WestCare Nevada, Inc.

Final Evaluation Report

Rural Nevada Telehealth Program (RNTP)

Prepared By: Melissa Rhea, Ed.D.(c), M.S., Program Evaluator

October 2011 – September 2014

The Rural Nevada Telehealth Program (RNTP) provides evidence-based substance abuse and mental health (co-occurring) outpatient treatment to residents in rural and frontier Nevada via video-conferencing technologies. The program is housed in Las Vegas, Nevada and serves adults in 9 small isolated rural communities, which includes Fallon, Lovelock, Winnemucca, Elko, Wendover, Ely, Caliente/Pioche, Hawthorne, and Tonopah within the larger counties of Churchill, Pershing, Elko, White Pine, Lincoln, Nye and Mineral.

1. Executive Summary

As a federally-funded initiative by SAMHSA CSAT Targeted Capacity Expansion – Health Information Technology (TCE-HIT), **the Rural Nevada Telehealth Program (RNTP)**, was highly effective in expanding substance abuse and mental health services and technologies to difficult to reach, in need rural Nevada residents. The program accomplished almost all goals and objectives set forth despite the immense challenges associated with provider building readiness, equipment and software utilization, and developing service processes faced mostly at the beginning of the program but was carried throughout the entirety of the project. As a result of program successes and WestCare's diligent work in securing a sustainability plan to ensure program retention, WestCare will continue to provide telehealth services to residents of rural Nevada beyond SAMHSA CSAT funding due to adaptations made to the existing infrastructure during the course of the program.

2. Introduction

2.1 Program Abstract

WestCare Nevada, Inc. (WC-NV) provided evidence based substance abuse and mental health treatment (co-occurring) to a total of 72 residents over three (3) years in rural and frontier Nevada. This new program was called the Rural Nevada Telehealth Program (RNTP). The targeted communities were nine (9) small isolated rural communities which include Fallon, Lovelock, Winnemucca, Elko, Wendover, Ely, Caliente/Pioche, Hawthorne, and Tonopah, Nevada. While remote, these communities have a significant unmet need for substance abuse and mental health treatment. The counties specific to this initiative were Churchill (population 23,982), Pershing (population 6,693), Humboldt (population 18,052), Elko (population 45,291), White Pine (population 9,181), Lincoln (population 4,165), Nye (population 32,485), and Mineral (population 5,071) (U.S. Census, 2000). All these counties are extremely rural in character, with estimated population coverage of approximately 144,920 total residents. These target communities and counties make up the most rural and frontier areas of Nevada. The target counties are extremely isolated from urban centers and consist of small, mining-oriented and farming communities surrounded by vast expanses of arid public land. For example, to access services, the driving distances between Reno, NV and Fallon, NV is 63 miles; to Lovelock 94 miles; to Winnemucca 166 miles; to Elko 290 miles; to Wendover 398 miles; to Ely 320 miles; to Pioche 430 miles; to Caliente 456 miles; to Hawthorne 134 miles and to Tonopah 238 miles. Las Vegas to Caliente is 151 miles; to Hawthorne is 315 miles and to Tonopah is 211 miles. There are scarce resources available in Nevada's rural communities to adequately serve the population.

The RNTP was designed to provide Telehealth service expansion and enhancement in these rural communities. The goals of this project were to: 1) Increase the number of expanded or enhanced technologies into rural Nevada provider's infrastructure; 2) Increase the number of persons in treatment trained on how to effectively use technology tools, e-apps, web-based programs and services, and 3) Increase the availability and accessibility of substance abuse and mental health services in rural Nevada and reduce barriers associated with onsite services through the expanded use of technology tools, e-apps, web-based programs and services.

This project increased the probability of individuals receiving treatment services under this initiative to remain in treatment longer and met required goals to live clean and sober lifestyles. The program did this by providing mental health assessment, diagnosis, and medication management to stabilize clients needing psychiatric services and psychotropic medications. *See Appendix 1 for Telehealth grant application.*

2.2 Program Description

The Rural Nevada Telehealth Program (RNTP) provides evidence-based substance abuse and mental health (co-occurring) outpatient treatment to residents in rural and frontier Nevada via video-conferencing technologies. The program is housed in Las Vegas, Nevada and serves adults in 9 small isolated rural communities, which includes Fallon, Lovelock, Winnemucca, Elko, Wendover, Ely, Caliente/Pioche, Hawthorne, and Tonopah within the larger counties of Churchill, Pershing, Elko, White Pine, Lincoln, Nye and Mineral.

3. Evaluation Methods

3.1 Data Collection

DESIGN:

The evaluation for the project used a multi-method, repeated measures design that began immediately at admission, continued throughout treatment, into 6-months post admission data collection, and ended at discharge.

The project used a single sample design (intervention only). A control/comparison group was not used. Comparisons consisted of a within group design only.

PROCEDURE:

WestCare Nevada already successfully utilizes multiple evidence-based practices and curriculums, including Motivational Enhancement Therapy (MET), Motivational Interviewing (MI), and Cognitive Behavioral Therapy (CBT), which was all utilized in the program. Details are as follows:

- ***Motivational Interviewing (MI)*** is identified by SAMHSA as an evidence-based practice in its *National Registry of Evidence Based Programs and Practices (NREPP)*. MI is a non-confrontational, brief intervention designed to establish rapport between client and clinician, reduce ambivalence and assist the client in establishing commitment to a plan of action through their own intrinsic motivation. This approach has been used successfully at intake to promote client engagement and retention.
- ***Motivational Enhancement Therapy (MET)*** is identified by SAMHSA as an evidence-based practice in its *National Registry of Evidence Based Programs and Practices (NREPP)*. MET is a non-confrontational, directive and client centered approach focused on, like MI, assisting the client in reducing ambivalence about change, and also making enduring behavioral changes. Hallmarks of the approach include clinician empathy, non-confrontational responses, and promotion of client self-efficacy and self-motivation.
- ***Cognitive Behavioral Therapy (CBT)*** is from the Addiction Technology Transfer Network and is identified as an approach "based on social learning theory, which emphasizes how our thinking interacts with how we feel and what we do" in which a clinician helps a client to recognize maladaptive thoughts or "cognitive distortions" and modify their thinking. The two main elements of CBT are conducting a Functional Analysis to determine a client's triggers and high-risk situations; and Skills Training to assist the client in identifying and changing maladaptive thought patterns, learning healthy coping and relapse prevention skills; improving social skills and relationships; and managing painful feelings, such as anger or depression. CBT is a highly individualized approach based on the needs of the client.

3.2 Data Sources

1) **CSAT GPRA Client Outcome Measures for Discretionary Programs Tool (*see Appendix 2*):** Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining

the data needed, and completing and reviewing the collection of information, if all items are asked of a client/participant; to the extent that providers already obtain much of this information as part of their ongoing client/participant intake or follow-up, less time will be required. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The control number for this project is 0930-0208.

2) **Addiction Severity Index – Adult Lite (ASI)** ***(see Appendix 3):*** The ASI will characterize the clients' functioning in several life areas at baseline, discharge, and 6-months post admission. The ASI is one of the most widely used instruments in substance abuse research and practice and is appropriate to use with clients from diverse racial, ethnic, and socioeconomic backgrounds. The ASI is a 45-minute interview that provides information on alcohol and drug use, employment history, medical and psychological functioning, and family relationships. The ASI has excellent reliability and validity (McLellan, Luborsky, Woody, and O'Brien, 1980; McLellan, Luborsky, Cacciola, and Griffith, 1985).
3) **Comprehensive Addictions and Psychological Evaluation (CAAPE)**: The CAAPE is a comprehensive diagnostic assessment interview providing documentation for substance-specific abuse or dependence diagnoses based on DSM-IV criteria. It covers some of the more prevalent mental health conditions likely to impact recovery from substance abuse or dependence and collects key demographic information associated with prognosis. Most respondents complete the interview in 35 to 50 minutes. The CAAPE has comparable reliability and validity to the Structured Clinical Interview DSM-IV (SCID) (Hoffman, 2000; Gallagher, Penn, Brooks, and Feldman, 2006).

3.3 Data Analysis

The Data analysis strategy was broken into two stages:

1) Validity checks to minimize outcome analysis bias, thus making the main analyses non-interpretable. Prior to the main analyses of outcomes, an analysis to assess dropout rates was conducted. This validity check assesses whether clients who do not complete the program differ in any important ways from those who complete treatment, threatening the integrity of the conclusions from the main analyses. The analyses employ baseline and follow-up data to compare completers and non-completers on the dependent variables. These analyses did not produce significant differences, thus, we can assume the main analysis is not biased.
2) Determined that client characteristics did not interact with the interventions to influence outcome.

Outcome evaluation demonstrates the effectiveness of the model using a repeated measures analysis. Data consisted of data from admission, discharge, and 6-months post admission.

However, even with good data collection/entry procedures, data errors/missing values occurred. Therefore, prior to conducting formal analyses, descriptive analyses of each variable was conducted to determine data entry errors, out-of-range values, and inconsistent data, including measures of skew and kurtosis. Potential data entry errors or values falling out-of-range was cross-checked and corrected. Values that cannot be verified or corrected were coded as missing values. After cleaning the data, additional analyses on each variable was conducted to detect outliers. Values falling +/- 3 standard deviations from the respective variable mean were considered outliers. Subsequent analyses do not include outliers.

<u>Descriptive Statistics Used:</u>

Data analyses included demographic baseline data for all participants. In addition to the descriptive data analysis, rates of change analysis were used to determine change over time from admission to 6-Months post admission. Thus, ratios were the prime method of analysis here.

Inferential Statistics Used:
To enhance data analysis, inferential analysis was conducted in addition to descriptive analysis. Since retention from admission to discharge data points were below 60%, paired samples t-tests analysis was chosen instead of RMANOVA. Paired samples t-tests analysis with a 95% confidence interval was used for *GPRA* data from admission to 6-Months post admission to determine if there was a statistically significant change over time.

3.4 Limitations

There were several limitations that impacted program efficiency and effectiveness. They are all addressed in the Performance Improvement Work Plans developed by the Evaluator and approved by the program's leadership team during the course of the program. *See Appendices 4, 5, and 6.*

4. Results

4.1 Process Evaluation

GPRA COLLECTED:
According to the GPRA (*see Appendix 2*), from program inception (October 2011) to September 2014, the program served 72 adults meeting 32.4% of the target goal of serving 222 clients over the course of 3 years. There have been a total of 22 discharge interviews completed (9 were administrative discharges) meeting 59.0% data retention from intake to discharge. There has been a total of 47 6-months post intake interviews completed meeting 73.4% data retention from intake to 6-months post intake. All GPRAs (100%) were entered into the CSAT SAIS database within 7 business days of the interview. *See GPRA Data Collection Table*.

