Kentucky Opioid Replacement Treatment Program Outcome Study

2025 Annual Report

Center on Drug and Alcohol Research

TEAM KENTUCKY
CABINET FOR HEALTH AND FAMILY SERVICES

Project Acknowledgments

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The 2025 KORTOS report includes data from 18 clients at Kentucky opioid treatment programs (OTPs) who completed both an intake interview between January 1, 2023 and December 31, 2023 and a six-month follow-up interview targeted between July 2023 and June 2024.

Executive Summary

Opioid treatment programs (OTPs) play a unique and important role in addressing opioid use disorder in Kentucky, where non-medical use of prescription opioids is a continuing health concern.[1, 2] In 2007, Kentucky OTPs began collecting outcome data on opioid treatment programs. The outcome project is conducted in collaboration with the Kentucky Division of Substance Use Disorder and Narcotic Treatment Authority. The Kentucky Opioid Replacement Treatment Outcome Study (KORTOS) is an evidence-based data collection system designed to examine opioid treatment outcomes over time.

The goal of KORTOS is to examine respondent satisfaction and respondent outcomes for several targeted factors including: (1) substance use, (2) mental and physical health, (3) criminal legal involvement, (4) quality-of-life, (5) education, economic status, and living situation, and (6) recovery supports. This report describes outcomes for 18 respondents who: (1) attended one of twelve Kentucky OTPs eligible to participate in the study, (b) completed an intake interview between January 1, 2023 and December 31, 2023, (c) agreed to do the follow-up about 6 months later, and (d) completed a follow-up interview between July 1, 2023 and June 30, 2024.

[1] Substance Abuse and Mental Health Services Administration (SAMHSA). (2015). 2013-2014 National Survey on Drug Use and Health: Model-based prevalence estimates (50 states and the District of Columbia). Rockville, MD: Substance Abuse and Mental Health Services Administration, Center for Mental Health Statistics and Quality.

[2] World Health Organization (2004). Substitution maintenance therapy in the management of opioid dependence and HIV/AIDS prevention. Geneva, Switzerland: United Nations Office on Drugs and Crime.

Description of Respondents Served by the Opioid Treatment Programs

Overall, in CY 2023, 91 respondents from 5 of the 12 participating Kentucky OTPs completed the KORTOS intake interview.[3]Information from those intake interviews indicate that respondents were an average of 40 years old ranging from 20 to 66 years old. Just over half of the sample was male (53.3%) and 46.7% were female. The majority of respondents (63.7%) self-reported they decided get help on their own and 20.9% reported that they were referred to the OTP by a family member, partner, or friend. The majority of respondents (69.2%) were unemployed, and among unemployed respondents (n = 63), 50.8% reported they were looking for work.

In the six months before entering treatment, the majority of respondents who were not incarcerated all 6 months before intake reported illicit drug use (94.4%), 11.2% reported alcohol use, and 82.0% reported smoking tobacco. About 12% of respondents reported using only opioids, 74.2% reported using opioids and at least one other class of drugs, and 7.9% of respondents reported no opioid use (only other classes of drugs). In the past 30 days at intake, 89.7% of respondents who were not in a controlled environment all 30 days before intake reported illicit drug use, 4.6% reported alcohol use, and 81.6% reported smoking tobacco. Respondents were asked, at intake, how old they were when they first began to

[3] For more information, see: Logan, T., Cole, J., Miller, J., & Scrivner, A. (2020). Evidence Base for the Kentucky Opioid Program Treatment Outcome Study (KORTOS) Assessment and Methods. Lexington, KY: University of Kentucky, Center on Drug and Alcohol Research.

use illicit substances, when they had their first alcoholic drink (more than just a sip), and when they began smoking cigarettes regularly. Trend outcomes show the age for having their first alcoholic drink at less than 15 years old, first illicit drug use was 17 to 18 years old, and first tobacco use was between 13 and 14 years old. Results of KORTOS drug trends show that although the majority of respondents report illicit use of prescription opioids when they entered the program, the percent of respondents who reported using heroin and methamphetamine in the 30 days before entering treatment has increased since CY 2011 through 2023.

At intake, respondents were asked 17 items about ten types of adverse childhood experiences from the Adverse Childhood Experiences (ACE). Results indicated that the majority of respondents (86.8%) reported at least one adverse childhood experience.

In the six months before entering the program, 68.1% of respondents met study criteria for depression, and 79.1% met study criteria for generalized anxiety. Eleven percent reported suicidal thoughts or attempts of suicide in the 6 months before entering the program. In addition, 31.9% had post-traumatic stress disorder (PTSD) scores that indicated risk of PTSD. Fifty-six percent of respondents reported chronic pain in the 6 months before entering the program. The majority of respondents (62.7%) reported they had at least one of the 16 chronic health problems listed on the intake interview. Trend analysis shows that from CY 2013 to CY 2023 the percent of respondents who reported chronic medical problems has increased from just under half of respondents to over half of respondents.

Change in Targeted Factors from Intake to Follow-up for Respondents

Substance Use

When examining change from past 6 months at intake to the 6-month follow-up period for the 18 respondents who completed follow-up surveys, respondents reported significant decreases in illicit drug use. Among respondents who were not incarcerated all 180 days before entering the program or follow-up, there was a decrease in respondents reporting past-6-month illicit drug use with 100% of respondents reporting any illicit drug use at intake compared to 50.0% at follow-up. Overall, 75.0% of respondents reported illicit use of prescription opioids in the past 6 months at intake, whereas 6.3% of respondents reported illicit use of prescription opioids at any point during the 6 months before the follow-up assessment. Over two-thirds of respondents (68.8%) reported past-6-month heroin use at intake and that percent decreased significantly to 12.5% at follow-up. Not only did respondents' use of opioids decrease significantly, but also their use of non-opioid drugs (such as cannabis, tranquilizers, benzodiazepines, and stimulants) decreased from 100.0% at intake to 50.0% at follow-up. The majority of respondents (94.4%) reported experiencing symptoms of substance use disorder (such as craving, withdrawal, wanting to quit and being unable, or worrying about relapse) at intake compared to 27.3% at follow-up. In addition, the number of respondents who reported an ASI drug composite score that met the cut-off score for severe substance use disorder (SUD) decreased significantly from 93.8% at

intake to 12.5% at follow-up.

Seventy-five percent of respondents (n= 12) reported that they have overdosed on drugs (and required interventions by someone to recover) in their lifetime (an average of 4.3 times, among the respondents who reported they had overdosed on drugs). Of these 12 respondents, 66.7% of respondents (n = 8) have overdosed in the past 6 months at intake (an average of 1.6 times). None of the respondents reported having overdosed in the past 6 months at follow-up.

Mental and Physical Health

There were also improvements in respondents' overall past-6-month mental health. Over three-quarters respondents (77.8%) met study criteria for depression in the 6 months before they entered treatment and, at follow-up, 44.4% met study criteria for depression. Trend reports over the past 11 years indicate that the percent of respondents who met criteria for depression at intake has fluctuated over the past 10 years between 44% and 78%. The percent of respondents who met criteria for depression at follow-up was on the rise from 2017 (11%) to 29% in 2021 before decreasing to 14% in 2022. In 2025, however, the percent of respondents who met criteria for depression at follow-up increased to 44% which is the highest percent in the past 11 years, although this is based on a small number of respondents.

In addition, 22.2% of respondents reported suicidal ideation or attempts at intake compared to 5.6% at follow-up. Trends of suicidal ideation or attempts show that the percent of respondents reporting suicide ideation in the past 6 months at intake appeared to peak in 2018 before decreasing again. At follow-up, the percent of respondents reporting suicide ideation was stable at less than 5% prior to 2024. The majority of respondents at intake (77.8%) reported using alcohol, prescription drugs, or illicit drugs to reduce stress, anxiety, worry, sadness, or fear which significantly decreased to 22.2% at follow-up. Furthermore, the number of days respondents' mental health was poor in the past 30 days decreased significantly from intake (20.4) to follow-up (6.7).

Further, physical health was better for respondents at follow-up. Respondents were asked to report the number of days in the past 30 days poor physical or mental health had limited their usual activities. The number of days respondents reported their poor physical or mental health limited their usual activities decreased significantly from 20.0 days at intake to 7.2 days at follow-up. The majority of respondents at intake (77.8%) reported using alcohol, prescription drugs, or illicit drugs to reduce their physical pain. At follow-up, 22.2% of respondents reported using alcohol, prescription drugs, or illicit drugs to reduce their physical pain, which was a significant decrease of 55.6%. At intake, the average number of days that respondents reported self-medicating chronic pain was 3.3. At follow-up, this decreased significantly to 1.3 ($p < .01$).

> ***"My whole life has turned around because I've attended this program. Every goal that I have set I have passed and met. I've tried many things before and this is the only thing that has worked."***
>
> —KORTOS RESPONDENT

Respondents rated their quality-of-life as significantly higher after they began participating in the program. Trend analyses show that these high ratings for quality-of-life at follow-up have been consistent over the past 11 years.

Criminal Legal Involvement

Very few KORTOS respondents reported criminal legal involvement. In the 6 months before the intake, 33.3% of respondents (6 respondents) reported being arrested compared to 11.1% (2 respondents) at follow-up. Trend analysis shows that the percentage of respondents with a arrest in the 6 months before intake was stable in report year 2015 through 2020. However, as sample sizes have decreased the percentages of respondents reporting an arrest at intake have fluctuated.

