

# *Behavioral Health Summary – PACE Coalition*

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# Demographic Snapshot

Table 1. Selected demographics for Elko, White Pine, Eureka County, and Nevada.

	Elko	White Pine	Eureka	Nevada
Population, 2015 estimate*	52,980	10,123	1,929	2,874,075
Population, 2010 estimate*	48,857	10,092	2,123	2,705,845
Population, percent change*	8.4%	0.3%	-9.1%	6.2%
Male persons, estimated percent 2015*	52.3%	56.8%	52.8%	50.3%
Female persons, estimated percent 2015*	47.7%	43.2%	47.2%	49.7%
Land area (square miles), 2010**	17,170	8,876	4,176	109,781
Median household income**	\$72,280	\$55,337	\$68,403	\$52,800
Persons below poverty level, percent**	10.8%	13.7%	9.8%	15.0%

\*Source: Nevada State Demographer's Office

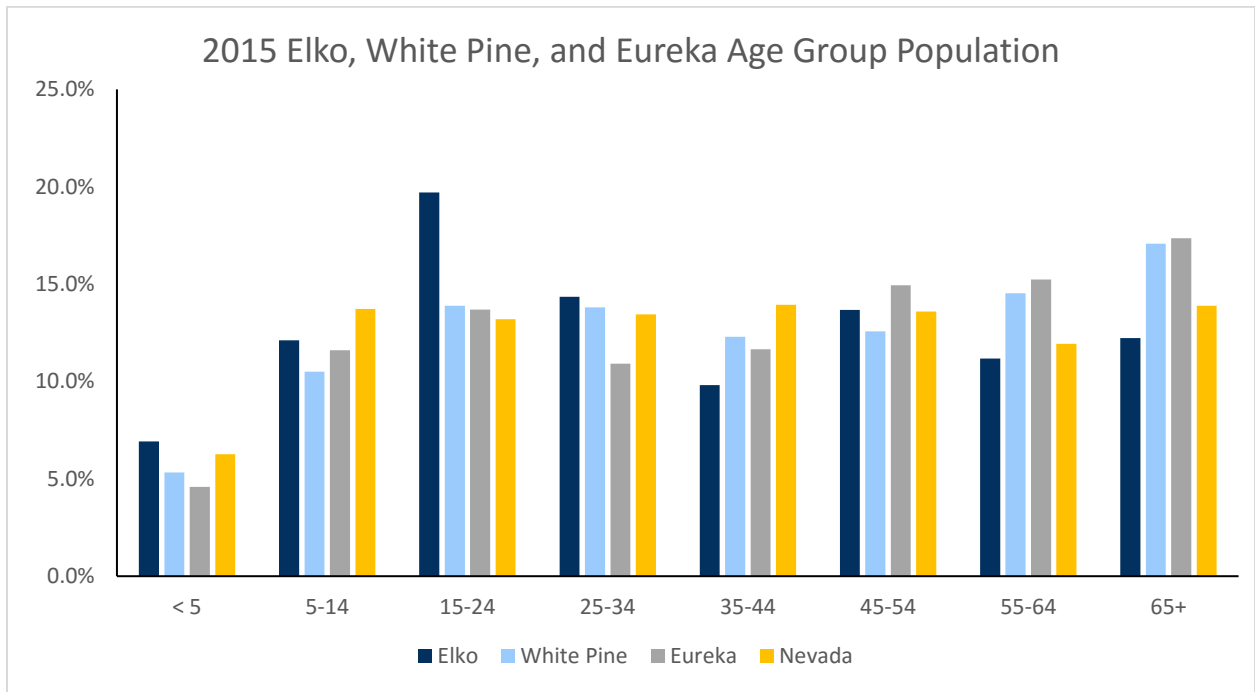
\*\*Source: US Census Bureau

In 2015, the estimated population for Elko County, Nevada was 52,980, an 8.4% increase from the 2010 estimated population. The population is made up of approximately 52% males and 48% females. The median household income is \$72,280, well above Nevada's median household income of \$52,800. Less than 11% of the population in Elko County live below the poverty level, compared to 15% of the population in Nevada. Elko County land area is approximately 17,170 square miles and represents 15.6% of Nevada's total land area.

The estimated population for White Pine County, Nevada in 2015 was 10,123, a 0.3% increase from the 2010 estimated population. The population is made up of approximately 57% males and 43% females. The median household income in White Pine County is \$55,337 with nearly 14% of the population living below the poverty level. White Pine County land area is approximately 8,876 square miles and represents 8.1% of Nevada's total land area.

In 2015, Eureka County had an estimated population of 1,929, a 9.1% decrease from the 2010 estimated population. The population is made up of approximately 53% males and 47% females. The median household income in 2015 was \$68,403 with less than 10% of the population below the poverty level. Eureka County land area is approximately 4,176 square miles, representing 3.8% of Nevada's total land area.

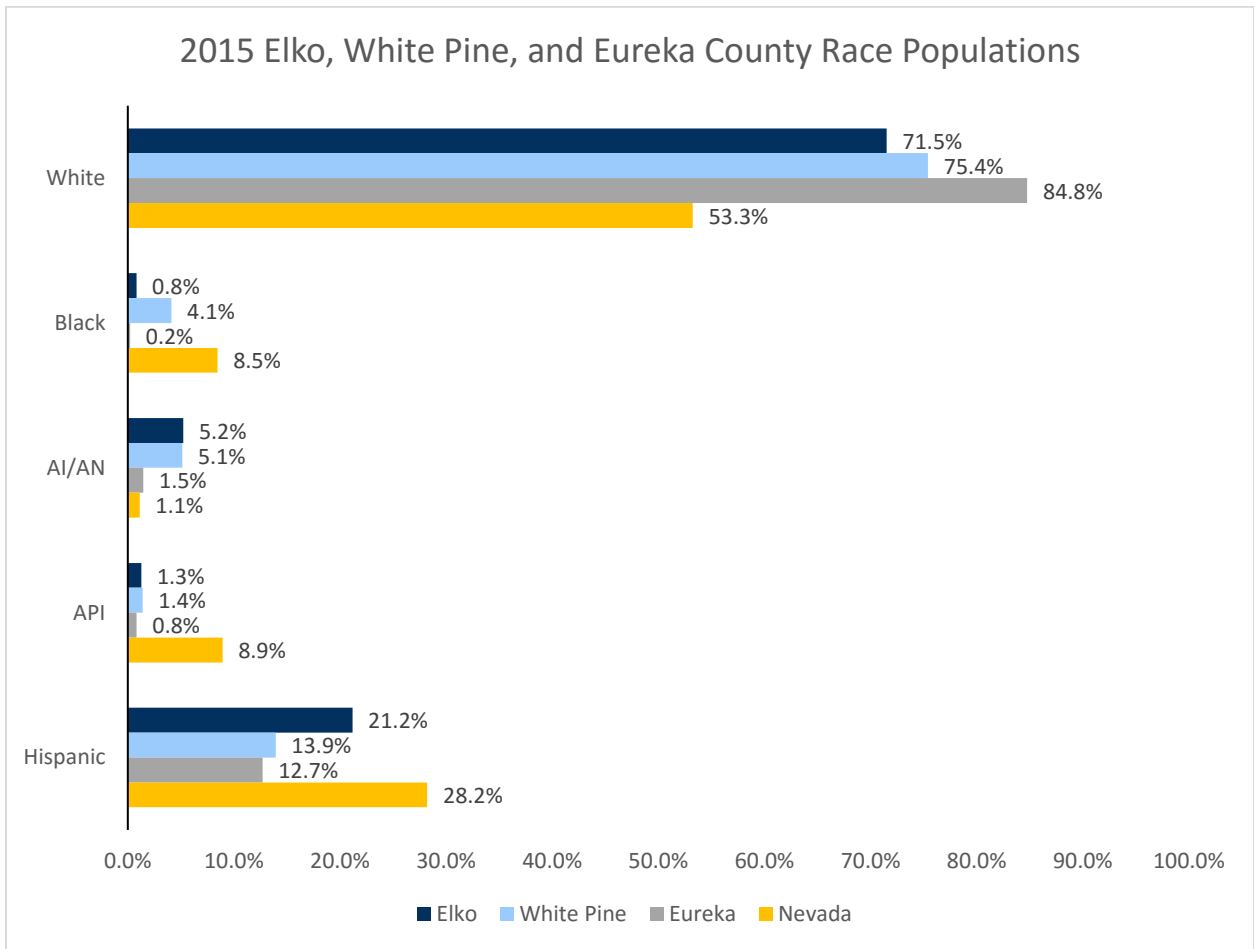
Figure 1. Elko, White Pine, Eureka County, and Nevada populations by age group.



Source: Nevada State Demographer

Age population breakdowns for Elko, White Pine, and Eureka counties vary from each other and from Nevada’s age population breakdown in a majority of the age groups. The largest difference was in the 15-24 year old age group. This age group accounted for 19.7% of the population of Elko County, while the same age group accounted for just 13% in White Pine, Eureka, and Nevada as a whole. Other notable differences were for the 55-64 and 65+ age groups, both of which had higher percentages of the population in White Pine and Eureka than Elko County and Nevada as a whole.

Figure 2. Elko, White Pine, Eureka County, and Nevada racial/ethnic breakdowns for 2015.



Source: Nevada State Demographer

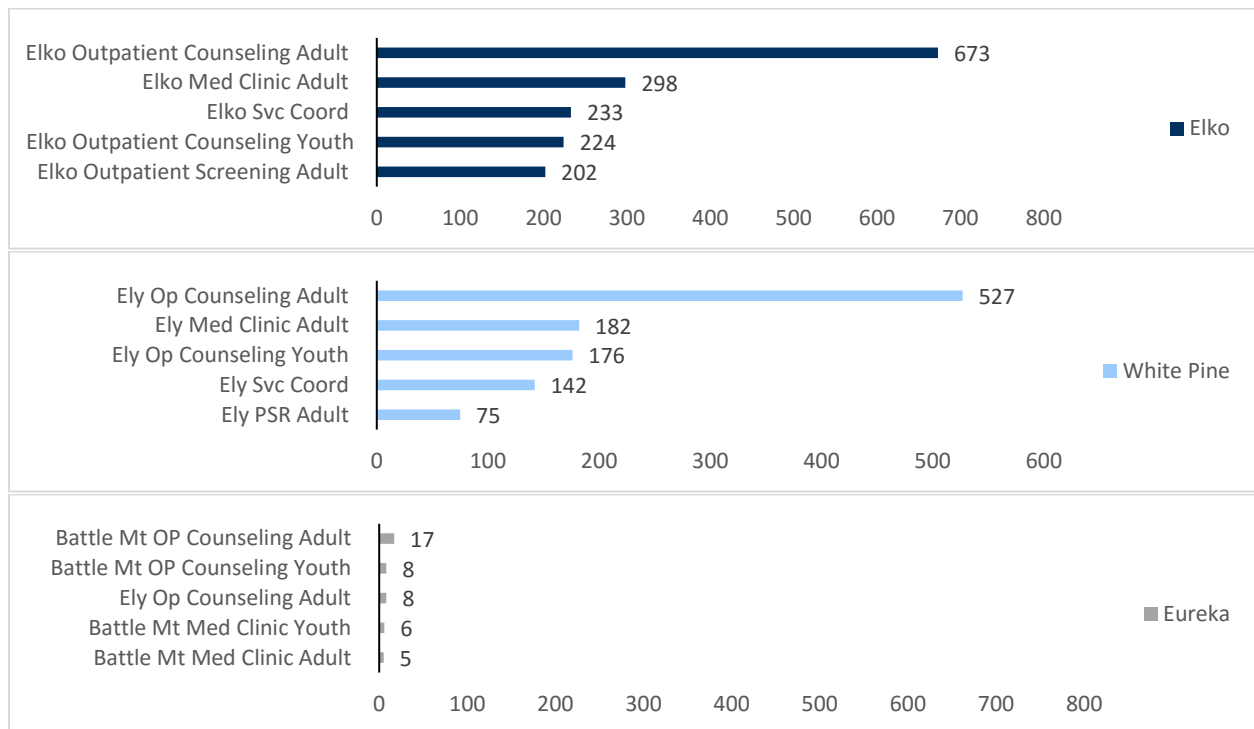
Elko, White Pine, and Eureka race/ethnicity breakdown compared to Nevada’s shows that these counties have a greater proportion of White and American Indian/Alaskan Native while Nevada’s population as a whole has a greater proportion of Hispanic, Asian, and Black.



# Mental Health Clinics

The data in this section comes from Avatar, an electronic mental health medical record system used by the Division of Public and Behavioral Health (DPBH). DPBH is the largest provider of mental health services in Nevada. In Northern Nevada, DPBH clinics are categorized as Northern Nevada Adult Mental Health Services (NNAMHS).

**Figure 3. Top 5 mental health clinic services for Elko, White Pine, and Eureka County residents with number of patients served, 2010-2014.**

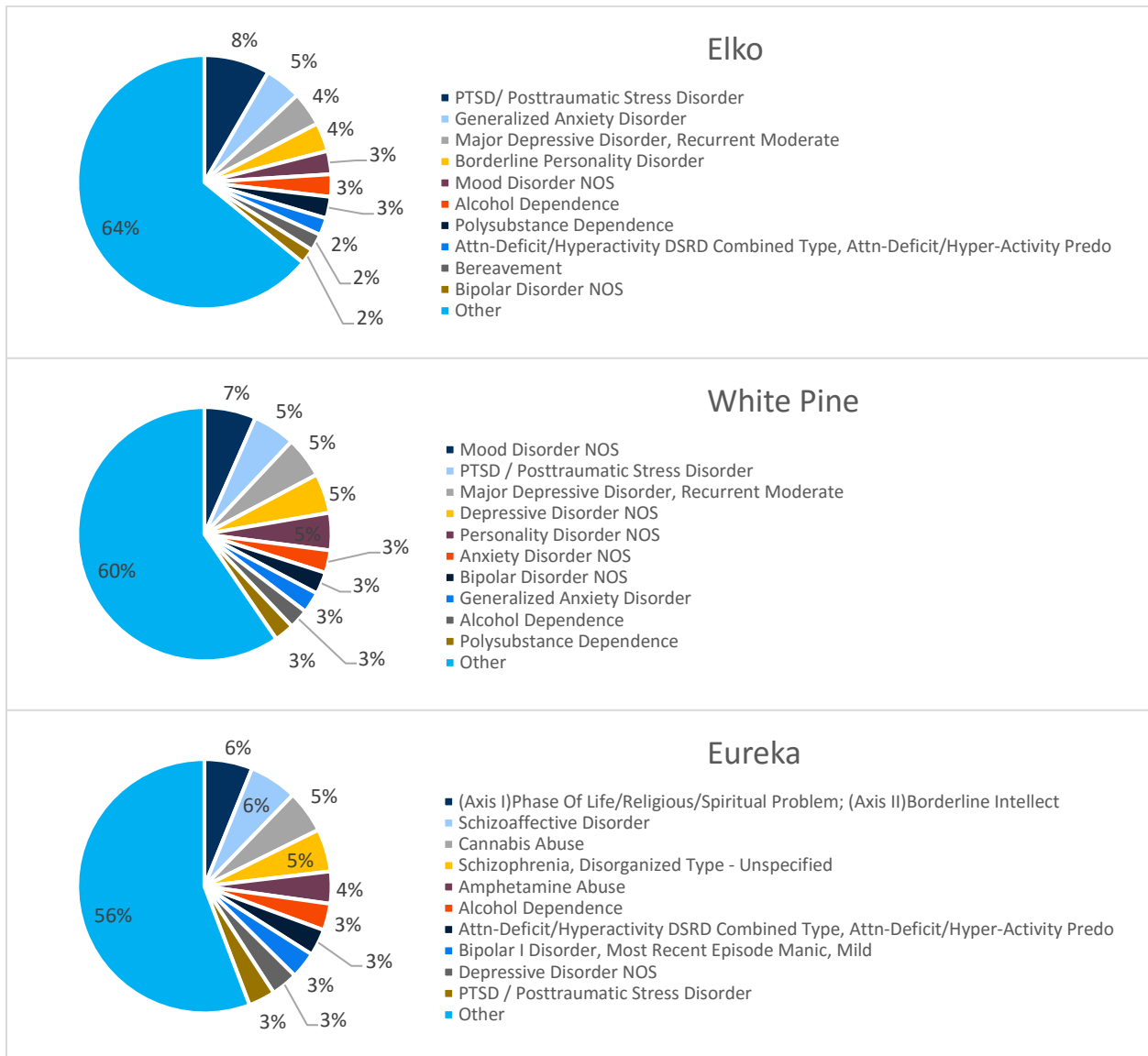


\*Source: Nevada Avatar. De-duplicated patients. However, a patient can use more than one service during one admission period; while the services are de-duplicated, a patient can occur in more than one service.

