

Washoe Regional Behavioral Health Profile

August 2018

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2018 Washoe Region Behavioral Health Profile

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Introduction

A note from Charles Duarte, Chair of the Washoe Regional Behavioral Health Policy Board:

This report is presented on behalf of the Washoe Regional Behavioral Health Policy Board as part of its Annual Report to the Behavioral Health Commission. The Policy Board was established by the 2017 Nevada Legislature through Assembly Bill 366 for the purpose of informing and advising the state Division of Public and Behavioral Health and the Behavioral Health Commission about the behavioral health issues and needs that uniquely affect Washoe County.

Behavioral health includes both mental health and substance use, encompassing prevention, early intervention, education, treatment, recovery, and resiliency. This report sheds light on the status of behavioral health in our region, and highlights our successes and our challenges. Unfortunately, Washoe County has fallen behind the rest of Nevada and the nation in addressing the behavioral health needs of our residents. We believe this report will inform policy-makers and funders for years to come and help guide strategies for improvement. We hope you will find the information useful.

On behalf of the Policy Board, I would like to extend our gratitude to Lauren Williams, a graduate student in the Masters in Public Health program at the University of Nevada, Reno (UNR) for her hard work and dedicated effort to collecting, analyzing, and presenting this information as the focus of her Summer Internship, sponsored by the Washoe County Health District. This collaborative effort between UNR, the Health District, the Washoe County Human Services Agency, and the Behavioral Health Policy Board is a partnership that reflects our community's determination to tackle the challenges ahead of us together as we make progress in our mutual goal of improving the behavioral health status in our region.



Charles Duarte

Chair, Washoe Regional Behavioral Health Policy Board

Geography and Demographics

Nevada is the 7th largest state in the nation with land area reaching 109,781 square miles, yet Nevada is the 35th most populated state with an estimated population density of 26.7 persons per square mile in 2017.¹ Three urban counties (Carson City, Clark County, and Washoe County) comprise 91.5% of the state's total population.

Image 1 – Nevada



Image 2 – Washoe County



Washoe County is the second most populated county in Nevada with an estimated 452,181 residents in 2017 encompassing 15.4% of Nevada's residents and a population density of 71.8 persons per square mile.

¹ Nevada Department of Taxation, Nevada State Demographer (2017). Source: Nevada County Age, Sex, Race, and Hispanic Origin Estimates and Projections 2000 to 2036. Accessed <https://tax.nv.gov>

Table 1: Population in Nevada, 2017 Estimates

| | Population | Square Land Miles | Population Per Square Mile | Percent of Total Population |
|-------------------------|------------|-------------------|----------------------------|-----------------------------|
| Urban Counties | | | | |
| Washoe County | 452,181 | 6,302 | 71.8 | 15.4 |
| Carson City | 53,250 | 145 | 367.2 | 1.8 |
| Clark County | 2,179,066 | 7,891 | 276.1 | 74.3 |
| Rural/Frontier Counties | 249,355 | 95,443 | 2.6 | 8.5 |
| Nevada | 2,933,852 | 109,781 | 26.7 | |

In 2017, the Reno-Sparks metropolitan area comprised 75.6% of the Washoe County population and only 2.2% of the total land area.²

Table 2: Estimated Population Growth by Selected Demographics, Washoe County, 2017 & 2022

| | 2017 | | 2022 | | Change from 2017-2022 | |
|-------------------|---------|------|---------|------|-----------------------|------|
| | (n) | (%) | (n) | (%) | (n) | (%) |
| Age Group | | | | | | |
| 0-9 | 56,392 | 12.5 | 60,019 | 12.3 | 3,627 | 6.4 |
| 10-19 | 61,447 | 13.6 | 64,418 | 13.1 | 2,971 | 4.8 |
| 20-29 | 63,022 | 13.9 | 68,880 | 14.1 | 5,858 | 9.3 |
| 30-39 | 62,035 | 13.7 | 66,782 | 13.7 | 4,747 | 7.7 |
| 40-49 | 53,747 | 11.9 | 57,999 | 11.9 | 4,252 | 7.9 |
| 50-59 | 58,427 | 12.9 | 57,554 | 11.8 | -873 | -1.5 |
| 60-69 | 53,699 | 11.8 | 58,826 | 12.0 | 5,127 | 9.5 |
| 70-79 | 30,907 | 6.8 | 37,311 | 7.6 | 6,404 | 20.7 |
| 80+ | 12,507 | 2.8 | 15,624 | 3.2 | 3,117 | 24.9 |
| Race/Ethnicity | | | | | | |
| African-American* | 11,358 | 2.5 | 12,858 | 2.6 | 1,500 | 13.2 |
| AI / AN* | 7,268 | 1.6 | 7,427 | 1.5 | 159 | 2.2 |
| Asian / PI* | 31,276 | 6.9 | 36,034 | 7.4 | 4,758 | 15.2 |
| White* | 289,703 | 64.1 | 300,006 | 61.4 | 10,303 | 3.6 |
| Hispanic | 112,577 | 24.9 | 128,341 | 26.3 | 15,764 | 14.0 |
| Total Population | 452,181 | | 488,395 | | 36,214 | 8.0 |

*Non-Hispanic

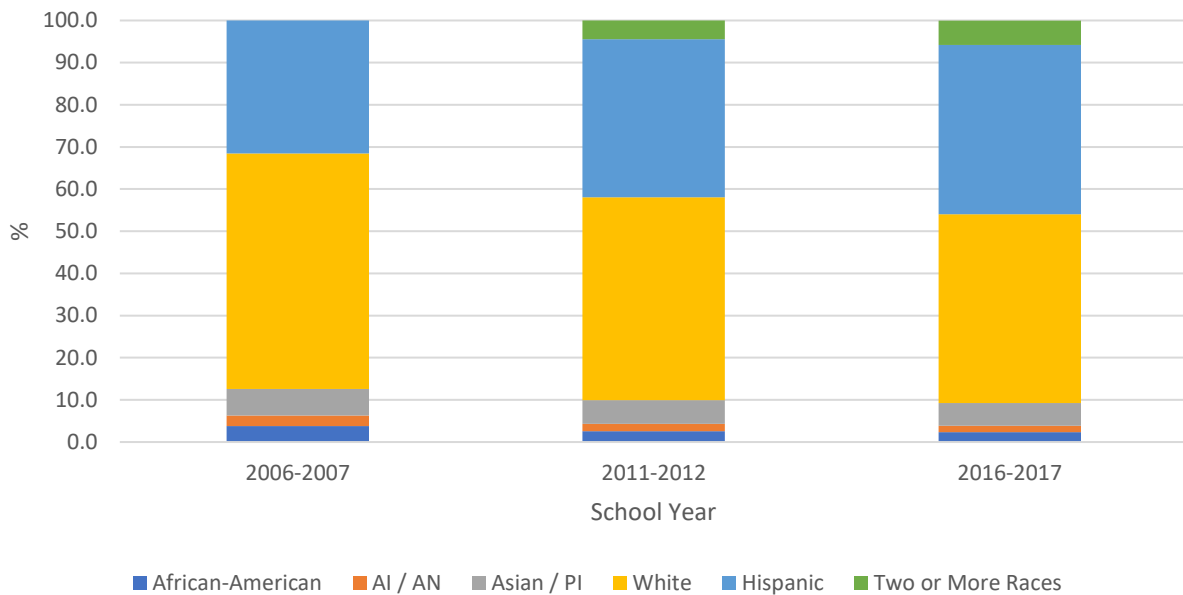
AI = American Indian AN = Alaska Native PI = Pacific Islander

In 2017, non-Hispanic whites accounted for 64.1% of the population followed by 24.9% Hispanics, 6.9% Asian or Pacific Islanders, 2.5% African-American, and 1.6% American Indians.

From 2017 to 2022 the population in Washoe County is predicted to increase by 8.0%. The largest growth is among individuals 60 years and older indicating an aging population. A 15.2% increase among the Asian or Pacific Islander population is projected by 2022 followed by 14.0% among Hispanics and 13.2% among African-Americans.

² Nevada State Demographer's Office, 2017 - 2017 ASHRO Estimates and Projections Summary Working Copy, Population as of July 1, 2017. Data provided upon request.

Figure 1: Washoe County School District Student Enrollment by Ethnicity, Ten-Year Trend



The youth population in Washoe County is more diverse than the adult population. The proportion of students in Washoe County School District who were white decreased from the 2006-2007 school year (55.9%) to the 2016-2017 school year (44.8%). The proportion of students in Washoe County School District who were Hispanic increased from the 2006-2007 school year (31.6%) to the 2016-2017 school year (40.1%). Combined students who were African-American, American Indian/Alaska Native, Asian/Pacific Islander, or two or more races comprised less than 15.0% of the student population over the previous ten years.

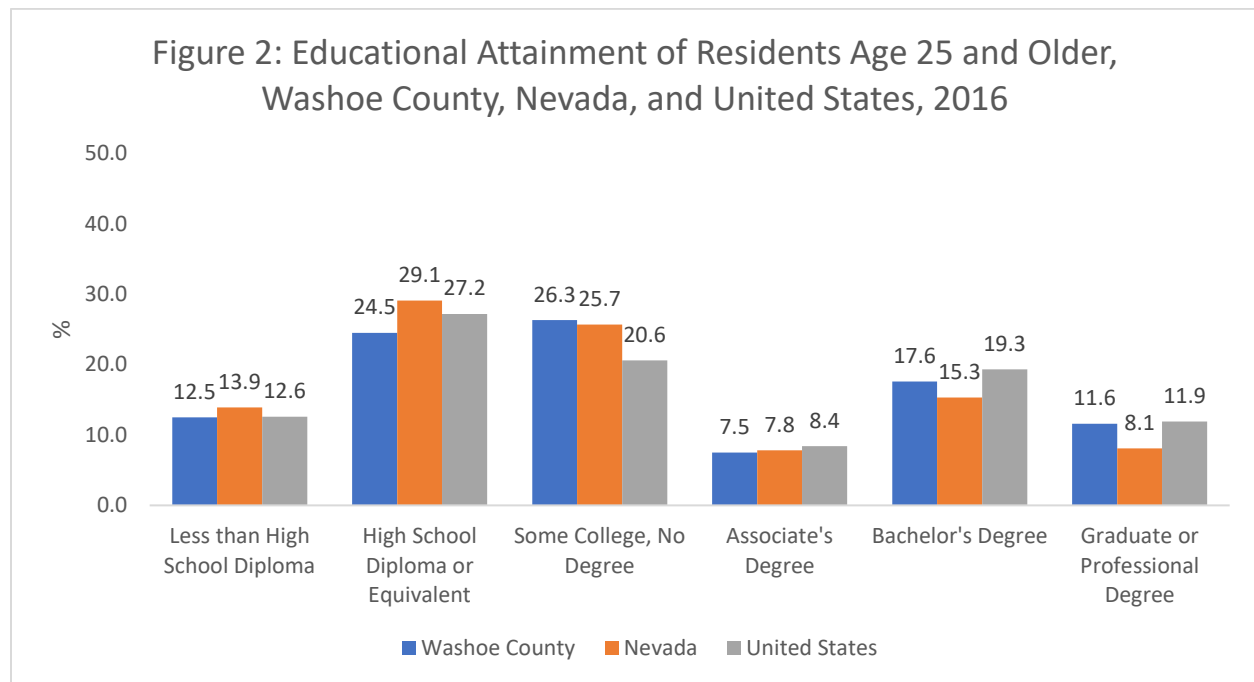
Table 3: Primary Language Spoken at Home
Washoe County Residents, 2016

| Language | Residents | |
|------------------------------------|-----------|------|
| | (n) | (%) |
| English | 328,202 | 77.0 |
| Spanish | 74,523 | 17.5 |
| Indo-European Language | 9,894 | 2.3 |
| Asian and Pacific Island Languages | 12,332 | 2.9 |
| Other Languages | 1,356 | 0.3 |

According to the 2016 American Community Survey, 23.0% of Washoe County residents primarily spoke a language other than English highlighting the importance of designing a health care system that improves care for patients with limited English proficiency. Limited English proficiency is associated with challenges scheduling appointments, obtaining information over the phone, misunderstandings between the care provider and patient due to language barriers, and poor compliance with treatment regimen.³

³ Nathenson, R.A., Saloner, B., Richards, M.R., & Rhodes, K.V. (2016). Spanish-speaking immigrants' access to safety net providers and translation services across traditional and emerging US destinations: Spanish-speaking immigrants' safety net access. *The Milbank Quarterly*, 94(4), 768-799.

The more limited a person's economic conditions are, the higher one's risk for poor mental health.⁴ Education level is an important predictor for income level and employment that support the worker's well-being through a healthy working environment and the provision of adequate health insurance. Socioeconomic status is an important indicator for an individual's and family's overall health and ability access to supportive services.



In 2016, 36.7% of Washoe County residents 25 years and older received a college degree, which was lower than the United States (39.6%).

**Table 4: Inflation-Adjusted Incomes and Housing Costs
Washoe County and Nevada, 2016**

| | Washoe County | Nevada | United States |
|--|---------------|----------|---------------|
| Median Household Income | \$58,175 | \$55,180 | \$57,617 |
| Median Annual Income for Males* | \$45,360 | \$45,326 | \$50,586 |
| Median Annual Income for Females* | \$37,865 | \$36,681 | \$40,626 |
| Median Monthly Housing Cost | \$1,057 | \$1,047 | \$1,022 |
| Percent of Households with Monthly Rent of 30% or More of Household Income | 47.1 | 47.3 | 46.1 |
| Percent of Households with Monthly Mortgage of 30% or More of Household Income | 29.1 | 31.2 | 28.1 |

*Full-time, year-round workers

In 2016, Washoe County's inflation-adjusted household income level was higher than the United States. However, the median annual income for males and females was lower in Washoe County than the United States. The percentage of Washoe County residents who paid more than 30% of their gross monthly income for rent or home mortgage costs was higher in Washoe County than the United States.

⁴Hudson, C. G. (2005). Socioeconomic status and mental illness: Tests of the social causation and selection hypotheses. *American Journal of Orthopsychiatry*, 75(1), 3-18.

**Figure 3: Economic Benchmarks Compared to Household Annual Income Distribution
Washoe County, 2016**

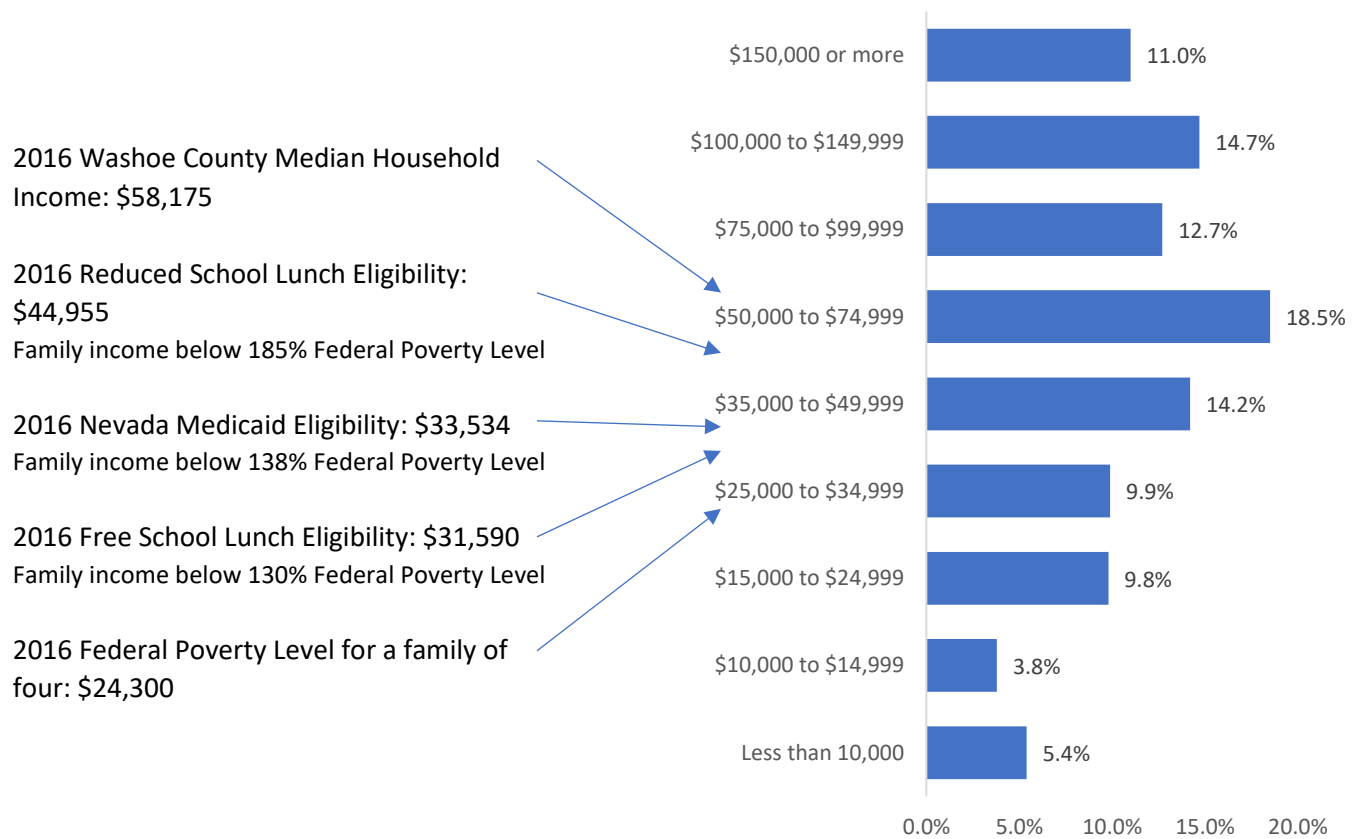


Table 5: Poverty Status During Prior 12 Months, 2016

| Age | Washoe County | Nevada | United States |
|-------------------|---------------|--------|---------------|
| | % | % | % |
| Under 18 years | 16.0 | 19.1 | 19.5 |
| 18 to 34 years | 16.0 | 15.2 | 17.0 |
| 35 to 64 years | 9.4 | 11.8 | 11.0 |
| 65 years and over | 8.0 | 8.7 | 9.2 |
| Total | 12.2 | 13.8 | 14.0 |

In 2016, the total percent of individuals experiencing poverty in Washoe County was 12.2% falling below Nevada (13.8%) and the United States (14.0%). Among individuals aged 18 to 34 years living below the poverty level was greater in Washoe County (16.0%) than Nevada (15.2%).

Table 6: Persons Under the Age of 65 Years Without Health Insurance, 2016

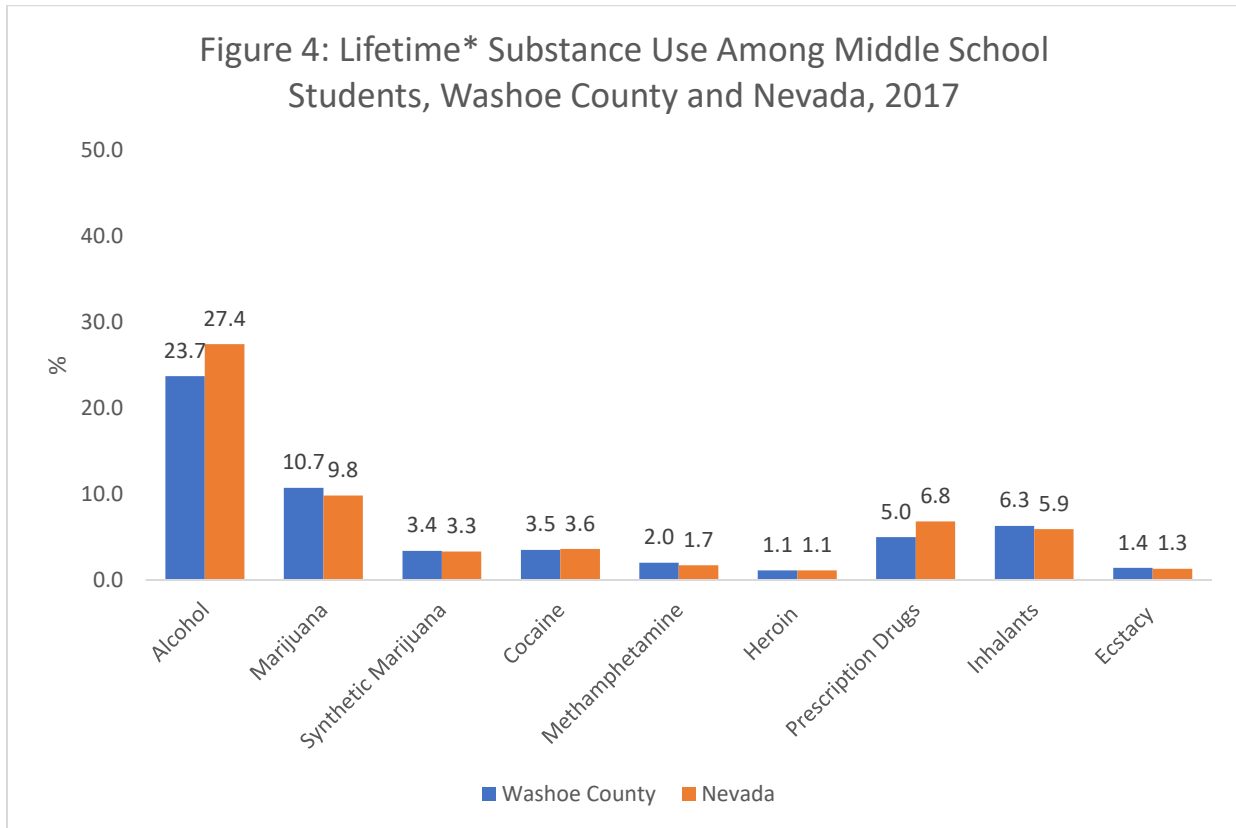
| | Percent |
|---------------|---------|
| Washoe County | 17.9 |
| Nevada | 22.3 |
| United States | 16.5 |

In 2016, 17.9% of Washoe County residents under the age of 65 years did not have health insurance which was higher than the United States (16.5%).

Substance Use

A substance use disorder develops after repeated use of alcohol and/or drugs causes functionally significant impairment and can result in a variety of consequences including health problems, a physical withdrawal state, disability, and failure to meet major responsibilities at work, home, or school. The coexistence of both a mental illness and a substance use disorder is defined as a co-occurring disorder. Among the 20.2 million adults in the United States who have self-reported a substance use disorder in 2014 nearly 40 percent experienced a co-occurring mental illness.⁵

Middle School Students

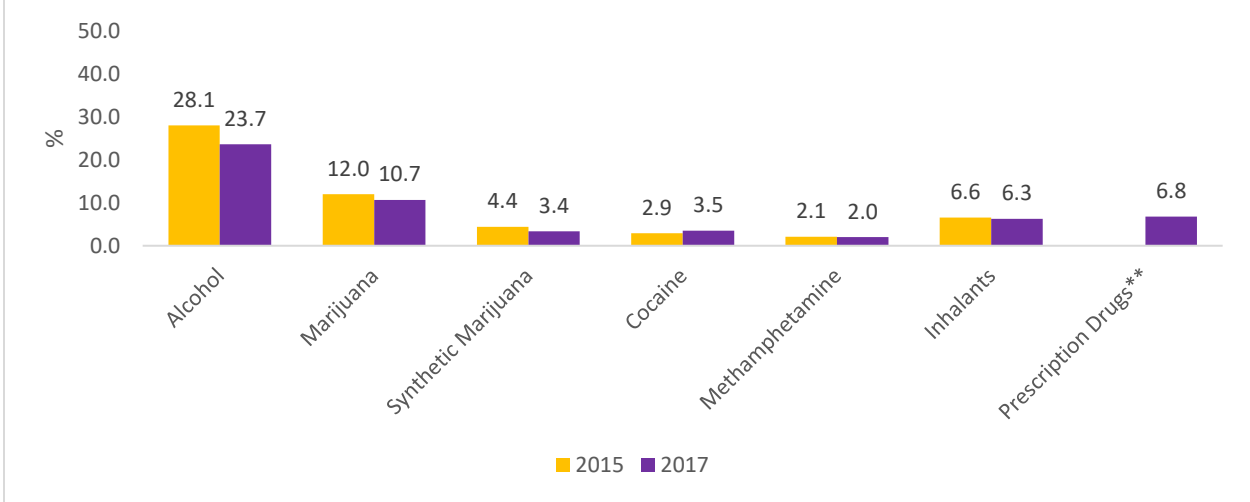


*One or more times during their life

- In 2017, the percent of Washoe County middle school students who reported using marijuana, synthetic marijuana, methamphetamine, inhalants, and ecstasy one or more times during their life was greater than Nevada.
- A lower percentage of middle school students reported having ever tried alcohol, cocaine, and prescription drugs in Washoe County compared to Nevada.
- The percentage of middle school students who reported having ever used cocaine in Washoe County and Nevada was equal.

