

# SBIRT IOWA

Screening, Brief Intervention,  
and Referral to Treatment



THE IOWA CONSORTIUM FOR SUBSTANCE ABUSE RESEARCH AND EVALUATION

## Year Four Annual Evaluation Report August 2016

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**Year Four Annual Evaluation Report**  
**August 2016**

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## EXECUTIVE SUMMARY

In July 2012, the Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Treatment (CSAT), awarded the Iowa Department of Public Health (IDPH) a five-year grant to provide Screening, Brief Intervention and Referral to Treatment (SBIRT IOWA) services. SBIRT IOWA uses a comprehensive, integrated, public health approach to incorporate universal screening into medical practices and within the Iowa Army National Guard (IAARNG) to identify, reduce, and prevent hazardous alcohol or drug use. SBIRT IOWA programs were implemented at four Federally Qualified Health Centers (FQHCs) in Black Hawk, Polk, Scott, and Woodbury counties of Iowa as well as at Camp Dodge, home of Iowa's Army National Guard. Co-located substance use disorder professionals work with each site. The Iowa Consortium for Substance Abuse Research and Evaluation (Consortium) conducts the evaluation for the SBIRT project. Through Year Four, SBIRT providers conducted 83,704 prescreenings, 75,584 at FQHCs and 8,120 through the IAARNG. Results of the Year Four evaluation continue to help demonstrate the important health benefits SBIRT IOWA provides adults in Iowa.

Iowa residents age 18 and older are prescreened with two questions about alcohol use and illegal drug or prescription misuse. Individuals receive full screening if they indicate any of the following occurring within the past year:

- Men up to age 65 report drinking five or more drinks in one day or over 14 drinks in one week.
- Women of any age and men over age 65 report drinking four or more drinks in one day or over seven drinks in one week.
- Any illegal drug use or prescription use for non-medical reasons by men or women of any age.

SBIRT IOWA uses two instruments to conduct full screenings. The 10-question Alcohol Use Disorders Identification Test (AUDIT) screens for risky drinking and alcohol use disorders. The 10-question Drug Abuse Screening Test (DAST-10) screens for hazardous use of illegal drugs and prescription drug misuse. The following table provides the recommended service associated with scores on the screening instruments.

Recommended Services Based on Full Screening Scores				
AUDIT		DAST-10		Recommended Service Modality
Score	Risk Level	Score	Risk Level	
0 - 7	Low Risk/Negative	0	Low Risk/Negative	Screening: Encouragement and Education
8 - 15	Risky or Hazardous	1 - 2	Moderate Risk	Brief Intervention
16 - 19	High Risk or Harmful	3 - 5	Substantial Risk	Brief Treatment
20 - 40	High Risk	6 - 10	Severe Risk	Referral to Treatment

In addition to the screening instruments, SBIRT staff is required under the Government Performance and Results Act (GPRA) to gather demographic information. Additional GPRA data are collected from individuals who screen positive for risky alcohol or drug use, including past 30-day substance use and other factors related to health.

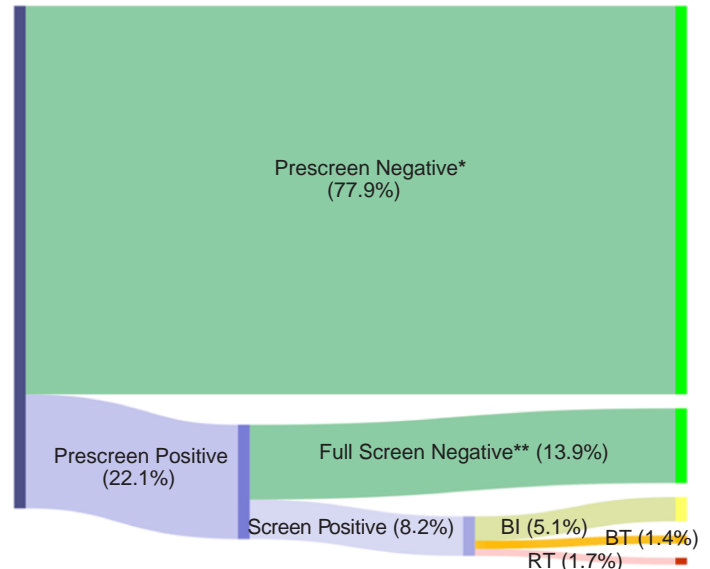
SBIRT IOWA services began in late October 2012. FQHC sites are contracted to conduct 8,250 screenings per year. The IAARNG has no specified requirement, but staff offer SBIRT screenings to all Soldiers undergoing annual Periodic Health Assessments and those referred



directly for alcohol or drug screening by command referrals. At the end of Year Four, there were 83,704 active records for prescreenings for alcohol and illegal drug use and 18,491 records indicating full screenings were conducted.

The median age from prescreening records was 39 years. Approximately 52% of the records were for females and 48% were for males. Of the records for individuals receiving prescreening, 72.5% reported their race as White and 14.6% identified as African American; 5.6% were records for individuals reporting other races. Just over 20% of those indicated they were of Hispanic or Latino ethnicity.

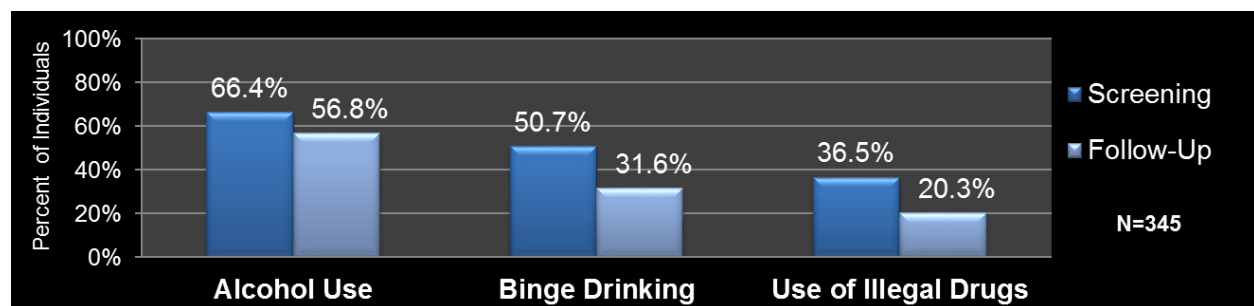
Of the screening records through Year Four<sup>1</sup>, 77.9% were for prescreenings only; 22.1% indicated the respondent scored positive for alcohol and/or illegal drug use and a full screening was conducted. Almost 14% of those prescreened had full screen scores in the low risk use range (“Full Screen Negative” in the figure to the right), yielding a recommendation of Encouragement and Education. Over 5% scored as needing Brief Intervention, 1.4% scored as needing Brief Treatment, and 1.7% scored as needing a Referral to Treatment.



\*Records with no full-screen instrument scores above zero.  
 \*\*Screening (Encouragement and Education) modality.  
 NOTE: Due to rounding, percentages may not add up to exactly 100%.

A random 10% sample of individuals assigned to the Brief Intervention, Brief Treatment, and Referral to Treatment modalities are selected to complete Government Performance and Results Act assessment (GPRA) follow-up interviews, which occur approximately six months following screening. As displayed in the following figure, 345 individuals completed a follow-up interview through Year Four. At screening, 229 of these individuals (66.4%) reported alcohol use in the past 30 days, 175 (50.7%) reported binge drinking (five or more drinks in one sitting), and 126 (36.5%) reported illegal drug use in the past 30 days. At follow-up, 196 individuals (56.8%) indicated alcohol use in the previous 30 days with 109 (31.6%) reporting binge drinking; 70 individuals (20.3%) reported the use of illegal drugs in the 30-day period prior to the follow-up interview. Thus, alcohol use decreased by roughly 10 percentage points, binge drinking reduced by almost 20 percentage points, and illegal drug use was reduced by 16 percentage points from screening to follow-up.

### Past 30 Day Alcohol and Illegal Drug Use at Screening and Follow-Up



<sup>1</sup> See Full Screenings section and Table 6 in main report, pages 6 and 7.



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## BACKGROUND

In July 2012, the Iowa Department of Public Health (IDPH), Division of Behavioral Health was awarded a five year grant from the Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Treatment (CSAT) to implement Screening, Brief Intervention, and Referral to Treatment (SBIRT IOWA) services. SBIRT IOWA is a comprehensive, integrated, public health approach to the delivery of early intervention and treatment services for persons with substance use disorders, as well as those who are at risk of developing these disorders. SBIRT IOWA programs were implemented at four Federally Qualified Health Centers (FQHCs) in Black Hawk, Polk, Scott, and Woodbury counties as well as at Camp Dodge, home of Iowa's Army National Guard (IAARNG). The Iowa Consortium for Substance Abuse Research and Evaluation (Consortium) conducts the evaluation for the SBIRT IOWA project.

SBIRT IOWA makes it possible for trained staff to administer prescreening and screening for alcohol and substance use, as well as conduct Brief Interventions, Brief Treatment sessions, and make referrals for substance abuse treatment. Individuals age 18 and over receiving medical services at the FQHCs and Soldiers affiliated with the IAARNG receive SBIRT services. This report provides data from records for individuals receiving SBIRT services through Year Four of the grant period, October 25, 2012 through June 30, 2016.

### Implementation

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Immediately upon grant award notification, staff at IDPH initiated an intensive planning and implementation process including meetings, dissemination of information, phone conferences, training sessions, and webinars. IDPH utilized a phased rollout with the five sites involved in the SBIRT project during Year One; service delivery in Iowa began within four months of the grant award. Substance abuse professionals are co-located at the four FQHCs and with the IAARNG. Table 1 provides the location, the service provider, the substance abuse treatment agency working in coordination with the service provider, and the date sites began conducting SBIRT services.

**Table 1. Service Providers and SBIRT Start Dates**

County	Service Provider	Substance Abuse Treatment Agency	Date SBIRT Services Began
Scott	Community Health Care, Inc.	Center for Alcohol & Drug Services, Inc.	10/25/12
Statewide	Iowa Army National Guard	House of Mercy and United Community Services	11/03/12
Woodbury	Siouxland Community Health Center	Jackson Recovery Centers	11/14/12
Black Hawk	Peoples Community Health Clinic	Pathways Behavioral Services*	11/15/12
Polk	Primary Health Care, Inc.	Prelude Behavioral Services	11/27/12

\*Pathways Behavioral Services was involved in the SBIRT project through January, 2014.





## Iowa Army National Guard

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Implementing SBIRT IOWA services within the IAARNG posed a unique situation. As the IAARNG made implementation plans, their first goal was to attempt to maintain a similar approach as that of the SBIRT model used in primary health care settings. The IAARNG spent a significant amount of time educating the two substance abuse treatment counselors who would be providing SBIRT services with Soldiers; this included providing in-depth training on military culture, education on the ranking structure, attending briefings, and other relevant education in order to ensure quality as well as culturally sensitive SBIRT care would be provided to service members.

The IAARNG provides SBIRT services in several ways including:

1. SBIRT services are incorporated into the annual Periodic Health Assessments (PHA) Soldiers receive through the IAARNG.
2. Soldiers are referred for SBIRT services when they receive a Serious Incident Report (SIR) after an alcohol or drug incident; for example, when a Soldier tests positive for illicit drug use during routine drug screening.
3. When a Commander feels a Soldier may have an alcohol or drug related issue.

