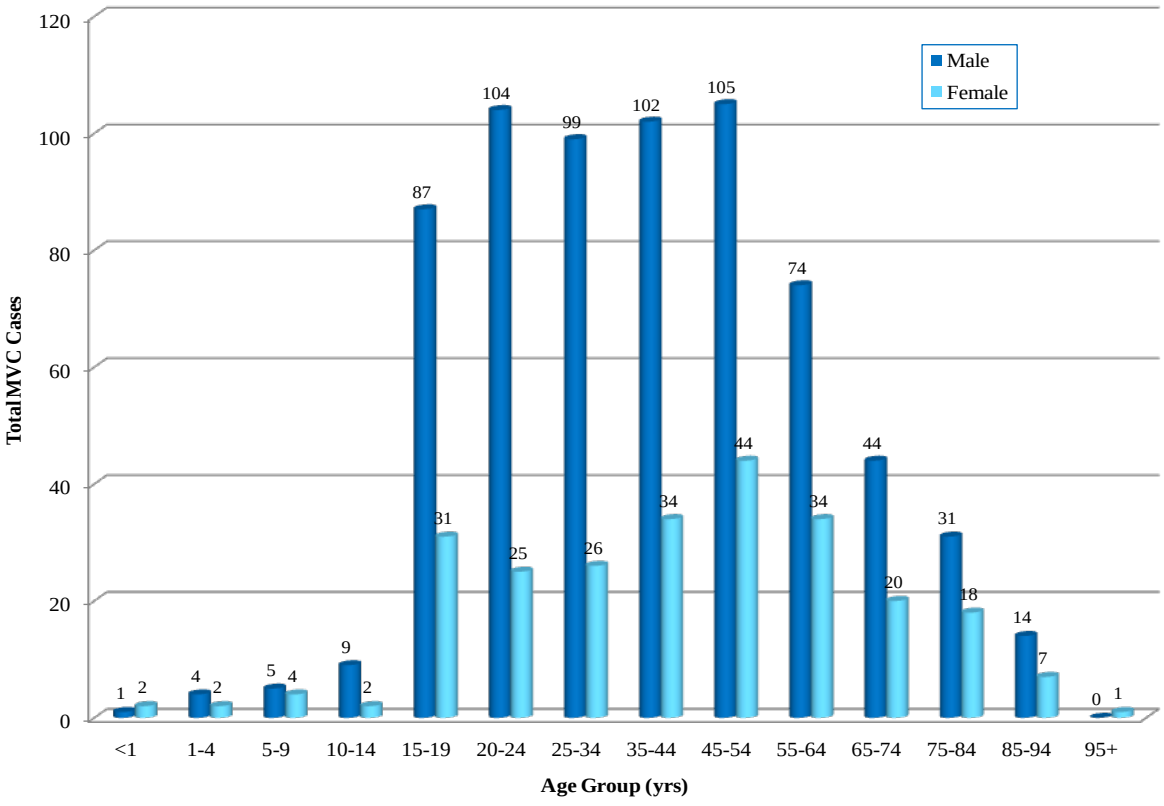


Figure 73. Motor Vehicle Deaths by Age Group by Gender by Ethanol Presence, 2008

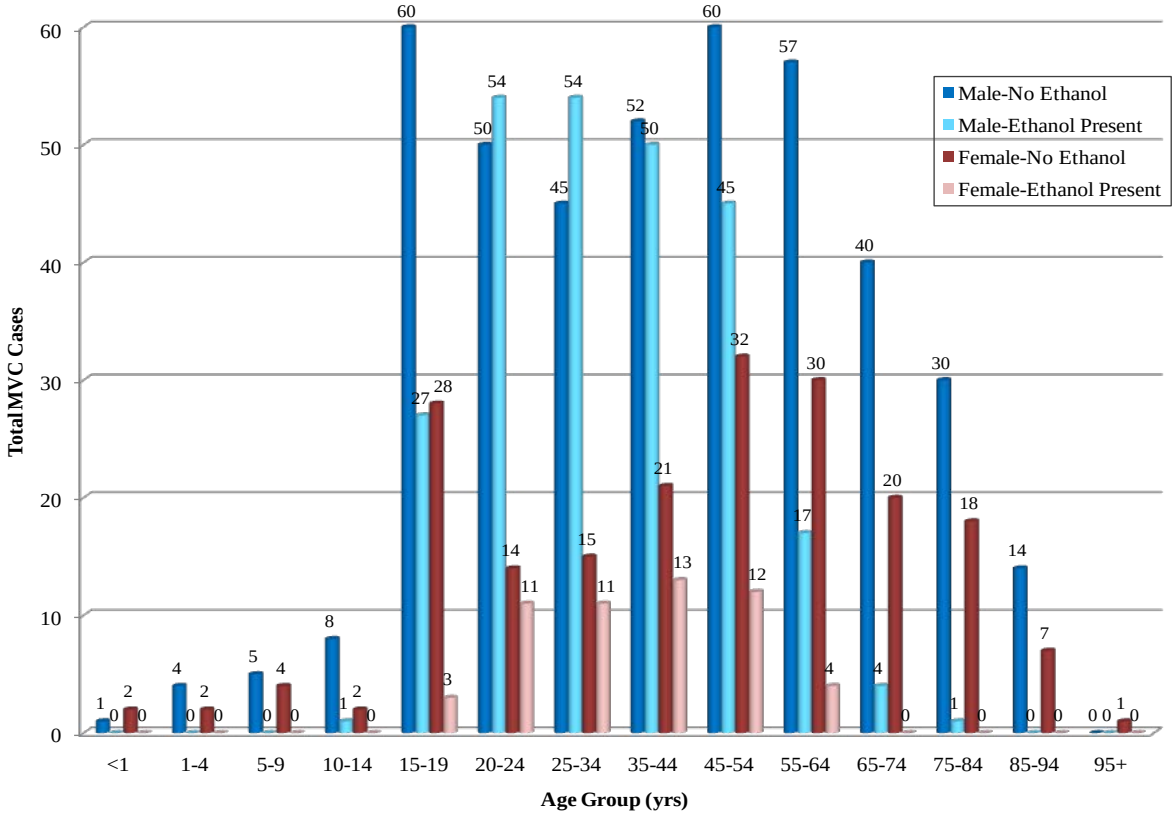


Figure 74. Proportion of Motor Vehicle Deaths by Race/Ethnicity, 2008

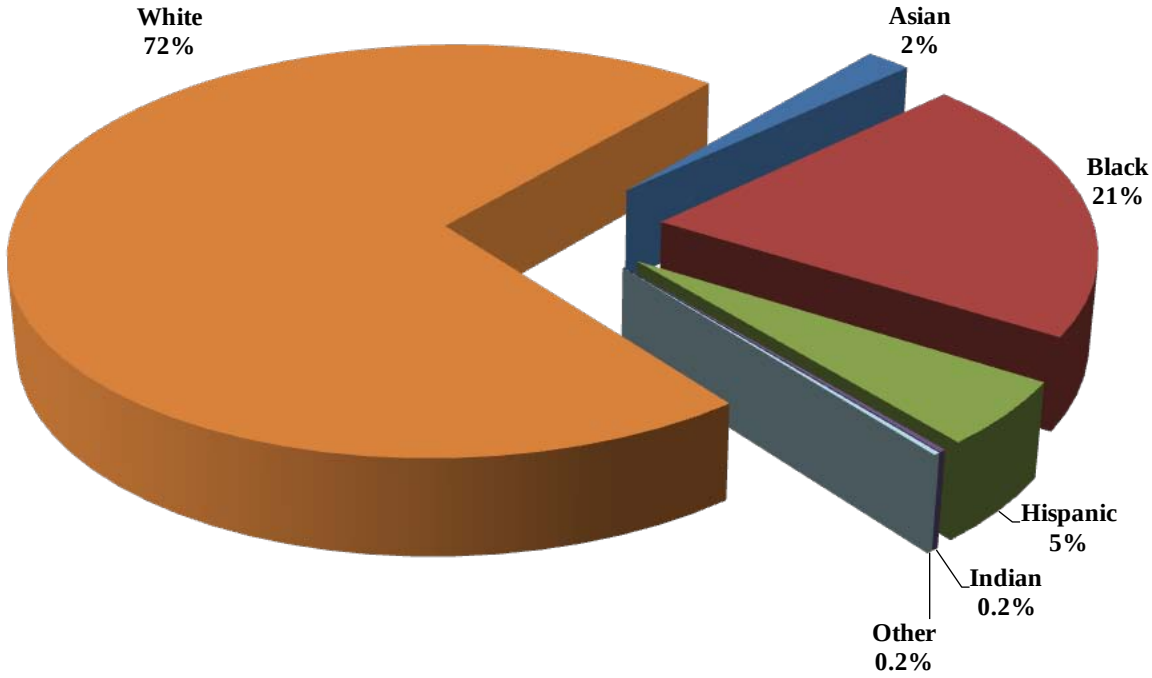


Figure 75. Motor Vehicle Deaths by Race/Ethnicity by Ethanol Presence, 2008

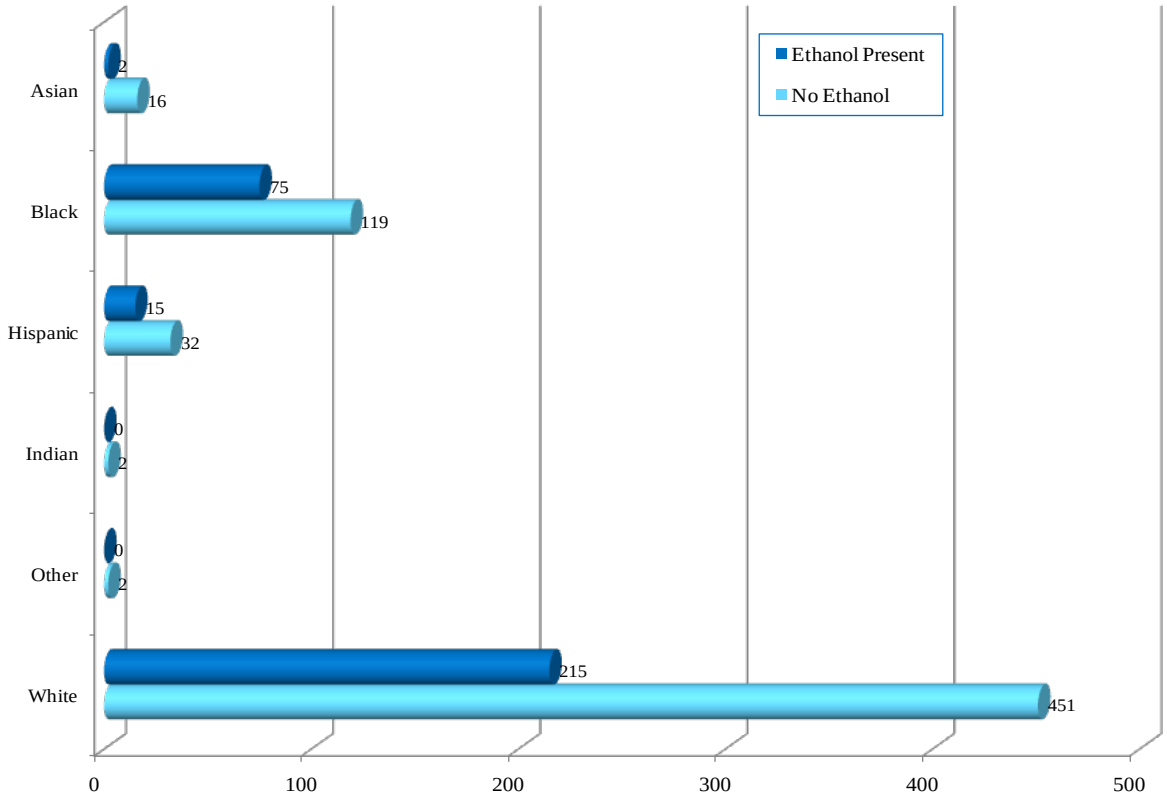


Table 34. Motor Vehicle Deaths by Age Group by Position In or Out of Vehicle, 2008

Age Group	Driver	Passenger-Front	Passenger-Rear	Passenger-Cargo	Passenger-Other	Pedestrian	Unknown Status	Total
<1	0	1	2	0	0	0	0	**3**
1-4	0	1	3	1	0	1	0	**6**
5-9	1	1	4	0	1	2	0	**9**
10-14	3	2	2	1	1	2	0	**11**
15-19	68	24	10	3	3	8	2	**118**
20-24	89	14	9	2	4	11	0	**129**
25-34	89	14	2	5	1	11	3	**125**
35-44	95	12	4	3	2	19	1	**136**
45-54	110	10	3	2	2	20	2	**149**
55-64	78	5	2	2	2	15	4	**108**
65-74	45	4	0	0	0	14	1	**64**
75-84	34	7	1	1	0	3	3	**49**
85-94	15	3	1	0	0	2	0	**21**
95+	0	1	0	0	0	0	0	**1**
Total	**627**	**99**	**43**	**20**	**16**	**108**	**16**	**929**

Figure 76. Motor Vehicle Deaths by Position in or Out of Vehicle by Ethanol Level, 2008

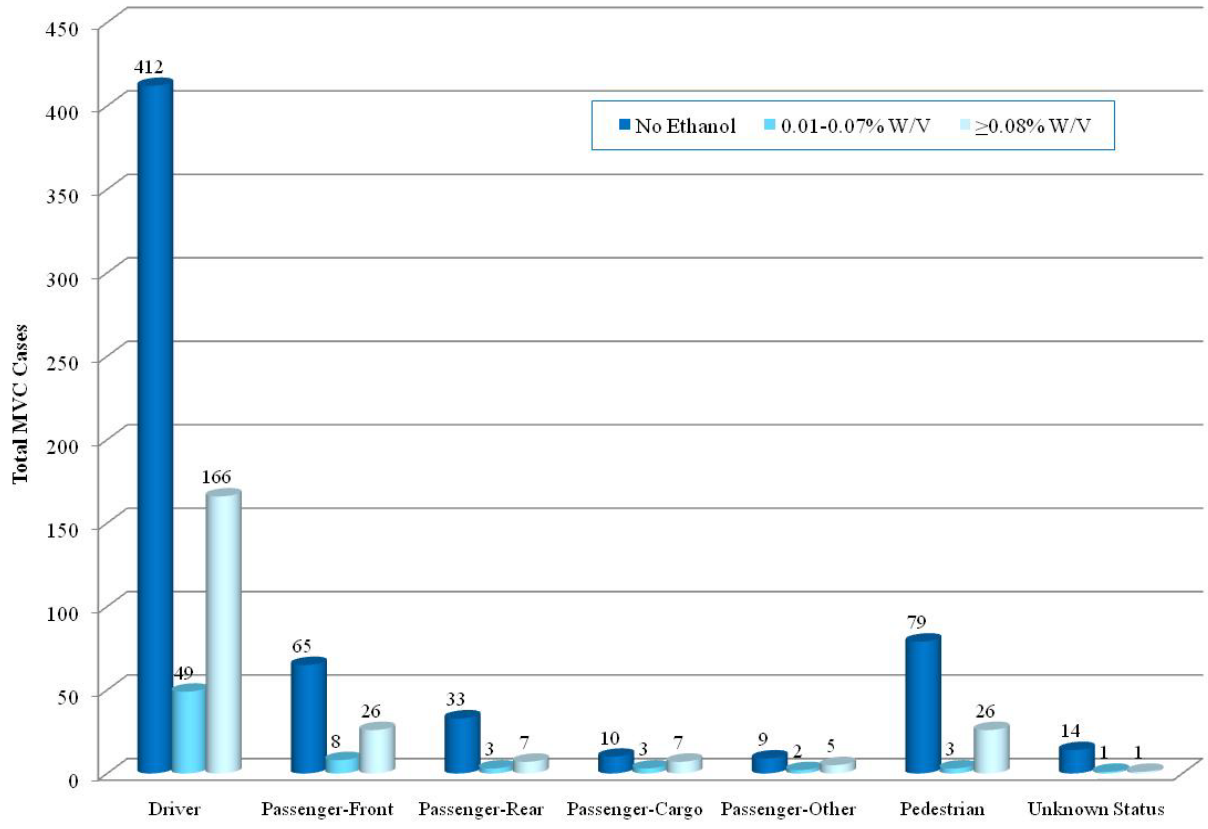


Table 35. Motor Vehicle Deaths by Decedent Status by Vehicle Type by Ethanol Level, 2008

