



Brian Sandoval
Governor



Richard Whitley
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State of Nevada
Department of Health and Human Services
Office of Analytics

2017 Behavioral Health Profile

James Kuzhippala, MPH

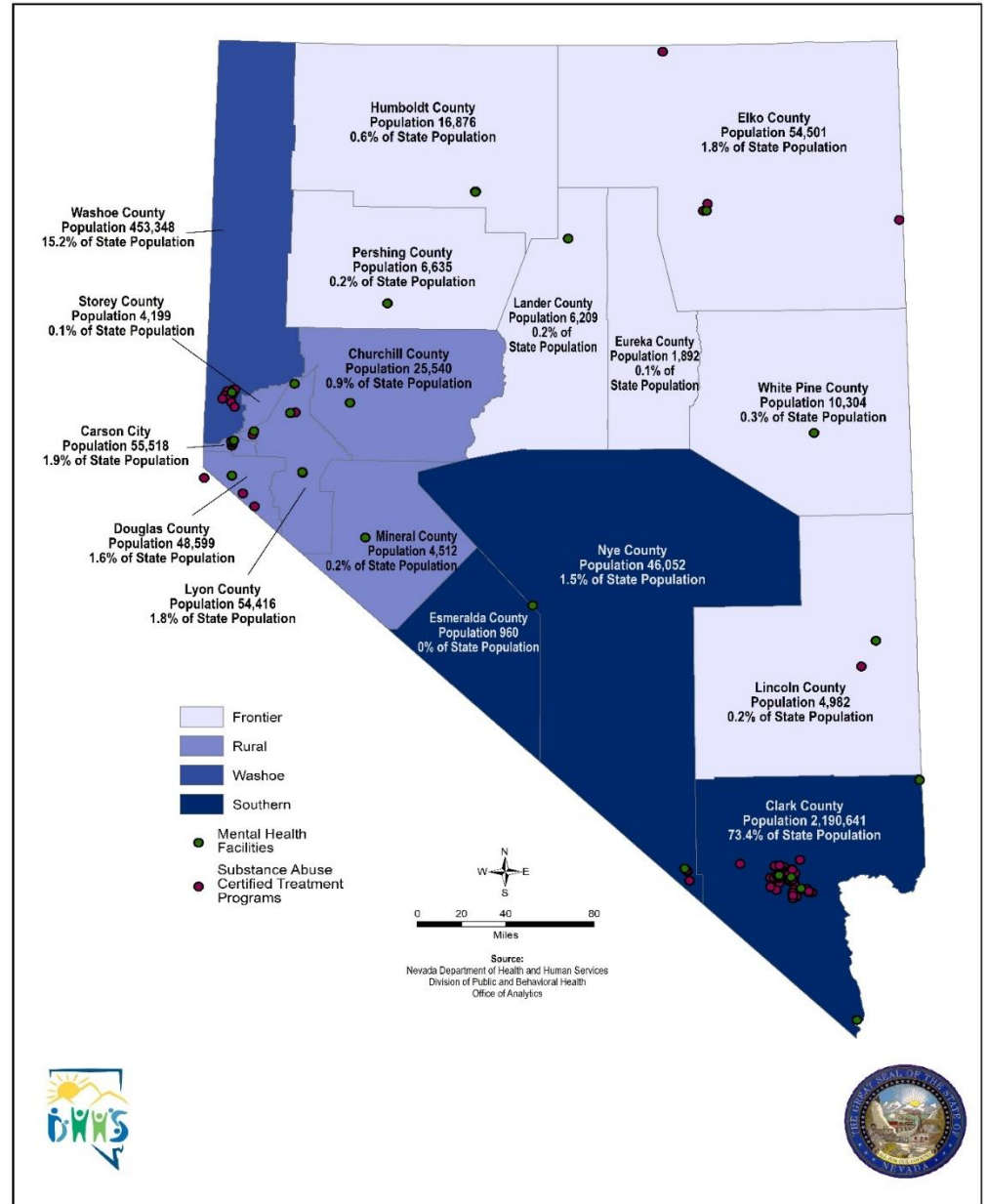


Outline



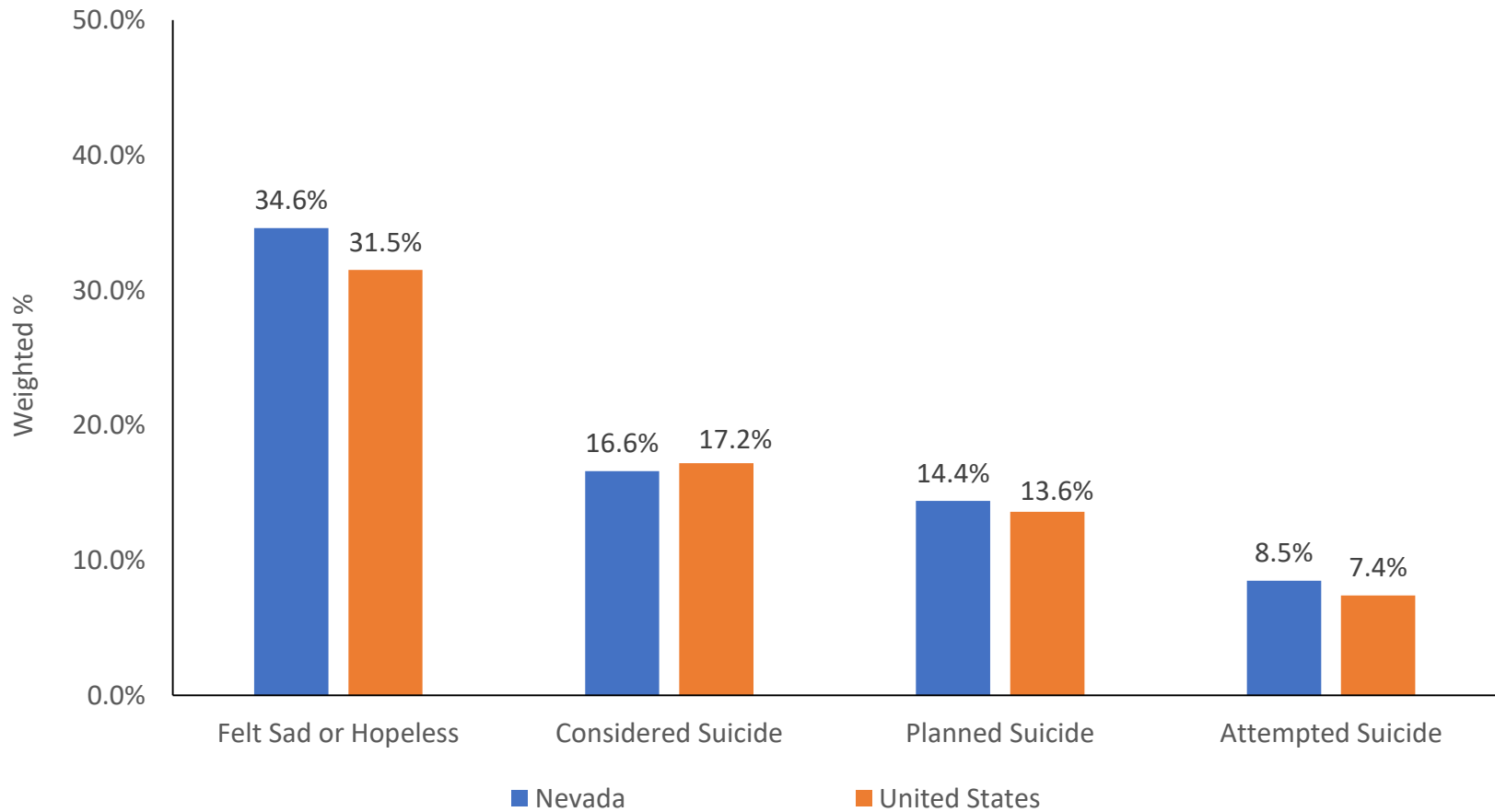
- Mental Health and Substance Use Trends
- Data Needs and Gaps
- Funding Needs
- Recommendations

Nevada Population, State Mental Health Facilities, and Certified Substance Abuse Treatment Centers by Behavioral Health Region



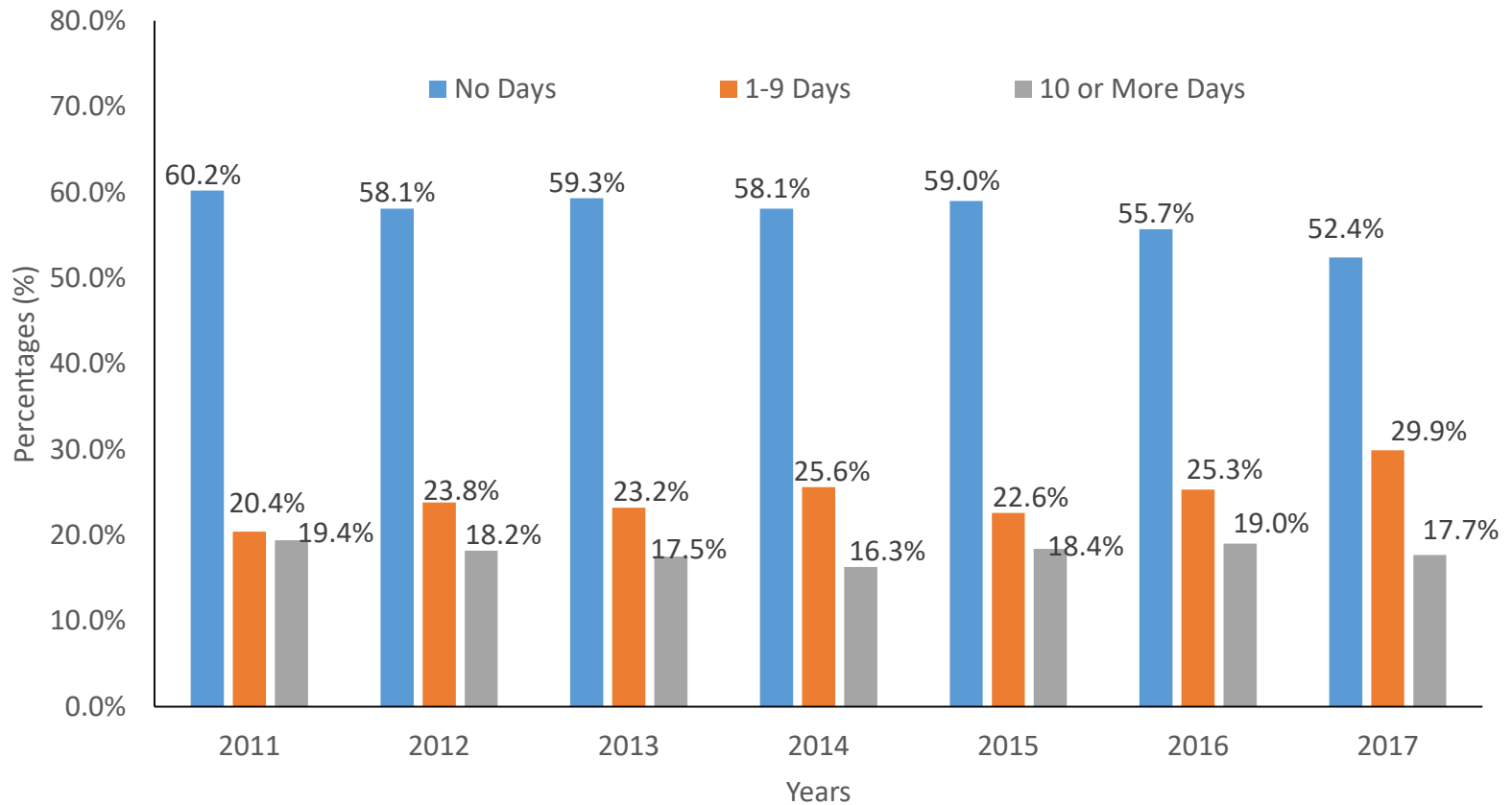
Source: Nevada State Demographer, Vintage 2017; **Frontier:** Elko, Eureka, Humboldt, Lander, Lincoln, Pershing, and White Pine; **Rural Nevada:** Carson City, Churchill, Douglas, Lyon, Mineral and Storey; **Southern Nevada:** Clark, Esmeralda, and Nye.

Mental Health Risk Behaviors, Nevada High School Students, YRBS, 2017



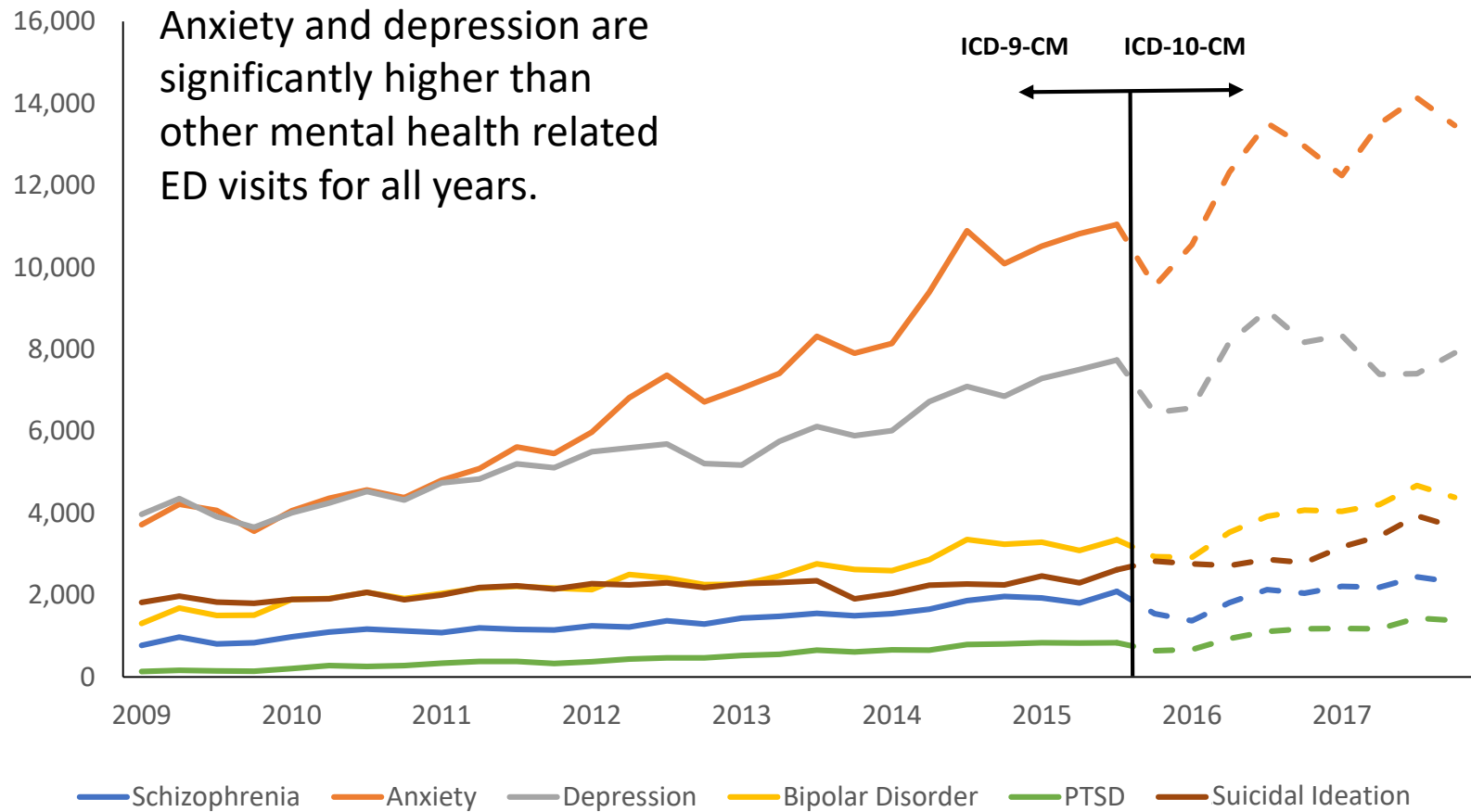
Source: Nevada Youth Risk Behavior Survey (YRBS).
Chart scaled to 50% to display differences among groups

Percentages of Adult Residents Who Experienced Poor Mental or Physical Health that Prevented them from Doing Usual Activities, BRFSS, 2011-2017



Source: Behavioral Risk Factor Surveillance System (BRFSS).
 Chart scaled to 80% to display differences among groups

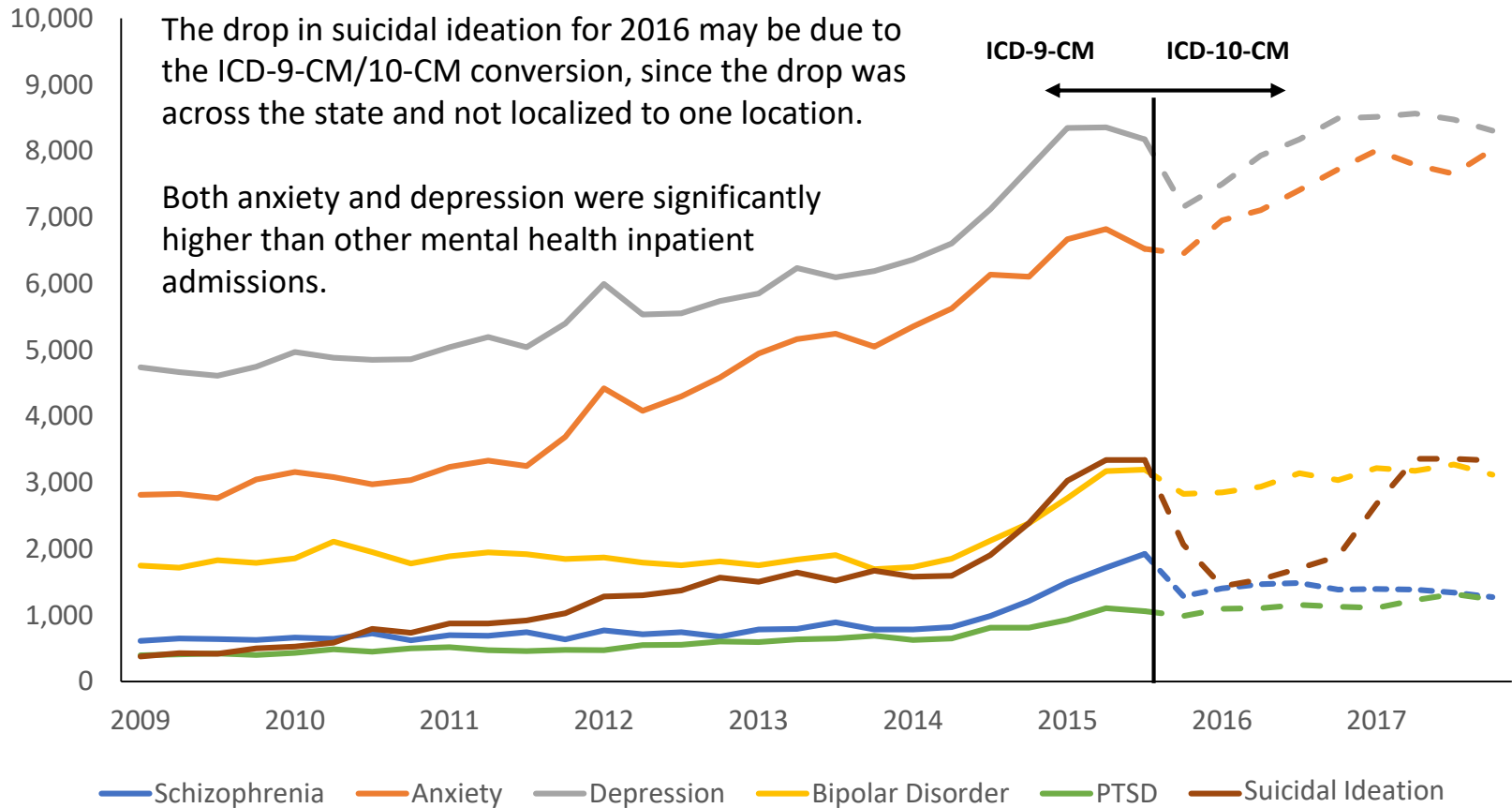
Mental Health Related Emergency Department Encounters, by Quarter and Year, 2009-2017



Source: Hospital Emergency Department Billing.

