



Colorado Trends in Suicide:

Annual Report from the Office of Suicide Prevention
Suicide Prevention Coalition of Colorado
August 12, 2015

Office of Suicide Prevention



Linking Communities, Building Awareness,
Preventing Suicide
www.coosp.org



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Sources of information/data

National

National Violent Death Reporting System (NVDRS)

<http://www.cdc.gov/injury/wisqars>

State

Colorado Violent Death Reporting System (COVDRS)

Colorado Health Information Dataset

http://www.chd.dphe.state.co.us/topics.aspx?q=Mortality_Data

<http://www.chd.dphe.state.co.us/cohid/Default.aspx>

Colorado Child Fatality Review System

<https://www.colorado.gov/pacific/cdphe/cfps-data-and-information>

Healthy Kids Colorado Survey

http://www.chd.dphe.state.co.us/topics.aspx?q=Adolescent_Health_Data

Colorado Violent Death Reporting System

CDC National Violent Death Reporting System since 2004

32 states participating (starting in 2015)

Ongoing, state-based surveillance to monitor violent deaths to support planning and evaluation

Homicide, suicide, deaths of undetermined intent, legal intervention and unintentional firearm deaths

Detailed case information including demographics, circumstances, toxicology, weapon information, etc.

Colorado Violent Death Reporting System

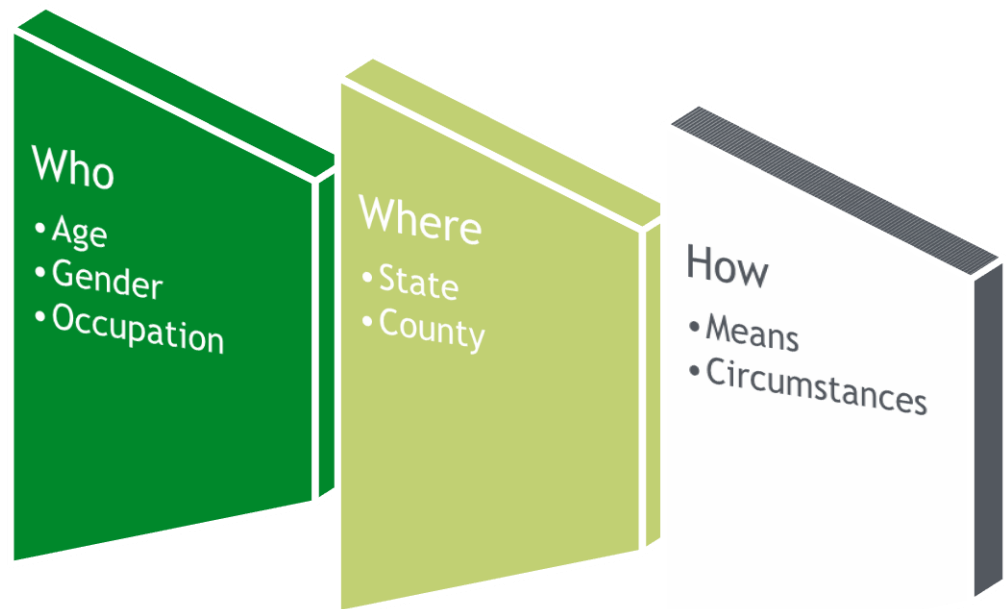
Data collected from:

- Death certificates
- Coroner/medical examiner reports
63 Coroner/Medical examiners in CO
- Law enforcement reports
240+ law enforcement agencies

>90% case ascertainment

Varying levels of detail and quality of info

Value of Data



Inform programming

Target limited resources to certain populations

Inform access points

Measure efficacy and outcomes

Data

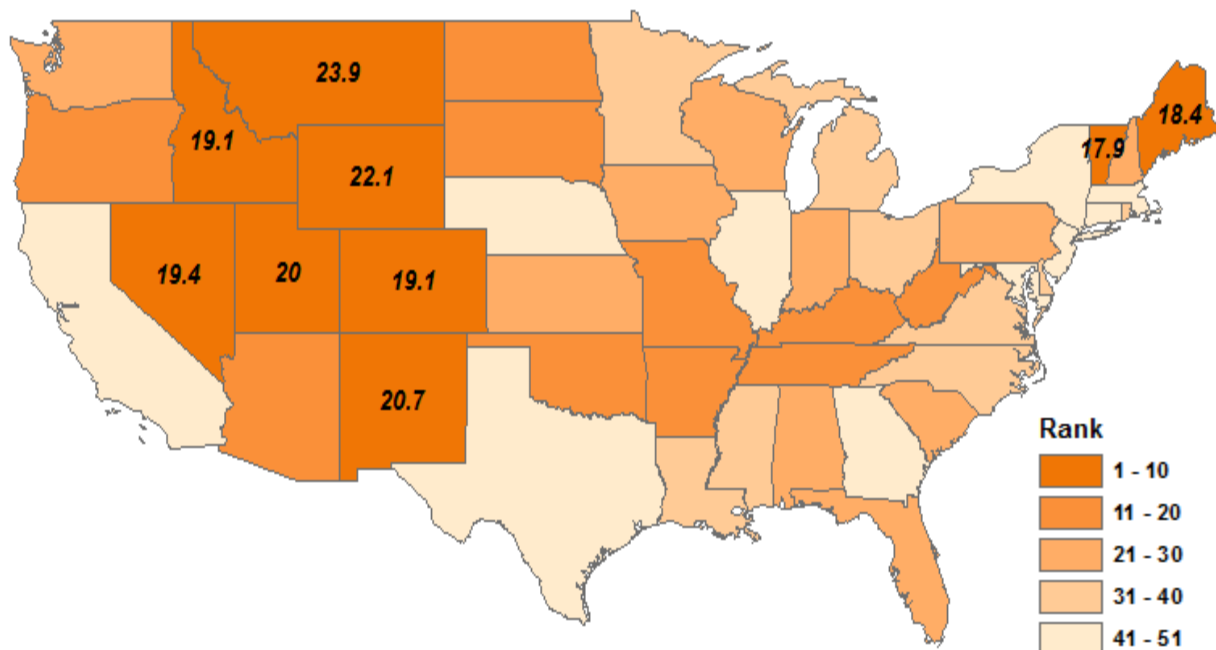
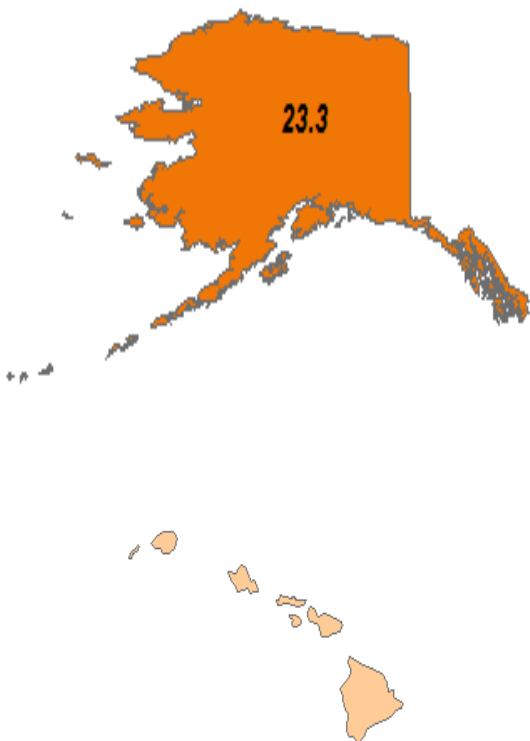
“Statistics are merely aggregations of numbers with the tears wiped away.”

- Dr. Irving Schikoff

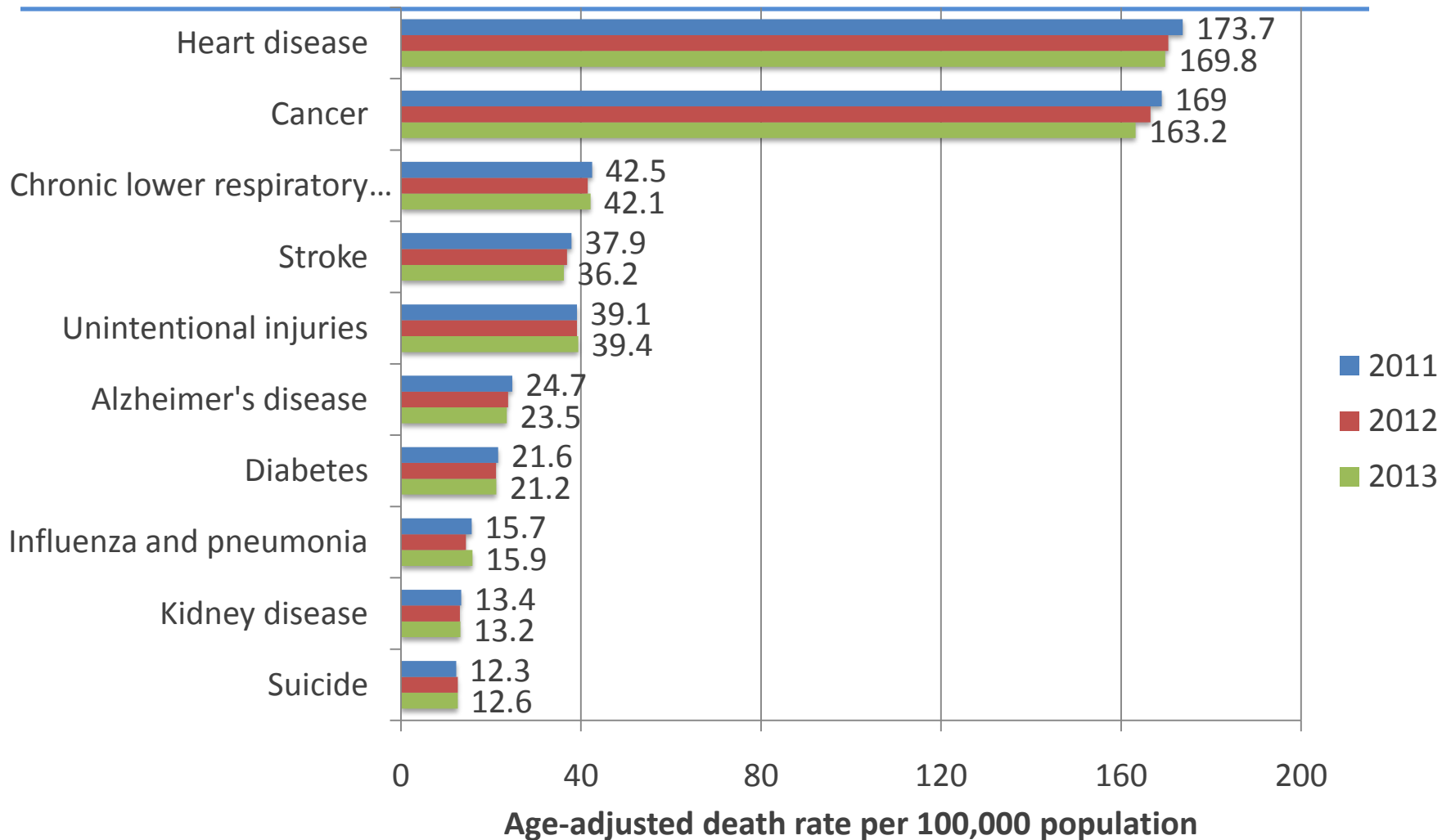
Suicide in the US

Suicide Death Rates per 100,000
Population, United States, 2013

State	2013 Deaths	Crude Rate	Rank
United States	41,149	13.0	-
Montana	243	23.9	1
Alaska	171	23.3	2
Wyoming	129	22.1	3
New Mexico	431	20.7	4
Utah	579	20.0	5
Nevada	541	19.4	6
Colorado	1,007	19.1	7
Idaho	308	19.1	8
Maine	245	18.4	9
Vermont	112	17.9	10



