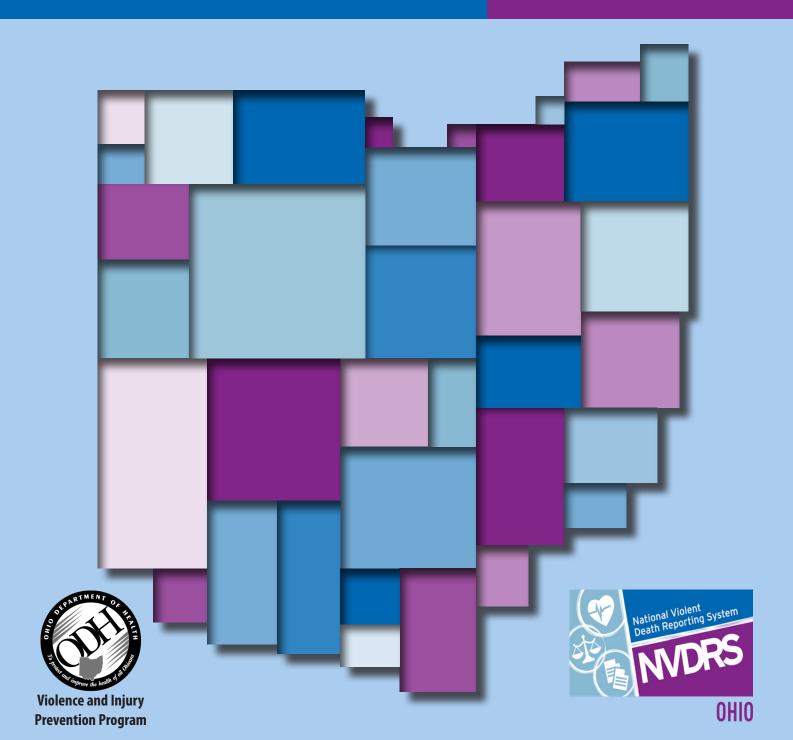
# OHIO VIOLENT DEATH REPORTING SYSTEM

**Annual Report** 

2012



2U17CE003 solely the r	ation was supported by the National Violent Death Reporting System Cooperative Agreement 1702 (CFDA 93.136) from the Centers for Disease Control and Prevention. Its contents are responsibility of the authors and do not necessarily represent the official views of the Centers e Control and Prevention.
ii	Violence and Injury Prevention Program

# Violent Deaths in Ohio:

# Ohio Violent Death Reporting System Annual Report 2012

Ohio Department of Health, Injury and Violence Prevention Program **September 2015** 

# Acknowledgements

Mbabazi Kariisa, PhD, Injury Epidemiologist, Ohio Violence and Injury Prevention Program
Luke Werhan, Researcher, Ohio Violent Death Reporting System
Jolene DeFiore-Hyrmer, Program Administrator, Ohio Violence and Injury Prevention Program
Ann Weidenbenner, Program Director, Creating Healthy Communities Program
Abstractors
Kelli Redd
Teri Baughman
Katelyn Yoder
We extend a special thanks to our advisory board members, as well as to the law enforcement agencies and coroners' offices that provided data. For a complete listing of the respective members, agencies and offices, please refer to Appendix C.
Suggested citation: Ohio Violent Death Reporting System – Annual Report, 2012. Violence and Injury Prevention Program, Ohio Department of Health, Columbus, Ohio, 2015.

# **Table of Contents**

Acknowledgements	iv
Table of Contents	v
Executive Summary	1
Violent Deaths	1
Suicides	
Homicides	2
Undetermined Deaths	2
Other Violent Deaths	3
Introduction	4
Methods	5
Case Definition	5
Data Phase-In	5
Analysis	6
Data Restrictions	6
Section 1: Overview of Violent Deaths	7
Data Highlights	7
Demographic Characteristics	7
Manner and Method of Death	7
Distribution of Violent Deaths	7
Incidents	8
Violent Deaths Demographics	8
Methods	
Section 2: Suicides	12
Data Highlights	12
Demographic Characteristics	12
Method of Death and Locality	12
Methods	14
Data Highlights	16
Injury Location	
Circumstances	

Toxicology Testing	16
Toxicology	19
Section 3: Homicides	20
Data Highlights	20
Demographic Characteristics	20
Method of Death and Locality	20
Demographics	21
Methods	22
Data Highlights	24
Injury Location	24
Circumstances	24
Toxicology Testing	24
Circumstances	25
Toxicology	26
Victim-Suspect Relationship	28
Section 4: Deaths of Undetermined Intent	29
Data Highlights	29
Demographic Characteristics	29
Method of Death and Locality	29
Methods	31
Data Highlights	32
Injury Location	32
Circumstances	32
Toxicology Testing	32
Circumstances	33
Locality	33
Toxicology	34
Section 5: Firearm-Related Deaths,	35
Data Highlights	35
Demographic Characteristics	35
Locality	35
Demographics	36

Data Highlights	38
Injury Location	38
Circumstances	38
Toxicology Testing	39
Circumstances	39
Locality	41
Toxicology	42
Section 6: Merged Incidents	43
Data Highlights	43
Demographic Characteristics	43
Demographics	43
Appendix A: Calculating Rates	45
Crude and Age-Adjusted Rates	45
Appendix B: Violent Deaths Rates	46
All Violent Deaths	46
Suicides	48
Homicides	50
Deaths of Undetermined Intent	52
Appendix C: Additional Acknowledgments	53
Law Enforcement Agencies	53
Coroner's/Medical Examiner's Offices	62
OH-VDRS Advisory Board Members	63
Glossary	64

# **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 violent deaths. 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 Ohio in 2012.

#### **Violent Deaths**

In 2012, 2,344 Ohio residents died as a result of a violent death. The most common manners of death were suicides (64 percent), followed by homicides (26 percent) and deaths of undetermined intent (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 (52.7 percent), followed by hanging, strangulation or suffocation (20.7 percent) and by poisonings (12.1 percent).

Violent death rates among men were 3.6 times greater than death rates among women (31.8 vs. 9.3 per 100,000). Black non-Hispanics had the highest overall violent death rate (34.8 per 100,000), followed by white non-Hispanics (18.6 per 100,000) and Hispanics (9.8 per 100,000). In terms of age, Ohioans aged 25 to 34 had the highest violent death rates (29.8 per 100,000), followed by 35 to 44 year olds (26.5 per 100,000) and 45 to 54 year olds (26.3 per 100,000). Among females, violent death rates were highest for those aged less than 45-54 (15.3 per 100,000). In males, violent death rates were highest among those aged 25 to 34 (46.7 per 100,000).

#### **Suicides**

There were a total of 1,510 suicides in 2012. Suicides were the leading manner of violent death with an adjusted age rate of 12.7 per 100,000 persons. Comparable to all violent deaths, firearms were the most common method of death, accounting for 50 percent of all suicides. Other methods of deaths included poisonings (14 percent) and hanging, suffocation, or strangulation (29 percent). In 2012, firearms were the leading method of death in both male and female decedents (55 percent and 32 percent, respectively).

Suicide rates were higher for men compared to women (20.8 versus 5.3 per 100,000). The highest overall suicide rates was seen among white, non-Hispanic males (22.5 per 100,000), followed by black, non-Hispanic males (12.2 per 100,000) and white, non-Hispanic females (5.7 per 100,000). Black, non-Hispanic females had the lowest suicide rates (3.3 per 100,000). In general, those aged 45 to 54 years old had the highest suicide rates (19.0 per 100,000 persons). Among men, those aged 85 and above had the greatest suicide rates (41.9 per 100,000). Among women, the highest suicide rates were seen for those aged 45 to 54 years (9.4 per 100,000).

Circumstances most commonly associated with suicides included current mental health problems (50 percent), current mental health treatment (31 percent), and a current depressed mood (31 percent). Life stressors such as health problems and job problems were also commonly seen among suicide decedents (13 percent and 11 percent, respectively). Among suicide decedents with toxicology results, most tested positive for alcohol (21 percent), opiates (12 percent) and antidepressants (14 percent).

# **Homicides**

There were a total of 609 homicides in 2012. Homicides were the second leading manner of violent death with an overall rate of 5.5 per 100,000. Comparable to all violent deaths, firearms were the most common method of death, accounting for 69 percent of all homicides. Less common methods of death included sharp instruments (8 percent) and personal weapons (4 percent).

Homicide rates were higher for men compared to women (8.5 versus 2.6 per 100,000, respectively). The highest overall homicide rates were seen among black, non-Hispanic males (42.5 per 100,000), followed by black, non-Hispanic females (6.7 per 100,000) and Hispanics (4.1 per 100,000). White, non-Hispanic females had the lowest homicide rates (1.9 per 100,000). Overall, those aged 15 to 24 years had the highest homicide rates (10.5 per 100,000 persons). Among men and women, men aged 25 to 34 had the greatest homicide rates (17.0 per 100,000). Among women, the highest homicide rates were seen for those aged 15 to 24 years (4.5 per 100,000).

Circumstances most commonly associated with homicide included association with another crime (31 percent), and drug involvement (16 percent). Other arguments or conflicts, unrelated to money or property, were seen in 32 percent of homicide decedents. Intimate partner violence for female homicides was almost eight times more likely than for male homicides (50 percent versus 6 percent). Among homicide decedents with toxicology results, 23 percent tested positive for alcohol, 36 percent for marijuana and 10 percent for cocaine.

#### **Undetermined Deaths**

In certain instances, violent deaths could not be assigned to a specific manner of death due to insufficient evidence of intent. In 2012, there were a total of 185 deaths of undetermined intent and an overall death rate of 1.6 per 100,000 persons. The leading methods of death included poisonings (39 percent) and men generally had higher undetermined death rates than women (1.9 versus 1.3 per 100,000, respectively). Among men, the highest undetermined death rate was seen among those aged 45 to 54 followed by 35 to 44 year olds (3.9 and 2.5 per 100,000). Overall, the highest undetermined death rate was observed among those under the age of 1 (8.9 per 100,000).

# **Other Violent Deaths**

Legal interventions and unintentional firearm deaths accounted for 1.2 percent and 0.5 percent of all violent deaths in 2012. Unintentional firearm deaths included those that were self-inflicted and those inflicted by another or unknown person. There were 63 merged incidents (e.g. multiple homicides, homicide-suicide) accounting for a total of 148 deaths. The most common merged incidents were homicide-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 2012, there were more than 57,000 deaths due to violence in the U.S. In Ohio, violence resulted in more than 2,344 deaths in 2012. 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, sex 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, Oregon, South Carolina and Virginia. Since then, NVDRS has expanded to include Alaska, Colorado, Georgia, Kentucky, New Mexico, North Carolina, Oklahoma, Rhode Island, Utah, Wisconsin, Michigan and Ohio. In 2015, an additional 19 states were added to NVDRS, bringing the total to 34 states. As of 2012, the data captured through the NVDRS accounted for 34 percent of all violent deaths in the U.S. 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 2012.

## 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 manner of death and/or cause of death codes, specifically the 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 law enforcement reports. Death certificates were provided electronically by the Bureau of Vital Statistics at the Ohio Department of Health (ODH). Electronic records and hardcopies of coroner/medical examiner reports were obtained from county-specific offices. Reports from law enforcement agencies were provided to abstractors either electronically or via hard copy.

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. Counts and rates for all Ohio residents, based on death certificate data are provided in Appendix B on page 46.

# **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 include 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 2012) 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 A on page 45.

## **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 100.¹ 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 or geographic 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.

<sup>&</sup>lt;sup>1</sup> 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 2,316 violent incidents in 2012. The majority of these incidents were suicides (65.0 percent), followed by single homicides (23.8 percent) and deaths of undetermined intent (8.0 percent).
- In terms of total deaths, a total of 2,344 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 (64 percent).
- The age-adjusted violent death rate for 2012 was 20.2 per 100,000 persons. Among men, the violent death rate was almost four times greater than the rate among women (31.9 vs. 9.2 per 100,000).
- Ohioans aged 25-34 had the highest violent death rates (28.3 per 100,000) in 2012. Among males, the highest violent death rate was also seen among those aged 25-34 (46.9 per 100,000), followed by those aged 85 and above (43.2 per 100,000). Among females, the highest violent death rate was observed for those aged 35-44 (14.9 per 100,000), followed by those aged 45-54 year (12.9 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 (60.2 per 100,000) whereas white, non-Hispanic females had the lowest violent death rate (8.9 per 100,000).
- In terms of educational attainment, most violent death victims had a high school education or GED equivalent (46.9 percent). Those with less than a high school education accounted for almost a quarter of all violent deaths (23 percent).

#### **Manner and Method of Death**

- Suicides were the common manner of death for both men and women (64 percent), followed by homicides (26 percent) and deaths of undetermined intent (8 percent).
- Firearms were the most common method of death (52.7 percent). This was observed for men and women. For men, poisoning deaths accounted for only 8.2 percent of violent deaths, while firearms and hanging/suffocation were about 58 percent and 20.8 percent, respectively. For women, poisoning deaths accounted for 25 percent of violent deaths, while firearms and hanging/suffocation were 34.6 percent and 20.3 percent, respectively.

#### **Distribution of Violent Deaths**

• County-specific rates for violent deaths were highest for Pike County (45.7 per 100,000), followed by Gallia County (45.6 per 100,000). The lowest violent death rate was observed in Portage County (9.9 per 100,000).