One major accomplishment of implementing SBIRT services within the IAARNG is the ability to offer Brief Treatment services to service members via webcam utilizing the Defense Connect Online system and to conduct distance treatment over the telephone. This provides accessibility to services for Soldiers located across the state of Iowa, including those who live in rural areas. This opportunity also reduces the stigma associated with receiving substance abuse services.

## PROCESS

### Prescreening and Screening

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SBIRT staff at the FQHCs and the IAARNG administer the prescreen, consisting of two questions:

1. *How many times in the past year have you had:*  
**If male up to age 65:** five or more drinks in one day or over 14 drinks in one week?  
**If female of any age or if male over age 65:** four or more drinks in one day or over seven drinks in one week?
2. *How many times in the past year have you used an illegal drug or used a prescription medication for non-medical reasons?*

Individuals prescreen positive by answering 'one or more' to either question and should receive additional screening (referred to as "full screening") to assess the severity of substance use and help identify the appropriate level of services needed based on the individual's risk level. The two full screening instruments used are the 10-question Alcohol Use Disorders Identification Test (AUDIT) and the Drug Abuse Screening Test (DAST-10). The AUDIT is administered



when an individual prescreens positive for the alcohol question and the DAST-10 is administered when an individual prescreens positive for the drug question. If the individual prescreens positive on both questions, both the AUDIT and DAST-10 should be given. The full screening instrument answers are scored on a point system. The modality (level of service) recommended to an individual is based on the results of the full screen instrument scores. It is important to note that staff are allowed to use clinical judgment when offering services to individuals, regardless of the scores. The modality selected and entered in records should reflect the screening score; however, staff have the ability to enter a different modality than the screening score indicates. See Table 12 on page 14 for information on records where the Clinician and score-based modalities differ. Table 2 below shows the recommended services based on the score ranges.

**Table 2. AUDIT and DAST-10**

Score	Risk Level	Recommended Service
<b>AUDIT</b>		
0 – 7	Low Risk/Negative	Encouragement and Education*
8 – 15	Risky or Hazardous	Brief Intervention
16 – 19	High Risk or Harmful	Brief Treatment
20 – 40	High Risk	Referral to Treatment
<b>DAST-10</b>		
0	Low Risk/Negative	Encouragement and Education*
1 – 2	Moderate Risk	Brief Intervention
3 – 5	Substantial Risk	Brief Treatment
6 – 10	Severe Risk	Referral to Treatment

\* Modality selection by SBIRT staff should be 'Screening'.

Individuals who screen as low risk are provided positive feedback, encouragement, and education; the corresponding SBIRT modality is Screening. Brief Intervention is recommended for individuals who score in the next range and focuses on increasing insight and awareness regarding substance use and motivation toward behavioral change. Brief Treatment is offered to individuals scoring in the next range and should consist of one to twelve sessions in order to change not only the immediate behavior or thoughts, but also address long-standing problems with harmful drinking and/or drug misuse. Individuals who screen at the highest level are identified as needing a referral to treatment, which provides specialized substance use disorder treatment.

In accordance with SAMHSA funding requirements, SBIRT staff collect data for the Government Performance and Results Act (GPRA). The modality (level of service) recommended to an individual determines the types of GPRA data collected. Table 3 on the following page provides GPRA requirements at prescreening and screening based on the individual's recommended modality.

**Table 3. GPRA Requirements**

	Prescreening Only	Screening Only	Brief Intervention	Brief Treatment	Referral to Treatment
GPRA Section(s) to be Completed	Section A	Section A	Sections A – B	Sections A – G	Sections A – G

## SBIRT IOWA RECORDS

The Consortium retrieves SBIRT project records from the State of Iowa’s electronic records system, Iowa-Service Management and Reporting Tool, Web Infrastructure for Treatment Services (I-SMART WITS). The Evaluator accesses data sets via the Reports feature in the SBIRT section of the system. Two types of data sets are used: SBIRT Activities and GPRA Interview Data. SBIRT Activities data sets are available by each SBIRT IOWA implementation site; the Evaluator downloads each site’s data set and combines them into one SBIRT Activities set. GPRA Interview Data are available for all sites combined. The Evaluator merges the SBIRT Activities (“Activities”) and GPRA Interview Data (“GPRA”) files using the client\_intake\_id variable. Activities records with no matching GPRA record are excluded from the analyses, as GPRA records are the basis for SAMHSA project tracking.

These data sets contain admission, discharge, and follow-up records, identified by the interview\_type variable from the GPRA data set. “Admission” records are records of screenings conducted in the SBIRT project and are used for all analyses in this report. Follow-up records are merged with admission records to conduct follow-up outcomes analyses. GPRA records also contain a record\_status\_ind variable that denotes whether the record is active (“A”), inactive (“I”), or to be deleted (“D”). Individuals may be prescreened more than once in the SBIRT project, but according to the SBIRT IOWA manual an individual is only recognized one time per modality. Therefore, if an individual is pre-screened more than once and the recommended modality entered by staff is the same, according to the 2012-2014 SBIRT IOWA Project Director, the older prescreen/screening record is marked inactive in the system (i.e., record\_status\_ind = “I”) and the most recent record is considered active (i.e., record\_status\_ind = “A”). The GPRA system marks a record as inactive when a new screening record supersedes it. The GPRA data set contains over 35,000 inactive records, representing 29.4% of the data. Only records considered active through Year Four (admission records with screening dates through June 30, 2016) are used for this report.

It is important to note that because records are marked inactive in the electronic records system, data are dynamic. The Data from Years One, Two, and Three included in this report may have changed from previous annual reports due to some individuals being re-screened in Year Four and more recent records superseding the Year One, Two or Three records. In addition, SBIRT records in the federal electronic records system used through February, 2015, the Services Accountability Improvement System (SAIS), were not rendered inactive at the same time, or possibly for all the same reasons, as in the state system. Therefore, data retrieved from that federal system for the same timeframe may not exactly match data in this report. Other factors also render the Years One, Two, and Three data in this report different from the data in the reports for those respective years, and potentially from data reports retrieved from the previous or current federal electronic records systems. The Evaluators have identified variables that provide more accurate data on prescreen and full screen results than

those initially used. Additionally as requested by the SBIRT IOWA Project Director in Year Two, the Evaluators now calculate the recommended modality from the screening scores rather than using the SBIRT modality entered by Clinicians (see pgs. 5, 6, and 13-14 of the Year Two report). Therefore, comparisons with the Years One, Two, and Three reports should not be made.

Records entered by sites are uploaded into the I-SMART WITS system on a weekly basis. The Consortium retrieved project records from I-SMART for this report on July 11, 2016, the day following the first upload to the system after June 30<sup>th</sup>.

SBIRT IOWA records are uploaded from I-SMART/WITS into the federal data system for SAMHSA project tracking and grantee access to reports and information on follow-up interviews due. In February 2015, SAMHSA launched a new federal data system, the Common Data Platform (CDP), and discontinued the use of the SAIS/GPRA system. Problems exist within the CDP and in the interface between I-SMART/WITS and the CDP, rendering SBIRT IOWA data in the CDP incomplete and of dubious accuracy. These issues affect the tracking of progress toward target goals for screenings and follow-ups, notification of follow-up interviews due, and follow-up interview completion rates. Instances where these issues affect evaluation data are discussed in relevant sections of this report.

As of July 11, 2016, there were 84,021 active screening records through Year Four for SBIRT IOWA in I-SMART/WITS. Multiple variables exist between the SBIRT Activities and GPRA data sets for potentially identifying individuals with repeated screenings. The Evaluators use the "Unique\_Client\_Number" variable to identify individuals with more than one screening. Following the removal of duplicated screening records (records for individuals who had a subsequent screening resulting in the same modality based on screening score), there were 83,704 qualifying screening records through Year Four. Of those 83,704 qualifying active records: 75,584 records were from the four FQHC sites and 8,120 records were from the IAARNG. Those records provide the basis of the data presented in this report. Where pertinent, data for FQHCs and the IAARNG are presented separately. Due to rounding, percentages in this report may not add up to exactly 100.

## **Screening Results**

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### **Prescreening**

Prescreening results presented in Tables 4 and 5 are based on the "Prescreen 1-Alcohol" and "Prescreen 2-Drug" variables in the SBIRT Activities records. If the score on either of these variables is greater than zero, the prescreen is positive. More than one in five records had a positive prescreen score. Table 4 on the following page presents information on prescreening results for SBIRT IOWA. The values in Table 4 differ from the values in Table 6 as those in Table 4 are based only on the prescreen instruments and do not consider the full screen scores.

**Table 4. Prescreening Results**

Prescreening Result	Number of	Percentage of Total
Positive	18,472	22.1%
Negative <sup>a</sup>	65,232	77.9%
Total	83,704	100.0%

<sup>a</sup> Nine of these records had full screen scores greater than zero.

Table 5 presents prescreening results for the FQHC sites and the IAARNG separately. Slightly less than one in five FQHC prescreens were positive; over half of IAARNG prescreens were positive.

**Table 5. Prescreening Results by Site**

Prescreening Result	FQHC Sites		IAARNG	
	Number of Records	Percentage of Total	Number of Records	Percentage of Total
Positive	14,443	19.1%	4,029	49.6%
Negative	61,141	80.9%	4,091	50.4%
Total	75,584	100.0%	8,120	100.0%

## Full Screening

It is unclear how many full screenings were conducted. There are 4,895 positive prescreening records with full screen scores of only zero (AUDIT score of zero with no DAST-10 score, DAST-10 score of zero with no AUDIT score, or both instruments with scores of zero). If an individual answered “yes” to either question for the prescreening (i.e., positive prescreen), his/her full screen score should be one or greater. Records with positive prescreen scores and AUDIT and/or DAST-10 scores of only zero may be individuals who prescreened positive but did not complete a full screen, or it may be that the patient or Soldier completed the full screen instrument and answered “no” to all questions (recanting their positive response on the prescreen); however, this is not clear from the data. The number of individuals that were identified as needing a full screen but did not receive one is unknown since the zero score is ambiguous. Records with negative prescreen scores (scores of zero for both questions) and AUDIT and/or DAST-10 scores above zero also exist. There are nineteen of these records; 13 contain full screen scores in the low-risk use range and six contain scores above the low-risk use range. For this report, records with full screen scores above zero for either or both instruments are considered full screening records.

Table 6 on the following page presents the number of records in SBIRT IOWA through Year Four in each modality, based on the prescreen and full screen score(s). The information in Table 6 does not reflect the SBIRT modality recorded by staff at prescreening and full



screening, which differs in a small percentage (0.4%) of the records. This occurs when the clinician overwrites the score-based SBIRT Modality with a different recommended modality based on his/her clinical judgment, or when qualified staff are not available to provide further indicated services.

**Table 6. Recommended Modality Based on Prescreen and Full Screen Scores**

Recommended Modality Based on Screening Scores	All Sites % (N=83,704)	FQHC Sites % (N=75,584)	IAARNG % (N=8,120)
Prescreening Only <sup>a</sup>	77.9 (65,213)	80.9 (61,123)	50.4 (4,090)
Screening (Encouragement and Education) <sup>b</sup>	13.9 (11,622)	10.9 (8,220)	41.9 (3,402)
Brief Intervention	5.1 (4,267)	5.0 (3,769)	6.1 (498)
Brief Treatment	1.4 (1,174)	1.4 (1,085)	1.1 (89)
Referral to Treatment	1.7 (1,428)	1.8 (1,387)	0.5 (41)

<sup>a</sup> Prescreening records with no full screen scores greater than zero.

<sup>b</sup> Full screen score identifies respondent as “low risk.”

