NM-SBIRT

2018 Final Report to BHSD

SCHOOL
OF MEDICINE
DEPARTMENT OF PSYCHIATRY
& BEHAVIORAL SCIENCES

NM-SBIRT 2018

The New Mexico Behavioral Health Services Division, in partnership with Sangre de Cristo Community Health Partnership, the LifeLink, and the University of New Mexico's Division of Community Behavioral Health, implemented NM-SBIRT from 2013 to 2018 in an initiative to expand and enhance the state's continuum of care to include universal adult SBIRT services in primary care and community health settings and support clinically appropriate services for adults 18 or over at risk for, or diagnosed with, an SUD.

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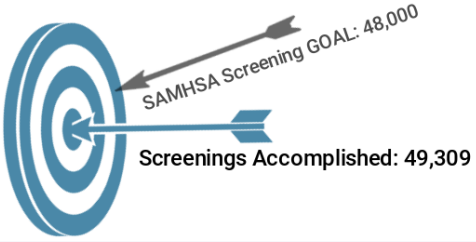
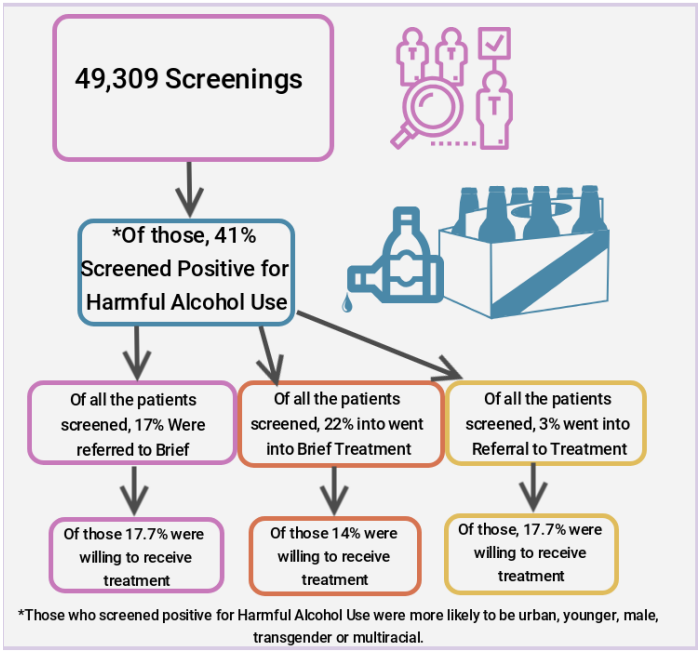
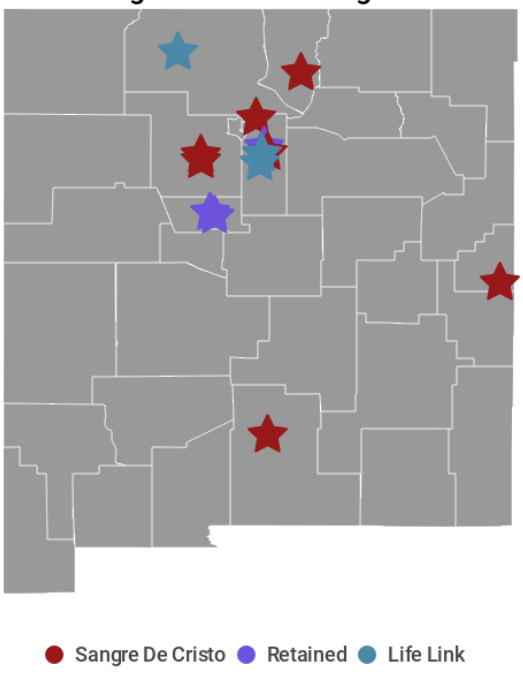
Number of Patients Screened



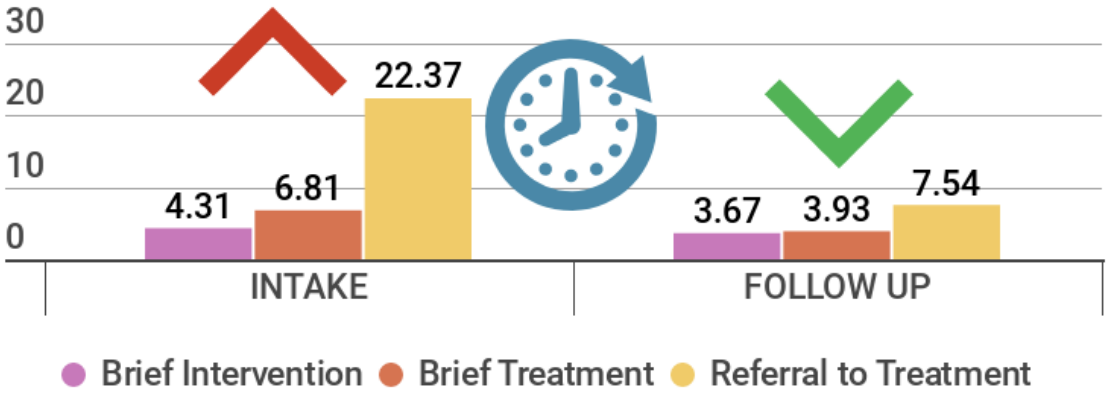


Screening Locations Throughout NM

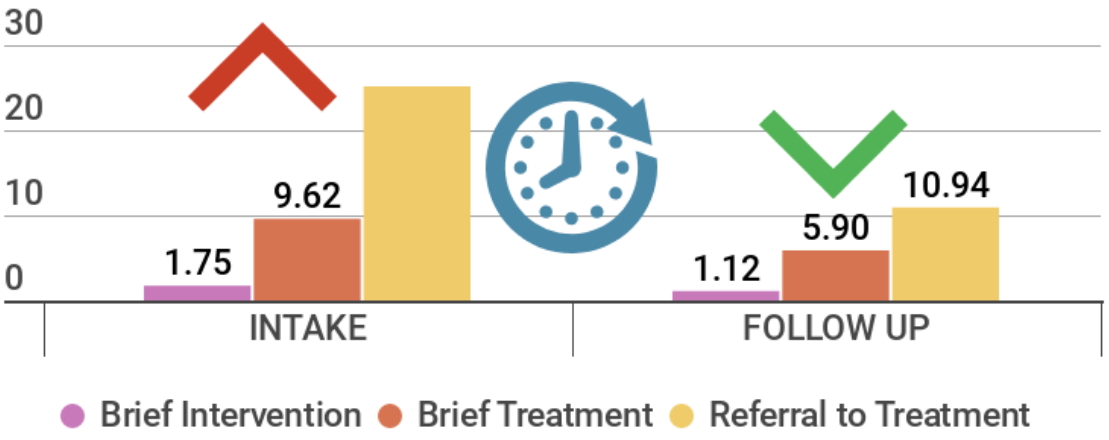


Drug and Alcohol Use Before and After Treatment

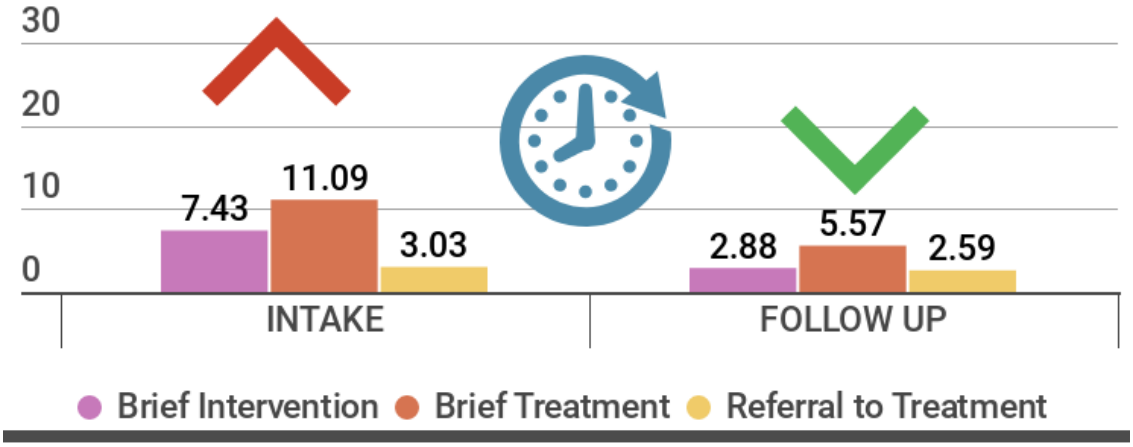
Average Days Out of the Past 30 Patients Used Alcohol



Average Days Out of the Past 30 Patients Used Alcohol to Intoxication

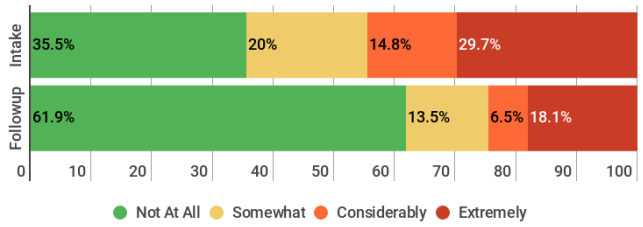


Average Days Out of the Past 30 that Patients Used Illicit Drugs

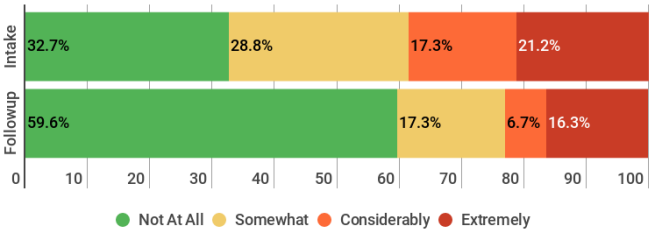


Mental and Overall Health Outcomes

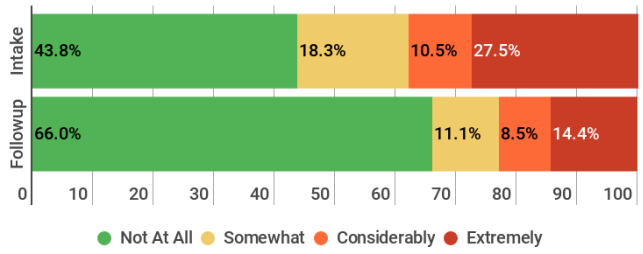
Answer to "During the past 30 days, has your use of alcohol and other drugs caused you to have emotional problems ("Impact Emotional")?" for Brief Treatment Group



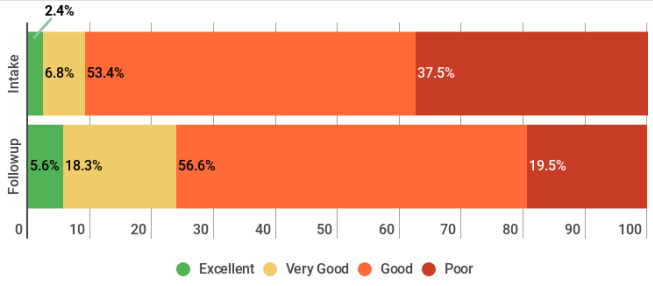
Answer to "During the past 30 days, how stressful have things been for you because of your use of alcohol or other drugs (impact stress)?" for Brief Treatment Group



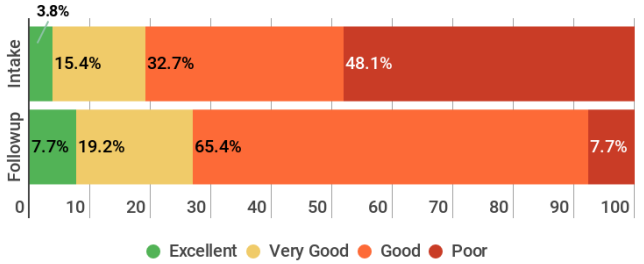
Answer to "During the past 30 days, has your use of alcohol or other drugs caused you to reduce or give up important activities? (impact activity)?" for Brief Treatment Group



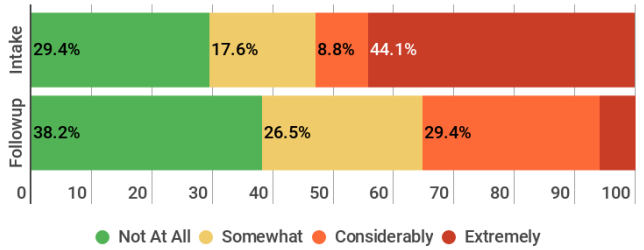
Change in Overall Health Status Brief Treatment Group



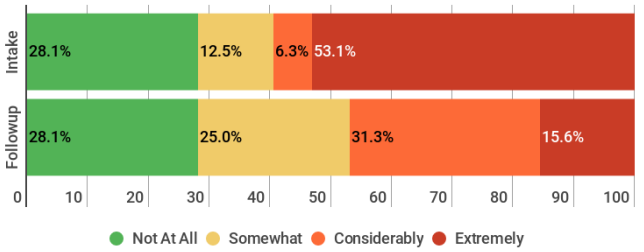
Change in Overall Health for Referral to Treatment Group



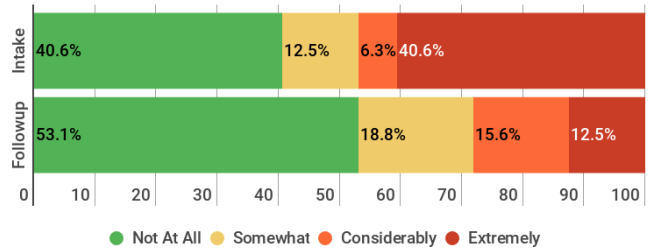
Answer to "During the past 30 days, has your use of alcohol and other drugs caused you to have emotional problems ("Impact Emotional")?" for Referral to Treatment Group



