OHIO VIOLENT DEATH REPORTING SYSTEM

Annual Report | 2010

Violence and Injury Prevention Program

OHIO DEPARTMENT OF HEALTH
To protect and improve the health of all Ohioans
ODH

National Violent Death Reporting System
NVDRS

OHIO

Violent Deaths in Ohio: Selected Counties

Ohio Violent Death Reporting System

Annual Report 2010

Ohio Department of Health, Injury and Violence Prevention Program

October 2013

Acknowledgements

Suggested citation: Ohio Violent Death Reporting System – Selected Counties: Annual Report, 2010. Violence and Injury Prevention Program, Ohio Department of Health, Columbus, Ohio, 2013.

Table of Contents

Glossary

Violent death - A death that is due to the intentional use of physical force against oneself, another person, or against a community or group.

Incident - The national reporting system is incident-based rather than victim-based. Incidents include a single violent death, two or more suicides, two or more homicides, homicides followed by suicides, or an unintentional firearm death combined with one or more suicides. The inclusion of two or more deaths in a single incident is based on the timing of the injuries rather than the timing of the deaths and the establishment of a clear link between victims. In order to be considered as the same incident, the fatal injuries must have been inflicted within a 24-hour period.

Manner of Death - The way in which the death was caused. This could be due to a suicide, homicide, unintentional or undetermined death.

Method of Death - The weapon or instrument employed to administer the fatal injury.

Suicide - A death resulting from the intentional use of force against oneself. A preponderance of evidence should indicate that the use of force was intentional. Only persons ages 10 or older can have the violent death classified as a suicide.

Homicide - A death resulting from the intentional use of force or power, threatened or actual, against another person, group or community. A preponderance of evidence must indicate that the use of force was intentional.

Undetermined Intent - A death resulting from the use of force or power against oneself or another person for which the evidence indicating manner of death is insufficient to determine intent.

Unintentional Firearm Death- A death resulting from a penetrating injury or gunshot wound from a weapon that uses a powder charge to fire a projectile and for which a preponderance of evidence indicates that the shooting was not directed intentionally at the victim.

Legal Intervention - A death when the decedent was killed by a police officer, military police officer or other peace officer (person with specified legal authority to use deadly force) acting in the line of duty. Legal executions are not included in the national system (NVDRS) or in the state system (OHVDRS) as legal intervention deaths.

Terrorism-related Death - Homicides or suicides that result from events that are labeled by the Federal Bureau of Investigation (FBI) as acts of terrorism.

State Overview

Although the contents of this report focus on violent deaths and the circumstances surrounding them in selected Ohio counties, violent death data from death certificates were available for all 88 counties. There were a total of 2,192 violent deaths among Ohio residents in 2010, with an overall rate of 19.0 per 100,000. Men had the greater number of violent deaths with a violent death rate of 30 per 100,000. The violent death rate for women was lower, at 8.4 per 100,000. Generally, men and women aged 25-34 years had the highest overall violent death rate (30.2 per 100,000), followed by 45-54 year olds (25.1 per 100,000).

Suicides made up the majority of violent deaths, accounting for 1,419 or 64.7 percent of all violent deaths. The overall suicide rate in 2010 was 12 per 100,000 for both sexes. Males had a considerably higher suicide rate compared to females (20 vs. 5 per 100,000). Among men, the highest suicide rate was observed among those aged 85 years and above, followed by 75-84 year olds (38.4 and 28.5 per 100,000, respectively). Among women, the highest suicide rate was seen among those aged 45-54 (8.5 per 100,000). In terms of race and ethnicity, the highest suicide rate was seen among white, non-Hispanics whereas the lowest was among black non-Hispanics (13.8 and 5.4 per 100,000, respectively). The suicide rate in all Hispanics was 6.4 per 100,000. Common methods of suicide for men and women included firearms, hanging/suffocation, and poisoning. Among men, the most common method of suicide was a firearm (54.4 percent), among women poisonings were the predominant method of suicide (39 percent).

There were 545 homicides among Ohio residents in 2010. The overall homicide rate was 4.9 per 100,000. Males had a higher homicide rate compared to females (7.6 vs. 2.1 per 100,000). When examined by age category, the highest homicide rate was observed among those aged 25-34 years old (10.8

per 100,000). Among men, the highest homicide rate was seen among those aged 25-34 followed by 15-24 year olds (17.8 and 15.7 per 100,000, respectively). Among women, the highest homicide rate was seen among those aged 25-34 years (3.81 per 100,000). The highest homicide rate was seen among black, non-Hispanics and lowest among white non-Hispanics. Black males had almost seven times the homicide rate of black females (39.9 vs. 5.6 homicides per 100,000) and 15 times the rate of white males (40 vs. 2.7 per 100,000). In terms of methods, firearms accounted for about 70 percent of homicides, followed by sharp instruments and personal weapons (8.3 percent and 7.2 percent, respectively). Firearms were used for more than three-quarters of male homicides compared to approximately half of female homicides.

In 2010, there were 199 undetermined deaths, with 118 among men and 81 among women. The overall rate for deaths of undetermined intent was 2.1 per 100,000. Similar to other violent deaths, men had a higher undetermined death rate than women (2.1 vs. 1.4 per 100,000). Among men, the highest undetermined death rate was seen among those aged 35-44 years (3.4 per 100,000). Among women, the highest undetermined death rate was observed among those aged 45-54 (2.3 per 100,000). Overall, the highest undetermined death rate was observed among those aged 45-54 years old (2.8 per 100,000). In terms of methods, unknown methods accounted for about 44 percent of undetermined deaths in 2010, followed by poisoning and other methods (38 percent and 12 percent respectively).

Maps and tables of county-specific violent death rates can be found in Appendix C.

Executive Summary

The Ohio Violent Death Report System (OH-VDRS) is a statewide population-based surveillance system capturing detailed information on suicides, homicides, deaths of undetermined intent and deaths occurring as a result of a legal intervention. The OH-VDRS utilizes multiple sources to collect data on victims, suspects and circumstances associated with the violent death. The database links these comprehensive data on violent deaths which in turn serve to aid in the prevention and reduction of violent deaths in Ohio. This report summarizes the violent death data collected through the OH-VDRS for selected counties[1] in Ohio in 2010.

Violent Deaths

In 2010, among selected counties in Ohio, 1,381 Ohio residents died as a result of a violent death. The most common manners of death were suicides (57.1 percent), followed by homicides (31.6 percent) and deaths of undetermined intent (9.8 percent). Unintentional firearm deaths and legal interventions accounted for less than 3 percent of violent deaths. There were no violent deaths due to terrorism. Firearms were the principal methods of death (52.1 percent), followed by hanging, strangulation or suffocation (17.6 percent) and by poisonings (13.8 percent).

Violent death rates among men were 3.6 times greater than death rates among women (34.8 vs. 9.5 per 100,000). Black non-Hispanics had the highest overall violent death rate (34.6 per 100,000), followed by white non-Hispanic (19.0 per 100,000) and Hispanics (15.5 per 100,000). In terms of age, Ohioans aged 25 to 34 had the highest violent death rates (33.0 per 100,000), followed by 15 to 24 year olds (29.2 per 100,000) and 45 to 54 year olds (28.3 per 100,000). Among women, violent death rates were highest for those aged 45 to 54 (14.6 per 100,000). In men, violent death rates were highest among those aged 35 to 44 (45.7 per 100,000).

Suicides

There were a total of 789 suicides among selected Ohio counties in 2010. Suicides were the leading manner of violent death with an overall rate of 12.4 per 100,000 persons. Comparable to all violent deaths, firearms were the most common method of death, accounting for 48 percent of all suicides. Other methods of deaths included poisonings (17.5 percent) and hanging, suffocation, or strangulation (27.8 percent). There were gender differences with respect to the leading method of death, with firearm-related suicides seen predominantly in men and poisoning-related suicides more commonly noted in women (53.6 percent vs. 39.3 percent, respectively).

Suicide rates were higher for men compared to women (20.1 versus 5.3 per 100,000). The highest overall suicide rates was seen among white, non-Hispanic males (23.5 per 100,000), followed by black, non-Hispanic males (9.9 per 100,000) and white, non-Hispanic females (6.0 per 100,000). Black, non-Hispanic females had the lowest suicide rates (2.6 per 100,000). In general, those aged 45 to 54 years

---

[1] Selected counties for 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit, Trumbull, and Union counties, accounting for 55 percent of the Ohio population.

old had the highest suicide rates (18.8 per 100,000 persons). Among men, those aged 85 and above had the greatest suicide rates (36.0 per 100,000). Among women, the highest suicide rates were seen for those aged 45 to 54 years (9.2 per 100,000).

Circumstances most commonly associated with suicides included current mental health problems (53 percent), current mental health treatment (31 percent), and a current depressed mood (41 percent). Life stressors such as a crisis in the past two weeks, health problems and job problems were also commonly seen among suicide decedents (26 percent, 15 percent and 14 percent, respectively). Among suicide decedents with toxicology results, most tested positive for alcohol (29 percent), opiates (20 percent) and antidepressants (18 percent).

Homicides

There were a total of 436 homicides among selected Ohio counties in 2010. Homicides were the second leading manner of violent death with an overall rate of 6.9 per 100,000. Comparable to all violent deaths, firearms were the most common method of death, accounting for 72.9 percent of all homicides. Less common methods of death included sharp instruments (8.9 percent) and personal weapons (5.3 percent).

Homicide rates were higher for men compared to women (11.5 versus 2.5 per 100,000, respectively). The highest overall homicide rates were seen among black, non-Hispanic males (46.8 per 100,000), followed by black, non-Hispanic females (5.8 per 100,000) and Hispanics (4.9 per 100,000). White, non-Hispanic females had the lowest homicide rates (1.6 per 100,000). Overall, those aged 25 to 34 years old had the highest homicide rates (15.1 per 100,000 persons). Among men and women, men aged 15 to 24 had the greatest homicide rates (27.1 per 100,000). Among women, the highest homicide rates were seen for those aged 25 to 34 years (3.9 per 100,000).

Circumstances most commonly associated with homicide included association with another crime (32 percent), and drug involvement (11 percent). Other arguments or conflicts, unrelated to money or property, were seen in 27 percent of homicide decedents. Intimate partner violence for female homicides was almost ten times more likely than for male homicides (54 percent versus 5 percent). Among homicide decedents with toxicology results, 25 percent tested positive for alcohol, 40 percent for marijuana and 11 percent for opiates.

Undetermined Deaths

In certain instances, violent deaths could not be assigned to a specific manner of death due to lack of evidence of intent. Among selected Ohio counties in 2010, there were a total of 135 deaths of undetermined intent and an overall death rate of 2.1 per 100,000 persons. The leading methods of death included poisonings and men generally had higher undetermined death rates than women (2.6 versus 1.7 per 100,000, respectively). Among men, the highest undetermined death rate was seen among those aged 35 to 44 followed by 45 to 54 year olds (4.8 and 3.7 per 100,000). Overall, the highest undetermined death rate was observed among those aged 45 to 54 years old (2.9 per 100,000).

Other Violent Deaths

Legal interventions and unintentional firearm deaths accounted for 0.9 percent and 0.6 percent of all violent deaths in selected Ohio counties in 2010. Unintentional firearm deaths included those that were self-inflicted and those inflicted by another person. There were 33 merged incidents (e.g. multiple homicides, murder-suicide) accounting for a total of 66 deaths. The most common merged incidents were murder-suicides, followed by multiple homicides.

Introduction

Injury and violence-related deaths are a significant public health concern in the United States, and are among the leading causes of death for individuals aged 1 to 39 years. In 2010, there were more than 55,000 deaths due to violence in the US. In Ohio, violence resulted in more than 2,200 deaths in 2010. A violent death is defined as a death that results from the intentional use of physical force, or power against oneself, another person, or against a group or community. Disparities by age, gender and race are evident for violence-related deaths, emphasizing the need for policies and intervention strategies for high-risk groups. Prior to the implementation of the violent death reporting system, there was no unified surveillance system for violent deaths in the United States. The need for an active, centralized, population-based surveillance system was proposed as a means to provide comprehensive data on violent deaths occurring within the U.S.

The national violent death reporting system (NVDRS) is a public health surveillance system funded by the Centers for Disease Control and Prevention (CDC) capturing detailed information on violent deaths occurring in participating states. NVDRS data collection was started in 2003 and included the following states: Maryland, Massachusetts, New Jersey, South Carolina, and Virginia. Since then, NVDRS has expanded to include Alaska, Colorado, Georgia, Kentucky, New Mexico, North Carolina, Oklahoma, Rhode Island, Utah, Wisconsin and, most recently, Michigan and Ohio. The data captured through the NVDRS accounts for 45 percent of all violent deaths in the United States. NVDRS data collection relies on abstraction from three primary sources: death certificates, coroner/medical examiner records and police reports. Currently, though these records may be available, they are often in different forms and locations. Death certificate data lack sufficient detail on the nature and circumstances surrounding the violent death. By linking coroner and law enforcement records with death certificates, the use of the data can be expanded, allowing researchers to explore violent incidents, risk factors and underlying circumstances surrounding the death.

Through the aid of a cooperative agreement from the CDC, Ohio became a participating state in the NVDRS in 2010. The purpose of OH-VDRS is multifold; it not only provides information relating to counts of violent deaths in Ohio, it also provides detailed descriptions of the characteristics and circumstances associated with these violent deaths. Specifically, it can detect specific types of violent deaths, examine the circumstances associated with incidents involving multiple victims and identify risk factors associated with particular types of violent deaths.

The implementation of OH-VDRS informs legislators, public health officials, law enforcement, and violence prevention groups in effective ways to reduce and prevent future violent deaths in Ohio. The data can also be utilized in assessing the effectiveness of current policies and programs to reduce and prevent violence. The results presented in this report provide valuable and comprehensive data on the characteristics and circumstances associated with violent deaths in Ohio in 2010.

Methods

Case Definition

Violent deaths were defined as suicides, homicides, legal interventions, unintentional firearm deaths, terrorism-related deaths or deaths of undetermined intent. OH-VDRS cases were identified based on specific manner cause of death codes, specifically International Classification of Diseases codes, version 10 (ICD-10). The manner of death was obtained primarily from death certificates; abstractors assigned the OH-VDRS manner of death based on the manner of death provided on the death certificate and the corresponding ICD-10 cause of death codes (Table 1).

Data collection for OH-VDRS relies on the abstraction of three primary sources: death certificates, coroner/medical examiner records and police reports. Death certificates were provided electronically by Vital Statistics at the Ohio Department of Health (ODH). Electronic records and hardcopies of medical examiner/coroner reports were obtained from county-specific medical examiners' offices. Reports from law enforcement agencies were provided to abstractors either electronically or via hardcopy.

