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

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

Anxiety and depression are significantly higher than other mental health related ED visits for all years.

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.
The drop in suicidal ideation for 2016 may be due to the ICD-9-CM/10-CM conversion, since the drop was across the state and not localized to one location.

Both anxiety and depression were significantly higher than other mental health inpatient admissions.

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

Note: The Affordable Care Act (ACA) went into effect in 2014. At this time Nevada became a Medicaid expansion state, which expanded access to mental health services by private providers.

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.
A person can be included in more than category and therefore the counts above are not mutually exclusive.
The age-adjusted suicide rate remained steady from 2009-2017 with no significant increase or decrease.

Source: Nevada Electronic Death Registry System.

Helping People. It’s who we are and what we do.
White non-Hispanics were significantly higher than the state for each year (27.2 per 100,000 population in 2017).

The Native American non-Hispanics age-adjusted rate are not significantly higher based on 95% confidence intervals.

Hispanics are significantly lower than the total Nevada population over all years.
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

There has been a decrease in those surveyed for alcohol use disorders.

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

Perceptions of great risk from having five or more drinks for Nevada has increased, passing the United States.

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%
- 8th graders 40%

Source: Monitoring the Future Survey.
Trends in Annual Prevalence of Being Drunk from Alcohol, United States, 2008-2017

The percent change for being drunk from alcohol have decreased from 2008-2017: 12th graders 17%, 10th graders 32%, and 8th graders 48%.
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.
The percent change for any use of methamphetamines has decreased from 2008-2017: 12th graders 60%, 10th graders 96%, and 8th graders of 97%.

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

- Used Marijuana before 13
  - 2013.0: 8.8
  - 2015: 9
  - 2017: 9.6

- Currently Use Marijuana (past 30 days)
  - 2013.0: 19.5
  - 2015: 19.6
  - 2017: 18.5

- Ever Used Marijuana (lifetime)
  - 2013.0: 39.4
  - 2015: 39.8
  - 2017: 37.0

Source: Nevada Youth Risk Behavior Survey (YRBS).
Chart scaled to 40% to display differences among groups.
Marijuana Use, Nevada Middle School Students, YRBS, 2017

- Used Marijuana Before 11: 2.5 (2015), 2.7 (2017)
- Currently Used Marijuana (past 30 days): 5.2 (2015), 3.8 (2017)

Source: Nevada Youth Risk Behavior Survey (YRBS).
Chart scaled to 15% to display differences among groups.
Drug use visits surpassed alcohol visits in 2015. From 2015 to 2017, this increase is significant.

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.
Other drug use visits surpassed alcohol admissions in 2013. This increase is significant.

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.
Hallucinogen and marijuana were grouped together for ICD-9-CM. In the ICD-10-CM both drugs are more common than heroin.

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

From 2015 to 2017 the increase in alcohol and drug related deaths has increased significantly.

Source: Nevada Electronic Death Registry System.
Alcohol Related Deaths and Age Adjusted Rates, 2009-2017

While there has been an increase in alcohol related deaths it is not significant.

Source: Nevada Electronic Death Registry System.
Drug Related Deaths and Age Adjusted Rates, 2009-2017

The increase from drug related deaths has been significant from 2015 to 2017.

Source: Nevada Electronic Death Registry System.
Alcohol and Drug Related Deaths by Race, 2009-2017

White Non-Hispanic have had a significant increase in alcohol and drug related deaths since 2014.

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.
Marijuana use among pregnant women has increased over the last 7 years.

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Alcohol</th>
<th>Opiate</th>
<th>Marijuana</th>
<th>Cocaine</th>
<th>Meth/Amphetamines</th>
<th>Heroin</th>
<th>Polysubstance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>0.2</td>
<td>0.5</td>
<td>1.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.0</td>
<td>0.2</td>
</tr>
<tr>
<td>2011</td>
<td>0.4</td>
<td>1.3</td>
<td>1.5</td>
<td>0.6</td>
<td>0.6</td>
<td>0.1</td>
<td>0.5</td>
</tr>
<tr>
<td>2012</td>
<td>0.6</td>
<td>0.5</td>
<td>2.5</td>
<td>0.7</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>2013</td>
<td>0.3</td>
<td>0.7</td>
<td>3.0</td>
<td>1.0</td>
<td>0.4</td>
<td>0.1</td>
<td>0.4</td>
</tr>
<tr>
<td>2014</td>
<td>0.2</td>
<td>0.4</td>
<td>2.1</td>
<td>0.6</td>
<td>0.6</td>
<td>0.2</td>
<td>0.5</td>
</tr>
<tr>
<td>2015</td>
<td>0.1</td>
<td>0.6</td>
<td>1.9</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
<td>0.0</td>
</tr>
<tr>
<td>2016</td>
<td>0.2</td>
<td>0.1</td>
<td>2.9</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>2017*</td>
<td>0.1</td>
<td>0.5</td>
<td>3.4</td>
<td>0.1</td>
<td>0.5</td>
<td>0.5</td>
<td>0.1</td>
</tr>
</tbody>
</table>

*2017 data are preliminary and subject to changes.

Source: Nevada Electronic Birth Registry System.
Sexual Orientation, Nevada High School Population, YRBS, 2015 and 2017

Source: Nevada Youth Risk Behavior Survey (YRBS).

Source: Nevada Youth Risk Behavior Survey (YRBS).
The LGB have high percent of health risk behaviors.

- Binge Drinking: LGB 26.9%, Non-LGB 14.3%
- General Health: LGB 27.9%, Non-LGB 19.4%
- Limited because of physical, mental, or emotional problems: LGB 30.1%, Non-LGB 21.2%
- Ever told had depressive disorder: LGB 37.5%, Non-LGB 16.8%
- Ten or more days of poor mental health: LGB 38.1%, Non-LGB 14.7%
- Ten or more days of poor mental or physical health kept from usual activities: LGB 22.6%, Non-LGB 17.5%

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

Binge Drinking
- Transgender: 18.6%
- Non-Transgender: 15.0%

General Health fair or poor
- Transgender: 22.2%
- Non-Transgender: 19.8%

Limited because of physical, mental or emotional problems
- Transgender: 40.0%
- Non-Transgender: 21.4%

Ever told had depressive disorder
- Transgender: 44.3%
- Non-Transgender: 17.3%

Ten or more days of poor mental health
- Transgender: 44.0%
- Non-Transgender: 15.6%

Ten or more days of poor mental or physical health kept from usual activities
- Transgender: 31.9%
- Non-Transgender: 17.9%

Transgender have high percent of health risk behaviors.

Source: Behavioral Risk Factor Surveillance System (BRFSS).
Chart scaled to 60% to display differences among groups.
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 T410, 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.
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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