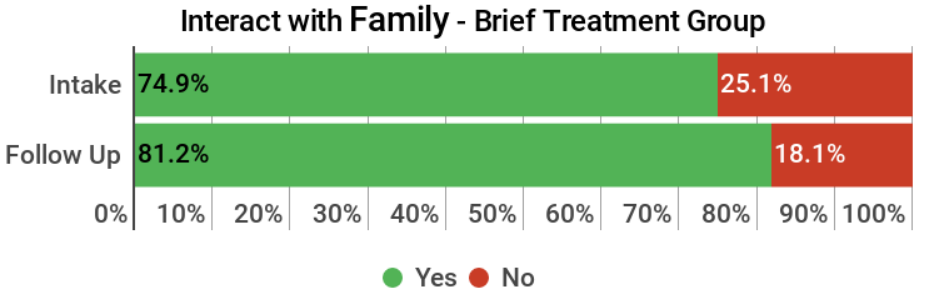
Answer to "During the past 30 days, how stressful have things been for you because of your use of alcohol or other drugs (impact stress)?" for Referral to Treatment Group

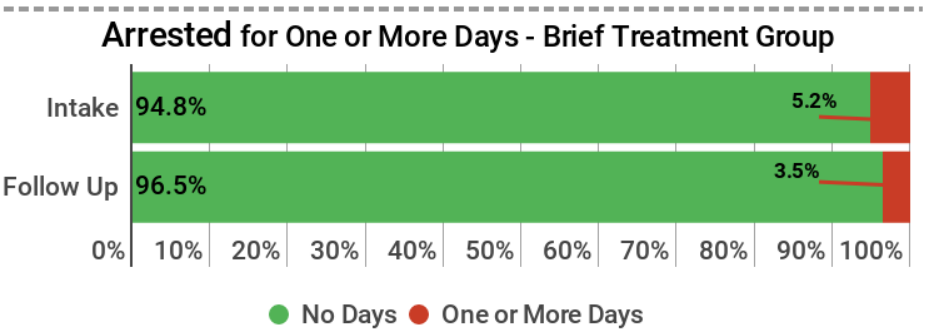


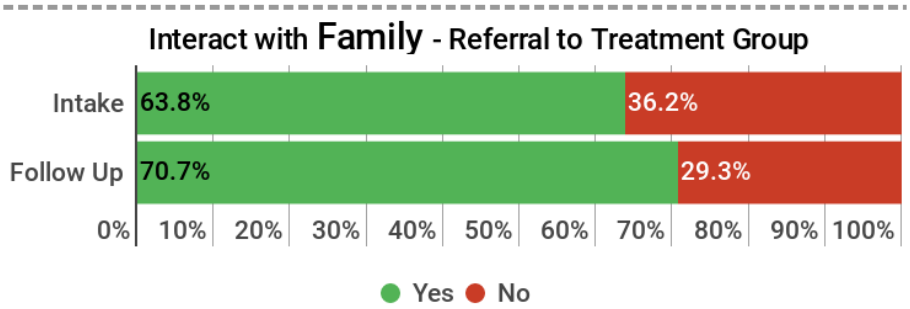
Answer to "During the past 30 days, has your use of alcohol or other drugs caused you to reduce or give up important activities? (impact activity)?" for Referral to Treatment Group

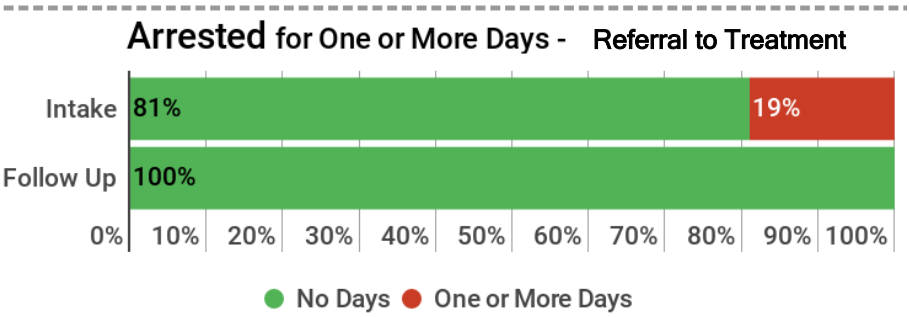


Social Connectivity









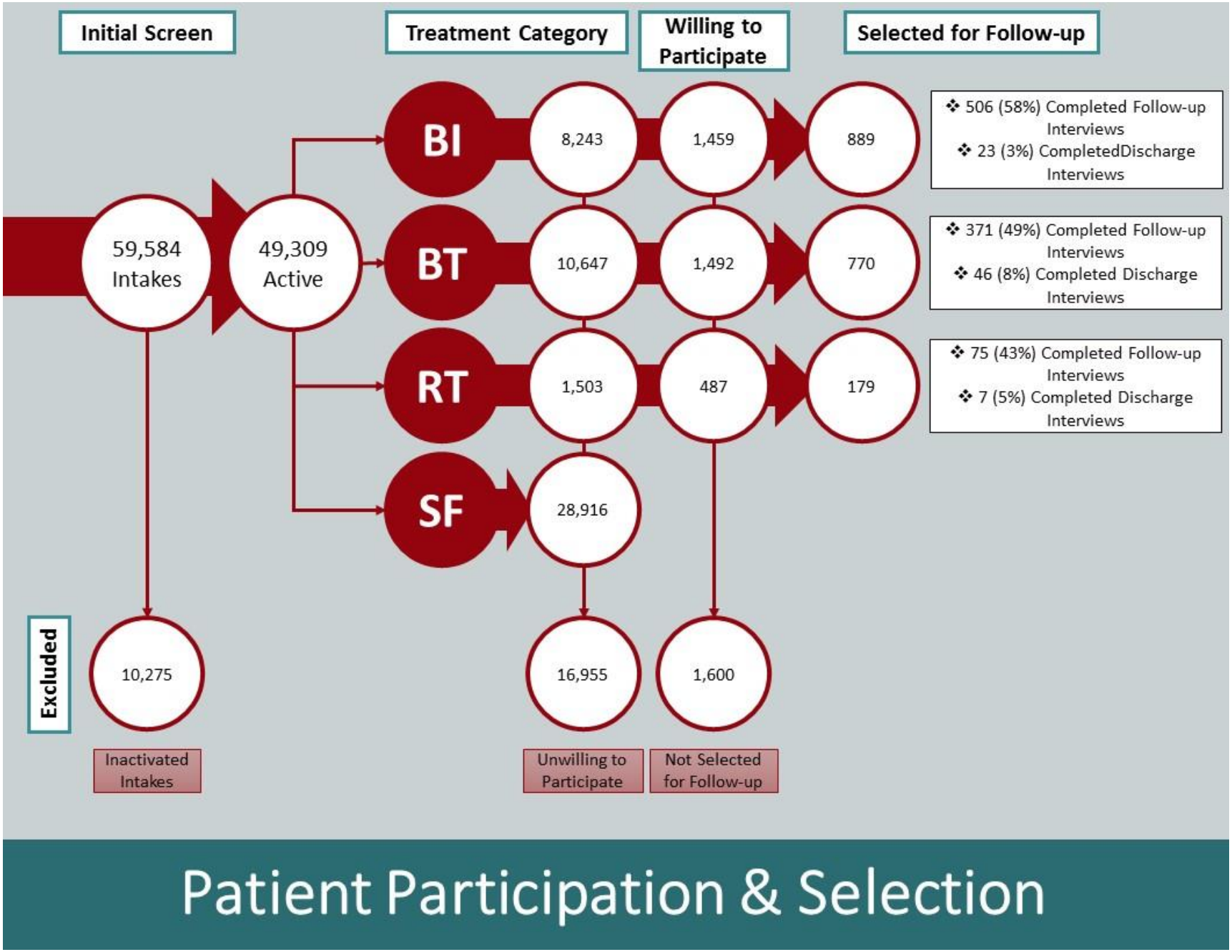
For an interactive version of this infographic, please visit Infogram at
https://infogram.com/1p77ejz9dk2995hznjj21y3n2esnkdm5ek5?live

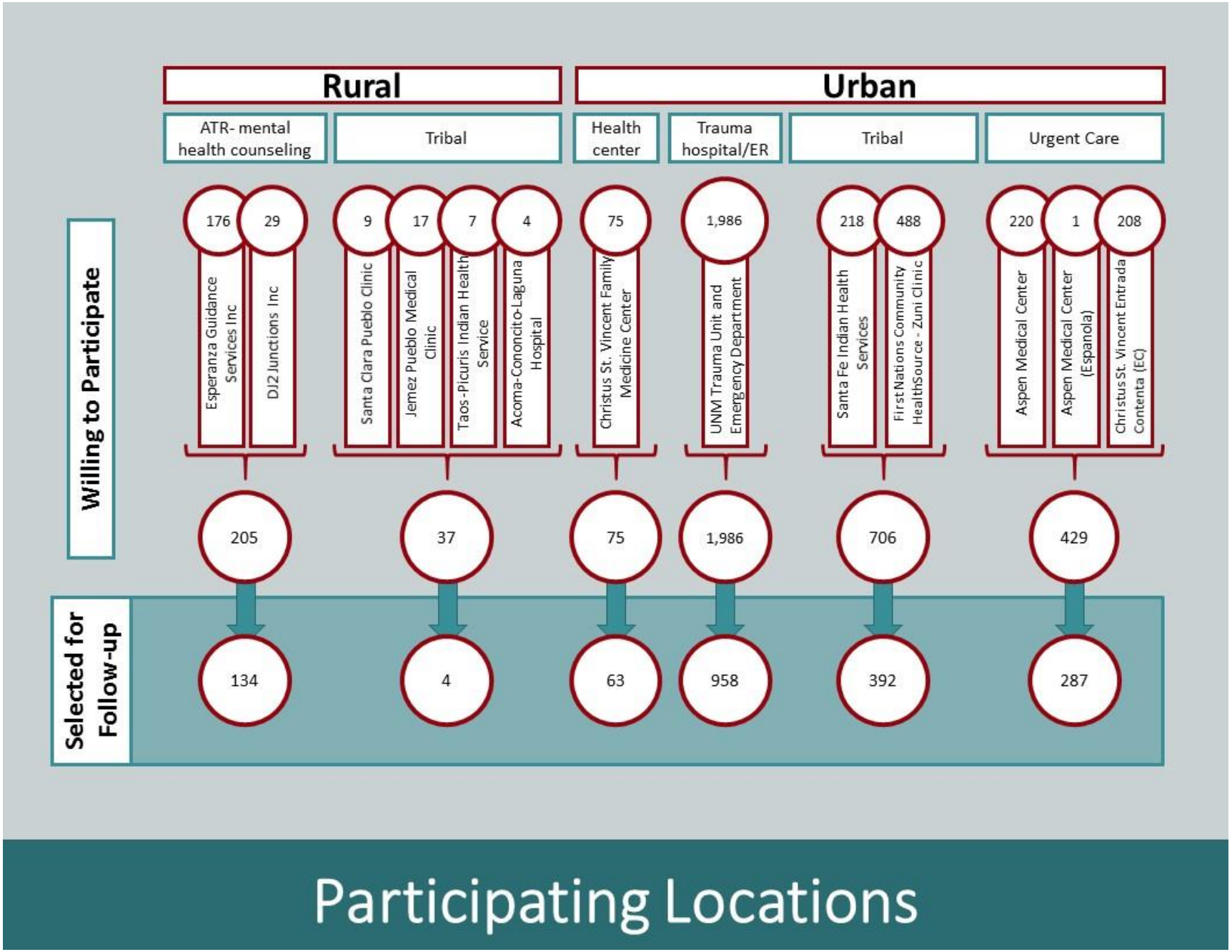
Contents

Project Overview

The New Mexico (NM) Behavioral Health Services Division, through the joint efforts of Sangre de Cristo Community Health Partnership (SDCCHP; the entity which implemented the SAMHSA funded SBIRT program in NM from 2004-2008), the Life Link, and the University of New Mexico's Division of Community Behavioral Health, implemented NM Screening, Brief Intervention, and Referral to Treatment (NM-SBIRT) from 2013 to 2018. The aims of NM-SBIRT were to expand and enhance the state and tribal continuum of care for substance misuse services and reduce alcohol and drug consumption and its negative health impact; increase abstinence; reduce costly health care utilization; and promote sustainability of SBIRT services through the use of health information technology and policy change. NM-SBIRT was designed to expand and enhance the state's continuum of care to include universal adult SBIRT services in primary care and community health settings and support clinically appropriate services for adults 18 or over at risk for, or diagnosed with, a substance use disorder. Funded by the Substance Abuse and Mental Health Services Administration, and consistent with the Office of National Drug Control Policy's National Drug Control Strategy, NM-SBIRT promoted behavioral health and primary care integration through early screening and brief interventions; increased health care providers' knowledge and use of SBIRT; and identified reimbursement strategies to ensure sustainability after the grant's completion. NM-SBIRT transformed NM's ability to provide quality, evidence-based, and trauma-informed services. It incorporated the specific cultural needs of the state's ethnically and geographically diverse communities in its provision of clinical services.