ICD-10 codes replaced ICD-9 codes in last quarter of 2015, therefore data prior to that may not be directly comparable.

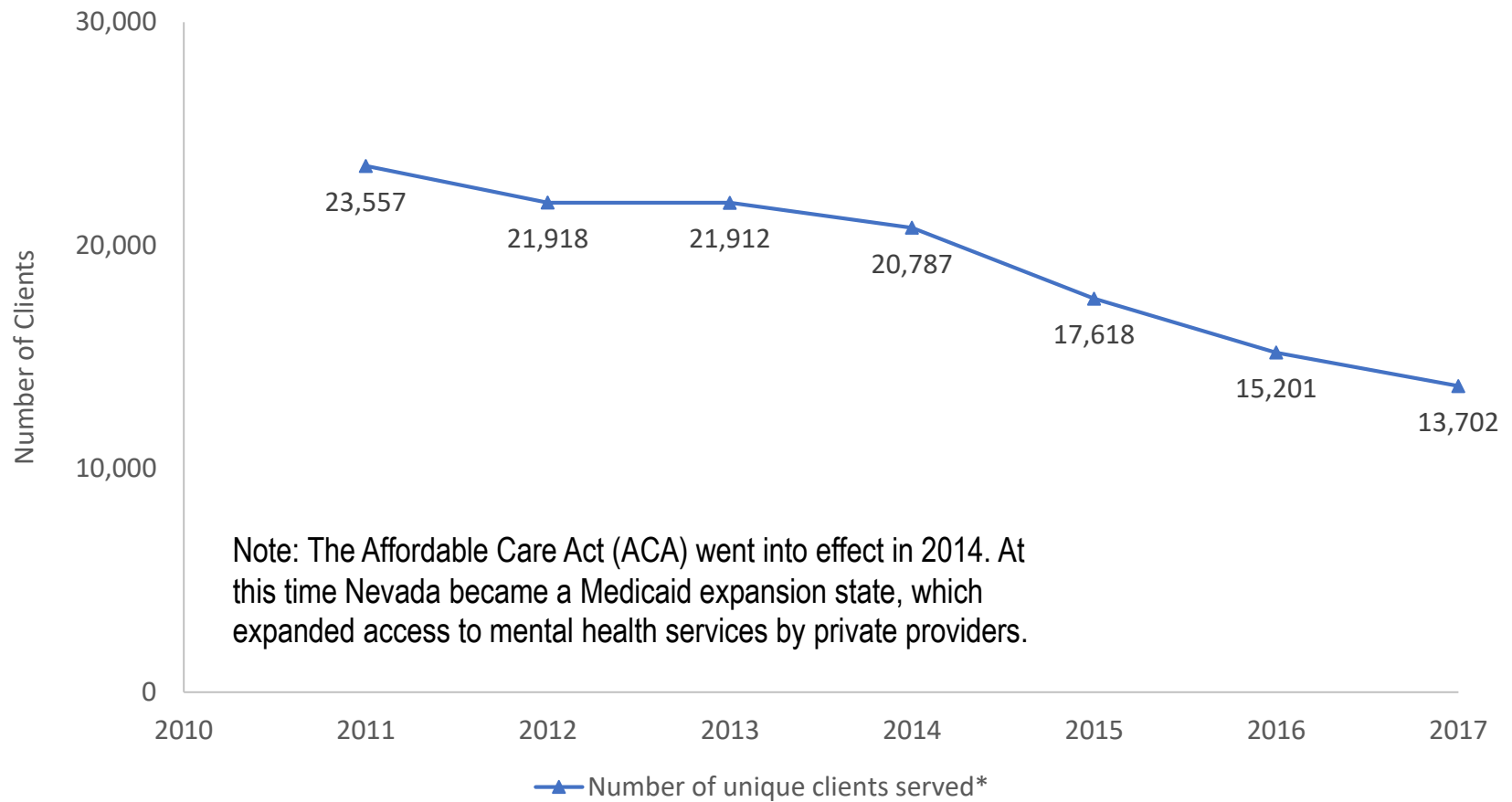
Mental Health Related Inpatient Admissions, by Quarter and Year, 2009-2017



Source: Hospital Inpatient Billing.

ICD-10 codes replaced ICD-9 codes in last quarter of 2015, therefore data prior to that may not be directly comparable.

State Funded Mental Health Clinics by Number of Unique Clients Served, 2011-2017

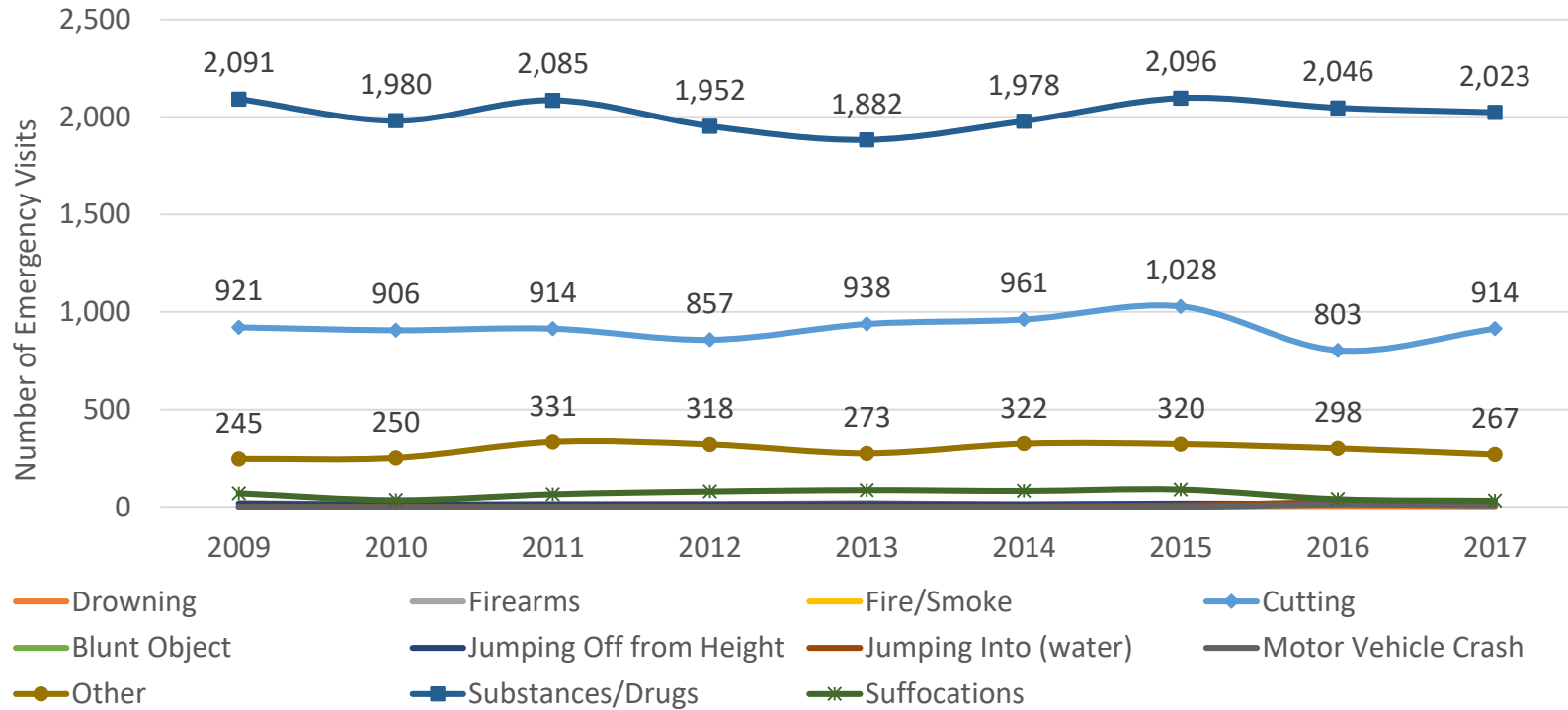


Source: Avatar.

*Patient counts were de-duplicated; a client is counted once per year.

Suicide Attempts, Emergency Department Encounters by Method, Nevada Residents, 2009-2017

Substance and drug related suicide attempts was significantly higher than other methods of suicide.



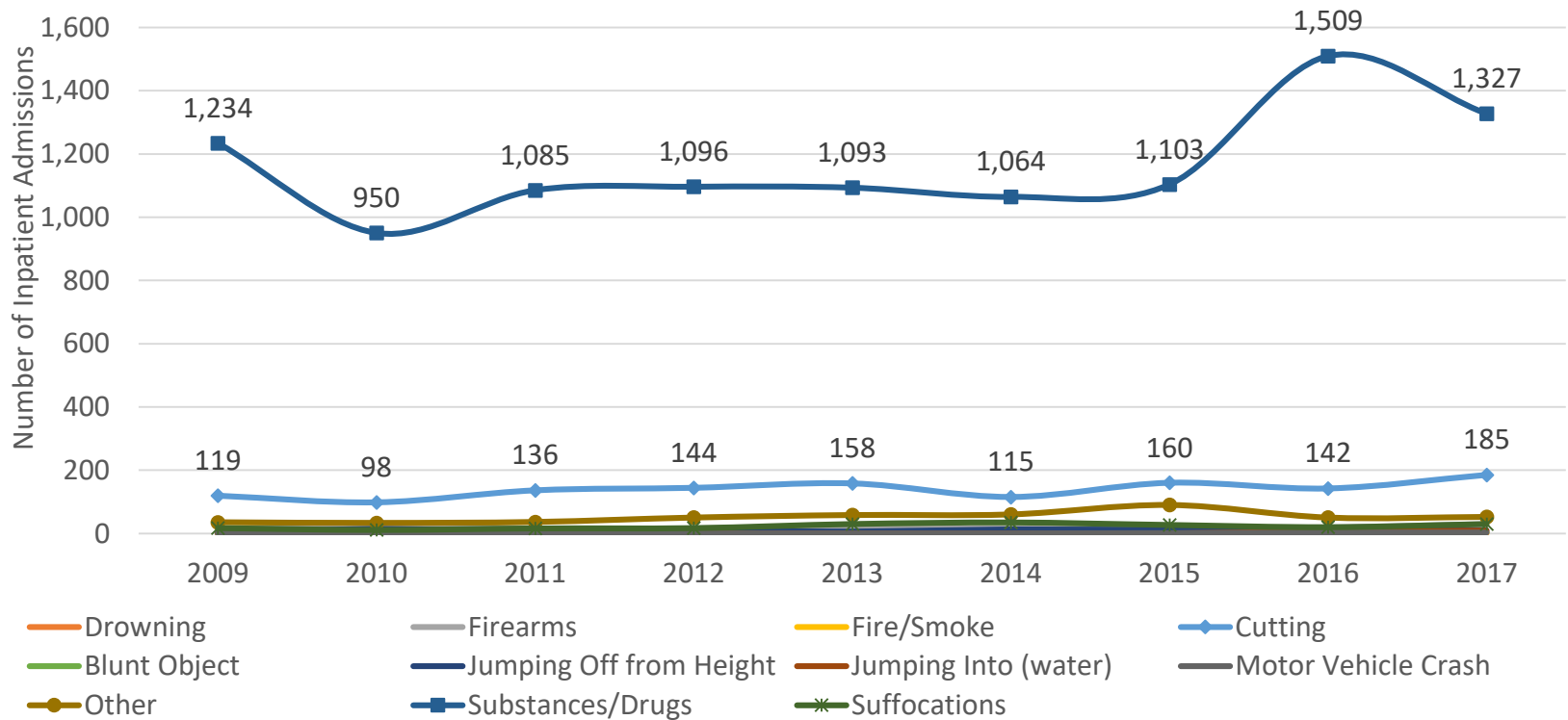
Source: Hospital Emergency Room Billing.

ICD-10 codes replaced ICD-9 codes in last quarter of 2015, therefore data prior to that may not be directly comparable.

A person can be included in more than category and therefore the counts above are not mutually exclusive.

Suicide Attempts, Inpatient Admissions by Method, Nevada Residents, 2009-2017

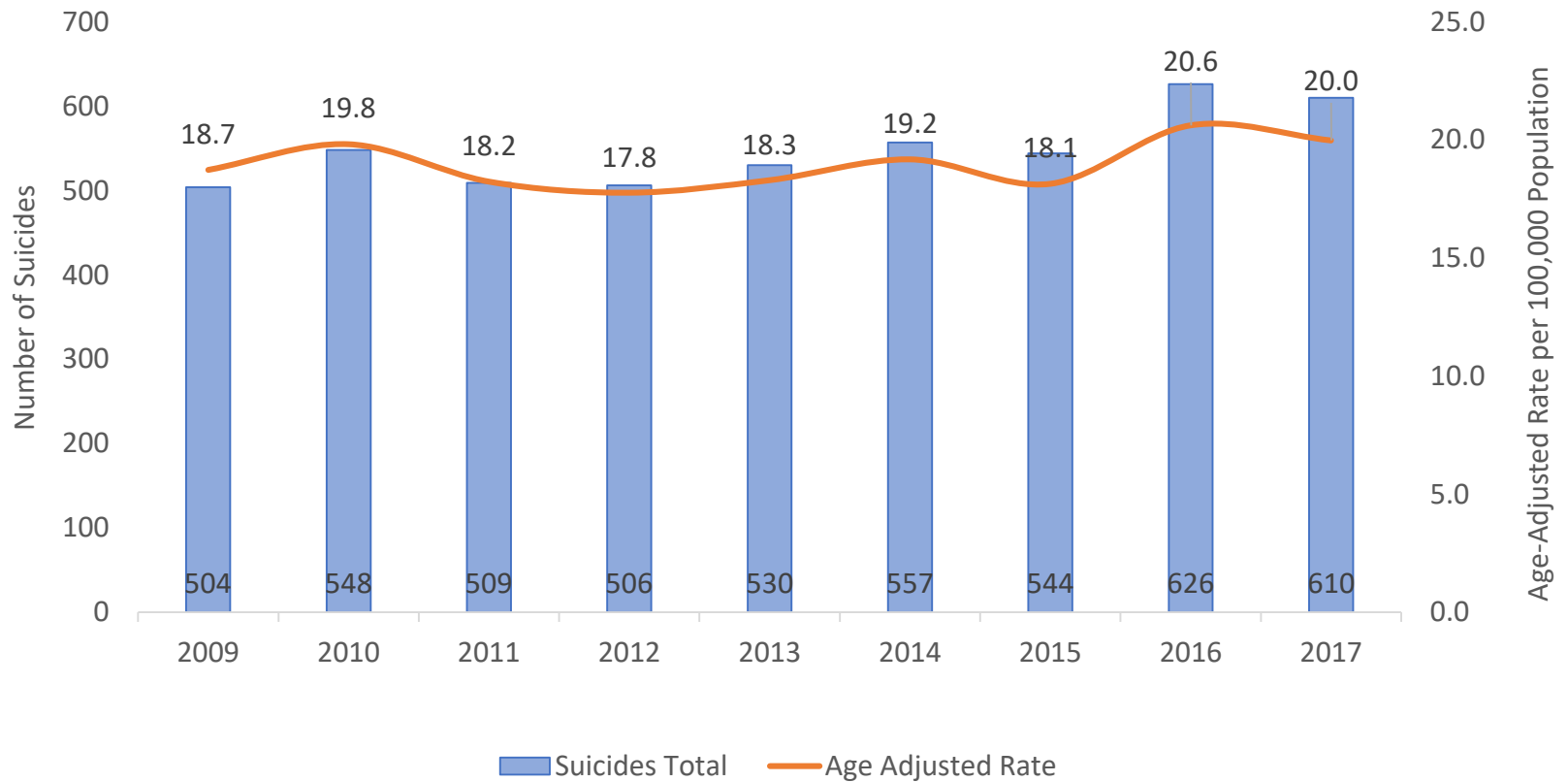
Substance and drug related suicide attempts was significantly higher than other methods of suicide.