⁵ Substance Abuse and Mental Health Services Administration. (2015) Results from the 2014 National Survey on Drug Use and Health: Mental Health Findings, NSDUH Series H-50, HHS Publication No. (SMA) 15-4927. Accessed from <http://www.samhsa.gov/data/sites/default/files/NSDUH-FRR1-2014/NSDUH-FRR1-2014.pdf>

Figure 5: Lifetime* Substance Use Among Middle School Students, Washoe County, 2015 and 2017 Comparison

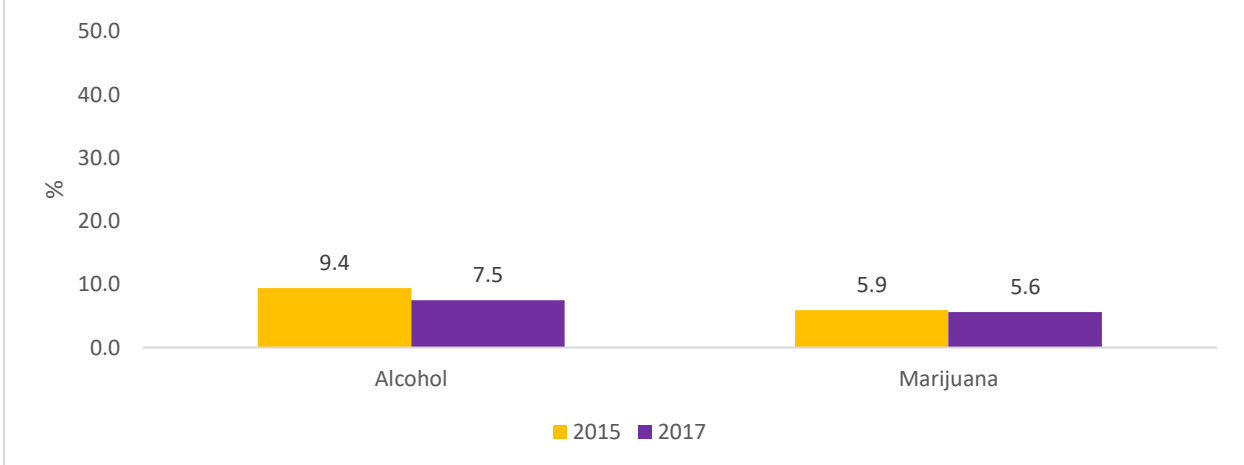


*One or more times during their life

**2015 data for lifetime prescription drug use is not included because the wording of the question changed in 2017, therefore data are not comparable to previous years.

- From 2015 to 2017, the percent of middle school students who reported having ever tried the substances identified in Fig. 5 decreased across all categories with the exception of cocaine which increased from 2.9% to 3.5%.

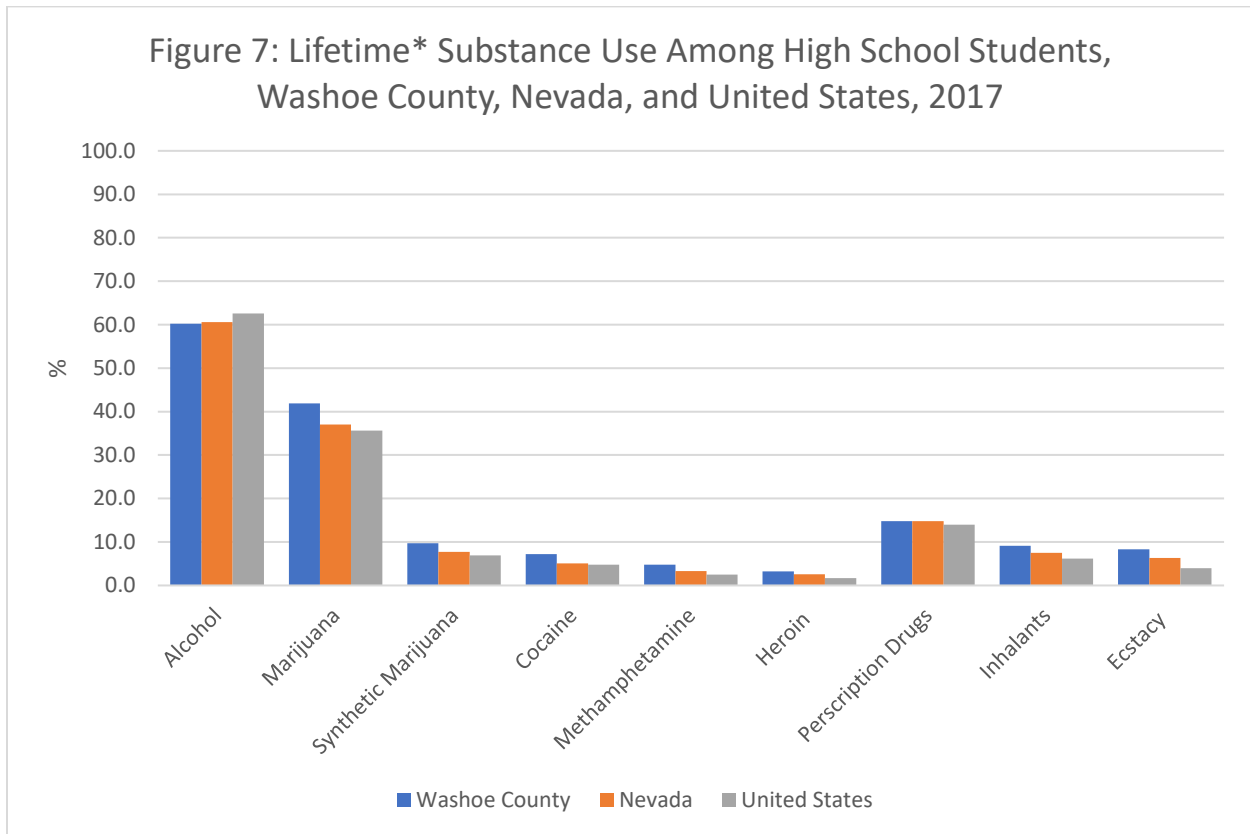
Figure 6: Percentage of Middle School Students to Report Current* Use of Alcohol and Marijuana, Washoe County, 2015 and 2017 Comparison



*Had at least one use on at least 1 day during the 30 days before the survey

- The percentage of middle school students who reported having had at least one drink of alcohol during the previous 30 days decreased from 2015 (9.4%) to 2017 (7.5%).
- The percentage of middle school students who reported they currently use marijuana decreased from 2015 (5.9%) to 2017 (5.6%).

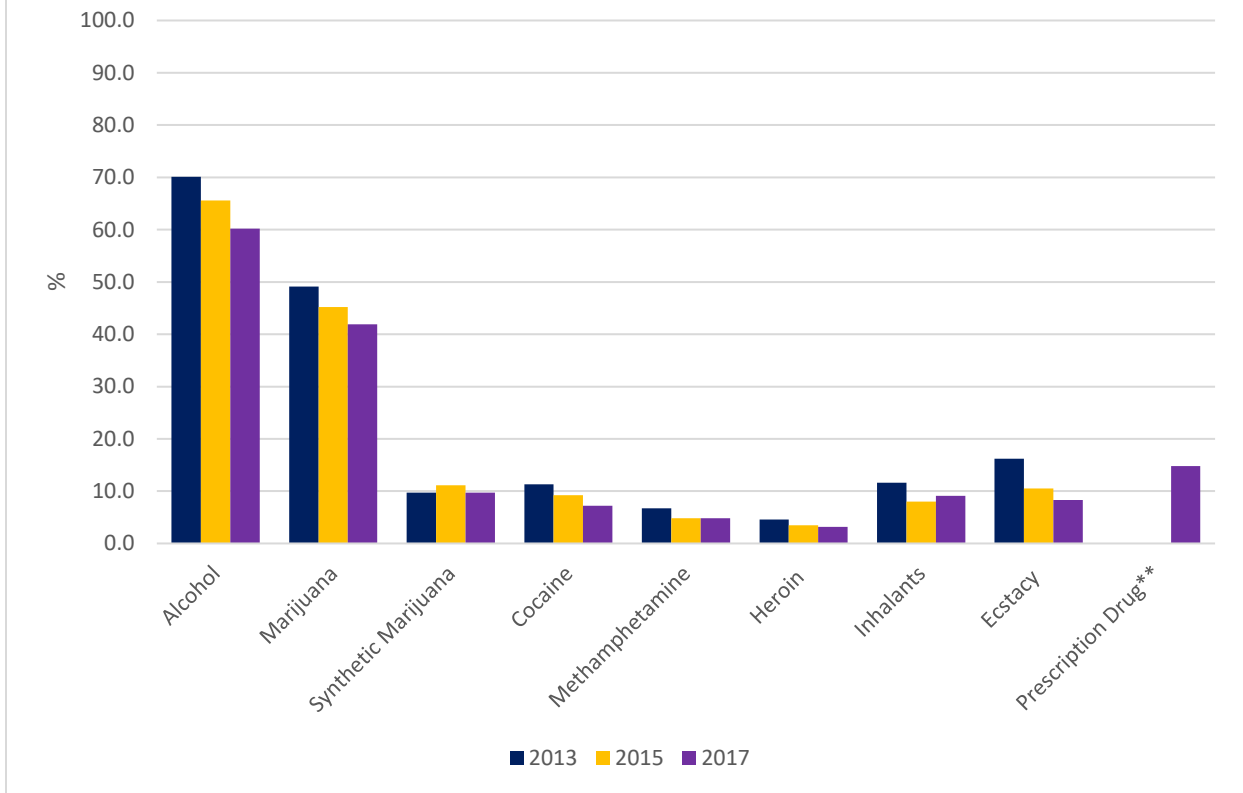
High School Students



*One or more times during their life

- In 2017, the percentage of high school students who reported ever used marijuana, synthetic marijuana, cocaine, methamphetamine, heroin, inhalants, and ecstasy was greater in Washoe County than in Nevada and the United States.
- Lifetime alcohol use among high school students was lower in Washoe County (60.2%) than in Nevada (60.6%) and the United States (62.6%).

Figure 8: Lifetime* Substance Use Among High School Students, Washoe County, 2013, 2015 & 2017 Comparison

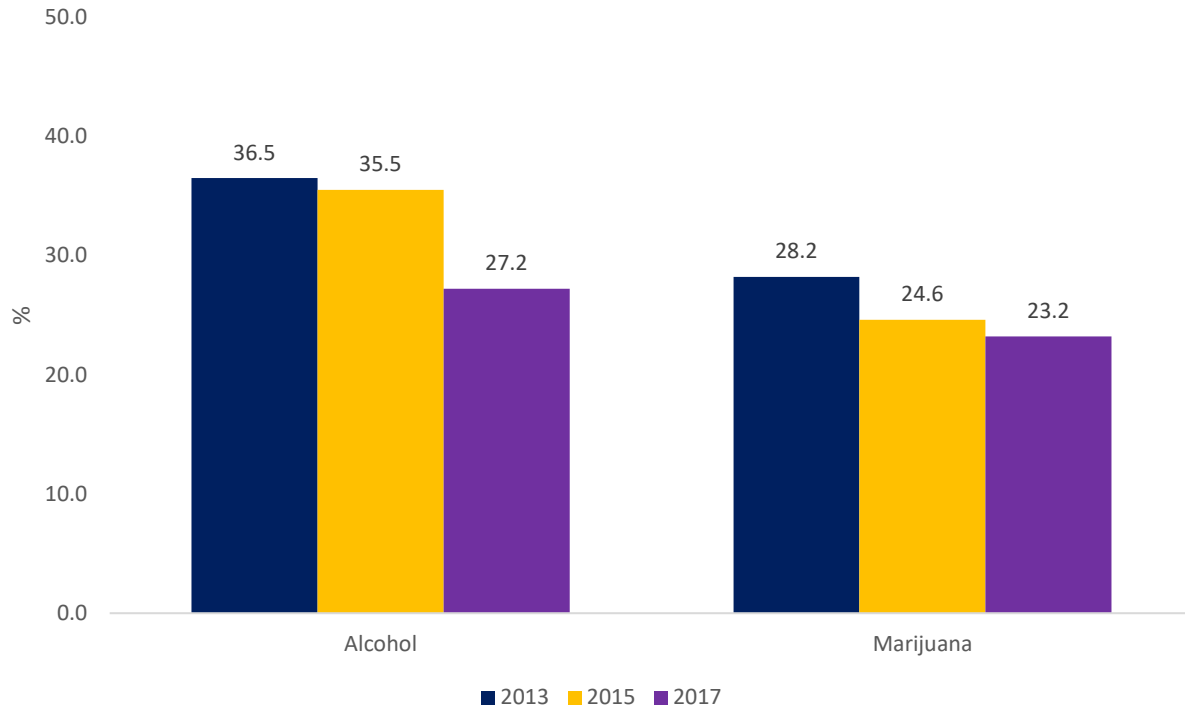


*One or more times during their life

**2015 data for lifetime prescription drug use is not included because the wording of the question changed in 2017, therefore data are not comparable to previous years.

- From 2013 to 2017, the percent of high school students in Washoe County who reported ever trying alcohol, marijuana, cocaine, heroin, and ecstasy decreased.
- Synthetic marijuana use reached 11.1% in 2015 followed by a decrease to 9.7% in 2017.
- Methamphetamine use remained at 4.8% in 2015 and 2017.
- Inhalant use in 2017 (9.1%) was higher than in 2015 (8.0%).

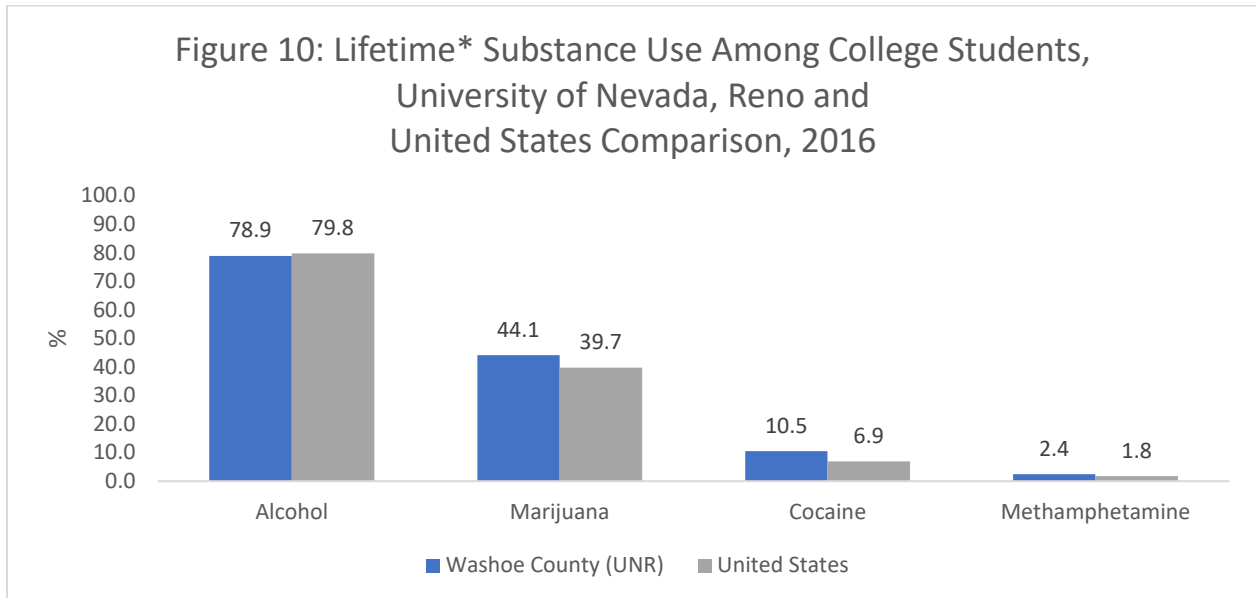
Figure 9: Percentage of High School Students to Report Current* Use of Alcohol and Marijuana, Washoe County, 2013, 2015 & 2017 Comparison



*Had at least one use on at least 1 day during the 30 days before the survey

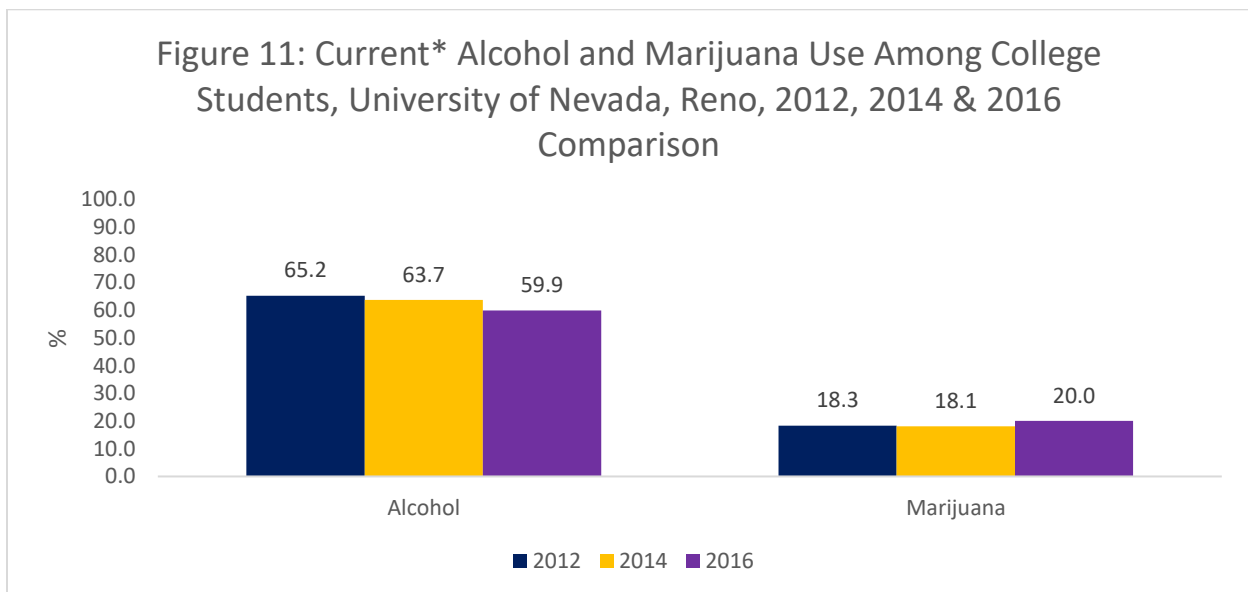
- The percentage of high school students who reported having had at least one drink of alcohol during the previous 30 days decreased from 2013 (36.5%) to 2017 (27.2%).
- The percentage of high school students who reported they currently use marijuana decreased from 2013 (28.2%) to 2017 (23.2%).

College Students



*Have used one or more times

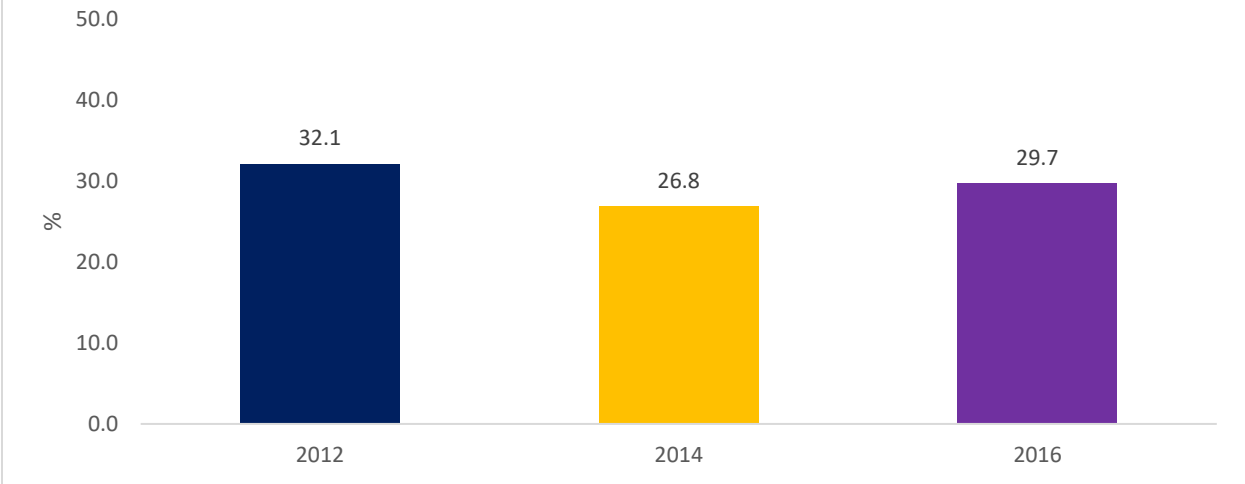
- The percentage of UNR students who reported lifetime marijuana, cocaine, and methamphetamine use was greater than the average reported by other postsecondary education students in the United States.
- A lower percentage of alcohol use was reported by UNR students (78.9%) compared to the United States (79.8%).



*Within the last 30 days

- The percentage of UNR students who reported having used alcohol within the last 30 days decreased from 2012 (65.2%) to 2016 (59.9%).
- Current marijuana use among UNR students increased from 2012 (18.3%) to 2016 (20.0%).

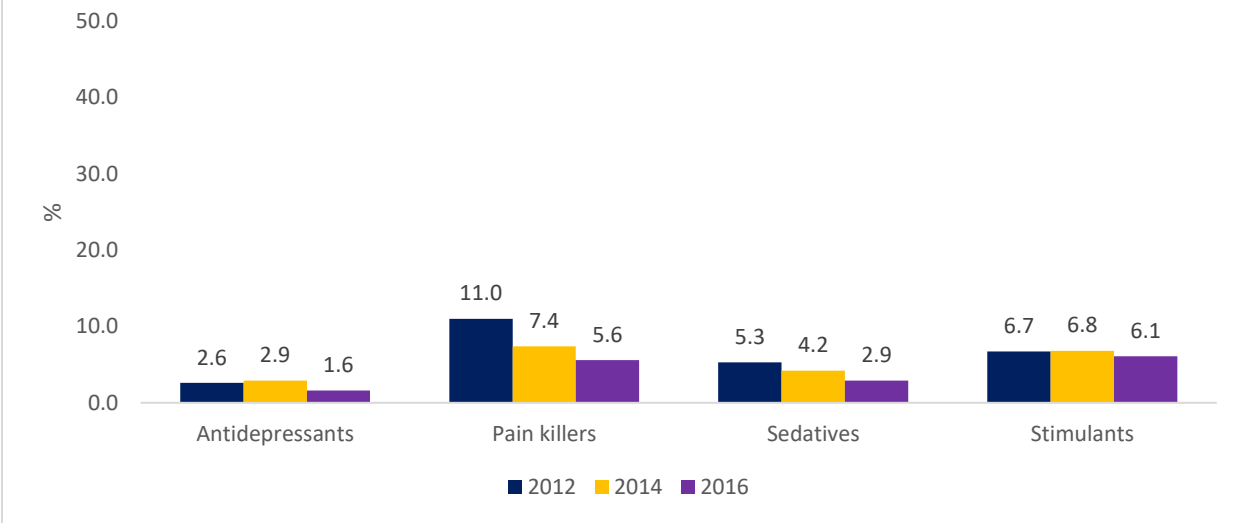
Figure 12: Binge Drinking* Among College Students, University of Nevada, Reno, 2012, 2014 & 2016 Comparison



*Five or more drinks of alcohol a sitting, over the previous two weeks

- In 2016, 29.7% of UNR students reported binge drinking in the past two weeks.

Figure 13: Prescription Drug Misuse* Among College Students, University of Nevada, Reno, 2012, 2014 & 2016 Comparison



*Taken the drug without a prescription, during the previous 12 months

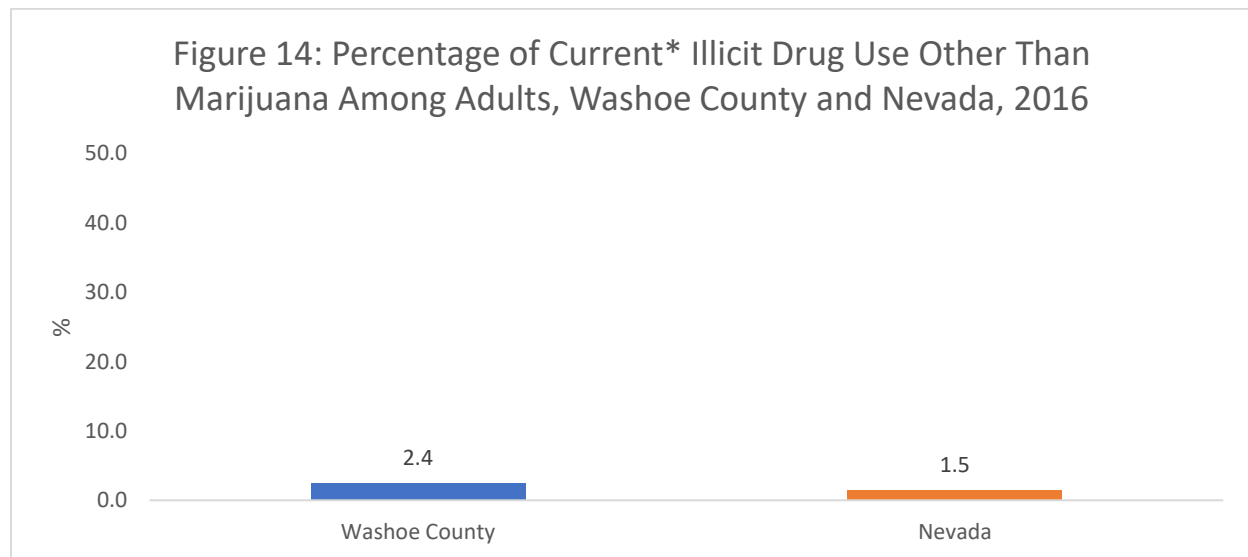
- UNR students reported misusing pain killers and stimulants more frequently than other prescription drugs.
- The percentage of UNR students reporting they had taken the prescription drugs in Fig. 13 decreased from 2012 to 2016.
- In 2016, stimulants passed pain killers and became the most commonly misused prescription drug among UNR students with 6.1% having used during the previous 12 months compared to 5.6% having used pain killers.