# **Incidents**

Table 2: Incident Types, Ohio, 2012

Incident Type	Count	Percent
Single Suicide	1,505	65.0
Multiple Suicide	2	<1
Single Homicide	552	23.8
Multiple Homicide	24	1.0
Death of Undetermined Intent	185	8.0
Homicide/Suicide	37	1.6
Unintentional Firearm Death	11	<1
Total Incidents	2,316	100

Sources: ODH, OH-VDRS and Vital Statistics

# **Violent Deaths Demographics**

Table 3: Types of Violent Deaths and Number of Victims, Ohio, 2012

Method of Death	Male Count	Percent	Female Count	Percent	Total Count	Percent
Suicide	1,195	66	215	58	1,510	64
Homicide	464	26	146	27	610	26
Unintentional Firearm - Self- Inflicted	2	<1	0	0	2	<1
Unintentional Firearm - Inflicted by Other Person	8	<1	1	<1	9	<1
Legal Intervention	26	1	2	<1	28	1
Undetermined Intent	110	6	75	14	185	8
Total Deaths	1,805	100	539	100	2,344	100

Figure 1: Violent Age-Adjusted Death Rates, Ohio, 2012

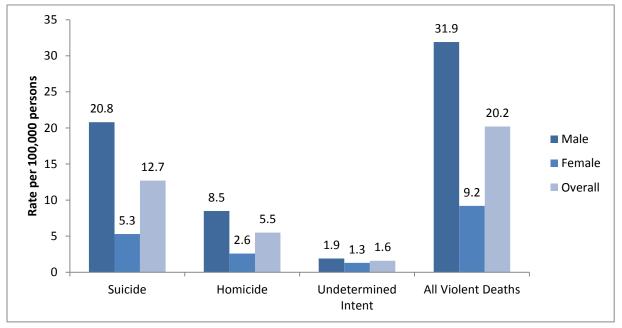
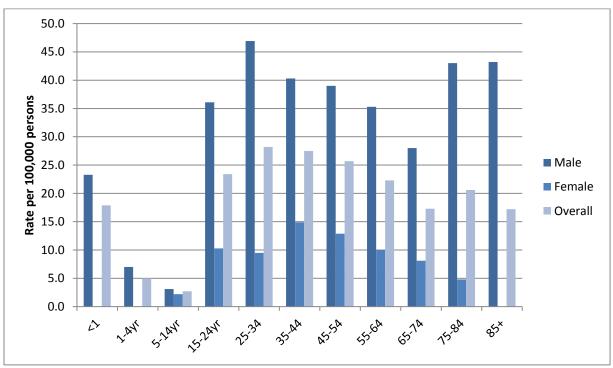


Figure 2: Age-Specific Violent Death Rates by Sex, Ohio, 2012



<sup>\*</sup>Rates suppressed for counts less than 10. Rates are expressed per 100,000 persons.

Table 4: Demographics of Violent Deaths by Race and Sex, Ohio, 2012

	Male			Female			Total		
	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Race/Ethnicity									
White, Non-	1,326	74	28.8	428	80	8.9	1,754	75	18.6
Hispanic									
Black, Non-	426	24	60.2	92	17	11.8	518	22	34.8
Hispanic									
Hispanic	27	2	13.9	10	2	5.5	37	2	9.8
Other,	24	1	*	8	2	*	32	1	*
Unknown									
Total	1,803	100	31.9	538	100	9.2	2,344	100	20.2

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

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

Table 5: Demographics of Violent Deaths by Educational Level and Sex, Ohio, 2012

<b>Educational Level</b>	Male Count	Percent	Female Count	Percent	<b>Total Count</b>	Percent
8 <sup>th</sup> grade or less	106	5.9	44	8.2	150	6.4
9 <sup>th</sup> to 12 <sup>th</sup> grade	304	16.9	85	15.8	389	16.6
High School Diploma/GED	869	48.2	229	42.5	1,098	46.9
Some College	216	12.0	77	14.3	293	12.5
Associates Degree	97	5.4	28	5.2	125	5.3
Bachelor's Degree	130	7.2	51	9.5	181	7.7
Master's Degree	34	1.9	12	2.2	46	2.0
Doctorate/Professional	16	1.0	7	1.3	23	1.0
Unknown	31	1.7	6	1.1	37	1.6
Total	1,803	100	539	100	2,342	100

Two individuals had missing information on level of education. Sources: ODH, OH-VDRS and Vital Statistics

# **Methods**

Table 6: Method of Death for Violent Death by Sex, Ohio, 2012

Method of Death	Male Count	Percent	Female Count	Percent	<b>Total Count</b>	Percent
Firearm	1,048	58.1	186	34.5	1,234	52.6
Hanging/Strangulation	376	20.8	110	20.4	486	20.7
Poisoning	148	8.2	135	25.0	283	12.1
Sharp Instrument	52	2.9	30	5.6	82	3.5
Fall	22	1.2	8	1.4	30	1.3
Motor Vehicle	13	<1	3	<1	16	<1
Blunt Instrument	40	2.2	16	3.0	56	2.4
Personal Weapons	18	1.0	6	1.1	24	1.0
Other	41	2.3	16	3.0	57	2.4
Unknown	47	2.6	29	5.4	76	3.2
Total Deaths	1,805	100	539	100	2,344	100

# **Section 2: Suicides**

# **Data Highlights**

## **Demographic Characteristics**

- A total of 1,510 Ohio residents died as a result of a suicide. The age-adjusted suicide rate in 2012 was 12.7 per 100,000.
- Males were four times more likely than females to die from a suicide (20.8 vs. 5.2 per 100,000).
- Among men, the highest suicide rate was observed for white, non-Hispanics (22.5 per 100,000), followed by black, non-Hispanics (12.2 per 100,000).
- Among women, the highest suicide rate was observed for white, non-Hispanics (5.7 per 100,000), followed by black, non-Hispanics (3.3 per 100,000).
- Ohioans aged 45-54 had the highest suicide rates (19.0 per 100,000). Among men, the highest suicide rate was seen among those aged 85 and above (41.9 per 100,000), followed those aged 75-84 (38.1 per 100,000). Among women, the highest suicide rate was observed for those aged 45-54 (9.4 per 100,000) followed by 35-44 year olds (9.2 per 100,000).
- In terms of educational attainment, most suicide victims had a high school education or GED equivalent (48.1 percent). Those with a bachelor's degree or higher accounted for almost 15 percent of all suicides (14.2 percent).

#### **Method of Death and Locality**

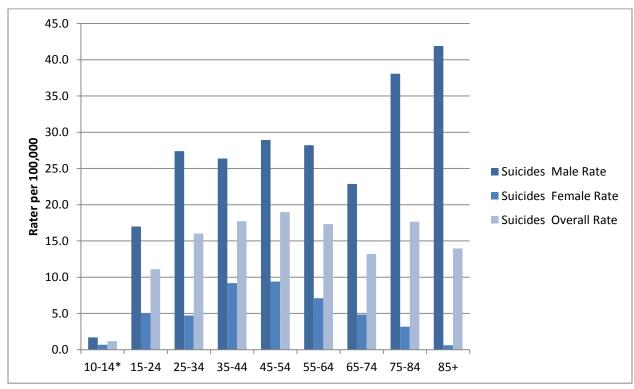
- Firearms were the most common method of death (50 percent) overall, followed by hanging, suffocation, or strangulation (29 percent) and poisoning (14 percent).
- Among men, firearms were used for more than half of suicides (55 percent) and 32 percent of suicides among women.
- Poisonings were the second most common method of suicides for women (31 percent), after firearms.
- Hanging, suffocation and strangulation were about constant for men and women, accounting for 29 percent and 28 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 Gallia County (32.6 per 100,000), followed by Preble County (31.0 per 100,000). The lowest suicide rate was observed in Wood County (9.4 per 100,000).

Table 7: Demographics of Suicides by Race and Sex, Ohio, 2012

	Male				Female		Total		
	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Race/Ethnicity									
White, Non-	1,082	91.8	22.5	281	90.7	5.7	1,363	91.5	13.8
Hispanic									
Black, Non-	81	6.9	12.2	24	7.7	3.3	105	7.1	7.4
Hispanic									
Hispanic	15	1.3	10.4	4	1.3	*	19	1.3	6.1
Other,	17	1.4	*	6	1.9	*	23	1.5	*
Unknown									
Total	1,195	100	20.8	315	100	5.3	1,510	100	12.7

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

Figure 3: Age-Specific Suicide Rates by Sex, Ohio, 2012



<sup>\*</sup>By definition, suicide intentionality occurs among those aged 10 and above. Female rates for those aged 75 and above were suppressed due to counts lower than 10.

Table 8: Demographics of Suicides by Educational Level and Sex, Ohio, 2012

<b>Educational Level</b>	Male Count	Percent	Female Count	Percent	<b>Total Count</b>	Percent
8 <sup>th</sup> grade or less	48	4.0	10	3.2	58	3.8
9 <sup>th</sup> to 12 <sup>th</sup> grade	146	12.2	48	15.2	194	12.9
High School Diploma/GED	603	50.5	123	39.1	726	48.1
Some College	151	12.6	49	15.6	200	13.3
Associates Degree	77	6.4	21	6.7	98	6.5
Bachelor's Degree	116	9.7	43	13.7	159	10.5
Master's Degree	26	2.2	9	2.9	35	2.3
Doctorate/Professional	14	1.2	7	2.2	21	1.4
Unknown	14	1.2	5	1.6	19	1.3
Total	1,195	100	315	100	1,510	100

# **Methods**

Table 9: Method of Death for Suicide Victims by Sex, Ohio, 2012

Method of Death	Male Count	Percent	Female Count	Percent	<b>Total Count</b>	Percent
Firearm	660	55.3	101	32.1	761	50.4
Hanging/Strangulation	352	29.4	89	28.3	441	29.2
Poisoning	107	9.0	97	30.8	204	13.6
Sharp Instrument	23	1.9	7	2.2	30	2.0
Fall	20	1.7	7	2.2	27	1.8
Drowning	5	<1	5	1.6	10	<1
Burns/Fire	3	<1	0	0	3	<1
Motor Vehicle	9	<1	2	<1	11	<1
Other Transport Vehicle	9	<1	7	2.2	16	1.1
Other	2	<1	0	0	2	<1
Blunt Instrument	2	<1	0	0	2	<1
Non-powder Gun	1	<1	0	0	1	<1
Unknown	2	<1	0	0	2	<1
Total Deaths	1,195	100	315	100	1,510	100

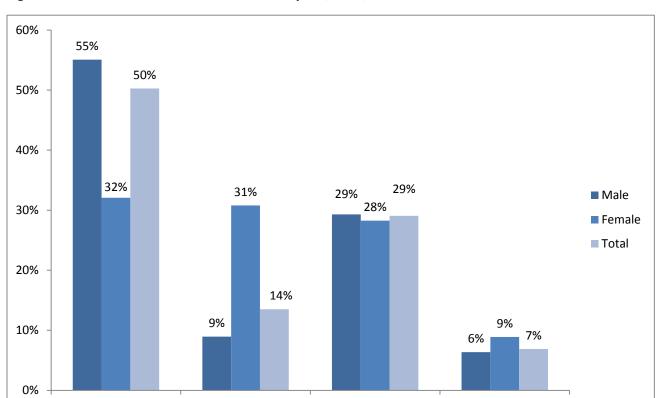


Figure 4: Method of Death for Suicide Victims by Sex, Ohio, 2012

Hanging/Strangulation

Poisoning

Sources: ODH, OH-VDRS and Vital Statistics

Firearm

Other

<sup>\*</sup>Other method refers to suicide deaths from falls, non-powder guns, drowning, fire/burns, motor vehicles, other transport vehicles and sharp instruments.

# **Data Highlights**

## **Injury Location**

- The most common suicide locations were in a house or apartment (77.8 percent).
- Other suicide locations included a street or a road (1.5 percent), motor vehicle (5.5 percent), jail or prison (1.5 percent), park or playground (1.7 percent) and a natural area (4.0 percent).

#### **Circumstances**

- Nearly 92 percent (1,393/1,510) of all suicide victims had circumstances available.
- Among men, the most common mental health circumstances included a current mental health problem (45.4 percent), current depressed mood (31.7 percent) and a history of mental problems (33.1 percent).
- Among women, the most common mental health circumstances included a current mental health problem (66.4 percent), a history of mental health problems (52.7 percent) and evidence of current mental health treatment (48.7 percent).
- In terms of suicide event circumstances, 37 percent of suicide victims left a suicide note, with a greater likelihood among women compared to men (40 percent vs. 36.3 percent). Suicide victims disclosed the intent to commit suicide in 23.1 percent of the cases. Women had a higher percentage of history of suicide attempts compared to men (30.9 percent vs. 16 percent).
- Other circumstances associated with suicide victims included an alcohol problem (14.5 percent), a health problem (13.1 percent), an intimate partner problem (30.2 percent), a substance abuse problem (16.4 percent) and financial problems (8.8 percent).

# **Toxicology Testing**

- Of the 1,510 total suicide victims, 1,347 had a coroner/medical examiner report narrative available.
- Nearly 20 percent of suicide decedents tested positive for alcohol (20.5 percent), with a similar likelihood in men compared to women (20.9 percent vs. 18.7 percent).
- Positive tests for antidepressants and opiates were found in more than 10 percent of suicides (12.8 percent and 11.7 percent, respectively).
- Women were more likely than men to test positive for opiates (18.4 percent vs. 10.0 percent).
- Nearly 10 percent of suicide decedents tested positive for marijuana, and less than 5 percent tested positive for either amphetamines or cocaine.
- Among those testing positive for alcohol, nearly 65 percent had a blood alcohol concentration (BAC) greater than 0.08. Twelve percent of these suicide decedents had a BAC of 0.24-0.32.

**Table 10: Commonly Occurring Suicide Locations, Ohio, 2012** 

Injury Location	Male Count	Percent	Female Count	Percent	Total Count	Percent
House/Apartment	917	76.7	257	81.6	1,174	77.8
Street/Road	19	1.6	3	1.0	22	1.5
Motor Vehicle	67	5.6	16	5.1	83	5.5
Jail/Prison	20	1.7	2	<1	22	1.5
Park/Playground	20	1.7	6	1.9	26	1.7
Natural Area	53	4.4	8	2.5	61	4.0
Hotel/Motel	19	1.6	4	1.3	23	1.5
Other	74	6.2	17	5.4	91	6.0
Unknown	6	<1	2	<1	8	<1
Total	1,195	100	315	100	1,510	100

Table 11: Mental Health Circumstances of Suicide Victims by Sex, Ohio, 2012<sup>1</sup>

	Male		Female		Total	
Circumstance	Number	Percent	Number	Percent	Number	Percent
Alcohol Problem	166	15.2	36	12.1	202	14.5
Current Depressed Mood	347	31.7	89	29.9	436	31.3
History of Mental Health Problem	362	33.1	157	52.7	519	37.3
Current Diagnosed Mental Problem	497	45.4	198	66.4	695	49.9
Other Substance Abuse	165	15.1	64	21.5	229	16.4
Currently Receiving Mental Health Treatment	293	26.8	145	48.7	438	31.4

<sup>1</sup>The denominator used for calculating percentage of specific circumstances is based on the number of suicides with at least one circumstance identified in either the coroner/medical examiner (CME) or law enforcement report. Suicide victims may report more than one circumstance. Nearly 92 percent of suicide victims had circumstances available (n=1,393).

