Homicides

Involving Depression

Arizona Violent Death Reporting System

January 1, 2015 – December 31, 2017

AZVDRS
Violent Death Reporting System

The Arizona Violent Death Reporting System (AZ-VDRS) collects violent death data from multiple sources: death certificates issued by the Arizona Department of Health Services, police reports obtained from investigating agencies, and autopsy reports from medical examiner offices. The purpose of this project is to assist stakeholders with strategic planning and prevention efforts aimed towards reducing the number of violent deaths that occur each year in Arizona. The data used for this report—*Homicides Involving Depression*—were drawn from the compilation and analysis of three years of AZ-VDRS data, from January 1, 2015 through December 31, 2017.

AZ-VDRS recorded a total of 5,711 violent deaths for this period; circumstance data were available for 5,365 (93.9%) of the decedents. From these, we excluded suicides (3,680; 68.6%) and violent deaths of undetermined manner (n=638; 11.9%), after which our sample consisted of 1,047 (19.5%) homicides for which circumstance data were available. (Homicides coded as justifiable legal interventions have also been excluded.)

We determined that a homicide victim had been experiencing depression (1) when a medical diagnosis of depression/dysthymia existed, and/or (2) when the decedent was reported as having had a depressed mood at the time of death. This is consistent with prior research from the Centers for Disease Control and Prevention (CDC), using the NVDRS data.

For population estimates, we relied on the American Community Survey (US Census) 5-year estimates for 2015, 2016, and 2017. Note that in all of the exhibits below, data and analyses represented are for the State of Arizona, 2015–2017, unless otherwise indicated.
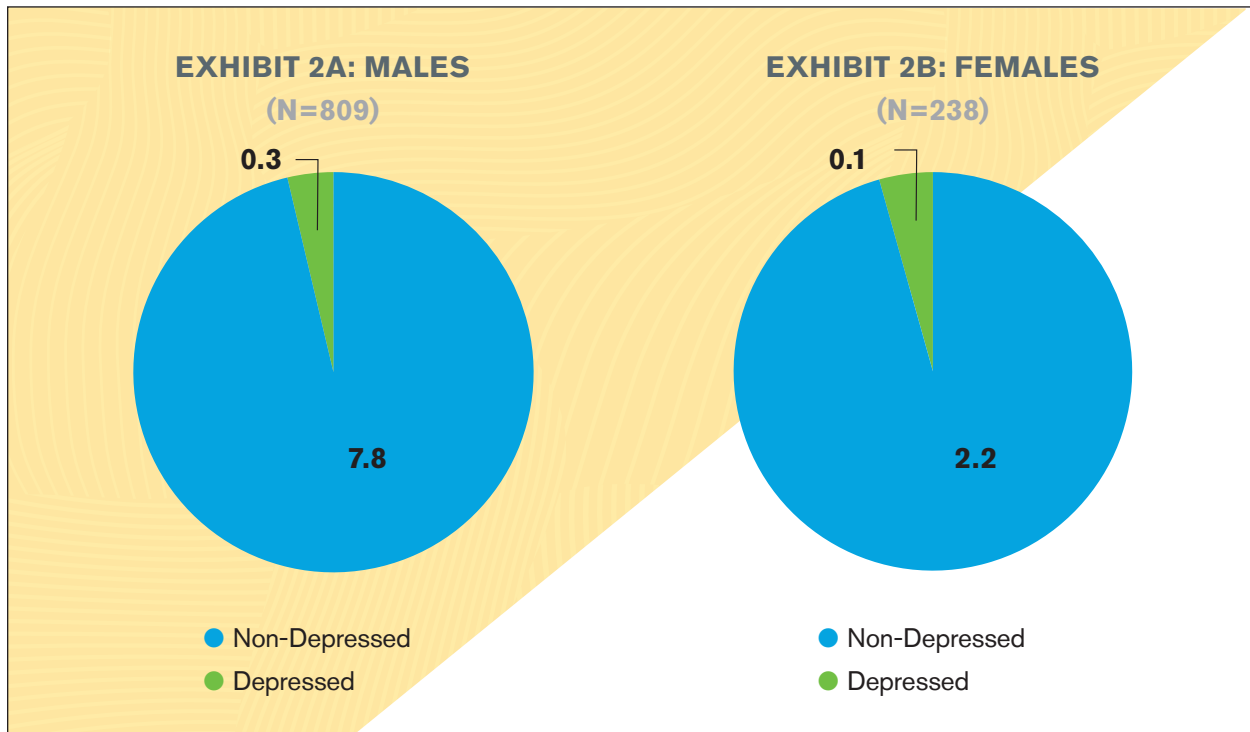
EXHIBIT 1:
PERCENTAGES OF HOMICIDE BY DEPRESSION STATUS, 2015-2017 (N=1047)

