

**UNMET SERVICE NEEDS AND CRITICAL GAPS
WITHIN NEVADA'S CURRENT MENTAL HEALTH SYSTEM**

FFY 2018 – 2019 BLOCK GRANT APPLICATION
COMMUNITY MENTAL HEALTH SERVICES BLOCK GRANT
(MHBG)
PLAN AND REPORT

NEVADA
DEPARTMENT OF HEALTH & HUMAN SERVICES
DIVISION OF PUBLIC & BEHAVIORAL HEALTH
BUREAU of BEHAVIORAL HEALTH WELLNESS & PREVENTION

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STEP 2:

Unmet Service Needs and Critical Gaps within Nevada's Current Behavioral Health System

A wide range of information sources was examined for the purpose of identifying unmet service needs and critical gaps in Nevada's current behavioral health system, which is responsible for serving each of the populations that were targeted by the Substance Abuse and Mental Health Services Administration (SAMHSA) for FFY 2018-2019:

- Children with serious emotional disturbance (SED) and their families
- Adults with serious mental illness (SMI)
- Older Adults with serious mental illness (SMI)
- Individuals with SMI or SED in the rural and homeless populations
- Individuals who have an Early Serious Mental Illness (ESMI) (10 percent MHBG set aside)

Community psychiatric epidemiology and behavioral health data were reviewed to distinguish the prevalence of mental disorders in Nevada and nationwide. When available, county-level prevalence rates were considered to reveal subsets of the state's population with particular needs. The rates of persons served by the state's current behavioral health system were then evaluated within the context of the prevalence rates reported for the United States as a whole, and for Nevada and its individual counties. Billing data for hospital emergency room visits related to mental health were additionally considered as indicators of SED and SMI that were either untreated or ineffectively managed. Finally, results are reported from recent focus groups that were conducted statewide to identify unmet service needs and critical gaps from the perspectives of stakeholders and consumers.

The combined findings from these multiple sources of information indicate the presence of significant unmet service needs and critical gaps within Nevada's current behavioral health system, and this information shaped the strategic priorities for the work that is planned for each target population during FFY 2018–2019. An overview of these unmet needs and critical gaps is listed below, and the evidence identifying their significance is then summarized.

Overview of Unmet Service Needs and Critical Gaps: Nevada's Current Behavioral Health System

1. ***Nevada's children and adolescents are vulnerable to developing severe mental disorders, which in the absence of effective interventions may progress to chronic and debilitating illnesses.*** *One-third of Nevada's adolescents reported experiencing depressed mood and reduced functioning during the year before they participated in the most recent 2015 Nevada Youth Risk Behavior Survey, which is conducted by the Centers for Disease Control (CDC) and Prevention, and local and state education and health agencies. The state's youth were more likely to report one or more suicide attempts during the prior year, compared to their age peers nationwide. More than 20% acknowledged deliberate acts of self harm, such as cutting or burning themselves, without the intent to die. Importantly, the clinical outcomes and current mental health status, in 2017, for each adolescent who reported psychological distress and life-threatening behaviors, in 2015, are unknown.*
2. ***Expansion of early intervention services for individuals with early serious mental illness (ESMI) and first episode of psychosis (FEP) throughout Nevada is a critical need.***
Between 8% and 13% of Nevada's children and adolescents are at risk for developing severe

mental disorders. An additional 20% are vulnerable to psychological distress, suicide-related behaviors, and acts of deliberate self harm without intent to die. Early intervention services have been initiated for first episode of psychosis (FEP) in the urban counties of northern and southern Nevada. Expanding these services to early serious mental illness (ESMI), and to the rural and frontier regions of the state is vital.

3. ***Access to the state's mental health services for children with serious emotional disturbance (SED) and adults with serious mental illness (SMI) is severely limited.***

The numbers of individuals covered by Medicaid benefits more than doubled between 2013 and 2015 due to the Medicaid expansion by Governor Brian Sandoval in 2014 under the Affordable Care Act (ACA). However, the percentage of Nevada residents with SED and SMI who were served by the state's mental health system was less than 10% of each population in FY 2016; eight percent (8%) of the estimated number of children with SED, and nine percent (9%) of the estimated number of adults with SMI. Service penetration rates for each population were lower than the rates nationwide.

Access to services is a complex issue. An important factor for Nevada is that almost all of the state qualifies as a mental health professional shortage area (Health Resources and Services Administration, HRSA), with the only exception being Las Vegas (Griswold et al., 2017, *Map 5.3*, p. 148). Equally important is the lack of adequate health information technology and measurement methodology to track productivity metrics associated with community providers whose services are supported through Medicaid fee-for-service and managed care resources. (See Unmet Needs/Critical Gaps # 4 and # 6 below.)

4. ***Nevada's mental health workforce is underdeveloped in volume and in clinical expertise.***

Almost all of the state of Nevada qualifies as a mental health professional shortage area. The state's geography and its low population density in rural and frontier regions amplify the challenges associated with this critical shortage. Stable financial resources and active investment from state leadership are required to incentivize professional training and development for Nevada's current and future mental health workforce.

5. ***Suicide prevention efforts are not integrated with clinical services or post-mortem reviews within the state's current mental health system.***

Nevada continues to rank in the top 10 states with the highest rates of suicide deaths nationwide. Countywide rates reflect the highest numbers of suicide deaths per population in the rural and frontier regions. Suicide-related conditions accounted for 39% of all behavioral-health related visits among children and adolescents to Nevada's emergency rooms from 2009 to 2014. Ideally, suicide prevention efforts are integrated with clinical intervention services that involve evidence-based and promising practices, and post-mortem reviews that support quality assurance and performance improvement initiatives. This type of integrated model is incomplete and fragmented in the urban counties of northern and southern Nevada, and nonexistent in the state's rural and frontier counties.

6. ***Health information technology and measurement methodology that support Nevada's current mental health care system, including its community providers, are characterized by critical gaps.***

Data are not organized for prevention, planning, and treatment. This includes a lack of effective support for monitoring and evaluating the efficacy of programs based on access to services and clinical outcomes. Health records databases are not integrated. The reference in Gap #1 (above) to findings from the *2015 Nevada Youth Risk Behavior Survey* serves to illustrate these technical and analytical deficiencies. Specifically,

the clinical outcomes and current mental health status, in 2017, for each Nevada adolescent who reported psychological distress and life-threatening behaviors, in 2015, are unknown.

7. ***Results were examined from ten (10) statewide focus groups that were conducted from April 2016 to June 2016 as part of the planning and development phases for Certified Community Behavioral Health Clinics (CCBHC) in Nevada (Woodard, 2016b).***

Participants included consumers, family members, advocates and providers. Strong agreement across participants was observed regarding broad themes, as well as specific issues. Prominent themes and issues identified by focus group participants included:

- Staffing – Insufficient numbers of behavioral health providers and medical personnel were identified, especially in psychiatry, child psychology and school social work. Professional training for providers was consistently recommended in the areas of crisis management, care coordination and peer support.
- Access – Both providers and consumers identified the need for more services, as well as the need for more varieties of services.
- Care Coordination – The need to improve collaboration, coordination and communication was identified, with sharing of data and electronic records considered to be crucial. The importance of establishing a formal, defined standard of care that is implemented statewide was emphasized. Use of multidisciplinary teams for the care of complex cases was suggested.
- Services – More treatment options for different stages of illness were recommended, as well as more resources devoted to prevention, early intervention, treatment, and crisis management.

- **CHILDREN WITH SERIOUS EMOTIONAL DISTURBANCE (SED) AND THEIR FAMILIES ***

Rates of Serious Emotional Disturbance (SED) in Nevada’s Children: An estimated 37,266 children in Nevada suffered from serious emotional disturbance (SED) during 2015-2016, which represents 11% of the state’s youth population (2016 SAMHSA Uniform Reporting System (URS) Output Tables-Nevada). This estimate is similar to the 12-month prevalence rate of 8% for SED observed among adolescents aged 13 to 17 who participated in the United States community survey involving parallel household and school samples (Kessler et al., 2012, National Comorbidity Survey Replication Adolescent Supplement). It is also comparable to the range of estimates for major depressive episode (MDE) among adolescents in Nevada and the United States obtained by the National Surveys on Drug Use and Health (NSDUH) that are shown in **Table 1** (below).