The number of respondents reporting being incarcerated for at least on night in the past 6 months decreased significantly from 44.4% at intake to 11.1% at follow-up. Trend analyses show that the percent of respondents who spent at least one night in jail were also consistent from 2015 to 2024 at both intake and follow-up. However, the percent of respondents reporting spending at least one night in jail or prison increased to 44.4% in 2025. At follow-up, relatively few respondents reported being incarcerated in the past 6 months and in 2021, none of the respondents reported being incarcerated.

Economic Status and Living Circumstances

Changes in education, employment, homelessness and living situation were not statistically significant in the small follow-up sample of this year's report. Though the percent of respondents who were employed full-time increased significantly, the majority of the followed-up respondents were unemployed at intake and at follow-up. Over half of respondents at intake (55.6%) and 38.9% of respondents at follow-up reported being homeless in the previous 6 months, but this decrease was not significant. Trends show that the percent of respondents who have reported having difficulty meeting basic living needs is increasing over time.

Overall, Kentucky opioid treatment program clients made positive strides in many of the targeted areas

REPORTED ANY ILLICIT DRUG USE

100% at intake | **50%** at follow-up

REPORTED PRESCRIPTION OPIOID USE***

67% at intake | **6%** at follow-up

MET STUDY CRITERIA FOR DEPRESSION*

78% at intake | **44%** at follow-up

REPORTED SPENDING AT LEAST ONE NIGHT INCARCERATED

44% at intake | **11%** at follow-up

Whereas less than 5% of respondents reported difficulty meeting basic health care needs in 2017, 39% of respondents reported difficulty meeting basic health care needs in 2025. The past three years with smaller sample sizes have found no significant improvement from intake to follow-up.

Recovery Supports

At intake, 38.9% of respondents reported going to mutual help recovery group meetings (e.g., AA, NA, or faith-based) in the past 30 days compared to 77.8% of respondents at follow-up, which was a significant increase. The average number of people respondents reported they could count on for recovery support increased, but not significantly, from intake (6.2) to follow-up (7.8).

Overall, 66.7% of respondents at intake and 88.9% of respondents at follow-up believed they had moderately or very good chances of staying off drugs/alcohol, which was not a significant increase. At intake and follow-up, respondents were asked what, other than medication-assisted treatment, they believed would be most useful in helping them quit or stay off drugs/alcohol. At intake, the most common responses were family support, employment, support from partner, and counseling. At follow-up, the most common responses were support from family, change in environment, staying busy, and employment.

Multidimensional Recovery

Recovery goes beyond relapse or return to occasional drug or alcohol use. The multidimensional recovery measure items from the intake and follow-up surveys to create one measure of recovery. At intake, none of the respondents had all positive dimensions of recovery, whereas at follow-up, one-third of respondents had all positive dimensions.

Treatment Program Satisfaction

The majority of respondents reported that the program started good (88.9%) and 72.2% reported it was currently going well. In addition, the majority of followed-up respondents reported that the treatment episode is working extremely well for them (83.3%) or pretty well (11.1%) and only 5.6% stated the program worked somewhat for them. Furthermore, all respondents indicated they would refer a close friend or family member to their treatment provider. Half of respondents reported they would warn their friend or family member about certain things or tell them who to work with or who to avoid.

On a scale from 1 representing the worst possible experience to 10 representing the best possible experience, respondents rated their experience an 9.1 with 88.9% of respondents giving a highly positive rating of 8 through 10. The majority of respondents reported that they fully discussed or talked about everything with their counselor/program staff, they felt the program staff cared about them and their treatment progress, they worked on and talked about things that were most important to the respondent, and that their expectations and hopes for treatment and recovery were met. The majority of respondents reported that the reduction in substance use was a positive outcome of participation in the program.

Areas of Concern

While there were many positive outcomes overall, there are also potential opportunities to make even more significant improvements in respondents' functioning after they begin treatment.

Illicit Drug Use

When looking at trends over time in past-30-day use at intake, results show that while prescription opioid use decreased gradually from CY2007 to CY2020 before increasing again in CY2021. In addition, non-prescribed methadone use has decreased over the past 17 years, and heroin use sharply increased beginning in CY 2012 to a high of 73% in CY 2022. Compared to heroin and prescription opioids, methamphetamine use is lower; however, use has increased in the past couple of years from 14% in CY 2017 to 48% in CY 2022.

Also, half of KORTOS respondents still reported using illicit drugs in the 6 months before follow-up. While this year's follow-up sample size is small and may be affecting the results, 50.0% of respondents reported using drugs other than opioids at follow-up, and 12.5% reported heroin use in the 6 months before follow-up.

The percent of respondents who reported substance use decreased from intake to follow-up, but 27.8% of respondents still reported experiencing substance use disorder symptoms including cravings, withdrawal, wanting to quit but being unable, or worrying about relapse at follow-up.

Smoking Rates

Rates of tobacco smoking remained unchanged from intake to follow-up (75.0%). In addition, of the respondents who reported smoking cigarettes at follow-up, they did not report smoking fewer cigarettes compared to respondents who reported the number of cigarettes smoked at intake.

Over two-fifths of respondents (43.8%) reported the use of e-cigarettes (e.g., battery-powered nicotine delivery devices that vaporize a liquid mixture consisting of propylene glycol, glycerin, flavorings, nicotine, and other chemicals) at intake and follow-up. Trend analysis shows that the percent of respondents reporting e-cigarette use has generally increased over time at intake and follow-up.

Mental and Physical Health

Though the percent of clients who met study criteria for depression decreased significantly from intake to follow-up, 44.4% of clients still met study criteria for depression at follow-up. Moreover, among those who met study criteria for depression at follow-up (n = 8), respondents reported an average of 7.4 out of 9 symptoms.

Over 60% of respondents still met study criteria for generalized anxiety at follow-up compared to intake (83.3%). In addition, clients who met study criteria for generalized anxiety at follow-up (n = 11) reported an average of 6.5 out of 7 symptoms. The percent of respondents meeting study criteria for generalized anxiety has remained steady in the past 6 months at intake (around three-quarters) until 2023 when the percent decreased to 40% before increasing to

87% in 2024. The percent of respondents who met criteria for generalized anxiety at follow-up has fluctuated over time, with the highest percentage in the 2020 report and the lowest in the 2017 report, but increased to its highest point in 2025 although there is a small sample size.

In addition, two-thirds of KORTOS respondents still met study criteria for depression and/or generalized anxiety at follow-up. Likewise, 38.9% of respondents were still dealing with comorbid depression and generalized anxiety at follow-up. Furthermore, the percent of respondents who screened positive for PTSD symptoms did not change from intake to follow-up such that one-third of respondents were still troubled by PTSD symptoms. In addition, 22% of respondents reported using alcohol, prescription drugs, or illicit drugs to reduce stress, anxiety, worry, sadness, or fear in the past 6 months at follow-up.

Also, while the number of respondents reporting chronic pain decreased significantly from intake (61.1%) to follow-up (38.9%), respondents still reported experiencing chronic pain for 30.0 days of the past 30 days with an average intensity of 7.0 on a scale of 0 (no pain) to 10 (pain as bad as you can imagine).

Interpersonal Violence and Safety

In the past 6 months at follow-up, 38.9% of respondents reported experiencing at least one of the types of interpersonal violence (including when they may have experienced crime, harmed by someone else, or felt unsafe). Furthermore, 38.9% of respondents were worried about their personal safety at follow-up.

Economic Status and Living Circumstances

Also concerning is that over half of the sample (55.6%) was currently unemployed at follow-up. Of the clients who reported they were unemployed at follow-up (n = 10), 30.0% reported they were not looking for work. In addition, 38.9% of clients considered themselves homeless at follow-up. Trend analysis on homelessness shows that the percent of respondents who consider themselves homeless has increased since report year 2023 at intake and since report year 2022 at follow-up.

Meeting basic needs including health, stable living arrangements, having a purpose with daily meaningful activities, and recovery community are the four key dimensions to recovery.[4] Half of respondents at follow-up reported having difficulty meeting basic living needs and 38.9% still reported difficulty meeting health care needs in the past 6 months. Trends in economic difficulties show that the number of respondents who reported they had difficulty meeting basic living needs and/or health care needs has increased at follow-up since 2017.

Study Limitations

It is important to keep in mind that this year, the follow-up sample size is small and should be considered when interpreting the findings. To increase the statistical power to detect change in this small sample size, the alpha for statistical tests was increased to $p < .10$, instead of $p < .05$.