Due to the challenges the program has faced since inception, there has been great difficulty in meeting our originally proposed intake target. Thus, the adjustment of target numbers last October 2013 from 85 to 74 annually. Also, during the course of the program, there have been several challenges in hiring and retaining a part-time Research Assistant whose primary duty is to collect GPRA data at all data points. As part of a larger WestCare Nevada Technical Assistant (TA) session in October 2013, a 30-, 60-, and 90-day Action Plan was set in place that assisted the program in increasing GPRA rates since the last reporting period. **Intake GPRA rates increased by 4%, 28% to 32%, and discharge GPRA rates increased by 16%, 43% to 59%. However, we have seen a decrease in 6-month post intake by 5%, 67% to 62%. This decrease at 6-months post intake could be due to the variance of Research Assistants during the program as the building of rapport with clients had not yet percolated.** *See GPRA Final Rates Table*.

GPRA Data Collection Table

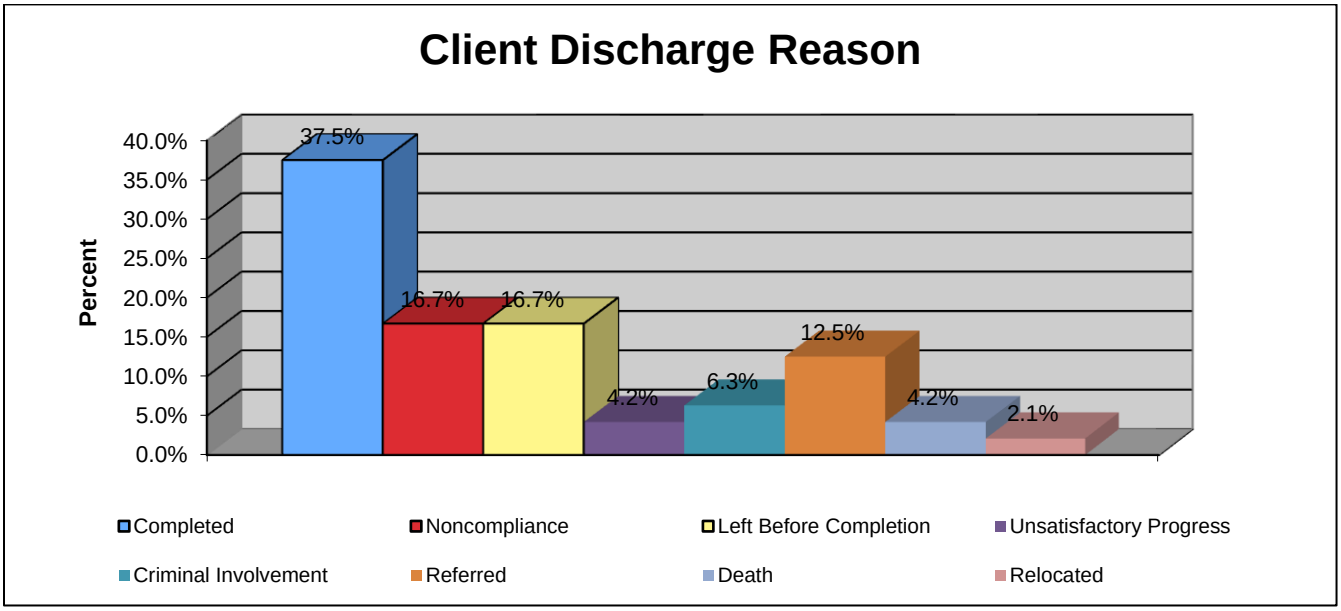
GPRA	# Served (N)	Retention (%)
Intake	72	-
Discharge	22	59.0%
6-Months	47	73.4%

GPRA Final Rates Table

GPRA	September 2014 (%)
Intake	32%
6-Months	62%

RETENTION RATES:
Of the 72 clients served, 38.9% (n=28) of clients are still receiving services in the program as the program will continue within the WestCare Nevada infrastructure after SAMHSA CSAT funding ended. Of the 48 clients who discharged from the program, 37.5% (n=18) completed the program successfully, 16.7% (n=8) ended treatment due to noncompliance, 16.7% (n=8) left treatment before completion or ended treatment due to lack of engagement, 4.2% (n=2) failed to meet program requirements, 6.3% (n=3) left due to incarceration or

court/criminal involvement, 12.5% (n=6) were referred to another program, 4.2% (n=2) passed away during treatment, and 2.1% (n=1) relocated. On average, the length of stay was 258.2 days.



CLIENT PERCEPTION SURVEYS:

Client Perception Surveys at Intake, 30 Days Post Admission, and Discharge were administered to clients to determine their satisfaction with the program. The program collected a total of 27 surveys at intake, 2 surveys at 30 days post admission, and 4 surveys at discharge. All of which are low collection rates.

Client Perception Survey – Intake:

There were a total of 15 questions asked. The questions include: how referred, time between referral and intake assessment, first call to schedule intake assessment, when offered intake assessment appointment, initial intake assessment interview time started, forms at intake explained, first individual assessment with counselor occurrence, felt welcomed to program, felt counselor was capable of helping with co-occurring disorders, numerical value of computer skills, numerical value of video conferencing computer skills, numerical value of comfortability of using program's technology, numerical value of access to computer with internet connection, overall impression of staff/program, and additional comments. The following table outlines the results:

Client Perception Survey – Intake Table

Questions	Response Option	Frequency (N)	Percent (%)
How Referred	Myself, Friend, or Family Member	19	70.4%
	Court of Criminal Justice	5	18.5%
	School	0	0%
	Medical Provider	1	3.7%
	Other	2	7.4%
Time Between Referral and Intake Assessment	The Same Day	1	3.7%
	The Next Day	2	7.4%
	2 Days Later	3	11.1%
	3 Days Later	1	3.7%
	4 or more Days Later	12	44.4%
	Does Not Apply	8	29.6%

First Call to Schedule Intake Assessment	Answered Immediately	1	3.7%
	Returned in 1-4 Days	2	7.4%
	Returned in 5-8 Days	0	0%
	Returned the Next Day	2	7.4%
	Returned in 2 or More Days	8	29.6%
	Does Not Apply	14	51.9%
When Offered Intake Assessment Appointment	The Same Day	3	11.5%
	The Next Day	1	3.9%
	2 Days Later	1	3.9%
	3 Days Later	4	15.4%
	4 or More Days Later	9	34.6%
	Does Not Apply	8	30.8%
Initial Intake Assessment Interview Time Started	On Time	22	84.6%
	Within 15 Minutes of Scheduled Time	0	0%
	Within 16-30 Minutes of Scheduled Time	1	3.9%
	30 Minutes or More After Scheduled Time	1	3.9%
	No Appointment	2	7.7%
Forms at Intake Explained	Strongly Agree	14	51.9%
	Agree	12	46.2%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%
First Individual Assessment with Counselor Occurrence	The Day of Admission	4	16.0%
	Next Day	1	4.0%
	Third Day	1	4.0%
	Fourth Day	0	0%
	5 or More Days After Admission	8	32.0%
	Not Yet	11	44.0%
Felt Welcomed to the Program	**Strongly Agree**	**18**	**72.0%**
	Agree	**7**	**28.0%**
	Somewhat Agree	**0**	**0%**
	Somewhat Disagree	**0**	**0%**
	Disagree	**0**	**0%**
	Strongly Disagree	**0**	**0%**
Felt Counselor was Capable of Helping with Co-Occurring Disorders	**Strongly Agree**	**16**	**62.5%**
	Agree	**8**	**33.3%**
	Somewhat Agree	**1**	**4.2%**
	Somewhat Disagree	**0**	**0%**
	Disagree	**0**	**0%**
	Strongly Disagree	**0**	**0%**
Numerical Value of Computer Skills	**10**	**4**	**14.8%**
	9	**0**	**0%**
	8	**7**	**25.9%**
	7	**4**	**14.8%**
	6	**2**	**7.4%**
	5	**3**	**11.1%**
	4	**2**	**7.4%**
	3	**0**	**0%**
	2	**2**	**7.4%**
	1	**3**	**11.1%**

Numerical Value of Video Conferencing Skills	**10**	**4**	**14.8%**
	9	**0**	**0%**
	8	**7**	**25.9%**
	7	**4**	**14.8%**
	6	**1**	**3.7%**
	5	**7**	**25.9%**
	4	**0**	**0%**
	3	**0**	**0%**
	2	**1**	**3.7%**
	1	**3**	**11.1%**
Numerical Value of Comfortability Using Program's Technology	**10**	**9**	**34.6%**
	9	**5**	**19.2%**
	8	**4**	**15.4%**
	7	**3**	**11.5%**
	6	**1**	**3.9%**
	5	**3**	**11.5%**
	4	**1**	**3.9%**
	3	**0**	**0%**
	2	**0**	**0%**
	1	**0**	**0%**
Numerical Value of Access to Computer with Internet Connection	**10**	**6**	**22.2%**
	9	**0**	**0%**
	8	**0**	**0%**
	7	**0**	**0%**
	6	**0**	**0%**
	5	**4**	**14.8%**
	4	**0**	**0%**
	3	**0**	**0%**
	2	**1**	**3.7%**
	1	**16**	**59.3%**
Overall Impression of Staff/Program	**Excellent**	**17**	**63.0%**
	Good	**8**	**30.0%**
	Neutral	**0**	**0%**
	Needs Improvement	**0**	**0%**
	Poor	**0**	**0%**
	Not Sure Yet	**2**	**7.4%**

The last question included was for client additional comments. There were a total of 6 comments. Among the comments, there were responses like "I like my counselor a lot. I think she can help me with my depression and substance abuse," and "seems like a good program for people."

Client Perception Survey – 30 Days Post Admission:

There were a total of 13 questions asked. The questions include: program rules and expectations clear, staff care about my progress in treatment, the staff treat me with dignity and respect, staff communicate clearly, I feel respected and heard during sessions, my counselor helps me meet my goals, my counselor helps with co-occurring mental health issues, staff are sensitive to my cultural/ethnic background, on track for successful recovery, numerical value of comfortability with program's technology, concerns with privacy, overall impression of staff and program, and additional comments. The following table outlines the results:

Client Perception Survey – 30 Days Post Admission Table

Questions	Response Option	Frequency (N)	Percent (%)
Program Rules and Expectations Clear	Strongly Agree	1	50.0%
	Agree	1	50.0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%
Staff Care About my Progress in Treatment	Strongly Agree	2	100%
	Agree	0	0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%
Staff Treat me with Dignity and Respect	Strongly Agree	2	100%
	Agree	0	0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%
Staff Communicate Clearly	Strongly Agree	1	50.0%
	Agree	1	50.0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%
Feel Respected and Heard During Sessions	Strongly Agree	2	100%
	Agree	0	0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%
My Counselor Helps Me Meet My Goals	Strongly Agree	2	100%
	Agree	0	0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%
My Counselor Helps with Co-Occurring Mental Health Issues	Strongly Agree	2	100%
	Agree	0	0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%
Staff are Sensitive to My Cultural/Ethnic Background	Strongly Agree	1	50.0%
	Agree	1	50.0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%

On Track for Successful Recovery	Strongly Agree	1	50.0%
	Agree	1	50.0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%
Numerical Value of Comfortability with Program's Technology	**10**	**1**	**100%**
	9	**0**	**0%**
	8	**0**	**0%**
	7	**0**	**0%**
	6	**0**	**0%**
	5	**0**	**0%**
	4	**0**	**0%**
	3	**0**	**0%**
	2	**0**	**0%**
	1	**0**	**0%**
Concerns with Privacy	Strongly Agree	1	50.0%
	Agree	0	0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	1	50.0%
Overall Impression of Staff and Program	**Excellent**	**1**	**100%**
	Good	**0**	**0%**
	Neutral	**0**	**0%**
	Needs Improvement	**0**	**0%**
	Poor	**0**	**0%**
	Not Sure Yet	**0**	**0%**

The last question included was for client additional comments. There were no additional comments.