		Ethanol Presence			
Status of Decedent	Vehicle	No Ethanol	0.01-0.07% W/V	≥0.08% W/V	Total
Driver	Aircraft	7	0	0	7
	All Terrain Vehicle	9	2	3	14
	Bicycle	10	0	2	12
	Bus	2	0	0	2
	Car	192	25	97	314
	Dump Truck	4	0	0	4
	Farm Equipment	6	0	2	8
	Lawnmower	2	0	0	2
	Moped	7	0	3	10
	Motorcycle	54	10	18	82
	Pickup Truck	52	4	22	78
	Sport Utility Vehicle	30	4	16	50
	Tractor Trailer	8	1	0	9
	Truck Other	5	1	2	8

Continued

Status of Decedent	Vehicle	Ethanol Presence: No Ethanol	0.01-0.07% W/V	≥0.08% W/V	Total
	Unknown	5	0	0	5
	Van	19	2	1	22
	Subtotal	**412**	**49**	**166**	**627**
Passenger	Aircraft	3	0	1	4
	All Terrain Vehicle	0	0	2	2
	Boat	1	0	1	2
	Car	71	11	29	111
	Motorcycle	3	1	0	4
	Pickup Truck	11	1	7	19
	Sport Utility Vehicle	19	3	3	25
	Tractor Trailer	2	0	0	2
	Truck Other	2	0	0	2
	Van	5	0	2	7
	Subtotal	**117**	**16**	**45**	**178**
Pedestrian	Bicycle	1	0	0	1
	Bus	1	0	1	2
	Car	27	0	9	36
	Dump Truck	3	1	0	4
	Farm Equipment	2	0	0	2
	Multiple Vehicle	2	0	0	2
	Pickup Truck	9	0	2	11
	Sport Utility Vehicle	12	2	3	17
	Tractor Trailer	6	0	1	7
	Train	5	0	4	9
	Unknown	5	0	3	8
	Van	6	0	3	9
	Subtotal	**79**	**3**	**26**	**108**
Unknown	Car	3	0	0	3
	Pickup Truck	0	1	1	2
	Unknown	11	0	0	11
	Subtotal	**14**	**1**	**1**	**16**
Total		**622**	**69**	**238**	**929**

SECTION 7: DRUG/POISON CAUSED DEATHS (N=735)

OVERALL DRUG/POISON DEATHS

For the 5th year in a row, the number of drug/poisoning cases increased with an overall increase of 91.4 percent since 1999.

- The overall rate of drug/poison caused deaths for Virginia residents was 9.5 per 100,000 people.
- The majority of cases were accidents (78.1%), males (61.4%), whites (86.1%), and 35-44 year olds (27.2%).
- The Western OCME district handled one-third of all drug/poison deaths.
- Narcotics were the most frequently identified class of compounds (36.2%) followed by anti-anxiety medications (15.6%).
- Twenty-three of the 735 or 3.1% of drug/poison deaths were ethanol-only deaths.
- Whites died from prescription drugs 4.5 times that of blacks while blacks died from illegal drugs 1.6 times that of whites.

Figure 77. Total Drug/Poison Deaths & Rate by Year of Death, 1999-2008

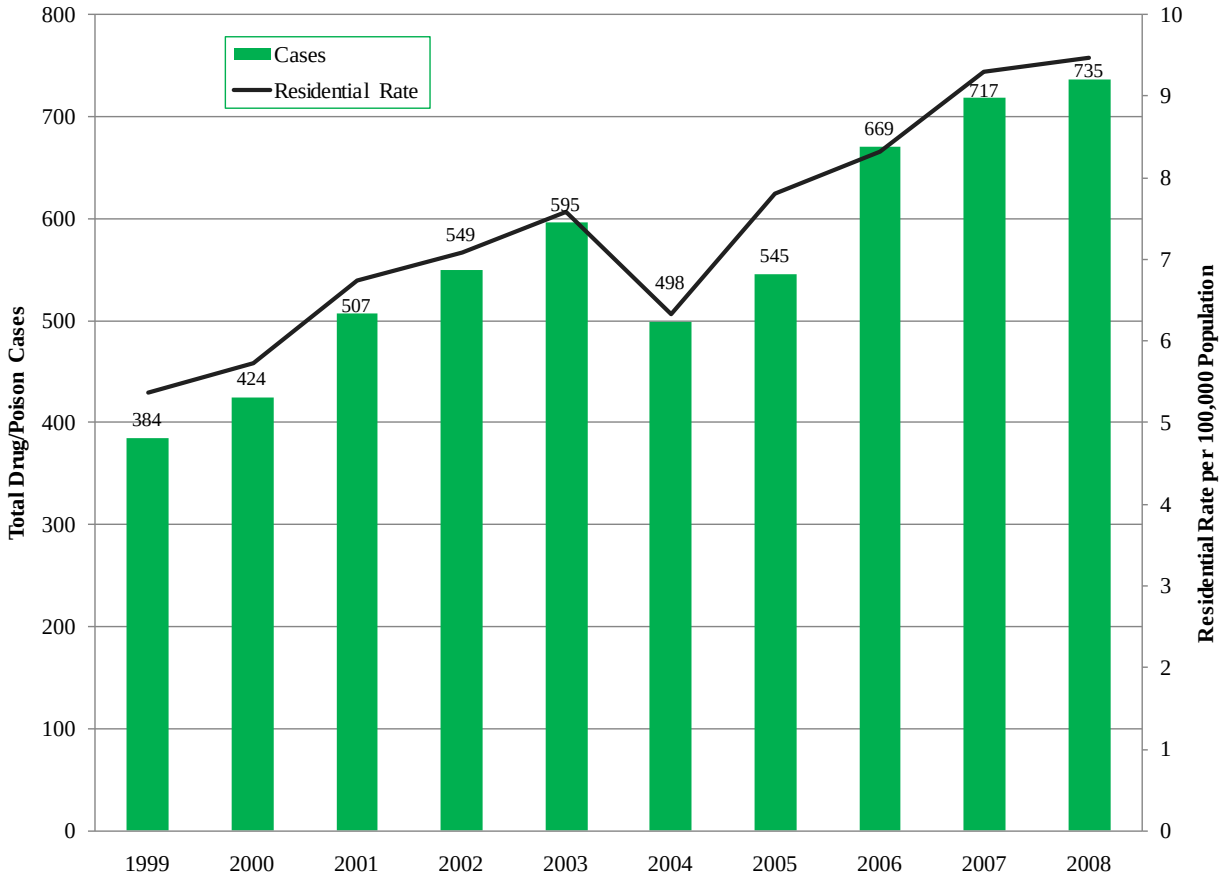


Table 36. Drug/Poison Caused Deaths by OCME District, 2008

OCME District	Cases	Percent
Central	200	27.2%
Northern	165	22.4%
Tidewater	124	16.9%
Western	246	33.4%5
Total	**735**	**100%**

Figure 78. Proportion of Drug/Poison Caused Deaths by Manner of Death, 2008

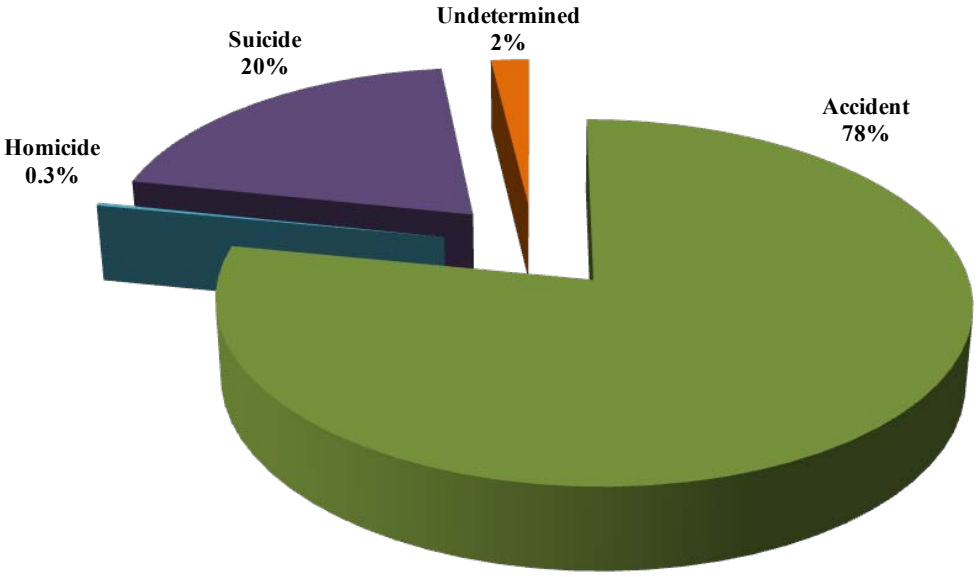


Figure 79. Drug/Poison Caused Deaths by Age Group by Gender, 2008

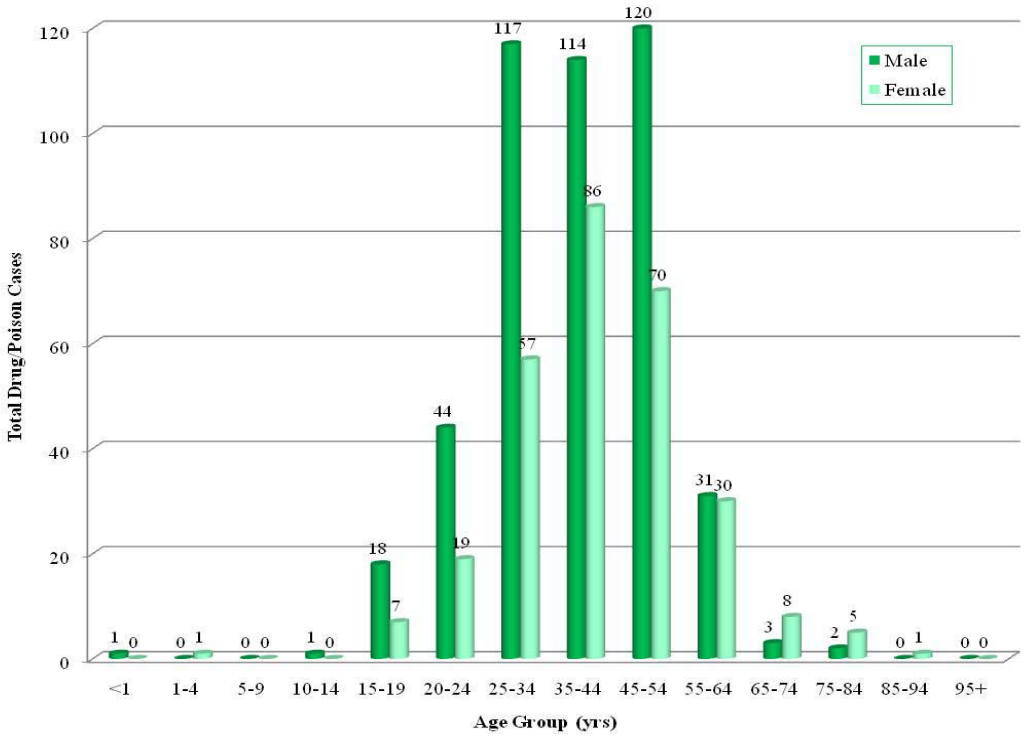


Table 37. Drug/Poison Caused Deaths by Age Group by Manner of Death, 2008

Age Group	Manner of Death				
	Accident	Homicide	Suicide	Undetermined	Total
<1	0	1	0	0	**1**
1-4	1	0	0	0	**1**
5-9	0	0	0	0	**0**
10-14	1	0	0	0	**1**
15-19	24	0	1	0	**25**
20-24	55	0	8	0	**63**
25-34	146	0	22	6	**174**
35-44	155	1	42	2	**200**
45-54	151	0	36	3	**190**
55-64	35	0	24	2	**61**
65-74	5	0	5	1	**11**
75-84	1	0	6	0	**7**
85-94	0	0	1	0	**1**
95+	0	0	0	0	**0**
Total	**574**	**2**	**145**	**14**	**735**

Figure 80. Proportion of Drug/Poison Caused Deaths by Race/Ethnicity, 2008

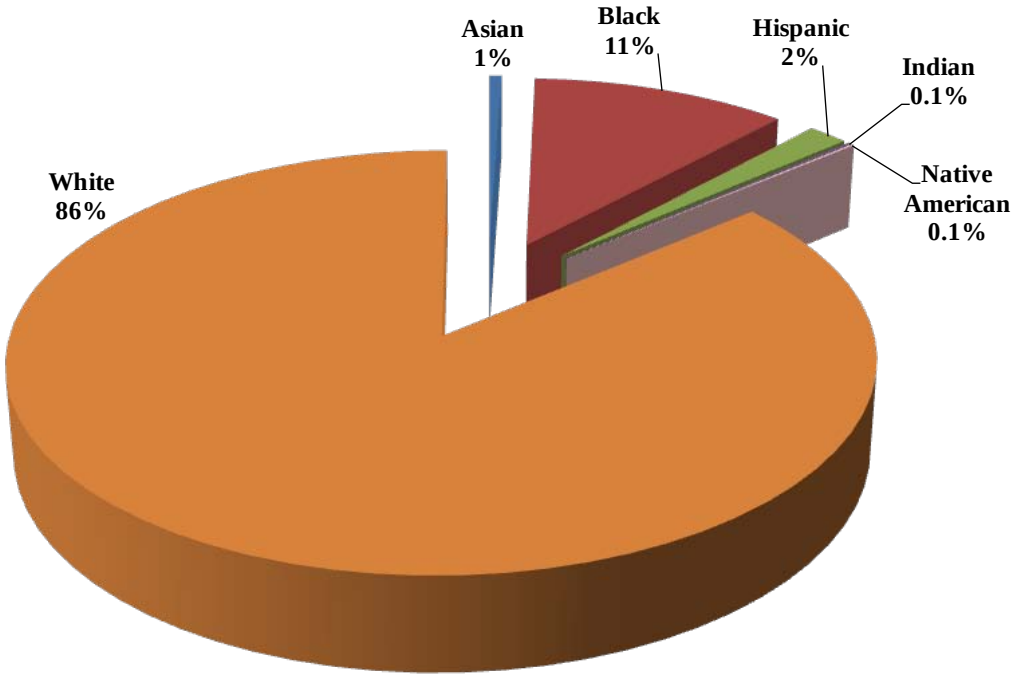


Table 38. Drug/Poison Caused Deaths by Cause of Death by OCME District, 2008

	OCME District				
Cause of Death	**Central**	**Northern**	**Tidewater**	**Western**	**Total**
Ethanol Poisoning	8	8	2	5	**23**
Prescription Drug Poisoning	118	73	73	186	**450**
Illegal (Street) Drug Poisoning	59	38	27	16	**140**
Mixed Category Drug Poisoning	6	33	15	31	**85**
Inhalant Poisoning	2	1	0	4	**7**
OTC Poisoning	2	6	4	0	**12**
Ethylene Glycol Poisoning	0	4	0	1	**5**
Not Otherwise Specified Poisoning	2	1	2	2	**7**
Other Poisons (Heavy Metals, etc.)	3	1	1	1	**6**
Total	**200**	**165**	**124**	**246**	**735**