[4] https://www.samhsa.gov/brss-tacs/recovery-support-tools-resources

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Introduction and Overview

While prescription opioids are instrumental to reducing pain, misuse can lead to serious negative consequences such as addiction or even overdose. Non-medical use of prescription opioids is a continuing health concern in Kentucky where 10.4% of adults report nonmedical use of prescription opioids in 2023 compared to 7.7% nationwide.[5] In 2023, Kentucky health care providers dispensed 58.3 prescriptions for opioids per 100 people compared to the United States which was 37.5 prescriptions per 100: the state with the sixth highest rate.[6] In addition, compared to the United States which had a rate of 25.0 opioid-involved overdose deaths in 2022, there were 41.8 overdose deaths involving opioids per 100,000 people in Kentucky: the state with the sixth highest rate.[7] Among the drugs found in toxicology reports in the 1,984 Kentucky drug overdose cases in 2023, fentanyl was involved in 79.1% of the cases, oxycodone was found in 7.8% of the cases and heroin was found in 2.2%.[8] In 2022, of the 11,274 of emergency department visits for non-fatal drug overdoses in Kentucky, 42.5% involved at least one type of opioid.[9]

One of the key methods for treating persons addicted to opioids is through medication for opioid use disorder (MOUD) primarily with methadone or buprenorphine-naloxone (bup-nx). One of three priority areas of the United States Health and Human Services' (HHS) launched initiative in 2015 to reduce prescription opioid- and heroin-related overdose, death, and dependence is to expand the use of MOUD.[10] These federally regulated opioid treatment programs (OTPs) provide evidence-based, clinically monitored, MOUD with methadone or bup-nx.[11] Research evidence supports the effectiveness of methadone maintenance and bup-nx maintenance in retaining respondents in treatment and reducing opioid use as well as reducing overdose deaths.[12, 13] The single day counts of persons receiving methadone in substance use treatment in Kentucky rose from 2015 to 2019, and the number of persons receiving buprenorphine in substance use treatment

[5] https://www.americashealthrankings.org/health-topics/81/comparison-plot?topics=1,19

[6] Center for Disease Control and Prevention. *U.S. Opioid Prescribing Rate Maps*. Retrieved on December 13, 2024 from https://www.cdc.gov/overdose-prevention/data-research/facts-stats/opioid-dispensing-rate-maps.html.

[7] Opioid Overdose Death Rates and All Drug Overdose Death Rates Per 100,000 Population (Age-Adjusted) retrieved on December 13, 2024 from https://tinyurl.com/yh6hzz89.

[8] Kentucky Office of Drug Control Policy. *2023 Overdose Fatality Report*. https://odcp.ky.gov/Pages/Reports.aspx

[9] Steel, M., Mirzaian, M., Daniels, L. (2023). *Kentucky Resident Emergency Department Visits for Nonfatal Drug Overdoses, 2018–2022: Annual Report, Updated September 2023*. Kentucky Injury Prevention and Research Center.

[10] Office of the Assistant Secretary for Planning and Evaluation. (2015, March 26). *Opioid abuse in the U.S. and HHS actions to address opioid-drug related overdoses and deaths.* Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation.

[11] Mattick, R., Breen, C., Kimber, J., & Davoli, M. (2009). Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. *Cochrane Database System Review*, Jul 8 (3).

[12] Kakko, J. Svanborg, K. D., Kreek, M J., & Heilig, M. (2003). 1-year retention and social function after buprenorphine-assisted relapse prevention treatment for heroin dependence in Sweden: A randomised, placebo-controlled trial. *Lancet, 361*, 662-668.

[13] Mattick, R. P., Breen, C., Kimber, J., & Davoli, M. (2009). Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. *The Cochrane Database of Systematic Reviews, 2009*(3), CD002209. https://doi.org/10.1002/14651858.CD002209.pub2

also increased from 2015 to 2019.[14]

In 2007, Kentucky OTPs began collecting state-specific outcome data on medication for opioid use disorder (MOUD). The outcome evaluation project is conducted in collaboration with the Kentucky Division of Substance Use Disorder, which is part of the Department of Behavioral Health, Developmental, and Intellectual Disabilities (DBHDID). The Kentucky Opioid Replacement Treatment Outcome Study (KORTOS) is conducted by the Behavioral Health Outcome Study team at the University of Kentucky Center on Drug and Alcohol Research (UK CDAR) and is an important part of the DBHDID Division of Substance Use Disorder's performance-based measurement of treatment outcomes in Kentucky's communities. The KORTOS project collects data from respondents receiving MOUD with methadone or bup-nx at licensed OTPs because they follow clinical monitoring protocols; thus, this report does not include data from all programs in Kentucky or independent physicians who prescribe bup-nx outside of an OTP. In calendar year 2023, only five Kentucky licensed OTPs submitted data for KORTOS.[15]

In this report's follow-up sample (n = 18), five individuals were no longer involved in MOUD at the OTP where they completed the intake interview at the time of follow-up.[16] This report describes outcomes for 18 adults who participated in a Kentucky OTP, completed an intake interview and then a follow-up telephone interview about 6 - 7 months (an average of 238 days) after the intake interview was completed.

Results are reported within ten main sections for the overall sample.[17]

Section 1. Overview and Description of KORTOS Respondents. This section describes KORTOS including a description of respondents who were involved in Kentucky's participating licensed OTPs in calendar year 2023 and who had completed an intake (n = 91) as well as respondents who completed a 6-month follow-up interview (n = 18).

Section 2. Substance Use. This section examines change in substance use (any illicit drugs, alcohol, and tobacco) for 6-month and 30-day periods at intake and follow-up. Specific classes of illicit drugs examined include misuse of prescription opioids, non-prescribed methadone, non-prescribed bup-nx, heroin, and other illicit drugs. In addition, self-reported severity of alcohol and drug use based on the DSM-5 criteria for severity of substance use disorder (SUD) and the Addiction Severity Index (ASI) alcohol and drug use composite scores are compared at intake and follow-up. Further, this section also examines change in symptoms of substance use disorder, readiness for treatment, and history of MOUD.

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[14] Substance Abuse and Mental Health Services Administration. (2020). B*ehavioral health barometer: Kentucky, Volume 6: Indicators as measured though the 2019 National Survey on Drug Use and Health and the National Survey on Substance Abuse Treatment Services*. HHS Publication No. SMA-20-Baro-19-KY. Rockville, MD: Substance Abuse and Mental Health Services Administration.

[15] In CY 2023, 5 of 12 OTPs submitted intake surveys for respondents: Behavioral Health Group-Bowling Green, Behavioral Health Group-Louisville Treatment Center, New Vista, Pikeville Treatment Center, and Pinnacle Northern Kentucky Medical Clinic.

[16] Of the five respondents who were no longer involved in the treatment clinic at follow-up reasons for not being involved include: transportation problems (n = 3) and no issues (n = 2).

[17] In previous annual reports, comparisons by gender were analyzed for all outcomes and presented when statistically significant differences were found. Because of the small sample size in this year's report, gender comparisons were not analyzed for the majority of measures.

Section 3. Mental and Physical Health. This section examines changes in mental health, physical health status, and quality-of-life from intake to follow-up. Specifically, this section examines: (1) depression, (2) generalized anxiety, (3) comorbid depression and generalized anxiety, (4) suicidal ideation and attempts, (5) posttraumatic stress disorder, (6) general health status, (7) perceptions of physical and mental health, (8) chronic pain, (9) health insurance, and (10) quality-of-life. The mental and physical health questions on the KORTOS intake and follow-up interviews were self-report measures.

Section 4. Criminal Legal Involvement. This section describes change in respondent involvement with the criminal legal system during the 6-month period before entering treatment and the 6-month period before the follow-up interview. Specifically, results include changes in: (1) any arrest, (2) the number of times arrested, among respondents with any arrests, (3) any incarceration, (4) the number of nights incarcerated, among respondents with any incarceration, and (5) criminal legal supervision status.

Section 5. Interpersonal Violence and Personal Safety. This section describes change in respondents' experiences of interpersonal violence and their personal safety during the 6-month period before entering treatment and the 6-month period before the follow-up interview. Specifically, results include changes in: (1) interpersonal violence, and (2) personal safety.

Section 6. Education, Economic Status, and Living Circumstances. This section examines changes in education, economic status, and living circumstances from intake to follow-up including: (1) highest level of education completed, (2) the number of months respondents were employed full-time or part-time in the past 6 months, (3) current employment status, (4) hourly wage, (5) homelessness, (6) living situation, and (7) economic hardship (i.e., difficulty meeting living and health care needs for financial reasons).

Section 7. Recovery Supports. This section focuses on four main changes in recovery supports: (1) mutual help recovery group meeting attendance, (2) the number of people the respondent said they could count on for recovery support, (3) what will be most useful to the respondent in staying off drugs/alcohol, and (4) respondents' perceptions of their chances of staying off drugs/alcohol.

Section 8. Multidimensional Recovery. This section examines multidimensional recovery that considers severity of substance use disorder, employment, homelessness, criminal legal system involvement, suicide ideation, overall health, recovery support, and quality-of-life. Change in recovery status from intake to follow-up is presented. Furthermore, a multivariate analysis was conducted to examine the intake indicators of recovery status and their association with having all eight dimensions of recovery at follow-up.

Section 9. Respondent Satisfaction with the Opioid Treatment Programs. The items measured in this report include: (1) respondent involvement in the program, (2) if the respondent would refer someone else to the program, (3) respondent ratings of program experiences, and (4) positive and negative aspects of program participation.

Section 10. Conclusion and Implications. This section summarizes the highlights from the evaluation results and suggests implications from these findings for the state.

It is important to keep in mind that this year, the follow-up sample size is small and should be considered when interpreting the findings. To increase the statistical power to detect change in this small sample size, the alpha for statistical tests was increased to $p < .10$, instead of $p < .05$.

