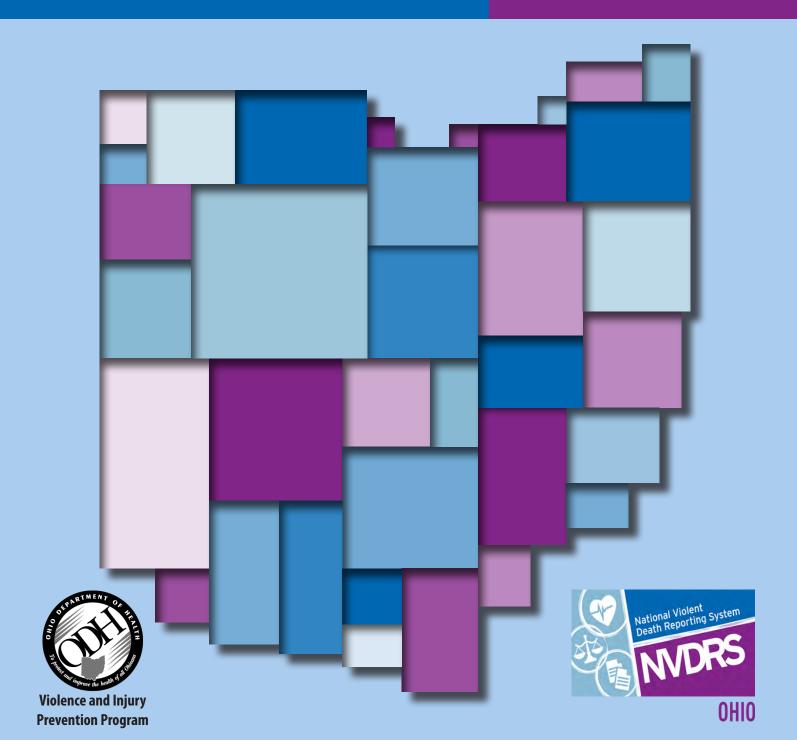
# OHIO VIOLENT DEATH REPORTING SYSTEM

**Annual Report** 

2014



# Ohio Department of Health Violence and Injury Prevention Program

# Ohio Violent Death Reporting System

# 2014 Annual Report

The Ohio Violent Death Reporting System collects detailed information on deaths that occur in Ohio resulting from homicide, suicide, unintentional firearm deaths, legal intervention and deaths for which intent could not be determined. Based on information from multiple sources including death certificates, medical examiner reports, and law enforcement reports, these data create a definitive accounting of violent deaths in our state. This report presents data from 2014 that researchers, legislators, community leaders and others may use to guide prevention efforts.

\*Data Accessed July 27, 2016.

Visit the Ohio Public Health Data Warehouse for the most recent public health data: http://publicapps.odh.ohio.gov/EDW/DataCatalog





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# **Executive Summary**

The Ohio Violent Death Reporting System collects detailed information on deaths that occur in Ohio resulting from suicide, homicide, unintentional firearm deaths, legal intervention, and deaths of undetermined intent in which the cause of death may have been the result of violence. Based on information from multiple sources these data create a definitive accounting of violent deaths in our state. This report presents data from 2014 that researchers, legislators, community leaders and others may use to guide prevention efforts.

### Violent Deaths

In 2014, 2,224 violent deaths occurred in Ohio, a decrease of nearly 5 percent compared to 2013. The most common manner was suicide (65 percent) followed by homicide (25 percent). In addition, there were 33 deaths due to legal intervention (1 percent), 23 deaths due to unintentional firearm injuries (1 percent) and 157 deaths of undetermined intent (7 percent of total).

The age-adjusted rate of violent death in 2014 for males (30.4 per 100,000) was 3.5 times the rate for females (8.6 per 100,000). And the age-adjusted rate of violent death in 2014 for blacks (31.8 per 100,000) was nearly twice the rate for whites (17.0 per 100,000). Nearly all this racial disparity, however, was among males: the age-adjusted rate of violent death in 2014 for black males (56.8 per 100,000) was more than twice the rate for white males (26.0 per 100,000) while rates for black and white females were nearly identical (8.5 per 100,000).

Rates of violent death also varied markedly by age, ranging from 2.3 per 100,000 among 1 to 4-year-olds to 27.3 per 100,000 among 25 to 34-year-olds.

# <u>Suicide</u>

There were 1,455 suicide deaths in Ohio in 2014, representing an age-adjusted rate of 12.3 per 100,000. This figure declined about 3 percent from the 1,504 suicide deaths recorded in 2013.

In 2014, the age-adjusted suicide rate for males (19.6 per 100,000) was 3.5 times the rate for females (5.6 per 100,000), and the age-adjusted rate for whites (13.3 per 100,000) was more than twice the rate for blacks (6.6 per 100,000). The age-adjusted suicide rate in 2014 for Hispanics (4.8 per 100,000) was lower than for other racial/ethnic groups.

Rates of suicide varied by age, from 1.7 per 100,000 among 10 to 14-year-olds to 18.2 per 100,000 among 45 to 54-year-olds (Table 2.3). Sex differences were most pronounced among older adults. The rates for suicide victims 85+ years old was 38.6 per 100,000 for males versus 1.8 per 100,000 for females.

Notably, 258 suicide victims (18 percent of total) were known to be active duty military or veterans. This figure included 246 male victims and 43 victims less than 45 years old.

Of the 17 states that use the National Violent Death Reporting System (NVDRS), suicide rates for whites and Hispanics were lower in Ohio than in other states. However, Ohio's rates were higher among blacks.

### Homicide

There were 556 homicides in Ohio in 2014, representing an age-adjusted rate of 5.0 per 100,000. This figure decreased more than 10 percent from the 621 homicides reported in 2013.

In 2014, the age-adjusted homicide rate for males (8.2 per 100,000) was 4.3 times the rate for females (1.9 per 100,000), and the rate for blacks (22.1 per 100,000) was 11 times the rate for whites (2.0 per 100,000). This racial disparity was particularly pronounced among males, as the age-adjusted rate for black males (41.4 per 100,000) was nearly 16 times the rate for white males (2.6 per 100,000). The 2014 age-adjusted homicide rate for Hispanics (4.8 per 100,000) was higher than that for whites, but lower than that for blacks.

In 2014, homicide rates varied by age, ranging from 0.9 per 100,000 among 10 to 14-year-olds to 10.5 per 100,000 among 25 to 34-year-olds (Table 3.3). Age differences were especially striking for black males and peaked at 101.7 per 100,000 among 25 to 34-year-olds.

Ohio had the highest rate of homicide among black males of the 17 states that use NVDRS.

### Deaths of undetermined intent

In Ohio in 2014, there were 157 violent deaths for which the manner of death could not be determined. This represents an age-adjusted rate of 1.4 per 100,000.

Compared to victims of violent deaths where the manner was determined (e.g., suicide, homicide), victims of undetermined deaths were more likely to be white and female.

For undetermined deaths, the most common method was "unknown" (42 percent) although poisoning was also common (31 percent). In comparison, for violent deaths with a determined manner, less than 1 percent used unknown methods and only 11 percent involved poisoning.

# Other manners of violent deaths

In Ohio in 2014, there were 33 deaths due to legal intervention (e.g., by law enforcement) 26 of which involved individuals between 15 and 44 years of age. Combining data from 2012, 2013 and 2014, analyses found that 45 percent of deaths from legal intervention were white males and another 45 percent were black males. Also, 73 percent of deaths occurred among residents of metropolitan counties.

The 23 unintentional firearm deaths in 2014 included 14 white males. Also, 12 victims were younger than 25 years of age and 12 were residents of metropolitan counties.

# Firearm-related violent deaths

Firearms were used in more than half of the violent deaths in Ohio. In suicides, firearms are more common among victims who are white, male, older than 65 years of age, and live in rural Appalachian counties. In homicides, firearms are more common among victims who are black, male, 15 to 34 years old and live in metropolitan counties.

### 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 2014, there were 2,224 violent deaths in Ohio.

Recognizing the need for an active, centralized, population-based surveillance system for violent deaths, Congress authorized the Centers for Disease Control and Prevention (CDC) to create the National Violent Death Reporting System (NVDRS). NVDRS data collection began in 2003 with six participating states and has since expanded to 40 states, the District of Columbia, and Puerto Rico. Ohio became a participating state in 2010. In 2014, data were available from 17 participating states, including Alaska, Colorado, Georgia, Kentucky, Maryland, Massachusetts, New Jersey, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, Utah, Virginia, and Wisconsin. The data from these states accounted for 31 percent of all suicides and 28 percent of all homicides in the United States in 2014. Although NVDRS data are not representative of the entire nation, comparing Ohio data to other NVDRS states can help highlight patterns that may be distinctive for our state.

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. Following standard NVDRS definitions, this report focuses on suicides, homicides, legal intervention and unintentional firearm deaths. It also includes deaths of undetermined intent in which the cause of death may have been the result of violence.

NVDRS data collection relies on abstraction from three primary sources: death certificates, coroner/medical examiner (CME) records and law enforcement 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.

The purpose of OH-VDRS is multifold; it not only provides information related 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 types of violent deaths. This data informs legislators, public health officials, law enforcement and violence prevention groups in effective ways to reduce and prevent future violent deaths in Ohio. Understanding the patterns and trends in violent deaths can help policy-makers develop policies and programs that save lives. The results presented in this report provide valuable and comprehensive data on the characteristics and circumstances associated with violent deaths in Ohio in 2014.

### 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.

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

Manner of death	Death < 1 year after injury	Death 1+ year 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

Legal executions were excluded from the case definition, as were unintentional injury deaths not caused by a firearm, such as motor vehicle collisions (classified as "vehicular homicides"). Please refer to the glossary for more information on case definition.

Data collection for OH-VDRS relies on the abstraction of three primary sources: death certificates, coroner/medical examiner (CME) 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 CME reports were obtained from county-specific offices. Reports from law enforcement agencies were provided to abstractors either electronically or via hard copy. Since 2012, death certificate, coroner and law enforcement data encompassed all 88 counties in Ohio.

# **Analysis**

The analysis¹ 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 2015) from the National Center for Health Statistics. Rates were expressed per 100,000 persons. Crude rates are reported, unless otherwise specified. Some percentages may not sum to 100.0 because of rounding.

<sup>&</sup>lt;sup>1</sup> Data for this analysis was accessed on July 27, 2016

Rates, both crude and age-adjusted, are prevalence measures that are used to quantify the burden of disease in a population. Unlike percentages and counts, rates are relative to the total population of the group of interest (e.g. age, race, sex, etc.) in a given time period. Rates also allow for comparisons between different populations such as men and women, Hispanics and non-Hispanics, and urban and rural regions. Crude rates are calculated by dividing the count of events by the total population of interest and multiplying it by 100,000. Rates are typically given as estimates per 100,000 persons. Age-adjusted rates are calculated in lieu of crude rates 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 was 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 was multiplied by its corresponding weight, these products were then summed to yield an overall age-adjusted rate for the population of interest.

### **County Types**

Because many individual counties report too few violent deaths to calculate a stable rate, we grouped counties into four types: METROPOLITAN: Allen, Butler, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Mahoning, Montgomery, Richland, Stark, Summit. SUBURBAN: Auglaize, Clark, Delaware, Fairfield, Fulton, Geauga, Greene, Lake, Licking, Madison, Medina, Miami, Pickaway, Portage, Union, Wood. APPALACHIAN: Adams, Ashtabula, Athens, Belmont, Brown, Carroll, Clermont, Columbiana, Coshocton, Gallia, Guernsey, Harrison, Highland, Hocking, Holmes, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Scioto, Trumbull, Tuscarawas, Vinton, Washington. RURAL NON-APPALACHIAN: Ashland, Champaign, Clinton, Crawford, Darke, Defiance, Erie, Fayette, Hancock, Hardin, Henry, Huron, Knox, Logan, Marion, Mercer, Morrow, Ottawa, Paulding, Preble, Putnam, Sandusky, Seneca, Shelby, Van Wert, Warren, Wayne, Williams, Wyandot.

# **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. 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.

### 1. Violent Deaths

Overall, 2,224 violent deaths occurred in Ohio in 2014 representing an age-adjusted rate of 19.2 per 100,000. As presented in Table 1.1, this figure includes 1,455 suicides (65 percent of the total), 556 homicides (25 percent), 157 deaths of undetermined intent (7 percent), 33 deaths due to legal intervention (2 percent) and 23 deaths from unintentional firearm injuries (1 percent). No deaths were attributable to terrorist attack.

Table 1.1: Types of violent deaths and number of victims, Ohio, 2014

	Male		Fer	male	Total	
	Count	Percent	Count	Percent	Count	Percent
Suicide	1134	65.5	321	65.2	1,455	65.4
Homicide	452	26.1	104	21.1	556	25.0
Legal intervention	31	1.8	2	0.4	33	1.5
Unintentional firearm injury	20	1.2	3	0.6	23	1.0
Undetermined	95	5.5	62	12.6	157	7.1
Total	1,732	100.0	492	100.0	2,224	100.0

Sources: ODH and OH-VDRS

Most incidents resulted in only one violent death, although some incidents resulted in multiple violent deaths (Table 1.2). For instance, there were 3 incidents with multiple suicides, 25 incidents with multiple homicides and 19 incidents with one or more homicides followed by a suicide. The 2,224 deaths in 2014 resulted from 2,143 incidents.

