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Recovery Support Services Project
Fiscal Year 2015 Final Evaluation Report

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I. Executive Summary

"Recovery from substance use and mental health disorders is a process of change through which individuals improve their health and wellness, live a self- directed life, and strive to reach their full potential. " - Substance Abuse and Mental Health Administration, U.S. Department of Health and Humans Services, 2012.

In recent years, there has been a significant shift in the addiction field in the understanding of what it means to recover from a substance use disorder. Spurred by emerging research and the experiences of individuals in recovery, the field has moved away from an acute care model of brief treatment episodes focused on stabilization to a long-term, sustained recovery model which encompasses the whole health and well-being of individuals. This new approach requires a transformation in practice and policy at the local, state, and national level. The state of Texas embarked on this transformation in 2010, with the Texas Department of State Health Services (DSHS) establishing a series of local community networks across the state to collaborate in identifying strengths and obstacles for individuals in recovery, and to improve the local environment to support recovery in a positive way. These local Recovery-Oriented Systems of Care (ROSCs) were the framework for a long-term systems transformation. In 2014, DSHS took the further step of issuing a competitive bid to provide recovery support services to individuals with substance use disorders. The goals of the initiative included:

1. embedding long-term recovery support services into peer-based organizations, community-based organizations and substance use disorder treatment programs in local communities across Texas
2. expanding the recovery supports that are available to individuals in their natural community environments

Services included a wide array of non-clinical services and supports to help individuals initiate, support, and maintain recovery from alcohol and other drug use problems. One of the key elements included in the project was the recruitment and utilization of peer recovery coaches. Services also included peer-run groups; development and/or use of recovery homes and recovery schools; training around basic life skills such as financial management, parenting, employment and stress management; educational support; recovery check-ups; and assertive connections to mutual aid support groups. The resulting network of 22 RSS service providers funded by DSHS is collectively known as the

Recovery Support Services (RSS) Project. The programs became operational on May 1, 2014. The University of Texas Addiction Research Institute was engaged by DSHS to develop the RSS data reporting system and to serve as the evaluator for the RSS project. This Fiscal Year 15 Evaluation Report assesses implementation of the DSHS Recovery Support Services Project using data collected May 1, 2014 through August 31, 2015.

Implementation of Services

Between May 1, 2014 and August 31, 2015, the 22 Texas RSS programs:

Provided over 42,000 hours of coaching and recovery support group services, including:

- Face to Face Recovery Coaching Services to 5,558 individuals
- Telephone Recovery Coaching Services to 2,084 individuals
- Internet Based Recovery Coaching to 406 individuals
- Traveling Companion Coaching to 592 individuals
- Recovery Support Groups to 6,656 individuals

Provided individualized, long-term recovery coaching:

- 126 active recovery coaches engaged 1,265 individuals in one-on one recovery coaching to sustain and expand successful long-term recovery for a minimum of 12 months.

Provided a wealth of additional recovery support to 3,178 individuals, including:

- Health and Wellness Activities
- Alcohol- and Drug-Free Social Activities
- Community Service Projects
- Housing
- Child Care
- Mental Health or Co-Occurring Peer Services
- Veteran's Services
- Transportation
- Food Pantry/Clothing Closet
- Financial Assistance/Family Needs

Offered Education Classes to 5,914 individuals on topics such as:

- Recovery Skills
- Employment
- Volunteer Service

- Life Skills
- Computer Skills
- GED Preparation

Ensured that individuals obtained additional needed supports by initiating 12,954 Referrals to Community Services

In addition, 1,611 volunteers at the RSS programs contributed nearly 16,000 hours of volunteer services in a wide variety of roles. The estimated financial value of these volunteer services is $216,909.

Measuring Results

RSS providers are required to collect and report participant interview data on participants who received individualized, long-term recovery coaching at enrollment into coaching services and at 3-, 6-, 9, and 12-month check-up interviews. Check–up interview completion rates for this FY 15 evaluation report period were 76% at 3 months, 69% at 6 months, 66% at 9 months and 67% at 12 months. The collection of follow-up data was a new activity for many of these programs, particularly at this frequency of contact. As the RSS organizations gain more experience with this process, these check-up completion rates are expected to rise. DSHS and ARI are providing technical assistance and training to providers to increase the data collection rates.

Interview Completion Indicators

Participants who successfully completed a 3-month check-up interview were compared to those who did not complete the interview on select interview variables at enrollment. Analyses were conducted to determine potential participant characteristics at enrollment that may be associated with early dropout from long-term recovery coaching. Comparisons of 3-month check-up interview completers and non-completers revealed several statistically significant differences between the two groups that may be related to early dropout from long-term recovery coaching.

Non-completers were more often White or Other Race category, younger, unemployed but looking for work, and living in a shelter rather than being housed. In addition, non-completers were more likely to have served jail or prison time during the year prior to enrollment. These findings suggest that non-completers may have less stability in their life circumstances relative to

completers, which may require additional recovery support services to address these life issues that may be impeding their ability to engage in long-term recovery coaching and the recovery process.

In addition, a greater percentage of the non-completers were on substance use disorder treatment waitlists, suggesting that they may have lost interest in addressing their substance use issues during the wait time span. This result indicates that participants who are on treatment waitlists may need extra recovery coaching services to sustain motivation to enter into the process of recovery. This potential need for more recovery coaching is further supported by the finding that, although the completer and non-completer groups had similar incidence of receiving recovery coaching in the month prior to enrollment, the completer group had a significantly greater number of contacts with their recovery coach. Further, a greater percentage of the completer group had attended a self-help group in the 30 days prior to enrollment, providing a greater amount of mutual support to sustain motivation to engage in recovery.

Further, a greater percentage of non-completers were rated by their interviewers as being in the Action Stage of Change at enrollment. It is possible that these participants were further along in their recovery compared to completers and consequently may not have felt the need for long-term recovery coaching, leading to early drop-out. Lastly, non-completers attained relatively lower scores on the Assessment of Recovery Capital (ARC) Social Support, Housing & Safety, Risk Taking, and the Total ARC scales, indicating lower recovery capital in these domains compared to completers. The level of recovery capital in these four domains may be important indicators of potential drop out, suggesting that recovery coaching may need more focus on development of social support resources, acquisition of safe living environments, and educational training on controlling risk taking behavior for those participants with lower recovery capital in these areas at enrollment into long-term recovery coaching.

Recovery Coaching Outcomes

Evaluation analyses were conducted on participant outcomes of those individuals who enrolled in long-term recovery coaching using data from the participant enrollment and the 3-, 6-, 9-, and 12-month check-up interviews. Participant outcomes were examined in the following domains: housing status; employment status and wages; abstinence or reduced substance use; improvement in recovery capital; and healthcare service utilization.

The evaluation results from these analyses are encouraging. Long-term recovery coaching participants demonstrated improvements at check-up points in a wide range of life domains, including:

- Housing status, with 55% of long-term coaching participants owning or renting their own living quarters at 12 month check-up, as compared to 30% at enrollment in long-term coaching

- Overall employment, which increased from 25% at enrollment to 58% at 12-month check-up

- Average monthly wages of employed participants, which increased from $285 per month at enrollment to $844 at 12-month check-up

Additional positive outcome for long-term recovery coaching participants included:

- 84% of participants were abstinent or had reductions in substance use at 12-month check-up

- 73% had improved recovery capital at 12-month check-up

- Healthcare service utilization decreased over the first 12 months of recovery coaching in outpatient settings (2295 visits at enrollment; 454 visits at 6-month check-up), inpatient settings (5315 days at enrollment; 604 days at 6-month check-up) and emergency rooms (243 visits at enrollment; 96 visits at 6-month check-up), ***saving an estimated $2,064,930 in healthcare costs, which is a 76% reduction in healthcare costs compared to enrollment ($2,718,442).***

Table of Contents

II. Introduction

The Texas Recovery Support Services (RSS) program is an addiction recovery initiative of the Texas Department of State Health Services (DSHS). Supporting addiction recovery is a key strategy of the federal Substance Abuse and Mental Health Services Administration (SAMHSA) and reflects current understanding of methods to best promote long-term recovery. In recent years, the addiction field has embraced the concept of recovery *as an individual's ongoing work in achieving and maintaining a healthy lifestyle free from the consequences of alcoholism and drug addiction*.[1] The addiction treatment field no longer espouses the belief that addiction recovery only requires an acute-care admission for detox and a brief stay in "rehab". Alternatively, it is now understood that successful recovery requires long-term continuing maintenance and support. As with other chronic health disorders, such as diabetes and hypertension, there has been a shift from an acute care approach to a chronic care approach. Many people with substance use disorders may benefit from an episode of specialized treatment to detoxify and acquire the skills needed to initiate their path to recovery. However, treatment is only a short-term experience for most, and for many individuals long-term recovery requires ongoing work and often entails peer support.[2]

Advice and support from peers-in-recovery has been traditional in 12-step programs, as well as in other community-based treatment and support programs. Persons in recovery have also found that there is often a need to address a range of life problems that may present obstacles to recovery, including the need to achieve overall health and wellness[3]. *Individuals in recovery most successfully address these needs with the practical assistance and social support from peers.* The present RSS initiative makes a substantial investment in recruiting peers in recovery to become "Recovery Coaches". These peer workers complete a 46 hour DSHS-approved Texas Recovery Coach Training Curriculum and then work under the supervision of community programs to provide ongoing advice and support for persons in recovery who sign up to work with a recovery coach. The RSS program also taps into a wealth of community-based recovery support services, including supportive agency resources and volunteers.

Several conceptual frameworks have contributed to current work efforts in the addiction field to support long-term recovery. The theoretical framework of stages of change[4] and the related transtheoretical approach of readiness for change has been helpful for many in understanding the behavioral challenges of undertaking long-term recovery. The recovery movement has also embraced the concept of self-efficacy, which underscores the importance of managing one's own recovery and building upon individual actual and potential resources to

achieve and maintain their personal path to recovery.[5] The recovery-oriented system of care model (ROSC) focuses on enhancing self-efficacy and personal responsibility through assisting the person in recovery in building individual strengths to increase recovery capital.[6] [7] The concept of recovery capital has become a helpful way to measure and manage an individual's potential in maintaining successful recovery. The RSS project has incorporated these ROSC concepts by providing recovery management tools and recovery coaching services to assess a participant's personal recovery support needs, guide the participant to program and community-based services to address these needs, and to track and support individual progress in recovery over time.

History of the Texas Recovery Support Services Program (RSS)

Local Recovery Oriented Systems of Care (ROSC)

Initial preparation for this statewide recovery initiative in Texas began in 2010 with local community meetings to develop "Recovery Oriented Systems of Care" (ROSCs)[8]. These meetings recruited a wide range of individuals and organizations to collaborate in identifying local community strengths and obstacles for individuals in recovery, and to improve the local environment to support recovery in a positive way. Beginning with an initial effort in Houston, DSHS facilitated meetings to organize and support ROSCs in communities throughout Texas. The Houston ROSC was planned and supported by DSHS and the University of Texas Addiction Research Institute (ARI), and has served as a model for other sites across Texas. A report of this initial Houston ROSC effort may be found on the ARI website.[9]

Recovery Community Organizations (RCOs)

DSHS identified several peer-support programs that were comprised of persons-in-recovery who provided general assistance for those in their community who were in need of support to initiate and maintain their paths to recovery. The activities provided in these programs often consisted of self-supported volunteer efforts located in shared agency spaces and using in-kind resources and/or referred community services to meet the recovery support service needs of persons in recovery. Some of these programs had assembled a core of peer-volunteers to assist in their work with a large number of persons in recovery. A subset of these programs was briefly funded by the SAMHSA RCO grant; however, this funding was not renewed after the initial grant period, and these organizations struggled to sustain their ROSC services after the end of the grant. In order to examine the potential of these RCO-type organizations to engage participants and to provide long-term recovery support activities, DSHS contracted with four of the RCO programs to document and report on the

services and activities their programs provided to recovering persons in their communities. A key objective of these contracts was to determine whether RCOs were willing and capable of collecting detailed documentation and subsequent reporting of peer-based services. The results of this pilot project indicated that the RCOs and their consumers were able and willing to successfully document and report data to be accountable for services delivered in their respective programs.

Recovery Support Services (RSS) Request for Applications (RFA)

The DSHS Recovery Support Service Request for Applications package was created on the basis of the data collected from the RCO pilot project efforts described above. The RSS RFA was issued in November 2013 as a competitive process open to three types of eligible organizations:

a. Organizations that provide Treatment Services for substance use disorders (TOs),
b. Peer-Run Recovery Community Organizations (RCOs), and
c. Other Community-Based Organizations (CBOs) that have a history of providing services to individuals and families affected by substance use disorders.

Based on the RFA, a statewide network of 22 RSS service providers was funded with the goals of:

1. embedding recovery support services into peer-based organizations, community-based organizations and Substance Use Disorder treatment programs
2. expanding the recovery supports that are available to individuals in their natural community environments

Services to be provided under the RSS RFA allowed for a wide array of non-clinical services and supports to help individuals initiate, support, and maintain recovery from alcohol and other drug use problems. One of the key elements included in the RSS RFA is the recruitment and utilization of peer recovery coaches.

Services included peer-run groups; recovery coaching; development and/or use of recovery homes and recovery schools; training around basic life skills such as financial management, parenting, employment and stress management; educational support; recovery check-ups; and assertive connections to mutual aid support groups. The resulting network of 22 RSS service providers is

collectively known at the Recovery Support Services (RSS) Project. The programs became operational on May 1, 2014.

Evaluation of the RSS System

The University of Texas Austin Addiction Research Institute was engaged by the Department of State Health Services to develop the RSS data reporting system and to serve as the evaluator for the RSS project. ARI developed a web-based system that collects accurate, comprehensive and timely records of the population, services, activities and outcomes of the funded Recovery Support Services projects. The system is known as the REDCap Recovery Oriented Care (RED-ROC) Data Collection System. Local RSS program staff enters data into the central system via a secure web-based internet connection, and ARI staff provides ongoing technical assistance and support of their data collection efforts. ARI is evaluating the RSS Project through outcome and process evaluations, and cost study analyses utilizing data collected in RED-ROC. This report presents the final evaluation results for FY 2015. ARI also assists the Department of State Health Services with utilizing data to guide program development and implementation; and providing data reports and analysis to RSS organization agency staff on an ongoing basis.

In addition to developing and implementing the RED-ROC data reporting system, ARI also provided training and ongoing technical assistance for RSS programs and DSHS staff on the use of RED-ROC to ensure data integrity.

Technical Assistance

The Texas Department of State Health Services contracted through the University of Texas to obtain the services of Achara Consulting, Inc. to provide technical assistance in developing recovery-oriented systems of care (ROSC) at the 22 RSS-funded provider agencies and to guide the state in the state-wide system transformation process to a ROSC model. Services consisted of three provider trainings in Austin, webinars, technical assistance calls, and limited site visits. Areas of focus with the RSS service providers included hiring and training of recovery coaches; effectively engaging and enrolling persons in recovery; collaboration of clinical and recovery support teams; defining target populations; promoting person-centered planning; conducting strength-based global assessments; facilitating continued support and engagement; determining appropriate level of engagement and intensity of services; developing Peer Advisory Leadership Councils; conducting assertive outreach and early re-intervention; ensuring appropriate use of volunteers; promoting employee role clarity; encouraging self-care for recovery coaches; aligning traditional policies

and procedures with a recovery-orientation; promoting community integration; and changing the locus of services from the agency to the community. Achara Consulting also provided consulting to the Department of State Health Services involving strategic planning; systems change; aligning system policy and accountability mechanisms with recovery orientation; structuring effective demonstration projects; and increasing collaboration between treatment providers, peers, and recovery community organizations.

III. Project Accomplishments to Date

Coaching and Recovery Support Groups

Between May 1, 2014 and August 31, 2015, the 22 Texas RSS organizations provided over 42,000 hours of coaching and recovery support group services. These included:

- Face to Face Recovery Coaching Services to 5,558 individuals
- Telephone Recovery Coaching Services to 2,084 individuals
- Internet Based Recovery Coaching to 406 individuals
- Traveling Companion Coaching to 592 individuals
- Recovery Support Groups to 6,656 individuals

Recovery Support Services

RSS organizations offered a wealth of additional recovery support, including:

- Services to Support Ongoing Recovery to 3,178 individuals (includes Health and Wellness Supports, Alcohol- and Drug-Free Social Activities, Community Service Projects, Child Care, Housing, Mental Health or Co-Occurring Peer Services, Veteran's Services, Transportation, Food Pantry/Clothing Closet, Financial Assistance/Family Needs)
- Education Classes on topics such as, Recovery Skills, Employment, Volunteer Service, Life Skills, Computer Skills, and GED Preparation to 5,914 individuals
- 12,954 Referrals to Community Services

Long-Term Recovery Coaching

Most importantly, the 126 active recovery coaches in the RSS programs have engaged 1,265 individuals in one-on one recovery coaching designed to sustain and expand successful long-term recovery for a minimum of 12 months.

Volunteer Contributions

The successful implementation of the RSS project has been guided by state leadership at the Texas Department of State Health Services Substance Abuse/Mental Health Division and implemented by RSS organization program staff aided by an extensive cadre of volunteers. Since May 2014, 1,611 volunteers at the RSS organizations contributed nearly 16,000 hours of volunteer services in a wide variety of roles, including board membership, volunteer coaching, recovery group facilitation, educational instruction, event planning and coordination, administrative/clerical, front desk/reception, resource volunteers, community meeting facilitation, administration, health and wellness instructor, peer leaders, greeters, house monitor, food service, clothes closet, transportation, child care, computer services, mechanical repair and cleaning crew/housekeeping. The estimated financial value of these volunteer services is $216,909.

IV. Analysis

RSS FY 15 Evaluation

In this portion of the report, RSS FY 15 evaluation results are reported in five different sections. The first section reports on the types of recovery support services provided; peer volunteer recruitment and service provision; and ROSC activities conducted by the RSS organizations. The second section describes characteristics of the recovery coaches who are providing services in the RSS organizations. The third section details characteristics of participants at enrollment into long-term recovery coaching. The fourth section compares enrollment characteristics of long-term recovery coaching enrollees for participants who completed a 3-month check-up interview to those who did not complete the interview to assess for potential characteristics of early dropouts. The final section reports on long-term recovery coaching participant outcomes in a variety of areas health, wellness, and life functioning.

Recovery Support Services

RSS providers are required to report detailed information regarding recovery support services provided on a monthly basis into the RED-ROC database system. The types of data reported include the types of services provided; number of individuals receiving the services (unduplicated and duplicated); total hours of services provided; referrals to community service providers; peer volunteer recruitment, training, and service provision; and the number of Recovery Oriented Systems of Care (ROSC) activities conducted during the

reporting month. The following describes the services reported by RSS organizations during the time span of May 2014 through August 2015, and are reported by organization type (Community Based Organization, Recovery Community Organization, and Treatment Organization) and total numbers statewide.

Recovery Support Services (RSS) Provision

The total number of participants receiving Direct, Indirect, and Educational RSS are reported in Table 1. Direct RSS includes Face-to-Face Recovery Coaching, Telephone Recovery Coaching, Traveling Companion Recovery Coaching, Internet Recovery Coaching, and Recovery Support Groups. Direct RSS was the most frequently provided type of RSS by the organizations. The total unduplicated count of individuals (new individuals receiving services for the first time) who received Direct RSS statewide was 11,536. The duplicated count (new and ongoing individuals) for Direct RSS statewide was 23,703. The second most frequently provided RSS was Educational Services. Educational Service topics include Recovery, Life Skills, Alcohol/Drug, Volunteer Services, Employment, Computer Skills, and GED Preparation. The unduplicated count of individuals receiving Educational Services statewide was 5,914 and the duplicated count was 10,680. Indirect RSS was the least frequently provided RSS type. Indirect RSS include Alcohol and Drug Free Social Activities; Transportation; Career/Clothing Closet; Health and Wellness Supports; Housing; Mental Health/Co-Occurring Peer Services; Food Pantry; Financial Assistance/Family Needs; Community Service Projects; Child Care; Veteran's Services; and Community-Wide Events. The total unduplicated count of individuals receiving Indirect RSS statewide was 3,178 and the duplicated count was 5,487.

Table 1
Total Number of Participants
Receiving Direct, Indirect, and Educational Recovery Support Services
(RED-ROC Data May 2014 - August 2015)

	CBO	RCO	TO	STATEWIDE
Participants Served - Unduplicated				
Direct Recovery Support Services	2571	764	8201	11536
Educational Services	2110	189	3615	5914
Indirect Recovery Support Services	473	179	2526	3178
Participants Served - Duplicated				
Direct Recovery Support Services	5515	1317	16871	23703
Educational Services	4431	277	5972	10680
Indirect Recovery Support Services	1119	401	3967	5487

The total number of participants (duplicated) receiving Direct Recovery RSS by type of service is reported in Table 2. The most frequently provided type of Direct Recovery RSS statewide was Recovery Support Groups received by 6,656 participants, whereas the least frequently provided service type was Internet Recovery Coaching provided to 406 participants.

Table 2
Total Number of Participants*
Receiving Direct Recovery Support Services by Type of Service
(RED-ROC Data May 2014 - August 2015)

	CBO	RCO	TO	STATEWIDE
Recovery Support Groups	935	738	4983	6656
Face-to-Face Recovery Coaching	1256	226	4076	5558
Telephone Recovery Coaching	822	93	1169	2084
Traveling Companion Recovery Coaching	102	16	474	592
Internet Recovery Coaching	51	0	355	406

*Participants may be counted in more than one service category.

Table 3 presents the total number of Direct RSS service hours provided by the RSS organizations. In relation to the types of Direct RSS, the greatest number of service hours provided was through Face-to-Face Recovery Coaching at 27,176 hours and the lowest was through Internet Coaching at 991 hours. The total number of Direct RSS service hours provided statewide though all categories of service was 42,647 hours.