Table 39. Drug/Poison Caused Deaths by Manner of Death by Drug/Poison Type, 2008

Manner of Death	Total
Accident	
Ethanol Poisoning	23
Prescription Drug Poisoning	331
Illegal (Street) Drug Poisoning	139
Mixed Category Drug Poisoning	64
Inhalant Poisoning	6
OTC Poisoning	4
Ethylene Glycol Poisoning	0
Not Otherwise Specified Poisoning	5
Other Poisons (Heavy Metals, etc.)	2
Subtotal	**574**
Homicide	
Ethanol Poisoning	0
Prescription Drug Poisoning	2
Illegal (Street) Drug Poisoning	0
Mixed Category Drug Poisoning	0
Inhalant Poisoning	0
OTC Poisoning	0
Ethylene Glycol Poisoning	0
Not Otherwise Specified Poisoning	0
Other Poisons (Heavy Metals, etc.)	0
Subtotal	**2**

Continued

Suicide	
Ethanol Poisoning	0
Prescription Drug Poisoning	107
Illegal (Street) Drug Poisoning	0
Mixed Category Drug Poisoning	19
Inhalant Poisoning	1
OTC Poisoning	8
Ethylene Glycol Poisoning	5
Not Otherwise Specified Poisoning	1
Other Poisons (Heavy Metals, etc.)	4
Subtotal	**145**
Undetermined	
Ethanol Poisoning	0
Prescription Drug Poisoning	10
Illegal (Street) Drug Poisoning	1
Mixed Category Drug Poisoning	2
Inhalant Poisoning	0
OTC Poisoning	0
Ethylene Glycol Poisoning	0
Not Otherwise Specified Poisoning	1
Other Poisons (Heavy Metals, etc.)	0
Subtotal	**14**
Total	**735**

Figure 81. Drug/Poison Caused Deaths by Drug Type by Gender, 2008

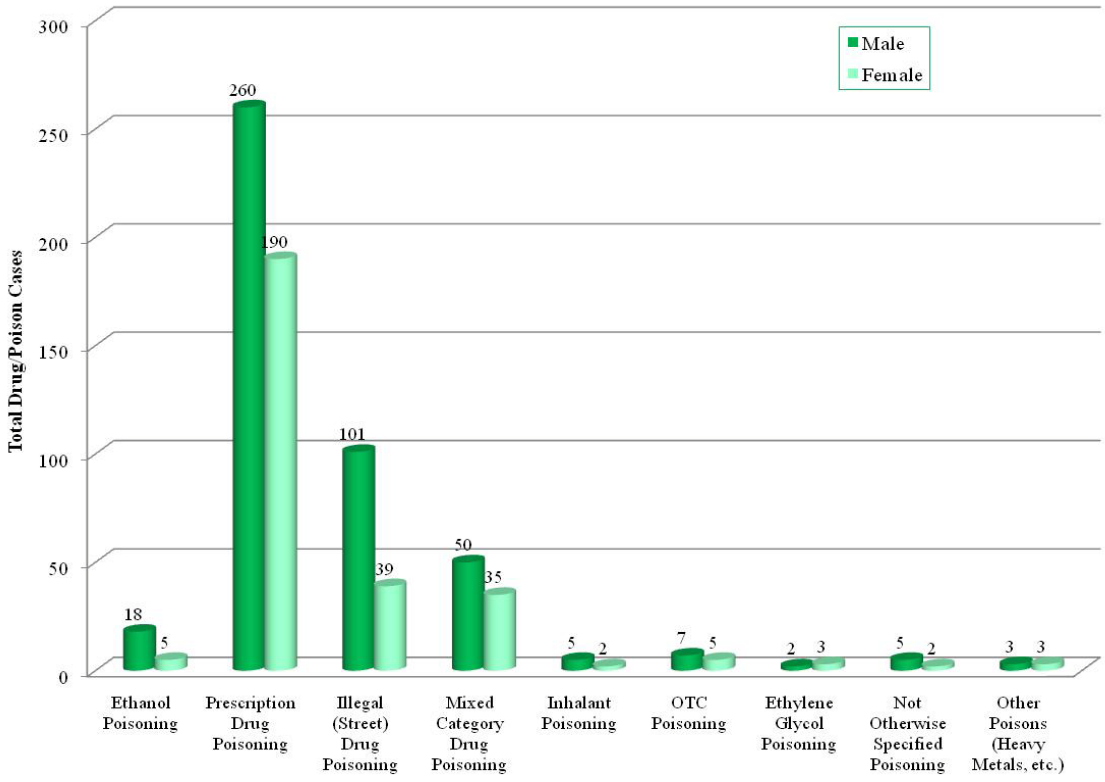


Figure 82. Specific Type of Drug/Poison Caused Deaths by Race/Ethnicity, 2008

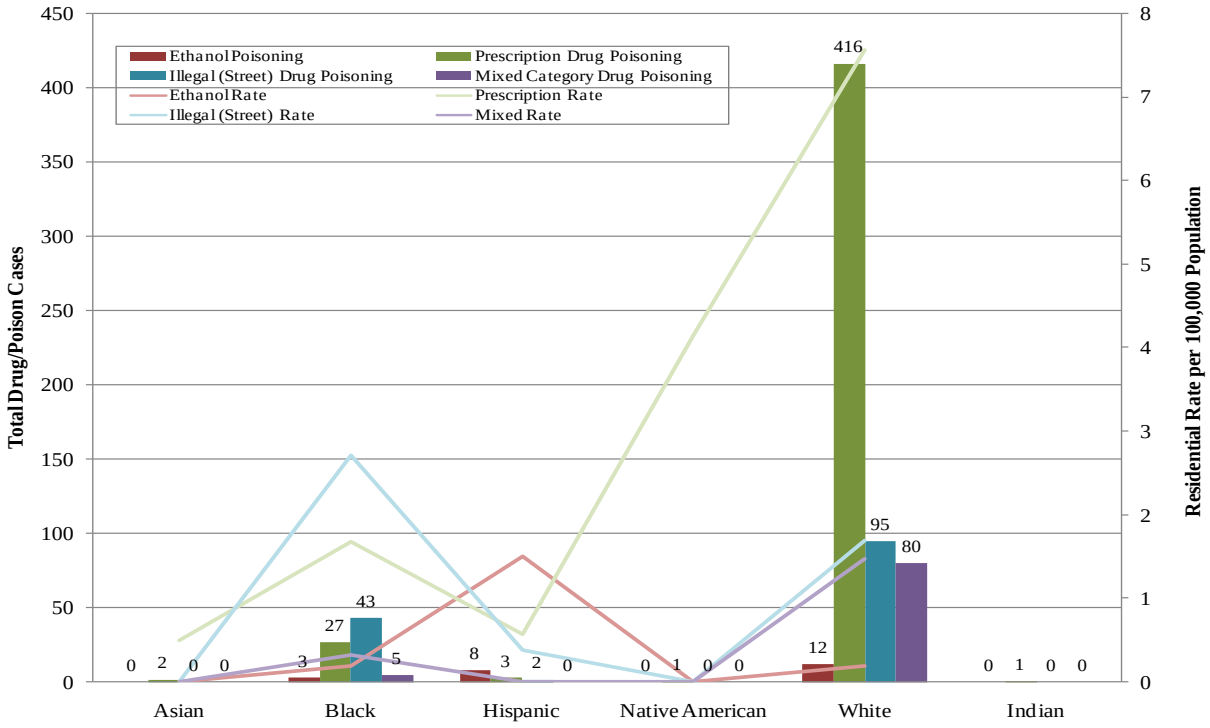


Figure 83. Drug/Poison Caused Deaths by Drug Type by Ethanol Presence, 2008

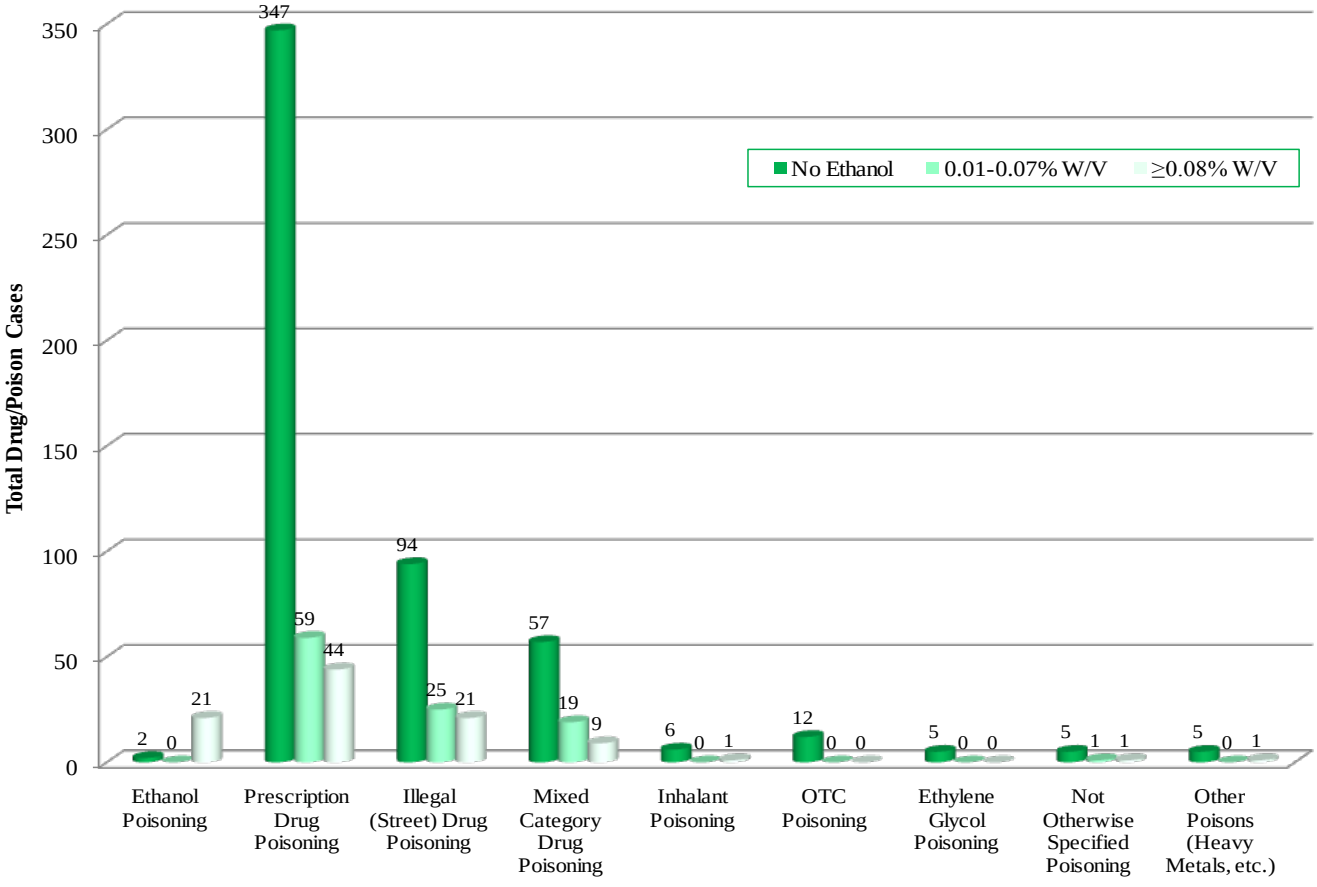
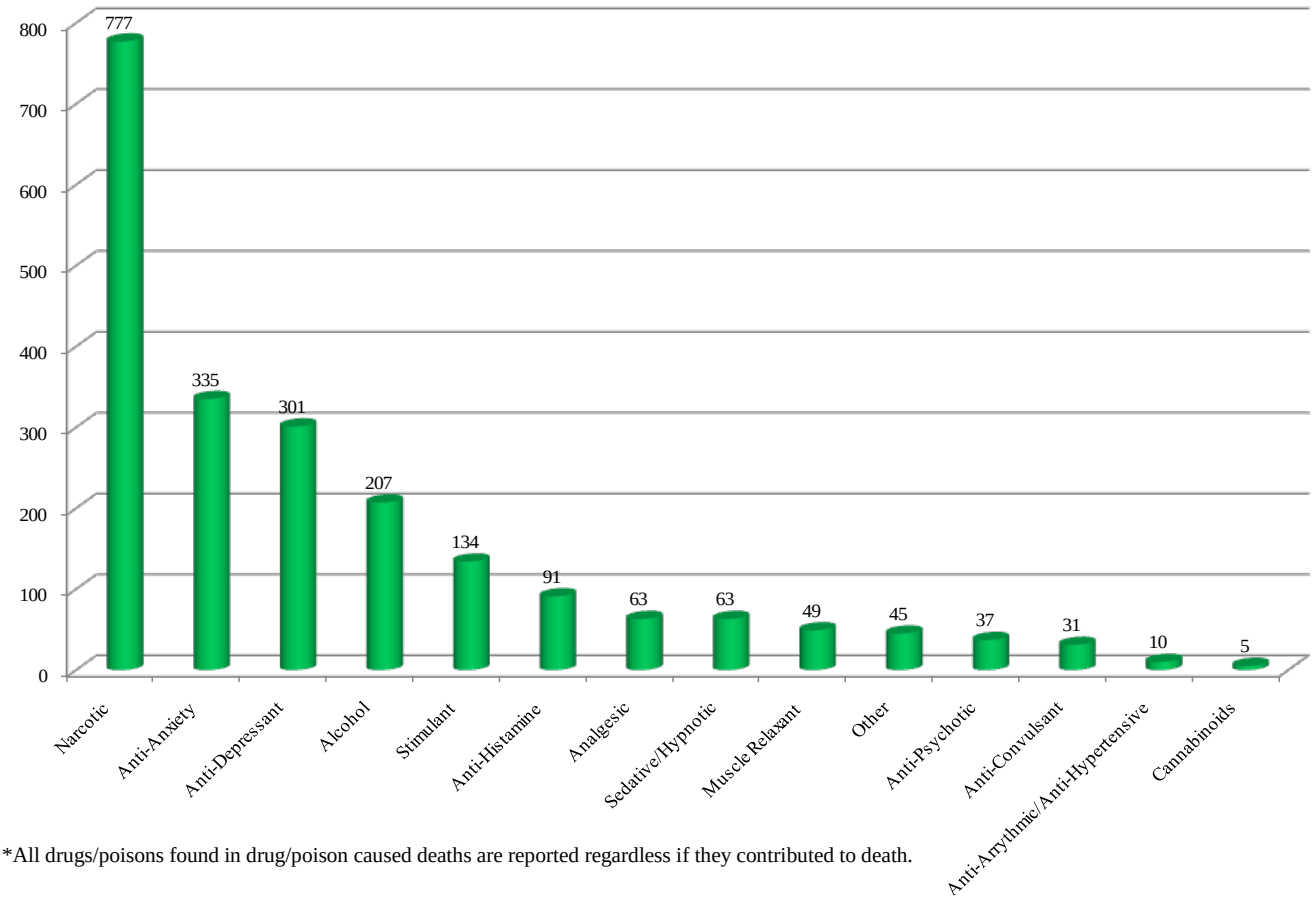


Figure 84. Classes of All Drugs/Poisons Present* in Drug/Poison Caused Deaths, 2008



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

Table 40. All Drugs/Poisons/Active Metabolites Present* in Drug/Poison Caused Deaths, 2008

Class	Drug/Poison/Active Metabolite	Total
Alcohol		
	ETHANOL	202
	METHANOL	4
	TERPINEOL	1
	Alcohol Total	**207**
Analgesic		
	ACETAMINOPHEN	11
	ANTIPYRINE	1
	DEXTROMETHORPHAN	14
	IBUPROFEN	3
	KETAMINE	1
	NORKETAMINE (Ketamine Metabolite)	1
	ACETYL SALICYLIC ACID	2
	TRAMADOL	30
	Analgesic Total	**63**