Table 1.2: Number of incidents resulting in a violent death by type of incident, Ohio, 2014

Incident type	Count	Percent
Single suicide	1,430	66.7
Multiple suicide	3	0.1
Single homicide	512	23.9
Multiple homicide	25	1.2
Homicide(s) followed by suicide	19	0.9
Undetermined intent	151	7.0
Other	3	0.1
Total	2,143	100.0

<sup>&</sup>quot;Single Homicide", "Multiple Homicide" and "Homicide(s) followed by suicide" may include Legal Intervention Deaths Sources: ODH, OH-VDRS and Vital Statistics

### **Demographic characteristics**

Counts and rates of violent deaths varied by racial/ethnic group and by sex (Table 1.3). The age-adjusted rate of violent death in 2014 for males (30.4 per 100,000) was 3.5 times the rate for females (8.6 per 100,000). In addition, the age-adjusted rate of violent death in 2014 for blacks (31.8 per 100,000) was nearly twice the rate for whites (17.0 per 100,000). Nearly all of this racial disparity, however, was among males: the age-adjusted rate of violent death in 2014 for black males (56.8 per 100,000) was more than twice the rate for white males (26.0 per 100,000) while rates for black and white females were nearly identical (8.5 per 100,000). The age-adjusted rate of violent death in 2014 for Hispanics was lower than for other racial/ethnic groups (14.5 per 100,000).

Table 1.3: Counts and rates (per 100,000) of violent deaths by race/ethnicity and sex, Ohio, 2014

		Male			Female			Total		
		Age-			Age-					
		Crude	Adjusted		Crude	Adjusted		Crude	Adjusted	
	Count	Rate	Rate	Count	Rate	Rate	Count	Rate	Rate	
White, non-Hispanic	1,242	27.0	26.0	402	8.4	8.5	1,644	17.5	17.0	
Black, non-Hispanic	416	57.2	56.8	66	8.3	8.5	482	31.7	31.8	
Hispanic	40	19.3	22.1	14	7.1	6.9	54	13.4	14.5	
Other/Unknown	34	*	*	10	*	*	44	*	*	
Total	1,732	30.5	30.4	492	8.3	8.6	2,224	19.2	19.2	

Rates based on <10 cases are omitted to avoid unstable estimates. Rates for whites and blacks exclude victims of Hispanic ethnicity. Rates for Hispanics include those of any race. Rates are omitted for "other" and "unknown" racial/ethnic groups because of no population denominator. Sources: ODH, OH-VDRS and Vital Statistics

Most violent deaths occurred among people whose education level was high school graduate (48 percent) or less (22 percent). Table 1.4 presents the number of violent deaths for each education level.

Table 1.4: Violent deaths by level of education, Ohio, 2014

	Male		Fer	nale	Total	
	Count	Percent	Count	Percent	Count	Percent
<high school<="" td=""><td>394</td><td>22.7</td><td>90</td><td>18.3</td><td>484</td><td>21.8</td></high>	394	22.7	90	18.3	484	21.8
High school graduate	849	49.0	219	44.5	1,068	48.0
Some college	288	16.6	116	23.6	404	18.2
4-year college graduate	123	7.1	44	8.9	167	7.5
Graduate degree	44	2.5	15	3.0	59	2.7
Other/Unknown	34	2.0	8	1.6	42	1.9
Total	1,732	100.0	492	100.0	2,224	100.0

<sup>&</sup>quot;Some college" include victims with an Associate's Degree and those who attended, but did not graduate from a 4-year college. Sources: ODH, OH-VDRS and Vital Statistics

### Age

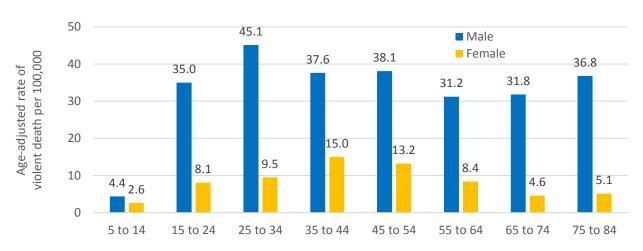
Rates of violent death also varied markedly by age, ranging from 2.3 per 100,000 among 1 to 4-year-olds to 27.3 per 100,000 among 25 to 34-year-olds (Table 1.5). Differences between males and females were especially striking among 15 to 34-year-olds and those older than age 65 (Figure 1.5). Pronounced differences by race/ethnicity were also observed, with rates for black males being much higher than rates for white males. Among seniors, however, rates of violent death were higher for white males than for black males. Age group differences among white and black females were less striking.

Table 1.5: Age-specific crude rates (per 100,000) of violent deaths by race and sex, Ohio, 2014

	White, non-Hispanic			panic Black, non-Hispanic			(including	Total (including all race/ethnic groups)		
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total	
< 1	*	*	*	*	*	*	18.4	*	13.0	
1 to 4	*	*	*	*	*	*	*	*	2.3	
5 to 14	3.3	*	2.4	*	*	6.9	4.4	2.6	3.5	
15 to 24	22.0	7.0	14.6	101.7	13.6	58.2	35.0	8.1	21.7	
25 to 34	33.3	8.6	21.0	125.4	14.1	67.2	45.1	9.5	27.3	
35 to 44	33.0	15.9	24.5	73.7	12.7	41.6	37.6	15.0	26.2	
45 to 54	36.6	14.9	25.7	54.7	*	27.0	38.1	13.2	25.5	
55 to 64	31.0	8.9	19.7	36.3	*	19.0	31.2	8.4	19.4	
65 to 74	32.9	4.9	18.0	*	*	*	31.8	4.6	17.3	
75 to 84	40.6	4.7	19.9	*	*	*	36.8	5.1	18.4	
85+	42.4	*	18.1	*	*	*	39.8	*	16.8	

Rates based on <10 cases are omitted to avoid unstable estimates. Rates for whites and blacks exclude victims of Hispanic ethnicity. Sources: ODH, OH-VDRS and Vital Statistics

Figure 1.1: Age-specific crude rates (per 100,000) of violent death, by sex, Ohio, 2014



Other age groups (e.g., 85+) had too few cases to produce reliable rates. Sources: ODH, OH-VDRS and Vital Statistics

### Locality

Locality refers to the victim's county of residence, not necessarily where the fatal injury occurred. Rates of violent death in 2014 were higher for residents of metropolitan and rural Appalachian counties compared to suburban and rural non-Appalachian counties (Table 1.6).

Table 1.6: Counts and rates (per 100,000) of violent deaths by county type, Ohio, 2014

County type	Count	Percent	Crude Rate	Age-Adjusted Rate
Metropolitan	1,361	61.2	21.5	21.4
Suburban	286	12.9	14.7	14.7
Rural Appalachian	345	15.5	19.3	19.1
Rural non-Appalachian	231	10.4	15.0	14.8
Total	2,223	100.0	21.5	21.4

County type refers to the victim's county of residence. See p. 8 for a list of counties of each type. Omits one victim with unknown residence. Sources: ODH, OH-VDRS and Vital Statistics

In 2014, there were at least 10 violent deaths among residents of 44 Ohio counties – a number large enough to calculate a rate. Table 1.7 presents the counts and rates for these counties. The accompanying figure combines data from 2012, 2013 and 2014 to present similar information in a map.

Among the counties with adequate data, the highest age-adjusted rates of violent death in 2014 occurred in Perry (30.1 per 100,000), Huron (29.2) and Clark (27.0) counties. The lowest rates occurred in Wayne (10.9 per 100,000), Delaware (10.4) and Geauga (10.3) counties. Among Ohio's six largest metropolitan counties, Hamilton (24.6 per 100,000) had the highest age-adjusted rate of violent death, while Lucas County (19.7) had the lowest.

Inspecting the map (Figure 1.2) with combined data from multiple years highlights that metropolitan counties and those in Southeast and Northeast Ohio tend to have higher rates of violent death.

Table 1.7: Counts and rates (per 100,000) of violent deaths by county, Ohio, 2014

		Crude	Age-Adjusted
County	Count	Rate	Rate
Adams	7	*	*
Allen	18	17.1	18.3
Ashland	8	15.1	17.6
Ashtabula	24	24.2	24.6
Athens	6	*	*
Auglaize	7	*	*
Belmont	11	15.8	16.3
Brown	10	22.7	21.1
Butler	73	19.5	19.0
Carroll	5	*	*
Champaign	3	*	*
Clark	33	24.2	27.0
Clermont	39	19.4	18.5
Clinton	5	*	*
Columbiana	27	25.6	24.3
Coshocton	7	*	*
Crawford	6	*	*
Cuyahoga	294	23.3	23.6
Darke	8	*	*
Defiance	7	*	*
Delaware	20	10.6	10.4
Erie	14	18.5	14.7
Fairfield	21	14.0	12.8
Fayette	4	*	*
Franklin	266	21.6	21.4
Fulton	5	*	*
Gallia	6	*	*
Geauga	10	10.6	10.3
Greene	22	13.4	14.8
Guernsey	8	*	*
Hamilton	193	23.9	24.6
Hancock	12	15.9	17.3
Hardin	4	*	*
Harrison	3	*	*
Henry	5	*	*
Highland	8	*	*
Hocking	9	*	*
Holmes	6	*	*
Huron	17	29.0	29.2
Jackson	4	*	*
Jefferson	11		
	11	16.2	17.4
Knox		18.0	15.8
Lake	38	16.6	16.7
Lawrence	12	19.5	18.0

		Crude	Age-Adjusted
County	Count	Rate	Rate
Licking	25	14.8	14.2
Logan	9	*	*
Lorain	42	13.8	13.5
Lucas	85	19.6	19.7
Madison	5	*	*
Mahoning	50	21.4	21.0
Marion	8	*	*
Medina	26	14.8	14.4
Meigs	2	*	*
Mercer	3	*	*
Miami	16	15.4	15.4
Monroe	2	*	*
Montgomery	127	23.8	23.9
Morgan	2	*	*
Morrow	8	*	*
Muskingum	20	23.3	23.8
Noble	2	*	*
Ottawa	4	*	*
Paulding	2	*	*
Perry	10	27.8	30.1
Pickaway	9	*	*
Pike	1	*	*
Portage	24	14.8	14.4
Preble	7	*	*
Putnam	2	*	*
Richland	19	15.6	14.9
Ross	12	15.6	14.9
Sandusky	14	23.3	24.9
Scioto	19	24.6	24.8
Seneca	9	*	*
Shelby	5	*	*
Stark	82	21.8	22.2
Summit	112	20.6	20.2
Trumbull	41	20.0	19.6
Tuscarawas	16	17.2	18.9
Union	7	*	*
Van Wert	5	*	*
Vinton	<u>5</u>	*	*
Warren	31	14.0	14.5
Washington	10	16.3	13.7
Wayne	13	11.2	10.9
Williams	4	*	*
Wood	18	13.9	13.9
Wyandot	3	*	*
vv yanuut	<u> </u>		

<sup>\*</sup> Rates are not calculated for counties with <10 cases to avoid unstable estimates. Sources: ODH, OH-VDRS and Vital Statistics

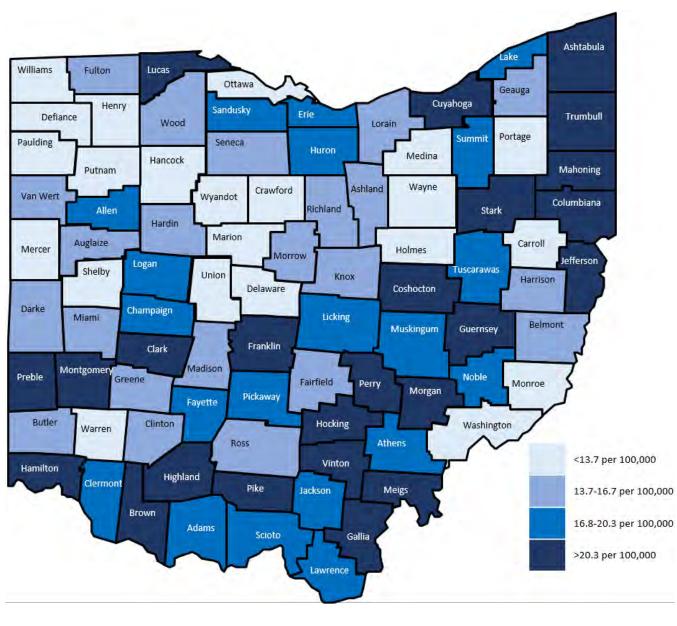


Figure 1.2: Age-adjusted rates (per 100,000) of violent deaths by county quartile, Ohio, 2012-2014

Rates are not calculated for counties with <5 cases to avoid unstable estimates. Sources: ODH, OH-VDRS and Vital Statistics

### Method of death

As presented in Table 1.8, firearms (53 percent) were the most common mechanism used in violent deaths, followed by hanging/strangulation (21 percent) and poisoning (12 percent).

Table 1.8: Count of violent deaths by method, Ohio, 2014

	Male		Fer	male	Total		
	Count	Percent	Count	Percent	Count	Percent	
Firearm	1,031	59.5	153	31.1	1,184	53.2	
Hanging/Strangulation	340	19.6	115	23.4	455	20.5	
Poisoning	138	8.0	131	26.6	269	12.1	
Sharp instrument	58	3.3	23	4.7	81	3.6	
Other/Unknown	165	9.5	70	14.2	235	10.6	
Total	1,732	100.0	492	100.0	2,224	100.0	

Sources: ODH and OH-VDRS

These proportions varied greatly by sex. Violent deaths among males were much more likely than among females to involve a firearm (60 percent vs. 31 percent). Poisoning was more common among females (27 percent) compared to males (8 percent). Such differences, however, may be largely attributed to the fact that different mechanisms were used in different manners of violent death. Poisoning, for instance, was common in suicide, but rare in homicide. Please refer to subsequent sections for more information.

### Trends in violent deaths, 2012-2014

Comparing OH-VDRS data from 2012, 2013 and 2014 helps illustrate how patterns of violent death may change over time. During this period, the number of violent deaths declined overall and for most demographic groups (Table 1.9).