3.5%

96.5%

● Depression
● Non-Depression
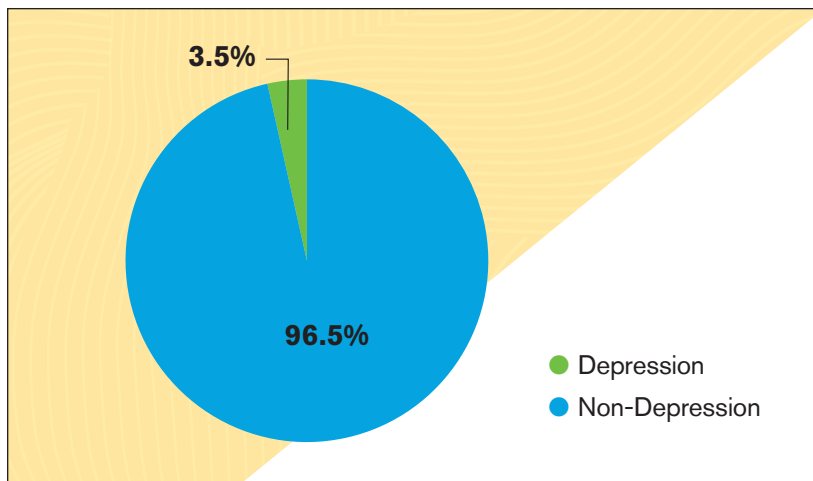
- Depression was rarely present among homicide victims (3.5%) in the state of Arizona, between 2015 and 2017.

HOMICIDE RATES PER 100,000 POPULATION BY SEX* AND DEPRESSION STATUS, 2015-2017

EXHIBIT 2A: MALES
(N=809)

0.3

7.8

● Non-Depressed
● Depressed

EXHIBIT 2B: FEMALES
(N=238)