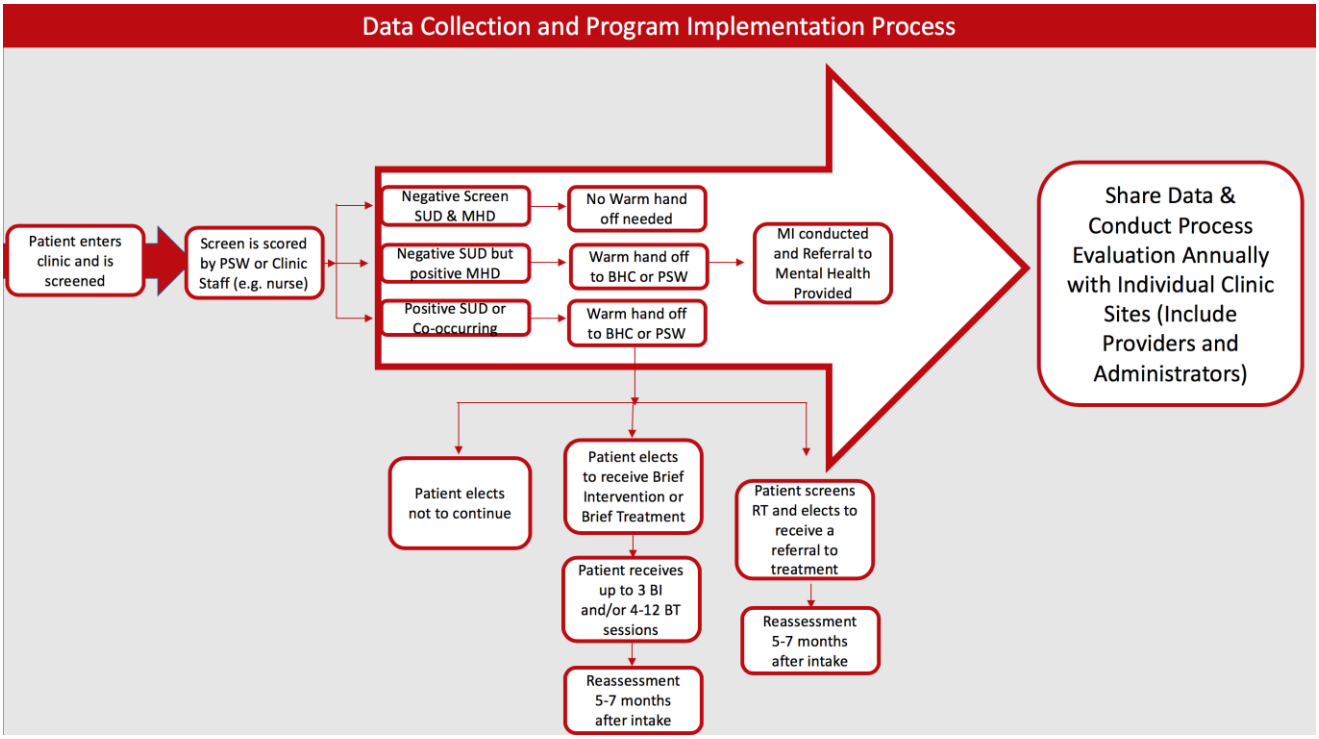
In April 2015, SDCCHP activities were transitioned to Life Link. At that time, four of the original screening sites were retained, and two new sites were added. The protocol throughout the life of the project remained the same: All patients entering screening sites completed the Healthy Lifestyle Questionnaire, which was scored by clinic staff. Results of the screen were categorized as either positive or negative for substance use disorder (SUD) and/or positive for co-occurring SUD and mental disorders. Patients with positive screens were categorized into one of three treatment need levels: Brief Intervention (BI), Brief Treatment (BT), or Referral to Treatment (RT). Of those screened, 17% received scores that indicate a brief intervention compared to 15% at the National level and 22% received scores that indicate brief treatment compared to 3% at the National level. Those that screened positive were asked if they were willing to participate in the treatment program. All patients completed at least part of a baseline interview. A randomly selected sample of those also completed follow-up interviews at 6-months and at treatment discharge to track longitudinal outcomes. A flowchart of the patients who were screened by participating clinics is displayed on pages 7-8. It should be noted that those categorized as RT were the most likely to be willing to participate (32%), followed by BI (18%) and BT (14%). When contacted for a follow-up interview, those categorized as BI were most likely to respond (58%), followed by BT (49%) and RT (43%) patients. The goal of NM-SBIRT was to provide a universal screen to 48,000 patients, which was exceeded by 1,309 by the end of the project. This report describes both the patient population at baseline and the longitudinal changes in outcomes among those selected for follow-up.


Initial Screen
Treatment Category
Willing to Participate
Selected for Follow-up
59,584 Intakes
49,309 Active
BI
8,243
1,459
889
❖ 506 (58%) Completed Follow-up Interviews
❖ 23 (3%) CompletedDischarge Interviews
BT
10,647
1,492
770
❖ 371 (49%) Completed Follow-up Interviews
❖ 46 (8%) Completed Discharge Interviews
RT
1,503
487
179
❖ 75 (43%) Completed Follow-up Interviews
❖ 7 (5%) Completed Discharge Interviews
SF
28,916
Excluded
10,275
16,955
1,600
Inactivated Intakes
Unwilling to Participate
Not Selected for Follow-up
Patient Participation & Selection


Rural
Urban
ATR- mental health counseling
Tribal
Health center
Trauma hospital/ER
Tribal
Urgent Care
Willing to Participate
176
29
9
17
7
4
75
1,986
218
488
220
1
208
Esperanza Guidance Services Inc
DJ2 Junctions Inc
Santa Clara Pueblo Clinic
Jemez Pueblo Medical Clinic
Taos-Picuris Indian Health Service
Acoma-Cononcito-Laguna Hospital
Christus St. Vincent Family Medicine Center
UNM Trauma Unit and Emergency Department
Santa Fe Indian Health Services
First Nations Community HealthSource - Zuni Clinic
Aspen Medical Center
Aspen Medical Center (Espanola)
Christus St. Vincent Entrada Contenta (EC)
205
37
75
1,986
706
429
Selected for Follow-up
134
4
63
958
392
287
Participating Locations

Implementation & Evaluation

SBIRT has been implemented differently depending on each site and each state. Some of the unique features of New Mexico SBIRT implementation included: 1) Universal screen was 13-questions long, instead of 3, and it was based on the following assessment tools: a) Audit, b) Drug Abuse Screening Test (DAST), c) Primary Care PTSD Screen (PC-PTSD), and d) Generalized Anxiety Disorder (GAD) scale, 2) The use of a Certified Peer Support Workers alongside a Behavioral Health Counselor, 3) PSWs and BHC were NMSBIRT staff not clinic staff, 4) Training and capacity building provided to both PSW and BHC on Motivational Interviewing, IMPACT, Seeking Safety, and CRA 5) Provided up to 3 MI sessions for anyone that screened SBIRT positive 6) Provided up to 12 therapy sessions for anyone who screened BT, and 7) Training and administrative support was provided to partnering clinic staff (medical providers, medical assistants, front desk staff, etc.).



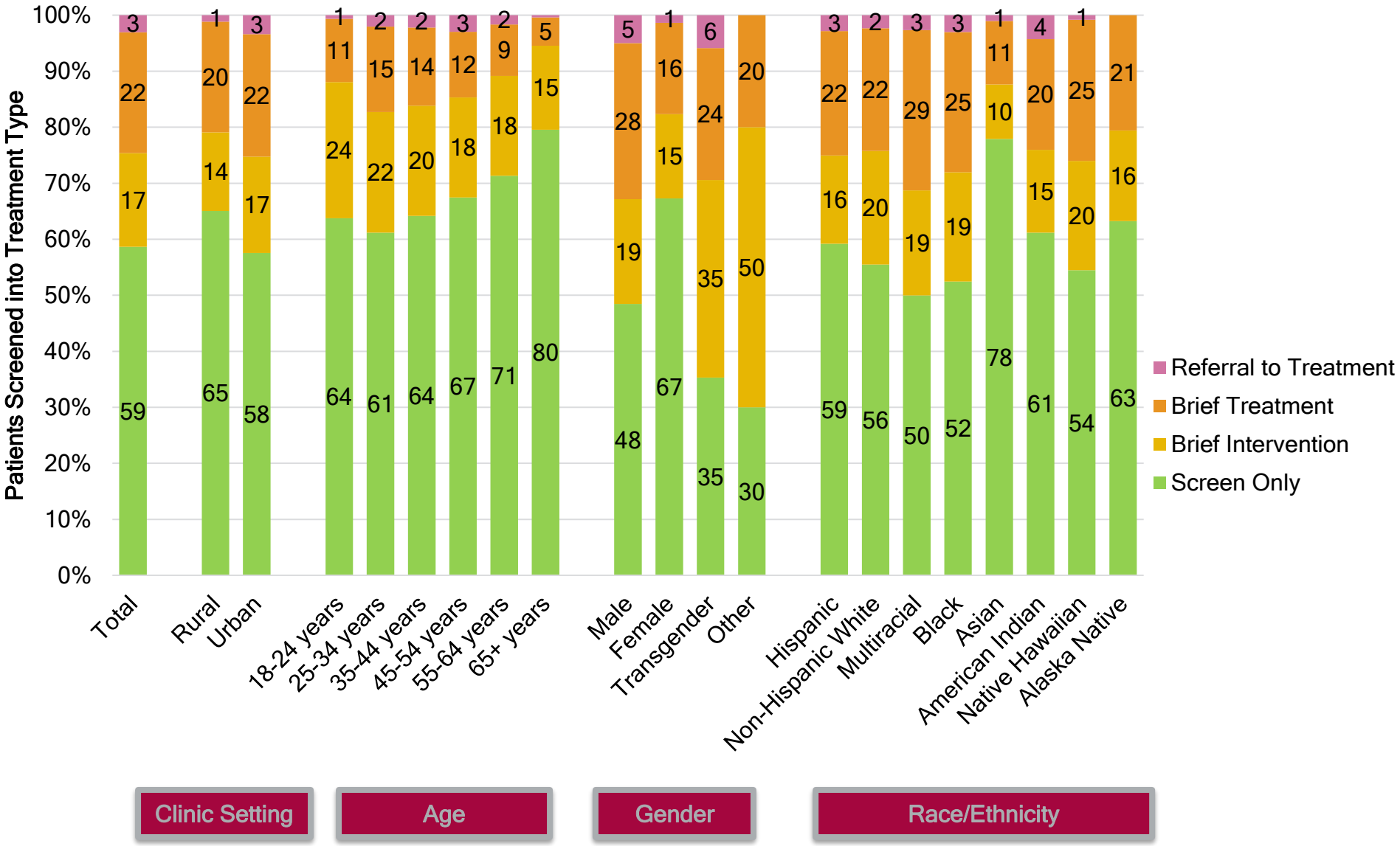
Screening Results by Demographics

There were 49,309 patients screened for SUD at thirteen clinical locations during the NM-SBIRT project. There were 10,275 screens excluded because they were not unique by patient, screen result, and screening location. On average, 41.4% of patients screened positive for SUD. In primary care settings, 5-20% of patients screen positive for some level fo substance misuse, abuse, or dependency (Reference: SAMHSA, 2011). Those more likely to screen positive (i.e. more likely to have symptoms of SUD) were those screened at urban sites, younger patients, male and transgender patients, and patients who identified as White, Multiracial, Black, or Native Hawaiian. American Indian patients were less likely to screen positive for SUD, but more likely to be categorized as RT if positive, as were patients between the ages of 45 and 54 years. The average Alcohol Use Disorders Identification Test (AUDIT) score was 2.09 for BI patients, 4.61 for BT patients, and 11.46 for RT patients. While these scores would place the individuals screened only in the Low to Medium Risk range based on AUDIT scores alone, it should be noted that this was only one measure of SUD. Many of the patients had multiple factors contributing to the impact of SUD on their level of function.

Table 1. Proportion of individuals screened into treatment classes, by demographic.

Demographic	BI (n,%)	BT (n,%)	RT (n,%)	SF (n,%)	N
Total	8,243 (16.7%)	10,647 (21.6%)	1,503 (3.1%)	28,916 (58.6%)	49,309
Clinic Location					
Rural	1,007 (14.0%)	1,417 (19.8%)	83 (1.2%)	4,668 (65.1%)	7,175
Urban	7,235 (17.2%)	9,226 (21.9%)	1,420 (3.4%)	24,245 (57.6%)	42,126
Age Group					
18-24 years	1,205 (24.3%)	558 (11.3%)	33 (0.7%)	3,158 (63.8%)	4,954
25-34 years	1,890 (21.5%)	1,341 (15.3%)	179 (2.0%)	5,375 (61.2%)	8,785
35-44 years	1,522 (19.7%)	1,079 (14.0%)	169 (2.2%)	4,959 (64.2%)	7,729
45-54 years	1,379 (17.9%)	907 (11.8%)	228 (3.0%)	5,206 (67.4%)	7,720
55-64 years	1,324 (17.8%)	681 (9.2%)	124 (1.7%)	5,297 (71.3%)	7,426
65+ years	918 (15.0%)	311 (5.1%)	23 (0.4%)	4,870 (79.6%)	6,122
Gender					
Male	4,221 (18.7%)	6,269 (27.8%)	1,124 (5.0%)	10,907 (48.4%)	22,521
Female	3,903 (15.1%)	4,221 (16.3%)	352 (1.4%)	17,421 (67.3%)	25,897
Transgender	6 (35.3%)	4 (23.5%)	1 (5.9%)	6 (35.3%)	17
Other	5 (50.0%)	2 (20.0%)	0 (0.0%)	3 (30.0%)	10
Race and Ethnicity					
Hispanic	3,581 (15.8%)	5,032 (22.2%)	647 (2.9%)	13,428 (59.2%)	22,688
Non-Hispanic White	2,420 (20.3%)	2,616 (21.9%)	281 (2.4%)	6,630 (55.5%)	11,947
Multiracial	168 (18.8%)	256 (28.6%)	24 (2.7%)	447 (49.9%)	895
Black	193 (19.5%)	248 (25.0%)	30 (3.0%)	520 (52.5%)	991
Asian	37 (9.7%)	43 (11.3%)	4 (1.1%)	296 (77.9%)	380
American Indian	1,739 (14.8%)	2,321 (19.7%)	504 (4.3%)	7,197 (61.2%)	11,761
Native Hawaiian	24 (19.5%)	31 (25.2%)	1 (0.8%)	67 (54.5%)	123
Alaska Native	11 (16.2%)	14 (20.6%)	0 (0.0%)	43 (63.2%)	68