Client Perception Survey – Discharge:

There were a total of 15 questions asked. The questions include: length of program adequate, treated fairly, felt safe and respected, staff was sensitive to my cultural/ethnic background, my beliefs and rights were respected, any complaints were handled fairly, counselor helped me with co-occurring mental health issues, number of times treated for substance abuse, duration of treatment, choose WestCare again if needed help, would recommend the program to others, overall evaluation of the program, reason for leaving treatment, and additional comments. The following table outlines the results:

Client Perception Survey – Discharge Table

Questions	Response Option	Frequency (N)	Percent (%)
Length of Program Adequate	Strongly Agree	3	75.0%
	Agree	1	25.0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%

Treated Fairly	Strongly Agree	3	75.0%
	Agree	1	25.0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%
Felt Safe and Respected	Strongly Agree	3	75.0%
	Agree	1	25.0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%
Staff was Sensitive to Cultural/Ethnic Background	Strongly Agree	2	50.0%
	Agree	2	50.0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%
Beliefs and Rights were Respected	Strongly Agree	3	75.0%
	Agree	1	25.0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%
Any Complaints were Handled Fairly	Strongly Agree	3	75.0%
	Agree	1	25.0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%
Counselor Helped me with Co-Occurring Mental Health Issues	Strongly Agree	3	75.0%
	Agree	1	25.0%
	Somewhat Agree	0	0%
	Somewhat Disagree	0	0%
	Disagree	0	0%
	Strongly Disagree	0	0%
Number of Times Treated for Substance Abuse	1	4	-
	2	1	-
	3	2	-
	4	1	-
Duration of Treatment	Less Than 30 Days	0	0%
	1-3 Months	0	0%
	4-6 Months	3	75.0%
	6-9 Months	1	25.0%
	More Than 9 Months	0	0%
Choose WestCare Again if Needed Help	**Yes**	**4**	**100%**
	No	**0**	**0%**
Would Recommend the Program to Others	**Yes**	**4**	**100%**
	No	**0**	**0%**
Overall Evaluation of Program	**Excellent**	**2**	**50.0%**
	Good	**2**	**50.0%**
	Neutral	**0**	**0%**
	Needs Improvement	**0**	**0%**
	Poor	**0**	**0%**

Reason for Leaving Treatment	Successful Completion	3	75.0%
	Left Against Staff Advice	0	0%
	Referred to Another Program	0	0%
	Incarcerated	0	0%
	Other (not leaving yet)	1	25.0%

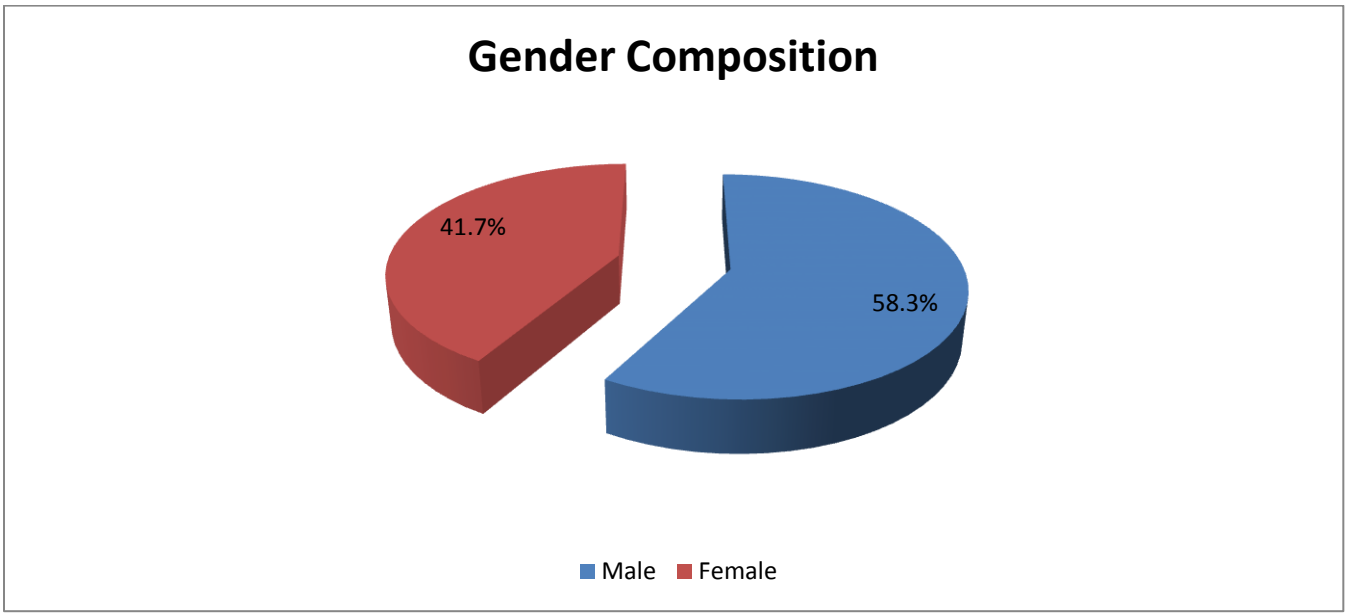
The last question included was for client additional comments. There were a total of 2 comments. The responses were: "Thank you for taking time for me" and "Very good program. My Counselor was awesome."

PERFORMANCE IMPROVEMENT:

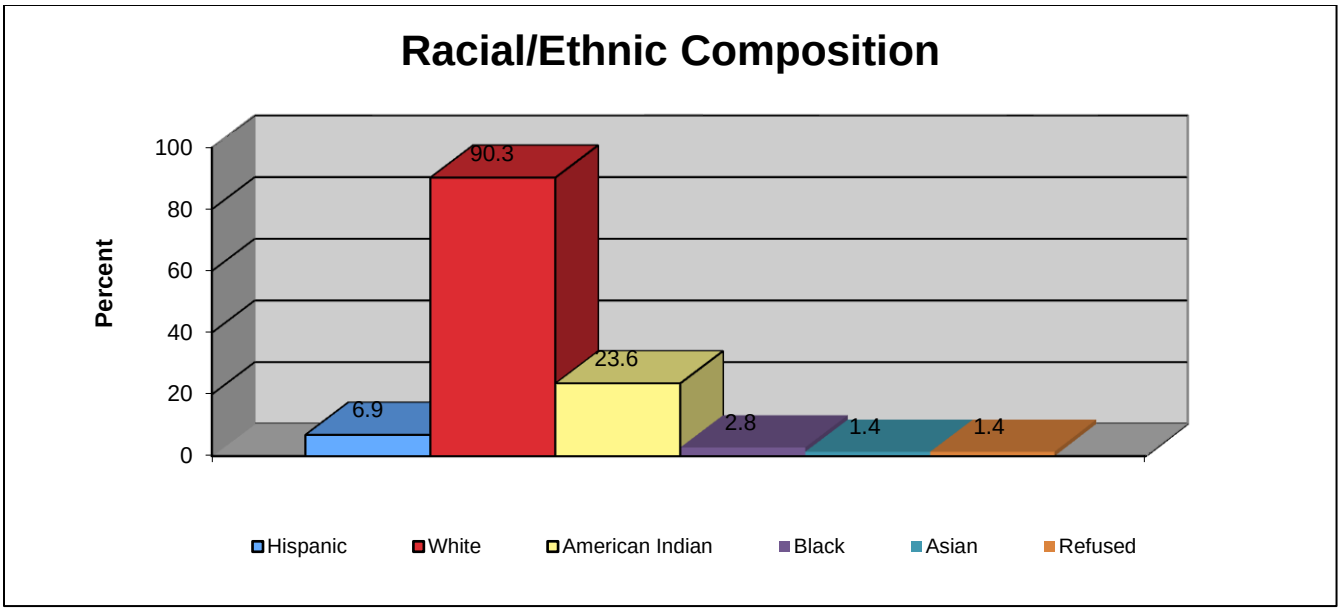
As proposed in the original application, if deviations occur in relation to program implementation and adherence to goals/objectives (performance measures), a structured Performance Improvement Work Plan would be developed by Evaluator and approved by the Leadership Team. Due to the challenges in building readiness, equipment/software technologies, developing program processes and others, three Performance Improvement Work Plans were developed to improve program efficiency and effectiveness during the course of the program. *See Appendices 4, 5, and 6.*

DEMOGRAPHICS and BASELINE DATA:

Gender Composition: The majority of clients served were male (58.3%) with 41.7% being female.



Racial/Ethnic Composition: With regard to ethnic composition, the majority of clients did not identify as Hispanic/Latino (93.1%). Insofar as race composition is concerned, the majority of clients identified as White (90.3%) with 23.6% identifying as American Indian, 2.8% identifying as Black, 1.4% identifying as Asian, and 1.4% Refused to respond.



Age Composition: At admission, most clients were between the ages of 25-34 years old (25.0%). Due to the need of services offered to youth and families in rural communities, a small number of youth (2.8%) were also served by the program even though the original plan was to serve adults only. This was approved by GPO. The average age was 36.1 years old.