Table 1: Past Year Major Depressive Episode (MDE) Among Adolescents Aged 12-17 in Nevada and the United States: 2010-2011 to 2013-2014				
Years	2010-2011	2011-2012	2012-2013	2013-2014
Nevada	8.6%	8.5%	9.6%	11.6%
United States	8.1%	8.7%	9.9%	11.0%

Source: Substance Abuse and Mental Health Services Administration. *Behavioral Health Barometer: Nevada, 2015*. HHS Publication No. SMA-16-Baro-2015-NV. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

The most recent available NSDUH data indicate that approximately 26,000 adolescents in Nevada (11.6% of all adolescents) per year in 2013-2014 experienced at least one major depressive episode during the year before being surveyed. The rate for adolescents in Nevada was similar to the national percentage observed for that same survey period. Importantly, the percentage experiencing at least one major depressive episode during each survey period increased from 2010-2011 to 2013-2014.

Rates of Health Risk Behaviors in Nevada’s Children: The *Youth Risk Behavior Surveillance System (YRBSS)* monitors health behaviors among youth and young adults to evaluate the success of public health efforts directed to protect and enhance the wellbeing of these individuals nationwide. YRBSS includes school-based survey, the *Youth Risk Behavior Survey (YRBS)*, which is conducted by the Centers for Disease Control and Prevention (CDC) and state and local education and health agencies to collect population-based data on health behaviors of interest. This section summarizes findings concerning the emotional health of Nevada’s youth who were surveyed for the *2015 YRBS* from February, 2015 through May, 2015.

Emotional Health Profile of Nevada's High School Students (Grades 9-12), 2015:

Tables 2 - 4 (below) summarize responses among Nevada's High School students (Grades 9 –12) to questions about their emotional health and suicide-related thoughts and behaviors that occurred during the 12 months before they participated in the *2015 Nevada High School Youth Risk Behavior Survey*. Overall rates for United States High School students are provided as a comparison. Results indicate that Nevada's youth experienced disturbances to their emotional health during the 12 months before their participation in the survey, and these disturbances included symptoms of depression and suicide attempts.

Psychological Distress and Suicide Attempts among Nevada's Adolescents, 2015:

Two patterns emerged from the results of the *2015 Nevada High School Youth Risk Behavior Survey* (**Table 2 and Table 3 below**) that are informative about the emotional health of Nevada's High School Students, and that indicate the presence of unmet needs and critical gaps within the state's current behavioral health system. The ***first pattern*** concerns the proportion of Nevada's high school students (33%) who reported experiencing the hallmark symptoms of a major depressive episode during the 12 months before the survey—“*feeling sad or hopeless almost every day for two or more weeks so that they stopped doing some usual activities.*” The proportion of Nevada's youth who experienced this mood disturbance was elevated compared to the proportion of high school students in the United States as a whole (30%), although this group difference did not reach statistical significance ($p=0.09$). Moreover, 22% of Nevada's adolescents reported having intentionally cut or burned themselves without wanting to die during the 12 months before the survey.

Thus, converging evidence suggests the presence of emotional disturbance and disability for adolescents in Nevada, as well as nationwide, with 12-month prevalence estimates ranging from 8% (national samples) and 9-13% (2016 SAMHSA Uniform Reporting System (URS) Output Tables-Nevada) for serious emotional disturbance (SED), and 8-11% for major depressive episode (MDE) (SAMHSA, NSDUH samples). Moreover, the hallmark symptoms of a major depressive episode were reported by ***one third of Nevada's adolescents***, which was similar to the national rate. This latter finding is suggestive of levels of psychological distress that are more pervasive in this age cohort than would be expected based on the established 12-month prevalence estimates for serious emotional disturbance (SED) and major depressive episode (MDE).

The ***second pattern*** evident from the *2015 Nevada High School Youth Risk Behavior Survey* involves a heightened risk of injury and death through suicide attempts made during the year before they participated in the survey. As reflected in **Table 2** (below) approximately 11% of Nevada's high school students reported having engaged in one or more suicide attempts during the 12 months before the survey, compared to 9% of US high school students. Importantly, that difference between the proportions for Nevada and US adolescents was statistically significant ($p=0.03$). **Table 3a** and **Table 3b** (below) provide a detailed profile of this subgroup of Nevada's adolescents by sex, age, grade and race/ethnicity (Table 3a), and by region (Table 3b). Results show the greatest numbers of suicide attempts during the prior 12 months occurred for females, students in the 9th and 10th grades, American Indians/Alaskan Natives, and for students living in rural and frontier counties.

Table 2: Summary of Emotional Health during the past 12 months, Nevada High School Students, 2015
(Adapted from: Youth Risk Behavior Surveillance System, 2015 High School Youth Risk Behavior Survey) §

Question	Nevada 2015	United States 2015	p-value	Nevada 2015 more likely than United States 2015	United States 2015 more likely than Nevada 2015	No difference (NV = US)
Felt sad or hopeless? <i>(almost every day for 2 or more weeks in a row so that they stopped doing some usual activities during the 12 mos before the survey) §</i>	32.7 (30.0–35.6) ‡	29.9 (28.0–31.8)	0.09			○
Intentionally cut or burned themselves without wanting to die? <i>(one or more times during the 12 mos before the survey) †</i>	21.5 (19.9–23.0)	—	~			
Seriously considered attempting suicide? <i>(during the 12 mos before the survey) §</i>	17.2 (14.8–20.0)	17.7 (16.7–18.8)	0.71			○
Made a plan about how they would attempt suicide? <i>(during the 12 mos before the survey) §</i>	15.8 (13.8–18.1)	14.6 (13.4–15.8)	0.31			○
Attempted suicide? <i>(one or more times during the 12 mos before the survey) §</i>	10.7 (9.1–12.6)	8.6 (7.6–9.6)	0.03	○		
Attempted suicide that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse <i>(during the 12 mos before the survey) §</i>	2.8 (2.0–3.7)	2.8 (2.2–3.5)	0.98			○

Footnotes: ‡ Percentage, 95% confidence interval; — Data not available; ~ = P-value not available

§ Accessed from [Application URL](https://nccd.cdc.gov/youthonline/App/Results.aspx?TT=G&OUT=0&SID=HS&QID=QQ&LID=NV&YID=2015&LID2=XX&YID2=2015&COL=T&ROW1=N&ROW2=N&HT=QQ&LCT=LL&FS=S1&FR=R1&FG=G1&FI=I1&FP=P1&FSL=S1&FRL=R1&FGL=G1&FIL=I1&FPL=P1&PV=&TST=True&C1=NV2015&C2=XX2015&QP=G&DP=1&VA=Ci&CS=N&SYID=&EYID=&SC=DEFAULT&SO=ASC) on June 5, 2017:

<https://nccd.cdc.gov/youthonline/App/Results.aspx?TT=G&OUT=0&SID=HS&QID=QQ&LID=NV&YID=2015&LID2=XX&YID2=2015&COL=T&ROW1=N&ROW2=N&HT=QQ&LCT=LL&FS=S1&FR=R1&FG=G1&FI=I1&FP=P1&FSL=S1&FRL=R1&FGL=G1&FIL=I1&FPL=P1&PV=&TST=True&C1=NV2015&C2=XX2015&QP=G&DP=1&VA=Ci&CS=N&SYID=&EYID=&SC=DEFAULT&SO=ASC>

† Source: Lensch T, Baxa A, Zhang F, Gay C, Larson S, Clements-Nolle K, Yang W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada Reno. *2015 Nevada High School Youth Risk Behavior Survey (YRBS)*, Table 32, p. 36.

**Table 3a: Percentage of high school students who attempted suicide ^a by sex, age, grade and race/ethnicity
 Nevada, Youth Risk Behavior Survey, 2015 §**

		Yes			No		
		N ^b	% ^c	CI (95%) ^d	N	%	CI (95%)
Overall Total	Total	488	9.8%	(8.7-10.9)	3928	90.2%	(89.1-91.3)
Sex	Female	308	11.7%	(10.0-13.4)			
	Male	176	7.8%	(6.4-9.3)			
Age	14 years old or younger	61	9.6%	(6.7-12.6)			
	15 years old	148	11.6%	(9.4-13.8)			
	16 years old	134	10.0%	(7.7-12.4)			
	17 years old	110	9.9%	(7.8-12.0)			
	18 years old or older	34	5.7	(3.2-8.3)			
Grade	9th grade	159	11.4%	(9.1-13.7)			
	10th grade	136	11.3%	(8.9-13.7)			
	11th grade	115	8.8%	(6.7-11.0)			
	12th grade	70	7.5%	(5.6-9.3)			
Race/Ethnicity	American Indian/Alaska Native	10	16.5%	(5.2-27.9)			
	Asian	19	8.0%	(3.8-12.2)			
	Black	21	8.0%	(4.1-11.9)			
	Native Hawaiian/Pacific Islander	9	9.5%	(2.4-16.6)			
	White	173	8.4%	(6.6-10.1)			
	Hispanic/Latino	210	11.4%	(9.6-13.2)			

Footnotes:

^a Attempted suicide one or more times during the 12 months before the survey.