Figure 1 displays the number of active records indicating prescreenings and full screenings (based on score) conducted at the four FQHC sites by year for SBIRT IOWA. The number of records for full screenings includes all active records with the presence of AUDIT and/or DAST-10 scores greater than zero.

**Figure 1. Prescreenings and Full Screenings by Year: FQHC Sites**

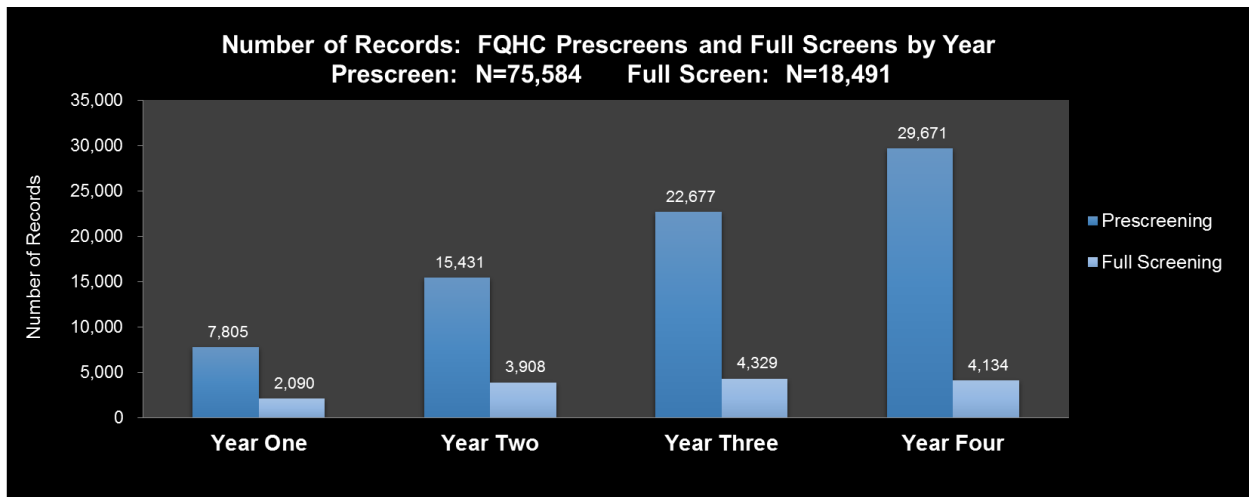
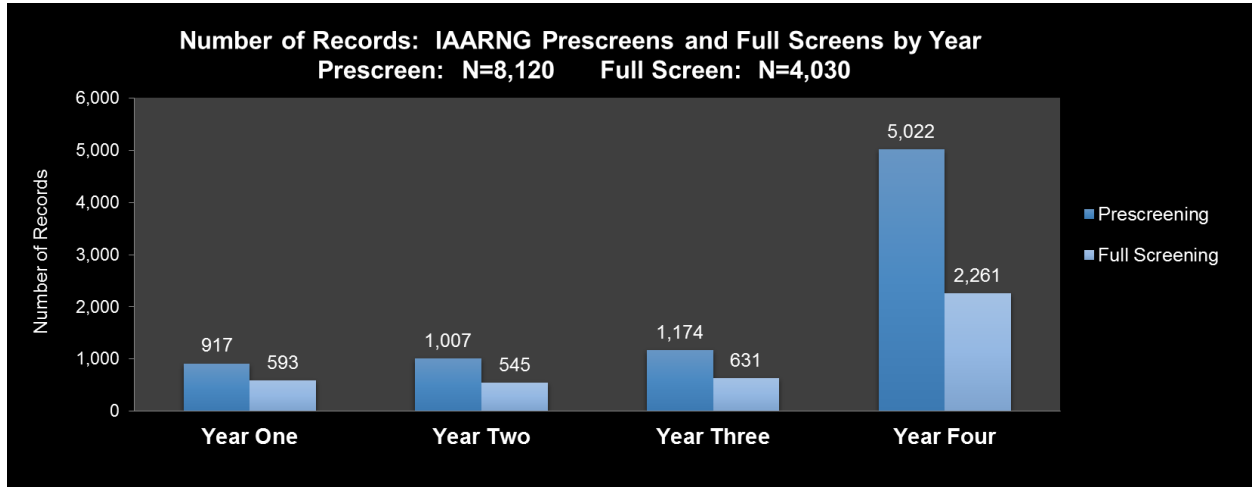


Figure 2 on the following page displays the number of active records indicating prescreenings and full screenings conducted (based on score) by the IAARNG by year for SBIRT IOWA. Some Soldiers have been screened multiple times and only their most current screening is used in these analyses. Consequently, the screenings completed in previous years are not counted in Figure 2. The number of records for individuals receiving full screening includes active records with the presence of AUDIT and/or DAST-10 scores greater than zero.

**Figure 2. Prescreenings and Full Screenings by Year: IAARNG**



SAMHSA sets annual targets for each SBIRT grantee for the number of clients to be screened and the number in each modality. These target numbers historically have been provided in the federal data system through the Intake Coverage Report. However, in Year Three, the modality targets provided in the following table were calculated from annual target numbers previously provided in SAIS (those annual targets were the same in Year One and Year Two, therefore that annual target is tripled here for the target through Year Three). The Intake Coverage Report was available for this report.

Table 7 provides annual target numbers, the number screened in each modality, and percent of target achieved. Data in this figure represent the expected modality based on full screen scores rather than modality entered by site staff. Therefore, numbers of records and percent of target achieved may vary slightly from those in the federal data system.

**Table 7. Targets for Year Four**

	SAMHSA Target Through Year Four <sup>a</sup>	SBIRT IOWA Records Through Year Four	Percent of Target
Client Target	67,620	83,704	123.79%
Screening	35,592	76,835	215.88%
Brief Intervention	24,908	4,267	17.13%
Brief Treatment	3,560	1,174	32.98%
Referral to Treatment	3,560	1,428	40.11%

<sup>a</sup> Target number retrieved from the federal CDP on July 1, 2016.

## DESCRIPTION OF SBIRT IOWA PARTICIPANTS

The numbers and percentages provided in this section are based on the number of records rather than individual people screened in SBIRT IOWA. As indicated above, some individuals are represented more than once in the data due to multiple screenings resulting in different modalities. Therefore, some demographic characteristics may be disproportionately represented. This also precludes the ability to perform statistical tests or calculate confidence intervals.

### Description at Prescreening

#### Sex and Age

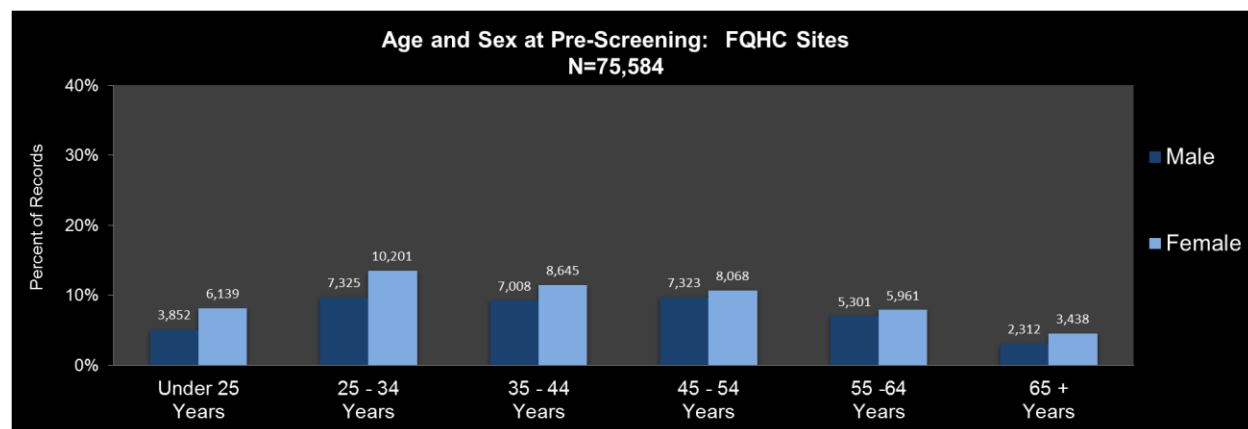
Sex in this report is based on the gender reported in records from the Activities dataset; 43,592 records (52.1%) were for women and 40,101 records (47.9%) were for men. Sex was unknown in 11 records (0.01%). Table 8 shows the sex reported in the Activities records from FQHCs and the IAARNG.

**Table 8. Sex**

Sex	All Sites % (N=83,704)	FQHC Sites % (N=75,584)	IAARNG % (N=8,120)
Male	47.9 (40,101)	43.8 (33,121)	86.0 (6,980)
Female	52.1 (43,592)	56.2 (42,452)	14.0 (1,140)
Unknown	<0.1 (11)	<0.1 (11)	0.0 (0)

Records from all sites indicate the median age of all individuals prescreened was 39 years. Figure 3 on the following page presents the number of records for males and females prescreened at FQHCs by age; age is provided in six categories. The median age of individuals at FQHCs was 41 years at prescreening. The age category for with the most records was 25-34 year olds for both women and men. For all age categories, there were more records for females than males.

**Figure 3. Age and Sex: FQHC Sites**

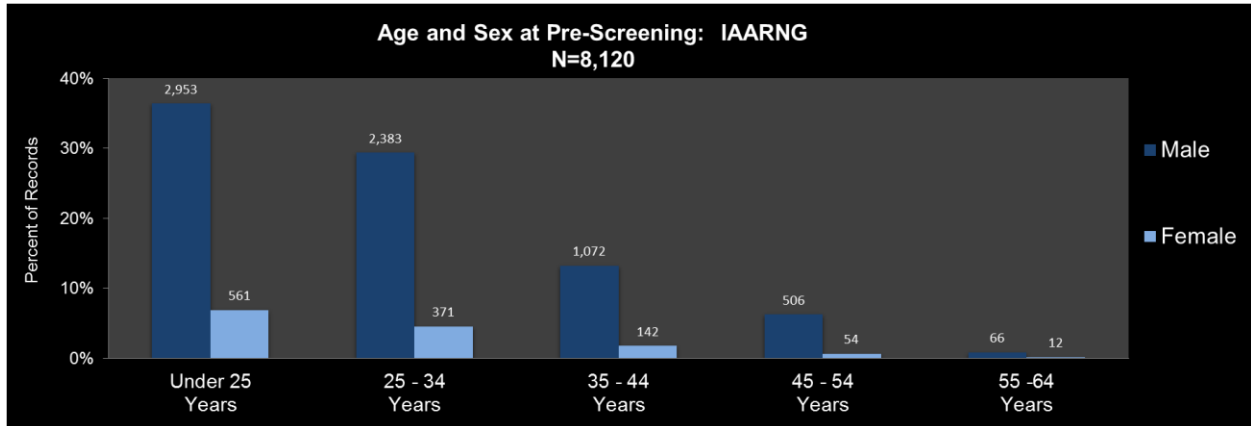


Note: Data for 11 records are not included due to sex recorded as 'unknown.'



Figure 4 presents the number of records for males and females prescreened through the IAARNG by age; age is provided in five categories (there were no IAARNG records for Soldiers age 65 or over). The median age of Soldiers with the IAARNG was 26 years at prescreening. The highest numbers of males and females were under 25 years of age. For all age categories, there were substantially more records for males than females.