Adults

Table 7: Substance Use Among Population Aged 18 to 25 - Washoe County, Nevada, and United States, 2012-2014 Annual Averages

| | Percent of Population | | |
|---|-----------------------|--------|---------------|
| | Washoe County | Nevada | United States |
| Alcohol Use | | | |
| Use in the past month | 66.1 | 57.8 | 59.8 |
| Binge drank in the past month | 42.8 | 37.0 | 38.4 |
| Dependence in the past year | 7.1 | 7.1 | 5.7 |
| Dependence or abuse in the past year | 15.5 | 14.1 | 13.2 |
| Needing treatment for alcoholism in the past year | 15.4 | 13.8 | 12.8 |
| Drug Use | | | |
| Cocaine use in the past year | 6.5 | 3.8 | 4.6 |
| Pain relievers nonmedical use in the past year | 9.7 | 9.9 | 8.9 |
| Illicit drug use in the past month | 24.0 | 21.4 | 21.6 |
| Illicit drug use other than marijuana in the past month | 7.3 | 7.0 | 6.7 |
| Illicit drug dependence in the past year | 5.9 | 5.6 | 5.2 |
| Illicit drug dependence or abuse in the past year | 7.9 | 7.3 | 7.3 |
| Needing treatment for illicit drug use in the past year | 7.5 | 6.9 | 6.7 |
| Dependence on or abuse of illicit drugs or alcohol in the past year | 20.2 | 18.1 | 17.5 |

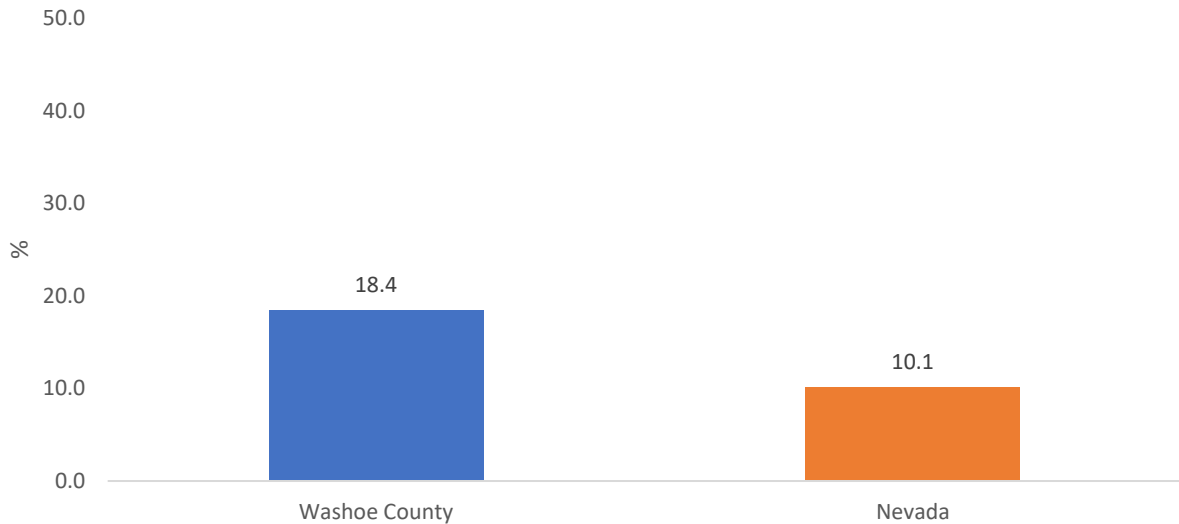
- On average from 2012 to 2014, individuals aged 18-25 years reported alcohol use, dependence, and abuse a higher percentage in Washoe County than Nevada and the United States.
- Illicit drug use in Washoe County was more prevalent compared to Nevada and the United States.



*During the past 30 days

- In 2016, the percentage of adults in Washoe County who reported illicit drug use in the past month (2.4%) was higher than Nevada (1.5%).

Figure 15: Lifetime Prescription Drug Misuse Among Adults, Washoe County and Nevada, 2016



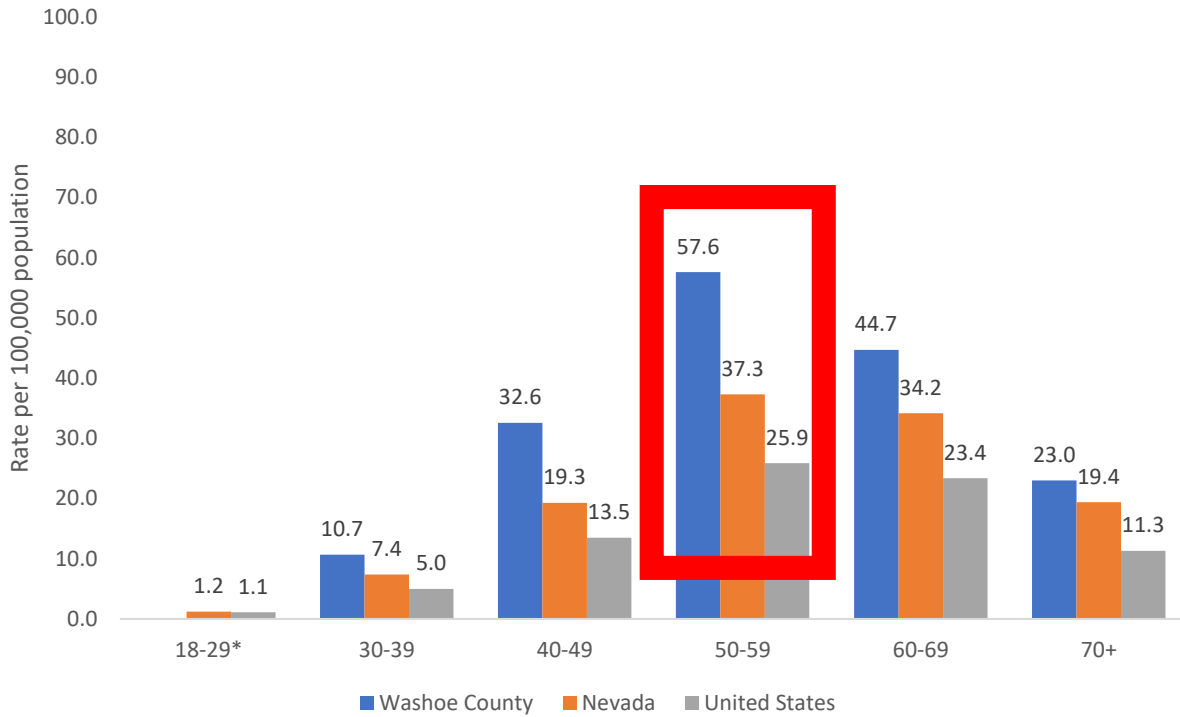
- In 2016, the percentage of adults in Washoe County who reported having ever taken a prescription drug without a doctor’s prescription (18.4%) was higher than Nevada (10.1%).

Figure 16: Prescription Drug Misuse During the Past 30 Days Among Adults, Washoe County and Nevada, 2016



- The percentage of Washoe County adults who reported having used prescription drugs without a doctor’s order to “feel good” or to “get high” (0.8%) was lower than Nevada (1.1%).

Figure 17: Alcohol-Induced Cause of Death by Age Group, Washoe County, Nevada, and United States, 2012-2016
Aggregate Data

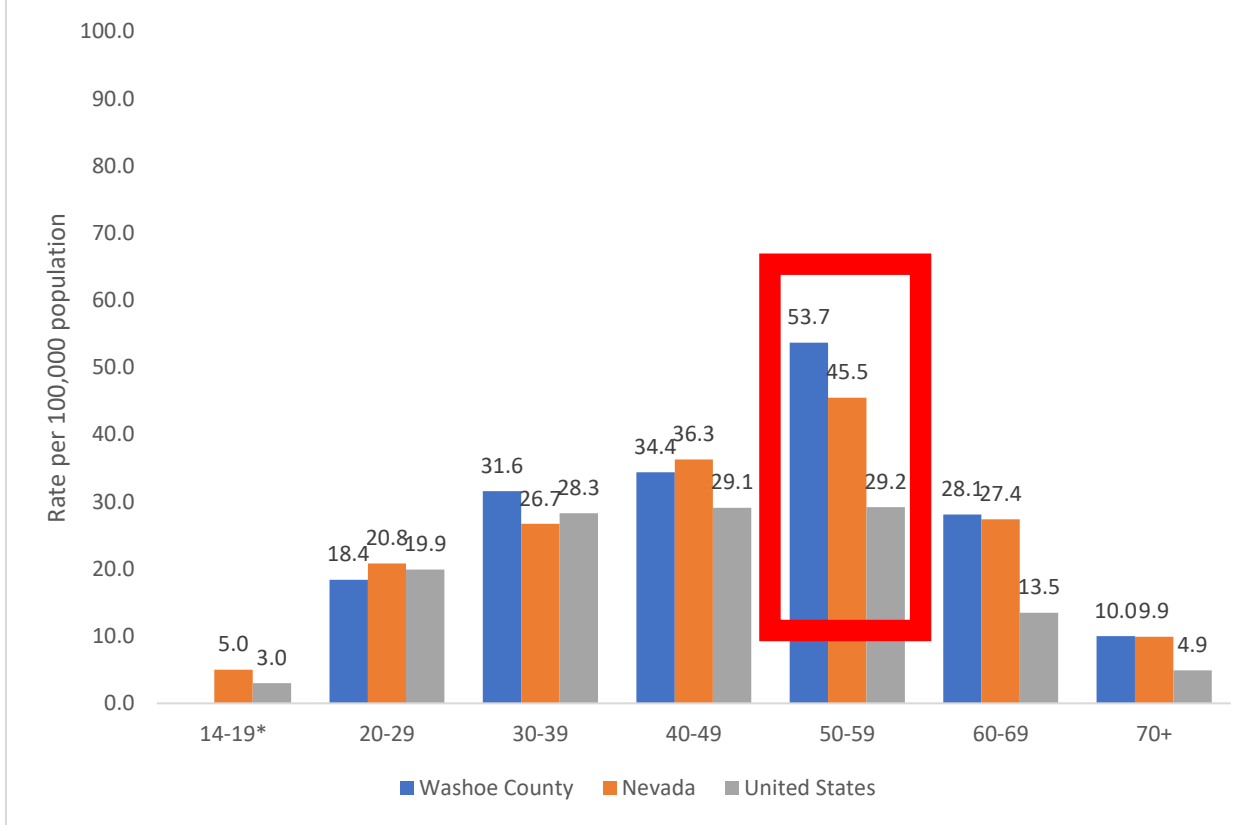


*Washoe County data not available because the data meet the criteria for confidentiality constraints

Mental and behavioral disorders due to use of alcohol, harmful use (F10.1); Mental and behavioral disorders due to use of alcohol, dependence syndrome (F10.2); Alcoholic hepatitis (K70.1); Alcoholic cirrhosis of liver (K70.3); Alcoholic hepatic failure (K70.4); Alcoholic liver disease, unspecified (K70.9); Accidental poisoning by and exposure to alcohol (X45)

- The rate of alcohol-induced deaths in Washoe County among age groups 30-39, 40-49, 50-59, and 70+ years were more than double the United States.

Figure 18: Drug-Induced Cause of Death by Age Group, Washoe County, Nevada, and United States, 2012-2016 Aggregate Data

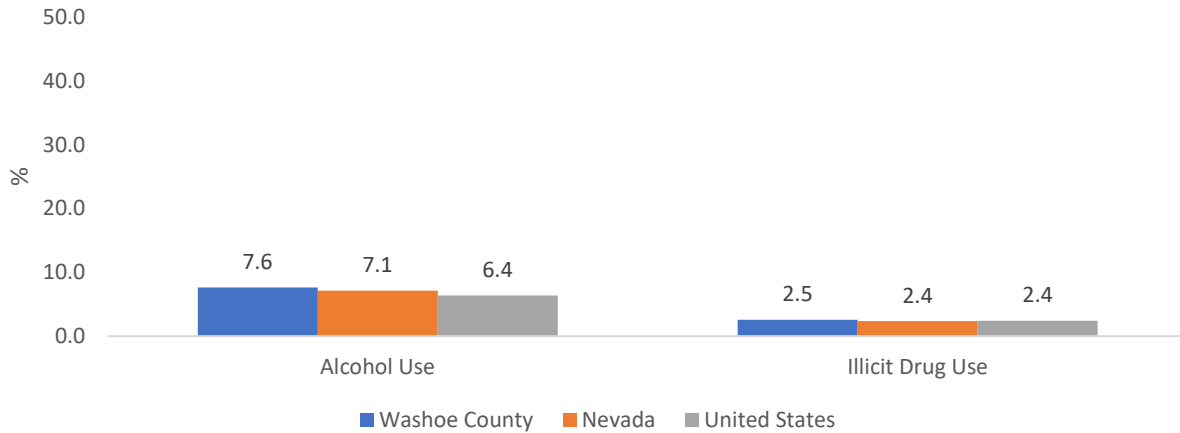


*Washoe County data not available because the data meet the criteria for confidentiality constraints

Drug poisonings (overdose) unintentional (X40-X44); Drug poisonings (overdose) suicide (X60-X64); Drug poisonings (overdose) homicide (X85); Drug poisonings (overdose) undetermined (Y10-Y14)

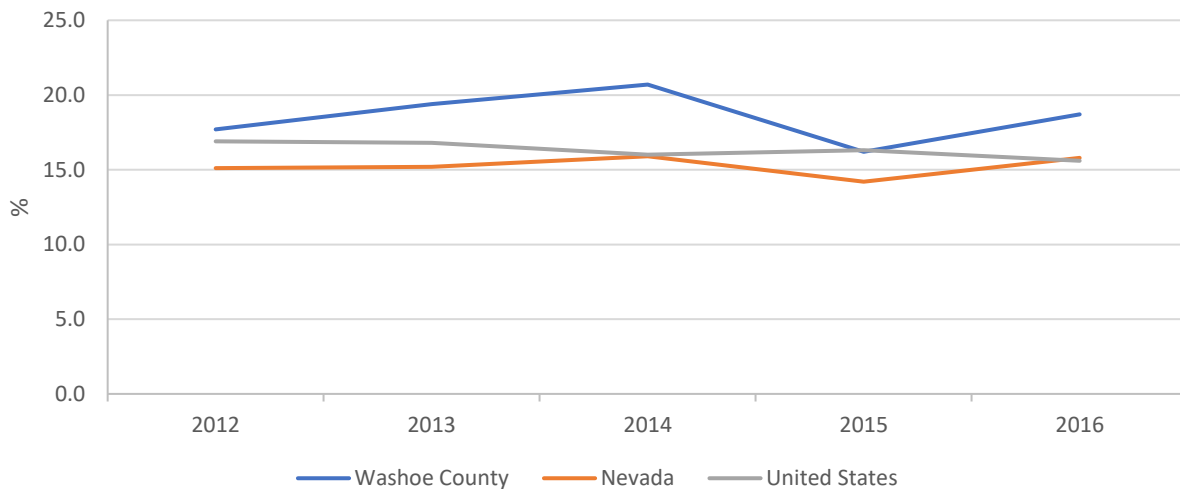
- The five-year drug-induced cause of death rate was greater in Washoe County for age groups 30-39, 50-59, 60-69, and 70+ years compared to Nevada.

Figure 19: Percentage of Adults Needing but Not Receiving Treatment in the Past Year, Washoe County, Nevada, and United States, 2012-2014 Annual Average



- On average from 2012 to 2014, the percentage of adults needing treatment for alcohol use in the past year was greater in Washoe County (7.6%) than Nevada (7.1%) and the United States (6.4%).
- The percentage of adults needing treatment for illicit drug use in the past year was slightly greater in Washoe County (2.5%) than Nevada (2.4%) and the United States (2.4%).

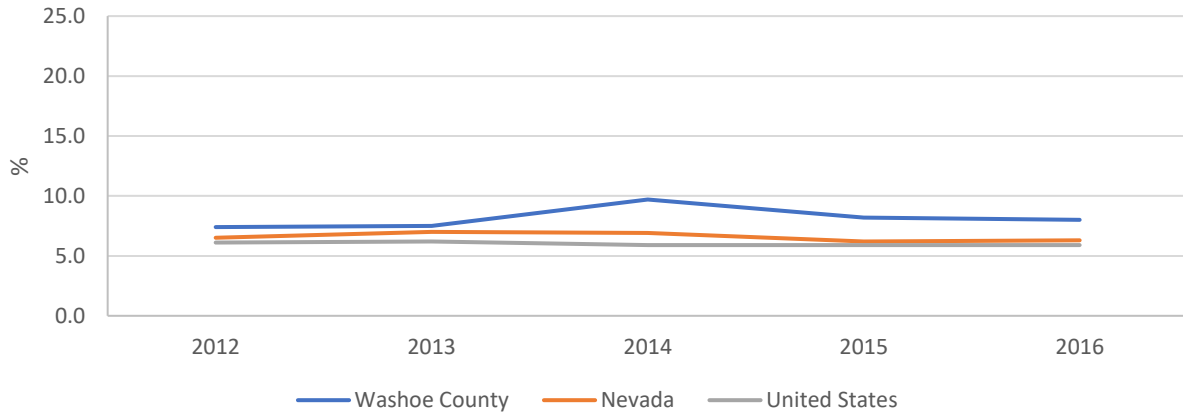
Figure 20: Percentage of Adults Classified as Binge Drinkers, Washoe County, Nevada, and United States, 2012-2016



*Binge drinking is classified as men having five or more drinks on one occasion and for women having four or more drinks on one occasion

- The percentage of Washoe County adults who were classified as binge drinkers was greater in 2016 (18.7%) than in 2012 (17.7%).
- In 2016, the percentage of Washoe County adults who were classified as binge drinkers was higher than Nevada (15.8%) and the United States (15.6%).

Figure 21: Percentage of Adults Classified as Heavy Drinkers, Washoe County, Nevada, and United States, 2012-2016

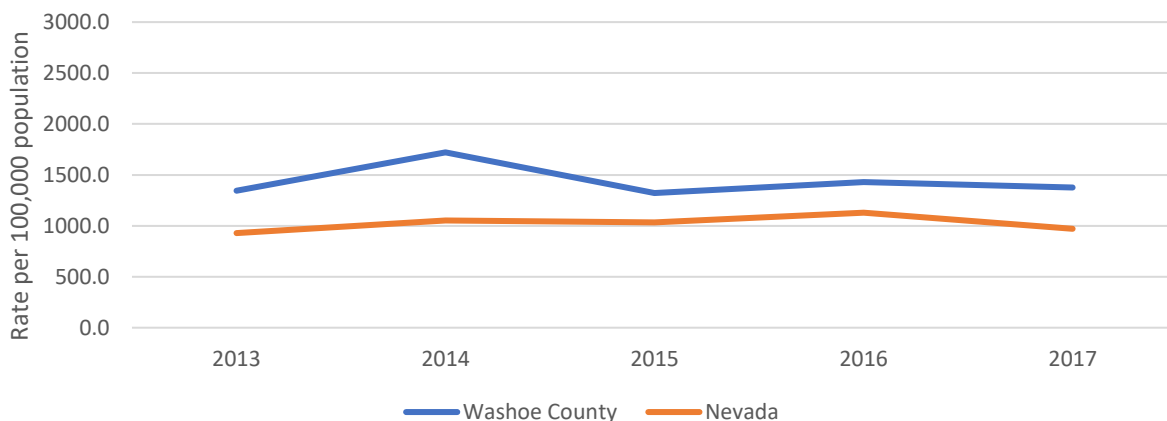


*During 2012-2014 heavy drinking was classified as men having more than two drinks per day and for women having more than one drink per day

**During 2015 and 2016 heavy drinking was classified as men having more than 14 drinks per week and for women having more than seven drinks per week

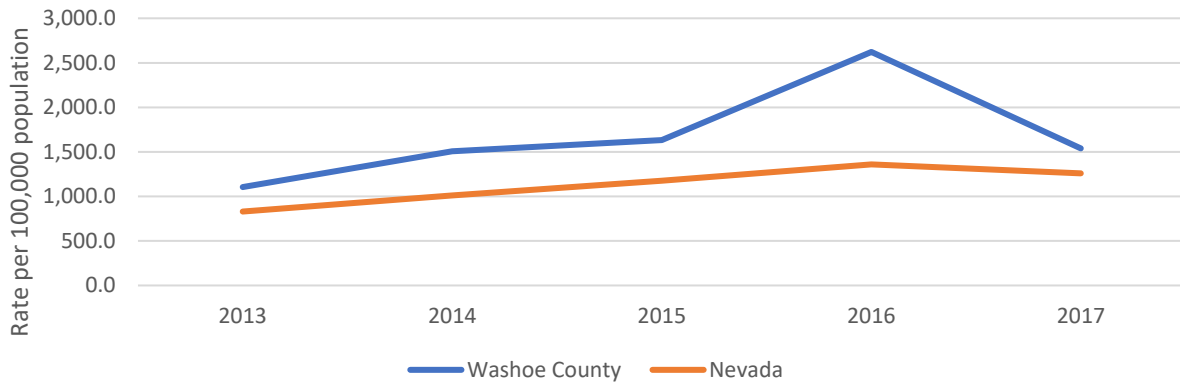
- The percentage of Washoe County adults who were classified as heavy drinkers was greater in 2016 (8.0%) than in 2012 (7.4%).
- From 2012 to 2016, the percentage of adults in Washoe County classified as heavy drinkers has remained higher than the percentage in Nevada and the United States.

Figure 22: Alcohol-Related Emergency Department Encounters, Washoe County and Nevada, 2013-2017



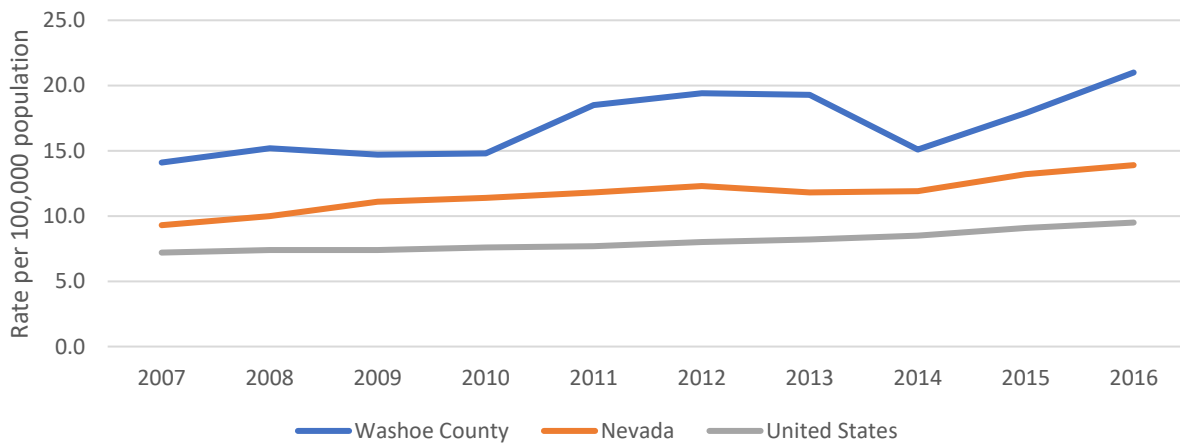
- The rate of alcohol-related Emergency Department encounters has remained fairly stable over the past five years other than an increase in 2014.
- In 2017, the rate in Washoe County (1,377 per 100,000 population) was higher than Nevada (971 per 100,000 population).