Table 1. ICD-10 Codes for Manners of Death Meeting the NVDRS Case Definition

Manner of Death	Death < 1 year after injury	Death ≥ 1 year or more after injury
Intentional self-harm (Suicide)	X60-X84	Y87.0
Assault (Homicide)	X85-X99, Y00-Y09	Y87.1
Undetermined Intent	Y10-Y34	Y87.2, Y89.9
Unintentional Firearm	W32-W34	Y86 (guns)
Legal Intervention	Y35.0-Y35.7	Y89.0
Terrorism	U01, U03	U02

The following types of deaths were excluded from the case definition:

- Legal executions
- Unintentional injury deaths not cause by a firearm, such as motor vehicle collisions, classified as "Vehicular homicides"

Data Phase-In

Death certificate data were available for the entire state of Ohio. However, detailed information on the circumstances surrounding the death, collected through coroner records and law enforcement reports, was structured as a three year phase-in process. In the first year, circumstance data from 12 counties, accounting for 66 percent of all violent deaths, were collected and entered into the OH-VDRS database. In 2011, data collection was expanded to an additional 22 counties, representing 85 percent of all violent deaths. In 2012, coroner and law enforcement participation encompassed all 88 counties in Ohio. A map of the phase-in process is shown in Appendix A. The data presented in this report are

centered on counties from the first year. Counts and rates for all Ohio residents, based on death certificate data, are provided in Appendix C.

Analysis

The analysis for this surveillance report includes descriptive statistics, namely counts and percentages of violent death types and their characteristics. Rates for homicides, suicides, and deaths of undetermined intent are reported at the county level as well as across various demographic groupings. Demographic groupings included age, sex, race, ethnicity, and educational attainment. Rates were calculated by dividing the number of group-specific deaths by the total group-specific population. Population estimates were obtained from bridged Ohio population data (vintage 2010) from the National Center for Health Statistics. Rates were expressed per 100,000 persons. Crude rates are reported, unless otherwise specified. Details on the calculation of crude and age-adjusted rates are discussed in Appendix B.

Data Restrictions

The calculation of rates was limited to instances where death counts were sufficiently large. Small numbers of events can vary considerably over time and could also pose concerns with respect to confidentiality and identifiable data. Several rules of thumb apply for what constitutes as sufficiently large counts. Typically rate calculations require a count of at least 10 to 20 events and a denominator of at least 100.[2] In the rate calculations generated for this report, denominators were sufficiently large. Counts, however, varied considerably and could decrease substantially once parsed into specific demographic groupings. Mortality rates were calculated for counts of 10 or more, but in instances with fewer events, mortality rates were suppressed.

Data were captured for all occurrent deaths in Ohio, however for these analyses violent death data were restricted to Ohio residents at the time of their death.

---

[2] Brillinger DR. The natural variability of vital rates and associated statistics. *Biometrics*1986;42(4):693–734

Section 1: Overview of Violent Deaths

Data Highlights

Demographic Characteristics

- There were a total of 1,341 violent incidents in selected Ohio counties in 2010. The majority of these incidents were suicides (57.2 percent), followed by single homicides (29.3 percent) and deaths of undetermined intent (10.6 percent).
- In terms of total deaths, a total of 1,381 Ohio residents died as a result of violence. Men were more likely than women to suffer a violent death. Suicides accounted for the largest proportion of violent deaths in both men and women (57.1 percent).
- The age-adjusted violent death rate for 2010 was 21.7 per 100,000 persons. Among men the violent death rate was almost four times greater than the rate among women (34.8 vs. 9.3 per 100,000).
- Ohioans aged 25-34 had the highest violent death rates (32.9 per 100,000) in 2010. Among men, the highest violent death rate was also seen among those aged 25-34 (54.2 per 100,000), followed by those aged 85 and above (45 per 100,000). Among women, the highest violent death rate was observed for those aged 45-54 (14.6 per 100,000) followed by 55-64 year olds (13.5 per 100,000).
- Among specific racial/ethnic groups, white males and females had the greatest number of violent deaths; however the violent death rate was highest for non-Hispanic blacks. Black, non-Hispanic males had the highest violent death rate (61.2 per 100,000) whereas white, non-Hispanic females had the lowest violent death rate (8.8 per 100,000).
- In terms of educational attainment, most violent death victims had a high school education or GED equivalent (44.2 percent). Those with less than a high school education accounted for almost a quarter of all violent deaths (23.7 percent).

Manner and Method of Death
- Suicides were the common manner of death for both men and women (57.1 percent), followed by homicides (31.6 percent) and deaths of undetermined intent (9.8 percent).
- Firearms were the most common method of death (52.1 percent). This was observed for men and women; however, among women, the percentage of poisoning deaths was very similar to the percentage of firearm deaths (28.8 percent vs. 29.5 percent). For men, poisoning deaths accounted for only 9.2 percent of violent deaths, while firearms and hanging/suffocation were about 58.9 percent and 17.6 percent, respectively.

Distribution of Violent Deaths
- County-specific rates for violent deaths were highest for Montgomery County (27.3 per 100,000), followed by Franklin County (26.6 per 100,000). The lowest violent death rate was observed in Lorain County (16.4 per 100,000).

Incidents

Table 2: Incident Types in Selected Ohio Counties, 2010

Incident Type	Count	Percent
Suicide	767	57.2
Single Homicide	393	29.3
Multiple Homicide	16	1.19
Death of Undetermined Intent	142	10.6
Homicide/Suicide	17	1.3
Unintentional Firearm Death	6	0.5
Total Incidents	1,341	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Violent Deaths Demographics

Table 3: Types of Violent Deaths and Number of Victims for Selected Ohio Counties, 2010

Method of Death	Male Count	Percent	Female count	Percent	Total Count	Percent
Suicide	616	57.6	173	55.4	789	57.1
Homicide	353	33	83	26.6	436	31.6
Unintentional Firearm - Self-Inflicted	3	0.3	0	0	3	0.2
Unintentional Firearm - Inflicted by Other Person	5	0.5	0	0	5	0.4
Legal Intervention	13	1.2	0	0	13	0.9
Undetermined Intent	79	5.2	56	12.2	135	9.8
Total Deaths	1,069	100	312	100	1,381	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Figure 1: Violent Death Rates for Selected Ohio Counties, 2010[1]
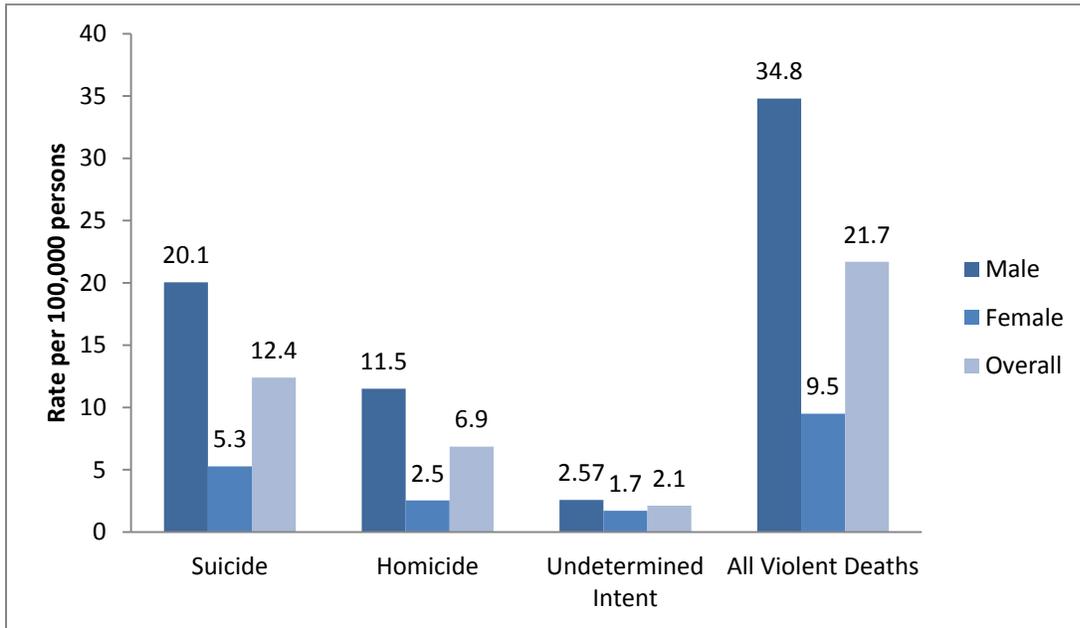
[1]**Calculated rates are age-adjusted.**

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Figure 2: Age-Specific Violent Death Rates by Sex for Selected Ohio Counties, 2010
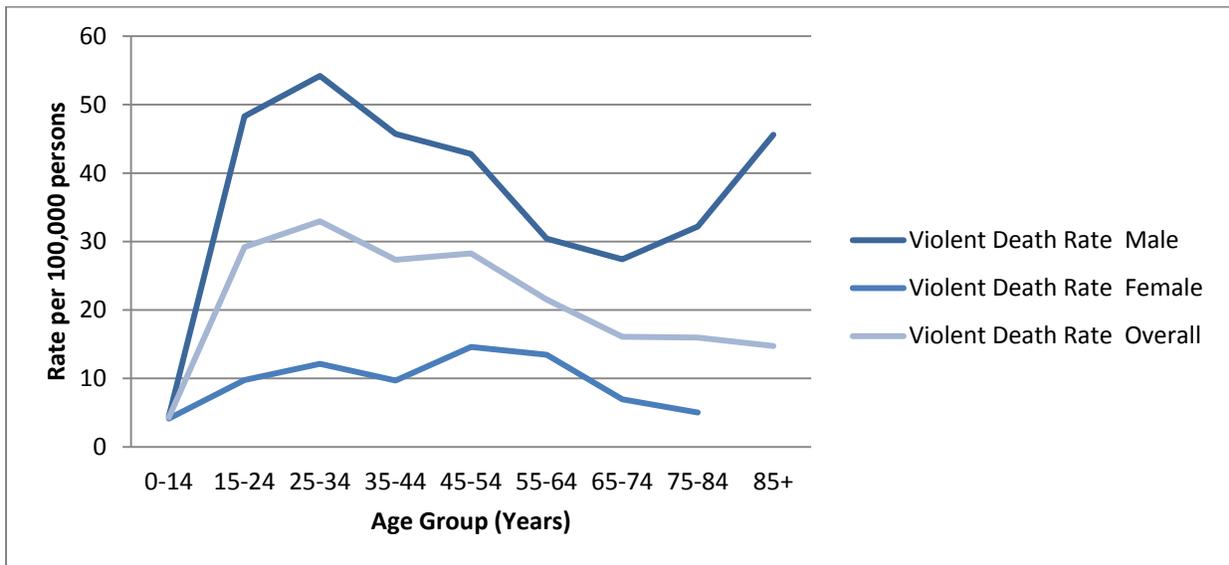
Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Table 4: Demographics of Violent Deaths for Selected Ohio Counties by Race and Sex, 2010

	Male			Female		
	Number	Percent	Rate	Number	Percent	Rate
Race/Ethnicity						
White, Non-Hispanic	677	63.3	28.6	223	71.5	8.8
Black, Non-Hispanic	353	33.0	61.2	71	22.8	10.5
Hispanic	26	2.4	20.7	9	2.9	*
Other, Unknown	13	1.2	*	9	2.9	*
Total	1,069	100	34.8	312	100	9.3

*Rates suppressed for counts <10. Rates not available for other/unknown racial groups. Rates are expressed per 100,000 persons.

Selected Ohio counties in 2010 included Franklin, Cuyahoga, Montgomery, Trumbull, Butler, Lucas, Lorain, Union, Mahoning, Stark, Hamilton and Summit counties.

Sources: Ohio Department of Health, OH-VDRS and Vital Statistics

Table 5: Demographics of Violent Deaths for Selected Ohio Counties by Educational Level and Sex, 2010

Educational Level	Male Count	Percent	Female count	Percent	Total Count	Percent
8th grade or less	46	4.3	25	8.0	71	5.1
9th to 12th grade	207	19.4	50	16.1	257	18.6
High School Diploma/GED	499	46.7	111	35.7	610	44.2
Some College	134	12.5	38	12.2	172	12.5
Associates Degree	47	4.4	27	8.7	74	5.4
Bachelors' Degree	71	6.6	43	13.8	114	8.3
Masters' Degree	27	2.5	8	2.6	35	2.5
Doctorate/Professional	12	1.1	2	0.6	14	1.0
Unknown	25	2.3	7	2.3	32	2.3
Total	1,068	100	311	100	1,379	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Methods

Table 6: Method of Death for Violent Death by Sex for Selected Ohio Counties, 2010

Method of Death	Male Count	Percent	Female count	Percent	Total Count	Percent
Firearm	630	58.9	90	28.8	720	52.1
Hanging/Strangulation	188	17.6	55	17.6	243	17.6
Poisoning	98	9.2	92	29.5	190	13.8
Sharp Instrument	40	3.7	14	4.5	54	3.9
Fall	14	1.3	5	1.6	9	0.7
Motor Vehicle	12	1.1	6	1.9	18	1.3
Blunt Instrument	18	1.7	5	1.6	23	1.7
Personal Weapons	16	1.5	7	2.2	23	1.7
Other	21	2.0	11	3.5	32	2.3
Unknown	32	3.0	29	9.3	61	4.4
Total Deaths	1,069	100	312	100	1,381	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Table 7: Violent Deaths by Selected Ohio Counties: Number and Rate, 2010

County of Residence	Deaths	Population	Rate
Butler	68	363,230	18.7
Cuyahoga	258	1,269,455	20.3
Franklin	308	1,159,947	26.6
Hamilton	183	855,340	21.4
Lorain	50	305,097	16.4
Lucas	89	461,792	19.3
Mahoning	50	234,532	21.3
Montgomery	145	532,181	27.3
Stark	80	377,793	21.2
Summit	100	541,360	18.5
Trumbull	42	208,119	20.2
Union	8	49,165	*
Total	1,381	6,358,011	21.7

*Rates suppressed for counts <10. Rates are expressed per 100,000 persons.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Section 2: Suicides

Data Highlights

Demographic Characteristics

- A total of 789 Ohio residents in Year one counties died as a result of a suicide. The overall suicide rate for these selected Ohio counties in 2010 was 12.4 per 100,000.
- Males were almost four times more likely than females to die from a suicide (20.1 vs. 5.3 per 100,000).
- Among men, the highest suicide rate was observed for white, non-Hispanics (23.5 per 100,000), followed by black, non-Hispanics (9.9 per 100,000).
- Among women, the highest suicide rate was observed for white, non-Hispanics (6.0 per 100,000), followed by black, non-Hispanics (2.6 per 100,000).
- Ohioans aged 45-54 had the highest suicide rates (18.8 per 100,000). Among men, the highest suicide rate was seen among those aged 85 and above (36.0 per 100,000), followed those aged 45-54 (29.0 per 100,000). Among women, the highest suicide rate was observed for those aged 45-54 (9.2 per 100,000) followed by 55-64 year olds (8.6 per 100,000).
- In terms of educational attainment, most suicide victims had a high school education or GED equivalent (45.7 percent). Those with a Bachelor's degree or higher accounted for almost a fifth of all suicides (16.5 percent).