**Figure 4. Age and Sex: IAARNG**



### Race and Ethnicity

Table 9 on the following page presents race and ethnicity reported in records at prescreening. Nearly three-fourths of records (72.5%) in Year Four were White, 14.6% were African American, and 5.6% reported other races or more than one race. Just over 20% of the records indicated Hispanic or Latino ethnicity.

**Table 9. Race and Ethnicity**

Race	All Sites % (N=83,704)	FQHC Sites % (N=75,584)	IAARNG % (N=8,120)
White	72.5 (60,715)	70.1 (52,996)	95.1 (7,719)
African American	14.6 (12,201)	15.9 (12,027)	2.1 (174)
Asian	4.3 (3,630)	4.7 (3,548)	1.0 (82)
Hawaiian/ Pacific Islander	0.3 (260)	0.3 (251)	0.1 (9)
Alaska Native	<0.1 (16)	<0.1 (16)	0.0 (0)
American Indian	0.7 (545)	0.7 (529)	0.2 (16)
Multi-Racial	0.3 (270)	0.3 (212)	0.7 (58)
No Race reported/Missing Data	7.3 (6,067)	7.9 (6,005)	0.8 (62)
Ethnicity	All Sites % (N=83,704)	FQHC Sites % (N=75,584)	IAARNG % (N=8,120)
Hispanic/Latino	20.9 (17,474)	22.7 (17,186)	3.6 (288)
Not Hispanic/Latino	79.1 (66,230)	77.3 (58,398)	96.5 (7,832)
Missing Data/Refused	0.0 (0)	0.0 (0)	0.0 (0)

## DESCRIPTION OF FULL SCREENINGS

The numbers and percentages provided in this section are based on the number of active screening records rather than individual people screened in SBIRT IOWA. As previously indicated, some individuals have been screened more than once, and repeated screenings are included in the data if they resulted in different modalities.

There were 18,491 records with full screen scores above zero. Of these, 14,461 records are from FQHCs and 4,030 records are from the IAARNG. The recommended service modalities in the following narrative and Tables 10 and 11 are based on the AUDIT and/or DAST-10 score as requested by the SBIRT IOWA Project Director, not the modality selected and entered in records by staff.

- **AUDIT only:** There were 9,561 screenings conducted using the AUDIT only (excluding records with AUDIT scores of zero). Of these, 5,708 records are from FQHCs and 3,853 records are from the IAARNG.
- **DAST-10 only:** There were 1,911 screenings conducted using the DAST-10 only (excluding records with scores of zero). Of these, 1,895 records are from the FQHC sites and 16 records are from the IAARNG.
- **AUDIT and DAST-10:** There are 2,047 screening records containing scores above zero for both the AUDIT and DAST-10. Of these, 1,904 are from FQHC sites and 143 are from the IAARNG.

Tables 10 and 11 provide the recommended modality based on full screening scores for records from the FQHCs and IAARNG, respectively. Included are score ranges within each modality and median scores for records. Data are provided for records with only AUDIT scores (excluding scores of zero), records with only DAST-10 scores (excluding scores of zero), and records with both AUDIT and DAST-10 scores (both greater than zero). For records with both AUDIT and DAST-10 scores, the recommended service for an individual completing both screening instruments reflects the score for the highest level of care.

**Table 10. Modalities and Scores for Records with Full Screening Scores: FQHC Sites**

Screening Instrument	Total Number of Records N=9,507	Recommended Service	Number of Records in Each Modality N=9,507	Scores at Screening	
				Range	Median
Completed AUDIT Only	5,708	Screening (Encouragement and Education)	3,310	1 – 7	4
		Brief Intervention	1,550	8 – 15	10
		Brief Treatment	309	16 – 19	17
		Referral to Treatment	539	20 – 40	26
Completed DAST-10 Only	1,895	Brief Intervention	1,224	1 – 2	1
		Brief Treatment	391	3 – 5	4
		Referral to Treatment	280	6 – 10	7
Completed Both AUDIT and DAST-10	1,904	Brief Intervention	966	AUDIT 1 – 15 DAST-10 1 – 2	6 1
		Brief Treatment	377	AUDIT 1 – 19 DAST-10 1 – 5	9 3
		Referral to Treatment	561	AUDIT 1 – 40 DAST-10 1 – 10	22 6

**Table 11. Modalities and Scores for Records with Full Screening Scores: IAARNG**

Screening Instrument	Total Number of Records N=4,012	Recommended Service	Number of Records in Each Modality N=4,012	Scores at Screening	
				Range	Median
Completed AUDIT Only	3,853	Screening (Encouragement and Education)	3,387	1 – 7	4
		Brief Intervention	416	8 – 15	9
		Brief Treatment	34	16 – 19	17
		Referral to Treatment	16	20 – 32	22.5
Completed DAST-10 Only	16	Brief Intervention	11	1 – 2	1
		Brief Treatment	4	3 – 5	3
		Referral to Treatment	1	6	6
Completed Both AUDIT and DAST-10	143	Brief Intervention	68	AUDIT 1 – 15 DAST-10 1 – 2	4 2
		Brief Treatment	51	AUDIT 2 – 19 DAST-10 1 – 5	8 4
		Referral to Treatment	24	AUDIT 4 – 32 DAST-10 2 – 9	14 6.5

As mentioned in the Process section on page 3, Clinicians may recommend a modality of service that is different from the recommendation indicated by the screening score. In the Year Four data set there are 366 records (0.4%) in which the modality entered by staff differs from the modality based on the screenings score.

Table 12 on the following page displays the differences between the modality based on score and modality entered by the Clinician. According to the SBIRT IOWA Project Director, these differences often occur due to staff time constraints or lack of availability of qualified SBIRT staff when an individual screens as needing further services. In just under two-thirds (63.9%) of the records where the modality differs, the score indicated a higher level of care but the modality entered was Screening.

**Table 12. Differences in Modality Based on Score and Clinician Selection**

Recommended Modality Based on Full Screen Score	Modality Recorded by Staff	Number of Records % (N=366)
Screening	Brief Intervention	0.5 (2)
Brief Intervention	Screening	30.1 (110)
Brief Intervention	Brief Treatment	3.6 (13)
Brief Intervention	Referral to Treatment	0.5 (2)
Brief Treatment	Screening	16.9 (62)
Brief Treatment	Brief Intervention	13.4 (49)
Brief Treatment	Referral to Treatment	0.8 (3)
Referral to Treatment	Screening	16.9 (62)
Referral to Treatment	Brief Intervention	8.2 (30)
Referral to Treatment	Brief Treatment	9.0 (33)

Of records with a completed full screening, 6,822 have a recommended modality based on AUDIT and DAST-10 scores of Brief Intervention, Brief Treatment, or Referral to Treatment. Typically, Section B of the GPRA would be administered to these individuals and contains questions regarding alcohol and drug use in the previous 30 days. However, GPRA Section B was not administered to some of these individuals due to staff entering a modality recommendation of Screening, which does not require GPRA Section B.

Tables 13 and 14 on the following pages provide information on alcohol and drug use for SBIRT IOWA records assigned to the Brief Intervention, Brief Treatment, and Referral to Treatment modalities. Of the 6,595 records, 4,196 (63.2%) were assigned to the Brief Intervention modality, 1,098 (16.6%) were assigned the Brief Treatment modality, and Referral to Treatment was recorded for 1,301 (19.7%) records. The following data were self-reported by persons screened.

Of the 6,595 records represented in Tables 13 and 14:

- Women accounted for 2,089 (31.7%) of them and men 4,506 (68.3%) of the records.
- Races reported:
  - 4,926 (74.7%) White;
  - 1,210 (18.4%) African American;
  - 208 (3.2%) other races or more than one race;
  - 251 (3.8%) were records with no race reported or missing data;
- Seven hundred eighty-nine (12.0%) reported Hispanic or Latino ethnicity.
- Six hundred twenty-six (9.5%) were records for Soldiers with the IAARNG and 5,969 (90.5%) were records from FQHCs.

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## Alcohol and Drug Use

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Individuals are asked to report all substances used in the past 30 days. As shown in Table 13 on the following page, alcohol was the most common substance at screening with 3,967 records (60.2%) for individuals reporting use in the past 30 days. Illegal drug use was reported in 2,363 records (35.8%). Of those indicating illegal drug use in the past 30 days, 85.9% reported

marijuana use. The next most often reported substance among illegal drug users was methamphetamine use, at 11.0%. Approximately 4% of responses for any given question in Table 13 are missing because individuals declined to answer, responded they did not know, or data are missing.

**Table 13. Substance Use at Screening**

Substance Use in Past 30 Days from Positive Prescreen Records	All Sites % (N=6,595) <sup>a</sup>	FQHC Sites % (N=5,969) <sup>a</sup>	IAARNG % (N=626) <sup>a</sup>
Alcohol	60.2 (3,967)	57.1 (3,409)	89.1 (558)
Marijuana/Hashish	30.8 (2,030)	33.5 (1,997)	5.3 (33)
Methamphetamine	4.0 (262)	4.3 (259)	0.5 (3)
Cocaine/Crack	1.9 (127)	2.1 (126)	0.2 (1)
Heroin	0.6 (39)	0.6 (37)	0.3 (2)
Morphine	0.2 (14)	0.2 (14)	0.0 (0)
Opioids/Pain Relievers <sup>b</sup>	0.9 (61)	0.9 (56)	0.8 (5)
Codeine/ Tylenol 2,3,4	0.3 (18)	0.3 (16)	0.3 (2)
Non-Prescription Methadone	0.3 (22)	0.4 (22)	0.0 (0)
Hallucinogens/Psychedelics	0.1 (9)	0.2 (9)	0.0 (0)
Benzodiazepines/Tranquilizers	0.5 (30)	0.5 (30)	0.0 (0)
Ketamine	<0.1 (2)	<0.1 (2)	0.0 (0)
Inhalants	<0.1 (1)	<0.1 (1)	0.0 (0)
Other Illegal Drugs	1.2 (79)	1.3 (78)	0.2 (1)

<sup>a</sup> Missing data for each substance results in slightly lower N's which vary from substance to substance.

<sup>b</sup> The Opioids/Pain Relievers category is comprised of records indicating using Dilaudid, Demerol, Percocet, Oxycodone, and Darvon in the last 30 days. There were no records for Percocet, Demerol, and Darvon.

Column totals are not equal to the number of records since people report multiple substances.

Note: Data in the table above reflect records of individuals who answered the questions; the numbers of respondents who declined to answer, responded they did not know the answer, or for whom there are missing data varied for each question (approximately 4% of records from all sites).

As shown in Table 14 on the following page, almost half (46.1%) of the 6,595 records with GPRA Section B indicated binge drinking. In 11.7% of the records, individuals reported use of alcohol and drugs on the same day. Drug use via injection was reported in 1.6% of the records, comprising 4.6% of the 2,363 records with reported illegal drug use.

**Table 14. Binge Drinking, Same Day Alcohol and Drug Use, and Injection Drug Use in Past 30 Days at Screening**

Alcohol and Drugs	All Sites % (N=6,595)	FQHC Sites % (N=5,969)	IAARNG % (N=626)
Binge Drinking (Five or More Drinks in One Sitting)	46.1 (3,039)	42.9 (2,560)	76.5 (479)
Used Alcohol and Drugs on the Same Day	11.7 (773)	12.5 (747)	4.2 (26)
Injection Drug Use	All Sites % (N=6,595)	FQHC Sites % (N=5,969)	IAARNG % (N=626)
Injected Drugs in Past 30 Days	1.6 (108)	1.8 (105)	0.5 (3)

Note: Data in the table above reflect records of individuals who answered the questions. The numbers of records in which individuals declined to answer a question, responded they did not know the answer, or for whom there are missing data varied for each question (approximately 6% of records from all sites). Column totals are not equal to the number of records.

