



Characteristics of Victims of Suicide

The following tables summarize information abstracted from death certificates and death investigation reports on all suicides occurring in one year in four states and two counties.

See notes on last page for information and caveats about the data.

Data Source:	National Violent Injury Statistics System (a pilot for the CDC's National Violent Death Reporting System)
Jurisdiction of Injury Incident:	Connecticut, Maine, Utah, Wisconsin, Allegheny County PA, San Francisco County CA
Year of Death:	2001
Representativeness:	Census of all suicides for which injury was inflicted in above jurisdictions and death occurred in 2001

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Participating Institutions:	Harvard School of Public Health (coordinating site), Medical College of Wisconsin, University of Utah, San Francisco Health Department, Connecticut Children's Medical Center, Maine Medical Center, University of Miami, University of Maryland, Michigan Public Health Institute, Allegheny Public Health Department, Emory University, and University of Kentucky
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Table 1. Demographic Characteristics of Victims of Suicide, 2001 NVISS data

Percents represent proportion of all victims within age group for whom listed characteristic is documented in death certificate or death investigation report.

	<18 yrs	18-24	25-34	35-64	65+	Total
Total number of victims	83	181	255	881	270	1,670 ¹
Male	82%	88%	81%	78%	84%	81%
Female	18%	12%	19%	22%	16%	19%
American Indian	1%	1%	1%	1%	0%	1%
Asian/Pacific Islander	0%	2%	3%	2%	3%	2%
Black	5%	8%	6%	3%	0%	4%
White	94%	89%	90%	94%	97%	93%
Non-Hispanic						
White	86%	80%	77%	85%	87%	83%
Black	5%	6%	4%	3%	0%	3%
American Indian	1%	1%	1%	1%	0%	1%
Asian/Pacific Islander	0%	2%	3%	2%	3%	2%
Hispanic	4%	6%	6%	2%	1%	3%
Unknown	5%	6%	10%	8%	9%	8%
Married	0%	10%	29%	43%	46%	36%
Never married	100%	88%	56%	22%	9%	36%
Widowed	0%	0%	<1%	3%	31%	7%
Divorced	0%	2%	13%	31%	14%	21%
Unknown	0%	0%	2%	1%	0%	1%
Pregnant (Excludes males and Allegheny cases)	0%	0%	7%	0%	0%	1%
Homeless	2%	1%	2%	2%	<1%	1%
No high school diploma	96%	23%	13%	12%	30%	20%
High school diploma only	4%	52%	43%	44%	42%	42%
Some advanced training/education	0%	23%	39%	40%	26%	34%
Unknown	0%	2%	4%	5%	3%	4%
Employed	1%	46%	50%	45%	7%	38%
Unemployed	4%	20%	20%	22%	4%	18%
Homemaker	0%	1%	1%	4%	2%	2%
Retired	0%	0%	0%	3%	68%	12%
Student	92%	15%	2%	0%	0%	7%
Disabled	0%	1%	2%	1%	0%	1%
Unknown	4%	18%	24%	26%	18%	22%
Immigrant (Excludes Allegheny cases)	0%	5%	5%	6%	6%	5%
Non-metropolitan county of residence ²	24%	22%	16%	21%	23%	21%
Metropolitan county of residence	76%	78%	82%	79%	77%	79%
Unknown county of residence	0%	1%	1%	1%	0%	1%

¹ Total excludes two victims of unknown age.

² Based on the US Dept of Agriculture's ERS-2003 rural/urban continuum code assigned to victim's county of residence

Table 2. Mental Health History and Associated Circumstances among Victims of Suicide, 2001 NVISS data

Variables on this page are NOT mutually exclusive. Percents represent proportion of all victims within age group for whom listed characteristic is documented in death investigation report.