Leading Causes of Death: United States Residents, 2011-2013





Colorado, 2010-2014



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Suicide in Colorado

In **2014**, there were:

52 HIV deaths

172 Homicides

486 Motor vehicle deaths

553 Breast cancer deaths

668 Influenza & Pneumonia deaths

826 Diabetes deaths

1,058 deaths by Suicide

Suicide is the **7th** Leading cause of death in CO for all ages

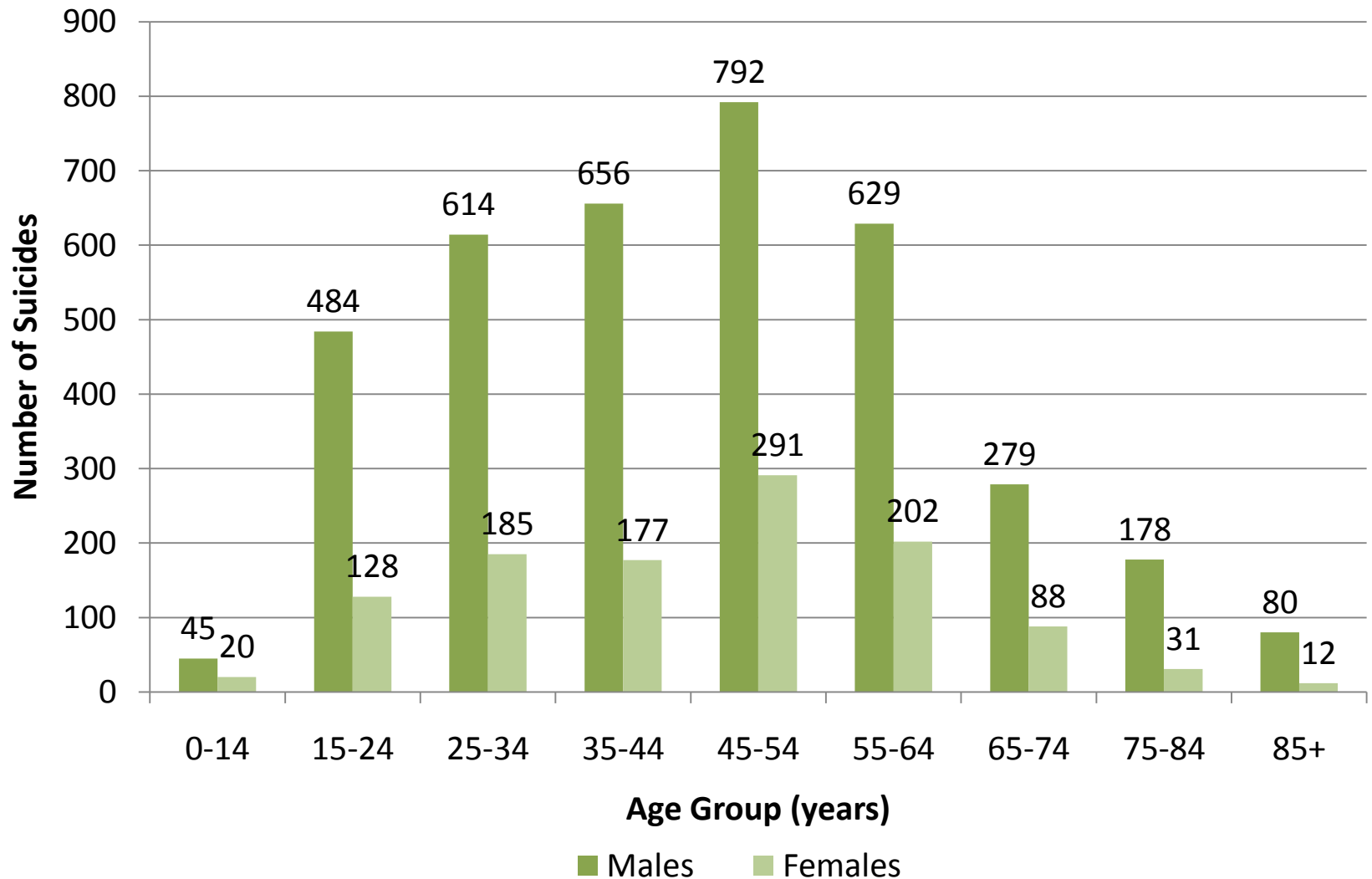
Suicide is the **2nd** cause of death for those ages 10-24

CO Suicide deaths and age adjusted rates, 2009-2014

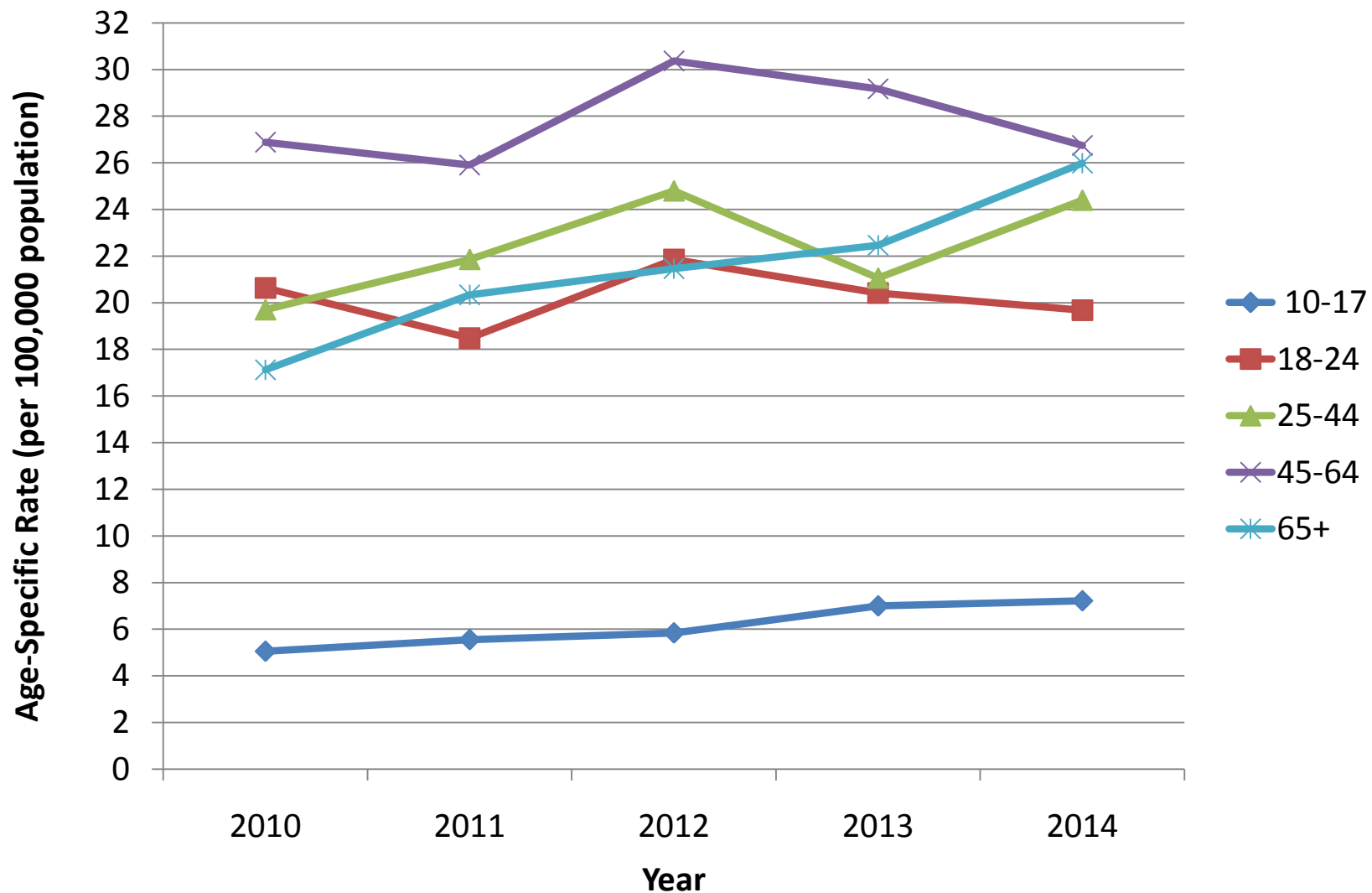
Year	n	Age-adjusted Rate*
2009	940	18.7
2010	867	16.8
2011	910	17.4
2012	1,053	19.7
2013	1,004	18.5
2014	1,058	19.4

