# Arizona State University's 2020 Annual Report on Suicide in Pinal County

Prepared by
Center for Violence Prevention and Community Safety

Sponsored by Centers for Disease Control and Prevention

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#### **About the Center for Violence Prevention and Community Safety**

In order to become more committed to the Arizona community and to society as a whole, Arizona State University is setting a new standard for research universities through the model of the New American University. As a New American University, ASU is measured not by who we exclude, but by whom we include; our pursuit of research that considers the public good; and we assume major responsibility for the economic, social, and cultural vitality of our community. Social embeddedness is core to the development of ASU as the New American University. Social embeddedness is a university-wide, interactive, and mutually supportive partnership with the communities of Arizona.

Toward the goal of social embeddedness, Arizona State University established the Center for Violence Prevention and Community Safety in July 2005 to respond to the growing need of Arizona's communities to improve the public's safety and well-being. The Center for Violence Prevention and Community Safety is a research unit within the Watts Family College of Public Service and Community Solutions at Arizona State University. The Center's mission is to generate, share, and apply quality research and knowledge to create "best practice" standards. The center specifically evaluates policies and programs, analyzes and evaluates patterns and causes of violence, develops strategies and programs, develops a clearinghouse of research reports and "best practice" models, educates, trains and provides technical assistance, and facilitates the development of and construction of databases. For more information about the Center for Violence Prevention and Community Safety please contact us using the information provided below.

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#### Acknowledgements

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We thank and acknowledge the cooperation and support of the Arizona Department of Health Services, Bureau of Vital Records, and the many local law enforcement agencies and medical examiner offices throughout the State of Arizona that have provided information to the AZ-VDRS. Without our partners, the AZ-VDRS would not be possible. The agencies that provided data for this report are:

Apache County Medical Examiner's Office Coconino County Medical Examiner's Office Paradise Valley Police Department Gila Messinger Mortuary Maricopa County Medical Examiner's Office Phoenix Police Department Mohave County Medical Examiner's Office Navajo County Medical Examiner's Office New Mexico Office of the Medical Examiner Pima County Medical Examiner's Office Pinal County Medical Examiner's Office Yavapai County Medical Examiner's Office Yuma County Medical Examiner's Office

**Apache Junction Police Department** Buckeye Police Department Casa Grande Police Department Chandler Police Department Chino Valley Police Department **Douglas Police Department** El Mirage Police Department Flagstaff Police Department Gilbert Police Department Glendale Police Department Kingman Police Department Lake Havasu City Police Department Marana Police Department Maricopa Police Department Mesa Police Department

Nogales Police Department

Oro Valley Police Department Peoria Valley Police Department Prescott Police Department Prescott Valley Police Department Safford Police Department Sahuarita Police Department Scottsdale Police Department Sedona Police Department Show Low Police Department Sierra Vista Police Department Snowflake Taylor Police Department St. John's Police Department Surprise Police Department Tempe Police Department Tucson Police Department

Coconino County Sheriff Office Maricopa County Sheriff Office Navajo County Sheriff Office Pima County Sheriff Office Pinal County Sheriff Office Yavapai County Sheriff Office Yuma County Sheriff Office

ADHS, Bureau of Vital Records

During 2016, the AZ-VDRS Advisory Board provided input, advice and support. These individuals and their agencies were paramount to establishing and maintaining the program. We would especially like to thank Tomi St. Mars and Pam Goslar for their serving as the executive leaders of the steering committee. They have been our strongest champions and provided continuous leadership throughout the project. We would be remiss if we did not thank our CDC science officer Dr. Shane Davis-Jack and our CDC project officer Michele LaLand for their tireless support and answering all of our questions.

#### Introduction

The National Violent Death Reporting System (NVDRS) is a state-based surveillance tool to improve our understanding of violent deaths. Given the magnitude of the suicide problem in the United States, improved data collection and research efforts are critical to finding and implementing better intervention and prevention efforts. Currently, 50 states, plus Puerto Rico and the District of Columbia participate in the National Violent Death Reporting System (NVDRS). NVDRS is a national state-based surveillance system for violent deaths developed by the Centers for Disease Control and Prevention (CDC).