	<18 yrs	18-24	25-34	35-64	65+	Total
Total number of victims	83	181	255	881	270	1,670
Left a note	33%	40%	34%	39%	36%	37%
Disclosed intent previously	29%	30%	32%	33%	28%	31%
Attempted suicide previously	17%	18%	26%	23%	9%	20%
Disclosed or attempted previously	36%	42%	45%	46%	33%	43%
<i>Mental health history</i>						
Mental health disorder	35%	39%	53%	53%	41%	49%
Substance problem - alcohol	7%	22%	24%	30%	11%	24%
Substance problem - drug	11%	29%	24%	14%	2%	15%
Substance problem - drug or alcohol	12%	39%	38%	36%	12%	31%
Mental health or substance problem	40%	62%	71%	70%	47%	64%
<i>Diagnosis</i>						
Depression	23%	24%	32%	35%	30%	32%
Bipolar disorder ¹	6%	3%	7%	5%	1%	4%
Schizophrenia or psychotic disorder	0%	2%	6%	4%	1%	4%
Anxiety disorder	1%	1%	4%	5%	2%	4%
<i>Among victims documented as having a mental health disorder...</i>						
In current mental health treatment	69%	64%	72%	77%	68%	73%
<i>Among victims documented as having a drug or alcohol problem...</i>						
Ever in substance abuse treatment	0%	11%	17%	18%	15%	16%
<i>Associated circumstance</i>						
Health problem	2%	3%	9%	20%	69%	24%
Relationship problem - intimate partner	24%	49%	49%	32%	7%	32%
Relationship problem - friend, family	37%	13%	9%	8%	3%	9%
Relationship problem - either of above	51%	57%	54%	38%	10%	38%
Job problem	2%	14%	14%	18%	3%	14%
School problem	34%	4%	<1%	<1%	0%	2%
Financial	0%	12%	15%	18%	5%	14%
Death of loved one past 5 yrs - suicide	5%	6%	1%	2%	1%	2%
Death of loved one past 5 yrs - other	4%	4%	2%	7%	9%	6%
Death of love one past 5 yrs – either of above	8%	10%	3%	8%	9%	8%
Legal problem - criminal	17%	18%	16%	13%	2%	13%
Legal problem - other/unspecified	4%	2%	3%	3%	1%	3%
Legal problem - either of above	20%	20%	19%	16%	3%	15%
Perpetrator of violence	6%	7%	9%	10%	3%	8%
Victim of violence	4%	2%	2%	1%	<1%	1%
Other problem noted	31%	17%	15%	13%	20%	16%
<i>Recent precipitating event?</i>						
Same day	33%	21%	20%	16%	6%	16%
Same day or within two weeks	47%	47%	40%	37%	19%	36%

¹ Some victims were diagnosed with both bipolar disorder and depression; these were counted only as bipolar disorder

Table 3. Weapon/Mean Used by Victims of Suicide, 2001 NVISS data

Percents represent proportion of all victims within age group for whom listed characteristic is documented in death certificate or death investigation report.

	<18 yrs	18-24	25-34	35-64	65+	Total
Total number of victims	83	181	255	881	270	1,670
<i>Weapon/means</i>						
Firearm	42%	51%	37%	46%	60%	47%
Asphyxiation/hanging	47%	37%	27%	22%	16%	24%
Poisoning (non-gas)	6%	3%	16%	16%	9%	13%
Poisoning (CO, other gas)	0%	4%	7%	7%	6%	6%
Jump	2%	2%	4%	4%	2%	3%
Multiple means	1%	1%	3%	1%	1%	2%
Other (e.g. knife, fire)	1%	2%	6%	4%	6%	4%
Unknown	0%	0%	0%	<1%	0%	<1%
<i>Type of firearm (includes firearm victims only)</i>						
Handgun	43%	42%	56%	58%	61%	56%
Rifle	23%	33%	22%	21%	18%	22%
Shotgun	31%	25%	19%	16%	18%	18%
Unspecified firearm	3%	0%	3%	5%	2%	4%
<i>Type of firearm (includes firearm victims only)</i>						
Handgun	43%	42%	56%	58%	61%	56%
Long gun	54%	58%	41%	36%	36%	40%
Unspecified firearm	3%	0%	3%	5%	2%	4%
<i>Owner of firearm (includes only firearm victims ages 17 and under for whom owner information is available¹)</i>						
Parent	81%					
Other family member	4%					
Self	15%					
<i>Broad type of poison (includes only victims of non-gas poisoning)</i>						
Street drugs	*	*	3%	1%	0%	2%
Alcohol	*	*	0%	1%	4%	1%
Pharmaceuticals-prescription	*	*	58%	69%	63%	64%
Pharmaceuticals-OTC	*	*	10%	4%	17%	7%
Pharmaceuticals-unknown whether prescription or OTC	*	*	0%	2%	4%	2%
Multiple poison types	*	*	25%	21%	8%	20%
Other (e.g. rat poison, insecticide)	*	*	5%	1%	4%	3%
Unknown	*	*	0%	1%	0%	1%
<i>(32 of the 43 suicides involving multiple poison types involved prescription medications)</i>						