Table 3

Total Number of Hours of Direct Recovery Support Services by Type of Service

(RED-ROC Data May 2014 - August 2015)

	CBO	RCO	TO	STATEWIDE
Face-to-Face Recovery Coaching	5524	1502	20149	27176
Telephone Recovery Coaching	2352	103	3899	6355
Recovery Support Groups	1951	554	2847	5352
Traveling Companion Recovery Coaching	701	47	2026	2774
Internet Recovery Coaching	192	0	799	991
Total Direct Recovery Support Hours	10720	2206	29721	42647

The total number of participants (duplicated) receiving Indirect RSS by type of service is reported in Table 4. Excluding Community-Wide events, the most frequently provided Indirect RSS provided was Alcohol and Drug Free Social Activities attended by 1,214 participants, whereas the least frequently provided service type was Veteran's Services provided to 71 participants. The total number of Indirect RSS service hours provided statewide by the RSS organizations was 5,809 (Table 4a).

Table 4
Total Number of Participants*
Receiving Indirect Recovery Support Services by Type of Service
(RED-ROC Data May 2014 - August 2015)

	CBO	RCO	TO	STATEWIDE
Community-Wide Events	760	337	5632	6769
Alcohol and Drug Free Social Activities	241	41	932	1214
Transportation	151	103	776	1030
Career/Clothing Closet	55	82	418	555
Health and Wellness Supports	144	0	406	550
Housing	85	30	329	444
Mental Health/Co-Occurring Peer Services	54	26	135	215
Food Pantry	42	0	122	164
Financial Assistance/Family Needs	41	0	132	173
Other	50	1	102	153
Community Service Projects	44	0	95	139
Child Care	45	1	56	102
Veteran's Services	2	0	69	71

*Participants may be counted in more than one service category.

Table 4a. Total Indirect Service Hours Provided

CBO	RCO	TO	STATEWIDE
1619 hrs.	284 hrs.	3907 hrs.	5809 hrs.

Table 5 presents the total number of participants (duplicated) receiving Educational Services by type of service. The most frequently provided

Educational Service type was for the topic of Recovery to 2,673 participants and the least frequent was for GED Preparation to 85 participants. The total number of Educational Service hours provided statewide by the RSS organizations was 3,901 (Table 5a).

Table 5
Total Number of Participants*
Receiving Educational Services by Type of Service
(RED-ROC Data May 2014 – August 2015)

	CBO	RCO	TO	STATEWIDE
Recovery	474	32	2167	2673
Life Skills	1108	48	845	2001
Alcohol/Drug	363	0	834	1197
Other	308	12	597	917
Volunteer Services	167	97	46	310
Employment	105	0	134	239
Computer Skills	56	7	53	116
GED Preparation	10	0	75	85

*Participants may be counted in more than one service category.

Table 5a. Total Education Service Hours Provided

CBO	RCO	TO	STATEWIDE
1398 hrs.	198 hrs.	2305 hrs.	3901 hrs.

Referrals to Community Services

One aspect of the development of a local ROSC is for the RSS organization to establish connections with a wide network of community service providers who also provide recovery support and/or treatment services. Creating this network increases the resources available to refer participants to a wide array of services based on individual need to support their recovery path. Table 6 reports the total number of Referrals to Community Services by type of referral. The three most frequent types of Community Service referrals were to Housing Services (2,143), Substance Use Disorder Treatment (2,087), and Employment Services (1,450). The three least frequent referral types were Child Care (104), Veteran's

Services (99), and Optical Services (95). As can be seen in Table 6, the RSS organizations have successfully developed referral networks providing a wide array of service types to assist participants' process of recovery.

Table 6
Total Number of Referrals to Community Services
(RED-ROC Data May 2014 - August 2015)

	CBO	RCO	TO	STATEWIDE
Housing Services	563	110	1470	2143
Substance Use Disorder Treatment	432	34	1621	2087
Employment Services	395	188	867	1450
Other	836	28	488	1352
Transportation	217	83	610	910
Educational Services	209	47	559	815
Texas Workforce Commission	226	63	467	756
Medical Treatment	229	27	343	599
Mental Health Treatment	167	66	313	546
Driver's License/Identification Services	113	33	327	473
Co-Occurring Disorders Treatment	93	18	246	357
Food Pantry	91	42	216	349
Financial Assistance/Family Needed	135	21	238	394
Mental Health/Co-Occurring Peer Services	82	68	136	286
Dental Services	42	10	87	139
Child Care	41	0	63	104
Veteran's Services	8	2	89	99
Optical Services	28	5	62	95

Peer Volunteer Recruitment and Services

Another aspect of ROSC development is to recruit Peer Volunteers to provide services in the RSS organization. Peer Volunteer work is beneficial to the volunteer as it provides a means to contribute to and maintain involvement in the recovery community. Further, Peer Volunteer services are beneficial to participants who are new to recovery, as the volunteer can be a source of support

through their shared experiences in recovery. Table 7 presents the total number of Peer Volunteers recruited, trained, and provided services in the RSS organizations. Statewide, a total of 795 new Peer Volunteers were enlisted, 213 trained, and 1,611 provided Peer Volunteer Services.

Table 7
Total Number of Peer Volunteers Recruited and Trained
(RED-ROC Data May 2014 - August 2015)

	CBO	RCO	TO	STATEWIDE
Peer Volunteers Enlisted	156	292	347	795
Received Volunteer Training	52	22	139	213
Provided Peer Volunteer Services	171	778	662	1611

Table 8 reports the types of services provided by Peer Volunteers in the RSS organizations and the estimated value of these services. As can be seen in Table 8, Peer Volunteers provide a wide array of services in the RSS organizations, including Direct and Indirect RSS, Educational Services, Administrative Functions, and general services to support operation of the RSS organizations. Peer Volunteers provided 15,945 hours of service and the estimated value of these volunteer services statewide was $216,909.

Table 8
Types of Volunteer Services Provided (Listed By Statewide Frequency)
and Estimated Value of Services

(RED-ROC Data May 2014 - August 2015)

	CBO	RCO	TO
Recovery Group Facilitation	X	X	X
Peer Leaders	X	X	X
Event Planning and Coordination	X	X	X
Face-to-Face Recovery Coaching	X	X	X
Telephone Recovery Coaching	X	X	X
Administrative / Clerical	X		X
Educational Instruction	X	X	X
Resource Volunteers	X	X	X
Cleaning Crew / Housekeeping	X	X	X
Community Meeting Facilitation	X	X	X
Other Volunteer Services	X	X	X
Travelling Companion Recovery Coaching	X	X	X
Board Membership	X	X	X
Greeters	X	X	X
Internet Recovery Coaching	X		X
Food Service	X	X	X
Administration	X	X	X
Health and Wellness Instructor	X	X	X
Front Desk / Reception	X	X	X
House Monitor	X	X	

Table 8a. Total Volunteer Service Hours Provided

CBO	RCO	TO	STATEWIDE
3566 hrs.	6357 hrs.	6022 hrs.	15945 hrs.

Table 8b. Estimated Value of Volunteer Hours

CBO	RCO	TO	STATEWIDE
$65,390	$82,438	$69,081	$216,909

ROSC Activities

System transformation in building and maintaining a ROSC involves training, active peer leadership involvement and, as previously stated, building a strong network with other community service providers. Table 9 presents the total number of ROSC Activities conducted by the RSS organizations. Statewide, the RSS organization held 466 Orientation/In-service Trainings for Recovery, 182 Recovery Trainings for Clinical Staff (Treatment Organizations only), held 347 Peer Leadership/Advisory Council meetings, and established 251 New Memoranda of Understanding. These data demonstrate that the RSS organizations conducted a large number of activities to support ROSC system transformation.

Table 9
Total Number of Recovery Oriented Systems of Care (ROSC) Activities Conducted
(RED-ROC Data May 2014 - August 2015)

	CBO	RCO	TO	STATEWIDE
Orientation/In-service Trainings for Recovery Coaches	165	41	260	466
Peer Leadership/Advisory Council Meetings	103	56	188	347
New Memoranda of Understanding	81	22	148	251
Recovery Training for Clinical Staff*	5	*	177	182

*Data reporting item required for Treatment Organizations only

RSS Recovery Coaches

RSS providers are required to report descriptive information into the RED-ROC database regarding the Recovery Coaches who are providing services in their program when the individual is hired for paid services and/or recruited to provide volunteer services in their organization. The types of descriptive data reported include demographic characteristics; personal recovery experience (optional reporting item); recovery coach training, designations, certifications, and other licensures; and types of recovery coaching services provided. The following describes these RSS Recovery Coach characteristics reported by RSS organizations during the time span of May 2014 through August 2015, and are reported by organization type (Community Based Organization, Recovery Community Organization, and Treatment Organization) and total numbers statewide.

RSS Recovery Coaches – Demographic Characteristics

Figures 1, 2 and 3 present the age ranges, gender, and race/ethnicity of RSS Recovery Coaches at entry into providing services in the RSS organizations. The majority of RSS Recovery Coaches statewide were between the ages of 26 – 65 years old (96%) with the most frequent age range being 46 – 55 (36%); 53% were female; 58% were White and 38% were Black; and 24% were of Hispanic ethnicity.

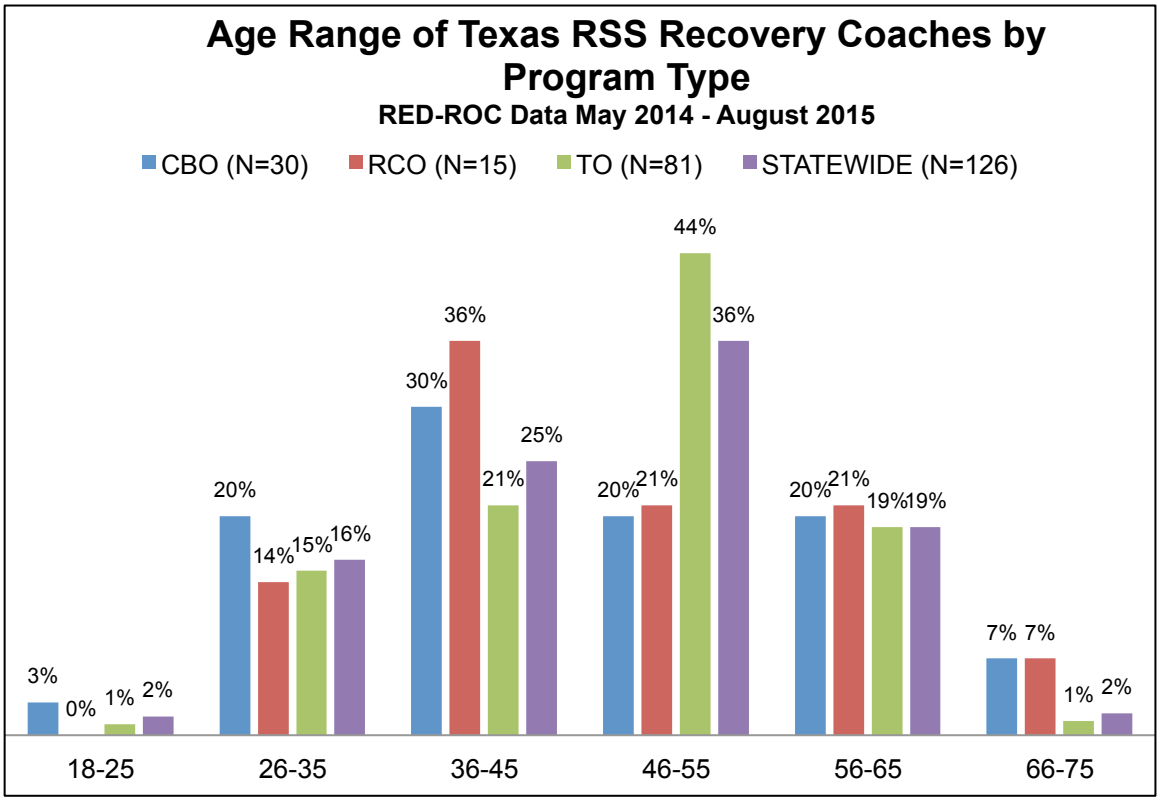

Figure 1

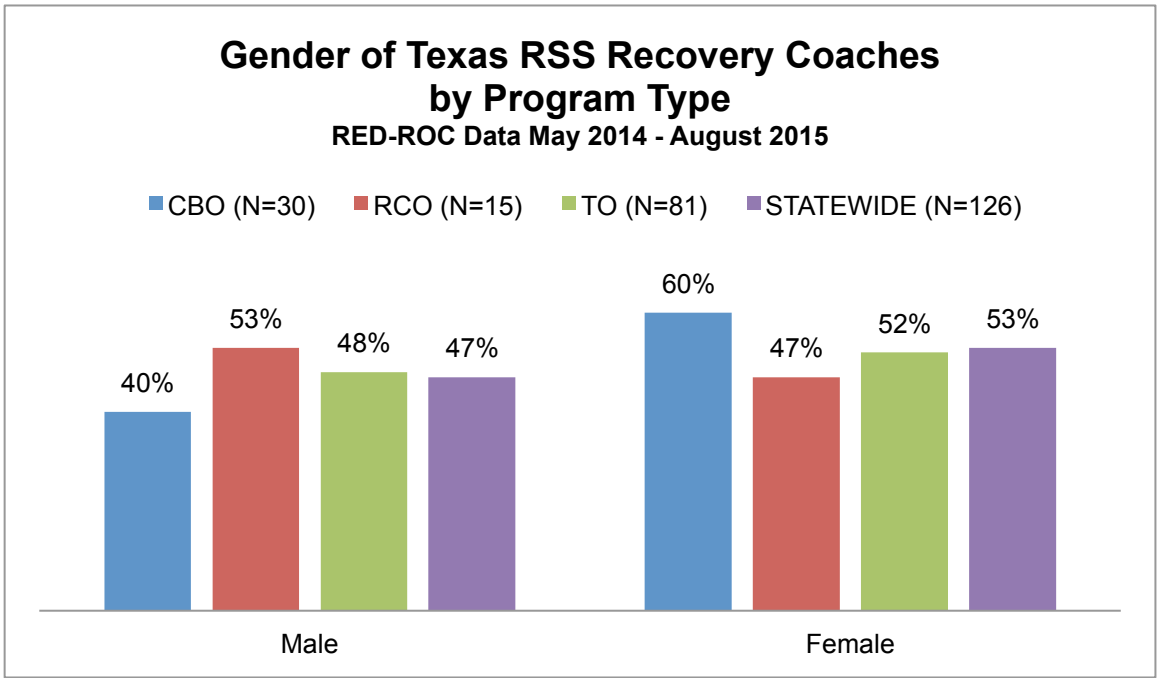

Figure 2

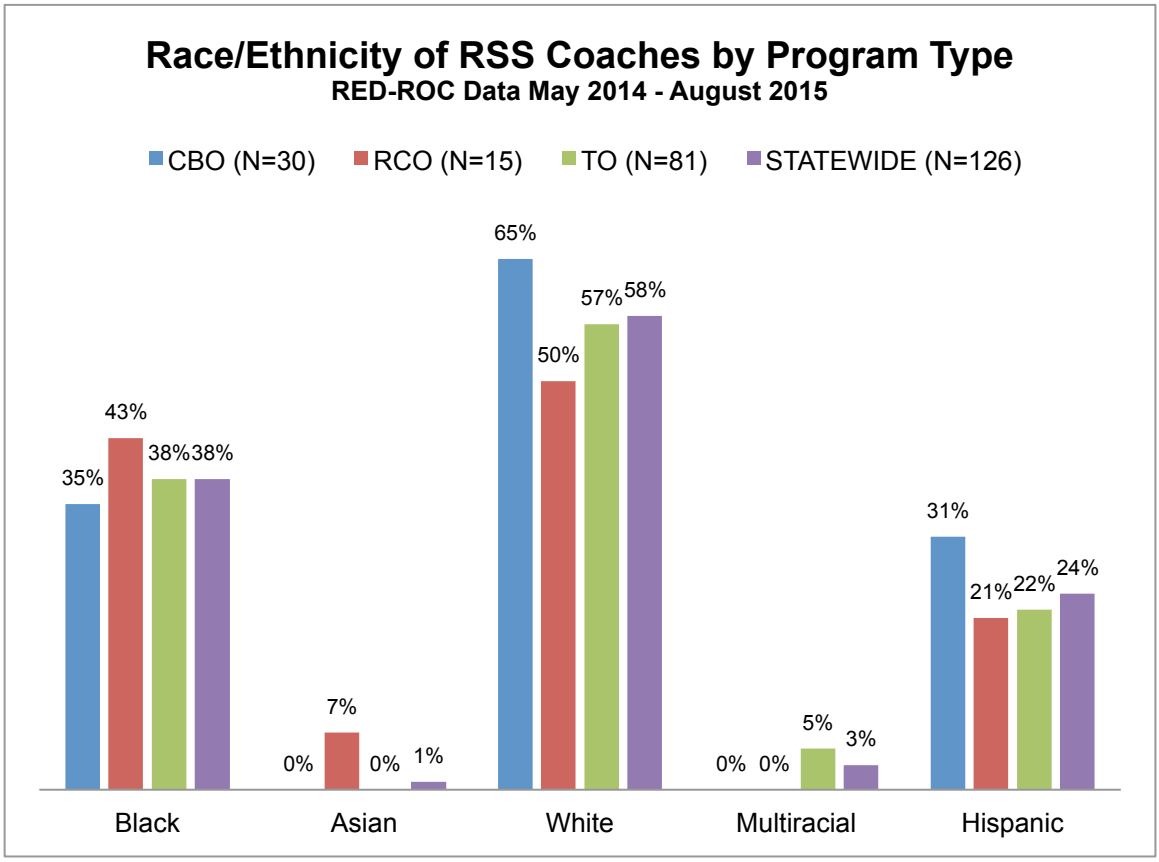

Figure 3

The primary language and secondary fluent languages spoken by the RSS Recovery Coaches are reported in Table 10. The primary language spoken by the Recovery Coaches was 99% English and 19% of the Recovery Coaches spoke Spanish as their second fluent language.

Table 10
Languages of Texas RSS Coaches by Program Type
(RED-ROC Data May 2014 - June 2015)

	Primary Language		Secondary Fluent	
	English	Spanish	English	Spanish
CBO	100%			33%
RCO	100%			
TO	99%	1%	4%	17%
STATEWIDE	99%	1%	2%	19%

RSS Recovery Coaches - Experience with Recovery

RSS Recovery Coaches' personal recovery experiences are displayed in Figure 4. Statewide, 84% of Recovery Coaches reported being in personal Substance Use Disorder recovery and 80% reported having a family member in Substance Use Disorder recovery. In Recovery Community Organizations (RCOs), 100% of the Recovery Coaches stated that they were in personal Substance Use Disorder recovery and 91% indicated that they had family members in Substance Use Disorder recovery. In the area of mental health, 19% of the Recovery Coaches statewide reported being in personal mental health recovery and 42% reported having family members in recovery for mental health issues.

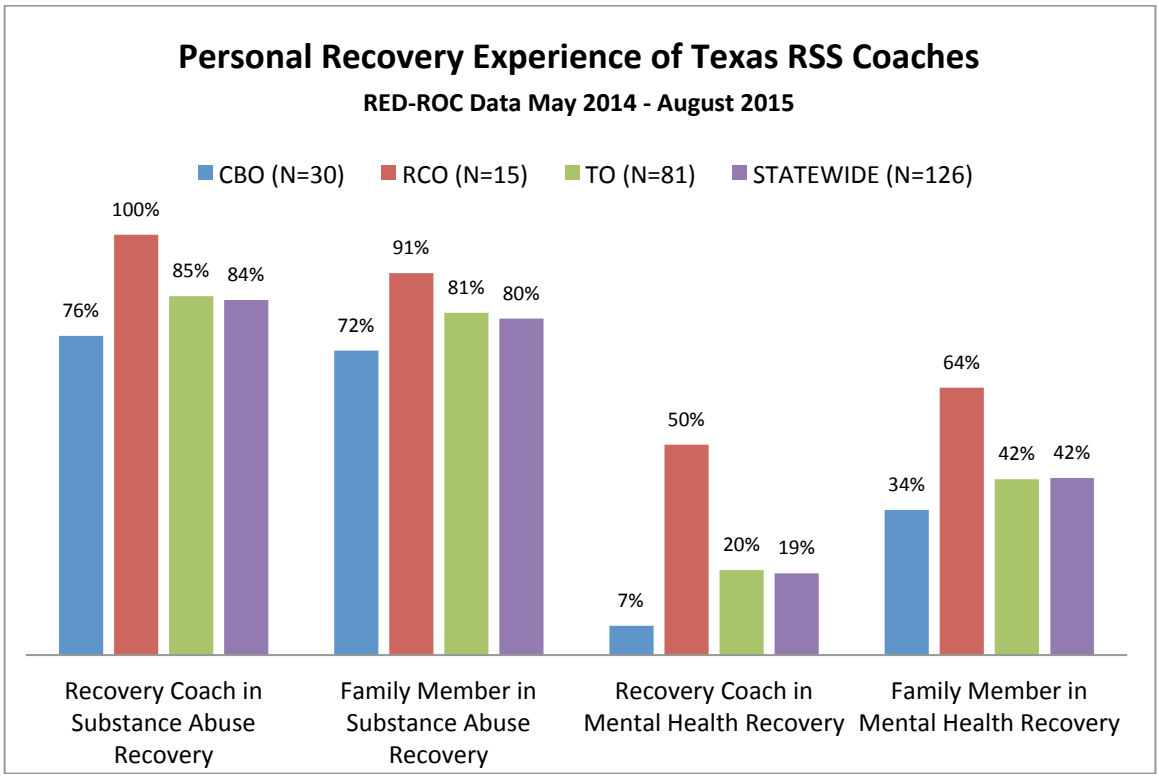

Figure 4

RSS Recovery Coaches -Length of Experience, Training, and Credentialing

RSS Recovery Coaches' length of coaching experience, Recovery Coach training, and credentials held are reported in Figures 5, 6, and 7, respectively. The vast majority of Recovery Coaches are relatively new to providing recovery coaching services with 70% having 0 – 12 months recovery coaching experiences. Statewide, 99% of the Recovery Coaches had received the DSHS Approved Recovery Coach Training and 29% had received other Recovery Coach training. In the area of TCBAP Recovery Coach Designations and Certifications, 38% of the Recovery Coaches had received designation status and 52% had received certification statewide. In addition, 32% of the RSS Recovery Coaches statewide had other credentials/licensing, such as LCDC and Peer Specialist.