SBIRT staff administers the GPRA instrument through Section G to individuals designated in the Brief Treatment and Referral to Treatment modalities. There are 2,587 records in these categories based on screening scores. However, as with GPRA Section B, Clinicians assigned some of these individuals to the Screening or Brief Intervention modality and did not administer GPRA Sections C through Section G. There are 2,399 records in which those sections of the GPRA instrument were completed.

Tables 15 through 28 on the following pages provide information from the 2,399 records in which those the GPRA instrument through Section G were completed. Tables are presented in the order in which the questions appear in the GPRA instrument. The data presented were self-reported. The following are common characteristics of records from SBIRT IOWA in which higher levels of substance abuse treatment services were recommended. Of the 2,399 records described in Tables 15 through 28:

- Women accounted for 835 (34.8%) of these records and 1,564 (65.2%) records for men.
- Races reported:
  - 1,869 (77.9%) were White;
  - 382 (15.9%) were African American;
  - 78 (3.3%) reported other races or more than one race;
  - 70 (2.9%) were records with no race reported or missing data.
- Two hundred sixty-five (11.1%) reported Hispanic or Latino ethnicity.
- One sixty-three (5.5%) were records for Soldiers with the IAARNG and 2,266 (94.5%) were records from FQHCs.
- Nearly 50% reported owning or renting their own apartment, room or house.
- Nearly 45% experienced stress due to their use of alcohol or other drugs in the past 30 days.
- Just under 50% of the records indicate individuals reported having children.
- Nearly one-third were employed either full or part-time; nearly 25% were seeking employment.
- More than 50% of the records indicated respondents' experienced serious depression in the past 30 days and over half also indicated serious anxiety or tension in the last month. More than one-third of the records indicated respondents experienced trouble understanding, concentrating, or remembering in the past 30 days.
- Many (40.8%) reported experiencing violence or trauma within their lifetime.
- Over 50% indicated they have interaction with family and/or friends who are supportive of their recovery.

## Family and Living Conditions at Screening

**Table 15. Housing at Screening for Records Assigned to Brief Treatment and Referral to Treatment Modalities**

Housing Situation	All Sites % (N=2,399)	FQHC Sites % (N=2,266)	IAARNG % (N=133)
Shelter	8.1 (195)	8.6 (195)	0.0 (0)
Street/Outdoors	2.5 (59)	2.6 (59)	0.0 (0)
Institution (Hospital, Jail/Prison, Nursing Home)	7.7 (185)	8.2 (185)	0.0 (0)
Own/Rent Apartment, Room, House	46.9 (1,126)	45.1 (1,022)	78.2 (104)
Someone Else's Apartment, Room, House	23.9 (573)	24.4 (552)	15.8 (21)
Halfway House	0.3 (8)	0.4 (8)	0.0 (0)
Residential Treatment	0.3 (8)	0.4 (8)	0.0 (0)
Dormitory/College Residence	0.2 (5)	<0.1 (1)	3.0 (4)
Housed: Other	1.0 (25)	1.1 (24)	0.8 (1)
Doesn't Know	0.5 (13)	0.5 (12)	0.8 (1)
Declined to Answer Question	5.9 (141)	6.2 (141)	0.0 (0)
Missing Data	2.5 (61)	2.6 (59)	1.5 (2)

**Table 16. Substance Use Causing Stress, Reduction in Activities, and Emotional Problems at Screening for Records Assigned to Brief Treatment and Referral to Treatment Modalities**

Stress, Activities, Emotional Problems Due to Alcohol and Drug Use	All Sites % (N=2,399)	FQHC Sites % (N=2,266)	IAARNG % (N=133)
Experienced Stress Due to Use of Alcohol or Other Drugs in Past 30 Days	42.6 (1,023)	41.9 (949)	55.6 (74)
Use of Alcohol or Other Drugs Caused Reduction or Giving Up Important Activities in Past 30 Days	33.6 (807)	33.3 (755)	39.1 (52)
Use of Alcohol or Other Drugs Caused Emotional Problems in Past 30 Days	37.3 (895)	36.9 (835)	45.1 (60)

Note: Data in the table above reflect records of individuals who answered the questions. The numbers of records in which individuals declined to answer a question, responded they did not know the answer, or for whom there are missing data varied. Respondents also may answer affirmatively to more than one of the questions; therefore, column totals do not equal the total number of records.



**Table 17. Children at Screening for Records Assigned to Brief Treatment and Referral to Treatment Modalities**

Children	All Sites % (N=2,399)	FQHC Sites % (N=2,266)	IAARNG % (N=133)
Have Children	49.7 (1,192)	51.0 (1,156)	27.1 (36)
Children Living with Someone Else Due to Child Protection Court Order	6.1 (146)	6.4 (146)	0.0 (0)
Lost Parental Rights For Any Children	6.1 (146)	6.3 (143)	2.3 (3)

Note: Data in the table above reflect records of individuals who answered the questions. The numbers of records in which individuals declined to answer a question, responded they did not know the answer, or for whom there are missing data varied. Column totals are not equal to the total number of records.

**Table 18. Pregnant at Screening for Females' Records Assigned to Brief Treatment and Referral to Treatment Modalities**

Pregnant	All Sites % (N=750)	FQHC Sites % (N=732)	IAARNG % (N=18)
Currently Pregnant	5.6 (42)	5.6 (41)	5.6 (1)

Note: Data in the table above reflect records of individuals who answered the questions. The numbers of records in which individuals declined to answer a question, responded they did not know the answer, or for whom there are missing data varied. Column totals are not equal to the total number of records.

## Employment at Screening

**Table 19. Employment at Screening for Records Assigned to Brief Treatment and Referral to Treatment Modalities**

Employment	All Sites % (N=2,399)	FQHC Sites % (N=2,266)	IAARNG % (N=133)
Employed Full-Time ( $\geq 35$ hrs/wk)	22.1 (529)	19.6 (443)	64.7 (86)
Employed Part-Time (<35 hrs/wk)	9.8 (234)	9.4 (214)	15.0 (20)
Unemployed, Looking for Work	23.7 (568)	24.2 (549)	14.3 (19)
Unemployed, Not Looking for Work	19.0 (456)	19.9 (451)	3.8 (5)
Unemployed, Disabled	8.5 (203)	9.0 (203)	0.0 (0)
Unemployed, Volunteer Work	0.3 (6)	0.3 (6)	0.0 (0)
Unemployed, Retired	1.1 (26)	1.2 (26)	0.0 (0)
Other	2.1 (51)	2.3 (51)	0.0 (0)
Doesn't Know	0.8 (20)	0.8 (19)	0.8 (1)
Declined to Answer Question	9.3 (224)	9.9 (224)	0.0 (0)
Missing Data	3.4 (82)	3.5 (80)	1.5 (2)

## Arrests in Past 30 Days at Screening

**Table 20. Arrests at Screening for Records Assigned to Brief Treatment and Referral to Treatment Modalities**

Arrests in Past 30 Days	All Sites % (N=2,399)	FQHC Sites % (N=2,266)	IAARNG % (N=133)
Zero	81.9 (1,964)	81.5 (1,846)	88.7 (118)
One	4.5 (107)	4.2 (96)	8.3 (11)
Two	0.2 (4)	0.2 (4)	0.0 (0)
Three or More	<0.1 (2)	<0.1 (2)	0.0 (0)
Declined to Answer Question	9.8 (236)	10.4 (236)	0.0 (0)
Doesn't Know	0.6 (14)	0.5 (12)	1.5 (2)
Missing Data	3.0 (72)	3.1 (70)	1.5 (2)

## Mental and Physical Health Problems and Treatment/Recovery at Screening

**Table 21. Overall Health at Screening for Records Assigned to Brief Treatment and Referral to Treatment Modalities**

Self Rating of Overall Health	All Sites % (N=2,399)	FQHC Sites % (N=2,266)	IAARNG % (N=133)
Good to Excellent	41.1 (987)	38.7 (876)	83.5 (111)
Fair	31.2 (748)	32.4 (735)	9.8 (13)
Poor	13.7 (328)	14.3 (323)	3.8 (5)
Doesn't Know	1.0 (23)	0.9 (21)	1.5 (2)
Declined to Answer Question	9.5 (228)	10.1 (228)	0.0 (0)
Missing Data	3.5 (85)	3.7 (83)	1.5 (2)

**Table 22. Inpatient Treatment in Past 30 Days at Screening for Records Assigned to Brief Treatment and Referral to Treatment Modalities**

Receiving Inpatient Treatment In Past 30 Days	All Sites % (N=2,399)	FQHC Sites % (N=2,266)	IAARNG % (N=133)
Physical Complaint	4.3 (104)	4.5 (102)	1.5 (2)
Mental or Emotional Difficulties	2.3 (54)	2.3 (52)	1.5 (2)
Alcohol or Substance Abuse	7.5 (180)	7.8 (177)	2.3 (3)

Note: Data in the table above reflect records of individuals who answered the questions. The numbers of records in which individuals declined to answer a question, responded they did not know the answer, or for whom there are missing data varied. Respondents also may answer affirmatively to more than one of the questions; therefore, column totals do not equal the total number of records.

**Table 23. Outpatient Treatment in Past 30 Days at Screening for Records Assigned to Brief Treatment and Referral to Treatment Modalities**

Receiving Outpatient Treatment In Past 30 Days	All Sites % (N=2,399)	FQHC Sites % (N=2,266)	IAARNG % (N=133)
Physical Complaint	17.7 (425)	18.2 (412)	9.8 (13)
Mental or Emotional Difficulties	10.7 (256)	10.8 (245)	8.3 (11)
Alcohol or Substance Abuse	7.6 (182)	7.7 (175)	5.3 (7)

Note: Data in the table above reflect records of individuals who answered the questions. The numbers of records in which individuals declined to answer a question, responded they did not know the answer, or for whom there are missing data varied. Respondents also may answer affirmatively to more than one of the questions; therefore, column totals do not equal the total number of records.

**Table 24. Emergency Room Visits in Past 30 Days at Screening for Records Assigned to Brief Treatment and Referral to Treatment Modalities**

Receiving Emergency Room Treatment In Past 30 Days	All Sites % (N=2,399)	FQHC Sites % (N=2,266)	IAARNG % (N=133)
Physical Complaint	11.3 (272)	11.7 (266)	4.5 (6)
Mental or Emotional Difficulties	2.8 (68)	2.9 (65)	2.3 (3)
Alcohol or Substance Abuse	5.6 (134)	5.7 (130)	3.0 (4)

Note: Data in the table above reflect records of individuals who answered the questions. The numbers of records in which individuals declined to answer a question, responded they did not know the answer, or for whom there are missing data varied. Respondents also may answer affirmatively to more than one of the questions; therefore, column totals do not equal the total number of records.