During the time from 2010 to 2014, 1,748 Elko, White Pine, and Eureka residents received mental health services from DPBH. Overall services totaled 3,928, as many patients used multiple services. The most common location of services occurred in an out-patient counseling setting, followed by med clinic within each county.



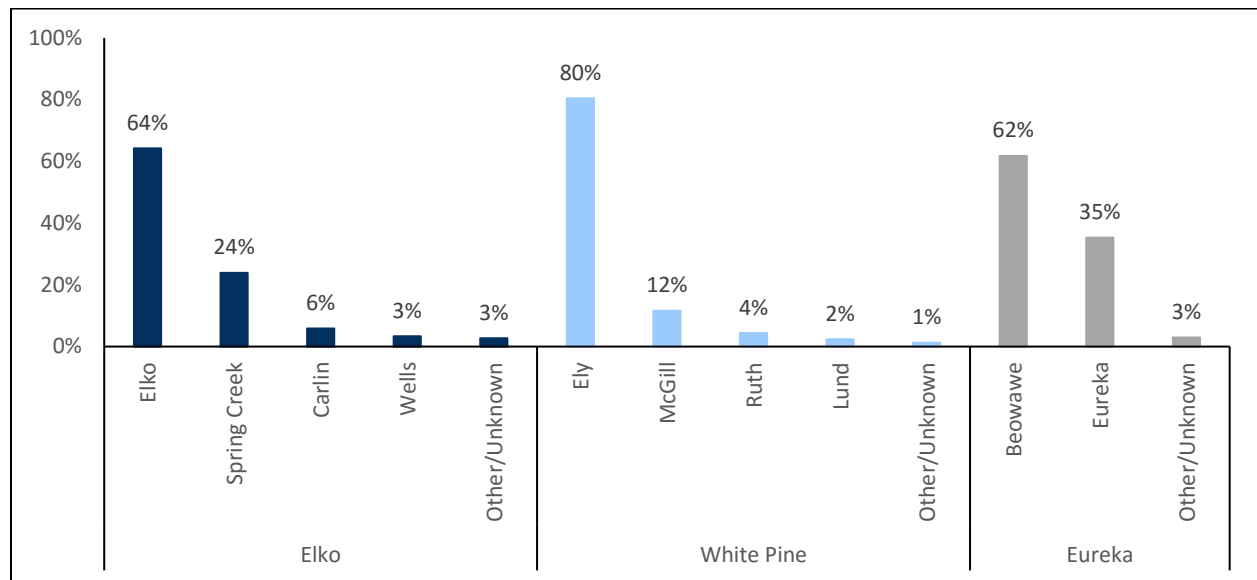
Figure 4. Most Common Diagnosis among Elko, White Pine, and Eureka County residents, 2010-2014.



During the period of 2010 to 2014, the most common primary mental health diagnosis for an Elko County resident was Post Traumatic Stress Disorder (PTSD) (8%), followed by Generalized Anxiety Disorder (5%). The top ten diagnoses also included Depressive Disorder, Recurrent Moderate (4%), Borderline Personality Disorder (4%), Mood Disorder NOS (3%), Alcohol Dependence (3%), Polysubstance Dependence (3%) Attention Deficit Disorder (2%), Bereavement (2%) and Bipolar Disorder NOS (2%). In White Pine County the most common primary mental health diagnosis was Mood Disorder NOS (7%) followed by PTSD (5%), Major Depressive Disorder, Recurrent Moderate (5%) and Depressive Disorder NOS (5%). The most common mental health diagnosis for Eureka County was Phase of life/Religious/Spiritual

Problem; Borderline Intellect (6%) and Schizoaffective Disorder (6%). Patients may have multiple diagnoses noted during the course of their treatment, but the primary diagnosis noted is the most dominant.

Figure 5. Elko, White Pine, and Eureka County residents who access mental health clinics city of residence, 2010-2014.



Of the Elko County residents accessing DPBH mental health services between 2010 and 2014, nearly two-thirds (64%) lived in the city of Elko. The remaining residents lived in Spring Creek (24%), Carlin (6%), and Wells (3%). Three percent of residents accessing mental and behavioral clinics had residences that are unknown, invalid, or listed as other.

Of the White Pine County residents accessing DPBH mental health services between 2010 and 2014, 80% lived in Ely. The remaining residents lived in McGill (12%), Ruth (4%) and Lund (2%). One percent of residents accessing mental and behavioral clinics had residences that are unknown, invalid, or listed as other.

Of the Eureka County residents accessing DPBH mental health services between 2010 and 2014, 62% lived in Beowawe and 35% lived in Eureka. The remaining three percent of residents accessing mental and behavioral clinics had residences that are unknown, invalid, or listed as other.

Table 2. Demographics of Elko, White Pine, and Eureka residents who accessed state funded adult mental health clinics, 2010-2014.

	2010	2011	2012	2013	2014
<b>Sex</b>					
Female	369	371	321	289	356
Male	268	273	216	216	249
Unknown	2	1	3	5	4
Total	639	645	540	510	609
<b>Age</b>					
0-17	109	144	117	126	155
18-30	180	170	156	136	149
31-50	225	223	173	169	197
51-65	117	95	87	72	98
66-100	6	12	7	7	9
Unknown	2	1	0	0	1
Total	639	645	540	510	609
<b>Race</b>					
White	467	488	412	365	367
Black	4	4	2	4	3
Asian	4	3	3	1	1
Alaskan Native/American Indian	25	25	26	29	30
Native Hawaiian/Pacific Islander	1	3	1	0	0
Two or more races	32	33	29	21	10
Other	38	25	20	22	22
Unknown	2	4	3	9	10
No Entry	66	60	44	59	166
Total	639	645	540	510	609
<b>Ethnicity</b>					
Hispanic or Latino	62	54	48	46	40
Not Hispanic or Latino	449	474	411	375	344
Unknown/No Entry	128	117	81	89	225
Total	639	645	540	510	609
<b>Education</b>					
=< 12th Grade - No Diploma	168	185	149	136	122
High School Graduate	140	141	105	100	108
GED	55	45	46	41	40
Some College	117	119	98	85	73
Undergraduate Degree	23	24	20	18	24
Graduate Degree	8	7	3	4	3
No Formal Education	10	19	15	17	13
Other	118	105	104	109	226
<b>Total</b>	639	645	540	510	609

During the 5-year period of 2010 to 2014, there were 1,748 Elko, White Pine, and Eureka adult residents that accessed mental and/or behavioral health services from DPBH state funded facilities. The totals in Table 2 above equal 2,943, reflecting that the some individuals used DPBH services during more than one year. Females comprised 58% of the patient population and males comprised 42%. White non-Hispanic made up 82% of the population. The most populous age group was the 31-50 year olds, accounting for 34% of the patients. Patients with less than 12<sup>th</sup> grade education or no diploma accounted for 26% of the patients, followed by “other” (23%) and “high school graduate” (20%).

## Hospital Emergency Room Data

The data provided in this section are from the hospital emergency room (ER) billing data compiled by the University of Nevada, Las Vegas, Center for Health Information Analysis (CHIA). The data are based on visits, not patients, therefore a single person may represent multiple visits. The ER data are broken into three parts: mental conditions (anxiety, PTSD, suicidal ideations, etc.), suicide attempts by method (hanging, jumping, firearms, etc.) and alcohol-and drug-related visits.

The following ICD-9 codes were used for analysis of mental disorders: anxiety 300.00-300.09; depression 296.20-296.36, and 311.00; bipolar disorder 296.40-296.89; PTSD 309.81; schizophrenia 295.00-295.90 and V11.0; suicidal tendencies 300.90; suicidal ideation V62.84.

The following ICD-9 codes were used for analysis of suicide attempts by method: suicide by solid or liquid E950-E950.9; suicide by gases in domestic use E951-E951.8; suicide by other gases and vapors E952-E952.9; suicide by hanging, strangulation and suffocation E953-E953.9; suicide by drowning E954; suicide by firearms, air guns and explosives E955-E955.9; suicide by cutting and piercing instrument E956; suicide by jumping from high place E957-E957.9; suicide by other unspecified means E958-E958.9.

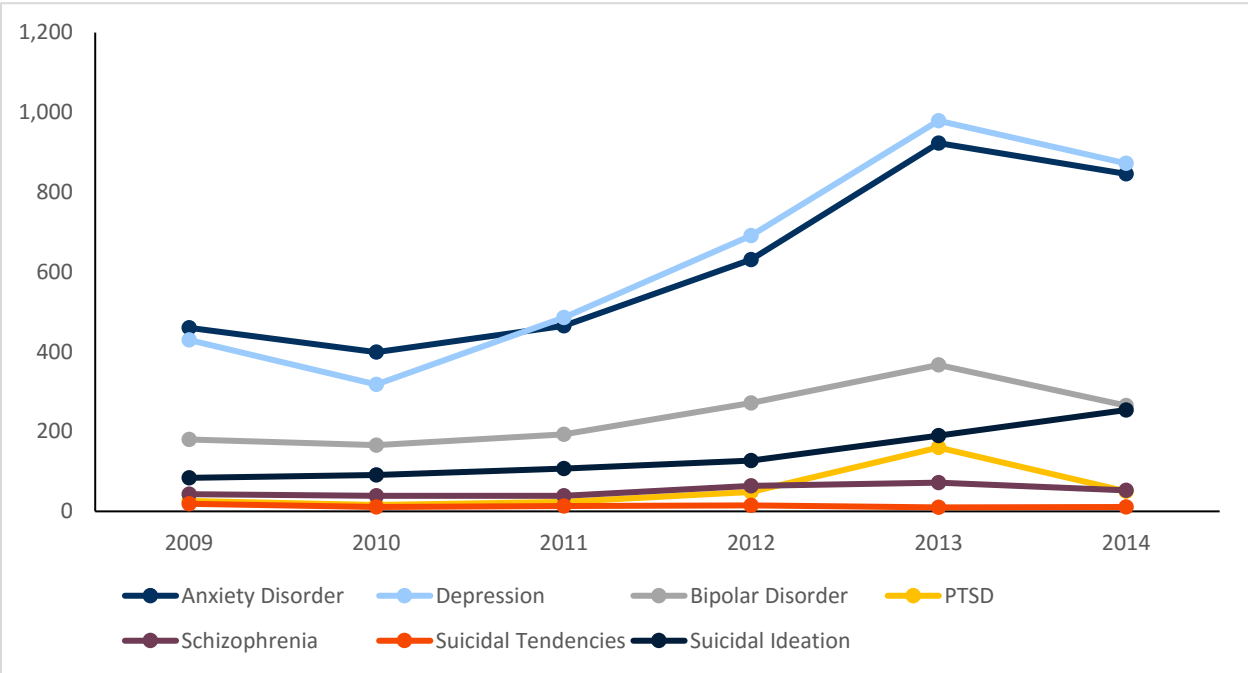
The following ICD-9 codes were used for analysis of alcohol-related admissions: 291-291.9, 303-303.93, 305.0-305.03, 535.3-535.31, 571-571.3, 980-980.9, 357.5, 425.5, 790.3, and E860-E860.9.

The following ICD-9 codes were used for analysis of substance-related admissions: 292-292.9, 304-304.93, 305.2-305.93, 965-965.99, and 967-970.99

There were a total of 13,409 visits related to mental health and substance use disorders among Elko, White Pine, and Eureka residents between 2009 and 2014 for the reasons listed above. Since an individual can have more than one diagnosis during a single ER visit, the following numbers reflect the

number of times a diagnosis in each of these categories was given, and therefore the following numbers are not mutually exclusive. Diagnoses related to mental disorders occurred in 9,136 ER visits, there were 3,842 ER visits related to alcohol-related issues, 2,058 ER visits with diagnoses for drug-related issues, and 445 ER visit with diagnoses codes related to suicide attempts.

**Figure 6. Number of Visits per Year for Select Mental Disorders, Elko, White Pine, and Eureka County, 2009-2014.**



Depression is the most common mental disorder seen in the emergency rooms (ER) among Elko, White Pine, and Eureka County residents, related to for 41.3% of the 9,136 visits in the categories listed in Figure 6. The number of depression-related ER visits increased 102% from 2009 to 2014. The largest percent increase was among patient visits for issues related to suicidal ideation which increased 202% with 84 visits in 2009 to 254 in 2014. All visits for the selected mental disorders increased over the six year period with the exception of suicidal tendencies which decreased from 19 in 2009 to 11 in 2014.

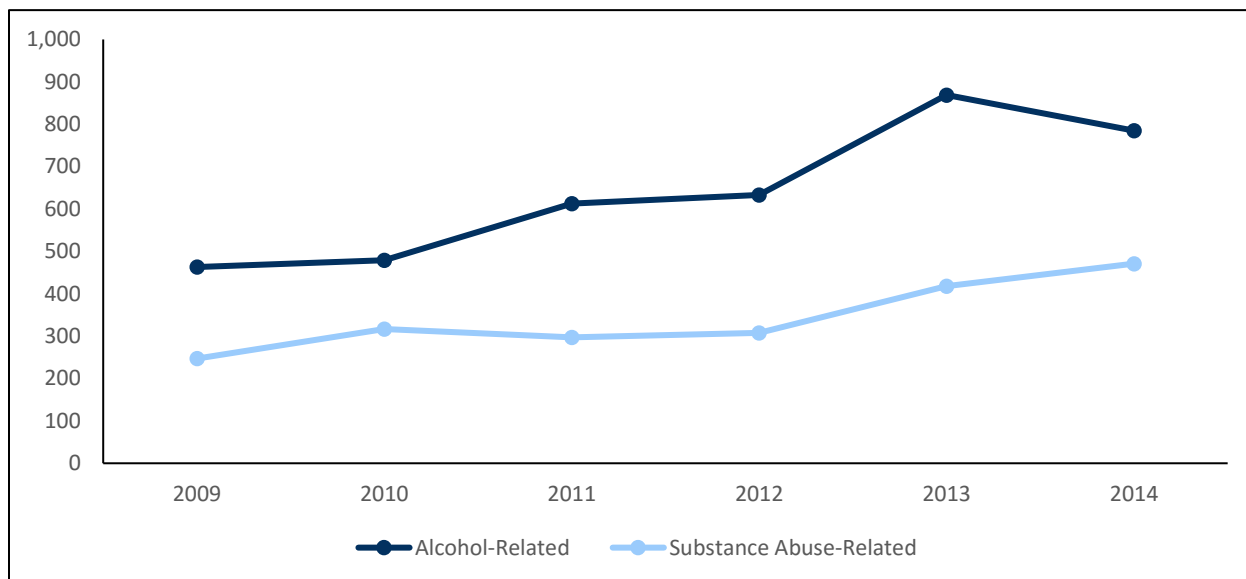
Table 3. Demographics of Elko, White Pine, and Eureka County resident visits to the ER for select behavioral disorders 2009-2014.