^b Sample size in the total and subgroups may differ due to missing data.

^c Weighted row percent

^d Percentage, 95% confidence interval

§ Adapted from: Lensch T, Baxa A, Zhang F, Gay C, Larson S, Clements-Nolle K, Yang W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada Reno. *2015 Nevada High School Youth Risk Behavior Survey (YRBS)*, Table 30, p. 34.

Table 3b: Percentage of high school students who attempted suicide ^a by region Nevada, Youth Risk Behavior Survey, 2015 §							
		Yes			No		
		N ^b	% ^c	CI (95%) ^d	N	%	C.I. (95%)
Overall Total	Total	488	9.8%	(8.7-10.9)	3928	90.2%	(89.1-91.3)
Region	Carson City and Douglas	35	11.7%	(3.1-20.4)			
	Elko, White Pine and Eureka	37	11.4%	(7.0-15.9)			
	Churchill, Humboldt, Pershing and Lander	26	8.3%	(3.0-13.5)			
	Lyon, Mineral and Storey	25	12.8%	(7.9-17.6)			
	Nye and Lincoln	52	14.9%	(11.4-18.4)			
	Washoe	119	11.7%	(9.0-14.4)			
	Clark	194	9.2%	(7.8-10.5)			

Footnotes:

^a Attempted suicide one or more times during the 12 months before the survey.

^b Sample size in the total and subgroups may differ due to missing data.

^c Weighted row percent

^d Percentage, 95% confidence interval

§ Adapted from: Lensch T, Baxa A, Zhang F, Gay C, Larson S, Clements-Nolle K, Yang W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada Reno. 2015 Nevada High School Youth Risk Behavior Survey (YRBS), Table 30, p. 34.

Suicide Attempts with Injuries and Medical Intervention among Nevada’s Youth, 2015: The 2015 Nevada High School Youth Risk Behavior Survey results determined that 3% of Nevada’s high school students reported having made suicide attempts that resulted in injury, poisoning or overdose, and that required treatment from a doctor or nurse. The national rate for suicide attempts that resulted in medical intervention did not differ from Nevada’s rate. Thus, Nevada’s adolescents were more likely to have made a suicide attempt during the 12 months before participating in the survey, compared to US adolescents as a whole, but this group effect did not hold for attempts that required treatment from a medical professional.

Tables 4a – 4g (below) show the frequencies of suicide related injuries among Nevada’s residents who were treated during emergency department visits from February 1, 2014 to May 31, 2015. Frequencies represent numbers of injuries that are reported by external cause of injury (methods of self injury), age and region. Age is distinguished among children younger than 14, adolescents aged 14 to 19, and adults aged 20 and older. The most frequently used methods for these attempts statewide were self-inflicted poisoning by solid or liquid substances and self-inflicted injury by cutting and piercing instrument. These most common methods were observed across all urban and rural regions of the state.

Tables 4a – 4e: Rural and Frontier Counties

Table 4a: Carson City & Douglas County

Suicide Attempts: External Cause of Injury, Emergency Room Visits by Age, 02/01/2014-5/31/2015

	Age during Emergency Room Visit		
	< 14 <i>f</i>	14-19 <i>f</i>	20+ <i>f</i>
Solid or Liquid Substance	3	33	38
Gases in Domestic Use	0	0	0
Other Gases and Vapors	0	1	0
Hanging Strangulation and Suffocation	0	1	4
Submersion [Drowning]	0	0	0
Firearms Air Guns and Explosives	0	0	1
Cutting and Piercing Instrument	1	18	44
Jumping form High Place	0	0	0
Other and Unspecified Means	0	5	9

Source: *Hospital Emergency Room Discharge, Nevada Division of Public and Behavioral Health, Office of Public Informatics and Epidemiology, June 2017*

**Categories are not mutually exclusive.*

**Table 4b: Elko County, White Pine County, Eureka County
 Suicide Attempts: External Cause of Injury, Emergency Room Visits by Age, 02/01/2014-5/31/2015**

	Age during Emergency Room Visit		
	< 14 <i>f</i>	14-19 <i>f</i>	20+ <i>f</i>
Solid or Liquid Substance	1	19	45
Gases in Domestic Use	0	0	0
Other Gases and Vapors	0	0	1
Hanging Strangulation and Suffocation	0	1	1
Submersion [Drowning]	0	0	0
Firearms Air Guns and Explosives	0	1	1
Cutting and Piercing Instrument	0	7	16
Jumping form High Place	0	0	0
Other and Unspecified Means	1	1	4

Source: Hospital Emergency Room Discharge, Nevada Division of Public and Behavioral Health, Office of Public Informatics and Epidemiology, June 2017

*Categories are not mutually exclusive.

**Table 4c: Churchill County, Humboldt County, Pershing County, Lander County
 Suicide Attempts: External Cause of Injury, Emergency Room Visits by Age, 02/01/2014-5/31/2015**

	Age during Emergency Room Visit		
	< 14 <i>f</i>	14-19 <i>f</i>	20+ <i>f</i>
Solid or Liquid Substance	5	17	52
Gases in Domestic Use	0	0	0
Other Gases and Vapors	0	1	0
Hanging Strangulation and Suffocation	0	3	5
Submersion [Drowning]	0	0	0
Firearms Air Guns and Explosives	0	0	3
Cutting and Piercing Instrument	1	10	21
Jumping form High Place	0	0	0
Other and Unspecified Means	0	2	6

Source: Hospital Emergency Room Discharge, Nevada Division of Public and Behavioral Health, Office of Public Informatics and Epidemiology, June 2017

*Categories are not mutually exclusive.

**Table 4d: Lyon County, Mineral County, Storey County
 Suicide Attempts: External Cause of Injury, Emergency Room Visits by Age, 02/01/2014-5/31/2015**

	Age during Emergency Room Visit		
	< 14 <i>f</i>	14-19 <i>f</i>	20+ <i>f</i>
Solid or Liquid Substance	5	10	23
Gases in Domestic Use	0	0	0
Other Gases and Vapors	0	0	0
Hanging Strangulation and Suffocation	0	0	2
Submersion [Drowning]	0	0	0
Firearms Air Guns and Explosives	0	0	0
Cutting and Piercing Instrument	0	13	15
Jumping form High Place	0	0	0
Other and Unspecified Means	2	0	6

Source: Hospital Emergency Room Discharge, Nevada Division of Public and Behavioral Health, Office of Public Informatics and Epidemiology, June 2017

*Categories are not mutually exclusive.

**Table 4e: Nye County & Lincoln County
 Suicide Attempts: External Cause of Injury, Emergency Room Visits by Age, 02/01/2014-5/31/2015**

	Age during Emergency Room Visit		
	< 14 <i>f</i>	14-19 <i>f</i>	20+ <i>f</i>
Solid or Liquid Substance	2	21	68
Gases in Domestic Use	0	0	0
Other Gases and Vapors	0	0	1
Hanging Strangulation and Suffocation	0	0	3
Submersion [Drowning]	0	0	0
Firearms Air Guns and Explosives	0	0	1
Cutting and Piercing Instrument	5	19	27
Jumping form High Place	0	0	0
Other and Unspecified Means	0	5	14

Source: Hospital Emergency Room Discharge, Nevada Division of Public and Behavioral Health, Office of Public Informatics and Epidemiology, June 2017

*Categories are not mutually exclusive.

Tables 4f – 4g: Urban Counties

Table 4f: Washoe County

Suicide Attempts: External Cause of Injury, Emergency Room Visits by Age, 02/01/2014-5/31/2015

	Age during Emergency Room Visit		
	< 14 <i>f</i>	14-19 <i>f</i>	20+ <i>f</i>
Solid or Liquid Substance	10	130	352
Gases in Domestic Use	0	0	0
Other Gases and Vapors	0	0	1
Hanging Strangulation and Suffocation	0	7	8
Submersion [Drowning]	0	0	0
Firearms Air Guns and Explosives	0	0	6
Cutting and Piercing Instrument	5	39	231
Jumping form High Place	0	0	3
Other and Unspecified Means	2	17	44

Source: Hospital Emergency Room Discharge, Nevada Division of Public and Behavioral Health, Office of Public Informatics and Epidemiology, June 2017

*Categories are not mutually exclusive.