Table 1.9: Number of violent deaths by demographic groups and by year, Ohio, 2012 - 2014

				Percent change,	Percent change,
	2012	2013	2014	2012-2013	2013-2014
Total	2,344	2,333	2,224	-0.5	-4.7
Male	1,805	1,787	1,732	-1.0	-3.1
Female	539	546	492	1.3	-9.9
White, non-Hispanic	1,754	1,736	1,644	-1.0	-5.3
Black, non-Hispanic	518	527	482	1.7	-8.5
Hispanic	38	31	54	-18.4	74.2
Other/Unknown	34	39	44	14.7	12.8
<15	92	77	83	-16.3	7.8
15-24	369	376	340	1.9	-9.6
25-34	404	427	402	5.7	-5.9
35-44	393	380	369	-3.3	-2.9
45-54	431	439	408	1.9	-7.1
55-64	341	320	306	-6.2	-4.4
65+	313	314	316	0.3	0.6

### 2. Suicide

There were 1,455 suicide deaths in Ohio in 2014, representing an age-adjusted rate of 12.3 per 100,000.

### **Demographic characteristics**

Rates of suicide varied by racial/ethnic group and by sex (Table 2.1). In 2014, the age-adjusted suicide rate for males (19.6 per 100,000) was 3.5 times the rate for females (5.6 per 100,000), and the age-adjusted rate for whites (13.3 per 100,000) was more than twice the rate for blacks (6.6 per 100,000). The age-adjusted suicide rate in 2014 for Hispanics (12.1 per 100,000) was lower than for whites, but higher than for blacks.

Table 2.1: Counts and rates (per 100,000) of suicide deaths by race/ethnicity and sex, Ohio, 2014

		Male			Female	e		Total		
	Count	Crude Rate	Age- Adjusted Rate	Count	Crude Rate	Age- Adjusted Rate	Count	Crude Rate	Age- Adjusted Rate	
White, non-Hispanic	1,017	22.1	21.1	286	6.0	6.0	1,303	13.9	13.3	
Black, non-Hispanic	76	10.4	10.8	22	2.8	2.8	98	6.5	6.6	
Hispanic	18	8.7	10.8	3	*	*	21	10.2	12.1	
Other	23	*	*	10	*	*	33	*	*	
Total	1,134	20.0	19.6	321	5.4	5.6	1,455	12.6	12.3	

Rates are not calculated for <10 cases to avoid unstable estimates. Rates for whites and blacks exclude victims of Hispanic ethnicity. Rates for Hispanics include those for any race. Rates are omitted for "other" and "unknown" racial/ethnic groups because of no population denominator. Sources: ODH and OH-VDRS

Most suicide victims were not graduates of four-year colleges. About 16 percent of suicide decedents had less than a high school education, 50 percent were high school graduates and 19 percent had some college education (Table 2.2).

Table 2.2: Suicide deaths by level of education, Ohio, 2014

	Male		Fer	nale	Total	
	Count	Percent	Count	Percent	Count	Percent
<high school<="" td=""><td>197</td><td>17.4</td><td>40</td><td>12.5</td><td>237</td><td>16.3</td></high>	197	17.4	40	12.5	237	16.3
High school graduate	581	51.2	144	44.9	725	49.8
Some college	198	17.5	84	26.2	282	19.4
4-year college graduate	198	17.5	37	11.5	146	10.0
Graduate degree	109	9.6	14	4.4	54	3.7
Other/Unknown	9	0.8	2	0.6	11	0.8
Total	1,134	100.0	321	100.0	1,455	100.0

<sup>&</sup>quot;Some college" include victims with an Associate's Degree and those who attended, but did not graduate from a 4-year college.

Sources: ODH, OH-VDRS and Vital Statistics

### Age

In 2014, rates of suicide varied by age, from 1.7 per 100,000 among 10 to 14-year-olds to 18.2 per 100,000 among 45 to 54-year-olds (Table 2.3). Male/Female differences were most pronounced among older adults. The rates for suicide victims 85+ years old was 38.6 per 100,000 for males versus 1.8 per 100,000 for females.

Table 2.3: Age-specific crude rates (per 100,000) of suicide deaths by race and sex, Ohio, 2014

_	Whi	ite, non-Hisp	anic	Blac	Total Black, non-Hispanic (including all race/ethr			ic groups)	
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total
<15	2.3	*	1.5	*	*	*	2.5	0.8	1.7
15 to 24	17.4	5.3	11.5	12.4	*	9.4	16.3	5.2	10.9
25 to 34	25.7	5.1	15.5	16.4	*	10.3	23.4	5.3	14.3
35 to 44	26.6	12.0	19.3	22.2	*	12.8	25.0	10.4	17.7
45 to 54	29.0	11.6	20.2	*	*	*	26.5	10.2	18.2
55 to 64	26.1	6.8	16.2	16.8	*	8.3	24.9	6.0	15.2
65 to 74	29.3	3.8	15.8	*	*	*	27.1	3.5	14.5
75 to 84	39.1	*	18.0	*	*	*	35.1	2.5	16.2
85+	41.1	*	15.0	*	*	*	38.6	1.8	14.0
Total	22.1	6.0	13.9	10.4	2.8	6.5	20.0	5.4	12.6

Rates are not calculated for <10 cases to avoid unstable estimates. Rates for whites and blacks exclude victims of Hispanic ethnicity. Sources: ODH, OH-VDRS and Vital Statistics

# Locality

Locality refers to the victim's county of residence, not necessarily where the suicide occurred. Rates of suicide in 2014 were higher for residents of rural Appalachian counties compared to other counties (Table 2.4). In addition, 34 counties had at least 10 residents who were victims of suicide in 2014 – a number large enough to calculate a rate. Table 2.5 presents the counts and rates for these counties.

Table 2.4: Counts and rates (per 100,000) of suicide by county type, Ohio, 2014

County type	Count	Percent	Crude Rate	Age-Adjusted Rate
Metropolitan	793	54.5	12.5	12.2
Suburban	225	15.5	11.5	11.4
Rural Appalachian	254	17.5	14.2	13.8
Rural non-Appalachian	183	12.6	11.9	11.7
Total	1,455	100.0	12.6	12.3

County type refers to the victim's county of residence. See p. 8 for a list of counties of each type. Sources: ODH, OH-VDRS and Vital Statistics

Table 2.5: Counts and rates (per 100,000) of suicide deaths by county, Ohio, 2014

		Crude	Age-Adjusted
County	Count	Rate	Rate
Adams	5	*	*
Allen	12	11.4	13.1
Ashland	3	*	*
Ashtabula	16	16.1	15.4
Athens	3	*	*
Auglaize	6	*	*
Belmont	8	*	*
Brown	5	*	*
Butler	53	14.2	13.8
Carroll	4	*	*
Champaign	2	*	*
Clark	19	13.9	15.0
Clermont	36	17.9	16.8
Clinton	5	*	*
Columbiana	21	19.9	19.9
Coshocton	7	*	*
Crawford	2	*	*
Cuyahoga	141	11.2	10.6
Darke	7	*	*
Defiance	3	*	*
Delaware	19	10.0	9.7
Erie	11	14.5	11.6
Fairfield	16	10.6	9.5
Fayette	4	*	*
Franklin	147	11.9	12.1
Fulton	4	*	*
Gallia	4	*	*
Geauga	8	*	*
Greene	18	10.9	11.4
Guernsey	8	*	*
Hamilton	103	12.8	12.9
Hancock	12	15.9	17.3
Hardin	4	*	*
Harrison	1	*	*
Henry	5	*	*
Highland	5	*	*
Hocking	8	*	*
Holmes	4	*	*
Huron	15	25.6	25.9
Jackson	3	*	*
Jefferson	7	*	*
Knox	7	*	*
Lake	30	13.1	13.6
Lawrence	9	*	*
	-		

		Crude	Age-Adjusted
County	Count	Rate	Rate
Licking	20	11.8	11.1
Logan	6	*	*
Lorain	34	11.2	10.6
Lucas	51	11.7	11.9
Madison	5	*	*
Mahoning	25	10.7	10.0
Marion	7	*	*
Medina	23	13.1	12.7
Meigs	23	*	*
Mercer	3	*	*
Miami	13	12.5	11.9
-		*	*
Monroe	1 77		
Montgomery	77	14.5 *	13.8 *
Morgan	0	*	*
Morrow	6		
Muskingum	11	12.8	11.4 *
Noble	2	*	
Ottawa	3	*	*
Paulding	2	*	*
Perry	8	*	*
Pickaway	7	*	*
Pike	0	*	*
Portage	18	11.1	10.8
Preble	6	*	*
Putnam	2	*	*
Richland	12	9.8	8.6
Ross	9	*	*
Sandusky	8	*	*
Scioto	15	19.4	19.1
Seneca	5	*	*
Shelby	4	*	*
Stark	61	16.2	16.5
Summit	77	14.2	13.4
Trumbull	29	14.1	13.8
Tuscarawas	10	10.8	11.8
Union	5	*	*
Van Wert	4	*	*
Vinton	4	*	*
Warren	28	12.6	13.3
Washington	9	*	*
Wayne	12	10.4	10.0
Williams	4	*	*
Wood	14	10.8	10.3
Wyandot	3	*	*
,			

<sup>\*</sup> Rates are not calculated for counties with <10 cases to avoid unstable estimates. Sources: ODH, OH-VDRS and Vital Statistics

Among the counties with adequate data in 2014, the highest age-adjusted rates of suicide in 2014 occurred in Hocking (38.2 per 100,000) and Coshocton (28.4) counties, whereas the lowest rates occurred in Medina (8.7), Warren (8.7), and Delaware (8.1) counties. Among Ohio's six largest metropolitan counties, Montgomery (15.6 per 100,000) had the highest age-adjusted rate of suicide, while Franklin County (10.8) had the lowest.

Combining data from multiple years provides additional data that permits calculating rates for more counties. Figure 2.1 presents age-adjusted annual rates of suicide for the period 2012 to 2014. Many rural Appalachian counties had higher age-adjusted rates during this period.

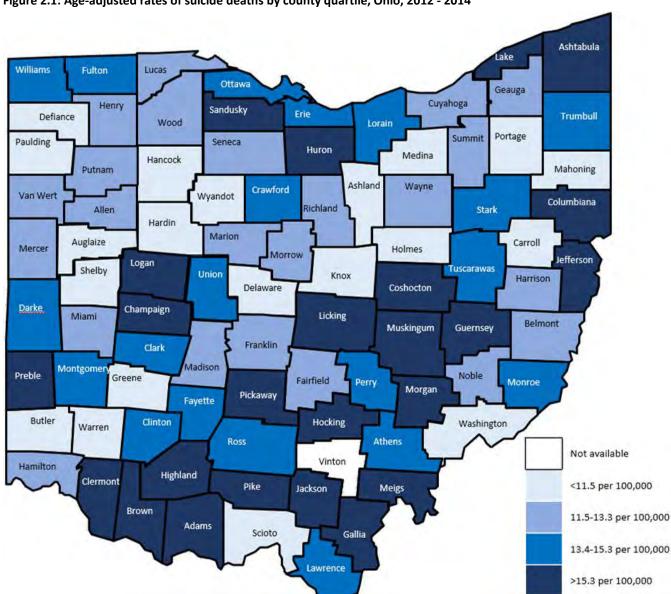


Figure 2.1: Age-adjusted rates of suicide deaths by county quartile, Ohio, 2012 - 2014

Rates are not calculated for counties with <5 cases to avoid unstable estimates.

Sources: ODH, OH-VDRS and Vital Statistics

# Method of death

In 2014, firearms were the most common mechanism used in suicide (50 percent of all suicide deaths), followed by hanging/strangulation (29 percent) and poisoning (15 percent). These proportions varied greatly by sex, however (Table 2.6). Suicide deaths among males were more likely to involve a firearm (56 percent) compared to females (29 percent); whereas poisoning was a much more common method among females (32 percent) compared to males (10 percent).

Table 2.6: Suicides by method of death, Ohio, 2014

	Males		Fen	nales	Total		
	Count	Percent	Count	Percent	Count	Percent	
Firearm	634	55.9	92	28.7	726	49.9	
Hanging/Strangulation	324	28.6	103	32.1	427	29.3	
Poisoning	113	10.0	101	31.5	214	14.7	
Sharp instrument	17	1.5	4	1.2	21	1.4	
Other/Unknown	46	4.1	21	6.5	67	4.6	
Total	1,134	100.0	321	100.0	1,455	100.0	

Sources: ODH and OH-VDRS

### Circumstances

For most suicides, OH-VDRS provides information on the circumstances, such as the type of location where the suicide occurred, toxicology results, mental health issues, life stressors and relationship circumstances.

### Type of location

As presented in Table 2.7, most suicide deaths in Ohio in 2014 occurred in a house or apartment (79 percent). Other locations included a private motor vehicle (7 percent) and public areas like a street or playground (5 percent). Nineteen suicide deaths occurred in Ohio prisons during 2014, compared to 30 in 2013.

Table 2.7: Locations where suicide deaths occurred by sex, Ohio, 2014

	Males		Females		To	otal
	Count	Percent	Count	Percent	Count	Percent
House/Apartment	887	78.2	259	80.7	1,146	78.8
Public area (e.g., street, road, playground)	55	4.9	11	3.4	66	4.5
Private motor vehicle	80	7.1	24	7.5	104	7.2
Commercial establishment	6	0.5	0	0.0	6	0.4
Natural area	32	2.8	7	2.2	39	2.7
Prison/Jail	15	1.3	4	1.3	19	1.3
Other	57	5.0	15	4.7	72	5.0
Unknown	2	0.2	1	0.3	3	0.2

Sources: ODH and OH-VDRS

### **Toxicology results**

Table 2.8 presents the number and percent of suicide decedents testing positive for various substances.