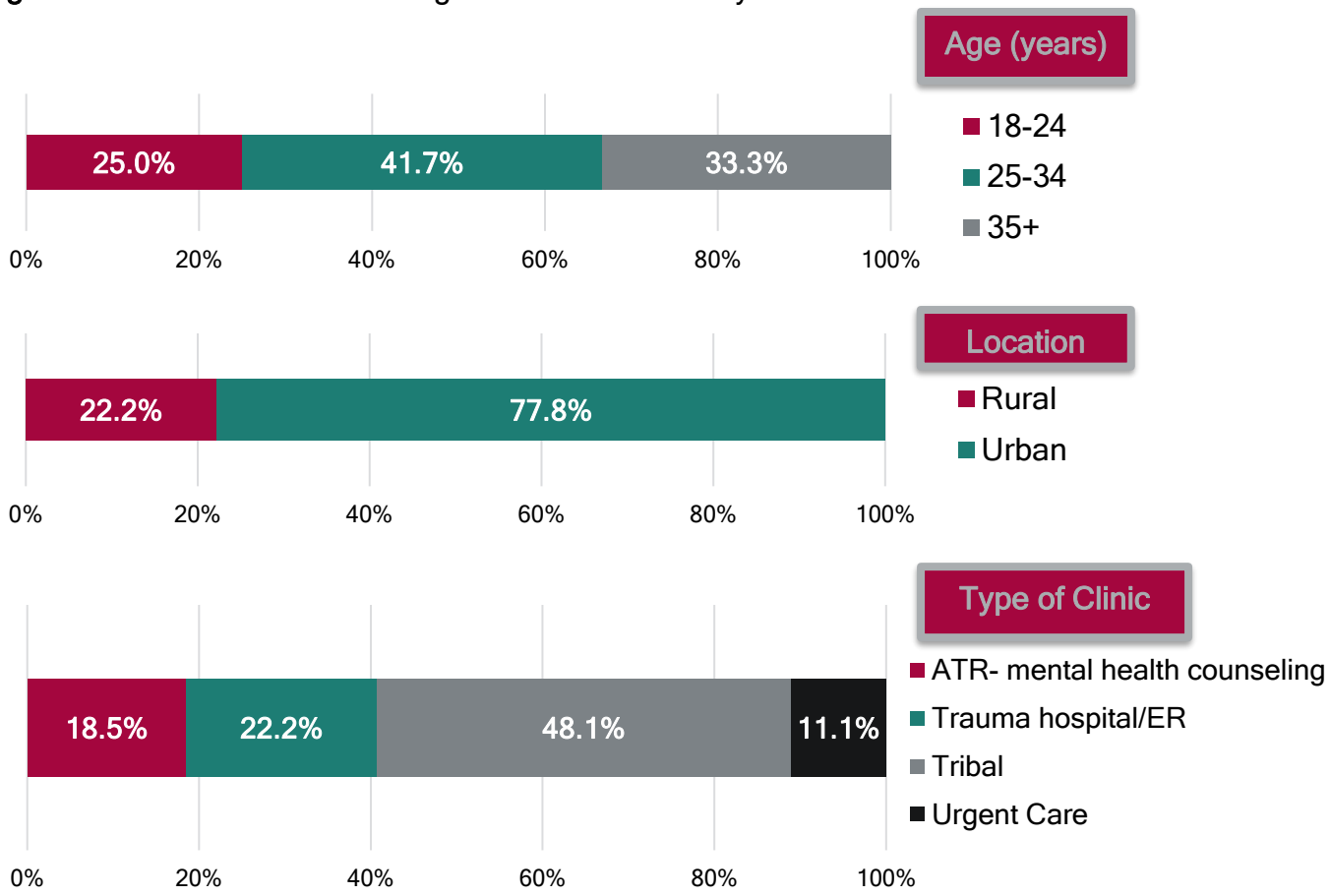
Figure 1. Proportion of individuals screened into treatment classes, by demographic.



Transgender and Non-Binary Patients

There were 27 patients who self-identified as transgender or non-binary who were screened for SUD over five years. Most were under the age of 35 years and screened in an urban setting. Half were screened in a tribal clinic or hospital, 19% were screened at an ATR clinic for mental health counseling, and the rest were screened at a trauma hospital, ER, or urgent care.

Figure 2. Characteristics of transgender and non-binary individuals screened for SUD.



Willingness to Receive Treatment

If screening results were positive for harmful substance use, patients were asked if they were willing to receive treatment at the level specified by their score. NM is the only state in this cohort of SAMHSA grantees to ask patients if they were willing to participate in a treatment program. This was unique to NM since warm handoffs were provided to Certified Peer Support Workers and/or Behavioral Health Counselors on site. On average, 17% of patients were willing to receive treatment. RT patients were almost twice as likely to indicate willingness to receive treatment (32%) compared to BI patients, particularly in urban clinical settings (34%). Patients screened in rural clinical settings were generally less willing to receive treatment (10%).

Table 3. Patients willing to participate, by treatment class and demographics.

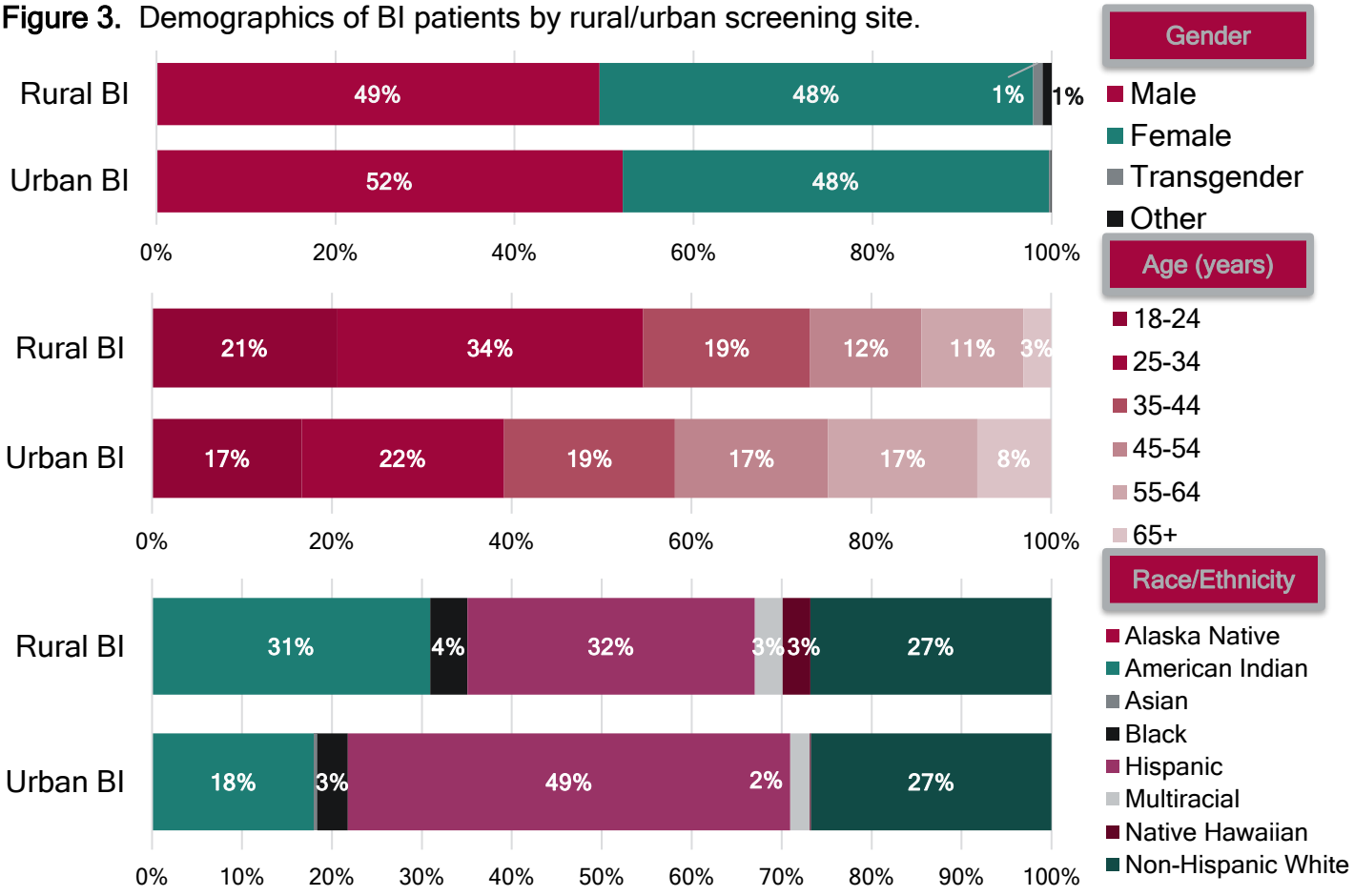
Demographic	BI (n,%)	BT (n,%)	RT (n,%)	Total (n,%)
Total	1,459 (17.7%)	1,492 (14.0%)	487 (32.4%)	3,438 (16.9%)
Clinic Location				
Rural	97 (9.6%)	136 (9.6%)	9 (10.8%)	242 (9.7%)
Urban	1,362 (18.8%)	1,356 (14.7%)	478 (33.7%)	3,196 (17.9%)
Age Group				
18-24 years	247 (20.5%)	174 (31.2%)	16 (48.5%)	437 (24.3%)
25-34 years	339 (17.9%)	455 (33.9%)	127 (71.0%)	921 (27.0%)
35-44 years	277 (18.2%)	363 (33.6%)	106 (62.7%)	746 (26.9%)
45-54 years	244 (17.7%)	273 (30.1%)	141 (61.8%)	658 (26.2%)
55-64 years	237 (17.9%)	176 (25.8%)	76 (61.3%)	489 (23.0%)
65+ years	115 (12.5%)	50 (16.1%)	17 (73.9%)	182 (14.5%)
Gender				
Male	752 (17.8%)	934 (14.9%)	381 (33.9%)	2,067 (17.8%)
Female	691 (17.7%)	550 (13.0%)	102 (29.0%)	1,343 (15.8%)
Transgender	4 (66.7%)	0 (0.0%)	1 (100.0%)	5 (45.5%)
Other	2 (40.0%)	0 (0.0%)	N/A	2 (28.6%)
Race and Ethnicity				
Hispanic	695 (19.4%)	819 (16.3%)	277 (42.8%)	1,791 (19.3%)
Non-Hispanic White	387 (16.0%)	327 (12.5%)	62 (22.1%)	776 (14.6%)
Multiracial	32 (19.1%)	27 (10.6%)	3 (12.5%)	62 (13.8%)
Black	50 (25.9%)	38 (15.3%)	8 (26.7%)	96 (20.4%)
Asian	5 (13.5%)	7 (16.3%)	1 (25.0%)	13 (15.5%)
American Indian	272 (15.6%)	259 (11.2%)	133 (26.4%)	664 (14.5%)
Native Hawaiian	5 (20.8%)	4 (12.9%)	1 (100.0%)	10 (17.9%)
Alaska Native	1 (9.1%)	0 (0.0%)	N/A	1 (4.0%)

Demographics of Patients

Brief Intervention

There were 1,459 patients who received BI treatment as part of the NM-SBIRT project. Most (93%) were screened in urban clinical locations. Patients screened in urban locations tended to be older (average 42 years of age vs. 36) and identified more often as Hispanic. Patients screened in rural locations more often identified as American Indian while those screened in urban locations more often identified as Hispanic. Detailed tables of the demographics of patients by treatment class and type of clinic are in the appendix.

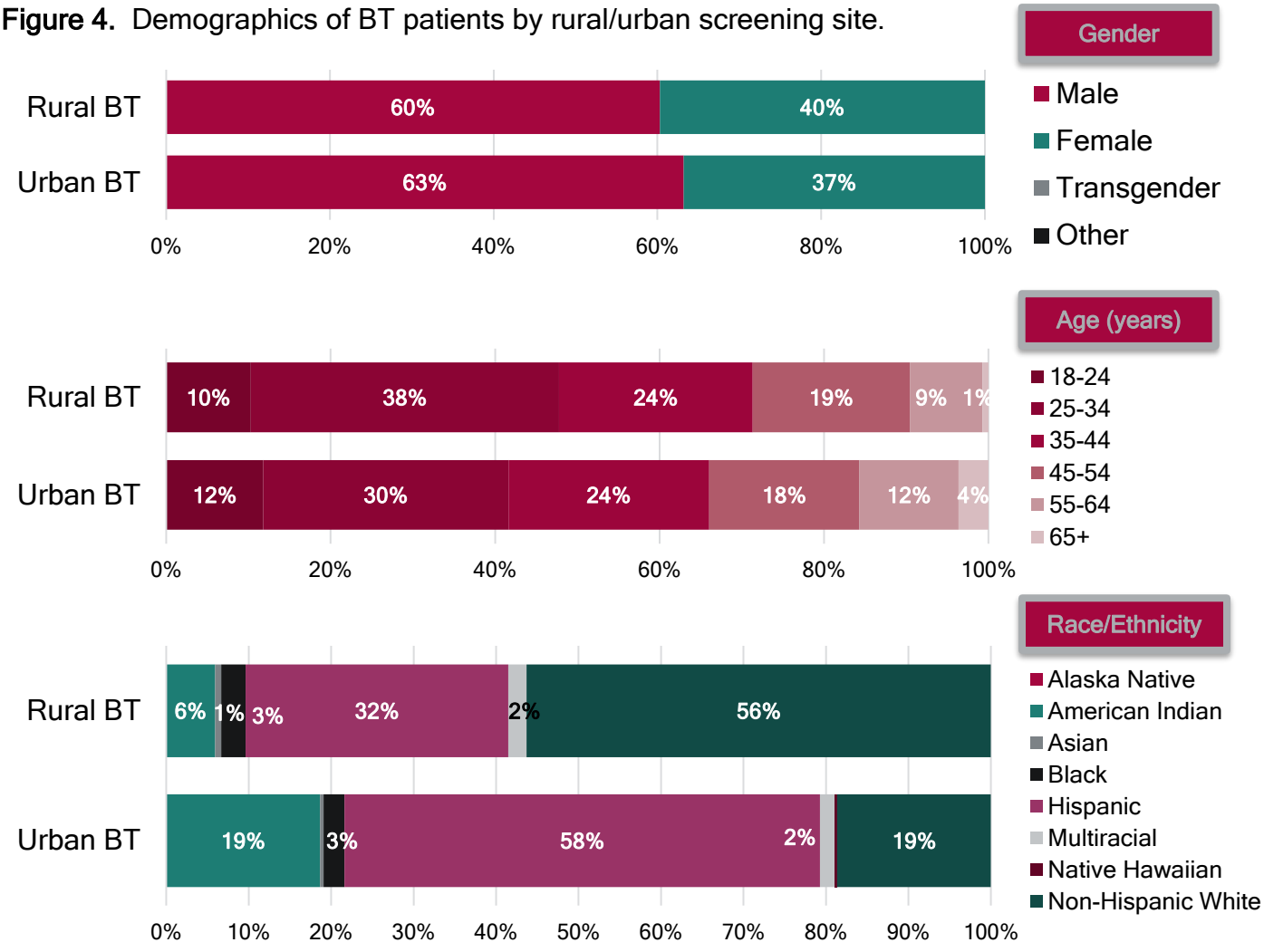
Figure 3. Demographics of BI patients by rural/urban screening site.