Arizona began its partnership in the surveillance system with the collection of 2015 violent death data. Through the mechanisms of data integration and abstraction from death certificates, medical examiner reports, and law enforcement reports the Arizona Violent Death Reporting System (AZ-VDRS), as an NVDRS site, seeks to contribute to these efforts of reducing suicides in Arizona. By gaining a deeper understanding into the scope and nature of the suicide problem at state and local levels, local and state authorities, policymakers and other stakeholders are better able to assist in determining resource allocation and are able to find more effective or efficient strategies as a response to suicide. This report presents findings from the AZ-VDRS, which is sponsored by the Centers for Disease Control and Prevention (CDC) and describes suicide patterns and trends in Pinal County in calendar year 2016. This report was auto-generated through a computer program. If you recognize errors in text or in the reporting of figures, please notify us so we can address the problem(s).

#### **Data and Methods**

Data presented in this report are from the Arizona Violent Death Reporting System (AZ-VDRS), from January 1, 2016 through December 31, 2016. The violent death data are collected from three sources and are used to populate an aggregated, anonymous database. The three sources include death certificates, medical examiner reports, and law enforcement reports. AZ-VDRS contain data on victim/suspect demographics and specific circumstances about the incident including, but not limited to, mental health problems, recent problems with a job, finances, or relationships, and physical health problems. These original data sources are de-identified, abstracted and aggregated into a CDC-managed database.

Data collection and abstraction in Arizona begins with the death certificate. The Arizona Department of Health Services and its Division of Vital Records provide the AZ-VDRS with a comprehensive death certificate file containing year-to-date deaths defined by ICD-10 codes encompassing all manner of suicide, homicide, legal intervention, unintentional firearm injuries, and deaths of undetermined intent, on a monthly basis. Requests are then made to the responsible medical examiner for autopsy investigation and toxicology reports, and to the relevant law enforcement jurisdiction for all incident and investigation reports, for each decedent. This report primarily uses data gathered on all occurrent suicide decedents in the AZ-VDRS database with a date of death from January 1, 2016 through December 31, 2016. Most analyses are presented using rates. Rates for this report were calculated using incidence counts per 100,000 population, as estimated by the U.S. Census Bureau, specifically its 2016 American Community Survey 5-Year Estimates.

# **Findings**

# **Suicides in Pinal County, 2016**

In 2016, there were a total of 70 suicide victims in Pinal County. There were 69 victim(s) of single suicide (98.6%), and 1 victim(s) of homicide(s) followed by suicide(s) (1.4%).

# Suicide Victims Reported by Month, 2016

Month	Frequency	Percent
January	6	8.6
February	4	5.7
March	7	10.0
April	7	10.0
May	2	2.9
June	4	5.7
July	4	5.7
August	0	0.0
September	5	7.1
October	8	11.4
November	11	15.7
December	7	10.0
Unknown	5	7.1
Total	70	100.0

# **Location Type of Injury Incident per Suicide Victim**

Location	Frequency	Percent
House, apartment	50	71.4
At victim's home	47	67.1
Not at victim's home	2	2.9
Unknown home	1	1.4
Street/road, sidewalk, alley,	7	10.0
highway, freeway	,	10.0
Jail, prison, detention facility	4	5.7
Motor vehicle (excluding school	2	2.9
bus and public transportation)	2	2.9
Natural area (e.g., field, river,	2	2.9
beaches, woods)	2	2.9
Parking lot/public parking	1	1.4
garage	1	1.4
Other (i.e., Hospital or medical		
facility, hotel/motel, office		
building, public transportation	4	5.7
or station, service station, farm,		
etc.)		
Total	70	100.0

# Weapon Type Used in Suicide

Weapon	Frequency	Percent
Firearm	53	75.7
Hang/Strangle/Suffocate	9	12.9
Poison/Personal	7	10.0
Motor vehicle including buses,	1	1.4
motorcycles	1	1.4
Total	70	100.0

Note: Multiple Firearms were used in several suicides. Personal weapons include fists, feet, and hands in actions such as punching, kicking or hitting.