Table. 2.8: Percent of suicide victims testing positive for various substances, Ohio, 2014

	M	ale		Female		Гotal
	Count	Percent	Count	Percent	Count	Percent
Alcohol	264	30.0	67	24.3	331	28.7
Benzodiazepines	125	14.2	87	31.5	212	18.4
Opiates	156	17.7	52	18.8	208	18.0
Antidepressants	120	13.7	87	31.5	207	17.9
Marijuana	117	13.3	28	10.1	145	12.6
Anticonvulsants	33	3.8	32	11.6	65	5.6
Cocaine	41	4.7	10	3.6	51	4.4
Amphetamines	30	3.4	8	2.9	38	3.3
Antipsychotics	15	1.7	18	6.5	33	2.9
Carbon Monoxide	25	2.8	9	3.3	34	2.9
Muscle Relaxants	12	1.4	10	3.6	22	1.9
Barbiturates	10	1.1	6	2.2	16	1.4
One or more of the above substances	539	61.3	206	74.6	745	64.5

Percent is based on a denominator of suicide deaths (n=1,155) with available toxicology results. Victims may test positive for >one type of substance.

Alcohol (29 percent) was the most common substance found in toxicology results. Blood alcohol concentration for those testing positive appear in Table 2.9. Other common substances were benzodiazepines (18 percent), opiates (18 percent), antidepressants (18 percent) and marijuana (13 percent). About two thirds (65 percent) of suicide victims screened positive for at least one substance.

Female suicide victims were more likely than male victims to screen positive for substance use (75 percent vs. 61 percent). Differences by sex were most pronounced for benzodiazepines, antidepressants and anticonvulsants.

Table. 2.9: Blood alcohol concentration results for suicide victims testing positive for alcohol, Ohio, 2014

	Male		<u>Female</u>			Total	
	Count	Percent	Count	Percent		Count	Percent
Less than 0.040	35	13.5	9	13.6		44	13.5
0.040-0.079	43	16.5	14	21.2		57	17.5
0.080-0.119	31	11.9	5	7.6		36	11.0
0.120-0.159	41	15.8	13	19.7		54	16.6
0.160-0.199	42	16.2	11	16.7		53	16.3
0.200 and above	68	26.2	14	21.2		82	25.2

A total of 331 suicide victims tested positive for alcohol. Blood alcohol concentration results were missing for 5 victims.

Sources: ODH and OH-VDRS

### Mental health

Mental health concerns were common among many suicide decedents. Among the 94 percent of suicide victims with available data on circumstances, more than half (54 percent) had a current mental health problem, 38 percent had been treated previously for mental illness, and in 26 percent of cases the victim was perceived by self or others to be depressed at the time of the injury (Table 2.10).

Table 2.10: Mental health circumstances of suicide victims, by sex, Ohio, 2014

	Males		Fen	nales	Total	
	Count	Percent	Count	Percent	Count	Percent
Alcohol problem	173	16.3	43	14.0	216	15.8
Other substance abuse	181	17.0	66	21.4	247	18.0
Current depressed mood	290	27.3	69	22.4	359	26.2
Current diagnosed mental health problem	533	50.2	211	68.5	744	54.3
Currently received mental health treatment	306	28.8	133	43.2	439	32.0
History of mental health treatment	359	33.8	154	50.0	513	37.4

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. More than 94 percent of suicide victims had circumstances available (n=1,370).

Sources: ODH and OH-VDRS

### Other circumstances

Overall, 258 (18 percent) suicide victims were known to be active duty military or veterans. This total includes 246 male victims and 43 victims younger than 45 years old.

Many suicide deaths were also associated with different personal issues (Table 2.11), including physical health (16 percent), job (9 percent) and financial (8 percent) problems. School problems were less common.

Table 2.11: Life stressors of suicide victims, by sex, Ohio, 2014

	Males		Females		To	otal
	Count	Percent	Count	Percent	Count	Percent
Physical health problem	183	17.2	35	11.4	218	15.9
Job problem	106	10.0	16	5.2	122	8.9
Financial problem	83	7.8	22	7.2	105	7.7
Recent criminal legal problem	95	9.0	16	5.2	111	8.1
Non-criminal legal problem	26	2.5	4	1.3	30	2.2
School problem	18	1.7	3	1.0	21	1.5

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. More than 94 percent of suicide victims had circumstances available (n=1,370).

Sources: ODH and OH-VDRS

Relationship circumstances also were associated with many suicide deaths (Table 2.12). Nearly 16 percent of suicide deaths were preceded by an argument or conflict and 27 percent were related to a problem with an intimate partner.

Table 2.12: Relationship circumstances of suicide victims, by sex, Ohio, 2014

	Males		Fen	nales	Total	
	Count	Percent	Count	Percent	Count	Percent
Argument or conflict led to death	177	16.7	39	12.7	216	15.8
Intimate partner problem	298	28.1	72	23.4	370	27.0
Family relationship problem	70	6.6	22	7.1	92	6.7
Other relationship problem	15	1.4	6	2.0	21	1.5
Suicide death of family member in past 5 years	17	1.6	8	2.6	25	1.8
Other death of family member in past 5 years	67	6.3	27	8.8	94	6.9

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. More than 94 percent of suicide victims had circumstances available (n=1,370). "Other relationship problem" refers to relationship problem other than those with a family member or intimate partner.

Sources: ODH and OH-VDRS

More than 19 percent of suicide victims were known to have made a previous suicide attempt, 24 percent had disclosed their intent to commit suicide, and 38 percent left a suicide note (Table 2.13).

Table 2.13: Other suicide circumstances, differences by sex, Ohio, 2014

	Males Count Percent		Fen	nales	Total	
			Count	Percent	Count	Percent
History of previous suicide attempt	177	16.7	90	29.2	267	19.5
Disclosed suicide intent to someone	266	25.1	63	20.5	329	24.0
Left suicide note	380	35.8	139	45.1	519	37.9

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. More than 94 percent of suicide victims had circumstances available (n=1,370).

Sources: ODH and OH-VDRS

### Comparisons with other states

Although NVDRS data are not representative of the entire nation, comparing Ohio data to other NVDRS states can help highlight patterns that may be distinctive for our state. Combining data from 2011 through 2013 (the most recent years available), Table 2.14 presents age-adjusted rates for suicides by race/ethnicity and sex in 17 states (there were too few cases among other groups for comparison).

Table 2.14: Age-adjusted rates (per 100,000) of suicide, by race/ethnicity and sex, 17 states, 2011-2013

		Male			Female	
	White	Black	Hispanic	White	Black	Hispanic
Alaska	31.0	25.5	20.9	8.7	*	*
Colorado	31.7	12.2	16.8	9.8	3.7	4.6
Georgia	24.8	7.6	5.5	7.0	1.6	*
Kentucky	25.0	9.9	6.3	5.5	2.9	*
Maryland	18.3	8.1	3.6	4.1	1.4	*
Massachusetts	14.1	7.4	7.2	4.7	1.7	1.7
New Jersey	15.4	6.9	6.9	4.2	2.1	1.3
New Mexico	39.6	*	21.0	13.8	*	6.3
N. Carolina	24.9	8.7	4.8	7.8	1.5	1.2
Ohio	22.2	11.4	8.8	5.9	2.2	*
Oklahoma	32.6	13.7	11.1	8.7	2.7	3.0
Oregon	30.2	12.4	10.1	8.5	*	2.7
Rhode Island	18.1	*	5.2	4.5	*	*
S. Carolina	26.5	8.6	3.8	7.9	1.2	0.0
Utah	34.9	*	11.3	9.8	*	3.3
Virginia	24.7	9.6	6.1	7.5	1.7	1.2
Wisconsin	22.6	8.0	6.9	5.9	*	2.8
TOTAL	23.9	8.9	9.5	6.7	1.8	2.5

When the number of deaths was < 10, rates are not calculated to avoid unstable estimates. Figures for whites and blacks exclude Hispanics; Hispanics may be of any race. Figures for Ohio may differ very slightly from those reported elsewhere in this report because of the different years involved, the lag time in recording cases and different population estimates.

Sources: ODH, NVDRS and Vital Statistics

Across the NVDRS states, males had higher rates of suicide compared to females, and whites (both males and females) had higher rates compared to blacks and Hispanics. This same pattern of findings was observed for Ohio.

Suicide rates for whites and Hispanics were somewhat lower in Ohio than in other states. Among blacks, however, Ohio's rates were somewhat higher than those in other states.

# Trends in suicide, 2012-2014

Comparing OH-VDRS data from 2012, 2013 and 2014 helps illustrate how patterns of suicide may change over time. During this period, the overall number of suicides declined slightly and were somewhat more pronounced for males compared to females (Table 2.15).

Table 2.15: Number of suicides by demographic groups and by year, Ohio, 2012 – 2014

				Percent change,	Percent change,
	2012	2013	2014	2012-2013	2013-2014
Total	1,510	1,504	1,455	-0.4	-3.3
Male	1,195	1,168	1,134	-2.3	-2.9
Female	315	336	321	6.7	-4.5
White, non-Hispanic	1,363	1,358	1,303	-0.4	-4.1
Black, non-Hispanic	105	106	98	1.0	-7.5
Hispanic	19	18	21	-5.3	16.7
Other/Unknown					
<15	18	15	25	-16.7	66.7
15-24	175	158	170	-9.7	7.6
25-34	230	242	211	5.2	-12.8
35-44	253	254	249	0.4	-2.0
45-54	318	315	292	-0.9	-7.3
55-64	265	255	239	-3.8	-6.3
65+	251	265	269	5.6	1.5

Sources: ODH and OH-VDRS

### 3. Homicide

There were 556 homicides in Ohio in 2014, representing an age-adjusted rate of 5.0 per 100,000. This figure decreased somewhat from the 621 homicides reported in 2013.

### **Demographic characteristics**

Rates of homicide varied markedly by racial/ethnic group and by sex (Table 3.1). In 2014, the age-adjusted homicide rate for males (8.2 per 100,000) was 4.3 times the rate for females (1.9 per 100,000). And the age-adjusted rate for blacks (22.1 per 100,000) was 11 times the rate for whites (2.0 per 100,000). This racial disparity was particularly pronounced among males, as the age-adjusted rate for black males (41.4 per 100,000) was nearly 16 times the rate for white males (2.6 per 100,000). The 2014 age-adjusted homicide rate for Hispanics (4.8 per 100,000) was higher than that for whites, but lower than that for blacks.

Table 3.1: Counts and rates (per 100,000) of homicide deaths by race/ethnicity and sex, Ohio, 2014

		Male			Female			Total		
	Count	Crude	Age- Adjusted	Count	Crude	Age- Adjusted	Count	Crude	Age- Adjusted	
White, non-Hispanic	Count 123	Rate 2.7	Rate 2.6	Count 63	Rate 1.4	Rate 1.5	Count 186	Rate 2.0	Rate 2.0	
Black, non-Hispanic	308	42.3	41.4	32	4.0	4.1	340	22.4	22.1	
Hispanic	11	5.3	5.1	9	*	*	20	5.0	4.9	
Other/Unknown	10	*	*	0	*	*	10	*	*	
Total	452	8.0	8.2	104	1.8	1.9	556	4.8	5.0	

Rates are not calculated for <10 cases to avoid unstable estimates. Rates for whites and blacks exclude victims of Hispanic ethnicity. Rates for Hispanics include those of any race. Rates are omitted for "other" and "unknown" racial/ethnic groups because of no population denominator. Sources: ODH, OH-VDRS and Vital Statistics

For the plurality of homicide victims, their highest level of education was high school graduate (45 percent) However, more than one third (35 percent) had less than a high school education and less than 6 percent of homicide victims had graduated college (Table 3.2).

Table 3.2: Number of homicide deaths by education level, Ohio, 2014

	Male		Fer	nale	Total		
	Count	Percent	Count	Percent	Count	Percent	
<high school<="" td=""><td>162</td><td>35.8</td><td>31</td><td>29.8</td><td>193</td><td>34.7</td></high>	162	35.8	31	29.8	193	34.7	
High school graduate	202	44.7	48	46.2	250	45.0	
Some college	65	14.4	17	16.3	82	14.7	
4-year college graduate	8	1.8	3	2.9	11	2.0	
Graduate degree	1	0.2	1	1.0	2	0.4	
Other/Unknown	14	3.1	4	3.8	18	3.2	
Total	452	100.0	104	100.0	556	100.0	

<sup>&</sup>quot;Some college" include victims with an Associate's Degree and those who attended, but did not graduate from a 4-year college. Sources: ODH, OH-VDRS and Vital Statistics

### Age

In 2014, homicide rates varied by age, ranging from 0.9 per 100,000 among 10 to 14-year-olds to 10.5 per 100,000 among 25 to 34-year-olds (Table 3.3). Age differences were especially striking for black males. Combining data from 2012, 2013 and 2014 provides more stable estimates across a wider range of age groups by race and sex. During this period, homicide rates among black males exceed rates for white males at every age, with disparities being especially pronounced among 15 to 34-year-olds (Figure 3.1).