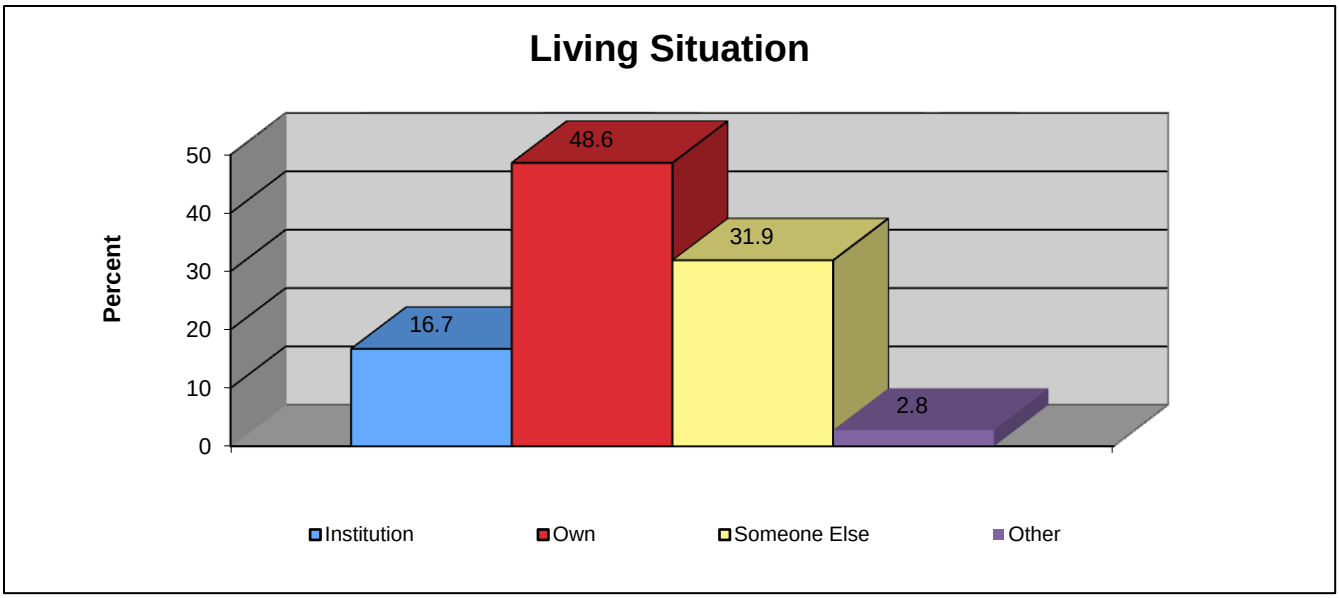
Age Range (Average Age)	Percent (Average)
10-12 years old	1.4%
13-17 years old	1.4%
18-24 years old	22.2%
25-34 years old	25.0%
35-44 years old	19.4%
45-54 years old	20.8%
55-64 years old	9.7%
No response	0%
(Average Age)	(36.1 years)

Substance Use at Baseline: In the 30 days prior to admission, about one-fifth of clients (19.4%) reported alcohol use. A very small number reported illegal drug use (4.2%), and using both alcohol and illegal drugs on the same day (2.8%). Of the clients that reported illegal drug use, 1.4% reported using Marijuana/Hashish, Heroin (Opiate), Methamphetamine, and Benzodiazepines. A small number of clients (1.4%) reported being an injection drug user.

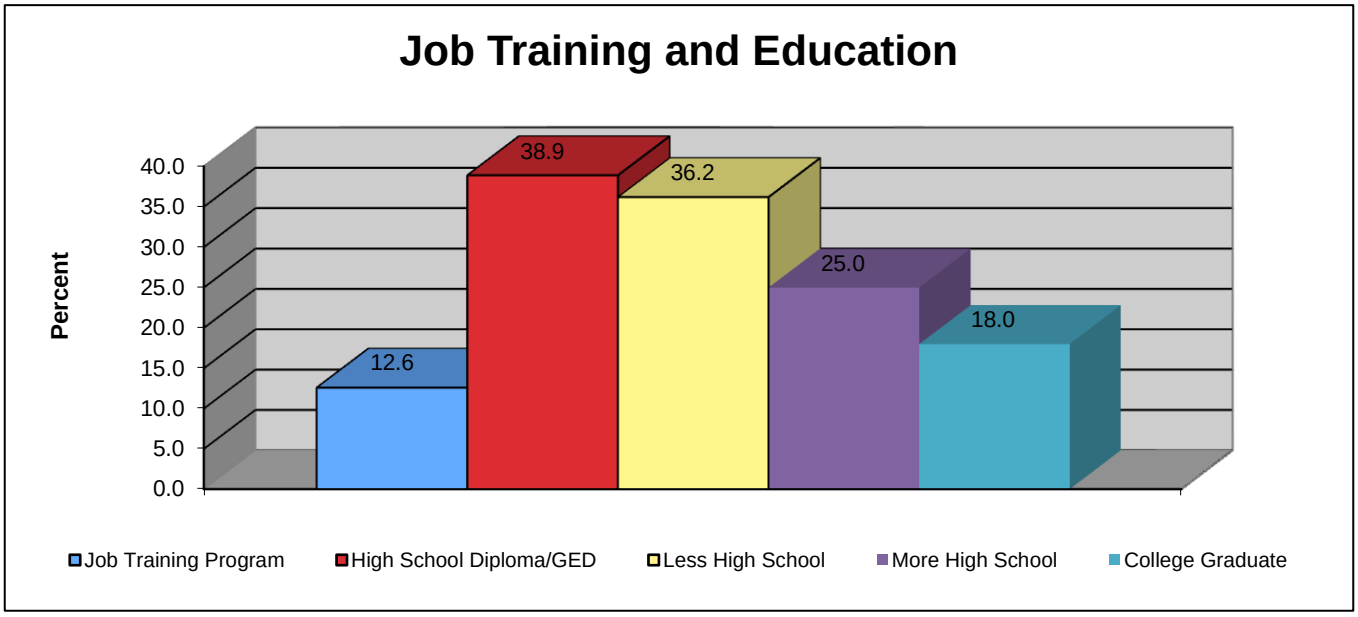
Substance Type	Percent
Alcohol	19.4%
Illegal Drugs	4.2%
Both Alcohol and Drugs	2.8%
Injection Drug User	1.4%

Illegal Drug Use	Percent
Marijuana/Hashish	1.4%
Heroin - Opiate	1.4%
Methamphetamine	1.4%
Benzodiazepines	1.4%

Living Situation at Baseline: In the 30 days prior to admission, the majority of clients (83.3%) were housed. The remaining 16.7% clients were housed in an institution. Of the clients who reported being housed, the majority were living on their own (48.6%), 31.9% lived with someone else, and 2.8% reported other (i.e., motel, trailer).

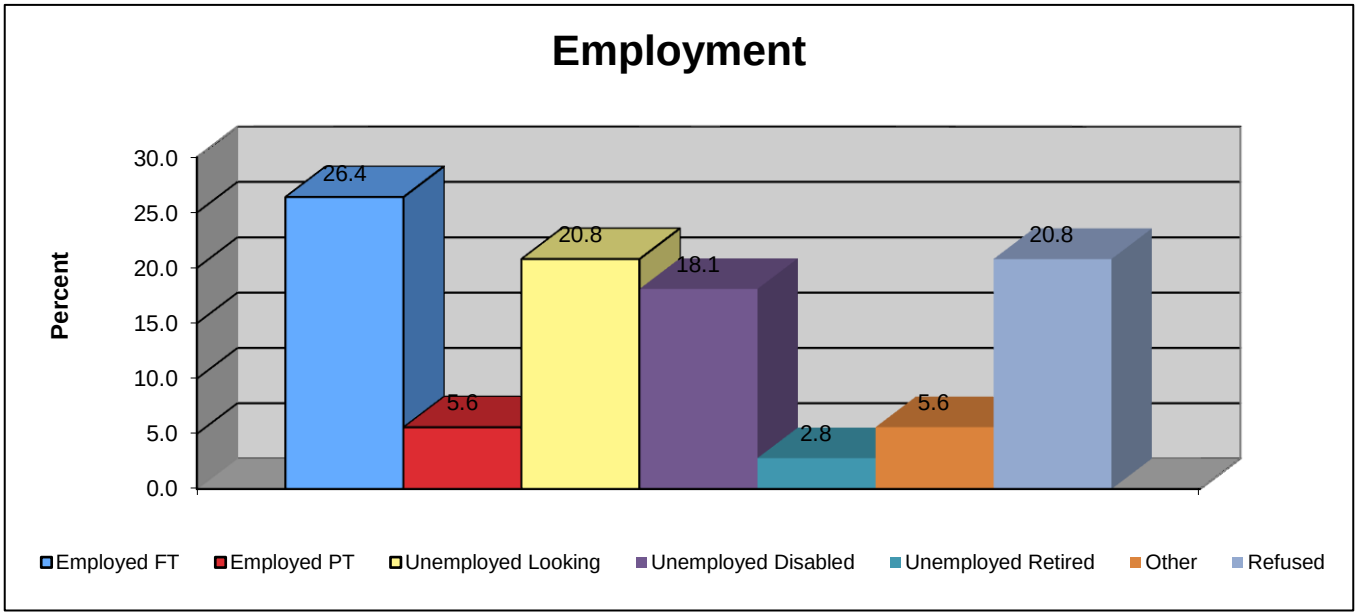


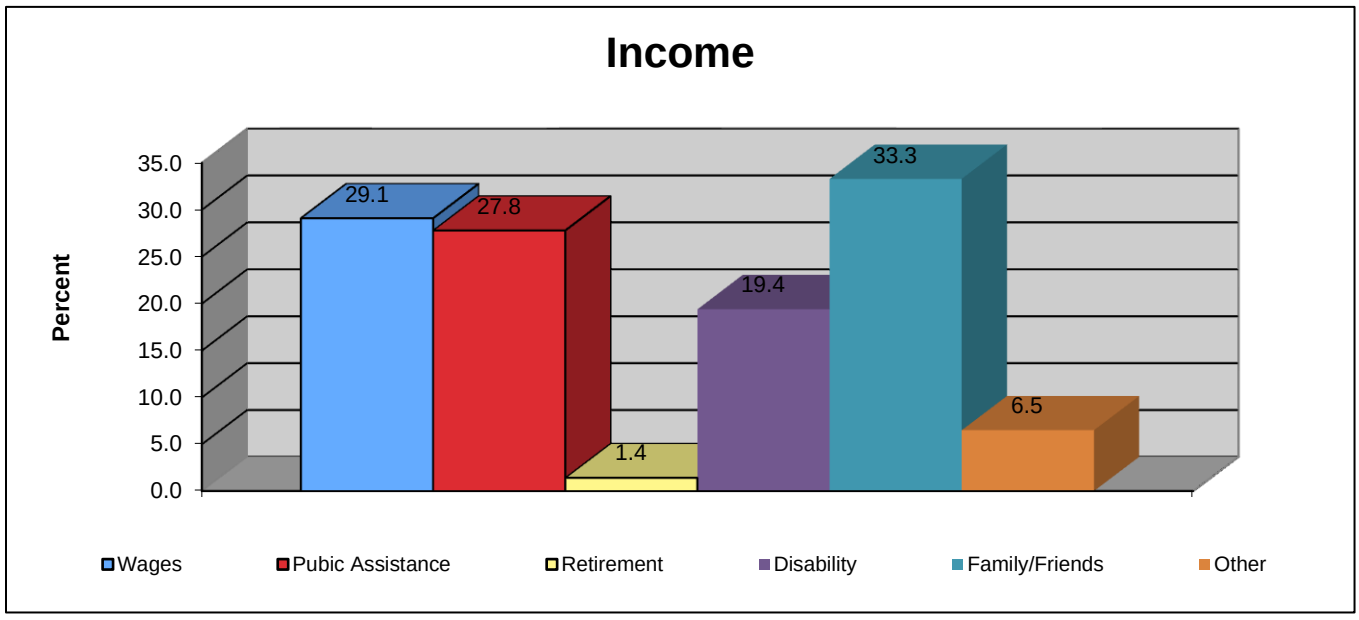
Job Training and Education at Baseline: At admission, a small number of clients (12.6%) were enrolled in school or a job training program; 5.6% full-time job training program, 5.6% part-time job training program, and 1.4% GED program. Most clients (38.9%) completed high school/GED, while 36.2% had less than a high school education, and 25% had some college to a college degree (e.g., vocational degree, AA/AS, BA/BS) with 18.0% being a college graduate.