Continued

Class	Drug/Poison/Active Metabolite	Total
Anti-Anxiety		
	ALPRAZOLAM	134
	CHLORDIAZEPOXIDE	3
	DIAZEPAM	82
	LORAZEPAM	13
	MEPROBAMATE	21
	NORDIAZEPAM (Diazepam Metabolite)	82
	Anti-Anxiety Total	**335**
Anti-Arrythmic/Anti-Hypertensive		
	DILTIAZEM	3
	METOPROLOL	1
	VERAPAMIL	6
	Anti-Arrythmic/Anti-Hypertensive Total	**10**
Anti-Convulsant		
	CARBAMAZEPINE	5
	CLONAZEPAM	4
	GABAPENTIN	4
	LAMOTRIGINE	5
	OXCARBAZEPINE	2
	PHENOBARBITAL	4
	TOPIRAMATE	5
	VALPROIC ACID	2
	Anti-Convulsant Total	**31**
Anti-Depressant		
	AMITRIPTYLINE	48
	BUPROPION (Wellbutrin)	26
	CITALOPRAM	50
	DESIPRAMINE	2
	DOXEPIN	5
	FLUOXETINE	30
	FLUVOXAMINE	1
	IMIPRAMINE	2
	MIRTAZAPINE	16
	NORDOXEPIN (Doxepin Metabolite)	2
	NORFLUOXETINE (Fluoxetine Metabolite)	5
	NORTRIPTYLENE (Triptylene Metabolite)	43
	PAROXETINE	6
	SERTRALINE	21
	TRAZODONE	18
	VENLAFAXINE	26
	Anti-Depressant Total	**301**
Anti-Histamine		
	CHLORPHENIRAMINE	18

Continued

Class	Drug/Poison/Active Metabolite	Total
	DIPHENHYDRAMINE	55
	DOXYLAMINE	13
	HYDROXYZINE	1
	MECLIZINE	1
	NORCHLORCYCLIZINE	1
	ORPHENADRINE	2
	Anti-Histamine Total	**91**
Anti-Psychotic		
	CHLORPROMAZINE	2
	CLOZAPINE	1
	OLANZAPINE	8
	PROCHLORPERAZINE	1
	PROMAZINE	1
	QUETIAPINE	24
	Anti-Psychotic Total	**37**
Cannabinoids		
	TETRAHYDROCANNABINOL CARBOXYLIC ACID	5
	Cannabinoids Total	**5**
Muscle Relaxant		
	CARISOPRODOL	15
	CYCLOBENZAPRINE	29
	METAXALONE	2
	METHOCARBAMOL	2
	PANCURONIUM BROMIDE	1
	Muscle Relaxant Total	**49**
Narcotic		
	ACETYLMORPHINE (Heroin Metabolite)	39
	CODEINE (Possible Heroin Metabolite)	53
	FENTANYL	68
	HYDROCODONE	81
	HYDROMORPHONE	13
	MEPERIDINE	2
	METHADONE	144
	MORPHINE (Possible Heroin Metabolite)	156
	NORMEPERIDINE	1
	NORPROPOXYPHENE	18
	OXYCODONE	137
	OXYMORPHONE	36
	PROPOXYPHENE	29
	Narcotic Total	**777**
Other		
	ACETONE	3
	BENZTROPINE	3

Continued

Class	Drug/Poison/Active Metabolite	Total
	CARBOXYHEMOGLOBIN	11
	CHLOROPRENE	1
	DICYCLOMINE	1
	DIFLUOROETHANE	2
	ETHYLENE GLYCOL	5
	FREON (CHLORODIFLUORMETHANE)	2
	GAMMA-HYDROXYBUTYRATE	1
	LACTONE	1
	LIDOCAINE	8
	LITHIUM	1
	PHENCYCLIDINE	5
	Other Total	**44**
Sedative/Hypnotic		
	BUTALBITAL	8
	FLURAZEPAM	1
	N-DESALKYFLURAZEPAM (Flurazepam Metabolite)	1
	PENTOBARBITAL	1
	PROMETHAZINE	21
	PROPOFOL	1
	SODIUM THIOPENTAL	1
	TEMAZEPAM	12
	ZOLPIDEM	17
	Sedative/Hypnotic Total	**63**
Stimulant		
	AMPHETAMINE	12
	COCAETHYLENE	29
	COCAINE	82
	METHAMPHETAMINE	10
	PHENTERMINE	1
	Stimulant Total	**134**
Total		**2147**

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

Table 41. Drugs/Poisons/Active Metabolites Causing Death in Drug/Poison Caused Deaths, 2008

Class	Drug/Poison/Active Metabolite	Total
Alcohol		
	ETHANOL	96
	METHANOL	1
	TERPINEOL	1
	Alcohol Total	**98**
Analgesic		
	ACETAMINOPHEN	5
	DEXTROMETHORPHAN	7
	KETAMINE	1
	ACETYL SALICYLIC ACID	2
	TRAMADOL	26
	Analgesic Total	**41**
Anti-Anxiety		
	ALPRAZOLAM	95
	CHLORDIAZEPOXIDE	1
	DIAZEPAM	42
	LORAZEPAM	9
	MEPROBAMATE	14
	NORDIAZEPAM (Diazepam Metabolite)	36
	Anti-Anxiety Total	**197**
Anti-Arrythmic/Anti-Hypertensive		
	DILTIAZEM	1
	METOPROLOL	1
	VERAPAMIL	3
	Anti-Arrythmic/Anti-Hypertensive Total	**5**
Anti-Convulsant		
	CLONAZEPAM	2
	GABAPENTIN	2
	LAMOTRIGINE	2
	PHENOBARBITAL	2
	TOPIRAMATE	1
	Anti-Convulsant Total	**9**
Anti-Depressant		
	AMITRIPTYLINE	40
	BUPROPION (Wellbutrin)	14
	CITALOPRAM	24
	DESIPRAMINE	2
	DOXEPIN	3
	FLUOXETINE	15
	FLUVOXAMINE	1
	IMIPRAMINE	2

Continued

Class	Drug/Poison/Active Metabolite	Total
	MIRTAZAPINE	11
	NORDOXEPIN (Doxepin Metabolite)	2
	NORFLUOXETINE (Fluoxetine Metabolite)	3
	NORTRIPTYLENE (Triptylene Metabolite)	27
	PAROXETINE	4
	SERTRALINE	12
	TRAZODONE	9
	VENLAFAXINE	16
	Anti-Depressant Total	**185**
Anti-Histamine		
	CHLORPHENIRAMINE	13
	DIPHENHYDRAMINE	32
	DOXYLAMINE	10
	MECLIZINE	1
	Anti-Histamine Total	**56**
Anti-Psychotic		
	CHLORPROMAZINE	1
	CLOZAPINE	1
	OLANZAPINE	6
	PROCHLORPERAZINE	1
	QUETIAPINE	14
	Anti-Psychotic Total	**23**
Muscle Relaxant		
	CARISOPRODOL	11
	CYCLOBENZAPRINE	19
	METAXALONE	1
	METHOCARBAMOL	1
	Muscle Relaxant Total	**32**
Narcotic		
	ACETYLMORPHINE (Heroin Metabolite)	13
	CODEINE (Possible Heroin Metabolite)	18
	FENTANYL	67
	HYDROCODONE	68
	HYDROMORPHONE	8
	MEPERIDINE	2
	METHADONE	137
	MORPHINE (Possible Heroin Metabolite)	153
	NORMEPERIDINE	1
	NORPROPOXYPHENE	13
	OXYCODONE	117
	OXYMORPHONE	24
	PROPOXYPHENE	25
	Narcotic Total	**646**

Continued

Class	Drug/Poison/Active Metabolite	Total
Other		
	BENZTROPINE	2
	DICYCLOMINE	1
	DIFLUOROETHANE	2
	ETHYLENE GLYCOL	5
	FREON (CHLORODIFLUORMETHANE)	2
	GAMMA-HYDROXYBUTYRATE	1
	LITHIUM	1
	PHENCYCLIDINE	4
	Other Total	**18**
Sedative/Hypnotic		
	BUTALBITAL	5
	PENTOBARBITAL	1
	PROMETHAZINE	9
	PROPOFOL	1
	TEMAZEPAM	8
	ZOLPIDEM	10
	Sedative/Hypnotic Total	**34**
Stimulant		
	AMPHETAMINE	9
	COCAETHYLENE	14
	COCAINE	74
	METHAMPHETAMINE	9
	PHENTERMINE	1
	Stimulant Total	**107**
Total		**1451**

Table 42. Drug/Poison Caused Deaths by City/County of Residence, 2008

City/County of Residence	Deaths	Rate
Accomack	0	0.0
Albemarle	5	5.3
Alexandria City	12	8.3
Alleghany	1	6.2
Amelia	0	0.0
Amherst	4	12.3
Appomattox	0	0.0
Arlington	16	7.6
Augusta	11	15.4
Bath	0	0.0
Bedford City	1	15.8
Bedford	6	9.0
Bland	1	14.5
Botetourt	3	9.3
Bristol City	2	11.5
Brunswick	0	0.0
Buchanan	10	42.5
Buckingham	0	0.0
Buena Vista	0	0.0
Campbell	4	7.5
Caroline	3	10.9
Carroll	6	20.6
Charles City	1	13.9
Charlotte	2	16.3
Charlottesville	2	4.8
Chesapeake	17	7.7
Chesterfield	34	11.2
Clarke	0	0.0
Colonial Heights	0	0.0
Covington	0	0.0
Craig	1	19.7
Culpeper	7	15.2
Cumberland	0	0.0
Danville	2	4.5
Dickenson	11	67.1
Dinwiddie	3	11.5
Emporia	1	17.7
Essex	0	0.0
Fairfax City	3	12.6
Fairfax	50	4.9

City/County of Residence	Deaths	Rate
Falls Church	0	0.0
Fauquier	6	9.0
Floyd	2	13.5
Fluvanna	0	0.0
Franklin City	1	11.3
Franklin	8	15.5
Frederick	9	12.2
Fredericksburg	2	8.8
Galax	0	0.0
Giles	4	23.2
Gloucester	2	5.2
Goochland	1	4.8
Grayson	0	0.0
Greene	1	5.6
Greensville	1	8.4
Halifax	3	8.5
Hampton	6	4.1
Hanover	8	8.0
Harrisonburg	1	2.3
Henrico	30	10.3
Henry	22	39.8
Highland	1	41.2
Hopewell	3	13.0
Isle of Wight	0	0.0
James City	4	6.4
King and Queen	3	43.9
King George	2	8.6
King William	0	0.0
Lancaster	2	17.4
Lee	2	8.5
Lexington	0	0.0
Loudoun	9	3.1
Louisa	4	12.2
Lunenburg	1	7.7
Lynchburg	3	4.1
Madison	2	14.7
Manassas	2	5.7
Martinsville	2	13.8
Mathews	0	0.0
Mecklenburg	3	9.3

City/County of Residence	Deaths	Rate
Middlesex	3	28.3
Montgomery	13	14.4
Nelson	0	0.0
New Kent	2	11.2
Newport News	13	7.2
Norfolk	19	8.1
Northampton	1	7.5
Northumberland	2	15.5
Norton	2	54.0
Nottoway	0	0.0
Orange	3	9.1
Page	1	4.1
Patrick	0	0.0
Petersburg	5	15.2
Pittsylvania	10	16.4
Poquoson	1	8.5
Portsmouth	7	7.0
Powhatan	1	3.6
Prince Edward	0	0.0
Prince George	4	11.1
Prince William	20	5.5
Pulaski	11	31.4
Radford	4	24.8
Rappahannock	0	0.0
Richmond City	25	12.4
Richmond	0	0.0
Roanoke City	14	15.1
Roanoke	7	7.7
Rockbridge	2	9.3

Continued

City/County of Residence	Deaths	Rate
Rockingham	3	4.0
Russell	5	17.3
Salem	6	23.6
Scott	3	13.1
Shenandoah	6	14.7
Smyth	5	15.7
Southampton	3	16.2
Spotsylvania	15	12.5
Stafford	7	5.8
Staunton	5	20.9
Suffolk	6	7.3
Surry	1	14.0
Sussex	1	8.2
Tazewell	13	29.7
Virginia Beach	35	8.1
Warren	5	13.6
Washington	10	18.9
Waynesboro	1	4.6
Westmoreland	1	5.7
Williamsburg	1	8.0
Winchester	7	27.0
Wise	8	19.2
Wythe	11	38.2
York	6	9.8
Total For State Residents	**703**	**9.0**
Out of State	32	ND*
Total for State	**735**	**ND**

*ND-No denominator

Figure 85. Drug/Poison Caused Deaths by City/County of Residence, 2008

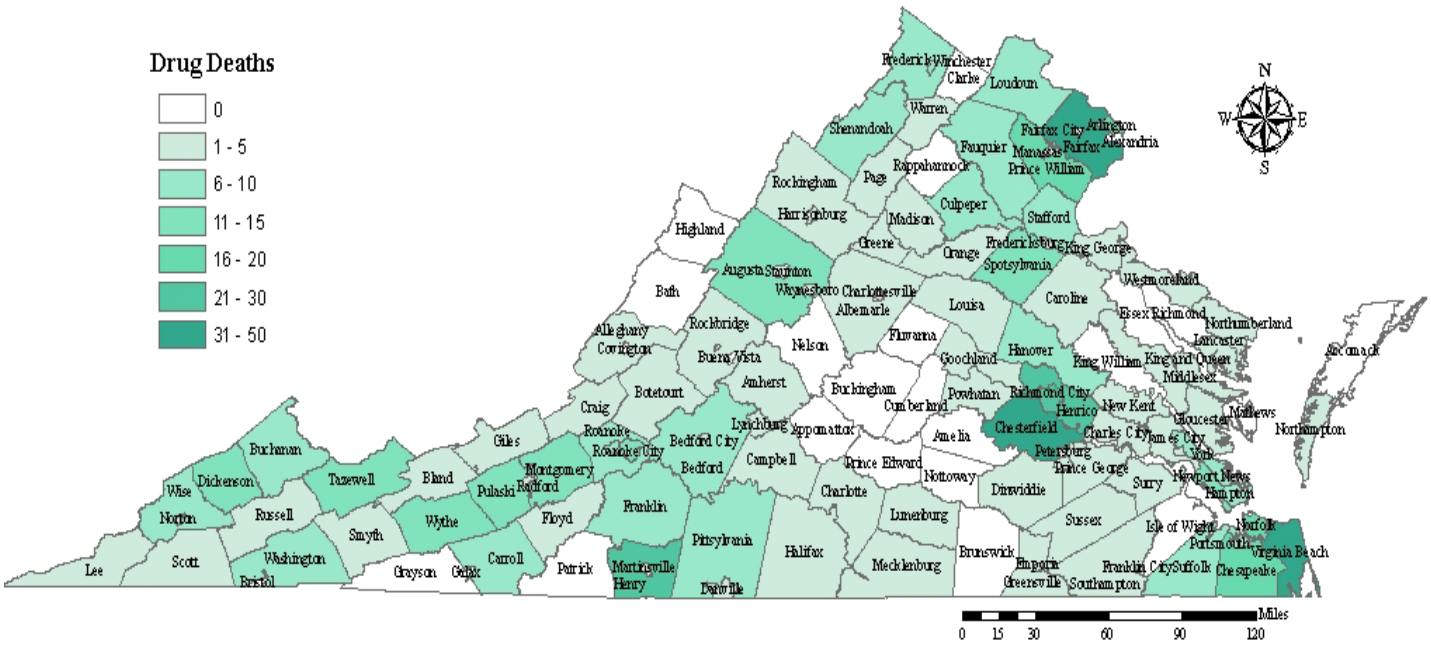
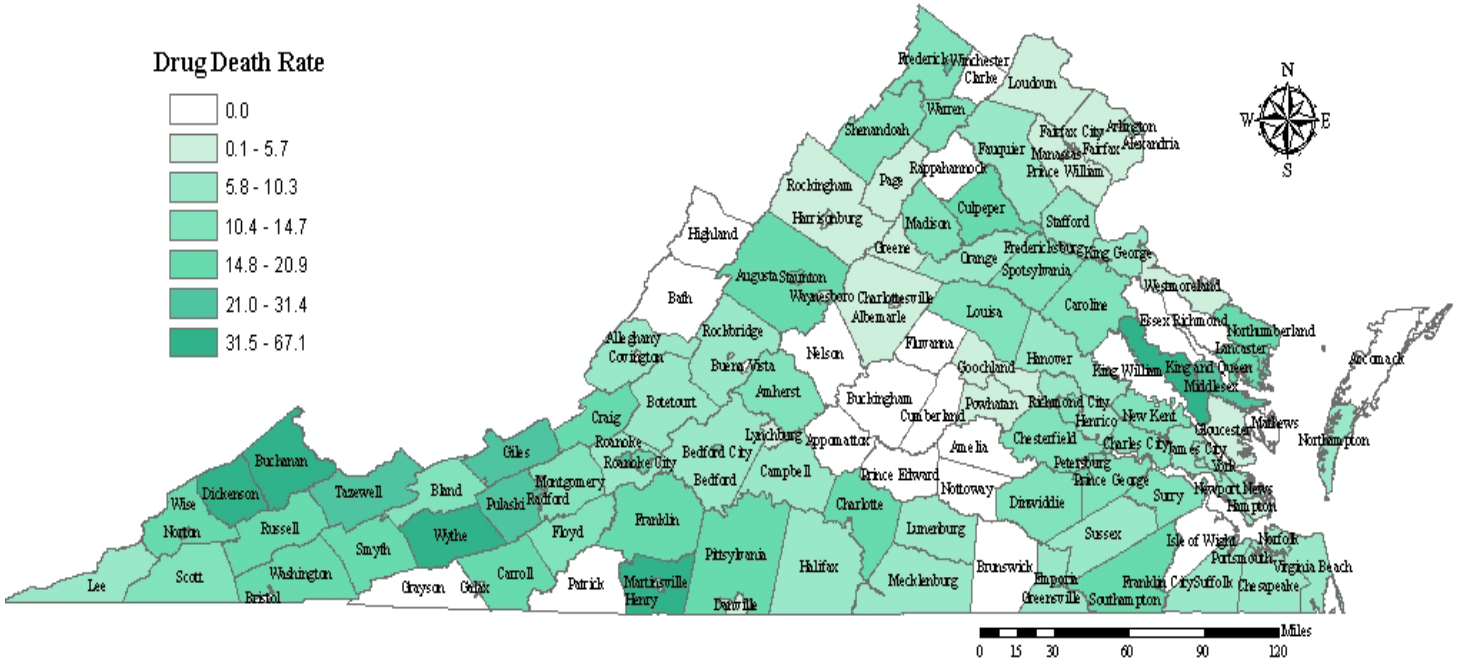