# **Victim Demographic Characteristics**

The next series of exhibits demonstrate the characteristics of victims involved in Arizona suicides including gender, age, race, and ethnicity.

Sex

### **Sex of Suicide Victims**

Sex	Frequency	Percent
Male	54	77.1
Female	16	22.9
Total	70	100.0

Age

# **Age of Suicide Victims**

Age Range	Frequency	Percent
0-14	0	
15-24	5	7.1
25-34	9	12.9
35-44	10	14.3
45-54	12	17.1
55-64	14	20.0
65-74	12	17.1
75+	8	11.4
Total	70	100.0

### Race

# **Race of Suicide Victims**

Race	Frequency	Percent
White	61	87.1
Unspecified	4	5.7
American Indian	3	4.3
Multi-Race	1	1.4
Pacific Islander	1	1.4
Total	70	100.0

# Ethnicity

# **Ethnicity of Suicide Victims**

Ethnicity	Frequency	Percent
Not Hispanic	55	78.6
Hispanic	9	12.9
Unknown	6	8.6
Total	70	100.0

# Marital status

# **Marital Status of Suicide Victims**

Marital Status	Frequency	Percent
Married/Civil Union/Domestic	28	40.0
Partnership	28	40.0
Never Married	19	27.1
Divorced	17	24.3
Widowed	4	5.7
Unknown	1	1.4
Married, but separated	1	1.4
Total	70	100.0

# Education Level

### **Education Level of Suicide Victims**

<b>Education Level</b>	Frequency	Percent
<= 8th grade	2	2.9
9th - 12th grade	6	8.6
High school or GED graduate	30	42.9
Some college credit	16	22.9
Associate	4	5.7
Bachelor	8	11.4
Master	3	4.3
Unknown	1	1.4
Total	70	100.0

# Place of birth

# **Place of Birth of Suicide Victims**

Place of Birth	Frequency	Percent
Arizona	17	24.3
Other US States	52	74.3
Other countries	1	1.4
Total	70	100.0

#### **Circumstance Characteristics of Suicide Victims**

AZ-VDRS collects information about the circumstances and conditions surrounding all violent death events, with some specific variations for different manners of death (e.g. suicide event histories collected for suicides). The tables below presents our findings on the frequency of circumstances that surrounded decedents across five major dimensions: mental health; substance abuse and other addictions; interpersonal problems; life stressors; and prior suicide events. The frequencies are the total number of the event occurring and categories within each dimension are not mutually exclusive.

Mental health, substance abuse, and other addiction

### Mental Health, Substance Abuse, and Other Addiction of Suicide Victims

Mental Health, Substance	Frequency	Percent
Abuse, and Other Addiction		
Current Mental Health Problem	17	24.3
Depressed Mood	21	30.0
Current Treatment for Mental	10	14.3
Health/Substance Abuse	10	14.3
Ever Treated for Mental	67	95.7
Health/Substance Abuse	67	93.7
Alcohol Problem	66	94.3
Substance Abuse Other (not	13	10.6
including alcohol)	13	18.6

Relationship and Life Stressors

### **Relationship and Life Stressors of Suicide Victims**

Relationship and Life	Frequency	Percent
Stressors		
Prior Exposure to Violence	68	97.1
Relationship Problems	68	97.1
Life Stressors	68	97.1

# Manner Specific Circumstances

# **Manner Specific Circumstances of Suicide Victims**

Manner Specific	Frequency	Percent
Circumstances		
History of Expressed Suicidal	61	87.1
Thoughts or Plans	O1	0/.1
History of Suicide Attempts	68	97.1
Disclosed Suicidal Thoughts or	61	87.1
Plans		
Left a Suicide Note	62	88.6

# Toxicology Results

# **Toxicology Results of Suicide Victims**

Toxicology Results	<b>Total Testing Positive</b>	<b>Percent Testing Positive</b>
Toxicology Test Conducted	58	100.0
Tested Positive for at least One	41	70.7
Drug	41	70.7
Alcohol	22	37.9
Amphetamine	3	5.2
Antidepressant	12	20.7
Cocaine	2	3.4
Opiate	7	12.1
Other Substance	19	32.8
Unknown/Not Applicable	29	