Source: Hospital Inpatient Billing.
 ICD-10 codes replaced ICD-9 codes in last quarter of 2015, therefore data prior to that may not be directly comparable.
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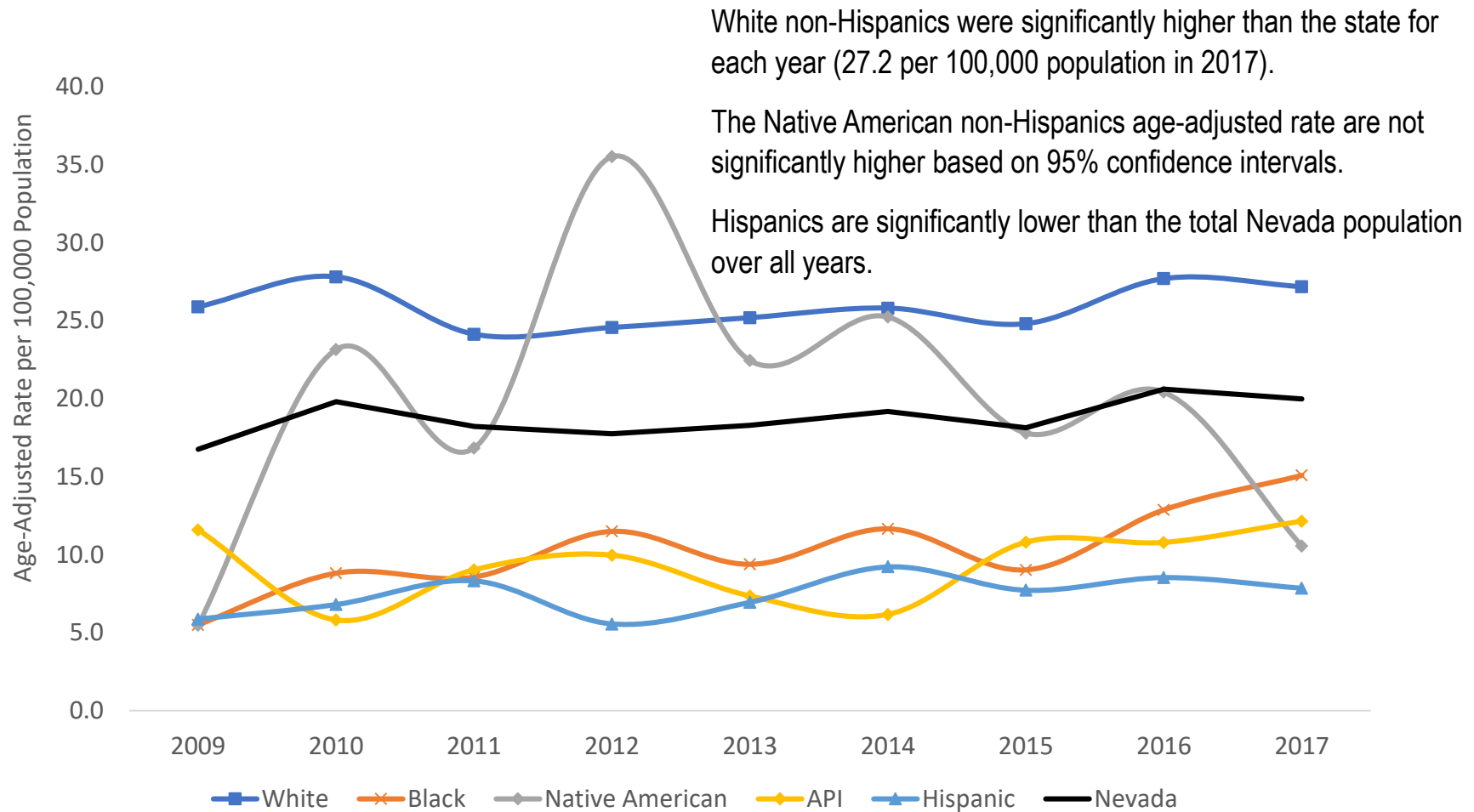
Number of Suicides and Age-Adjusted Suicide Rates, Nevada Residents, 2009-2017

The age-adjusted suicide rate remained steady from 2009-2017 with no significant increase or decrease.



Source: Nevada Electronic Death Registry System.

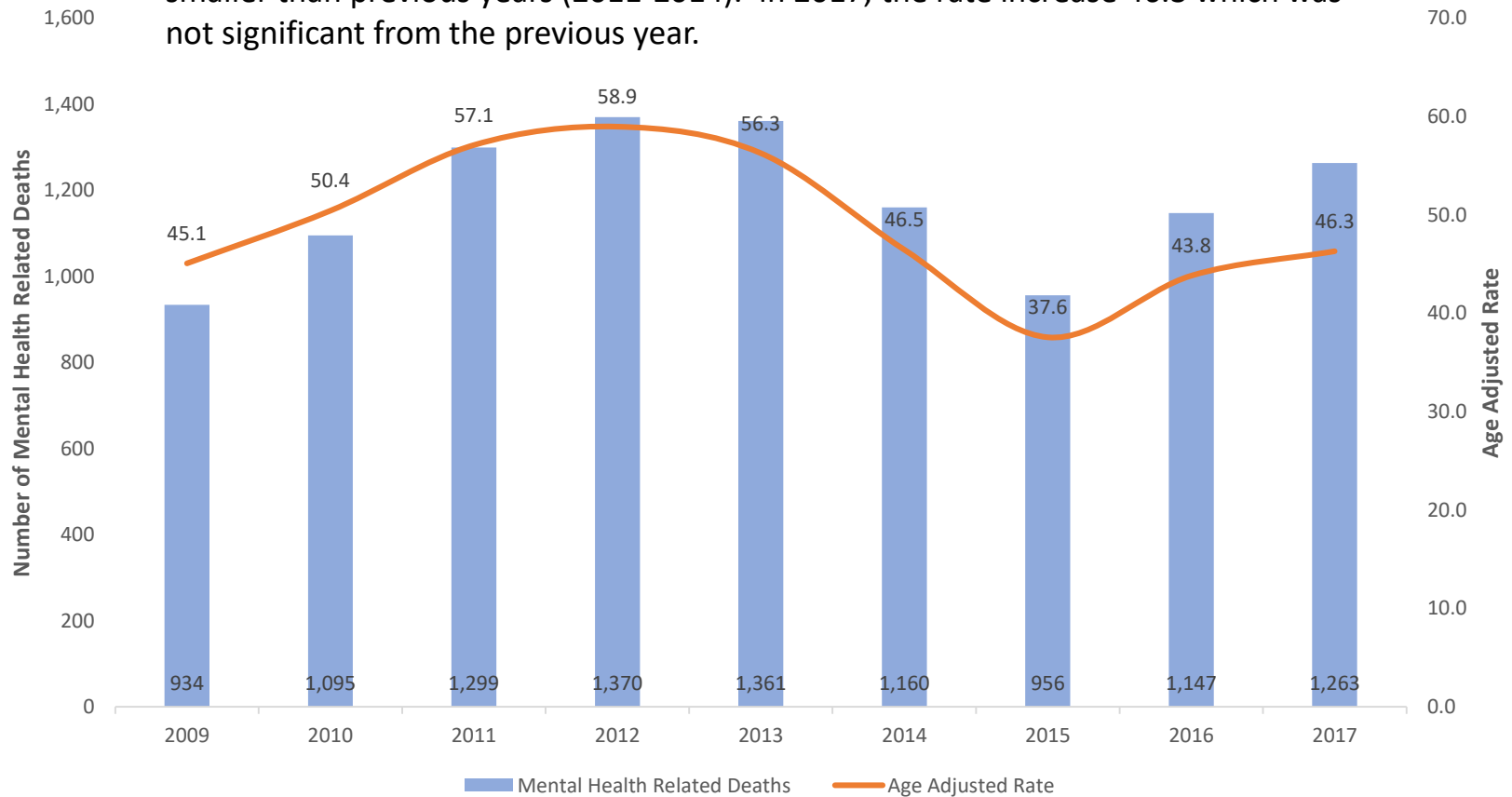
Age Adjusted Suicide Rates by Race/Ethnicity, Nevada Residents, 2009-2017



Source: Nevada Electronic Death Registry System.

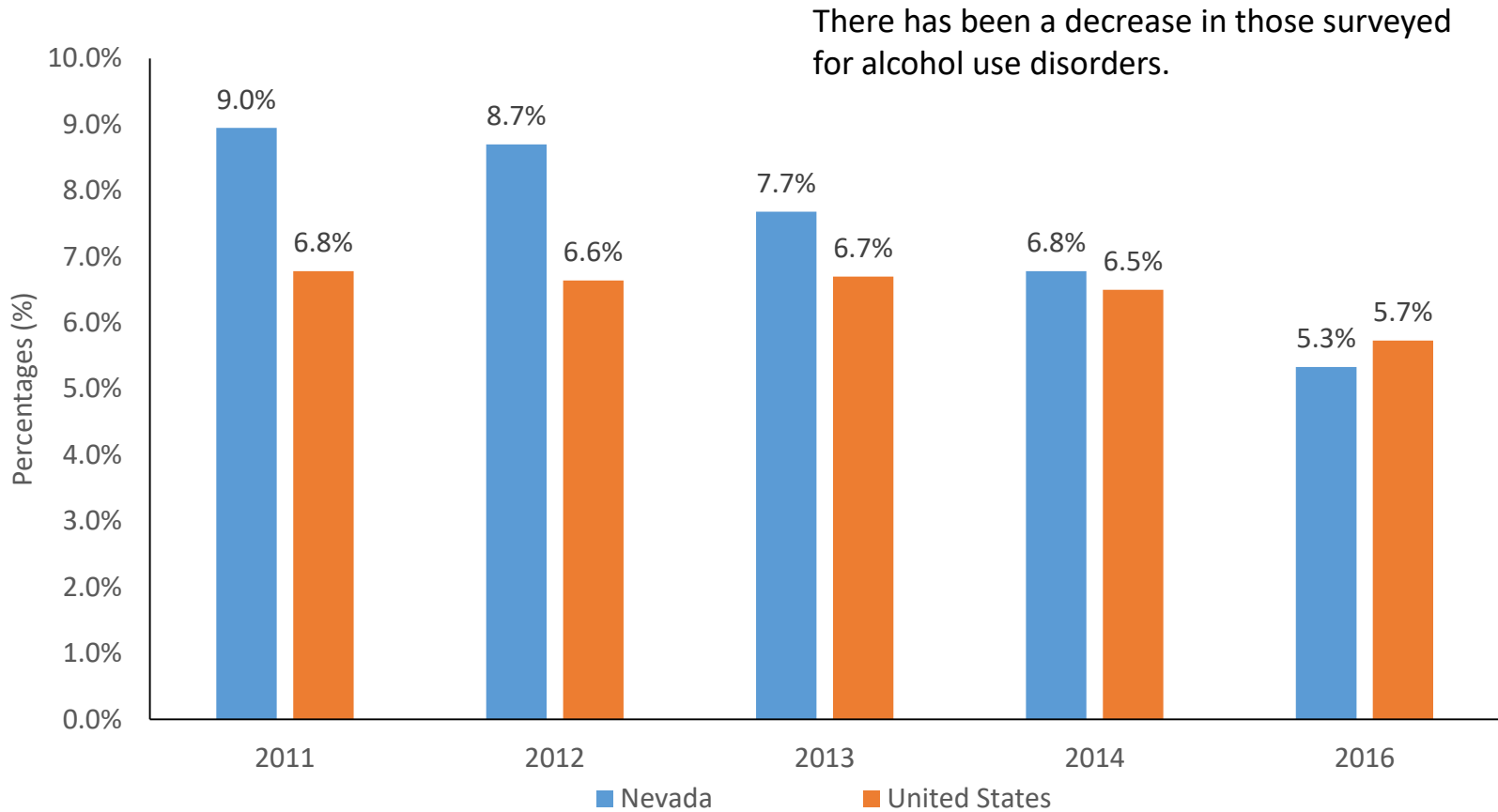
Mental Health Related Deaths and Age-Adjusted Rates, Nevada Residents, 2009-2017

In 2015, the number of mental health related deaths dropped to 956 which was significant (95% confidence interval). From 2015-2016 the rates were significantly smaller than previous years (2011-2014). In 2017, the rate increase 46.3 which was not significant from the previous year.



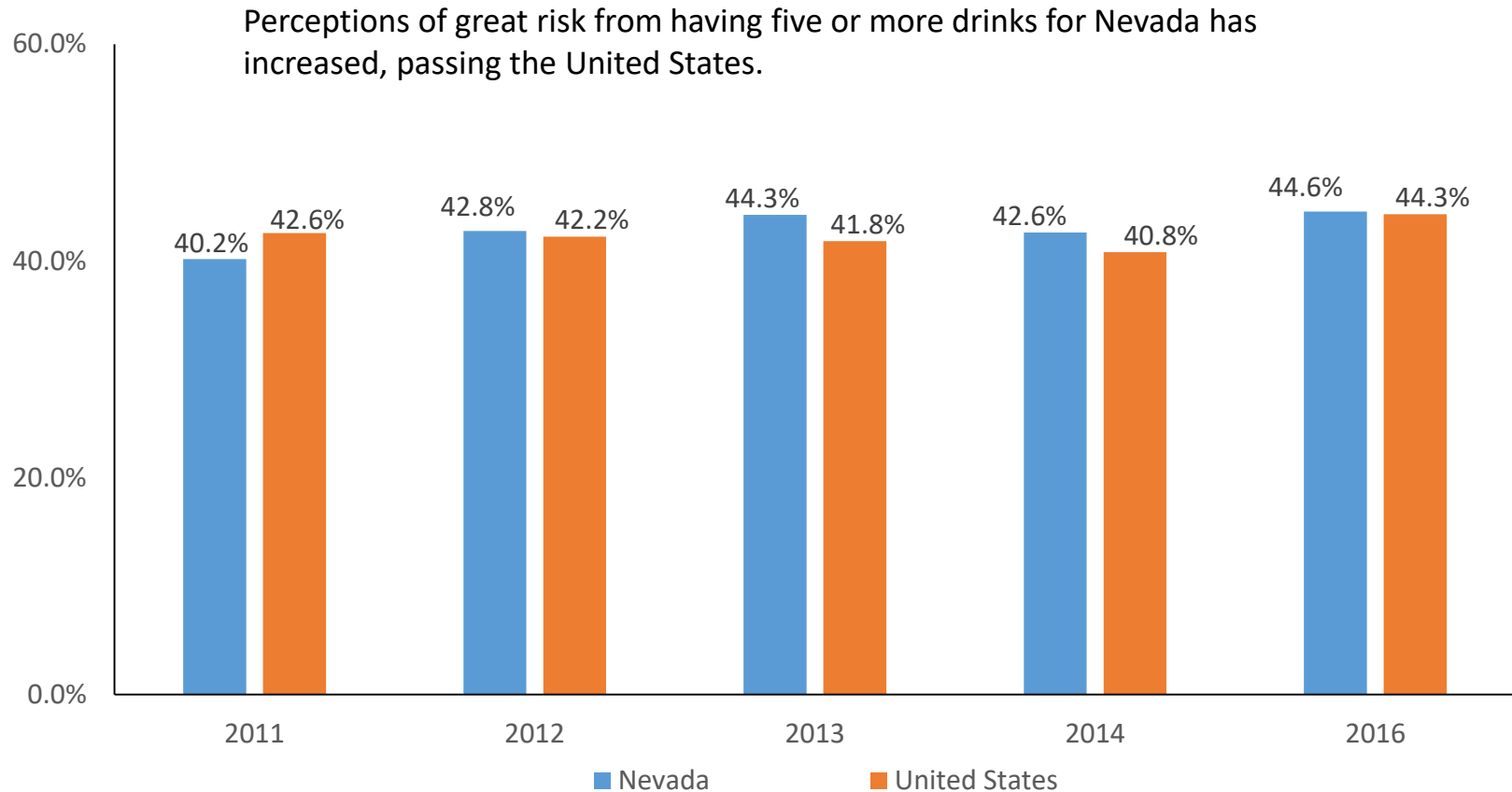
Source: Nevada Electronic Death Registry System.

Alcohol Use Disorder in the Past Year in Ages 12 Years and Above, in Nevada and the United States, 2011-2016



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health, 2010-2016.
Chart scaled to 10% to display differences among groups.
There is no data for 2015.

Perceptions of Great Risk from Having Five or More Drinks of an Alcoholic Beverage Once or Twice a Week in the Past Year in Ages 12 Years and Above, in Nevada and the United States, 2011-2016



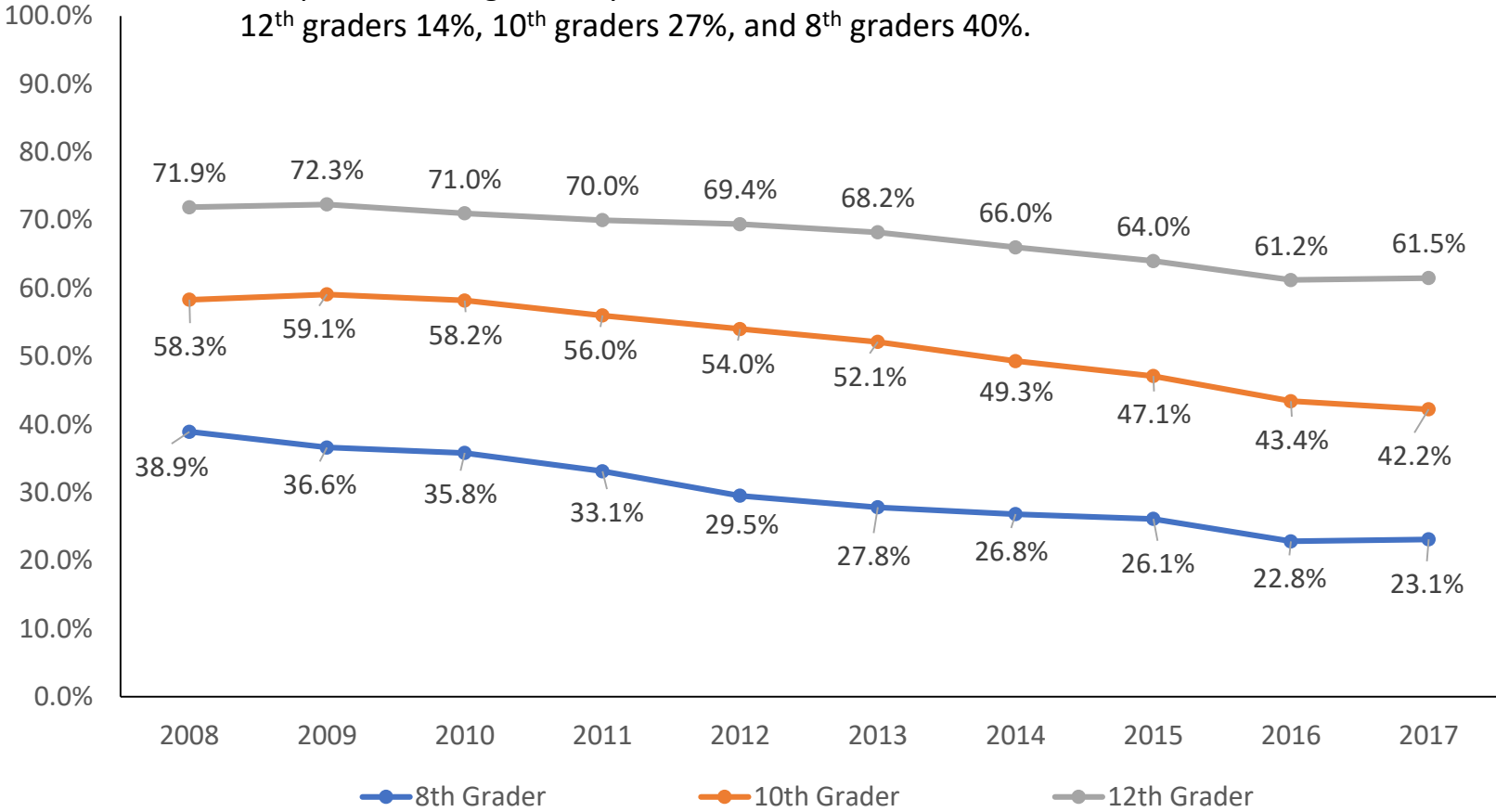
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health, 2010-2016.

Chart scaled to 60% to display differences among groups.

There is no data for 2015.