Sources: ODH, OH-VDRS and Vital Statistics

Table 12: Life Stressor and Suicide Event Circumstances of Suicide Victims by Sex, Ohio, 2012<sup>1</sup>

	Male		Female		Total	
Circumstance	Number	Percent	Number	Percent	Number	Percent
Health Problem	153	14.0	29	9.7	182	13.1
Job Problem	139	12.7	18	6.0	157	11.3
Financial Problem	111	10.1	12	4.0	123	8.8
Recent Criminal Legal Problem	70	6.4	7	2.4	77	5.5
Non-criminal Legal Problem	40	3.7	7	2.4	47	3.4
School Problem	8	<1	5	1.7	13	<1
Argument	191	17.4	46	15.4	237	17.0
Left a Suicide Note	397	36.3	119	40.0	516	37.0
Suicide Attempt History	175	16.0	92	30.9	267	19.2
Disclosed Suicide Intent to Someone	242	22.1	80	26.9	322	23.1

<sup>&</sup>lt;sup>1</sup>The denominator used for calculating percentage of specific circumstances is based on the number of suicide with at least one circumstance identified in either the CME or law enforcement report. Suicide victims may report more than one circumstance. Nearly 92 percent of suicide victims had circumstances available (n=1,393).

Table 13: Relationship Circumstances of Suicide Victims by Sex, Ohio, 2012<sup>1</sup>

		Female		Total		
Circumstance	Number	Percent	Number	Percent	Number	Percent
Intimate Partner Problem	348	31.8	72	24.2	420	30.2
Family Relationship Problem	76	6.9	31	10.4	107	7.7
Other Relationship (non- intimate)	18	1.6	7	2.4	25	1.8
Suicide of Family Member in Past 5 Years	26	2.4	13	4.4	39	2.8
Other Death of Family Member within 5 Years	62	5.7	15	5.0	77	5.5

<sup>&</sup>lt;sup>1</sup>The denominator used for calculating percentage of specific circumstances is based on the number of suicide with at least one circumstance identified in either the CME or law enforcement report. Suicide victims may report more than one circumstance. Nearly 92 percent of suicide victims had circumstances available (n=1,393).

# **Toxicology**

**Table 14: Toxicology Findings for Suicide Victims, Ohio, 2012** 

	Ma	ale	Fem	nale	Total		
Positive Toxicology Test	Number	Percent	Number	Percent	Number	Percent	
Amphetamines	17	1.4	11	3.5	28	1.9	
Anticonvulsants	35	2.9	18	5.7	53	3.5	
Antidepressants	111	9.3	82	26.0	193	12.8	
Antipsychotics	13	1.1	9	2.9	22	1.5	
Barbiturates	5	<1	8	2.5	13	<1	
Benzodiazepines	88	7.4	67	21.3	155	10.3	
Carbon Monoxide	26	2.2	10	3.2	36	2.3	
Cocaine	39	3.3	10	3.2	49	3.2	
Marijuana	111	9.3	16	5.1	127	8.4	
Muscle Relaxants	15	1.3	8	2.5	23	1.5	
Opiates	119	10.0	58	18.4	177	11.7	
Alcohol	250	20.9	59	18.7	309	20.5	

The denominator for toxicology results is based on the number of suicide victims. Not all suicide victims underwent toxicology testing. It is possible for a suicide victim to test positive for more than one substance.

Sources: ODH, OH-VDRS and Vital Statistics

Table 15: Blood Alcohol Concentration Results for Suicide Victims Testing Positive for Alcohol, Ohio, 2012

	Ma	Male		nale	Total	
Blood Alcohol	Number	Percent	Number	Percent	Number	Percent
Concentration						
Less than 0.080	75	30.0	17	28.8	92	29.8
0.080-0.160	65	26.0	14	23.7	79	25.6
0.160-0.240	67	26.8	15	25.4	82	26.5
0.240-0.320	26	10.4	11	18.6	37	12.0

A total of 309 suicide victims tested positive for alcohol. Blood alcohol concentrations (BACs) were grouped into quartiles. BAC results were missing for 19 victims.

## **Section 3: Homicides**

# **Data Highlights**

## **Demographic Characteristics**

- A total of 610 Ohio residents died as a result of a homicide. The age-adjusted homicide rate in 2012 was 5.5 per 100,000 persons.
- Males were more than three times more likely than females to die from a homicide (8.5 vs. 2.6 per 100,000).
- Among men, the highest homicide rate was observed for black, non-Hispanics (42.5 per 100,000), followed by Hispanics (5.8 per 100,000).
- Among women, the highest homicide rate was similarly observed for black, non-Hispanics (6.7 per 100,000), followed by white, non-Hispanics (1.9 per 100,000).
- Ohioans aged 15-24 had the highest homicide rates (10.5 per 100,000 persons). Among men, the highest homicide rate was seen among those aged 25-34 (17.0 per 100,000), followed by those aged 15-24 (16.4 per 100,000).
- Among women, the highest homicide rate was observed for those aged 15-24 (4.5 per 100,000) followed by 25-34 year olds (3.3 per 100,000).
- In terms of educational attainment, most homicide victims had a high school education or GED equivalent (45.5 percent). Those with less than a high school education accounted for nearly a third of all suicides (36.1 percent).

#### Method of Death and Locality

- Firearms were the most common method of death (69.0 percent) for homicides, followed by sharp instruments (8.0 percent), and blunt instruments (8.0 percent).
- Among men, firearms were used for nearly three-quarters of homicides (74 percent) but for half of homicides among women (56 percent).
- Other homicide methods such as personal weapons, hanging/strangulation, and motor vehicles accounted for 15 percent of all homicides.
- County specific homicide rates were highest for Mahoning County (11.9 per 100,000), followed by Cuyahoga County (9.7 per 100,000). The lowest homicide rate was observed in Butler County (3.0).

# **Demographics**

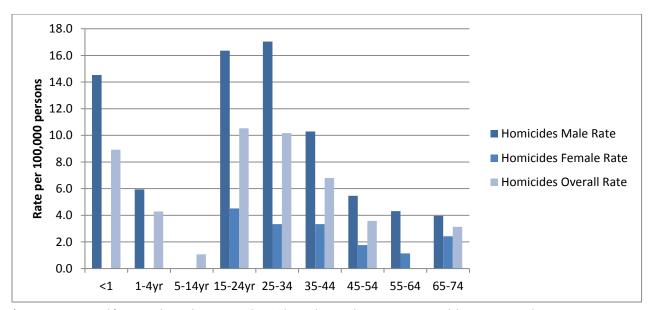
Table 16: Demographics of Homicides by Race and Sex, Ohio, 2012

	Male				Female			Total		
	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	
Race/Ethnicity										
White, Non-	142	30.7	3.2	88	60.3	1.9	230	37.8	2.5	
Hispanic										
Black, Non-	305	65.9	42.5	53	36.3	6.7	358	58.8	23.9	
Hispanic										
Hispanic	10	2.2	5.8	5	3.4	*	15	2.5	4.1	
Other,	6	1.3	*	0	0	*	6	<1	*	
Unknown										
Total	463	100	8.5	146	100	2.6	609	100	5.5	

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

Sources: ODH, OH-VDRS and Vital Statistics

Figure 5: Age-Specific Homicide Rates by Sex, Ohio, 2012



<sup>\*</sup>Rate was suppressed for counts lower than 10. Female suicide rate line graph appears interrupted due to suppressed rates.

Table 17: Demographics of Homicides by Educational Level and Sex, Ohio, 2012

<b>Educational Level</b>	Male Count	Percent	Female Count	Percent	<b>Total Count</b>	Percent
8 <sup>th</sup> grade or less	42	9.1	21	14.4	63	10.3
9 <sup>th</sup> to 12 <sup>th</sup> grade	131	28.3	26	17.8	157	25.8
High School Diploma/GED	201	43.4	76	52.1	277	45.5
Some College	48	10.4	14	9.6	62	10.2
Associates Degree	14	3.0	5	3.4	19	3.1
Bachelor's Degree	8	1.7	4	2.7	12	2.0
Master's Degree	5	1.1	0	0	5	<1
Doctorate/Professional	0	0	0	0	0	0
Unknown	14	3.0	0	0	14	2.3
Total	463	100	146	100	609	100

# **Methods**

Table 18: Method of Death for Homicide Victims by Sex, Ohio, 2012

Method of Death	Male Count	Percent	Female Count	Percent	Total Count	Percent
Firearm	338	73.6	80	55.6	418	69.3
Hanging/Strangulation	20	4.4	16	11.1	36	6.0
Poisoning	4	<1	4	2.8	8	1.3
Sharp Instrument	29	6.3	22	15.3	51	8.5
Blunt Instrument	36	7.8	13	9.0	49	8.1
Personal Weapons	18	3.9	6	4.2	24	4.0
Intentional Neglect	2	<1	0	0	2	<1
Burns/Fire	2	<1	1	<1	3	<1
Motor Vehicle	3	<1	2	1.4	5	<1
Other	2	<1	0	0	2	<1
Unknown	5	1.1	0	0	5	<1
Total Deaths	459	100	144	100	603	100

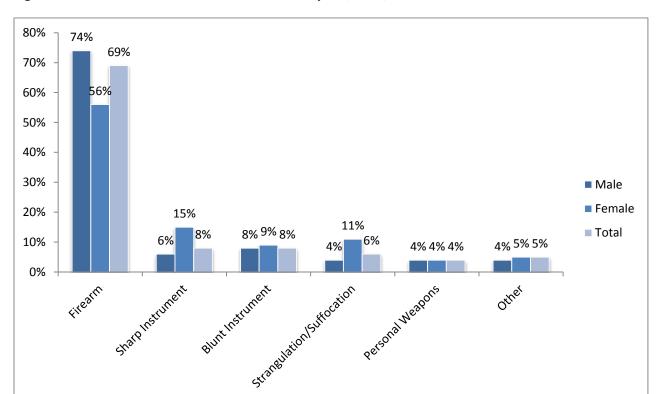


Figure 6: Method of Death for Homicide Victims by Sex, Ohio, 2012

<sup>\*</sup>Other method refers to suicide deaths from blunt instrument, poisoning, intentional neglect, fire/burns, motor vehicles, and unknown methods.

# **Data Highlights**

## **Injury Location**

- The most common homicide locations were in a house or apartment (61.2 percent).
- Other common suicide locations included a street or a road (13.6 percent), motor vehicle (8 percent), bar or nightclub (2.5 percent), another commercial establishment (2.1 percent) and a parking lot/garage (3.9 percent).

#### **Circumstances**

- Circumstances were available for 91.3 percent (557/610) of all homicide victims.
- Among men, the most common circumstances included argument (32.0 percent), association with another crime (40.5 percent), crime in progress (34.4), substance problems (15.6 percent), drug involvement (18.5 percent) and use of a weapon (9.7 percent).
- Among women, half of homicides were associated with intimate partner violence (50.4 percent), other common circumstances included association with another crime (27.4 percent), argument (35.6 percent), and other substance problems (12.6 percent), and crime in progress (22.2).
- Other circumstances associated with homicide victims included an alcohol problem (1.4 percent).

## **Toxicology Testing**

- Out of 610 total homicide victims, 557 had a coroner/medical examiner report narrative available.
- Nearly 25 percent of homicide decedents tested positive for alcohol (22.0 percent), with a higher likelihood in men compared to women (25.6 percent vs. 10.3 percent).
- Positive tests for opiates were found in about 10 percent of homicides (10.3 percent).
- Men were more likely than women to test positive for marijuana (39.2 percent vs. 14.4 percent).
- One third of homicide decedents tested positive for marijuana, but less than 10 percent tested positive for either amphetamines or cocaine.
- Among those testing positive for alcohol, more than 50 percent had a BAC greater than 0.08. Six percent of these homicide decedents had a BAC of 0.24-0.32.

**Table 19: Commonly Occurring Homicide Locations, Ohio, 2012** 

Injury Location	Male Count	Percent	Female Count	Percent	Total Count	Percent
House/Apartment	262	56.5	111	76.0	373	61.2
Street/Road	74	15.9	9	6.2	83	13.6
Motor Vehicle	39	8.4	10	6.9	49	8.0
Bar/Nightclub	15	3.2	0	0	15	2.5
Other Commercial	8	1.7	5	3.4	13	2.1
Establishment						
Parking Lot/Garage	22	4.7	2	1.4	24	3.9
Natural Area	4	<1	0	0	4	<1
Other	28	6.0	5	3.4	33	5.4
Unknown	12	2.6	4	2.8	16	2.6
Total	464	100	146	100	610	100

# **Circumstances**

Table 20: Crime-Related Circumstances of Homicide Victims by Sex, Ohio, 2012

	Male		Female		Total	
Circumstance	Number	Percent	Number	Percent	Number	Percent
Drug Involvement	78	18.5	10	7.4	88	15.8
Precipitated by Another	171	40.5	37	27.4	208	37.3
Crime						
Self-Defense	16	3.8	2	1.5	18	3.2
Brawl	4	1.0	0	0	4	<1
Drive-by Shooting	9	2.1	0	0	9	1.6
Bystander	4	1.0	6	4.4	10	1.8
Gang-Related	18	4.3	1	<1	19	3.4
Hate Crime	3	<1	0	0	3	<1
Used Weapon	41	9.7	1	<1	42	7.5
Crime in Progress	145	34.4	30	22.2	175	31.4
Mentally III Suspect	0	0	2	2.3	2	0.4

The denominator used for calculating percentage of specific circumstances is based on the number of homicides with at least one circumstance identified in either the CME or law enforcement report (n=557). Homicide victims may report more than one circumstance.

Table 21: Arguments and Conflicts Circumstances of Homicide Victims by Sex, Ohio, 2012

	Male		Female		Total	
Circumstance	Number	Percent	Number	Percent	Number	Percent
Argument	130	30.8	48	35.6	178	32.0
Fight Between Two People	38	9.0	2	1.5	40	7.2
Intimate Partner Violence	24	5.7	68	50.4	92	16.5
Jealousy (Lover's Triangle)	5	1.2	10	7.4	15	2.7
Other Substance Problem	66	15.6	17	12.6	83	14.9
Alcohol Suspected	6	1.4	2	1.5	8	1.4

The denominator used for calculating percentage of specific circumstances is based on the number of homicides with at least one circumstance identified in either the CME or law enforcement report (n=557). Homicide victims may report more than one circumstance.