Method of Death and Locality

- Firearms were the most common method of death (48 percent) overall, followed by hanging, suffocation, or strangulation (27.8 percent) and poisoning (17.5 percent).
- Among men, firearms were used for more than half of suicides (53.6 percent) but for only 28.3 percent of suicides among women.
- Poisonings were the most common method of suicides for women (39.3 percent).
- Hanging, suffocation and strangulation was about constant for men and women, accounting for 28.7 percent and 24.3 percent of suicides, respectively.
- Other methods such as sharp and blunt instruments, fire/burns, and drowning accounted for less than 10 percent of all suicides.
- County-specific suicide rates were highest for Montgomery County (17.3 per 100,000), followed by Stark County (16.9 per 100,000). The lowest suicide rate was observed in Mahoning County (9.8 per 100,000).

Table 8: Demographics of Suicides for Selected Ohio Counties by Race and Sex, 2010

	Male			Female		
	Number	Percent	Rate	Number	Percent	Rate
Race/Ethnicity						
White, Non-Hispanic	543	88.1	23.5	147	85.0	6.0
Black, Non-Hispanic	56	9.1	9.9	17	9.8	2.6
Hispanic	12	1.9	10.2	3	1.7	*
Other, Unknown	5	0.8	*	6	3.5	*
Total	616	100	20.1	173	100	5.3

*Rates suppressed for counts <10. Rates not available for other/unknown racial groups. Rates are expressed per 100,000 persons.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Figure 3: Age-Specific Suicide Rates by Sex for Selected Ohio Counties, 2010
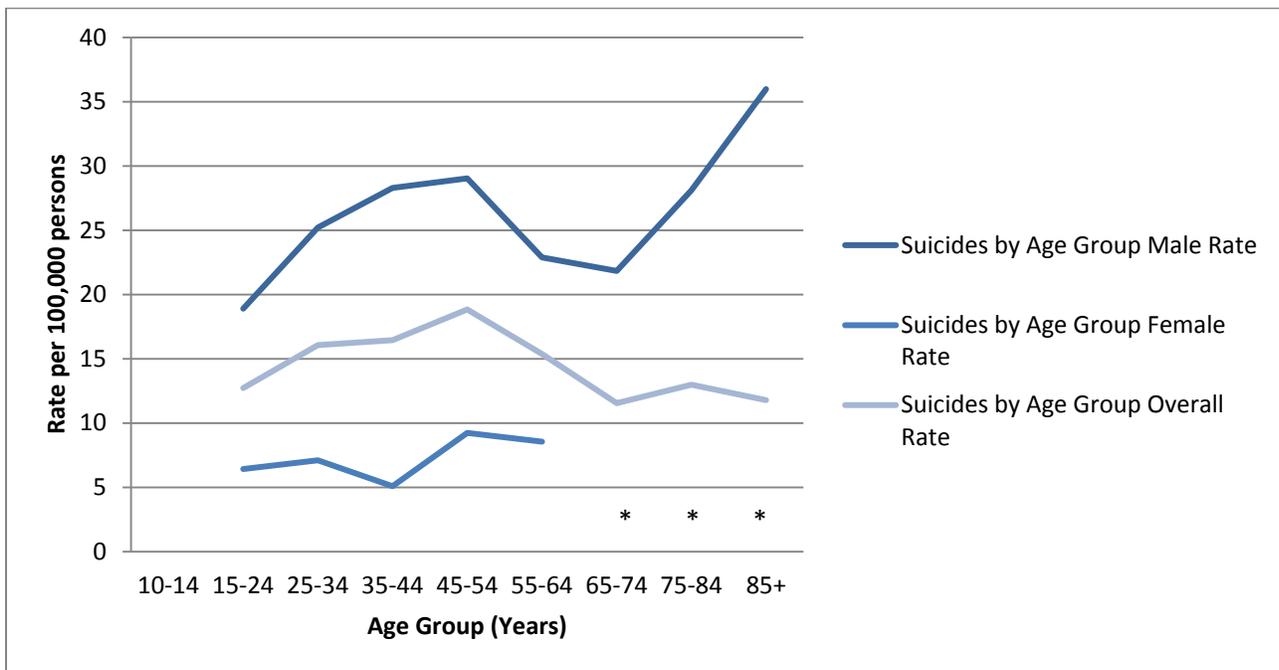
*Rate was suppressed for ages 10-14 due to counts lower than 10. Female rates for those aged 55 and above were suppressed due to counts lower than 10.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Table 9: Demographics of Suicides for Selected Ohio Counties by Educational Level and Sex, 2010

Educational Level	Male Count	Percent	Female count	Percent	Total Count	Percent
8th grade or less	14	2.3	2	1.2	16	2.0
9th to 12th grade	92	15.0	24	13.9	116	14.7
High School Diploma/GED	293	47.6	67	38.7	360	45.7
Some College	82	13.3	21	12.1	103	13.1
Associates Degree	27	4.4	20	11.6	47	6.0
Bachelors' Degree	59	9.6	30	17.3	89	11.3
Masters' Degree	24	3.9	6	3.5	30	3.8
Doctorate/Professional	10	1.6	1	0.6	11	1.4
Unknown	14	2.3	2	1.2	16	2.0
Total	615	100	173	100	788	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Locality

Table 10: County-specific Suicides Rates for Selected Ohio Counties, 2010

County of Residence	Deaths	Population	Rate
Butler	51	363,230	14.0
Cuyahoga	135	1,269,455	10.6
Franklin	141	1,159,947	12.2
Hamilton	88	855,340	10.3
Lorain	38	305,097	12.5
Lucas	54	461,792	11.7
Mahoning	23	234,532	9.8
Montgomery	92	532,181	17.3
Stark	64	377,793	16.9
Summit	59	541,360	10.9
Trumbull	37	208,119	17.8
Union	7	49,165	*
Total	789	6,358,011	12.4

Rates are suppressed for counts less than 10. Rates are expressed per 100,000 persons.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Methods

Table 11: Method of Death for Suicide Victims by Sex in Selected Ohio Counties, 2010

Method of Death	Male Count	Percent	Female count	Percent	Total Count	Percent
Firearm	330	53.6	49	28.3	379	48.0
Hanging/Strangulation	177	28.7	42	24.3	219	27.8
Poisoning	70	11.4	68	39.3	138	17.5
Sharp Instrument	12	1.9	3	1.7	15	1.9
Fall	13	2.1	5	2.9	18	2.3
Drowning	2	0.3	0	0	2	0.3
Burns/Fire	1	0.2	1	0.6	2	0.3
Motor Vehicle	6	1.0	3	1.7	9	1.1
Other Transport Vehicle	4	0.6	2	1.2	6	0.8
Non-powder Gun	1	0.2	0	0	1	0.1
Total Deaths	616	100	173	100	789	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Figure 4: Method of Death for Suicide Victims by Sex for Selected Ohio Counties, 2010
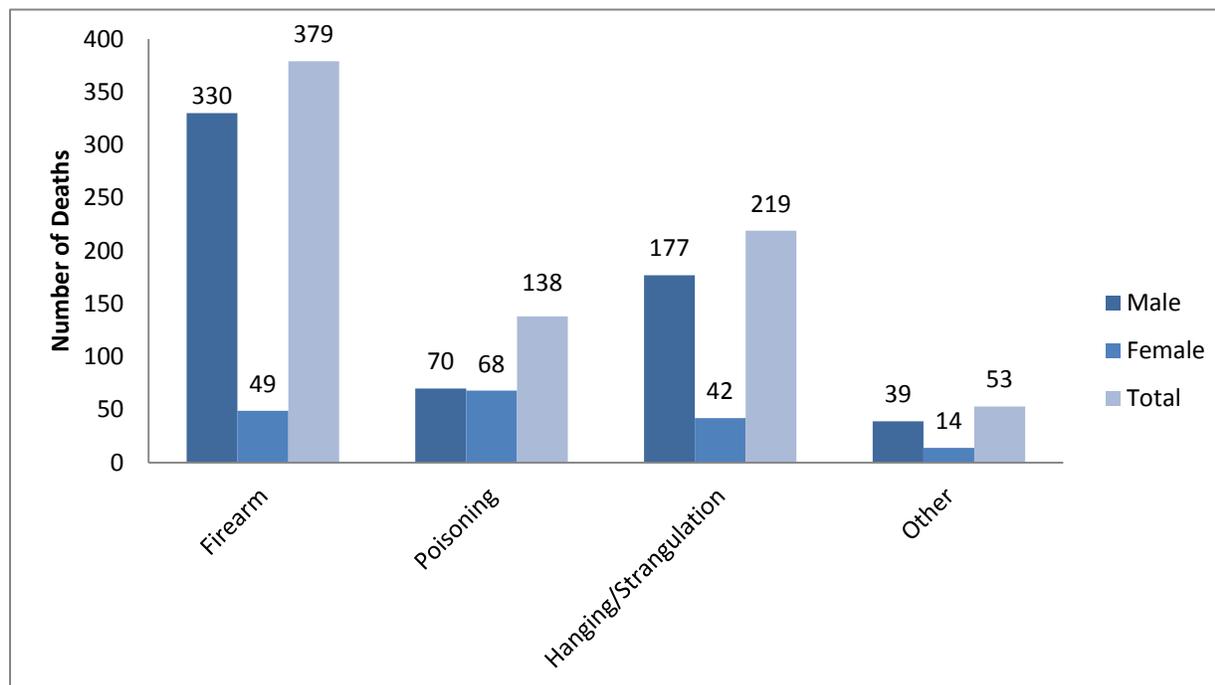
*Other method refers to suicide deaths from falls, non-powder guns, drowning, fire/burns, motor vehicles, other transport vehicles and sharp instruments.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Data Highlights

Injury Location

- The most common suicide locations were in a house or apartment (80 percent)
- Other suicide locations included a street or a road (3 percent), motor vehicle (1.9 percent), jail or prison (1.4 percent), park or playground (1.6 percent) and a natural area (1.8 percent).

Circumstances

- Nearly 94 percent (738/789) of all suicide victims had circumstances available.
- Among men, the most common mental health circumstances included a current mental health problem (49 percent), a history of mental health issues (31.4 percent), current mental health treatment (26.7 percent), current depressed mood (41.8 percent) and a crisis in the last two weeks (26.7 percent).
- Among women, the most common mental health circumstances included a current mental health problem (67.7 percent), a history of mental health issues (52.4 percent), current mental health treatment (48.2 percent), current depressed mood (39.6 percent) and a crisis in the last two weeks (23.2 percent).
- In terms of suicide event circumstances, 37.7 percent of suicide victims left a suicide note, with a greater likelihood among women compared to men (42.7 percent vs. 36.4 percent). Suicide victims disclosed the intent to commit suicide in 30.8 percent of the cases. Women had a higher percentage of history of suicide attempts compared to men (32.9 percent vs. 18.5 percent).
- Other circumstances associated with suicide victims included an alcohol problem (17.2 percent), a health problem (15.5 percent), an intimate partner problem (30.4 percent), a substance abuse problem (20.1 percent) and financial problems (12.1 percent).

Toxicology Testing

- Of the 789 total suicide victims, 761 were tested for amphetamines, antidepressants, cocaine, marijuana, opiates and alcohol.
- Nearly 30 percent of suicide decedents tested positive for alcohol (28.7 percent), with a higher likelihood in men compared to women (30.2 percent vs. 23.1 percent).
- Positive tests for antidepressants and opiates were found in about 20 percent of suicides (18.4 percent and 20 percent, respectively).
- Women were more likely than men to test positive for opiates (31.4 percent vs. 16.7 percent).
- Twelve percent of suicide decedents tested positive for marijuana, and less than 10 percent tested positive for either amphetamines or cocaine.
- Among those testing positive for alcohol, 29.8 percent had a blood alcohol concentration of less than 0.08. Ten percent of these suicide decedents had a BAC of 0.24-0.32.

Table 12: Commonly Occurring Suicide Locations for Selected Ohio Counties, 2010

Injury Location	Male Count	Percent	Female count	Percent	Total Count	Percent
House/Apartment	487	79.1	144	83.2	631	80.0
Street/Road	13	2.1	5	3.5	18	3.0
Motor Vehicle	11	1.8	4	2.3	15	1.9
Jail/Prison	10	1.6	1	0.6	11	1.4
Park/Playground	12	1.9	1	0.6	13	1.6
Natural Area	13	2.1	1	0.6	14	1.8
Hotel/Motel	6	1.0	4	2.3	10	1.3
Other	54	8.8	9	5.2	63	8.0
Unknown	10	1.6	4	2.3	14	1.8
Total	616	100	173	100	789	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Circumstances

Table 13: Circumstances of Suicide Victims by Sex for Selected Ohio Counties, 2010[1]

	Male		Female		Total	
Circumstance	Number	Percent	Number	Percent	Number	Percent
Alcohol Problem	107	18.6	20	12.2	127	17.2
Crisis	153	26.7	38	23.2	191	25.9
Depression	240	41.8	65	39.6	305	41.3
Health Problem	94	16.4	20	12.2	114	15.5
History of Mental Issues	180	31.4	86	52.4	266	36.0
Intimate Partner Problem	183	31.9	41	25.0	224	30.4
Job Problem	84	14.6	16	9.76	100	13.6
Financial Problem	77	13.4	12	7.32	89	12.1
Current Mental Problem	281	49.0	111	67.7	392	53.1
Other Argument	77	13.4	25	15.2	102	13.8
Left a Suicide Note	209	36.4	69	42.7	278	37.7
Substance Use	110	19.2	38	23.2	148	20.1
Suicide Attempt History	106	18.5	54	32.9	160	21.7
Suicide Intent	188	32.8	39	23.8	227	30.8
Currently Receiving Treatment	153	26.7	79	48.2	232	31.4

[1]The denominator used for calculating percentage of specific circumstances is based on the number of suicide victims reporting at least one circumstances. Suicide victims may report more than one circumstance. Nearly 94 percent of suicide victims had circumstances available. Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties. Sources: ODH, OH-VDRS and Vital Statistics

Toxicology

Table 14: Toxicology Results for Suicide Victims for Selected Ohio Counties, 2010.