Section 1. KORTOS Respondent Characteristics

This section briefly describes the Kentucky Opioid Replacement Treatment Outcome Study (KORTOS) including how respondents are selected into the outcome evaluation. In addition, this section describes characteristics of respondents who participated in federally licensed Kentucky opioid treatment programs in calendar year 2023 and who had completed an intake assessment (n = 91), including respondents who also completed a 6-month follow-up interview (n = 18), of which 72.2% (n = 13) were still involved in a MAT program at follow up and 27.8% (n = 5) were not.

KORTOS includes a face-to-face interview with program staff at the beginning of a new episode of MOUD. The interview is an evidence-based assessment[18] that asks about targeted factors such as substance use, mental health, involvement in the criminal legal system, quality-of-life, health status, and economic and living circumstances prior to entering treatment (submitted to UK CDAR from January 1, 2023 to December 31, 2023). In 2023, 91 adults completed an intake interview[19] that was submitted by one of 5 Kentucky licensed OTPs that participated in CY 2023 to UK CDAR.[20] The following section describes characteristics for all respondents from those programs with a completed and submitted intake assessment.

Description of KORTOS Respondents at Treatment Intake

Demographics

Table 1.1 shows that over half of respondents were male (53.3%) and most were White (92.3%). Respondents were, on average, 40 years old, with the youngest respondent being 20 and the oldest being 66 years old. Overall, 44.2% were married or cohabiting, 26.7% of respondents had never been married (and were not cohabiting), 25.6% were separated or divorced, and 3.5% were widowed. Of those who had children (n = 72), 65.3% of respondents reported they had at least one child under the age of 18 who was living with them in the 6 months before they entered the program. The majority of respondents (76.1%) indicated they lived in a metropolitan community and 21.6% lived in a nonmetropolitan area of less than 20,000 and was not adjacent to a metropolitan area.

[18] Logan, TK, Cole, J., Miller, J., Scrivner, A., & Walker, R. (2020). *Evidence Base for the Kentucky Opioid Replacement Treatment Outcome Study (KORTOS) Assessment and Methods*. Lexington, KY: University of Kentucky, Center on Drug and Alcohol Research.

[19] When a respondent had more than one intake survey in the same fiscal year, the survey with the earliest submission date was kept in the data file and the other intake surveys were deleted so that each respondent was represented once and only once in the data set.

[20] In CY 2023, 5 of 12 OTPs submitted intake surveys for respondents: Behavioral Health Group-Bowling Green, Behavioral Health Group-Louisville Treatment Center, New Vista, Pikeville Treatment Center, and Pinnacle Northern Kentucky Medical Clinic.

TABLE 1.1. DEMOGRAPHICS FOR ALL KORTOS RESPONDENTS AT INTAKE (N = 91)

Age[21]	40.0 years *(Min. = 20, Max. = 66)*
Gender[22]	
Male	53.3%
Female	46.7%
Race	
White/Caucasian	92.3%
Black/African American	4.4%
Other or multiracial	3.3%
Marital status[23]	
Never married	26.7%
Separated or divorced	25.6%
Married or cohabiting	44.2%
Widowed	3.5%
Have children under the age of 18 who live with them (of those who have children)	(n = 72) 65.3%
Type of community[24]	(n = 88)
Metropolitan	76.1%
Nonmetropolitan- 20K or more, adjacent to a metro area	1.1%
Nonmetropolitan- less than 20K, adjacent to a metro area	1.1%
Nonmetropolitan- less than 20K, not adjacent to a metro area	21.6%

Education

Less than one-fourth (23.3%) of respondents had less than a high school diploma or GED at intake (see Figure 1.1). Almost two-fifths of the sample (39.5%) had a high school diploma or GED and 31.4% of respondents had completed some vocational/technical school or college. Only a minority of respondents had completed a vocational/technical school diploma (2.3%), an associate's degree (2.3%) or bachelor's degree or higher (1.2%).

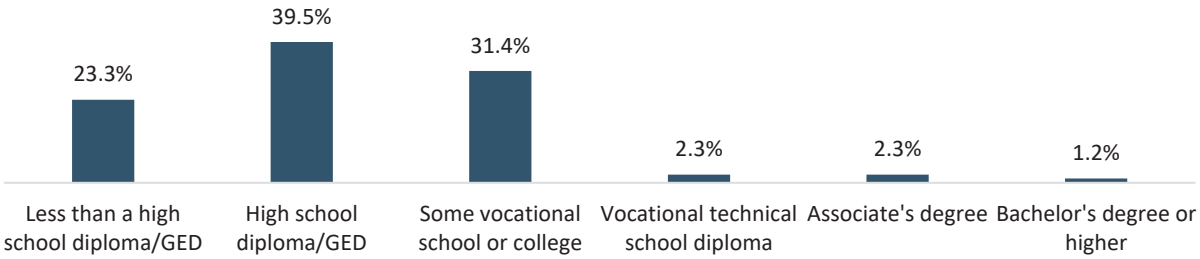
[21] Birthdate was missing for four clients and, therefore, age cannot be calculated.

[22] One client was missing data for gender at intake

[23] Marital status was missing for 5 clients at intake.

[24] Three respondents lived in another state.

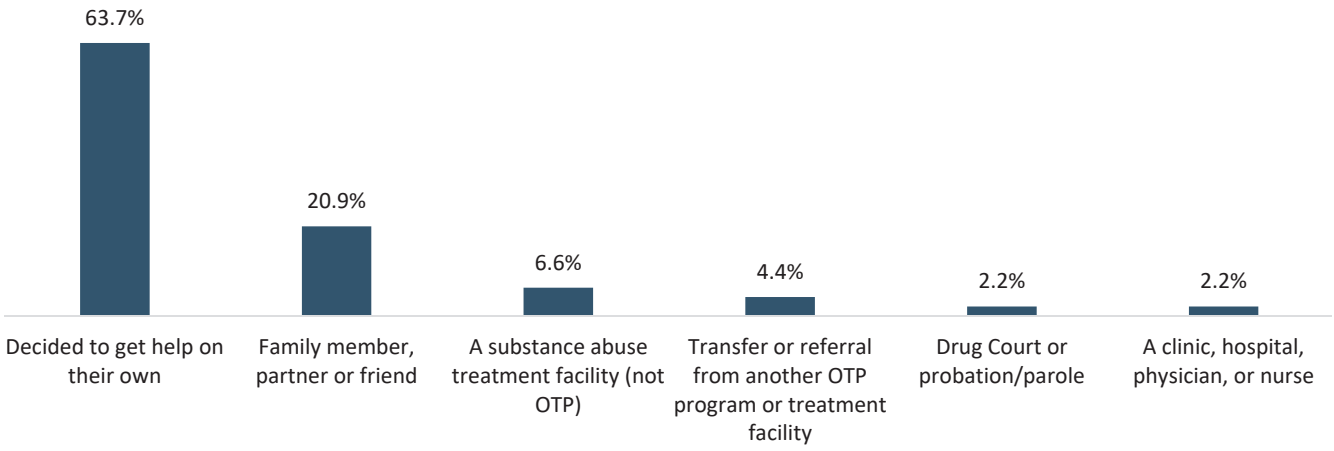
FIGURE 1.1. HIGHEST LEVEL OF EDUCATION COMPLETED AT INTAKE (N = 86)[25]



Self-reported Referral Source

Figure 1.2 shows the self-reported treatment referral source for all KORTOS respondents. About 64% of respondents decided to get help on their own and 20.9% of respondents reported they were referred by a family member, partner or friend. Small percentages were referred by a substance use disorder treatment facility (6.6%), transferred from another OTP (4.4%), a drug court or probation/parole (2.2%), and clinic, hospital, physician, or nurse (2.2%).

FIGURE 1.2 SELF-REPORTED REFERRAL SOURCE FOR ALL KORTOS RESPONDENTS AT INTAKE (N = 91)



Employment

Over half of respondents (54.9%) reported they had not worked in the past 6 months, 14.3% had worked 1 to 3 months, and 30.8% had worked 4 or more months (not depicted in figure). In the 30 days before entering the program, over two-thirds of respondents (69.2%) reported being unemployed, 17.6% reported they were employed full-time, and 13.2% were employed part-time or had occasional or seasonal employment (see Figure 1.3). Among those who reported being employed full or part-time at intake (n = 28), the median hourly wage was $12.70.

[25] Five clients were missing their level of education at intake.