Figure 23: Drug-Related Emergency Department Encounters, Washoe County and Nevada, 2013-2017



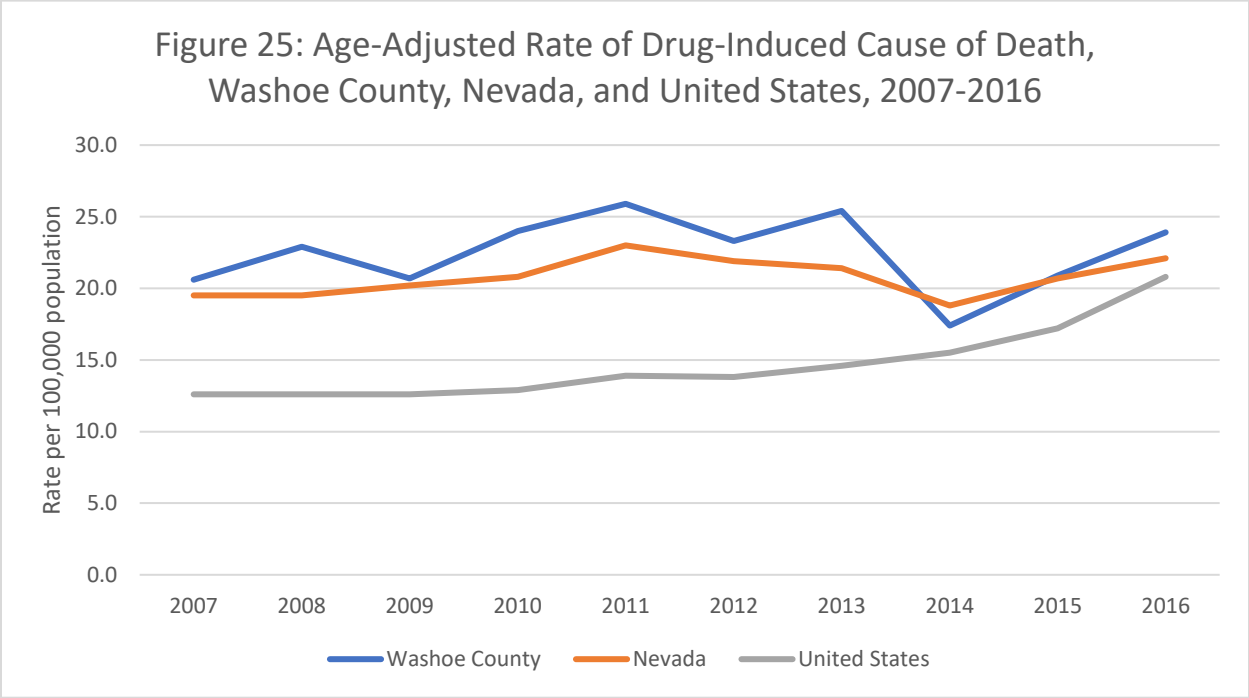
- In 2015, Washoe County began to experience more drug-related emergency department encounters than alcohol-related encounters.
- In 2017, the rate of drug-related emergency department encounters in Washoe County (1,583 per 100,000 population) was higher than Nevada (1,260 per 100,000 population).

Figure 24: Age-Adjusted Rate of Alcohol-Induced Cause of Death, Washoe County, Nevada, and United States, 2007-2016



Mental and behavioral disorders due to use of alcohol, harmful use (F10.1); Mental and behavioral disorders due to use of alcohol, dependence syndrome (F10.2); Alcoholic hepatitis (K70.1); Alcoholic cirrhosis of liver (K70.3); Alcoholic hepatic failure (K70.4); Alcoholic liver disease, unspecified (K70.9); Accidental poisoning by and exposure to alcohol (X45)

- In 2016, the age-adjusted rate of alcohol-induced deaths in Washoe County reached the highest point over the ten-year period at 21 persons per 100,000 population.
- From 2007 to 2016, the average rate of alcohol-induced deaths in Washoe County was 17 persons per 100,000 population which was greater than Nevada (12 persons per 100,000 population) and the United States (8 persons per 100,000 population).



Drug poisonings (overdose) unintentional (X40-X44); Drug poisonings (overdose) suicide (X60-X64); Drug poisonings (overdose) homicide (X85); Drug poisonings (overdose) undetermined (Y10-Y14)

- In 2016, the age-adjusted rate of drug-induced deaths in Washoe County (23.9 per 100,000 population) was greater than the rate in Nevada (22.1 per 100,000 population) and the United States (20.8 per 100,000 population).
- From 2007 to 2016, the average rate of drug-induced deaths in Washoe County was 23 persons per 100,000 population which was greater than Nevada (21 persons per 100,000 population) and the United States (15 persons per 100,000 population).

Opioid Specific

Description of the opioid categories:

Heroin: an illicit opioid synthesized from morphine that can be a white or brown powder, or a sticky black substance

Methadone: a synthetic opioid

Natural and Semi-synthetic: morphine, codeine, oxycodone, hydrocodone, hydromorphone, and oxymorphone

Synthetic Opioids: fentanyl and tramadol

ICD Codes used for analysis:

Opioid Related Disorders

All Diagnosis

304.0 Opioid type dependence (ICD-9-CM); 304.7 Combinations of opioid type drug with any other drug dependence (ICD-9-CM); 305.5 Nondependent opioid abuse (ICD-9-CM); F11 Opioid related disorders (ICD-10-CM)

Opiate Poisoning

Principal Diagnosis

965.0 Poisoning by opiates and related narcotics (ICD-9-CM); T40.0 Poisoning by, adverse effect of and underdosing of opium (ICD-10-CM); T40.1 Poisoning by and adverse effect of heroin (ICD-10-CM); T40.2 Poisoning by, adverse effect of and underdosing of other opioids (ICD-10-CM); T40.3 Poisoning by, adverse effect of and underdosing of methadone (ICD-10-CM); T40.4 Poisoning by, adverse effect of and underdosing of other synthetic narcotics (ICD-10-CM); T40.6 Poisoning by, adverse effect of and underdosing of other and unspecified narcotics (ICD-10-CM)

All Diagnosis

E850.0-E850.2 Accidental poisoning by heroin, methadone, and other opiates (ICD-9-CM)

Deaths

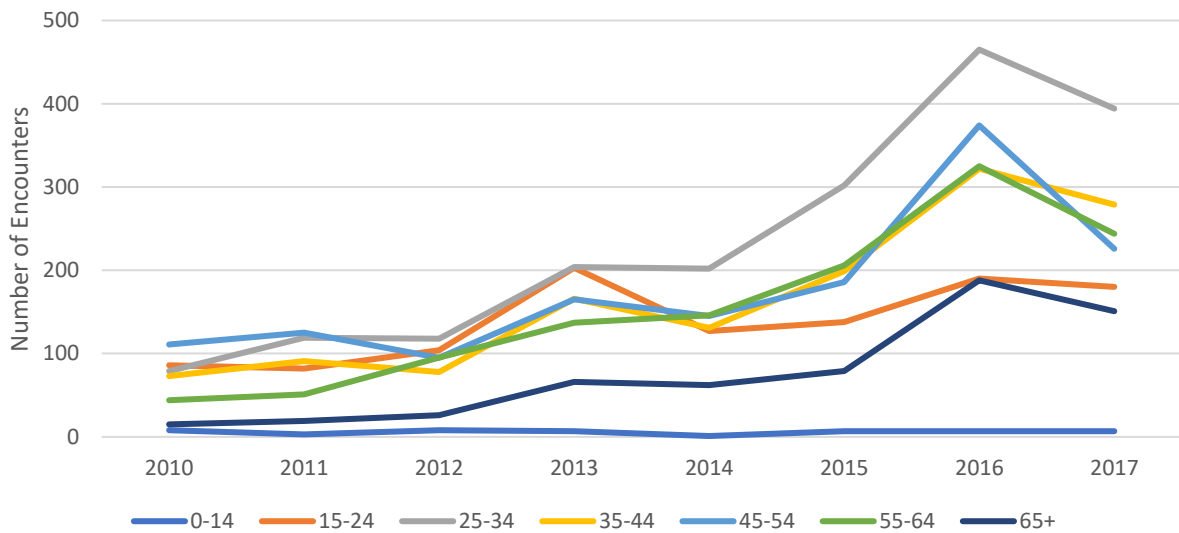
Deaths with any of the following ICD-10 codes as an underlying cause of death were first selected:

X40-X44 Accidental poisonings by drugs; X60-X64 Intentional self-poisoning by drugs X85 Assault by drug poisoning; Y10-Y14 Drug poisoning of undetermined intent

Opioids listed as a contributing case of death:

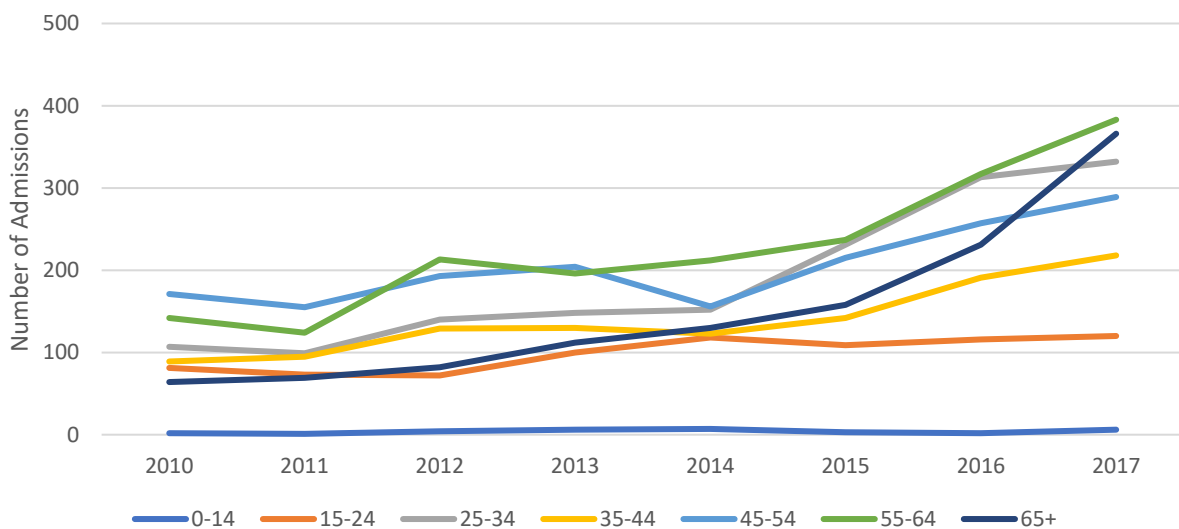
T40.0 Opium; T40.1 Heroin; T40.2 Natural and semi-synthetic opioids; T40.3 Methadone; T40.4 Synthetic opioids; T40.6 Other and unspecified opioids

Figure 26: Opioid-Related Emergency Department Encounters by Age Group, Washoe County, 2010-2017



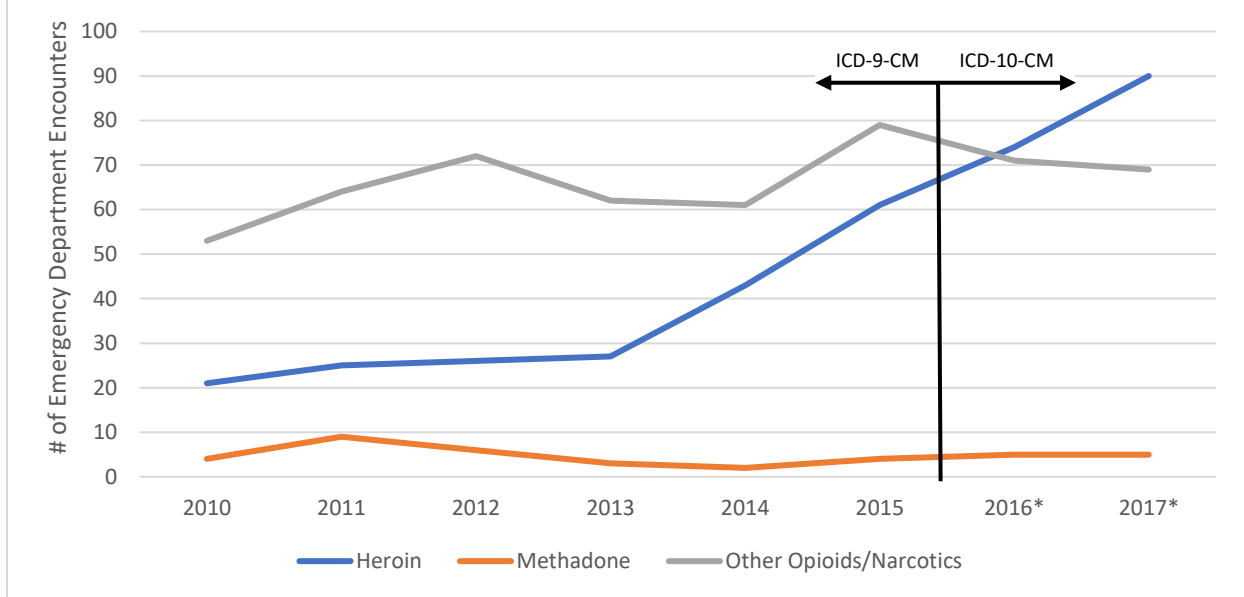
- The number of opioid-related Emergency Department encounters was highest among individuals aged 25-34 years.
- The number of opioid-related Emergency Department encounters has increased from 2010 to 2017 among all age groups except for those aged 0-14 years.

Figure 27: Opioid-Related Inpatient Admissions by Age Group, Washoe County, 2010-2017



- From 2010 to 2017, the number of opioid-related inpatient admissions was highest among individuals aged 55-64 years in Washoe County.
- The number of opioid-related inpatient admissions has increased from 2010 to 2017 among all age groups in Washoe County.

Figure 28: Opioid-Related Poisonings, Emergency Department Encounters by Type, Washoe County, 2010-2017



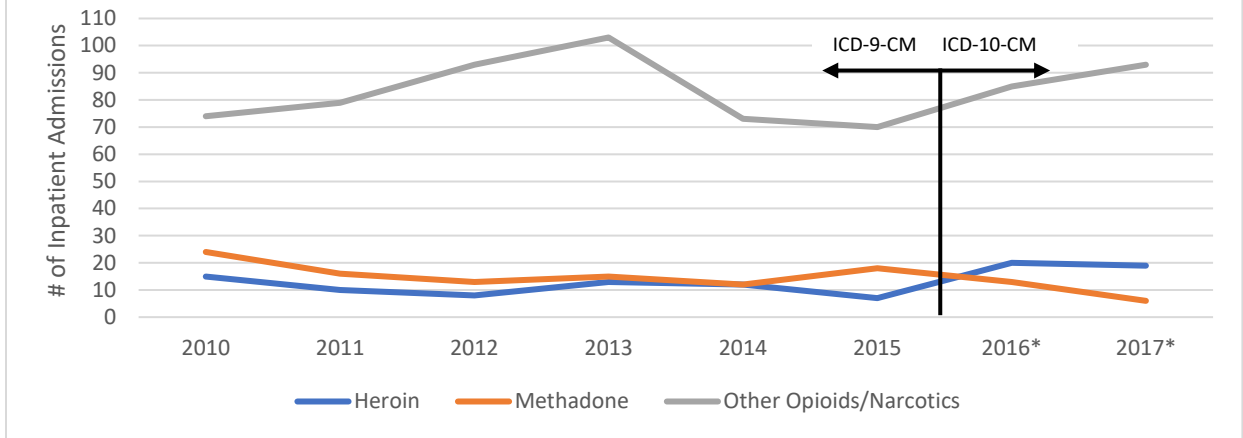
*Data are preliminary and subject to change

Prior to 2016, one visit could include more than one drug group. In 2016, counts became mutually exclusive.

Other Opioids/Narcotics category may include: morphine, codeine, oxycodone, hydrocodone, fentanyl and tramadol

- In 2017, more heroin related poisonings (90 encounters) were seen in the emergency department followed by other opioids/narcotics (69 encounters) and methadone (5 encounters).

Figure 29: Opioid-Related Poisonings, Inpatient Admissions by Type, Washoe County, 2010-2017



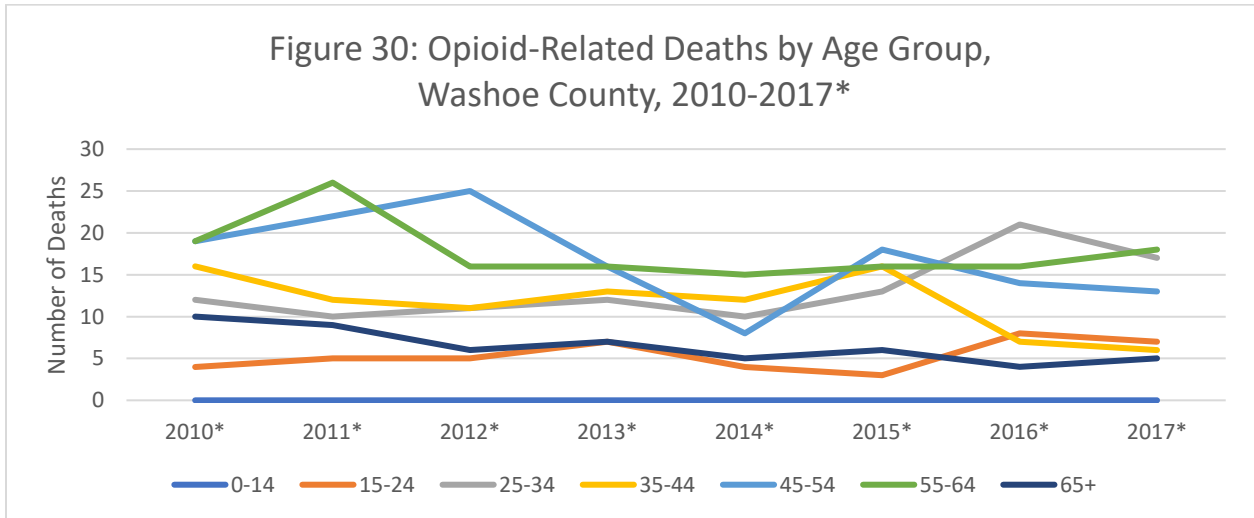
*Data are preliminary and subject to change

Prior to 2016, one visit could include more than one drug group. In 2016, counts became mutually exclusive.

Other Opioids/Narcotics category may include: morphine, codeine, oxycodone, hydrocodone, fentanyl and tramadol

- From 2010 to 2017, the average number of other opioid/narcotics inpatient admissions (83.8) was more than five times the average number of heroin inpatient admissions (13.0) and more than four times the number of methadone admissions (14.6) in Washoe County.
- In 2017, other opioid/narcotics related poisonings (93 admissions) has the highest number of people who were admitted as an inpatient compared to heroin (19 admissions) and methadone (6 admissions).

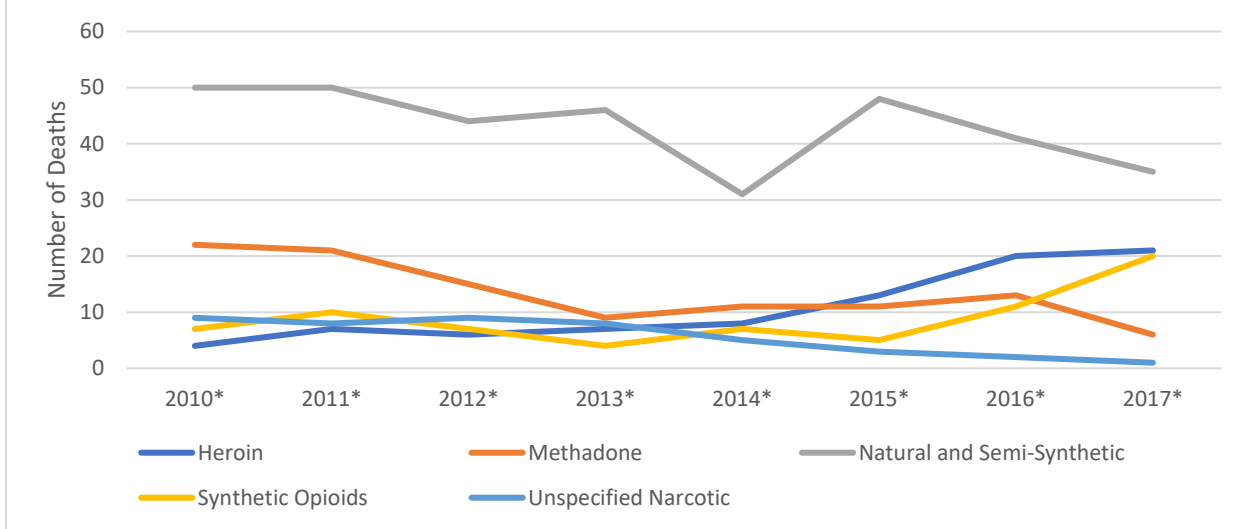
Figure 30: Opioid-Related Deaths by Age Group, Washoe County, 2010-2017*



*Data are preliminary and are subject to changes

- The number of opioid-related deaths was highest among Washoe County residents aged 55-64 years from 2010 to 2017.
- In 2017, the number of opioid-related deaths was highest among Washoe County residents aged 55-64 years (18 deaths) followed by the 25-34 years age group (17 deaths) and the 45-54 years age group (13 deaths).

Figure 31: Opioid-Related Deaths by Drug Category, Washoe County, 2010-2017*



*Data are preliminary and are subject to changes
One death can include more than one drug category

- From 2010 to 2017, natural and semisynthetic opioids caused the most deaths, however this number decreased from 50 deaths in 2010 to 35 deaths in 2017.
- The number of deaths caused by synthetic opioids and heroin in Washoe County increased from 2010 to 2017.

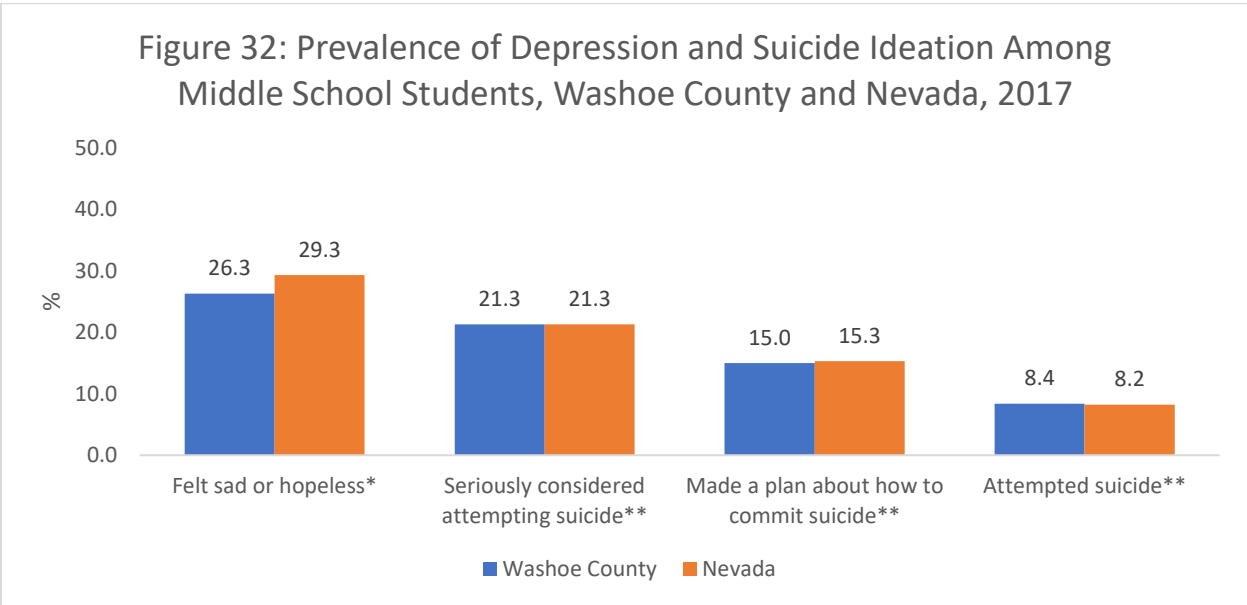
Summary of Substance Use

In 2017, the prevalence of current alcohol and marijuana use among Washoe County middle school and high school students decreased from the previous data collection year. The percent of middle school and high school students in Washoe County who reported having drunk alcohol one or more times during their life was less than Nevada and the United States, however, the percent of middle school and high school students in Washoe County who reported having used marijuana one or more times during their life was greater than Nevada and the United States. The percentage of UNR students who reported having drunk alcohol within the last 30 days has decreased from the previous collection year, but current marijuana use has increased. From 2012-2016, the prevalence of binge drinking and heavy drinking among adults in Washoe County has remained higher than Nevada and the United States. Over the ten-year period from 2007 to 2016, the average rate of alcohol-induced cause of death and the average rate of drug-induced cause of death in Washoe County was greater than Nevada and the United States. The percent of adults in Washoe County needing treatment for alcohol use and drug use was greater in Washoe County than in Nevada and the United States.

Mental Health

Mental health encompasses a person’s emotional, psychological, and social well-being. Emotional well-being includes an interest in life and satisfaction; psychological well-being incorporates creating fulfilling relationships with people, managing responsibilities, and the ability to effectively adapt to change and cope with stress; and social well-being involves contributing to society and being integrated in a community.⁶ A strong link has been found between mental health and physical health including elevated risk factor for incident coronary heart disease and stroke and lower engagement of physical activity.^{6,7,8} Nearly 20% of adults in the United States experience mental illness in a given year with 4% facing serious mental illness that substantially interferes with major life activities.¹⁰ On average, the life expectancy among adults in the United States living with serious mental illness is 25 years shorter than others.¹⁰ Addressing the mental health needs of Washoe County residents will likely lead to an improvement in quality of life and an increase in life expectancy.