*per 100,000 population

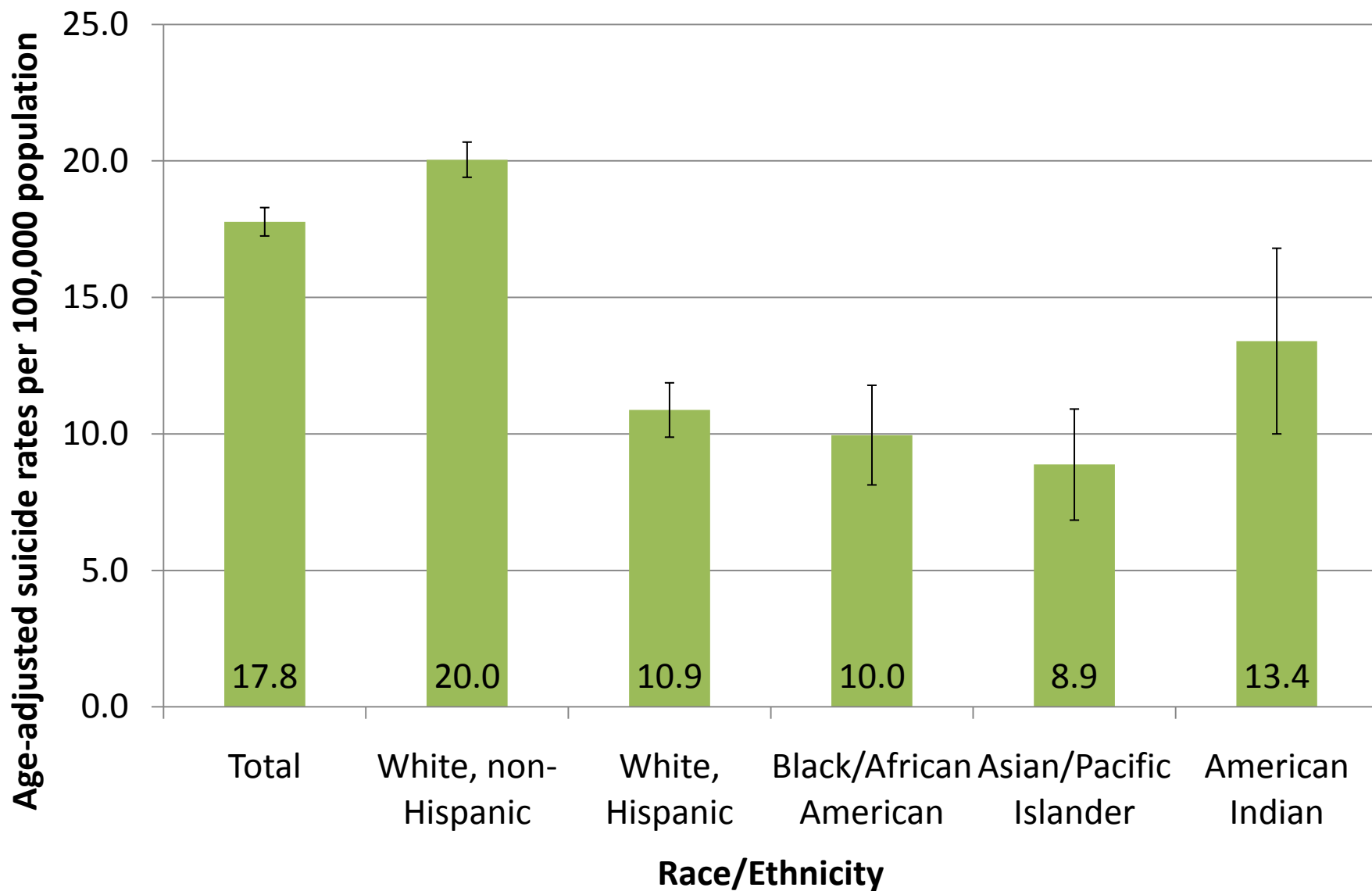
Suicide deaths by age and gender, 2010-2014



Age-specific suicide rate, 2010-2014

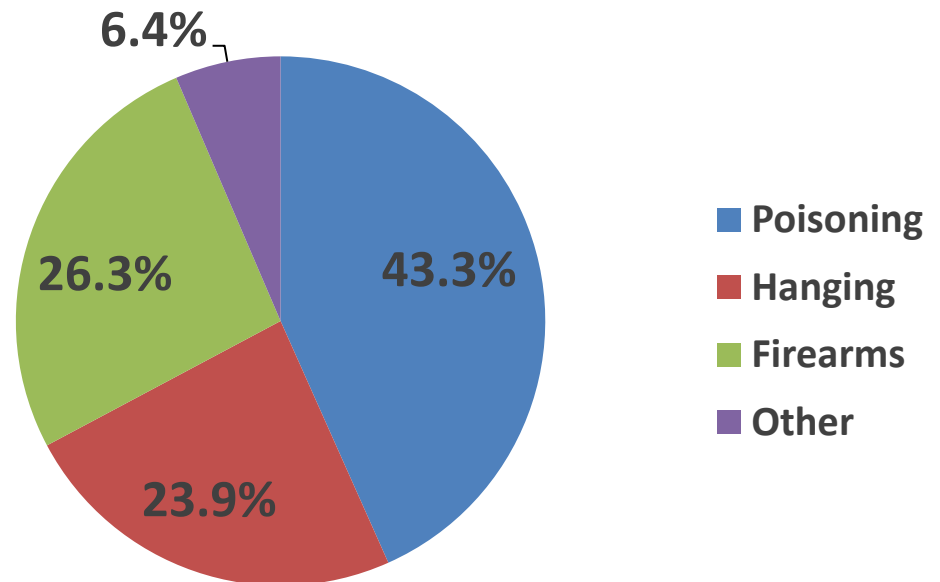
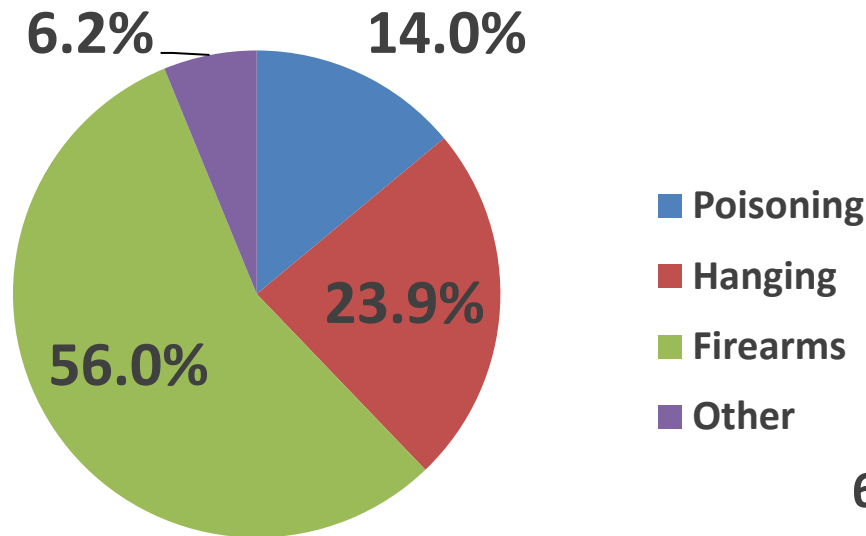


Age-adjusted suicide rates by Race/Ethnicity, Colorado residents (2009-2013)

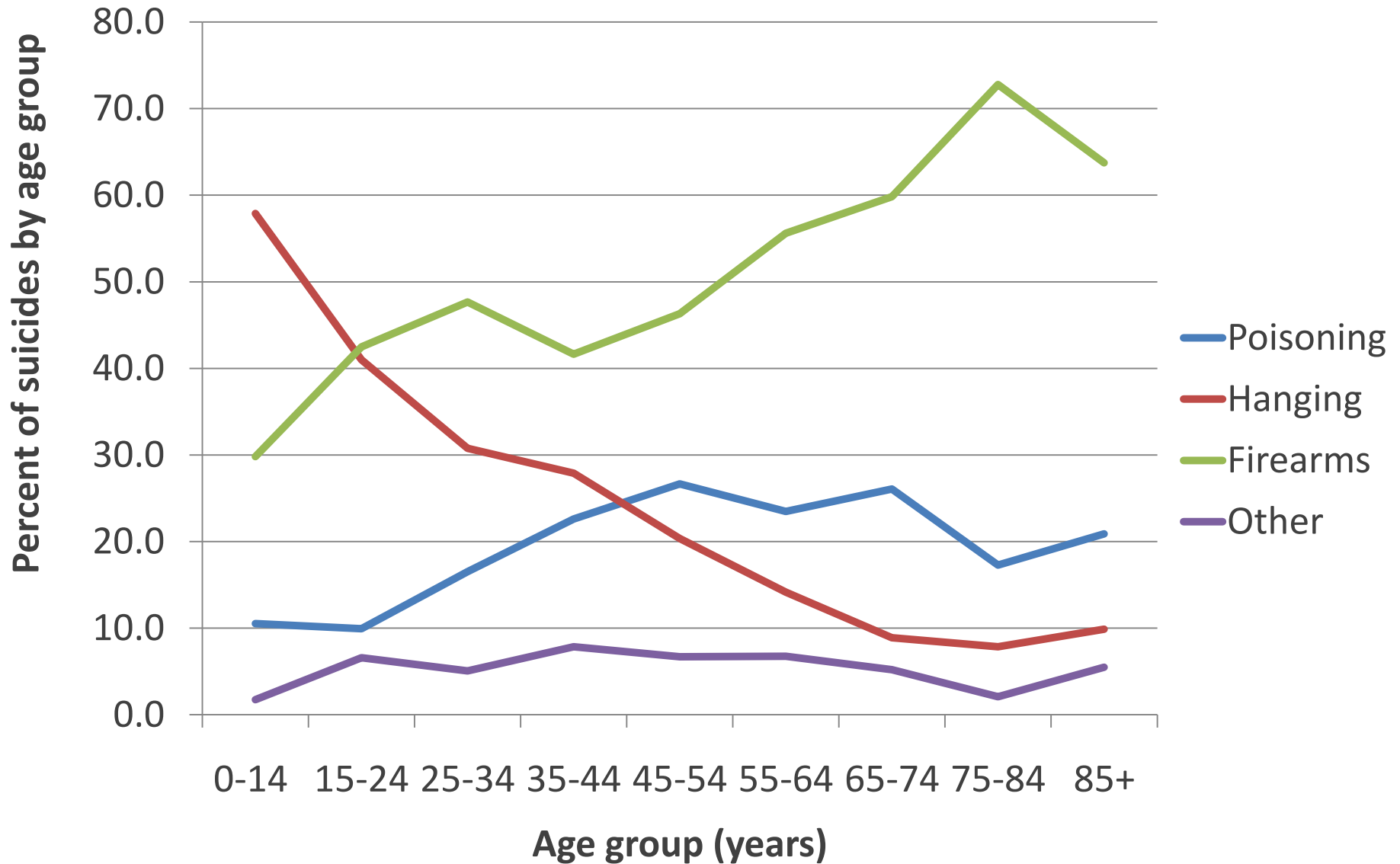


Source: Violent Death Reporting System, Colorado Department of Public Health and Environment