Positive Toxicology Test	Male		Female		Total	
	Number	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Amphetamines	9	1.52	4	2.4	13	1.7
Antidepressants	77	13.0	63	37.3	140	18.4
Cocaine	46	7.8	11	6.5	57	7.5
Marijuana	73	12.3	18	10.7	91	12.0
Opiates	99	16.7	53	31.4	152	20.0
Alcohol	179	30.2	39	23.1	218	28.7

The denominator for toxicology results is based on the number of suicide victims tested for each respective substance (n=761). It is possible for a suicide victim to test positive for more than one substance.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Table 15: Blood Alcohol Concentration Results for Suicide Victims Testing Positive for Alcohol

Blood Alcohol Concentration	Male		Female		Total	
	Number	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Less than 0.080	50	27.9	15	38.5	65	29.8
0.080-0.160	50	27.9	6	15.4	56	25.7
0.160-0.240	49	27.4	13	33.3	62	28.4
0.240-0.320	18	10.1	4	10.7	22	10.1

A total of 218 suicide victims tested positive for alcohol. Blood alcohol concentrations were grouped into quartiles. BAC results were missing for 13 victims.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Section 3: Homicides

Data Highlights

Demographic Characteristics

- A total of 436 Ohio residents died as a result of a homicide. The overall homicide rate for selected Ohio counties in 2010 was 6.9 per 100,000 persons.
- Males were more than four times more likely than females to die from a homicide (11.6 vs. 2.6 per 100,000).
- Among men, the highest homicide rate was observed for black, non-Hispanics (45.8 per 100,000), followed by white, non-Hispanics (3.2 per 100,000).
- Among women, the highest homicide rate was similarly observed for black, non-Hispanics (5.8 per 100,000), followed by white, non-Hispanics (1.6 per 100,000).
- Ohioans aged 25-34 had the highest suicide rates (15.1 per 100,000 persons). Among men, the highest suicide rate was seen among those aged 25-34 (27.1 per 100,000), followed by those aged 35-44 (25.7 per 100,000).
- Among women, the highest suicide rate was observed for those aged 25-34 (3.9 per 100,000) followed by 35-44 year olds (2.9 per 100,000).
- In terms of educational attainment, most homicide victims had a high school education or GED equivalent (44 percent). Those with less than a high school education accounted for a third of all suicides (33.1 percent).

Method of Death and Locality

- Firearms were the most common method of death (72.9 percent) for homicides, followed by sharp instruments (8.9 percent), and personal weapons (5.3 percent).
- Among men, firearms were used for more than three quarters of homicides (78.8 percent) but for less than half of homicides among women (48.2 percent).
- Other homicide methods such as blunt instruments, hanging/strangulation, and motor vehicles accounted for less than 13 percent of all homicides.
- County specific homicide rates were highest for Franklin County (9.7 per 100,000), followed by Mahoning County (9.4 per 100,000). The lowest homicide rate was observed in Butler County (2.8).

Demographics

Table 16: Demographics of Homicides for Selected Ohio Counties by Race and Sex, 2010

	Male			Female		
	Number	**Percent**	**Rate**	**Number**	**Percent**	**Rate**
Race/Ethnicity						
White, Non-Hispanic	74	21.0	3.2	39	47.0	1.6
Black, Non-Hispanic	266	75.4	45.8	39	47.0	5.8
Hispanic	8	2.3	*	3	3.6	*
Other, Unknown	5	1.4	*	2	2.4	*
Total	353	100	11.6	83	100	2.6

*Rates suppressed for counts <10. Rates not available for other/unknown racial groups. Rates are expressed per 100,000 persons.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Figure 5: Age-Specific Homicide Rates by Sex for Selected Ohio Counties, 2010
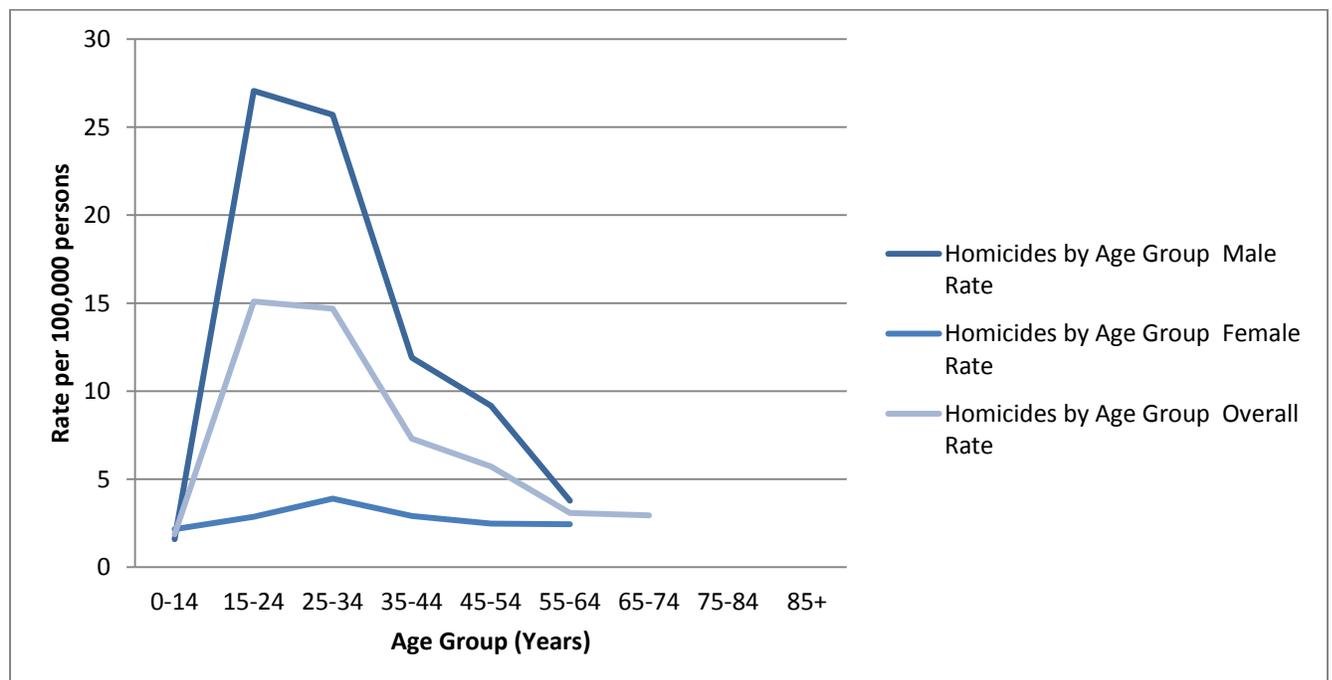
*Rate was suppressed for counts lower than 10.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Table 17: Demographics of Suicides for Selected Ohio Counties by Educational Level and Sex, 2010

Educational Level	Male Count	Percent	Female count	Percent	Total Count	Percent
8th grade or less	17	4.8	12	14.5	29	6.7
9th to 12th grade	98	27.8	17	20.5	115	26.4
High School Diploma/GED	166	47.0	26	31.3	192	44.0
Some College	41	11.6	11	13.3	52	11.9
Associates Degree	19	5.4	5	6.0	24	5.5
Bachelors' Degree	6	1.7	7	8.4	13	3.0
Masters' Degree	1	0.3	2	2.4	3	0.7
Doctorate/Professional	0	0	1	1.2	1	0.2
Unknown	5	1.4	2	2.4	7	1.6
Total	353	100	83	100	436	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Methods

Table 18: Method of Death for Homicide Victims by Sex for Selected Ohio Counties, 2010

Method of Death	Male Count	Percent	Female count	Percent	Total Count	Percent
Firearm	278	78.8	40	48.2	318	72.9
Hanging/Strangulation	8	2.3	13	15.7	21	4.8
Poisoning	2	0.6	1	1.2	3	0.7
Sharp Instrument	28	7.9	11	13.3	39	8.9
Blunt Instrument	15	4.2	5	0.6	20	4.6
Personal Weapons	16	4.5	7	8.4	23	5.3
Intentional Neglect	0	0	2	2.4	2	0.5
Burns/Fire	1	0.3	1	1.2	2	0.5
Motor Vehicle	3	0.8	1	1.2	4	0.9
Other	1	0.3	0	0	1	0.2
Unknown	1	0.3	2	2.4	3	0.7
Total Deaths	353	100	83	100	436	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Figure 6: Method of Death for Homicide Victims by Sex for Selected Ohio Counties, 2010
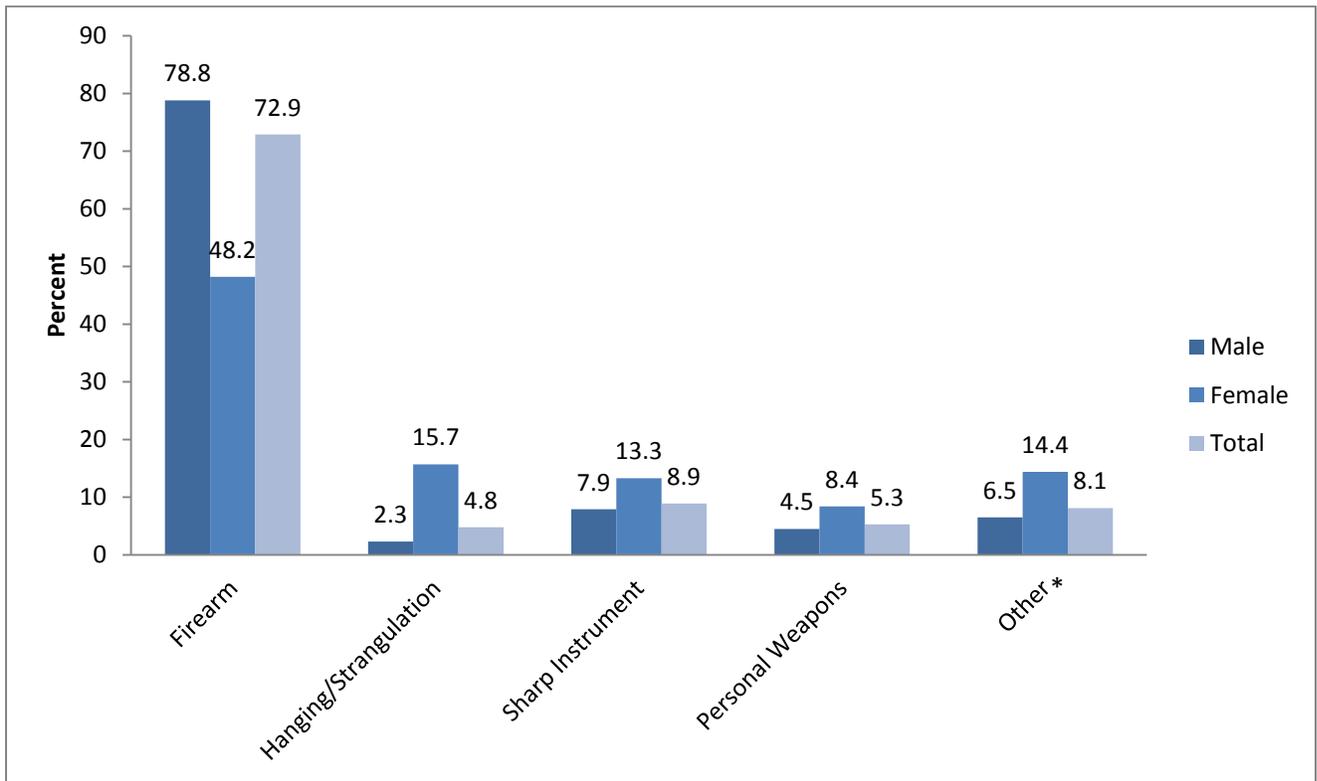
*Other method refers to suicide deaths from blunt instrument, poisoning, intentional neglect, fire/burns, motor vehicles, and unknown methods.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Locality

Table 19: County-Specific Crude Homicide Rates for Selected Ohio Counties, 2010

County of Residence	Deaths	Population	Rate
Butler	10	363,230	2.8
Cuyahoga	95	1,269,455	7.5
Franklin	113	1,159,947	9.7
Hamilton	77	855,340	9.0
Lorain	5	305,097	*
Lucas	25	461,792	5.4
Mahoning	22	234,532	9.4
Montgomery	46	532,181	8.6
Stark	12	377,793	3.2
Summit	27	541,360	5.0
Trumbull	4	208,119	*
Union	0	49,165	*
Total	436	6,358,011	6.9

*Rate was suppressed for counts lower than 10. Rates are expressed per 100,000 persons.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Data Highlights

Injury Location

- The most common homicide locations were in a house or apartment (51.6 percent)
- Other common homicide locations included a street or a road (13.1 percent), motor vehicle (6.7 percent), bar or nightclub (1.2 percent), another commercial establishment (2.8 percent) and a natural area (1.2 percent).

Circumstances

- Circumstances were available for 78.9 percent (344/436) of all homicide victims.
- Among men, the most common circumstances included an association with another crime (35.1 percent), other argument not related to property or money (29.1 percent), drug involvement (12.6 percent), use of a weapon (11.6 percent) and substance problems (16.5 percent).
- Among women, more than half of homicides were associated with intimate partner violence (54.2 percent) or intimate partner problem (54.2 percent), other common circumstances included an association with another crime (18.6 percent), other argument not related to property or money (18.6 percent), and other substance problems (18.6 percent).
- Other circumstances associated with homicide victims included an alcohol problem (2.0 percent), a crisis in the past 2 weeks (5.5 percent), and an argument related to either money or property (5.5 percent).

Toxicology Testing

- Out of 436 total homicide victims, 414 were tested for amphetamines, antidepressants, cocaine, marijuana, opiates and alcohol.
- Nearly 30 percent of homicide decedents tested positive for alcohol (27.5 percent), with a higher likelihood in men compared to women (29.5 percent vs. 19.2 percent).
- Positive tests for antidepressants and opiates were found in about 14 percent of homicides (2.4 percent and 11.4 percent, respectively).
- Men were more likely than women to test positive for marijuana (45.5 percent vs. 14.1 percent).
- Almost 40 percent of homicide decedents tested positive for marijuana, but less than 15 percent tested positive for either amphetamines or cocaine.
- Among those testing positive for alcohol, 46.4 percent had a blood alcohol concentration (BAC) of less than 0.08. 9.8 percent of these homicide decedents had a BAC of 0.24-0.32.

Table 20: Commonly Occurring Homicide Locations for Selected Ohio Counties, 2010

Injury Location	Male Count	Percent	Female count	Percent	Total Count	Percent
House/Apartment	169	47.9	56	67.5	225	51.6
Street/Road	54	15.3	3	3.6	57	13.1
Motor Vehicle	27	7.6	2	2.4	29	6.7
Bar/Nightclub	5	1.4	0	0	5	1.2
Other Commercial Establishment	12	3.4	0	0	12	2.8
Parking Lot/Garage	12	3.4	1	1.2	13	3.0
Natural Area	3	0.8	2	2.4	5	1.2
Other	52	14.7	14	16.9	66	15.1
Unknown	16	4.5	5	6.0	21	4.8
Total	353	100	83	100	436	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Circumstances

Table 21: Common Circumstances of Homicide Victims by Sex for Selected Ohio Counties, 2010

Circumstance	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Argument	16	5.6	3	5.1	19	5.5
Crisis in Past Two Weeks	12	4.2	7	11.9	19	5.5
Drug Involvement	36	12.6	1	1.7	37	10.8
Associated with Another Crime	100	35.1	11	18.6	111	32.3
Intimate Partner Problem	10	3.5	32	54.2	42	12.2
Intimate Partner Violence	15	5.3	32	54.2	47	13.7
Other Argument	83	29.1	11	18.6	94	27.3
Other Substance Problem	47	16.5	11	18.6	58	16.9
Used Weapon	33	11.6	1	1.7	34	9.9
Alcohol Suspected	6	2.11	1	1.7	7	2.0

The denominator used for calculating percentage of specific circumstances is based on the number of homicide victims reporting circumstances (n=344). Homicide victims may report more than one circumstance.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Toxicology

Table 22: Toxicology Results for Homicide Victims for Selected Ohio Counties, 2010.