¹ Owner information was not noted or unknown for 9 of the 35 youth firearm suicide victims

* %s not shown because fewer than 10 victims in that age group died by overdose

Table 4. Post-mortem Toxicologic Test Results among Victims of Suicide, 2001 NVISS data

Percents represent proportion of all victims within age group for whom listed characteristic is documented in death investigation report.

Maine cases are excluded from this page because <25% of Maine victims were tested

	<18 yrs	18-24	25-34	35-64	65+	Total
Total # of victims (excluding ME victims)	74	161	232	803	234	1,504
<i>Alcohol</i>						
Tested	82%	86%	88%	84%	73%	83%
Tested positive (among those tested)	5%	35%	41%	40%	20%	35%
<i>Cocaine</i>						
Tested	74%	74%	78%	74%	59%	72%
Tested positive (among those tested)	2%	4%	11%	6%	1%	6%
<i>Opiates</i>						
Tested	74%	73%	78%	75%	60%	73%
Tested positive (among those tested)	5%	9%	18%	19%	18%	17%
<i>Opiates (among victims not coded as having health problems)</i>						
Tested	75%	74%	78%	75%	61%	75%
Tested positive (among those tested)	4%	9%	16%	14%	7%	13%
<i>Amphetamines</i>						
Tested	74%	75%	77%	74%	59%	72%
Tested positive (among those tested)	5%	7%	2%	3%	1%	3%
<i>Marijuana</i>						
Tested	53%	50%	47%	51%	43%	49%
Tested positive (among those tested)	10%	14%	9%	3%	0%	5%
<i>Alcohol or cocaine</i>						
Tested	74%	73%	78%	74%	59%	72%
Tested positive (among those tested)	7%	43%	54%	49%	24%	44%
<i>Antidepressants</i>						
Tested	80%	85%	86%	83%	70%	81%
Tested positive (among those tested)	15%	8%	23%	27%	21%	23%
<i>Antidepressants (among victims in current treatment with a diagnosis of depression)</i>						
# in current treatment & diagnosed w/ depression	10	25	50	199	47	331
Tested	90%	76%	86%	88%	83%	86%
Tested positive (among those tested)	33%	32%	53%	58%	59%	55%

See notes and caveats on page 7 regarding toxicologic data.

Table 5. Incident Information for Victims of Suicide, 2001 NVISS data

Percents represent proportion of all victims within age group for whom listed characteristic is documented in death investigation report.

	<18 yrs	18-24	25-34	35-64	65+	Total
Total number of victims	83	181	255	881	270	1,670
Victims in single-suicide incident	100%	97%	99%	98%	97%	98%
Victims in double-suicide incident	0%	0%	0%	0%	1%	<1%
Suicide victims in homicide-suicide incident	0%	3%	1%	2%	2%	2%
Occurred at victim's residence	76%	66%	67%	72%	86%	73%
<i>Incident location</i>						
House/apt	77%	70%	73%	74%	86%	76%
Street	8%	9%	7%	4%	4%	6%
Motor vehicle, unspec loc	0%	1%	3%	2%	2%	2%
Bar	0%	0%	<1%	0%	0%	<1%
School	6%	2%	0%	0%	0%	0%
Prison, jail	2%	4%	2%	2%	0%	2%
Other building	4%	2%	3%	3%	1%	3%
Recreation or natural area	2%	10%	7%	10%	3%	8%
Hospital	0%	1%	1%	1%	1%	1%
Other	0%	1%	4%	3%	3%	3%
Unknown	0%	0%	0%	<1%	0%	<1%
<i>Day on which injury was inflicted</i>						
Sunday	13%	7%	12%	9%	11%	10%
Monday	13%	14%	13%	10%	14%	11%
Tuesday	22%	9%	15%	14%	13%	14%
Wednesday	14%	14%	10%	11%	11%	11%
Thursday	12%	13%	12%	11%	11%	12%
Friday	6%	17%	13%	12%	12%	13%
Saturday	14%	11%	12%	10%	10%	10%
Unknown	5%	14%	15%	23%	18%	19%
<i>Month in which injury was inflicted</i>						
January	5%	7%	12%	8%	7%	8%
February	5%	8%	5%	8%	7%	7%
March	12%	9%	9%	8%	8%	9%
April	7%	8%	9%	10%	9%	9%
May	7%	9%	8%	9%	10%	9%
June	12%	9%	7%	9%	7%	9%
July	4%	8%	5%	10%	8%	8%
August	5%	9%	7%	8%	6%	8%
September	8%	11%	9%	8%	10%	9%
October	12%	4%	7%	8%	11%	8%
November	11%	7%	9%	6%	7%	7%
December	12%	8%	10%	7%	8%	8%
Unknown	0%	2%	2%	3%	1%	2%