Sources: ODH, OH-VDRS and Vital Statistics

# **Toxicology**

Table 22: Toxicology Results for Homicide Victims, Ohio, 2012

	Male		Female		Total	
Positive Toxicology Test	Number	Percent	Number	Percent	Number	Percent
Amphetamines	7	1.5	4	2.7	11	1.8
Anticonvulsants	6	1.3	6	4.1	12	2.0
Antidepressants	8	1.7	8	5.5	16	2.6
Antipsychotics	1	<1	0	0	1	<1
Barbiturates	2	<1	0	0	2	<1
Benzodiazepines	22	4.7	3	2.1	25	4.1
Carbon Monoxide	4	<1	2	1.4	6	1.0
Cocaine	46	10.0	8	5.5	54	8.9
Marijuana	182	39.2	21	14.4	203	33.3
Opiates	49	10.6	14	9.6	63	10.3
Alcohol	119	25.6	15	10.3	134	22.0

The denominator for toxicology results is based on the number of homicide victims. Not all homicide victims underwent toxicology testing. It is possible for a homicide victim to test positive for more than one substance.

Table 23: Blood Alcohol Concentration Results for Homicide Victims Testing Positive for Alcohol, Ohio, 2012

	Ma	Male		Female		Total	
Blood Alcohol Concentration	Number	Percent	Number	Percent	Number	Percent	
Less than 0.080	47	34.5	7	46.7	54	40.3	
0.080-0.160	40	33.6	4	26.7	44	32.8	
0.160-0.240	22	18.5	4	26.7	26	19.4	
0.240-0.320	8	6.7	0	0	8	6.0	

A total of 134 homicide victims tested positive for alcohol. Blood alcohol concentrations were grouped into quartiles. Blood alcohol concentrations results were missing for two victims.

# **Victim-Suspect Relationship**

Seventy percent (426/610) of homicide victims had suspect information. The victim-suspect relationship was available from both law enforcement reports and coroner/medical examiner records, however data from the law enforcement reports tended to be more complete than those from coroners' reports. The data presented below are given for the primary victim-suspect relationship only. There were considerably fewer instances where multiple suspects were associated with a homicide. The victim-suspect relationship is the description of the relationship of the victim to the suspect, for example, when a parent (suspect) kills a child (victim), the relationship is described as child, not parent.

Table 24: Common Victim-Suspect Relationships for Homicide Victims, Ohio, 2012

	Male		Fem	Female		Total	
Relationship to the Suspect	Number	Percent	Number	Percent	Number	Percent	
Spouse	3	<1	23	17.0	26	4.7	
Ex-Spouse	0	0	3	2.2	3	<1	
In-Law	3	<1	0	0	3	<1	
Girlfriend/Boyfriend	7	1.7	24	17.8	31	5.6	
Ex-Girlfriend/Boyfriend	0	0	8	5.9	8	1.4	
Child of Suspect's Boyfriend/Girlfriend	7	1.7	4	3.0	11	2.0	
Parent	9	2.1	6	4.4	15	2.7	
Child	15	3.6	4	3.0	19	3.4	
Sibling	2	<1	1	<1	3	<1	
Babysitter	1	<1	0	0	1	<1	
Foster Parent	0	0	1	<1	1	<1	
Stepchild	1	<1	0	0	1	<1	
Stepparent	2	<1	0	0	2	<1	
Roommate	2	<1	0	0	2	<1	
Schoolmate	3	<1	0	0	3	<1	
Intimate partner of suspect's parents	3	<1	0	0	3	<1	
Grandchild	2	<1	3	2.2	5	<1	
Grandparent	1	<1	1	<1	2	<1	
Acquaintance	24	5.7	4	3.0	28	5.0	
Friend	14	3.3	2	1.5	16	2.9	
Current/Former Work Relationship	0	0	1	<1	1	<1	
Other Family Member	6	1.4	3	2.2	9	1.6	
Stranger	12	2.8	3	2.2	15	2.7	
Other Person, Known to Victim	12	2.8	3	2.2	15	2.7	
Rival Gang Member	1	<1	0	0	1	<1	
Other/Unknown	294	69.7	41	30.4	323	58.0	

#### Section 4: Deaths of Undetermined Intent

## **Data Highlights**

#### **Demographic Characteristics**

- There were total of 185 deaths of undetermined intent in 2012. The overall rate was 1.6 per 100,000.
- Males were more likely than females to die from a death of undetermined intent (1.9 vs. 1.3 per 100,000).
- Among men, the highest undetermined death rate was observed for black, non-Hispanics (3.5 per 100,000), followed by white, non-Hispanics (1.8 per 100,000).
- Among women, the highest undetermined death rate was observed for black, non-Hispanics (1.5 per 100,000), followed by white, non-Hispanics (1.2 per 100,000).
- Ohioans aged less than 1 year had the highest undetermined death rates (8.9 per 100,000).
   Among adult men, the highest rate was seen among those aged 45-54 years (3.9 per 100,000), followed those aged 35-44 years (2.5 per 100,000).
- Among adult women, the highest undetermined death rate was observed for those aged 35-44 (2.4 per 100,000), followed by 45-54 year olds and 55-64 year olds (1.8 per 100,000).
- In terms of educational attainment, most victims a high school education or GED equivalent (41.3 percent). Those with a college education and above accounted for less than 10 percent of all undetermined deaths.

#### **Method of Death and Locality**

- Most deaths of undetermined intent were committed using poisonings (39 percent).
- Unknown methods accounted for 38 percent of all undetermined deaths.
- Among men, the method was unknown for nearly 40 percent of all deaths of undetermined intent (37 percent) but for almost half of undetermined deaths among women (45 percent).
- Other methods such as firearms, drowning and motor vehicles accounted for less than 25 percent of all deaths of undetermined intent.
- County-specific undetermined death rates were highest for Franklin County (3.3 per 100,000), followed by Hamilton County (2.1 per 100,000). The lowest undetermined death rate was observed in Cuyahoga County (1.8 per 100,000).

Table 25: Demographics of Deaths of Undetermined Intent by Age and Sex, Ohio, 2012

Age Group	Male Count	Rate	Female Count	Rate	<b>Total Count</b>	Rate
<1	6	*	8	*	12	10.8
1-4	1	*	1	*	2	*
5-14	2	*	2	*	4	*
15-24	13	1.6	3	*	23	1.2
25-34	13	1.8	7	*	20	1.4
35-44	18	2.5	17	2.4	35	2.5
45-54	32	3.9	15	1.8	47	2.8
55-64	18	2.4	14	1.8	32	2.1
65-74	4	*	4	*	8	*
75-84	2	*	0	*	2	*
85+	1	*	3	*	4	*
Total	110	2.0	75	1.7	185	1.8

<sup>\*</sup>Rates suppressed for counts <10. Rates are expressed per 100,000 persons.

Sources: ODH, OH-VDRS and Vital Statistics

Table 26: Demographics of Deaths of Undetermined Intent by Race and Sex, Ohio, 2012

	Male				Female			Total	
	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Race/Ethnicity									
White, Non- Hispanic	83	75.4	1.8	58	77.3	1.2	141	76.2	1.7
Black, Non- Hispanic	23	20.9	3.5	13	17.3	1.5	36	19.5	2.4
Hispanic	2	1.8	*	1	1.3	*	3	1.6	*
Other, Unknown	2	1.8	*	3	4.0	*	5	2.7	*
Total	110	100	1.9	75	100	1.3	185	100	1.6

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

Table 27: Demographics of Deaths of Undetermined Intent by Educational Level and Sex, Ohio, 2012

<b>Educational Level</b>	Male Count	Percent	Female Count	Percent	<b>Total Count</b>	Percent
8 <sup>th</sup> grade or less	12	11.0	13	17.3	25	13.6
9 <sup>th</sup> to 12 <sup>th</sup> grade	20	18.4	10	13.3	30	16.3
High School Diploma/GED	48	44.0	28	37.3	76	41.3
Some College	14	12.8	14	18.7	28	15.2
Associates Degree	3	2.8	2	2.7	5	2.7
Bachelor's Degree	5	4.6	4	5.3	9	4.9
Master's Degree	2	1.8	3	4.0	5	2.7
Doctorate/Professional	2	1.8	0	0	2	1.1
Unknown	3	2.8	1	1.3	4	2.2
Total	109	100	75	100	184	100

Sources: ODH, OH-VDRS and Vital Statistics

### **Methods**

Table 28: Method of Death for Deaths of Undetermined Intent by Sex, Ohio, 2012

Method of Death	Male Count	Percent	Female Count	Percent	<b>Total Count</b>	Percent
Firearm	12	11.0	2	2.7	14	7.6
Drowning	5	4.6	2	2.7	7	3.8
Burns/Fire	2	1.8	1	1.3	3	1.6
Poisoning	37	33.9	34	45.3	71	38.6
Motor Vehicle	1	1.0	0	0	1	<1
Other	12	11.0	7	9.3	19	10.3
Unknown	40	36.7	29	38.7	69	37.5
Total Deaths	109	100	75	100	184	100

### **Data Highlights**

#### **Injury Location**

- The most common location for deaths of undetermined intent were in a house or an apartment (63.8 percent).
- Other death locations included a street or a road (2.2 percent), natural area (5.4 percent), and unknown sites (45.6 percent).

#### **Circumstances**

- Nearly 72 percent of undetermined deaths had circumstances available (134/185).
- Among men, the most common mental health circumstances included a current mental health problem (51.3 percent), a history of mental health issues (36.3 percent), current mental health treatment (51.3 percent), substance abuse (43.8 percent), and an alcohol problem (35.0 percent).
- Among women, the most common mental health circumstances included a current mental health problem (68.5 percent), a history of mental health issues (50.0 percent), current mental health treatment (48.2 percent), current depressed mood (9.3 percent) and substance abuse (31.5 percent).
- Other circumstances included job problems (3.7 percent), intimate partner problems (14.2 percent) and health problems (10.5 percent).

#### **Toxicology Testing**

- Out of a total of 185 victims, 134 had a coroner/medical examiner report narrative available.
- Twenty percent of decedents tested positive for alcohol (27.6 percent), with a higher likelihood in men compared to women (25.5 percent vs. 12.0 percent).
- Positive tests for antidepressants and opiates were found in more than 20 percent of undetermined deaths (22.2 percent and 29.2 percent, respectively).
- Men were more likely than women to test positive for marijuana (12.7 percent vs. 6.7 percent).
- Less than 10 percent tested positive for either amphetamines or cocaine.
- Among those testing positive for alcohol, 21.6 percent had a blood alcohol concentration (BAC) of less than 0.08. Nearly 20 percent of these undetermined deaths had a BAC of 0.24-0.32.

#### **Circumstances**

Table 29: Common Circumstances for Deaths of Undetermined Intent by Sex, Ohio, 2012

	Ma	ale	Fem	nale	Total	
Circumstance	Number	Percent	Number	Percent	Number	Percent
Current Treatment for	25	31.3	26	48.2	51	38.1
Mental Illness						
Current Mental Health	41	51.3	37	68.5	78	58.2
Problem						
Job Problem	4	5.0	1	1.9	5	3.7
Other Substance Abuse	35	43.8	17	31.5	52	38.8
Problem						
Intimate Partner Problem	12	15.0	7	13.0	19	14.2
Suicide History	14	17.5	6	11.1	20	14.9
History of Mental Health	29	36.3	27	50.0	56	41.8
Problems						
Physical Health Problem	9	11.3	5	9.3	14	10.5
Current Depressed Mood	9	11.3	5	9.3	14	10.5
Alcohol Suspected	28	35.0	6	11.1	34	25.4

The denominator used for calculating percentage of specific circumstances is based on the number of deaths with at least one circumstance identified in either the CME or law enforcement report (n=121). Victims may have reported more than one circumstance.

Sources: ODH, OH-VDRS and Vital Statistics

## **Locality**

Table 30: Commonly Occurring Locations for Deaths of Undetermined Intent, Ohio, 2012

Injury Location	Male Count	Percent	Female Count	Percent	Total Count	Percent
House/Apartment	61	55.5	57	76.0	118	63.8
Street/Road	4	3.6	0	0	4	2.2
Park/Playground	2	1.8	0	0	2	1.1
Natural Area	9	8.2	1	1.3	10	5.4
Hotel/Motel	1	1.0	0	0	1	<1
Jail/Prison	1	1.0	0	0	1	<1
Other	8	7.2	3	4.0	11	5.9
Unknown	24	21.8	14	18.7	38	20.5
Total	110	100	75	100	185	100

## **Toxicology**

Table 31: Toxicology Results for Victims, Ohio, 2012

	Male		Fem	nale	Total	
Positive Toxicology Test	Number	Percent	Number	Percent	Number	Percent
Amphetamines	4	3.6	1	1.3	5	2.7
Anticonvulsants	9	8.2	7	9.3	16	8.6
Antidepressants	17	15.5	24	32.0	41	22.2
Antipsychotics	7	6.4	7	9.3	14	7.6
Barbiturates	2	1.8	1	<1	3	1.6
Benzodiazepines	16	14.5	11	14.7	27	14.6
Carbon Monoxide	7	6.4	3	4.0	10	5.4
Cocaine	6	5.5	4	5.3	10	5.4
Marijuana	14	12.7	5	6.7	19	10.3
Muscle Relaxants	1	<1	6	8.0	7	3.8
Opiates	30	27.2	24	32.0	54	29.2
Alcohol	28	25.5	9	12.0	37	20.0

The denominator for toxicology results is based on the number of total victims. Not all victims underwent toxicology testing. It is possible for a victim to test positive for more than one substance.

Sources: ODH, OH-VDRS and Vital Statistics

Table 32: Blood Alcohol Concentration Results for Victims Testing Positive for Alcohol, Ohio, 2012

	Ma	Male		nale	Total	
Blood Alcohol Concentration	Number	Percent	Number	Percent	Number	Percent
Less than 0.080	5	17.9	3	33.3	8	21.6
0.080-0.160	8	28.6	0	0	8	21.6
0.160-0.240	7	25.0	2	22.2	9	24.3
0.240-0.320	5	17.9	1	11.1	6	16.2

A total of 37 victims tested positive for alcohol. Blood alcohol concentrations were grouped into quartiles. Blood alcohol concentrations results were missing for 6 victims.