Condition*	Female		Male		Unknown		Total
	N	Row %	N	Row %	N	Row %	
Anxiety	2,553	68.6%	1,171	31.4%	0	0.0%	3,724
Depression	2,722	72.1%	1,054	27.9%	0	0.0%	3,776
Bipolar	975	67.6%	468	32.4%	0	0.0%	1,443
PTSD	201	61.8%	124	38.2%	0	0.0%	325
Schizophrenia	118	38.1%	192	61.9%	0	0.0%	310
Suicidal Tendencies	38	48.1%	41	51.9%	0	0.0%	79
Suicidal Ideation	477	55.9%	376	44.1%	0	0.0%	853
Alcohol Related	1,261	32.8%	2,581	67.2%	0	0.0%	3,842
Substance Abuse Related	1,168	56.8%	890	43.2%	0	0.0%	2,058
Suicide - Solid or Liquid	195	67.7%	93	32.3%	0	0.0%	288
Suicide - Gases in Domestic Use	0	0.0%	1	100.0%	0	0.0%	1
Suicide - Other Gases and Vapors	2	66.7%	1	33.3%	0	0.0%	3
Suicide - Hanging, Strangulation, & Suffocation	2	15.4%	11	84.6%	0	0.0%	13
Suicide - Cutting & Piercing Instrument	62	61.4%	39	38.6%	0	0.0%	101
Suicide - Firearms, Air Guns, & Explosives	3	30.0%	7	70.0%	0	0.0%	10
Suicide - Jumping from High Place	1	50.0%	1	50.0%	0	0.0%	2
Suicide - Other Unspecified Means	7	21.9%	25	78.1%	0	0.0%	32

\*Categories are not mutually exclusive

Females made up the majority of Elko/White Pine/Eureka residents who visited the ER for depression (72%), anxiety (69%), bipolar (68%), and PTSD (62%), while the majority who visited for schizophrenia were males (62%).

Figure 7. Trend of Elko, White Pine, and Eureka County visits to ER for alcohol- and drug-related issues, 2009-2014.



Elko, White Pine, and Eureka ER visits increased for both alcohol-related and substance abuse-related issues from 2009 to 2014. Alcohol-related visits jumped from a low of 463 visits in 2009 to 785 visits in 2014, a 70% increase. Drug-related increased from 247 visits in 2009 to a high of 471 visits in 2014, a 91% increase.



Table 4. Demographics of Elko, White Pine, and Eureka County resident visits to the ER for alcohol and drug-related disorders, 2009-2014.

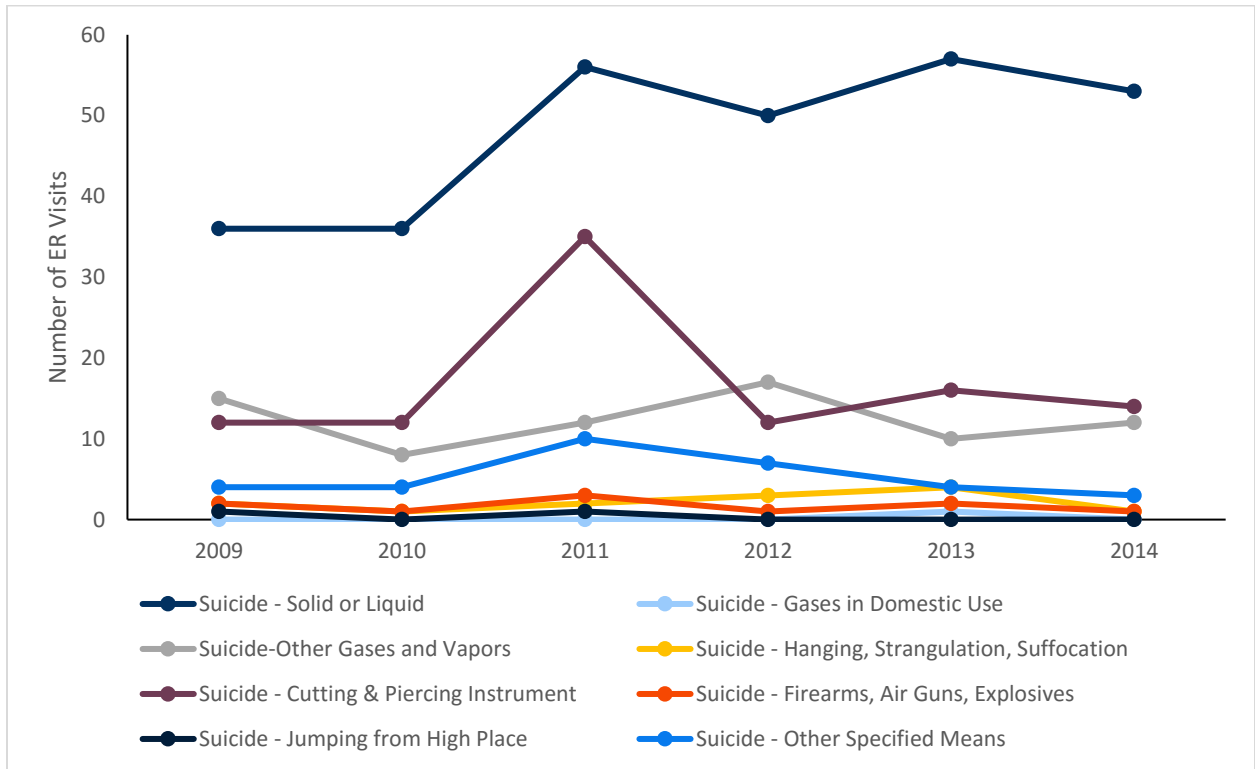
	Alcohol-Related		Drug- Related	
	N	Column %	N	Column %
<b>Sex</b>				
Female	1,261	32.8%	1,168	56.8%
Male	2,581	67.2%	890	43.2%
<b>Race</b>				
White	2,862	74.5%	1,709	83.0%
Native American	460	12.0%	172	8.4%
Hispanic	203	5.3%	81	3.9%
Asian/Pacific	3	0.1%	7	0.3%
Black	24	0.6%	17	0.8%
Other	76	2.0%	27	1.3%
Unknown	214	5.6%	45	2.2%
<b>Age</b>				
0-14	10	0.3%	95	4.6%
15-24	450	11.7%	432	21.0%
25-34	900	23.4%	621	30.2%
35-44	740	19.3%	351	17.1%
45-54	890	23.2%	310	15.1%
55-64	536	14.0%	188	9.1%
65-74	254	6.6%	39	1.9%
75-84	47	1.2%	18	0.9%
85+	15	0.4%	4	0.2%

Males accounted for a greater percentage over females for alcohol-related ER visits (67%) and females accounted for a greater percentage of drug-related visits (57%) among Elko, White Pine and Eureka County residents between 2009 and 2014.

Whites made up the majority of alcohol and substance abuse-related ER visits, 75% and 83% of visits, respectively.

Alcohol-related ER visits was highest among the 25-34 (23%) and 45-54 (23%) year age groups. In general, ER visits declined progressively as ages increased. Thirty percent of drug-related visits were among the age group 25-34 years.

Figure 8. Trend of Elko, White Pine, and Eureka County visits to the ER for suicides, 2009-2014.

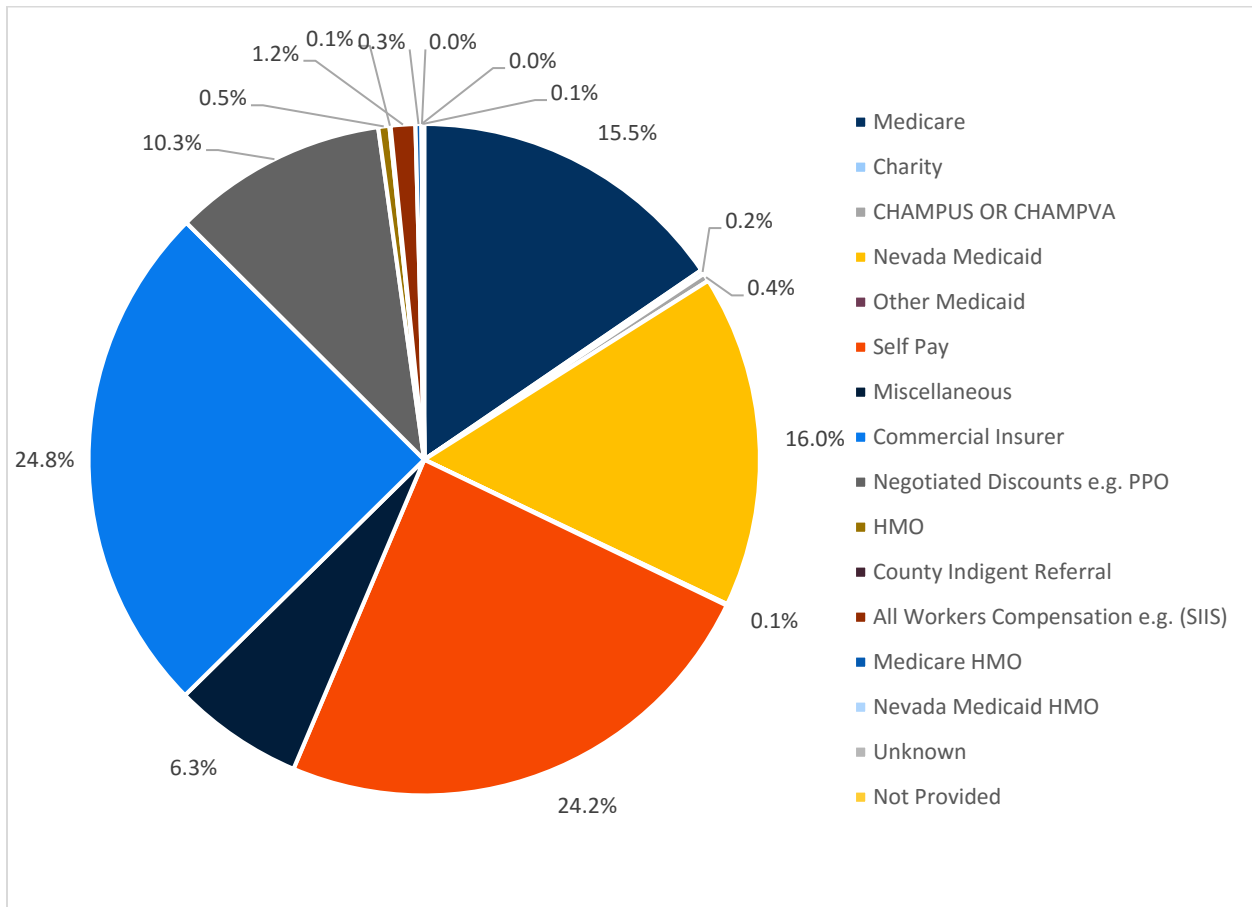


Overall number of visits to the ER for suicide among Elko, White Pine, and Eureka County residents has increased by 19% from 2009-2014, from 68 visits in 2009 to 81 in 2014. The lowest number was in 2010 with 62 visits.

Suicide by solid or liquid was the top method of suicide and suicide attempts resulting in an ER visit in Elko, White Pine, and Eureka Counties, accounting for sixty-four percent of all suicide-related ER visits from 2009-2014. In 2009, there were 36 ER visits resulting from suicide by solid or liquid and 53 visits in 2014, an increase of 47%. The high was in 2011 with 56 visits. Suicide by solid or liquid includes all suicides where an individual entered liquid into his or her body, such as alcohols (ethanol, butanol, propanol, and methanol), fuel oil, petroleum, pesticides, herbicides, paints, dyes, and glues; or solids such as prescription pills and illegal drugs.

The second most common suicide ER visit was for those involving cutting and piercing instruments, accounting for 22% of all suicide-related visits from 2009-2014. The high 35 visits in 2011 and the low was 12 visits in 2009, 2010, and 2012, a difference of 192%.

Figure 9. Percentages of Elko, White Pine, and Eureka County resident visits to the ER for mental health and substance-related disorders by payment source, 2009-2014 (n=13,409).



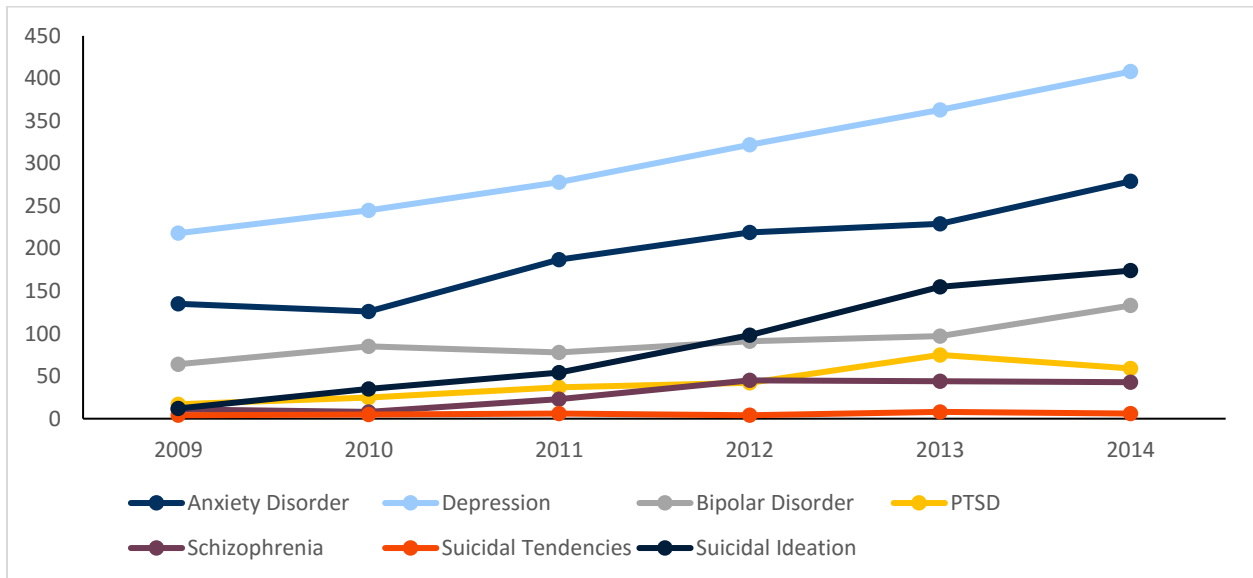
Commercial Insurer accounted for 25% of sources of payment for ER visits among Elko, White Pine, and Eureka County residents with mental health and substance-related disorders. Self-Pay accounted for 24% of payment types, Nevada Medicaid represented 16%, Medicare represented 15%, and Negotiated Discounts such as PPO represented 10% of total claims. Ten other payment types covered 5% or less individually and 3% of the total.