**Table 25. Mental Health at Screening for Records Assigned to Brief Treatment and Referral to Treatment Modalities**

Mental Health Issues Experienced In Past 30 Days	All Sites % (N=2,399)	FQHC Sites % (N=2,266)	IAARNG % (N=133)
Serious Depression	49.6 (1,190)	50.1 (1,136)	40.6 (54)
Anxiety or Tension	53.9 (1,293)	54.6 (1,237)	42.1 (56)
Hallucinations	5.9 (142)	6.2 (140)	1.5 (2)
Trouble Understanding, Concentrating, or Remembering	32.8 (787)	34.0 (770)	12.8 (17)
Trouble Controlling Violent Behavior	8.0 (192)	8.3 (187)	3.8 (5)
Attempted Suicide	1.9 (46)	1.9 (44)	1.5 (2)
Prescribed Medication for Psychological/Emotional Problems	21.2 (509)	21.9 (496)	9.8 (13)

Note: Data in the table above reflect records of individuals who answered the questions. The numbers of records in which individuals declined to answer a question, responded they did not know the answer, or for whom there are missing data varied. Respondents also may answer affirmatively to more than one of the questions; therefore, column totals do not equal the total number of records.

**Table 26. Violence and Trauma During Lifetime at Screening for Records Assigned to Brief Treatment and Referral to Treatment Modalities**

Experienced Violence or Trauma in Lifetime	All Sites % (N=2,399)	FQHC Sites % (N=2,266)	IAARNG % (N=133)
Yes	40.8 (979)	40.1 (908)	53.4 (71)
No	38.7 (929)	38.5 (872)	42.9 (57)
Doesn't Know	1.1 (27)	1.1 (25)	1.5 (2)
Declined to Answer Question	14.1 (339)	14.9 (338)	0.8 (1)
Missing Data	5.2 (125)	5.4 (123)	1.5 (2)

**Table 27. Hit, Kicked, Slapped or Otherwise Physically Hurt in Past 30 Days at Screening for Records Assigned to Brief Treatment and Referral to Treatment Modalities**

Physically Hurt in Past 30 Days	All Sites % (N=2,399)	FQHC Sites % (N=2,266)	IAARNG % (N=133)
Yes	5.9 (141)	5.8 (131)	7.5 (10)
No	75.5 (1,810)	74.6 (1,691)	89.5 (119)
Doesn't Know	0.9 (22)	0.9 (20)	1.5 (2)
Declined to Answer Question	12.9 (310)	13.7 (310)	0.0 (0)
Missing Data	4.8 (116)	5.0 (114)	1.5 (2)

## Social Connectedness at Screening

**Table 28. Social Connectedness at Screening for Records Assigned to Brief Treatment and Referral to Treatment Modalities**

Social Connectedness	All Sites % (N=2,399)	FQHC Sites % (N=2,266)	IAARNG % (N=133)
Attended Any Type of Self-Help Recovery Groups including Religious/Faith-Based, Non-Religious, or any Other in Past 30 Days	24.6 (589)	25.2 (572)	12.8 (17)
Interaction With Family/Friends Who Support Recovery	54.9 (1,316)	55.6 (1,259)	42.9 (57)
Have Someone to Turn to When Having Trouble	73.9 (1,772)	72.9 (1,652)	90.2 (120)

Note: Data in the table above reflect records of individuals who answered the questions. The numbers of records in which individuals declined to answer a question, responded they did not know the answer, or for whom there are missing data varied. Respondents also may answer affirmatively to more than one of the questions; therefore, column totals do not equal the total number of records.

## OUTCOMES

A random 10% sample of records assigned to the Brief Intervention, Brief Treatment, and Referral to Treatment modalities are selected to complete a follow-up interview. This selection is based on the modality SBIRT staff select in the system rather than the modality indicated by the screening scores.

While follow-up interviews are to be conducted 6 months after SBIRT screening, SAMHSA allows interviews to be completed between five and eight months following screening. SAMHSA's formula for calculating follow-up completion rates uses as the denominator the number of individuals due for a follow-up interview who have reached six months post screening. However, interviews completed from five months post screening on are included in the numerator. The Evaluator historically has tracked follow-ups due and follow-ups completed through the SAIS system's Follow-up Notification Report, Missing 6 Month Follow Up Report, and active completed follow-up records in I-SMART WITS. Since the changeover to the CDP and the reversion back to the SAIS system the Follow-up Notification Report has been incorrect and the Missing 6 Month Follow Up Report has been unavailable. Consequently, Evaluators do not have access to information on the total number of follow-up interviews due through Year Four or the follow-up completion rate achieved.

There are 345 active follow-up records through June 30, 2016. Of the 345 records, the modalities selected by staff in the screening record are:

- Brief Intervention: 221 records (64.1%).
- Brief Treatment: 61 records (17.7%).
- Referral to Treatment: 63 records (18.3%).

Analyses show interviews were conducted from 150 days to 245 days post-prescreen/screen with a median time from prescreen/screen to follow-up interview of 172 days (mean = 183.1 days)<sup>2</sup>. Of the 345 individuals who were interviewed:

- Fifty-one (14.8%) were Soldiers with the IAARNG and 294 (85.2%) were screened at FQHCs.
- One hundred ten (31.9%) were female and 235 (68.1%) were male.

One hundred fifty-seven respondents who completed the follow-up interview were administered the AUDIT only during their SBIRT encounter, indicating reported alcohol use at screening; 88 were screened using the DAST-10 only, indicating reported drug use at screening; and 95 were screened using both instruments, indicating reported use of both alcohol and drugs. Table 29 on the following page provides additional information regarding screening instrument, modality, and scores for the 345 respondents who completed the follow-up interview.

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<sup>2</sup>Ten records contained invalid GPRA Follow-up Dates and were excluded.

**Table 29. Screening Information in Follow-Up Interview Records**

Screening Instrument	Number Of Records N=345	Recommended Service	Number Of Records In Each Modality N=345	Scores at Screening	
				Range	Median
Completed AUDIT Only	157	Screening	1	7 – 7	7
		Brief Intervention	115	8 – 15	10
		Brief Treatment	16	16 – 19	18
		Referral to Treatment	25	20 – 37	24
Completed DAST-10 Only	88	Brief Intervention	54	1 – 2	1
		Brief Treatment	23	3 – 5	4
		Referral to Treatment	11	6 – 9	7
Completed Both AUDIT and DAST-10	95	Brief Intervention	43	AUDIT 2 – 15 DAST-10 1 – 2	5 1
		Brief Treatment	20	AUDIT 2 – 18 DAST-10 1 – 5	8 4
		Referral to Treatment	32	AUDIT 1 – 39 DAST-10 1 – 10	23.5 6

### Changes in Substance Abuse Patterns from Screening to Follow-Up

Table 30 on the following page provides data on alcohol and illegal drug use in the past 30 days at screening and follow-up for respondents completing the follow-up interview; data are self-reported. At screening, approximately two-thirds (66.4%) reported alcohol use in the 30 days prior to screening. The range of days for alcohol use for these 229 respondents was 1 to 30 with a median of 6 days (mean = 11.0 days). At follow-up, 196 individuals (56.8%) indicated alcohol use in the past 30 days prior to the interview. The number of days used ranged from one to 30 days with a median of 4 days (mean = 7.8 days).

Approximately half (50.7%) indicated binge drinking (drinking five or more drinks in one sitting) in the 30 days prior to screening; the median number of days they reported binge drinking in the previous 30 days was 5 days (mean = 10 days) and ranged from one to 30 days. One hundred nine (31.6%) indicated drinking five or more drinks in one sitting in the 30 days preceding the follow-up interview. The number of days of binge drinking for these respondents ranged from one to 30 with a median of 3 days (mean = 5.5 days).

Approximately, two-thirds (36.53%) reported illegal drug use in the month prior to screening. The number of days of drug use ranged from one to 30 days with a median of 10 days (mean = 13.3 days). At follow-up, 70 respondents (20.3%) reported use of an illegal substance in the 30 days prior to their interview. The number of days used in the 30 days preceding the follow-up interview ranged from 1 to 30 with a median of 3 days (mean = 5.52 days). None of the respondents reported use of the following substances: Dilaudid, Demerol, Percocet, Darvon, Codeine, Hallucinogenics, Barbiturates, GHB, or Ketamine.

**Table 30. Alcohol and Illegal Drug Use at Screening and Follow-Up**

Past 30 Day Alcohol and Illegal Drug Use at Screening and Follow-Up		
	Screening % (N=345)	Follow-Up % (N=345)
Alcohol	66.4 (229)	56.8 (196)
Binge Drinking (Five or More Drinks in One Sitting)	50.7 (175)	31.6 (109)
Use of Illegal Drugs	36.5 (126)	20.3 (70)
Marijuana/Hashish	32.5 (112)	18.8 (65)
Methamphetamine	1.2 (4)	0.6 (2)
Cocaine/Crack	2.9 (10)	1.2 (4)
Heroin	0.9 (3)	0.3 (1)
Opioids/Tranquilizers <sup>a</sup>	1.2 (4)	0.3 (1)
Inhalants	0.3 (1)	0.0 (0)
Other Illegal Drugs	0.6 (2)	0.0 (0)
Injected Drugs in Past 30 Days	0.6 (2)	0.3 (1)
Used Alcohol and Drugs on the Same Day	13.6 (47)	8.1 (28)

Note: Data in the table above reflect respondents who answered the questions; the numbers of respondents who declined to answer, responded they did not know the answer, or for whom there are missing data varied for each question.

Column totals are not equal to the number of respondents since people report all substances used in the past 30 days.

<sup>a</sup> Opioids/Tranquilizers is a combined category comprised of records indicating use of Morphine, Oxycotin, Benzodiazepines, and Tranquillizers.

The remaining outcomes data presented in this report are from GPRA sections C through G. Individuals assigned by staff to the Brief Intervention modality (221 of the 345 individuals who completed a follow-up interview) do not complete these sections at screening. Tables 31 through 44 on the following pages provide responses at screening and follow-up for the 124 individuals for whom these GPRA data are available.

## Family and Living Conditions at Screening and Follow-Up

**Table 31. Housing at Screening and Follow-Up**

Housing Situation	Screening % (N=124)	Follow-Up % (N=124)
Shelter	5.7 (7)	2.4 (3)
Street/Outdoors	0.8 (1)	1.6 (2)
Institution (Hospital, Jail/Prison, Nursing Home)	5.7 (7)	4.8 (6)
Own/Rent Apartment, Room, House	52.4 (65)	50.8 (63)
Someone Else's Apartment, Room, House	31.5 (39)	28.2 (35)
Residential Treatment	0.0 (0)	0.0 (0)
Halfway House	0.8 (1)	0.8 (1)
Housed: Other	1.6 (2)	1.6 (2)
Declined to Answer Question	0.0 (0)	0.8 (1)
Missing Data	1.6 (2)	8.9 (11)

**Table 32. Substance Use Causing Stress, Reduction in Activities, and Emotional Problems at Screening and Follow-Up**

Stress, Activities, Emotional Problems Due to Alcohol and Drug Use	Screening % (N=124)	Follow-Up % (N=124)
Experienced Stress Due to Use of Alcohol or Other Drugs in Past 30 Days	30.7 (38)	22.6 (28)
Use of Alcohol or Other Drugs Caused Reduction or Giving Up Important Activities in Past 30 Days	35.5 (44)	8.9 (11)
Use of Alcohol or Other Drugs Caused Emotional Problems in Past 30 Days	46.0 (57)	12.1 (15)

Note: Data in the table above reflect respondents who answered the questions; the numbers of respondents who declined to answer, responded they did not know the answer, or for whom there are missing data varied for each question. Column totals are not equal to the number of records.

**Table 33. Children at Screening and Follow-Up**

Children	Screening % (N=124)	Follow-Up % (N=124)
Have Children	55.7 (69)	53.2 (66)
Children Living with Someone Else Due to Child Protection Court Order	4.0 (5)	4.8 (6)
Lost Parental Rights For Any Children	7.3 (9)	3.2 (4)

Note: Data in the table above reflect respondents who answered the questions; the numbers of respondents who declined to answer, responded they did not know the answer, or for whom there are missing data varied for each question. Column totals are not equal to the number of records.