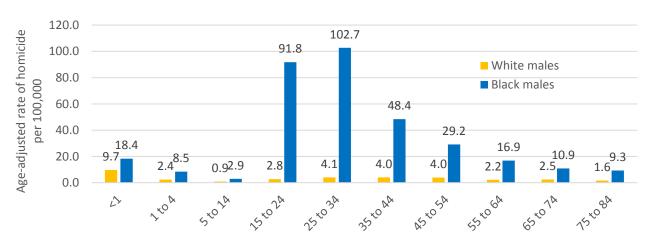
Table 3.3: Age-specific counts and crude homicide rates (per 100,000) by race and sex, Ohio, 2014

	Male					Fer	nale		TOTAL	
	Wh	ite	Bla	ack	Wh	ite	Black		(all sexes, races)	
	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate
<1 year	4	*	3	*	2	*	2	*	13	9.4
1 to 4 years	1	*	5	*	2	*	0	*	8	*
5 to 14	2	*	4	*	3	*	4	*	13	0.9
15 to 24	15	2.5	109	84.6	7	*	9	*	148	9.5
25 to 34	22	3.8	99	101.7	16	2.8	8	*	154	10.5
35 to 44	18	3.2	38	44.4	12	2.1	6	*	82	5.8
45 to 54	32	4.8	33	37.6	7	*	0	*	73	4.6
55 to 64	18	2.7	12	15.5	2	*	2	*	36	2.3
65 to 74	9	*	5	*	3	*	0	*	17	1.7
75 to 84	2	*	0	*	4	*	1	*	7	*
85+	0	*	0	*	5	*	0	*	5	*
Total	123	2.7	308	42.3	63	1.4	32	4.0	556	4.8

Rates are not calculated for <10 cases to avoid unstable estimates. Rates for whites and blacks exclude victims of Hispanic ethnicity. There were too few cases among other racial/ethnic group to generate reliable rates.

Sources: ODH, OH-VDRS and Vital Statistics

Figure 3.1: Age-specific annual crude rates of homicide (per 100,000) among white and black males, Ohio, 2012-2014



There were too few deaths among other racial groups and age groups to be distinguished in this figure. Figure excludes victims of Hispanic ethnicity. Sources: ODH, OH-VDRS and Vital Statistics

# Locality

Locality refers to the victim's county of residence, not necessarily where the homicide occurred. Nearly 80 percent of homicides in 2014 occurred among residents of metropolitan counties. Age-adjusted rates were much higher for residents of metropolitan counties compared to other counties (Table 3.4). In addition, 11 counties had at least 10 residents who were homicide victims in 2014 – a number large enough to calculate a rate. Table 3.5 presents the counts and crude rates for these counties.

Table 3.4: Counts and rates (per 100,000) of homicide by county type, Ohio, 2014

County type	Count	Percent	Crude Rate	Age-Adjusted Rate
Metropolitan	442	79.5	7.0	7.2
Suburban	38	6.8	2.0	2.0
Rural Appalachian	48	8.6	2.7	2.8
Rural non-Appalachian	28	5.0	1.8	1.8
Total	556	100.0	4.8	5.0

County type refers to the victim's county of residence. See p. 8 for a list of counties of each type. Sources: ODH, OH-VDRS and Vital Statistics

Table 3.5: Counts and rates (per 100,000) of homicides by county, Ohio, 2014

		Crude	Age-Adjusted
County	Count	Rate	Rate
Adams	1	*	*
Allen	6	*	*
Ashland	2	*	*
Ashtabula	7	*	*
Athens	0	*	*
Auglaize	1	*	*
Belmont	1	*	*
Brown	3	*	*
Butler	9	*	*
Carroll	0	*	*
Champaign	1	*	*
Clark	11	8.1	9.2
Clermont	2	*	*
Clinton	0	*	*
Columbiana	1	*	*
Coshocton	0	*	*
Crawford	4	*	*
Cuyahoga	129	10.2	11.0
Darke	0	*	*
Defiance	3	*	*
Delaware	0	*	*
Erie	1	*	*
Fairfield	4	*	*
Fayette	0	*	*
Franklin	91	7.4	7.2
Fulton	0	*	*
Gallia	2	*	*
Geauga	2	*	*
Greene	2	*	*
Guernsey	0	*	*
Hamilton	76	9.4	9.7
Hancock	0	*	*
Hardin	0	*	*
Harrison	1	*	*
Henry	0	*	*
Highland	1	*	*
Hocking	1	*	*
Holmes	2	*	*
Huron	1	*	*
		*	*
Jackson	2	*	*
Jefferson		*	*
Knox	2	*	*
Lake	5		
Lawrence	0	*	*

		Crude	Age-Adjusted
County	Count	Rate	Rate
Licking	1	*	*
Logan	2	*	*
Lorain	7	*	*
Lucas	23	5.3	5.4
Madison	0	*	*
Mahoning	20	8.6	9.3
Marion	1	*	*
Medina	2	*	*
Meigs	0	*	*
Mercer		*	*
Miami	2	*	*
		*	*
Monroe	1 27		
Montgomery	37	6.9	7.5
Morgan	1	*	*
Morrow	0	*	*
Muskingum	4	*	*
Noble	0	*	*
Ottawa	0	*	*
Paulding	0	*	*
Perry	1	*	*
Pickaway	1	*	*
Pike	1	*	*
Portage	4	*	*
Preble	0	*	*
Putnam	0	*	*
Richland	3	*	*
Ross	0	*	*
Sandusky	4	*	*
Scioto	2	*	*
Seneca	4	*	*
Shelby	0	*	*
Stark	16	4.3	4.2
Summit	25	4.6	5.2
Trumbull	10	4.9	4.9
Tuscarawas	3	*	*
Union	0	*	*
Van Wert	1	*	*
Vinton	0	*	*
Warren	2	*	*
Washington	0	*	*
Wayne	0	*	*
Williams	0	*	*
Wood	3	*	*
Wyandot	0	*	*
. v yunuut	<u> </u>		

<sup>\*</sup> Rates are not calculated for counties with <10 cases to avoid unstable estimates. Sources: ODH, OH-VDRS and Vital Statistics

Combining data from multiple years provides additional data that permits calculating rates for more counties. Figure 3.2 presents age-adjusted annual rates of homicide for the period 2012 to 2014. The six major metropolitan counties in the state had higher age-adjusted rates during this period, as did selected rural Appalachian counties.

Ashtabula ake Williams Fulton Lucas Ottawa Geauga Cuyahoga Henry Sandusky Erie Defiance Trumbull Wood Lorain Portage Summit Paulding Seneca Huron Medina Hancock Putnam Mahoning Wayne Ashland Crawford Van Wert Wyandot Columbiana Richland Allen Stark Hardin Marion Auglaize Carroll Mercer Holmes Morrow Jefferson Logan Shelby Tuscarawas Union Knox Harrison Delaware Coshocton Darke Champaign Licking Miami Belmont Muskingum Guernsey Franklin Clark Madison Montgomery Preble Noble Greene Fairfield Perry Monroe Morgan Pickaway Fayette Butler Clinton Hocking Washington Warren Athens Ross Not available Vinton Hamilton Highland Clermont <2.8 per 100,000 Pike Jackson Meigs 2.8-4.1 per 100,000 Adams Scioto Gallia 4.2-6.1-per 100,000 Lawrence >6.1 per 100,000

Figure 3.2: Age-adjusted annual rates of homicide, by county quartile, Ohio, 2012-2014

Rates are not calculated for counties with <5 cases to avoid unstable estimates. Sources: ODH, OH-VDRS and Vital Statistics

### Method of death

Firearms were used in 72 percent of homicides in Ohio in 2014. The proportion varied greatly by sex, however, with male victims being killed by a firearm in 76 percent of homicides, compared to 53 percent for females (Table 3.6). Compared to males, female victims were more likely to be killed by hanging/strangulation (10 percent) or a sharp instrument (18 percent).

Table 3.6: Homicides by method of death, Ohio, 2014

	Males		Fem	nales	Total	
	Count	Percent	Count	Percent	Count	Percent
Firearm	345	76.3	55	52.9	400	71.9
Hanging/Strangulation	14	3.1	10	9.6	24	4.3
Poisoning	1	0.2	1	1.0	2	0.4
Sharp instrument	40	8.8	19	18.3	59	10.6
Other/Unknown	52	11.5	19	18.3	71	12.8
Total	452	100.0	104	100.0	556	100.0

Sources: ODH and OH-VDRS

### Circumstances

For most homicides, OH-VDRS provides information on the circumstances surrounding death. Toxicology results, for example, were available for 512 (92 percent) of the 556 homicides in Ohio in 2014.

### Type of location

As presented in Table 3.7, 52 percent of homicides in Ohio in 2014 occurred in a house or apartment. Other locations included public areas like a street or playground (20 percent) or a private motor vehicle (12 percent). Two homicides occurred in Ohio prisons during 2014, compared to five in 2013.

Table 3.7: Locations where homicide deaths occurred by sex, Ohio, 2014

	Males		Fen	nales	To	otal
	Count	Percent	Count	Percent	Count	Percent
House/Apartment	211	46.7	78	75.0	289	52.0
Public area (e.g., street, road, playground)	107	23.7	6	5.8	113	20.3
Private motor vehicle	59	13.1	8	7.7	67	12.1
Commercial establishment	33	7.3	1	1.0	34	6.1
Natural area	6	1.3	2	1.9	8	1.4
Prison/Jail	2	0.4	0	0.0	2	0.4
Other	24	5.3	3	2.9	27	4.9
Unknown	10	2.2	6	5.8	16	2.9
Total	452	100.0	104	100.0	556	100.0

Sources: ODH and OH-VDRS

### **Toxicology results**

Table 3.8 presents the number and percent of homicide victims testing positive for various substances.

Table 3.8: Percent of homicide deaths testing positive for various substances, Ohio, 2014

	Male		Female			Total	
	Count	Percent	Count	Percent		Count	Percent
Marijuana	168	40.2	11	11.7		179	35.0
Alcohol	144	34.4	16	17.0		160	31.3
Opiates	63	15.1	14	14.9		77	15.0
Cocaine	56	13.4	15	16.0		71	13.9
Benzodiazepines	34	8.1	13	13.8		47	9.2
Antidepressants	9	2.2	9	9.6		18	3.5
Amphetamines	11	2.6	3	3.2		14	2.7
Anticonvulsants	7	1.7	5	5.3		12	2.3
Barbiturates	9	2.2	2	2.1		11	2.1
Carbon Monoxide	4	1.0	2	2.1		6	1.2
Muscle Relaxants	5	1.2	1	1.1		6	1.2
Antipsychotics	1	0.2	0	0.0		1	0.2
One or more of the above substances	321	76.8	46	48.9		367	71.7

Percent is based on a denominator of homicide deaths (n=512) with available toxicology results

Sources: ODH and OH-VDRS

Marijuana (35 percent) was the most common substance found in toxicology results, followed by alcohol (31 percent), opiates (15 percent) and cocaine (14 percent). Male victims were more likely than female victims to screen positive for one or more substances (77 percent vs. 49 percent). Sex differences were particularly pronounced for marijuana and alcohol. For the 159 homicide victims screening positive for alcohol, blood alcohol concentration results appear in Table 3.9.

Table 3.9: Blood alcohol concentration results for homicide victims testing positive for alcohol, Ohio, 2014

	M	Male		Female			Total		
	Count	Percent		Count	Percent		Count	Percent	
Less than 0.040	27	18.8		6	40.0		33	20.8	
0.040-0.079	25	17.4		2	13.3		27	17.0	
0.080-0.119	24	16.7		1	6.7		25	15.7	
0.120-0.159	25	17.4		2	13.3		27	17.0	
0.160-0.199	15	10.4		3	20.0		18	11.3	
0.200 and above	28	19.4		1	6.7		29	18.2	

A total of 159 homicide victims tested positive for alcohol.

Sources: ODH and OH-VDRS

### **Victim-suspect relationship**

For 38 percent (214/556) of homicide victims, data were available to describe their relationship with the suspect. The victim-suspect relationship was available from both law enforcement reports and coroner/medical examiner (CME) records.

Among homicide victims with available data, nearly all were killed by someone they knew; only 7 percent were killed by a stranger (Table 3.10). There were, however, significant differences by sex: females were much more likely than males to be killed by current/former spouse or intimate partner, whereas males were more likely to be killed by an acquaintance or friend. Also, male homicide victims were much more likely than female victims to lack information on their relationship to the suspect (69 percent vs. 31 percent).

Table 3.10: Relationship between homicide suspect and victim, Ohio, 2014

	Male		Fei	Female		otal
	Count	Percent	Count	Percent	Count	Percent
Acquaintance	37	26.1	5	6.9	42	19.6
Friend	21	14.8	1	1.4	22	10.3
Roommate (not intimate partner)	6	4.2	3	4.2	9	4.2
Current/former work relationship	1	0.7	1	1.4	2	0.9
Other person, known to victim	23	16.2	6	8.3	29	13.6
Girlfriend or boyfriend	5	3.5	13	18.1	18	8.4
Ex-girlfriend or ex-boyfriend	2	1.4	6	8.3	8	3.7
Spouse	4	2.8	12	16.7	16	7.5
Ex-spouse	0	0.0	2	2.8	2	0.9
Child of suspect's boyfriend/girlfriend	3	2.1	3	4.2	6	2.8
Intimate partner of suspect's parent	1	0.7	0	0.0	1	0.5
Parent	4	2.8	8	11.1	12	5.6
Child	11	7.7	3	4.2	14	6.5
Stepchild	0	0.0	1	1.4	1	0.5
Sibling	4	2.8	1	1.4	5	2.3
Grandparent	1	0.7	1	1.4	2	0.9
Grandchild	0	0.0	3	4.2	3	1.4
In-law	0	0.0	0	0.0	0	0.0
Babysitter (e.g., child killed by babysitter)	0	0.0	1	1.4	1	0.5
Other family member (e.g., cousin, uncle)	6	4.2	0	0.0	6	2.8
Stranger	13	9.2	2	2.8	15	7.0
Total	142	100.0	72	100.0	214	100.0

Data are for the primary victim-suspect relationship only, and omit the few incidents 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. The denominator is the 214 homicide victims with a known relationship to the suspect.

Sources: ODH and OH-VDRS

### Other circumstances

Many homicides occurred in the context of other crimes, especially among males (Table 3.11). Among cases with circumstance data, more than 12 percent of homicides were precipitated by drug dealing or drug use, and 27 percent were precipitated by another crime.