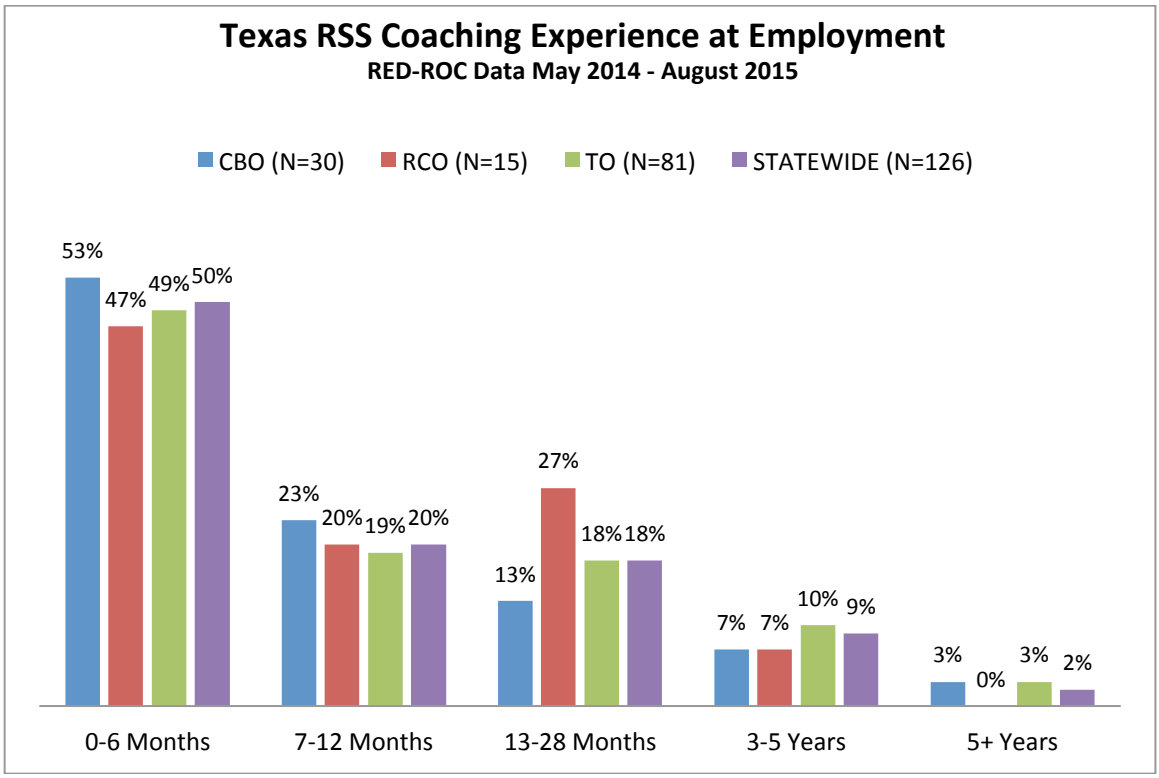

Figure 5

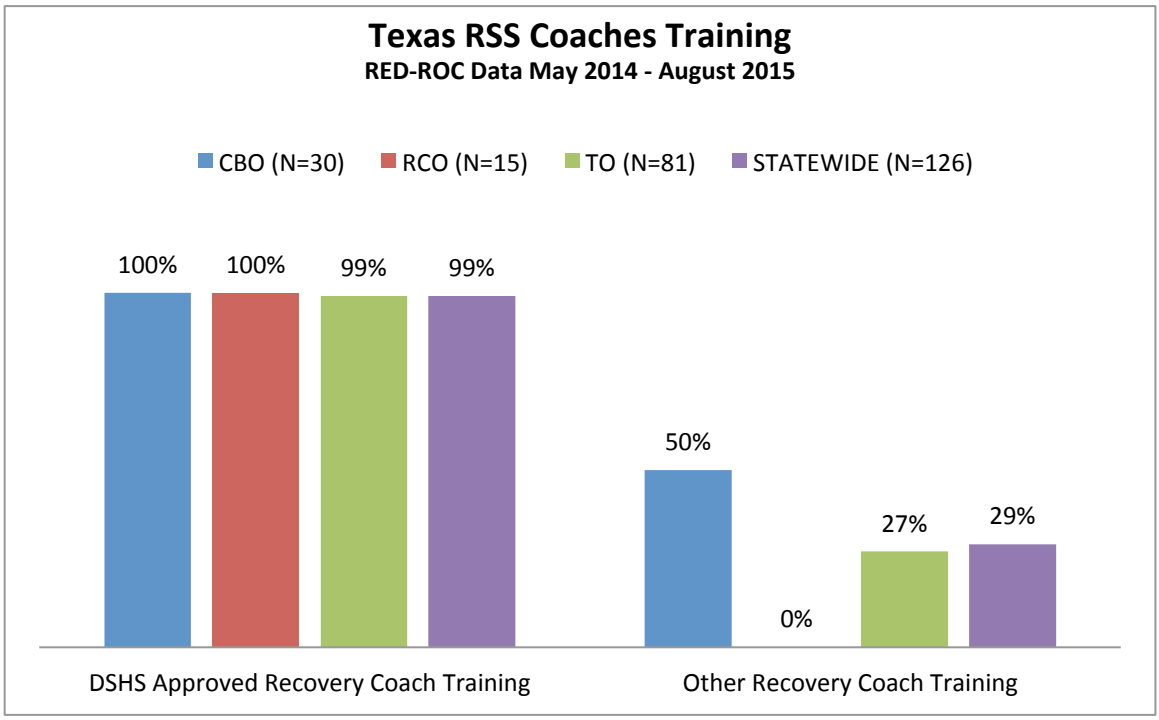

Figure 6

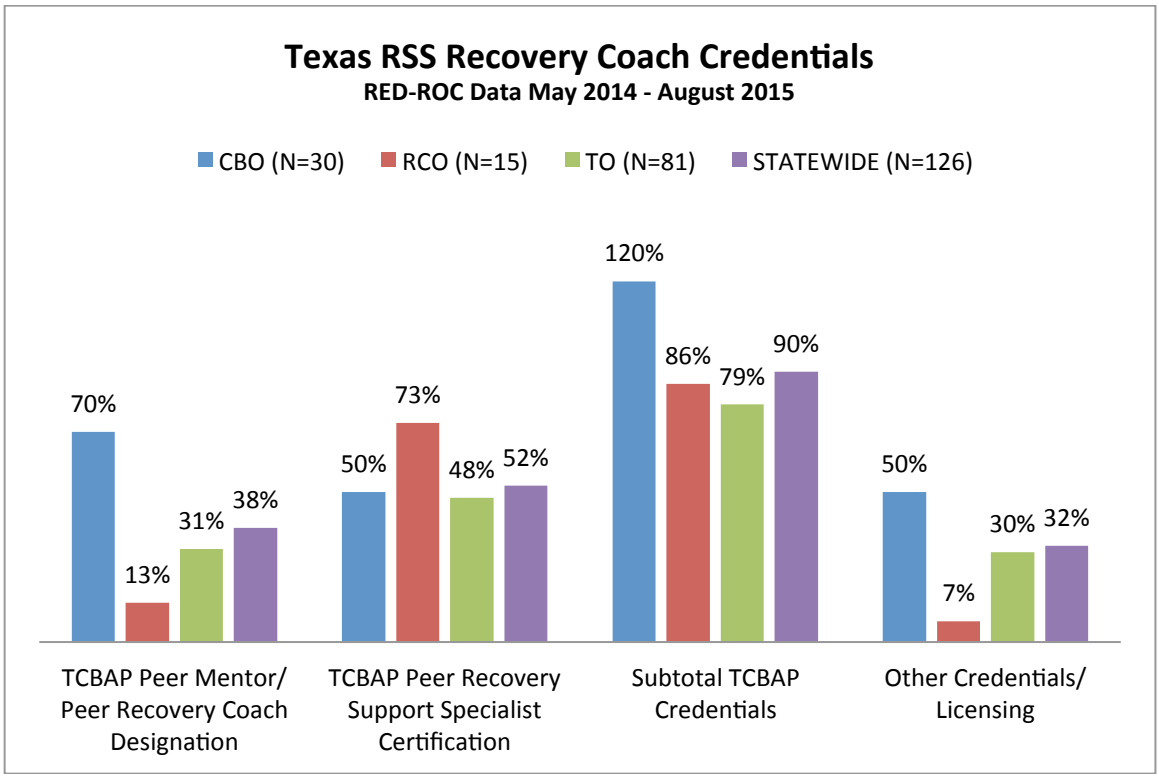

Figure 7

RSS Recovery Coaches - Types of Recovery Coaching Provided

Figures 8 and 9 present the paid and/or volunteer status of the RSS Recovery Coaches and the types of recovery coaching services provided, respectively. Statewide, the majority of recovery coaching services provided by RSS Recovery Coaches were paid only (67%), followed by both paid and volunteer (25%), and then volunteer only (9%). The most frequently provided recovery coaching service types were Substance Use Disorder (94%), Family (50%), Co-Occurring Substance Use Disorder and Mental Health (48%), and Mental Health (47%). The least frequent categories of recovery coaching service types were Veteran's Services (20%) and Other (15%), such as HIV, criminal justice, and LGBT.

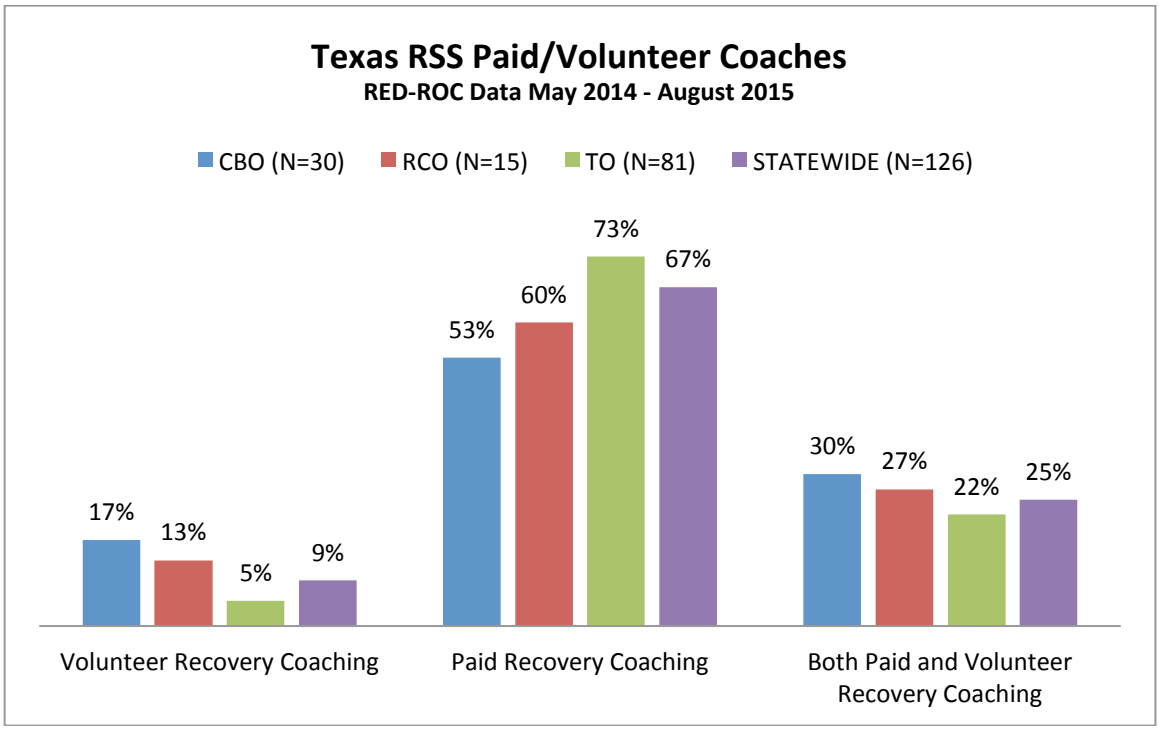

Figure 8

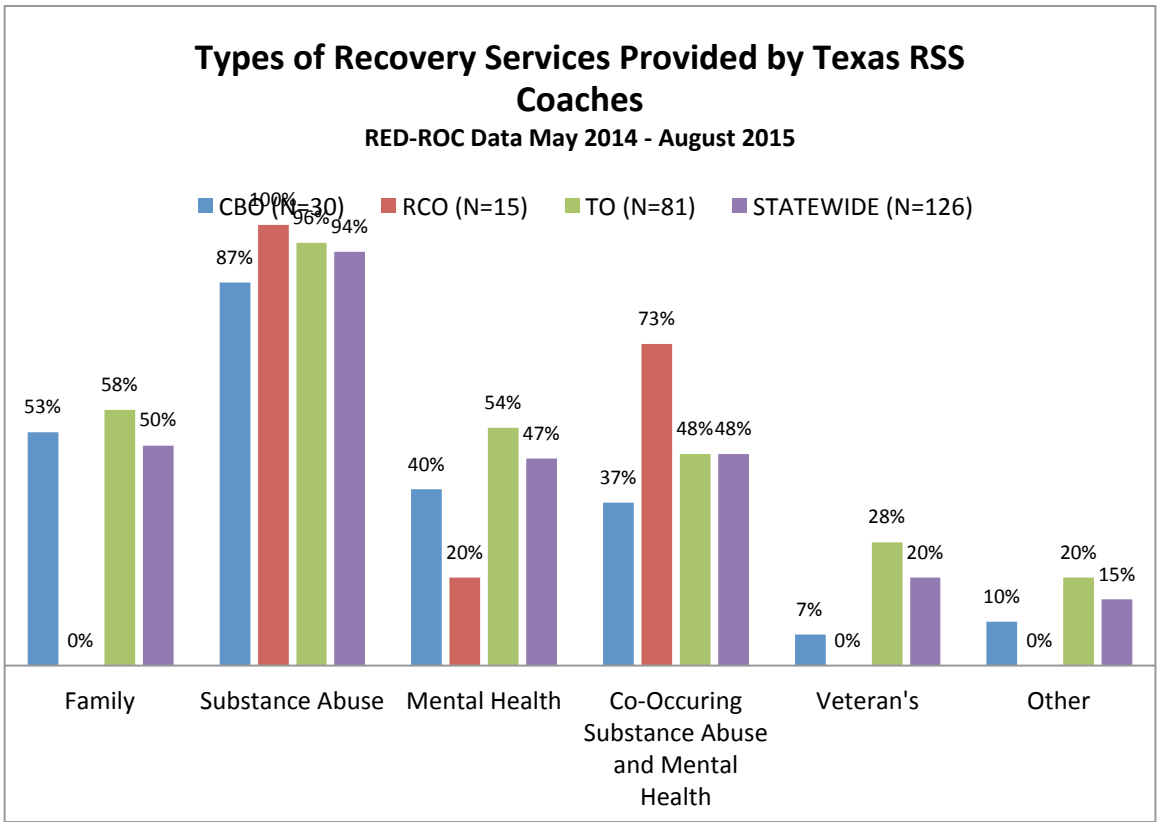

Figure 9

Recovery Coaching Participants at Enrollment

For participants who agree to enroll in long-term recovery coaching services, RSS providers are required to report detailed information in the RED-ROC database regarding the enrollee's characteristics that are collected though participant interviews. The types of data reported include the participant demographics; employment status; criminal justice status; healthcare characteristics; substance use disorder treatment and recovery activities; substance use and mental health symptoms and treatment and recovery services; stage of recovery (interviewer rating); and the Assessment of Recovery Capital (ARC) scale scores. RSS providers are required to report this information on long-term recovery coaching participants at enrollment into coaching services and at 3-, 6-, 9, and 12-month check-up interviews. The data presented in this section of the report describes the characteristics of participants at enrollment into long-term recovery coaching services during the period of May 2014 through August 2015.

Participant Demographics

At enrollment into long-term Recovery Coaching, the vast majority (76%) were between the ages of 26 – 55 years, with the highest age range category being between the ages of 26 – 35 years at 33% (see Figure 10), and 57% were male (see Figure 11).

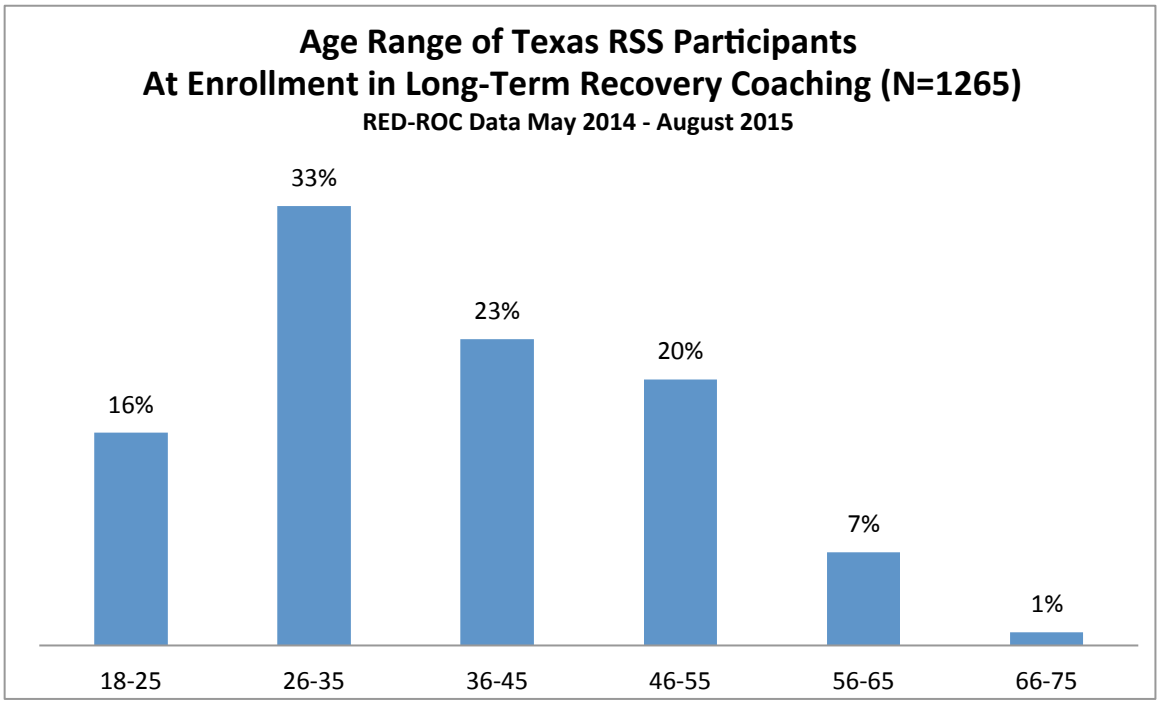

Figure 10

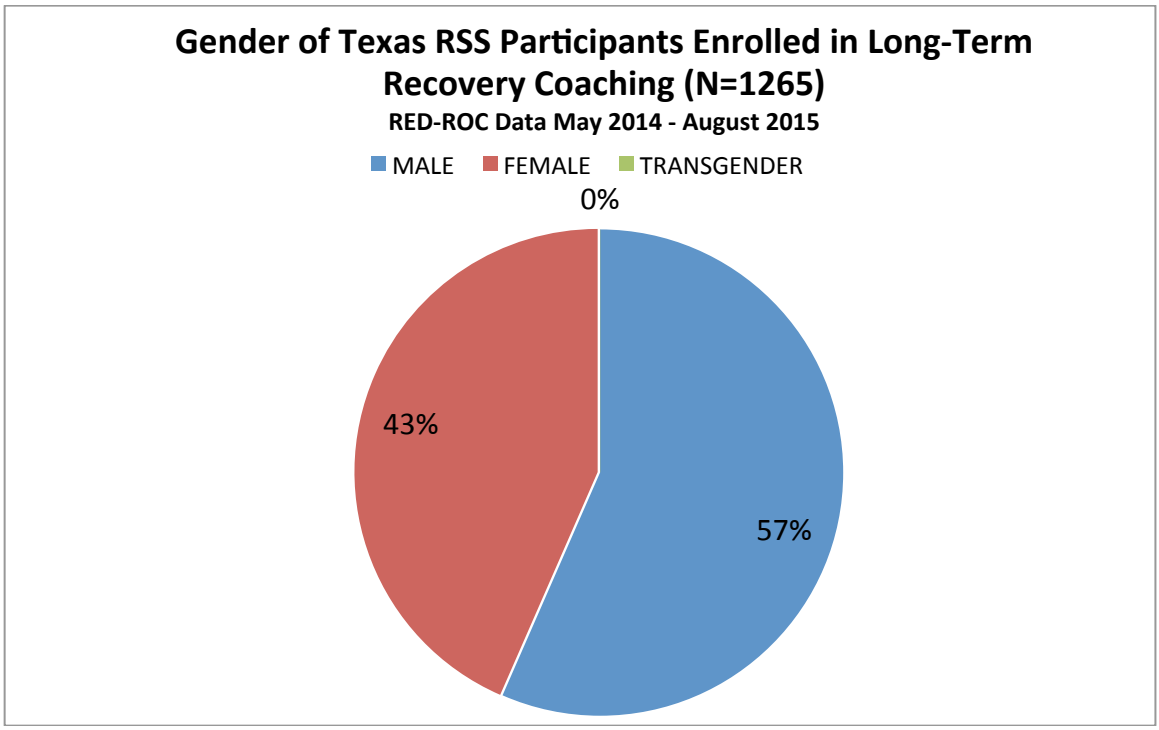

Figure 11

In the area of race/ethnicity, the greatest percentage were White (64%), followed by Black (24%), Other Race (10%), and Multiracial (2%), and 32% were of Hispanic ethnicity (see Figure 12). The primary language spoken by participants was predominately English at 98% (see Figure 13). Most of the participants possessed some form of valid personal identification (86%) (see Figure 14).