Table 4g: Clark County

Suicide Attempts: External Cause of Injury, Emergency Room Visits by Age, 02/01/2014-5/31/2015

	Age during Emergency Room Visit		
	< 14 <i>f</i>	14-19 <i>f</i>	20+ <i>f</i>
Solid or Liquid Substance	49	381	1437
Gases in Domestic Use	0	0	2
Other Gases and Vapors	0	3	15
Hanging Strangulation and Suffocation	6	21	66
Submersion [Drowning]	0	0	1
Firearms Air Guns and Explosives	0	1	30
Cutting and Piercing Instrument	41	229	631
Jumping form High Place	0	2	17
Other and Unspecified Means	11	64	236

Source: Hospital Emergency Room Discharge, Nevada Division of Public and Behavioral Health, Office of Public Informatics and Epidemiology, June 2017

*Categories are not mutually exclusive.

Emotional Health Profile of Nevada’s Middle School Students (Grades 6-8):

Table 5 (below) summarizes the results from the *2015 Nevada Middle School Youth Risk Behavior Survey* (Grades 6-8). Because not all states conduct the *Middle School Youth Risk Behavior Survey* (YRBS), a representative national sample is not available for comparison. Results show that more than 30% of Nevada’s Middle School students reported experiencing depressed mood every day for two or more weeks in a row and reduced involvement in their typical activities. This rate is numerically comparable to the proportion of Nevada’s High School students who reported this mood disturbance. Suicidal thoughts and behaviors reported by Nevada Middle School students ranged from suicidal ideation and suicide planning to attempted suicide, and the proportions of Middle School students in each of these categories paralleled the proportions observed for the older state and national High School samples. Importantly, 20% of Nevada’s Middle School students reported having engaged in intentionally injuring themselves without wanting to die, which is similar to the proportion of Nevada’s High School students reporting those behaviors.

Table 5: Summary of Emotional Health, Nevada Middle School Students, 2015

(Adapted from: Youth Risk Behavior Surveillance System, 2015 High School Youth Risk Behavior Survey §)

Question	Nevada Middle School Students (Grades 6-8)
Felt sad or hopeless. <i>(almost every day for 2 or more weeks in a row so that they stopped doing some usual activities)</i>	31.4 (29.0–33.7) ‡
Ever seriously considered killing themselves.	22.9 (21.2–24.6)
Ever made a plan about how they would kill themselves.	13.4 (12.1–14.8)
Ever tried killing themselves.	8.7 (7.5–9.8)
Ever done something to purposely hurt themselves without wanting to die, such as cutting or burning themselves on purpose.	20.2 (18.5–21.9)

Footnote: ‡ Weighted percentage, 95% confidence interval

§ *Adapted from:* Lensch T, Baxa A, Zhang F, Gay C, Larson S, Clements-Nolle K, Yang W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada Reno. *2015 Nevada Middle School Youth Risk Behavior Survey (YRBS)*, Tables 21-25, pp. 24-28.

SUMMARY: Findings from the recent *2015 National Surveys on Drug Use and Health* and the *2015 Nevada High School Youth Risk Behavior Survey* indicate the health and well being of Nevada’s children and adolescents are compromised, and raise serious questions about the services available to these individuals through the state’s current mental health system. An important question concerns whether responsible adults and educators were aware that Nevada’s high school and middle school students were experiencing significant psychological distress, and engaging in suicide attempts and deliberate acts of self harm that did not necessarily result in medical intervention. A related question concerns the severity of their distress, and the degree of their suicide risk and self injury. It is possible that the acuity of psychological distress and the lethality of suicidal behaviors were low to moderate, and that each resolved without attracting much attention. It is also possible that in the absence of effective mental health intervention, such *psychological distress* and *‘silent’ suicide attempts* may escalate in syndromal distinctiveness and severity, and in risk for injury and death. Providing appropriate and optimal interventions to such individuals will depend on a range of health services capacities, including the accurate identification of subsets within these populations. *Nevada’s current mental health workforce is underdeveloped, and ongoing training and educational efforts have been identified as a program priority for FFY2018-2019.*

DRAFT

Access to Services for Nevada’s Children with Serious Emotional Disturbance (SED):

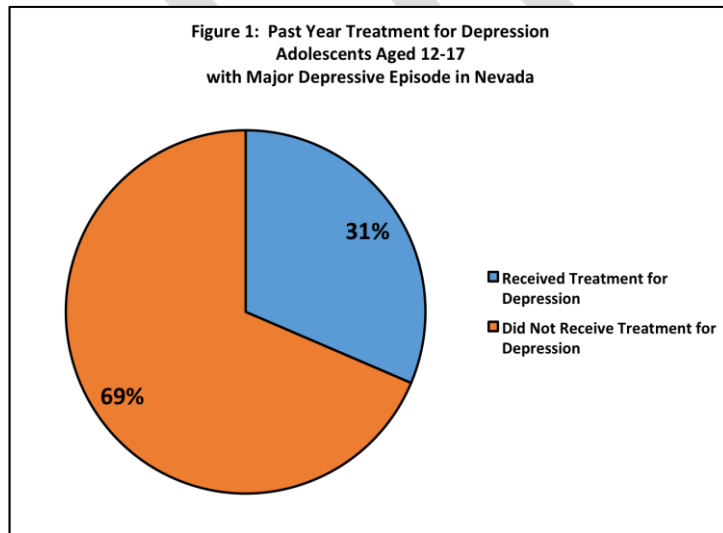
Services Provided by the Nevada State Mental Health Authority (SMHA): An estimated 37,266 children in Nevada suffered from serious emotional disturbance (SED) during 2015-2016, which represents 11% of the state’s youth population (2016 SAMHSA Uniform Reporting System (URS) Output Tables-Nevada). Based on the National Outcomes Measures (NOMS) for this period, 3,035 children with serious emotional disturbance (SED) were served by Nevada’s State Mental Health Authority (SMHA), which represents eight percent (8%) of the estimated services need for this population. Service penetration rates are presented below for Nevada’s children aged 0-17, and the national rates are provided as a comparison.

Age (years)	Total Served				Penetration Rates (per 1,000 population)	
	Nevada		US		State	US
	n	%	n	%		
Total	13,435	100.0%	4,979,257	100.0%	4.6	15.3
0-12	1,404	10.5%	769,252	15.4%	2.9	14.6
13-17	1,631	12.1%	639,492	12.8%	8.7	30.6

Source: 2016 SAMHSA Uniform Reporting System (URS) - Nevada

Division of Child and Family Services (DCFS), in the Nevada Department of Health and Human Services (DHHS), reported serving 2,486 children with SED during FY 2016. Of the 3,035 children with SED who were served by the State Mental Health Authority, an estimated 530 children were provided care in Nevada’s rural communities through the Division of Public and Behavioral Health (DPBH) Rural Clinics for Mental Health Services. These services include patient assessments in the rural hospitals, and direct care services at each of 16 Rural Clinic locations.

Treatment for Depression Among Nevada’s Adolescents with Major Depressive Episode, Aged 12-17: As summarized in the previous section, the most recent available data reported by the National Surveys on Drug Use and Health (NSDUH) indicate that approximately 26,000 adolescents in Nevada (11.6% of all adolescents in the state), per year in 2013-2014, experienced at



least one Major Depressive Episode (MDE) during the year before being surveyed. Nevada’s percentage of adolescents experiencing MDE was similar to the national percentage. Importantly, as shown in **Figure 1** (left), almost one-third of Nevada’s adolescents with MDE received treatment for depression (31.4%), which was similar to the annual national average (38.6%) from 2010 to 2014.

Source: SAMHSA, Center for Behavioral Health and Quality, NSDUH, 2010-2014

Hospital Emergency Room Visits for Mental Health Conditions Among Nevada’s Youth, Aged 17 and Younger: Limited access to community-based mental health services contributes to over-utilization of hospital emergency departments. Billing data for hospital emergency room visits related to mental health conditions were examined as indicators of serious emotional disturbance (SED) that was either untreated or ineffectively managed. **Table 9** (below) provides the frequencies of emergency room visits by mental health conditions in four domains: mental disorder categories (mood, anxiety, psychosis); suicidal behaviors (tendencies and ideation); suicide attempts by method; and substance use disorders (alcohol and other drug). Condition frequencies are based on emergency room billing codes compiled by University of Nevada, Las Vegas, Center for Health Information Analysis (CHIA). Data are based on visits, not patients, with any single individual potentially representing multiple visits.