FIGURE 1.3. EMPLOYMENT STATUS IN THE PAST 30 DAYS AT INTAKE (N = 91)

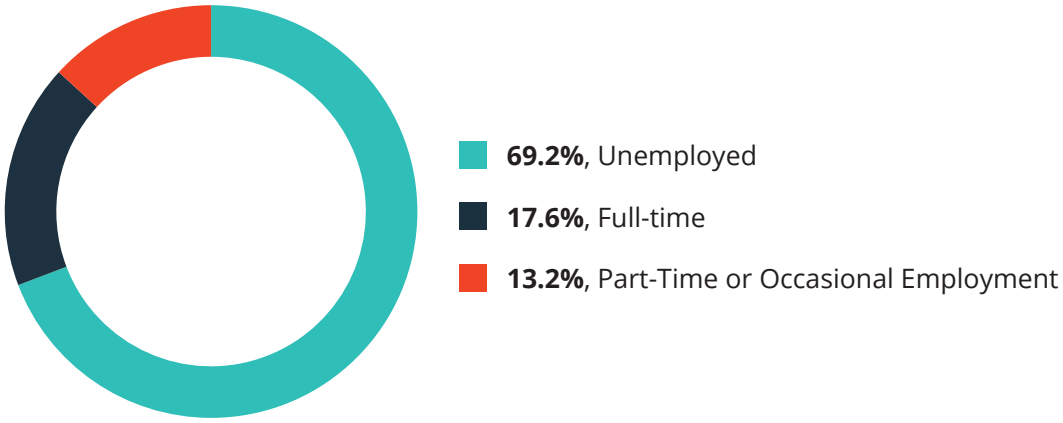
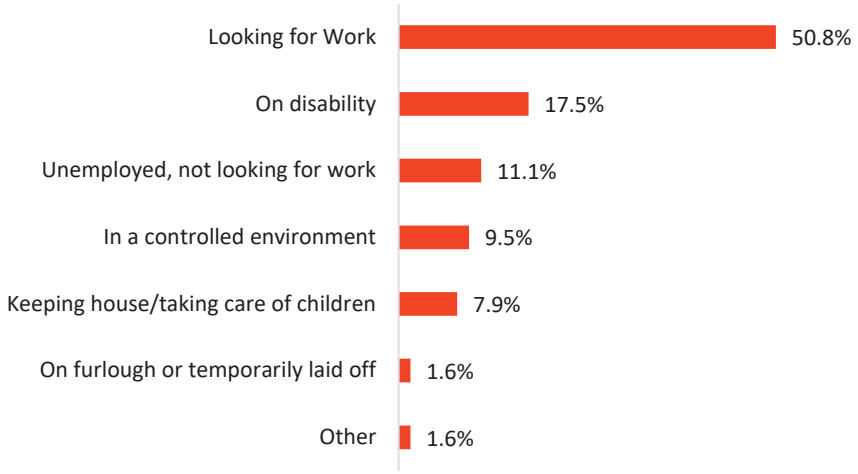


Figure 1.4 shows that of the individuals who were currently unemployed at intake (n = 63), 50.8% stated they were looking for work, 17.5% were on disability, 11.1% were unemployed and not looking for work, 9.5% were in a controlled environment, 7.9% were keeping the house or taking care of children full-time at home, 1.6% were on furlough from their job or temporarily laid off, and 1.6% were unemployed for other reason.

FIGURE 1.4. OF THOSE UNEMPLOYED, REASONS FOR BEING UNEMPLOYED (N = 63)

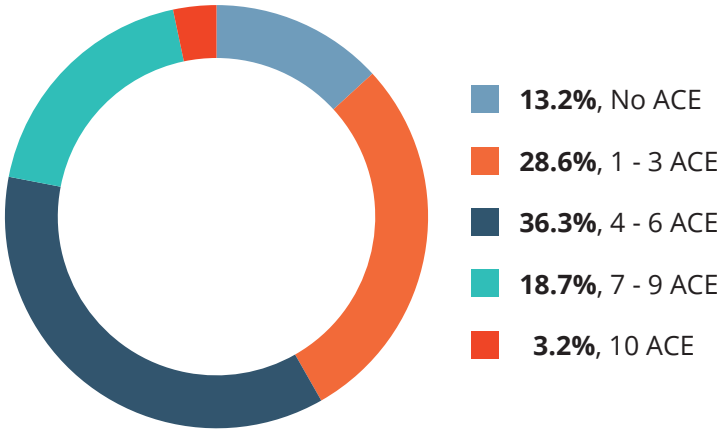


Adverse Childhood Experiences and Experiences with Violence

Adverse Childhood Experiences

At intake, respondents were asked 17 items about ten types of adverse childhood experiences from the Adverse Childhood Experiences (ACE).[26, 27, 28] In addition to providing the percent of respondents who reported each of the ten types of adverse childhood experiences before the age of 18 years old captured in ACE, the number of types of experiences was computed such that items respondents answered affirmatively were added to create a score equivalent to the ACE score. A score of 0 means the respondent answered "No" to the five abuse and neglect items and the five household dysfunction items in the intake interview. A score of 10 means the respondent reported all five forms of child maltreatment and neglect, and all five types of household dysfunction before the age of 18. Figure 1.5 shows that 13.2% reported they did not experience any of the ACE included in the assessment, 28.6% of respondents reported experiencing 1 to 3 ACE, 36.3% reported experiencing 4 – 6 ACE, and 18.7% reported experiencing 7 – 9 ACE. Only 3.2% of respondents reported experiencing all 10 types of adverse childhood experiences.

FIGURE 1.5. NUMBER OF TYPES OF ADVERSE CHILDHOOD EXPERIENCES REPORTED AT BASELINE (N =63)



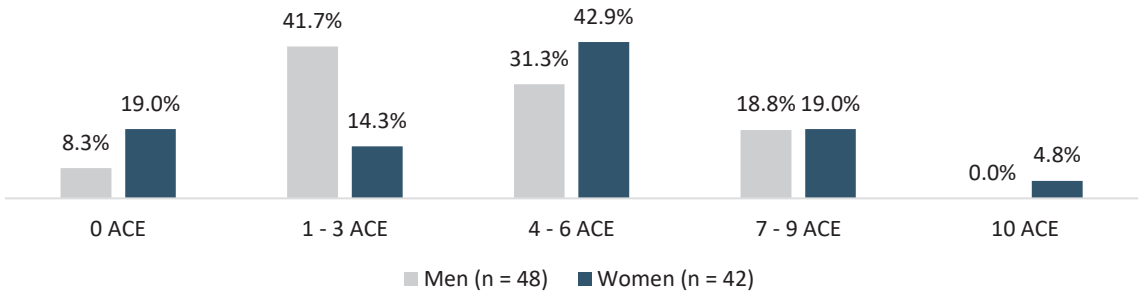
There was a significant difference in the proportion of men and women classified by number of types of ACE (see Figure 1.6); however, there was no significant difference between men and women on the average number of ACE.

[26] Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine, 14*(4), 245-258.

[27] Centers for Disease Control and Prevention. (2014). *Prevalence of individual adverse childhood experiences*. Atlanta, GA: National Center for Injury Prevention and Control, Division of Violence Prevention. http://www.cdc.gov/violenceprevention/acestudy/prevalence.html.

[28] The intake assessment asked about 10 major categories of adverse childhood experiences: (a) three types of abuse (e.g., emotional maltreatment, physical maltreatment, and sexual abuse), (b) two types of neglect (e.g., emotional neglect, physical neglect), and (c) fives types of family risks (e.g., witnessing partner violence victimization of parent, household member who was an alcoholic or drug user, a household member who was incarcerated, a household member who was diagnosed with a mental disorder or had committed suicide, and parents who were divorced/separated).

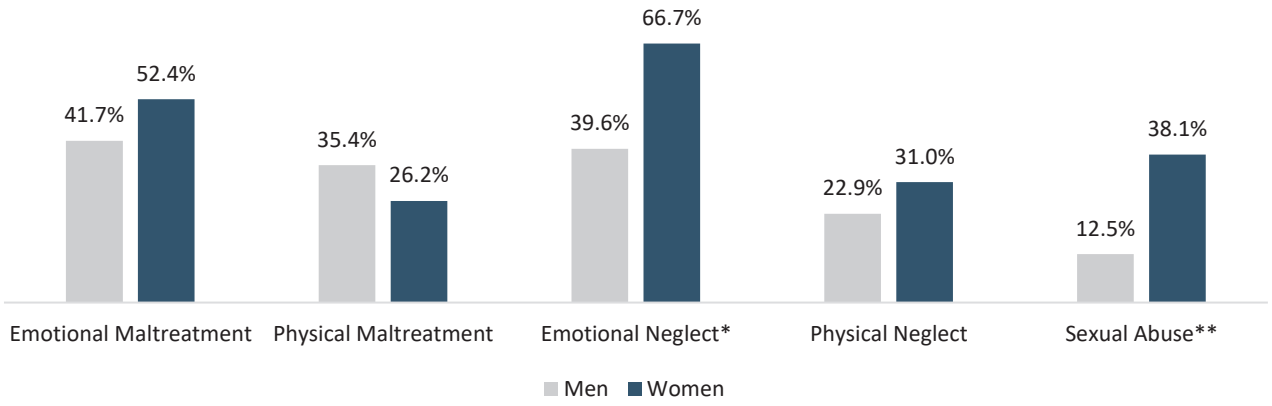
FIGURE 1.6. ACE CLASSIFICATION BY GENDER**



**p < .05.

There were a couple of significant differences between men and women for maltreatment and neglect experiences in childhood. About 52% of women and 41.7% of men reported experiencing emotional maltreatment, which was not significantly different. Over one-third of men (35.4%) and 26.2% of women reported physical maltreatment. Significantly more women (66.7%) reported they had experienced emotional neglect in their childhood, compared to 39.6% of men. There were no significant differences for physical neglect between men (22.9%) and women (31.0%). Significantly more women than men also reported sexual abuse (38.1% vs. 12.5%) before the age of 18 (see Figure 1.7).