Notes about Data from the National Violent Injury Statistics System (NVISS)

The preceding pages cover all suicides in which the death occurred in 2001 and the injury was inflicted in one of the following jurisdictions: Connecticut, Maine, Utah, Wisconsin, Allegheny County PA, San Francisco County CA. Abstractors identified suicide victims by reviewing death certificates and coroner or medical examiner records for which manner of death was noted as suicide. The abstractors recorded information about the victim, incident, weapon, injuries, and associated circumstances from these documents and, in some cases, from police records. The information was coded and entered in a relational database using coding definitions outlined in the NVISS Version 2.0 Uniform Data Elements manual available at: www.hsph.harvard.edu/hicrc/nviss/about_parent_tech.htm

Information about **associated circumstances** should be interpreted with some caution. For a victim to be coded, for example, as having made previous suicide attempts, there needs to be an informant who knows the information (such as a family member), a death investigator who asks it and records it, and an abstractor who gains access to the record and applies the coding rules appropriately. There is potential for breakdown anywhere along the chain of information transfer. Therefore, when reading, for example, that 20% of victims were recorded as having made a previous attempt, the actual incidence of previous attempts is probably higher. Both NVISS co-directors read each case and compared the circumstance coding to the incident narrative to improve coding consistency across sites.

Toxicologic results should be viewed with some caution.

1. Some victims may test positive for alcohol not because they ingested alcohol but because their body was unattended for several hours or longer after death and began producing alcohol as a byproduct of decomposition. Conversely, some victims who did ingest alcohol shortly before committing suicide may have survived long enough that the alcohol was metabolized and no longer detectable in the blood. Therefore presence or absence of alcohol in the blood is not always an accurate indication of whether the victim had been drinking before committing suicide.

2. Some victims who test positive for opiates may be taking prescribed pain killers to manage pain from a health condition. The second presentation of Opiate data on the toxicology table excludes victims whose suicides were coded as being associated with a health problem. Some victims who test positive for amphetamines or marijuana may also be using the substance under medical supervision.

3. The labs that test for substances vary from one jurisdiction to the next in the type of toxicologic test used, type of substances tested for, and levels at which substances can be detected. Virtually all jurisdictions that tested for antidepressants tested for SSRIs, tricyclics, and atypical antidepressants. Most did not test for MAO Inhibitors (a rarely prescribed class of antidepressants). Most use screening cut-off limits (below which they cannot detect the substance) ranging from .05 to .10 mg/L. At least two labs detected only levels of .20 mg/L and above. Therefore, some victims who in fact were taking antidepressants may test negative.

Screening cut-off limits for drugs of abuse also varied across jurisdictions, ranging from .01 to .3 mg/L for cocaine and opiates and .01-.4 mg/L for amphetamines.

What is NVISS? The Harvard Injury Control Research Center and collaborating partners designed and tested NVISS as part of a process to advocate for the establishment of a federally-supported, ongoing data collection system for homicide and suicide. In 2002, the Centers for Disease Control and Prevention launched the National Violent Death Reporting System (NVDRS) based in large part on the pilot. Data collection under the pilot ended with the 2003 data year.

Institutions that collaborated in designing NVISS and collecting the data included: Medical College of Wisconsin, University of Utah, San Francisco Health Department, Connecticut Children's Medical Center, Maine Medical Center, University of Miami, University of Maryland, Michigan Public Health Institute, Allegheny Public Health Department, Emory University, and University of Kentucky.

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Data set used: nviss2victimflatfilelabels080405