Middle School Students



*Almost every day for 2 or more weeks in a row so that they stopped doing some usual activities

**One or more times during their life

- In 2017, the percentage of middle school students who reported experiencing sadness or hopelessness almost every day for two or more weeks in a row was lower in Washoe County (26.3%) than Nevada (29.5%).
- In 2017, the percentage of middle school students who seriously considered attempting suicide was 21.3% in both Washoe County and Nevada.
- In 2017, the percentage of middle school students who made a plan about how to commit suicide was lower in Washoe County (15.0%) than Nevada (15.3%).
- In 2017, the percentage of middle school students who reported attempting suicide one or more times during their life is higher in Washoe County (8.4%) than Nevada (8.2%).

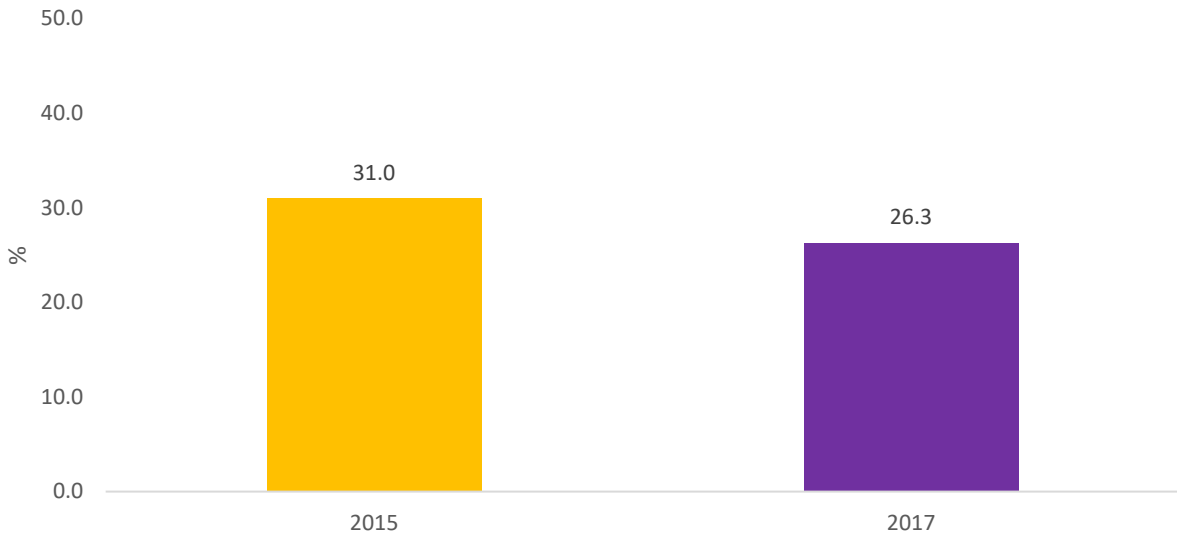
⁶ Keyes, C. L. M. (2005). Mental illness and/or mental health? investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology, 73*(3), 539-548.

⁷ Rowan, P. J., Haas, D., Campbell, J. A., Maclean, D. R., & Davidson, K. W. (2005). Depressive symptoms have an independent, gradient risk for coronary heart disease incidence in a random, population-based sample. *Annals of Epidemiology, 15*(4), 316-320.

⁸ Schuch, F., Vancampfort, D., Firth, J., Rosenbaum, S., Ward, P., Reichert, T., . . . Stubbs, B. (2016;2017). Physical activity and sedentary behavior in people with major depressive disorder. *Journal of Affective Disorders, 210*, 139-150.

¹⁰ National Alliance on Mental Illness. (2018). Mental health by the numbers. Accessed <https://www.nami.org/learn-more>

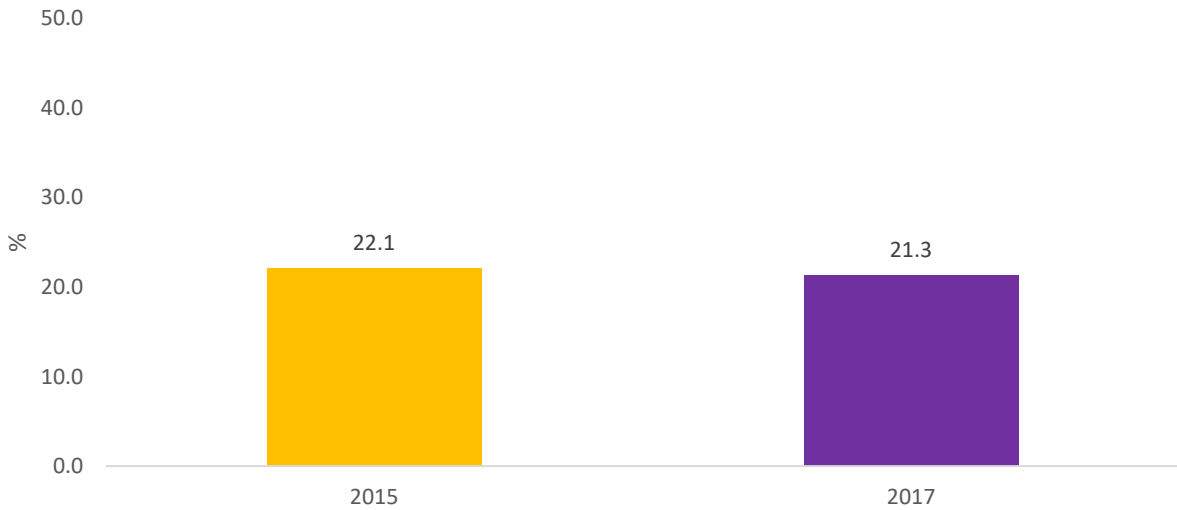
Figure 33: Percentage of Middle School Students Who Ever* Felt Sad or Hopeless, Washoe County, 2015 and 2017 Comparison



*Almost every day for 2 or more weeks in a row so that they stopped doing some usual activities, one or more times during their life

- The percentage of middle school students who reported feeling sad or hopeless one or more times during their life decreased from 2015 (31.0%) to 2017 (26.3%).

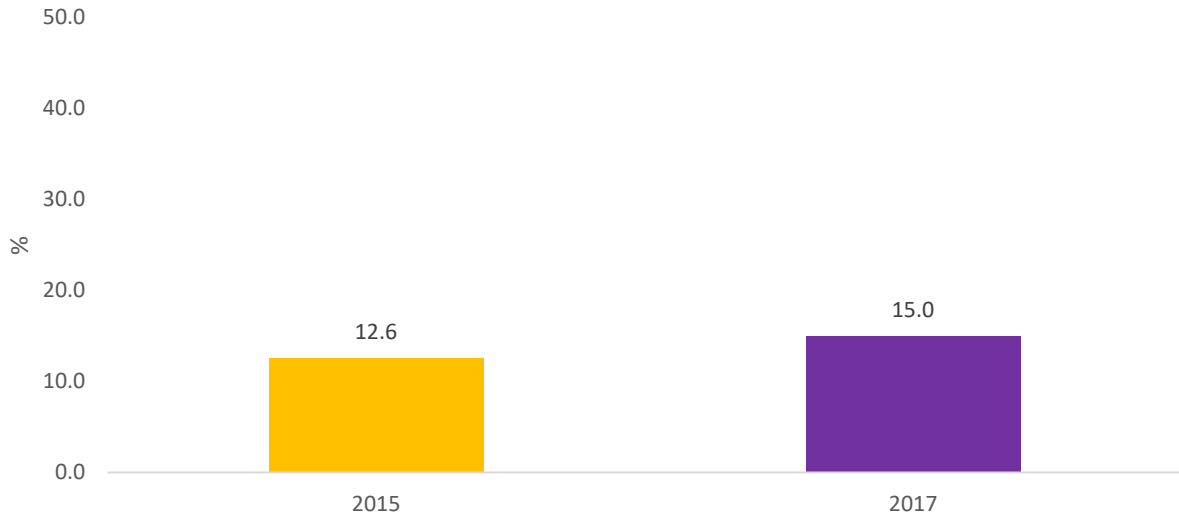
Figure 34: Percentage of Middle School Students Who Ever* Seriously Considered Attempting Suicide, Washoe County, 2015 and 2017 Comparison



*One or more times during their life

- The percentage of Washoe County middle school students who have ever seriously considered attempting suicide decreased from 2015 (22.1%) to 2017 (21.3%).

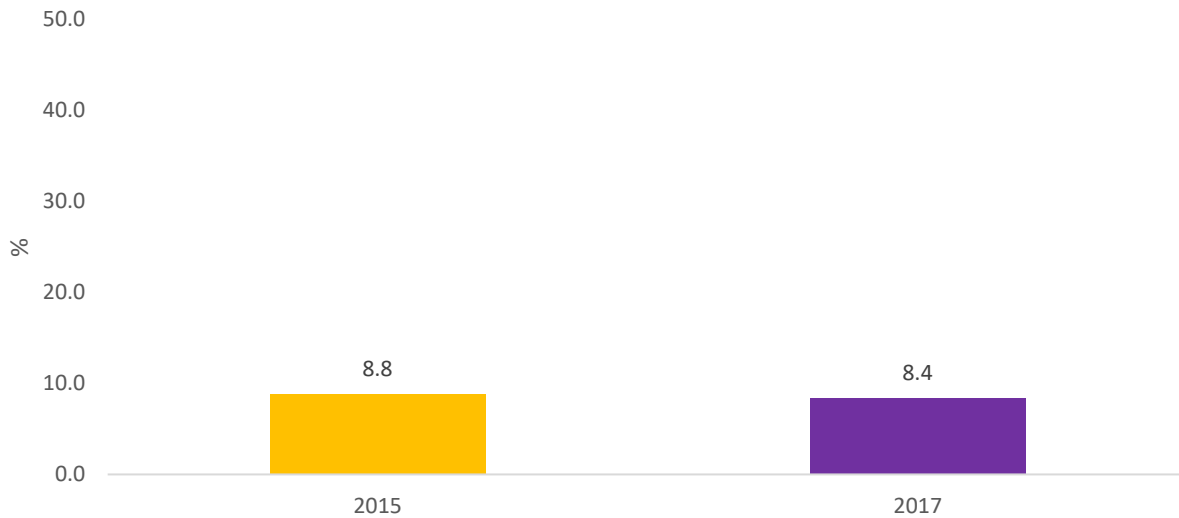
Figure 35: Percentage of Middle School Students Who Have Ever* Made a Plan About How to Commit Suicide, Washoe County, 2015 and 2017 Comparison



*One or more times during their life

- The percentage of middle school students in Washoe County who reported ever making a plan to commit suicide increased from 2015 (12.6%) to 2017 (15.0%).

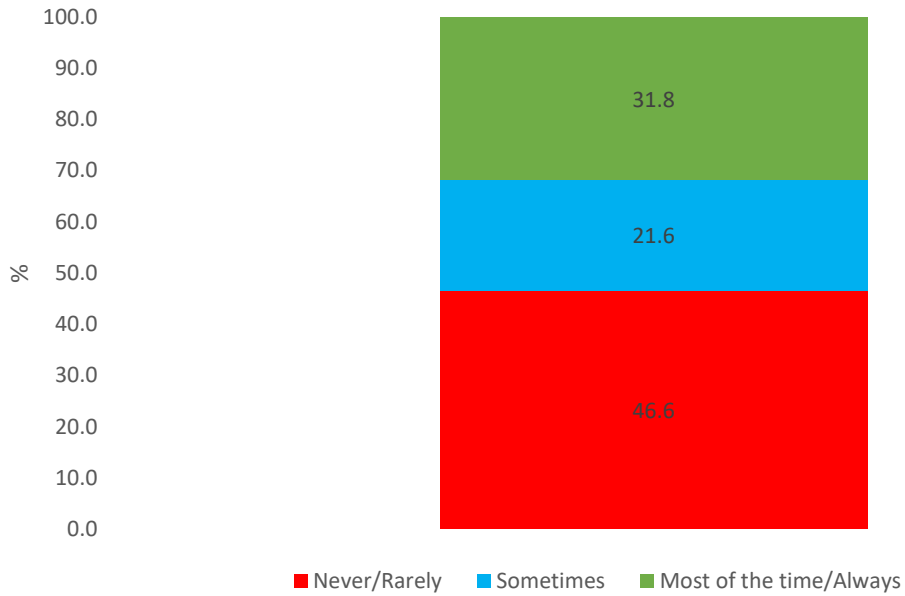
Figure 36: Percentage of Middle School Students Who Ever* Attempted Suicide, Washoe County, 2015 and 2017 Comparison



*One or more times during their life

- The percentage of middle school students in Washoe County who reported attempting suicide one or more times during their life decreased from 2015 (8.8%) to 2017 (8.4%).

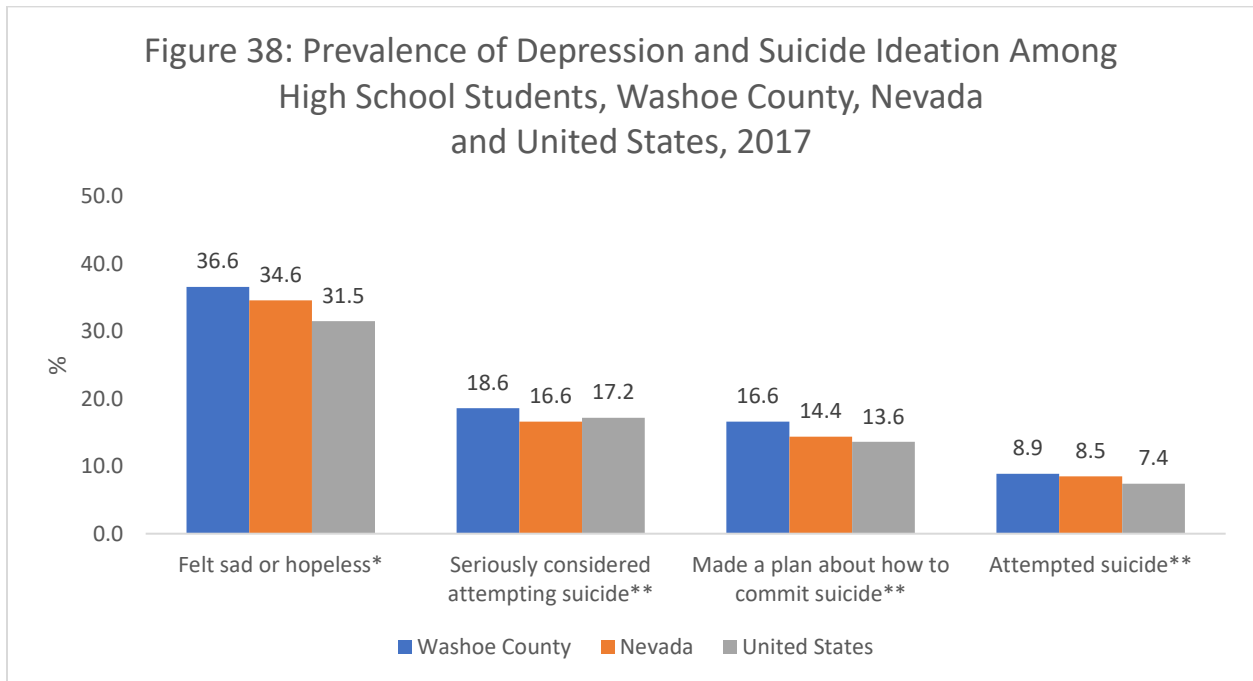
Figure 37: Percentage of Middle School Students* Who Got the Kind of Help They Need When They Felt Sad, Empty, Hopeless, Angry, or Anxious, Washoe County, 2017



*Among those who reported feeling sad, empty, hopeless, or anxious

- Among middle school students who reported feeling sad, empty, hopeless, or anxious, 46.6% reported never or rarely receiving the help they needed.

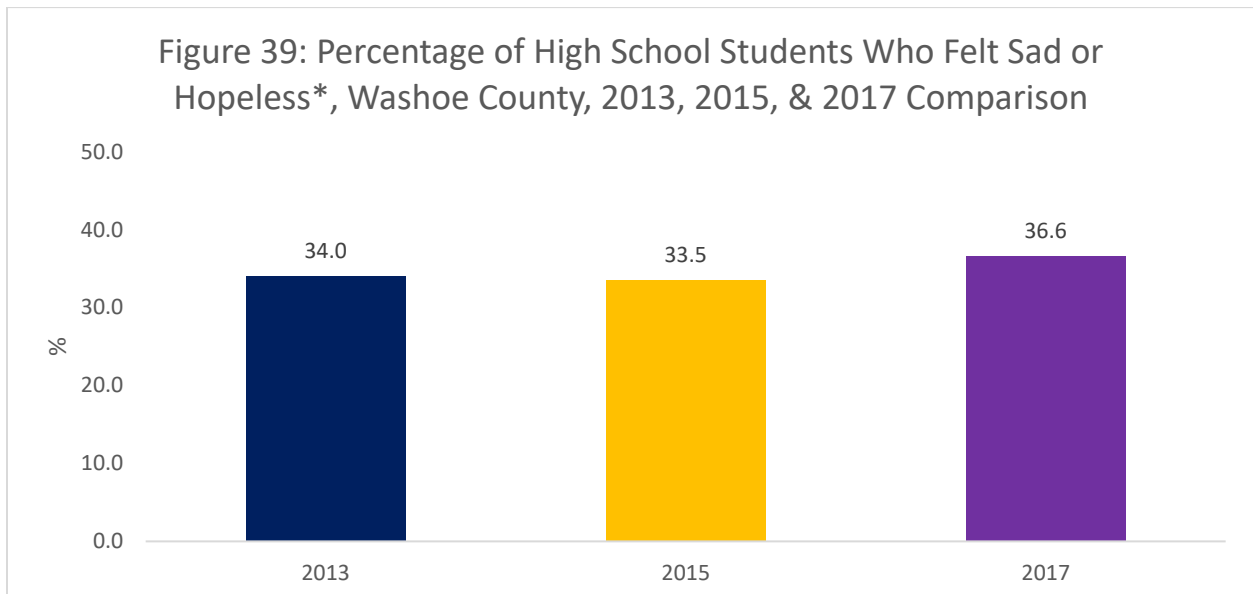
High School Students



*Almost every day for 2 or more weeks in a row so that they stopped doing some usual activities, during the 12 months before the survey

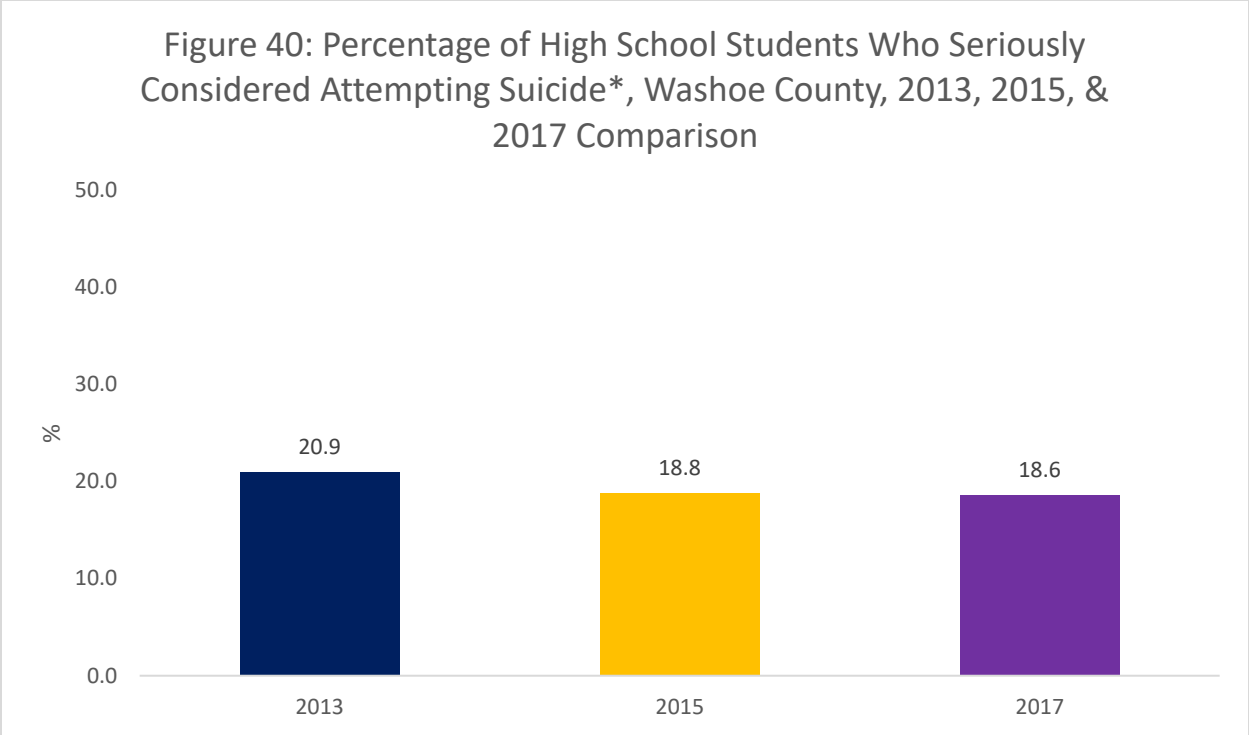
**During the 12 months before the survey

- In 2017, the prevalence of depression and suicide ideation among high school students in Washoe County was higher than Nevada and the United States.



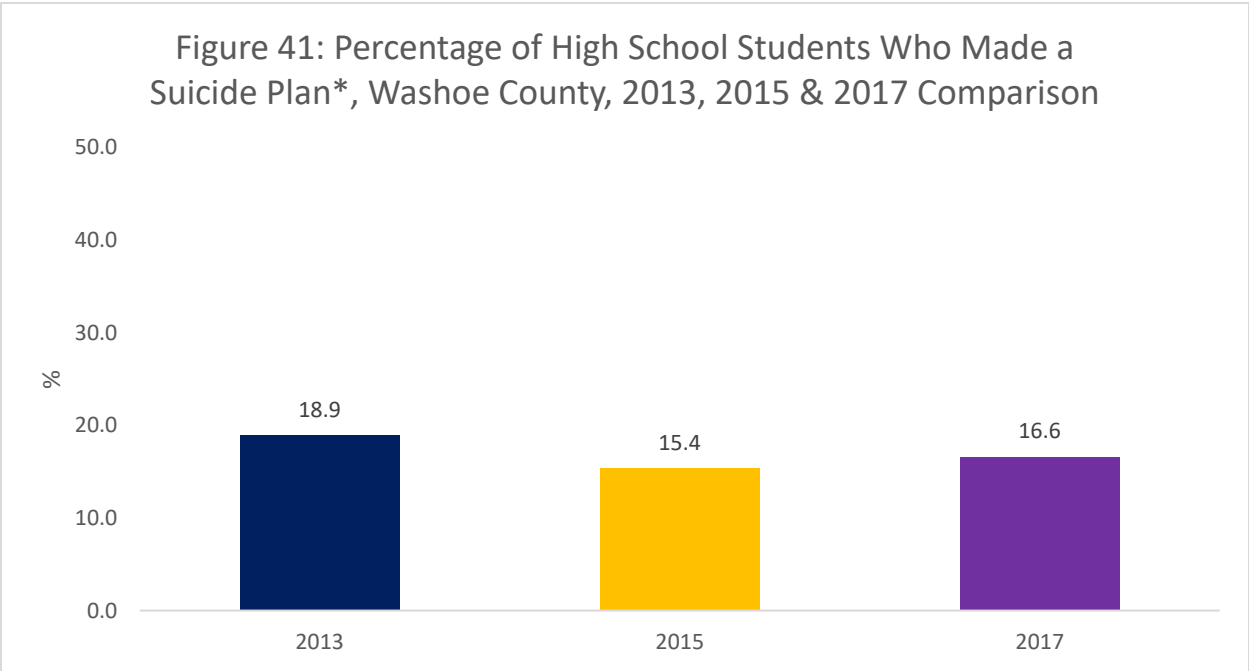
*Almost every day for 2 or more weeks in a row so that they stopped doing some usual activities, during the 12 months before the survey

- The percentage of high school students in Washoe County who reported feeling sad or hopeless almost every day for two or more weeks increased from 2013 (34.0%) to 2017 (36.6%).