Depression, drug-related conditions, suicidal ideation and anxiety were the most frequent mental health conditions diagnosed for Nevada youth who presented to emergency rooms in Nevada hospitals from 2009 to 2014. Suicide conditions accounted for 39% of the total visits over that six-year period for this cohort of youth aged 17 and younger. Suicide attempts, combined across methods (n=2,989 visits), represented 13% of suicide conditions. Suicidal tendencies and ideation (n=5,907 visits) accounted for an additional 26% of the suicide category.

Table 9: Select Mental Health Related Emergency Room Visits by Gender, Aged 17 and Younger, Nevada Residents, 2009-2014

Condition	Female		Male		Unknown		Total
	N	Row %	N	Row %	N	Row %	
Anxiety	2,668	65.1%	1,428	34.9%	0	0.0%	4,096
Depression	4,294	66.2%	2,197	33.8%	0	0.0%	6,491
Bipolar	1,243	49.8%	1,252	50.2%	0	0.0%	2,495
PTSD	270	57.6%	199	42.4%	0	0.0%	469
Schizophrenia	202	49.3%	208	50.7%	0	0.0%	410
Suicidal Tendencies	877	66.7%	437	33.3%	0	0.0%	1,314
Suicidal Ideation	2,767	60.2%	1,826	39.8%	0	0.0%	4,593
Alcohol Related	1,501	47.1%	1,687	52.9%	0	0.0%	3,188
Other Drug Related	3,394	52.9%	3,018	47.1%	1	0.0%	6,413
Suicide Attempt- Solid or Liquid	1,334	77.7%	382	22.3%	0	0.0%	1,716
Suicide Attempt- Gases in Domestic Use	0	0.0%	1	100.0%	0	0.0%	1
Suicide Attempt- Other Gases and Vapors	5	35.7%	9	64.3%	0	0.0%	14
Suicide Attempt- Hanging, Strangulation, Suffocation	43	46.7%	49	53.3%	0	0.0%	92
Suicide Attempt- Cutting & Piercing Instrument	642	73.2%	235	26.8%	0	0.0%	877
Suicide Attempt- Firearms, Air Guns, Explosives	2	20.0%	8	80.0%	0	0.0%	10
Suicide Attempt- Jumping from High Place	8	66.7%	4	33.3%	0	0.0%	12
Suicide Attempt- Drowning	2	100.0%	0	0.0%	0	0.0%	2
Suicide Attempt- Other Unspecified Means	104	39.2%	161	60.8%	0	0.0%	265
Total Behavioral Health Visits*	13,012	56.9%	9,851	43.1%	1	0.0%	22,864

Source: Hospital Emergency Room Discharge, Nevada Division of Public and Behavioral Health, Office of Public Informatics and Epidemiology, June 2017

* Categories are not mutually exclusive.

Medicaid Expansion under the Affordable Care Act (ACA) and Health Services Utilization: Health care financing plays a significant role in the frequency and type of health services that people use. Equally important is the availability and quality of health care services. Both factors are clearly reflected in the patterns of health services utilization observed among Nevada residents. Firstly, the numbers of Nevada residents covered by Medicaid benefits more than doubled when the state expanded Medicaid coverage in 2014 by Governor Brian Sandoval under the Affordable Care Act (ACA), increasing from **351,315 in 2013** to **654,442 in 2015**. Secondly, as reflected in **Table * (below)**, this increase in health care coverage appears to have impacted the frequency with which Nevada residents used health care services, most notably inpatient facilities and hospital emergency departments. Thus, the dual influences of increased health care coverage, and limited access to appropriate and optimal services are demonstrated in the utilization of Emergency Department Services for a wide range of mental health-related conditions from 2009 to 2014, shown in **Table * (above)**, and the dramatic increase in emergency room visits in 2015, after Medicaid expansion in 2014, shown in **Table * (below)**.

Table *: Medicaid Managed Care Organizations (MCO) and Fee-for-Service (FFS) Utilization, 2015			
MCO-FFS Utilization: Percent Change from Calendar Years 2013 – 2015			
Provider/Service Type	2013	2015	% Change
MCO			
Inpatient	441	6,626	93%
Outpatient	588,868	1,482,972	60%
Emergency Room Visits	9,014	48,784	82%
FFS			
Inpatient	4,656	8,645	46%
Outpatient	2,197,658	2,474,380	11%
Emergency Room Visits	6,298	12,019	48%
<i>Source: S. Woodard and Nevada Division of Health Care Financing and Policy (2016)</i>			

• **ADULTS WITH SERIOUS MENTAL ILLNESS (SMI) ***

Rates of Serious Mental Illness (SMI) Among Nevada’s Adults Aged 18 and Older:

An estimated 119,373 adults in Nevada suffered from serious mental illness (SMI) during 2015-2016, which represents 5.4% of the state’s adult population (2016 SAMHSA Uniform Reporting System (URS) Output Tables-Nevada). This estimate is generally consistent with the 12-month prevalence rates for adults aged 18 and older who participated in national and international community epidemiology surveys. Based on the U.S. National Comorbidity Survey Replication (Kessler et al., 2005), the 12-month prevalence estimate for the presence of a serious mental disorder was 5.7%. Based on the World Health Organization-World Mental Health Surveys (Kessler et al., 2012), involving 28 countries, the 12-month prevalence estimates for serious mental illness (SMI) were: 4.0-6.8% for one-half of the surveys; 2.3-3.6% for another quarter; and 0.8-1.9% for the final quarter. Finally, those prevalence estimates are also similar to the range of estimates for serious mental illness (SMI) among adults in Nevada and the United States based on the National Surveys on Drug Use and Health (NSDUH), which are presented in **Table 6** (below).

Table 6: Past Year Serious Mental Illness (SMI) Among Adults Aged 18 or Older in Nevada and the United States: 2010-2011 to 2013-2014				
Years	2010-2011	2011-2012	2012-2013	2013-2014
Nevada	4.0%	3.9%	4.1%	4.3%
United States	3.9%	4.0%	4.1%	4.2%

Source: Substance Abuse and Mental Health Services Administration. *Behavioral Health Barometer: Nevada, 2015*. HHS Publication No. SMA-16-Baro-2015-NV. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

The most recent available NSDUH data indicate that approximately 91,000 adults in Nevada (4.3% of all adults), per year in 2013-2014, experienced serious mental illness during the year before being surveyed. Nevada’s rate was similar to the national percentage for that same survey period. The percentage of adults with SMI did not change significantly from 2010-2011 to 2013-2014.

It is worthwhile to note the quality of the assessment methodology used to obtain the estimates of serious mental illness in the 2015 National Survey on Drug Use and Health (NSDUH). Estimates for this diagnostic category were based on follow-up telephone interviews of a sub-sample from the Mental Health Surveillance Study (MHSS). These follow-up contacts included the administration of structured clinical interviews (Structured Clinical Interview for DSM-IV, SCID-IV: First et al., 2002) by trained mental health clinicians. Adults with serious mental illness (SMI) were identified from among individuals who met the criteria for any mental illness (AMI) based on these interviews. An adult with AMI was any person having the presence of any mental, behavioral or emotional disorder during the past year that met DSM-IV criteria, excluding developmental disorders and substance use disorders. Adults with AMI were defined as having SMI if they had any mental, behavioral, or emotional disorder that substantially interfered with or limited one or more major life activities (Center for Behavioral Health Statistics and Quality, 2016).

Expected Rates of Specific Mental Disorders Among Nevada’s Adults, Aged 18 and Older:

Lifetime and twelve-month prevalence rates for specific mental disorders are available from a nationally representative face-to-face household survey (Kessler et al., 2005, *United States National Comorbidity Survey Replication*) and international face-to-face community surveys conducted in seventeen countries in Africa, the Americas, Asia and the Pacific, Europe and the Middle East (Kessler et al., 2007b, *World Health Organization’s World Mental Health Survey*). Both surveys were conducted from February 2001 to April 2003. Consideration of these data provides empirically-derived benchmarks for anticipating the expected rates for Nevada residents who are members of the targeted populations, as well as for assessing the levels of access to appropriate and optimal services for those targeted population members.

Table 7a and **Table 7b** (below) present the ranges of lifetime and 12-month prevalence estimates for specific classes of disorders (anxiety disorders, mood disorders, impulse-control disorders, substance use disorders, and any disorder) that were determined by the *United States National Comorbidity Survey Replication* and the *World Health Organization’s World Mental Health Survey*.