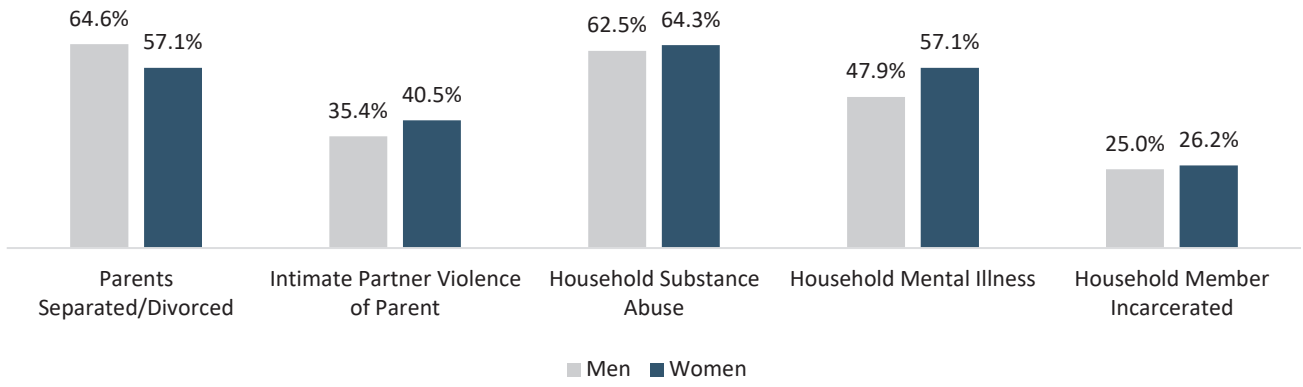
FIGURE 1.7. MALTREATMENT AND NEGLECT EXPERIENCES IN CHILDHOOD BY GENDER (n = 90)



*p < .05, **p <.01.

Almost two-thirds of men (64.6%) and 57.1% of women reported their parents were divorced or lived separately (see Figure 1.8). More than one-third of men (35.4%) and 40.5% of men reported they had witnessed the intimate partner violence of their mother or stepmother. The majority of men (62.5%) and women (64.3%) reported they lived with someone who was a problem drinker or alcoholic or used street drugs. Almost half of men (47.9%) and 57.1% of women reported they had a household member with a mental illness or who had committed suicide. Twenty-five percent of men and 26.2% of women reported a household member had been incarcerated.

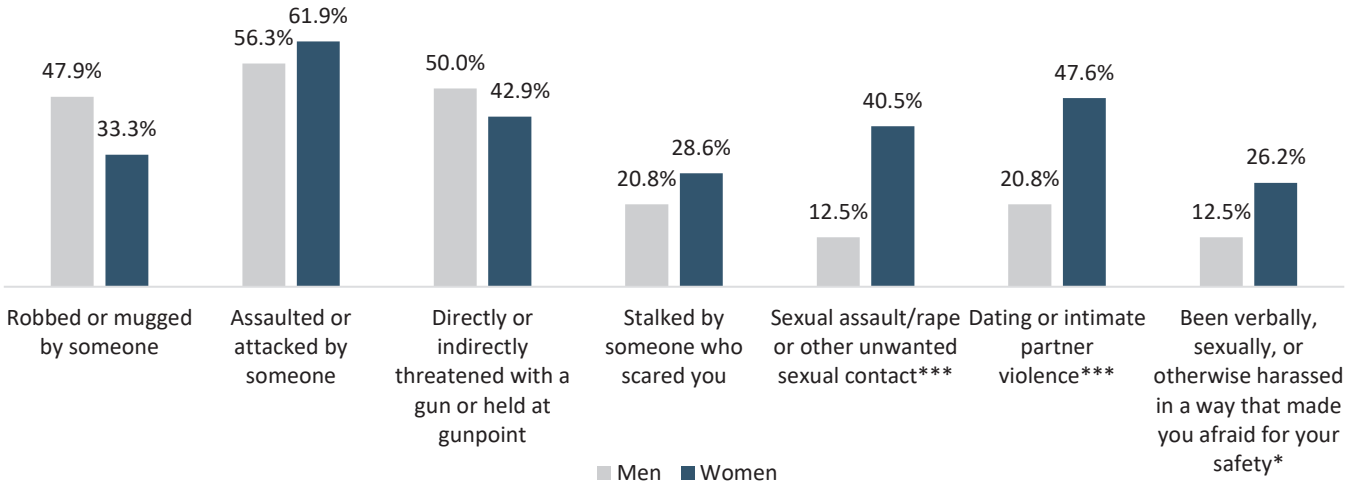
FIGURE 1.8. HOUSEHOLD RISKS IN CHILDHOOD BY GENDER (n = 90)



Experiences with Violence

Respondents were also asked about situations in which they may have experienced violence, been harmed by someone else, or made to feel unsafe by someone other than a parent or guardian in their lifetime and in the 6 months before entering the treatment program. The results of the most commonly reported experiences are presented by gender in Figure 1.9. Compared to men, significantly women reported having sexual intercourse that they did not want when they were drunk, passed out, asleep, drugged or otherwise unable to agree or consent to it (40.5% vs 12.5%, respectively). Significantly more women than men also reported having experienced violence from a dating or intimate partner (47.6% vs. 20.8%, respectively).

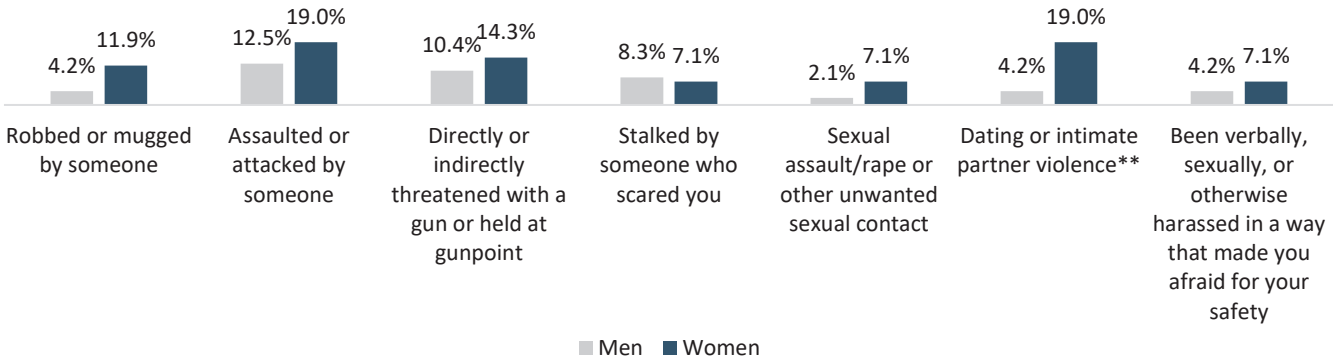
FIGURE 1.9. LIFETIME CRIME AND EXPERIENCES WITH VIOLENCE BY GENDER (n = 90)



*p < .10, ***p <.01.

Smaller percentages of respondents reported experiencing crime and interpersonal violence in the 6 months before entering programs than in their lifetime (see Figure 1.10). Significantly more women than men reported having experienced violence from a dating or intimate partner.

FIGURE 1.10. PAST-6-MONTH CRIME AND INTERPERSONAL VIOLENCE BY GENDER (n = 90)

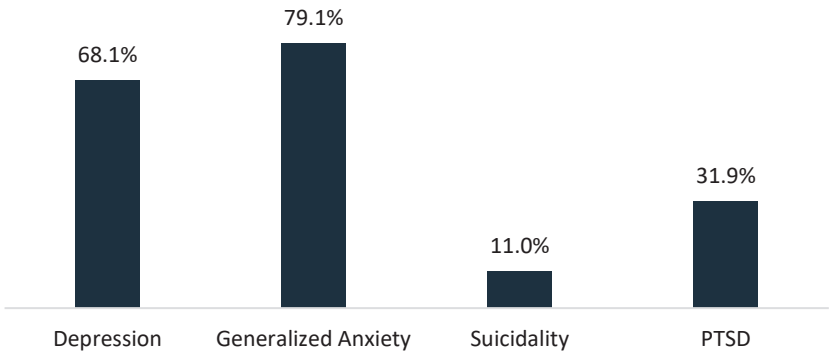


**p < .05.

Mental Health

At intake, 68.1% of KORTOS respondents met study criteria for depression in the past 6 months (see Figure 1.8). Additionally, 79.1% of respondents met study criteria for generalized anxiety at intake. Eleven percent of respondents reported suicidal thoughts or attempts in the 6 months before entering the program and 31.9% of respondents had PTSD scores that indicated a risk of PTSD.[29]

FIGURE 1.11. DEPRESSION, GENERALIZED ANXIETY, SUICIDALITY, AND POST TRAUMATIC STRESS DISORDER IN THE PAST 6 MONTHS AT INTAKE (N = 91)



Physical Health

At intake, respondents reported an average of 9.5 days of poor physical health in the past 30 days and an average of 17.1 days of poor mental health in the past 30 days (see Table 1.2). Respondents reported an average of 12.1 days out of the 30 days that poor physical and/or mental health kept them from their regular daily activities. Fifty-six percent of respondents reported chronic pain in the 6 months before entering the program. The majority of respondents (62.7%) reported they had at least one of the 16 chronic health

[29] Price, M., Szafranski, D. D., van Stolk-Cooke, K., & Gros, D. F. (2016). Investigation of abbreviated 4 and 8 item versions of the PTSD Checklist 5. *Psychiatry Research, 239*, 124-130.

problems listed on the intake interview. Of those respondents (n = 57), the most common medical problems were Hepatitis C (54.4%), cardiovascular/heart disease (24.6%), severe dental problems (21.1%), and diabetes (14.0%).