Different types of arguments and conflicts were also common (Table 3.12). Sixty-four homicides in 2014 were associated with intimate partner violence. For more information and OH-VDRS data on this important topic, please refer to the 2016 fact sheet prepared by the Ohio Department of Health.<sup>2</sup>

Table 3.11: Crime-Related circumstances of homicide victims, by sex, Ohio, 2014

	Male		Female		Total	
	Count	Percent	Count	Percent	Count	Percent
Drug dealing/trade/use precipitated homicide	57	15.1	2	2.3	59	12.7
Another crime precipitated homicide	110	29.2	14	16.3	124	26.8
A crime was in progress at the time of the incident	93	24.7	13	15.1	106	22.9
Gang-related	15	4.0	2	2.3	17	3.7
Drive-by shooting	16	4.2	1	1.2	17	3.7
Hate crime	0	0.0	0	0.0	0	0.0
Victim was a bystander, not the intended target	3	0.8	3	3.5	6	1.3
Victim used a weapon during the incident	31	8.2	1	1.2	32	6.9
Victim killed in legitimate act of self-defense	12	3.2	0	0.0	12	2.6

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=463). Homicide victims may report more than one circumstance.

Sources: ODH and OH-VDRS

Table 3.12: Arguments and conflicts circumstances of homicide victims, by sex, Ohio, 2014

	Male		Female		Total	
	Count	Percent	Count	Percent	Count	Percent
Argument or conflict led to homicide	130	34.5	27	31.4	157	33.9
Homicide was preceded by fight between 2 persons	38	10.1	1	1.2	39	8.4
Homicide was preceded by fight among 3+ persons	13	3.4	0	0.0	13	2.8
Intimate partner violence	23	6.1	41	47.7	64	13.8
Jealousy	7	1.9	8	9.3	15	3.2
Victim had a (non- alcohol) substance abuse problem	80	21.2	20	23.3	100	21.6
Victim suspected of using alcohol before incident	45	11.9	6	7.0	51	11.0
Homicide was direct result of suspect's mental illness	11	2.9	7	8.1	18	3.9

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=463). Homicide victims may report more than one circumstance.

Sources: ODH and OH-VDRS

<sup>&</sup>lt;sup>2</sup> Violence and Injury Prevention Program, Ohio Department of Health. *Intimate Partner Violence and Homicide in Ohio*. Columbus, OH: Violence and Injury Prevention Program, Ohio Department of Health; 2016.

### Comparisons with other states

Although NVDRS data are not representative of the entire nation, comparing Ohio data to other NVDRS states can help highlight patterns that may be distinctive for our state. Combining data from 2011 through 2013 (the most recent years available), Table 3.13 presents age-adjusted rates for homicides by race/ethnicity and sex in 17 states (there were too few cases among other groups for comparison).

Table 3.13: Age-adjusted rates (per 100,000) of homicide, by race/ethnicity and sex, 17 states, 2011-2013

		Male			Female	
	White	Black	Hispanic	White	Black	Hispanic
Alaska	3.7	*	*	1.7	*	0.0
Colorado	2.7	18.7	8.6	1.6	5.2	2.5
Georgia	3.7	21.0	5.1	2.0	4.0	1.8
Kentucky	3.9	23.7	5.5	1.9	5.5	0.0
Maryland	1.8	27.9	2.8	1.1	3.6	*
Massachusetts	1.3	20.4	7.5	0.7	2.2	2.3
New Jersey	1.4	37.6	6.3	1.0	4.8	1.2
New Mexico	6.6	20.4	11.8	1.7	*	3.3
N. Carolina	4.0	23.0	7.5	2.0	3.6	1.5
Ohio	3.2	41.0	5.6	1.7	6.2	*
Oklahoma	6.3	40.1	6.8	3.2	8.4	3.2
Oregon	2.8	20.0	4.6	1.7	*	*
Rhode Island	1.3	13.5	8.0	0.8	*	*
S. Carolina	5.0	24.0	*	3.1	4.5	*
Utah	1.5	*	5.4	1.4	*	*
Virginia	2.3	19.3	2.5	1.4	3.5	1.6
Wisconsin	1.2	38.2	5.5	1.0	5.0	*
TOTAL	2.9	26.2	6.4	1.6	4.3	1.8

When the number of deaths was < 10, rates are not calculated to avoid unstable estimates. Figures for whites and blacks exclude Hispanics; Hispanics may be of any race. Figures for Ohio may differ very slightly from those reported elsewhere in this report because of the different years involved, the lag time in recording cases and different population estimates.

Sources: ODH, NVDRS and Vital Statistics

Across the NVDRS states, males had higher rates of homicide compared to females, and blacks had higher rates of homicide compared to whites or Hispanics. This same pattern of findings was observed for Ohio.

Homicide rates for white males and females in Ohio were similar to the 17-state-total rates, however, the homicide rates for black males and females was markedly higher. In fact, Ohio had the highest rate of homicide among black males of any NVDRS state (41.0 per 100,000). For black females, Ohio had the second-highest rate of any NVDRS state (6.2 per 100,000).

## Trends in homicide, 2012-2014

Comparing OH-VDRS data from 2012, 2013 and 2014 helps illustrate how patterns of homicide may change over time. During this period, the overall number of homicides declined, with proportional decreases being most pronounced for females and for victims younger than 15 years old or older than 65 years old (Table 3.14).

Table 3.14: Number of homicides by demographic groups and by year, Ohio, 2012 – 2014

				Percent change,	Percent change,
	2012	2013	2014	2012-2013	2013-2014
Total	610	621	556	1.8	-10.5
Male	464	478	452	3.0	-5.4
Female	146	143	104	-2.1	-27.3
White, non-Hispanic	230	213	186	-7.4	-12.7
Black, non-Hispanic	358	382	340	6.7	-11.0
Hispanic	16	12	20	-25.0	66.7
Other/Unknown	6	14	10	133.3	-28.6
<15	52	43	34	-17.3	-20.9
15-24	166	188	148	13.3	-21.3
25-34	146	156	154	6.8	-1.3
35-44	97	94	82	-3.1	-12.8
45-54	60	75	73	25.0	-2.7
55-64	41	34	36	-17.1	5.9
65+	47	31	29	-34.0	-6.5

Sources: ODH and OH-VDRS

#### 4. Deaths of Undetermined Intent

In Ohio in 2014, there were 157 violent deaths for which the manner of death could not be determined. This represents an age-adjusted rate of 1.4 per 100,000.

#### **Demographic characteristics**

Compared to victims of violent deaths where the manner was determined (e.g., suicide, homicide), victims of undetermined deaths were more likely to be white (125/157=80 percent vs. 1,519/2,067=73 percent) and female (62/157=39 percent vs. 430/2,067=21 percent).

Most deaths of undetermined intent were among white victims (Table 4.1). There were no noteworthy differences by sex across racial/ethnic groups.

Table 4.1: Deaths of undetermined intent, by race and sex, Ohio, 2014

	Male		Fer	nale	Total	
	Count	Percent	Count	Percent	Count	Percent
White, non-Hispanic	73	76.8	52	83.9	125	79.6
Black, non-Hispanic	14	14.7	8	12.9	22	14.0
Hispanic	7	7.4	2	3.2	9	5.7
Other/Unknown	1	1.1	0	0.0	1	0.6
Total	95	100.0	62	100.0	157	100.0

Sources: ODH and OH-VDRS

Most deaths of undetermined intent were among victims who did not graduate from four-year colleges. About 22 percent of decedents has less than a high school education, 44 percent were high school graduates and 19 percent had some college education (Table 4.2).

Table 4.2: Number of deaths of undetermined intent by education level, Ohio, 2014

	Male		Fer	male	Total		
	Count	Percent	Count	Percent	Count	Percent	
<high school<="" td=""><td>18</td><td>19.0</td><td>17</td><td>27.4</td><td>35</td><td>22.3</td></high>	18	19.0	17	27.4	35	22.3	
High school graduate	42	44.2	27	43.6	69	44.0	
Some college	18	19.0	12	19.4	30	19.1	
4-year college graduate	4	4.2	4	6.5	8	5.1	
Graduate degree	3	3.2	0	0.0	3	1.9	
Other/Unknown	10	10.5	2	3.2	12	7.6	
Total	95	100.0	62	100.0	157	100.0	

<sup>&</sup>quot;Some college" include victims with an Associate's Degree and those who attended, but did not graduate from a 4-year college. Sources: ODH, OH-VDRS and Vital Statistics

## Age

Nearly three quarters of deaths of undetermined intent in 2014 were among adults 25 to 64 years old (Table 4.3).

Table 4.3: Deaths of undetermined intent, by age group, Ohio, 2014

	IV	lale	Fer	male	To	otal
	Count	Percent	Count	Percent	Count	Percent
<1 year	5	5.3	0	0.0	5	3.2
1 to 4	2	2.1	3	4.8	5	3.2
5 to 14	2	2.1	4	6.5	6	3.8
15 to 24	8	8.4	3	4.8	11	7.0
25 to 34	20	21.1	6	9.7	26	16.6
35 to 44	15	15.8	10	16.1	25	15.9
45 to 54	23	24.2	16	25.8	39	24.8
55 to 64	12	12.6	14	22.6	26	16.6
65 to 74	6	6.3	2	3.2	8	5.1
75 to 84	1	1.1	3	4.8	4	2.5
85+	1	1.1	1	1.6	2	1.3
Total	95	100.0	62	100.0	157	100.0

Sources: ODH and OH-VDRS

## Locality

Locality refers to the victim's county of residence, not necessarily where the homicide occurred. Residents of 51 counties had a violent death of undetermined intent in 2014 (Table 4.4). Nearly all of these counties had less than 10 undetermined violent deaths during 2014. The only exceptions were Cuyahoga (18 deaths), Franklin (21 deaths) and Lucas (10 deaths).

Table 4.4: Deaths of undetermined intent, by county, Ohio, 2014

County	Count
Adams	0
Allen	
	0
Ashland	3
Ashtabula	1
Athens	1
Auglaize	0
Belmont	2
Brown	0
Butler	7
Carroll	1
Champaign	0
Clark	2
Clermont	1
Clinton	0
Columbiana	5
Coshocton	0
Crawford	0
Cuyahoga	18
Darke	1
Defiance	0
Delaware	1
Erie	2

County	Count
Fairfield	1
Fayette	0
Franklin	21
Fulton	1
Gallia	0
Geauga	0
Greene	1
Guernsey	0
Hamilton	7
Hancock	0
Hardin	0
Harrison	1
Henry	0
Highland	2
Hocking	0
Holmes	0
Huron	0
Jackson	0
Jefferson	2
Knox	1
Lake	3
Lawrence	2

County	Count
Licking	3
Logan	1
Lorain	1
Lucas	10
Madison	0
Mahoning	3
Marion	0
Medina	1
Meigs	0
Mercer	0
Miami	0
Monroe	0
Montgomery	8
Morgan	0
Morrow	2
Muskingum	3
Noble	0
Ottawa	1
Paulding	0
Perry	1
Pickaway	1
Pike	0

County	Count
Portage	0
Preble	1
Putnam	0
Richland	3
Ross	3
Sandusky	1
Scioto	2
Seneca	0
Shelby	1
Stark	4
Summit	9
Trumbull	1
Tuscarawas	3
Union	2
Van Wert	0
Vinton	1
Warren	0
Washington	1
Wayne	1
Williams	0
Wood	1
Wyandot	0

Sources: ODH and OH-VDRS

#### Method of death

For undetermined deaths, the most common method was "unknown" (39 percent) although poisoning was also common (34 percent). In comparison, for violent deaths with a determined manner, less than 1 percent used unknown methods and only 10 percent involved poisoning (Table 4.5). Poisoning as a method of death for undetermined cases may reflect overdose deaths in which it was unclear whether the injury was intentional, self-inflicted or intentionally caused by another person.

Table 4.5: Method used in determined vs. undetermined violent deaths, by sex, Ohio, 2014

	Undetermined						Determine		rmined
	N	1ale	Female		Total			To	otal
	Count	Percent	Count	Percent	Count	Percent	Co	unt	Percent
Firearm	4	4.2	3	4.8	7	4.5	1,	177	56.9
Hanging/Strangulation	2	2.1	2	3.2	4	2.5	4	151	21.8
Poisoning	24	25.3	29	46.8	53	33.8	2	216	10.4
Sharp instrument	1	1.1	0	0.0	1	0.6		80	3.9
Other	22	23.2	9	14.5	31	19.7	1	L36	6.6
Unknown	42	44.2	19	30.6	61	38.9		7	0.3
Total	95	100.0	62	100.0	157	100.0	2,	067	100.0

Sources: ODH and OH-VDRS

#### Circumstances

For most deaths of undetermined intent, OH-VDRS provides information on circumstances, such as the type of location where the death occurred, toxicology results, mental health issues and relationship circumstances. In 126 of the 157 cases (80 percent), reports included at least one type of circumstance.

#### Type of location

As presented in Table 4.6, 61 percent of deaths of undetermined intent in Ohio in 2014 occurred in a house or apartment. In another 19 percent of cases the location was unknown.

Table 4.6: Locations where undetermined intent deaths occurred by sex, Ohio, 2014

	M	lales	Fen	nales	To	otal
	Count	Percent	Count	Percent	Count	Percent
House/Apartment	46	48.4	49	79.0	95	60.5
Public area (e.g., street, road, playground)	6	6.3	1	1.6	7	4.5
Private motor vehicle	4	4.2	1	1.6	5	3.2
Commercial establishment	0	0.0	0	0.0	0	0.0
Natural area	12	12.6	2	3.2	14	8.9
Prison/Jail	1	1.1	0	0.0	1	0.6
Other	3	3.2	3	4.8	6	3.8
Unknown	23	24.2	6	9.7	29	18.5
Total	95	100.0	62	100.0	157	100.0
Sources: ODH and OH-VDRS						

#### **Toxicology results**

Of the 144 victims of an undetermined violent death who had an available toxicology report, 69 percent (n=100) tested positive for some type of substance use (Table 4.7). In comparison, 67 percent of the 1,147 other types of violent death (i.e., where the manner was determined) with an available toxicology screening tested positive for substance use. For victims of an undetermined violent death, the most common type of substance with a positive screen was opiates (34 percent), followed by benzodiazepines (24 percent).