# Hospital Inpatient Admissions

The data provided in this section are from the hospital inpatient billing data, collected by the University of Nevada, Las Vegas, Center for Health Information Analysis (CHIA). The data are based on admissions, not patients, therefore a single person may represent multiple admissions. The inpatient data are broken into three parts: mental conditions (anxiety, PTSD, suicidal ideations, etc.), suicide attempts by method (hanging, jumping, firearms, etc.) and alcohol-and drug-related admissions. The same ICD-9 codes were used for analysis as were used in hospital ER visit analysis.

There were a total of 4,332 inpatient admissions related to mental health and substance use disorders among Elko, White Pine, and Eureka residents between 2009 and 2014 for the reasons listed above. Since an individual can have more than one diagnosis during a single inpatient admission, the following numbers reflect the number of times a diagnosis was given and therefore the following numbers are not mutually exclusive. Diagnoses related to mental disorders occurred in 3,247 inpatient admissions, there were 1,286 inpatient admissions related to alcohol-related issues, 1,045 inpatient admissions for drug-related issues, and 191 inpatient admissions with diagnoses codes related to suicide attempts.

Figure 10. Trend of Elko, White Pine, and Eureka County inpatient admissions for select mental health disorders, 2009-2014.



Depression was the most common mental health disorder for inpatient admissions for Elko, White Pine, and Eureka residents between 2009 and 2014, related to for 40% of the admissions from the disorders listed above in Figure 10. Depression inpatient admissions has increased consistently over the four year period, from 218 admissions in 2009 to 408 in 2014, an 87% increase.

Anxiety was the second most common mental health disorder seen in inpatient admissions. Inpatient admissions has increased steadily over the four year period, from 135 admissions in 2009 to 279 in 2014, a 106% increase.

Bipolar disorder is the third most common mental health disorder seen in inpatient admissions among Elko, White Pine, and Eureka residents, related to 12% of admissions for the mental health conditions listed in Figure 10. There was a 108% increase from 2009 to 2014.

Inpatient admissions for suicidal ideation experienced the greatest percent change from 2009 to 2014 with a 1,350% increase. The inpatient admission counts increased from 12 in 2009 to 174 in 2014.

Table 5. Demographics of Elko, White Pine, and Eureka County resident inpatient admissions for top four mental health disorders, 2009-2014.

Inpatient	Depression		Anxiety		Bipolar		Suicidal Ideation	
	N	Column %	N	Column %	N	Column %	N	Column %
<b>Sex</b>								
Female	1,210	66.0%	796	67.7%	352	64.2%	310	58.7%
Male	624	34.0%	379	32.3%	196	35.8%	218	41.3%
<b>Race</b>								
White	1,541	84.0%	1,004	85.4%	415	75.7%	354	67.0%
Black	6	0.3%	1	0.1%	1	0.2%	3	0.6%
Native American	71	3.9%	53	4.5%	20	3.6%	29	5.5%
Asian/Pacific	1	0.1%	1	0.1%	1	0.2%	1	0.2%
Hispanic	48	2.6%	23	2.0%	12	2.2%	9	1.7%
Other	22	1.2%	13	1.1%	7	1.3%	10	1.9%
Unknown	145	7.9%	80	6.8%	92	16.8%	122	23.1%
<b>Age</b>								
0-14	23	1.3%	5	0.4%	19	3.5%	17	3.2%
15-24	196	10.7%	85	7.2%	80	14.6%	131	24.8%
25-34	182	9.9%	125	10.6%	115	21.0%	110	20.8%
35-44	249	13.6%	176	15.0%	145	26.5%	114	21.6%
45-54	317	17.3%	191	16.3%	102	18.6%	82	15.5%
55-64	303	16.5%	205	17.4%	50	9.1%	57	10.8%
65-74	269	14.7%	198	16.9%	30	5.5%	12	2.3%
75-84	201	11.0%	118	10.0%	6	1.1%	2	0.4%
85+	94	5.1%	72	6.1%	1	0.2%	3	0.6%

Females accounted for a greater percent of inpatient admissions over males for the top mental health disorders in Elko, White Pine, and Eureka Counties, ranging from 59% of admissions for suicidal ideations to 68% of anxiety admissions.

A majority of inpatient admissions are white, such as with depression admissions (84%) and anxiety admissions (85%). There is a relatively large portion of “unknown” races for all selected mental health disorders, especially for admissions for suicidal ideation where unknown accounts for 23% of all admissions.

The two largest age groups for anxiety and depression inpatient admissions are those aged 45-54 and 55-64 years. The dominant age groups for bipolar inpatient admissions are those aged 35 to 44 years. The largest age group for suicidal ideation are those aged 15-24 years.

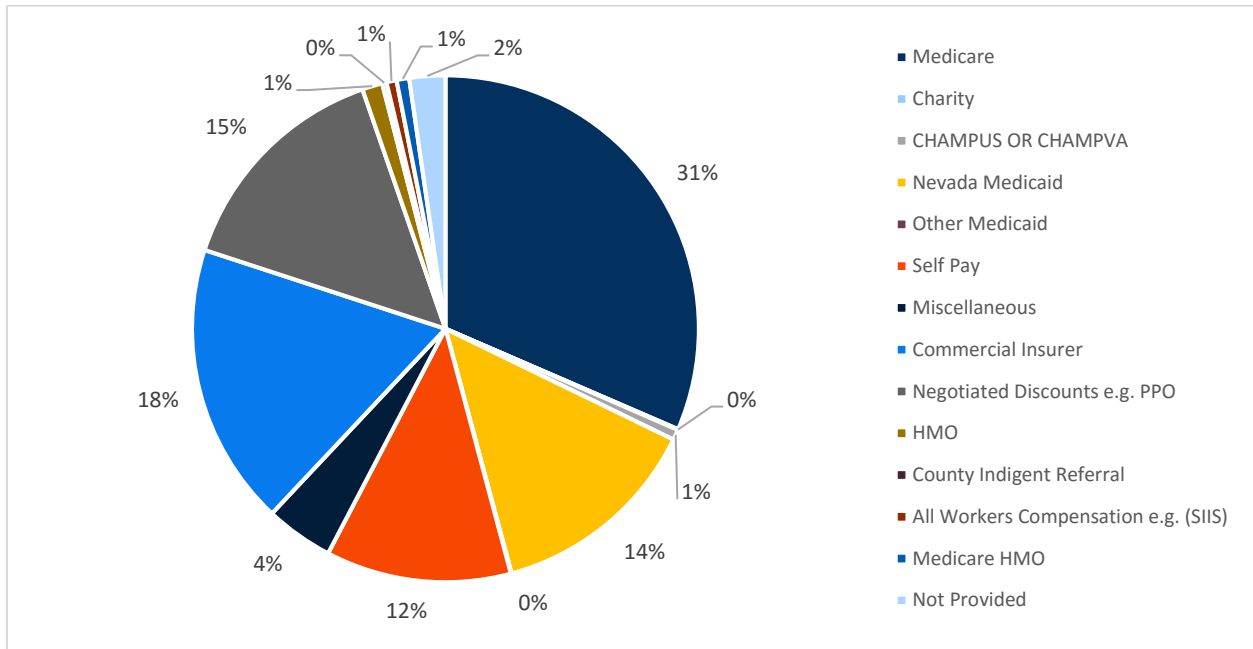
Table 6. Demographics of Elko, White Pine, and Eureka County residents inpatient admissions by suicide attempts, 2009-2014.

Inpatient	Solid or Liquid		Cutting and Piercing Instrument		Firearms, Air Guns and Explosives	
	N	Column %	N	Column %	N	Column %
<b>Sex</b>						
Female	102	65.8%	17	58.6%	0	0.0%
Male	53	34.2%	12	41.4%	2	100.0%
<b>Race</b>						
White	130	83.9%	22	75.9%	2	100.0%
Black	0	0.0%	0	0.0%	0	0.0%
Native American	8	5.2%	4	13.8%	0	0.0%
Asian/Pacific	0	0.0%	0	0.0%	0	0.0%
Hispanic	7	4.5%	1	3.4%	0	0.0%
Other	0	0.0%	1	3.4%	0	0.0%
Unknown	10	6.5%	1	3.4%	0	0.0%
<b>Age</b>						
0-14	2	1.3%	0	0.0%	0	0.0%
15-24	36	23.2%	7	24.1%	0	0.0%
25-34	42	27.1%	9	31.0%	0	0.0%
35-44	38	24.5%	8	27.6%	1	50.0%
45-54	23	14.8%	4	13.8%	0	0.0%
55-64	11	7.1%	1	3.4%	1	50.0%
65-74	2	1.3%	0	0.0%	0	0.0%
75-84	1	0.6%	0	0.0%	0	0.0%
85+	0	0.0%	0	0.0%	0	0.0%

Females led in suicide attempts by solid or liquid (66%) and cutting and piercing instrument (59%) while males made up 100% of admission for suicide attempts by firearms, air guns and explosives. Whites represent 84% of suicide inpatient admissions by solid or liquid, about 76% of suicide by cutting and piercing instrument and 100% of suicide by firearms, air guns and explosives.

The largest age group representing suicide-related inpatient admissions by solid or liquid is 25 to 34 (27%). The age group representing the most admissions due to suicide attempts by cutting and piercing instrument was also the 25-34 age group (31%).

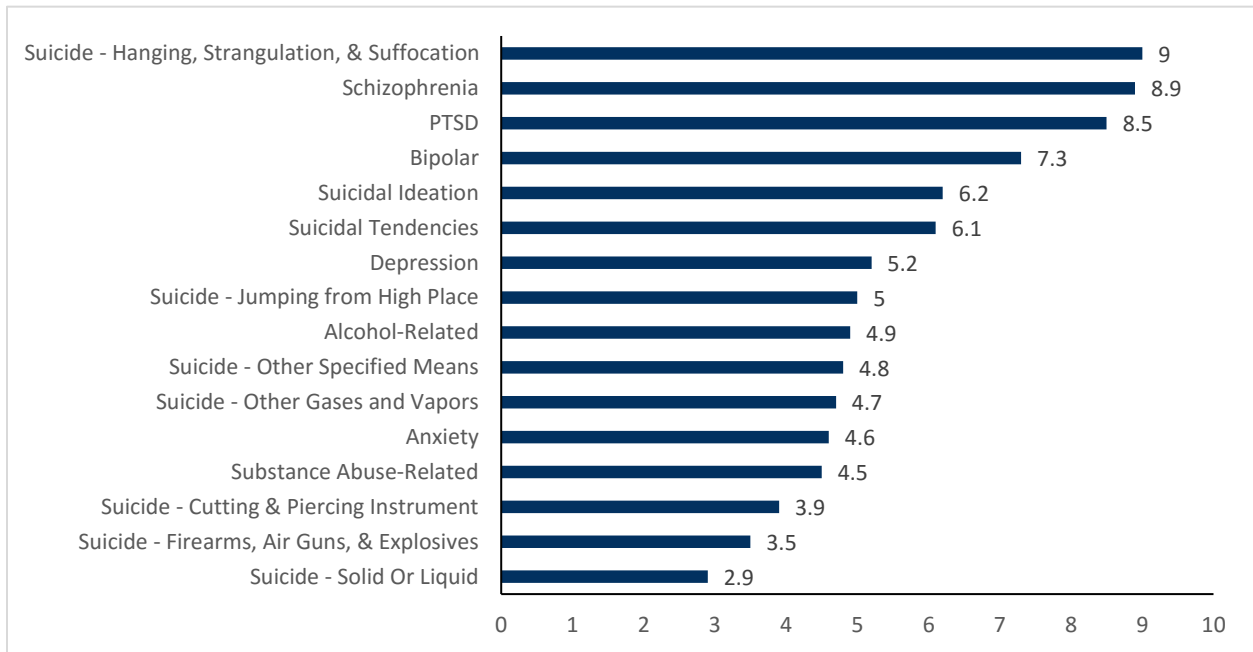
Figure 11. Percentages of Elko, White Pine, and Eureka County resident inpatient admissions for mental health and substance-related disorders by payment type, 2010-2014 (n=4,332).



The most common payment source of mental health and substance-related inpatient admissions for Elko, White Pine, and Eureka County residents was Medicare (31%). Commercial Insurer accounted for 18%, Negotiated discounts (PPO) accounted for 15%, Nevada Medicaid (14%) and Self Pay (12%) of payment types for inpatient admissions. The remainder of payment methods are each 4% or less of inpatient admissions.



Figure 12. Average length of stay for Elko, White Pine, and Eureka County resident inpatient admissions for mental health and substance-related disorders, 2009-2014.



Note: Since an individual can have more than one of the above diagnoses during an inpatient admission, a single hospitalization may be included in multiple categories, and would contribute to the average length of stay in each of these categories.

From 2009 to 2015, inpatient admissions for suicide attempts by hanging, strangulation, and suffocation had the longest average length of stay at 9 days, but was not included in the previous analysis due to small counts. Schizophrenia and PTSD had an average length of stay of just under 9 days. Inpatient admissions for Bipolar disorder had an average stay of about 7 days, Suicidal ideation (6 days) suicidal tendencies (6 days), with depression, suicide by jumping, alcohol-related, suicide-other means specified, suicide by gases, anxiety and substance abuse related all had an average stay of about 5 days. Suicide attempts by solid or liquid averaged the shortest hospital stay at about 3 days.

## Substance Abuse Treatment Facilities

The data in this section is reflective of services received by Elko, White Pine, and Eureka County residents at treatment facilities funded by the DPBH's Substance Abuse Treatment and Prevention Agency (SAPTA). This is not a comprehensive accounting of all Elko, White Pine, and Eureka County residents who receive substance use treatment. The data are based on admissions, not patients, therefore a single person may represent multiple admissions.

**Table 7. Top 5 substances by admissions to Nevada substance abuse treatment facilities, Elko, White Pine, and Eureka County residents, 2010-2014.**

Elko (2014 Only)		
Rank	Substance	Percent
1	Alcohol	50.5%
2	Amphetamines/Methamphetamines	28.5%
3	Marijuana/Hashish	10.2%
4	Heroin	6.6%
5	Other Opiates/Synthetic Opiates	3.3%

White Pine (2010-2014 Aggregate)		
Rank	Substance	Percent
1	Alcohol	34.2%
2	Amphetamines/Methamphetamines	26.4%
3	Marijuana/Hashish	26.3%
4	Other Opiates/Synthetic Opiates	8.8%
5	Heroin	1.9%

Eureka (2010-2014 Aggregated)		
Rank	Substance	Percent
1	Marijuana/Hashish	33.4%
2	Alcohol	31.1%
3	Amphetamines/Methamphetamines	29.8%
4	Other Sedatives/Hypnotics	2.9%
5	Other	2.9%

Of the Elko County residents who received substance abuse treatment services from a SAPTA provider in 2014, alcohol was the most common substance abused (51%), followed closely by amphetamines/methamphetamines (29%), marijuana (10%), and heroin and other opiates (7% and 3% respectively). It is highly important to ensure that appropriate detoxification services are provided to persons who are under the influence of a substance. Many of the substances will cause withdrawal that can range from anxiety, hallucinations, seizures or even death.