Methods of suicide deaths for males and females, Colorado residents (2009-2013)

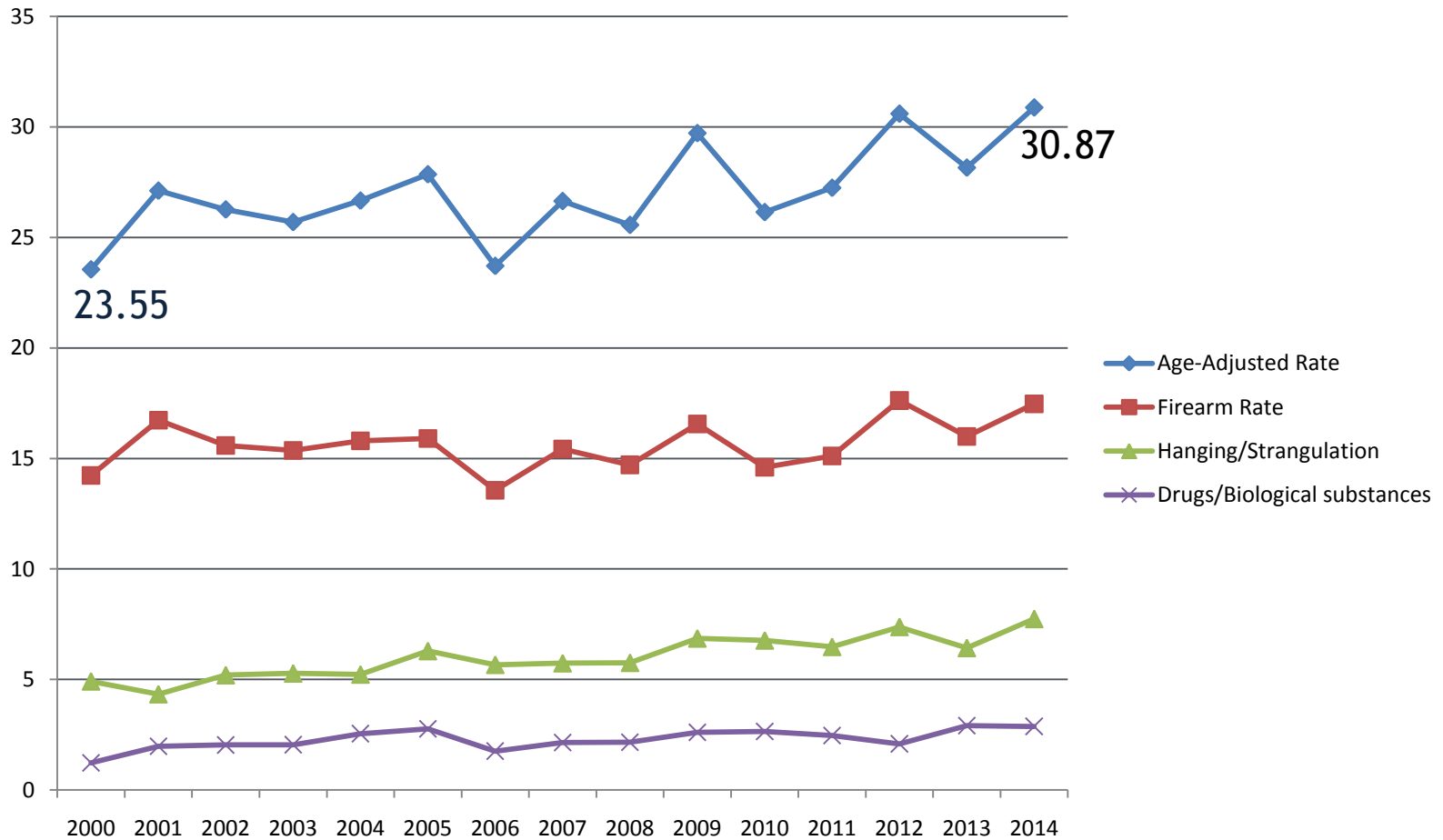


Suicide methods by age group, Colorado residents (2009-2013)

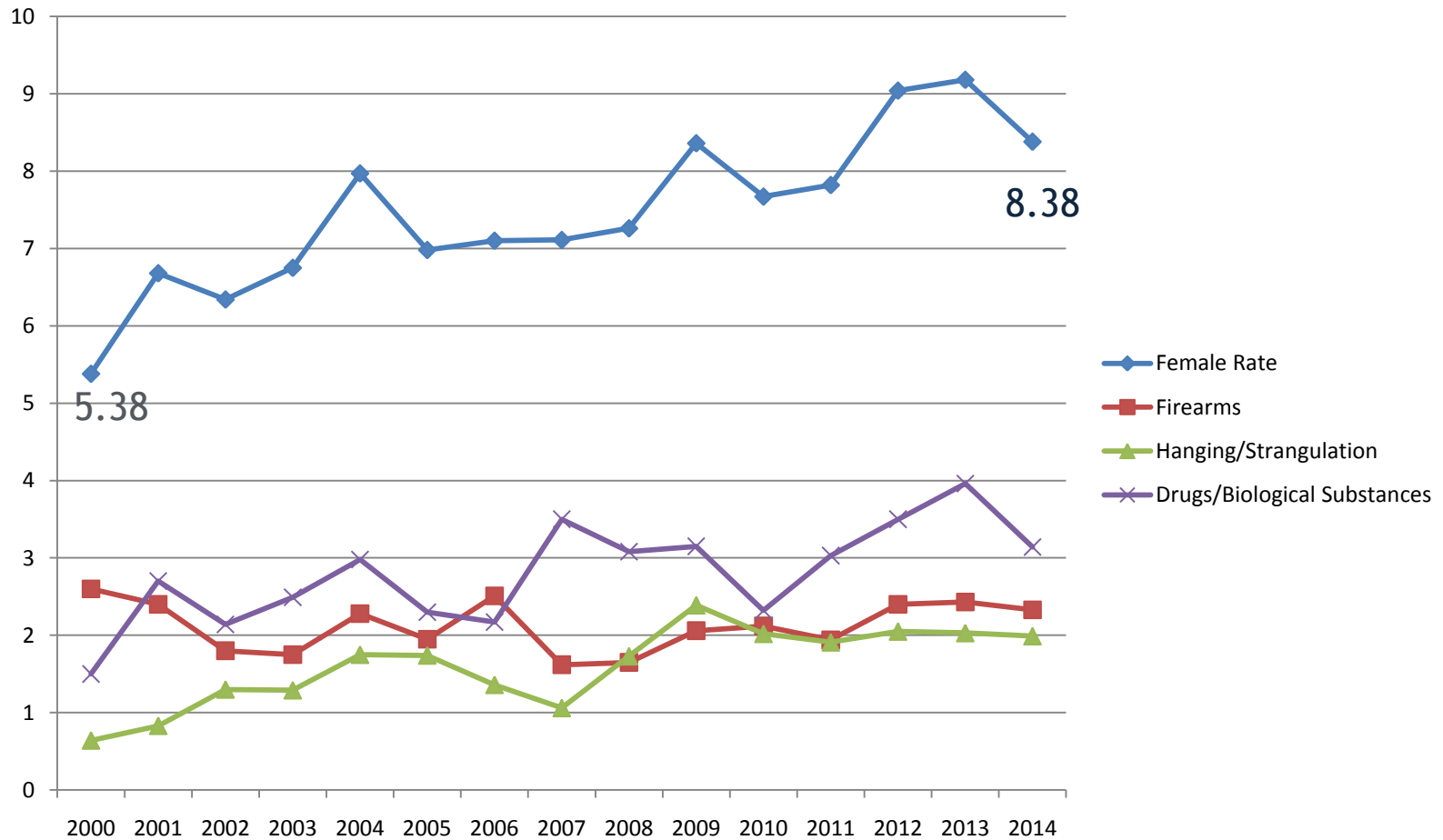


Source: Violent Death Reporting System, Colorado Department of Public Health and Environment

Male Rates over Time



Female Rates over time



Suicide deaths in Colorado, Colorado residents (2009-2014)

	2009	2010	2011	2012	2013	2014
10-14 yrs	11	11	10	13	12	19
15-19	49	38	42	41	47	44
20-24	75	70	67	81	83	81
25-29	67	69	86	85	77	89
30-34	66	62	60	98	81	80
35-39	87	66	74	78	73	98
40-44	102	82	86	92	74	94
45-49	90	110	89	109	109	90
50-54	98	107	106	115	114	110
55-59	92	80	78	91	109	104
60-64	53	58	67	89	67	72
65-69	31	34	33	53	48	51
70-74	27	16	30	23	31	42
75-79	21	11	25	15	22	23
80-84	18	21	16	20	22	33
85+	27	12	13	18	21	28



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Firearm Deaths in Colorado, 2005-2013