	Male		Female		Total	
Positive Toxicology Test	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Amphetamines	5	1.5	1	1.3	6	1.5
Antidepressants	6	1.8	4	5.1	10	2.4
Cocaine	37	11.0	9	11.5	46	11.1
Marijuana	153	45.5	11	14.1	164	39.6
Opiates	40	11.9	7	9.0	47	11.4
Alcohol	99	29.5	15	19.2	114	27.5

The denominator used for calculating percentage of specific circumstances is based on the number of homicide victims who were tested for each respective substance (n=414). It is possible for a homicide victim to test positive for more than one substance.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Table 23: Blood Alcohol Concentration Results for Homicide Victims Testing Positive for Alcohol

	Male		Female		Total	
Blood Alcohol Concentration	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Less than 0.080	42	42.9	10	71.4	52	46.4
0.080-0.160	29	29.6	1	7.1	30	26.8
0.160-0.240	17	17.4	2	14.3	19	17.0
0.240-0.320	10	10.2	1	7.1	11	9.8

A total of 114 homicide victims were tested for alcohol. Blood alcohol concentrations were grouped into quartiles. Blood alcohol concentrations results were missing for two victims.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Victim-Suspect Relationship

Fifty-five percent (242/436) of homicide victims had suspect information. The victim-suspect relationship was available from both law enforcement reports and coroners' records, however data from the police reports tended to be more complete than those from coroners' reports. The data presented below are given for the primary suspect only. There were considerably fewer instances where multiple suspects were associated with a homicide.

Table 24: Victim-Suspect Relationship for Homicide Victims in Selected Ohio Counties, 2010

Relationship	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Spouse	1	0.5	12	23.1	13	5.4
Girlfriend/Boyfriend	4	1.7	6	11.5	10	4.1
Ex-Girlfriend/Boyfriend	0	0	3	5.8	3	1.2
Child of Suspects Boyfriend/Girlfriend	0	0	5	9.6	5	2.1
Parent	2	0.8	0	0	2	0.8
Child	8	3.3	4	7.7	12	5.0
Sibling	1	0.5	1	1.9	2	0.8
Babysitter	0	0	1	1.9	1	0.4
In-law	1	0.5	0	0	1	0.4
Step-parent	1	0.5	0	0	1	0.4
Step-child	1	0.5	0	0	1	0.4
Other Family Member	2	0.8	1	1.9	3	1.2
Foster Parent	1	0.5	0	0	1	0.4
Friend	9	4.7	0	0	9	3.7
Acquaintance	20	8.3	2	3.8	22	9.1
Roommate	3	1.2	0	0	3	1.2
Other Person, Known to Victim	8	3.3	2	3.8	10	4.1
Stranger	10	5.3	0	0	10	4.1
Current/former work relationship	2	0.8	0	0	2	0.8
Victim was law enforcement officer in line of duty	2	0.8	0	0	2	0.4
Suspect is not a suspect for this victim	3	0.2	0	0	3	1.2
Relationship Unknown	111	58.4	15	28.8	126	52.1

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Section 4: Deaths of Undetermined Intent, Selected Counties

Data Highlights

Demographic Characteristics

- There were total of 135 deaths of undetermined intent for selected Ohio counties in 2010. The overall rate was 2.1 per 100,000.
- Males were more likely than females to die from a death of undetermined intent (2.6 vs. 1.7 per 100,000).
- Among men, the highest undetermined death rate was observed for black, non-Hispanics (3.7 per 100,000), followed by white, non-Hispanics (2.3 per 100,000).
- Among women, the highest undetermined death rate was observed for black, non-Hispanics (2.3 per 100,000), followed by white, non-Hispanics (1.5 per 100,000).
- Ohioans aged 45-54 years had the highest undetermined death rates (3.3 per 100,000). Among men, the highest rate was seen among those aged 35-44 years (4.8 per 100,000), followed those aged 45-54 years (3.7 per 100,000).
- Among women, the highest undetermined death rate was observed for those aged 45-54 (2.9 per 100,000) followed by 55-64 year olds (2.4 per 100,000).
- In terms of educational attainment, most victims had less than high school education or GED equivalent (33.6 percent). Those with a college education and above accounted for a 6.2 percent of all undetermined deaths.

Method of Death and Locality

- Most deaths of undetermined intent were committed with unknown methods (43 percent).
- Poisonings accounted for 36.3 percent of all undetermined deaths.
- Among men, the method was unknown for more than a third of all deaths of undetermined intent (39.2 percent) but for almost half of undetermined deaths among women (48.2 percent).
- Other methods such as firearms, drowning and motor vehicles accounted for less than 20 percent of all deaths of undetermined intent.
- County specific undetermined death rates were highest for Franklin County (4.1 per 100,000), followed by Summit County (2.4 per 100,000). The lowest undetermined death rate was observed in Cuyahoga County (1.7 per 100,000).

Table 25: Demographics of Deaths of Undetermined Intent for Selected Ohio Counties by Age and Sex, 2010

Age Group	Male Count	Rate	Female count	Rate	Total Count	Rate
0-14	13	2.1	12	2.0	25	2.0
15-24	4	*	2	*	6	*
25-34	8	*	5	*	13	1.5
35-44	19	4.8	7	*	26	3.2
45-54	17	3.7	14	2.9	31	3.3
55-64	12	3.2	10	2.4	22	2.8
65-74	3	*	4	*	7	*
75-84	2	*	2	*	4	*
85+	1	*	*	*	1	*
Total	79	2.6	56	1.7	135	2.1

*Rates suppressed for counts <10. Rates are expressed per 100,000 persons.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Table 26: Demographics of Deaths of Undetermined Intent for Selected Ohio Counties by Race and Sex, 2010

	Male			Female		
	Number	Percent	Rate	Number	Percent	Rate
Race/Ethnicity						
White, Non-Hispanic	52	65.8	2.3	37	66.1	1.5
Black, Non-Hispanic	21	26.6	3.7	15	26.8	2.3
Hispanic	4	5.1	*	3	5.7	*
Other, Unknown	2	2.5	*	1	1.8	*
Total	79	100	2.6	56	100	1.7

*Rates suppressed for counts <10. Rates not available for other/unknown racial groups. Rates are expressed per 100,000 persons.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Table 27: Demographics of Deaths of Undetermined Intent for Selected Ohio Counties by Educational Level and Sex, 2010

Educational Level	Male Count	Percent	Female count	Percent	Total Count	Percent
8th grade or less	13	16.5	11	19.6	24	17.9
9th to 12th grade	12	15.2	9	16.1	21	15.7
High School Diploma/GED	29	36.7	18	32.1	47	4.3
Some College	9	11.4	6	10.7	15	11.2
Associates Degree	1	1.3	2	3.6	3	2.2
Bachelors' Degree	5	6.3	6	10.7	11	2.2
Masters' Degree	2	2.5	0	0	2	2.0
Doctorate/Professional	2	2.5	0	0	2	2.0
Unknown	6	7.6	3	5.4	9	6.7
Total	79	100	55	98.2	134	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Methods

Table 28: Method of Death for Deaths of Undetermined Intent by Sex for Selected Ohio Counties, 2010

Method of Death	Male Count	Percent	Female count	Percent	Total Count	Percent
Firearm	2	2.5	1	1.8	3	2.2
Drowning	4	5.1	1	1.8	5	3.7
Burns/Fire	5	6.3	1	1.8	6	4.4
Poisoning	26	32.9	23	41.1	49	36.3
Motor Vehicle	3	3.8	2	3.6	5	3.7
Other Transport Vehicle	1	1.3	1	1.8	2	1.5
Other	7	8.9	0	0	7	5.2
Unknown	31	39.2	27	48.2	58	43.0
Total Deaths	79	100	56	100	135	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Locality

Table 29: County-Specific Rates for Deaths of Undetermined Intent for Selected Ohio Counties, 2010

County of Residence	Deaths	Population	Rate
Butler	6	363,230	*
Cuyahoga	22	126,9455	1.7
Franklin	47	1,159,947	4.1
Hamilton	17	855,340	2.0
Lorain	6	305,097	*
Lucas	9	461,792	*
Mahoning	4	234,532	*
Montgomery	7	532,181	*
Stark	3	377,793	*
Summit	13	541,360	2.4
Trumbull	1	208,119	*
Total	135	6,358,011	2.1

Rates are suppressed for counts less than 10. Rates are expressed per 100,000 persons.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Data Highlights

Injury Location

- The most common location for deaths of undetermined intent were in a house or an apartment (52.6 percent)
- Other common locations included a street or a road (3 percent), motor vehicle (1.5 percent), hotel or motel (1.5 percent), and other/unknown sites (36.3 percent).

Circumstances

- All undetermined deaths had circumstances available (135/135).
- Among men, the most common mental health circumstances included a current mental health problem (29.1 percent), a history of mental health issues (19 percent), current mental health treatment (17.7 percent), substance abuse (25.3 percent) and an alcohol problem (13.9 percent).
- Among women, the most common mental health circumstances included a current mental health problem (35.7 percent), a history of mental health issues (26.8 percent), current mental health treatment (25 percent), current depressed mood (10.7 percent) and substance abuse (19.6 percent).
- Other circumstances included job problems (4.4 percent), intimate partner problem (5.9 percent) and health problem (5.9 percent)

Toxicology Testing

- Out of a total of 135 victims, 129 were tested for amphetamines, antidepressants, cocaine, marijuana, opiates, and alcohol.
- Approximately 30 percent of decedents tested positive for alcohol (29.5 percent), with a higher likelihood in men compared to women (32.9 percent vs. 17.1 percent).
- Positive tests for antidepressants and opiates were found in about 50 percent of undetermined deaths (18.6 percent and 31 percent, respectively).
- Men were more likely than women to test positive for marijuana (11.8 percent vs. 6.6 percent).
- Almost 11 percent of decedents tested positive for marijuana, but less than 10 percent tested positive for either amphetamines or cocaine.
- Among those testing positive for alcohol, 47.4 percent had a blood alcohol concentration (BAC) of less than 0.08. 13.2 percent of these undetermined deaths had a BAC of 0.24-0.32.

Circumstances

Table 30: Common Circumstances for Deaths of Undetermined Intent by Sex for Selected Ohio Counties, 2010

	Male		Female		Total	
Circumstance	Number	Percent	Number	Percent	Number	Percent
Currently Treatment for Mental Illness	14	17.7	14	25.0	28	20.7
Current Mental Health Problem	23	29.1	20	35.7	43	31.9
Job Problem	5	6.3	1	1.8	6	4.4
Other Substance Problem	20	25.3	11	19.6	31	23.0
Intimate Partner Problem	6	7.6	2	3.6	8	5.9
Suicide History	7	8.9	7	12.5	14	10.4
History of Mental Health Problems	15	19.0	15	26.8	30	22.2
Physical Health Problem	5	6.3	3	5.4	8	5.9
Currently Depressed	6	7.6	6	10.7	12	8.9
Alcohol Suspected	11	13.9	8	14.3	19	14.1

The denominator used for calculating percentage of specific circumstances is based on the number of victims reporting circumstances (n=135). Victims may have reported more than one circumstance.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Locality

Table 31: Commonly Occurring Locations for Deaths of Undetermined Intent for Selected Ohio Counties, 2010

Injury Location	Male Count	Percent	Female count	Percent	Total Count	Percent
House/Apartment	40	50.6	31	55.4	71	52.6
Street/Road	4	5.1	0	0	4	3.0
Highway/Freeway	0	0	1	1.7	1	0.7
Motor Vehicle	1	1.3	1	0	2	1.5
Child Care Center	1	1.3	0	0	1	0.7
Hospital/Medical Facility	1	1.3	0	0	1	0.7
Park/Playground	1	1.3	0	0	1	0.7
Natural Area	1	1.3	1	1.7	2	1.5
Hotel/Motel	1	1.3	1	1.7	2	1.5
Railroad Tracks	1	1.3	0	0	1	0.7
Other	2	2.6	1	1.7	3	2.2
Unknown	26	32.9	20	35.7	46	34.1
Total	79	100	56	100	135	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Toxicology

Table 32: Toxicology Results for Victims for Selected Ohio Counties, 2010.

Positive Toxicology Test	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Amphetamines	2	2.6	2	2.6	4	3.1
Antidepressants	11	14.5	13	17.1	24	18.6
Cocaine	3	4.0	3	4.0	6	4.7
Marijuana	9	11.8	5	6.6	14	10.9
Opiates	24	31.6	16	21.1	40	31.0
Alcohol	25	32.9	13	17.1	38	29.5

It is possible for a victim to test positive for more than one substance. 129 victims underwent toxicology tests.

Selected Ohio counties in 2010 included Franklin, Cuyahoga, Montgomery, Trumbull, Butler, Lucas, Lorain, Union, Mahoning, Stark, Hamilton and Summit counties.

Sources: ODH, OH-VDRS and Vital Statistics

Table 33: Blood Alcohol Concentration Results for Suicide Victims Testing Positive for Alcohol

Blood Alcohol Concentration	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Less than 0.080	11	44.0	7	53.8	18	47.4
0.080-0.160	6	24.0	3	23.1	9	23.7
0.160-0.240	3	12.0	1	7.7	4	10.5
0.240-0.320	4	16.0	1	7.7	5	13.2

A total of 38 victims tested positive for alcohol. Blood alcohol concentrations were grouped into quartiles. Blood alcohol concentrations results were missing for two victims.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Section 5: Firearm-Related Deaths, Selected Counties

Data Highlights

Demographic Characteristics

- A total of 720 Ohio residents in the selected counties died as a result of a firearm. The overall firearm-related death rate for selected Ohio counties in 2010 was 11.3 per 100,000.
- Firearms were used mostly to commit suicides (52.6 percent) and homicides (44.2 percent).
- Males were more than seven times more likely than females to die at the hand of a firearm (20.5 vs. 2.7 per 100,000).
- Among men, the highest firearm death rate was observed for black, non-Hispanics (38.1 per 100,000), followed by black, non-Hispanics (14.6 per 100,000).
- Among women, the highest firearm death rate was observed for black, non-Hispanics (3.8 per 100,000), followed by black, non-Hispanics (2.5 per 100,000).
- Ohioans aged 25-34 years had the highest firearm related death rates (11.9 per 100,000). Among men, the highest suicide rate was seen among those aged 25-34 years (21.4 per 100,000), followed those aged 15-24 years (17.8 per 100,000). Among women, the highest firearm related death rate was observed for those aged 15-24 years (2.6 per 100,000) followed by 35-44 year olds (2.5 per 100,000).
- In terms of educational attainment, most victims had a high school education or GED equivalent (47.2 per 100,000). Those with a less than a high school education accounted for almost a quarter of all firearm-related deaths (24.1 percent).

Locality

- County specific firearm-related death rates were highest for Franklin County (14.8 per 100,000), followed by Montgomery County (14.7 per 100,000). The lowest firearm-related death rate was observed in Lorain County (3.9 per 100,000).