For White Pine County residents from 2010 to 2014, alcohol was also the most common substance abused (34%), followed by amphetamines/methamphetamines and Marijuana/Hashish (26% each). Other opiates/synthetic opiates were abused by 9% of those treated and heroin at 1%.

Of the Eureka County residents treated for substance abuse by a SAPTA provider between 2010 and 2014, marijuana/hashish was abused by 33%, alcohol by 31%, amphetamines/methamphetamines by 30%, other sedatives/hypnotics by 3% and 3% abused substances that were categorized as "other."

**Figure 13. Trends of Elko, White Pine, and Eureka County residents in Nevada state funded substance abuse treatment facilities by select substances, 2010-2014.**

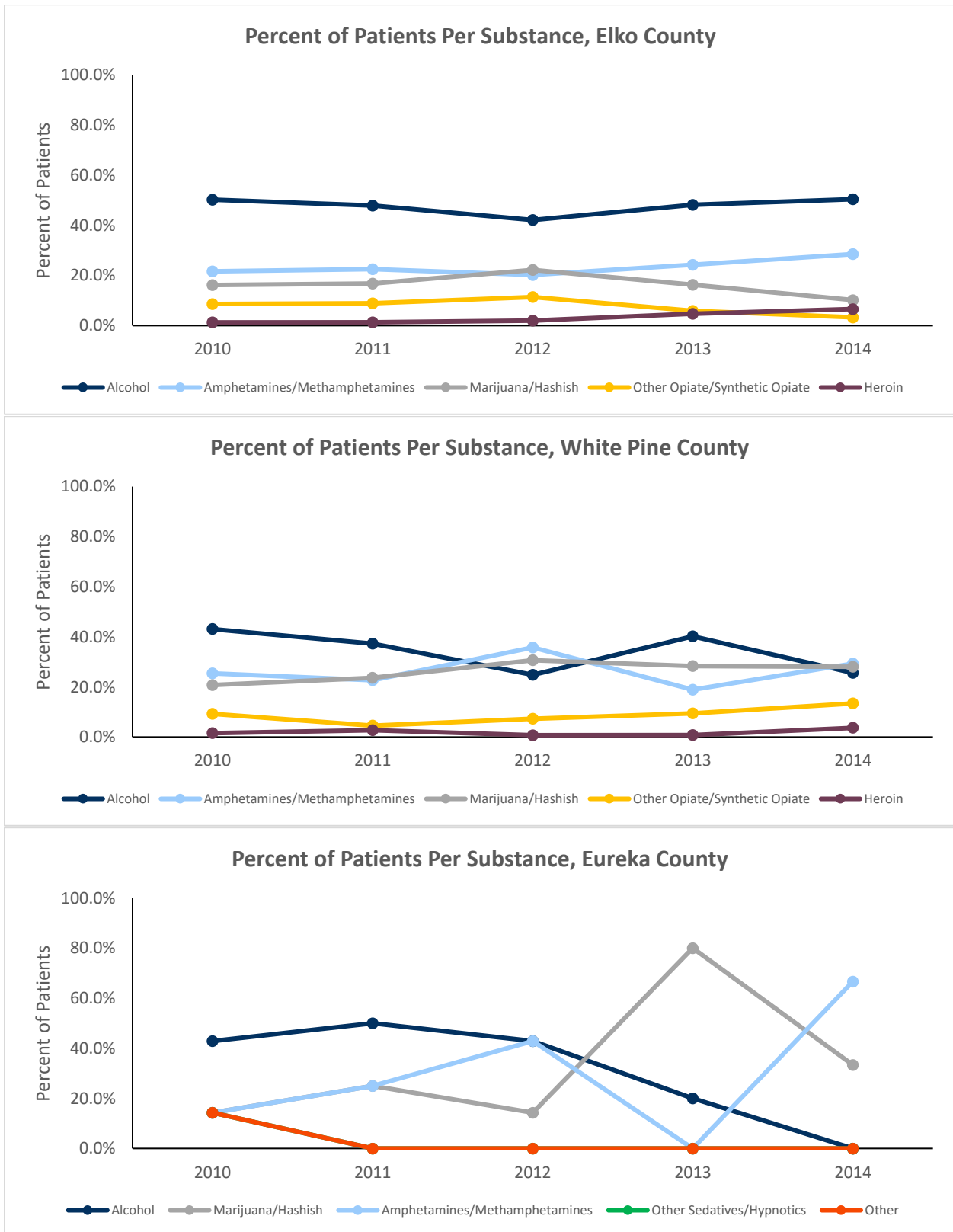


Figure 13 shows trend lines for the top five most common substances, and the percentages of Elko, White Pine, and Eureka patients admitted into a treatment facility for that substance. Alcohol is the dominant substance seen in treatment facilities in Elko County with a low of 42% of patients seeking treatment at a SAPTA-funded treatment facility in 2012 and highs of 50% of patients in 2010 and 2014. For White Pine county treatment for the dependence of alcohol was highest in 2010 with 43%, and lowest in 2012 with 25%. A high of 50% in 2011 and a low of 0% in 2014 of patients seeking treatment in Eureka County between 2011 and 2014, sought treatment for alcohol dependence, however this fluctuation may be associated with low frequencies.

The percentage of patients seeking treatment for Meth-/Amphetamines abuse in Elko county peaked in 2014 (29%), in 2012 for White Pine County (36%) and in 2014 for Eureka County (67%).

Percentages of patients seeking treatment for Marijuana peaked for Elko County and White Pine County in 2012 (20% and 31%, respectively), and in 2013 for Eureka County (80%).

Percentages of patients seeking treatment for heroin peaked for Elko County and White Pine County in 2014 (7% and 4%, respectively). Treatment for opiates peaked in 2012 for Elko County (11%) and 2014 for White Pine County (13%).

Table 8. Demographics of Elko, White Pine, and Eureka residents in Nevada substance abuse treatment facilities, 2010-2014.

	N	Column %
<b>Sex</b>		
Female	807	34.8%
Male	1,515	65.2%
<b>Age</b>		
0-14	50	2.2%
15-24	792	34.1%
25-34	740	31.9%
35-44	352	15.2%
45-54	294	12.7%
55-64	86	3.7%
65+	8	0.3%
Unknown	0	0.0%
<b>Race/Ethnicity</b>		
White non-Hispanic	1,419	61.1%
Black non-Hispanic	18	0.8%
Hispanic	486	20.9%
American Indian/Native Am/Alaska Native non-Hispanic	157	6.8%
Asian, Hawaiian, PI non-Hispanic	13	0.6%
Other/Unknown	229	9.9%
<b>Tobacco Use</b>		
Yes	1,473	63.4%
No	771	33.2%
Unknown	63	2.7%

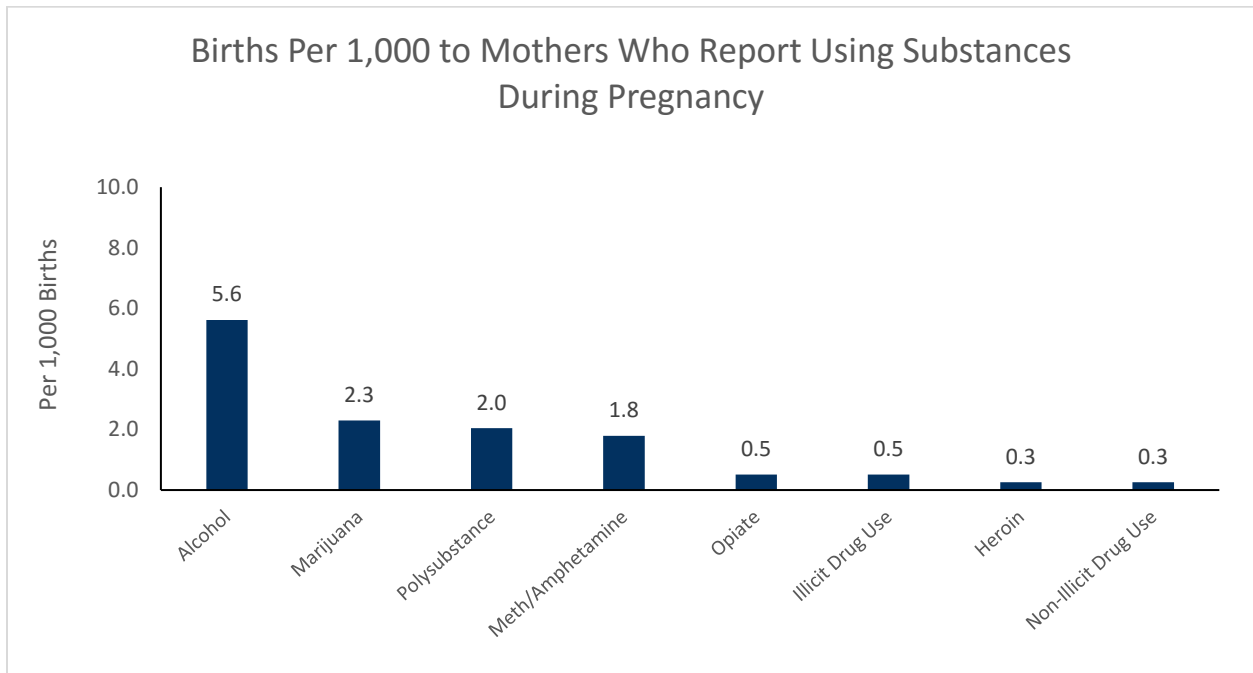
There were a total of 2,322 admissions for Elko, White Pine, and Eureka residents to Nevada state funded substance abuse treatment facilities from 2010-2014. This number is exclusive to SAPTA-funded facilities and does not include privately funded facilities. By age group, the most common groups that received treatment were between 15 to 34 years (66%). More than half were male patients (65%). For race/ethnicity, white non-Hispanics made up the largest proportion of admissions, with 61%. Tobacco use was indicated on 63% of admissions.

Since this data is exclusive to only SAPTA-funded providers, the data may not reflect statewide trends.

# Prenatal Substance Use

The data in this section is reflective of self-reported information provided by the mother on the birth record.

Figure 14. Prenatal substance abuse birth rate (self-reported), Elko, White Pine, and Eureka, 2010-2014.

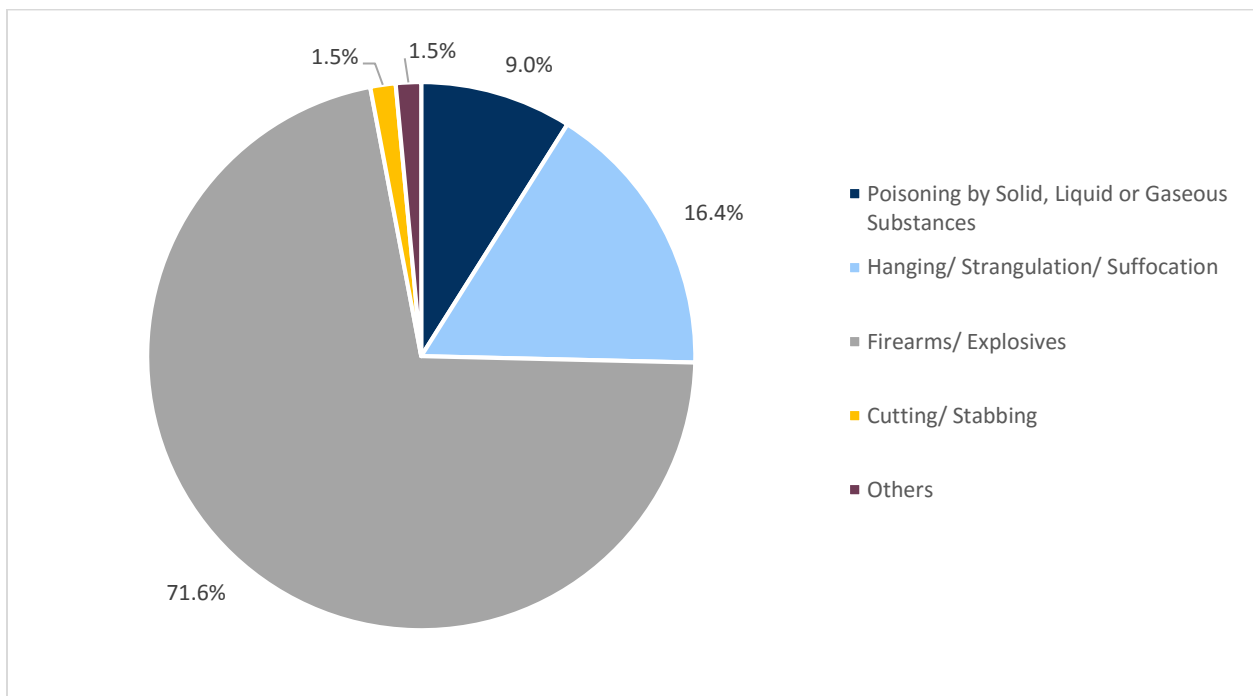


Of the Elko, White Pine, and Eureka County mothers who gave birth between 2010 and 2014 that self-reported using a substance while pregnant, alcohol has the highest prenatal substance abuse birth rate at 5.6 per 1,000 births. A rate of 2.3 per 1,000 self-reported using marijuana, 2.0 per 1,000 reported using polysubstance, and 1.8 per 1,000 births reported meth/amphetamines. These numbers are grossly underestimated because data is self-reported by the mothers, and they may be reluctant to be forthcoming on the birth record for many reasons.

## Mental and Substance Abuse Deaths

The data in this section are from the electronic death registry at DPBH. The Substance Abuse and Mental Health Service Administration (SAMHSA) reports suicide and mental illness are highly correlated with as many as 90% of those persons who die of suicide completion having a diagnosable mental illness.

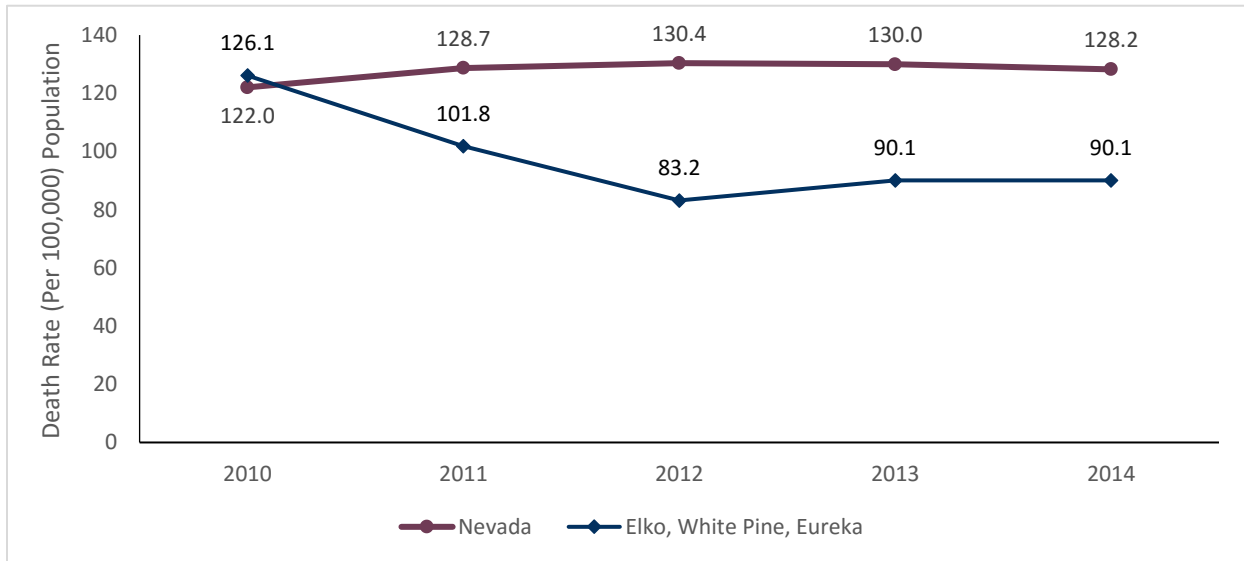
Figure 15. Immediate cause of death by suicide, Elko, White Pine, and Eureka County, 2010-2014 (n=67).