*During the 12 months prior to the survey

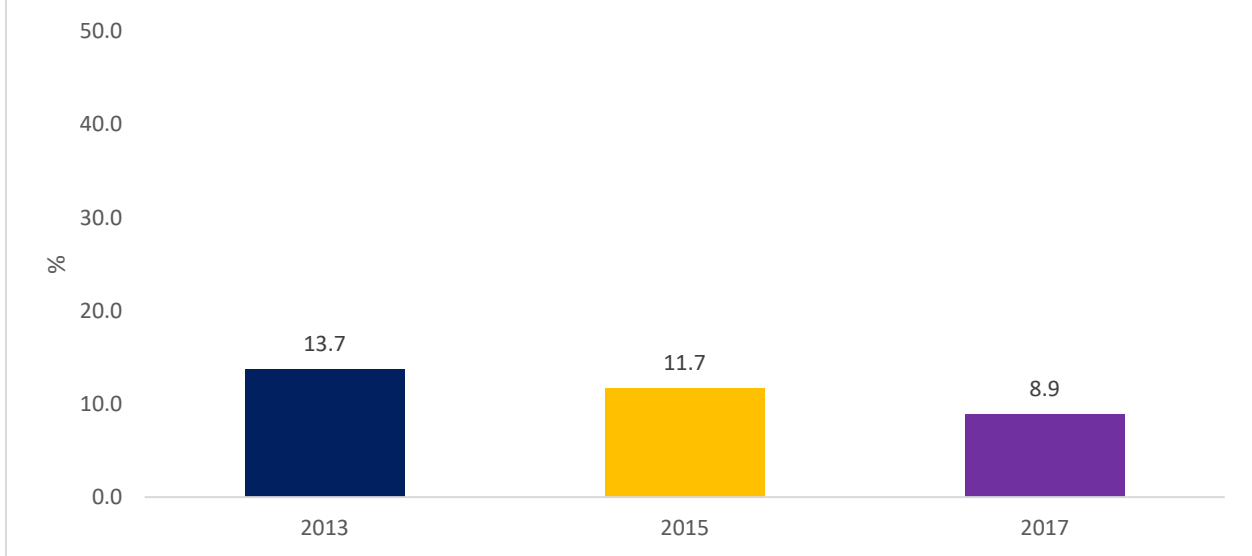
- The percentage of Washoe County high school students who reported they had seriously considered attempting suicide during the previous 12 months decreased from 2013 (20.9%) to 2017 (18.6%).



*During the 12 months prior to the survey

- The percentage of high school students in Washoe County who reported making a plan to commit suicide during the previous 12 months decreased from 2013 (18.9%) to 2017 (16.6%).

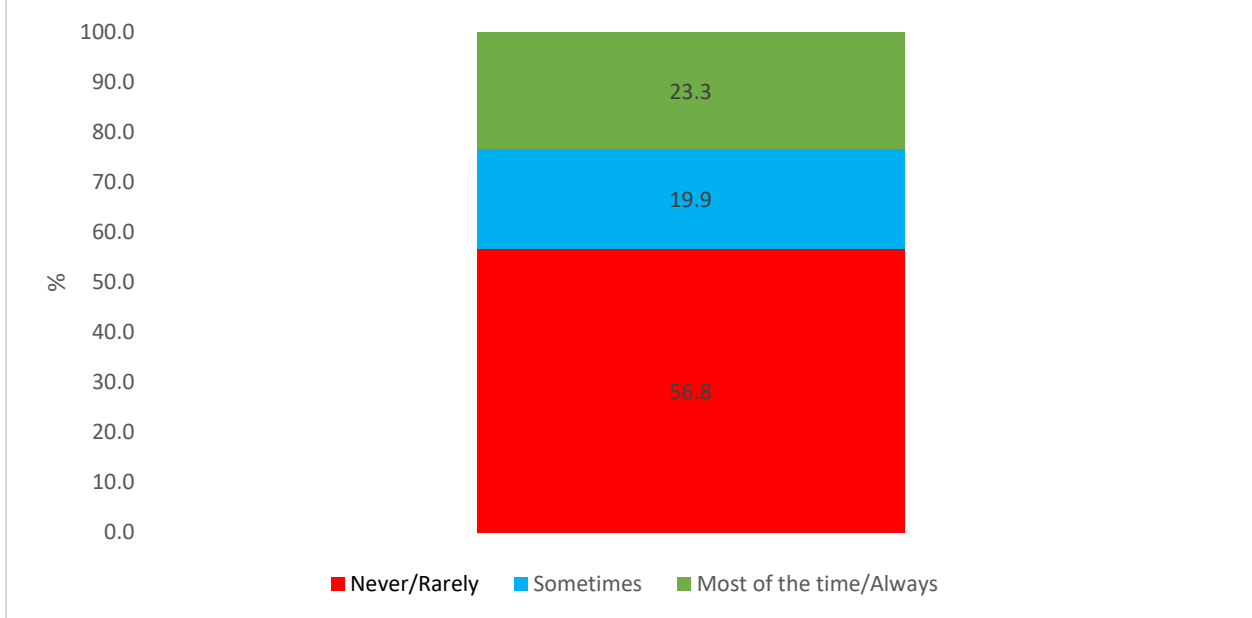
Figure 42: Percentage of High School Students Who Attempted Suicide*, Washoe County, 2013, 2015 & 2017



*One or more times during the 12 months prior to the survey

- The percentage of high school students in Washoe County who reported attempting suicide one or more times over the previous 12 months decreased from 2013 (13.7%) to 2017 (8.9%).

Figure 43: Percentage of High School Students* Who Got the Kind of Help They Need When They Felt Sad, Empty, Hopeless, Angry, or Anxious, Washoe County, 2017



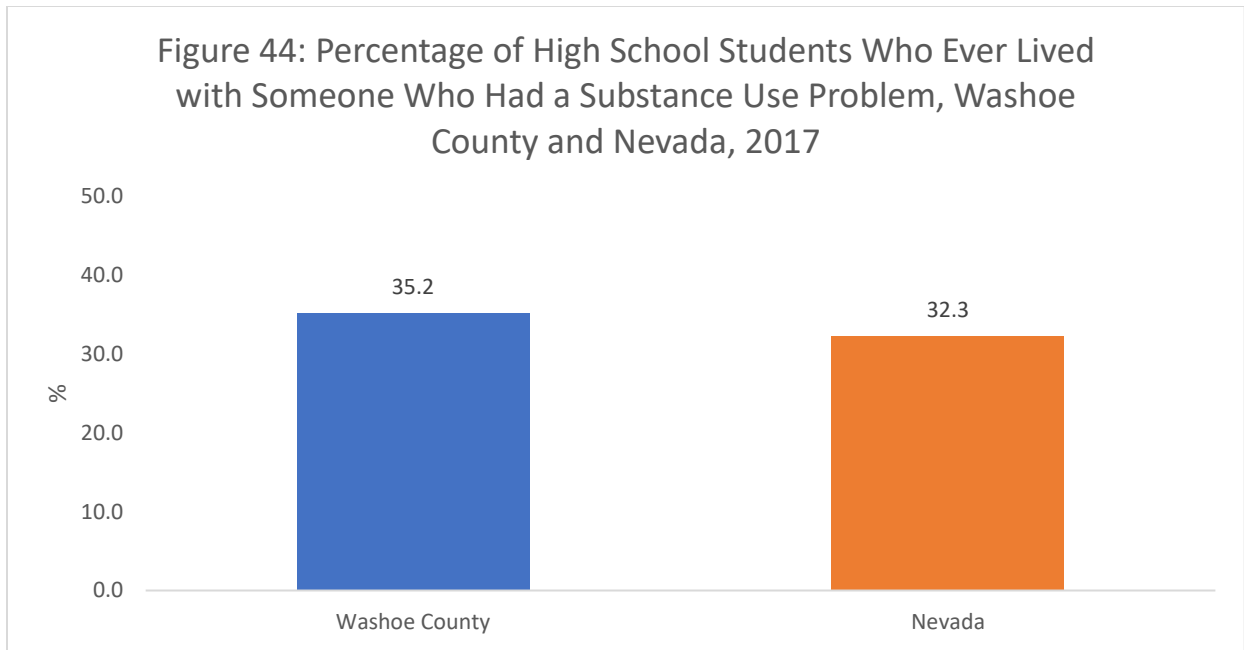
*Among those who reported feeling sad, empty, hopeless, or anxious

- In 2017, among high school students who reported feeling sad, empty, hopeless, or anxious, 56.8% reported never or rarely receiving the help they needed.

Lifetime prevalence factors of Adverse Childhood Experiences (ACEs)

The Nevada Youth Risk Behavior Survey incorporated five state-added questions designed to assess the lifetime prevalence of adverse childhood experiences (ACE) of high school students in Nevada. These five questions explore 1) household substance use; 2) household mental illness; 3) forced sexual intercourse; 4) physical abuse by an adult; and 5) household domestic violence.

For each increase in the number of ACEs experienced there is a correlated increase in the prevalence of poor health outcomes throughout the lifespan.¹¹ Exposure to chronic stressful events during childhood can disrupt social, emotional, and cognitive development which can impact a child's ability to effectively manage emotions. Unhealthy coping mechanisms, such as substance use, high-risk sexual behaviors or self-harm, may be adopted and can contribute to a wide range of health and social consequences.¹² ACEs have been linked to more than 40 negative health outcomes including chronic health conditions, smoking, alcoholism, drug use, depression, attempted suicide, unintended pregnancies, and poor work/school performance among others.¹³ The following figures depict point in time prevalence rates among Washoe County high school students for ACEs.



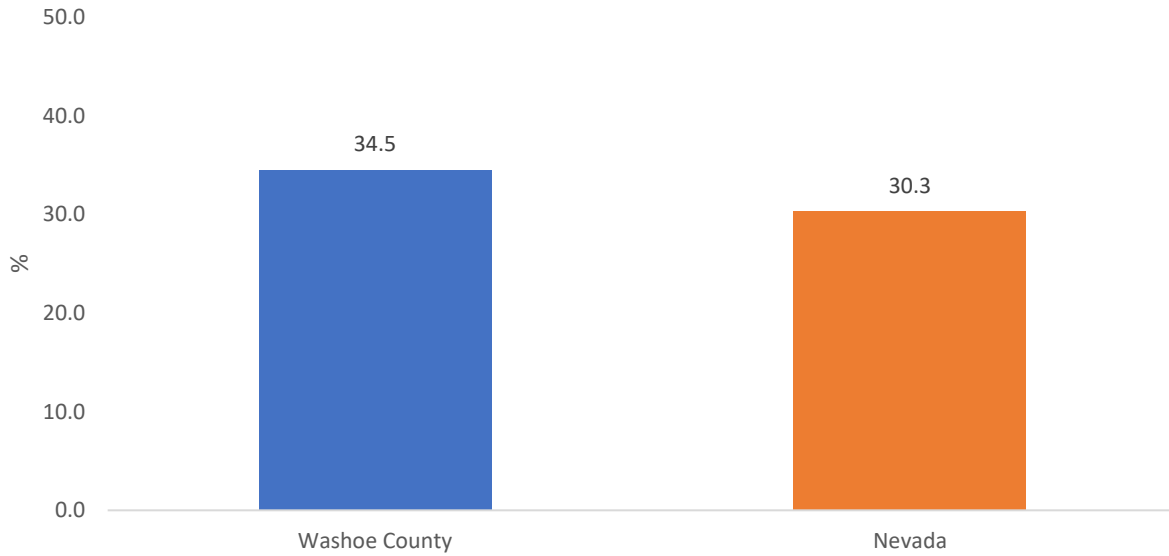
- In 2017, the percentage of high school students who ever lived with someone who was a problem drinker, alcoholic, or abused street or prescription drugs was higher in Washoe County (35.2%) than Nevada (32.3%).

¹¹ Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., . . . Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine, 14*(4), 245-258.

¹² Substance Abuse and Mental Health Services Administration. (2018). Adverse childhood experiences. Accessed <https://www.samhsa.gov/capt/practicing-effective-prevention/prevention-behavioral-health/adverse-childhood-experiences>

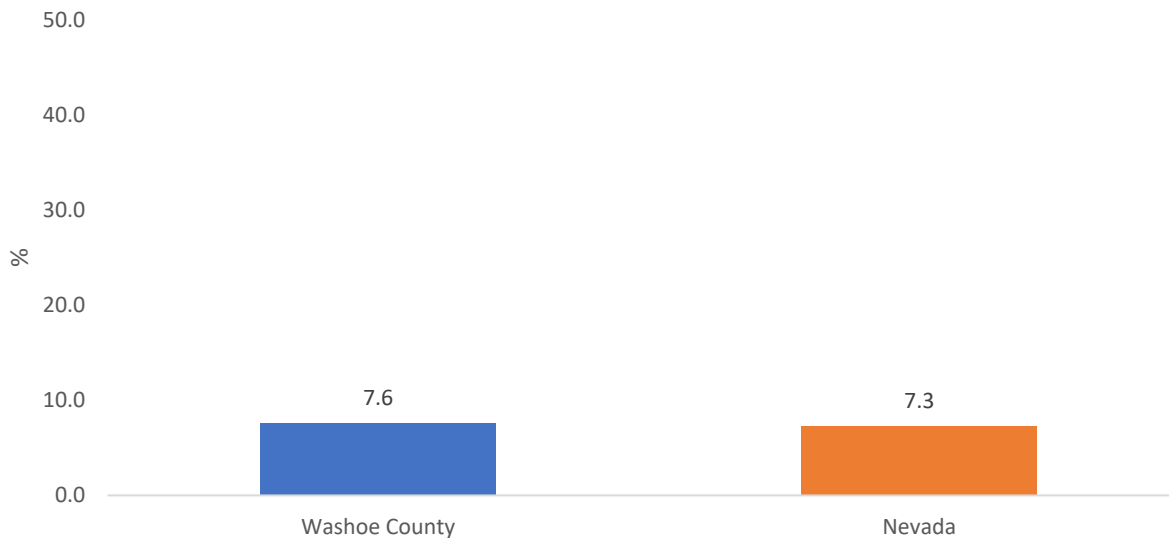
¹³ Centers for Disease Control and Prevention. (2016). About adverse childhood experiences. Accessed https://www.cdc.gov/violenceprevention/acestudy/about_ace.html

Figure 45: Percentage of High School Students Who Ever Lived with Someone Who Was Mentally Ill, Washoe County and Nevada, 2017



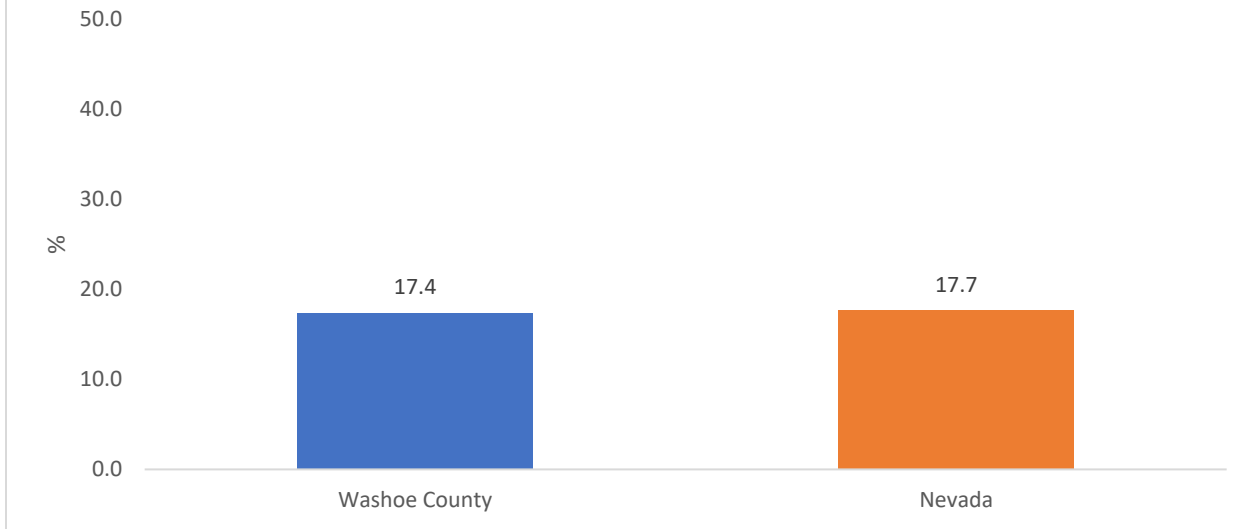
- In 2017, the percentage of high school students who ever lived with someone who was depressed, mentally ill, or suicidal was higher in Washoe County (34.5%) than Nevada (30.3%).

Figure 46: Percentage of High School Students Who Were Ever Forced to Engage in Unwanted Sexual Intercourse, Washoe County and Nevada, 2017



- In 2017, the percentage of Washoe County high school students who reported ever being physically forced to have sexual intercourse when they did not want to, was higher in Washoe County (7.6%) than Nevada (7.3%).

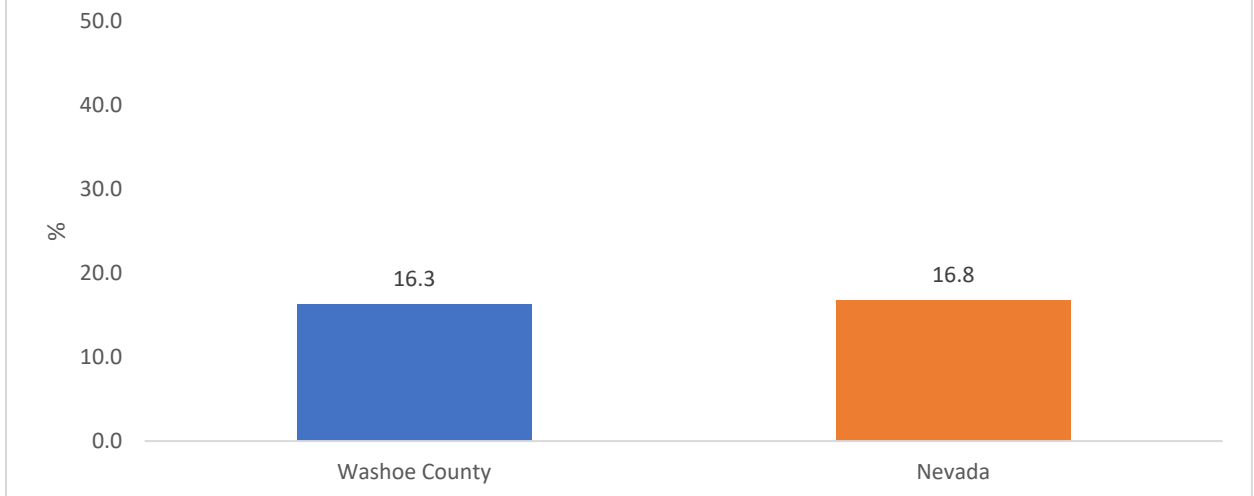
Figure 47: Percentage of High School Students Who Have Ever Been Physically Abused* by an Adult, Washoe County and Nevada, 2017



* Excluding spanking for bad behavior

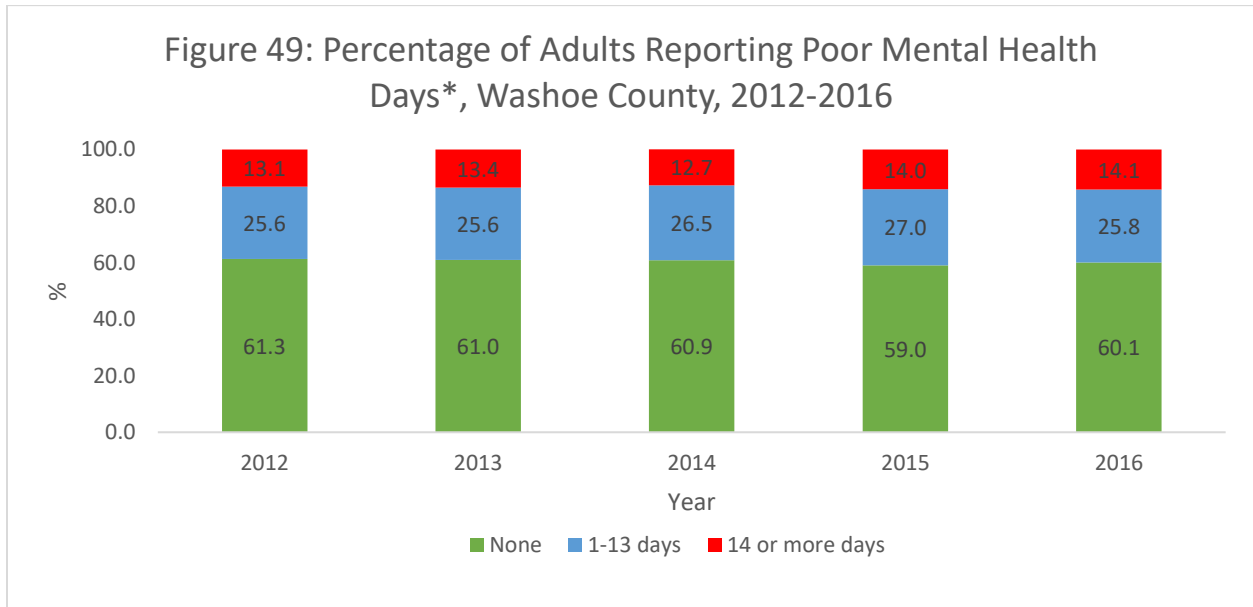
- In 2017, the percentage of high school students who have ever been hit, beaten, kicked, or physically hurt in any way by an adult was lower in Washoe County (17.4%) than in Nevada (17.7%).

Figure 48: Percentage of High School Students Who Have Ever Experienced Household Domestic Violence, Washoe County and Nevada, 2017



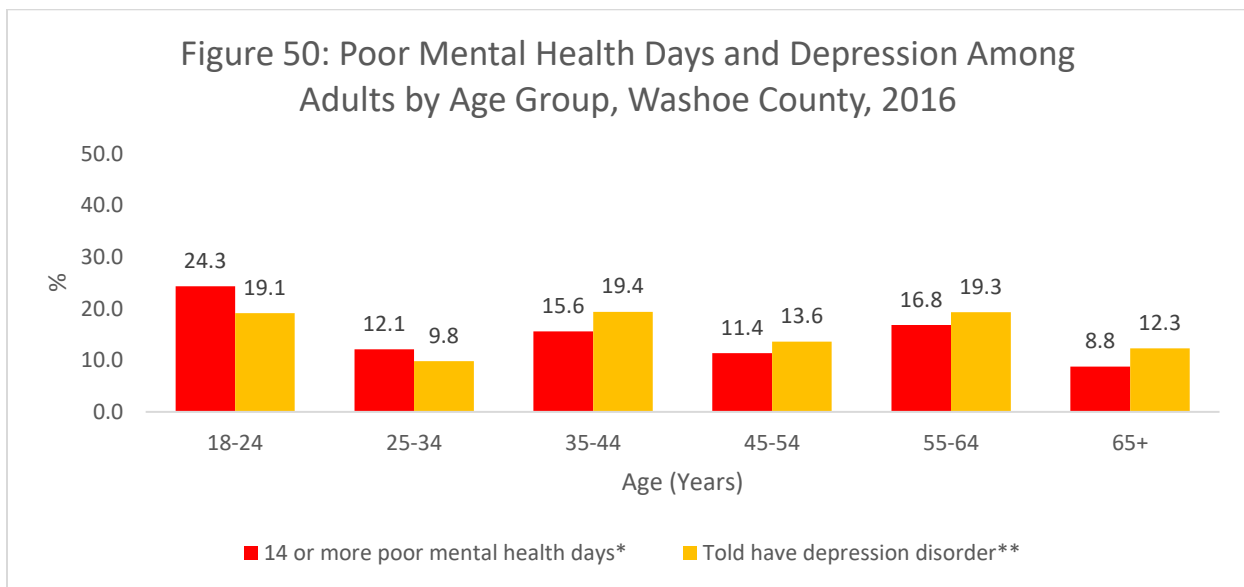
- In 2017, the percentage of high school students who have ever seen adults in their home slap, hit, kick, punch, or beat each other up was lower in Washoe County (16.3%) than in Nevada (16.8%).

Adults



*During the prior 30 days

- The percentage of Washoe County adults who report having experienced 14 or more poor mental health days during the prior 30 days has increased from 2012 (13.1%) to 2016 (14.1%).