Table 4.7: Percent of deaths of undetermined intent testing positive for various substances, by sex, Ohio, 2014

	M	lale	Fe	male	nale To	
	Count	Percent	Count	Percent	Count	Percent
Opiates	24	27.3	25	44.6	49	34.0
Benzodiazepines	19	21.6	15	26.8	34	23.6
Alcohol	22	25.0	9	16.1	31	21.5
Antidepressants	10	11.4	17	30.4	27	18.8
Marijuana	12	13.6	8	14.3	20	13.9
Anticonvulsants	10	11.4	9	16.1	19	13.2
Carbon Monoxide	6	6.8	5	8.9	11	7.6
Amphetamines	8	9.1	2	3.6	10	6.9
Cocaine	9	10.2	1	1.8	10	6.9
Antipsychotics	5	5.7	4	7.1	9	6.3
Barbiturates	2	2.3	2	3.6	4	2.8
Muscle Relaxants	0	0.0	3	5.4	3	2.1
One or more of the above substances	61	69.3	39	69.6	100	69.4

Percent is based on a denominator of deaths of undetermined intent (n=144) with available toxicology results Sources: ODH and OH-VDRS

For the 26 victims with an undetermined manner of death who tested positive, blood alcohol concentration results appear in Table 4.8. Compared to victims with a determined manner of death (results not shown), those with an undetermined manner of death were more likely to have a blood alcohol concentration of less than 0.040 (18 percent vs. 31 percent).

Table 4.8: Blood alcohol concentration results for victims with an undetermined manner of death who tested positive for alcohol, Ohio, 2014

	Male		Female			Total		
	Count	Percent	Count	Percent		Count	Percent	
Less than 0.040	1	5.9	3	33.3		4	15.4	
0.040-0.079	2	11.8	1	11.1		3	11.5	
0.080-0.119	2	11.8	4	44.4		6	23.1	
0.120-0.159	3	17.6	1	11.1		4	15.4	
0.160-0.199	4	23.5	0	0.0		4	15.4	
0.200 and above	5	29.4	0	0.0		5	19.2	

A total of 31 victims of an undetermined manner of death tested positive for alcohol. BAC results were missing for 5 victims. Sources: ODH and OH-VDRS

Mental health circumstances were associated with many victims with an undetermined manner of death (Table 4.9). Compared to suicide victims (see Table 2.10), those with an undetermined manner of death were more likely to report to have had an alcohol problem (16 percent vs. 28 percent) or a substance abuse problem other than alcohol (18 percent vs. 48 percent). Suicide victims were more likely to have other of the mental health circumstances listed below.

Table 4.9: Mental health circumstances of victims with a death of undetermined intent, by sex, Ohio, 2014

	Males		Fen	nales	Total	
	Count	Percent	Count	Percent	Count	Percent
Alcohol problem	25	34.7	10	18.5	35	27.8
Other substance abuse	40	55.6	21	38.9	61	48.4
Current depressed mood	5	6.9	2	3.7	7	5.6
Current diagnosed mental health problem	32	44.4	29	53.7	61	48.4
Currently received mental health treatment	18	25.0	16	29.6	34	27.0
History of mental health treatment	21	29.2	18	33.3	39	31.0

The denominator used for calculating percentage of specific circumstances is based on the number of with an undetermined manner of death who had at least one circumstance identified in either the coroner/medical examiner (CME) or law enforcement report. Victims may report more than one circumstance. About 80 percent of victims had circumstances available (n=126).

Sources: ODH and OH-VDRS

# 5. Legal intervention

In Ohio, there were 33 deaths due to legal intervention in 2014 – that is, deaths caused by law enforcement and other persons with legal authority to use deadly force (excluding legal executions). This figure represents an age-adjusted rate of 0.3 per 100,000.

Given the limited number of cases, detailed tables of demographics and other characteristics were inadvisable and would compromise confidentiality. However, a few patterns were noteworthy and involved at least 10 deaths. Of the 33 deaths due to legal intervention, 31 involved males, 15 involved blacks and 23 occurred in the state's metropolitan counties. Also, 26 of the cases involved individuals between 15 and 44 years of age and in 28 of the deaths a firearm was the weapon used.

Combining data from 2012, 2013 and 2014, 84 deaths due to legal intervention occurred in Ohio, 78 (93 percent) of which were among males and 6 (7 percent) were among females. Overall, 40 victims (45 percent) were white and another 42 victims (45 percent) were black. Sixty-one deaths (73 percent) occurred among residents of metropolitan counties. Deaths due to legal intervention were most common among 15-44-year-olds, and rates were much higher for black victims compared to white victims (Table 5.1).

Table 5.1: Age-specific counts and annual crude rates (per 100,000) of deaths due to legal intervention, by race and sex, Ohio, 2012-14

	W	hite	Bla	ck
	Count	Rate	Count	Rate
<15	0	*	1	*
15 to 24	6	0.2	14	1.8
25 to 34	9	0.3	9	1.5
35 to 44	14	1.4	12	2.2
>44	11	0.1	6	0.4
Total	40	0.1	42	0.9

Rates are not calculated for counties with <5 cases to avoid unstable estimates. Figures omit two Hispanic male victims. Sources: ODH, OH-VDRS and Vital Statistics

### 6. Firearm-Related Violent Deaths

Firearms account for the majority of violent deaths in Ohio. Combining data from 2012, 2013 and 2014, Table 6.1 presents the percentage of each manner of death that were firearm-related. From 2012 to 2014, firearms were involved in 3,695 violent deaths in Ohio, including 2,271 suicides, 1,257 homicides, 78 deaths due to legal intervention, 60 unintentional firearm fatalities and 29 deaths of undetermined intent.

Table 6.1: Number and percent of manners of violent death that involved a firearm, Ohio, 2012 - 2014

	Firearm-related		Other/Unknown	Total		
	Count	Percent	Count Percent	Count	Percent	
Suicide	2,271	50.8	2,198 49.2	4,469	100.0	
Homicide	1,257	70.3	530 29.7	1,787	100.0	
Legal intervention	78	92.9	6 7.1	84	100.0	
Unintentional firearm	60	100.0	0 0.0	60	100.0	
Undetermined intent	29	5.8	472 94.2	501	100.0	
All violent deaths	3,695	53.5	3,206 46.5	6,901	100.0	

Sources: ODH, OH-VDRS

This section describes some of the populations and circumstances where firearms are particularly common as a method for suicide and homicide – the most common types of violent death. To generate more reliable estimates, the data in this section (unless otherwise noted) combine results for the years 2012 through 2014.

## Suicide

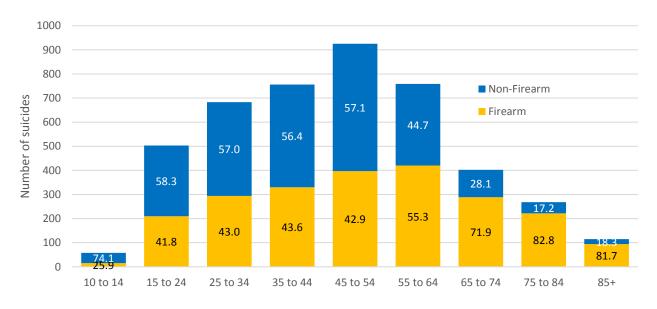
From 2012 to 2014, 2,271 (51 percent) of the 4,469 suicides in Ohio involved a firearm. This proportion, however, varied across demographic groups (Table 6.2). Among male victims, 56 percent of suicides involved a firearm compared to 31 percent for females. White victims (52 percent) were more likely to use a firearm compared to black (47 percent) or Hispanic (35 percent) victims. Older victims were especially likely to use a firearm. More than 80 percent of suicide victims older than 74 years old used a firearm (Figure 6.1).

Table 6.2: Number and percent of suicides that involved a firearm, by demographic groups, Ohio, 2012 – 2014

	Fire	earm	Other/Unkr	nown Method	Total		
	Count	Percent	Count	Percent	Count	Percent	
Total	2,271	50.8	2,198	49.2	4,469	100.0	
Male	1,973	56.4	1,524	43.6	3,497	100.0	
Female	298	30.7	674	69.3	972	100.0	
White, non-Hispanic	2,079	51.7	1,945	48.3	4,024	100.0	
Black, non-Hispanic	144	46.6	165	53.4	309	100.0	
Hispanic	20	34.5	38	65.5	58	100.0	
Other/Unknown	28	35.9	50	64.1	78	100.0	
<15	15	25.9	43	74.1	58	100.0	
15-24	210	41.8	293	58.3	503	100.0	
25-34	294	43.1	389	57.0	683	100.0	
35-44	330	43.7	426	56.4	756	100.0	
45-54	397	42.9	528	57.1	925	100.0	
55-64	420	55.3	339	44.7	759	100.0	
65-74	289	71.9	113	28.1	402	100.0	
75-84	222	82.8	46	17.2	268	100.0	
85+	94	81.7	21	18.3	115	100.0	

Sources: ODH and OH-VDRS

Figure 6.1: Percent of suicides that involved a firearm, by age group, Ohio, 2012 - 2014



See Table 6.2 for the number of suicides in each age group.

Sources: ODH and OH-VDRS

Firearms were most common among suicide victims residing in rural Appalachian counties (Table 6.3). Even after adjusting for the different age distribution in each type of county, the age-adjusted rate of firearm suicide was much higher in rural Appalachian counties (9.0 per 100,000) compared to other types of counties. In contrast, there were relatively modest differences by county type in rates of non-firearm suicide.

Table 6.3: Counts, percent and rates (per 100,000) of firearm and non-firearm suicides by county type, Ohio, 2012 - 2014

		Firearm				Other/Unknown Method				
County type	Count	Percent	Crude Rate	Age- Adjusted Rate	Count	Percent	Crude Rate	Age- Adjusted Rate		
Metropolitan	1,101	48.5	5.8	5.5	1,277	58.1	6.7	6.7		
Suburban	376	16.6	6.5	6.2	341	15.5	5.9	5.9		
Rural Appalachian	514	22.6	9.6	9.0	315	14.3	5.9	6.0		
Rural non-Appalachian	280	12.3	6.1	5.6	265	12.1	5.7	6.0		
Total	2,271	100.0	6.5	6.2	2,198	100.0	6.3	6.4		

County type refers to the victim's county of residence. <u>See p. 8</u> for a list of counties of each type. Sources: ODH, OH-VDRS and Vital Statistics

#### Homicide

From 2012 to 2014, 1,257 (70 percent) of the 1,787 homicides in Ohio involved a firearm. This proportion, however, varied across demographic groups (Table 6.4). Among male victims, 76 percent of homicides involved a firearm compared to 51 percent for females. Black victims (83 percent) were more likely to be killed by a firearm compared to white (49 percent) or Hispanic (65 percent) victims. Homicide victims 15 to 34 years old were most likely to be killed by a firearm, whereas firearms were uncommon for victims younger than 5 years old (Figure 6.2).

Table 6.4: Number and percent of homicides that involved a firearm, by demographic groups, Ohio, 2012 - 2014

	Fire	earm	Other/Unkn	own Method	Total		
	Count	Percent	Count	Percent	Count	Percent	
Total	1,257	70.3	530	29.8	1,787	100.0	
Male	1,056	75.8	338	24.3	1,394	100.0	
Female	201	51.2	192	48.9	393	100.0	
White, non-Hispanic	311	49.4	318	50.6	629	100.0	
Black, non-Hispanic	891	82.5	189	17.5	1,080	100.0	
Hispanic	31	64.6	17	35.4	48	100.0	
Other/Unknown	24	80.0	6	20.0	30	100.0	
<1	1	2.8	35	97.2	36	100.0	
1-4	4	8.5	43	91.5	47	100.0	
5-14	27	58.7	19	41.3	46	100.0	
15-24	440	87.6	62	12.4	502	100.0	
25-34	379	83.1	77	16.9	456	100.0	
35-44	190	69.6	83	30.4	273	100.0	
45-54	129	62.0	79	38.0	208	100.0	
55-64	48	43.2	63	56.8	111	100.0	
65-74	22	34.9	41	65.1	63	100.0	
75-84	13	43.3	17	56.7	30	100.0	
85+	4	28.6	10	71.4	14	100.0	

One victim of a non-firearm-related homicide had an unknown age.

Sources: ODH and OH-VDRS

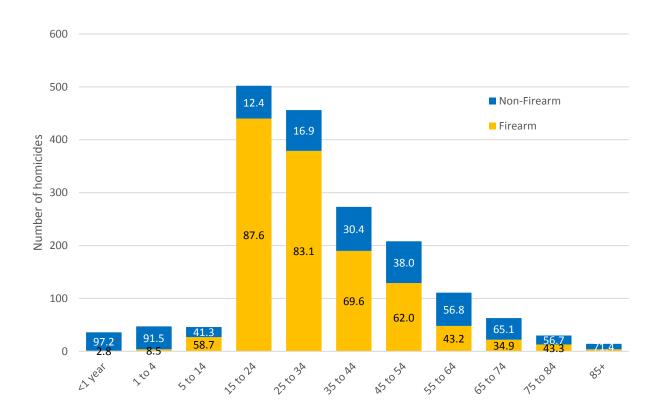


Figure 6.2: Percent of homicides that involved a firearm, by age group, Ohio, 2012 – 2014

See Table 6.4 for the number of homicides. One victim of a non-firearm-related homicide had an unknown age. Sources: ODH and OH-VDRS

Firearms were most common among homicide victims residing in metropolitan counties (Table 6.5). Even after adjusting for the different age distribution in each type of county, the age-adjusted rate of firearm suicide was much higher in metropolitan counties (5.8 per 100,000) compared to other types of counties. In contrast, there were more modest differences by county type in rates of non-firearm homicide.