#### **Section 5: Firearm-Related Deaths**

### **Data Highlights**

#### **Demographic Characteristics**

- A total of 1,230 Ohio residents died as a result of a firearm. The overall firearm-related death rate for 2012 was 10.5 per 100,000.
- Most firearm-related deaths were suicides (61.7 percent) and homicides (34.0 percent).
- Males were almost six times more likely than females to die at the hand of a firearm (18.5 vs. 3.2 per 100,000).
- Among men, the highest firearm death rate was observed for black, non-Hispanics (45.0 per 100,000), followed by white, non-Hispanics (14.5 per 100,000).
- Among women, the highest firearm death rate was observed for black, non-Hispanics (5.6 per 100,000), followed by black, non-Hispanics (2.8 per 100,000).
- Ohioans aged 75-84 years had the highest firearm-related death rates (16.9 per 100,000).
   Among men, the highest firearm rate was observed among those aged 75-84 years (36.3 per 100,000), followed those aged 85 years and above (35.5 per 100,000). Among women, the highest firearm-related death rate was observed for those aged 35-44 years (4.9 per 100,000) followed by 15-24 year olds (4.8 per 100,000).
- In terms of educational attainment, most victims had a high school education or GED equivalent (49.2 percent). Those with a less than a high school education accounted for almost a quarter of all firearm-related deaths (22.7 percent).

#### **Locality**

• County-specific firearm-related death rates were highest for Jefferson County (29.2 per 100,000), followed by Geauga County (19.2 per 100,000). The lowest firearm-related death rate was observed in Butler County (5.9 per 100,000).

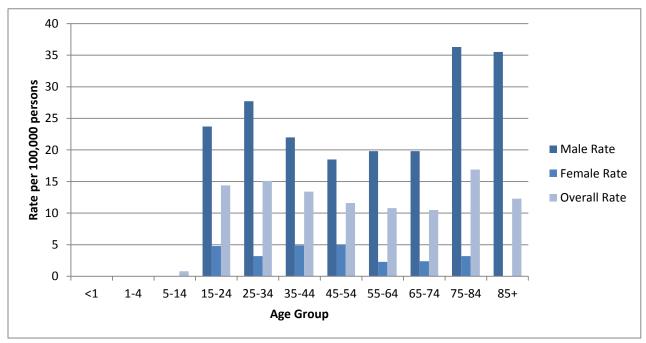
Table 33: Types of Firearm Deaths and Number of Victims, Ohio, 2012

Manner of Death	Male Count	Percent	Female Count	Percent	Total Count	Percent
Suicide	658	63.0	101	54.3	759	61.7
Homicide	338	32.4	80	43.0	418	34.0
Unintentional Firearm - Self-Inflicted	2	<1	0	0	2	<1
Unintentional Firearm - Inflicted by Other Person	8	<1	1	<1	9	<1
Legal Intervention	26	2.5	2	1.1	28	2.3
Undetermined Intent	12	1.2	2	1.1	14	1.1
Total Deaths	1,044	100	186	100	1,230	100

Sources: ODH, OH-VDRS and Vital Statistics

# **Demographics**

Figure 7: Age-Specific Firearm Death Rates by Sex, Ohio, 2012



\*Rates suppressed for counts less than 10.

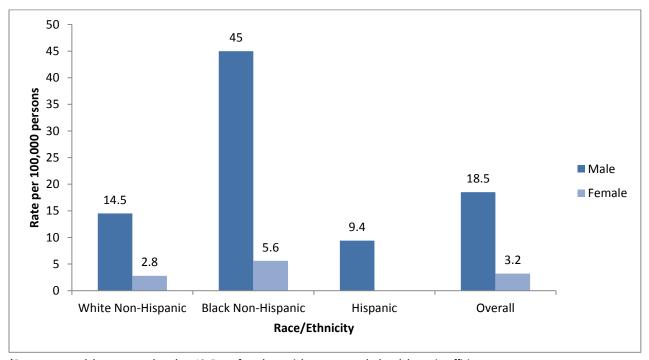
Table 34: Demographics of Firearm-Related Deaths by Race and Sex, Ohio, 2012

	Male				Female			Total		
	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	
Race/Ethnicity										
White, Non-	707	68.6	14.5	134	74.4	2.8	841	68.4	8.4	
Hispanic										
Black, Non-	314	30.5	45.0	45	25.0	5.6	359	29.2	24.4	
Hispanic										
Hispanic	14	1.3	9.4	5	2.7	*	19	1.1	6.0	
Other,	9	<1	*	1	<1	*	10	<1	*	
Unknown										
Total	1,044	100	18.5	186	100	3.2	1,230	100	10.5	

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

Sources: ODH, OH-VDRS and Vital Statistics

Figure 8: Firearm Death Rates by Race and Sex, Ohio, 2012



<sup>\*</sup>Rate suppressed due to counts less than 10. Rates for other racial groups not calculated due to insufficient counts.

Table 35: Demographics of Firearm-Related Deaths by Educational Level and Sex, Ohio, 2012

<b>Educational Level</b>	Male Count	Percent	Female Count	Percent	<b>Total Count</b>	Percent
8 <sup>th</sup> grade or less	47	4.5	9	4.8	56	4.6
9 <sup>th</sup> to 12 <sup>th</sup> grade	192	18.4	31	16.7	223	18.1
High School Diploma/GED	504	48.3	101	54.3	605	49.2
Some College	127	12.2	19	10.2	146	11.9
Associates Degree	60	5.8	8	4.3	68	5.5
Bachelor's Degree	72	6.9	13	7.0	85	6.9
Master's Degree	20	1.9	2	1.1	22	1.8
Doctorate/Professional	7	<1	1	<1	8	<1
Unknown	15	1.4	2	1.1	17	1.4
Total	1,044	100	186	100	1,230	100

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 (71.5 percent).
- Other common locations included a street or a road (7.3 percent), motor vehicle (7.9 percent), another commercial establishment (1.4 percent), and other/unknown sites (5.9 percent).

#### **Circumstances**

- Nearly 90 percent (1,119/1,230) of all firearm deaths had circumstances available.
- Among men, the most common circumstances included a current mental health problem (27.0 percent), a history of mental health issues (18.4 percent), current mental health treatment (15.4 percent), and a current depressed mood (21.2 percent).
- Among women, the most common circumstances included a current mental health problem (34.9 percent), receiving current mental health treatment (20.9 percent), a history of mental health issues (24.4 percent), current depressed mood (16.7 percent) and left a suicide note (20.4 percent).
- Other circumstances included gang-related (49.8), precipitation by another crime (20.8 percent) and physical health problem (11.5 percent).

#### **Toxicology Testing**

- Out of a total of 1,230 victims, 1,085 had a coroner/medical examiner report narrative available.
- More than 20 percent of decedents tested positive for alcohol (20.2 percent), with a higher likelihood in men compared to women (21.7 percent vs. 11.3 percent).
- Positive tests for antidepressants or opiates were found in less than 15 percent of firearm-related deaths (6.2 percent and 11.0 percent, respectively).
- Men were more likely than women to test positive for marijuana (20.8 percent vs. 11.8 percent).
- Nearly 20 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, 34.7 percent had a blood alcohol concentration (BAC) of less than 0.08 and less than 10 percent of these firearm-related deaths had a BAC of 0.24-0.32.

#### **Circumstances**

Table 36: Mental Health Circumstances of Firearm Victims by Sex, Ohio, 2012<sup>1</sup>

	Male	Female			Total		
Circumstance	Number	Percent	Number	Percent	Number	Percent	
Current Depressed Mood	201	21.2	29	16.7	230	20.6	
History of Mental Health Problem	174	18.4	42	24.4	216	19.3	
Current Diagnosed Mental Health Problem	256	27.0	60	34.9	316	28.2	
Alcohol Problem	80	8.5	13	7.6	93	8.3	
Other Substance Abuse	105	11.1	22	12.8	127	11.4	
Currently Receiving Mental Health Treatment	146	15.4	36	20.9	182	16.3	
Family Stress	52	5.5	13	7.6	65	5.8	

<sup>&</sup>lt;sup>1</sup>The denominator used for calculating percentage of specific circumstances is based on the number of firearm deaths with at least one circumstance identified in either the CME or law enforcement report. Firearm victims may report more than one circumstance. Nearly 90 percent of firearm victims had circumstances available (n=1,119).

Table 37: Crime-Related Circumstances of Firearm Victims by Sex, Ohio, 2012

	Ma	Male		nale	Total	
Circumstance	Number	Percent	Number	Percent	Number	Percent
Drug Involvement	68	7.2	5	2.9	73	6.5
Precipitated by Another	209	22.1	24	13.9	233	20.8
Crime						
Crime in Progress	156	16.5	19	11.1	175	15.6
Gang-Related	479	50.6	78	45.4	557	49.8
Used Weapon	54	5.7	1	<1	55	4.9

The denominator used for calculating percentage of specific circumstances is based on the number of firearm deaths with at least one circumstance identified in either the CME or law enforcement report (n=1,119). Firearm victims may report more than one circumstance.

Sources: ODH, OH-VDRS and Vital Statistics

Table 38: Life Stressor and Suicide Event Circumstances of Firearm Victims by Sex, Ohio, 2012<sup>1</sup>

	Male		Female		Total	
Circumstance	Number	Percent	Number	Percent	Number	Percent
Physical Health Problem	114	12.0	15	8.7	129	11.5
Job Problem	68	7.2	6	3.5	74	6.6
Financial Problem	58	6.1	5	2.9	63	5.6
Recent Criminal Legal Problem	44	5.7	2	1.7	46	5.1
Non-criminal Legal Problem	39	4.1	3	1.7	42	3.8
Left a Suicide Note	221	23.3	35	20.4	256	22.9
Suicide Attempt History	61	6.4	19	11.1	80	7.2
Disclosed Suicide Intent to Someone	123	13.0	31	18.0	154	13.8

<sup>1</sup>The denominator used for calculating percentage of specific circumstances is based on the number of firearm victims with at least one circumstance identified in either the CME or law enforcement report. Firearm victims may report more than one circumstance. Nearly 90 percent of firearm victims had circumstances available (n=1,119).

Table 39: Arguments and Conflicts Circumstances of Firearm Victims by Sex, Ohio, 2012

	Ma	ale	Ferr	nale	Total	
Circumstance	Number	Percent	Number	Percent	Number	Percent
Argument over	200	21.1	53	30.8	253	22.6
Money/Property						
Intimate Partner	58	6.1	50	29.1	108	9.7
Violence						
Intimate Partner	191	20.2	48	27.9	239	21.4
Problem						

The denominator used for calculating percentage of specific circumstances is based on the number of firearm deaths with at least one circumstance identified in either the CME or law enforcement report (n=1,119). Homicide victims may report more than one circumstance.

Sources: ODH, OH-VDRS and Vital Statistics

## **Locality**

Table 40: Commonly Occurring Locations for Firearm Deaths, Ohio, 2012

Injury Location	Male Count	Percent	Female Count	Percent	Total Count	Percent
House/Apartment	729	69.8	151	81.2	880	71.5
Street/Road	83	7.9	7	3.8	90	7.3
Parking Lot Garage	24	2.3	1	<1	25	2.0
Motor Vehicle	83	7.9	14	7.5	97	7.9
Other Commercial	12	1.2	5	2.7	17	1.4
Establishment						
Park/Playground	13	1.3	2	1.1	15	1.2
Natural Area	35	3.4	1	<1	36	2.9
Other	54	6.6	6	3.2	60	4.9
Unknown	11	1.1	1	<1	12	1.0
Total	1,044	100	186	100	1,230	100

## **Toxicology**

Table 41: Toxicology Results for Firearm Victims, Ohio, 2012

	Ma	ale	Fem	nale	Total	
Positive Toxicology Test	Number	Percent	Number	Percent	Number	Percent
Amphetamines	17	1.6	5	2.7	22	1.8
Anticonvulsants	18	1.7	8	4.3	26	2.1
Antidepressants	53	5.1	23	12.4	76	6.2
Antipsychotics	3	<1	1	<1	4	<1
Barbiturates	3	<1	0	0	3	<1
Benzodiazepines	74	7.1	22	11.8	96	7.8
Carbon Monoxide	3	<1	0	0	3	<1
Cocaine	47	4.5	7	3.8	54	4.4
Marijuana	217	20.8	22	11.8	239	19.4
Muscle Relaxants	4	<1	1	<1	5	<1
Opiates	116	11.1	19	10.2	135	11.0
Alcohol	227	21.7	21	11.3	248	20.2

The denominator for toxicology results is based on the number of firearm victims. Not all victims underwent toxicology testing. It is possible for a victim to test positive for more than one substance.

Sources: ODH, OH-VDRS and Vital Statistics

Table 42: Blood Alcohol Concentration Results for Firearm Victims Testing Positive for Alcohol, Ohio, 2012

	Ma	ile	Fen	nale	Total		
Blood Alcohol	Number	Percent	Number Percent		Number	Percent	
Concentration							
Less than 0.080	80	35.2	6	28.6	86	34.7	
0.080-0.160	63	27.8	7	33.3	70	28.2	
0.160-0.240	53	23.3	4	19.0	57	23.0	
0.240-0.320	18	7.9	4	19.0	22	8.9	

A total 234 victims tested positive for alcohol. Blood alcohol concentrations were grouped into quartiles. Blood alcohol concentrations results were missing for 13 victims.

## **Section 6: Merged Incidents**

## **Data Highlights**

#### **Demographic Characteristics**

- There were a total of 63 merged incidents in 2012, resulting in 148 deaths. These incidents were either multiple homicides or homicides followed by suicides (61 percent and 39 percent, respectively).
- Victims in merged incidents were more likely to be male than female (59.5 percent vs. 40.5 percent).
- Most victims were aged 15-24 and 35-44 (20.2 percent), followed by 25-34 year olds (16.9 percent).
- Victims were more common among non-Hispanic whites (62.1 percent) compared to non-Hispanic blacks (35.1 percent).