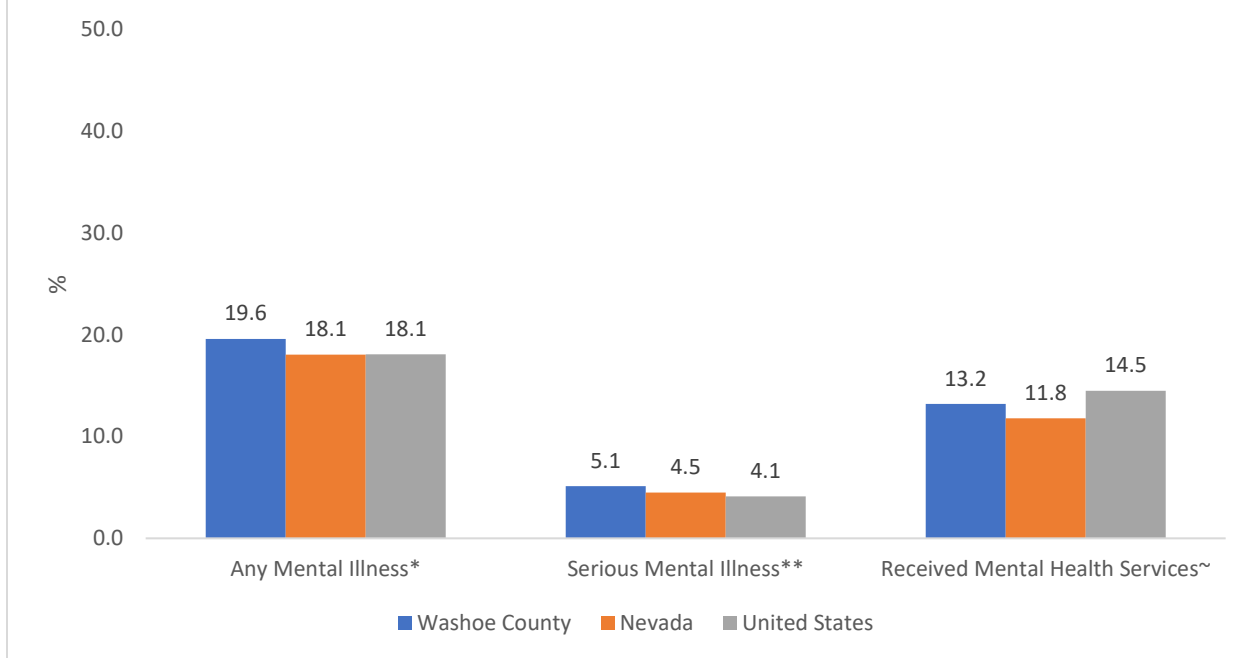


*During prior 30 days

**Including depression, major depression, dysthymia, or minor depression

- In 2016, Washoe County residents who reported experiencing 14 or more poor mental health days during the prior 30 days was highest among residents aged 18 to 24 years (24.3%) followed by residents aged 55 to 64 years (16.8%).
- Washoe County adults who have ever been told by a doctor, nurse, or other health care professional they have a depression disorder was highest among those aged 35 to 44 (19.4%) followed closely by those aged 55 to 64 years (19.3%) and 18 to 24 years (19.1%).

Figure 51. Any Mental Illness, Serious Mental Illness, and Received Mental Health Services in the Past Year Among Adults, 2014-2016 Aggregate Data



*Any mental illness (AMI) is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder.

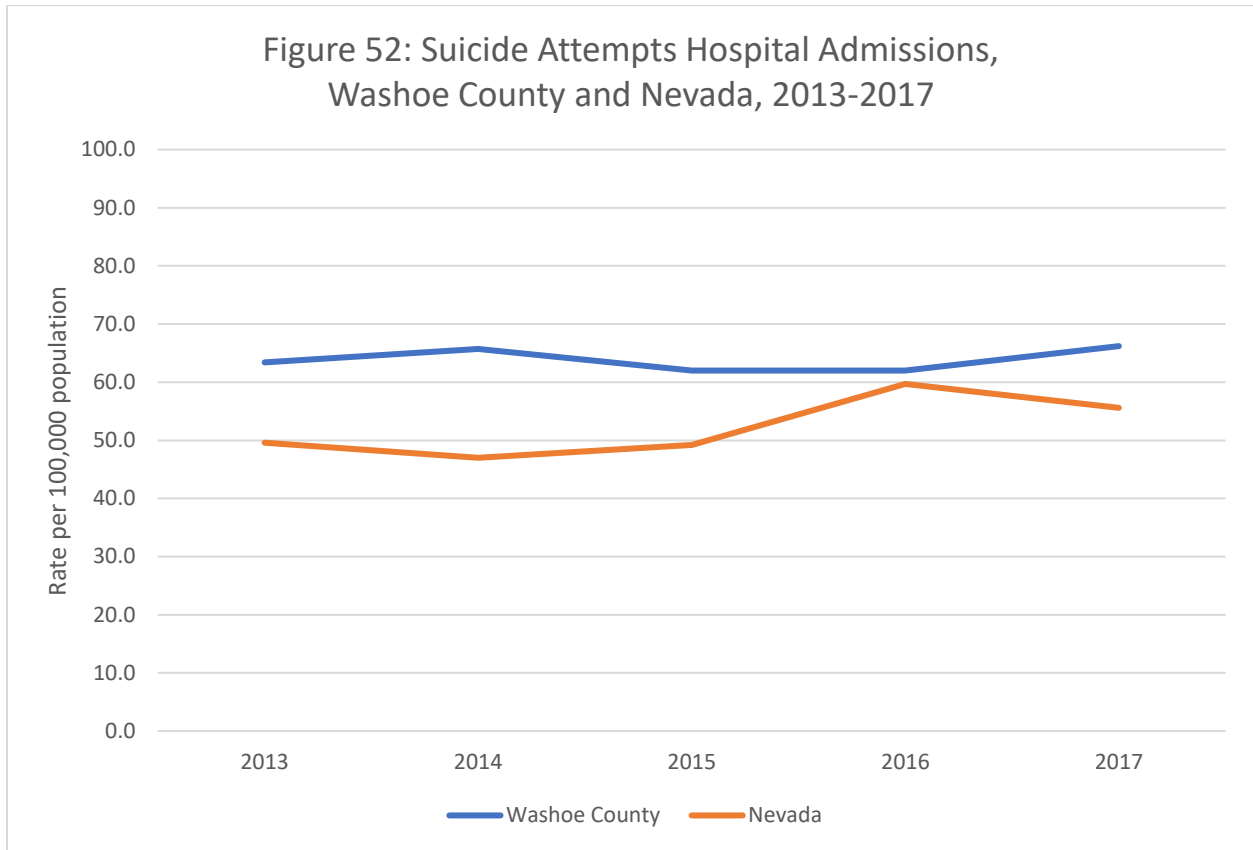
**Serious mental illness (SMI) is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder. SMI includes individuals with diagnoses resulting in serious functional impairment.

~Mental health services are defined as having received inpatient treatment/counseling or outpatient treatment/counseling or having used prescription medication for problems with emotions, nerves, or mental health. Respondents were not to include treatment for drug or alcohol use.

- On average from 2012 to 2014, the percentage of adults in Washoe County who experienced any mental illness (19.6%) and serious mental illness (5.1%) was higher than Nevada and the United States, however the percentage of adults who received mental health services in the past year was lower in Washoe County (13.2%) compared to the United States (14.5%).

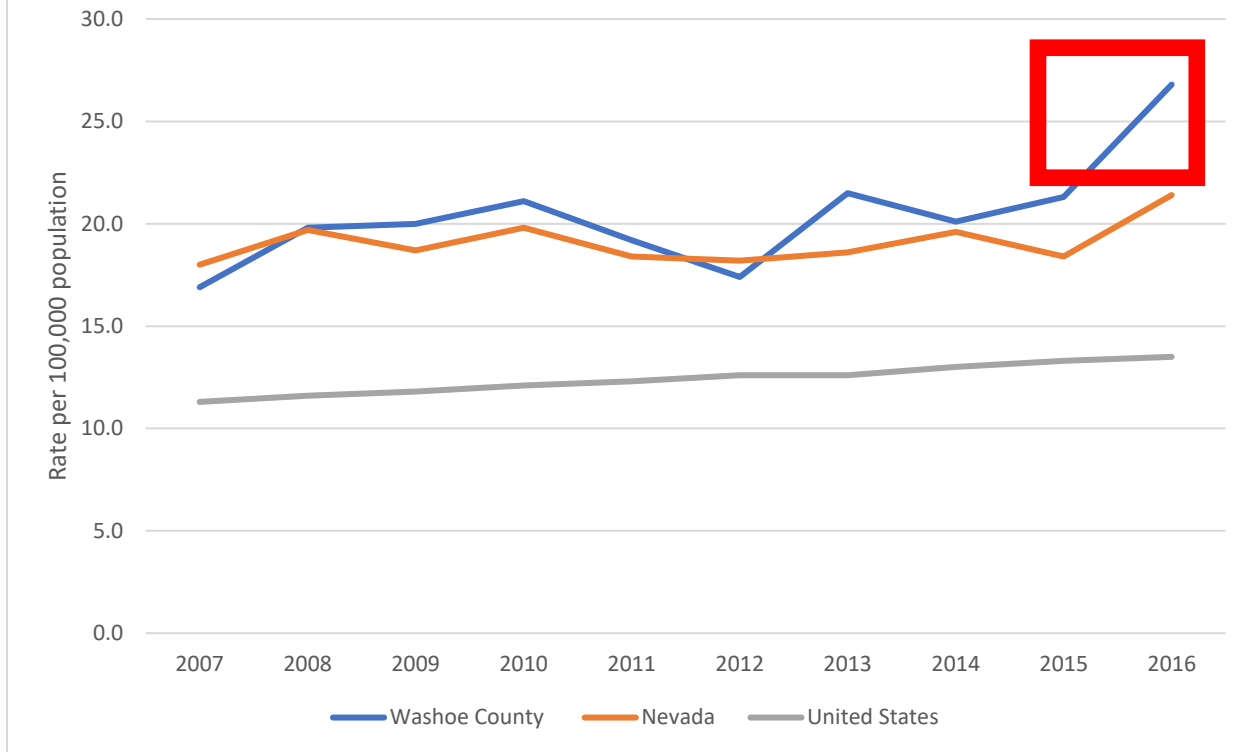
Suicide

Suicide was the 7th leading cause of death among residents in Nevada in 2016 compared to the 10th leading cause of death among residents in the United States.¹⁴



- The rate of suicide attempts resulting in a hospital admission in Washoe County increased from 2013 (63.4 per 100,000 population) to 2017 (66.2 per 100,000 population).
- From 2013 to 2017, the rate of suicide attempts resulting in a hospital admission in Washoe County was higher than in Nevada.

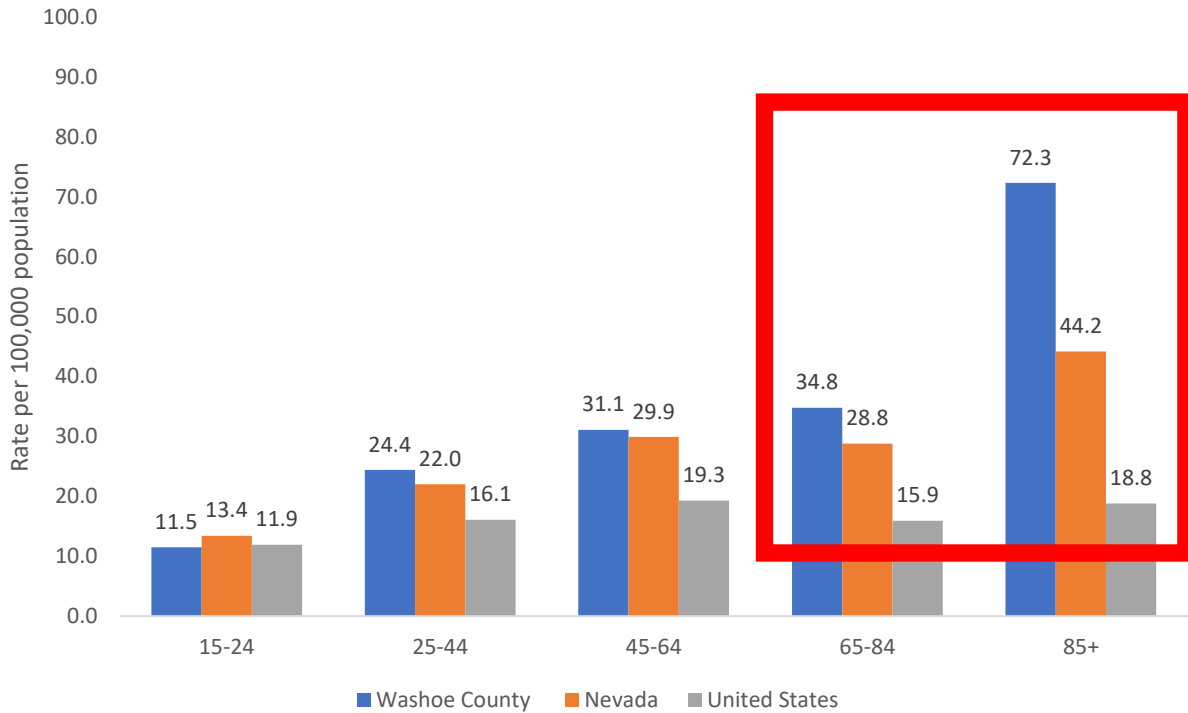
Figure 53: Age-Adjusted Rate of Death Due to Suicide/Intentional Self-Harm, Washoe County, Nevada, and United States, 2007-2016



ICD-10 Codes used for analysis: U03 (Terrorism Intentional [Suicide]), X60-X84 (Intentional Self-harm), Y87 (Sequelae of intentional self-harm, assaults and events of undetermined intent)

- In 2016, the age-adjusted rate of death due to intentional self-harm in Washoe County (26.8 per 100,000 people) was nearly double the rate of the United States (13.5 per 100,000 people).
- From 2006 to 2016, the average suicide rate in Washoe County (20.4 per 100,000 population) was higher than Nevada (19.1 per 100,000 population) and the United States (12.4 per 100,000 population).

Figure 54: Death Due to Suicide/Intentional Self-Harm by Age Group, Washoe County, Nevada, and United States, 2012-2016 Aggregate Data



ICD-10 Codes used for analysis: U03 (Terrorism Intentional [Suicide]), X60-X84 (Intentional Self-harm), Y87 (Sequelae of intentional self-harm, assaults and events of undetermined intent)

- Aggregate data from 2012 to 2016 indicate the rate of death due to suicide in Washoe County increased as age increased.
- The rate of death due to suicide among Washoe County residents aged 85+ (72.3 per 100,000 population) was more than six times the rate among residents aged 15-24 years (11.5 per 100,000 population).
- The rate of death due to suicide among those aged 85+ in Washoe County was nearly four times the rate for the United States, and the rate of death due to suicide among those aged 65 to 84 years in Washoe County was more than double the United States.

Summary of Mental Health

In 2017, more than one in four of Washoe County middle school students reported having experienced feeling sad or hopeless almost every day for two or more weeks in a row so that they stopped doing some usual activities, a rate that was lower than Nevada. The rate of having ever attempted suicide among middle school students in Washoe County was greater than Nevada. Among middle school students who felt sad, empty, hopeless, angry, or anxious 46.6 percent reported rarely or never receiving the kind of help they needed.

In 2017, more than one in three of Washoe County high school students reported feeling sad or hopeless for two or more weeks during the previous year, a rate that was higher than Nevada and the United States. Additionally, the rate of attempted suicide among high school students in Washoe County was greater than Nevada and the United States, however, this number has decreased since 2013. Among high school students who felt sad, empty, hopeless, angry, or anxious 56.8 percent reported rarely or never receiving the kind of help they needed. More than one in three high school students in Washoe County reported they have been exposed to household substance use and mental illness.

In 2016, 14.1 percent of adults in Washoe County reported having experienced two or more weeks of poor mental health days including high levels of stress, depression, and problems with emotions during the prior month. The percent of adults in Washoe County experiencing any mental illness, serious mental illness, or major depressive disorder was slightly higher compared to Nevada and the United States.

From 2007 to 2016, the age-adjusted rate of death due to suicide increased from 16.9 per 100,000 population to 26.8 per 100,000 population in Washoe County. In 2016, the age-adjusted rate of death due to suicide was higher in Washoe County compared to Nevada and the United States. The rate of death due to suicide among those aged 85+ in Washoe County was nearly four times greater than the United States, and the rate among those aged 65 to 84 years in Washoe County was more than double the United States.

¹⁵ Centers for Disease Control and Prevention. (2017). Heroin overdose data. Accessed <https://www.cdc.gov/drugoverdose/data/heroin.html>

¹⁶ Centers for Disease Control and Prevention. (2016). Reported law enforcement encounters testing positive for fentanyl increased across US. Accessed <https://www.cdc.gov/drugoverdose/data/fentanyl-le-reports.html>

Behavioral Health Services

Table 8: Behavioral Health Workforce, 2016

| | Number per 100,000 population | | |
|--|-------------------------------|--------|---------------|
| | Washoe County | Nevada | United States |
| Alcohol, Drug, and Gambling Counselors | 65.7 | 42.1 | 79.3 |
| Clinical Professional Counselors | 4.0 | 3.4 | 45.6 |
| Marriage and Family Therapists | 59.7 | 25.2 | 12.6 |
| Psychiatrists | 11.8 | 6.8 | 11.1 |
| Psychologists | 32.4 | 13.4 | 50.8 |
| Licensed Clinical Social Workers | 37.3 | 24.0 | 51.1 |
| Licensed Social Workers | 79.2 | 42.6 | 207.8 |

Important considerations regarding behavioral health care providers:

- Are they currently accepting new patients?
- Do they accept patients covered by Medicaid?
- Residents of rural communities may receive behavioral health services in Washoe County.
- Do they offer bilingual services?

Table 9: Behavioral Health Emergency Department Visits, Washoe County & Nevada, 2017

| Condition | Washoe County | | Nevada | |
|-------------------|-----------------------------------|------|-----------------------------------|------|
| | Crude rate per 100,000 population | % | Crude rate per 100,000 population | % |
| Anxiety | 2,352.7 | 28.1 | 1,787.0 | 26.7 |
| Drug-Related | 1,538.3 | 18.4 | 1,259.5 | 18.8 |
| Alcohol-Related | 1,376.6 | 16.5 | 971.2 | 14.5 |
| Depression | 1,333.0 | 15.9 | 1,039.6 | 15.5 |
| Bipolar Disorder | 720.6 | 8.6 | 580.2 | 8.6 |
| Suicidal Ideation | 412.7 | 4.9 | 476.0 | 7.1 |
| Schizophrenia | 322.0 | 3.8 | 306.9 | 4.6 |
| PTSD | 231.2 | 2.8 | 173.7 | 2.6 |
| Suicide Attempts | 81.4 | 1.0 | 108.8 | 1.6 |

*Categories are not mutually exclusive – one patient can have one or multiple conditions present at the time of emergency department visit one patient can have more than one visit

- In 2017, the top conditions seen in emergency departments in Washoe County were anxiety (28.1% of encounters), drug-related (18.4%), alcohol-related (16.5%), and depression (15.9%).

Table 10: Behavioral Health Inpatient Admissions, Washoe County & Nevada, 2017

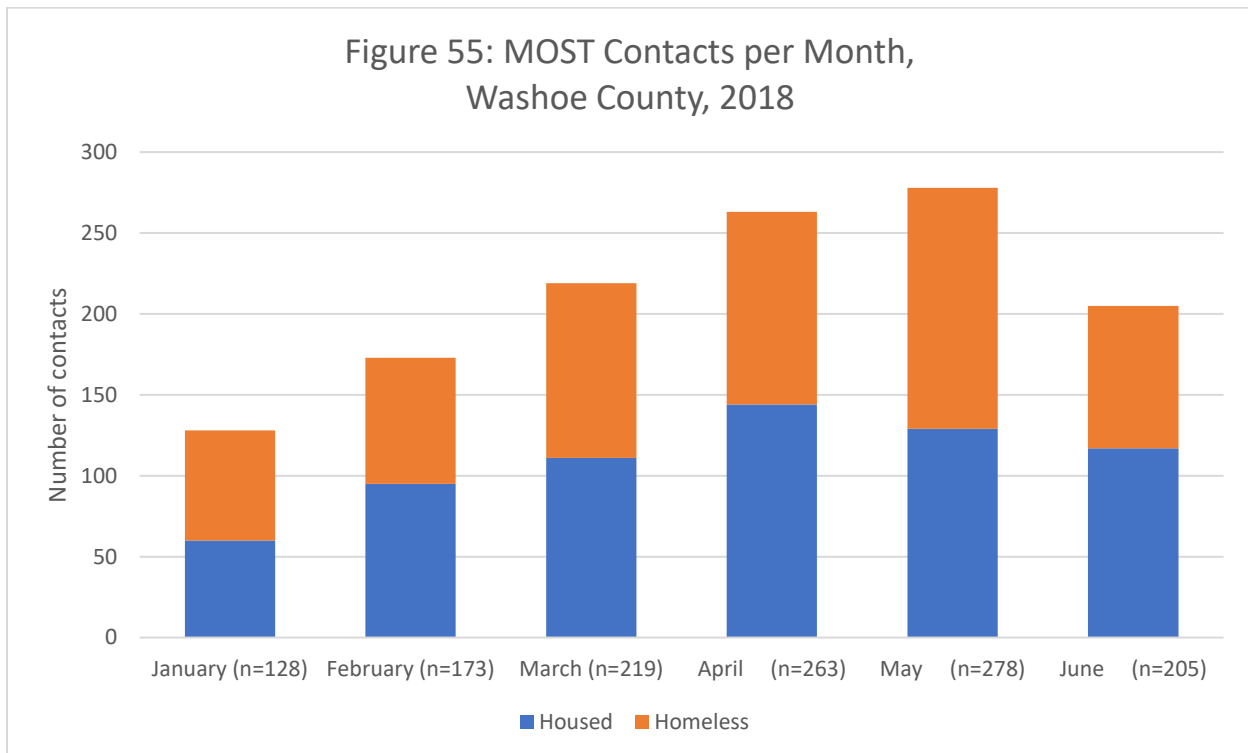
| Condition | Washoe County | | Nevada | |
|-------------------|--------------------------------------|------|--------------------------------------|------|
| | Crude Rate per 100,000 population | % | Crude Rate per 100,000 population | % |
| Depression | 1,201.3 | 21.8 | 1,134.5 | 32.8 |
| Drug-Related | 1,140.0 | 20.7 | 751.0 | 0.3 |
| Anxiety | 1,107.3 | 20.1 | 1,054.7 | 30.5 |
| Alcohol-Related | 922.7 | 16.7 | 441.9 | 0.2 |
| Suicidal Ideation | 426.8 | 7.7 | 426.4 | 12.3 |
| Bipolar Disorder | 332.2 | 6.0 | 428.2 | 12.4 |
| PTSD | 225.4 | 4.1 | 163.8 | 4.7 |
| Schizophrenia | 93.7 | 1.7 | 180.7 | 5.2 |
| Suicide Attempts | 66.2 | 1.2 | 53.8 | 1.6 |

*Categories are not mutually exclusive – one patient can have one or multiple conditions present at the time of admission and one patient can have more than one admission

- In 2017, the top conditions that led to an inpatient admission in Washoe County were depression (21.8% of admissions), drug-related (20.7%), anxiety (20.1%), and alcohol-related (16.7%).
- The crude rate per 100,000 population of alcohol-related inpatient admissions in Washoe County was more than double the rate in Nevada.

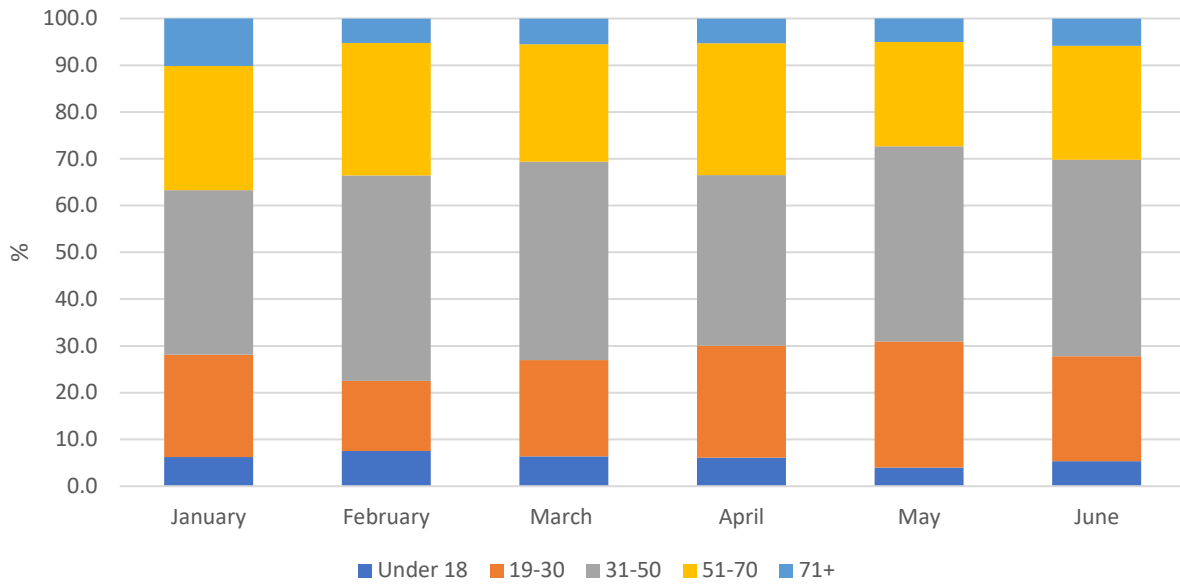
Mobile Outreach Safety Team (MOST)

MOST (Mobile Outreach Safety Team) is a law enforcement/mental health co-response team in Washoe County designed to provide early and voluntary crisis intervention services to avoid emergency room visits/hospitalizations and reduce calls for service. The mental health component of the MOST team was expanded to five therapists and a case manager in 2018, employed by the Washoe County Human Services Agency, thanks to additional funding provided by the Nevada Legislature through SB 192 (2017 legislative session). The expansion allows for coverage 7 days a week, on day and swing shifts. The mental health team responds with law enforcement to calls for service with individuals whose mental illness may be a danger to the community or themselves, providing skilled therapeutic intervention and referrals to community resources.