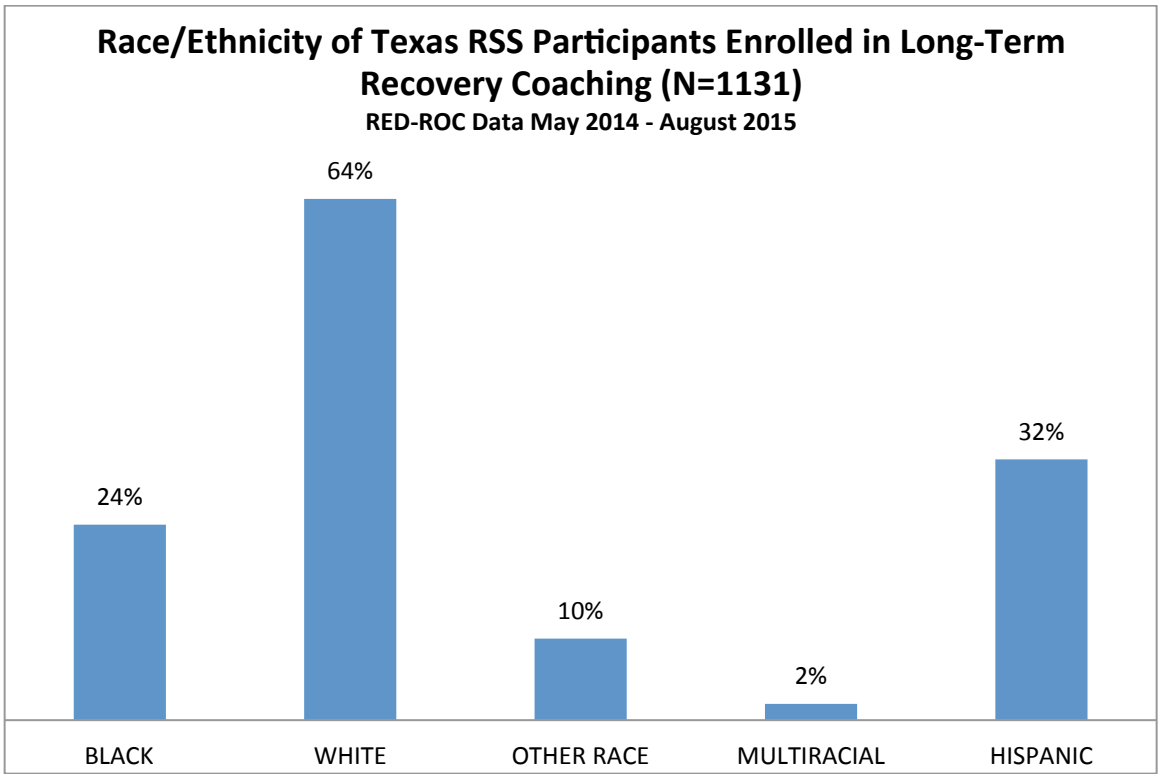

Figure 12

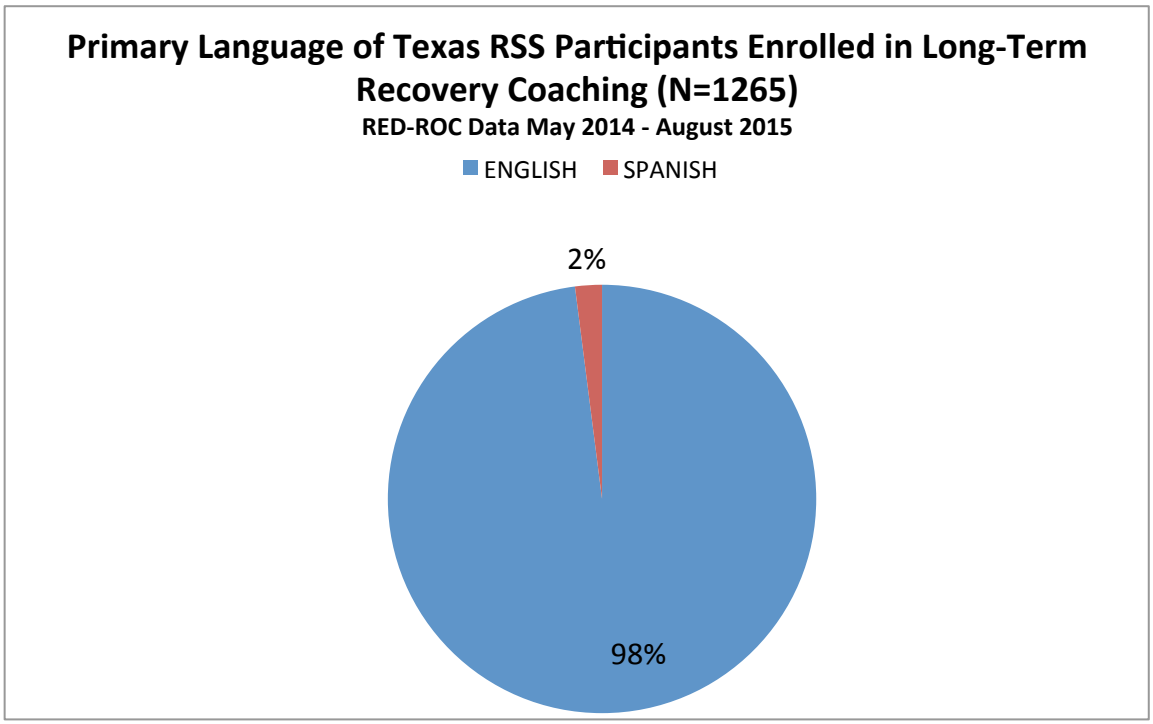

Figure 13

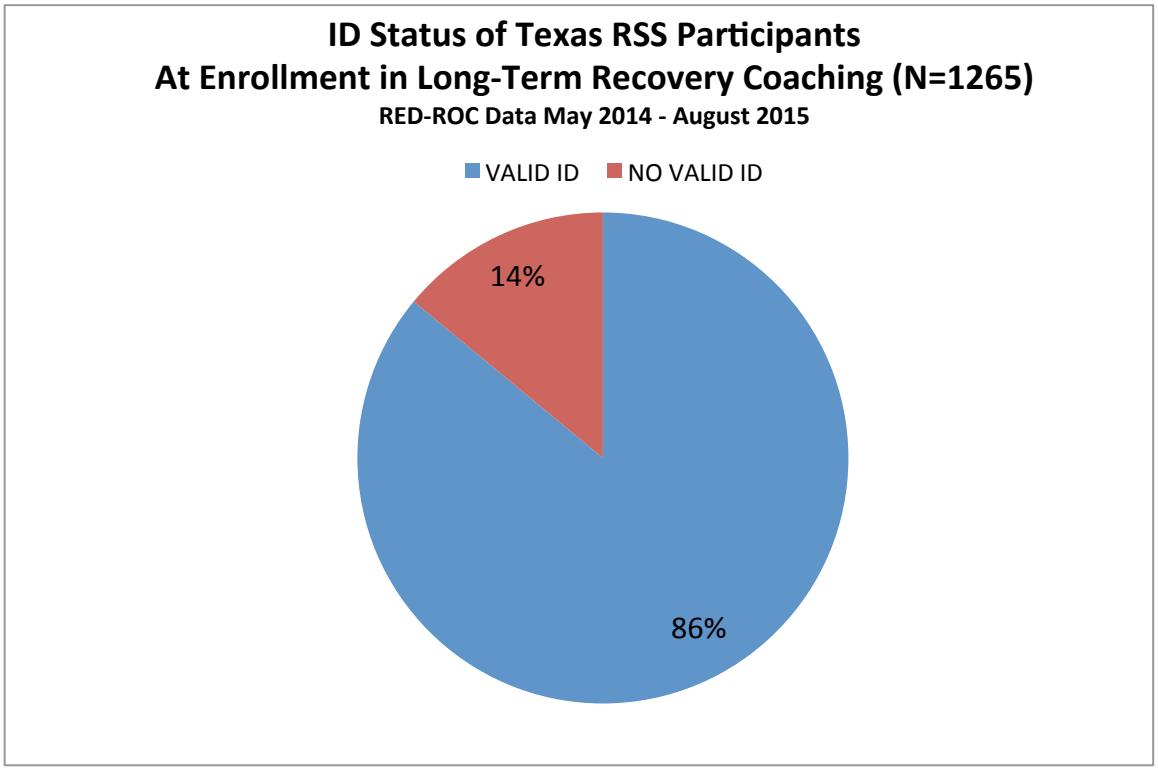
ID Status of Texas RSS Participants
At Enrollment in Long-Term Recovery Coaching (N=1265)
RED-ROC Data May 2014 - August 2015
VALID ID
NO VALID ID
14%
86%

Figure 14

In the area of educational attainment, 24% of the participants had less than a high school diploma, 39% completed high school or obtained a GED, 25% had attended some college with no degree, 9% had earned an Associate's or Bachelor's Degree, and 3% had received Vocational training (see Figure 15).

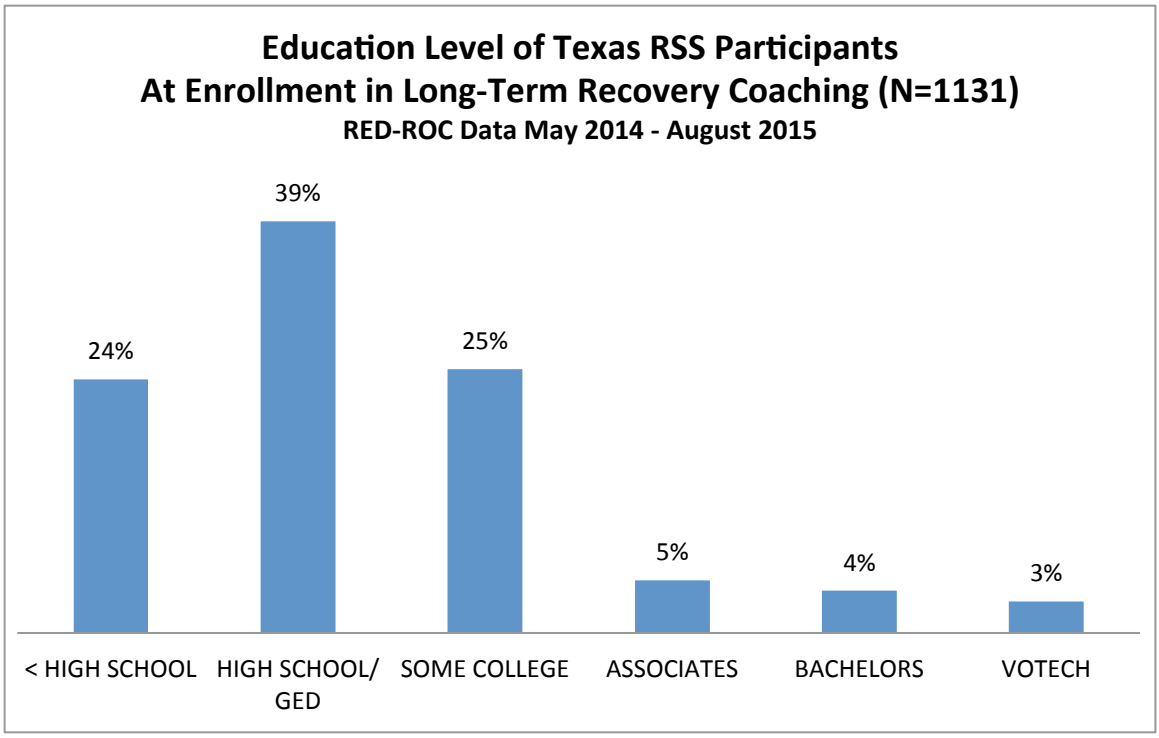

Figure 15

Participants reported current living situation indicated that 68% were housed, 16% were in an institutional setting, 10% were in a shelter, and 5% were living on the street (see Figure 16). Of those individuals who reported being housed, 30% were living in a home that they personally owned or rented, 32% in someone else's home, 16% in a sober living center, 14% were in residential treatment, 2% in a half-way house, and 6% in other type of housing (see Figure 17).

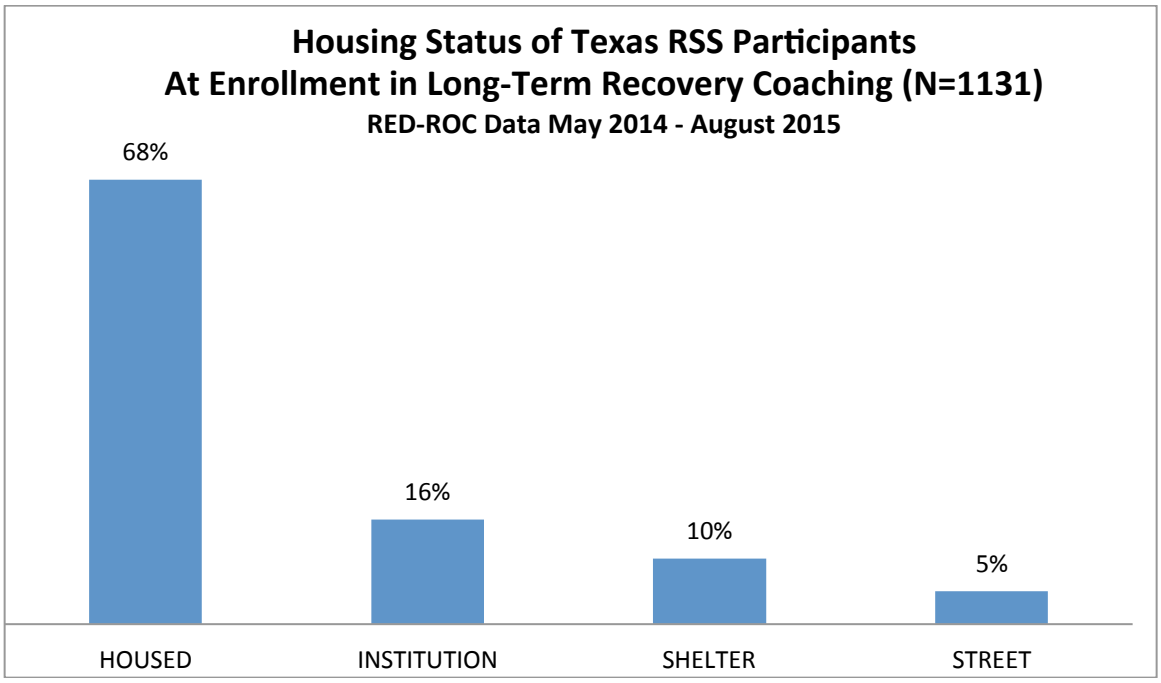

Figure 16

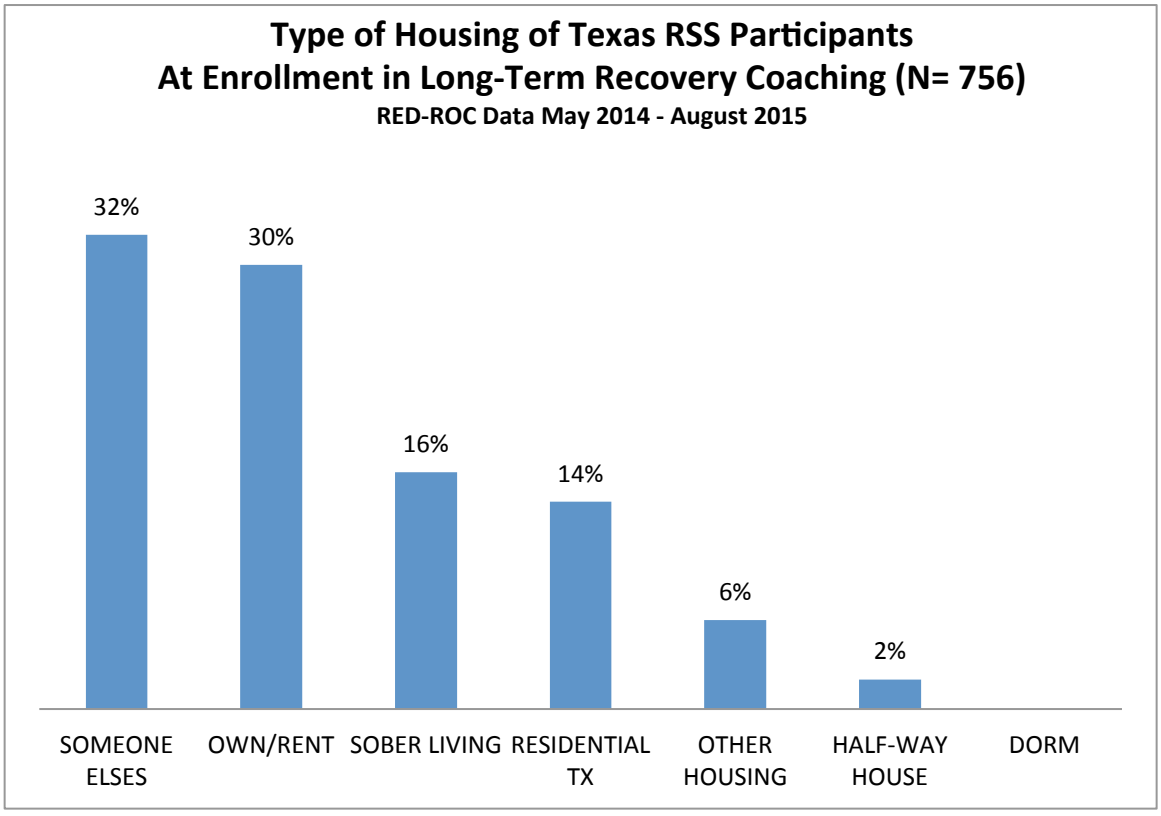

Figure 17

Employment

At enrollment into long-term Recovery Coaching, participants reported very low employment rates, with only 21% reporting being employed full or part-time. Of those reporting being unemployed, 45% were seeking employment, 17% were not looking for employment, 12% were disabled, and 1% were engaged in volunteer work (see Figure 18). In the area of income sources during the past month prior to enrollment, 28% reported receiving wages with an average monthly wage of $285; 15% received some form of public assistance with an average assistance level of $253; and 14% received disability with an average disability stipend of $757 (see Table 11).

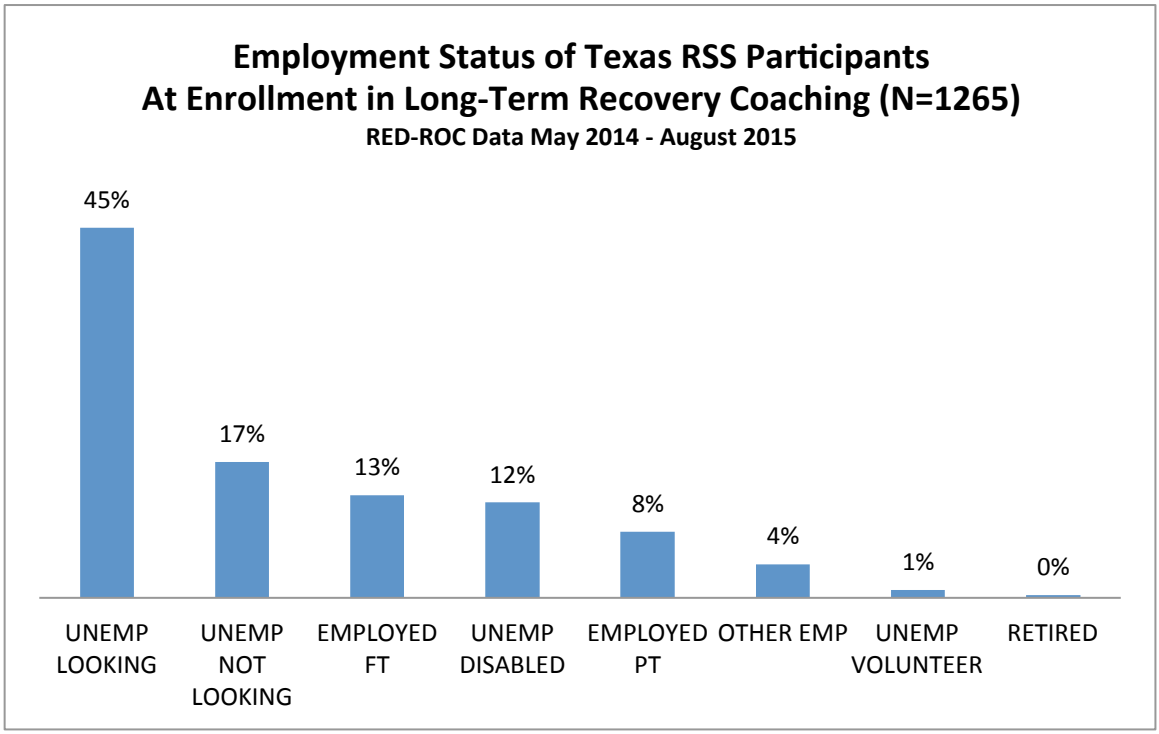

Figure 18

Table 11
At Enrollment in Long-Term Recovery Coaching
REC-ROC Data May 2014 - June 2015
(N= 1131)

WAGES		PUBLIC ASSISTANCE		DISABILITY	
% Earning Wages	Avg Wage	% Receiving Public Assistance	Avg PA	% Receiving Disability	Avg Disability
28%	$285	15%	$253	14%	$757

Criminal Justice

Participants' frequency of arrests and jail/prison time served during the past year prior to enrollment into long-term Recovery Coaching are reported in Table 12. A high percentage (42%) of participants reported being arrested during the past year, with an average of 1.9 arrests. Of those participants who reported being arrested, 28% indicated that the arrest was drug related, with an average of 4.4 substance related arrests. A high percentage (41%) also reported serving jail or prison time during the past year, with an average of 63.4 jail/prison nights. Analyses of other criminal justice characteristics indicated that 45% of the participants had a history of previous felony, 33% were under some form of legal supervision and 14% had legal charges pending (see Figure 19).