## **Demographics**

Table 43: Demographics of Merged Incident Deaths by Age and Sex, Ohio, 2012

Age Group	Male Count	Percent	Female Count	Percent	Total Count	Percent
<1	0	0	0	0	0	0
1-4	3	3.4	3	5.0	6	4.1
5-14	6	6.8	7	11.7	13	8.8
15-24	19	21.6	11	18.3	30	20.2
25-34	19	21.6	6	10.0	25	16.9
35-44	17	19.3	13	21.7	30	20.2
45-54	7	8.0	9	15.0	16	10.8
55-64	9	10.2	3	5.0	12	8.1
65-74	3	3.4	5	8.3	8	5.4
75-84	4	4.5	2	3.3	6	4.1
85+	1	1.1	1	1.7	2	1.4
Total	88	100	60	100	148	100

Table 44: Demographics of Merged Incident Deaths by Race and Sex, Ohio, 2012

	Ma	ile		Fem	ale	Total			
	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Race/Ethnicity									
White, Non-	52	59.1	1.2	40	66.7	0.9	92	62.1	1.0
Hispanic									
Black, Non-	34	38.6	4.6	18	30.0	2.3	52	35.1	3.4
Hispanic									
Hispanic	2	2.3	*	2	3.3	*	4	2.7	*
Other,	0	0	0	0	0	0	0	0	0
Unknown									
Total	88	100	1.6	60	100	1.1	148	100	1.3

There were a total of 63 merged incidents. Rates suppressed for counts <10. \*Rates not available for other/unknown racial groups. Rates are expressed per 100,000 persons.

## **Appendix A: 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. Ageadjusted 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 U.S. 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<sup>2</sup>.

<sup>2</sup> Rothman, Kenneth J. Modern Epidemiology, 3<sup>rd</sup> Edition: Lippincott Williams and Wilkins, Philadelphia. 2008.

# **Appendix B: Violent Deaths Rates**

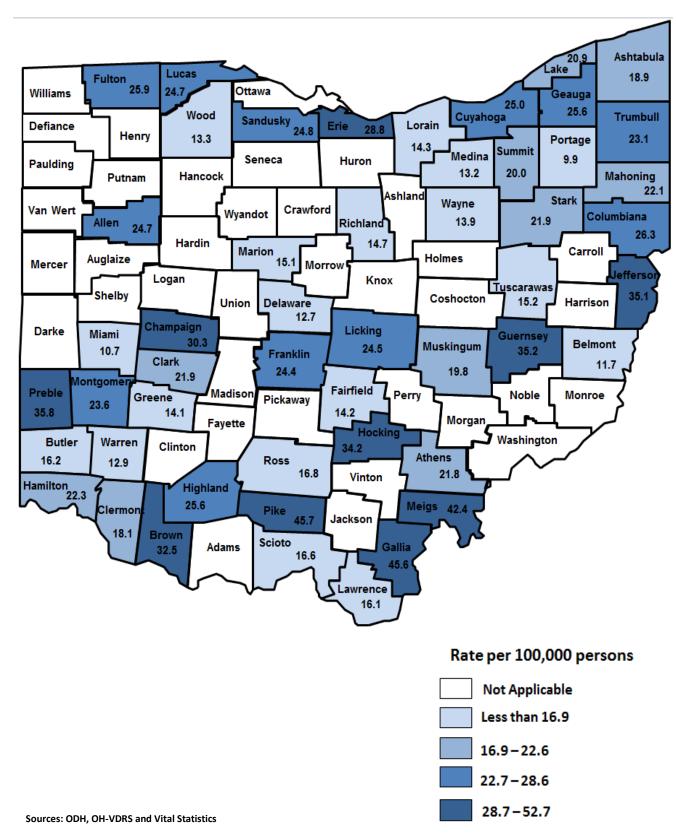
## **All Violent Deaths**

Table: Violent Death Rates by County of Residence in Ohio, 2012

County	Deaths	Rate	County	Deaths	Rate	County	Deaths	Rate
Adams	7	*	Hamilton	179	22.3	Noble	4	*
Allen	26	24.7	Hancock	7	*	Ottawa	4	*
Ashland	8	*	Hardin	6	*	Paulding	4	*
Ashtabula	19	18.9	Harrison	4	*	Perry	8	*
Athens	14	21.8	Henry	3	*	Pickaway	8	*
Auglaize	4	*	Highland	11	25.6	Pike	13	45.7
Belmont	13	18.7	Hocking	10	34.2	Portage	16	9.9
Brown	11	24.8	Holmes	5	*	Preble	15	35.8
Butler	60	16.2	Huron	3	*	Putnam	5	*
Carroll	2	*	Jackson	7	*	Richland	18	14.7
Champaign	12	30.3	Jefferson	24	35.1	Ross	13	16.8
Clark	30	21.9	Knox	8	*	Sandusky	15	24.8
Clermont	36	18.1	Lake	48	20.9	Scioto	13	16.6
Clinton	9	*	Lawrence	10	16.1	Seneca	9	*
Columbiana	28	26.3	Licking	41	24.5	Shelby	4	*
Coshocton	6	*	Logan	8	*	Stark	82	21.9
Crawford	4	*	Lorain	43	14.3	Summit	108	20.0
Cuyahoga	316	25.0	Lucas	108	24.7	Trumbull	48	23.1
Darke	7	*	Madison	9	*	Tuscarawas	14	15.2
Defiance	1	*	Mahoning	52	22.1	Union	8	*
Delaware	23	12.7	Marion	10	15.1	Van Wert	1	*
Erie	22	28.8	Medina	23	13.2	Vinton	4	*
Fairfield	21	14.2	Meigs	10	42.4	Warren	28	12.9
Fayette	3	*	Mercer	6	*	Washington	6	*
Franklin	292	24.4	Miami	11	10.7	Wayne	16	13.9
Fulton	11	25.9	Monroe	4	*	Williams	2	*
Gallia	14	45.6	Montgomery	126	23.6	Wood	17	13.3
Geauga	24	25.6	Morgan	3	*	Wyandot	2	*
Greene	23	14.1	Morrow	3	*	Total	2344	20.3
Guernsey	14	35.2	Muskingum	17	19.8			

<sup>\*</sup>Rates suppressed for counts <10. Rates are expressed per 100,000 persons.

Map: Violent Death Rates by County of Residence in Ohio, 2012



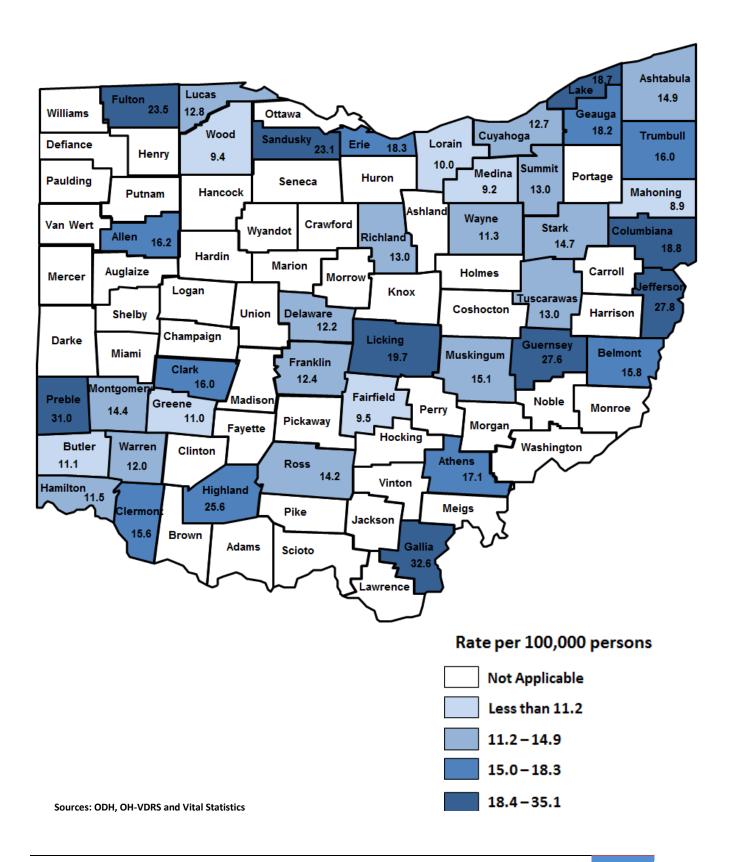
## **Suicides**

Table: Suicide Rates by County of Residence in Ohio, 2012

County	Deaths	Rate	County	Deaths	Rate	County	Deaths	Rate
Adams	6	*	Hamilton	92	11.5	Noble	2	*
Allen	17	16.2	Hancock	6	*	Ottawa	4	*
Ashland	6	*	Hardin	4	*	Paulding	3	*
Ashtabula	15	14.9	Harrison	4	*	Perry	4	*
Athens	11	17.1	Henry	2	*	Pickaway	7	*
Auglaize	4	*	Highland	7	*	Pike	9	*
Belmont	11	15.8	Hocking	8	*	Portage	9	*
Brown	8	*	Holmes	5	*	Preble	13	31.0
Butler	41	11.1	Huron	2	*	Putnam	5	*
Carroll	2	*	Jackson	5	*	Richland	16	13.0
Champaign	9	*	Jefferson	19	27.8	Ross	11	14.2
Clark	22	16.0	Knox	4	*	Sandusky	14	23.1
Clermont	31	15.6	Lake	43	18.7	Scioto	6	*
Clinton	8	*	Lawrence	9	*	Seneca	4	*
Columbiana	20	18.8	Licking	33	19.7	Shelby	4	*
Coshocton	5	*	Logan	8	*	Stark	55	14.7
Crawford	4	*	Lorain	30	10.0	Summit	70	13.0
Cuyahoga	160	12.7	Lucas	56	12.8	Trumbull	33	16.0
Darke	7	*	Madison	5	*	Tuscarawas	12	13.0
Defiance	1	*	Mahoning	21	8.9	Union	8	*
Delaware	22	12.2	Marion	8	*	Van Wert	1	*
Erie	14	18.3	Medina	16	9.2	Vinton	1	*
Fairfield	14	9.5	Meigs	7	*	Warren	26	12.0
Fayette	2	*	Mercer	5	*	Washington	5	*
Franklin	148	12.4	Miami	9	*	Wayne	13	11.3
Fulton	10	23.5	Monroe	4	*	Williams	2	*
Gallia	10	32.6	Montgomery	77	14.4	Wood	12	9.4
Geauga	17	18.2	Morgan	1	*	Wyandot	2	*
Greene	18	11.0	Morrow	2	*	Total	1510	13.1
Guernsey	11	27.6	Muskingum	13	15.1			

<sup>\*</sup>Rates suppressed for counts <10. Rates are expressed per 100,000 persons.

Map: Suicide Rates by County of Residence in Ohio, 2012



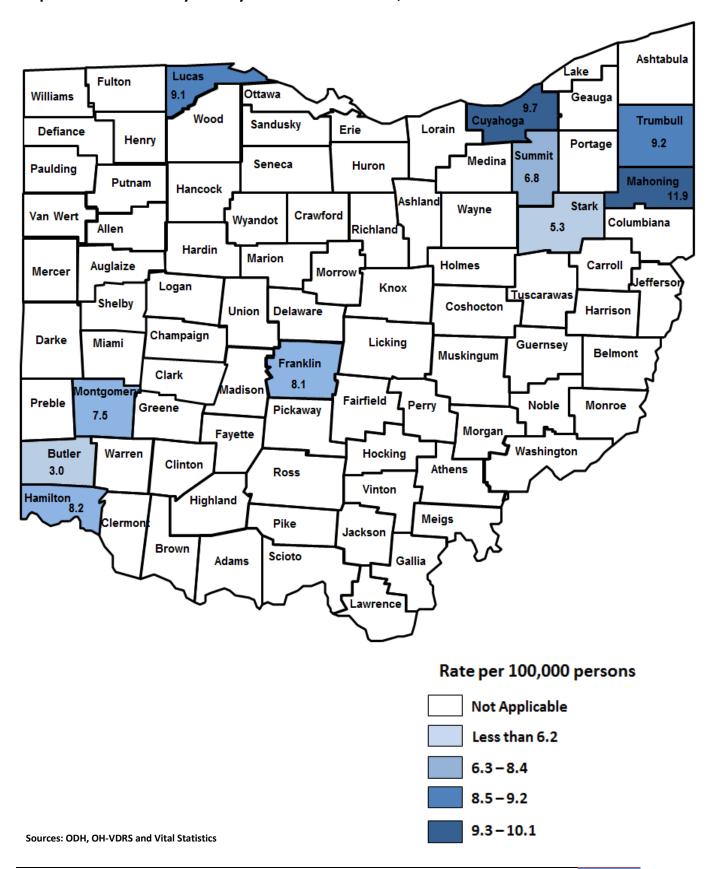
## **Homicides**

Table: Homicide Rates by County of Residence in Ohio, 2012

County	Deaths	Rate	County	Deaths	Rate	County	Deaths	Rate
Adams	1	*	Hamilton	66	8.2	Noble	2	*
Allen	8	*	Hancock	0	*	Ottawa	0	*
Ashland	1	*	Hardin	0	*	Paulding	1	*
Ashtabula	4	*	Harrison	0	*	Perry	3	*
Athens	2	*	Henry	1	*	Pickaway	1	*
Auglaize	0	*	Highland	2	*	Pike	3	*
Belmont	2	*	Hocking	2	*	Portage	6	*
Brown	2	*	Holmes	0	*	Preble	2	*
Butler	11	3.0	Huron	0	*	Putnam	0	*
Carroll	0	*	Jackson	2	*	Richland	2	*
Champaign	2	*	Jefferson	4	*	Ross	0	*
Clark	5	*	Knox	1	*	Sandusky	1	*
Clermont	1	*	Lake	2	*	Scioto	5	*
Clinton	0	*	Lawrence	1	*	Seneca	0	*
Columbiana	7	*	Licking	7	*	Shelby	0	*
Coshocton	1	*	Logan	0	*	Stark	23	5.3
Crawford	0	*	Lorain	9	*	Summit	27	6.8
Cuyahoga	123	9.7	Lucas	40	9.1	Trumbull	12	9.2
Darke	0	*	Madison	1	*	Tuscarawas	1	*
Defiance	0	*	Mahoning	28	11.9	Union	0	*
Delaware	1	*	Marion	1	*	Van Wert	0	*
Erie	8	*	Medina	2	*	Vinton	2	*
Fairfield	2	*	Meigs	1	*	Warren	1	*
Fayette	0	*	Mercer	1	*	Washington	1	*
Franklin	97	8.1	Miami	2	*	Wayne	3	*
Fulton	0	*	Monroe	0	*	Williams	0	*
Gallia	4	*	Montgomery	40	7.5	Wood	5	*
Geauga	5	*	Morgan	1	*	Wyandot	0	*
Greene	3	*	Morrow	0	*	Total	610	5.3
Guernsey	3	*	Muskingum	2	*			

<sup>\*</sup>Rates suppressed for counts <10. Rates are expressed per 100,000.