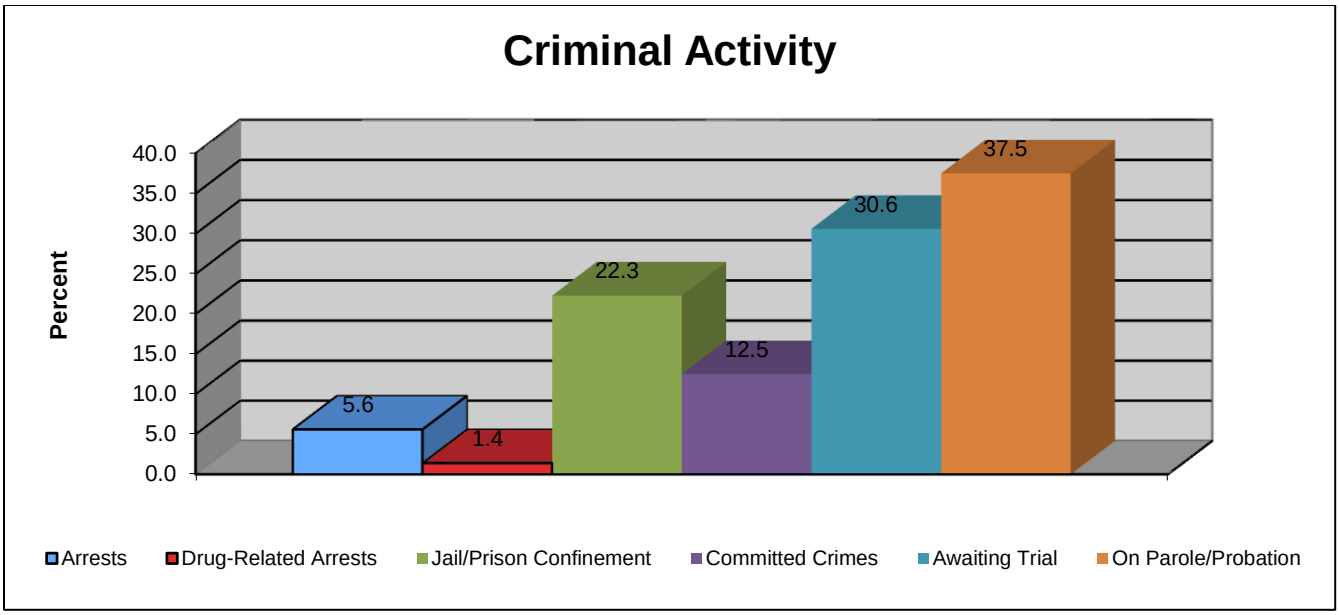
Employment and Income at Baseline: At admission, about one-third of clients (32.0%) were employed; 26.4% full-time and 5.6% part-time. About one-fifth of clients (20.8%) were unemployed, looking for work, while 18.1% were unemployed disabled, 2.8% were unemployed retired, 5.6% were other (i.e., full-time student, incarcerated, side jobs, under the table work), and 20.8% refused to respond. Almost one-third of clients (29.1%)

reported receiving an income from wages, 27.8% income from public assistance, 1.4% income from retirement, 19.4% income from disability, 33.3% income from family/friends, and 6.5% income from other (i.e., child support, food stamps, recycling scrap metal, tax return).

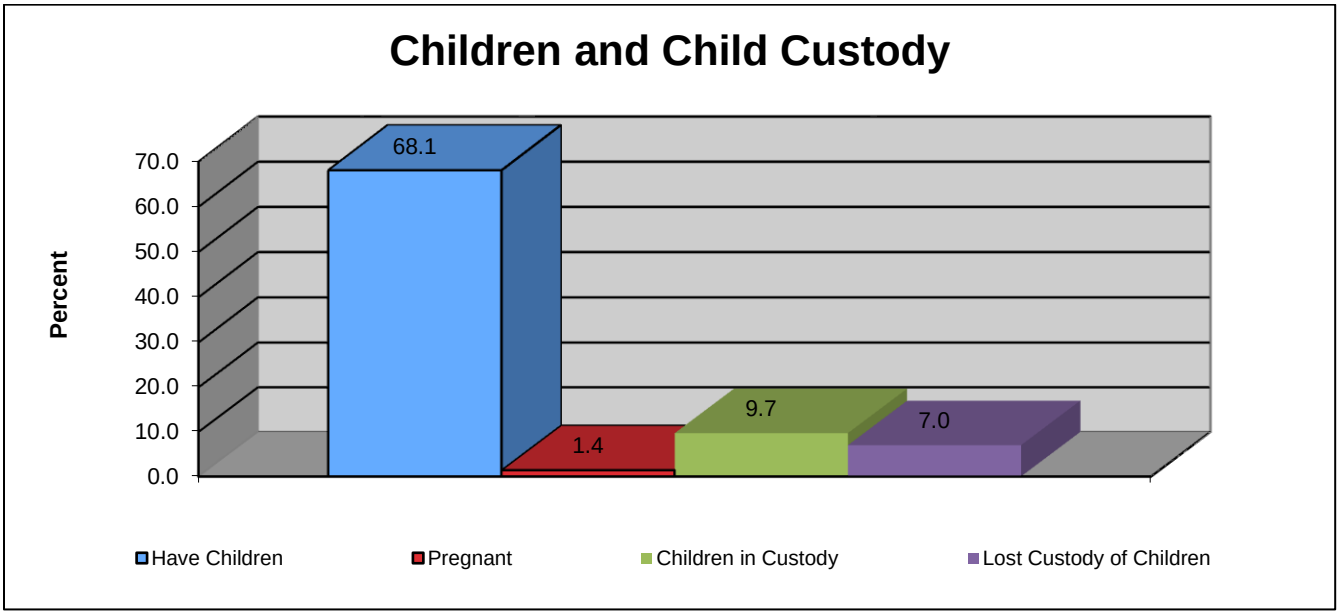




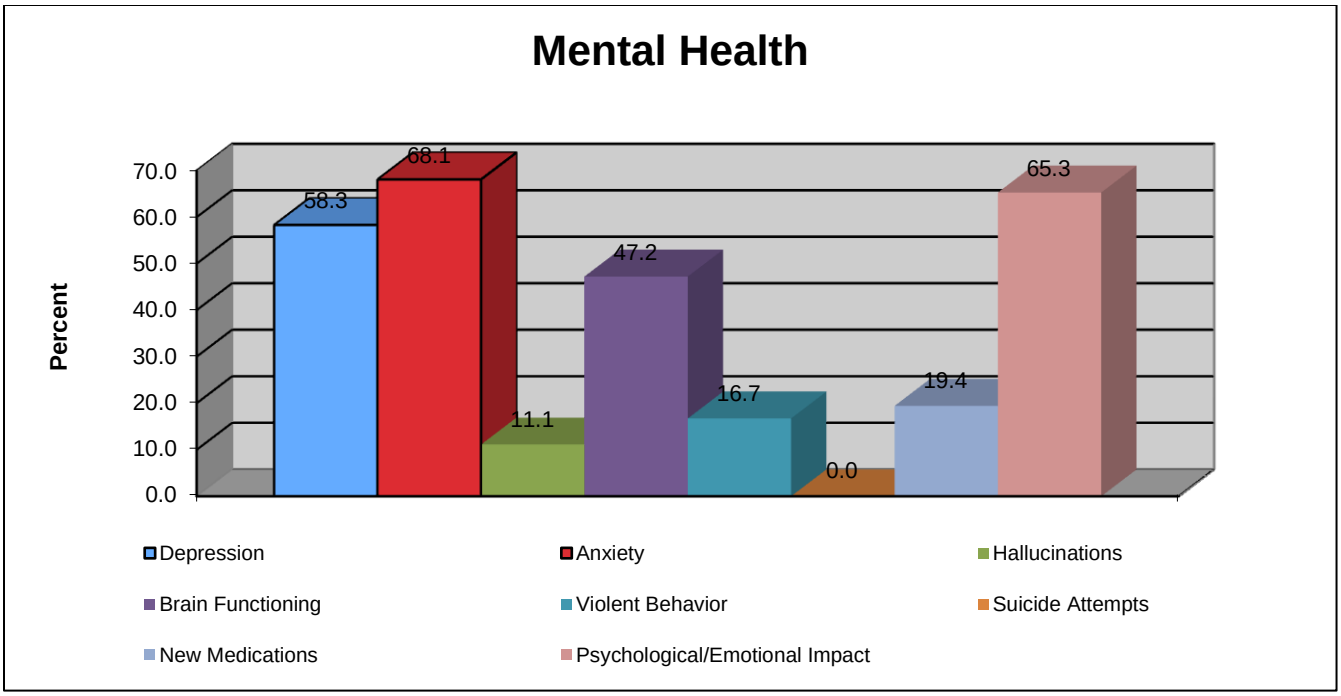
Criminal Activity at Baseline: In the 30 days prior to admission, a small number of clients (5.6%) reported being arrested with 1.4% of these clients being arrested for drug-related offenses. Almost one-fourth of clients (22.3%) reported being confined in jail/prison from 2-30 days. More than one-tenth of clients (12.5%) reported committing crimes, 30.6% reported awaiting trial, and 37.5% reported being on parole/probation.