Table 34: Types of Firearm Deaths and Number of Victims for Selected Ohio Counties, 2010

Method of Death	Male Count	Percent	Female count	Percent	Total Count	Percent
Suicide	330	52.4	49	54.4	379	52.6
Homicide	278	44.1	40	44.4	318	44.2
Unintentional Firearm - Self-Inflicted	3	0.5	0	0	3	0.4
Unintentional Firearm - Inflicted by Other Person	5	0.8	0	0	5	0.7
Legal Intervention	12	1.9	0	0	12	1.7
Undetermined Intent	2	0.3	1	1.1	3	0.4
Total Deaths	630	100	90	100	720	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Demographics

Figure 7: Age-Specific Firearm Death Rates by Sex for Selected Ohio Counties, 2010
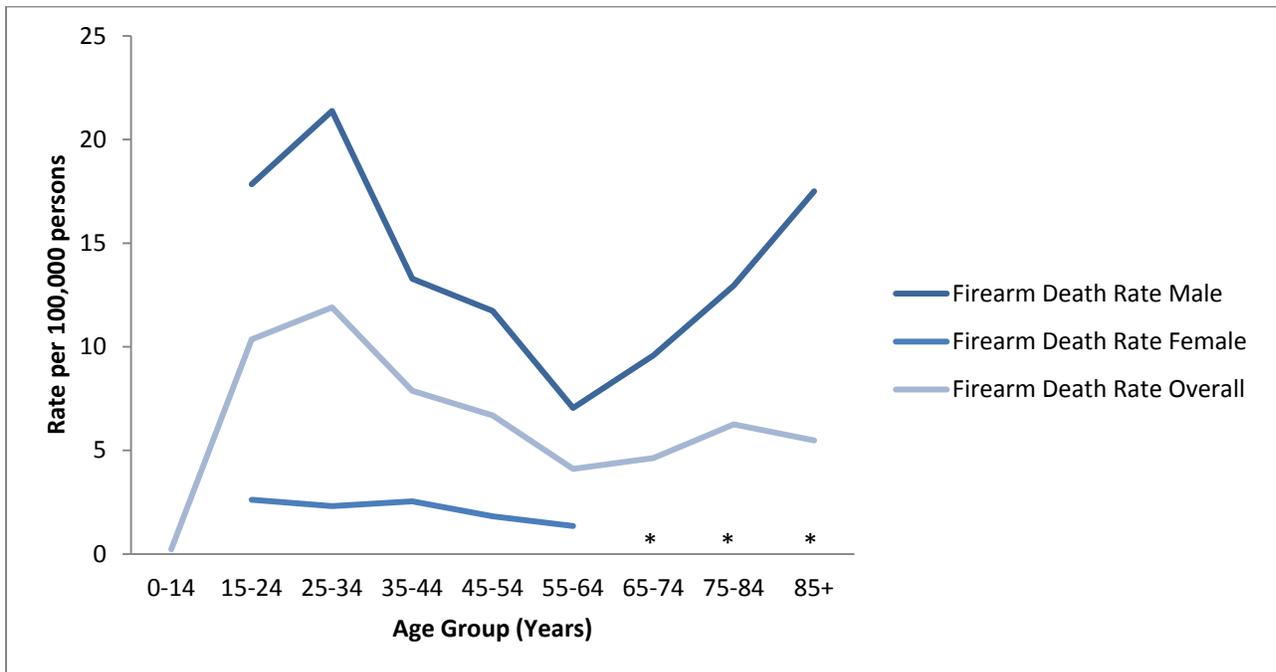
*Rates suppressed for counts less than 10.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Table 35: Demographics of Firearm-Related Deaths for Selected Ohio Counties by Race and Sex, 2010

	Male			Female		
	Number	**Percent**	**Rate**	**Number**	**Percent**	**Rate**
Race/Ethnicity						
White, Non-Hispanic	337	53.5	14.6	60	66.7	2.5
Black, Non-Hispanic	272	47.9	47.9	25	27.8	3.8
Hispanic	13	2.1	11.1	2	2.2	*
Other, Unknown	8	1.3	*	3	3.3	*
Total	630	100	20.5	90	100	2.7

Rates suppressed for counts <10. *Rates not available for Hispanic females and other/unknown racial groups. Rates are expressed per 100,000 persons.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Figure 8: Firearm Death Rates by Race and Sex for Selected Ohio Counties, 2010
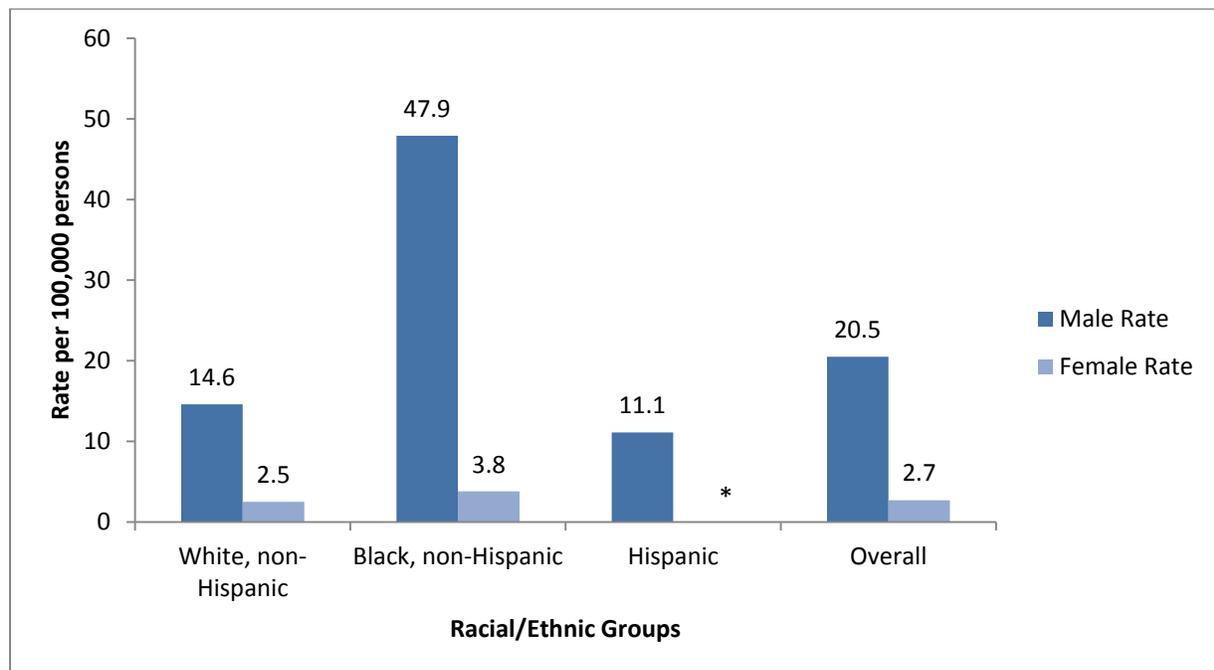
*Rate suppressed due to counts less than 10. Rates for other racial groups not calculated due to insufficient counts.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Table 36: Demographics of Firearm-Related Deaths for Selected Ohio Counties by Educational Level and Sex, 2010

Educational Level	Male Count	Percent	Female count	Percent	Total Count	Percent
8th grade or less	15	2.4	2	2.2	17	2.4
9th to 12th grade	140	22.2	16	17.8	156	21.7
High School Diploma/GED	307	48.7	33	36.7	340	47.2
Some College	76	12.1	14	15.6	90	12.5
Associates Degree	33	5.2	10	11.1	43	6.0
Bachelors' Degree	37	5.9	13	14.4	50	6.9
Masters' Degree	14	2.2	1	1.1	15	2.1
Doctorate/Professional	2	0.3	0	0	2	0.3
Unknown	6	1.0	1	1.1	7	1.0
Total	630	100	90	90	720	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Table 37: County-Specific Crude Rates for Firearm-Related Deaths for Selected Ohio Counties, 2010

County of Residence	Deaths	Population	Rate
Butler	25	363,230	6.9
Cuyahoga	126	1,269,455	9.9
Franklin	172	1,159,947	14.8
Hamilton	104	855,340	12.2
Lorain	12	305,097	3.9
Lucas	51	461,792	11.0
Mahoning	29	234,532	12.4
Montgomery	78	532,181	14.7
Stark	50	377,793	13.2
Summit	42	541,360	7.8
Trumbull	26	208,119	12.5
Union	5	49,165	-
Total	720	6,358,011	11.3

Rates are suppressed for counts < 10. Rates are expressed per 100,000 persons.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Data Highlights

Injury Location
- The most common locations for firearm-related deaths were in a house or apartment (65.8 percent)
- Other common locations included a street or a road (7.9 percent), motor vehicle (5.4 percent), parking garage (1.5 percent), and other/unknown sites (14.5 percent).

Circumstances

- Nearly 88 percent (632/720) of all firearm deaths had circumstances available.
- Among men, the most common circumstances included a current mental health problem (26.4 percent), a history of mental health issues (16.1 percent), current mental health treatment (14.5 percent), substance abuse (14.5 percent) and a current depressed mood (24.8 percent).
- Among women, the most common circumstances included a current mental health problem (27.5 percent), a history of mental health issues (20 percent), current mental health treatment (20 percent), current depressed mood (20 percent) and intimate partner problem (42.5 percent).
- Other circumstances included crisis in the last two weeks (19.9 percent), suicide note (22.5 percent) and physical health problem (14.3 percent)

Toxicology Testing
- Out of a total of 720 victims, 694 were tested for amphetamines, antidepressants, cocaine, marijuana, opiates, and alcohol.
- Approximately 30 percent of decedents tested positive for alcohol (29.4 percent), with a similar likelihood in men compared to women (29.5 percent vs. 28.7 percent).
- Positive tests for antidepressants or opiates were found in about 25 percent of firearm-related deaths (7.9 percent and 14.1 percent, respectively).
- Men were more likely than women to test positive for marijuana (32.1 percent vs. 16.1 percent).
- About 30 percent of decedents tested positive for marijuana, but less than 10 percent tested positive for either amphetamines or cocaine.
- Among those testing positive for alcohol, 41.2 percent had a blood alcohol concentration (BAC) of less than 0.08. 7.8 percent of these firearm-related deaths had a BAC of 0.24-0.32.

Circumstances

Table 38: Common Circumstances of Firearm Deaths by Sex for Selected Ohio Counties, 2010

Circumstance	Male Number	Male Percent	Female Number	Female Percent	Total Number	Total Percent
Crisis in Past Two Weeks	92	16.7	18	22.5	110	19.9
Crime in Progress	74	13.4	4	5.0	78	14.1
Intimate Partner Problem	103	18.7	34	42.5	137	24.8
Intimate Partner Violence	24	4.3	20	25	44	8.0
Suicide Note	106	19.2	18	22.5	124	22.5
Disclosed Intent to Commit Suicide	104	18.8	9	11.3	113	20.5
Other Argument	98	17.8	18	22.5	116	21.0
Job Problem	46	8.3	3	3.8	49	8.9
Current Mental Health Problem	146	26.4	22	27.5	168	30.4
Currently in Treatment	80	14.5	16	20.0	96	17.4
History of Mental Health Problems	89	16.1	16	20.0	105	19.0
Used Weapon	43	7.8	1	1.3	44	8.0
Substance Problem	80	14.5	19	23.8	99	17.9
History of Suicide Attempts	35	6.3	6	7.5	41	7.4
Physical Health Problem	67	12.1	12	15.0	79	14.3
Financial Problem	35	6.3	5	6.3	40	7.2
Currently Depressed	137	24.8	16	20.0	153	27.7
Alcohol Suspected	54	9.8	2	2.5	56	10.1

The denominator used for calculating percentage of specific circumstances is based on the number of victims reporting circumstances (n=632). Victims may have reported more than one circumstance.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Locality

Table 39: Commonly Occurring Locations for Firearm Deaths for Selected Ohio Counties, 2010

Injury Location	Male Count	Percent	Female count	Percent	Total Count	Percent
House/Apartment	408	64.8	66	73.3	474	65.8
Street/Road	54	8.6	3	3.3	57	7.9
Parking Lot Garage	10	1.6	1	1.1	11	1.5
Motor Vehicle	35	5.6	4	4.4	39	5.4
Other Commercial Establishment	13	2.1	0	0	13	1.8
Park/Playground	9	1.4	2	2.2	11	1.5
Natural Area	9	1.4	2	2.2	11	1.5
Other	75	11.9	9	10.0	84	11.7
Unknown	17	2.7	3	3.3	20	2.8
Total	630	100	90	100	720	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Toxicology

Table 40: Toxicology Results for Victims in Selected Ohio Counties, 2010.

Positive Toxicology Test	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Amphetamines	8	1.3	2	2.3	10	1.4
Antidepressants	43	7.1	12	13.8	55	7.9
Cocaine	47	7.7	12	13.8	59	8.5
Marijuana	195	32.1	14	16.1	209	30.1
Opiates	84	13.8	14	16.1	98	14.1
Alcohol	179	29.5	25	28.7	204	29.4

It is possible for a victim to test positive for more than one substance. A total of 694 victims underwent toxicology tests.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Table 41: Blood Alcohol Concentration Results for Victims Testing Positive for Alcohol, 2010

Blood Alcohol Concentration	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Less than 0.080	69	38.6	15	60.0	84	41.2
0.080-0.160	50	27.9	3	12.0	53	26.0
0.160-0.240	34	19.0	6	24.0	40	19.6
0.240-0.320	16	8.94	0	0	16	7.84

A total 204 victims tested positive for alcohol. Blood alcohol concentrations were grouped into quartiles. Blood alcohol concentrations results were missing for 11 victims.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Section 6: Merged Incidents

Data Highlights

Demographic Characteristics

- There were a total 33 merged incidents in selected counties in 2010, resulting in 66 deaths. These incidents were either multiple homicides or homicides followed by suicides (52 percent and 48 percent, respectively).
- Victims in merged incidents were more likely to be male than female (67 percent vs. 33 percent).
- Most victims were aged 25-34 (22.7 percent), followed by 35-44 year olds (19.7 percent).
- Victims were more common among non-Hispanic blacks (53 percent) compared to non-Hispanic whites (48.4 percent).

Demographics

Table 42: Demographics of Merged Incident Deaths for Selected Ohio Counties by Age and Sex, 2010

Age Group	Male Count	Percent	Female count	Percent	Total Count	Percent
0-14	4	9.1	2	9.1	6	9.1
15-24	9	20.5	0	0	9	13.6
25-34	8	18.2	7	31.8	15	22.7
35-44	7	15.9	6	27.3	13	19.7
45-54	9	20.5	0	0	9	13.6
55-64	4	9.1	5	22.7	9	13.6
65-74	1	2.3	1	4.6	2	3.0
75-84	2	4.6	1	4.6	3	4.6
85+	0	0	0	0	0	0
Total	44	100	22	100	66	100

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Table 43: Demographics of Merged Incident Deaths for Selected Ohio Counties by Race and Sex, 2010

	Male			Female		
	Number	**Percent**	**Rate**	**Number**	**Percent**	**Rate**
Race/Ethnicity						
White, Non-Hispanic	16	36.4	0.7	14	63.6	0.60
Black, Non-Hispanic	28	63.6	4.9	7	31.8	-
Hispanic	0	0	-	0	0	-
Other, Unknown	0	0	-	1	4.6	-
Total	44	100	1.4	22	100	0.7

There were a total of 33 merged incidents. Rates suppressed for counts <10. *Rates not available for other/unknown racial groups. Rates are expressed per 100,000 persons.