Survey	Any anxiety disorder	Any mood disorder	Any impulse-control disorder	Any substance-use disorder	Any disorder
WHO World Mental Health Surveys ¹					
<u>All 17 Countries combined</u> (Aged 18 & older; 14 countries)	Median % (IQR) ^a 4.8-31.0 (9.9-16.7)	Median % (IQR) 3.3-21.4 (9.8-15.8)	Median % (IQR) 0.3-25.0 (3.1-5.7)	Median % (IQR) 1.3-15.0 (4.8-9.6)	Median % (IQR) 12.0-47.4 (18.1-36.1)
<u>United States</u> (Aged 18 & older)	%/N ^b (SE) ^c 31.0/2692 (1.0)	%/N (SE) 21.4/2024 (0.6)	%/N (SE) 25.0/1051 (1.1)	%/N (SE) 14.6/1144 (0.6)	%/N (SE) 47.4/3929 (1.1)
United States National Comorbidity Survey Replication² (Aged 18 & older)	% (SE) 28.8 (0.9)	% (SE) 20.8 (0.6)	% (SE) 24.8 (1.1)	% (SE) 14.6 (0.6)	% (SE) 46.4 (1.1)

Adapted from: ¹Kessler et al. (2007b); ² Kessler et al. (2005a).

^a IQR; 25th – 75th percentiles across countries. ^b N=number of respondents with the disorders indicated in the column heading; denominators were the numbers of respondents by disorder in each sample by country. ^c SE; standard error.

Survey	Any anxiety disorder	Any mood disorder	Any impulse-control disorder	Any substance-use disorder	Any disorder
WHO World Mental Health Surveys ^{1,2}					
<u>All Countries combined</u> (Aged 18 & older)	Mean % (IQR) [†] 8.3 (6.5-12.1)	Mean % (IQR) 5.1 (3.4-6.8)	Mean % (IQR) 0.1-10.5.0 (0.6-2.6)	Mean % (IQR) 0.2-6.4 (1.2-2.8)	Mean % (IQR) 4.3-26.4 (9.1-16.9)
<u>United States</u> (Aged 18 & older)	Mean % (SE) § 19.0 (0.7)	Mean % (SE) 9.7 (0.4)	Mean % (SE) 10.5 (0.7)	Mean % (SE) 3.8 (0.4)	Mean % (SE) 27.0 (0.9)
United States National Comorbidity Survey Replication ³ (Aged 18 & older)	% (SE) 18.1 (0.7)	% (SE) 9.5 (0.4)	% (SE) 8.9 (0.5)	% (SE) 3.8 (0.3)	% (SE) 26.2 (0.8)

Adapted from: ¹ Kessler et al. (2007b); ² Kessler et al. (2004); ³ Kessler et al. (2005b).

[†] IQR; 25th – 75th percentiles across countries

§ SE; standard error

Expected Rates of Schizophrenia, Non-affective Psychosis (NAP) and Bipolar Disorder Among Nevada’s Adults, Aged 18 and Older: The median rate of new cases of *schizophrenia* each year, or incidence, is estimated to be 15.2 per 100,000 population (McGrath et al., 2008), and the first episode of psychosis exhibits a peak onset between 15 and 25 years of age (Heinssen et al., 2014; Kessler et al., 2007). The estimated lifetime prevalence rates for schizophrenia and schizophreniform disorders range from 0.3-1.6% per 1,000 population (Kessler et al., 2005c). The lifetime prevalence rate for the broader category of *non-affective psychosis (NAP)* is estimated at approximately twice the rate for schizophrenia and schizophreniform disorder (Kessler et al., 2005c). Non-affective psychosis (NAP) has been examined systematically in at least one large-scale community epidemiology survey (Kendler et al., 1996), in which a probability subsample received an initial screen for psychotic symptoms, and detailed follow up interviews that were conducted by mental health professionals of *one-third of the initial participants* based on their responses to the screen. Clinician defined diagnoses of non-affective psychosis in that study resulted in lifetime prevalence rates of 0.2% for narrowly-defined NAP and 0.7% for broadly-defined NAP. Clinical validity was additionally examined, with the clinician defined diagnoses determined to be predictive of clinical (hospitalization, medication, illness duration, thought disorder) and social functioning (chronic impairment, low income, unemployment, urban residence, and marital status of single, divorced or separated) characteristics.

The lifetime prevalence rates for *bipolar disorder (BPD)*, estimated from a nationally representative community survey of United States households, indicate average (standard deviation)

rates of 1.0% (13.2) for *Bipolar I*; 1.1% (10.6) for *Bipolar II*; and 2.4% (23.3) for *Subthreshold Bipolar Disorder* (Merikangas et al., 2007). Twelve-month prevalence rates estimated from the same survey included: 0.6% (9.2) for *Bipolar I*; 0.8% (9.9) for *Bipolar II*; and 1.4% (15.4) for *Subthreshold Bipolar Disorder*. Age at onset estimates for those diagnoses ranged from averages of 18.2 years and 20.3 years for *Bipolar I* and *Bipolar II*, respectively, and interquartile ranges (25th-75th percentiles) from 12.3-21.2 years and 12.1-24.0 years, respectively. Age-of-onset was somewhat later for *Subthreshold Bipolar Disorder*, with an average of 22.2 years and a range from 13.0-28.3 years. Importantly, prevalence rates for the same categories of *bipolar disorder* observed by the World Mental Health Survey Initiative (Merikangas et al., 2011), based on 11 countries, are generally consistent with the rates obtained from the community survey of U.S. households described above.

To reemphasize, findings from the community epidemiological surveys summarized above provide empirically-derived benchmarks for anticipating the expected rates for Nevada residents who are members of the targeted populations, as well as for assessing the levels of access to appropriate and optimal services for those targeted population members.

Rates of Specific Mental Disorders Among Nevada’s Adults, Aged 18 and Older:

Division of Public and Behavioral Health (DPBH or the Division) is the largest provider of mental health services in Nevada. During the period from 2010-2014, the Division provided mental health services to 57,920 Nevada adults. Females comprised 54% of the patient population and males represented 46%. White non-Hispanic individuals represented 62% of patients. The largest age group was 31-50 years old, and this group accounted for 45% of patients. Twenty-five percent (25%) of patients were high school graduates, 20% had “some college,” and 20% reported “less than 12th grade, no diploma.”

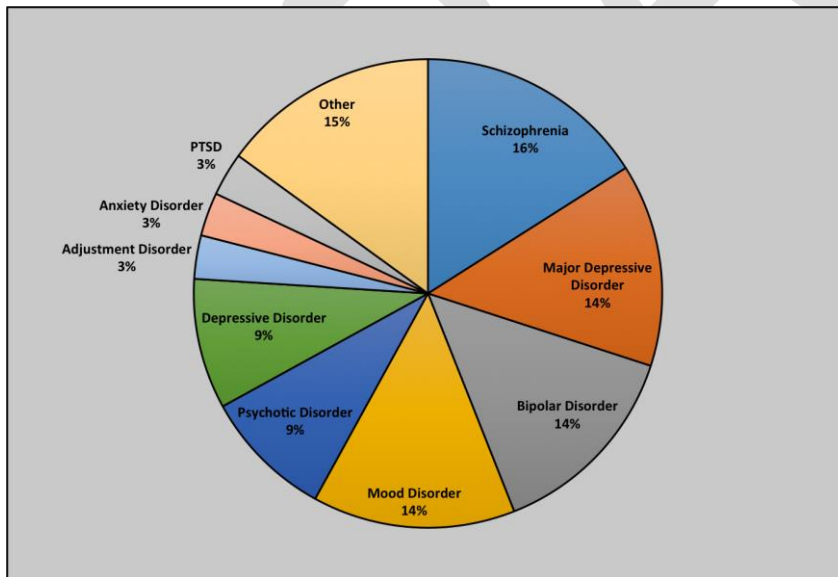


Figure * (left) shows the most common mental disorder diagnoses that were assigned to those Nevada residents during the 5-year period from 2010-2014. Schizophrenia and mood disorders were most frequently diagnosed, and adjustment and anxiety disorders, including post-traumatic stress disorder, were the least frequently diagnosed.

**Figure **: Most Common Mental Health Diagnoses, 2010-2014
Nevada Division of Public and Behavioral Health**

Source: AVATAR, Division of Public and Behavioral Health,
Office of Public Informatics and Epidemiology, June 2017

Rates of Suicide and Suicide-related Behaviors Among Nevada’s Adults Aged 18 and Older:

Rates of Suicide Deaths Among Nevadans by Region: ADD Table of Griswold-Packham data showing urban/rural breakdowns from 2009 – 2014.