## Map: Homicide Rates by County of Residence in Ohio, 2012



## **Deaths of Undetermined Intent**

Table: Deaths of Undetermined Intent Rates by County of Residence in Ohio, 2012

County	Deaths	Rate	County	Deaths	Rate	County	Deaths	Rate
Adams	0	*	Hamilton	17	2.1	Noble	0	*
Allen	1	*	Hancock	1	*	Ottawa	0	*
Ashland	1	*	Hardin	2	*	Paulding	0	*
Ashtabula	0	*	Harrison	0	*	Perry	1	*
Athens	1	*	Henry	0	*	Pickaway	0	*
Auglaize	0	*	Highland	2	*	Pike	1	*
Belmont	0	*	Hocking	0	*	Portage	1	*
Brown	1	*	Holmes	0	*	Preble	0	*
Butler	8	*	Huron	1	*	Putnam	0	*
Carroll	0	*	Jackson	0	*	Richland	0	*
Champaign	1	*	Jefferson	1	*	Ross	1	*
Clark	3	*	Knox	1	*	Sandusky	0	*
Clermont	4	*	Lake	3	*	Scioto	2	*
Clinton	1	*	Lawrence	0	*	Seneca	5	*
Columbiana	1	*	Licking	2	*	Shelby	0	*
Coshocton	0	*	Logan	0	*	Stark	4	*
Crawford	0	*	Lorain	2	*	Summit	10	*
Cuyahoga	23	1.8	Lucas	9	*	Trumbull	2	*
Darke	0	*	Madison	2	*	Tuscarawas	1	*
Defiance	0	*	Mahoning	2	*	Union	0	*
Delaware	0	*	Marion	0	*	Van Wert	0	*
Erie	0	*	Medina	5	*	Vinton	1	*
Fairfield	4	*	Meigs	1	*	Warren	1	*
Fayette	1	*	Mercer	0	*	Washington	0	*
Franklin	39	3.3	Miami	0	*	Wayne	0	*
Fulton	0	*	Monroe	0	*	Williams	0	*
Gallia	0	*	Montgomery	8	*	Wood	0	*
Geauga	1	*	Morgan	1	*	Wyandot	0	*
Greene	2	*	Morrow	1	*	Total	185	1.6
Guernsey	0	*	Muskingum	2	*			

<sup>\*</sup>Rates suppressed for counts <10. Rates are expressed per 100,000 persons.

## **Appendix C: Additional Acknowledgments**

### **Law Enforcement Agencies**

Adams County Sheriff's Office
Addyston Police Department

Adena Health System Police Department

Akron Police Department Albany Police Department Allen County Sheriff's Office Alliance Police Department

Amberley Village Police Department

Amelia Police Department

American Twp. Police Department
Amesville Police Department
Amherst Police Department
Andover Police Department

Ansonia Police Department
Appalachian Behavioral Healthcare Police Department

Arcanum Police Department

Arlington Heights Police Department

Ashland Police Department Ashley Police Department

Ashtabula County Sheriff's Office Ashtabula Police Department Athens County Sheriff's Office Athens Police Department Auglaize County Sheriff's Office Aurora Police Department

Austintown Twp. Police Department

Avon Lake Police Department
Avon Police Department
Baltimore Police Department
Barberton Police Department
Batavia Police Department
Bath Twp. Police Department
Bay View Police Department

Bay View Police Department
Bay Village Police Department
Bazetta Twp. Police Department
Beach City Police Department
Beachwood Police Department

Beaver Township Police Department Beavercreek Police Department Bedford Heights Police Department

Bedford Police Department
Bellbrook Police Department
Bellefontaine Police Department
Bellville Police Department
Belmont County Sheriff
Belpre Police Department
Bentleyville Police Department
Berea Police Department
Berkey Police Department

Berlin Heights Police Department

Bethel Police Department
Bexley Police Department
Blanchester Police Department
Blendon Twp. Police Department
Bloomdale Police Department
Blue Ash Police Department
Bluffton Police Department
Boardman Twp. Police Department

Boardman Police Department
Boardman Twp. Police Department
Boone County Sheriff's Office, Kentucky
Boston Heights Police Department
Bowersville Police Department
Bowling Green Police Department

**Bowling Green State University Police Department** 

Braceville Police Department Bradner Police Department Brady Lake Police Department Bratenahl Police Department

Bratenahl Village Police Department

Brecksville Police Department

Brecksville Veterans Administration Police Dept.

Brewster Police Department
Brice Police Department
Brimfield Police Department
Brimfield Twp. Police Department

Broadview Heights Police Department

Brook Park Police Department Brookfield Twp. Police Department Brooklyn Heights Police Department

Brooklyn Heights Village Police Department

Brooklyn Police Department Brookville Police Department

**Brown County Sheriff** 

Brunswick Hills Police Department Brunswick Hills Twp Police Department

Brunswick Police Department Bryan Police Department Buchtel Police Department

**Buckeye Lake Police Department** 

Butler County Metro Parks
Butler County Sheriff's Office
Butler Police Department
Butler Twp. Police Department
Cambridge Police Department
Campbell Police Department
Canal Fulton Police Department
Canfield Police Department

Capital University Police Department Carleton Police Department (Michigan)

Carlisle Police Department
Carroll County Sheriff's Office
Carroll Police Department
Carrollton Police Department

Canton Police Department

Case Western Reserve University Police Dept.

Castalia Police Department
Catawba Police Department
Cedarville Police Department
Celina Police Department
Centerville Police Department

Central State University Police Department

Chagrin Falls Police Department Champaign County Sheriff's Office Champion Twp. Police Department

Cheviot Police Department
Chillicothe Police Department
Cincinnati Police Department

Cincinnati State College Campus Police Dept.

City of St. Mary's Police Department

Clark County Park District

Clark County Sheriff's Office Clay Twp. Police Department Clayton Police Department

Clearcreek Twp. Police Department
Clearfork Reservoir Police Department
Clermont County Sheriff's Office
Cleveland Clinic Police Department
Cleveland Heights Police Department
Cleveland Metro Housing Police Dept.
Cleveland Metropark Police Department

**Cleveland Police Department** 

Cleveland State University Police Department

Cleveland Metroparks Ranger Department

Cleves Police Department
Clinton County Sheriff's Office
Clyde Police Department
Clinton Twp. Police Department
Coitsville Twp. Police Department
Colerain Twp. Police Department

College of Mount St. Joseph Police Department

Columbiana County Sheriff's Office Columbiana Police Department Columbus Airport Authority

Columbus and Franklin County Metro Parks

Columbus Police Department

Columbus State Community College Police Dept.

Conneaut Police Department
Coolville Police Department
Copley Police Department
Cortland Police Department
Coshocton County Sheriff's Office
Covington Kentucky Police Department

Craig Beach Police Department
Crawford County Sheriff's Office
Crescent Springs Police Department
CSX Railroad Police Department

Cuyahoga Community College Police Department

Cuyahoga County Correctional Center Cuyahoga County Sheriff's Office Cuyahoga Falls Police Department Cuyahoga Heights Police Department

Cuyahoga Metropolitan Housing Authority Police Dept.

Darke County Sheriff's Office

Dayton International Airport Police Department

**Dayton Police Department** Dearborn County Sheriff's Office Deer Park Police Department Defiance County Sheriff's Office Delaware County Sheriff's Office **Delaware Police Department** Delhi Twp. Police Department **Delphos Police Department** 

Denison University Police Department

Donnelsville Police Department **Dover Police Department Dresden Police Department Dublin Police Department** East Canton Police Department East Cleveland Police Department East Liverpool Police Department East Palestine Police Department Eastlake Police Department **Edgerton Police Department** Elida Police Department

Elmwood Place Police Department

Elyria Police Department **Englewood Police Department Enon Police Department** Erie County Sheriff's Office

Erie MetroParks Police Department

**Erlanger Police Department Euclid Police Department Evendale Police Department** Fairborn Police Department Fairfax Police Department Fairfield County Sheriff's Office Fairfield Medical Center Police Fairfield Police Department Fairfield Twp. Police Department Fairlawn Police Department

Fairport Harbor Police Department Fairview Park Police Department Favette County Sheriff's Office Felicity Police Department Findlay Police Department

Five Rivers Metro Parks Police Dept.

Five Rivers Metroparks

Florence Police Department, Kentucky

Forest Park Police Department

Fort Mitchell Police Department Fort Shawnee Police Department Fostoria Police Department

Fowler Township Police Department Franklin County Sheriff's Office Franklin Police Department

Franklin Twp. Police Department - Franklin

Frazeysburg Police Department Fremont Police Department Fulton County Sheriff's Office **Gahanna Police Department** Gallion Police Department Gallia County Sheriff's Office Garfield Heights Police Dept. Garrettsville Police Department Gates Mills Village Police Department

Geauga County Sheriff's Office

Genesis Healthcare Police Department

**Geneva Police Department** 

Geneva-on-the-Lake Police Department

Genoa Twp. Police Department Georgetown Police Department

German Twp. Police Department - Clark

German Twp. Police Department - Montgomery

Germantown Police Department

**Girard Police Department** Glendale Police Department Glenwillow Police Department **Glouster Police Department Golf Manor Police Department** Goshen Police Department

Goshen Township Police Department Goshen Twp Police Department - Clermont Goshen Twp. Police Department - Mahoning

**Grafton Police Department Grand River Police Department** 

**Grandview Heights Police Department** 

**Grandview Medical Center Police Department** 

**Granville Police Department Great Parks of Hamilton County** 

**Greater Cleveland Regional Transit Authority** 

Green Twp. Police Department

Greene County Park District Ranger Unit

Greene County Sheriff's Office

**Greenfield City Police Department** 

Greenhills Police Department Greenville Police Department Grove City Police Department Groveport Police Department

Hamilton County District Park Rangers

Hamilton County Sheriff's Office
Hamilton Police Department
Hamilton Twp. Police Department
Hancock County Sheriff's Office
Hanoverton Police Department
Harrisburg Police Department
Harrison Police Department

Harrison Township Police Department Hartford Twp. Police Department

Hartford Village Police Department

Hartville Police Department
Harveysburg Police Department
Haskins Police Department
Heartland Behavorial Health Care

Heath Police Department
Hebron Police Department
Highland County Sheriff's Office
Highland Heights Police Department
Highland Hills Police Department

Highland Police Department Hilliard Police Department

Hills And Dales Police Department

Hillsboro Police Department
Hinckley Twp. Police Department

Hiram Police Department

Hocking College Police Department

**Hocking County Sheriff** 

Holden Arboretum Police Department

Holland Police Department
Holmes County Sheriff's Office
Howland Twp. Police Department
Hubbard City Police Department
Hubbard Twp. Police Department
Huber Heights Police Department

Hudson Police Department

Humility of Mary Health Partners Hunting Valley Police Department Huron County Sheriff's Office **Huron Police Department** 

Independence Police Department
Indian Hill Police Department
Ironton Police Department
Jackson County Sheriff's Office
Jackson Police Department (MI)
Jackson Police Department

Jackson Township Police Department

Jackson Twp. Police Department - Mahoning Jackson Twp. Police Department - Montgomery

Jackson Twp. Police Department - Stark

Jamestown Police Department Jefferson County Sheriff's Office Jefferson Police Department

John Carroll University Campus Safety

Johnny Appleseed Metropolitan Park District

Johnstown Police Department Kelleys Island Police Department

Kent Police Department

Kent State University Police Department

Kettering Police Department
KeyBank Police Department
Kinsman Twp. Police Department

Kipton Police Department
Kirkersville Police Department
Kirtland Hills Police Department
Kirtland Police Department
Knox County Sheriff's Office
LaGrange Police Department
Lake County Sheriff's Office

Lake Metroparks Police Department Lake Township Police Department

Lake Township Police Department - Wood

Lakeland Community College Police Department

Lakewood Police Department Lancaster Police Department Lawrence County Sheriff's Office Lawrence Twp. Police Department

Lebanon Police Department
Leesburg Police Department
Leetonia Police Department
Lexington Police Department
Liberty Twp. Police Department
Licking County Sheriff's Office

Licking Memorial Hospital Police Department

Lima Parks Department Lima Police Department

Lincoln Heights Police Department

Lindner Center of Hope Police Department

Linndale Village Police Department

Lisbon Police Department Lithopolis Police Department Liverpool Twp. Police Department

Lockland Police Department
Lodi Police Department
Logan County Sheriff's Office
Logan Police Department
London Police Department
Lorain County Metro Parks
Lorain County Sheriff's Office
Lorain Police Department
Lordstown Police Department

Lordstown Village Police Department

Louisville Police Department
Loveland Police Department
Lowellville Police Department
Lucas County Sheriff's Office
Luckey Police Department
Lynchburg Police Department
Lyndhurst Police Department
Macedonia Police Department
Madeira Police Department
Madison Police Department

Madison Twp. Police Department - Franklin Madison Twp. Police Department - Lake Madison Village Police Department

Magnolia Police Department
Mahoning County Sheriff's Office
Maineville Police Department
Mansfield City Park Police
Mansfield Police Department
Mantua Police Department
Maple Heights Police Department

Marietta Police Department
Mariemont Police Department
Marion Police Department
Marion Twp. Police Department
Marlboro Twp. Police Department

Marysville Police Department Mason Police Department

Mason Police Department - Warren

Massillon Police Department Maumee Police Department

Mayfield Heights Police Department
Mayfield Village Police Department
McDonald Police Department

McDonald Village Police Department Mechanicsburg Police Department

Medina County Park District Medina County Sheriff's Office Medina Police Department Medina Twp. Police Department Meigs County Sheriff's Office Mentor Police Department

Mentor-on-the-Lake Police Department

Mercy Health Partners Public Safety Department

Mercy Regional Police

Metro Parks, Serving Summit County MetroHealth Police Department Miami County Sheriff's Office

Miami Twp. Police Department - Clermont Miami Twp. Police Department - Montgomery

Miami University Police

Miami University Police Department
Miamisburg Police Department

Middleburg Heights Police Department

Middleport Police Department
Middletown Police Department
Mifflin Twp. Police Department