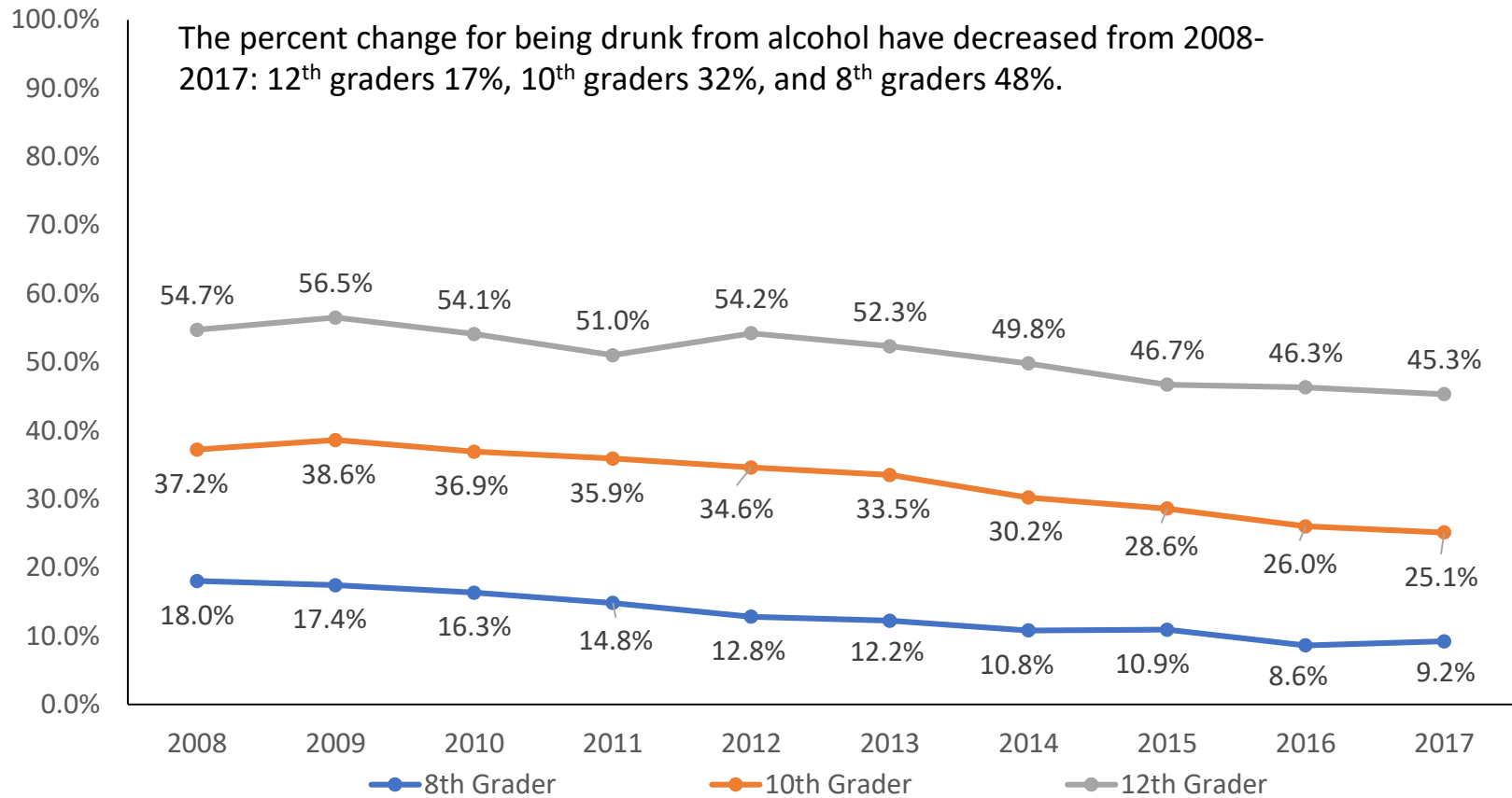
Trends in Annual Prevalence of Any Use of Alcohol, United States, 2008-2017

The percent change for any use of alcohol have decreased from 2008-2017 :
 12th graders 14%, 10th graders 27%, and 8th graders 40%.



Source: Monitoring the Future Survey.

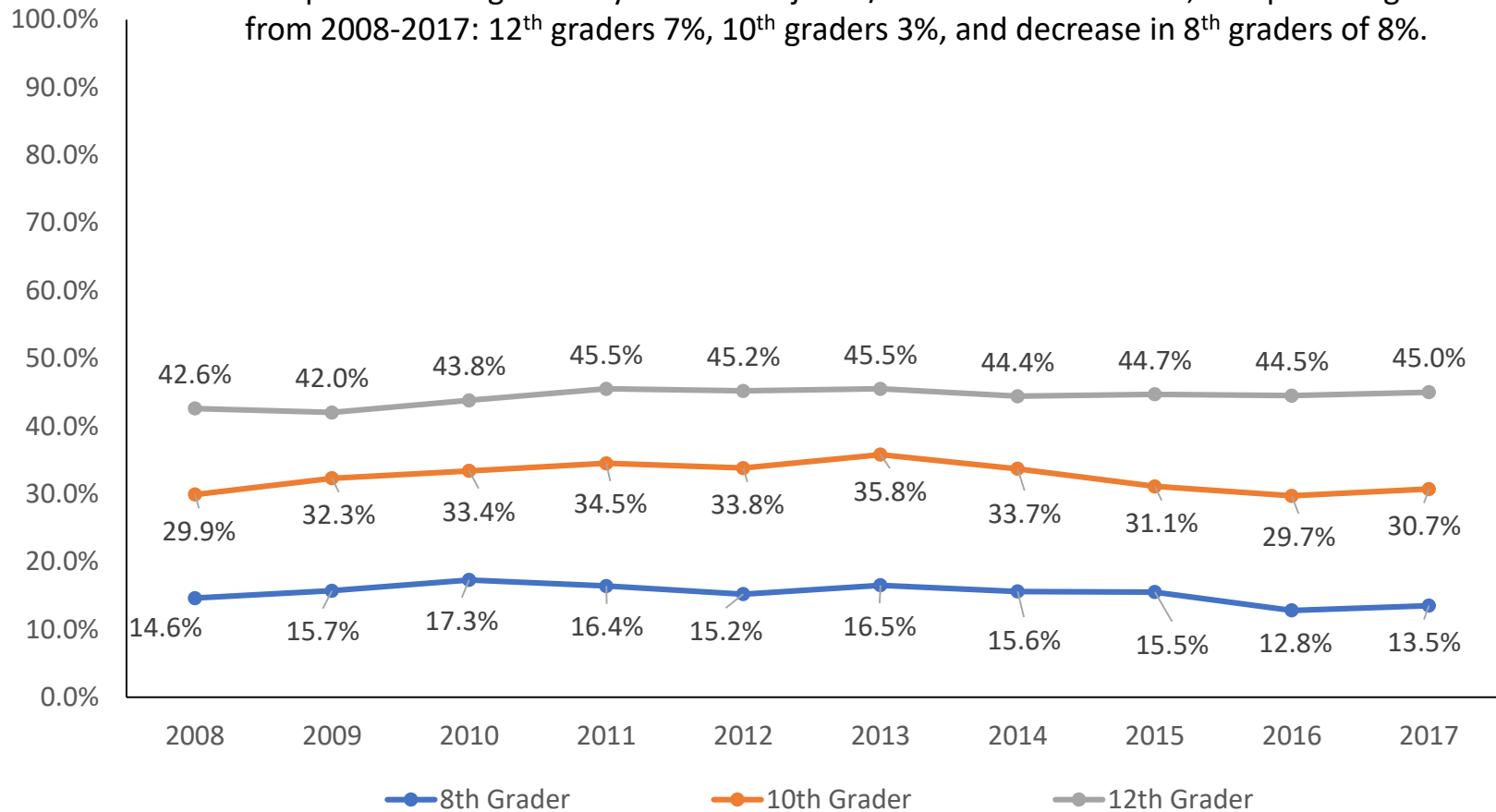
Trends in Annual Prevalence of Being Drunk from Alcohol, United States, 2008-2017



Source: Monitoring the Future Survey.

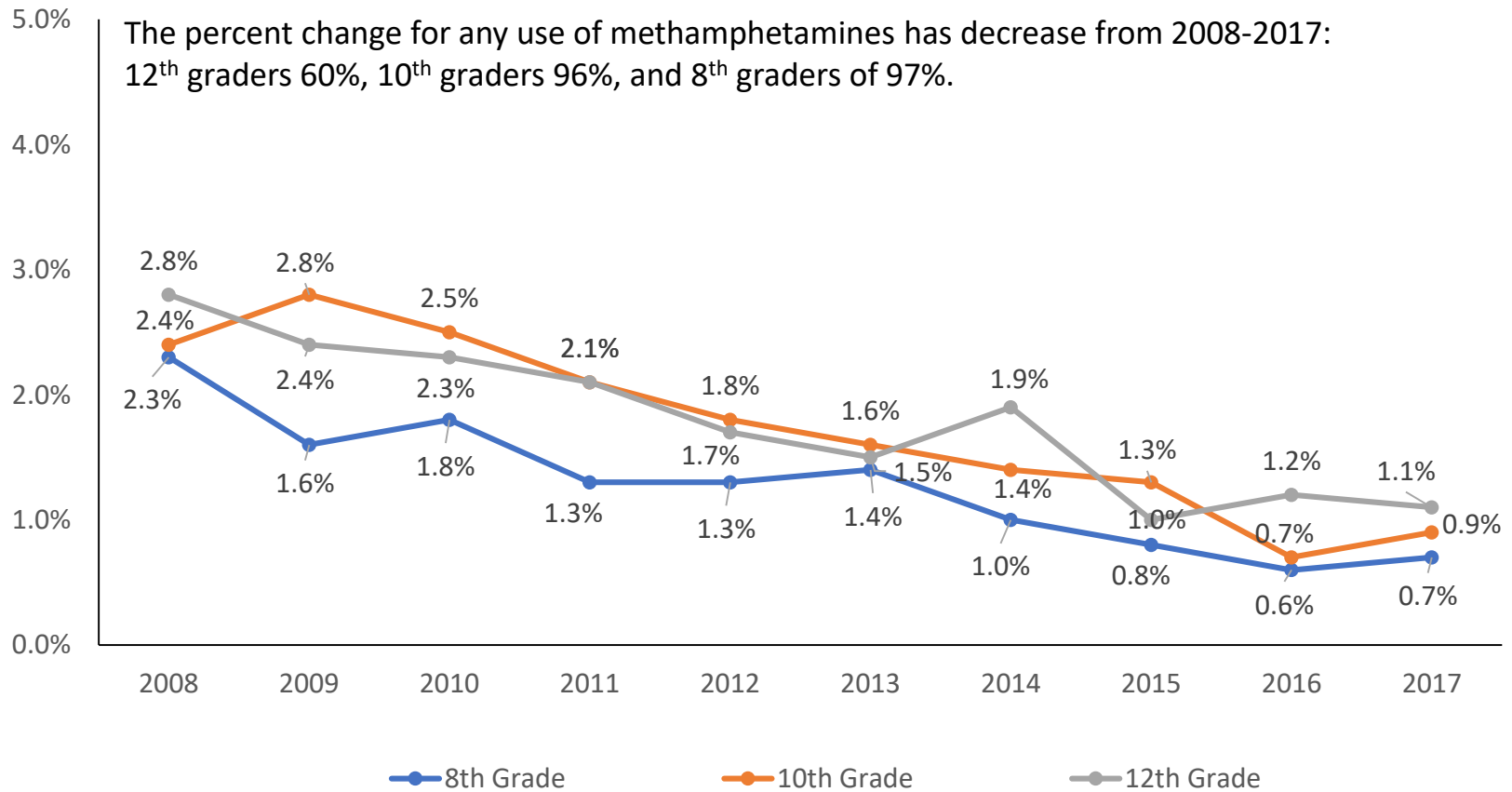
Trends in Annual Prevalence of Any Use of Marijuana/Hashish, United States, 2008-2017

The percent change for any use of marijuana/hashish has increased, except in 8th graders from 2008-2017: 12th graders 7%, 10th graders 3%, and decrease in 8th graders of 8%.



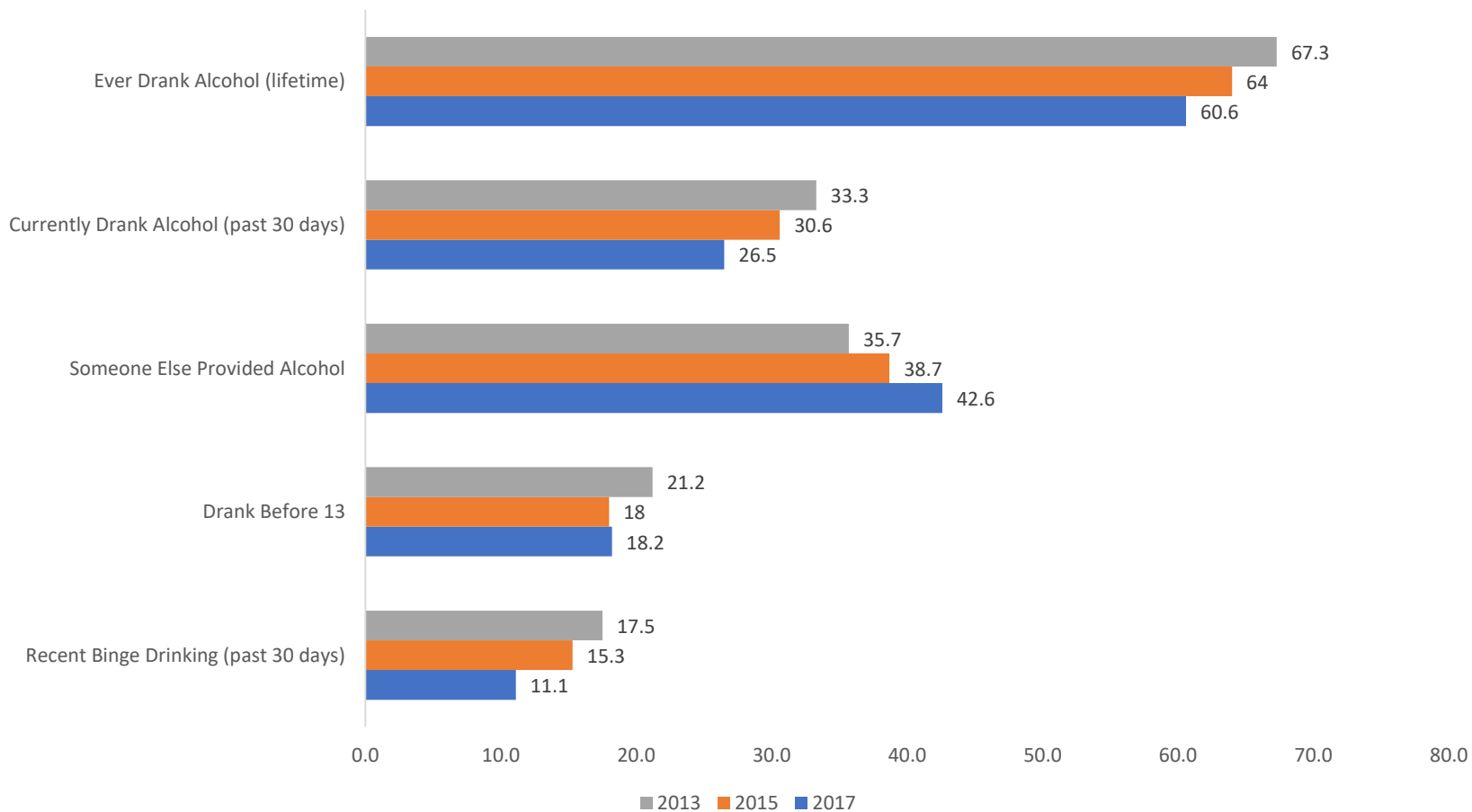
Source: Monitoring the Future Survey.

Trends in Annual Prevalence of Any Use of Methamphetamines, United States, 2008-2017



Source: Monitoring the Future Survey.
 Chart scaled to 5% to display differences among groups.

Alcohol Use, Nevada High School Students, YRBS, 2013-2017

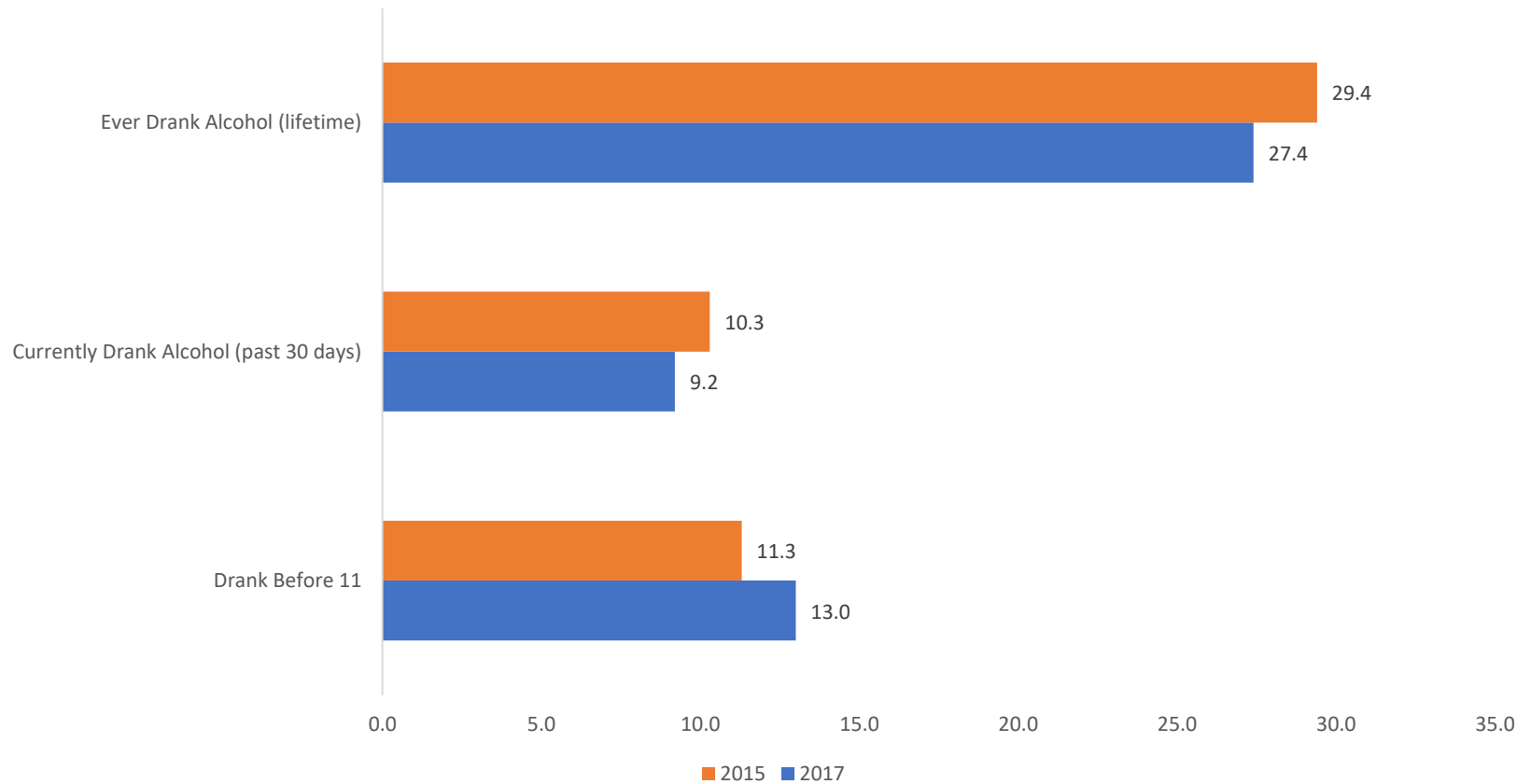


Source: Nevada Youth Risk Behavior Survey (YRBS).