Selected Ohio counties in 2010 included Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Stark, Summit Trumbull and Union counties.

Sources: ODH, OH-VDRS and Vital Statistics

Appendix A: Violent Deaths by County of Death, 2010 -Data Phase-In[1]

[1]Includes homicides, suicides and deaths from undetermined intent, unintentional firearms, legal intervention. There were no terrorism-related deaths in 2010.

County	Value
Williams	3
Fulton	8
Defiance	3
Henry	3
Lucas	106
Paulding	1
Putnam	4
Van Wert	3
Mercer	10
Allen	19
Hancock	13
Wood	6
Ottawa	4
Auglaize	7
Hardin	5
Sandusky	9
Seneca	4
Erie	11
Shelby	6
Logan	8
Wyandot	3
Crawford	10
Huron	7
Miami	22
Champaign	11
Union	8
Marion	7
Richland	20
Ashland	6
Lorain	39
Darke	5
Clark	27
Delaware	9
Morrow	4
Wayne	10
Medina	23
Cuyahoga	275
Preble	2
Montgomery	169
Greene	15
Madison	4
Franklin	339
Knox	11
Holmes	1
Summit	113
Portage	28
Geauga	10
Lake	34
Butler	56
Warren	30
Clinton	7
Fayette	1
Pickaway	8
Licking	23
Coshocton	5
Stark	75
Mahoning	55
Trumbull	37
Ashtabula	21
Hamilton	214
Clermont	21
Highland	12
Ross	18
Fairfield	14
Muskingum	19
Tuscarawas	13
Columbiana	28
Brown	14
Pike	3
Hocking	5
Perry	5
Morgan	1
Guernsey	7
Harrison	2
Carroll	4
Jefferson	12
Adams	6
Scioto	24
Jackson	6
Vinton	3
Athens	10
Noble	4
Belmont	15
Lawrence	5
Gallia	7
Meigs	2
Washington	7
Monroe	5

Year 1 - (66%)
Year 2 (85%)
Year 3 (99% of violent deaths)

Source: ODH, OH-VDRS and Vital Statistics

Appendix B: Calculating Rates

Crude and Age-Adjusted Rates

Rates, both crude and age-adjusted, are prevalence measures that are used to quantify the burden of disease in a population. Unlike percentages and counts, rates are relative to the total population of the group of interest (e.g. age, race, sex, etc.) in a given time period. Rates also allow for comparisons between different populations such as men and women, Hispanics and non-Hispanics and urban and rural regions. Crude rates are calculated by dividing the count of events by the total population of interest and multiplying it by 100,000. Rates are typically given as estimates per 100,000 persons. Age-adjusted rates are calculated in lieu of crude rates in order to adjust for differences in age distributions in the population of interest. In order to do so, crude rates are first calculated for age-specific groups. Each of these age-specific crude rates is then multiplied by a population weight, obtained from a reference population. The reference population distribution used in this report was the US standard million for 2000. Once each age-specific crude rate is multiplied by its corresponding weight, these products are then summed to yield an overall age-adjusted rate for the population of interest[3].

---

[3] Rothman, Kenneth J. Modern Epidemiology, 3rd Edition: Lippincott Williams and Wilkins, Philadelphia. 2008.

Appendix C: Violent Deaths Rates

All Violent Deaths

Table: Violent Death Rates by County of Residence in Ohio, 2010

County	Deaths	Rate	County	Deaths	Rate	County	Deaths	Rate
Adams	9	*	Hamilton	183	21.4	Noble	2	*
Allen	12	11.6	Hancock	12	16.2	Ottawa	5	*
Ashland	9	*	Hardin	5	*	Paulding	2	*
Ashtabula	21	20.9	Harrison	3	*	Perry	12	34.1
Athens	7	*	Henry	2	*	Pickaway	5	*
Auglaize	9	*	Highland	16	38.1	Pike	2	*
Belmont	15	22.2	Hocking	4	*	Portage	27	17.2
Brown	11	25.0	Holmes	1	*	Preble	4	*
Butler	68	18.7	Huron	7	*	Putnam	5	*
Carroll	5	*	Jackson	9	*	Richland	21	17.0
Champaign	11	28.0	Jefferson	12	17.7	Ross	23	30.2
Clark	28	20.2	Knox	11	18.4	Sandusky	11	18.4
Clermont	24	12.3	Lake	37	15.7	Scioto	20	26.2
Clinton	6	*	Lawrence	5	*	Seneca	5	*
Columbiana	26	24.2	Licking	27	17.0	Shelby	7	*
Coshocton	6	*	Logan	11	23.7	Stark	80	21.2
Crawford	9	*	Lorain	50	16.4	Summit	100	18.5
Cuyahoga	258	20.3	Lucas	89	19.3	Trumbull	42	20.2
Darke	7	*	Madison	3	*	Tuscarawas	16	17.6
Defiance	4	*	Mahoning	50	21.3	Union	8	*
Delaware	14	8.12	Marion	8	*	Van wert	3	*
Erie	8	*	Medina	25	14.3	Vinton	1	*
Fairfield	16	11.1	Meigs	2	*	Warren	24	11.3
Fayette	1	*	Mercer	10	24.7	Washington	11	18.1
Franklin	308	26.6	Miami	22	21.8	Wayne	13	11.4
Fulton	9	*	Monroe	4	*	Williams	5	*
Gallia	7	*	Montgomery	145	27.3	Wood	7	*
Geauga	14	14.2	Morgan	2	*	Wyandot	4	*
Greene	20	12.6	Morrow	2	*	**Total**	2192	19.0
Guernsey	8	*	Muskingum	20	23.5			

*Rates suppressed for counts <10. Rates are expressed per 100,000 persons.

Sources: ODH, OH-VDRS and Vital Statistics

Map: Violent Death Rates by County of Residence in Ohio, 2010
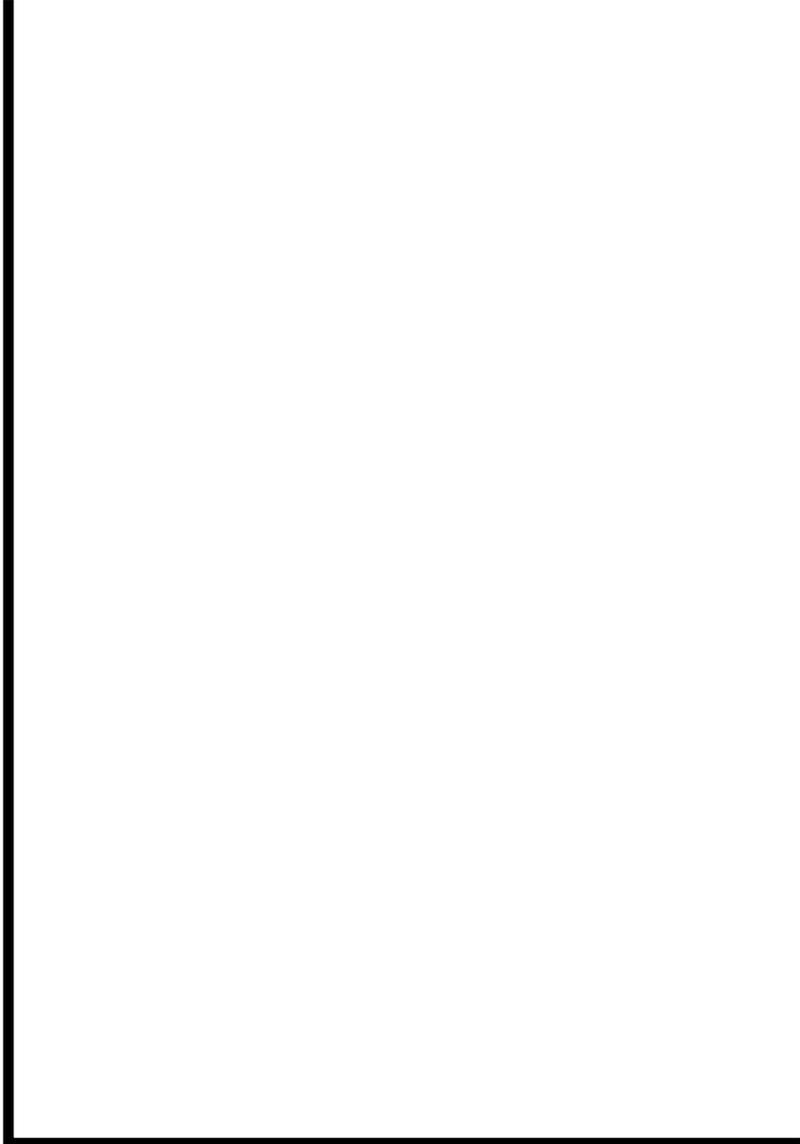
Sources: ODH, OH-VDRS and Vital Statistics

Suicides

Table: Suicide Rates by County of Residence in Ohio, 2010

County	Deaths	Rate	County	Deaths	Rate	County	Deaths	Rate
Adams	6	*	Hamilton	88	10.3	Noble	2	*
Allen	7	*	Hancock	11	14.8	Ottawa	1	*
Ashland	7	*	Hardin	3	*	Paulding	1	*
Ashtabula	14	14.0	Harrison	2	*	Perry	8	*
Athens	6	*	Henry	2	*	Pickaway	5	*
Auglaize	8	*	Highland	11	26.2	Pike	1	*
Belmont	12	17.7	Hocking	2	*	Portage	26	16.5
Brown	7	*	Holmes	1	*	Preble	2	*
Butler	51	14.0	Huron	6	*	Putnam	5	*
Carroll	3	*	Jackson	6	*	Richland	15	12.2
Champaign	9	*	Jefferson	9	*	Ross	19	24.9
Clark	21	15.1	Knox	5	*	Sandusky	8	*
Clermont	22	11.2	Lake	31	13.2	Scioto	11	14.4
Clinton	5	*	Lawrence	4	*	Seneca	5	*
Columbiana	18	16.7	Licking	21	13.2	Shelby	6	*
Coshocton	6	*	Logan	9	*	Stark	64	16.9
Crawford	7	*	Lorain	38	12.5	Summit	59	10.9
Cuyahoga	135	10.6	Lucas	54	11.7	Trumbull	37	17.8
Darke	7	*	Madison	2	*	Tuscarawas	12	13.2
Defiance	3	*	Mahoning	23	9.8	Union	7	*
Delaware	12	7.0	Marion	5	*	Van Wert	2	*
Erie	7	*	Medina	19	10.9	Vinton	1	*
Fairfield	13	9.0	Meigs	2	*	Warren	20	9.4
Fayette	1	*	Mercer	8	*	Washington	9	*
Franklin	141	12.2	Miami	14	13.9	Wayne	10	8.8
Fulton	9	*	Monroe	2	*	Williams	4	*
Gallia	6	*	Montgomery	92	17.3	Wood	7	*
Geauga	13	13.1	Morgan	2	*	Wyandot	4	*
Greene	14	8.8	Morrow	2	*	Total	1419	12.3
Guernsey	8	*	Muskingum	16	18.8			

*Rates suppressed for counts <10. Rates are expressed per 100,000 persons.

Sources: ODH, OH-VDRS and Vital Statistics

Map: Suicide Rates by County of Residence in Ohio, 2010

Sources: ODH, OH-VDRS and Vital Statistics

Violence and Injury Prevention Program

Homicides

Table: Homicide Rates by County of Residence in Ohio, 2010

County	Deaths	Rate	County	Deaths	Rate	County	Deaths	Rate
Adams	3	*	Hamilton	77	9.00	Noble	0	*
Allen	4	*	Hancock	1	*	Ottawa	4	*
Ashland	1	*	Hardin	1	*	Paulding	1	*
Ashtabula	4	*	Harrison	0	*	Perry	2	*
Athens	1	*	Henry	0	*	Pickaway	0	*
Auglaize	1	*	Highland	3	*	Pike	1	*
Belmont	2	*	Hocking	1	*	Portage	1	*
Brown	3	*	Holmes	0	*	Preble	0	*
Butler	10	2.8	Huron	1	*	Putnam	0	*
Carroll	2	*	Jackson	2	*	Richland	5	*
Champaign	0	*	Jefferson	3	*	Ross	2	*
Clark	5	*	Knox	3	*	Sandusky	1	*
Clermont	1	*	Lake	4	*	Scioto	6	*
Clinton	0	*	Lawrence	1	*	Seneca	0	*
Columbiana	5	*	Licking	5	*	Shelby	0	*
Coshocton	0	*	Logan	0	*	Stark	12	3.2
Crawford	0	*	Lorain	5	*	Summit	27	5.0
Cuyahoga	95	7.5	Lucas	25	5.4	Trumbull	4	*
Darke	0	*	Madison	1	*	Tuscarawas	2	*
Defiance	0	*	Mahoning	22	9.4	Union	0	*
Delaware	2	*	Marion	2	*	Van Wert	1	*
Erie	1	*	Medina	1	*	Vinton	0	*
Fairfield	1	*	Meigs	0	*	Warren	2	*
Fayette	0	*	Mercer	1	*	Washington	1	*
Franklin	113	9.7	Miami	3	*	Wayne	2	*
Fulton	0	*	Monroe	0	*	Williams	1	*
Gallia	1	*	Montgomery	46	8.6	Wood	0	*
Geauga	1	*	Morgan	0	*	Wyandot	0	*
Greene	3	*	Morrow	0	*	Total	545	4.7
Guernsey	0	*	Muskingum	3	*			

*Rates suppressed for counts <10. Rates are expressed per 100,000.