Figure 86. Drug/Poison Caused Death Rates by City/County of Residence, 2008



FENTANYL, HYDROCODONE, METHADONE & OXYCODONE DEATHS (N=356)

Prescription drug deaths have become an increasing cause of injury and death in Virginia accounting for at least 61.2 percent of all drug/poison deaths. Fentanyl, hydrocodone, methadone, and oxycodone (FHMO) were found to be partly or wholly responsible for 65.1% of these prescription 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 contributed to death.]

- Ninety-five percent of FHMO deaths were white and 61.2 percent were male.
- Methadone was found in 144 or 40.4% of all FHMO deaths.
- The western portion of the state had 44.7% of all the FHMO cases.

Table 43. FHMO Combinations Causing Death, 2008

FHMO Combination	Total
Oxycodone	87
Methadone	124
Fentanyl	50
Hydrocodone	45
Oxycodone & Methadone	12
Oxycodone & Fentanyl	6
Oxycodone & Hydrocodone	16
Methadone & Fentanyl	4
Methadone & Hydrocodone	3
Fentanyl & Hydrocodone	7
Oxycodone, Fentanyl & Hydrocodone	1
Oxycodone, Methadone & Hydrocodone	1
FHMO Subtotal	**356**
Non-FHMO Drug/Poison Combinations	378
Total	**734**

Table 44. FHMO Combinations Causing Death by Race/Ethnicity, 2008

	Race/Ethnicity				
FHMO Combination	Asian	Black	Native American	White	Total
Oxycodone	1	2	1	83	87
Methadone	1	6	0	117	124
Fentanyl	0	3	0	47	50
Hydrocodone	0	2	0	43	45
Oxycodone & Methadone	0	0	0	12	12
Oxycodone & Fentanyl	0	0	0	6	6
Oxycodone & Hydrocodone	0	0	0	16	16
Methadone & Fentanyl	0	0	0	4	4
Methadone & Hydrocodone	0	0	0	3	3
Fentanyl & Hydrocodone	0	0	0	7	7
Oxycodone, Fentanyl & Hydrocodone	0	0	0	1	1
Oxycodone, Methadone & Hydrocodone	0	0	0	1	1
Total	**2**	**13**	**1**	**340**	**356**

Table 45. FHMO Combinations Causing Death by OCME District, 2008

	District				
FHMO Combination	Central	Northern	Tidewater	Western	Total
Oxycodone	12	26	13	36	87
Methadone	36	23	14	51	124
Fentanyl	15	3	11	21	50
Hydrocodone	4	5	10	26	45
Oxycodone & Methadone	4	3	3	2	12
Oxycodone & Fentanyl	0	1	0	5	6
Oxycodone & Hydrocodone	2	7	1	6	16
Methadone & Fentanyl	1	0	0	3	4
Methadone & Hydrocodone	0	0	0	3	3
Fentanyl & Hydrocodone	1	1	1	4	7
Oxycodone, Fentanyl & Hydrocodone	0	0	0	1	1
Oxycodone, Methadone & Hydrocodone	0	0	0	1	1
Total	**75**	**69**	**53**	**159**	**356**

Table 46. FHMO Deaths & Rates by City/County of Residence, 2008

City/County of Residence	Deaths	Rate
Accomack	0	0
Albemarle	4	4.3
Alexandria	6	4.2
Alleghany	0	0.0
Amelia	0	0.0
Amherst	2	6.1
Appomattox	0	0.0
Arlington	7	3.3
Augusta	6	8.4
Bath	0	0.0
Bedford City	0	0.0
Bedford	2	3.0
Bland	1	14.5
Botetourt	0	0.0
Bristol	2	11.5
Brunswick	0	0.0
Buchanan	7	29.8
Buckingham	0	0.0
Buena Vista	0	0.0
Campbell	2	3.8
Caroline	2	7.2
Carroll	4	13.7
Charles City	0	0.0
Charlotte	1	8.2
Charlottesville	1	2.4
Chesapeake	8	3.6
Chesterfield	16	5.3
Clarke	0	0.0
Colonial Heights	0	0.0
Covington	0	0.0
Craig	1	19.7
Culpeper	2	4.3
Cumberland	0	0.0
Danville	1	2.2
Dickenson	8	48.8
Dinwiddie	3	11.5
Emporia	1	17.7
Essex	0	0.0
Fairfax City	2	8.4

City/County of Residence	Deaths	Rate
Fairfax	15	1.5
Falls Church	0	0.0
Fauquier	1	1.5
Floyd	0	0.0
Fluvanna	0	0.0
Franklin City	0	0.0
Franklin	5	9.7
Frederick	4	5.4
Fredericksburg	0	0.0
Galax	0	0.0
Giles	3	17.4
Gloucester	1	2.6
Goochland	0	0.0
Grayson	0	0.0
Greene	0	0.0
Greensville	0	0.0
Halifax	2	5.6
Hampton	3	2.1
Hanover	6	6.0
Harrisonburg	0	0.0
Henrico	8	2.7
Henry	16	28.9
Highland	0	0.0
Hopewell	1	4.3
Isle of Wight	0	0.0
James City	2	3.2
King and Queen	1	14.6
King George	2	8.6
King William	0	0.0
Lancaster	0	0.0
Lee	2	8.5
Lexington	0	0.0
Loudoun	6	2.1
Louisa	2	6.1
Lunenburg	1	7.7
Lynchburg	2	2.8
Madison	1	7.3
Manassas	2	5.7
Martinsville	2	13.8

City/County of Residence	Deaths	Rate
Mathews	0	0.0
Mecklenburg	2	6.2
Middlesex	0	0.0
Montgomery	11	12.2
Nelson	0	0.0
New Kent	1	5.6
Newport News	5	2.8
Norfolk	10	4.3
Northampton	1	7.5
Northumberland	1	7.7
Norton	1	27.0
Nottoway	0	0.0
Orange	2	6.0
Page	1	4.1
Patrick	0	0.0
Petersburg	1	3.0
Pittsylvania	6	9.8
Poquoson	1	8.5
Portsmouth	1	1.0
Powhatan	0	0.0
Prince Edward	0	0.0
Prince George	1	2.8
Prince William	9	2.5
Pulaski	9	25.7
Radford	2	12.4
Rappahannock	0	0.0
Richmond City	6	3.0
Richmond	0	0.0
Roanoke City	7	7.5
Roanoke	4	4.4
Rockbridge	1	4.6
Rockingham	1	1.3
Russell	4	13.9
Salem	2	7.9
Scott	3	13.1
Shenandoah	4	9.8
Smyth	0	0.0
Southampton	1	5.4
Spotsylvania	3	2.5
Stafford	2	1.6
Staunton	4	16.7

Continued

City/County of Residence	Deaths	Rate
Suffolk	1	1.2
Surry	1	14.0
Sussex	0	0.0
Tazewell	10	22.8
Virginia Beach	17	3.9
Warren	2	5.5
Washington	7	13.2
Waynesboro	1	4.6
Westmoreland	0	0.0
Williamsburg	0	0.0
Winchester	2	7.7
Wise	5	12.0
Wythe	10	34.8
York	1	1.6
Total for State Residents	**341**	**4.4**
Out of State	15	ND*
Total	**356**	**ND**

*ND- No Denominator

Figure 87. FHMO Deaths by City/County of Residence, 2008

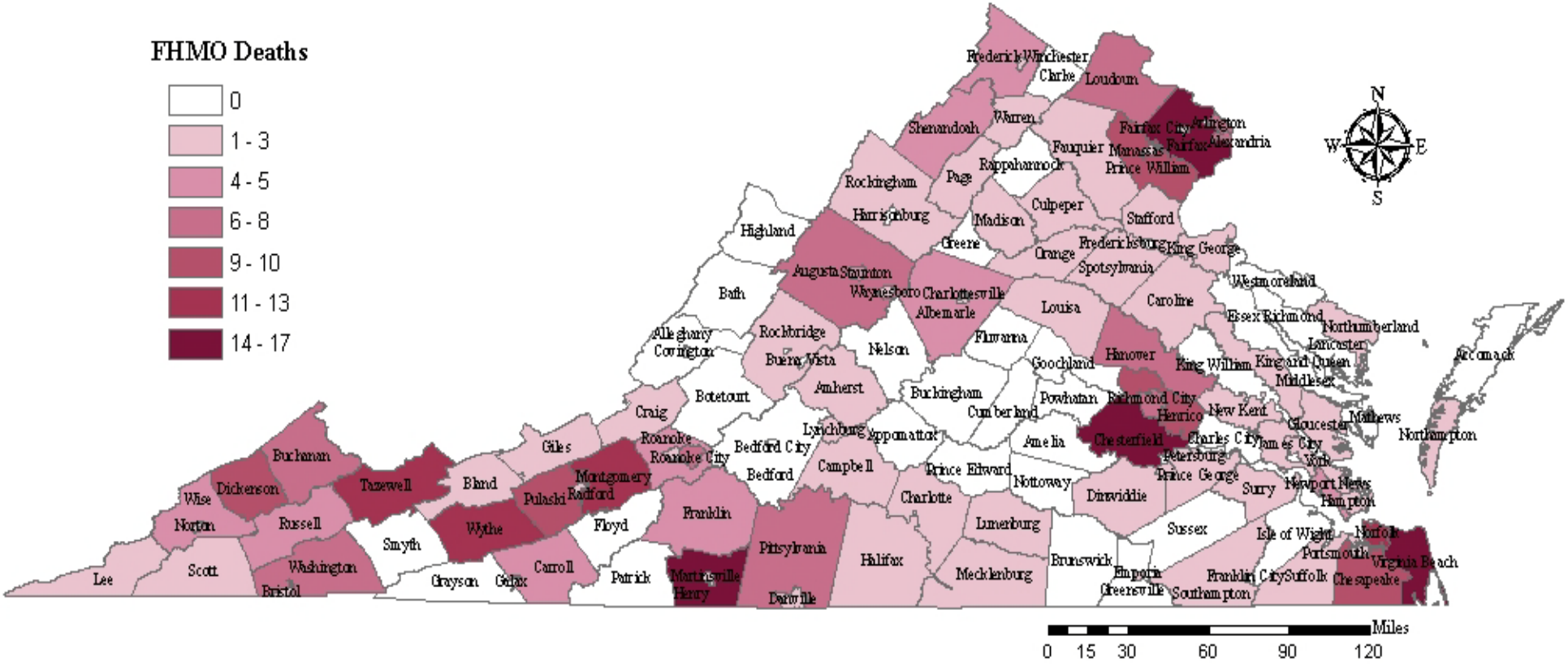
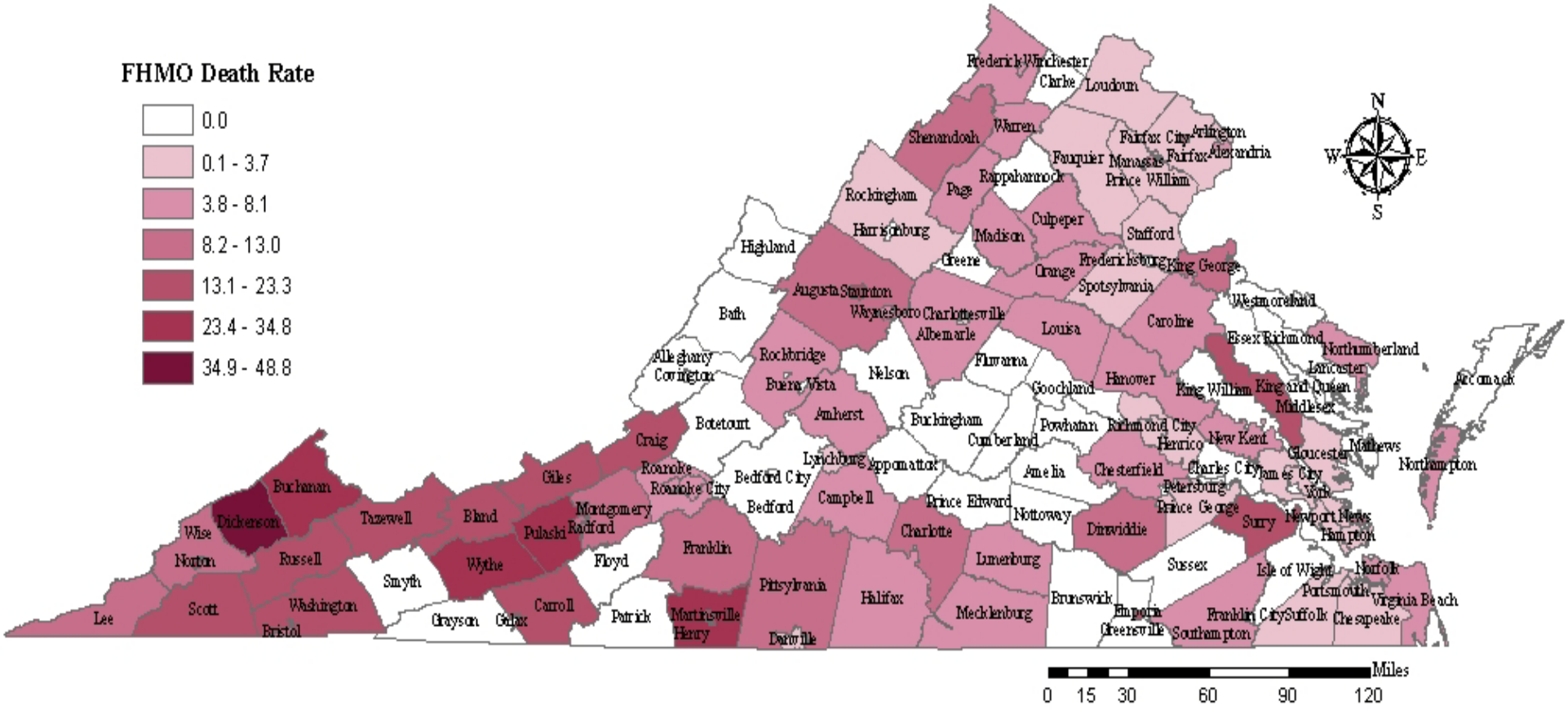


Figure 88. FHMO Death Rates by City/County of Residence, 2008



COCAINE & HEROIN DEATHS (N=124)

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: As with the FHMO deaths, cocaine & heroin tables and figures represent deaths in which one or both illegal drugs caused death; but other drugs/poisons may also have contributed to death.]