The most common insurance provider reported at intake was Medicaid (79.1%; see Table 1.2) and 12.1% had Medicare. Small percentages of respondents had insurance through Health Exchange (1.1%), or an employer, including through a spouse, parents, or self-employment (1.1%). Close to 7% of clients reported they did not have insurance.

TABLE 1.2. HEALTH-RELATED CONCERNS FOR ALL KORTOS RESPONDENTS AT INTAKE (N = 91)

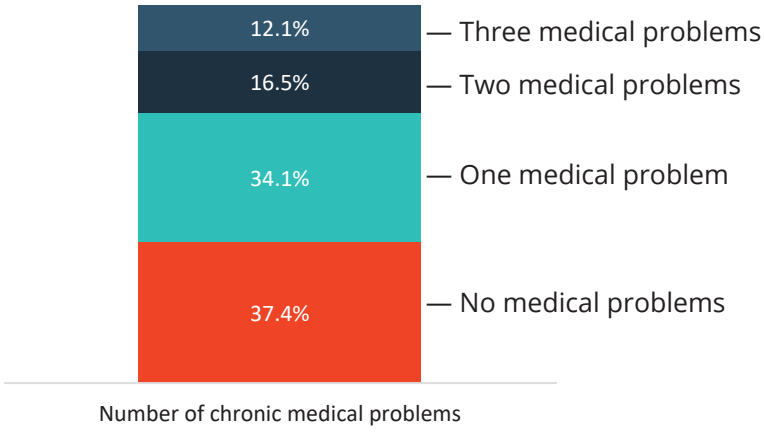
Average number of poor health days in past 30 days	9.5
Average number of poor mental health days in past 30 days	17.1
Average number of days poor physical or mental health limited activities	12.1
Chronic pain	56.0%
At least one chronic medical problem	62.7% (n = 57)
Hepatitis C	54.4%
Cardiovascular/heart disease	24.6%
Severe dental problems	21.1%
Diabetes	14.0%
Medical insurance	
No insurance	6.6%
Medicaid	79.1%
Through employer *(including spouse's employer, parents' employer, and self-employed)*	1.1%
Medicare	12.1%
VA/Champus/Tricare	0.0%
Through Health Exchange	1.1%

Figure 1.12 shows the percent of respondents who reported having different numbers of chronic medical problems at intake. Over one-third (37.4%) of respondents reported no problems, and 34.1% reported one chronic medical problem. Almost 17% reported two chronic medical problems and 12.1% reported having three or more chronic medical problems.

"They care about you and if you have any problems they'll talk to you about them. The doctors and counselors take your input into consideration."

—KORTOS RESPONDENT

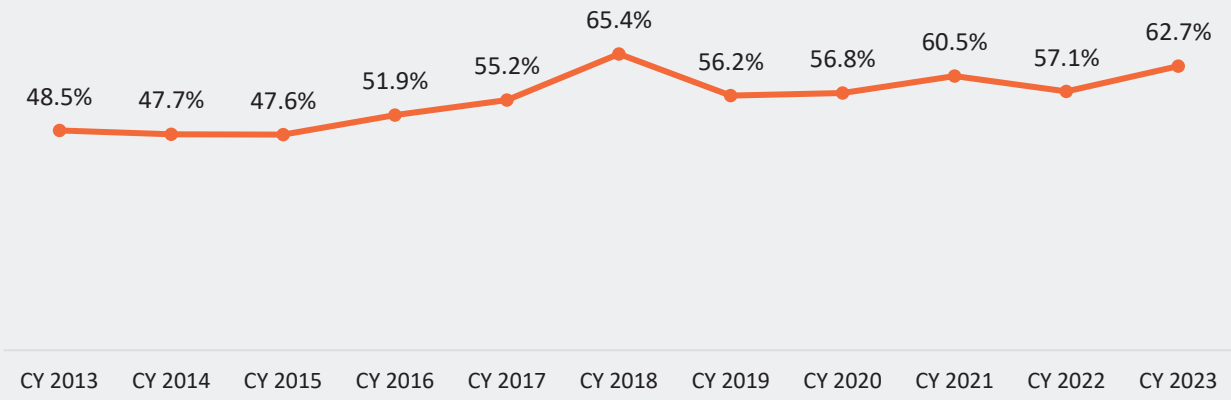
FIGURE 1.12. NUMBER OF CHRONIC MEDICAL PROBLEMS AT INTAKE FOR TOTAL SAMPLE (N = 91)



Trend Alert: Chronic Medical Problems at Intake

At intake, respondents were asked if, in their lifetime, they have been told by a doctor they had any of the chronic medical problems listed (e.g., diabetes, arthritis, asthma, heart disease, cancer, hepatitis B or C, cirrhosis of the liver). The percent of respondents reporting at least one chronic health problem in their lifetime remained steady from CY 2013 (48.5%) to CY 2016 (51.9%) and increased to 65.4% in CY 2018. In CY 2023, 62.7% of respondents reporting at least one chronic health problem.

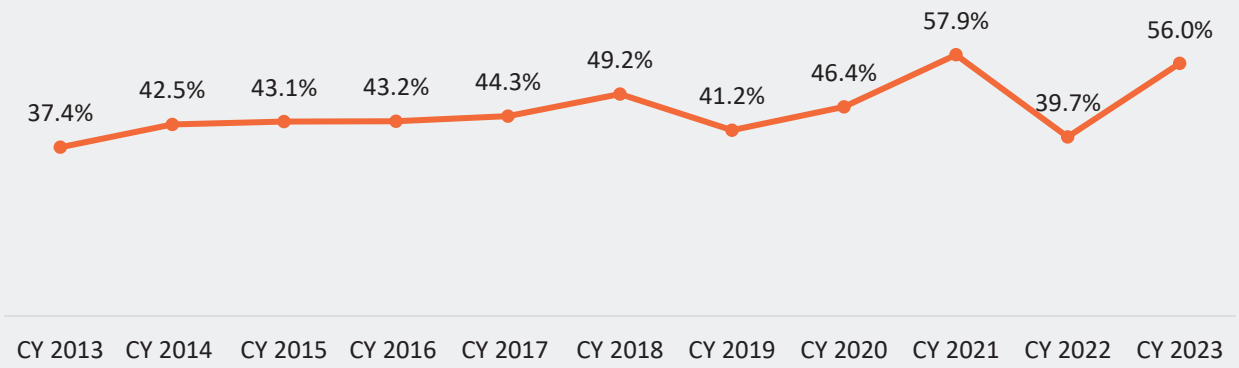
FIGURE 1.13. TRENDS IN CHRONIC MEDICAL PROBLEMS AT INTAKE



Trend Alert: Chronic Pain at Intake

The percent of respondents who reported chronic pain at intake has increased slowly over time. In CY 2013 37.4% of respondents reported experiencing chronic pain and in CY 2023 56.0% reported experiencing chronic pain.

FIGURE 1.14. TRENDS IN CHRONIC PAIN AT INTAKE



Substance Use

The majority of the KORTOS respondents who completed an intake interview reported using illicit drugs (94.4%) and the majority reported smoking tobacco (82.0%) while 11.2% reported using alcohol in the 6 months before intake (see Figure 1.15). The drug classes reported by the greatest number of respondents were non-prescribed use of prescription opioids (65.2%), heroin (65.2%), amphetamines (53.9%), and cannabis (51.7%; not represented in a figure).

Similarly, among individuals who were not in a controlled environment all 30 days, 89.7% reported using illicit drugs, 81.6% reported smoking tobacco, and 4.6% reported using alcohol in the 30 days before entering treatment.

FIGURE 1.15 ALCOHOL, ILLICIT DRUG, AND TOBACCO USE 6 MONTHS AND 30 DAYS BEFORE TREATMENT[30]

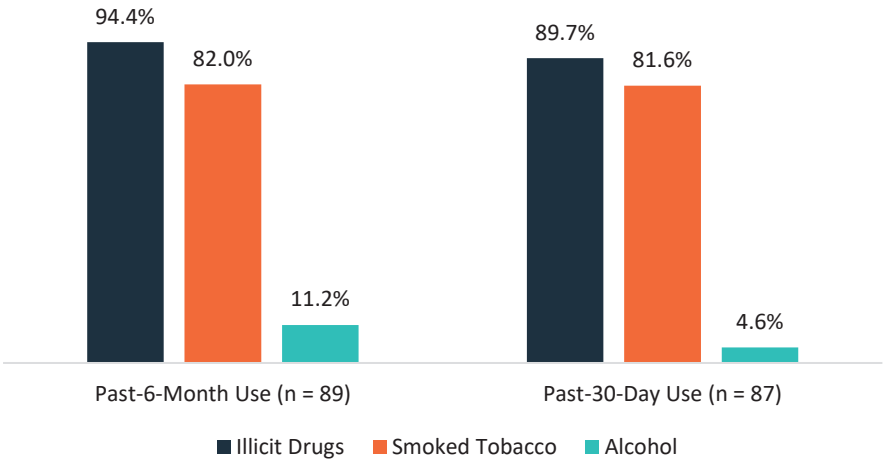


Figure 1.16 presents the percentage distribution of individuals who used alcohol and/or illicit drugs in the 6 months before entering the program. Among the individuals who were not incarcerated all 180 days before entering the program (n = 89), 5.6% reported no alcohol or drug use, none reported alcohol use only, 83.1% reported illicit drug use only, and 11.2% reported both alcohol and illicit drug use.