Rates of Suicide Ideation Among Nevada’s Adults Aged 18 and Older: The most recent available data from the National Surveys on Drug Use and Health (2015 NSDUH) indicate that approximately 92,000 adults in Nevada (4.4% of all adults), per year during 2013-2014, had serious thoughts of suicide during the year before participating in the survey. Nevada’s rate was similar to the national percentage observed for that same period. **Table *** (below) presents the range of estimates for serious thoughts of suicide among adults in Nevada and the United States. The percentages did not change significantly across the five-year period.

Table 7: Past Year Serious Thoughts of Suicide Among Adults Aged 18 or Older in Nevada and the United States: 2010-2011 to 2013-2014				
Years	2010-2011	2011-2012	2012-2013	2013-2014
Nevada	3.6%	3.8%	3.8%	4.4%
United States	3.8%	3.8%	3.9%	3.9%

Source: Substance Abuse and Mental Health Services Administration. *Behavioral Health Barometer: Nevada, 2015*. HHS Publication No. SMA-16-Baro-2015-NV. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

Access to Mental Health Services for Nevada’s Adults with Serious Mental Illness (SMI):

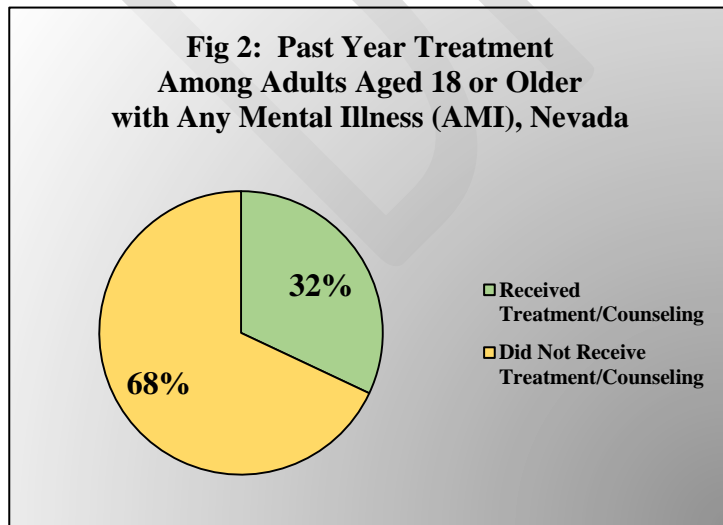
Services Provided by the Nevada State Mental Health Authority (SMHA): An estimated 119,373 adults in Nevada suffered from serious mental illness (SMI) during 2015-2016, which represents 5.4% of the state’s civilian adult population (2016 SAMHSA Uniform Reporting System (URS) Output Tables-Nevada). Based on the National Outcomes Measures (NOMS) for this period, 10,400 adults with serious mental illness (SMI) were served by Nevada’s State Mental Health Authority, which represents 9% of the estimated need for services. **Table 8** (below) presents the service penetration rates for Nevada adults with SMI, and the national rates are provided as a comparison.

Age (years)	Total Served				Penetration Rates (per 1,000 population)	
	Nevada		US		State	US
	n	%	n	%		
Total	13,435	100.0%	4,979,257	100.0%	4.6	15.3
18-20	288	2.1%	205,480	4.1%	3.0	16.0
21-64	9,512	70.8%	3,143,936	63.1%	5.6	16.8
65-74	533	4.0%	162,995	3.3%	2.0	5.9
75 and over	67	0.5%	56,810	1.1%	0.4	3.1

Source: 2016 SAMHSA Uniform Reporting System (URS) - Nevada

Thirty-four percent (34%) of the 10,400 adults with SMI who were served by Nevada’s mental health system received their care from the Rural Clinics for Mental Health Services, which include patient assessments in rural hospitals, and direct care at each of the 16 rural clinic locations.

Mental Health Treatment/Counseling for Any Mental Illness Among Nevada’s Adults, Aged 18 or Older: As summarized in the previous section, the most recent available data reported by the National Surveys on Drug Use and Health (NSDUH) indicate that approximately 91,000 adults in Nevada (4.3% of all adults in the state), per year in 2013-2014, experienced serious mental illness (SMI) during the year before being surveyed. Nevada’s percentage of SMI was similar to the national percentage for that same period. Moreover, the percentage of adults with



SMI did not change significantly from 2010-2011 to 2013-2014. As shown in **Figure 2** (left), approximately 113,000 adults with any mental illness (AMI) in Nevada (32% of all adults with AMI), per year from 2010 to 2014, received mental health treatment or counseling within the year before being surveyed. However, Nevada’s annual average (32%) for treatment of AMI was *lower than* the national annual average (42.7%) from 2010 to 2014.

Source: SAMHSA, Center for Behavioral Health and Quality, NSDUH, 2010-2014

Hospital Emergency Room Visits for Mental Health Conditions Among Nevada’s Adults, Aged 18 or Older: Limited access to effective community-based mental health services, including crisis interventions, contributes to over-utilization of hospital emergency department services. Billing data for hospital emergency room visits related to mental health were considered as indicators of serious mental illness (SMI) that was either untreated or ineffectively managed.

Table * (below) provides the frequencies of visits to Nevada hospital emergency rooms among adults aged 18 or older by mental health conditions in four domains: mental disorder categories (mood, anxiety, psychosis); suicidal behaviors (tendencies and ideation); suicide attempts by method; and substance use disorders (alcohol and other drug). Frequencies are based on emergency room billing codes compiled by University of Nevada, Las Vegas, Center for Health Information Analysis (CHIA). Data are based on visits, not patients, with any single individual potentially representing multiple visits.

Anxiety, substance use conditions, depression and suicide-related behaviors were mental health conditions most frequently diagnosed for Nevada residents aged 18 or older who presented to emergency rooms in Nevada hospitals from 2009 to 2014. Suicide conditions accounted for 15% of the total mental health related visits over that six-year period. Suicide attempts, combined across methods of self injury (n=17,034 visits), represented 23% of suicide conditions. Suicidal tendencies and ideation (n=57,072 visits) accounted for an additional 77% of the suicide category.

Table **: Select Behavioral Health Related Emergency Room Visits by Gender, Ages 18 or Older, Nevada Residents, 2009-2014

Condition	Female		Male		Unknown		Total
	N	Row %	N	Row %	N	Row %	
Anxiety	97,406	66.6%	48,761	33.4%	3	0.0%	146,170
Depression	72,565	61.2%	45,987	38.8%	2	0.0%	118,554
Bipolar	30,814	59.6%	20,890	40.4%	1	0.0%	51,705
PTSD	5,385	55.9%	4,244	44.1%	0	0.0%	9,629
Schizophrenia	11,407	37.5%	19,035	62.5%	1	0.0%	30,443
Suicidal Tendencies	4,937	46.1%	5,769	53.9%	0	0.0%	10,706
Suicidal Ideation	19,635	42.3%	26,731	57.7%	0	0.0%	46,366
Alcohol Related	43,725	30.3%	100,378	69.7%	6	0.0%	144,109
Other Drug Related	48,645	44.9%	59,627	55.1%	3	0.0%	108,275
Suicide Attempt- Solid or Liquid	6,528	64.0%	3,670	36.0%	0	0.0%	10,198
Suicide Attempt- Gases in Domestic Use	2	33.3%	4	66.7%	0	0.0%	6
Suicide Attempt- Other Gases and Vapors	33	32.0%	70	68.0%	0	0.0%	103
Suicide Attempt- Hanging, Strangulation, & Suffocation	104	29.9%	244	70.1%	0	0.0%	348
Suicide Attempt- Cutting & Piercing Instrument	2,614	56.3%	2,031	43.7%	1	0.0%	4,646
Suicide Attempt- Firearms, Air Guns, & Explosives	31	18.8%	134	81.2%	0	0.0%	165
Suicide Attempt- Jumping from High Place	21	28.0%	54	72.0%	0	0.0%	75
Suicide Attempt- Drowning	5	50.0%	5	50.0%	0	0.0%	10
Suicide Attempt- Other Unspecified Means	622	41.9%	861	58.1%	0	0.0%	1,483
Total Behavioral Health Visits*	253,312	50.6%	247,454	49.4%	14	0.0%	500,780

Source: *Hospital Emergency Room Discharge, Nevada Division of Public and Behavioral Health, Office of Public Informatics and Epidemiology, June 2017*

* Categories are not mutually exclusive.