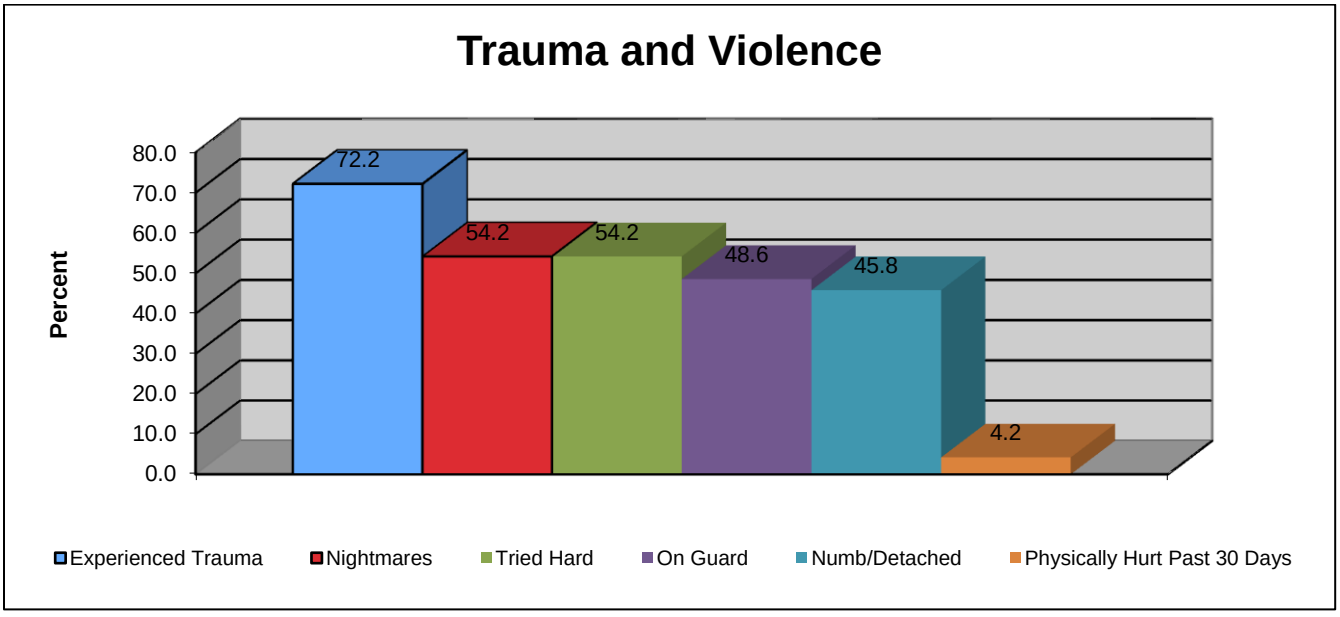
Children and Child Custody at Baseline: At admission, the majority of clients (68.1%) had children with a very small number (1.4%) reported being pregnant. Clients had between 1-8 children with 2.8 children on average per client. A small number of clients (9.7%) reported having children currently in custody with 2.3 children on average per client in custody. A very small number of clients (7.0%) reported having lost custody of their children.



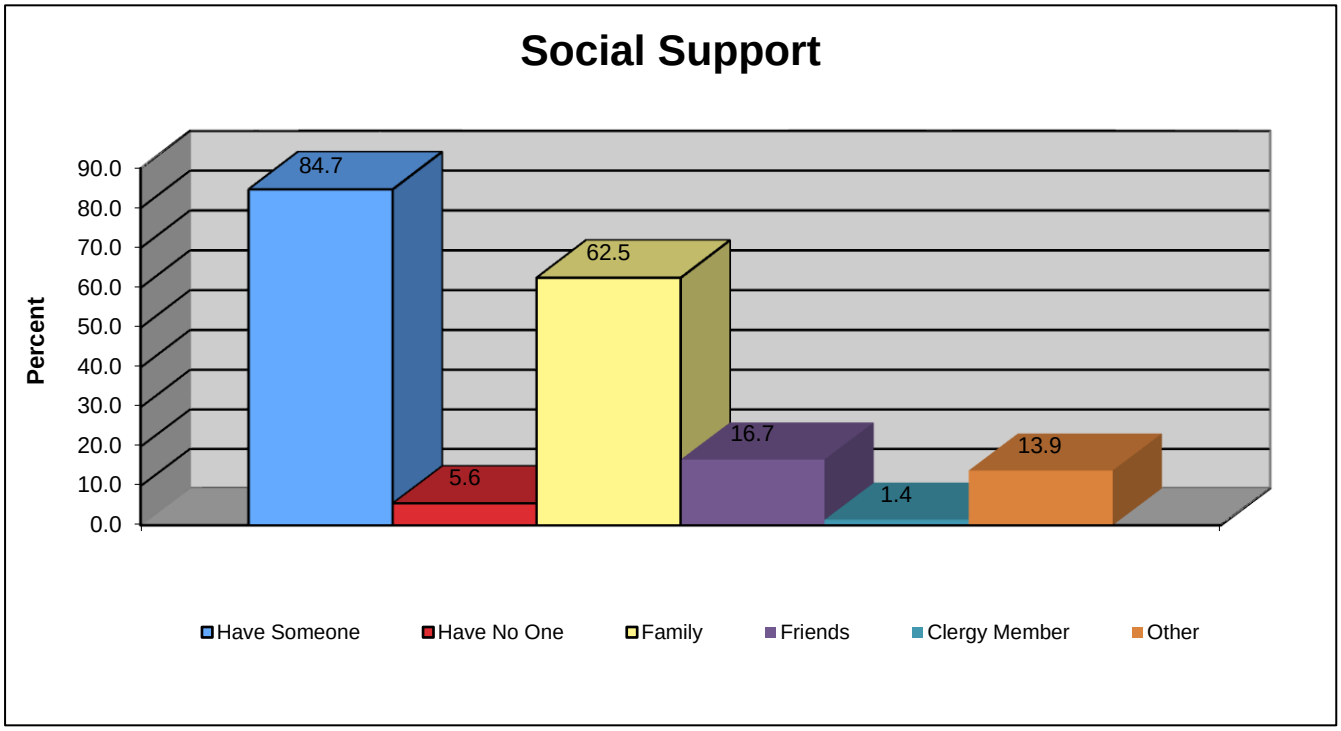
Mental Health at Baseline: In the 30 days prior to admission, over half of clients (58.3%) reported depression symptoms, 68.1% reported anxiety symptoms, 11.1% reported hallucination symptoms, 47.2% reported brain functioning symptoms (i.e., trouble concentrating and remembering), 16.7% reported trouble controlling violent behavior, no clients (0%) reported attempted suicide, and 19.4% reported being prescribed new medications. In addition, the majority of clients (65.3%) felt their mental health symptoms had a moderate to extreme psychological/emotional impact.



Trauma and Violence at Baseline: At admission, the majority of clients (72.2%) reported experiencing some type of violence/trauma in the past. Over half of clients (54.2%) still had nightmares about it, 54.2% consistently tried hard not to think about it, 48.6% were constantly on guard, 45.8% felt numb and detached, and 4.2% reported being physically hurt in the 30 days prior to admission.



Social Support at Baseline: At admission, the majority of clients (84.7%) reported having someone to turn to when in trouble. Of those having someone to turn to, over half of clients (62.5%) had family, 16.7% had friends, 1.4% had clergy member, and 13.9% reported other (i.e., boyfriend/girlfriend, counselor, fiancé, God/Jesus, sponsor). A small number of clients (5.6%) reported having no one to turn to when in trouble.



4.2 Outcome Evaluation

The outcome evaluation focuses on the effectiveness of services related to reduction of substance use, reduction of mental health symptoms, reduction of trauma and violence symptoms, and improvement of criminal activity. The data sources consisted of the *GPRA* tool. The results of the outcome evaluation were analyzed using descriptive statistics (rates of change) and inferential statistics (paired samples t-tests using a 95% confidence interval level) from Intake to 6-months Post Intake to determine significant changes over time, whether positive or negative. Outcome evaluation used only Intake to 6-months Post Intake data points as there was moderate data retention (73.4%). However, since there was low data retention from Intake to Discharge (59.0%), Discharge data point was not used in statistical analysis of outcomes.

Substance Use Outcome:

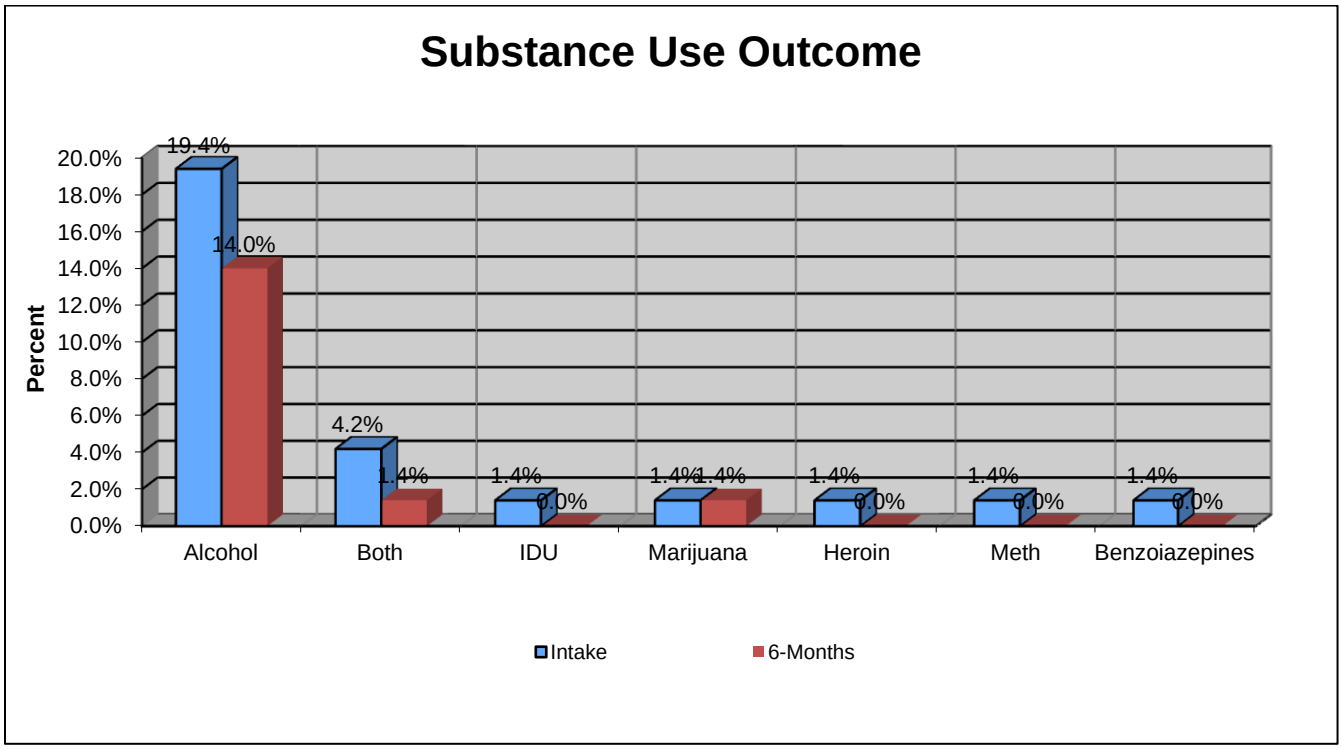
Data collected at 6-months post intake indicates the program was effective in in assisting clients to reduce drug and alcohol use. There were decreases in alcohol and illegal drug use from intake to 6-months post intake with the exception of illegal drug use of marijuana/hashish for which there was no change. There were a small number of injection drug users (IDU) at intake and no IDU at 6-months post intake. There was even program effectiveness for abstinence with both alcohol and illegal drug use days, IDU, heroin, methamphetamine, and benzodiazepine use from intake to 6-months post intake. However, using paired-sample t-tests, no statistical significance was found for any alcohol or drug use from intake to 6-months post intake. The following tables outline the number (N), percentage (%) and rates of change (+/- %) from intake to 6-months post intake by substance type and illegal drug use, and the following chart outlines the percentages of substance use outcome by data point (intake and 6-months post intake):