Sources: ODH, OH-VDRS and Vital Statistics

Map: Homicide Rates by County of Residence in Ohio, 2010

Sources: ODH, OH-VDRS and Vital Statistics

Violence and Injury Prevention Program
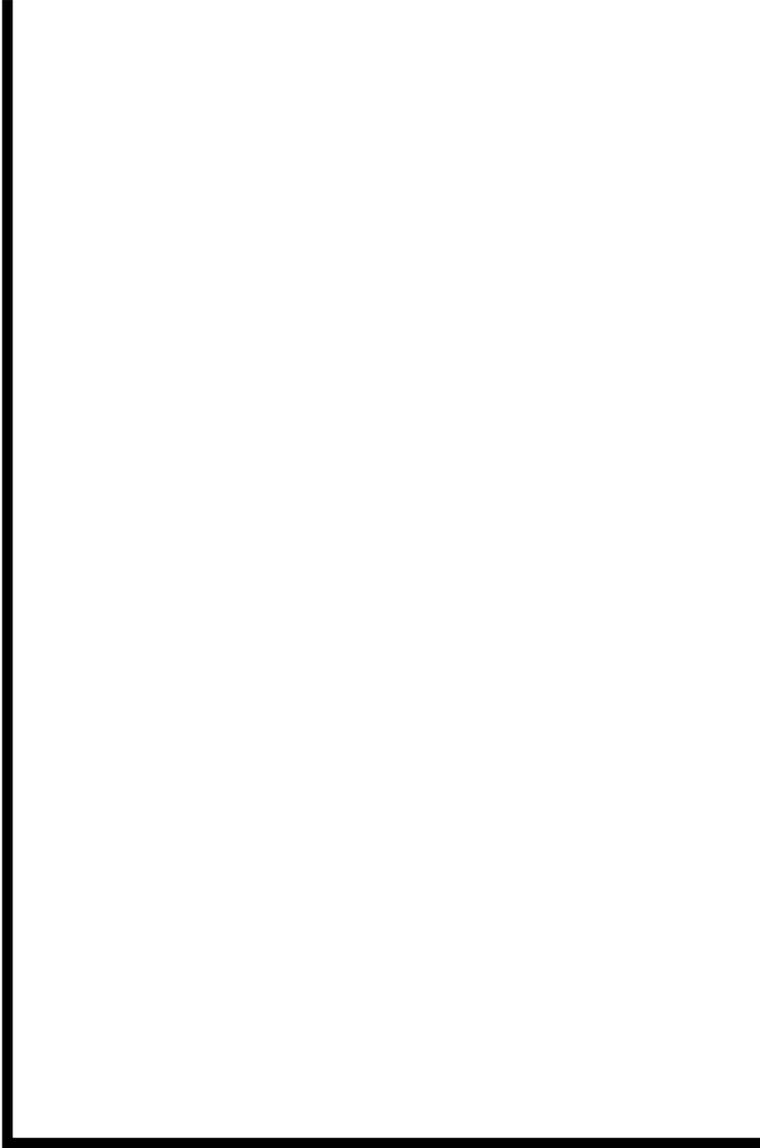
Deaths of Undetermined Intent

Table: Deaths of Undetermined Intent Rates by County of Residence in Ohio, 2010

County	Deaths	Rate	County	Deaths	Rate	County	Deaths	Rate
Adams	0	*	Hamilton	17	2.0	Noble	0	*
Allen	1	*	Hancock	0	*	Ottawa	0	*
Ashland	1	*	Hardin	1	*	Paulding	0	*
Ashtabula	3	*	Harrison	1	*	Perry	2	*
Athens	0	*	Henry	0	*	Pickaway	0	*
Auglaize	0	*	Highland	2	*	Pike	0	*
Belmont	1	*	Hocking	1	*	Portage	0	*
Brown	1	*	Holmes	0	*	Preble	2	*
Butler	6	*	Huron	0	*	Putnam	0	*
Carroll	0	*	Jackson	1	*	Richland	0	*
Champaign	2	*	Jefferson	0	*	Ross	1	*
Clark	1	*	Knox	3	*	Sandusky	0	*
Clermont	0	*	Lake	2	*	Scioto	3	*
Clinton	1	*	Lawrence	0	*	Seneca	0	*
Columbiana	3	*	Licking	1	*	Shelby	1	*
Coshocton	0	*	Logan	2	*	Stark	3	*
Crawford	2	*	Lorain	6	*	Summit	13	2.4
Cuyahoga	22	1.7	Lucas	9	*	Trumbull	1	*
Darke	0	*	Madison	0	*	Tuscarawas	2	*
Defiance	0	*	Mahoning	4	*	Union	0	*
Delaware	0	*	Marion	1	*	Van Wert	0	*
Erie	0	*	Medina	5	*	Vinton	0	*
Fairfield	2	*	Meigs	0	*	Warren	2	*
Fayette	0	*	Mercer	1	*	Washington	1	*
Franklin	47	4.1	Miami	5	*	Wayne	1	*
Fulton	0	*	Monroe	2	*	Williams	0	*
Gallia	0	*	Montgomery	7	*	Wood	0	*
Geauga	0	*	Morgan	0	*	Wyandot	0	*
Greene	2	*	Morrow	0	*	Total	199	1.7
Guernsey	0	*	Muskingum	1	*			

*Rates suppressed for counts <10. Rates are expressed per 100,000 persons.

Sources: ODH, OH-VDRS and Vital Statistics

Appendix D: Additional Acknowledgments

Law Enforcement Agencies

Adams County Sheriff's Office
Akron Police Department
Alliance Police Department
Amelia Police Department
Ashtabula County Sheriff's Office
Ashtabula Police Department
Athens County Sheriff's Office
Austintown Township Police Department
Avon Lake Police Department
Barberton Police Department
Bath Township Police Department
Bay Village Police Department
Beach City Police Department
Beachwood Police Department
Beavercreek Police Department
Bedford Heights Police Department
Bedford Police Department
Bellbrook Police Department
Berea Police Department
Bethel Police Department
Boardman Township Police Department
Boone County Sheriff's Office, Kentucky
Bowling Green Police Department
Bowling Green State University Police Department
Bratenahl Police Department
Brecksville Police Department
Brecksville Veterans Administration Police Dept.
Brimfield Police Department
Brimfield Township Police Department
Broadview Heights Police Department
Brook Park Police Department
Brooklyn Police Department
Brookville Police Department
Bryan Police Department
Butler County Sheriff's Office
Butler Township Police Department
Canal Fulton Police Department

Canton Police Department
Centerville Police Department
Cheviot Police Department
Chillicothe Police Department
Cincinnati Police Department
Clark County Sheriff's Office
Clay Township Police Department
Clayton Police Department
Cleveland Heights Police Department
Cleveland Metro Housing Police Department
Cleveland Metro Park Rangers
Cleveland Police Department
Clyde Police Department
Colerain Township Police Department
Columbiana County Sheriff's Office
Columbiana Police Department
Columbus Police Department
Conneaut Police Department
Copley Police Department
Coshocton County Sheriff's Office
Covington Kentucky Police Department
Cuyahoga County Correctional Center
Cuyahoga Falls Police Department
Darke County Sheriff's Office
Dayton Police Department
Dearborn County Sheriff's Office
Deer Park Police Department
Defiance County Sheriff's Office's Office
Delaware County Sheriff's Office
Delaware Police Department
Delhi Township Police Department
Dover Police Department
Dublin Police Department
East Cleveland Police Department
East Liverpool Police Department
East Palestine Police Department
Eastlake Police Department

Edgerton Police Department

Elmwood Place Police Department

Englewood Police Department

Erie County Sheriff's Office's Department

Erlanger Police Department

Euclid Police Department

Fairborn Police Department

Fairfax Police Department

Fairfield County Sheriff's Office

Fairfield Police Department

Fairfield Township Police Department

Fairlawn Police Department

Fairport Harbor Police Department

Fairview Park Police Department

Findlay Police Department

Five Rivers Metro Parks Police Department

Florence Police Department, Kentucky

Forest Park Police Department

Fort Mitchell Police Department

Franklin County Sheriff's Office

Franklin County Sheriff's Office Correctional Facility

Franklin Police Department

Fremont Police Department

Fulton County Sheriff's Office's Office

Gahanna Police Department

Garfield Heights Police Department

Geauga County Sheriff's Office

Geneva Police Department

Genoa Township Police Department

German Township Police Department

Germantown Police Department

Goshen Police Department

Greene County Sheriff's Office

Greenfield City Police Department

Greenville Police Department

Grove City Police Department

Groveport Police Department

Hamilton County District Park Rangers

Hamilton County Sheriff's Office's Office

Hamilton Police Department

Hancock County Sheriff's Office's Office

Harrison Police Department

Heath Police Department

Highland County Sheriff's Office

Highland Heights Police Department

Hilliard Police Department

Hinckley Township Police Department

Holland Police Department

Holmes County Sheriff's Office

Hubbard Township Police Department

Huber Heights Police Department

Huron Police Department

Independence Police Department

Indian Hill Rangers

Jackson Township Police Department

Jamestown Police Department

Kent Police Department

Kettering Police Department

Lake County Metro Park Rangers

Lakewood Police Department

Lancaster Police Department

Lawrence Township Police Department

Lebanon Police Department

Licking County Sheriff's Office

Lima Police Department

Lockland Police Department

Lorain Police Department

Louisville Police Department

Louisville Police Department

Loveland Police Department

Lucas County Sheriff's Office's Office

Lucas County Sheriff's Office's Department

Lyndhurst Police Department

Macedonia Police Department

Madeira Police Department

Madison Police Department

Maple Heights Police Department

Marysville Police Department

Mason Police Department

Massillon Police Department

Maumee Police Department

Mayfield Heights Police Department

Medina City Police Department

Medina County Sheriff's Office

Medina OSHP Post 52

Mentor On The Lake Police Department

Mentor Police Department

Miami County Sheriff's Office

Miami Township Police Department

Miamisburg Police Department

Middleburg Heights Police Department

Middletown Police Department

Monroe County Sheriff's Office

Monroe Police Department

Montgomery County Sheriff's Office

Montgomery Police Department

Montville Police Department

Moraine Police Department

Mount Healthy Police Department

Munroe Falls Police Department

Muskingum County Sheriff's Office

New Franklin Police Department

New Lebanon Police Department

New Lexington Police Department

Newark Police Department

Newport Police Department, Kentucky

Newton Falls Police Department

Newtown Police Department

North Canton Police Department

North College Hill Police Department

North Olmsted Police Department

North Ridgeville Police Department

North Royalton Police Department

Northfield Village Police Department

Norton Police Department

Oakwood Police Department

Oakwood Village Police Department

Ohio State Highway Patrol

Olmsted Falls Police Department

Olmsted Township Police Department

Oregon Police Department

Ottawa County Sheriff's Office

Oxford Police Department

Painesville Police Department

Parma Heights Police Department

Parma Police Department

Pataskala Police Department

Pendleton County Sheriff's Office

Pepper Pike Police Department

Perry County Sheriff's Office

Perry Township Police Department

Perrysburg Township Police Department

Pickerington Police Department

Pierce Township Police Department

Pioneer Police Department

Piqua Police Department

Portage County Sheriff's Office

Portsmouth Police Department

Powell Police Department

Preble County Sheriff's Office

Ravenna Police Department

Reading Police Department

Reminderville Police Department

Reynoldsburg Police Department

Richland County Sheriff's Office

Richmond Heights Police Department

Ripley County Sheriff's Office

Rittman Police Department

Riverside Police Department

Rocky River Police Department

Ross County Sheriff's Office

Ross Township Police Department

Rossford Police Department

Sagamore Hills Township Police Department

Sandusky County Sheriff's Office

Seven Hills Police Department

Seville Police Department

Shaker Heights Police Department

Sharonville Police Department

Sheffield Lake Police Department

Shelby County Sheriff's Office

Shelby Police Department

Solon Police Department

South Euclid Police Department

Springboro Police Department

Springdale Police Department

Springfield Police Department

Springfield Township Police Department

St Bernard Police Department

St Mary's Police Department

Stark County Sheriff's Office

Stow Police Department

Strongsville Police Department
Struthers Police Department
Stryker Correctional Facility
Summit County Sheriff's Office
Swanton Police Department
Sylvania Police Department
Sylvania Township Police Department
Tiffin Police Department
Toledo Police Department
Trenton Police Department
Trotwood Police Department
Tuscarawas County Sheriff's Office
Twinsburg Police Department
Union County Sheriff's Office
Union Police Department
Union Township Police Department
Uniontown Police Department
University Heights Police Department
Vandalia Police Department
Versailles Police Department
Wadsworth Police Department
Warren Correctional Facility
Warren County Sheriff's Office
Warren Police Department
Warrensville Heights Police Department
Waterville Police Department
Wayne County Sheriff's Office
Weathersfield Township Police Department
West Carrollton Police Department
West Chester Police Department
Westerville Police Department
Westlake Police Department
Whitehall Police Department
Wickliffe Police Department
Williamsburg Police Department
Willowick Police Department
Willoughby Police Department
Wilmington Police Department
Wood County Sheriff's Office
Woodlawn Police Department
Woodmere Police Department
Wooster Police Department
Worthington Police Department

Xenia Police Department
Youngstown Police Department
Zanesville Police Department

Coroner's/Medical Examiner's Offices

Allen County Coroner's Office
Ashtabula County Coroner's Office
Athens County Coroner's Office
Butler County Coroner's Office
Clark County Coroner's Office
Clermont County Coroner's Office
Columbiana County Coroner's Office
Cuyahoga County Medical Examiner's Office
Darke County Coroner's Office
Delaware County Coroner's Office
Erie County Coroner's Office
Fairfield County Coroner's Office
Franklin County Coroner's Office
Greene County Coroner's Office
Hamilton County Coroner's Office
Highland County Coroner's Office
Lake County Coroner's Office
Licking County Coroner's Office
Logan County Coroner's Office
Lorain County Coroner's Office
Lucas County Coroner's Office
Mahoning County Coroner's Office
Medina County Coroner's Office
Montgomery County Coroner's Office
Muskingum County Coroner's Office
Portage County Coroner's Office
Ross County Coroner's Office
Scioto County Coroner's Office
Stark County Coroner's Office
Summit County Medical Examiner's Office
Trumbull County Coroner's Office
Warren County Coroner's Office
Wood County Coroner's Office
Union County Coroner's Office

OH-VDRS Advisory Board Members

Anne Moss, MSN, RN, CEN
Akron Children's Hospital

Thomas Brewer, PhD
College of Public Health
Kent State University

Deanna Wilkinson, PhD
Columbus Violence Prevention Collaborative
and The Ohio State University

Gary Heath
Family Violence Prevention Center
Office of Criminal Justice Services
Ohio Department of Public Safety

Jan Gorniak, DO
Franklin County Coroner's Office

William C. Ralston, III, MD
Hamilton County Coroner's Office

Andrea Hatten
Hamilton County Coroner's Office

Captain Michael Neville
Ohio Association of Chiefs of Police
and the Cincinnati Police Department

Nancy Neylon, MA
Ohio Domestic Violence Network

David Corey
Ohio State Coroner's Association

Amanda Archer
Stark County Coroner's Office

Lori Considine
Association of Ohio Health Commissioners

Mindy Vance
Ohio Department of Mental Health

James Patrick, MD
Lucas County Coroner's Office

Merrily Wholf, MPH
Child Fatality Review
Ohio Department of Health

Tim Erskine, EMT-P
Division of EMS
Department of Public Safety

Kent E. Harshbarger, MD, JD
Montgomery County Coroner's Office

Lisa Shoaf, PhD
Office of Criminal Justice Services
Department of Public Safety

Cynthia Peterman, CCA
Bureau of Criminal Identification & Investigation
Ohio Attorney General's Office

Kenneth Steinman, PhD
Galade Research and Project Management, LLC

Vicki Fleming
Stark County Coroner's Office

David Applegate, MD
Union County Coroner's Office

Ruth Schrock, MS, MPH, RD, LD
Ohio Public Health Association

Randolph Roth, PhD
The Ohio State University