For every 1 unintentional
firearm death,

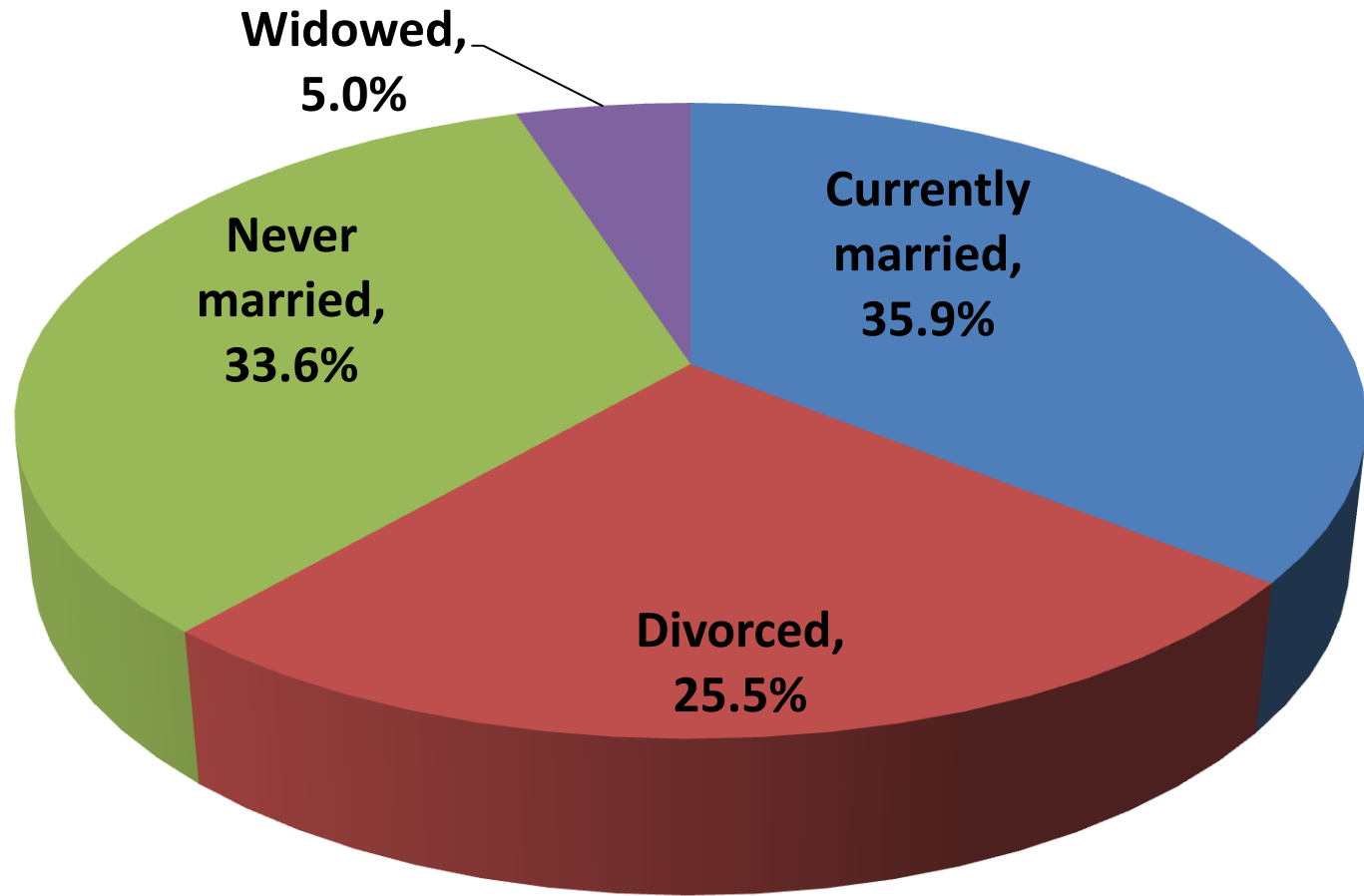


there were 14 firearm homicides

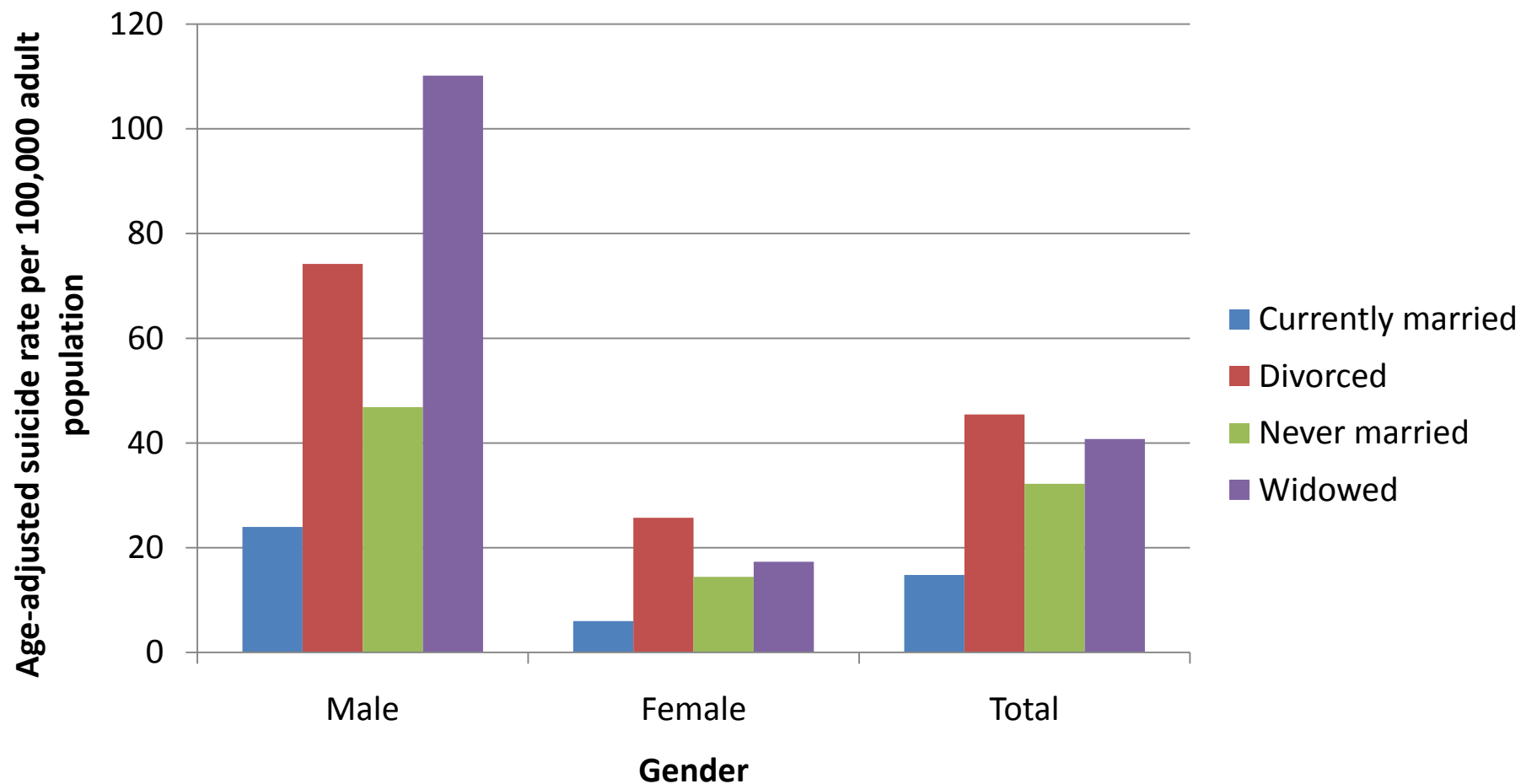


and 59 firearm suicides.

Suicide frequency by marital status, age ≥ 15 years, 2009-2013



Suicide rates by gender and marital status, age ≥ 15 years, Colorado residents (2009-2013)



Suicide deaths by circumstance, 2009-2013

Circumstance	N	Percent
Suicides with at least 1 known circumstance	4,280	92.0
	N	Percent*
Current depressed mood	2,468	57.7
Current mental health problem	1,898	44.4
Ever treated for mental health problem	1,733	40.5
Left a suicide note	1,622	37.9
Intimate partner problem	1,529	35.7
Disclosed intent to die by suicide	1,509	35.3
Diagnosis of depression	1,429	33.4
Current mental health treatment	1,417	33.1
Physical health problem	1,319	30.8
History of previous suicide attempts	1,192	27.9
Problem with alcohol	1,162	27.2
Job problem	880	20.6
Financial problem	844	19.7
Problem with other substance	691	16.1

*Percent of total cases with at least one circumstance known; Colorado residents who died in Colorado

Source: Violent Death Reporting System, Colorado Department of Public Health and Environment

Suicide deaths by toxicology testing results, Colorado residents (2009-2013)

	N	% of suicides with known toxicology
Toxicology available	4,292	92.22
Alcohol present	1,290	30.06
Opioid present	570	13.28
Antidepressant present	542	12.63
Marijuana present	371	8.64
Amphetamine present	154	3.59
Cocaine present	110	2.56