0.1

2.2

● Non-Depressed
● Depressed
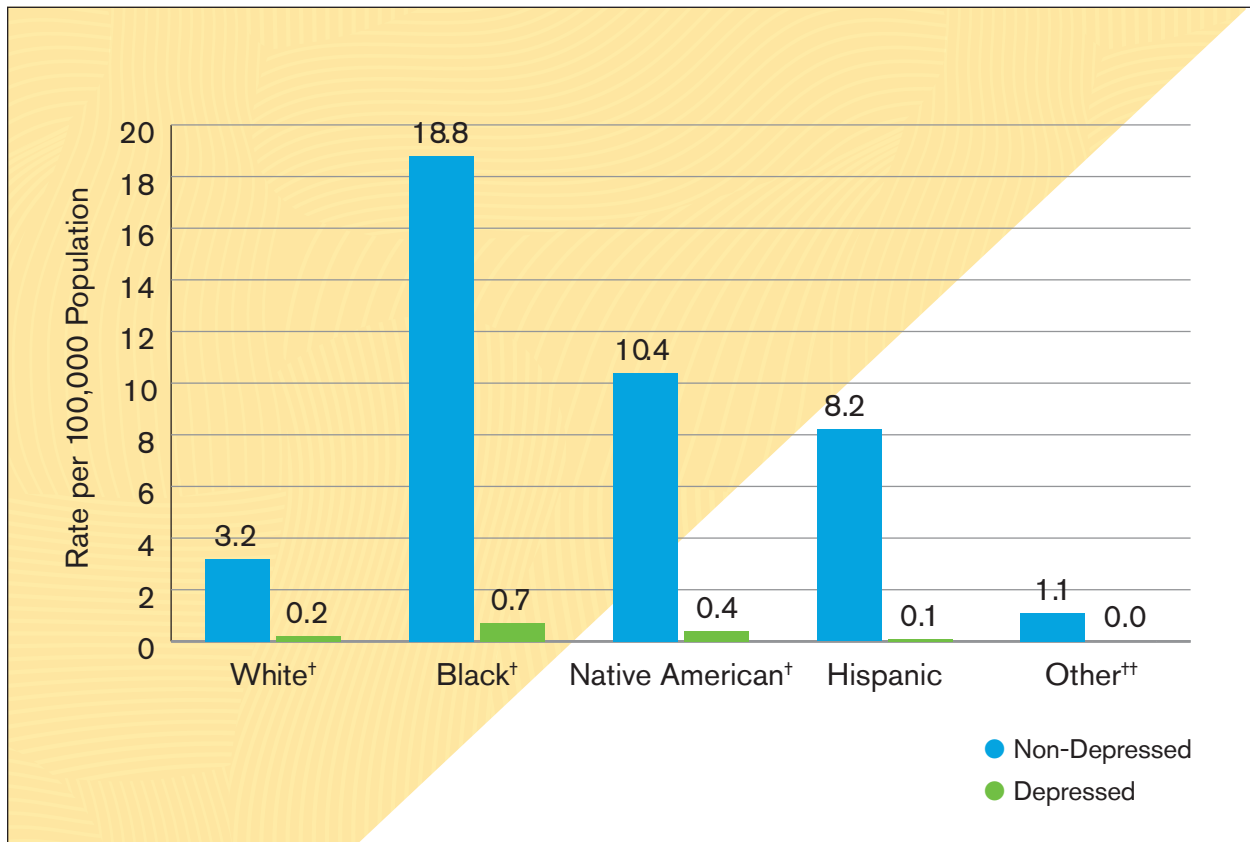
*Statistically significant at p ≤ .05

- Overall rates of homicide per 100,000 population were higher among males (8.1) than females (2.3).

- For both male and female homicide victims, indicators of depression near the time of death were rarely reported.

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HOMICIDE RATES PER 100,000 POPULATION BY RACE/ETHNICITY* AND DEPRESSION STATUS, 2015–2017

* Statistically significant at p ≤ .05
† Non-Hispanic/Latino
†† Includes Asian, Native Hawaiian, Pacific Islander, Other, and Unspecified

- With respect to race/ethnicity categories, homicide rates per 100,000 population for Blacks (19.5), Native Americans (10.8), and Hispanics (8.3) far outpaced the rates for White, non-Hispanics (3.4) and Other (1.1).

- Reports of depression indicators associated with homicide were infrequent across all racial/ethnic categories, with none reported for the Other group.