Table 12
Criminal Justice Characteristics of Texas RSS Participants
At Enrollment in Long-Term Recovery Coaching
REC-ROC Data May 2014 - August 2015
(N= 1265)

ARRESTS PAST YEAR		DRUG ARRESTS PAST YEAR		JAIL/PRISON PAST YEAR	
% Arrested	Avg # of Arrests	% Arrested	Avg # of Arrests	% In Jail or Prison	Avg # of Nights
42%	1.9	28%	4.4	41%	63.4

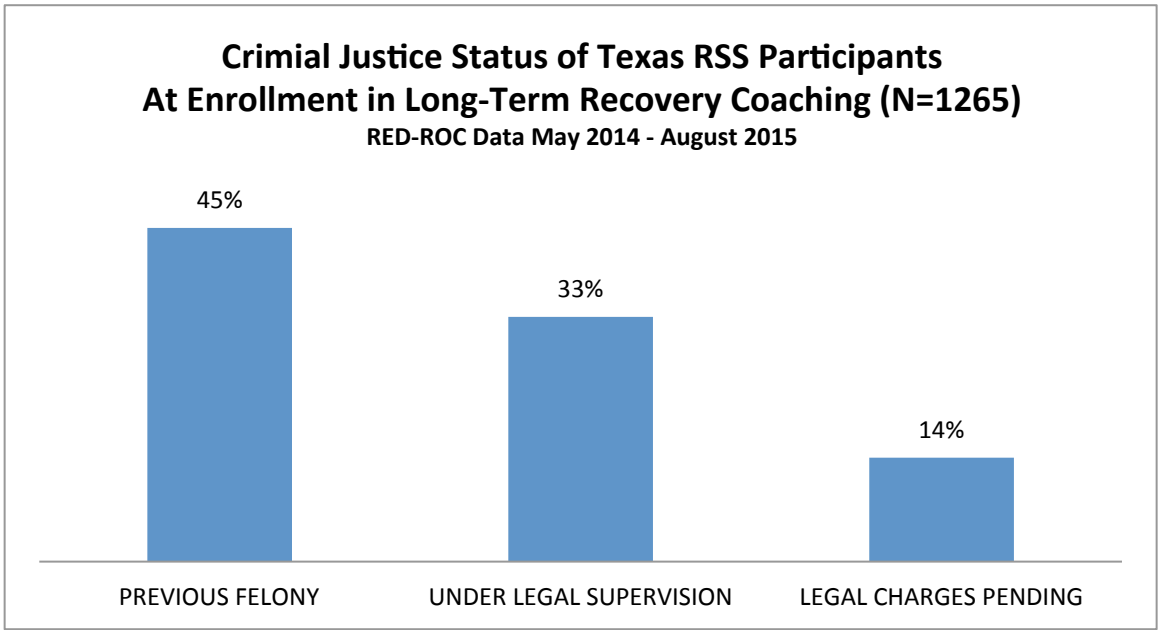

Figure 19

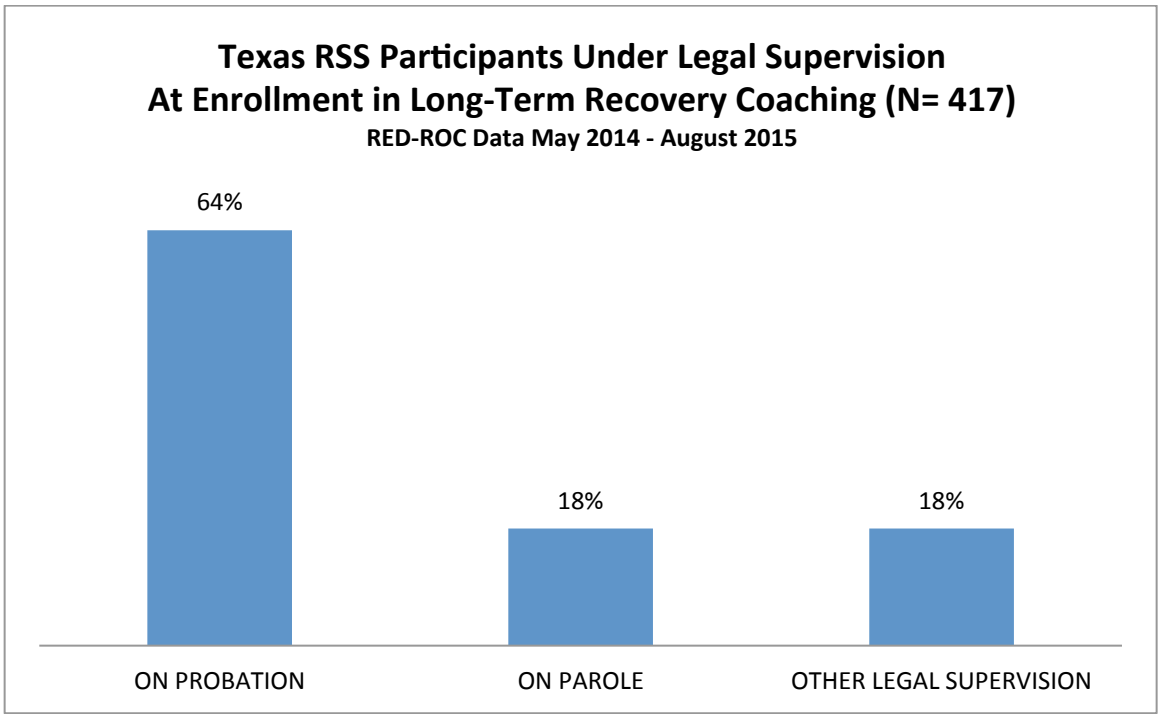
Texas RSS Participants Under Legal Supervision
At Enrollment in Long-Term Recovery Coaching (N= 417)
RED-ROC Data May 2014 - August 2015
64%
18%
18%
ON PROBATION
ON PAROLE
OTHER LEGAL SUPERVISION

Figure 20

Healthcare

Medical insurance coverage of participants at enrollment into long-term Recovery Coaching is reported in Figure 21. The majority (63%) of participants reported having no medical insurance, 13% were on Medicaid, 5% on Medicare, 5% on private insurance, 2% on Veteran's insurance, 1% on CHIP, and 13% reported having other types of insurance. Participants were asked to provide a self-rating of their overall health (see Figure 22), and the largest percentage (40%) rated their health as Good, followed by Fair (24%), Very Good (20%), Excellent (12%), and Poor (4%).

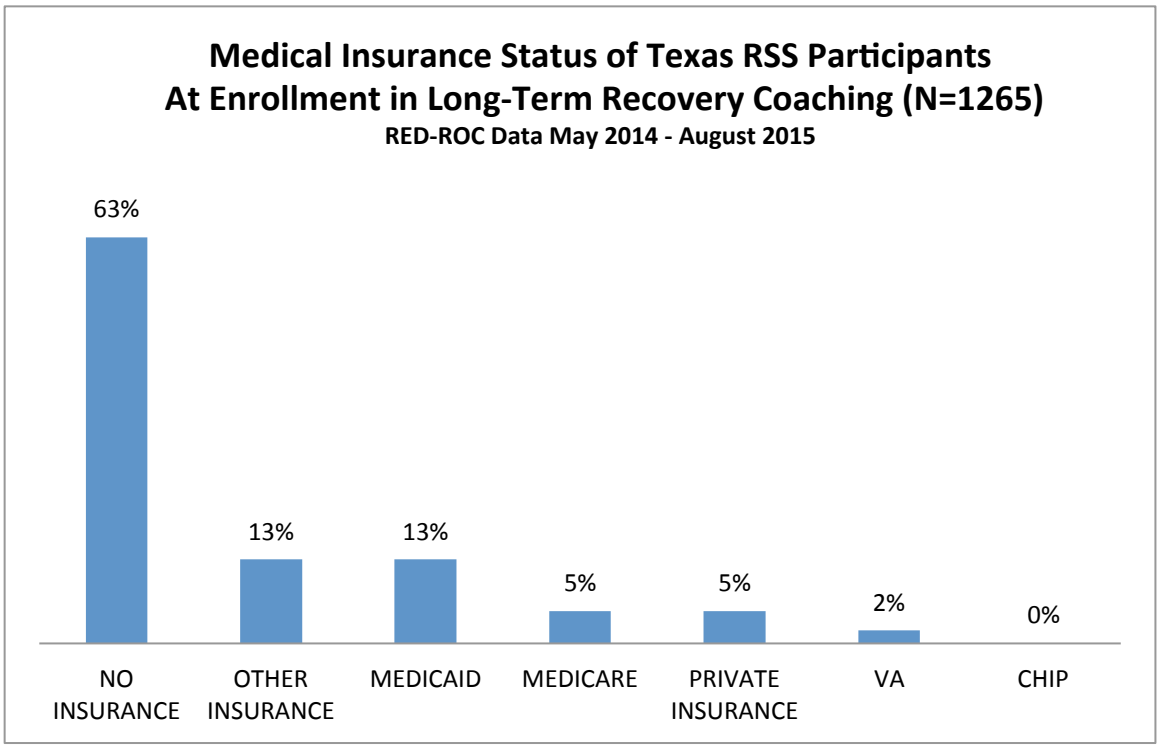

Figure 21

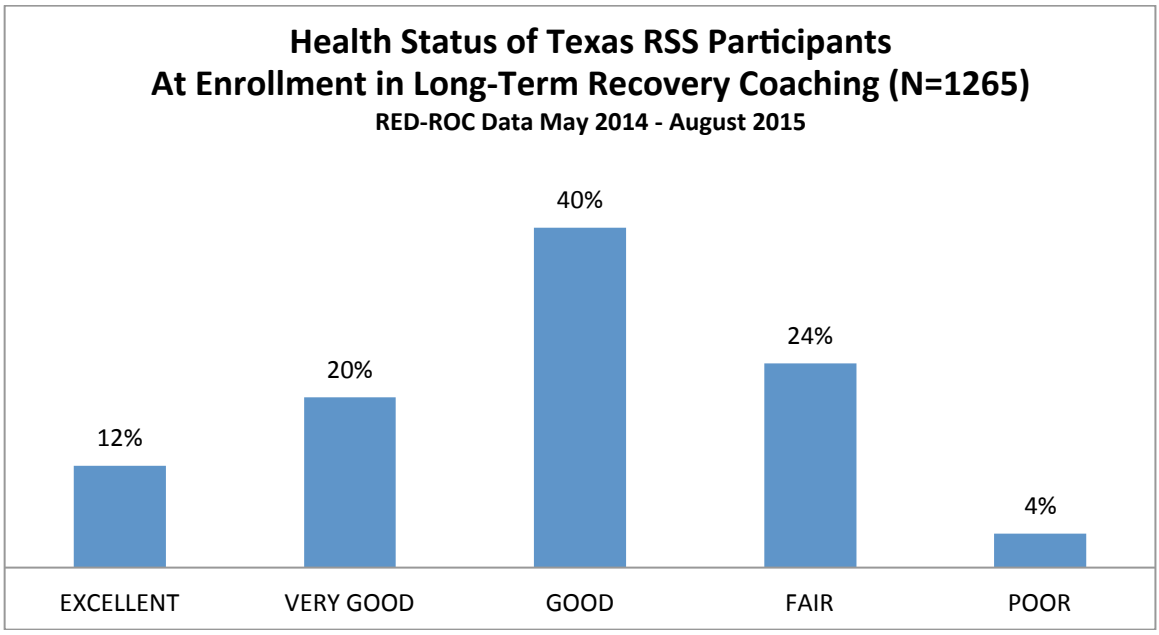

Figure 22

Healthcare service utilization rates during the month prior to enrollment into long-term Recovery Coaching are reported in Figure 23. The highest rates of inpatient services were for substance use issues at 37%, whereas inpatient services for physical ailments mental health issues were both reported by 7% of participants. A similar trend was seen in outpatient service use, with 22% of participants reporting obtaining outpatient services for substance use issues, 16% for mental health issues, and 11% for physical ailments. Physical ailments were the most common reason for emergency services at 15%, followed by substance use issues (5%), and mental health issues (4%).

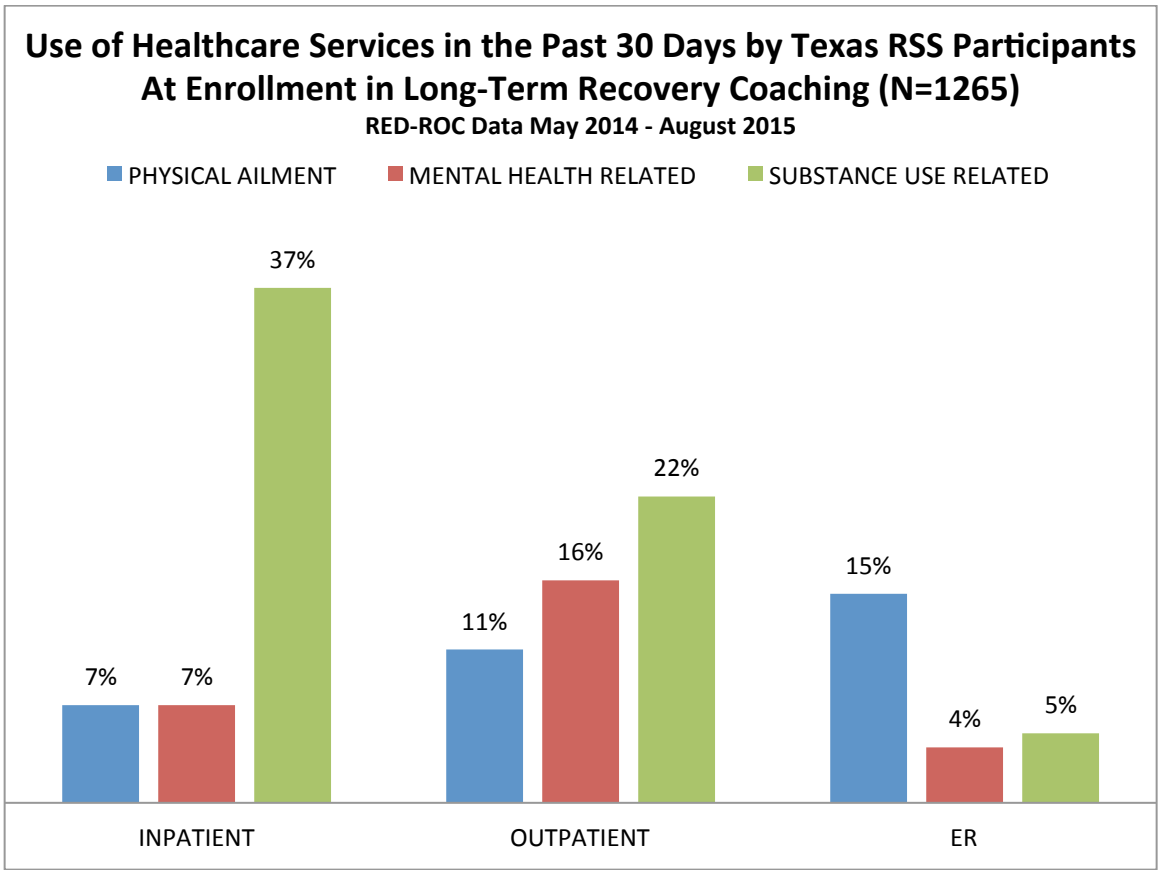
Use of Healthcare Services in the Past 30 Days by Texas RSS Participants At Enrollment in Long-Term Recovery Coaching (N=1265)
RED-ROC Data May 2014 - August 2015
PHYSICAL AILMENT
MENTAL HEALTH RELATED
SUBSTANCE USE RELATED
7%
7%
37%
11%
16%
22%
15%
4%
5%
INPATIENT
OUTPATIENT
ER

Figure 23

Substance Use Disorder Treatment and Recovery Activities

Participants' current substance use disorder treatment status at enrollment into long-term Recovery Coaching is reported in Figure 24. The majority of participants (53%) were currently in treatment, 12% in transition from treatment, 7% on a treatment wait list, and 29% were not currently engaged in treatment. In the area of previous substance use disorder treatment, 71% of participants had a history of being in treatment 1-5 times and 20% had no previous treatment experience (see Figure 25). Analyses of other self-help recovery activities during the past month prior to enrollment indicated 74% had attended self-help groups, 43% had met with a sponsor, 85% had met with a recovery coach, 27% had engaged in other types of self-help, and 91% reported having family members and/or friends who were supportive of their recovery (see Figure 26).

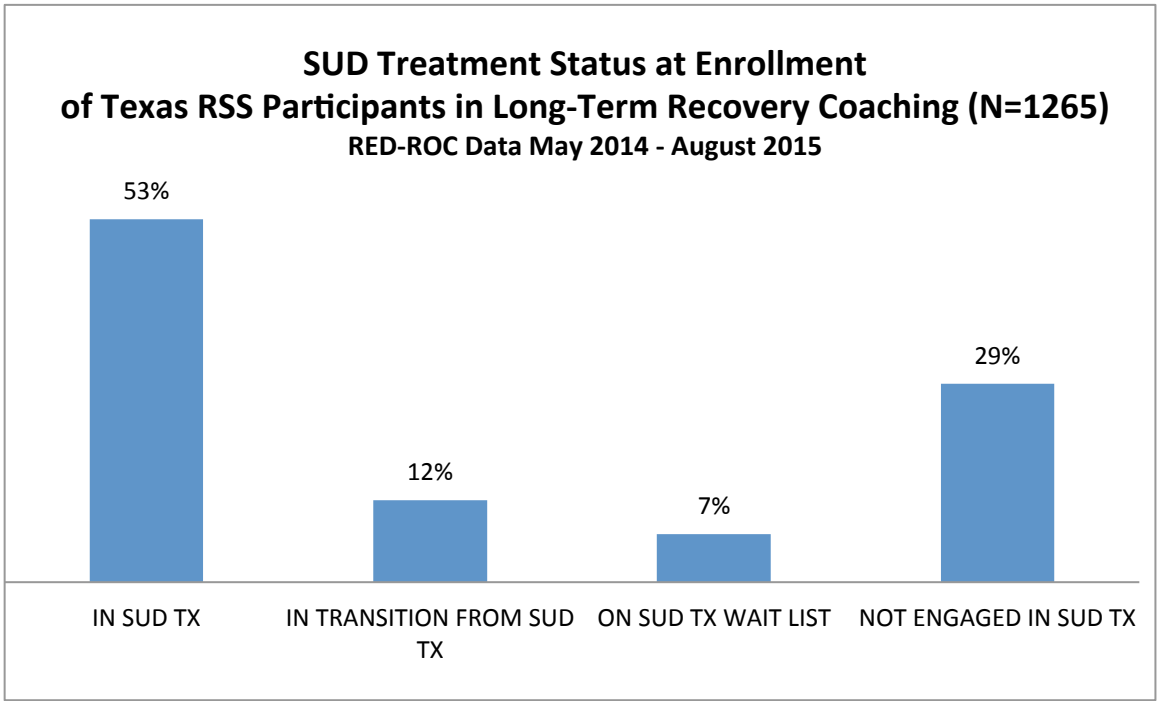

Figure 24

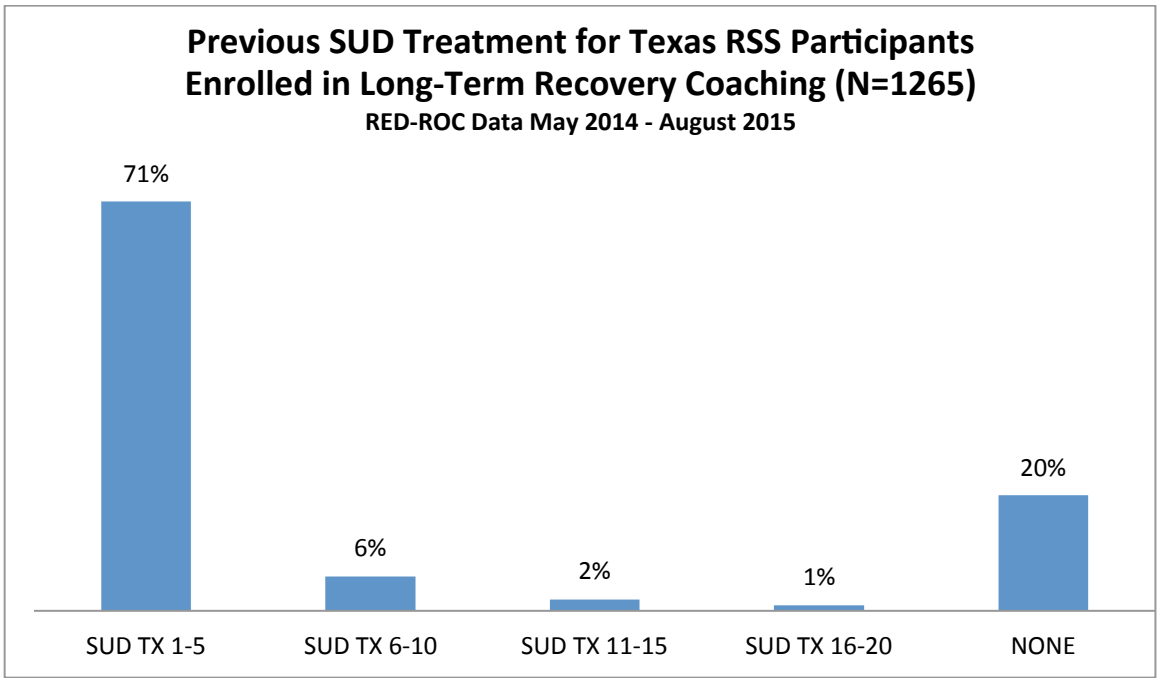

Figure 25

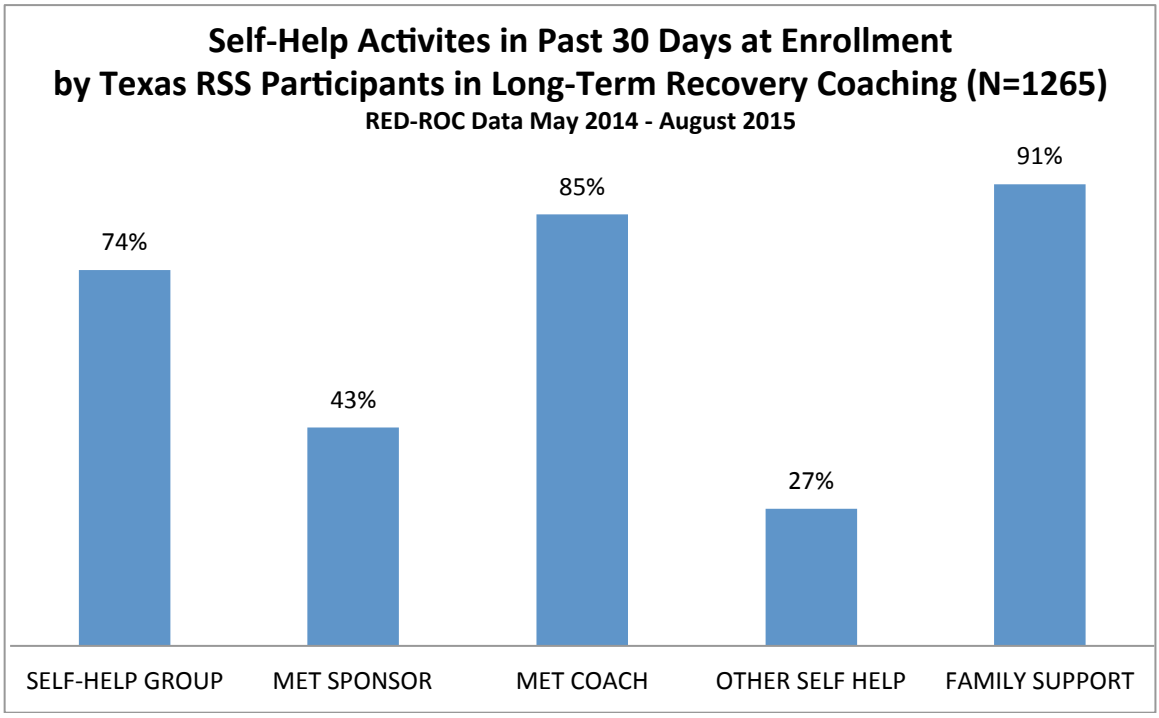

Figure 26

Substance Use and Mental Health

Participants' substance use during the past month prior to enrollment into long-term Recovery Coaching is presented in Figure 27. Use of any alcohol was reported by 26% of participants, use of alcohol to intoxication by 17%, illegal drug use by 27%, and use of prescription drugs not as directed by 9%.