Brief Treatment

There were 1,492 patients who received BT treatment as part of the NM-SBIRT project. Most (91%) were screened in urban clinical locations. Patients screened in urban locations identified more often as Hispanic or American Indian, while those screened in rural locations identified more often as Non-Hispanic White.

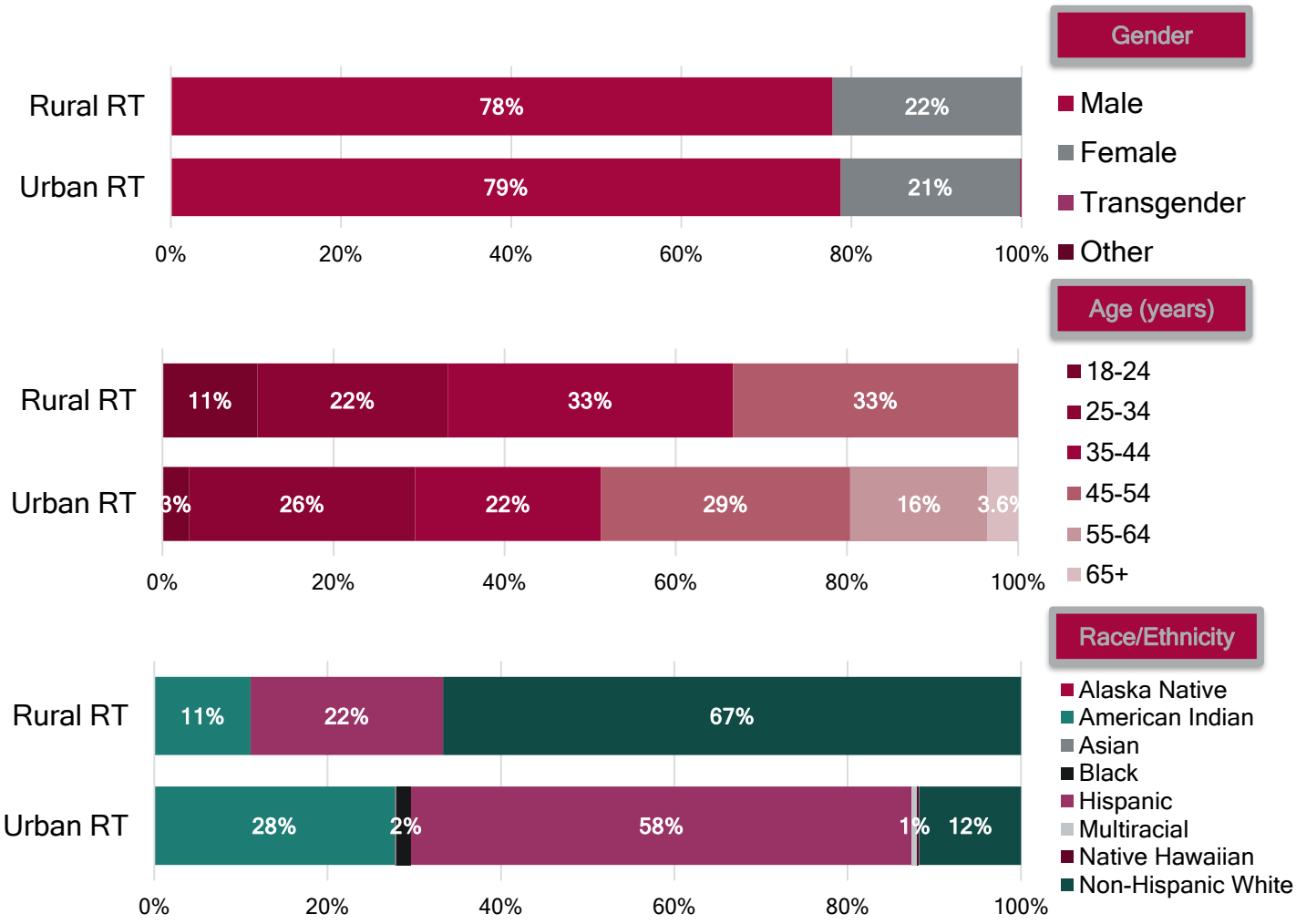
Figure 4. Demographics of BT patients by rural/urban screening site.



Referral to Treatment

There were 487 patients who received RT as part of the NM-SBIRT project.
Most (98%) were screened in urban clinical locations. Patients screened in urban locations tended to be older (average 43 years of age vs. 37) and identified more often as Hispanic or American Indian.

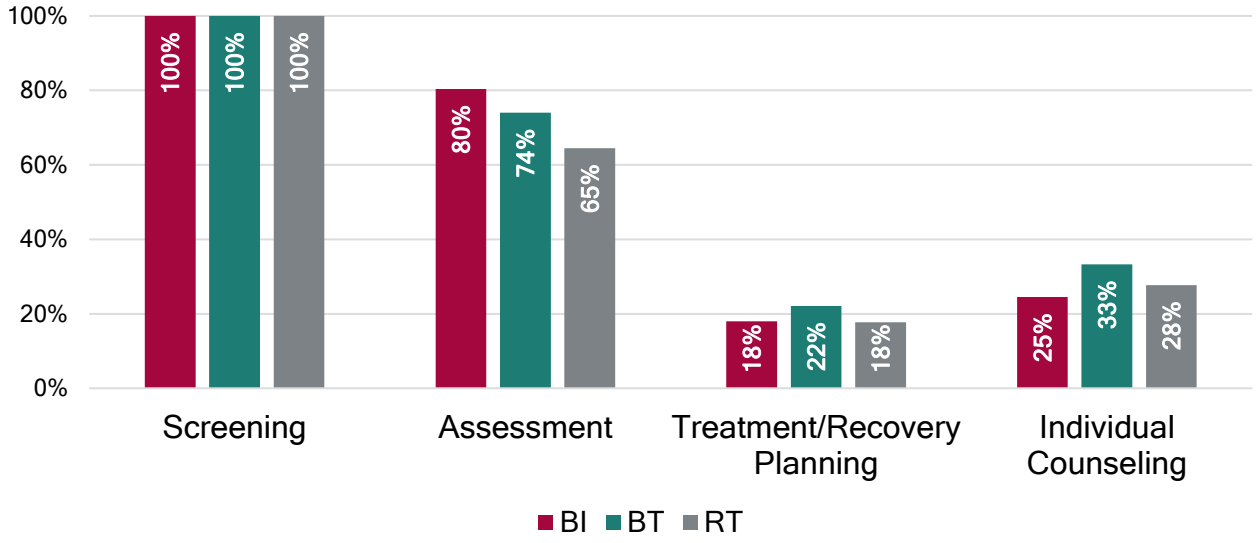
Figure 5. Demographics of RT patients by rural/urban screening site.



Services Provided to Patients

Patients who were willing to receive treatment were randomly selected for follow-up interviews (n=1,838). Among those selected for follow-up, clinicians recorded services that were received during treatment. All patients received screening for SUD, most received additional clinical assessments, and some received treatment recovery/planning or individual counseling, for other concerns, in addition to their treatment for SUD. Although not a listed service, referrals for services were also provided to clients in need.

Figure 6. Services provided by patients before discharge, by treatment class.



Longitudinal Outcome Measures

Follow-up Interview Completion

Fifty-three percent (1,838) of patients willing to participate in treatment were randomly selected to participate in a follow-up interview in order to quantify changes in outcomes over the course of treatment. There were 889 BI patients, 770 BT patients, and 179 RT patients selected for follow-up interviews. Most of these patients completed their follow-up interview six months after being screened (51%). This was very similar to the national average of 52.9%. Five percent refused to participate in the follow-up interview and 34% were unable to be located by project staff.

Table 4. Six-month follow-up status of patients, by treatment class.

Follow-up Status	BI (n,%)	BT (n,%)	RT (n,%)	N
Completed interview outside specified window	1 (0.1%)	4 (0.5%)	1 (0.6%)	6
Completed interview within specified window	505 (58.2%)	367 (48.7%)	74 (42.3%)	946
Deceased at time of due date	11 (1.3%)	2 (0.3%)	3 (1.7%)	16
Located, but otherwise unable to gain access	29 (3.3%)	50 (6.6%)	9 (5.1%)	88
Located, but refused, unspecified	54 (6.2%)	20 (2.7%)	10 (5.7%)	84
Located, but unable to gain institutional access	1 (0.1%)	9 (1.2%)	1 (0.6%)	11
Located, but withdrawn from project	2 (0.2%)	12 (1.6%)	0 (0.0%)	14
Unable to locate, moved	57 (6.6%)	146 (19.4%)	34 (19.4%)	237
Unable to locate, other	208 (24.0%)	144 (19.1%)	43 (24.6%)	395

Substance Use

The main goal of the NM-SBIRT project was to provide universal screening in participating primary care and emergency care sites in hopes of early identification and reduction of the harmful effects of substance use. The data suggest that overall the project was successful. The average number of days of alcohol use at the time of follow-up decreased significantly for all treatment class groups compared to use at intake. The most dramatic change was among the RT group, from 22 days to 7 days on average over the past 30 days. The average number of days of alcohol use to intoxication also decreased significantly for all treatment groups, especially among the RT group (23 to 10 days). Finally, the number of days of illegal drug use decreased significantly for the BI and BT groups. The RT group had the lowest average number of days of illegal drug use at baseline, which decreased upon follow-up, but not to the point of statistical significance.

Table 5. Average number of days of alcohol use, alcohol use to intoxication, and illegal drug use in the past 30 days, by time and treatment class.

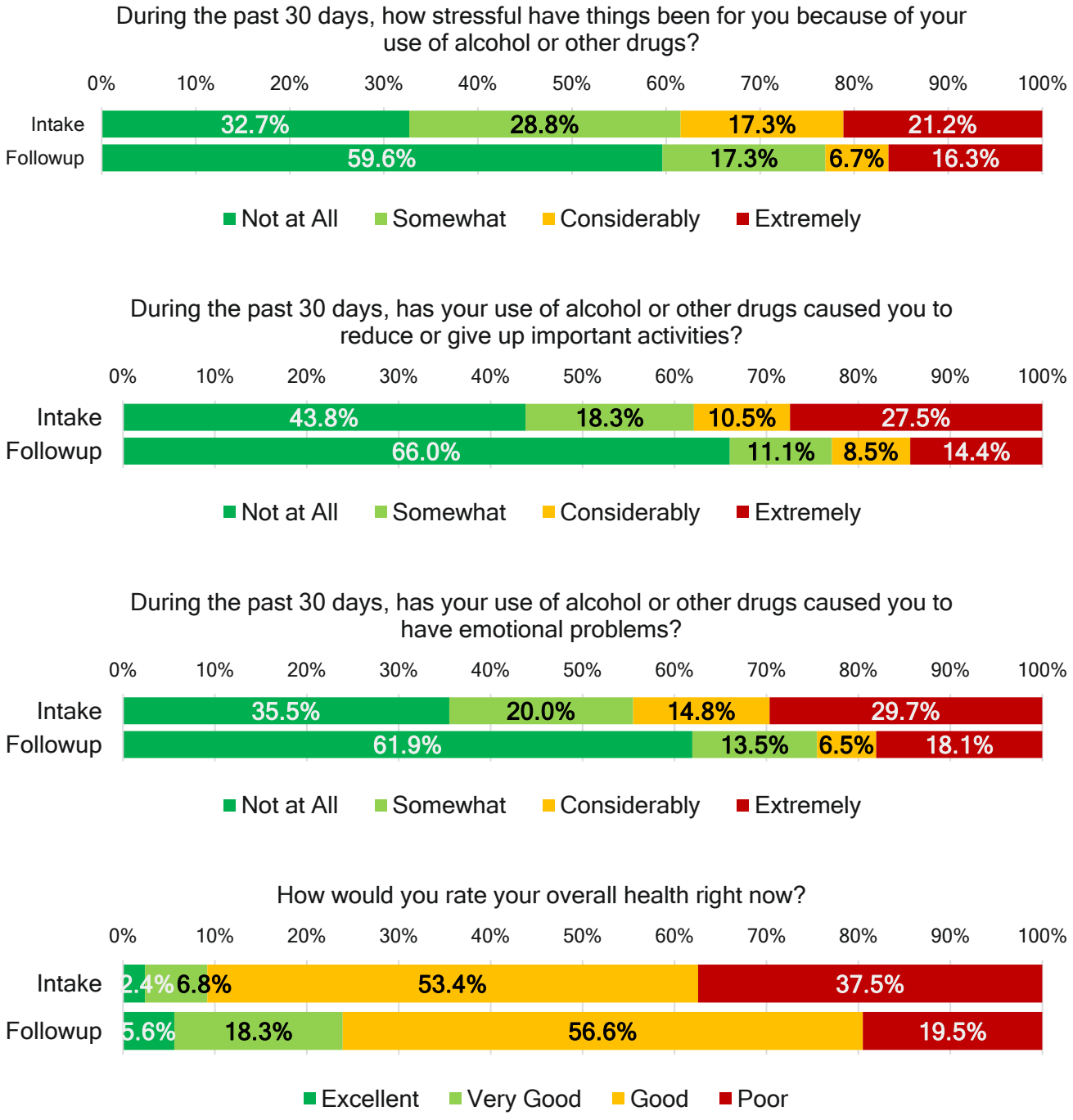
Outcome	Baseline	Follow-up	Test Statistic	p-value	N
In the past 30 days, how many days have you used alcoholic beverages?					
BI	4.32	3.63	2.14	0.0329*	431
BT	6.83	4.03	5.84	<0.0001*	282
RT	22.37	7.01	9.48	<0.0001*	63
In the past 30 days, how many days have you used alcohol to intoxication?					
BI	1.70	0.94	2.12	0.0355*	169
BT	8.01	5.10	4.15	0.0001*	107
RT	23.40	9.73	6.40	<0.0001*	32
In the past 30 days, how many days did you use any illegal drugs including prescription drugs that were taken for reasons or in doses other than prescribed?					
BI	7.34	2.83	8.17	<0.0001*	414
BT	10.93	5.13	6.71	<0.0001*	255
RT	3.03	1.82	0.29	0.7734	29

Note: Test statistics and p-values were obtained from two-sample paired t-test.
*Significant change from baseline to follow-up ($p<0.05$).