- Cocaine and/or heroin were involved in 23.3% of all drug/poison cases.
- The majority of these cases occurred in the more eastern portions of the state.

Table 47. Cocaine & Heroin Combinations Causing Death, 2008

Cocaine & Heroin Combinations	Total
Cocaine	74
Heroin	73
Cocaine & Heroin	24
Subtotal	**171**
Non-Cocaine or Heroin Drugs/Poisons	563
Total	**734**

Table 48. Cocaine & Heroin Combinations Causing Death by Race/Ethnicity, 2008

	Race/Ethnicity		
Cocaine & Heroin Combinations	**Black**	**Hispanic**	**White**
Cocaine	26	1	47
Heroin	13	1	59
Cocaine & Heroin	6	0	18
Total	**45**	**2**	**124**

Table 49. Cocaine & Heroin Combinations Causing Death by OCME District, 2008

	District			
Cocaine & Heroin Combinations	**Central**	**Northern**	**Tidewater**	**Western**
Cocaine	18	22	16	18
Heroin	34	21	14	4
Cocaine & Heroin	9	10	3	2
Total	**61**	**53**	**33**	**24**

Table 50. Cocaine & Heroin Deaths by City/County of Residence, 2008

City/County of Residency	Total	Rate
Accomack	0	0.0
Albemarle	0	0.0
Alexandria	5	3.5
Alleghany	0	0.0
Amelia	0	0.0
Amherst	0	0.0
Appomattox	0	0.0
Arlington	2	1.0
Augusta	3	4.2
Bath	0	0.0
Bedford	0	0.0
Bedford	2	3.0
Bland	0	0.0
Botetourt	0	0.0
Bristol	1	5.7
Brunswick	0	0.0
Buchanan	0	0.0
Buckingham	0	0.0
Buena Vista	0	0.0
Campbell	0	0.0
Caroline	1	3.6
Carroll	0	0.0
Charles City	0	0.0
Charlotte	1	8.2
Charlottesville	1	2.4
Chesapeake	3	1.4
Chesterfield	10	3.3
Clarke	0	0.0
Colonial Heights	0	0.0
Covington	0	0.0
Craig	0	0.0
Culpeper	2	4.3
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	2	8.4
Fairfax	21	2.1
Falls Church	0	0.0
Fauquier	4	6.0
Floyd	0	0.0
Fluvanna	0	0.0
Franklin City	0	0.0
Franklin	1	1.9
Frederick	4	5.4
Fredericksburg	2	8.8
Galax	0	0.0
Giles	0	0.0
Gloucester	0	0.0
Goochland	1	4.8
Grayson	0	0.0
Greene	0	0.0
Greensville	0	0.0
Halifax	1	2.8
Hampton	0	0.0
Hanover	1	1.0
Harrisonburg	0	0.0
Henrico	12	4.1
Henry	1	1.8
Highland	0	0.0
Hopewell	1	4.3
Isle of Wight	0	0.0
James City	1	1.6
King and Queen	1	14.6
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	0	0.0
Lunenburg	0	0.0
Lynchburg	1	1.4
Madison	0	0.0
Manassas	0	0.0
Martinsville	0	0.0

City/County of Residency	Total	Rate
Mathews	0	0.0
Mecklenburg	0	0.0
Middlesex	1	9.4
Montgomery	0	0.0
Nelson	0	0.0
New Kent	1	5.6
Newport News	6	3.3
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	2	6.1
Pittsylvania	5	8.2
Poquoson	0	0.0
Portsmouth	4	4.0
Powhatan	1	3.6
Prince Edward	0	0.0
Prince George	0	0.0
Prince William	7	1.9
Pulaski	0	0.0
Radford	1	6.2
Rappahannock	0	0.0
Richmond City	14	6.9
Richmond	0	0.0
Roanoke City	2	2.2
Roanoke	0	0.0

Continued

City/County of Residency	Total	Rate
Rockbridge	0	0.0
Rockingham	0	0.0
Russell	0	0.0
Salem	4	15.7
Scott	0	0.0
Shenandoah	1	2.5
Smyth	0	0.0
Southampton	0	0.0
Spotsylvania	5	4.2
Stafford	0	0.0
Staunton	1	4.2
Suffolk	2	2.4
Surry	0	0.0
Sussex	0	0.0
Tazewell	1	2.3
Virginia Beach	9	2.1
Warren	0	0.0
Washington	1	1.9
Waynesboro	0	0.0
Westmoreland	0	0.0
Williamsburg	0	0.0
Winchester	1	3.9
Wise	1	2.4
Wythe	0	0.0
York	2	3.3
Total for State Residents	**163**	**2.1**
Out of State	8	ND*
Total	**171**	**ND**

*ND- No Denominator

Figure 89. Cocaine & Heroin Deaths by City/County of Residence, 2008

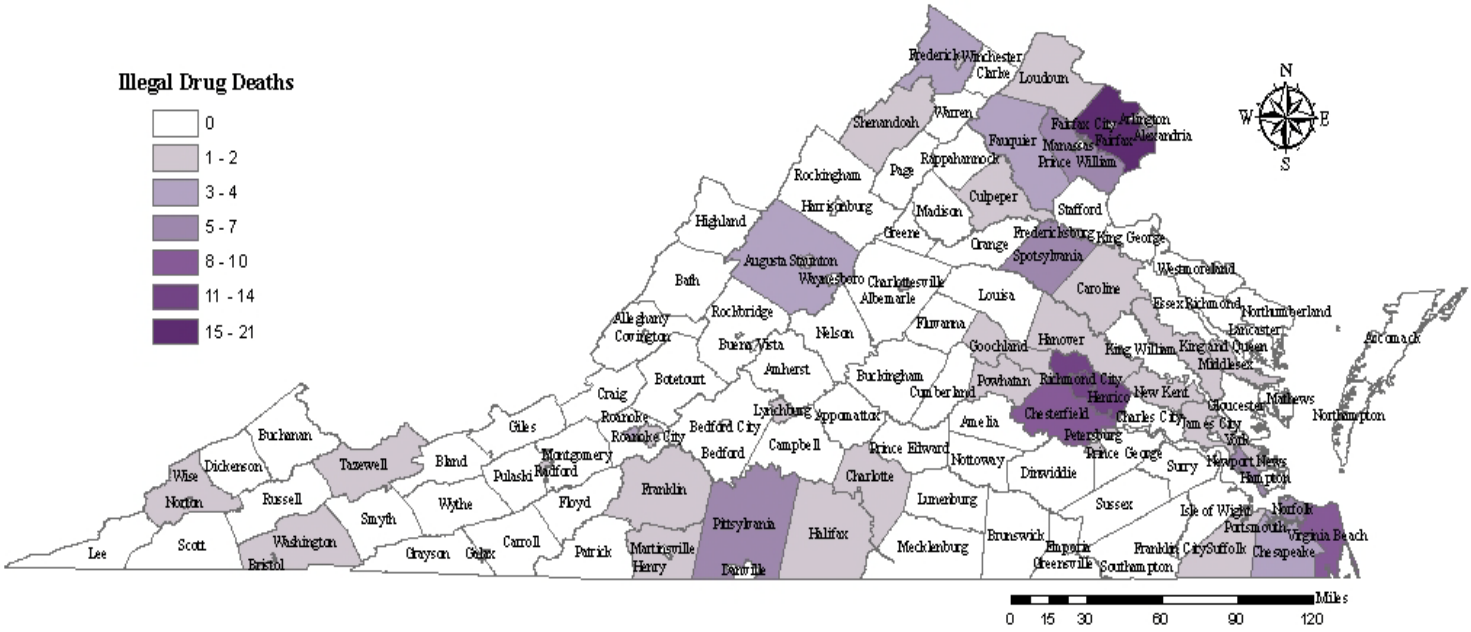
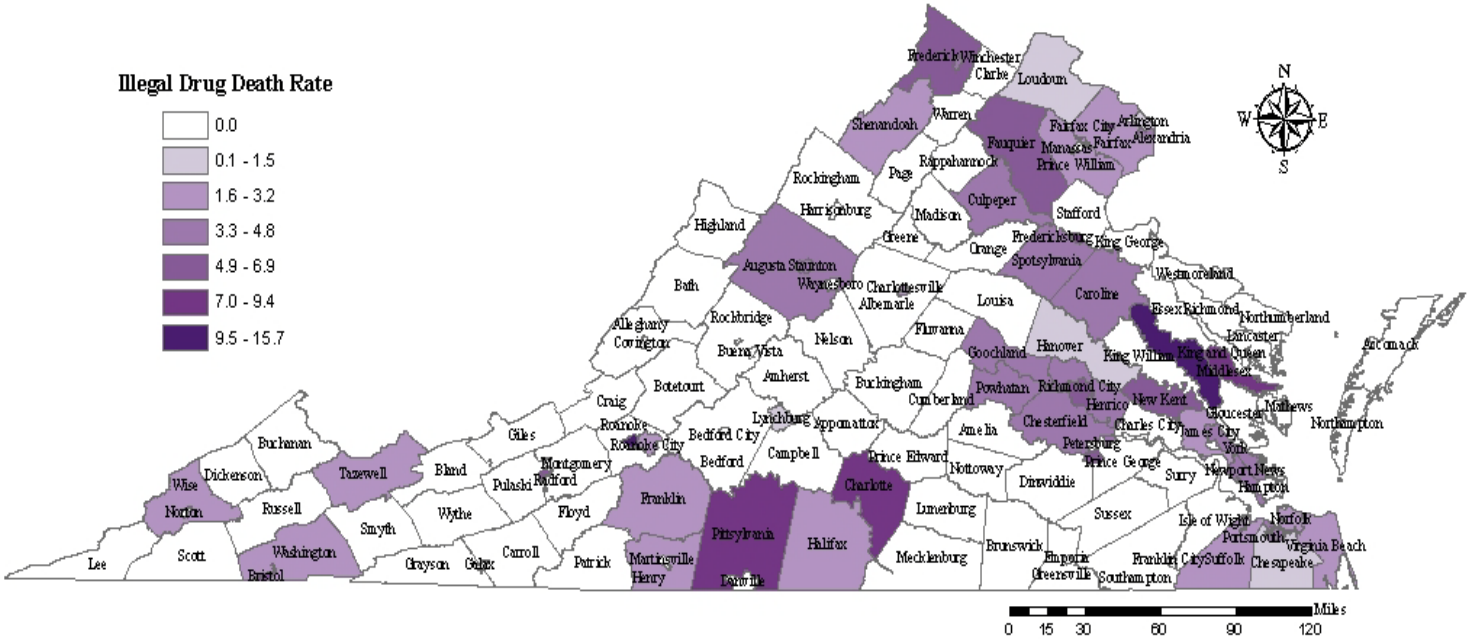


Figure 90. Cocaine & Heroin Death Rates by City/County of Residence, 2008



SECTION 8: IN CUSTODY (PRISONER) POPULATION (N=161)

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 161 prisoners in 2008.

- The majority (79.5%) of prisoner cases were natural.
- The vast majority of cases were males (90.7%) and while blacks had a slight majority of cases over whites (50.3% versus 47.2%, respectively), the rate of black prisoner deaths was 2.8 times that of whites.