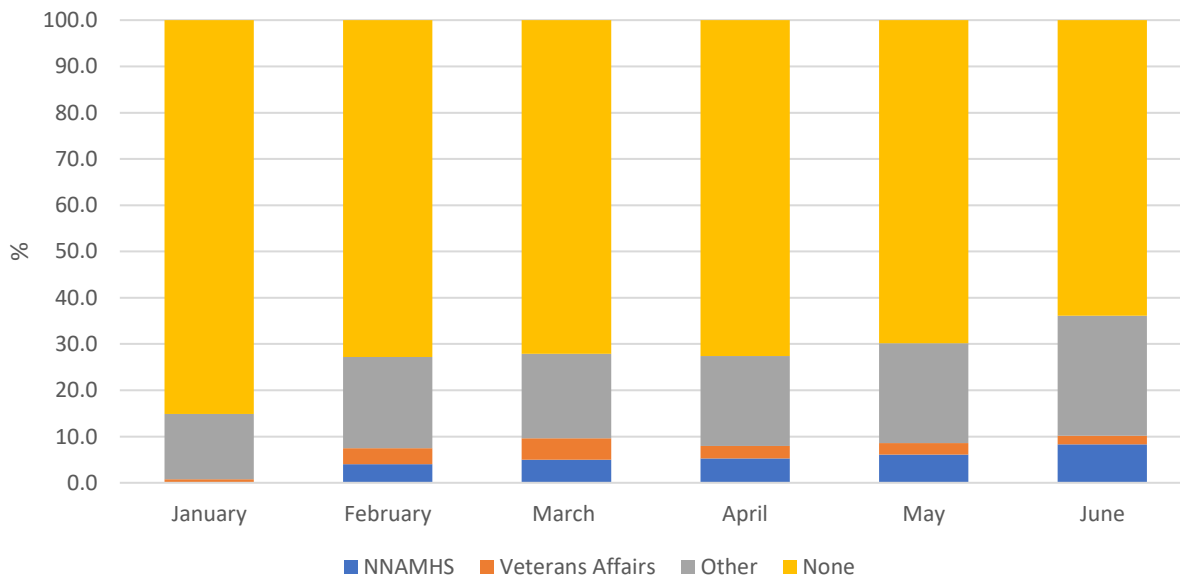
- The number of MOST contacts each month has increased from January to June.
- In May of 2018 54% of the MOST contacts made were with individuals who were homeless at the time of the contact. This is the only month between January and June that more contacts were made with individuals who were homeless than housed.

Figure 56: Age Distribution of MOST Contacts by Month, Washoe County, 2018



- From January to June, the age group 31-50 years comprised 40.3% of MOST contacts followed by 51-70 years (25.8%), and 19-30 years (21.7%).

Figure 57: Mental Health Service Provider per MOST Contact by Month, Washoe County, 2018



- From January to June 72.7% of MOST contacts did not have a mental health service provider, 19.8% were classified under other, 4.8% received services at Northern Nevada Adult Mental Health Services, and 2.7% from Veterans Affairs.

Conclusion

This profile has provided valuable insight that can be utilized by the Washoe Region Behavioral Policy Board, as well as community stakeholders, leaders, and residents by informing discussion pertaining to the behavioral health needs of Washoe County.

Important stand-out items from the profile:

Alcohol use in Washoe County is a major problem. In 2017, alcohol-related inpatient admissions in Washoe County was more than double the rate in Nevada. From 2007 to 2016, the average age-adjusted rate of alcohol-induced cause of death was more than double the United States. The prevalence of drug use in Washoe County was higher in Washoe County than Nevada and the United States. Deaths from natural and semi-synthetic opioids (e.g. morphine, codeine, oxycodone, hydrocodone, etc.) had been decreasing, however, 2014 to 2017 data indicates that the number of heroin-related and fentanyl-related deaths are increasing following the national trend.^{15,16} The 2017 Youth Risk Behavior Survey substance use indicators showed improvements among Washoe County high school students when compared to 2013 benchmark data.

While some progress is being made among the youth in Washoe County regarding substance use, access to mental health services are sorely lacking. More than half of high school students in Washoe County report never or rarely receiving mental health support in a time of need. In 2016, the age-adjusted suicide rate in Washoe County was nearly double the rate of the United States. Suicide among Washoe County residents aged 65 years and older has greatly exceeded the rate of Nevada and the United States. Of particular concern is the suicide rate for Washoe County residents age 85 and older, which from 2012 to 2016 was nearly four times the national average. Several mental health and substance use needs are apparent in this profile and now it is the responsibility of the community to respond.

The goal of this profile is to identify the strengths and weaknesses of behavioral health services in Washoe County and to assist in future planning to improve upon the highest priority needs in our community. Moving forward the profile will be updated annually and will serve as a tool to track changes over time. Proposed additions to the profile include data from Mobile Crisis Response Team (MCRT) which responds to crisis situations involving children and youth under 18, Pregnancy Risk Assessment Monitoring System (PRAMS), and the Washoe County Regional Medical Examiner's Office.

The development of this profile was the focus of a summer graduate Internship and wouldn't have been possible without the support and guidance from the following:

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- Heather Kerwin, MPH, CPH
- Join Together Northern Nevada
- Kevin Dick, Washoe County Health District
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- Nevada Division of Public and Behavioral Health, Office of Suicide Prevention
- Sheila Leslie, Washoe County Human Services Agency
- University of Nevada, Reno School of Community Health Sciences
- Washoe Regional Behavioral Health Policy Board

Data Sources

Geography and Demographics Sources

Image 1 – Image 2 Same Source

Image 1: Nevada

Image 2: Washoe County

Google Maps

Table 1 – Table 2 Same Source

Table 1: Population in Nevada, 2017 Estimates

Table 2: Estimated Population Growth by Selected Demographics, Washoe County, 2017 & 2022
Nevada Department of Taxation, Nevada State Demographer (2017). Source: Nevada County Age, Sex, Race, and Hispanic Origin Estimates and Projections 2000 to 2036. Accessed <https://tax.nv.gov>

Figure 1: Washoe County School District Student Enrollment by Ethnicity, Ten-Year Trend
Washoe County School District Grade K-12 by Race/Ethnicity, 2006-2007, 2011-2012, and 2016-2017 Nevada Department of Education. Nevada Report Card. Accessed <http://nevadareportcard.com/di/>

Table 3: Primary Language Spoken at Home, Washoe County Residents, 2016
U.S. Census, 2016 American Community Survey -1 year estimates- TABLE S1601- Language Spoken at Home

Figure 2: Educational Attainment of Residents Age 25 and Older, Washoe County, Nevada, and United States, 2016
U.S. Census, 2016 American Community Survey -1 year estimates- TABLE S1501- Educational Attainment

Table 4: Inflation-Adjusted Incomes and Housing Costs, Washoe County and Nevada, 2016
Median Household Income data source: U.S. Census, 2016 American Community Survey -1 year estimates- TABLE S1901- Income in the Past 12 Months
Median Annual Income by Sex data source: U.S. Census, 2016 American Community Survey -1 year estimates- TABLE S2001- Earnings in the Past 12 Months
Median Monthly Housing Cost data source: U.S. Census, 2016 American Community Survey -1 year estimates- TABLE B25105- Median Monthly Housing Costs
Rent as a Percentage of Income data source: U.S. Census, 2016 American Community Survey -1 year estimates- TABLE B25070- Gross Rent as a Percentage of Household Income in the Past 12 Months
Mortgage as a Percentage of Income data source: U.S. Census, 2016 American Community Survey -1 year estimates- TABLE S2506- Financial Characteristics for Housing Units with a Mortgage

Figure 3: Economic Benchmarks Compared to Household Annual Income Distribution, Washoe County, 2016
Median Household Income data source: U.S. Census, 2016 American Community Survey -1 year estimates- TABLE S1901- Income in the Past 12 Months

2016 Free School Lunch Eligibility data source: United States Department of Agriculture and Child Nutrition Programs Income Eligibility Guidelines, 2016.

2016 Federal Poverty Level: United States Department of Health and Human Services 2016 Poverty Guidelines.

2016 Nevada Medicaid Eligibility data source: Nevada Health Link 2016 Medicaid Eligibility.

Table 5: Poverty Status During Prior 12 Months, 2016

U.S. Census, 2016 American Community Survey -1 year estimates- TABLE S1701- Poverty Status in the Past 12 Months

Table 6: Persons Under the Age of 65 Years Without Health Insurance, 2016

U.S. Census, 2016 American Community Survey -1 year estimates- TABLE S2701- Selected Characteristics of Health Insurance Coverage in the United States

Substance Use Sources

Figure 4: Lifetime* Substance Use Among Middle School Students, Washoe County and Nevada, 2017
Nevada 2017: Lensch, T., Martin, H., Zhang, F., Parrish, B., Clements-Nolle, K., Yang, W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada, Reno. *2017 Nevada Middle School Youth Risk Behavior Survey (YRBS) Report.*

Washoe County 2017: Lensch, T., Martin, H., Zhang, F., Clements-Nolle, K., Yang, W. University of Nevada, Reno. *2017 Nevada Middle School Youth Risk Behavior Survey (YRBS): Washoe County Special Report.*

Figure 5 – Figure 6 Same Source

Figure 5: Lifetime* Substance Use Among Middle School Students, Washoe County, 2015 and 2017 Comparison

Figure 6: Percentage of Middle School Students to Report Current* Use of Alcohol and Marijuana, Washoe County, 2015 and 2017 Comparison

Washoe County 2015: Lensch, T., Gay, C., Zhang, F., Clements-Nolle, K., Yang, W. University of Nevada, Reno. *2015 Nevada Middle School Youth Risk Behavior Survey (YRBS): Washoe County Analysis.*

Washoe County 2017: Lensch, T., Martin, H., Zhang, F., Clements-Nolle, K., Yang, W. University of Nevada, Reno. *2017 Nevada Middle School Youth Risk Behavior Survey (YRBS): Washoe County Special Report.*

Figure 7: Lifetime* Substance Use Among High School Students, Washoe County, Nevada, and United States, 2017

United States 2017: Centers for Disease Control and Prevention. (2018). Youth Risk Behavior Surveillance-United States, 2017. *MMWR*, 67(8).

Nevada 2017: Lensch, T., Martin, H., Zhang, F., Parrish, B., Clements-Nolle, K., Yang, W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada, Reno. *2017 Nevada High School Youth Risk Behavior Survey (YRBS) Report.*

Washoe County 2017: Lensch, T., Martin, H., Zhang, F., Clements-Nolle, K., Yang, W. University of Nevada, Reno. *2017 Nevada High School Youth Risk Behavior Survey (YRBS): Washoe County Special Report.*

Figure 8 – Figure 9 Same Source

Figure 8: Lifetime* Substance Use Among High School Students, Washoe County, 2013, 2015 & 2017 Comparison

Figure 9: Percentage of High School Students to Report Current* Use of Alcohol and Marijuana, Washoe County, 2013, 2015 & 2017 Comparison

Washoe County 2013: Frankenberger, D., Clements-Nolle, K., Zhang, F., Larson, S., & Yang, W. University of Nevada, Reno. (2014). *2013 Nevada Youth Risk Behavior Survey (YRBS): Washoe County Analysis. Reno, Nevada.*

Washoe County 2015: Lensch, T., Gay, C., Zhang, F., Clements-Nolle, K., Yang, W. University of Nevada, Reno. (n.d.). *2015 Nevada High School Youth Risk Behavior Survey (YRBS): Washoe County Analysis. Reno, Nevada.*

Washoe County 2017: Lensch, T., Martin, H., Zhang, F., Clements-Nolle, K., Yang, W. University of Nevada, Reno. *2017 Nevada High School Youth Risk Behavior Survey (YRBS): Washoe County Special Report.*

Figure 10: Lifetime* Substance Use Among College Students, University of Nevada, Reno and United States Comparison, 2016

Washoe County (UNR): American College Health Assessment-National College Health Assessment II data for Spring of 2016. Unpublished data provided upon request. Reno, NV.
United States: American College Health Assessment-National College Health Assessment II Reference Group reports for Spring of 2016. Accessed http://www.acha-ncha.org/pubs_rpts.html

Figure 11 – Figure 13 Same Source

Figure 11: Current* Alcohol and Marijuana Use Among College Students, University of Nevada, Reno, 2012, 2014 & 2016 Comparison

Figure 12: Binge Drinking* Among College Students, University of Nevada, Reno, 2012, 2014 & 2016 Comparison

Figure 13: Prescription Drug Misuse* Among College Students, University of Nevada, Reno, 2012, 2014 & 2016 Comparison

Washoe County (UNR): American College Health Assessment-National College Health Assessment II data for Spring of 2012, 2014, and 2016. Unpublished data provided upon request. Reno, NV.

Table 7: Substance Use Among Population Aged 18 to 25 - Washoe County, Nevada, and United States, 2012-2014 Annual Averages

Substance Abuse and Mental Health Services Administration. Population Data/NSDUH. Substate/Metro 2012-2014 NSDUH Substate Region Estimates –Excel Tables and CSV Files. Accessed <https://www.samhsa.gov/data/population-data-nsduh/reports>

Figure 14 – Figure 16 Same Source

Figure 14: Percentage of Current* Illicit Drug Use Other Than Marijuana Among Adults, Washoe County and Nevada, 2016

Figure 15: Lifetime Prescription Drug Misuse Among Adults, Washoe County and Nevada, 2016

Figure 16: Prescription Drug Misuse During the Past 30 Days Among Adults, Washoe County and Nevada, 2016

Nevada Department of Health and Human Services, Office of Public Health Informatics and Epidemiology. 2016 Nevada BRFSS Data. Data provided upon request. Carson City, NV

Figure 17: Alcohol-Induced Cause of Death by Age Group, Washoe County, Nevada, and United States, 2012-2016 Aggregate Data

Figure 18: Drug-Induced Cause of Death by Age Group, Washoe County, Nevada, and United States, 2012-2016

Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/ucd-icd10.html>

Figure 19: Percentage of Adults Needing but Not Receiving Treatment in the Past Year, Washoe County, Nevada, & United States, 2012-2014 Annual Average

Substance Abuse and Mental Health Services administration. Population Data/NSDUH. Substate/Metro 2012-2014 NSDUH Substate Region Estimates –Excel Tables and CSV Files. Accessed <https://www.samhsa.gov/data/population-data-nsduh/reports>

Figure 20 – Figure 21 Same Source

Figure 20: Percentage of Adults Classified as Binge Drinkers, Washoe County, Nevada, & United States, 2012-2016

Figure 21: Percentage of Adults Classified as Heavy Drinkers, Washoe County, Nevada, & United States, 2012-2016

Nevada and Washoe County: Nevada Office of Public Health Informatics and Epidemiology. Nevada Behavioral Risk Factor Surveillance Survey (BRFSS). Data provided upon request. Carson City, NV. United States: Centers for Disease Control and Prevention. BRFSS Prevalence and Trends Data query tool, Accessed <https://www.cdc.gov/brfss/brfssprevalence/index.html>

Figure 22 – Figure 23 Same Source

Figure 22: Alcohol Related Emergency Department Encounters, Washoe County and Nevada, 2013-2017

Figure 23: Drug Related Emergency Department Encounters, Washoe County and Nevada, 2013-2017
Nevada Department of Health and Human Services. 2013-2017 Hospital Inpatient and Emergency Department Billing Data. Data provided upon request. Carson City, NV.

Figure 24 – Figure 25 Same Source

Figure 24: Age-Adjusted Rate of Alcohol-Induced Cause of Death, Washoe County, Nevada, and United States, 2007-2016

Figure 25: Age-Adjusted Rate of Drug-Induced Cause of Death, Washoe County, Nevada, and United States, 2007-2016

Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/ucd-icd10.html>

Figure 26 – Figure 29 Same Source

Figure 26: Opioid-Related Emergency Department Encounters by Age Group, Washoe County, 2010-2017

Figure 27: Opioid-Related Inpatient Admissions by Age Group, Washoe County, 2010-2017

Figure 28: Opioid-Related Poisonings Emergency Department Encounters by Opioid, Washoe County, 2010-2017

Figure 29: Opioid-Related Poisonings Inpatient Admissions by Opioid, Washoe County, 2010-2017
Nevada Department of Health and Human Services. 2010-2017 Hospital Inpatient and
Emergency Department Billing Data. Data provided upon request. Carson City, NV.

Figure 30 – Figure 31 Same Source

Figure 30: Opioid-Related Deaths by Age Group, Washoe County, 2010-2017*

Figure 31: Opioid-Related Deaths by Drug Category, Washoe County, 2010-2017*
Nevada Department of Health and Human Services. 2010-2017 Electronic Death Registry
System. Data provided upon request. Carson City, NV.

Mental Health Sources

Figure 32: Prevalence of Depression and Suicide Ideation Among Middle School Students, Washoe
County and Nevada, 2017

Nevada 2017: Lensch, T., Martin, H., Zhang, F., Parrish, B., Clements-Nolle, K., Yang, W. State of
Nevada, Division of Public and Behavioral Health and the University of Nevada, Reno. *2017
Nevada Middle School Youth Risk Behavior Survey (YRBS) Report.*

Washoe County 2017: Lensch, T., Martin, H., Zhang, F., Clements-Nolle, K., Yang, W. University
of Nevada, Reno. *2017 Nevada Middle School Youth Risk Behavior Survey (YRBS): Washoe
County Special Report.*

Figure 33 – Figure 36 Same Source

Figure 33: Percentage of Middle School Students Who Ever* Felt Sad or Hopeless, Washoe County, 2015
and 2017 Comparison

Figure 34: Percentage of Middle School Students Who Ever* Seriously Considered Attempting Suicide,
Washoe County, 2015 and 2017 Comparison

Figure 35: Percentage of Middle School Students Who Have Ever* Made a Plan About How to Commit
Suicide, Washoe County, 2015 and 2017 Comparison

Figure 36: Percentage of Middle School Students Who Ever* Attempted Suicide, Washoe County, 2015
and 2017 Comparison

Washoe County 2015: Lensch, T., Gay, C., Zhang, F., Clements-Nolle, K., Yang, W. University of
Nevada, Reno. *2015 Nevada Middle School Youth Risk Behavior Survey (YRBS): Washoe County
Analysis.*

Washoe County 2017: Lensch, T., Martin, H., Zhang, F., Clements-Nolle, K., Yang, W. University
of Nevada, Reno. *2017 Nevada Middle School Youth Risk Behavior Survey (YRBS): Washoe
County Special Report.*

Figure 37: Percentage of Middle School Students* Who Got the Kind of Help They Need When They Felt
Sad, Empty, Hopeless, Angry, or Anxious, Washoe County, 2017

Washoe County 2017: Lensch, T., Martin, H., Zhang, F., Clements-Nolle, K., Yang, W. University
of Nevada, Reno. *2017 Nevada Middle School Youth Risk Behavior Survey (YRBS): Washoe
County Special Report.*

Figure 38: Prevalence of Depression and Suicide Ideation Among High School Students, Washoe County,
Nevada and United States, 2017

United States 2017: Centers for Disease Control and Prevention. (2018). Youth Risk Behavior
Surveillance-United States, 2017. MMWR, 67(8).

Nevada 2017: Lensch, T., Martin, H., Zhang, F., Parrish, B., Clements-Nolle, K., Yang, W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada, Reno. *2017 Nevada High School Youth Risk Behavior Survey (YRBS) Report*.

Washoe County 2017: Lensch, T., Martin, H., Zhang, F., Clements-Nolle, K., Yang, W. University of Nevada, Reno. *2017 Nevada High School Youth Risk Behavior Survey (YRBS): Washoe County Special Report*.

Figure 39 – Figure 42 Same Source

Figure 39: Percentage of High School Students Who Felt Sad or Hopeless*, Washoe County, 2013, 2015, & 2017 Comparison

Figure 40: Percentage of High School Students Who Seriously Considered Attempting Suicide*, Washoe County, 2013, 2015, & 2017 Comparison

Figure 41: Percentage of High School Students Who Made a Suicide Plan*, Washoe County, 2013, 2015 & 2017 Comparison

Figure 42: Percentage of High School Students Who Attempted Suicide*, Washoe County, 2013, 2015 & 2017

Washoe County 2013: Frankenberger, D., Clements-Nolle, K., Zhang, F., Larson, S., & Yang, W. University of Nevada, Reno. (2014). *2013 Nevada Youth Risk Behavior Survey (YRBS): Washoe County Analysis. Reno, Nevada*.

Washoe County 2015: Lensch, T., Gay, C., Zhang, F., Clements-Nolle, K., Yang, W. University of Nevada, Reno. (n.d.). *2015 Nevada High School Youth Risk Behavior Survey (YRBS): Washoe County Analysis. Reno, Nevada*.

Washoe County 2017: Lensch, T., Martin, H., Zhang, F., Clements-Nolle, K., Yang, W. University of Nevada, Reno. *2017 Nevada High School Youth Risk Behavior Survey (YRBS): Washoe County Special Report*.

Figure 43: Percentage of High School Students* Who Got the Kind of Help They Need When They Felt Sad, Empty, Hopeless, Angry, or Anxious, Washoe County, 2017

Washoe County 2017: Lensch, T., Martin, H., Zhang, F., Clements-Nolle, K., Yang, W. University of Nevada, Reno. *2017 Nevada High School Youth Risk Behavior Survey (YRBS): Washoe County Special Report*.

Figure 44 – Figure 48 Same Source

Figure 44: Percentage of High School Students Who Ever Lived with Someone Who is a Substance Use Problem, Washoe County and Nevada, 2017

Figure 45: Percentage of High School Students Who Ever Lived with Someone Who Was Mentally Ill, Washoe County and Nevada, 2017

Figure 46: Percentage of High School Students Who Were Ever Forced to Engage in Unwanted Sexual Intercourse, Washoe County and Nevada, 2017

Figure 47: Percentage of High School Students Who Have Ever Been Physically Abused* by an Adult, Washoe County and Nevada, 2017

Figure 48: Percentage of High School Students Who Have Ever Experienced Household Domestic Violence, Washoe County and Nevada, 2017

Nevada 2017: Lensch, T., Martin, H., Zhang, F., Parrish, B., Clements-Nolle, K., Yang, W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada, Reno. *2017 Nevada High School Youth Risk Behavior Survey (YRBS) Report*.

Washoe County 2017: Lensch, T., Martin, H., Zhang, F., Clements-Nolle, K., Yang, W. University of Nevada, Reno. *2017 Nevada High School Youth Risk Behavior Survey (YRBS): Washoe County Special Report*.

Figure 49 – Figure 50 Same Source

Figure 49: Percentage of Adults Reporting Poor Mental Health Days*, Washoe County, 2012-2016

Figure 50: Poor Mental Health Days and Depression Among Adults by Age Group, Washoe County, 2016

Nevada Department of Health and Human Services, Office of Public Health Informatics and Epidemiology. 2012-2016 Nevada BRFSS Data. Data provided upon request. Carson City, NV.

Figure 51: Any Mental Illness, Serious Mental Illness, and Received Mental Health Services in the Past Year, 2014-2016 Aggregate Data

Substance Abuse and Mental Health Services Administration. Population Data/NSDUH. 2014-2016 NSDUH Substate Region Estimates –Excel Tables and CSV Files. Accessed <https://www.samhsa.gov/data/population-data-nsduh/reports>

Figure 52: Suicide Attempts Hospital Admissions, Washoe County and Nevada, 2013-2017

Nevada Department of Health and Human Services, Office of Public Health Informatics and Epidemiology. 2013-2017 Hospital Inpatient and Emergency Department Billing Data. Data provided upon request. Carson City, NV.

Figure 53 – Figure 54 Same Source

Figure 53: Age-Adjusted Rate of Death Due to Suicide/Intentional Self-Harm, Washoe County, Nevada, and United States, 2007-2016

Figure 54: Death Due to Suicide/Intentional Self-Harm by Age Group, Washoe County, Nevada, and United States, 2012-2016 Aggregate Data

Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December 2017. Data are from the Multiple Cause of Death Files, 1999-2016, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/ucd-icd10.html>

Behavioral Health Services Sources

Table 8: Behavioral Health Workforce, 2016

Washoe County and Nevada data source: Office of Statewide Initiatives. Nevada Instant Atlas: County-Level Health and Workforce Population Database. Accessed

<https://med.unr.edu/statewide/instant-atlas>

United States data source: Office of Statewide Initiatives, University of Nevada School of Medicine. (2018). Data provided upon request.

Table 9 – Table 10 Same Source

Table 9: Behavioral Health Emergency Department Visits, Washoe County & Nevada, 2017

Table 10: Behavioral Health Inpatient Admissions, Washoe County & Nevada, 2017

Division of Public and Behavioral Health. 2017 Hospital Inpatient and Emergency Department Billing Data. Data provided upon request. Carson City, NV.

Figure 55 – Figure 57 Same Source

Figure 55: MOST Contacts per Month, Washoe County, 2018

Figure 56: Age Distribution of MOST Contacts by Month, Washoe County, 2018

Figure 57: Mental Health Service Provider per MOST Contact by Month, Washoe County, 2018

Leslie, S. 2018 Monthly MOST data report. Data provided upon request. Reno, NV.