Mental Health
Brief Treatment

Mental Health outcomes for the BT patients showed significant improvements. The impact of alcohol or drug use on stress level, activity level, and emotional problems showed a significant decrease from baseline to follow up. Health status also showed a significant improvement from baseline to follow-up.

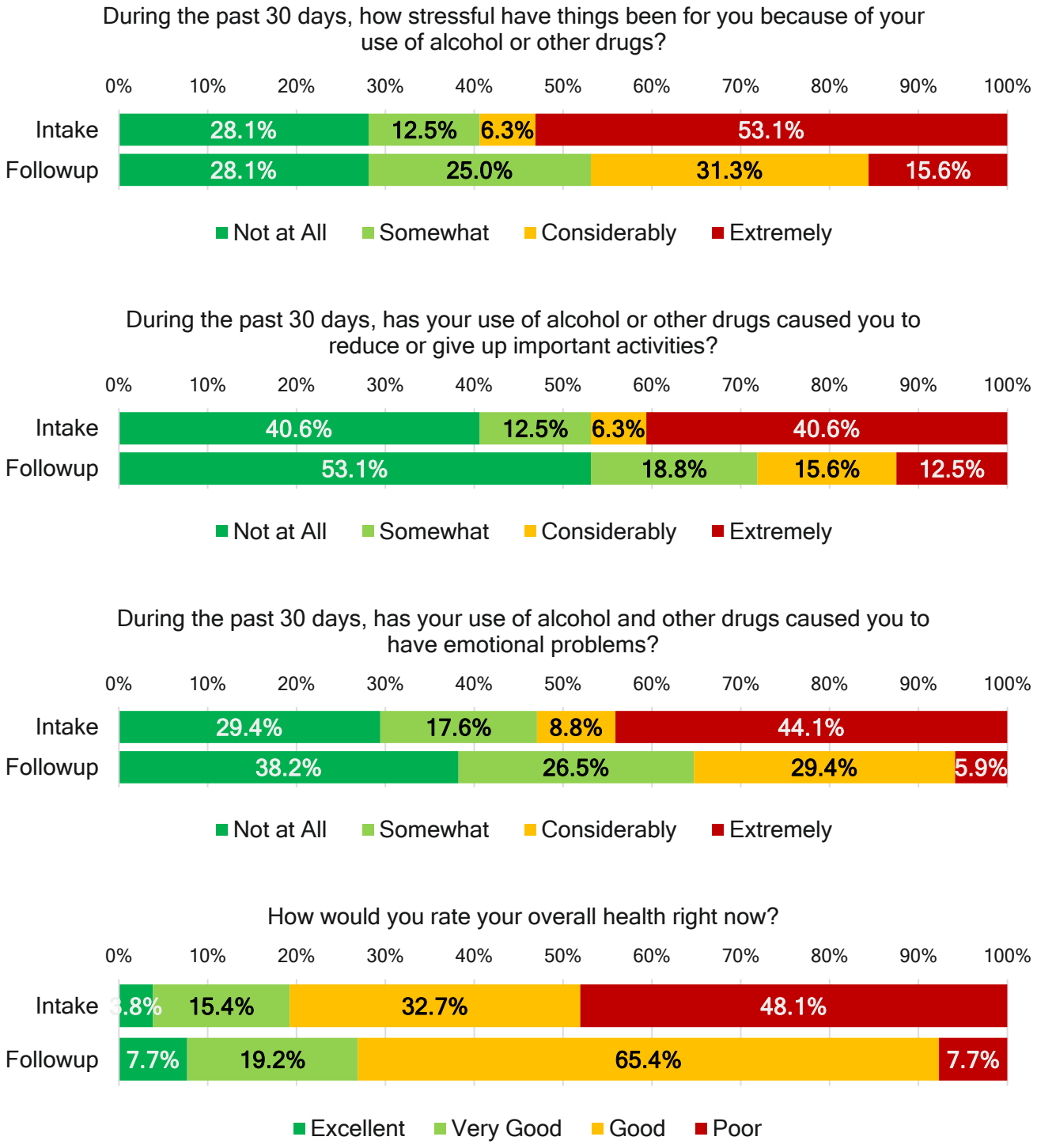
Figure 7. Longitudinal mental and overall health outcomes among BT patients.



Referral to Treatment

Mental Health outcomes for the RT patients showed significant improvements. The impact of alcohol or drug use on stress level, activity level, and emotional problems showed a significant decrease from baseline to follow up. Health status also showed a significant improvement from baseline to follow-up.

Figure 8. Longitudinal mental and overall health outcomes among RT patients.

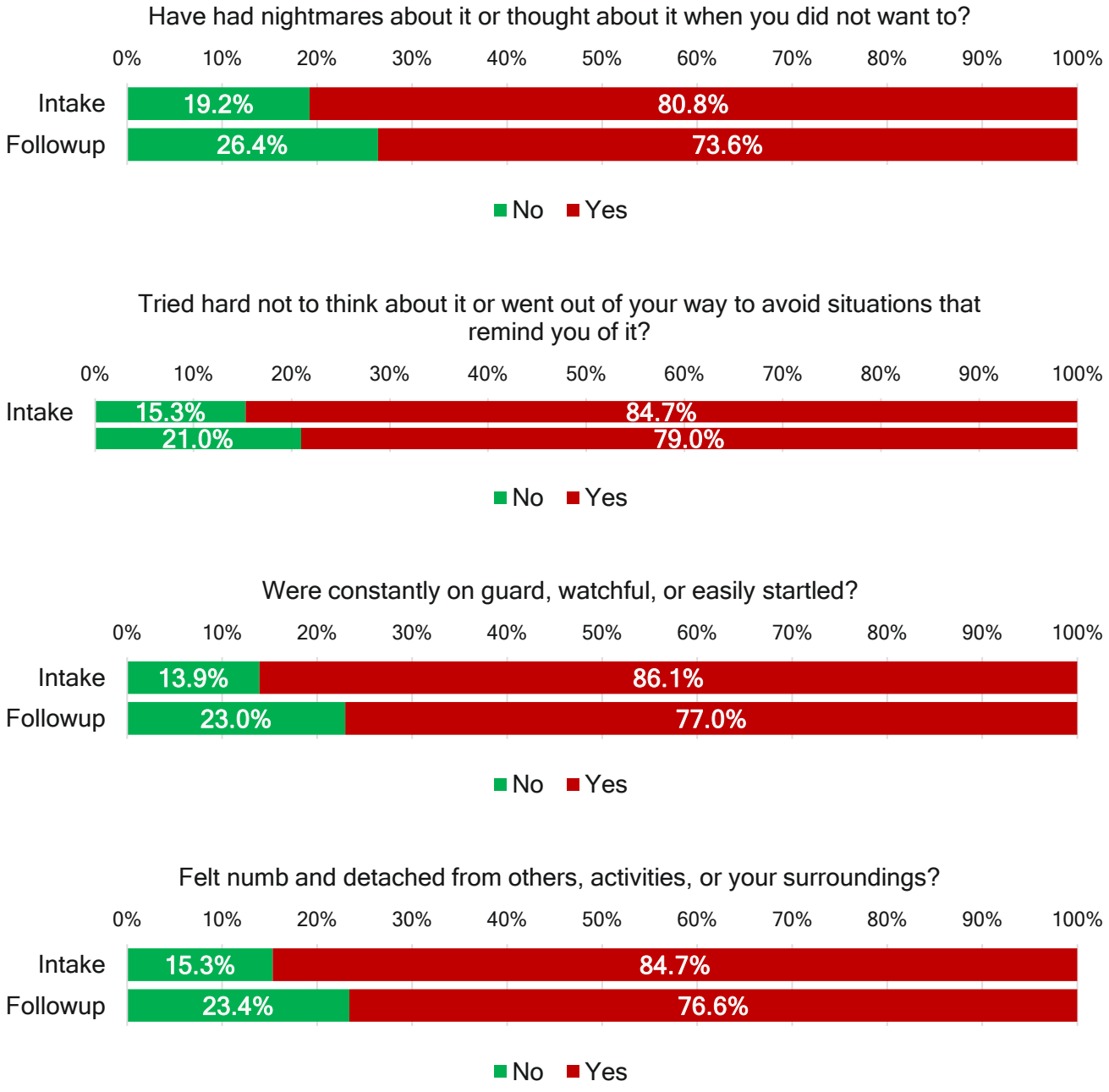


Trauma Symptoms

Brief Treatment

Sixty-four percent of BT patients had experienced a traumatic event during their lifetime. Those patients were asked if they had experienced trauma symptoms during the past 30 days. There was a 7.2% drop in individuals experiencing nightmares, a 9.1% decrease in feeling constantly on guard, a 5.7% decrease in trying hard not to think about their trauma, and a 8.1% decrease in feeling numb and detached. While no symptoms showed a decline that reached statistical significance, the decrease in all symptoms was in the desired direction and could have important clinical significance in the lives of these individuals.

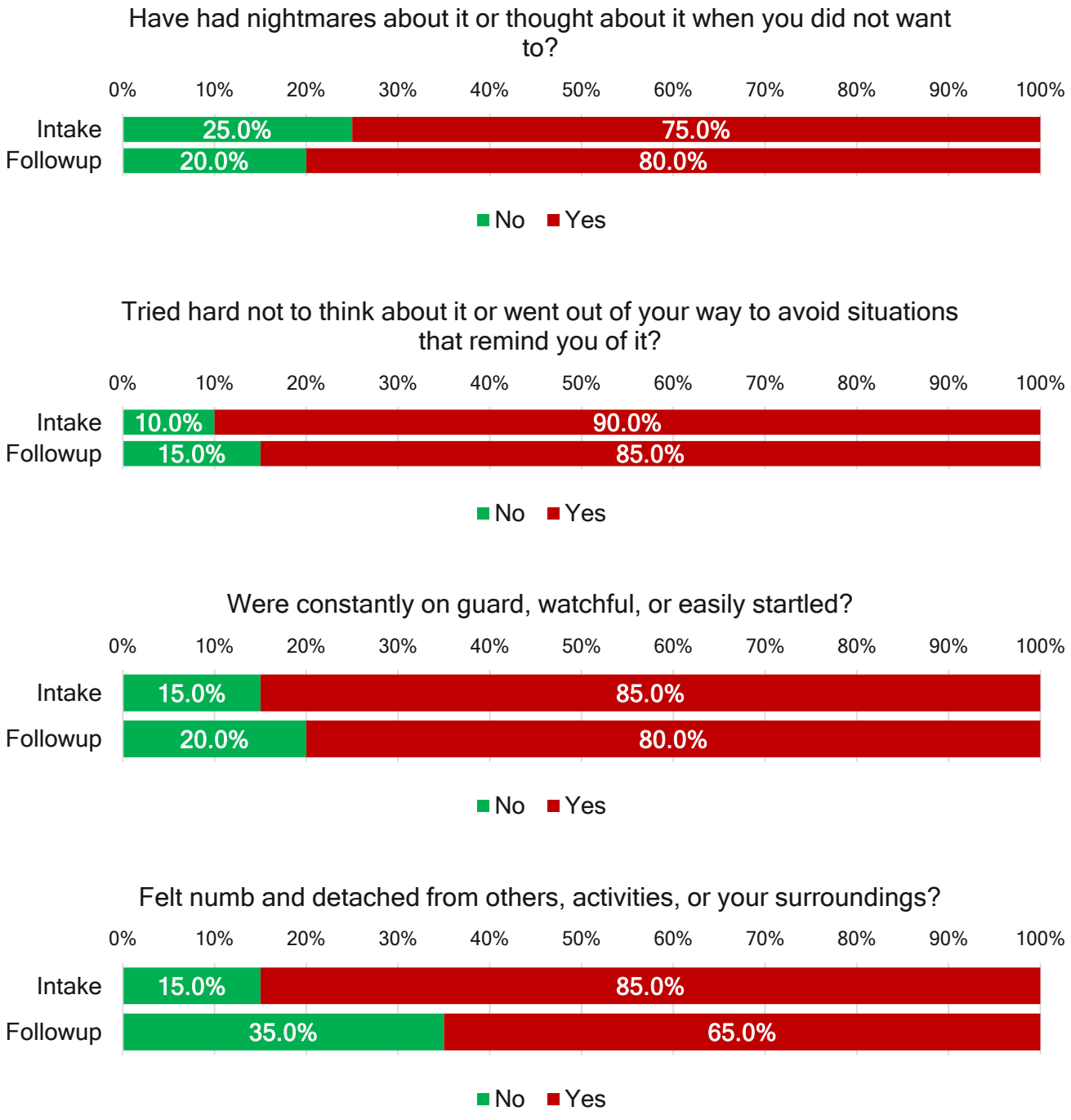
Figure 9. Longitudinal trauma symptom prevalence among BT patients.