HOMICIDE RATES BY AGE GROUP* AND DEPRESSION STATUS (2015-2017)
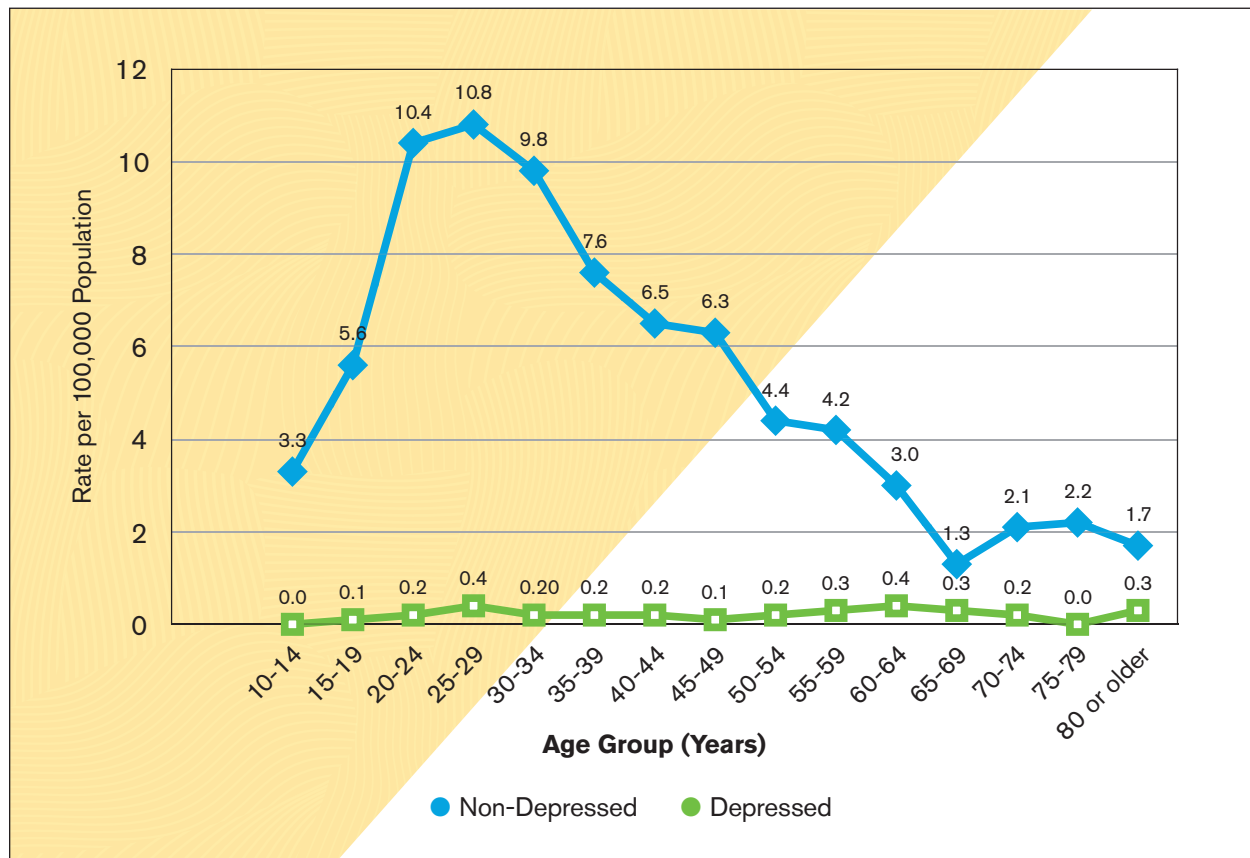
* Statistically significant at p ≤ .05