**Table 34. Pregnancy at Screening and Follow-Up**

Pregnant	Females at Screening % (N=27)	Females at Follow-Up % (N=27)
Currently Pregnant	7.1 (3)	9.5 (4)

Note: Data in the table above reflect respondents who answered the questions; the numbers of respondents who declined to answer, responded they did not know the answer, or for whom there are missing data varied for each question.

## Employment at Screening and Follow-Up

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**Table 35. Employment at Screening and Follow-Up**

Employment	Screening % (N=124)	Follow-Up % (N=124)
Employed Full-Time (≥35 hrs/wk)	22.6 (28)	33.9 (42)
Employed Part-Time (<35 hrs/wk)	9.7 (12)	14.5 (18)
Unemployed, Looking for Work	30.7 (38)	21.8 (27)
Unemployed, Not Looking for Work	20.2 (25)	12.1 (15)
Unemployed, Disabled	12.1 (15)	13.7 (17)
Unemployed, Retired	0.8 (1)	0.0 (0)
Other	2.4 (3)	1.6 (2)
Doesn't Know	0.0 (0)	0.8 (1)
Declined to Answer Question	0.0 (0)	1.6 (2)
Missing Data	2.4 (3)	0.0 (0)

## Arrests in Past 30 Days at Screening and Follow-Up

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**Table 36. Arrests at Screening and Follow-Up**

Arrests in Past 30 Days	Screening % (N=124)	Follow-Up % (N=124)
Zero	89.5 (111)	96.0 (119)
One	8.1 (10)	3.7 (3)
Two	0 (0)	0.8 (1)
Declined to Answer Question	0.8 (1)	1.6 (2)
Missing Data	1.6 (1)	0.0 (0)

## Mental and Physical Health Problems and Treatment and Recovery at Screening and Follow-Up

**Table 37. Overall Health at Screening and Follow-Up**

Self-Rating of Overall Health	Screening % (N=124)	Follow-Up % (N=124)
Good to Excellent	46.0 (57)	68.5 (85)
Fair	27.4 (34)	24.2 (30)
Poor	12.4 (10)	34.0 (5)
Doesn't Know	0.0 (0)	0.8 (1)
Declined to Answer Question	0.8 (1)	1.6 (2)
Missing Data	1.6 (2)	0.8 (1)

**Table 38. Inpatient Treatment at Screening and Follow-Up**

Receiving Inpatient Treatment In Past 30 Days	Screening % (N=124)	Follow-Up % (N=124)
Physical Complaint	8.6 (10)	2.4 (3)
Mental or Emotional Difficulties	3.2 (4)	2.4 (3)
Alcohol or Substance Abuse	5.7 (7)	3.3 (4)

Note: Data in the table above reflect respondents who answered the questions; the numbers of respondents who declined to answer, responded they did not know the answer, or for whom there are missing data varied for each question. Column totals are not equal to the number of records.

**Table 39. Outpatient Treatment at Screening and Follow-Up**

Receiving Outpatient Treatment In Past 30 Days	Screening % (N=124)	Follow-Up % (N=124)
Physical Complaint	23.4 (29)	13.8 (17)
Mental or Emotional Difficulties	12.1 (15)	8.9 (11)
Alcohol or Substance Abuse	8.1 (10)	4.8 (6)

Note: Data in the table above reflect respondents who answered the questions; the numbers of respondents who declined to answer, responded they did not know the answer, or for whom there are missing data varied for each question. Column totals are not equal to the number of records.

**Table 40. Emergency Room Visits at Screening and Follow-Up**

Receiving Emergency Room Treatment In Past 30 Days	Screening % (N=124)	Follow-Up % (N=124)
Physical Complaint	12.1 (15)	12.1 (15)
Mental or Emotional Difficulties	2.4 (3)	2.4 (3)
Alcohol or Substance Abuse	5.7 (7)	0.0 (0)

Note: Data in the table above reflect respondents who answered the questions; the numbers of respondents who declined to answer, responded they did not know the answer, or for whom there are missing data varied for each question. Column totals are not equal to the number of records.

**Table 41. Mental Health**

Mental Health Issues Experienced In Past 30 Days	Screening % (N=124)	Follow-Up % (N=124)
Serious Depression	59.7 (74)	30.7 (38)
Anxiety or Tension	66.9 (83)	38.7 (48)
Hallucinations	7.3 (9)	2.4 (3)
Trouble Understanding, Concentrating, or Remembering	46.8 (58)	19.4 (24)
Trouble Controlling Violent Behavior	15.3 (19)	2.4 (3)
Attempted Suicide	2.4 (3)	0.8 (1)
Prescribed Medication for Psychological/Emotional Problems	25.0 (31)	25.0 (31)

Note: Data in the table above reflect respondents who answered the questions; the numbers of respondents who declined to answer, responded they did not know the answer, or for whom there are missing data varied for each question. Column totals are not equal to the number of records.

**Table 42. Violence and Trauma**

Experienced Violence or Trauma in Lifetime	Screening % (N=124)	Follow-Up % (N=124)
Yes	49.2 (61)	25.0 (31)
No	41.9 (52)	64.5 (80)
Doesn't Know	0.0 (0)	0.0 (0)
Declined to Answer Question	4.8 (6)	0.0 (0)
Missing Data	4.0 (5)	10.5 (13)

**Table 43. Hit, Kicked, Slapped or Otherwise Physically Hurt in Past 30 Days at Screening and Follow-Up**

Physically Hurt in Past 30 Days	Screening % (N=124)	Follow-Up % (N=124)
Yes	6.5 (8)	2.4 (3)
No	87.1 (108)	93.6 (116)
Declined to Answer Question	4.0 (5)	0.0 (0)
Missing Data	2.4 (3)	4.0 (5)

## Social Connectedness

**Table 44. Social Connectedness**

Social Connectedness	Screening % (N=124)	Follow-Up % (N=124)
Attended Any Type of Self-Help Recovery Groups including Religious/Faith-Based, Non-Religious, or any Other in Past 30 Days	25.0 (31)	30.7 (38)
Interaction With Family/Friends Who Support Recovery	58.1 (72)	81.5 (101)
Have Someone to Turn to When Having Trouble	83.1 (103)	90.3 (112)

Note: Data in the table above reflect respondents who answered the questions; the numbers of respondents who declined to answer, responded they did not know the answer, or for whom there are missing data varied for each question. Column totals are not equal to the number of records.

## CONCLUSION

Based on records marked active in the I-SMART WITS system, SBIRT IOWA staff conducted 83,704 prescreenings through Year Four (June 30, 2016); 75,584 at FQHCs and 8,120 through the IAARNG. Based on this number, SBIRT IOWA exceeded the target set by SAMHSA for number of prescreenings conducted, with a completion rate of 123.8%.

SBIRT IOWA has provided early identification of risky substance use behavior in 6,197 screenings to date. It is unknown how long these issues would have remained unidentified or how much more serious the health and other consequences may have become without these screenings. Analyses are conducted on the number of clients screened in SBIRT IOWA who subsequently received further treatment services, and those results may be found in the SBIRT-to-Treatment Bi-Annual Reports.

Three hundred forty-five follow-up interviews were completed through Year Four. Analyses of substance use data for those completing follow-up interviews indicate the number of respondents reporting drinking alcohol in the past month was reduced by approximately ten percentage points, drinking five or more drinks in one sitting by decreased nearly 20 percentage points, and illegal drug use decreased by approximately 16 percentage points from screening to follow-up. Additionally, the number of individuals reporting stress as a result of their substance

use was reduced by nearly 8.0 percentage points, and the numbers reporting emotional problems or giving up important activities were cut by approximately one-third.

## **Data Issues and Recommendations**

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The interplay between clinical activity and the representation of those activities in a data system is not always ideal. Some gaps and discrepancies exist in the SBIRT IOWA data that, if remedied, would yield a more thorough and effective program evaluation. Some of those gaps and discrepancies have explanations based in the clinical situations at the sites themselves. In some cases, the medical staff conducting the screenings may not have sufficient time to complete a full screening or are not comfortable conducting Brief Interventions or making referrals. Co-located treatment staff may not be available to step in at the moment needed to perform those duties, and neither staff may have time to collect and record requisite data at each instance.

In the data, inconsistencies are found between prescreen and full screen scores and many records have full screen scores of zero, making it difficult to determine whether full screenings were conducted. GPRA data are missing for some individuals whose scores indicate GPRA data should be collected. Additionally, while Clinicians may record in Miscellaneous or Encounter Notes that an individual received a Brief Intervention or that a referral was made for brief or full treatment, those data are not available to the Evaluators in analyzable form. Hence, we are unable to accurately determine how many of these interventions and referrals were actually made. The Evaluators recommend the addition of indicators in the data system (such as “yes/no” check boxes) that are easily completed by Clinicians and are readily analyzable in order to provide more complete and accurate data regarding services provided.

SBIRT sites may benefit from examining patient flow processes for more efficient methods of integrating the components of SBIRT practice. Ideally, increasing funding to support additional staff would also help increase the provision of needed services to patients and Soldiers, as well as improve the collection and accuracy of data.

Follow-up completion rates historically have been high for this project, and the data indicate positive changes in substance use behaviors and consequences. However, follow-up data are limited since sections of the GPRA instrument are administered to only some clients based on service modality. Administering the full GPRA instrument at intake for individuals flagged for follow-up interviews regardless of modality would provide more valuable outcomes data. However, this would be impractical in the clinic and National Guard settings given current practice constraints and incentive limitations.

Finally, the Evaluators have been unable to effectively track follow-up interviews due or calculate follow-up completion rates last project year and part of this project year because of the shut down of the federal Common Data Platform and the move back to the SAIS system. The Evaluators recommend a marker be placed in the SBIRT Activities screening records in the I-SMART system indicating those selected for a follow-up interview so they can be unambiguously tracked for data analyses and reporting.

## APPENDIX: GAMBLING SCREENER RESULTS

### Background

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In addition to the SBIRT pre-screen, IAARNG SBIRT providers also gave selected Soldiers a gambling prescreen question:

- During the past 12 months, how many times have you gambled?

Followed by full gambling screen if they answer "5 or more" to the prescreen question.

The gambling screen is an adapted screening tool loosely based on the nine DSM-V diagnostic criteria (Section A) for gambling disorder. IAARNG also screens Soldiers for depression symptoms using the Patient Health Screen (PHQ). The PHQ is a screening and diagnostic tool used by health care professionals for assessing mental health disorders. Those who were given the gambling prescreen/screen are the subject of this report.

### Screening/Assessment Tools and Scoring Key

SBIRT IOWA staff at the IAARNG administer the 10-question Alcohol Use Disorders Identification Test (AUDIT) when a Soldier pre-screens positive for risky alcohol use and the Drug Abuse Screening Test (DAST-10) when a Soldier pre-screens positive for drug use. Patient Health Screen (PHQ) is a screening and diagnostic tool used by health care professionals for assessing mental health disorders. The PHQ-9 is the depressive disorders module of the PHQ, and is an optional screening tool for SBIRT providers. Table 45 on the following page provides the scoring ranges, associated risk levels, and recommended services for the AUDIT, DAST-10, and PHQ-9.