Medicaid Expansion under the Affordable Care Act (ACA) and Health Services Utilization: For ease of reference, the following information, which was presented above in the section concerning serious emotional disturbance (SED), is re-presented below because of its importance to systems function and the target population, serious mental illness (SMI), under consideration.

Health care financing plays a significant role in the frequency and type of health services that people use. Equally important is the availability and quality of health care services. Both factors are clearly reflected in the patterns of health services utilization observed among Nevada residents. Firstly, the numbers of Nevada residents covered by Medicaid benefits more than doubled when the state expanded Medicaid coverage in 2014 under Governor Brian Sandoval and the Affordable Care Act (ACA), increasing from **351,315 in 2013** to **654,442 in 2015**. Secondly, as reflected in **Table * (below)**, this increase in health care coverage appears to have impacted the frequency with which Nevada residents used health care services, most notably inpatient facilities and emergency departments. Thus, the dual influences of increased health care coverage, and limited access to appropriate and optimal community-based services are demonstrated in the utilization of emergency department services for a wide range of mental health-related conditions from 2009 to 2014, shown in **Table * (above)**.

Table *: Medicaid Managed Care Organizations (MCO) and Fee-for-Service (FFS) Utilization, 2015			
MCO-FFS Utilization: Percent Change from Calendar Years 2013 – 2015			
Provider/Service Type	2013	2015	% Change
MCO			
Inpatient	441	6,626	93%
Outpatient	588,868	1,482,972	60%
Emergency Room Visits	9,014	48,784	82%
FFS			
Inpatient	4,656	8,645	46%
Outpatient	2,197,658	2,474,380	11%
Emergency Room Visits	6,298	12,019	48%

Source: S. Woodard and Nevada Division of Health Care Financing and Policy (2016)

- *Older Adults with SMI **

IN PROGRESS

- *Individuals with SMI or SED in the rural and homeless populations, as applicable **

IN PROGRESS

DRAFT

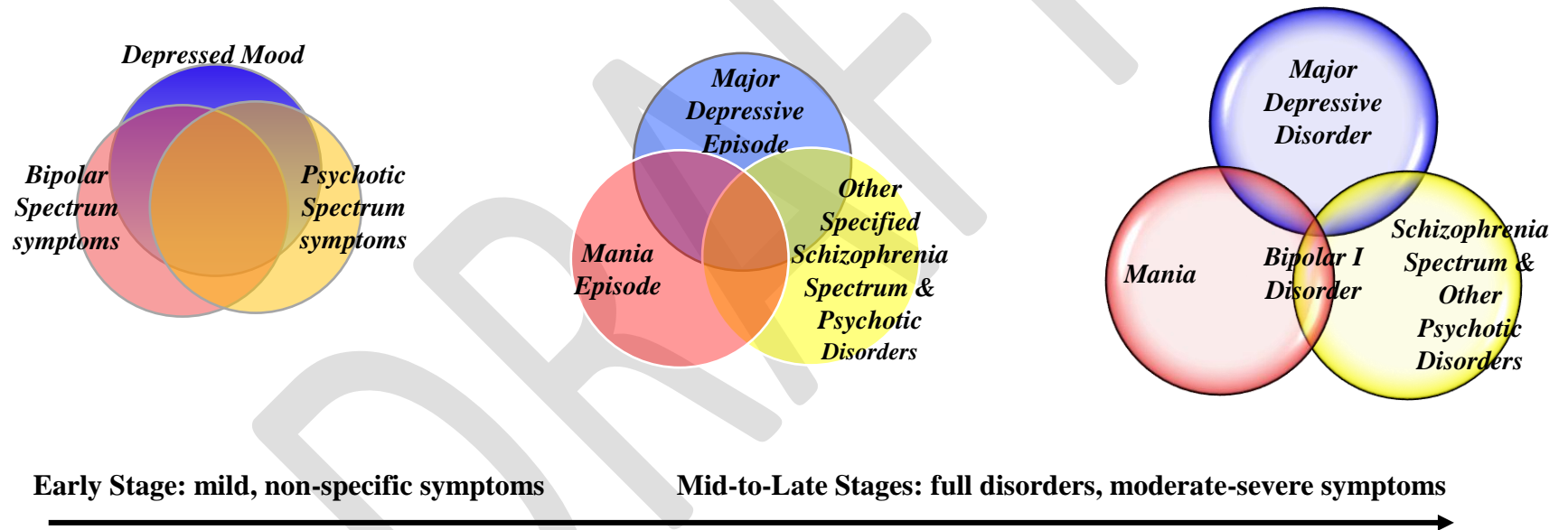
- **INDIVIDUALS WHO HAVE AN EARLY SERIOUS MENTAL ILLNESS (ESMI)**
(10 percent MHBG set aside)

Clinical Staging Interventions for Emergent Serious Mental Illness in Nevada's Youth:

Evidence reviewed in earlier sections (above) indicates that 12-month prevalence estimates for serious emotional disturbance (SED) range from 8% in representative national community surveys, and 9-13% for the states and nation as a whole based on earlier-generation community epidemiology studies (2016 SAMHSA Uniform Reporting System Output Tables-Nevada). Those rates are comparable to the range of prevalence estimates of 8.1-11.6% for major depressive episode (MDE) among adolescents aged 12 to 17 in Nevada and the United States obtained by the National Surveys on Drug Use and Health (NSDUH) from 2010-2011 to 2013-2014. Moreover, the median rate of new cases of schizophrenia each year is estimated to be 15.2 per 100,000 population (McGrath et al., 2008), and the first episode of psychosis exhibits a peak onset between 15 and 25 years of age (Heinssen et al., 2014; Kessler et al., 2007). <ADD Table of age-of-onsets for specific disorders – anxiety, mood, sud, and non-affective psychoses; bipolar I, II and Spectrum; and Psychotic Experiences – Kessler et al., data.> Therefore, extending early intervention efforts to identified cases of early serious mental illness (ESMI) among adolescents and young adults represents an optimal strategy for reducing the duration of untreated illness, a factor known to be associated with treatment response and clinical course of psychotic disorders (Addington et al., 2015; Kane et al., 2016).

The emotional health profile of Nevada's adolescents that was captured in 2015 (*Nevada Youth Risk Behavior Survey, 2015*) indicates that one third of the state's adolescents experienced depressed mood and reduced functioning during the prior year. They were also more likely to report one or more suicide attempts without subsequent medical intervention, compared to their age peers nationwide. More than 20% acknowledged deliberate self injuries, such as cutting or burning themselves, without the intent to die. It is likely that some of these adolescents experienced challenging life circumstances that produced strong adjustment reactions (mood disturbance, suicidal thoughts and behaviors, deliberate self harm), which peaked and then resolved successfully. It is also probable that other adolescents were experiencing the early stages of a first episode of psychosis (FEP) or an emerging serious mental illness (SMI), which in the absence of optimal interventions may progress to chronic and debilitating illnesses. As such, the year 2015 represented a critical period for a subset of Nevada's youth, and thereby afforded an opportunity for early interventions. **Figure 1** below (adapted from McGorry et al., 2010) illustrates the idea of chronic ***serious mental illness (SMI)*** as a dynamic process that evolves over time, and that begins as a diffuse constellation of features, characteristics and mild symptoms, which gradually cohere within syndromal boundaries.

Figure 1: The Trajectory of Serious Mental Illness (SMI) as a Dynamic, Emerging Process
(adapted from McGorry et al., 2010)



The objective of providing early interventions for individuals who are at risk for developing severe mental illness has a long history in the fields of psychiatry and psychopathology. It received renewed focus and vitality from the success achieved recently by the National Institute of Mental Health's (NIMH) Recovery After an Initial Schizophrenia Episode (RAISE) initiative (Heinssen, Goldstein and Azrin, 2014). In a comparison of comprehensive and usual community care for first episode psychosis, Kane et al. (2016) demonstrated the feasibility of implementing a comprehensive recovery-oriented, evidence-based intervention for first-episode psychosis that was carried out in community health clinics in the United States. Importantly, greater improvements in clinical and functional outcomes were observed for participants who received this comprehensive, multidisciplinary, team-based treatment. ***Extending early intervention services to individuals with early serious mental illness, as well as to individuals with first episode of psychosis, and to the rural and frontier regions of Nevada, is a strategic priority for FFY 2018-2019.***

DRAFT

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Step 2:

Unmet Service Needs and Critical Gaps within Nevada's Current Behavioral Health System

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