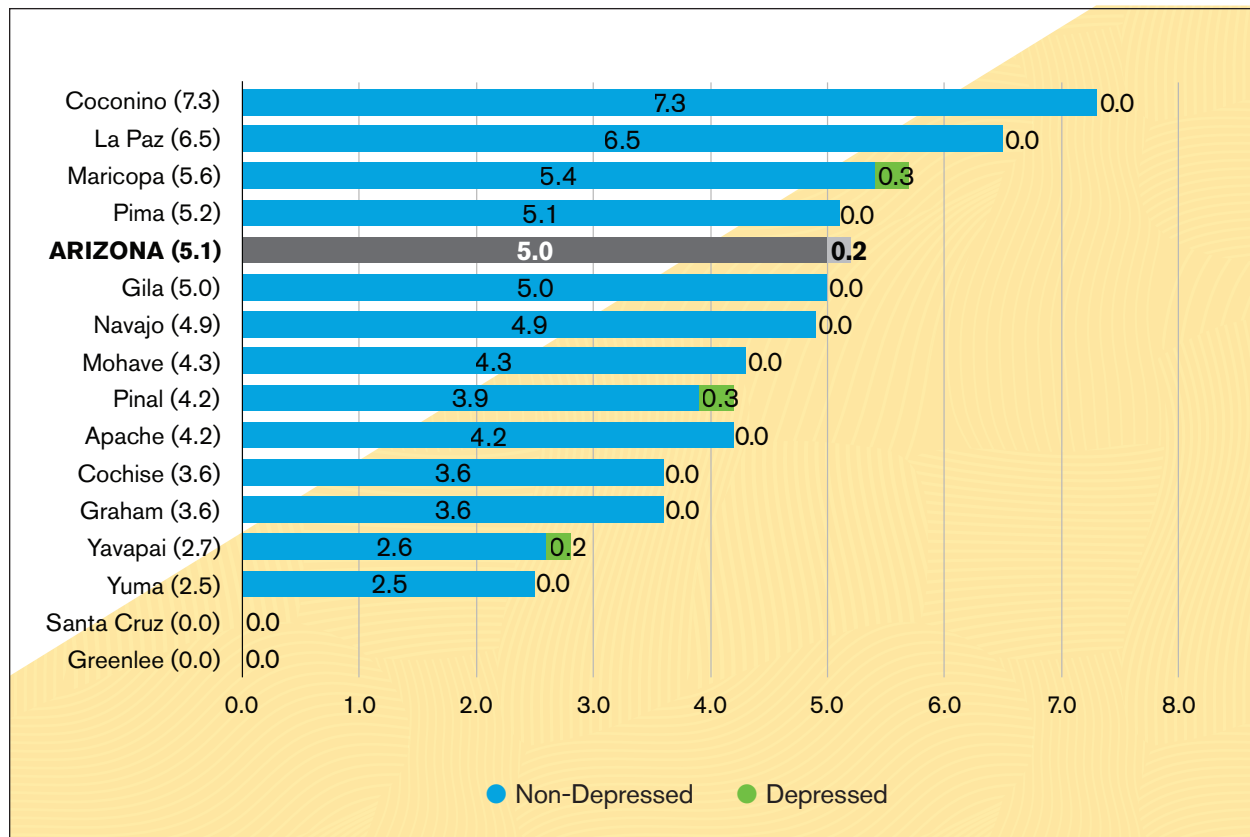*Note: Online readers can rollover data points to view age and rate values.*
Visit: cvpcs.asu.edu/projects/arizona-violent-death-reporting-system

Note: The data points above represent a snapshot of each age group within a specific time period (2015-2017); they should not be interpreted as a longitudinal study of the homicide-depression relationship over a lifetime.

- For homicide involving depression during 2015-2017, across all age groups, rates differed minimally, ranging from lows of 0.0 for the 10-14 age group and 0.1 for the 15-19 age group, to a high of 0.4 for the 25-29 and 60-64 age groups.

- By age group, the highest homicide rates were found among young adults **without** depression: 10.4 for ages 20-24 and 10.8 for ages 25-29.

- For homicide **without** depression, beginning with age group 30-34 and beyond, rates steadily declined until, beginning with age group 65-69 (1.3), rates again climbed slightly to about 2.2.

HOMICIDE RATES PER 100,000 POPULATION BY COUNTY* AND DEPRESSION STATUS, 2015–2017

County	Non-Depressed	Depressed
Coconino (7.3)	7.3	0.0
La Paz (6.5)	6.5	0.0
Maricopa (5.6)	5.4	0.3
Pima (5.2)	5.1	0.0
ARIZONA (5.1)	**5.0**	**0.2**
Gila (5.0)	5.0	0.0
Navajo (4.9)	4.9	0.0
Mohave (4.3)	4.3	0.0
Pinal (4.2)	3.9	0.3
Apache (4.2)	4.2	0.0
Cochise (3.6)	3.6	0.0
Graham (3.6)	3.6	0.0
Yavapai (2.7)	2.6	0.2
Yuma (2.5)	2.5	0.0
Santa Cruz (0.0)	0.0	
Greenlee (0.0)	0.0	

● Non-Depressed   ● Depressed

* Statistically significant at p ≤ .05

- The homicide rate per 100,000 population for Arizona from 2015-2017 was about 5.2 (*not shown*). Coconino, La Paz, and Maricopa counties had homicide rates above the statewide average, at 7.3, 6.5, and 5.7, respectively.

- Santa Cruz and Greenlee counties reported no homicides for 2015-2017.