Referral to Treatment

Fifty-six RT patients had experienced a traumatic event in their life. Among those patients, there was a 5% drop in trying hard not to think about their trauma experience and feeling constantly on guard and a 20% drop in patients feeling numb and detached from intake to follow-up. Unfortunately, there was a 5% increase in having nightmares. None of these changes were statistically significant.

Figure 10. Longitudinal trauma symptom prevalence among BT patients.

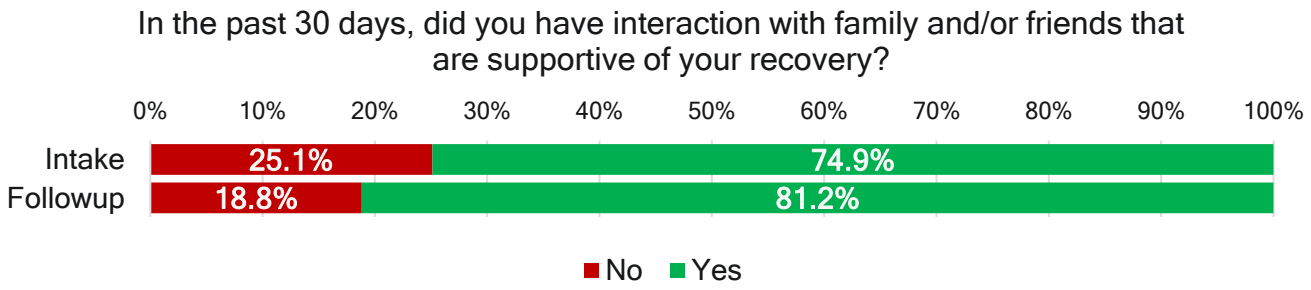


Social Connectivity

Brief Treatment

BT patients reported a 6.3% increase in having beneficial interactions with supportive family and friends regarding their recovery from intake to follow-up. When asked at intake whom they turn to when they are having trouble, 64% answered family, 18% answered no one, 13% answered friends, 3% answered religious/spiritual acquaintances, and less than 1% answered sponsor, counselor, or significant other.

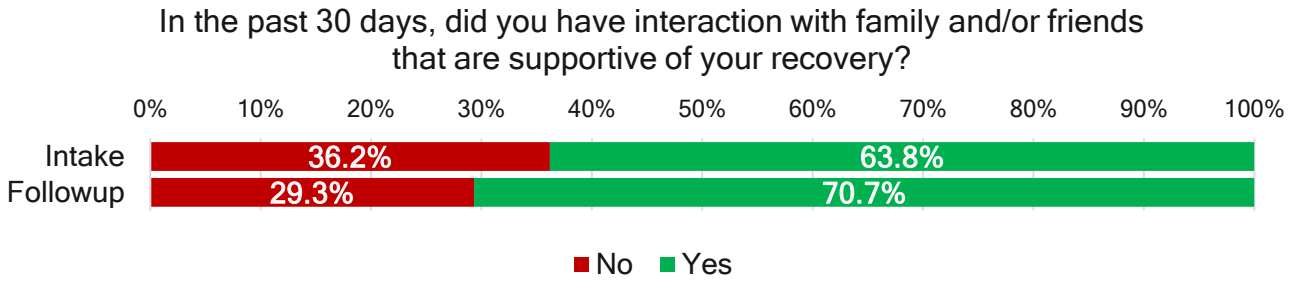
Figure 11. Longitudinal social connectivity among BT patients.



Referral to Treatment

RT patients reported a 6.9% increase in individuals having beneficial interactions with supportive family and friends. When asked at intake whom they turn to when they are having trouble, 63% answered family, 22% answered no one, 13% answered friends, 1.4% answered religious/spiritual acquaintances, and less than 1% answered sponsor or counselor.

Figure 12. Longitudinal social connectivity among BT patients.

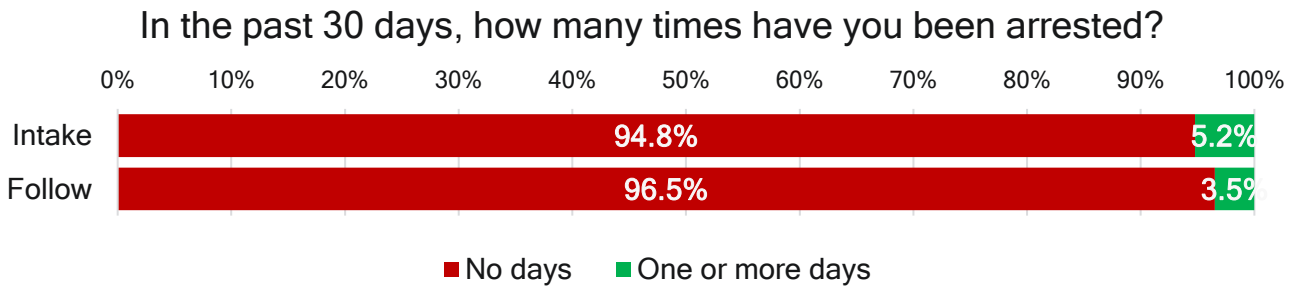


Justice Involvement

Brief Treatment

The proportion of BT patients who were arrested in the past 30 days decreased from 5.2% at intake to 3.5% at follow-up. Of the 9 people who reported being arrested 30 days before intake, only 1 (11.1%) reported being arrested again 30 days before follow-up.

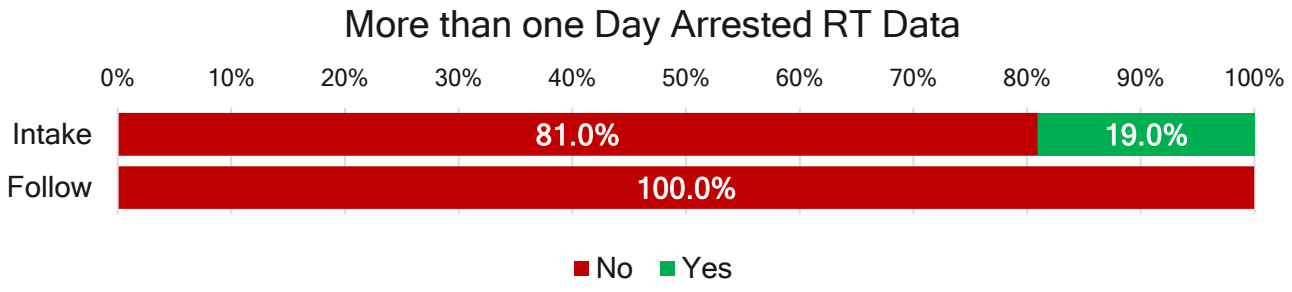
Figure 13. Longitudinal justice involvement among BT patients.



Referral to treatment

The proportion of RT patients who were arrested in the past 30 days decreased from 19% at intake to 0% at follow-up.

Figure 14. Longitudinal justice involvement among RT patients.



Appendix

Demographic Tables

Table A1. Gender of BI Patients.

Location	Male (N, %)	Female (N, %)	Transgender (N, %)	Other (N, %)
Rurality				
Urban	704 , 52.1 %	644 , 47.6 %	3 , 0.2 %	1 , 0.1 %
Rural	48 , 49.5 %	47 , 48.5 %	1 , 1.0 %	1 , 1.0 %
Type of Clinic				
ATR - mental health counseling	33 , 54.1 %	26 , 42.6 %	1 , 1.6 %	1 , 1.6 %
Health Center	18 , 39.1 %	28 , 60.9 %	0 , 0 %	0 , 0 %
Trauma hospital/Emergency room	507 , 61.0 %	322 , 38.8 %	2 , 0.2 %	0 , 0 %
Tribal	109 , 37.2 %	183 , 62.5 %	0 , 0 %	1 , 0.3 %
Urgent Care	85 , 39.0 %	132 , 60.6 %	1 , 0.5 %	0 , 0 %
Overview				
Totals	752 , 51.9 %	691 , 47.7 %	4 , 0.3 %	2 , 0.1 %

Table A2. Gender of BT Patients.

Location	Male (N, %)	Female (N, %)	Transgender (N, %)	Other (N, %)
Rurality				
Urban	852 , 63.2 %	496 , 36.8 %	0 , 0 %	0 , 0 %
Rural	82 , 60.3 %	54 , 39.7 %	0 , 0 %	0 , 0 %
Type of Clinic				
ATR - mental health counseling	81 , 60.0 %	54 , 40.0 %	0 , 0 %	0 , 0 %
Health Center	12 , 54.6 %	10 , 45.5 %	0 , 0 %	0 , 0 %
Trauma hospital/Emergency room	571 , 73.1 %	210 , 26.9 %	0 , 0 %	0 , 0 %
Tribal	185 , 50.8 %	179 , 49.2 %	0 , 0 %	0 , 0 %
Urgent Care	85 , 46.7 %	97 , 53.3 %	0 , 0 %	0 , 0 %
Overview				
Totals	934 , 62.9 %	550 , 37.1 %	0 , 0 %	0 , 0 %

Table A3. Gender of RT Patients.

Location	Male (N, %)	Female (N, %)	Transgender (N, %)	Other (n, %)
Rurality				
Urban	374 , 78.7 %	100 , 21.1 %	1 , 0.2 %	0 , 0 %
Rural	7 , 77.8 %	2 , 22.2 %	0 , 0 %	0 , 0 %
Type of Clinic				
ATR - mental health counseling	7 , 77.8 %	2 , 22.2 %	0 , 0 %	0 , 0 %
Health Center	4 , 57.1 %	3 , 42.9 %	0 , 0 %	0 , 0 %
Trauma hospital/Emergency room	306 , 83.2 %	62 , 16.9 %	0 , 0 %	0 , 0 %
Tribal	45 , 60.0 %	29 , 38.7 %	1 , 1.3 %	0 , 0 %
Urgent Care	19 , 76.0 %	6 , 24.0 %	0 , 0 %	0 , 0 %
Overview				
Totals	381 , 78.7 %	102 , 21.1 %	1 , 0.2 %	0 , 0 %

Table A4. Age of BI Patients.

Location	18 to 24 years (N, %)	25 to 34 years (N, %)	35 to 44 years (N, %)	45 to 54 years (N, %)	55 to 64 years (N, %)	65+ years (N, %)
Rurality						
Urban	227 , 16.7 %	306 , 22.5 %	259 , 19.0 %	232 , 17.0 %	226 , 16.6 %	112 , 8.2 %
Rural	20 , 20.6 %	33 , 34.0 %	18 , 18.6 %	12 , 12.4 %	11 , 11.3 %	3 , 3.1 %
Type of Clinic						
ATR - mental health counseling	13 , 21.3 %	21 , 34.4 %	11 , 18.0 %	9 , 14.8 %	6 , 9.8 %	1 , 1.6 %
Health Center	3 , 6.5 %	12 , 26.1 %	5 , 10.9 %	9 , 19.6 %	9 , 19.6 %	8 , 17.4 %
Trauma hospital/Emergency room	139 , 16.7 %	182 , 21.8 %	169 , 20.3 %	141 , 16.9 %	147 , 17.6 %	56 , 6.7 %
Tribal	51 , 17.1 %	81 , 27.2 %	60 , 20.1 %	58 , 19.5 %	35 , 11.7 %	13 , 4.4 %
Urgent Care	41 , 18.6 %	43 , 19.6 %	32 , 14.6 %	27 , 12.3 %	40 , 18.2 %	37 , 16.8 %
Overview						
Totals	247 , 16.9 %	339 , 23.2 %	277 , 19.0 %	244 , 16.7 %	237 , 16.2 %	115 , 7.9 %

Table A5. Age of BT Patients.

Location	18 to 24 years (N, %)	25 to 34 years (N, %)	35 to 44 years (N, %)	45 to 54 years (N, %)	55 to 64 years (N, %)	65+ years (N, %)
Rurality						
Urban	160 , 11.8 %	404 , 29.8 %	331 , 24.4 %	247 , 18.2 %	164 , 12.1 %	49 , 3.6 %
Rural	14 , 10.3 %	51 , 37.5 %	32 , 23.5 %	26 , 19.1 %	12 , 8.8 %	1 , 0.7 %
Type of Clinic						
ATR - mental health counseling	14 , 10.4 %	51 , 37.8 %	32 , 23.7 %	25 , 18.5 %	12 , 8.9 %	1 , 0.7 %
Health Center	2 , 9.1 %	7 , 31.8 %	6 , 27.3 %	2 , 9.1 %	2 , 9.1 %	3 , 13.6 %
Trauma hospital/Emergency room	104 , 13.3 %	230 , 29.4 %	176 , 22.5 %	153 , 19.6 %	99 , 12.7 %	20 , 2.6 %
Tribal	32 , 8.7 %	111 , 30.2 %	102 , 27.7 %	67 , 18.2 %	42 , 11.4 %	14 , 3.8 %
Urgent Care	22 , 12.0 %	56 , 30.4 %	47 , 25.5 %	26 , 14.1 %	21 , 11.4 %	12 , 6.5 %
Overview						
Totals	174 , 11.7 %	455 , 30.5 %	363 , 24.4 %	273 , 18.3 %	176 , 11.8 %	50 , 3.4 %

Table A6. Age of RT Patients.