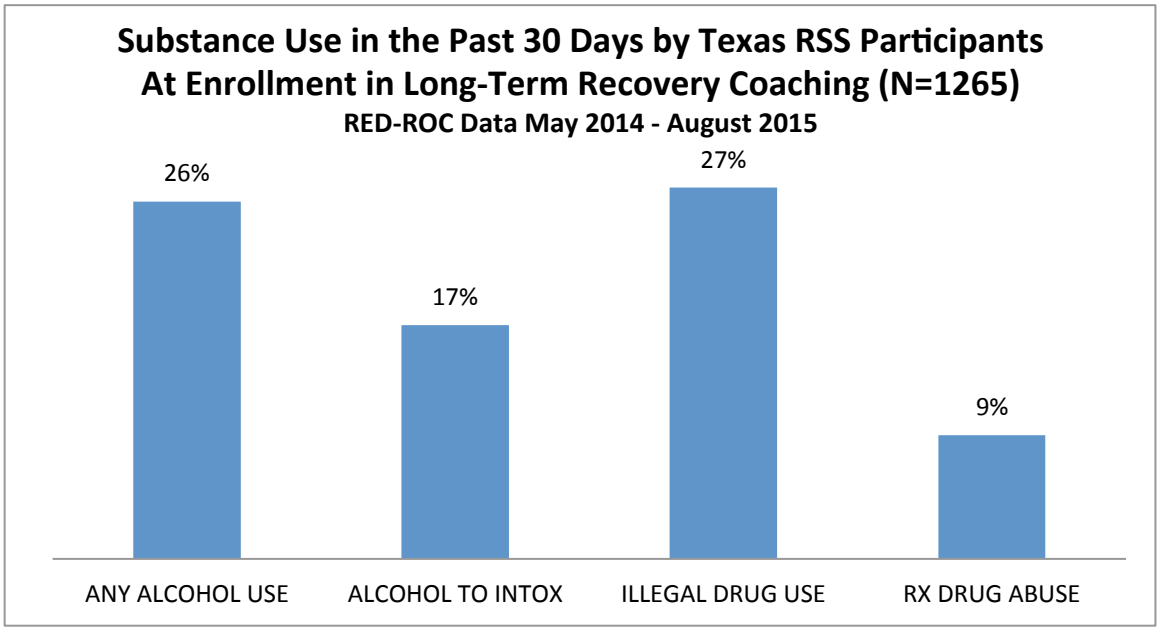

Figure 27

In the area of mental health symptoms experienced during the month prior to enrollment, 49% of participants reported experiencing serious depression, 64% experienced anxiety/tension, 45% had difficulty concentrating, and 15% experienced difficulty controlling violent behavior (see Figure 28). Many participants had received mental health treatment services, with 36% taking psychotropic medications, 25% had seen a psychiatrist, 41% had seen other types of mental health professionals, 13% had met with a mental health peer specialist, and 11% had attended mental health recovery groups (see Figure 29).

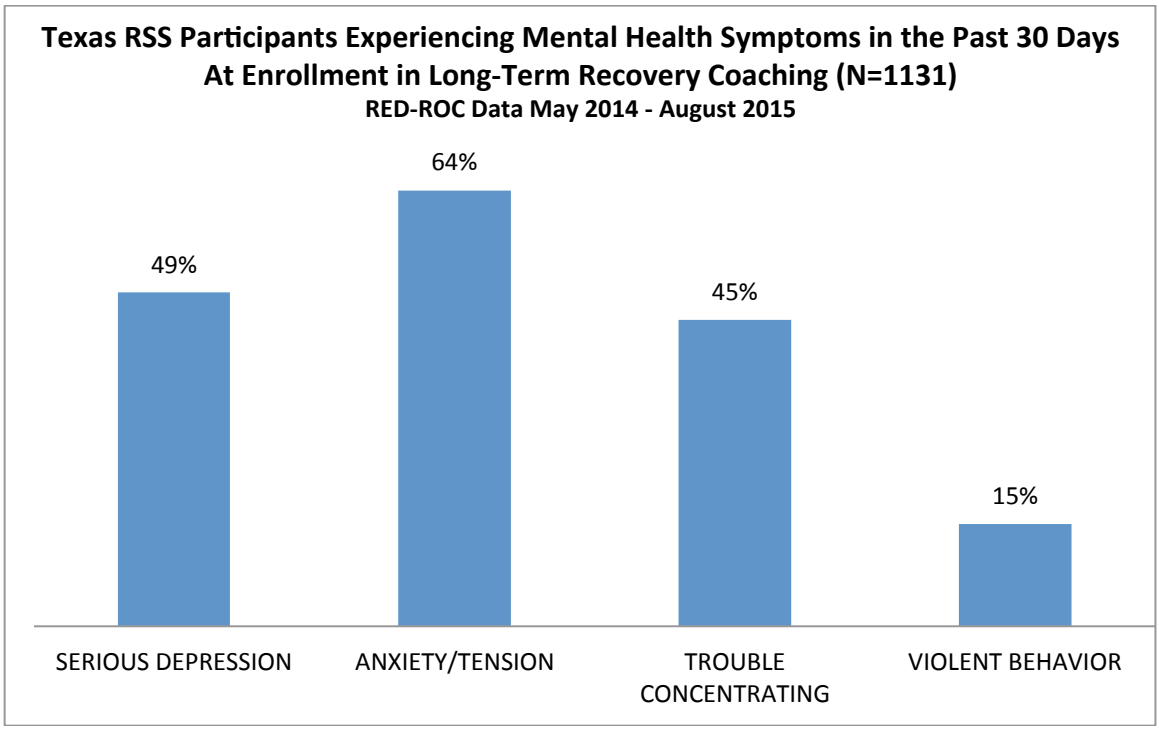

Figure 28

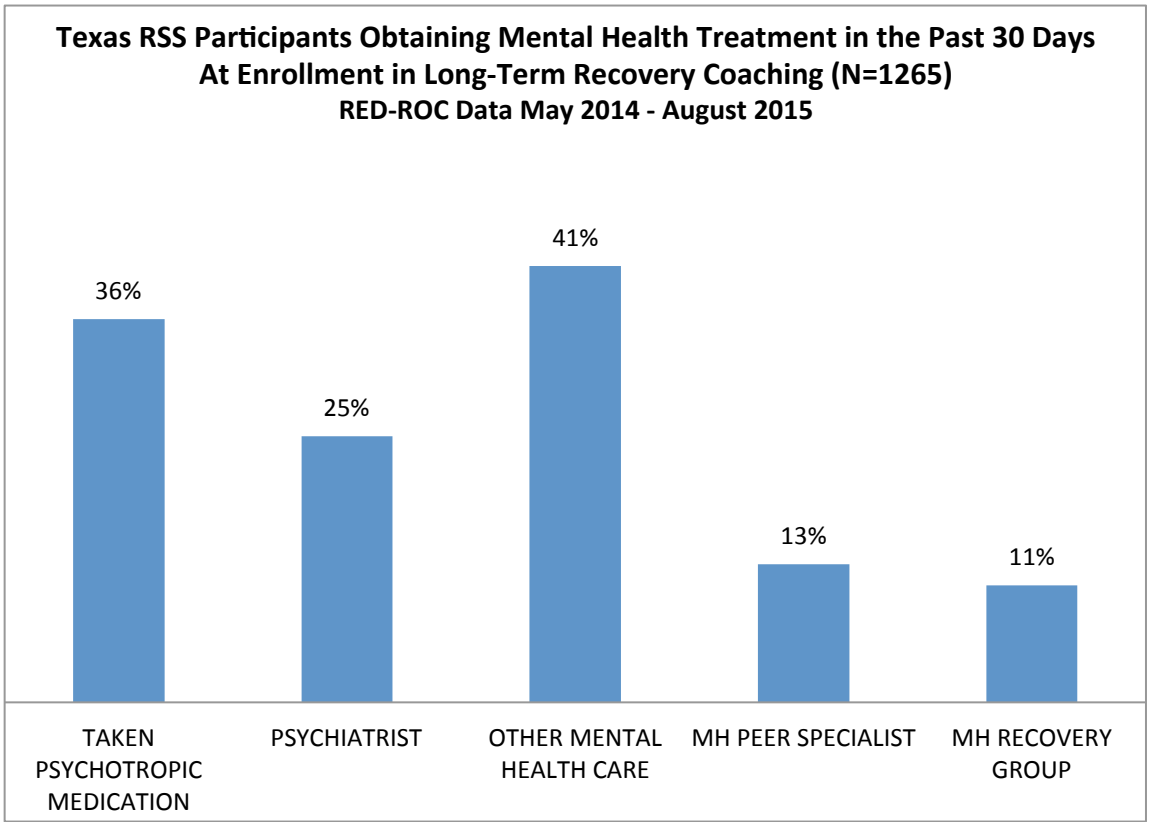

Figure 29

Stage of Change and Assessment of Recovery Capital

RSS organization interviewers report their ratings of the participants' current Stage of Change at the end of the enrollment interview and are reported in Figure 30. The most frequent stage rating was Preparation at 30%, followed by Action (27%), Contemplation (28%), Precontemplation (10%), and Maintenance/Relapse Prevention (6%).

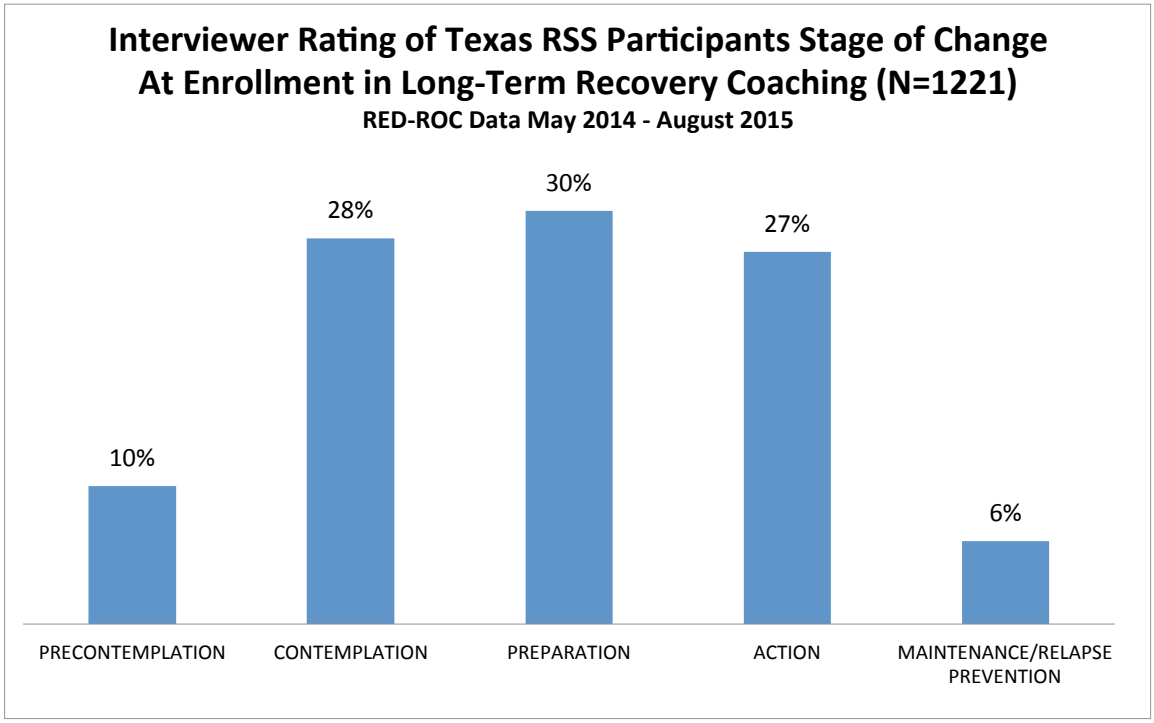

Figure 30

As part of the enrollment interview process, participants are asked to complete the Assessment of Recovery Capital (ARC) Scale. The ARC scale is a 50-item self-report scale that measures an individual's amount of recovery capital in 10 life domains:

1. Substance Use and Sobriety
2. Global Psychological Health
3. Global Physical Health
4. Citizenship/Community Involvement
5. Social Support

6. Meaningful Activities
7. Housing and Safety
8. Risk Taking
9. Coping and Life Functioning
10. Recovery Experience

The scores on these scales range from 0 – 5, with higher scores indicating greater recovery capital. In addition, a Total ARC score is calculated by summing the 10 scale scores resulting in potential total scores from 0 to 50.

The average ARC scores of participants at enrollment into long-term recovery coaching are reported in Table 13. The lowest average scale score was in the Social Support domain (3.34), whereas the highest average score was in the Recovery Experience domain (4.54). The average Total ARC score for participants was 39.00 out of a potential highest score of 50.

Table 13
Average Assessment of Recovery Capital Score
For Texas RSS Participants at Enrollment in Long-Term Coaching
(RED-ROC Data May 2014 - August 2015)

ARC DOMAIN	AVERAGE SCORE	POSSIBLE SCORE
RECOVERY EXPERIENCE	4.54	5
COMMUNITY INVOLVEMENT	4.33	5
HOUSING AND SAFETY	4.12	5
PSYCHOLOGICAL HEALTH	3.96	5
SUBSTANCE ABUSE AND SOBRIETY	3.90	5
PHYSICAL HEALTH	3.87	5
MEANINGFUL ACTIVITIES	3.69	5
COPING AND LIFE FUNCTIONING	3.69	5
RISK TAKING	3.54	5
SOCIAL SUPPORT	3.34	5
TOTAL ARC SCORE	39.00	50

Participant Check-Up Interviews

As previously described, RSS providers are required to collect and report participant interview data on long-term recovery coaching participants at enrollment into coaching services and at 3-, 6-, 9, and 12-month check-up interviews. In this section, analyses of participant enrollment data are compared check-up data on select variables and check-up points. The data presented in this section of the report describes the characteristics of participants who enrolled into long-term recovery coaching services during the period of May 2014 through August 2015.

Participant Check-Up Interview Completion Rates

Participant check-up completion rates for all four check-up points are reported in Table 14. The 3-month check-up interview rate was 76%, 6-month rate was 69%, 9-month rate was 66%, and the, 12-month rate was 67%. Participants who were deceased or who were incarcerated at the time the check-up interview was due were excluded from the denominator when calculating these rates. The collection of follow-up data was a new activity for many of these programs, particularly at this frequency of contact. As the RSS organizations gain more experience with this process, these check-up completion rates are expected to rise. This trend is evidenced in Table 14; the 3-month interview check-up is higher than all of the remaining check-up points, suggesting that the RSS organizations are improving in their tracking of participants as new participants enrolled during the span of the project.

Table 14
Texas RSS Participant Check-Up Interview Completion Rates
(RED-ROC Data May 2014 - August 2015)

3 MONTH CHECK-UP INTERVIEWS			6 MONTH CHECK-UP INTERVIEWS		
Completed	Total Due	Completion Rate	Completed	Total Due	Completion Rate
939	1229	76%	834	1210	69%
9 MONTH CHECK-UP INTERVIEWS			**12 MONTH CHECK-UP INTERVIEWS**		
Completed	Total Due	Completion Rate	Completed	Total Due	Completion Rate
751	1131	66%	648	965	67%

Comparisons of Participants with Complete vs. Incomplete 3-Month Check-Up Interviews

In this section, participants who successfully completed a 3-month check-up interview were compared to those who did not complete the interview on select interview variables at enrollment. The variables selected for these analyses were based on past literature suggesting that these variables may be related to retention in and successful completion of substance use disorder treatment. Participants who were deceased or who were incarcerated at the time the 3-month check-up interview was due were excluded from these analyses. Check-up interview completers and non-completers were compared on demographic characteristics, criminal justice status, substance use disorder treatment, recovery activities, mental health status, Stage of Change, and Assessment of Recovery Capital (ARC) scores at enrollment into long-term recovery coaching. Continuous variables were analyzed using *t*-tests for independent groups and categorical variables were assessed using X^2-tests. Cases with missing data were omitted from the analyses of that variable. The analyses in this section were conducted to determine potential participant characteristics at enrollment that may be associated with early dropout from long-term recovery coaching.

Participant Demographics

Comparisons of 3-month check-up interview completers versus non-completers on demographic variables are reported in Table 15. On race and ethnicity variables, interview completers were more likely to be Black (27% vs. 17%), whereas non-completers were more likely to be White (67% vs. 62%) and Other Race (14% vs. 10%) *(X^2 (3) = 11.89, $p < .008$)*. Completers were also older relative to non-completers (37.8 vs. 35.9) *($t(1225) = -2.46$, $p<.02$)*. In the area of employment, interview completers were more often in the Unemployed Other category (15% vs 8%) and a greater percentage of the non-completers were in the Unemployed Looking category (54% vs. 43%)*(X^2 (5) = 19.01, $p < .002$)*. The Unemployed Other category included participants who were unemployed due to disability or who were engaged in volunteer work. In the housing category, a greater percentage of completers reported being Housed (70% vs. 64%) and non-completers were more often living in a Shelter (13% vs. 9%) *(X^2 (3) = 8.89, $p<.03$)*. No significant differences were found between the groups on gender, ethnicity, or education level at enrollment into long-term recovery coaching.

Table 15
Demographic Characteristics at Enrollment
Texas RSS Participants Who Completed
3 Month Check-Up Interview vs.
Participants Who Did Not Complete
3 Month Check-Up Interview
(REC-ROC Data May 2014 - August 2015)

***Indicates Statistically Significant Difference

	Complete (N = 939)	Incomplete (N = 290)
Gender		
Male	55%	61%
Female	45%	39%
Age***	37.8	35.9
Race***		
Black	27%	17%
White	62%	67%
Multiracial	1%	1%
Other	10%	14%
Ethnicity		
Hispanic	31%	36%
Not Hispanic	69%	64%
Education		
Less Than High School	24%	27%
High School/GED	40%	39%
Some College	25%	24%
Associate's Degree	5%	3%
Bachelor's Degree or Higher	4%	4%
Votech	3%	3%
Employment***		
Employed Full Time	13%	12%
Employed Part Time	8%	8%
Unemployed Looking	43%	54%
Unemployed Not Looking	16%	17%
Unemployed Other	15%	8%
Other	4%	2%
Housing***		
Housed	70%	64%
Institution	17%	15%
Shelter	9%	13%
Street	5%	7%

Criminal Justice

Interview completers and non-completers were compared on incidence of past year arrest, drug related arrest, jail or prison time, legal supervision status, and type of legal supervision for those under supervision (see Table 16). Non-completers were more likely to have served jail or prison time relative to the completers (45% vs. 38%) *(X^2 (1) = 4.29, $p < .04$)*. No significant differences were found between the groups on any of the remaining criminal justice variables.

Table 16
Criminal Justice Characteristics at Enrollment
Texas RSS Participants Who Completed
3 Month Check-Up Interview
vs.
Participants Who Did Not Complete
3 Month Check-Up Interview
(REC-ROC Data May 2014 - August 2015)

***Indicates Statistically Significant Difference

	Complete (N = 939)	Incomplete (N = 290)
Criminal Justice		
Arrests		
Arrest Past Year	40%	45%
Arrest Was Drug Related	68%	72%
Jail/Prison Time Past Year***	38%	45%
Legal Supervision		
Under Legal Supervision	34%	30%
Type of Legal Supervision		
Parole	17%	15%
Probation	66%	64%
Other	18%	21%

Substance Use Disorder Treatment, Recovery Activities, and Substance Use

Results of comparative analyses of the 3-month interview completers and non-completers on substance use disorder treatment, past month recovery activities, and past month substance use are reported in Table 17. Significant group differences were found on Current Treatment Status at enrollment into long-term recovery coaching, with the non-completers more likely to be on a treatment waitlist (11% vs. 5%) and completers slightly more likely to be in Treatment (53% vs. 51%) or In Transition from Treatment (12% vs. 9%) *(X^2 (3) = 13.85, $p < .003$)*. No group differences were found in the number of previous substance use

disorder treatment episodes (Completers = 2.7; Non-Completers = 2.6). In the area of participant recovery activities during the month prior to enrollment, interview completers were significantly more likely to have Attended Self-Helps Group (76% vs. 69%) relative to the non-completers *(X^2 (1) = 5.50, $p < .02$)*. No group differences were found in the incidence of meeting with a sponsor, meeting with a recovery coach, or engaging in other self-help activities. Completers, however, had a higher number of meetings with their Recovery Coach compared to the non-completers *(t (1208) = -3.76, $p < .001$)*. Group comparisons on substance use during the month prior enrollment revealed no differences between interview completers and non-completers in the incidence of alcohol use, illegal drug use, prescription drug use not as directed, or the average days of past month substance use.