Binge Drinking: Had five or more drinks of alcohol in a row for males, four or more for females within a couple of hours.

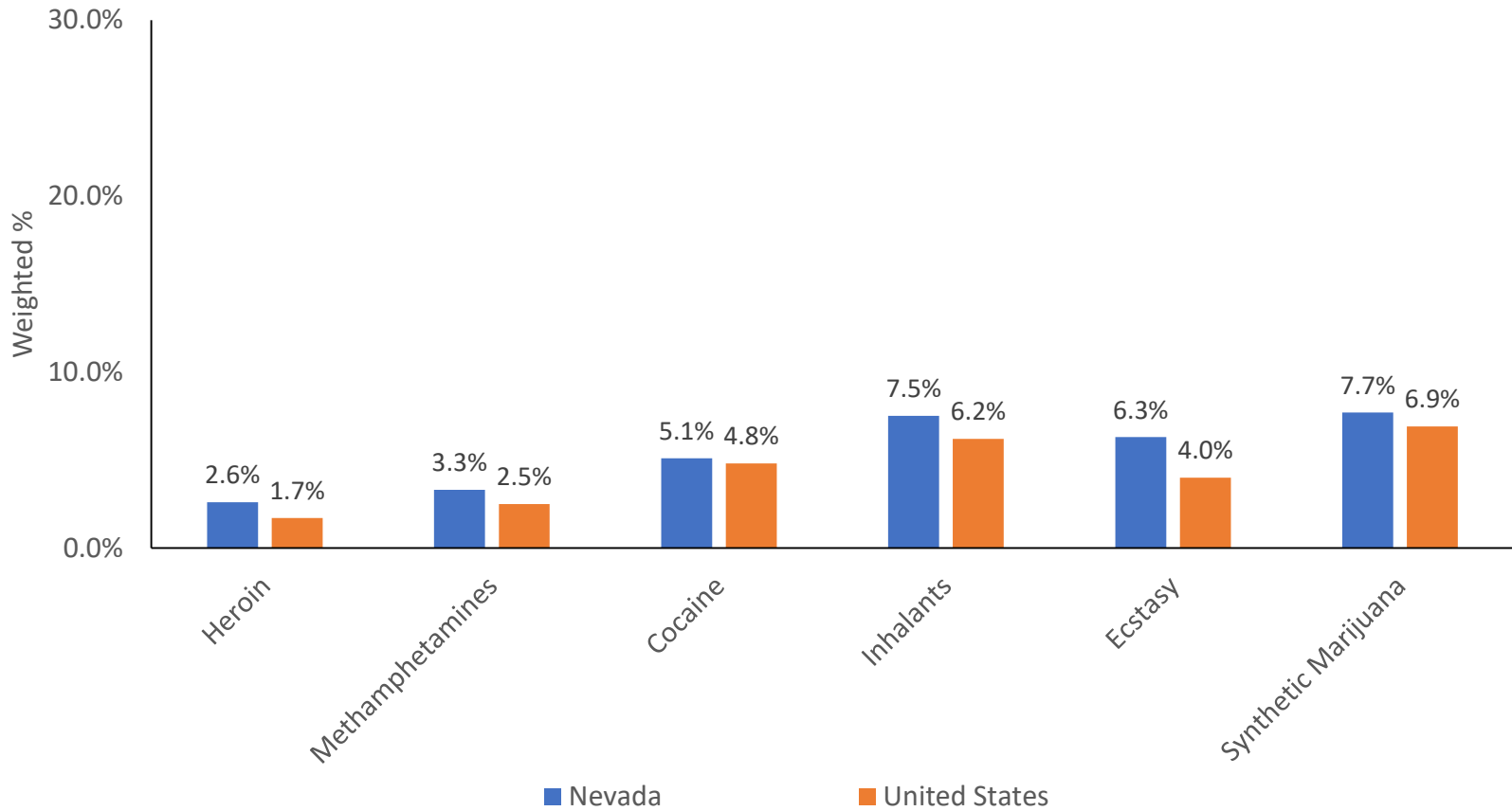
Chart scaled to 80% to display differences among groups

Alcohol Use, Nevada Middle School Students, YRBS, 2015-2017



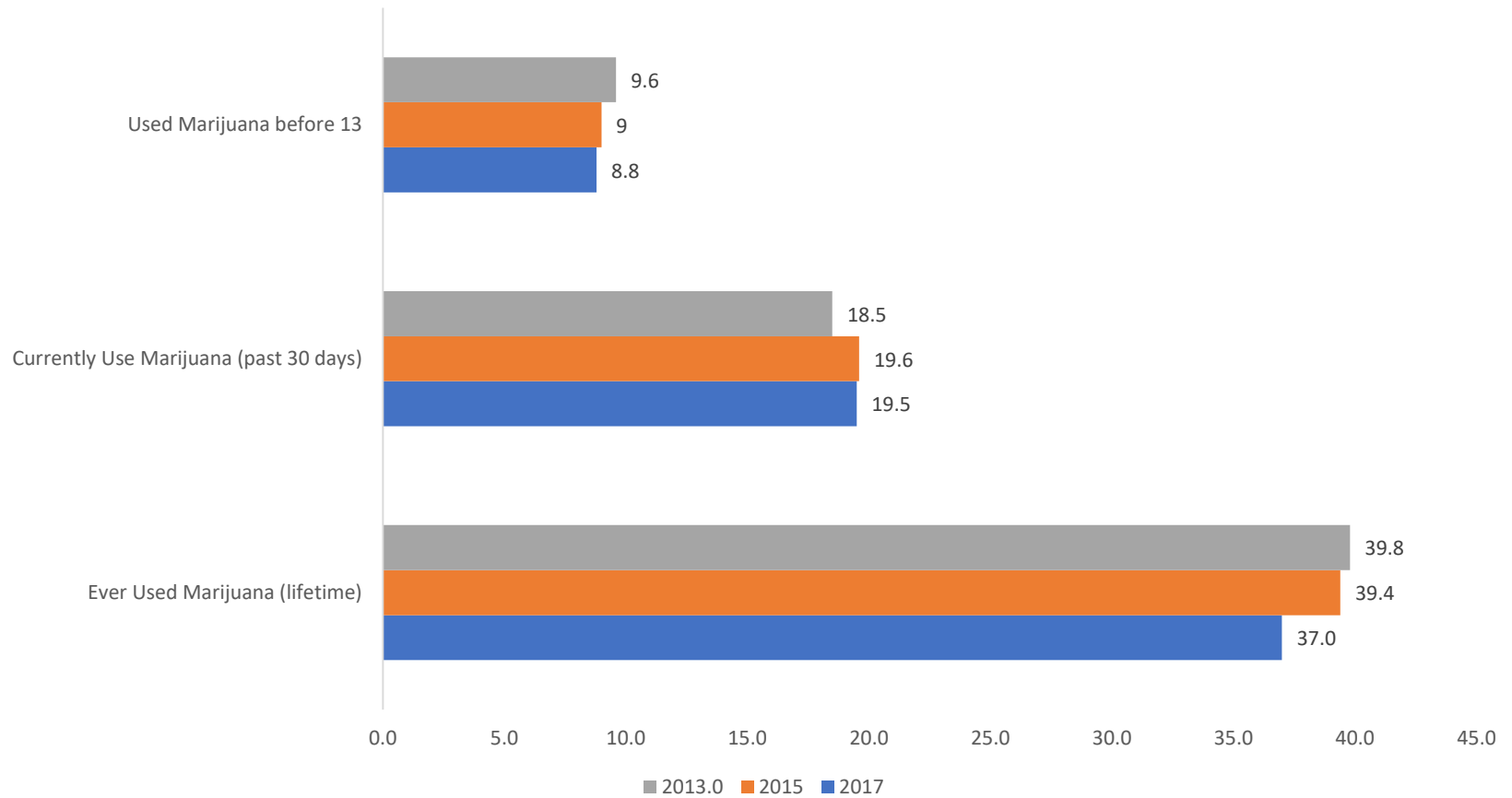
Source: Nevada Youth Risk Behavior Survey (YRBS).
Chart scaled to 40% to display differences among groups

Lifetime Drug Use Summary, Nevada High School Students, YRBS, 2017



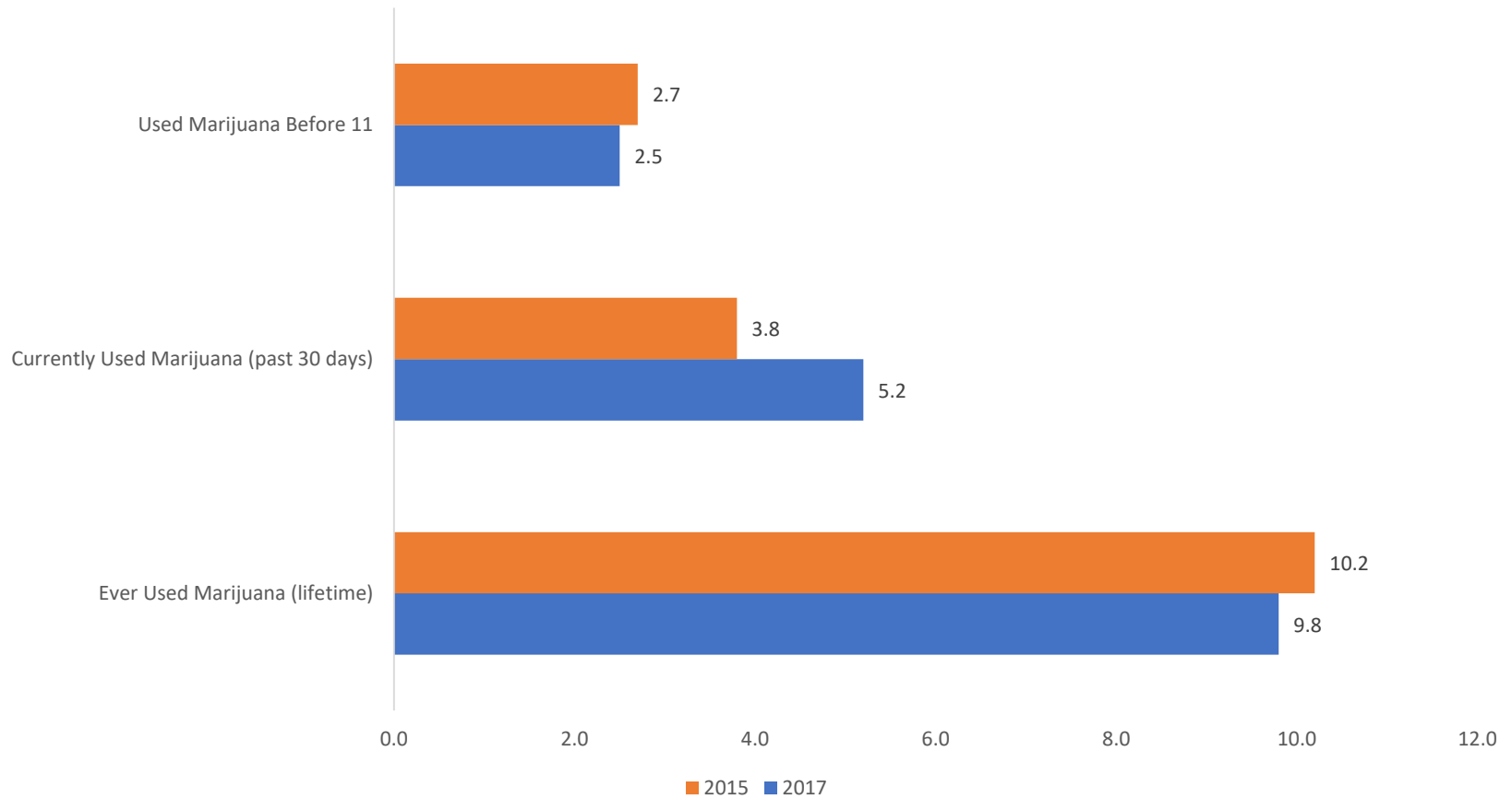
Source: Nevada Youth Risk Behavior Survey (YRBS).
Chart scaled to 30% to display differences among groups.

Marijuana Use, Nevada High School Students, YRBS, 2015-2017



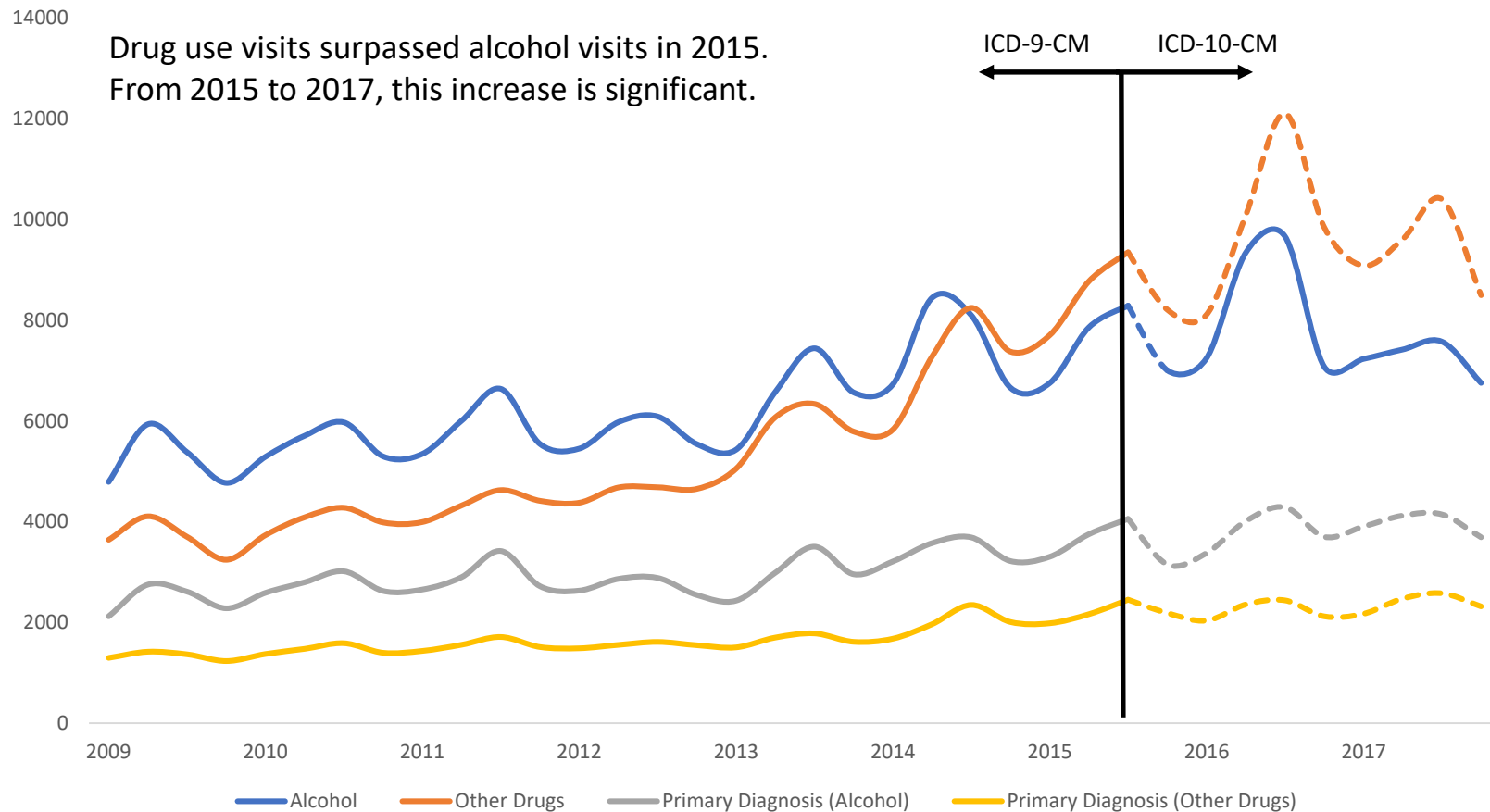
Source: Nevada Youth Risk Behavior Survey (YRBS).
Chart scaled to 40% to display differences among groups

Marijuana Use, Nevada Middle School Students, YRBS, 2017



Source: Nevada Youth Risk Behavior Survey (YRBS).
Chart scaled to 15% to display differences among groups

Alcohol and Other Drug Related Emergency Department Encounters by Quarter and Year, 2009-2017

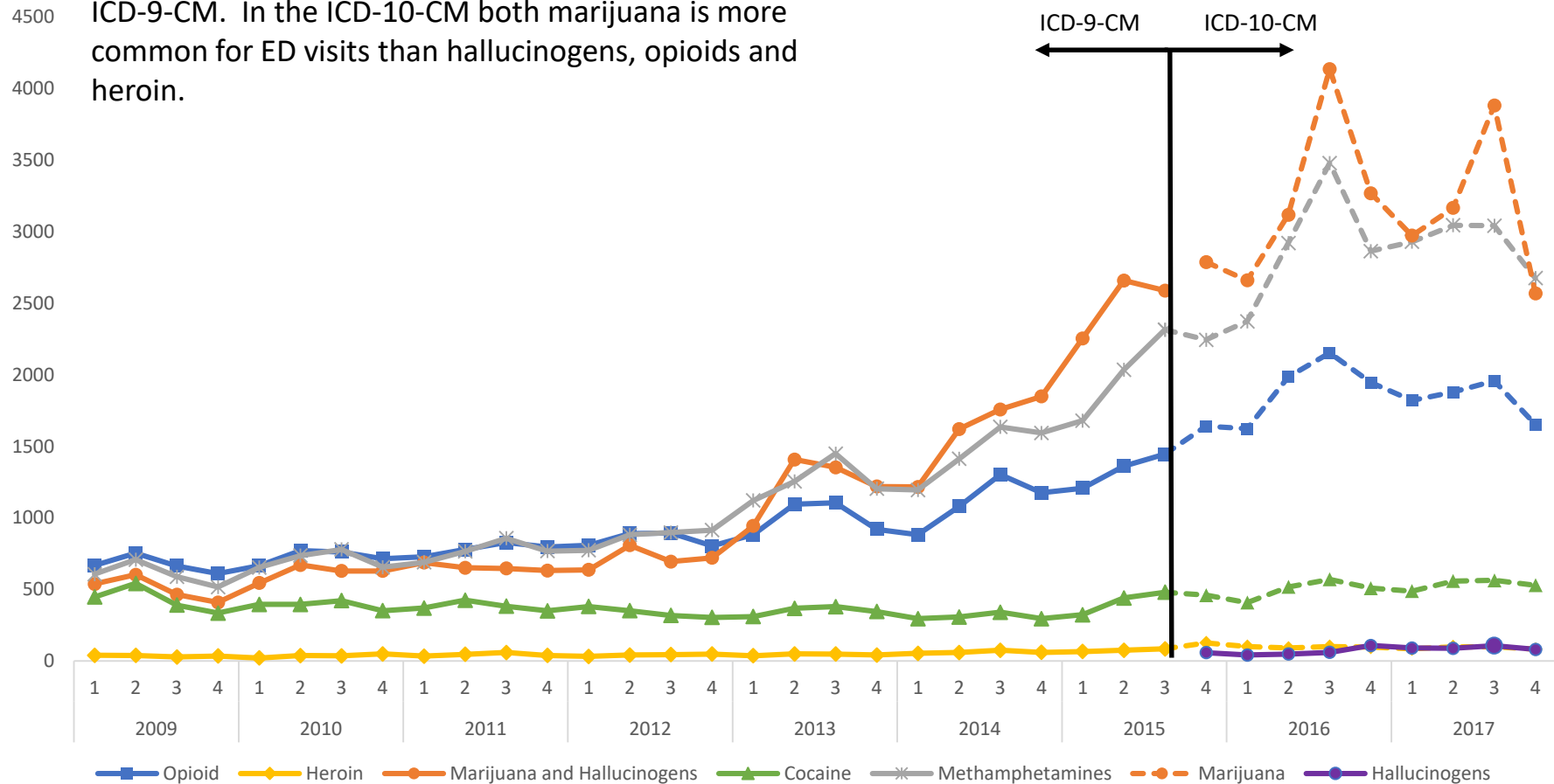


Source: Hospital Emergency Department Billing

ICD-9 codes were replaced by ICD-10 codes in last quarter of 2015, therefore data prior to that may not be directly comparable.