Among Elko, White Pine and Eureka County residents who died of a suicide between 2010 and 2014, the most common method of suicide was Firearms/explosives (72%), followed by hanging/strangulation/suffocation (16%), poisoning solid, liquid or gaseous substance (9%), cutting/stabbing (2%) and other forms of suicide (2%).

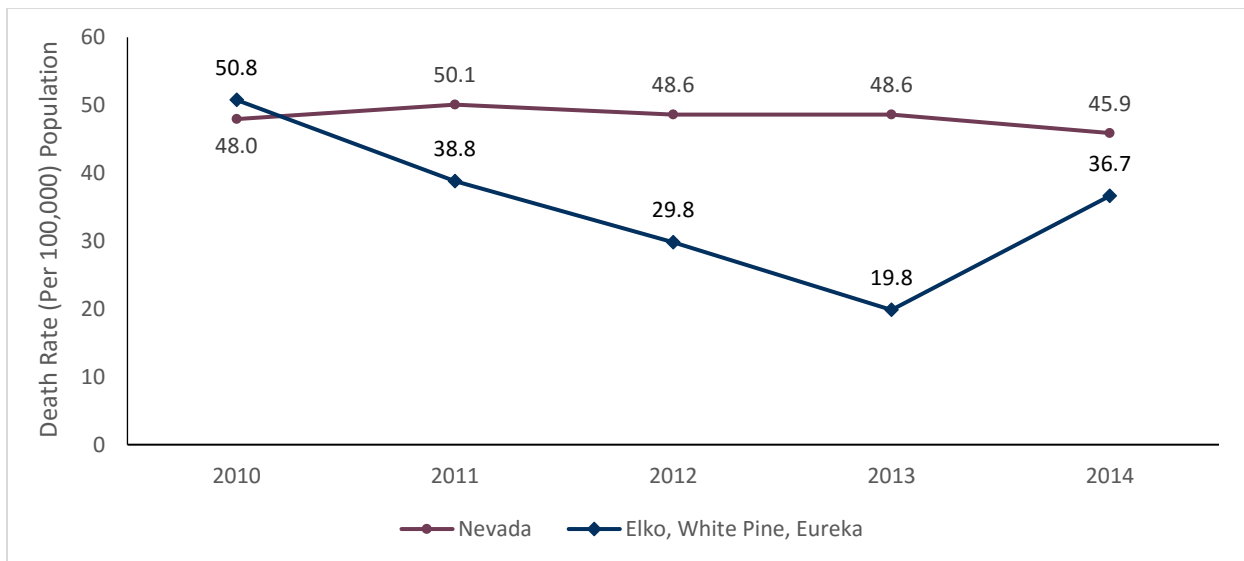


Figure 16. Trend of Mental and Behavioral Disorders Deaths, Elko, White Pine, and Eureka County, 2010-2014.



Elko, White Pine, and Eureka County's death rate for mental and behavioral related deaths in 2010 was 126.1 per 100,000. This means that for every 100,000 deaths, around 126.1 deaths are primarily related to mental and behavioral health disorders. There was an overall percent decrease of 29% between 2010 and 2014 when the rate dropped to 90.1. Overall, Elko, White Pine, and Eureka County mental and behavioral related death rates are lower than the Nevada rate.

Figure 17. Trend of substance-related deaths, Elko, White Pine, and Eureka County, 2010-2014.



There were 111 substance-related deaths in Elko, White Pine, and Eureka County between 2010 and 2014. Between 2010 and 2013 the rate decreased from 50.8 deaths per 100,000 to 19.8 deaths per 100,000. In 2014 the rate increased to 36.7 deaths per 100,000. Elko, White Pine, and Eureka County’s combined substance-related death rates are lower than Nevada’s rate every year between 2011 and 2014. In 2010, Elko, White Pine and Eureka’s rate was higher than Nevada’s rate.

Table 9. Demographics of Substance Related Deaths, Elko, White Pine, and Eureka County, 2010-2014.

	<b>N</b>	<b>Column %</b>
<b>Sex</b>		
Female	44	39.6%
Male	67	60.4%
<b>Race</b>		
White	93	83.8%
Black	0	0.0%
Native American	10	9.0%
Hispanic	5	4.5%
Asian/Pacific	1	0.9%
Other	0	0.0%
Unknown	2	1.8%
<b>Age</b>		
<1	1	0.9%
1-4	1	0.9%
5-14	0	0.0%
15-24	5	4.5%
25-34	13	11.7%
35-44	24	21.6%
45-54	28	25.2%
55-64	24	21.6%
65-74	9	8.1%
75-84	3	2.7%
85+	3	2.7%

In Elko, White Pine, and Eureka County, the most common demographic groups to die of a substance-related death included: males (60%), whites (84%), and those aged 45 to 54 years of age (25%).

## Syndromic Surveillance

The data contained in this section came from DPBH’s BioSense, a syndromic surveillance system that tracks chief complaints in emergency departments, and the National Emergency Medical Services Information System (NEMSIS). There were 306 patients.

**Table 10. BioSense: Mental health and substance-related chief complaints at select Elko County facilities, patient demographics, January 1, 2011-November 6, 2015.**

	N	Percent
<b>Sex</b>		
Female	156	51.0%
Male	150	49.0%
Unknown	0	0.0%
<b>Age</b>		
Under 13	3	1.0%
14-19	37	12.1%
20-29	75	24.5%
30-39	60	19.6%
40-49	64	20.9%
50-59	47	15.4%
60+	20	6.5%
Unknown	0	0.0%

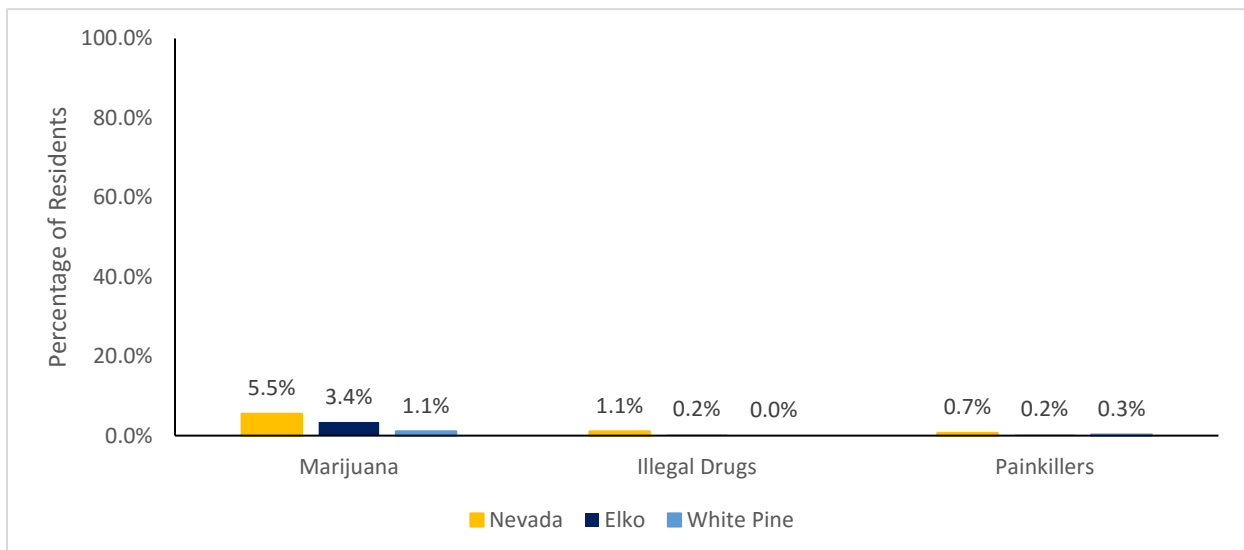
\*Data from White Pine and Eureka is unavailable

There were approximately an equal distribution of female (51%) and male (49%) patients among mental health and substance-related chief complaints in Elko County. The largest age group among patients were those aged 20-29 (24.5%). Not enough information was available to provide race/ethnicity patient demographics.

# Behavioral Risk Factor Surveillance System

Data in this section are from Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is the nation's premier system of health-related telephone surveys that collect state data about U.S. residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services. BRFSS collects data for adults aged 18 years and older. It allows for representative data to be analyzed at the county-level for many indicators.

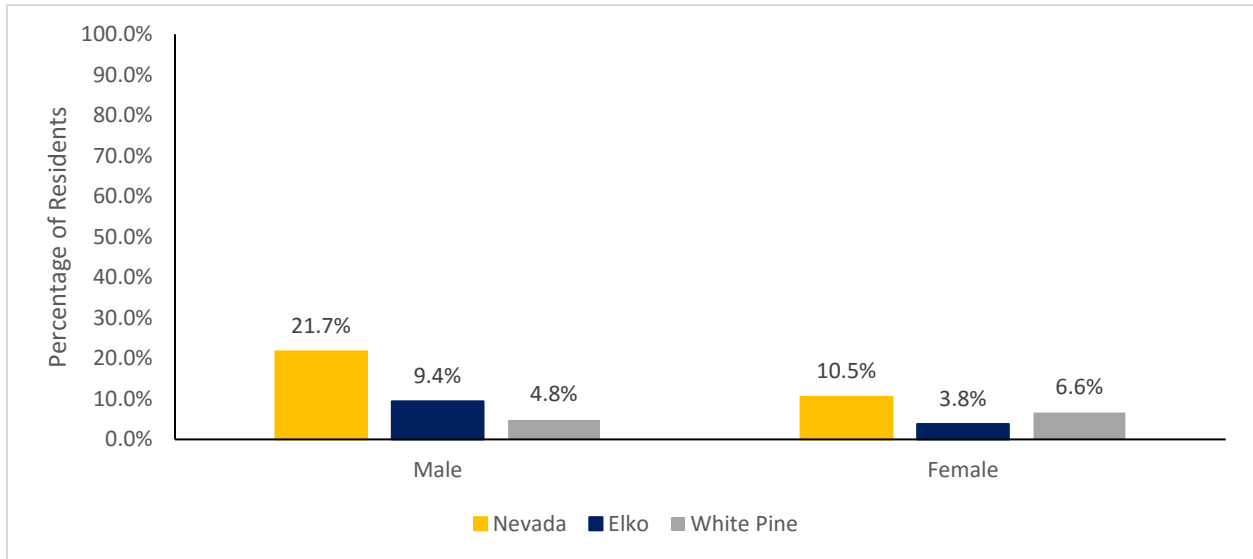
Figure 18. 2011-2014 BRFSS: Percentage of adult Elko and White Pine residents who used illegal substances, or painkillers 'to get high', in the last 30 days (aggregate 2011-2014 data).



\*Data from Eureka is unavailable

Although 5.5% of adults in Nevada reported using marijuana illegally in the last 30 days, only 3.4% of adults in Elko County and 1.1% of adults in White Pine reported doing the same.

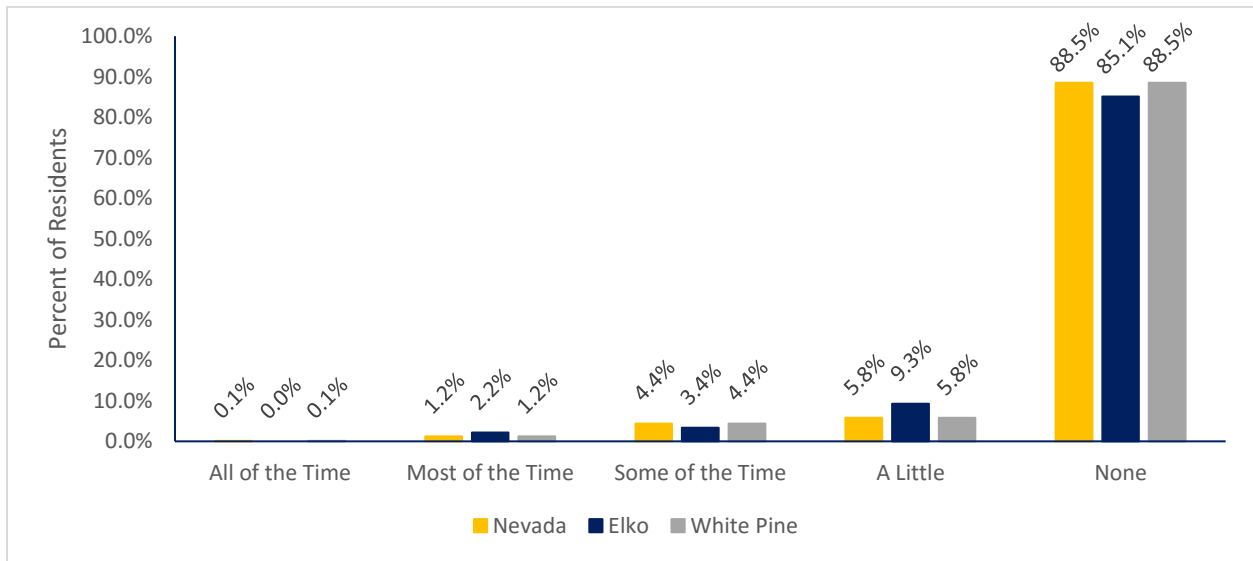
**Figure 19. 2011-2014 BRFSS: Percentages of adult Elko and White Pine residents who are considered “heavy drinkers” - more than one drink (females) or two drinks (males) per day.**



\*Data from Eureka is unavailable

Nevada adult males and females more often reported being heavy drinkers compared to males and females in both Elko and White Pine. Heavy drinking consists of males consuming more than two alcoholic beverages a day and females consuming more than one alcoholic beverage a day.