- Most counties reported no depression indicators for homicide victims during this period; Maricopa (0.3), Pinal (0.3), and Yavapai (0.2) counties reported nominal rates of homicide involving victim depression.

ARIZONA COUNTIES

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EXHIBIT 6:

EDUCATION COMPLETED, MARITAL STATUS, VETERAN STATUS, AND BIRTHPLACE — HOMICIDE VICTIMS AGES 18 AND OLDER BY DEPRESSION STATUS (2015-2017) (N=976)

	NON-DEPRESSION		DEPRESSION		TOTAL	
	n	%	n	%	n	%
Education Completed						
<= 8th grade	60	6.4	<5	na	60	6.4
9th –12th grade	224	23.9	8	21.6	232	23.8
High school or GED grad	388	41.3	13	35.1	401	41.1
Some college credit	133	14.2	5	13.5	138	14.1
Associate or bachelor's degree	84	8.9	6	16.2	90	9.2
Advanced degree	24	2.6	<5	na	24	2.6
Unknown	26	2.8	<5	na	26	2.9
Marital Status*						
Never married	542	56.5	16	43.2	558	56.0
Married	180	18.8	11	29.7	191	19.2
Married, but separated	21	2.2	<5	na	21	2.2
Divorced	149	15.5	<5	na	149	15.3
Widowed	26	2.7	<5	na	26	3.0
Single, unspecified	21	0.0	<5	na	21	2.1
Unknown	21	2.2	<5	na	21	2.2
Veteran Status						
Non-veteran	855	91.1	31	83.8	886	90.8
Veteran	61	6.5	5	13.5	66	6.8
Unknown	23	2.4	<5	na	23	2.5
Birthplace*						
Arizona	398	42.4	13	35.1	411	42.1
Other US state or territory	378	40.3	20	54.1	398	40.8
Foreign country	145	15.4	<5	na	145	15.0
Unknown	18	1.9	<5	na	18	2.2

*Statistically significant at p ≤ .05

Note: CDC reporting requirements require that counts less than 5 not be shown for reasons related to data reliability and identity protection. These counts can, however, be included in totals. Therefore, totals in each row may include values represented here only as <5.

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Overall, homicide victims with indicators of depression were significantly different than those without depression indicators with respect to marital status and birthplace.

Homicide victims with depression indicators
had attained higher levels of education;

29.7% of victims with depression indicators had achieved,
at minimum, some college education or a degree,
compared to 25.7% of victims without depression indicators.

A smaller percentage
(about 43%) of homicide victims
with depression indicators
had never married,
compared to
almost 57% of victims
without depression.

More than a third (35.1%)
of homicide victims with
depression indicators
were born in Arizona;

42.4% of victims without
depression indicators
were born in the state.

LOCATION OF HOMICIDE BY DEPRESSION STATUS, 2015-2017 (N=1047)

Locations	NON-DEPRESSION n	NON-DEPRESSION %	DEPRESSION n	DEPRESSION %	TOTAL n	TOTAL %
House or apartment	489	48.4	22	59.5	511	48.8
Street/road, sidewalk, alley	146	14.5	<5	na	146	14.1
Motor vehicle (excluding school bus, and public transportation)	51	5.0	<5	na	51	5.0
Commercial establishment (bar, store, service station, etc.)	42	4.2	<5	na	42	4.3
Parking lot/public parking garage	86	8.5	<5	na	86	8.4
Jail, prison, group home, shelter, other supervised residential facility	18	1.8	<5	na	18	2.1
Park, playground, public use area	14	1.4	0	0.0	14	1.3
Natural area (e.g., field, river, beach, woods)	39	3.9	0	0.0	39	3.7
Hotel/motel	24	2.4	0	0.0	24	2.3
Other	38	3.8	<5	na	38	3.7
Unknown	63	6.2	<5	na	63	6.2

* Statistically significant at p ≤ .05

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- Homicide victims **with** depression indicators were more likely than those without to have died at a private residence (59.5%, 48.4%).

- Homicide victims **with** depression indicators were killed less frequently than victims without on a street/road, sidewalk, alley or highway (<10%, 14.5%).