Drug Related Emergency Department Encounters by Quarter and Year, 2009-2017

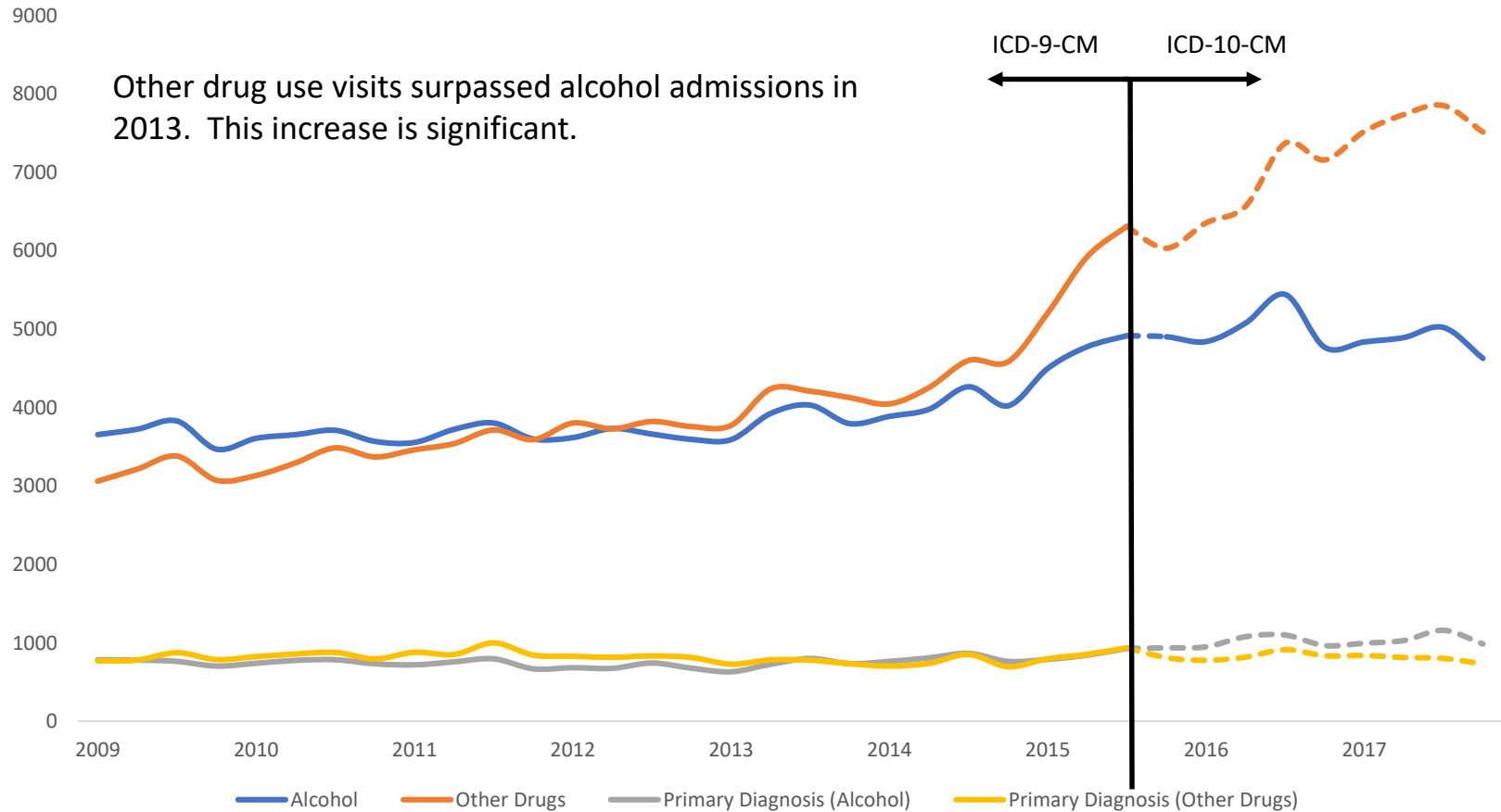
Hallucinogens and Marijuana were grouped together for ICD-9-CM. In the ICD-10-CM both marijuana is more common for ED visits than hallucinogens, opioids and heroin.



Source: Hospital Emergency Department Billing

ICD-9 codes were replaced by ICD-10 codes in last quarter of 2015, therefore data prior to that may not be directly comparable.

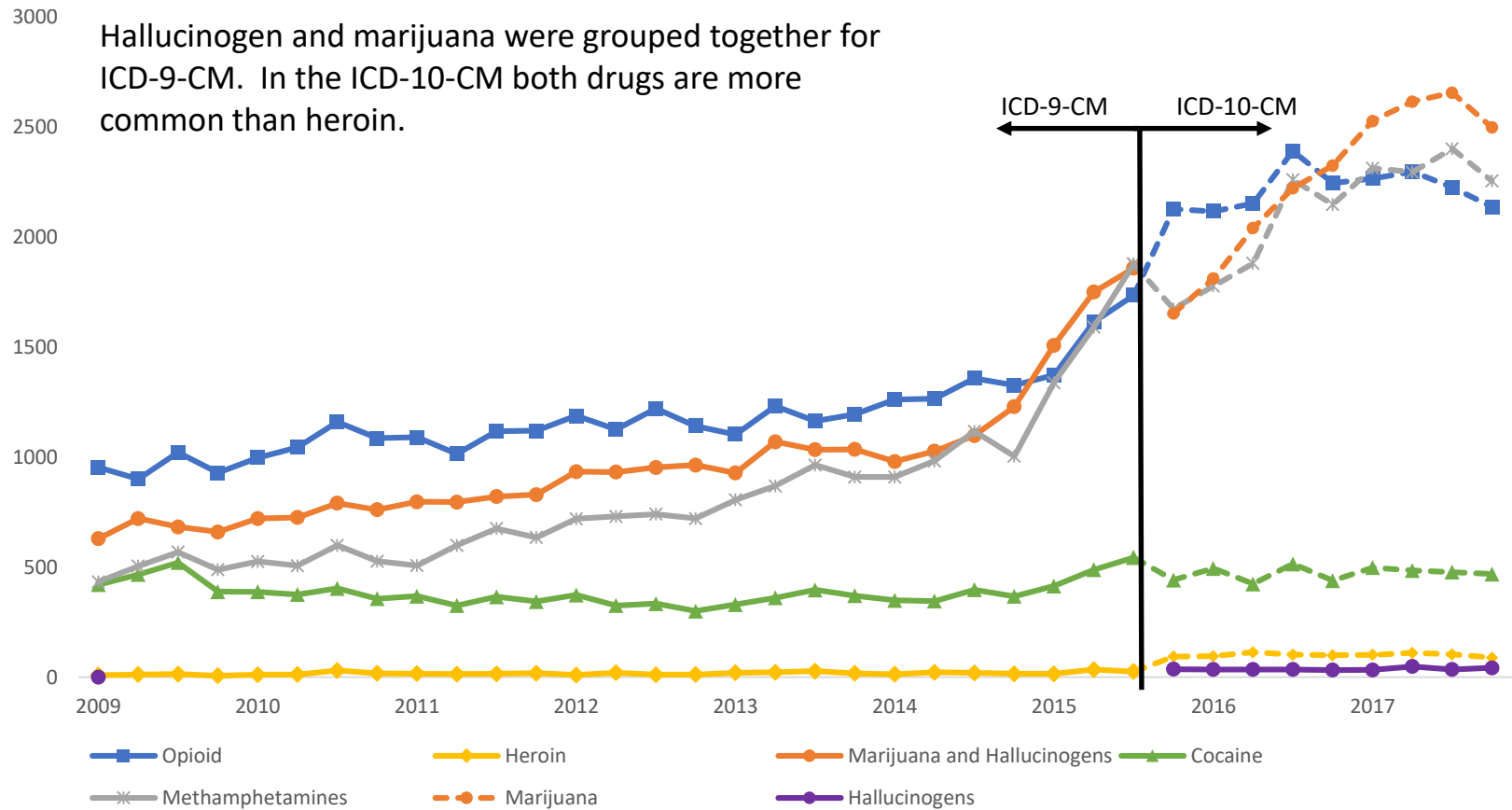
Alcohol and Other Drug Related Inpatient Admissions by Quarter and Year, 2009-2017



Source: Hospital Inpatient Billing

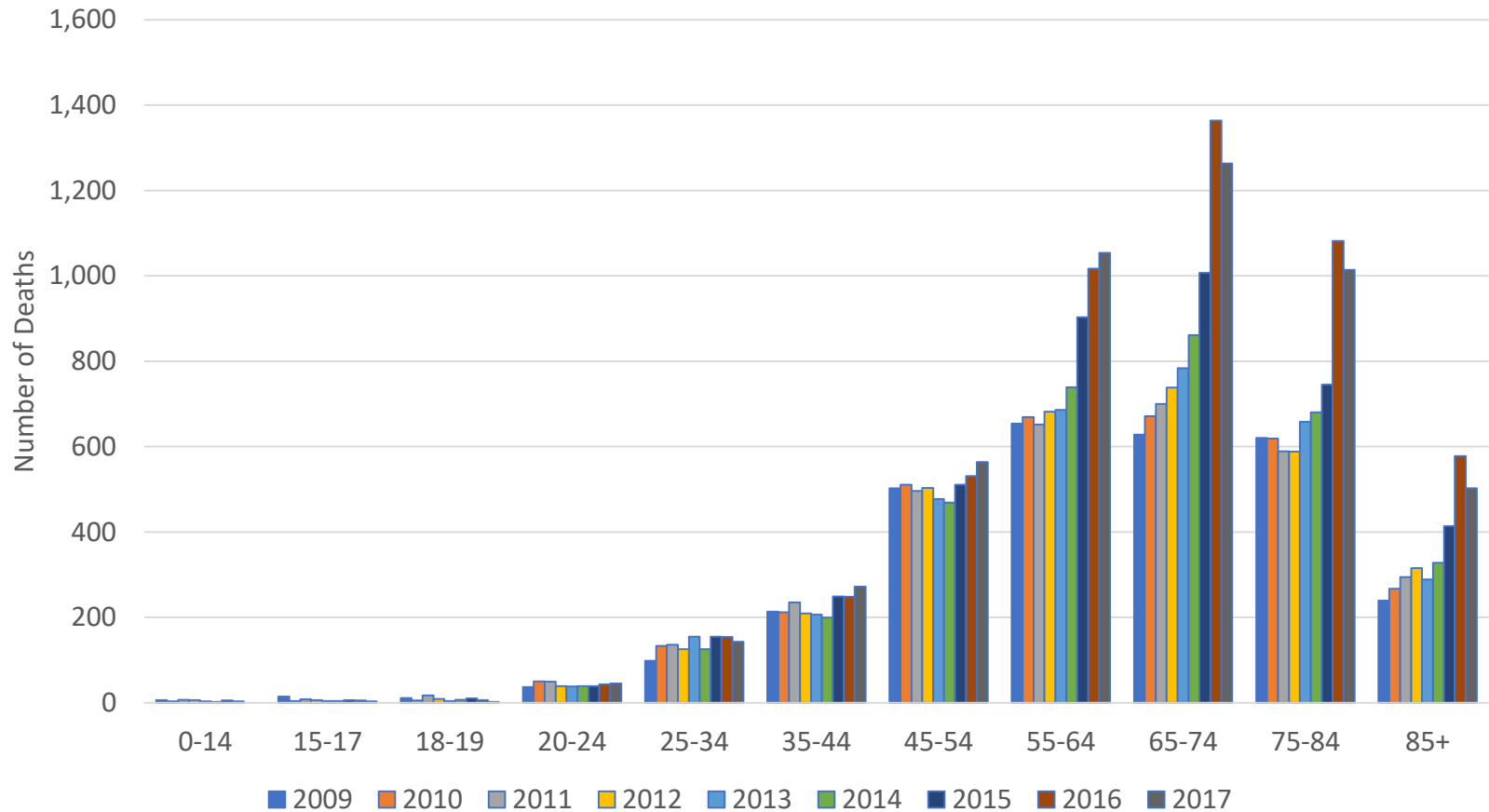
ICD-9 codes were replaced by ICD-10 codes in last quarter of 2015, therefore data prior to that may not be directly comparable.

Drug Related Inpatient Admissions by Quarter and Year, 2009-2017



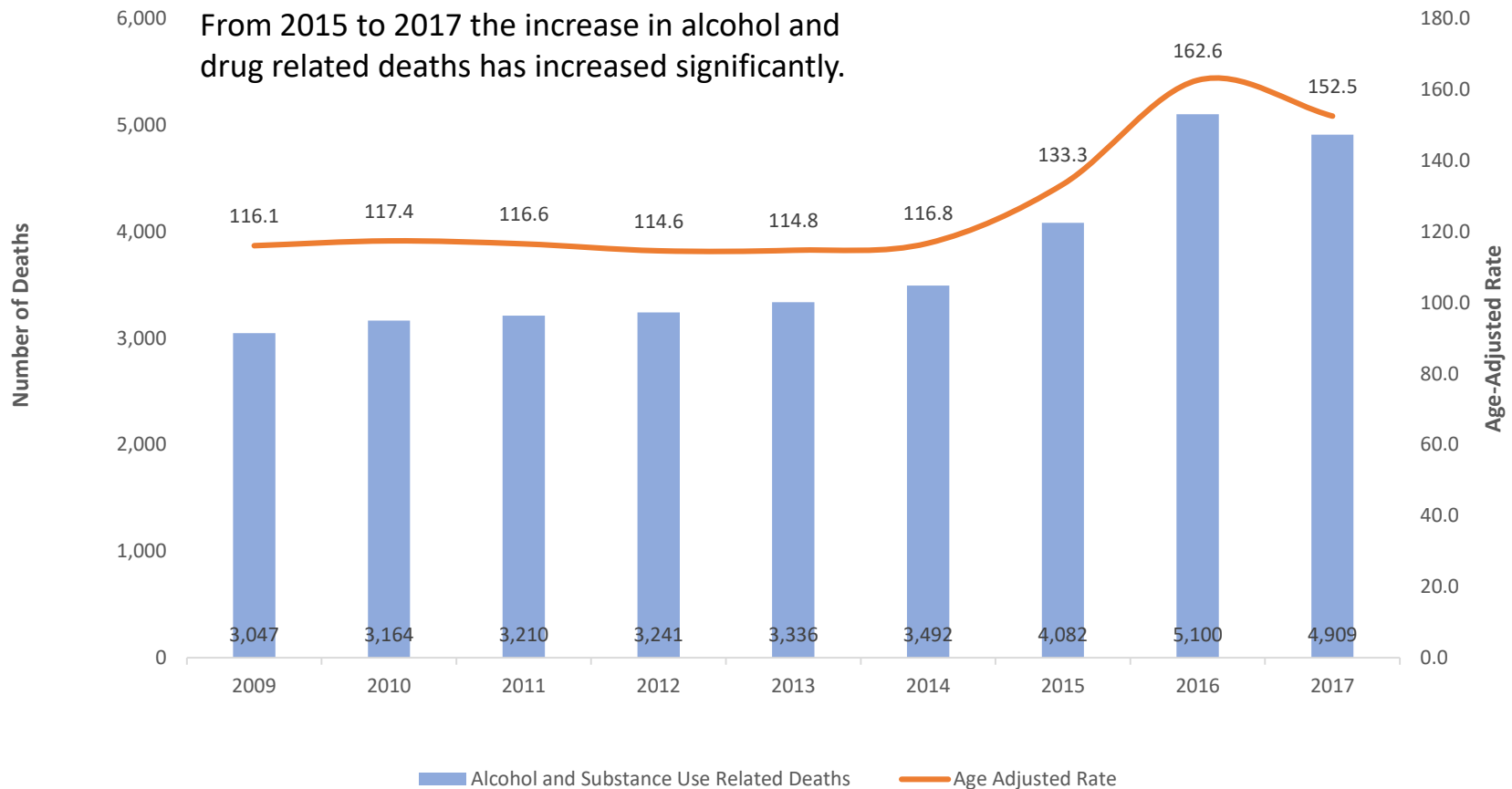
Source: Hospital Inpatient Billing
 ICD-9 codes were replaced by ICD-10 codes in last quarter of 2015, therefore data prior to that may not be directly comparable.