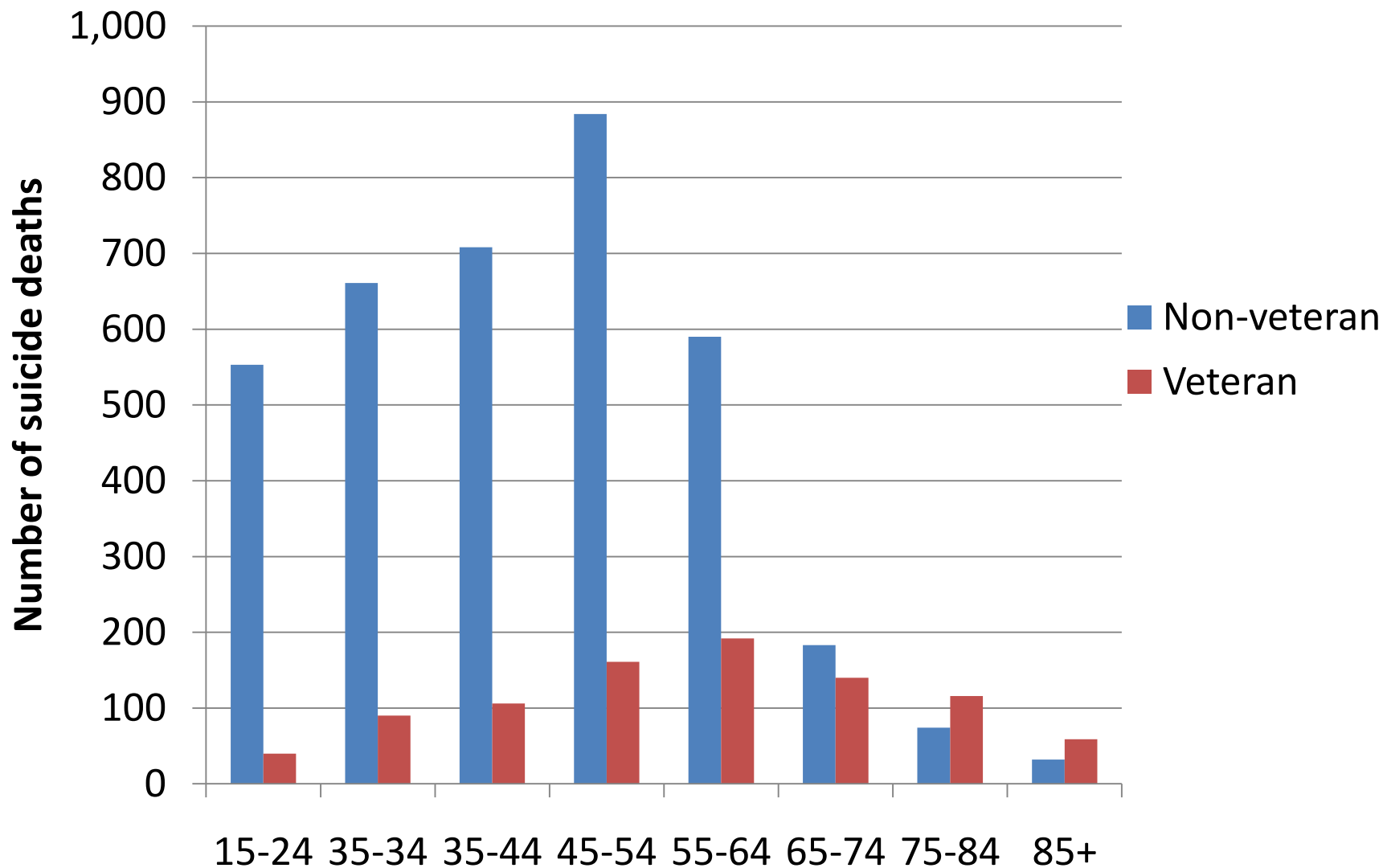


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Suicide deaths by age group and veteran status, Colorado residents, 2009-2013



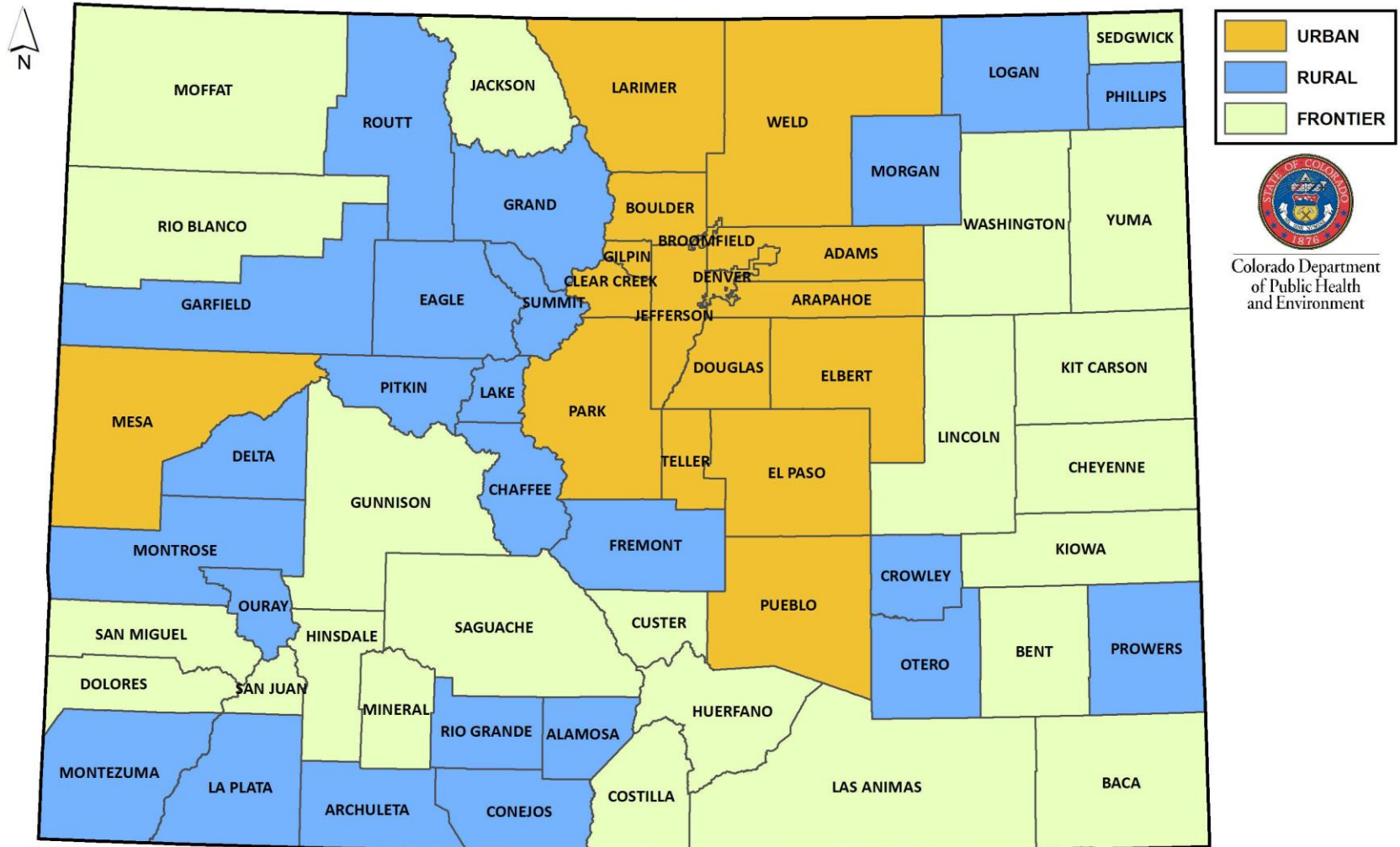
U.S. Dept. of Justice 2000-2012

- Suicide is leading cause of death in JAILS (rate 40/100,000)
- More than a third (36%) of all deaths in local jails occurred within 7 days of admission
- Illnesses (such as cancer and heart disease) leading cause of death in PRISONS
- Approximately 1/3 of jail inmate deaths attributed to suicide 2000-2012
- AND greater # of those suicides were for unconvicted inmates (3,121) than convicted status inmates (for presumably misdemeanor offenses- 667)
- Compared to prison deaths- suicide comprised only about 6% of deaths with a rate of 16/100,000

Health Statistics Regions, 2009-2013



Colorado's Urban/Rural/Frontier County Designation



Urbanized area definitions from the Office of Management and Budget (OMB):

Urban counties contain an urban nucleus of 50,000 people or more, and include outlying counties with 25% or more workers commuting to an urbanized area.

Nonmetro counties are outside the boundaries of metro areas and are further subdivided into two types, Rural and Frontier.

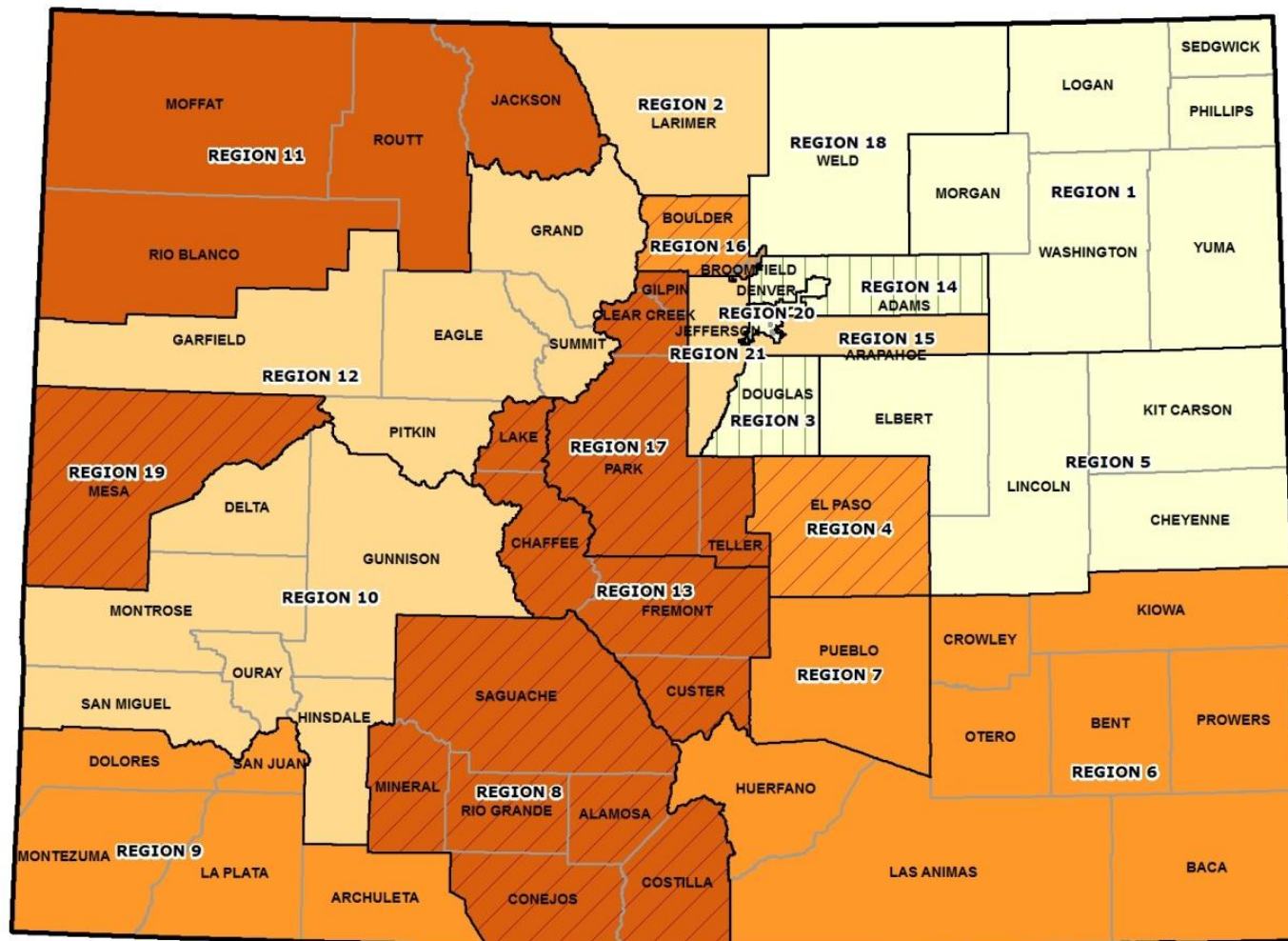
Frontier counties is a subset of Rural, with a population density of 6 or fewer people per square mile.