Table 17
SA Treatment, Recovery Activities & Substance Use at Enrollment
Texas RSS Participants Who Completed
3 Month Check-Up Interview vs.
Participants Who Did Not Complete
3 Month Check-Up Interview
(REC-ROC Data May 2014 - August 2015)

***Indicates Statistically Significant Difference

	Complete (N = 939)	Incomplete (N = 290)
Substance Use Disorder Treatment		
Current Treatment Status***		
On Wait List	5%	11%
In Treatment	53%	51%
In Transition From Treatment	12%	9%
Not Engaged in Treatment	29%	28%
Number of Previous Treatment Episodes	2.7	2.6
Recovery Activities Past 30 Days		
Attended Self-Help Group***	76%	69%
Met Sponsor	44%	42%
Met Recovery Coach	85%	85%
Other Self-Help	27%	26%
Substance Use Past 30 Days		
Alcohol Use	25%	27%
Illegal Drug Use	25%	28%
Prescription Drug Use Not As Directed	8%	12%
Days of Any Substance Use	7.1	8.5

Mental Health

In the area of mental health, 3-month interview completers and non-completers were compared on mental health symptoms, treatment, and recovery activities during the month prior to enrollment into long-term recovery coaching (see Table 18). No group differences were found in the incidence of symptoms of serious depression, anxiety, difficulty concentrating, and difficulty controlling violent behavior; however, interview non-completers reported significantly greater days of experiencing Anxiety (12.4 vs. 9.9 days) *(t (1200) = 3.04, p < .002)*. No significant group differences were found on variables measuring past month mental health treatment or recovery activities.

Table 18
Mental Health Characteristics at Enrollment
Texas RSS Participants Who Completed
3 Month Check-Up Interview vs.
Participants Who Did Not Complete
3 Month Check-Up Interview
(REC-ROC Data May 2014 - August 2015)

***Indicates Statistically Significant Difference

	Complete (N = 939)	Incomplete (N = 290)
Mental Health Symptoms Past 30 Days		
Serious Depression	47%	53%
Number of Days	6.9	8.0
Anxiety	63%	66%
Number of Days***	9.9	12.4
Difficulty Concentrating	44%	47%
Number of Days	7.5	8.9
Difficulty Controlling Violent Behavior	15%	13%
Number of Days	1.3	1.1
Mental Health Treatment Past 30 Days		
Taken Psychotropic Medication	37%	33%
Psychiatrist	26%	22%
Other Mental Health Provider	44%	36%
Recovery Activities Past 30 Days		
Met with Mental Health Peer Specialist	13%	11%
Attended Mental Health Support Group	11%	12%

Stage of Change and Assessment of Recovery Capital (ARC) Scores

Results of analyses comparing 3-month interview completers and non-completers on Stage of Change and ARC scores are reported in Table 19. Significant group differences were found on the interviewer ratings of participant Stage of Change at enrollment into long-term recovery coaching, with completers being more likely to be rated in the Contemplation stage (29% vs. 22%) and the non-completers more frequently rated to be in the Action stage (33% vs. 25%) *(X^2 (4) = 10.33, $p < .04$)*. Comparisons of ARC scale scores revealed significant group differences on four scales, with interview completers having higher scores on the Social Support (3.4 vs. 3.1) *(t (1185) = -2.97, $p < .003$)*, Housing and Safety (4.2 vs. 3.9) *(t (1184) = -2.38, $p < .02$)*, Risk Taking (3.6 vs. 3.4) *(t (1182) = -2.61, $p < .01$)*, and the Total ARC (39.3 vs. 37.7) *(t (1180) = -2.41, $p < .02$)* scales, with higher scores indicating greater recovery capital in the specific domain. No other group differences were found on the remaining ARC scale scores.

Table 19
Stage of Recovery and Assessment of Recovery Capital Scores at Enrollment
Texas RSS Participants Who Completed
3 Month Check-Up Interview vs.
Participants Who Did Not Complete
3 Month Check-Up Interview
(REC-ROC Data May 2014 - August 2015)

***Indicates Statistically Significant Difference	Complete (N = 939)	Incomplete (N = 290)
Stage of Recovery (Interviewer Rating)***		
Precontemplation	10%	8%
Contemplation	29%	22%
Preparation	30%	32%
Action	25%	33%
Maintenance/Relapse Prevention	6%	4%
Assessment of Recovery Capital Scores		
Substance Use and Sobriety	3.9	3.8
Global Psychological Health	4.0	3.8
Global Physical Health	3.9	3.8
Citizenship/Community Involvement	4.3	4.2
Social Support***	3.4	3.1
Meaningful Activities	3.7	3.6
Housing and Safety***	4.2	3.9
Risk Taking***	3.6	3.4
Coping and Life Functioning	3.7	3.6
Recovery Experience	4.6	4.5
Total ARC Score***	39.3	37.7

In summary, comparisons of 3-month check-up interview completers and non-completers revealed several differences between the two groups that may be related to early dropout from long-term recovery coaching. In the area of demographics at enrollment, non-completers were more often White or Other Race category, younger, unemployed but looking for work, and living in a shelter rather than being housed. In addition, non-completers were more likely to have served jail or prison time during the year prior to enrollment. These findings suggest that non-completers may have less stability in their life circumstances relative to completers, which may require additional recovery support services to address these life issues that may be impeding their ability to engage in long-term recovery coaching and the recovery process.

In addition, a greater percentage of the non-completers were on substance use disorder treatment waitlists, suggesting that they may have lost interest in addressing their substance use issues during the wait time span. This result indicates that participants who are on treatment waitlists may need extra recovery coaching services to sustain motivation to enter into the process of recovery. This potential need for more recovery coaching is further supported by the finding that, although the completer and non-completer groups had similar incidence of receiving recovery coaching in the month prior to enrollment, the completer group had a significantly greater number of contacts with their recovery coach. Further, a greater percentage of the completer group had attended a self-help group in the 30 days prior to enrollment, providing a greater amount of mutual support to sustain motivation to engage in recovery.

Surprisingly, a greater percentage of non-completers were rated by their interviewers as being in the Action Stage of Change at enrollment. It is possible that these participants were further along in their recovery compared to completers and consequently may not have felt the need for long-term recovery coaching, leading to early drop-out. Lastly, non-completers attained relatively lower scores on the ARC Social Support, Housing & Safety, Risk Taking, and the Total ARC scales, indicating lower recovery capital in these domains compared to completers. The level of recovery capital in these four domains may be important indicators of potential drop out, suggesting that recovery coaching may need more focus on development of social support resources, acquisition of safe living environments, and educational training on controlling risk taking behavior for those participants with lower recovery capital in these areas at enrollment into long-term recovery coaching.

Recovery Coaching Participant Outcomes

This final section of the report analyzes participant outcomes of those individuals who enrolled in long-term recovery coaching using data from the participant enrollment and the 3-, 6-, 9-, and 12-month check-up interviews. Participant outcomes are examined in the following domains: housing status; employment status and wages; abstinence or reduced substance use; improvement in recovery capital; and healthcare service utilization. These analyses use all available data at the four check-up points, with the exception of healthcare services where the data only include participants who were enrolled in long-term recovery coaching and who had completed all of the 3-, 6-, 9-, and 12-month check-up interviews.

Housing Status

Participants' housing status at enrollment and the four check-up points are reported in Figure 31. These data indicate an upward trend over time in the Housed category from enrollment (68%) to 12-month check-up (89%). Conversely, there are downward trends for the Institution (Enrollment = 16%; 12-Month = 3%), Shelter (Enrollment = 10%; 12-Month = 5%), and Street (Enrollment = 5%; 12-Month=3%) categories.

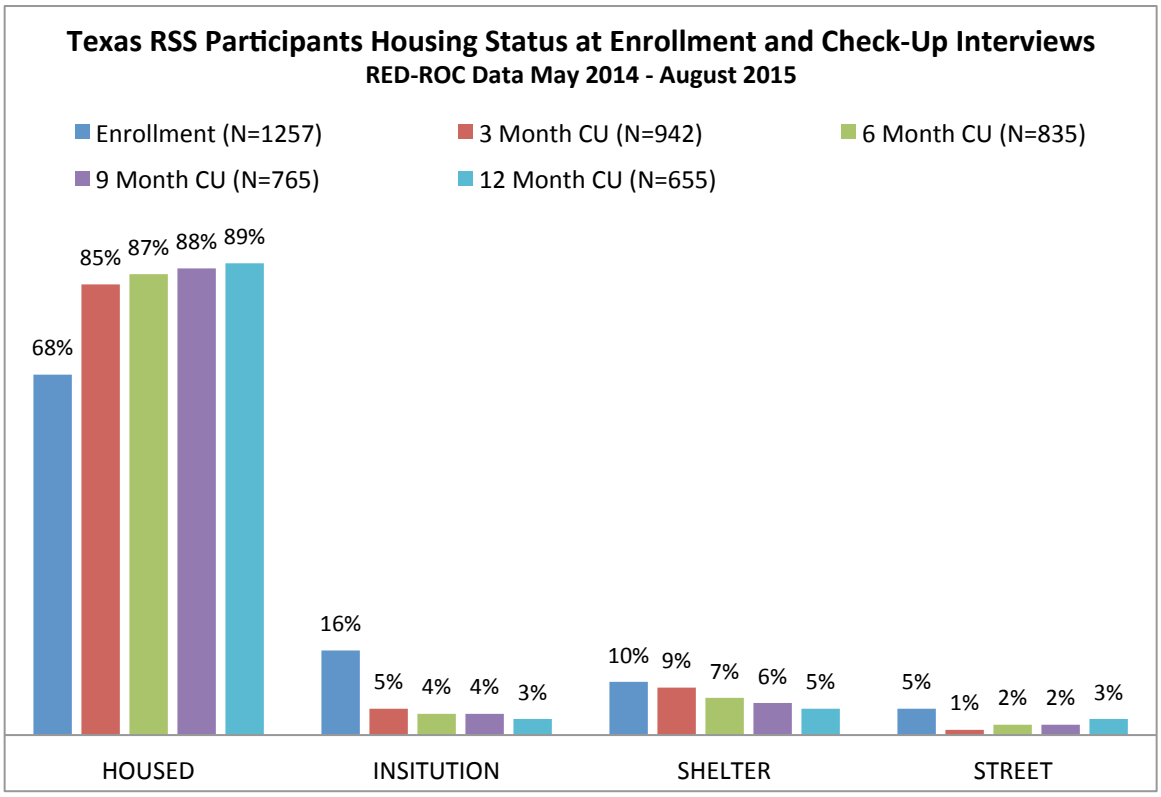

Figure 31

For those participants indicating that they are housed, the type of housing is reported in Figure 32. As can be seen in Figure 32, there was a steady increase in the percentage of participants who reported living in residences that they personally Own or Rent (Enrollment = 30%; 12-Month=55%), and a decrease in the percentage living in residences that were own by Someone Else (Enrollment=32%; 12-Month=25%). Relatively few participants reported living in a Half-Way House at enrollment (2%) and the percentage fell to 0% at 12-month check-up. An interesting pattern was seen in the Sober Living housing category over time. At enrollment, 16% of participants reported residing in a Sober Living setting and at 3-months the percentage increased to 21%, then decreased to 15%

at 12 months. This pattern may suggest that, during the first three months of recovery coaching, certain individuals may recognize that a Sober Living environment would be beneficial in supporting their recovery, and that over time they may move to another type of residence once they feel more stable in their recovery. Finally, there was a decrease in the percentage of participants housed in Residential Treatment with 14% reporting being in treatment at enrollment, and only 1% at the 12-month check-up.

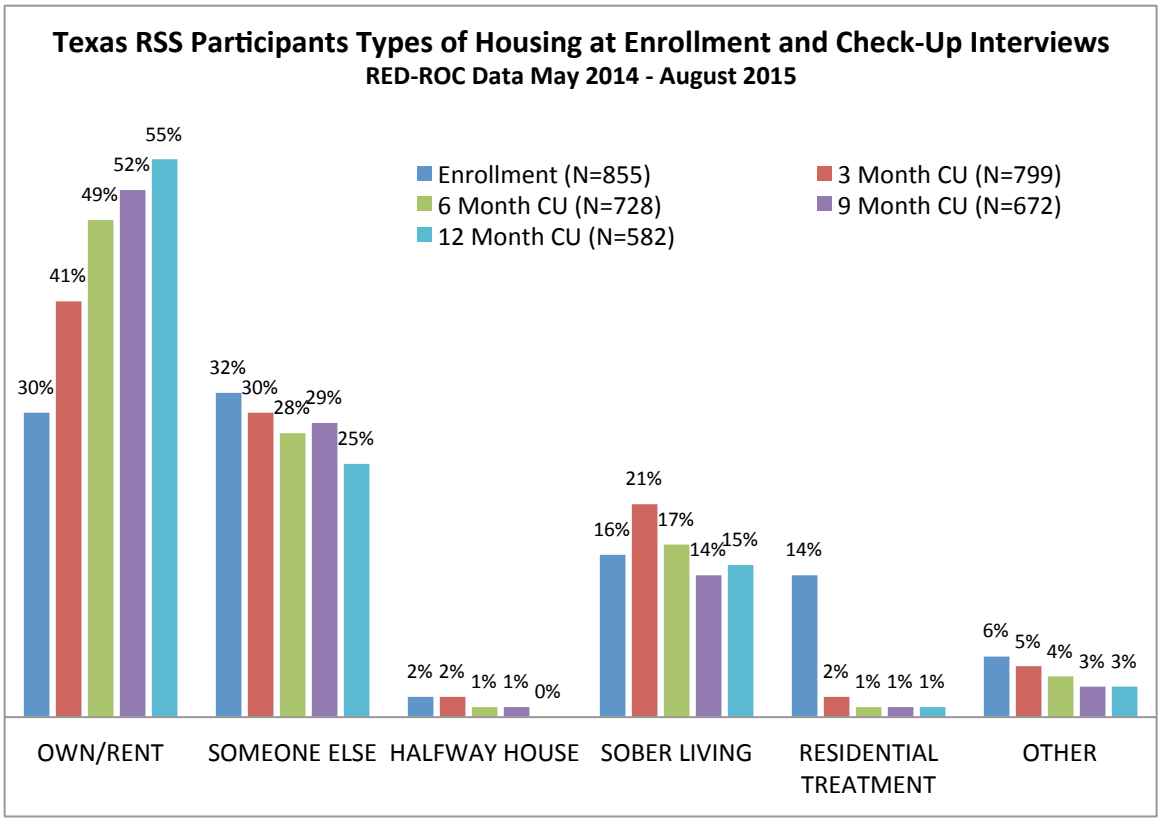

Figure 32

Employment

Participants' employment status at enrollment and check-up points is reported in Figure 33. The proportion of participants reporting Full-Time Employment increased over time (Enrollment=13%; 12-Month=42%), as well as Part-Time Employment (Enrollment=8%; 12-Month=14%). A large decrease in the Unemployed Looking category was seen, with 45% of participants reporting this employment status at enrollment, falling over all check-up points to 15% at 12-month checkup. Further, there was an increase in the Unemployed Other category rising from 14% at enrollment to 18% at 12 months. The Unemployed Other category includes individuals who are disabled or providing volunteer work, which may indicate that some participants have gained disability benefits and/or began providing volunteer services that may have included peer volunteer services in the RSS organizations.

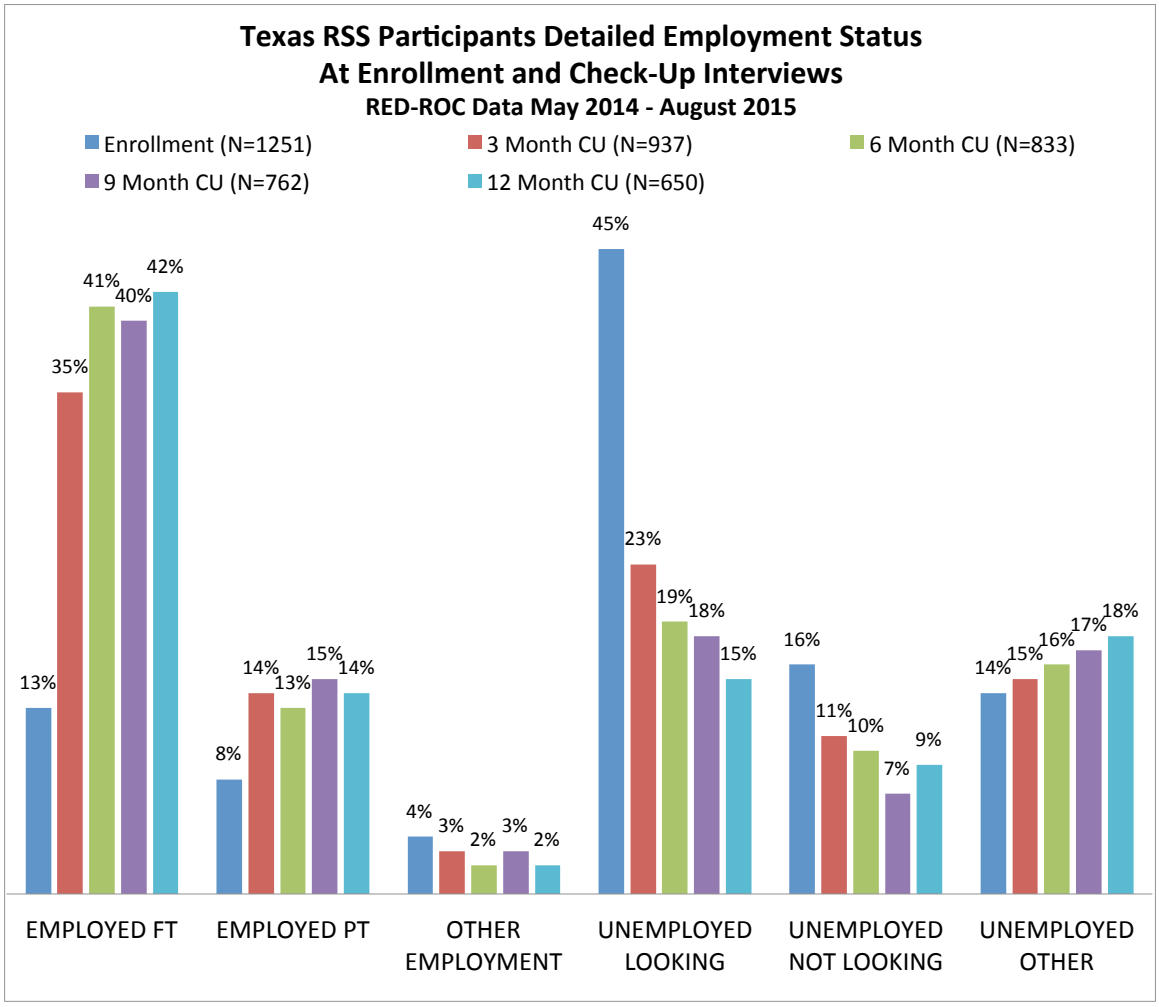

Figure 33

In Figure 34, all of the employment and unemployment types are summed to provide overall Employed and Unemployed categories. As can be seen in Figure 34, the percentages of participants who are Employed are higher at all check-up points relative to enrollment (Enrollment=25%; 12-Month=58%). Conversely, the proportion of participants who are Unemployed are lower compared to enrollment (Enrollment=75%; 12-Month=42%). These data indicate a general trend of increased employment over time for participants enrolled in long-term recovery coaching.

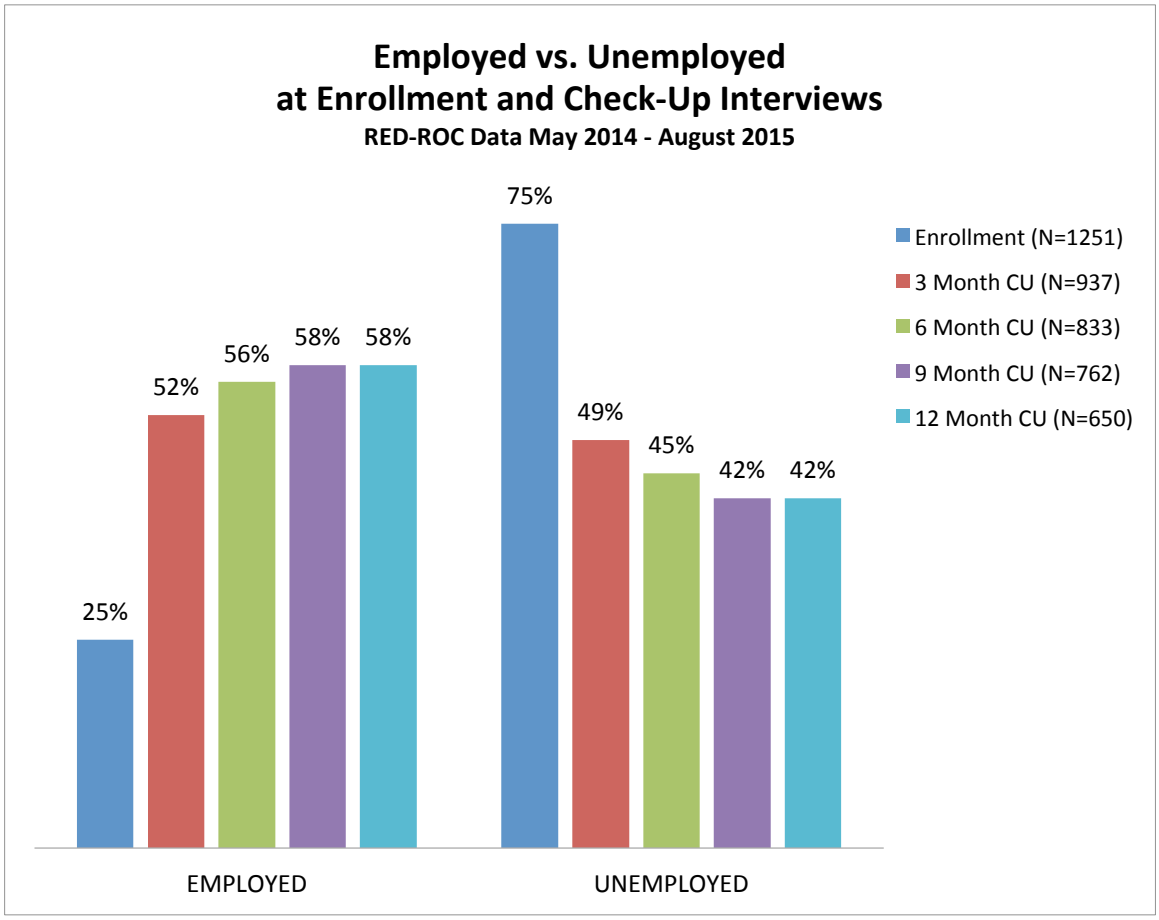

Figure 34

Wages

The average wages earned by employed participants during the month prior to the enrollment and check-up interviews are reported in Figure 35. Average monthly wages are higher at all check-up points relative to the enrollment interview (Enrollment=$285; 12 Month=$844).