Alcohol and Drug Related Deaths by Age Group, 2009-2017



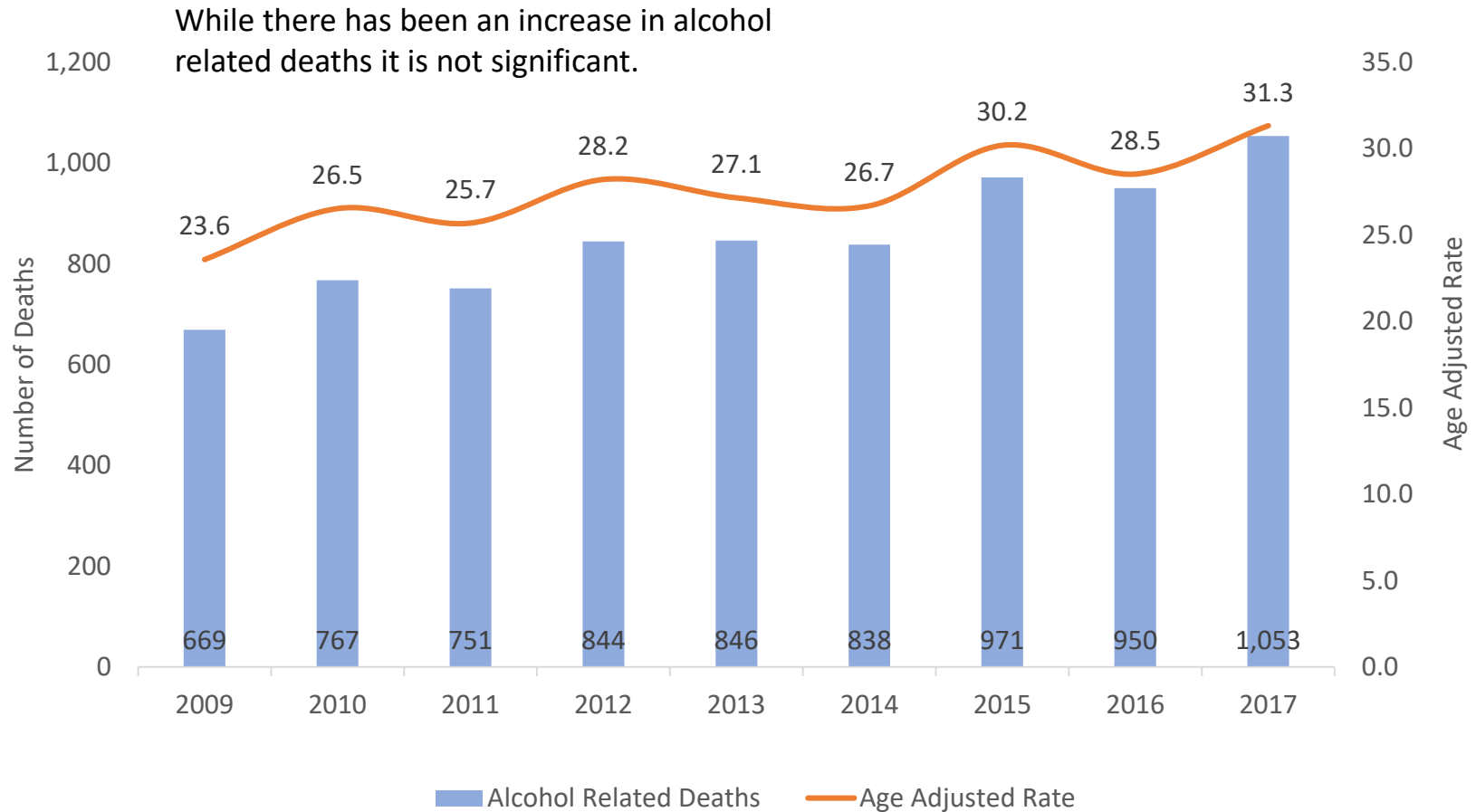
Source: Nevada Electronic Death Registry System.

Alcohol and Drug Related Deaths and Age Adjusted Rates, 2009-2017



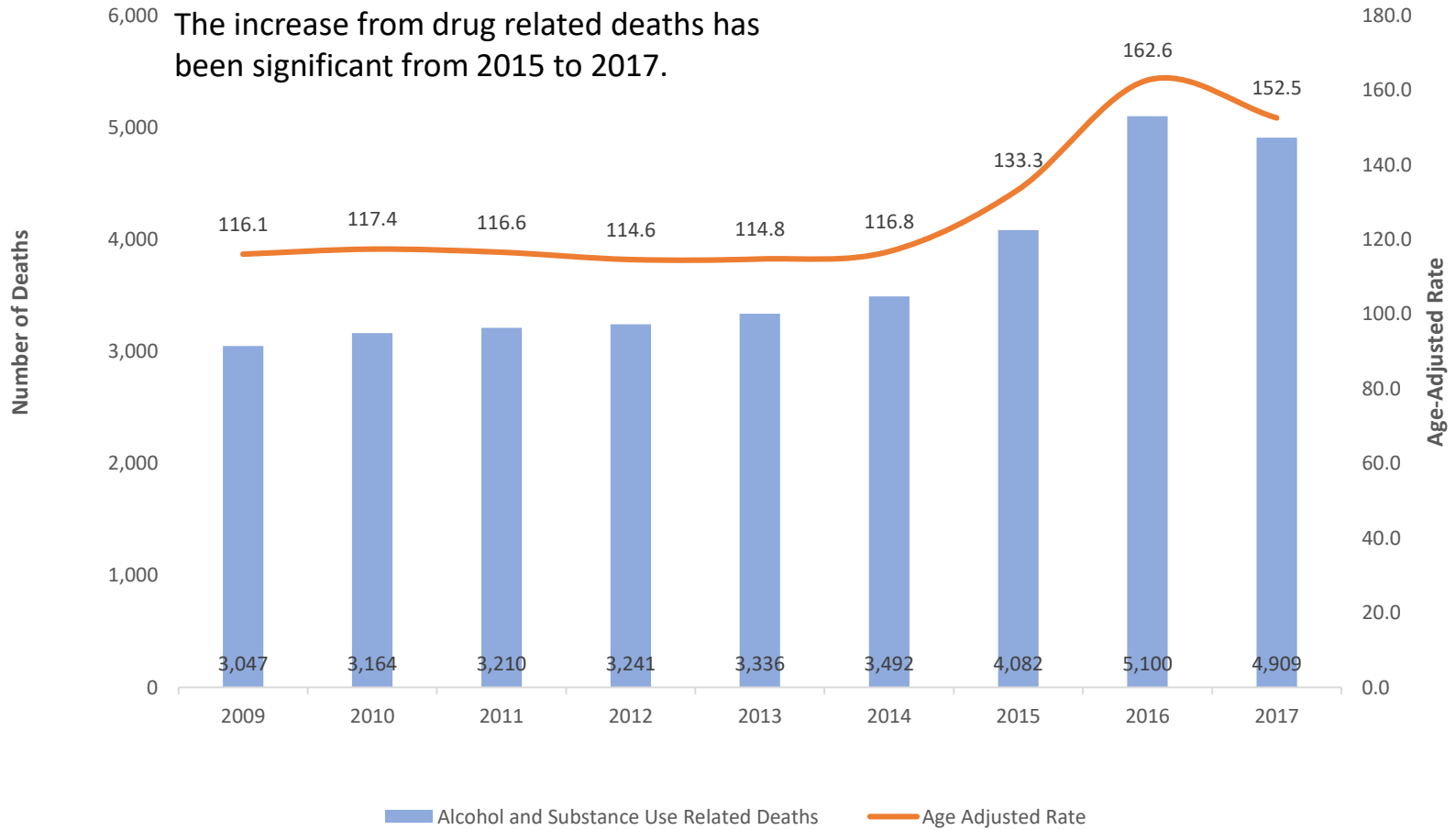
Source: Nevada Electronic Death Registry System.

Alcohol Related Deaths and Age Adjusted Rates, 2009-2017



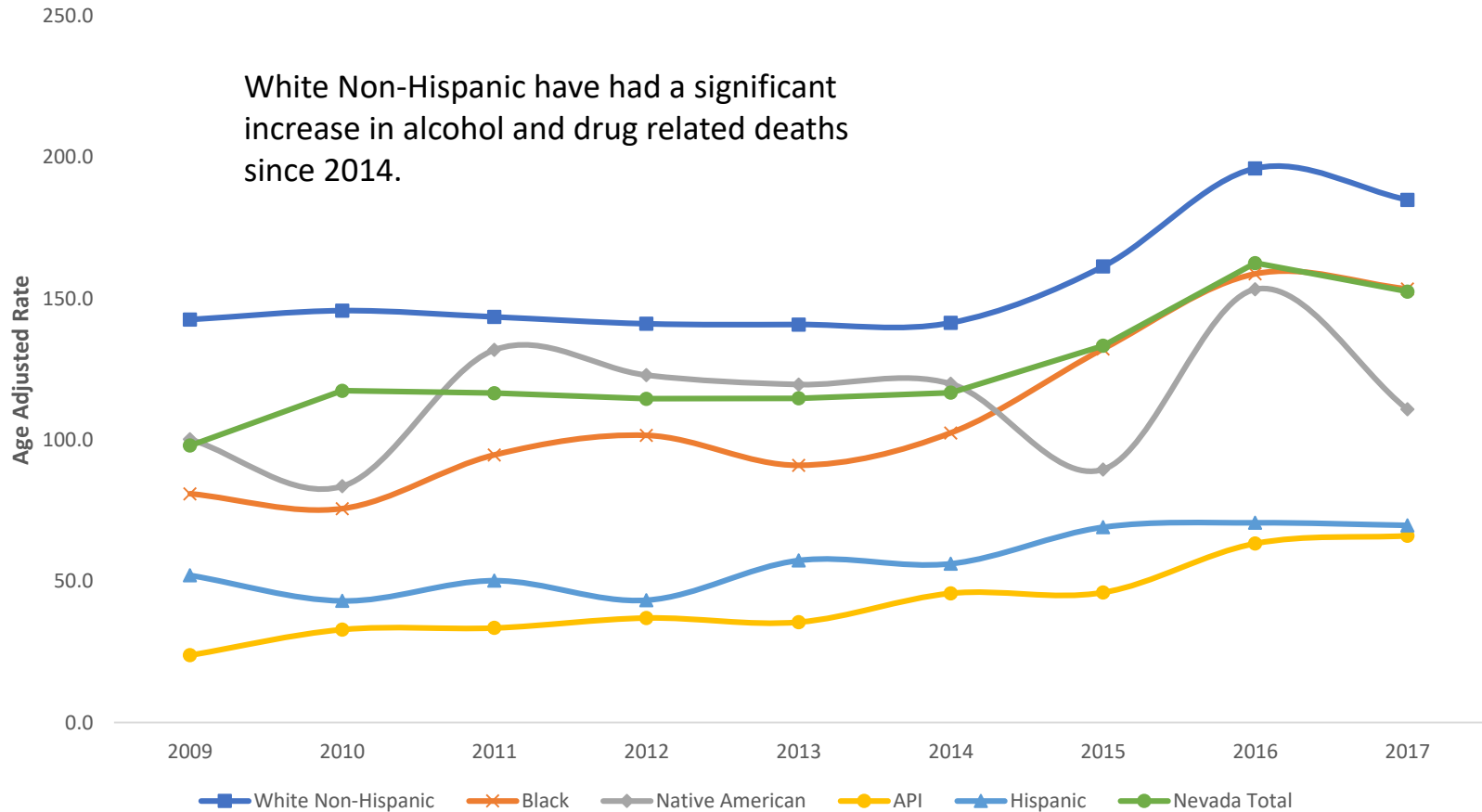
Source: Nevada Electronic Death Registry System.

Drug Related Deaths and Age Adjusted Rates, 2009-2017



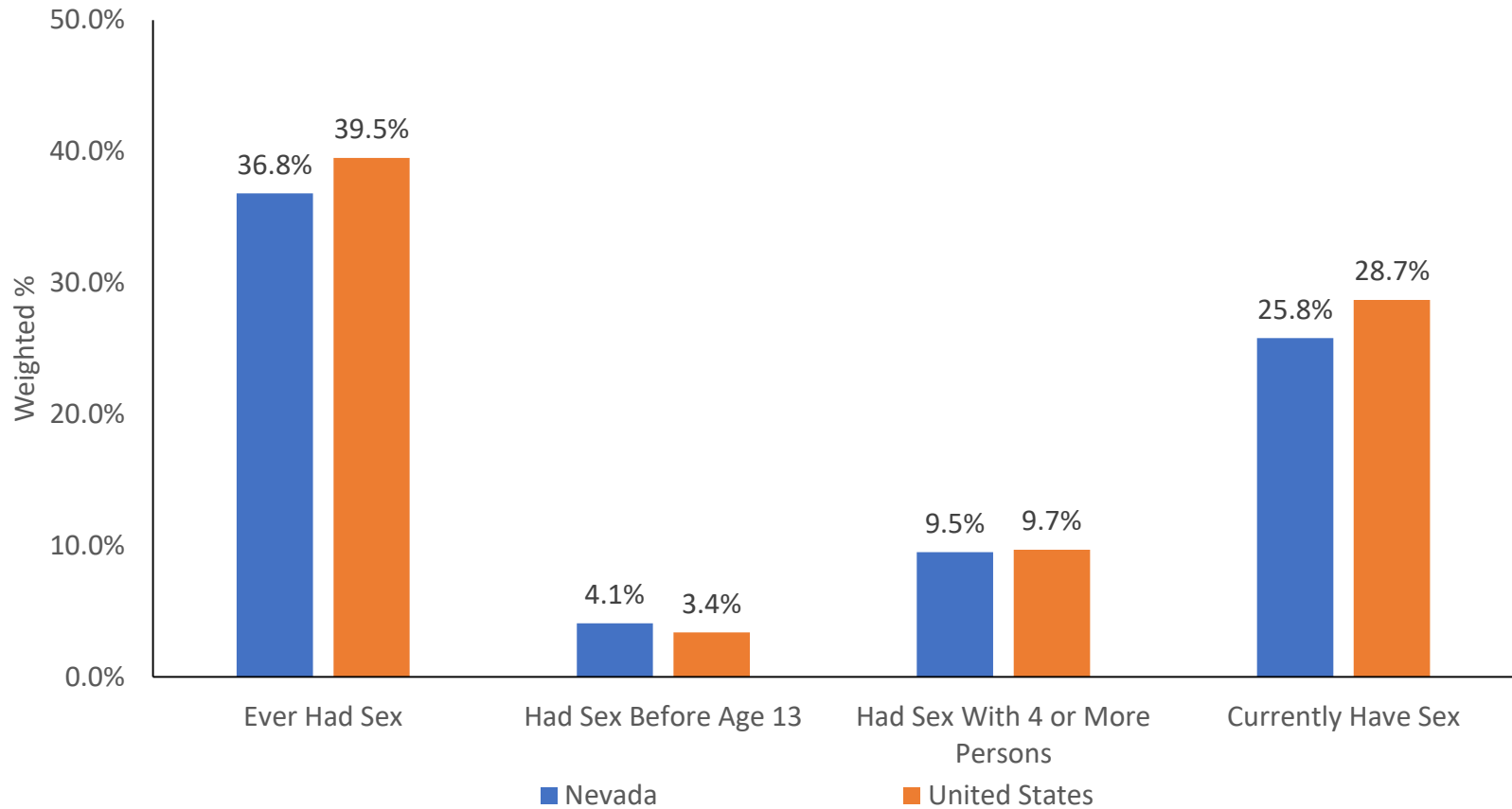
Source: Nevada Electronic Death Registry System.

Alcohol and Drug Related Deaths by Race, 2009-2017



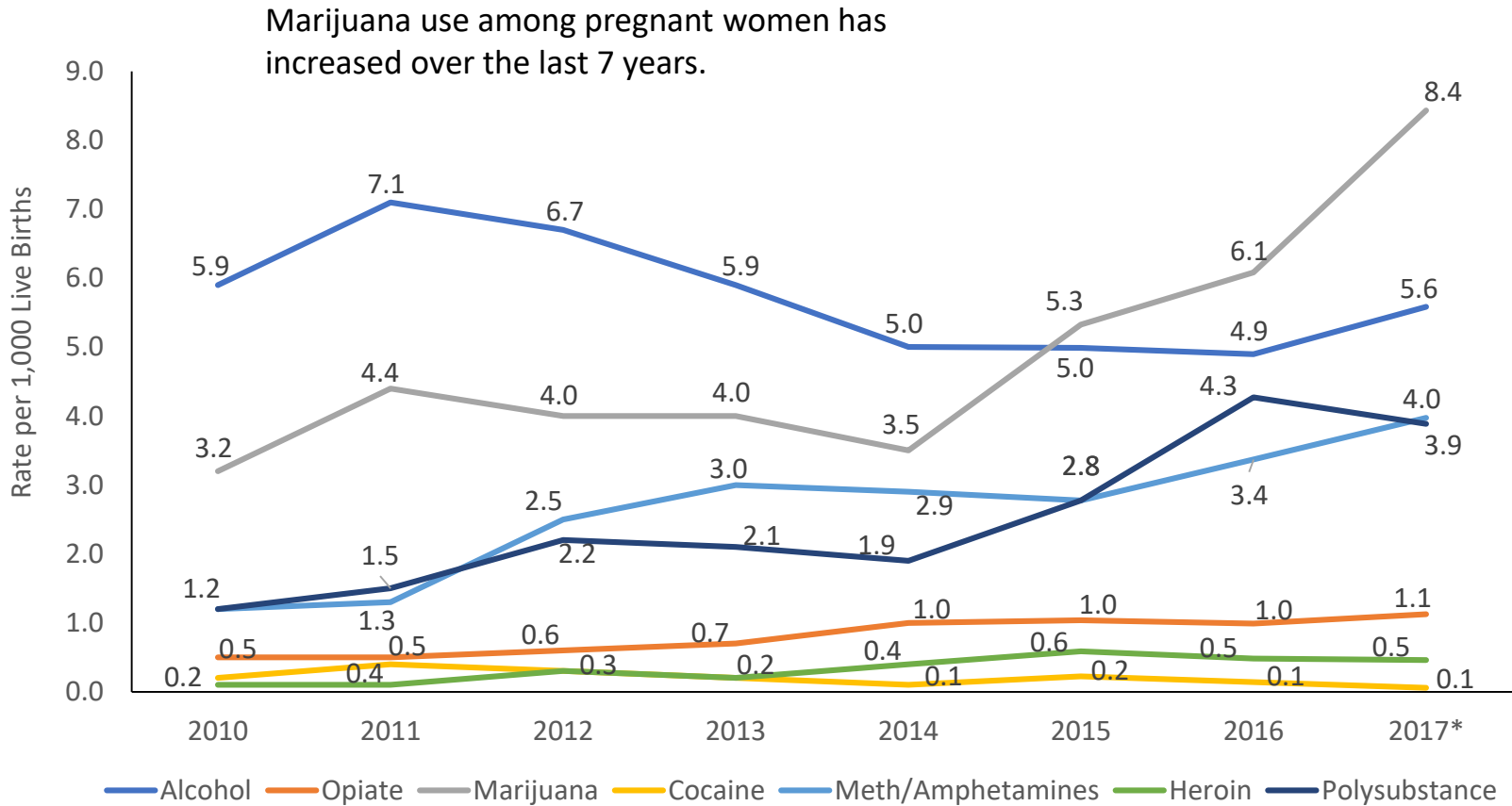
Source: Nevada Electronic Death Registry System.