METHODS OF HOMICIDE BY DEPRESSION STATUS, 2015-2017 (N=1047)

Methods	NON-DEPRESSION		DEPRESSION		TOTAL	
	n	%	n	%	n	%
Firearm	705	69.8	18	48.6	723	69.1
Sharp Instrument	125	12.4	9	24.3	134	12.8
Blunt Instrument	116	11.5	5	13.5	121	11.6
Hanging, strangulation, or suffocation	32	3.2	<5	na	32	3.4
Poisoning	<5	na	0	0.0	<5	na
Other[†]	24	2.4	<5	na	24	2.4
Unknown	5	0.5	0	0.0	5	0.5

* Statistically significant at p ≤ .05
[†] Including, but not limited to falls, fire/burns, motor vehicles and drowning.

Note: CDC reporting requirements require that counts less than 5 not be shown for reasons related to data reliability and identity protection. These counts can, however, be included in totals. Therefore, totals in each row may include values represented here only as <5.

- Firearms were less commonly the weapon used in homicides of victims **with** depression indicators (48.6%) than in homicides of victims **without** depression indicators (69.8%).

- A sharp instrument was the second most common weapon used for homicide; victims with depression indicators died by this method nearly twice as often as victims **without** (24.3%, 12.4%).

- A blunt instrument was the third most common weapon used for homicide; victims **with** depression indicators died by this method only slightly more often than victims **without** (13.5%, 11.5%).

SUSPECT-TO-VICTIM RELATIONSHIPS BY DEPRESSION STATUS, 2015-2017

(N=956)

	NON-DEPRESSION		DEPRESSION		TOTAL	
	n	%	n	%	n	%
Relationships						
Current partner	99	10.8	7	19.4	106	11.1
Former partner	22	2.4	<5	na	22	2.4
Family member	115	12.5	5	13.9	120	12.6
Friend or acquaintance	215	23.4	8	22.2	223	23.3
Other person known to victim	69	7.5	<5	na	69	7.6

* Statistically significant at p ≤ .05

Note: CDC reporting requirements require that counts less than 5 not be shown for reasons related to data reliability and identity protection. These counts can, however, be included in totals. Therefore, totals in each row may include values represented here only as <5.

- With respect to suspect-to-victim relationships, there were no statistically significant differences between homicide victims with and without depression indicators.

VICTIM CIRCUMSTANCES RELATED TO HOMICIDE BY DEPRESSION STATUS, 2015-2017 (N=1046)

Circumstances	NON-DEPRESSION		DEPRESSION		TOTAL	
	n	%	n	%	n	%
Violence in the past month *	44	4.4	6	16.2	50	4.8
Precipitated by another crime	246	24.5	8	21.6	254	24.4
Crime in progress	200	19.9	7	18.9	207	19.8
Drug involvement	205	20.4	4	10.8	209	20.0
Victim used a weapon	89	8.8	2	5.4	91	8.7

* Statistically significant at p ≤ .05

Note: Circumstance characteristics are not mutually exclusive; individually, homicide victims may have been subject to any number of them.

- Homicide victims **with** depression indicators were significantly more likely to have experienced some form of violence during the month prior to death than victims **without** depression indicators (16.2%, 4.4%, respectively).

- No significant differences were found between the two groups when the homicide was (a) precipitated by another crime, (b) committed while another crime was in progress, (c) committed during an incident in which the victim also used a weapon, or (d) associated with illegal drugs.

END NOTES

[1] Gold, K. J., Singh, V., Marcus, S. M., & Palladino, C. L. (2012). Mental health, substance use and intimate partner problems among pregnant and postpartum suicide victims in the National Violent Death Reporting System. *General hospital psychiatry*, 34(2), 139-145. Karch, D. L., Logan, J., McDaniel, D. D., Floyd, C. F., & Vagi, K. J. (2013). Precipitating circumstances of suicide among youth aged 10–17 years by sex: data from the National Violent Death Reporting System, 16 states, 2005–2008. *Journal of Adolescent Health*, 53(1), S51-S53.