Table 6.5: Counts, percent and rates (per 100,000) of firearm and non-firearm homicides, by county type, Ohio, 2012-14

		Fire	earm		Other/Unknown Method				
County type	Count	Percent	Crude Rate	Age- Adjusted Rate	Count	Percent	Crude Rate	Age- Adjusted Rate	
Metropolitan	1,052	83.7	5.6	5.8	349	66.0	1.8	1.9	
Suburban	61	4.9	1.0	1.1	52	9.8	0.9	0.9	
Rural Appalachian	116	9.2	2.2	2.3	76	14.4	1.4	1.5	
Rural non-Appalachian	28	2.2	0.6	0.7	52	9.8	1.1	1.2	
Total	1,257	100.0	3.6	3.8	529	100.0	1.5	1.6	

County type refers to the victim's county of residence. <u>See p. 8</u> for a list of counties of each type. Sources: ODH, OH-VDRS and Vital Statistics

#### Unintentional firearm deaths

In Ohio, there were 23 deaths due to unintentional firearm injury in 2014, whether self-inflicted or inflicted unintentionally by someone else. This figure represents an age-adjusted rate of 0.2 per 100,000.

Given the limited number of cases, detailed tables of demographics and other characteristics were inadvisable and would compromise confidentiality. However, a few patterns were noteworthy and involved at least 10 deaths. Of the 23 deaths due to unintentional firearm injury, 14 involved white males, 12 involved individuals younger than 25 years of age and 12 deaths occurred among residents of the state's metropolitan counties.

Combining data from 2012, 2013 and 2014, 60 deaths due to unintentional firearm injury occurred in Ohio, 53 (88 percent) of which were among males. Thirty-one deaths (52 percent) occurred among residents of metropolitan counties and 16 (27 percent) occurred among residents of rural Appalachian counties. Deaths due to unintentional firearm injury were most common among 15-24-year-olds (Table 6.6).

Table 6.6: Age-specific counts and crude rates (per 100,000) of fatal unintentional firearm injury, by race and sex, Ohio, 2012-14

		N	lale			Female				TOTAL	
	Wh	nite	Bla	ack	Wh	White		White Black			
	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	
<15	9	0.4	2	*	0	*	3	*	14	0.2	
15 to 24	10	0.5	8	2.1	0	*	0	*	18	0.4	
25 to 34	6	0.3	2	*	2	*	0	*	10	0.2	
35 to 44	0	*	0	*	1	*	0	*	1	*	
>44	12	0.2	2	*	0	*	1	*	15	0.1	
Total	37	0.3	14	0.6	3	*	4	*	58	0.2	

Rates are not calculated for counties with <5 cases to avoid unstable estimates. Figures omit two Hispanic male victims. Sources: ODH, OH-VDRS and Vital Statistics

### **Partners**

#### Law enforcement agencies

Ada Police Department Adams County Sheriff's Office Akron University Police Department Allen County Sheriff's Office Alliance Police Department Amelia Police Department Andover Police Department **Archbold Police Department** Arlington Heights Police Department Ashland County Sheriff's Office Ashland Police Department Ashtabula County Sheriff's Office Ashtabula Police Department Ashville Police Department Athens County Sheriff's Office **Athens Police Department** Auglaize County Sheriff's Office Aurora Police Department Austintown Police Department **Barberton Police Department** Barnesville Police Department **Batavia Police Department** Bath Twp. Police Department Bazetta Twp. Police Department **Beachwood Police Department** Beavercreek Police Department **Bedford Heights Police Department Bedford Police Department Bellbrook Police Department** Bellefontaine Police Department Bellevue Police Department Belmont County Sheriff's Office Belpre Police Department Berea Police Department Blendon Twp. Police Department Blue Ash Police Department **Bluffton Police Department Boardman Police Department Boston Heights Police Department Bowling Green Police Department** Bracken County Sheriff's Office, KY **Bratenahl Village Police Department** Brecksville Police Department **Bridgeport Police Department Brimfield Police Department** 

Brimfield Twp. Police Department Broadview Heights Police Department **Brooklyn Heights Police Department Brooklyn Police Department Brookville Police Department Brown County Sheriff's Office Brunswick Hills Police Department Brunswick Police Department Bryan Police Department** Buckeye Lake Police Department **Bucyrus Police Department Butler County Sheriff's Office Butler Police Department** Cambridge Police Department Canal Fulton Police Department **Canton Police Department Cardington Police Department** Carey Police Department Carleton Police Department, MI Carroll County Sheriff's Office Carroll Twp. Police Department **Carrollton Police Department** Catawba Island Police Department Celina Police Department Centerville Police Department Champaign County Sheriff's Office Chester Police Department, WV Chester Twp. Police Department Chillicothe Police Department Cincinnati Police Department Clark County Sheriff's Office Clay Twp. Police Department Clayton Police Department Clearcreek Twp. Police Department Clermont County Sheriff's Office Cleveland Heights Police Department **Cleveland Metroparks** Cleves Police Department Clinton County Sheriff's Office Clyde Police Department Colerain Twp. Police Department Columbiana County Sheriff's Office Columbiana Police Department Columbus Grove Police Department Columbus Police Department

Conneaut Police Department Copley Police Department Coshocton County Sheriff's Office Covington Police Department, KY

Crawford County Sheriff's Office Cuyahoga County Sheriff's Office Cuyahoga Falls Police Department

Cuyahoga Valley National Park Police Department

**Dalton Police Department** 

Danbury Twp. Police Department
Darke County Sheriff's Office
Deer Park Police Department
Defiance County Sheriff's Office
Defiance Police Department
Delaware County Sheriff's Office
Delaware Police Department
Delphos Police Department
Dennison Police Department
Dover Police Department
Dublin Police Department

East Liverpool Police Department
East Palestine Police Department
Eastlake Police Department
Eaton Police Department
Elyria Police Department
Englewood Police Department
Enon Police Department

Erie County Sheriff's Office
Erlanger Police Department
Euclid Police Department
Fairborn Police Department
Fairfax Police Department
Fairfield County Sheriff's Office
Fairfield Police Department
Fairfield Twp. Police Department
Fairview Park Police Department
Fayette County Sheriff's Office

Fayette Police Department Felicity Police Department Findlay Police Department Five Rivers Metroparks

Florence Police Department, KY
Forest Park Police Department
Fort Mitchell Police Department
Fostoria Police Department
Franklin County Sheriff's Office
Franklin Police Department
Fremont Police Department

Fulton County Sheriff's Office Gahanna Police Department Galion Police Department Gallia County Sheriff's Office
Garfield Heights Police Department

Geauga County Sheriff's Office Geauga Park District Rangers Geneva Police Department

Genoa Police Department

Georgetown Police Department German Twp. Police Department

Glouster Police Department Goshen Twp. Police Department Granville Police Department

Green Twp. Police Department Greene County Sheriff's Office Greenhills Police Department

Greenville Police Department Guernsey County Sheriff's Office Hamilton County Sheriff's Office Hamilton Police Department

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

Harrison Twp. Police Department Heath Police Department

Henry County Sheriff's Office Highland County Sheriff's Office Highland Heights Police Department

Hillsboro Police Department Hinckley Twp. Police Department

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

Hudson Police Department Huron County Sheriff's Office Huron Police Department Indiana State Police

Ironton Police Department
Jackson County Sheriff's Office
Jackson Police Department
Jackson Police Department, MI
Jackson Twp. Police Department
Jamestown Police Department
Jefferson County Sheriff's Office
Johnstown Police Department

Kanawha County Sheriff's Office, WV

Kent Police Department

Kenton Police Department **Kettering Police Department** Kirtland Police Department Knox County Sheriff's Office Lake County Sheriff's Office Lake Twp. Police Department Lakewood Police Department Lancaster Police Department Lawrence County Sheriff's Office Lebanon Police Department Leesburg Police Department Leetonia Police Department Lewisburg Police Department **Lexington Police Department** Liberty Twp. Police Department Licking County Sheriff's Office Lima Police Department **Lisbon Police Department Lockland Police Department** Lodi Police Department Logan County Sheriff's Office Logan Police Department **London Police Department** Lorain County Sheriff's Office **Lorain Police Department** Lordstown Police Department Louisville Police Department **Loveland Police Department** Lucas County Sheriff's Office Lyndhurst Police Department Macedonia Police Department Madeira Police Department Madison County Sheriff's Office Madison Twp. Police Department Magnolia Police Department Mahoning County Sheriff's Office Mansfield Police Department Maple Heights Police Department Marietta Police Department Marion County Sheriff's Office Marion Police Department Marlboro Twp. Police Department Martins Ferry Police Department Marysville Police Department Mason Police Department Massillon Police Department Maumee Police Department Mayfield Heights Police Department McDonald Village Police Department Mechanicsburg Police Department 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 Mercer County Sheriff's Office Miami County Sheriff's Office Miami Twp. Police Department Miami University Police Miamisburg Police Department Middleburg Heights Police Department Middletown Police Department Milan Police Department Milford Police Department Millersburg Police Department Mingo Junction Police Department Monroe County Sheriff's Office Montgomery County Sheriff's Office Montgomery Police Department Montville Twp. Police Department Moraine Police Department Moreland Hills Police Department Morenci Police Department Morgan County Sheriff's Office Morrow County Sheriff's Office Mount Gilead Police Department Mount Vernon Police Department Mt. Orab Police Department Munroe Falls Police Department Muskingum County Sheriff's Office Napoleon Police Department Nelsonville Police Department **New Albany Police Department New Concord Police Department** New Franklin Police Department New London Police Department **New Paris Police Department** New Philadelphia Police Department Newburgh Heights Police Department Newcomerstown Police Department **Newport Police Department Newtown Police Department** Noble County Sheriff's Office North Canton Police Department North College Hill Police Department North Olmsted Police Department North Randall Police Department North Ridgeville Police Department North Royalton Police Department Northwood Police Department Norton Police Department

Norwalk Police Department Norwood Police Department Oak Harbor Police Department Ohio Bureau of Criminal Investigation Ohio Department of Natural Resources Ohio Division of Wildlife Ohio State Highway Patrol Ohio University Police Department Olmsted Twp. Police Department Ontario Police Department Oregon Police Department Ottawa County Sheriff's Office Ottawa Hills Police Department Oxford Police Department Oxford Twp. Police Department Painesville Police Department Parma Police Department Pataskala Police Department Paulding County Sheriff's Office Pepper Pike Police Department Perkins Twp. Police Department Perry County Sheriff's Office Perry Twp. Police Department Perrysburg Police Department Perrysburg Twp. Police Department Pickaway County Sheriff's Office Pickerington Police Department Pike County Sheriff's Office Piqua Police Department Poland Twp. Police Department Port Clinton Police Department Portage County Sheriff's Office Portsmouth Police Department **Powell Police Department** Preble County Sheriff's Office Put-In-Bay Police Department Putnam County Sheriff's Office Ravenna Police Department **Reading Police Department** Reynoldsburg Police Department Richland County Sheriff's Office Richmond Heights Police Department **Ripley Police Department** Rittman Police Department Riverside Police Department Rocky River Police Department Ross County Sheriff's Office **Rossford Police Department** Russell's Point Police Department Sagamore Hills Police Department Salem Police Department

Sandusky County Sheriff's Office Sandusky Police Department Sardinia Police Department Scioto County Sheriff's Office Seneca County Sheriff's Office Seven Hills Police Department Seville Police Department Shaker Heights Police Department Sharonville Police Department Shawnee Hills Police Department Shawnee Twp. Police Department Shelby County Sheriff's Office Shelby Police Department Sidney Police Department Solon Police Department South Euclid Police Department South Russell Police Department Springboro Police Department **Springfield Police Department** Springfield Twp. Police Department St. Bernard Police Department St. Clair Twp. Police Department St. Mary's Police Department St. Paris Police Department Stark County Sheriff's Office Steubenville Police Department **Stow Police Department** Streetsboro Police Department Strongsville Police Department **Struthers Police Department Summit County Metro Park Rangers** Summit County Sheriff's Office **Sunbury Police Department Swanton Police Department** Sylvania Police Department Sylvania Twp. Police Department Tallmadge Police Department Tiffin Police Department Tipp City Police Department Toronto Police Department **Trenton Police Department Trotwood Police Department Troy Police Department** Trumbull County Sheriff's Office Tuscarawas County Sheriff's Office Twinsburg Police Department Uhrichsville Police Department Union County Sheriff's Office **Union Police Department** Union Twp. Police Department University Heights Police Department

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Waynesville Police Department

Wellston Police Department Wellsville Police Department West Carrollton Police Department West Chester Police Department West Lafayette Police Department West Milton Police Department West Union Police Department Westerville Police Department Westlake Police Department Wickliffe Police Department Willard Police Department Williams County Sheriff's Office Willoughby Hills Police Department Willoughby Police Department Willowick Police Department Wilmington Police Department Wintersville Police Department Wood County Sheriff's Office Woodsfield Police Department Wooster Police Department Wyandot County Sheriff's Office Xenia Police Department Yellow Springs Police Department Youngstown Police Department Zanesville Police Department

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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 Williams County Coroner's Office

Wood County Coroner's Office

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# **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.

**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 physical violence, sexual violence, stalking and/or psychological aggression (including coercive acts) by a current or former intimate partner

**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.