Age-adjusted suicide rates by county of residence classification, Colorado residents (2009-2013)

County Classification	Number	Age-adjusted rate (95% CI)
Urban	3,943	17.5 (16.9-18.0)
Rural	581	19.8 (18.1-21.4)
Frontier	129	19.0 (15.6-22.4)

Colorado Age-Adjusted Suicide Rate, 2009-2013

Colorado Residents, by Health Statistics Region



5-Year Suicide Rate Per 100,000 Residents
(2009-2013, Age-Adjusted)

By Health Statistics Region

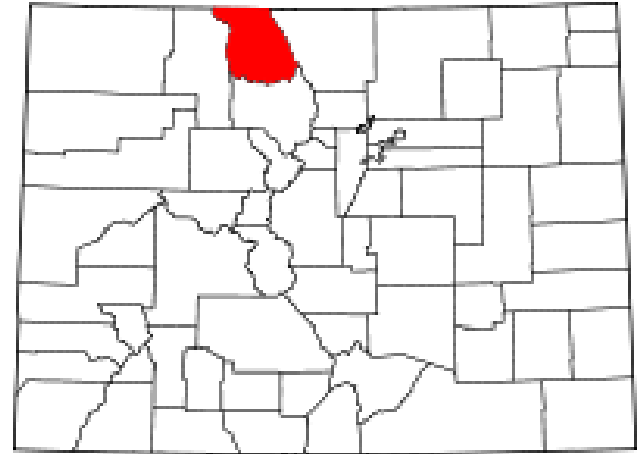
- Lowest Quartile (14.2 - 16.2)
- Second Quartile (16.3 - 18.2)
- Third Quartile (18.3 - 22.8)
- Highest Quartile (22.9 - 30.4)

State Average 17.8 (95% C.I. 17.3 - 18.3)

- Statistically Lower than Average
- Statistically Higher than Average

Jackson County

- Region 11 - highest quartile
- 1,621 square miles
- Population - 1,348 (2010)
- Walden population - 608



2000 - 2013

- 4 total suicide deaths
- Rate = 19.6/100,000

Larimer County

- Region 2 - lowest quartile
- 2,633 square miles
- Population - 299,630 (2010)
- Fort Collins population - 143,986

2000 - 2013

- 642 total suicide deaths
- Rate = 16.1/100,000

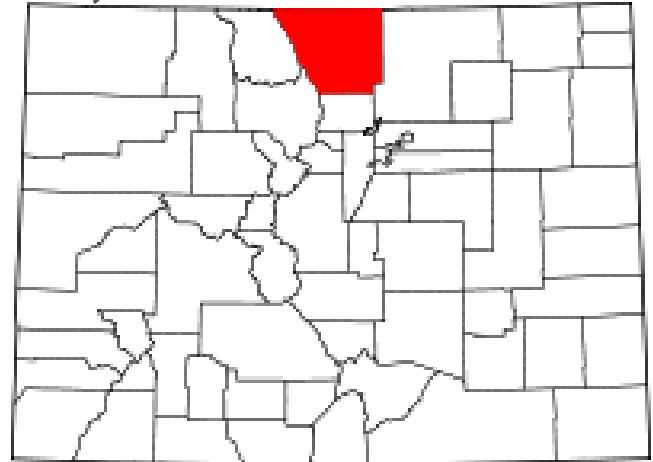
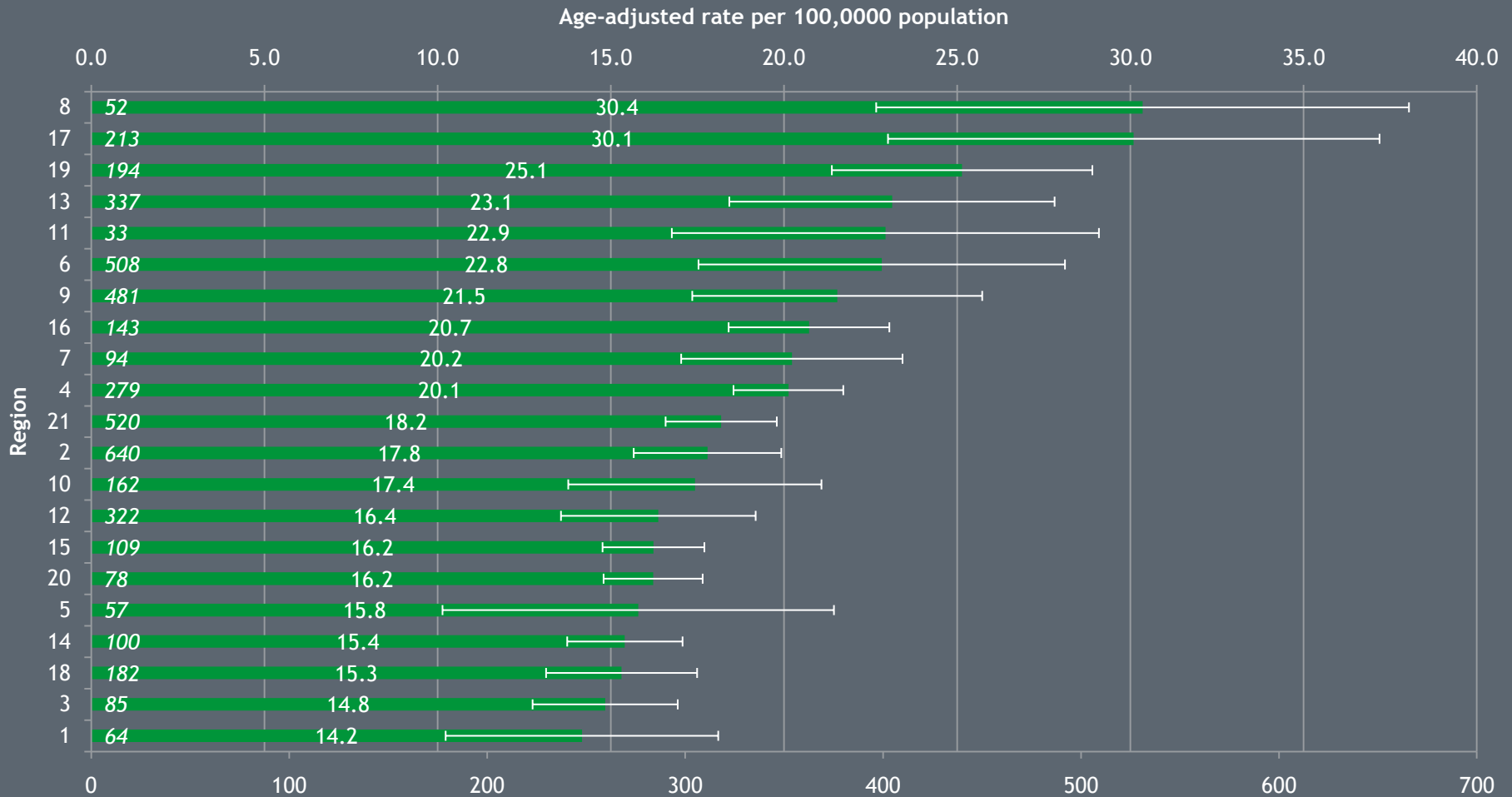


Figure 2. Age-adjusted suicide rate rank by Health Statistics Region, Colorado Residents (2009-2013)



Numbers in italics inside base of chart are counts of suicide deaths.



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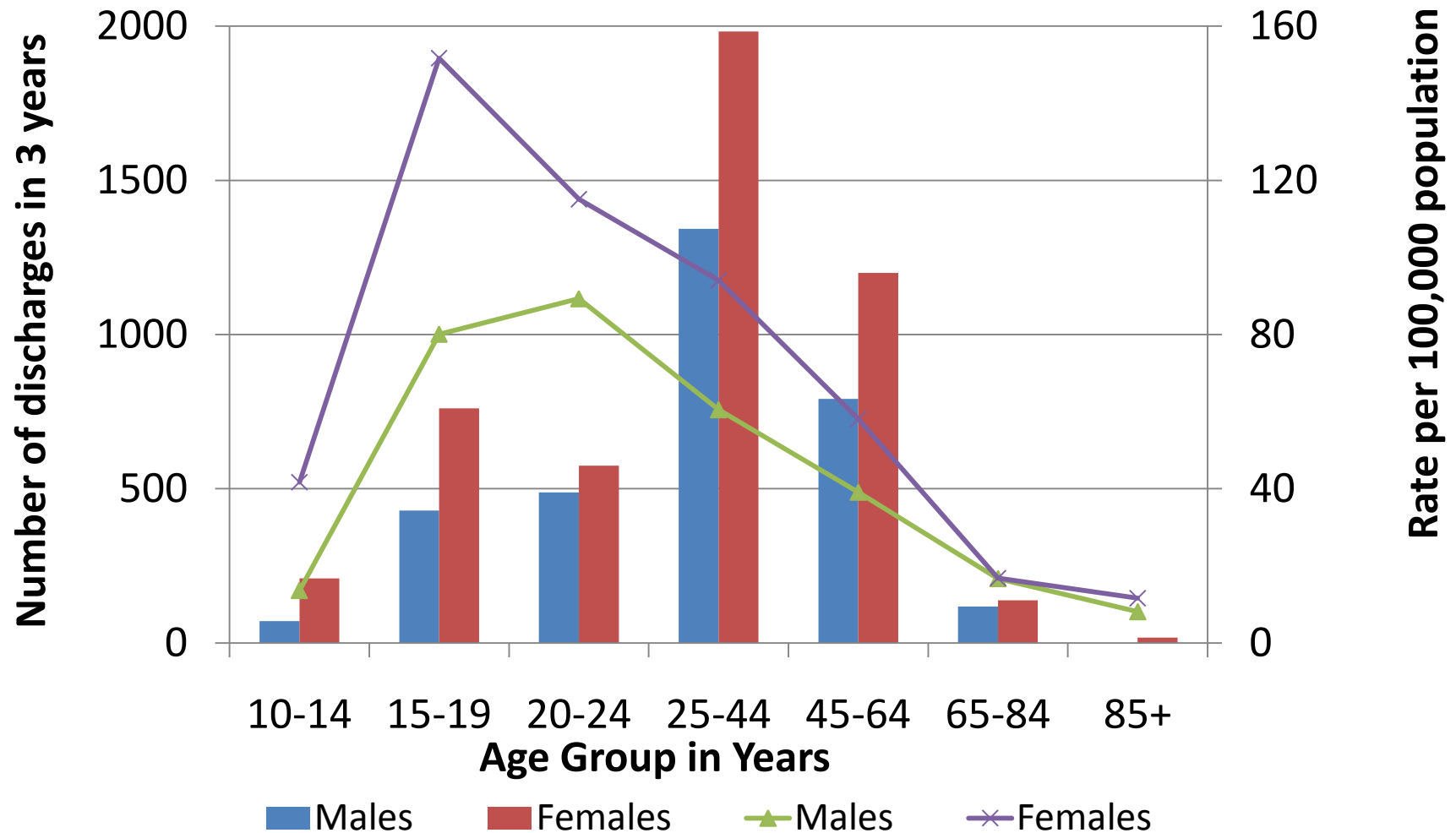
Suicide Attempts in Colorado