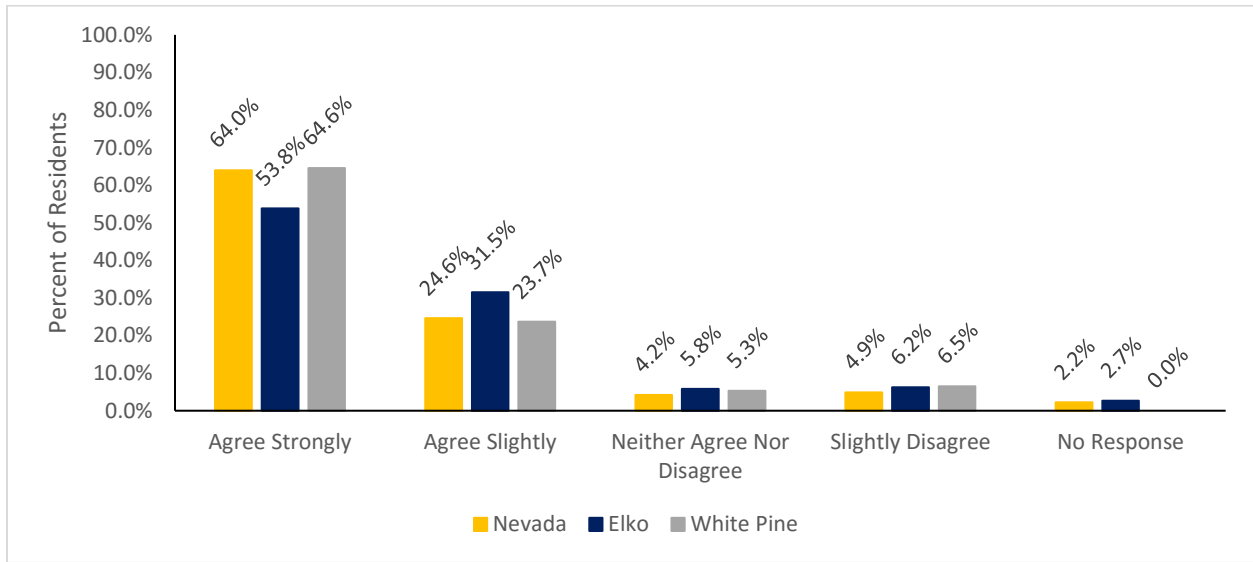
**Figure 20. Percentages of how often adult Elko and White Pine residents have felt depressed in the past 30 days, 2012-2014.**



\*Data from Eureka is unavailable

From 2012 to 2014, adult residents in Elko, White Pine, and Nevada almost equally reported not experiencing depression in the last 30 days (85%-89%). The rest of the residents reported experiencing a little depression (6%-9%), experiencing depression some of the time (3%-4%), most of the time (1%-2%), and all of the time (<1%).

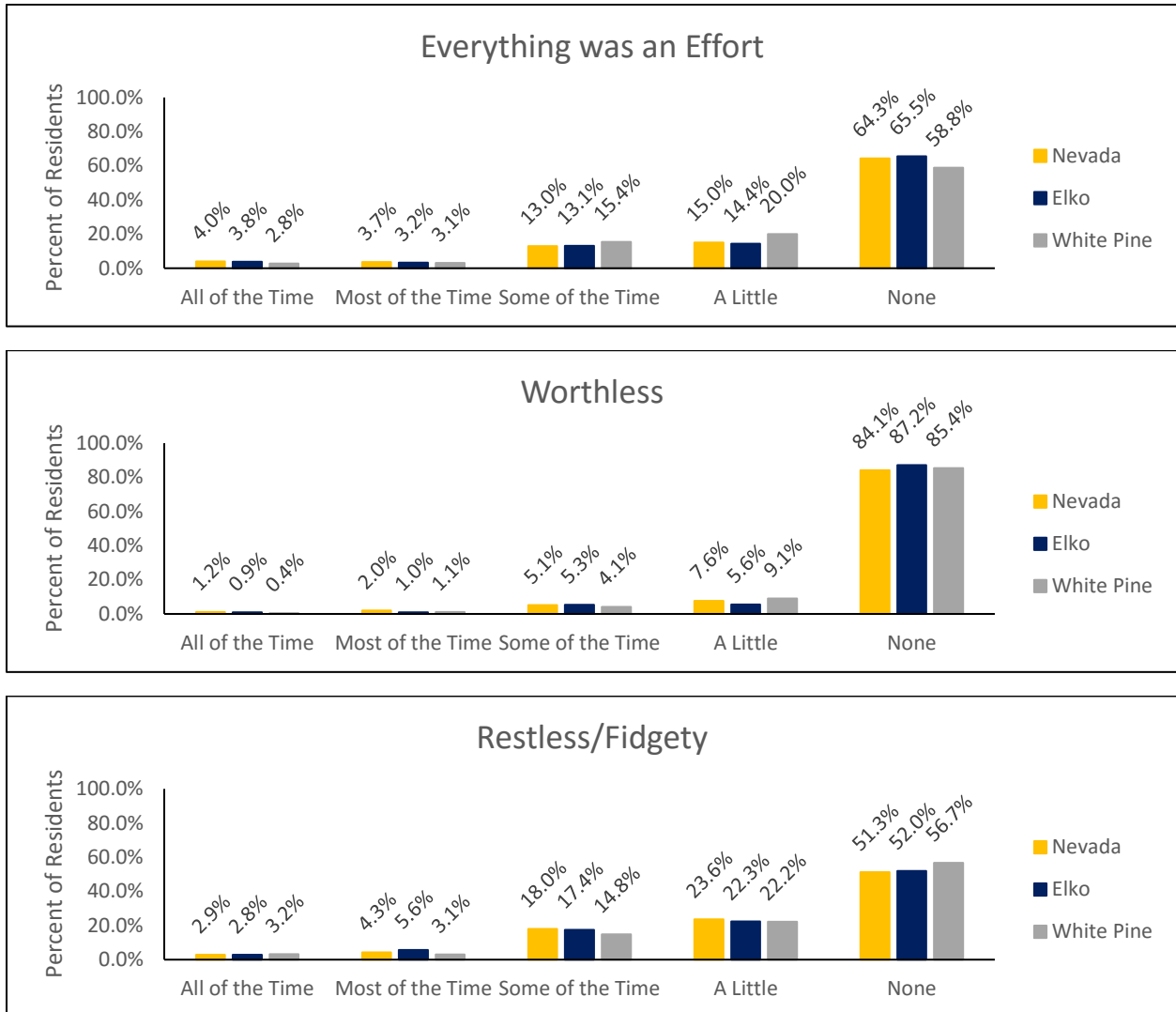
**Figure 21. 2012-2014 BRFSS: Percentages of adult Elko and White Pine residents who agree that with treatment, people with a mental illness can live normal lives.**



\*Data from Eureka is unavailable

From 2012 to 2014, BRFSS data was collected on perception related to the efficacy of mental health treatment. In Elko and White Pine, approximately 85%-89% of adults agreed in some capacity that those with mental disorders can live a normal life with treatment. Approximately 6% of adults disagree that those with mental disorders could live a normal life.

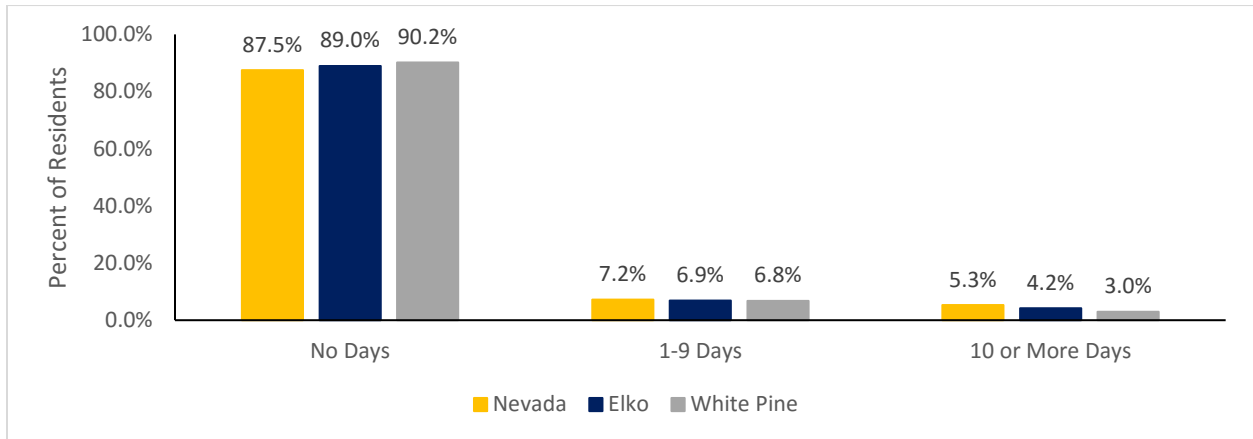
Figure 22. 2012-2014 BRFSS: Percentages of adult Elko and White Pine residents who have experienced the following mental health concerns in the past 30 days.



\*Data from Eureka is unavailable

There are a number of BRFSS questions that collect data on feelings/emotions. From 2012 to 2014, 34%-41% of adults in Elko and White Pine reported feeling everything they did took effort, 13%-15% felt worthless, and 43%-48% felt restless and or fidgety.

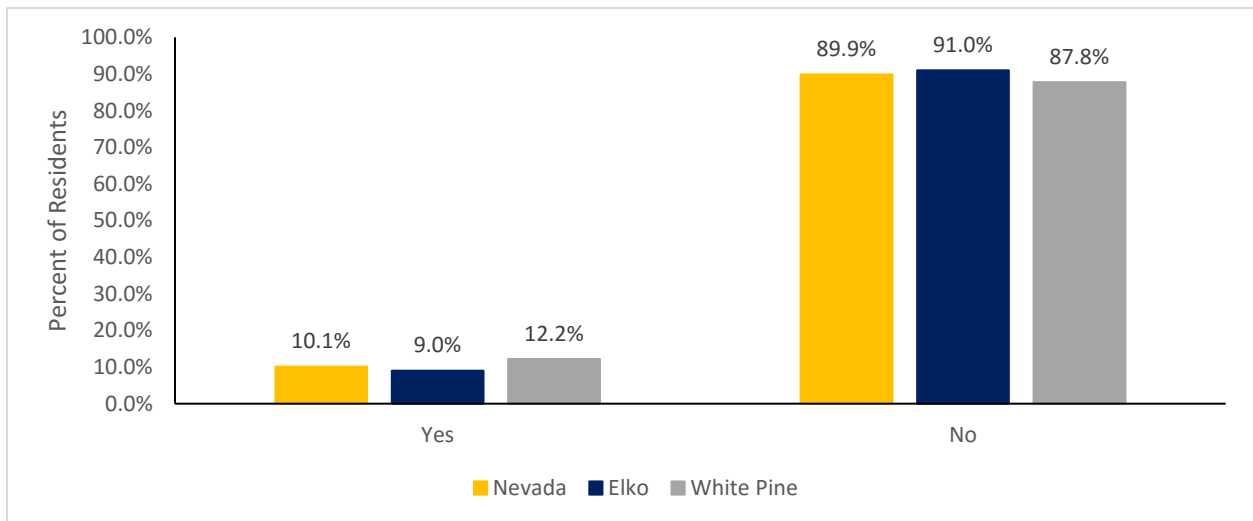
**Figure 23. 2012-2014 BRFSS: Percentages of adult Elko and White Pine residents who experienced that a mental health condition or emotional problem kept them from doing their work or other usual activities, by number of days.**



\*Data from Eureka is unavailable

Elko and White Pine residents were asked how many days, if any, did a mental health condition or emotional problem kept them from doing their work duties or other usual activities. Approximately 90% reported missing no days of work or activities, 7% experiencing missing one to nine days, and 3%-4% missed 10 or more days.

**Figure 24. 2012-2014 BRFSS: Percentages of adult Elko and White Pine residents who are taking medication or receiving treatment for any type of mental health condition or emotional problem.**



\*Data from Eureka is unavailable

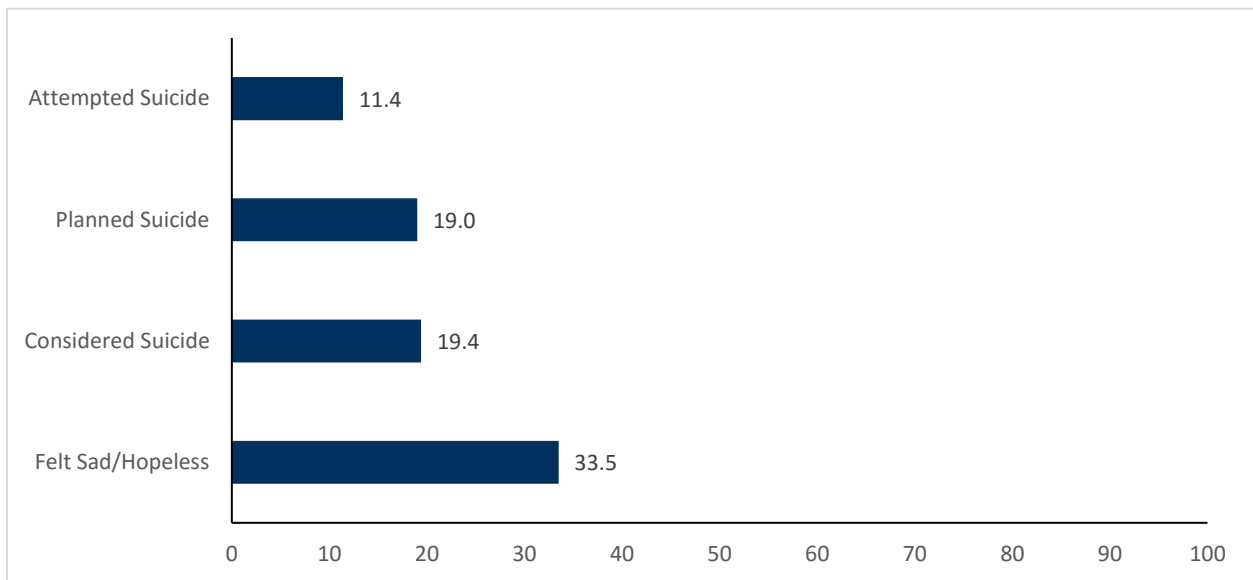
Elko and White Pine residents were asked if they were taking medication or receiving treatment from a doctor or other health professional for any type of mental health condition or emotional problem. Approximately 88%-91% reported that they were not.



# Youth Risk Behavior Surveillance System

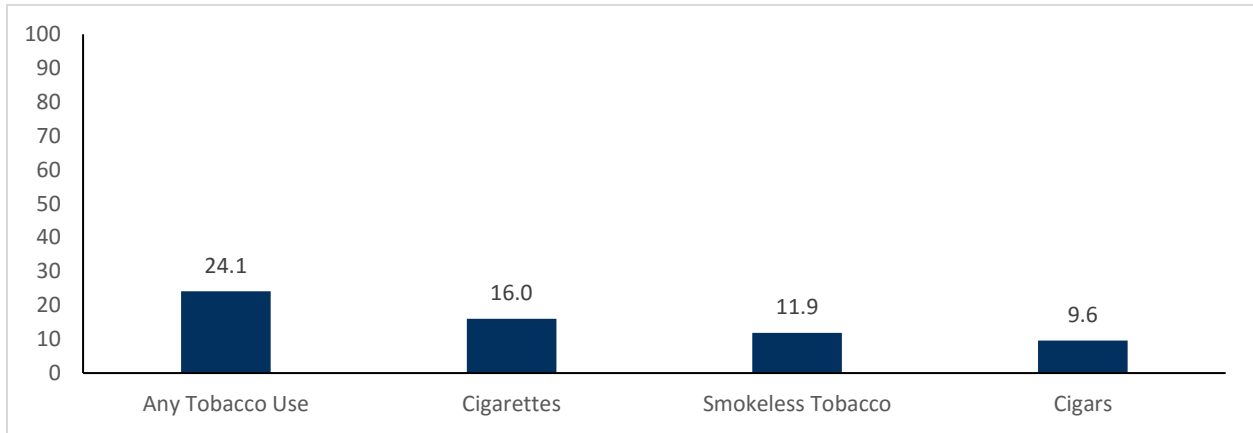
The data in this section is provided through a survey from the Youth Risk Behavioral Surveillance System (YRBSS) at a regional level for Elko, White Pine, and Eureka high school students. YRBSS is a national surveillance system that was established in 1991 by the Centers for Disease Control (CDC) and Prevention to monitor the prevalence of health risk behaviors among youth. It is an anonymous and voluntary survey of students in grades 9 through 12.