Figure 91. Proportion of Prisoner Deaths by Manner of Death, 2008

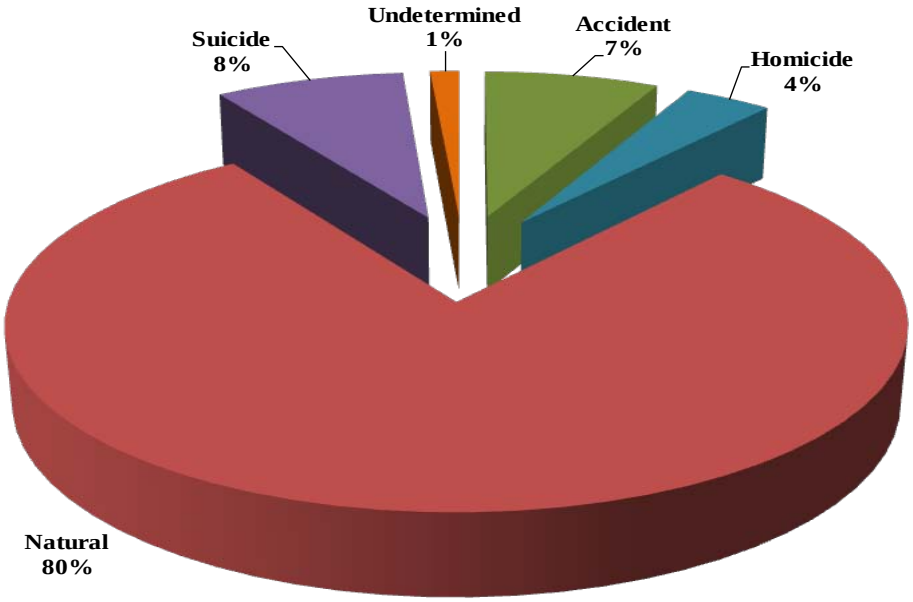


Figure 92. Proportion of Prisoner Deaths by Race/Ethnicity, 2008

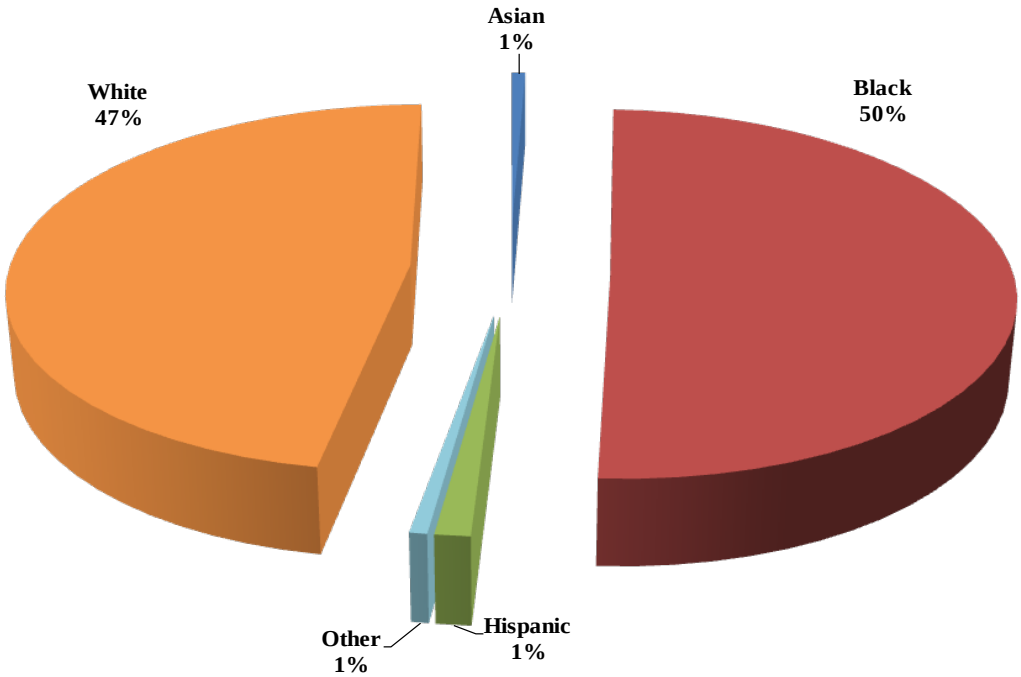


Figure 93. Total Prisoner Deaths by Age Group by Gender, 2008

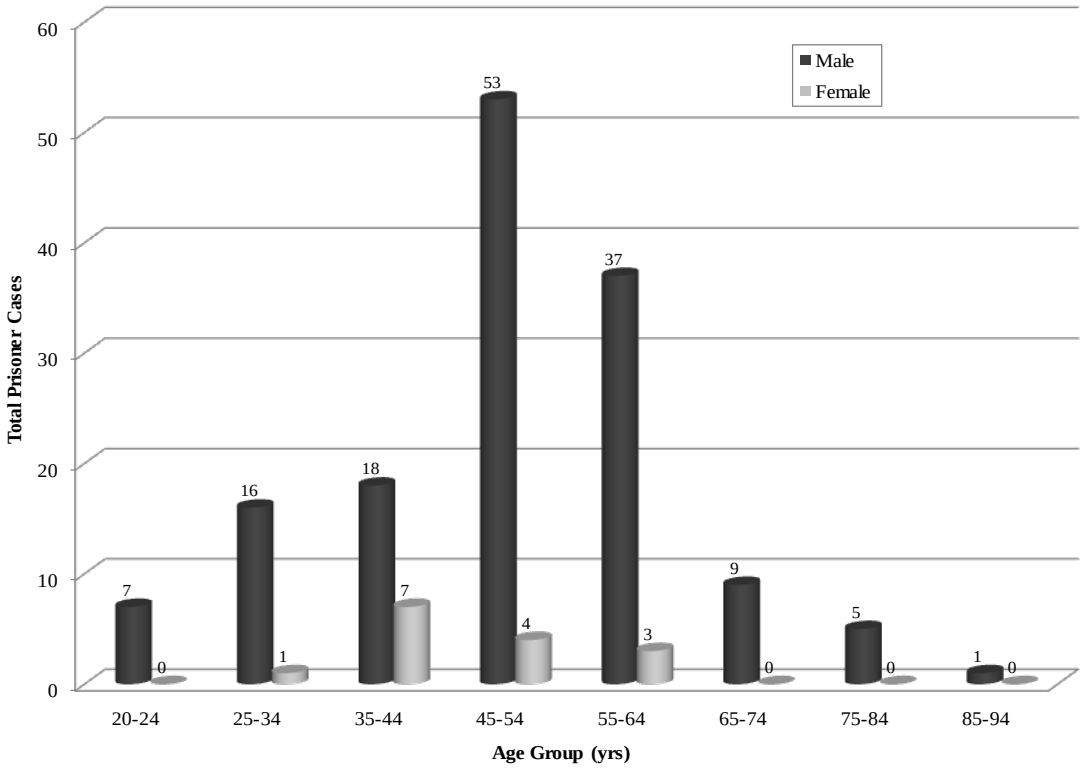


Figure 94. Total Prisoner Deaths by Manner of Death by Race/Ethnicity, 2008

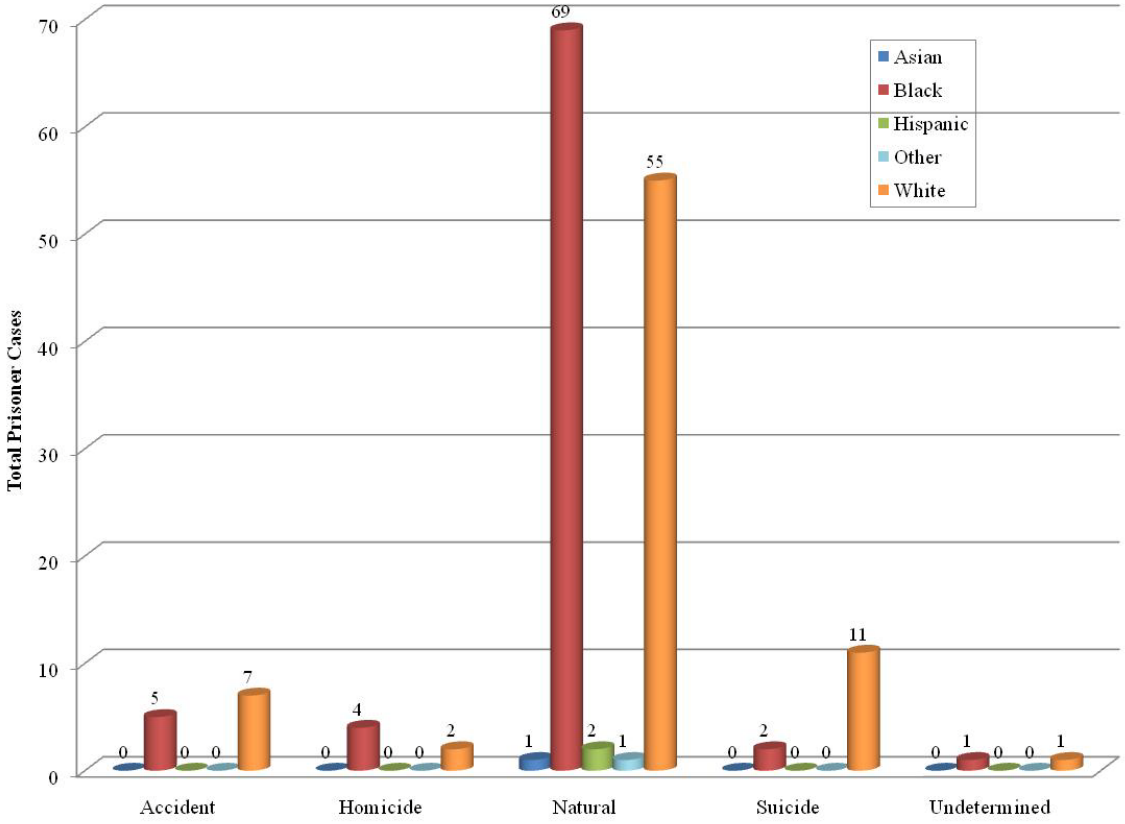


Table 51. Total Prisoner Deaths by Cause of Death, 2008

Natural Deaths	Total Cases	Autopsied
Pulmonary Diseases/Disorders	**21**	**11**
Asthma	2	1
COPD	2	1
Pneumonia	10	5
Pulmonary Malignancy	6	3
Other Pulmonary Disease/Disorder	1	1
Central Nervous System Diseases/Disorders	**16**	**9**
Seizure Disorder	1	1
Vascular Disease	6	2
Degenerative Disease	1	1
Meningitis (Bacterial or Viral)	1	1
CNS Malignancy	3	1
Other CNS Disease/Disorder	4	3
Cardiovascular Diseases/Disorders	**37**	**32**
Atherosclerosis	15	11
Hypertension	2	2
Atherosclerosis & Hypertension	14	13
Valvular	1	1
Other Cardiac Disease/Disorder	5	5
Gastrointestinal Diseases/Disorders	**32**	**17**
GI Hemorrhage	4	2
Cirrhosis	7	4
Hepatitis	5	2
GI Malignancy	11	6
Other GI Disease/Disorder	5	3
Genitourinal Diseases/Disorders	**3**	**3**
Renal Disease	1	1
Genitourinal Malignancy	2	2
Systemic Diseases/Disorders	**18**	**11**
Blood Disorders	4	2
Diabetes	1	1
AIDS/HIV	7	4
Sepsis	2	1
Metastatic Malignancy Unknown Primary	3	2
Other Systemic Disease/Disorder	1	1
Other Natural Diseases/Disorders	**1**	**1**
Other Natural Disease/Disorder	1	1
Natural Subtotal	**128**	**84**

Continued

Unnatural Deaths	Total Cases	Autopsied
Asphyxia	**11**	**10**
Hanging	11	10
Judicial Execution	**3**	**3**
Lethal Injection	3	3
Blunt Force Injuries	**4**	**3**
Extremeties	2	1
Multiple	2	2
Penetrating Injuries	**1**	**1**
Stab	1	1
Substance Abuse	**13**	**13**
Prescription Drug Poisoning	7	7
Illegal (Street) Drug Poisoning	5	5
Mixed Category Drug Poisoning	1	1
Other Unnatural Deaths	**1**	**1**
Other Unnatural	1	1
Unnatural Subtotal	**33**	**31**
TOTAL	**161**	**115**

SECTION 9: STATE MENTAL HEALTH FACILITIES (N=63)

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 63 state mental health residents.

- The majority of state mental health cases were natural (88.9%), white (76.2%) and male (61.9%).

Figure 95. Proportion of State Mental Health Cases by Manner of Death, 2008

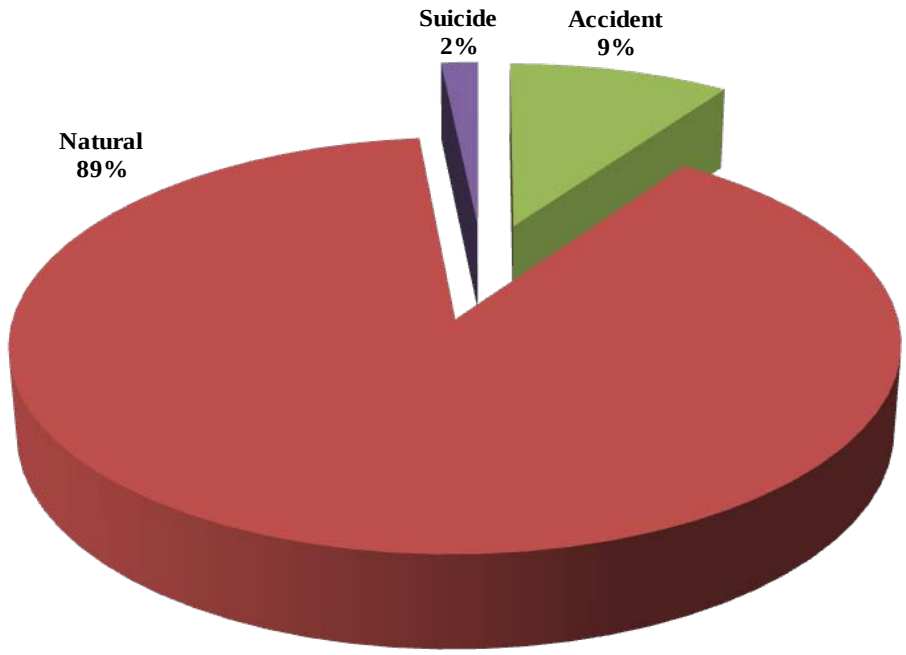


Figure 96. Proportion of State Mental Health Cases by Race/Ethnicity, 2008

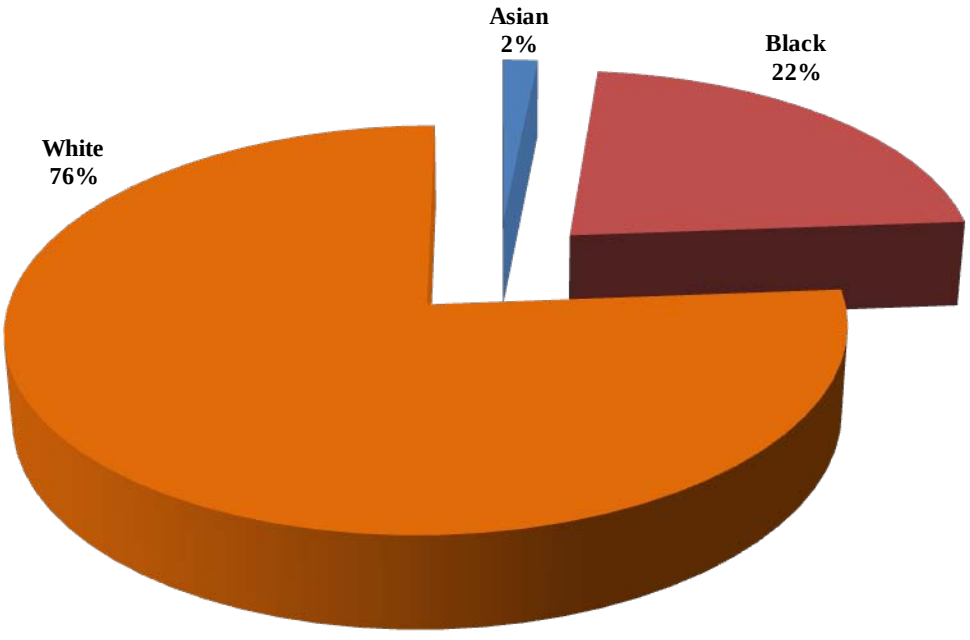


Figure 97. State Mental Health Cases by Age Group by Gender, 2008

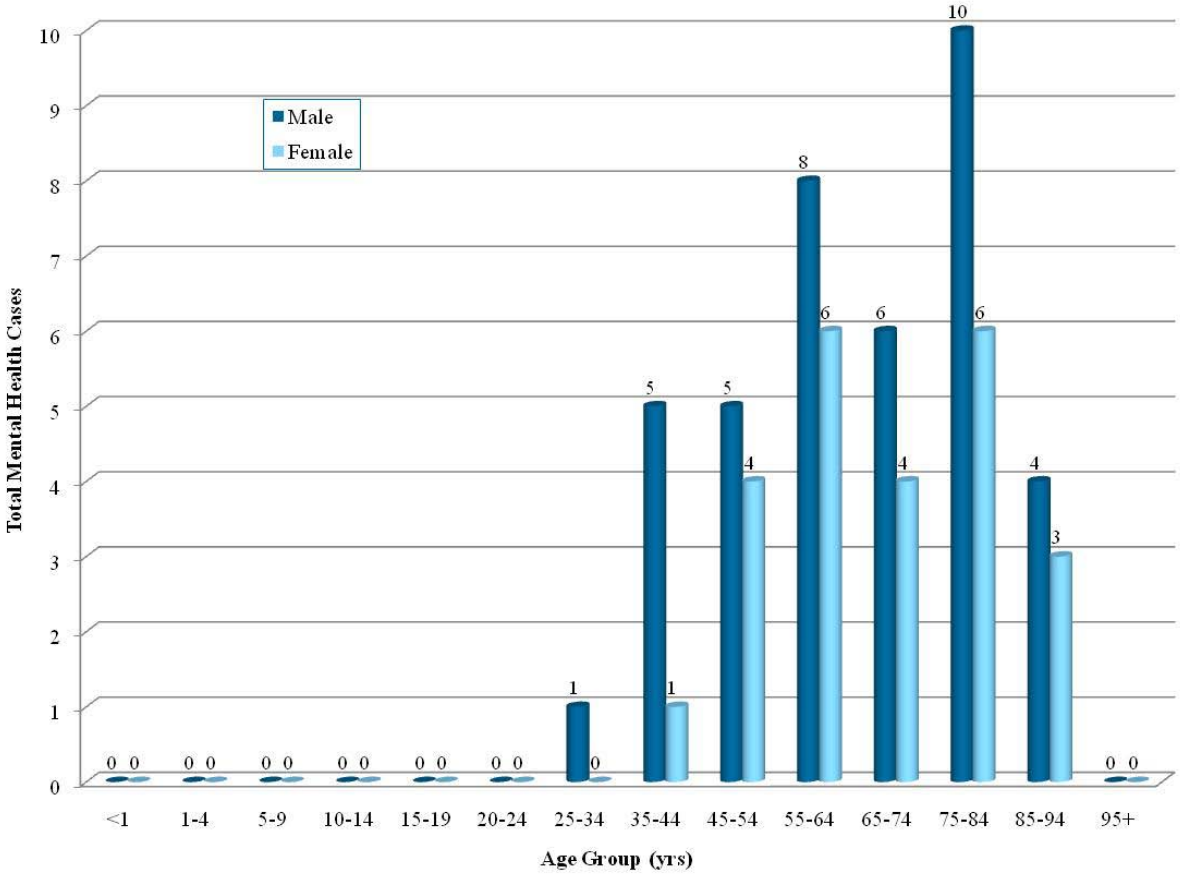


Table 52. Total State Mental Health Deaths by Cause of Death, 2008

Natural Deaths	Total Cases	Autopsied
Pulmonary Diseases/Disorders	**18**	**4**
COPD	1	1
Pneumonia	17	3
Central Nervous System Diseases/Disorders	**6**	**0**
Seizure Disorder	1	0
Vascular Disease	3	0
Degenerative Disease	2	0
Cardiovascular Diseases/Disorders	**14**	**8**
Atherosclerosis	11	5
Atherosclerosis & Hypertension	2	2
Other Cardiac Disease/Disorder	1	1
Gastrointestinal Diseases/Disorders	**7**	**3**
GI Hemorrhage	2	1
GI Malignancy	3	1
Other GI Disease/Disorder	2	1
Perinatal and Pediatric Diseases/Disorders	**1**	**1**
Fetal Complications	1	1
Systemic Diseases/Disorders	**7**	**1**
Diabetes	2	1
Sepsis	4	0
Metastatic Malignancy Unknown Primary	1	0
Other Natural Diseases/Disorders	**3**	**0**
Other Malignancy	1	0
Other Natural Disease/Disorder	2	0
Natural Subtotal	**56**	**17**
Unnatural Deaths	**Total Cases**	**Autopsied**
Asphyxia	**6**	**4**
Choking (Aspiration: Food or Foreign Object)	5	3
Hanging	1	1
Blunt Force Injuries	**1**	**0**
Multiple	1	0
Unnatural Subtotal	**7**	**4**
TOTAL	**63**	**21**