In the US, for each death by suicide an estimated 25 attempts are made

For those surviving an attempt, the vast majority do not later die by suicide



Hospitalizations for Suicide Attempts* by age group and gender: Colorado residents, 2010-2012



Data Source: Hospital discharges from the Colorado Hospital Association

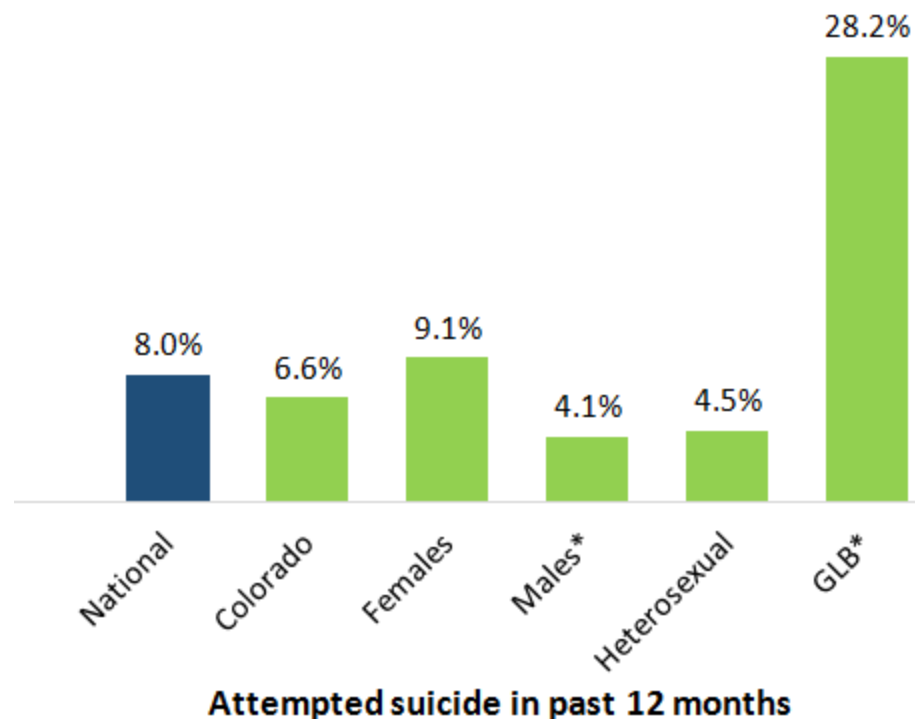
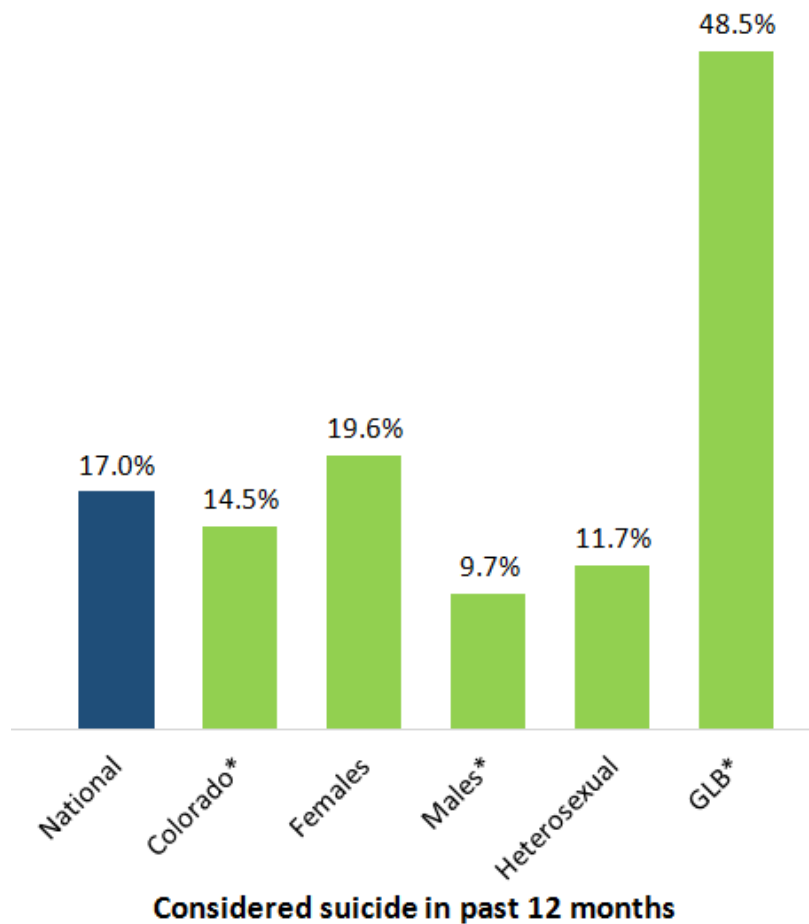
* excluding persons who died or were discharge to hospice

2013 Healthy Kids CO Survey

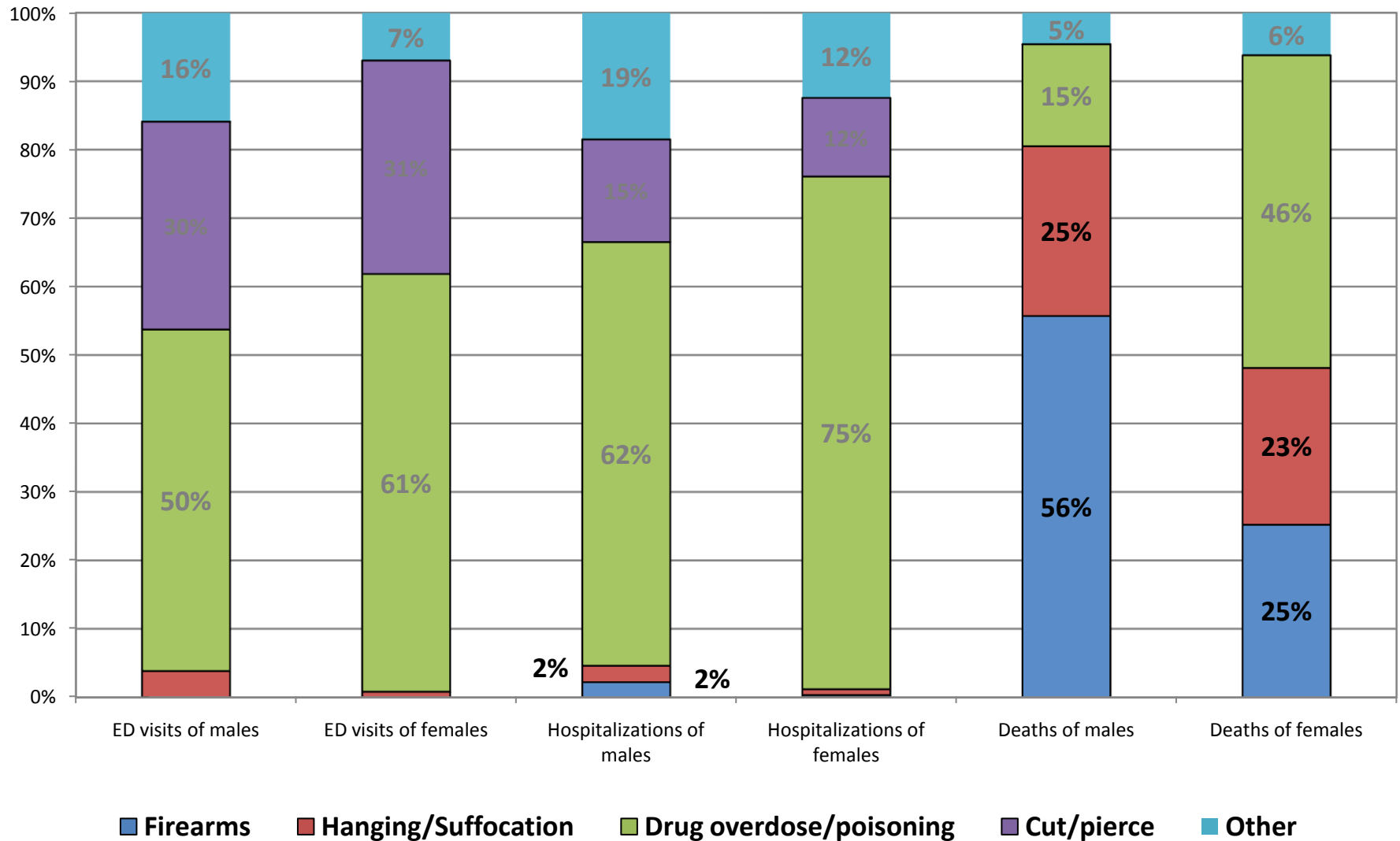
Completed by 9th through 12th graders in public high schools in Colorado

- 24.3 percent reported feeling so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities during the past 12 months (LGB – 59.4%; Hispanic Female – 38.7%).
- 14.5 percent reported seriously considering attempting suicide during the past 12 months (LGB – 48.5%; Native Hawaiian/other Pacific Islander Male – 26.5%; Black female – 24.6%).
- 6.6 percent attempted suicide one or more times during the past 12 months (LGB - 28.2%; Native Hawaiian/other Pacific Islander Male – 15.7%; American Indian/Alaska Native – 14.5%).

CO Healthy Kids Survey Cont'd



Means of Suicide by Data Source and Sex, Colorado Residents, 2011



The Cost of Suicide in Colorado

Each suicide death in CO costs:

- \$3,088 in direct costs
(health care, autopsy, law enforcement investigation)
- \$1,100,885 in indirect costs (work loss cost)
- 2013 = More than \$1 Billion