Substance Type Outcome Table

Substance Type	Intake (N)	Intake (%)	6-Months (N)	6-Months (%)	Rates of Change (+/- %)
Alcohol	**14**	**19.4%**	**10**	**14.0%**	**-5.4%**
Illegal Drugs	**3**	**4.2%**	**1**	**1.4%**	**-2.8%**
Both Alcohol and Drugs	**2**	**2.8%**	**0**	**0%**	**-2.8%**
Injection Drug User	**1**	**1.4%**	**0**	**0%**	**-1.4%**

Illegal Drug Use Outcome Table

Illegal Drug Use	Intake (N)	Intake (%)	6-Months (N)	6-Months (%)	Rates of Change (+/- %)
Marijuana/Hashish	1	1.4%	1	1.4%	No change
Heroin - Opiate	**1**	**1.4%**	**0**	**0%**	**-1.4%**
Methamphetamine	**1**	**1.4%**	**0**	**0%**	**-1.4%**
Benzodiazepines	**1**	**1.4%**	**0**	**0%**	**-1.4%**



Mental Health Outcome:

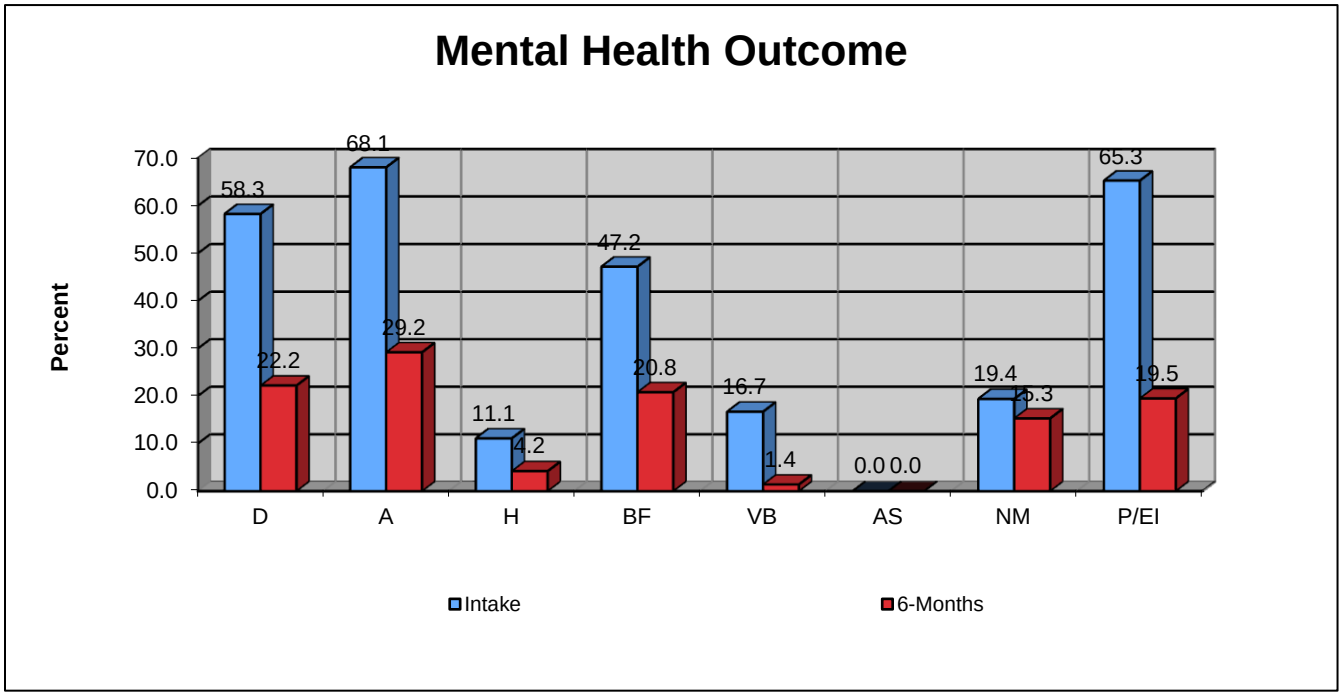
Data collected at 6-months post intake indicates the program was effective in helping reduce mental health symptoms for clients. Mental health symptoms measured were: depression (D), anxiety (A), brain functioning (BF), hallucinations (H), violent behavior (VB), and attempted suicide (AS) in the last 30 days. Related to client mental health symptoms, factors such as clients being prescribed new medications (NM) and how they felt their symptoms psychologically/emotionally impacted their lives (P/EI) outside of substance use was also included. There were decreases for all mental health symptoms including the level of psychological/emotional impact on their lives. However, being prescribed new medications from intake to 6-months post intake increased. Using paired-sample t-tests, two statistical significances were found out of all variables measured; decreased change in depression symptoms [t(36)=3.774, p<.001] and decrease change in psychological/emotional impact [t(36)=3.238, p<.003]. The following table outlines the number (N), percentage (%) and rates of change (+/- %) from intake to 6-months post intake by mental health symptom or related mental health factors, and the

following chart outlines the percentages of mental health outcome by data point (intake and 6-months post intake):

Mental Health Outcome Table

Mental Health Symptoms & Factors	Intake (N)	Intake (%)	6-Months (N)	6-Months (%)	Rates of Change (+/- %)
***Depression**	**42**	**58.3%**	**16**	**22.2%**	**-36.1%**
Anxiety	**49**	**68.1%**	**21**	**29.2%**	**-38.9%**
Brain Functioning	**34**	**47.2%**	**15**	**20.8%**	**-26.4%**
Hallucinations	**8**	**11.1%**	**3**	**4.2%**	**-6.9%**
Violent Behavior	**12**	**16.7%**	**1**	**1.4%**	**-15.3%**
Suicide Attempts	0	0%	0	0%	No change
New Medications	**14**	**19.4%**	**11**	**15.3%**	**-4.1%**
***Psychological/ Emotional Impact (Moderate to Extreme)**	**47**	**65.3%**	**14**	**19.5%**	**-45.8%**

*Variables were statistically significant using paired samples t-test analysis at a 95% confidence interval.



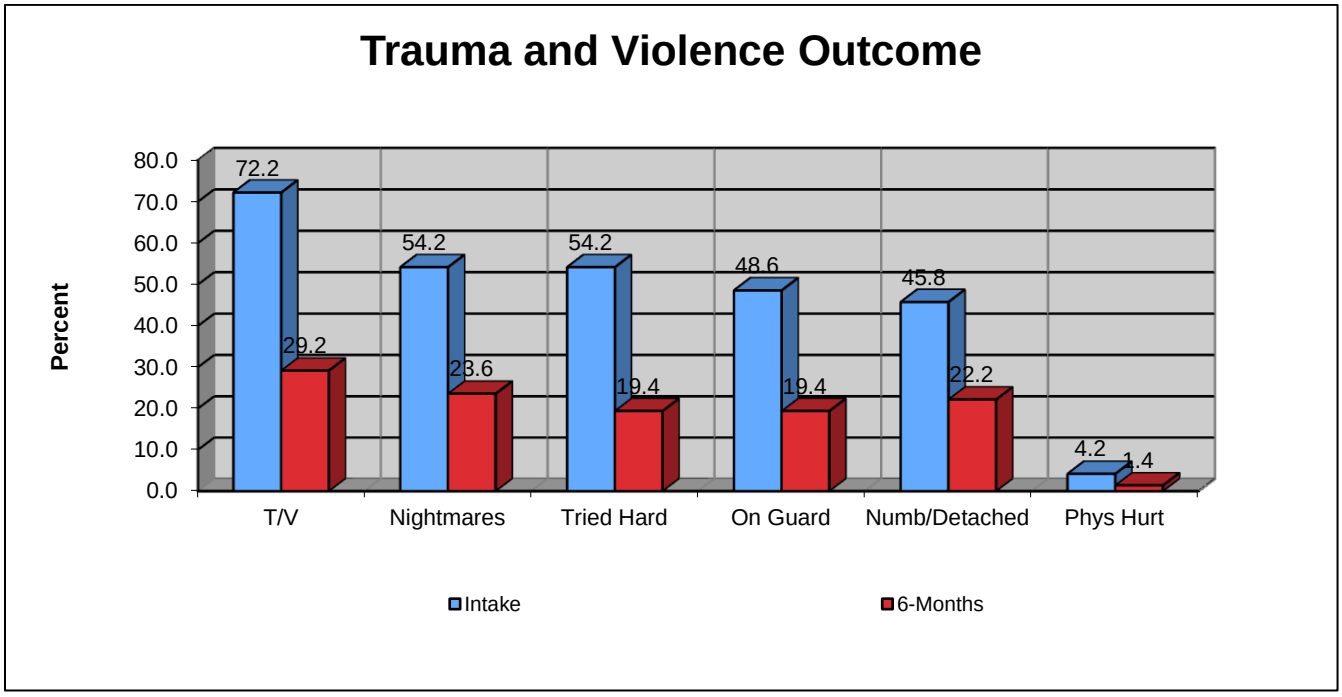
Trauma and Violence Outcome:

Data collected at 6-months post intake indicates the program was effective in helping reduce symptoms of experienced trauma/violence for clients. Symptoms measured were: experienced any trauma/violence (T/V), nightmares about it (Nightmares), tried hard not to think about it (Tried Hard), constantly on guard (On Guard), felt numb and detached (Numb/Detached), and had been physically hurt in the last 30 days (Phys Hurt). There were decreases for all trauma/violence measures. Using paired-sample t-tests, two statistical significances were found with one approaching statistical significance out of all variables measured; decreased change in nightmare symptoms [t(36)=1.984, p<.055], decreased change in trying hard not to think about it [t(36)=2.233, p<.032], and decrease change in being constantly on guard [t(36)=2.044, p<.048]. The following table outlines the number (N), percentage (%) and rates of change (+/- %) from intake to 6-months post intake by trauma/violence symptom, and the following chart outlines the percentages of trauma and violence outcome by data point (intake and 6-months post intake):

Trauma and Violence Outcome Table

Trauma and Violence Symptoms	Intake (N)	Intake (%)	6-Months (N)	6-Months (%)	Rates of Change (+/- %)
Experience Trauma/Violence	52	72.2%	21	29.2%	-43.0%
**Nightmares	39	54.2%	17	23.6%	-30.6%
*Tried Hard Not to Think About it	39	54.2%	14	19.4%	-34.8%
*Constantly On Guard	35	48.6%	14	19.4%	-29.2%
Felt Numb and Detached	33	45.8%	16	22.2%	-23.6%
Physically Hurt Last 30 Days	3	4.2%	1	1.4%	-2.8%

*Variables were statistically significant using paired samples t-test analysis at a 95% confidence interval.
**Variable was approaching statistical significance using paired samples t-test analysis at a 95% confidence interval.