Beginning in August 2015, selected Soldiers also received a gambling prescreen and, as necessary, a full gambling screen for disordered gambling. Soldiers who were identified as needing a Brief Intervention or other service based on either the AUDIT or DAST-10 were also indicated for receiving the gambling prescreen/screen. Results from those who were given the gambling prescreen/screen are presented here.

### Data Extraction

Data for these analyses were drawn slightly differently than for SBIRT annual reports in order to maximize the number of Soldiers with screenings. All National Guard gambling screen records (downloaded August 22, 2016) were merged with records in the annual report data. The criterion for a successful merge was if an individual's annual report record and the gambling screener were administered at the same time. Of the 129 gambling screen records within the upper date range of the annual report data, 122 successfully matched annual report file records.

**Table 45. Screening Tool Scoring Key**

Score	Risk Level	Recommended Service
<b>AUDIT</b>		
0 – 7	Low Risk or Negative	Encouragement and Education
8 – 15	Risky or Hazardous	Brief Intervention
16 – 19	High Risk or Harmful	Brief Treatment
20 – 40	High Risk	Referral to Treatment
<b>DAST-10</b>		
0	Low Risk	Encouragement and Education
1 – 2	Moderate Risk	Brief Intervention
3 – 5	Substantial Risk	Brief Treatment
6 – 10	Severe Risk	Referral to Treatment
<b>PHQ-9<sup>3</sup></b>		
0 – 4	Minimal Depression	Patient may not need depression treatment.
5 – 9	Mild Depression	Physician uses clinical judgment about treatment, based on patient’s duration of symptoms and functional impairment.
10 – 14	Moderate Depression	
15 – 19	Moderately Severe Depression	Warrants treatment for depression, using antidepressant, psychotherapy and/or a combination of treatment.
<b>Gambling Screen<sup>4</sup></b>		
1 - 3	Low Risk or Negative	Screening and Feedback
4 – 6	Risky or Hazardous	Gambling Brief Intervention
7 – 9	Possible Gambling Disorder	Gambling Brief Intervention and Referral to Gambling Treatment

<sup>3</sup> UMHS Depression Guideline, August 2011. PHQ-9 Questionnaire for Depression Scoring and Interpretation Guide. Retrieved from <http://www.med.umich.edu/1info/FHP/practiceguides/depress/score.pdf>

<sup>4</sup> Adapted by Iowa, based on the Illinois DG-SPS (Disordered Gambling-SBIRT Pre-Screen and Screen), DSM5, BBGS, and Elizabeth Hartney, Ph.D.

## Results

### Sample

A total of 122 Soldiers received a gambling screening between August 13, 2015 and June 30, 2016. During that same period another 4,796 Soldiers received SBIRT screening but did not receive a gambling screen. Table 46 lists the number and percentages of Soldiers with and without a gambling screen broken down by the expected modality based on the drug and alcohol screen.

**Table 46. Number of Soldiers with Gambling Screen**

Alcohol/Drug Level of Risk	Gambling Screen (n = 122)	No Gambling Screen (n = 4,796)
Low Risk	9	4,728
Risky or Hazardous	102	51
High Risk or Harmful	6	14
High Risk	5	3

Over 95% of the gambling screens were given to Soldiers who screened positive on the alcohol or drug screening. However, not all positive alcohol/drug screens (n = 2,212) received a gambling screen (n = 122; 5.6%).

The following table, Table 47, shows the distribution of the gambling prescreening question, "During the past 12 months how many times have you gambled?"

**Table 47. Gambling Prescreening Responses for 122 Soldiers.**

Times Gambled in past year	n = 122	Percent
0	93	76.2
1	9	7.4
2	9	7.4
3	5	4.1
4	1	0.8
10	3	2.5
12	1	0.8
18	1	0.8

Note: The shaded area indicates need for a full screen, that is, gambling 5 or more times in the past year.



Of those five Soldiers who prescreened positive, four received a score of zero on the gambling full screen and one Soldier received a score of one. Thus, all of the Soldier reports were in the Low Risk or Negative range for gambling problems and no Soldier reported a greater risk. Based on these 122 assessments, none of which indicated problematic gambling, the 95% confidence interval runs between 0% and 2.9%, i.e., less than 3% of this population would be expected to have problematic gambling.

The following analyses are based on the 122 Soldiers with matching annual report data. Of these 122 Soldiers, 113 (92.6%) were male with a median age of 22 years. Whites made up 93.4% of the sample and 29.5% had never been deployed.

### **Comparison of Soldiers who prescreened positive or negative on the gambling prescreen**

While the numbers of Soldiers who were screened for gambling is small and the number who scored positive on the prescreen were smaller, the following analysis compared those who prescreened negative and who prescreened positive. Prescreening positive means that the Soldier answered five or more to the question, "During the past 12 months how many times have you gambled?"

#### **Depression**

Only 107 Soldiers had PHQ-9 scores in this subset, 102 prescreened negative and five prescreened positive on the gambling screen. There was no statistically significant difference between the gambling prescreen status and PHQ-9 scores.<sup>5</sup> The PHQ-9 scores ranged from zero to 16 with a mean score of 2.30 (median was 0). Only 5.0% of the Soldiers with PHQ-9 has scores of 12 and higher. Table 48 displays the frequency distribution of gambling prescreen status and risk level for depression on the PHQ-9 scores. There is no indication that depression (PHQ-9 score) relates to the Soldier's prescreen status.

**Table 48. Soldier's Depression Risk from PHQ-9 Scores and Gambling Prescreen Status**

<b>Risk Level</b>	<b>PHQ-9 Scores</b>	<b>Gambling Prescreen Negative (N=102)</b>	<b>Gambling Prescreen Positive (N=5)</b>
Minimal Depression	0 – 4	80	4
Mild Depression	5 – 9	13	0
Moderate Depression	10 – 14	6	0
Moderately Severe Depression	15 – 19	3	1

<sup>5</sup> Mann-Whitney U-test, exact p = 0.168.

## Alcohol

During the standard SBIRT process, Soldiers responded to "How many times in the past 30 days have you had 5 or more drinks in a day?" as an alcohol prescreening question. One hundred seven Soldiers responded to this question and received a gambling prescreen. Number of days ranged from zero to 30 with 75% of Soldiers responding six or less days. The median number of days a Soldier drink five or more drinks in a day in the past 30 days was four days (5.94 mean days). There was no statistically significant difference between the gambling prescreen status and whether or not Soldier reported drinking five or more drinks per day in the past month.<sup>6,7</sup> Table 49 displays the frequency distribution of the whether or not Soldier reported drinking five or more drinks per day in the past month and gambling prescreen status. There is no indication that the heavy drinking is related to the Soldier's gambling prescreen status.

**Table 49. Soldier's Reported Drinking Five or more Times in a Day and Gambling Prescreen Status**

Had 5 or more drinks in a day during the past 30 days	Gambling Prescreen Negative (N=103)	Gambling Prescreen Positive (N=4)
No	15	0
Yes	88	4

Individuals who indicate drinking five or more drinks in a day also receive an AUDIT screen. Of Soldiers receiving an alcohol prescreen, 115 received an AUDIT, 110 of which had a negative gambling prescreen and 5 had a positive gambling prescreen. AUDIT scores ranged from zero to 28 with a mean score of 9.73 (median score was 9). Over half of the Soldiers' AUDIT scores were between an 8 and 10. There was a marginally statistically significant difference in AUDIT scores between those with a positive versus negative gambling prescreen.<sup>8</sup> Table 50 displays risk level based on AUDIT score and gambling prescreen.

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<sup>6</sup> Mann-Whitney U-test, exact p = 0.339.

<sup>7</sup> Statistical tests of the association of the number of days drinking five or drinks and prescreening status were also conducted and were not statistically significant (Mann-Whitney U-test, exact p = 0.094).

<sup>8</sup> Mann-Whitney U-test, exact p = 0.021.

**Table 50. Soldier’s Risk based on AUDIT Scores and Gambling Prescreen Status**

Risk Level	AUDIT Score Range	Gambling Prescreen Negative (N=110)	Gambling Prescreen Positive (N=5)
Low Risk or Negative	0 – 7	19	1
Risky or Hazardous	8 – 15	84	1
High Risk or Harmful	16 – 19	6	0
High Risk	20 – 40	1	3

### Illegal Drugs

During the SBIRT process, Soldiers are asked the question, “During the 30 days, how many days did you use illegal drugs?” One hundred thirteen Soldiers responded to the question and the overwhelming majority answered, zero days (97.4%). There was a marginally statistically significant difference in the number of days Soldiers reported using illegal drugs.<sup>9</sup> Thus, there is some indication that the number of drug use days is associated with a positive gambling prescreen.<sup>10</sup>

**Table 51. Number of Drug Use Days and Gambling Prescreen Status**

Number of Days Used Illegal Drugs in the Past 30 Days	Gambling Prescreen Negative (N=108)	Gambling Prescreen Positive (N=5)
0	106	4
1	1	0
15	1	0
20	0	1

Soldiers are administered a DAST-10 if answer affirmative that they have used illegal drugs in the past year. Only 23 Soldiers received both a DAST-10 and a gambling prescreen. While the sample sizes are very small, there was a marginally statistically significant difference in DAST-10 scores and gambling screens.<sup>11</sup> There is some indication that the DAST-10 Score is

<sup>9</sup> Mann-Whitney U-test, exact p = 0.012.

<sup>10</sup> Other statistical testing procedures indicated a similar pattern, statistically significant, but a weak positive association between number of days using illegal drugs and the gambling screening (Spearman’s rho = 0.237, exact p = 0.012).

<sup>11</sup> Mann-Whitney U-test, exact p = 0.011.

associated with a positive screen, however, this result may be equivocal.<sup>12</sup> Table 52 shows the frequency of Risk Level based on DAST-10 Score by Gambling Prescreen. The two Soldiers with positive gambling prescreens had the two largest DAST-10 scores.

**Table 52. DAST-10 Score and Gambling Prescreen Status**

Risk Level	DAST-10 Score Range	Gambling Prescreen Negative (N=110)	Gambling Prescreen Positive (N=5)
Low Risk	0	1	0
Moderate Risk	1 – 2	20	0
Substantial Risk	3 – 5	0	1
Severe Risk	6 – 10	0	1

## Summary

Only five of 122 Soldiers who received a gambling prescreen question as part of SBIRT went on to a full screen. Of those who received the full screen, one screened positive for gambling problems. As this sample of Soldiers tended to be those who prescreened positive for alcohol or drugs and would be expected to be more at risk for gambling problems, the already low percentage may be an overestimate of gambling in the more general population of Soldiers.

Analyses assessing the relationship of prescreening positive for gambling to depression or other substance use measures gave mixed results. There was no indication that prescreening positive related to:

- Depression (PHQ-9 scores),
- Reported number of times drinking five or more times in a day,

There was indication of a relationship of gambling prescreen status and:

- Alcohol Use as measured by the AUDIT,
- Using illegal drugs in past 30 days, and
- DAST-10 score.

Interpreting these results is problematic since not all Soldiers received all measures. For example, only Soldiers who indicated that they drank five or more times a day in the past received an AUDIT score. Therefore, we were only able to assess relationships in selective subsamples. In addition, not all Soldiers who screened positive for alcohol or drug use received a gambling screen. While it is unlikely that the subset who received gambling screens was

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<sup>12</sup> Other statistical testing procedures indicated no significant difference.

chosen completely at random, there is no information of how well these results would generalize.

There is no psychometric information about the gambling screen instrument. Thus, the reliability and validity of the instrument is unknown.