Milan Police Department Milford Police Department

Mill Creek MetroParks Police Department

Millersport Police Department
Milton Twp. Police Department
Minerva Park Police Department
Minerva Police Department
Mogadore Police Department
Monroe County Sheriff's Office
Monroe Police Department

Montgomery County Sheriff's Office Montgomery Developmental Center Montgomery Police Department Montville Township Police Department

North Ridgeville Police Department

Moraine Police Department

Moreland Hills Police Department

Morgan County Sheriff's Office

Northcoast Behavioral Healthcare - Cleveland Campus

Northcoast Behavioral Healthcare - Northfield Campus

Morrow County Sheriff's Office

Morrow Police Department

Mount Healthy Police Department

Northfield Village Police Department

Northwest Ohio Developmental Center

Mount Vernon Police Department

Mowrystown Police Department

Mt. Orab Police Department

Mt. Orab Police Department

Northwest Ohio Psychiatric Hospital Police Department

Northwood Police Department

Northwest Ohio Psychiatric Hospital Police Department

Northwest Ohio Psychiatric Hospital Police Department

Munroe Falls Police Department

Muskingum County Sheriff's Office

Norwalk Police Department

Norwood Police Department

Muskingum University Police Department

Notre Dame College Police Department

Oak Harbor Police Department

Napoleon Police Department

Navarre Police Department

Nalsonville Police Department

Nalsonville Police Department

Oakwood Village Police Department

New Albany Police Department

New Boston Police Department

New Boston Police Department

New Boston Police Department

New Boston Police Department

New Concord Police Department
New Franklin Police Department
New Lebanon Police Department
New Lebanon Police Department

ODPS - Investigative Unit Headquarters
Ohio Casino Control Commission
Ohio Dept. of Natural Resources

New Lexington Police Department
Ohio Dept. of Natural Resources - Division of Forestry

New Madison Police Department

Ohio Dept. of Taxation

Ohio Health Police Department

Ohio Health Police Department

New Miami Police Department

New Middletown Police Department

Ohio House of Representatives

New Richmond Police Department

Ohio Senate

Ohio State Fire Marshal

New Waterford Police Department

Ohio State Highway Patrol

Newark Police Department

Newburgh Heights Police Department

Ohio University Police Department

Ohio Veterans Home Police Department

Newport Police Department, Kentucky

Newton Falls Police Department

Ohio Wesleyan University

Olmsted Falls Police Department

Newtonsville Police Department

Olmsted Township Police Department

Newtown Police Department Ontario Police Department

Niles Police Department

Orange Village Police Department

Oregon Police Department

Oregon Police Department

Norfolk Southern Railway Police Department

North Baltimore Police Department

North Canton Police Department

North College Hill Police Department

North Hampton Police Department

North Kingsville Police Department

Orwell Police Department

Ostrander Police Department

Ottawa County Sheriff's Office

Ottawa Hills Police Department

Otterbein Police Department

North Olmsted Police Department Owens Community College Dept. of Public Safety

North Perry Police Department

North Randall Police Department

Oxford Police Department

Oxford Police Department

Oxford Twp. Police Department
Painesville Police Department
Parma Heights Police Department

Parma Police Department
Pataskala Police Department
Pemberville Police Department
Pendleton County Sheriff's Office
Peninsula Police Department
Pepper Pike Police Department
Perkins Twp. Police Department
Perry County Sheriff's Office

Perry Twp. Police Department - Allen

Perry Twp. Police Department - Columbiana Perry Twp. Police Department - Franklin Perry Twp. Police Department - Montgomery

Perry Twp. Police Department - Stark Perry Village Police Department Perrysburg Police Department Perrysburg Twp. Police Department

Phillipsburg Police Department
Pickerington Police Department
Pike County Sheriff's Office
Pierce Twp. Police Department
Pioneer Police Department
Piqua Police Department

Poland Twp. Police Department
Poland Village Police Department
Port Clinton Police Department
Portage County Sheriff's Office
Portage Police Department
Portsmouth Police Department
Powell Police Department
Preble County Sheriff's Office

Preservation Parks of Delaware County

Put-In-Bay Police Department
Putname County Sheriff's Office
Ravenna Police Department
Reading Police Department
Reminderville Police Department
Republic N&T Railway (Republic Steel)
Reynoldsburg Police Department
Richfield Police Department

Richland County Sheriff's Office
Richmond Heights Police Department

Richwood Police Department Ripley County Sheriff's Office Ripley Police Department Risingsun Police Department Rittman Police Department Riverside Police Department

Roaming Shores Police Department

Robinson Memorial Hospital Police Department

Rocky River Police Department Rogers Police Department Roseville Police Department Ross County Sheriff's Office

Ross Township Police Department Rossford Police Department Sagamore Hills Police Department Sagamore Hills Twp. Police Department

Saint Bernard Police Department
Saint Clair Twp. Police Department
Saint Louisville Police Department

Saint Rita's Medical Center Salem Police Department

Salem Township Police Department
Salineville Police Department
Sandusky Police Department

Sandusky Police/Cedar Point Division

Sardinia Police Department
Scioto County Sheriff's Office
Sebring Police Department
Seven Hills Police Department
Seven Mile Police Department
Seville Police Department

Shaker Heights Police Department Sharon Twp. Police Department Sharonville Police Department Shawnee Hills Police Department

Shawnee State University

Shawnee Twp. Police Department
Sheffield Lake Police Department
Sheffield Village Police Department
Shelby County Sheriff's Office
Shelby Police Department
Sidney Police Department

Silver Lake Police Department
Silverton Police Department

Sinclair Community College Police Department

Smith Twp. Police Department Solon Police Department

South Amherst Police Department
South Charleston Police Department
South Euclid Police Department
South Russell Police Department
South Vienna Police Department
South Zanesville Police Department
Southwest General Police Department
Southwest Ohio Developmental Center

Spencer Police Department
Spencerville Police Department
Springboro Police Department
Springdale Police Department
Springfield Police Department

Springfield Twp. Police Department - Hamilton Springfield Twp. Police Department - Mahoning Springfield Twp. Police Department - Summit

St. Bernard Police Department St. Clair Township Police Department

St. Mary's Police Department

Stark County Park District Enforcement Division

Stark County Sheriff's Office State of Ohio Auditor's Office Stow Police Department

Streetsboro Police Department
Strongsville Police Department
Struthers Police Department
Sugar Grove Police Department
Sugarcreek Twp. Police Department
Summa Health Protective Services/Police
Summit Behavioral Healthcare Police

Summit County Sheriff's Office
Summitville Police Department
Sunbury Police Department
Swanton Police Department
Sylvania Police Department
Sylvania Twp. Police Department
Tallmadge Police Department
Terrace Park Police Department

The Ohio State University Police Division

Tiffin Police Department

**Timberlake Police Department** 

Toledo Metropolitan Park District/Ranger Department

Toledo Police Department

Toledo/Lucas County Port Authority Police Dept. Swanton

Toronto Police Department
Tremont City Police Department
Trenton Police Department
Trotwood Police Department
Trumbull County Sheriff's Office
Tuscarawas County Sheriff's Office

Twin Valley Behavioral Healthcare - Franklin

**Twinsburg Police Department** 

**UC Health Department of Public Safety** 

Union City Police Department Union County Sheriff's Office Union Police Department

Union Township Police Department

Union Twp. Police Department - Clermont Union Twp. Police Department - Licking

Uniontown Police Department
University Circle Police Department
University Heights Police Department

University Hospitals Cleveland Medical Center

University of Akron Police Department

University of Cincinnati Campus Police Department

University of Dayton Police Department University of Toledo Police Department Upper Arlington Police Department Upper Sandusky Police Department

Urbana Police Department Utica Police Department

Valley View Police Department
Valleyview Police Department
Vandalia Police Department
Vermilion Police Department
Versailles Police Department
Vienna Twp. Police Department
Village Township Police Department

Vinton County Sheriff's Office Wadsworth Police Department Waite Hill Police Department Walbridge Police Department

Walsh University Police Department Walton Hills Police Department Warren County Sheriff's Office Warren Police Department

Warren Twp. Police Department

Warrensville Developmental Center

Warrensville Heights Police Department

Washington County Sheriff's Office

Washington Township Police Department

Washington Twp. Police Department - Lucas

Washingtonville Police Department

Waterville Police Department

Waterville Twp. Police Department

Wayne County Sheriff's Office

Wayne Police Department

Waynesburg Police Department

Waynesville Police Department

Weathersfield Twp. Police Department

Wellington Police Department

Wellsville Police Department

West Carrollton Police Department

West Chester Police Department

West Farmington Police Department

West Millgrove Police Department

West Milton Police Department

West Union Police Department

Westerville Police Department

Westfield Center Police Department

Westlake Police Department

Whitehall Police Department

Whitehouse Police Department

Wickliffe Police Department

Wilberforce University Police Department

Willard Police Department

Williamsburg Police Department

Willoughby Hills Police Department

Willoughby Police Department

Willowick Police Department

Wilmington Police Department

Wilmot Police Department

Windham Police Department

Wintersville Police Department

Wittenberg University Police Department

**Wood County Park District** 

Wood County Sheriff's Office

Woodlawn Police Department

**Woodmere Police Department** 

Woodsfield Police Department

Wooster Police Department

Worthington Police Department

Wright State University Police Department

Wyandot County Sheriff's Office

**Wyoming Police Department** 

**Xavier University Police Department** 

Xenia Police Department

Yellow Springs Police Department

Youngstown Developmental Center

Youngstown Police Department

Youngstown State University Police Department

Zanesville Police Department

### **Coroner's/Medical Examiner's Offices**

Adams County Coroner's Office Allen County Coroner's Office Ashland County Coroner's Office Ashtabula County Coroner's Office Athens County Coroner's Office Auglaize County Coroner's Office Belmont County Coroner's Office **Brown County Coroner's Office** Butler County Coroner's Office Carroll County Coroner's Office Champaign County Coroner's Office Clark County Coroner's Office Clermont County Coroner's Office Clinton County Coroner's Office Columbiana County Coroner's Office Coshocton County Coroner's Office Crawford County Coroner's Office Cuyahoga County Medical Examiner's Office Darke County Coroner's Office Defiance County Coroner's Office Delaware County Coroner's Office Erie County Coroner's Office Fairfield County Coroner's Office **Fayette County Coroner's Office** Franklin County Coroner's Office Fulton County Coroner's Office Gallia County Coroner's Office Geauga County Coroner's Office Greene County Coroner's Office Guernsey County Coroner's Office Hamilton County Coroner's Office Hancock County Coroner's Office Hardin County Coroner's Office Harrison County Coroner's Office Henry County Coroner's Office Highland County Coroner's Office Hocking County Coroner's Office Holmes County Coroner's Office **Huron County Coroner's Office** Jackson County Coroner's Office Jefferson County Coroner's Office Knox County Coroner's Office Lake County Coroner's Office Lawrence County Coroner's Office

Licking County Coroner's Office Logan County Coroner's Office Lorain County Coroner's Office Lucas County Coroner's Office Madison County Coroner's Office Mahoning County Coroner's Office Marion County Coroner's Office Medina County Coroner's Office Meigs County Coroner's Office Mercer County Coroner's Office Miami County Coroner's Office Monroe County Coroner's Office Montgomery County Coroner's Office Morgan County Coroner's Office Morrow County Coroner's Office Muskingum County Coroner's Office Noble County Coroner's Office Ottawa County Coroner's Office Paulding County Coroner's Office Perry County Coroner's Office Pickaway County Coroner's Office Pike County Coroner's Office Portage County Coroner's Office Preble County Coroner's Office Putnam County Coroner's Office Richland County Coroner's Office Ross County Coroner's Office Sandusky County Coroner's Office Scioto County Coroner's Office Seneca County Coroner's Office Shelby County Coroner's Office Stark County Coroner's Office Summit County Medical Examiner's Office Tuscarawas County Coroner's Office Trumbull County Coroner's Office Union County Coroner's Office Van Wert County Coroner's Office Vinton County Coroner's Office Warren County Coroner's Office Washington County Coroner's Office Warren County Coroner's Office Wayne County Coroner's Office Willams County Coroner's Office Wood 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

Randolph Roth, PhD

The Ohio State University

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

Lori Considine Association of Ohio Health Commissioners

Valerie Leach, LCDCII, OCPSI Ohio Department of Mental Health and Addiction Services

Lisa Kohler, MD Summit County Medical Examiner's Office 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

Lois Hall, MS
Ohio Public Health Association

Kenneth Steinman, PhD
Galade Research and Project Management, LLC

Vicki Fleming Stark County Coroner's Office

David Applegate, MD *Union County Coroner's Office* 

Yvette Jackson, DMin
Ohio Suicide Prevention Foundation

### **Glossary**

**Violent death** - A death 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.

**Blunt instruments** – Clubs, bats, rocks or other similar objects used to inflict the injury.

**Alcohol problem** – There is evidence that the victim has been diagnosed as suffering with alcohol dependence.

**Criminal legal problem** – The victim had recent criminal problems such as an arrest or police pursuit that appeared to contribute to the death.

**Depressed mood** –The victim had been perceived by self or others as having recent depression symptoms at the time of the injury.

**Drug involvement** – Drug dealing or illegal drug use is suspected to have played a role in precipitating the incident.

**Financial problem** – The victim was experiencing financial problems such as bankruptcy, overwhelming debt, or a home or business foreclosure at the time of the incident and these problems contributed to their death.

**Gang-related** – Gang rivalry or gang activities are suspected to have played a role in precipitating the incident.

**Mental health problem** – The victim had been identified as having a current mental health problem.

Mental health treatment –The victim had been currently receiving mental health treatment. Treatment can include seeing a psychiatrist for a mental health problem or receiving a prescription for psychiatric drugs.

Physical health problem – The victim was experiencing physical health problems that appeared to have contributed to the death. Physical health problems could include a debilitating disease, chronic pain or a terminal disease.

Other relationship problem – The victim had problems with a family member, friend or associate (other than intimate partner) that appeared to have contributed to the death.

**Substance use problem** – The victim was perceived to have a problem with drugs other than alcohol.

**Crisis** – The victim experienced a crisis within two weeks of the incident or a crisis was imminent within two weeks of the incident.

**Intimate partner violence** – The death is related to a conflict between current or former intimate partners.

**Personal weapons** - include fists, feet, and hands in actions such as punching, kicking or hitting. Manual strangulation is not categorized as personal weapons, but rather as strangulation.

**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.