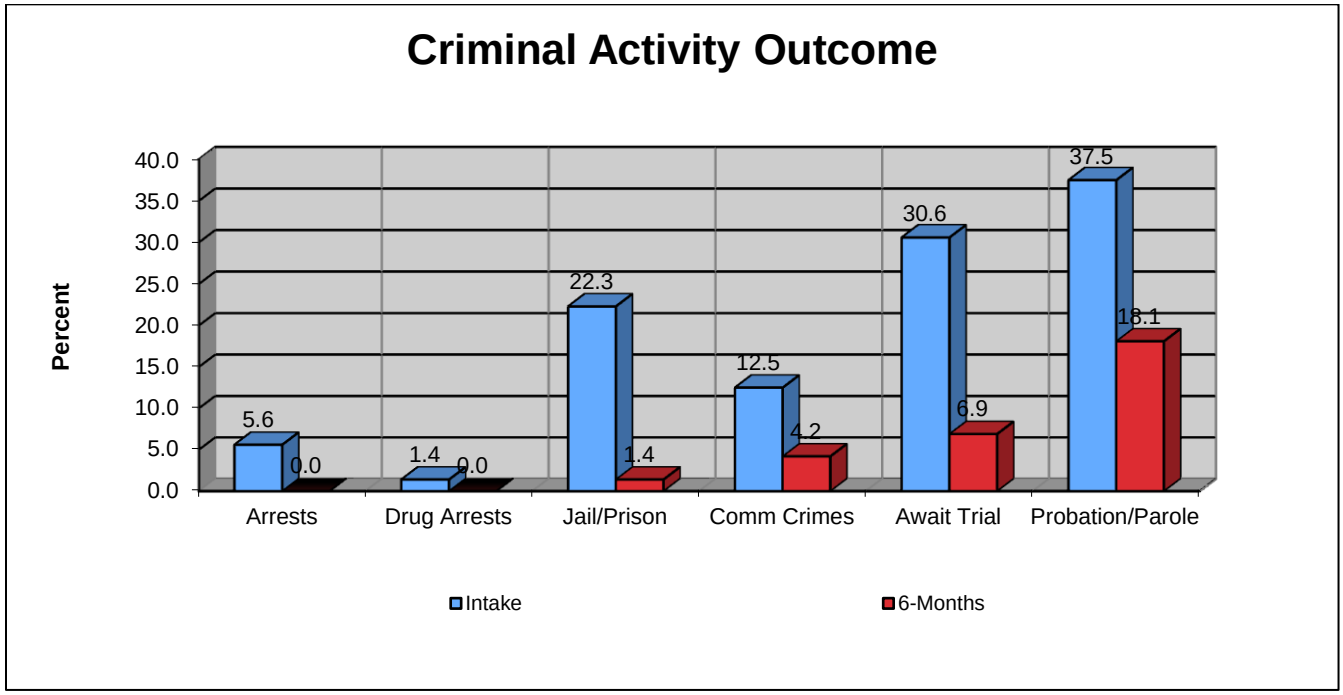
Criminal Activity Outcome:

Data collected at six months post intake indicates the program was effective in reducing criminal activity. Measurements used were: number of arrests (Arrests), if arrests were drug-related (Drug Arrests), how many confined jail/prison days (Jail/Prison), how many crimes committed (Comm Crimes), number awaiting trial (Await Trial), and number on probation/parole (Probation/Parole) in the last 30 days. There were decreases for all measures. However, Using paired-sample t-tests, one statistical significance was found of all variables measured; decreased change in those clients awaiting trial [t(36)=2.233, p<.032]. The following table outlines the number (N), percentage (%) and rates of change (+/- %) from intake to 6-months post intake by criminal activity, and the following chart outlines the percentages of criminal activity outcome by data point (intake and 6-months post intake):

Criminal Activity Outcome Table

Criminal Activity	Intake (N)	Intake (%)	6-Months (N)	6-Months (%)	Rates of Change (+/- %)
Arrests	4	5.6%	0	0%	-5.6%
Drug-Related Arrests	1	1.4%	0	0%	-1.4%
Confined Jail/Prison Days	16	22.3%	1	1.4%	-0.9%
Crimes Committed	9	12.5%	3	4.2%	-8.3%
*Awaiting Trial	22	30.6%	5	6.9%	-23.7%
Probation/Parole	27	37.5%	13	18.1%	-19.4%

*Variable was statistically significant using paired samples t-test analysis at a 95% confidence interval.



5. Discussion/Conclusion

The Rural Nevada Telehealth Program (RNTP) had three goals and seven objectives. Based upon process and outcome evaluation results, discussions of results are included as organized by each goal and objective. The goals and objectives are as follows:

- **Goal 1:** Increase the availability and accessibility of substance abuse and mental health services in rural Nevada and reduce barriers associated with onsite services through the expanded use of technology tools, e-apps, web-based programs and services

  Objective 1.1.: To expand substance abuse and mental health services to a minimum of 85 individuals annually (282 total) individuals across the three years of the grant.

  ✓ The program did not meet the objective associated with total individuals served.

  Due to the challenges the program faced since inception, there was great difficulty in meeting the originally proposed service target. Thus, the adjustment of target numbers from 85 to 74 annually (282 to 222 total over three years) occurred in October 2013. However, despite the service target reduction, the program served a total of 72 clients over the course of 3 years, meeting only 32.4% of the target goal.

Objective 1.2.: 80% of participants will not be arrested for any status offense charges during treatment and 6-months post admission.

Objective 1.3.: 80% of participants will not be arrested for any drug related offenses during treatment and 6-months post admission.

- ✓ The program met both objectives associated with criminal activity. At 6-months post admission, no clients were involved in any arrests of any kind including drug-related offenses. In fact, there were decreases for all measures with one measure showing a statistical significant decrease for clients awaiting trial [t(36)=2.233, p<.032].

Two assumptions can be made from the criminal activity results. The program was on target for helping clients and our communities in reducing criminal activity. First, of those on parole/probation at admission, none violated again as no arrests were made at 6-month post intake. Second, the program had a great impact on those awaiting trial as there was statistical significance found. Thus, it appeared as though clients were accomplishing treatment plans goals related to taking care of legal responsibilities.

Objective 1.4.: 80% of participants will report no substance use 30 days before discharge and 30 days prior to the 6-month post admission.

- ✓ The program met the objective associated with substance use. There were decreases in alcohol and illegal drug use at 6-months post intake with the exception of illegal drug use of marijuana/hashish for which there was no change. There were no injection drug users (IDU) at 6-months post intake. There was even program effectiveness for abstinence with both alcohol and illegal drug use days, IDU, heroin, methamphetamine, and benzodiazepine use at 6-months post intake. However, there was no statistical significance found.

Two assumptions about substance use results could be made. First, the program is specific to co-occurring outpatient mental health treatment for which substance use treatment is secondary. This would explain that there were not many alcohol or drug users entering the program. Second, for those clients who did use alcohol and illegal drugs at admission, little use was reported at 6-months post intake. Therefore, clients were following treatment plan goals and were abstinent of illegal drug use for the most part and practicing harm reduction for alcohol use.

Objective 1.5.: 80% of participants will report decreased mental health symptoms 30 days before discharge and 6-months post admission.

- ✓ The program met the objective associated with mental health. There were decreases for all mental health symptoms including the level of psychological/emotional impact on their lives at 6-months post intake. However, being prescribed new medications at 6-months post intake increased. In fact, there was statistically significant decreases for clients experiencing depression symptoms [t(36)=3.774, p<.001] and psychological/emotional impact due to mental health symptoms [t(36)=3.238, p<.003].
- ✓ The program met the objective associated with mental health as it pertains to symptoms specific to trauma and violence. There were decreases for all trauma/violence measures. In fact, there were two statistically significant decreases for clients feeling constantly on guard [t(36)=2.044, p<.048] and trying hard not to think about it [t(36)=2.233, p<.032] with one measure almost reaching statistical significance for clients experiencing nightmare symptoms [t(36)=1.984, p<.055].

Due to the decreases in all mental health symptoms from intake to 6-month post intake as well as the statistical significance found with mental health and trauma/violence symptoms, it can be found that the program is highly effective in reducing symptoms. Interesting to note is the increase of new prescription medications, and the statistical significant decreases in feeling psychologically/emotionally bothered by their symptoms from intake to 6-months post intake. In the last bi annual evaluation reports, a recommendation was made for additional psychiatric services in addition to mental health therapy provided while in the program. It can be assumed that the program has enhanced its services to include more of an emphasis on

psychiatric services, which aligns with the reduction of clients' feelings surrounding being bothered by their symptoms.

- **Goal 2:** Increase the number of persons in treatment trained on how to effectively use technology tools, e-apps, web-based programs and services.
  Objective 2.1.: 100% of persons in treatment will be trained on how to effectively use technology tools, e-apps, web-based programs and services.
  - ✓ The program met the goal/objective in that all (100%) of persons in treatment were trained and enhanced their technological abilities and skills.

- **Goal 3:** To increase the number of expanded or enhanced technologies into rural Nevada provider's infrastructure.
  Objective 3.1.: Expanded or enhanced technologies services will be provided to two (2) additional rural providers annually.
  - ✓ The program met the goal/objective in that technological services were provided to seven different rural provider cities over the course of three years. Cities served included the following: Fallon, Hawthorne, Las Vegas, Mina, Pahrump, Schurz, and Tonopah.

Overall, the quantitative evaluation results suggest that the Rural Nevada Telehealth Program (RNTP) was highly effective in expanding substance abuse and mental health services and technologies to difficult to reach, in need rural Nevada residents. The program accomplished almost all goals and objectives set forth despite the immense challenges associated with provider building readiness, equipment and software utilization, and developing service processes faced mostly at the beginning of the program but was carried throughout the entirety of the project. As a result of program successes and WestCare's diligent work in securing a sustainability plan to ensure program retention, WestCare will continue to provide telehealth services to residents of rural Nevada beyond SAMHSA CSAT funding due to adaptations made to the existing infrastructure during the course of the program.

6. Appendices

1) **Original Grant Application**
   Teleheath grant.pdf
2) **CSAT GPRA Client Outcome Measures for Discretionary Programs Tool**
   SAIS_GPRA_Client_Outcome_Instrument_final.pdf
3) **Addiction Severity Index – Adult Lite (ASI)**
   ASI Adult Lite Blank.pdf
4) **Performance Improvement Work Plan Year 2 Phase I**
   NV TCE HEALTH IT PI Work Plan_Oct 2012 to March 2013_FINAL.pdf
5) **Performance Improvement Work Plan Year 2 Phase II**
   NV TCE HEALTH IT Performance Improvement Plan - Phase II_April 2013_mr.pdf
6) **Performance Improvement Work Plan Year 3 Phase I**
   NV TCE HEALTH IT Performance Improvement Plan - Year 3 Phase I_November 2013_mr FINAL.pdf

END OF REPORT