Figure 25. Percentages of high school students' mental health status (last 12 months), Elko, White Pine, and Eureka County, 2015.



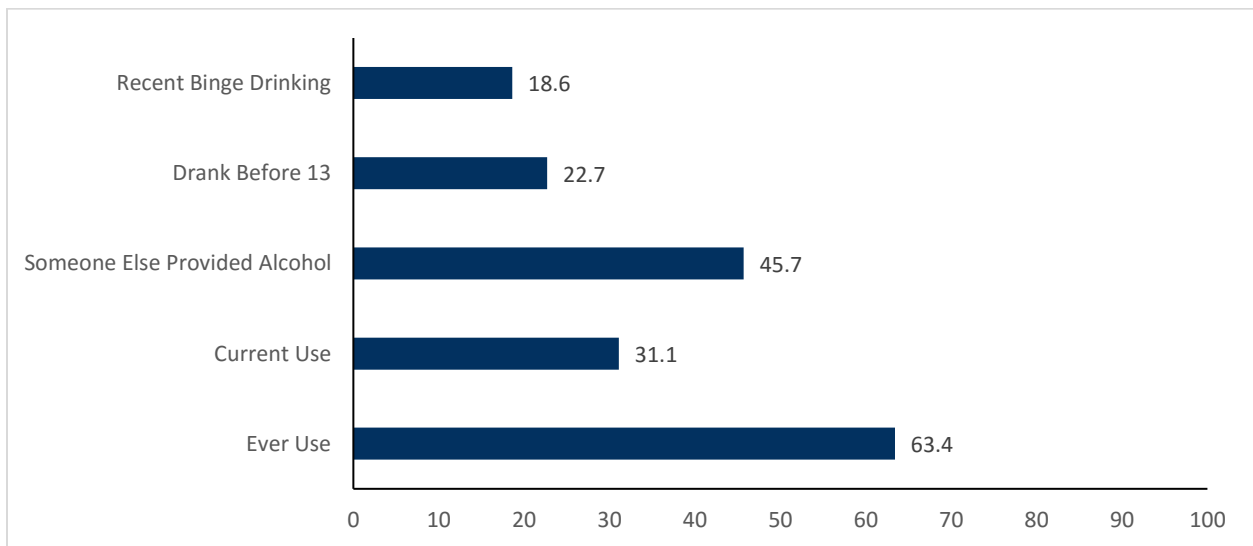
Approximately 34% of Elko, White Pine, and Eureka County high school students have felt sad or hopeless in the last 12 months. About 19.4% of students have considered suicide, while 19% have actually planned their suicide. Over 11% of high school students have actually attempted suicide.

Figure 26. Percentages of High School Students Current Tobacco Use, Elko, White Pine, and Eureka County, 2015.



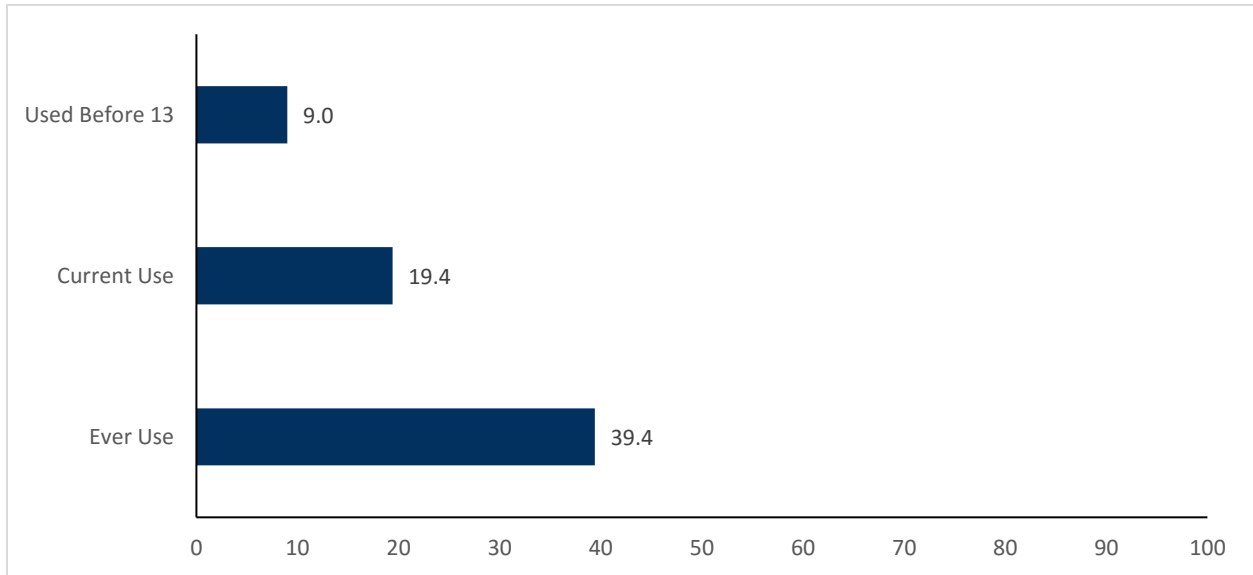
Around 24% of high school students in Elko, White Pine, and Eureka are currently using tobacco. About 16% of these high school students smoke cigarettes, while 10% are currently smoking cigars. About 12% are using smokeless tobacco products.

Figure 27. Percentages of High School Students - Alcohol Behavior Summary, Elko, White Pine, and Eureka County, 2015.



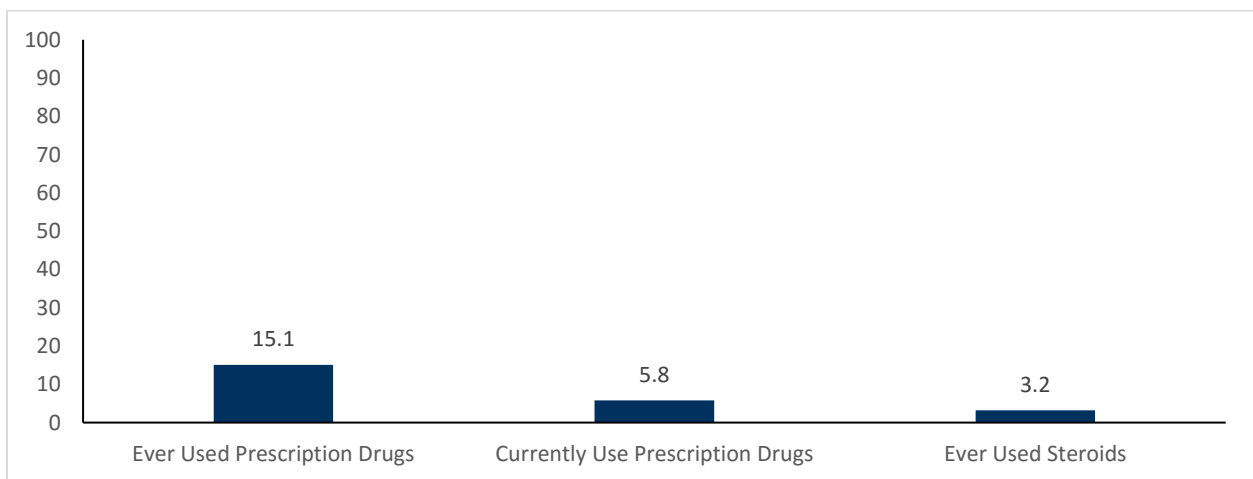
Approximately 63% of high school students in Elko, White Pine, and Eureka have had at least one drink of alcohol (more than a few sips). About 31% of high school students currently drink. Nearly 46% of high schools students had alcohol provided to them by someone else. About 23% of high school students had alcohol before the age of 13 years, and approximately 19% of students had a recent binge drinking experience (had at least 5 drinks in a couple of hours in the past 30 days).

Figure 28. Percentages of High School Students - Marijuana Behavior Summary, Elko, White Pine, and Eureka County, 2015.



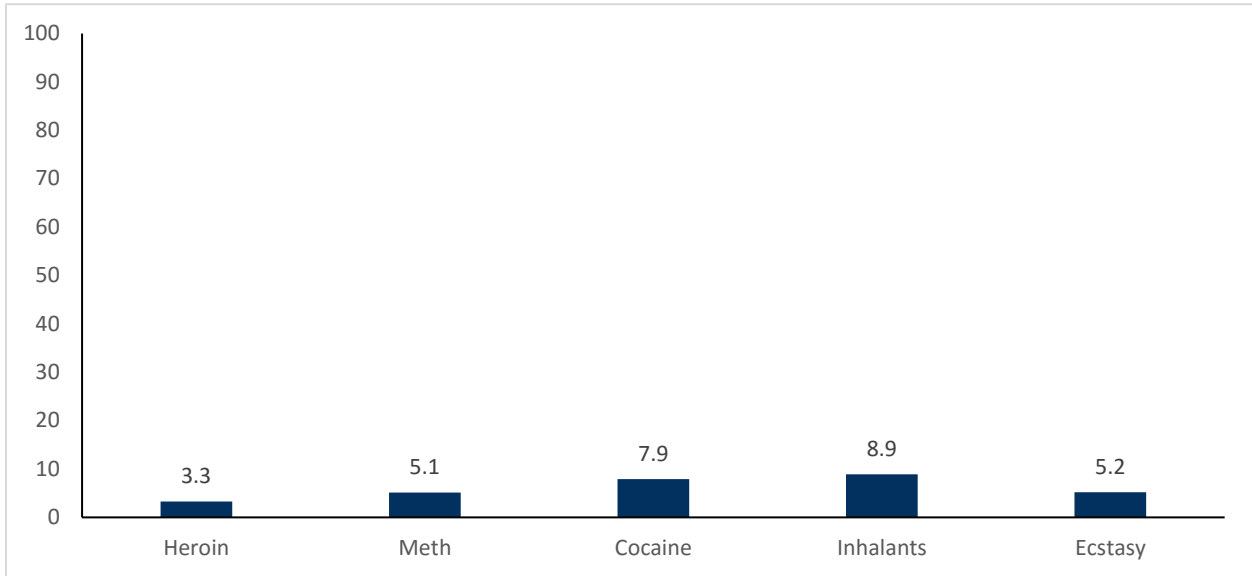
Approximately 40% of high school students in Elko, White Pine, and Eureka reported trying marijuana, and 19% are currently using. Approximately 9% of high school students have tried marijuana before the age of 13 years.

Figure 29. Percentages of High School Students Nonprescription Substance Use Summary, Elko, White Pine, and Eureka County, 2015.



Approximately 15% of high school students have already tried prescription drugs that were not prescribed to them in their lifetime. About 3% have tried non-prescribed steroids.

Figure 30. Percentages of High School Students - Substance Abuse Summary, Elko, White Pine, and Eureka County, 2015.

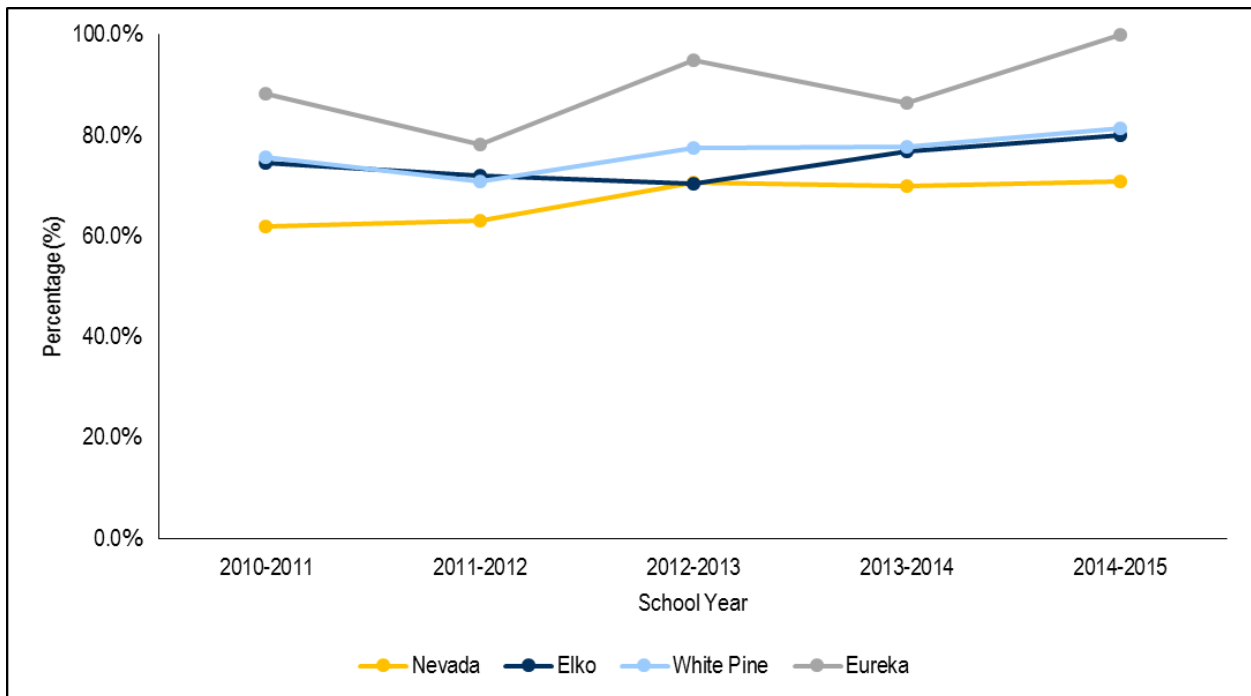


In terms of substance abuse among high school students in Elko, White Pine, and Eureka, nearly 9% have used inhalants, the highest percentage of the select substances. About 8% have used cocaine, and 5% of students have tried ecstasy.

# School Success

When students' behavioral health needs are not identified, they are more likely to experience difficulties in school, including higher rates of suspensions, expulsions, dropouts, and truancy, as well as lower grades. Nationally, 50% of students age 14 and older who are living with a mental illness drop out of high school. This is the highest dropout rate of any disability group.

Figure 31. High School Graduation Rates, Elko, White Pine, and Eureka County, 2011 – 2015 by Class Cohort.



Similar to Nevada, graduation rates have increased in all counties from the 2010-2011 class cohort to the 2014-2015 class cohort. Graduation rates in the PACE coalition are consistently higher than overall Nevada graduation rates.

## Conclusion

This report is intended to provide an overview of behavioral health in Elko, White Pine, and Eureka County, Nevada. The analysis could be used to identify issues of concern and areas that may need to be addressed.

One finding is the number of visits to the ER by residents of the PACE Coalition for most mental disorders, and alcohol-and drug-related issues have all increased during the time period from 2009 to 2014. Visits for suicidal ideation had a percent change of 202%, the largest increase among the seven disorders. The ER visits for mental health disorders and treatment in SAPTA facilities appear to be sex-specific. For example, females made up a majority of ER visits for anxiety, depression, bipolar disorder and PTSD, while males made up the majority of ER visits for schizophrenia.

The trend for death rates in mental and behavioral health-related deaths as decreased from 2009 to 2014. Mental and behavioral health-related deaths, while increasing in Nevada, has decreased from 126.1 to 90.1 deaths per 100,000 in Elko, White Pine, and Eureka.

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