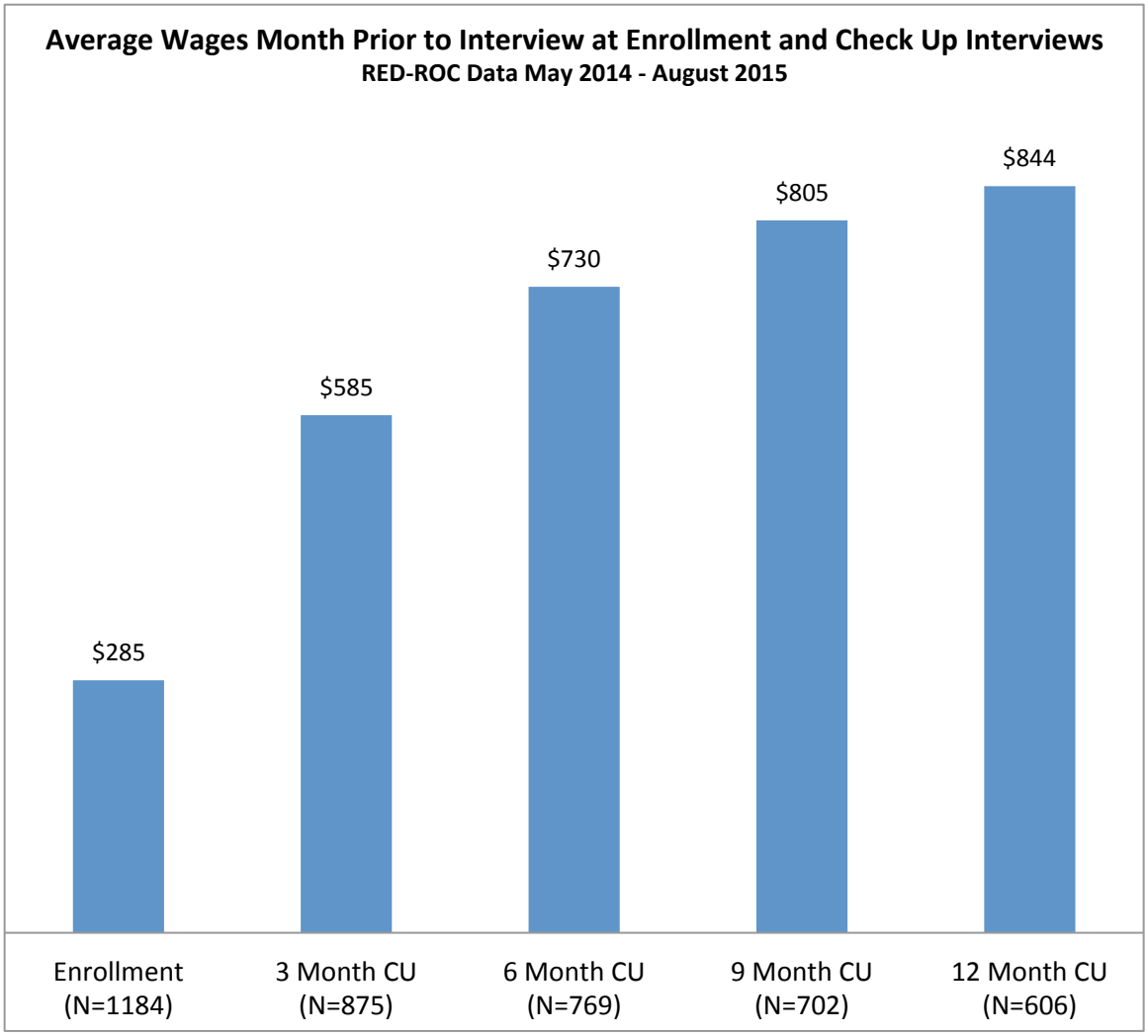

Figure 35

Past Month Substance Use

The percentages of participants who were either abstinent and/or reported reduced past month substance use at check-up interviews relative to past month use at enrollment are presented in Figure 36. The percentages of participants reporting abstinence and/or reduced use across all four check-up points ranged from 84% to 87%, indicating that a large proportion of the long-term recovery coaching participants demonstrated abstinence and/or reduced use over time.

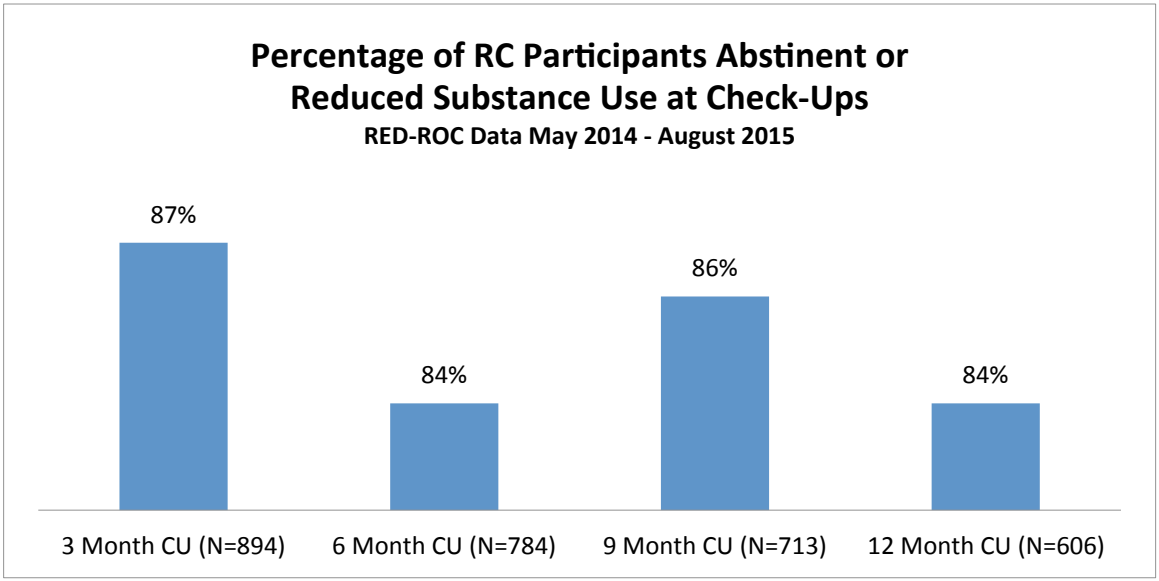

Figure 36

Assessment of Recovery Capital

Figure 37 displays the percentage of participants who had higher Assessment of Recovery Capital (ARC) Total scores at check-up interviews relative to their ARC Total score at enrollment. As can be seen in Figure 37, the proportion of participants with improved ARC scores steadily increased over all four of the check-up interview time points (3 Months = 67%; 12 Months = 73%), indicating greater levels of personal recovery capital were developed by participants enrolled in long-term recovery coaching.

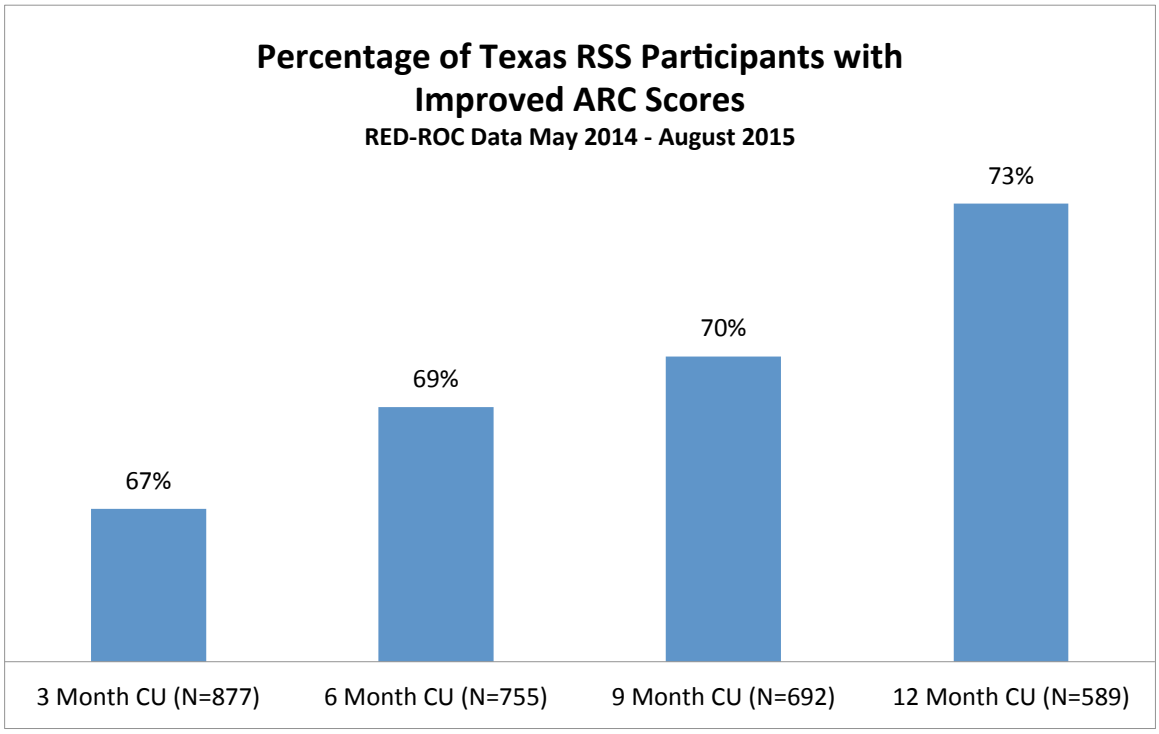

Figure 37

Healthcare Service Utilization

Recovery Coaching participants are asked to report their past month healthcare service utilization at enrollment and the four check-up interviews. Healthcare service categories include Outpatient, Inpatient, and Emergency Room services received for Physical Complaints, Mental Health Issues, and Alcohol or Drug Issues. In this section of outcome analyses, the data were selected only for participants enrolled in long-term recovery coaching and who had completed all of the 3-, 6-, 9-, and 12-month checkup interviews (648 participants). These selection criteria were chosen so that the same individuals' healthcare service utilization is compared at enrollment and four checkup interview points.

The healthcare service utilization analyses reported in this section also include estimated costs of these healthcare services. To estimate the costs of these healthcare events, data were derived from national and state reporting sources regarding the average cost of healthcare services in outpatient, inpatient, and emergency room settings. The following key resources were utilized in estimating rates for healthcare costs:

1. The Medical Expenditure Panel Survey (MEPS), which is an ongoing data collection and analysis function conducted by the U.S. Agency for Healthcare Research and Quality (AHRQ). MEPS collects data on the specific health services that Americans use, how frequently the services are used, the cost of these services, and how the service costs are paid.
2. The Healthcare Cost and Utilization Project (HCUP) is another healthcare database developed by a Federal-State-Industry partnership that is also sponsored by AHRQ. This database includes national information on longitudinal encounter-level healthcare data beginning in 1988.
3. Public Consulting Group (PCG) Analysis of the Texas Public Behavioral Health System. This report was based on a legislatively required study of the Texas Mental Health System.
4. The Texas Department of State Health Services (DSHS) established rates for Substance Use Disorder Treatment services in Fiscal Year 2014.

Data from these sources were combined to derive cost estimates related to healthcare services reported to have been accessed by long-term recovery coaching participants in the past month prior to enrollment and at each of the 3-,

6-, 9-, and 12-month check-up interviews. By estimating the costs of each healthcare event during each 30 day period, estimated costs can be compared over the year period.

The results of the healthcare service utilization analyses are reported in Table 20 and are graphically depicted in Figure 38. The estimated cost of healthcare services reported by participants during the month prior to enrollment was $2,718,442 across all service categories. At 3-month check-up interview, these same 648 participants reported service utilization rates with estimated costs of $866,069, resulting in an estimated reduction of healthcare costs of $1,852,373 from services received in the month prior to enrollment compared with services received in the month prior to 3-month check-up. Further reduction in healthcare service costs were evidenced at the at all of the following check-up points. In the month prior to the 6-month check-up, the 648 participants reported receiving services at an estimated cost of $763,736, which is a cost reduction of $102,333 compared to estimated healthcare services costs at 3-month check-up. Healthcare costs were further reduced at 9-month ($81,533) and 12-month ($28,691) check-ups. Comparison of estimated healthcare service costs at enrollment and the four check-up points over the year revealed an estimated $2,064,930 total reduction of healthcare costs which is a 76% reduction in total healthcare costs compared to prior month costs at enrollment. These results indicate that long-term recovery coaching participants demonstrated continued reduction of healthcare service utilization and costs across all four check-up points following enrollment.

These findings are comparable to the healthcare cost results reported in the RSS Project Fiscal Year 15 Interim Report, where 862 participants who had completed both the 3- and 6-month check-up interviews were analyzed using the same procedure. Analyses indicated that those 862 participants evidenced an estimated $3,434,877 reduction in healthcare costs compared to $4,242,507 at enrollment, which is an 80% reduction in healthcare costs over 6 months. Thus, the health care costs analyses from these two subsamples of participants suggest that estimated cost savings are likely to be the 75% – 80% range over time.

Table 20: Estimated Healthcare Cost Savings of Long-Term Recovery Coaching Participants
(RED-ROC Data May 2014 - August 2015)
N=648

		Enrollment		3-Months		6-Months		9-Months		12-Months	
Type of Care	Estimated Rate Per Visit or Day	Visits/Days Previous 30 Days	Cost	Visits/Days Previous 30 Days	Cost	Visits/Days Previous 30 Days	Cost	Visits/Days Previous 30 Days	Cost	Visits/Days Previous 30 Days	Cost
Outpatient											
Physical Complaint	653.14	206	$ 134,547	127	$ 82,949	154	$ 100,584	169	$ 110,381	137	$ 89,480
MH Issues	541.17	276	$ 149,363	157	$ 84,964	187	$ 101,199	151	$ 81,717	208	$ 112,563
S.U.D. Issues	58	1813	$ 105,154	703	$ 40,774	251	$ 14,558	151	$ 8,758	109	$ 6,322
Inpatient											
Physical Complaint	1900	140	$ 266,000	99	$ 188,100	155	$ 294,500	123	$ 233,700	77	$ 146,300
MH Issues	710	343	$ 243,530	121	$ 85,910	54	$ 38,340	81	$ 57,510	77	$ 54,670
S.U.D. Issues	325.5	4832	$ 1,572,816	668	$ 217,434	359	$ 116,855	280	$ 91,140	450	$ 146,475
ER Treatment											
Physical Complaint	996	134	$ 133,464	116	$ 115,536	68	$ 67,728	64	$ 63,744	63	$ 62,748
MH Issues	1135	36	$ 40,860	33	$ 37,455	15	$ 17,025	10	$ 11,350	15	$ 17,025
S.U.D. Issues	996	73	$ 72,708	13	$ 12,948	13	$ 12,948	24	$ 23,904	18	$ 17,928
Total Healthcare Cost			**$ 2,718,442**		**$ 866,069**		**$ 763,736**		**$ 682,203**		**$ 653,512**

76% Reduction in Health Care Costs between Enrollment and 12-Month Check Up

This table compares healthcare costs of persons at the time of enrollment in the program with their healthcare costs after 3, 6, 9 and 12 months.
This report only includes persons who enrolled in the program, participated for at least 12 months, and completed a checkup interview at 3, 6, 9 and 12 months.

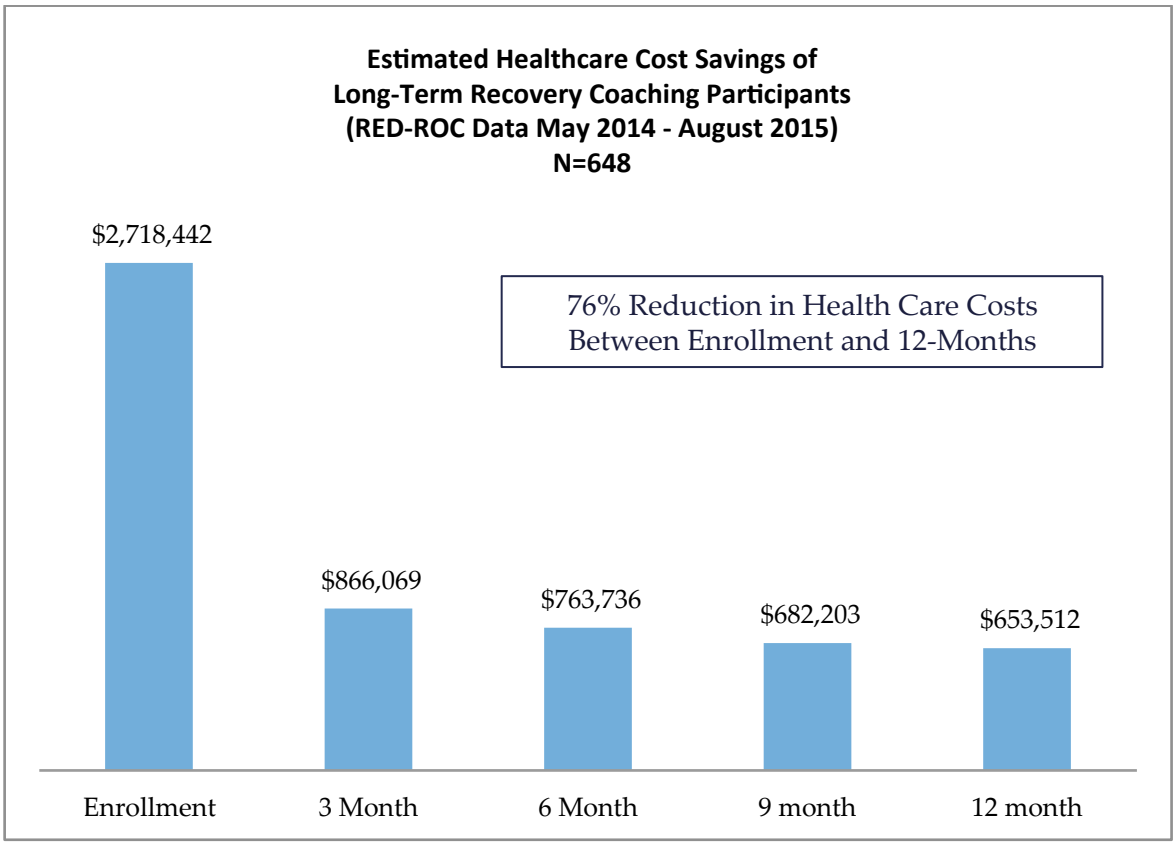

Figure 38

In summary, long-term recovery coaching participants demonstrated improvements at check-up points in housing status, with greater percentages of participants reporting being housed and living in residences that they either personally own or rent; increased employment rates and wages earned; increased rates of abstinence and/or reduced substance use; increased personal recovery capital; and decreased healthcare service utilization and estimated costs. These participant outcome results suggest that retention in long-term recovery coaching may be associated with improved health and wellness in multifaceted domains of life functioning.

V. Data Collection and Management

Study data is collected and managed using REDCap (Research Electronic Data Capture). REDCap[10] is a secure, web application designed to support data capture for research studies, providing user-friendly web-based case report forms, real-time data entry validation (e.g. for data types and range checks), audit trails and a de-identified data export mechanism to common statistical packages (SPSS, SAS, Stata, R/S-Plus). REDCap also provides a powerful tool for building and managing online surveys. The research team can create and design surveys in a web browser and engage potential respondents using a variety of notification methods. The system was developed by a multi-institutional consortium which includes University of Texas at Austin and was initiated at Vanderbilt University. The database is hosted at the Population Research Center, which will be used as a central location for data processing and management. The PRC server has been cleared for Category-I data collection by UT's Information Security Office. Network transmissions (data entry, survey submission, web browsing, etc.) in REDCap are protected via Secure Sockets Layer (SSL) encryption. REDCap data collection projects rely on a thorough study-specific data dictionary defined in an iterative self-documenting process by all members of the research team with planning assistance from the PRC. The iterative development and testing process results in a well-planned data collection strategy for individual studies. REDCap provides a secure, web-based application that is flexible enough to be used for a variety of types of research, provide an intuitive interface for users to enter data and have real time validation rules at the time of entry.

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ARC Scale:

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VII. Endnotes

[1] (White 2007)

[2] (McLellan, et al. 2000)

[3] (Kaplan 2008)

[4] (Prochaska and DiClemente 1983)

[5] (Bandura 1997)

[6] Recovery capital refers to the extent of internal, social, and external resources that are accessible to the person in recovery. (Laudet and White 2008)

[7] (Cloud and Granfield 2001)

[8] (Kaplan 2008)

[9] http://www.utexas.edu/ssw/dl/files/cswr/institutes/ari/pdf/Houston-ROSC-Phase-I.pdf

[10] (Harris, et al 2008)