Sexual Intercourse Among Students, Nevada High School Students, YRBS, 2017



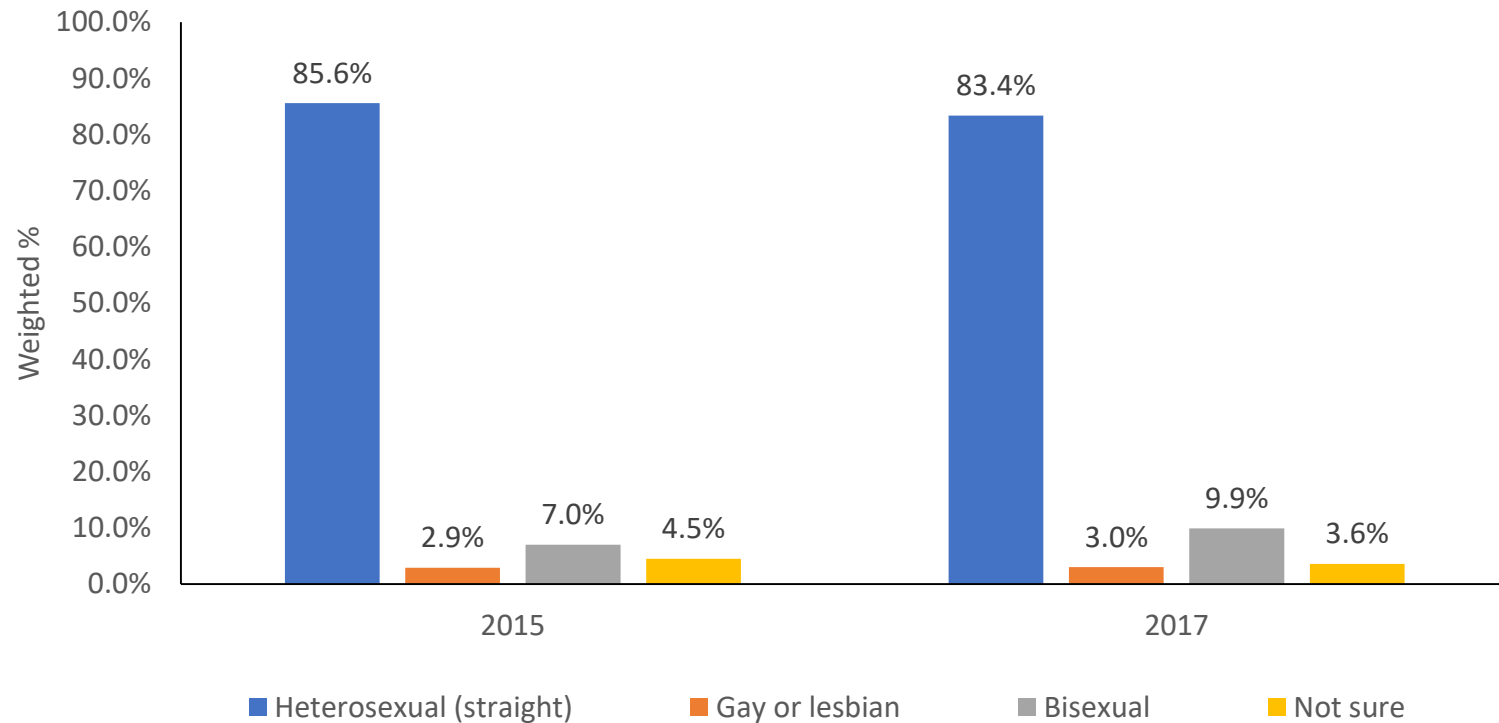
Source: Nevada Youth Risk Behavior Survey (YRBS).
Chart scaled to 50% to display differences among groups.

Prenatal Substance Abuse Birth Rates (self-reported) for Select Substances, Nevada 2010-2017*



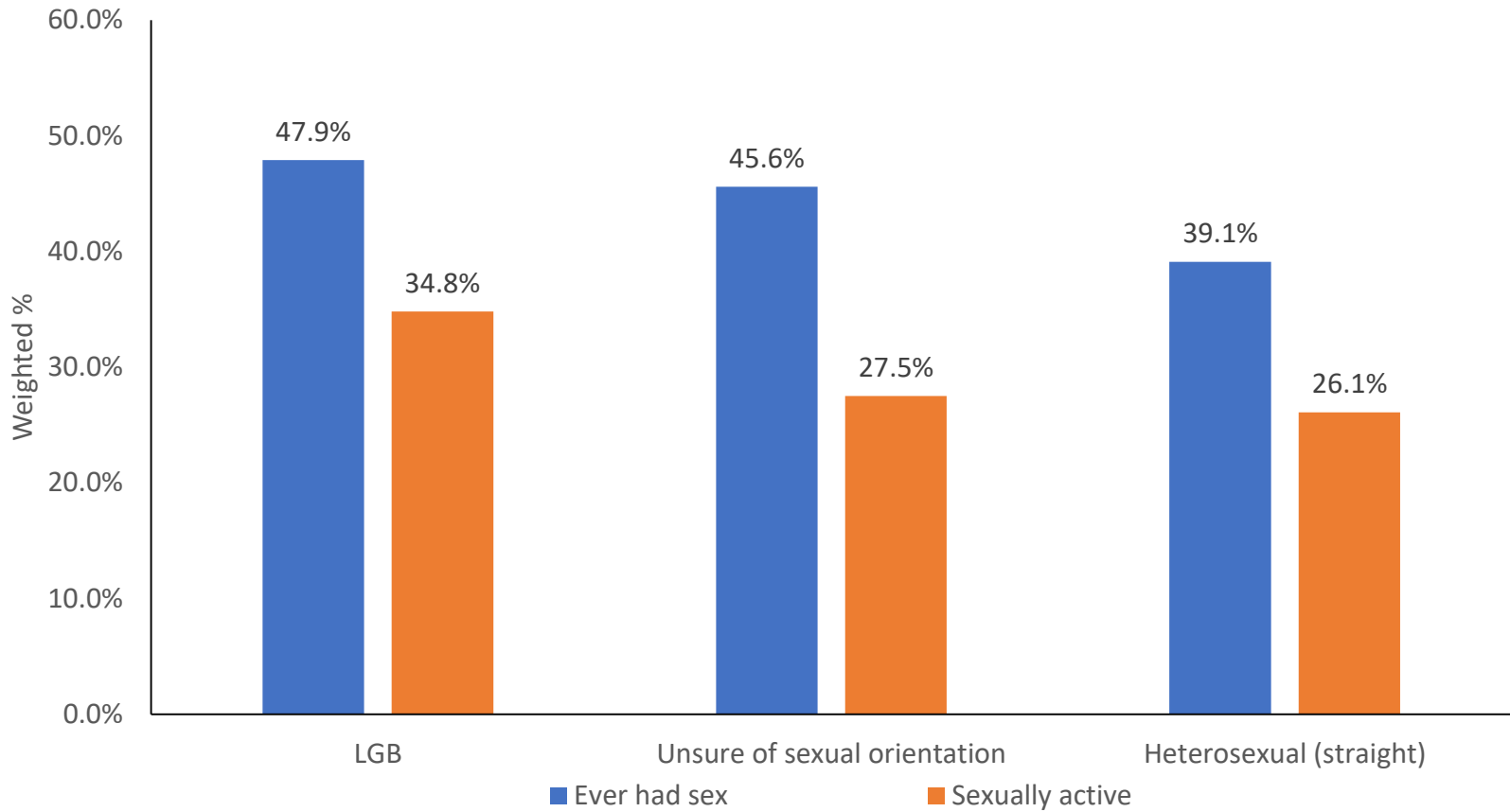
Source: Nevada Electronic Birth Registry System.
 *2017 data are preliminary and subject to changes.

Sexual Orientation, Nevada High School Population, YRBS, 2015 and 2017



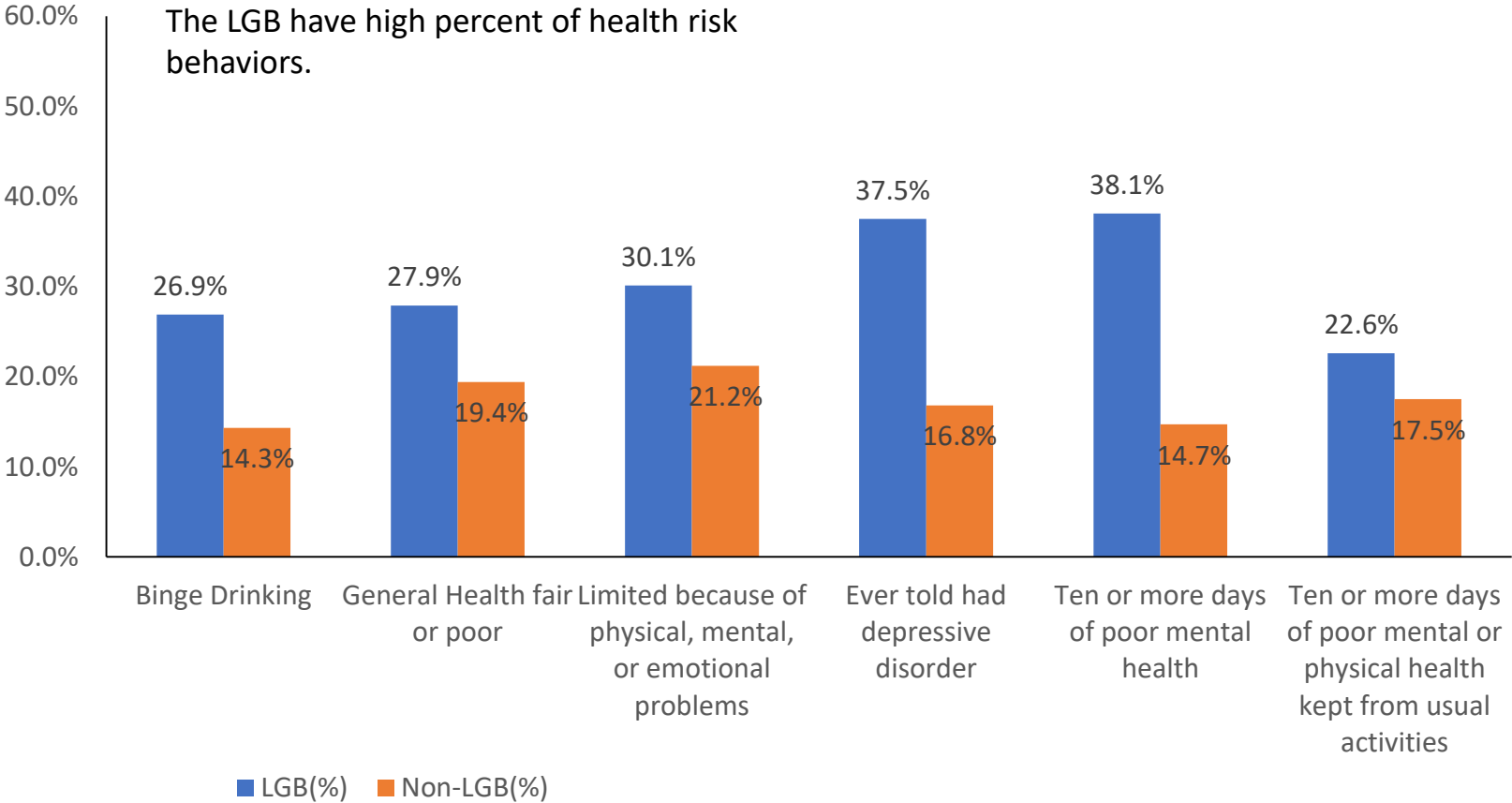
Source: Nevada Youth Risk Behavior Survey (YRBS).

Prevalence Estimates of Health Risk Behaviors, by LGB – Nevada Youths, YRBS, 2015



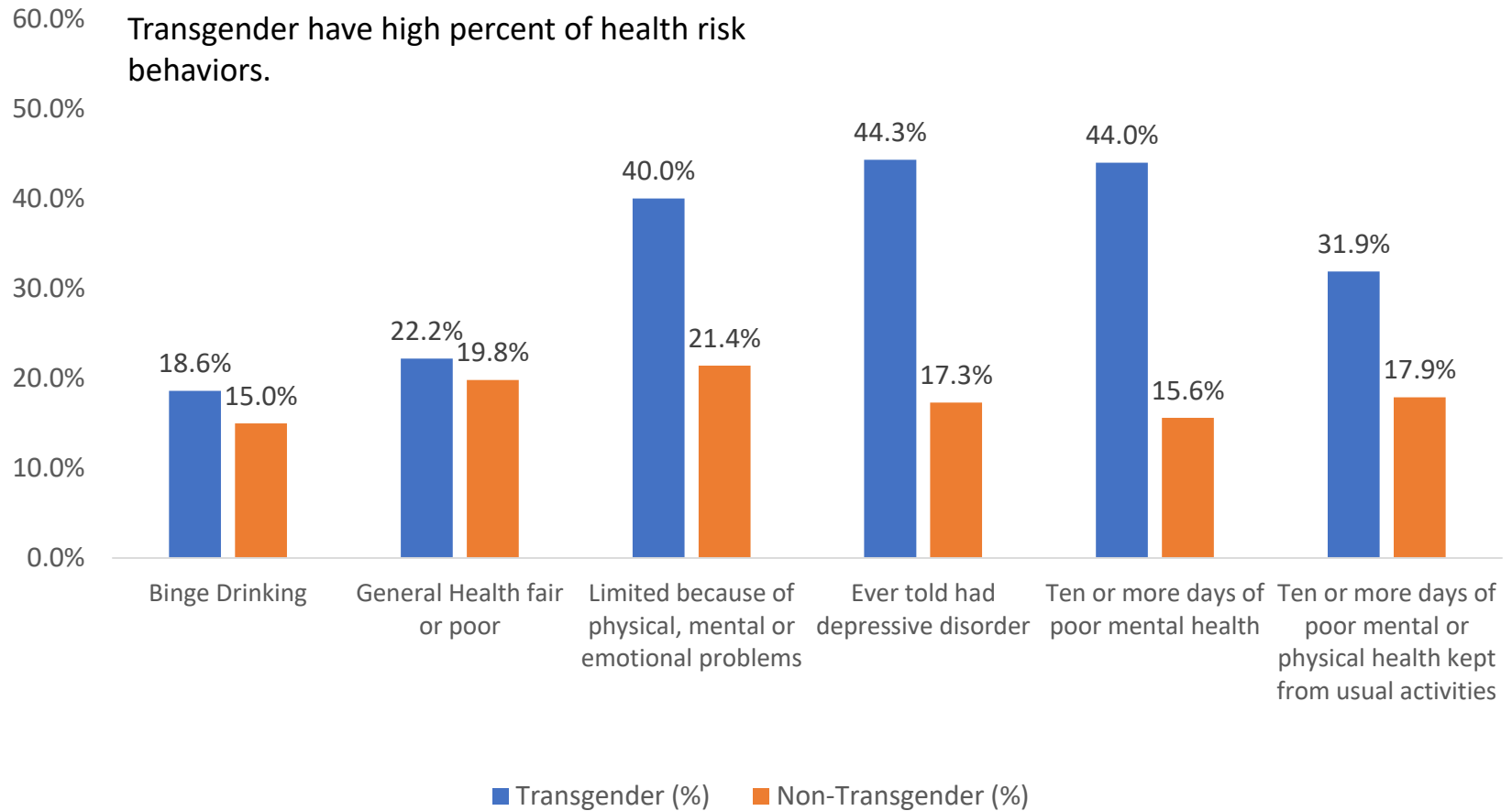
Source: Nevada Youth Risk Behavior Survey (YRBS).

Prevalence Estimates of Health Risk Behaviors, by LGB, BRFSS, 2016



Source: Behavioral Risk Factor Surveillance System (BRFSS).
 Chart scaled to 60% to display differences among groups.

Prevalence Estimates of Health Risk Behaviors, by Transgender – Nevada Adults, 2016



Source: Behavioral Risk Factor Surveillance System (BRFSS).
 Chart scaled to 60% to display differences among groups.

Technical Notes

The following ICD-CM codes were used for mental health related hospital encounters and admissions:

- Anxiety: 300.0 (9), F41.10
- Bi-Polar: 296.40-296.89 (9), F32.89, F31 (10)
- Depression: 296.20-296.36 (9), F32.0-F32.5, F33.0-F33.4, F32.9 (10)
- Post-Traumatic Stress Disorder: 309.81 (9), F43.10, F43.12 (10)
- Schizophrenia: 300.0 (9), F20, Z65.8 (10)
- Suicidal Ideation: V62.84 (9), R45.851 (10)
- Suicide Attempts: E95.0-E95.9 (9), X71-X83, T36-T50

The following ICD-CM codes were used for substance abuse related hospital encounters and admissions:

- Alcohol: 291, 303, 980, 305.0, 357.5, 425.5, 535.3, 571.0, 571.1, 571.2, 571.3, 790.3 (9), F10, K70, G62.1, I42.6, K29.2, R78.0, T51 (10)
- Drug: 292, 304, 965, 967, 968, 969, 970, 305.2, 305.3, 305.4, 305.5, 305.6, 305.7, 305.8, 305.9 (9), F11- F16, T39, T40, T43, F18, F19, T41.0, T41.1, T41.2, T41.3, T41.4, T42.3, T43.4, T42.6, T42.7, T42.8 (10)

The following ICD-10 codes were used for deaths:

- Suicide: X60-X84
- Mental and Behavioral Disorders: F00-F09, and F20- F99.
- Alcohol: F10, K70, Y90, Y91, X45, X65, Y15, T51, K73, K74, G31.2, G62.1, I42.6, K29.2, K86.0, K85.0, R78.0, E24.4, O35.4, Q86.0, and Z72.1.
- Drug: F11-F19, X40-X44, X60-S64, X85, Y10-Y14, Y40-Y59, G72.0', 'K85.3, R78.1, R78.2, R78.3, R78.4, R78.5, R78.6, E24.2, O35.5, P04.4, P96.1, P96.2, K71.1, N14.1, N14.0, N14.2, D52.1, T96, Z72.2, and T36-T50.

Data Needs and Gaps

- Increasing sample sizes for both BRFSS and YRBS.
- Active vs. Passive Consent for YRBS.
- Improved quality data on pregnant women.

Funding Needs

- **PRAMS (Pregnancy Risk Assessment Monitoring System)**
 - 157 new mothers are randomly selected each month
 - \$10 incentive (increased incentives will support better response rates)
 - Up to three mailings and 15 calls per mother
 - \$75,000 needed to maintain normal funding.
- **BRFSS (Behavioral Risk Factor Surveillance System)**
 - \$2,500 per question
 - Increased sample size will result in increased generalizability and ability to conduct a thorough analysis of priority populations.
 - \$50,000 for substance related modules and state added questions.
- **YRBS (Youth Risk Behavior Survey)**
 - Severely underfunded. CDC funds approximately 30 high schools (mostly from Clark County).
 - \$130,000 for additional 120 middle schools and 70 high schools.

Recommendations

- Alcohol use among youth (9 to 20-year-olds)
- Marijuana use among all ages
- Pregnant women and alcohol/other drugs
- Suicide ideation
- Opioid use among all ages

Contact Information



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