SECTION 10: RECOVERED UNREPORTED CASES (N=213)

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 213 cases are in the annual report reflective of calendar year 2008, retrospective cases may have been deaths from other years but the OCME investigation of the case began in 2008.

- Many of the OCME's retrospective cases are accidents (69.5%).
- Most common unreported type of death is due to a fall (34.3%) followed by motor vehicle collisions (22.5%).

Figure 98. Proportion of Retrospective Cases by Manner of Death, 2008

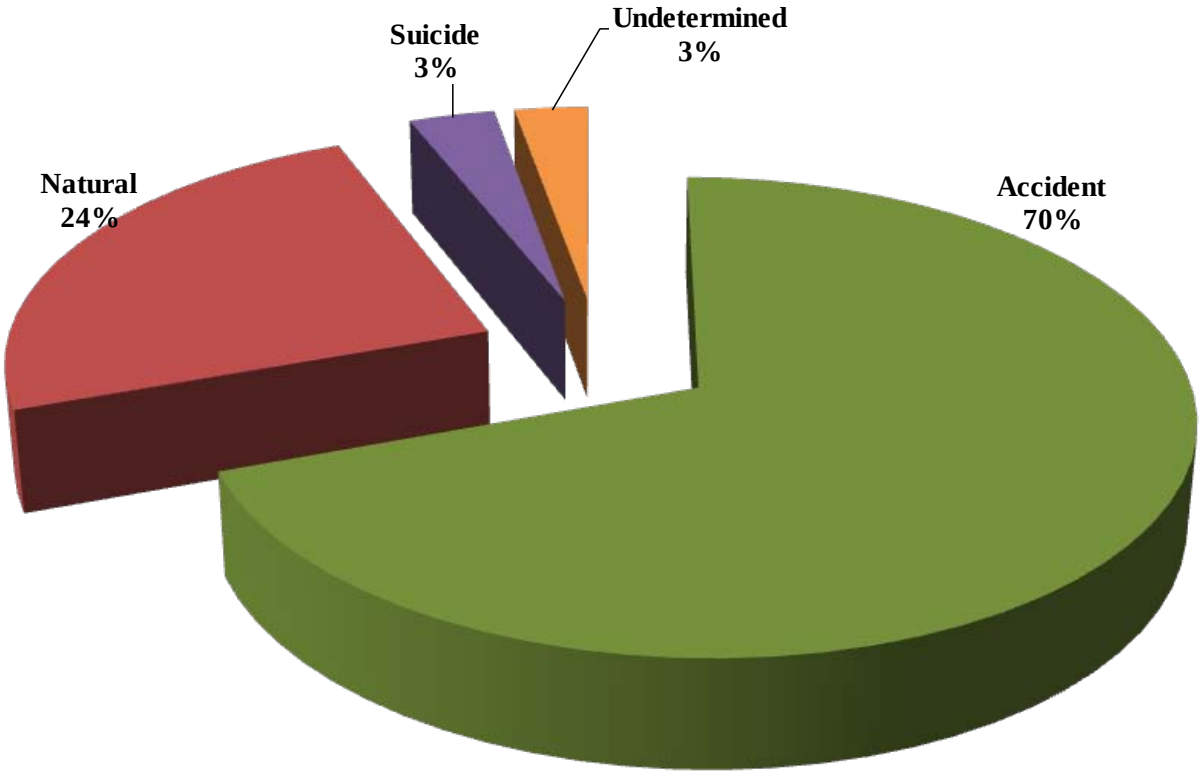


Figure 99. Proportion of Retrospective Deaths by Race/Ethnicity, 2008

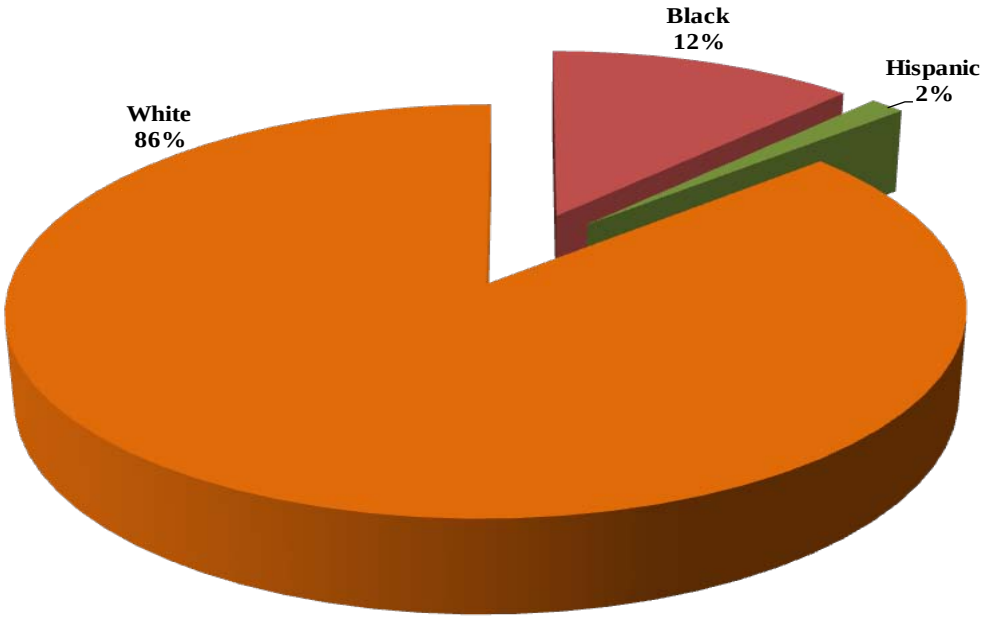


Figure 100. Retrospective Deaths by Age Group by Gender, 2008

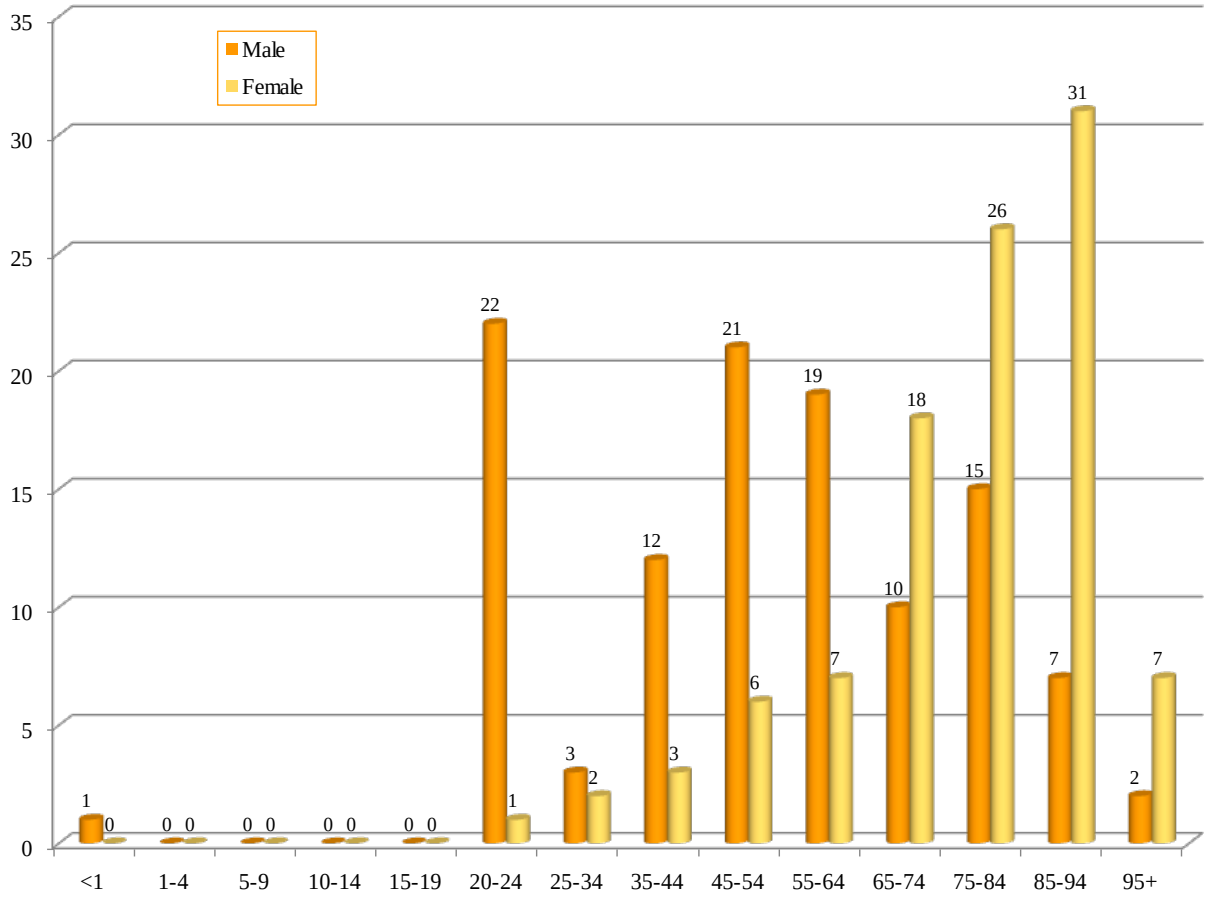


Table 53. Retrospective Deaths by Method of Death and by Classification of Death, 2008

Method of Death	Total Cases
Asphyxia	
Choked on food/foreign object	15
Hanging	4
Mechanical/Positional	1
Drug Use	
Ingested ethanol or other alcohol	2
Ingested and/or injected illicit, prescription, and/or OTC medication	9
Fall	
Fall from any height	73
Fire	
Victim of fire/burns	2
Motor Vehicle	
Car	34
Farm Equipment	2
Motorcycle	3
Pickup Truck	4
Sport Utility Vehicle	1
Truck Other	1
Unknown	3
Traumatic Injury	
Beatings/Blows	1
Falling object	2
Unknown/Other	
Accidental - Unknown/Other	7
Subtotal	**164**
Death Classification	
Natural Deaths	49
Unnatural Deaths	164
TOTAL DEATHS	**213**

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 in 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 and indictable 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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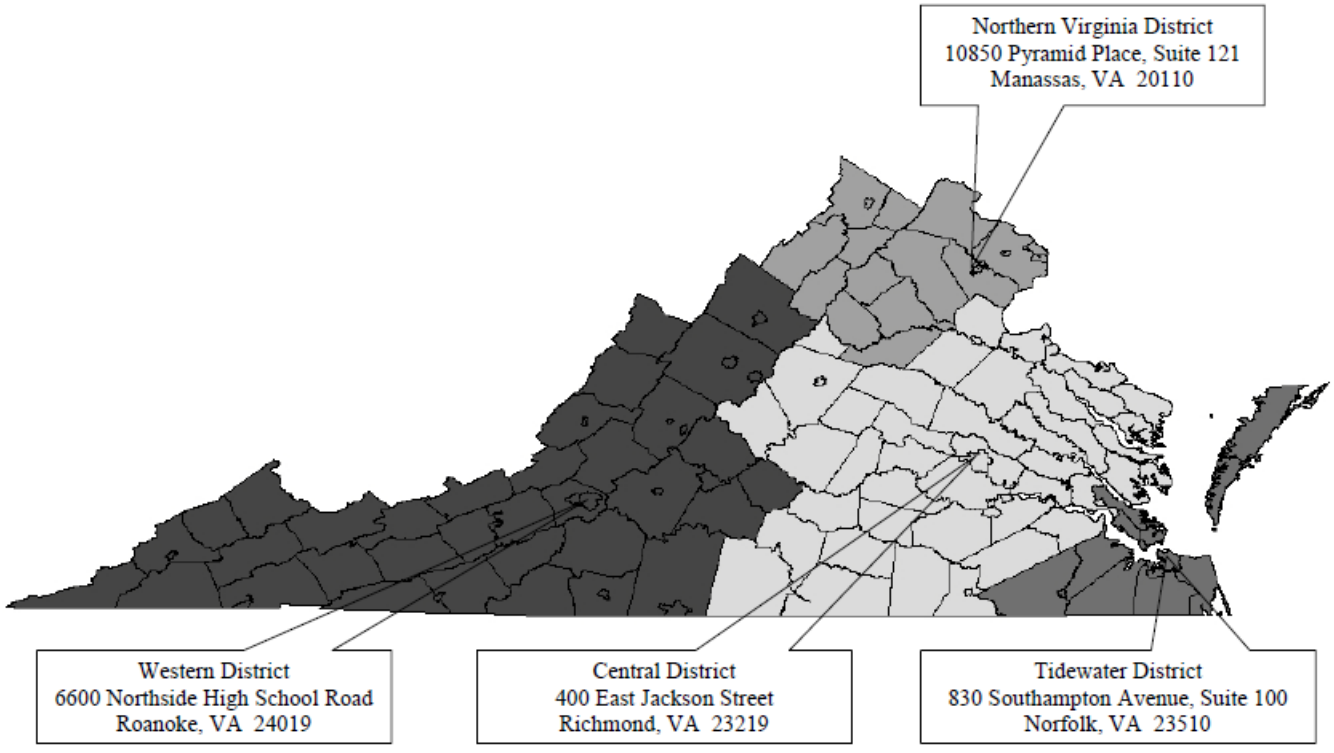
CENTRAL *Counties* of Albemarle, Amelia, Brunswick, Buckingham, Caroline, Charles City, Charlotte, Chesterfield, Cumberland, Dinwiddie, Essex, Fluvanna, Gloucester, Goochland, Greene, Greensville, Halifax, Hanover, Henrico, James City, King and Queen, King George, King William, Lancaster, Louisa, Lunenburg, 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, Arlington, 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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Office of the Chief Medical Examiner
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Richmond, VA 23219
(804)786-3174

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