Location	18 to 24 years (N, %)	25 to 34 years (N, %)	35 to 44 years (N, %)	45 to 54 years (N, %)	55 to 64 years (N, %)	65+ years (N, %)
Rurality						
Urban	15 , 3.2 %	125 , 26.4 %	103 , 21.7 %	138 , 29.1 %	76 , 16.0 %	17 , 3.6 %
Rural	1 , 11.1 %	2 , 22.2 %	3 , 33.3 %	3 , 33.3 %	0 , 0 %	0 , 0 %
Type of Clinic						
ATR - mental health counseling	1 , 11.1 %	2 , 22.2 %	3 , 33.3 %	3 , 33.3 %	0 , 0 %	0 , 0 %
Health Center	0 , 0 %	1 , 14.3 %	1 , 14.3 %	3 , 42.9 %	1 , 14.3 %	1 , 14.3 %
Trauma hospital/Emergency room	13 , 3.6 %	103 , 28.2 %	80 , 21.9 %	101 , 27.7 %	56 , 15.3 %	12 , 3.3 %
Tribal	2 , 2.6 %	15 , 19.5 %	18 , 23.4 %	26 , 33.8 %	14 , 18.2 %	2 , 2.6 %
Urgent Care	0 , 0 %	6 , 24.0 %	4 , 16.0 %	8 , 32.0 %	5 , 20.0 %	2 , 8.0 %
Overview						
Totals	16 , 3.3 %	127 , 26.3 %	106 , 22.0 %	141 , 29.2 %	76 , 15.7 %	17 , 3.5 %

Table A7. Race and Ethnicity of BI Patients.

Location	Alaska Native (N, %)	American Indian (N, %)	Asian (N, %)	Black (N, %)	Hispanic (N, %)	Multiracial (N, %)	Native Hawaiian (N, %)	Non-Hispanic White (N, %)
Rurality								
Urban	1 , 0.1%	242 , 17.9%	5 , 0.4%	46 , 3.4%	664 , 49.2%	29 , 2.2%	2 , 0.2%	361 , 26.7%
Rural	0 , 0%	30 , 30.9%	0 , 0%	4 , 4.1%	31 , 32.0%	3 , 3.1%	3 , 3.1%	26 , 26.8%
Type of Clinic								
ATR - mental health counseling	0 , 0%	1 , 1.6%	0 , 0%	4 , 6.6%	30 , 49.2%	1 , 1.6%	0 , 0%	25 , 41.0%
Health Center	0 , 0%	1 , 2.2%	0 , 0%	0 , 0%	29 , 63.0%	0 , 0%	0 , 0%	16 , 34.8%
Trauma hospital/Emergency room	0 , 0%	112 , 13.5%	4 , 0.5%	36 , 4.4%	432 , 52.17%	9 , 1.1%	1 , 0.1%	234 , 28.3 %
Tribal	0 , 0%	156 , 52.9%	0 , 0%	7 , 2.4%	66 , 22.4%	20 , 6.8%	4 , 1.4%	42 , 14.2%
Urgent Care	1 , 0.5%	2 , 0.9%	1 , 0.5%	3 , 1.4%	138 , 63.6%	2 , 0.9%	0 , 0%	70 , 32.3%
Overview								
Totals	1 , 0.1%	272 , 18.8%	5 , 0.4%	50 , 3.5%	695 , 48.0%	32 , 2.2%	5 , 0.4%	387 , 26.7%

Table A8. Race and Ethnicity of BT Patients.

Location	Alaska Native (N, %)	American Indian (N, %)	Asian (N, %)	Black (N, %)	Hispanic (N, %)	Multiracial (N, %)	Native Hawaiian (N, %)	Non-Hispanic White (N, %)
Rurality								
Urban	0 , 0%	251 , 18.7%	6 , 0.5%	34 , 2.5%	776 , 57.7%	24 , 1.8%	4 , 0.3%	251 , 18.7%
Rural	0 , 0%	8 , 5.9%	1 , 0.7%	4 , 3.0%	43 , 31.9%	3 , 2.2%	0 , 0%	76 , 56.3%
Type of Clinic								
ATR - mental health counseling	0 , 0%	7 , 5.2%	1 , 0.8%	4 , 3.0%	43 , 32.1%	3 , 2.2%	0 , 0%	76 , 56.7%
Health Center	0 , 0%	1 , 4.6%	0 , 0%	0 , 0%	15 , 68.2%	0 , 0%	0 , 0%	6 , 27.3%
Trauma hospital/ Emergency room	0 , 0%	88 , 11.4%	2 , 0.3%	26 , 3.4%	502 , 64.8%	13 , 1.7%	1 , 0.1%	143 , 18.5%
Tribal	0 , 0%	159 , 43.2%	4 , 1.1%	8 , 2.2%	132 , 35.9%	7 , 1.9%	3 , 0.8%	55 , 15.0%
Urgent Care	0 , 0%	4 , 2.2%	0 , 0%	0 , 0%	127 , 69.8%	4 , 2.2%	0 , 0%	47 , 25.8%
Overview								
Totals	0 , 0%	259 , 17.5%	7 , 0.5%	38 , 2.6%	819 , 55.3%	27 , 1.8%	4 , 0.3%	327 , 22.1%

Table A9. Race and Ethnicity of RT Patients.

Location	Alaska Native (N, %)	American Indian (N, %)	Asian (N, %)	Black (N, %)	Hispanic (N, %)	Multiracial (N, %)	Native Hawaiian (N, %)	Non-Hispanic White (N, %)
Rurality								
Urban	0 , 0 %	132 , 27.7 %	1 , 0.2 %	8 , 1.7 %	275 , 57.8 %	3 , 0.6 %	1 , 0.2 %	56 , 11.8 %
Rural	0 , 0 %	1 , 11.1 %	0 , 0 %	0 , 0 %	2 , 22.2 %	0 , 0 %	0 , 0 %	6 , 66.7 %
Type of Clinic								
ATR - mental health counseling	0 , 0 %	1 , 11.1 %	0 , 0 %	0 , 0 %	2 , 22.2 %	0 , 0 %	0 , 0 %	6 , 66.7 %
Health Center	0 , 0 %	0 , 0 %	0 , 0 %	0 , 0 %	5 , 71.4 %	0 , 0 %	0 , 0 %	2 , 28.6 %
Trauma hospital/Emergency room	0 , 0 %	81 , 22.0 %	0 , 0 %	6 , 1.6 %	240 , 65.2 %	1 , 0.3 %	0 , 0 %	40 , 10.9 %
Tribal	0 , 0 %	51 , 66.2 %	1 , 1.3 %	2 , 2.6 %	14 , 18.2 %	2 , 2.6 %	1 , 1.3 %	6 , 7.8 %
Urgent Care	0 , 0 %	0 , 0 %	0 , 0 %	0 , 0 %	16 , 66.7 %	0 , 0 %	0 , 0 %	8 , 33.3 %
Overview								
Totals	0 , 0 %	133 , 27.4 %	1 , 0.2 %	8 , 1.7 %	277 , 57.1 %	3 , 0.6 %	1 , 0.2 %	62 , 12.8 %

Longitudinal Outcome Tables

Table B1. Longitudinal impact of alcohol and other drug use on mental health among BT patients

Variable	Not at All	Somewhat	Considerably	Extremely	N	Friedman Statistic	Friedman P-value
Impact Stress (30 days): During the past 30 days, how stressful have things been for you because of your use of alcohol or other drugs?							
Intake	32.7%	28.8%	17.3%	21.2%	104	13.25455	0.0003*
Follow-up	59.6%	17.3%	6.7%	16.3%	104		
Impact Activity (30 days): During the past 30 days, has your use of alcohol or other drugs caused you to reduce or give up important activities?							
Intake	43.8%	18.3%	10.5%	27.5%	153	23.0274	<0.0001*
Follow-up	66.0%	11.1%	8.5%	14.4%	153		
Impact Emotional (30 days): During the past 30 days, has your use of alcohol and other drugs caused you to have emotional problems?							
Intake	35.5%	20.0%	14.8%	29.7%	155	30.4878	<0.0001*
Follow-up	61.9%	13.5%	6.5%	18.1%	155		

*Significant change from baseline to follow-up ($p<0.05$).

Table B2. Longitudinal impact of alcohol and other drug use on mental health among RT patients.

Variable	Not at All	Somewhat	Considerably	Extremely	N	Friedman Statistic	Friedman P-value
Impact Stress (30 days): During the past 30 days, how stressful have things been for you because of your use of alcohol or other drugs?							
Intake	28.1%	12.5%	6.3%	53.1%	32	5.761905	0.0164*
Follow-up	28.1%	25.0%	31.3%	15.6%	32		
Impact Activity (30 days): During the past 30 days, has your use of alcohol or other drugs caused you to reduce or give up important activities?							
Intake	40.6%	12.5%	6.3%	40.6%	32	5	0.0253*
Follow-up	53.1%	18.8%	15.6%	12.5%	32		
Impact Emotional (30 days): During the past 30 days, has your use of alcohol and other drugs caused you to have emotional problems?							
Intake	29.4%	17.6%	8.8%	44.1%	34	9.782609	0.0018*
Follow-up	38.2%	26.5%	29.4%	5.9%	34		

*Significant change from baseline to follow-up ($p<0.05$).

Table B3. Longitudinal health status among BT patients.

Outcome	Excellent	Very Good	Good	Poor	N	Friedman Statistic	Friedman P-value
Health Status (30 days): How would you rate your overall health right now?							
Intake	2.4%	6.8%	53.4%	37.5%	251	38.088	<0.0001*
Follow-up	5.6%	18.3%	56.6%	19.5%	251		

*Significant change from baseline to follow-up ($p<0.05$).

Table B4. Longitudinal health status among RT patients.

Outcome	Excellent	Very Good	Good	Poor	N	Friedman Statistic	Friedman P-value
Health Status (30 days): How would you rate your overall health right now?							
Intake	3.8%	15.4%	32.7%	48.1%	52	10.93939	0.0009*
Follow-up	7.7%	19.2%	65.4%	7.7%	52		

*Significant change from baseline to follow-up ($p<0.05$).

Table B5. Longitudinal prevalence of trauma symptoms among BT patients with history of trauma.

Outcomes	No	Yes	N	McNemar Statistic	McNemar P-value
Nightmares (30 Days): Have had nightmares about it or thought about it when you did not want to?					
Intake	19.2%	80.8%	125	2.37037	0.1237
Follow-up	26.4%	73.6%	125		
Tried Hard (30 Days): Tried hard not to think about it or went out of your way to avoid situations that remind you of it?					
Intake	15.3%	84.7%	124	0.972973	0.3239
Follow-up	21.0%	79.0%	124		
Constant Guard (30 Days): Were constantly on guard, watchful, or easily startled?					
Intake	13.9%	86.1%	122	3.703704	0.0543
Follow-up	23.0%	77.0%	122		
Numb and Detached (30 Days): Felt numb and detached from others, activities, or your surroundings?					
Intake	15.3%	84.7%	124	2.382353	0.1227
Follow-up	23.4%	76.6%	124		

Table B6. Longitudinal prevalence of trauma symptoms among RT patients with history of trauma.

Outcomes	No	Yes	N	McNemar Statistic	McNemar P-value
Nightmares (30 Days): Have had nightmares about it or thought about it when you did not want to?					
Intake	25.0%	75.0%	20	0	1
Follow-up	20.0%	80.0%	20		
Tried Hard (30 Days): Tried hard not to think about it or went out of your way to avoid situations that remind you of it?					
Intake	10.0%	90.0%	20	0	1
Follow-up	15.0%	85.0%	20		
Constant Guard (30 Days): Were constantly on guard, watchful, or easily startled?					
Intake	15.0%	85.0%	20	0	1
Follow-up	20.0%	80.0%	20		
Numb and Detached (30 Days): Felt numb and detached from others, activities, or your surroundings?					
Intake	15.0%	85.0%	20	1.5	0.2207
Follow-up	35.0%	65.0%	20		

Table B7. Longitudinal social connectivity among BT patients.

	No	Yes	N	McNemar Statistic	McNemar P-value
Interact Family Friends (30 Days): In the past 30 days, did you have interaction with family and/or friends that are supportive of your recovery?					
Intake	25.1%	74.9%	223	2.485294	0.1149
Follow-up	18.8%	81.2%	223		

Table B8. Longitudinal social connectivity among RT patients.

Outcome	No	Yes	N	McNemar Statistic	McNemar P-value
Interact Family Friends (30 Days): In the past 30 days, did you have interaction with family and/or friends that are supportive of your recovery?					
Intake	36.2%	63.8%	58	0.409091	0.5224
Follow-up	29.3%	70.7%	58		

Table B9. Responses to "To whom do you turn to when you are having trouble?" among BT patients at intake.

To whom do you turn to when you are having trouble?									
No one	Religious/ Spirituality	Family	Friends	Sponsor	Counselor	Significant Other	Multiple sources to go to	Other	N
18.22 %	3.05 %	63.90 %	12.97 %	0.34 %	0.59 %	0.42 %	0.34 %	0.17 %	1180

Table B10. Responses to "Who whom do you turn to when you are having trouble?" among RT patients at intake.

To whom do you turn to when you are having trouble?								
No one	Religious/ Spirituality	Family	Friends	Sponsor	Counselor	Multiple sources to go to	Other	N
21.93%	1.42%	62.50%	12.74%	0.24%	0.24%	0.24%	0.71%	424

Table B11. Longitudinal number of times arrested among BT patients.

Outcome	No days	One or more days	N	McNemar Statistic	McNemar P-value
Arrested Days (30 days)					
Intake	94.8%	5.2%	172	0.307692	0.5791
Follow-up	96.5%	3.5%	172		

Table B12. Longitudinal number of times arrested among RT patients.

Outcome	No	Yes	N	McNemar Statistic	McNemar P-value
Arrested Days (30 days)					
Intake	81.0%	19.0%	21	2.25	0.1336
Follow-up	100.0%	0.0%	21		

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