FIGURE 1.16. PAST-6-MONTH ALCOHOL AND ILLICIT DRUG USE AT INTAKE FOR THOSE NOT INCARCERATED ALL 180 DAYS BEFORE ENTERING THE PROGRAM (N = 89)

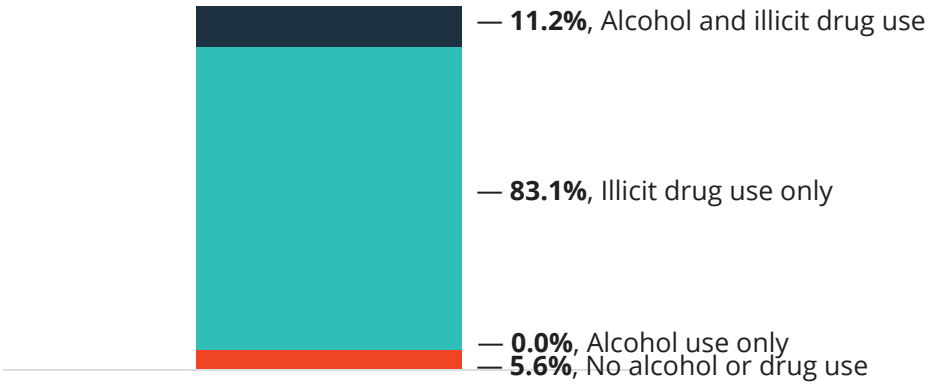
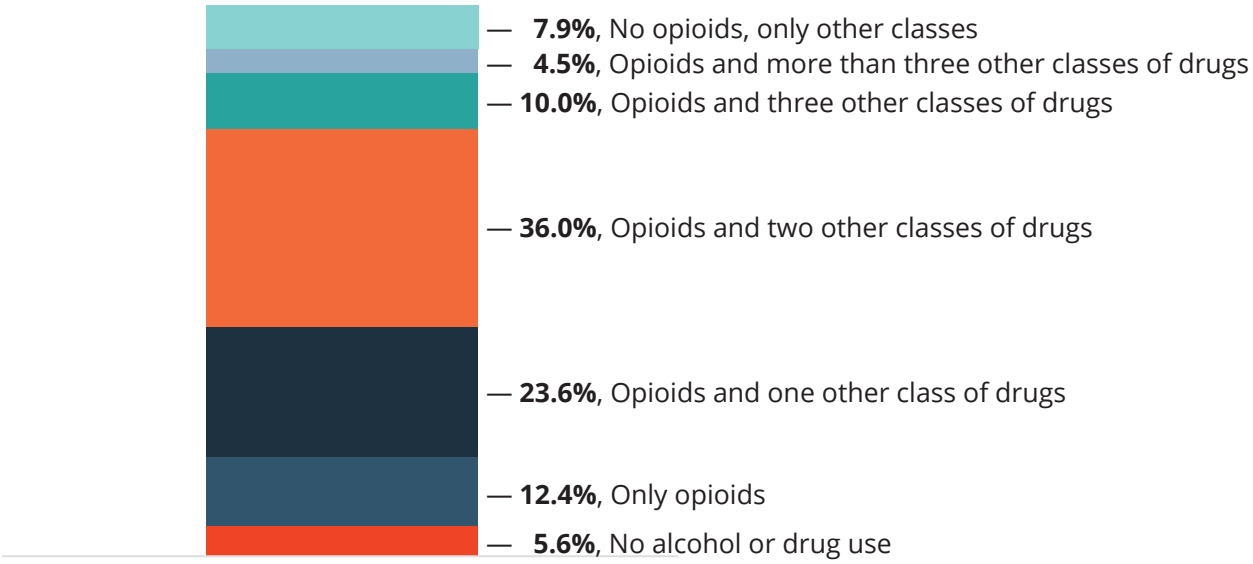


Figure 1.17 presents the distribution of respondents who reported using no drugs, alcohol only, only opioids (including prescription opioids, bup-nx, methadone, heroin) and other drug classes from the following: cannabis, CNS depressants (such as benzodiazepines, sedatives, tranquilizers, barbiturates), stimulants (including amphetamines and cocaine), and other classes such as hallucinogens, synthetic cannabis, and inhalants. KORTOS respondents who were not incarcerated all 180 days before entering the program are

[30] Because being in a controlled environment reduces opportunities for substance use, only respondents who were not incarcerated for the entire time period were included in the substance use analysis; therefore, two of the respondents were excluded from the past-6-month substance use and four respondents were excluded from past-30-day use.

predominately polysubstance users. About 12% of respondents reported only using opioids while 74.2% reported using opioids and at least one other class of drug and 7.9% (one respondent) reported no use of opioids.

FIGURE 1.17. PAST-6-MONTH POLYSUBSTANCE USE AT INTAKE FOR THOSE NOT INCARCERATED ALL 180 DAYS BEFORE ENTERING THE PROGRAM (N = 89)



Trend Report in Specific Past-30-Day Drug Use

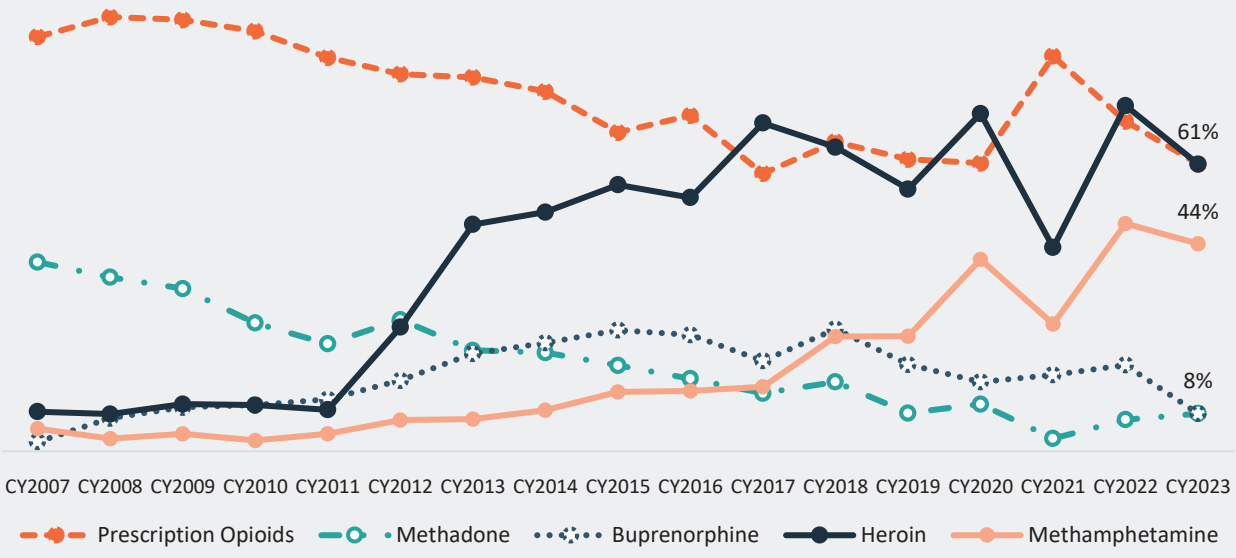
When looking at trends over time for all respondents with completed intake interviews, the percent of respondents using prescription opioids in the past 30 days peaked in CY 2008 and steadily dropped until CY 2021 (70.0%). In CY2023, the percent of respondents reporting prescription opioid use was the lowest since CY 2020 (61.0%).

The percent of respondents who reported using non-prescribed methadone before entering treatment showed a decline from CY 2007 to CY 2023. The percent of respondents who reported using bup-nx slowly increased from CY 2007 through 2015, dropped slightly in CY 2016 and 2017 before increasing again in CY 2018. In CY 2023, the percent of respondents who reported using bup-nx decreased further to 8.0%--the lowest since CY 2008.

The most notable change in substance use among KORTOS respondents, however, is for heroin. Small percentages of KORTOS respondents reported using heroin from CY 2007 through 2011. Then, the percent tripled from 8.8% in CY 2011 to 26.3% and then nearly doubled from 26.3% in CY 2012 to 48.1% in CY 2013. The percent of KORTOS respondents reporting heroin use at intake in CY 2014 increased again to 50.7% and further still to 56.5% in CY 2015 to a high of 73.3% in CY 2022.

The use of methamphetamine among respondents has gradually been increasing since CY 2008. In CY 2018 and CY 2019, about one-quarter of respondents were using methamphetamine when they entered the program, which was in increase from CY 2017. In CY 2020 there was a sharp increase in methamphetamine use to 40.7%, but in CY 2021 the percent was lower (27.0%). In CY 2023, the percent of respondents reporting methamphetamine was 43.7%.

FIGURE 1.18. PERCENT OF ALL RESPONDENTS WITH A COMPLETED INTAKE INTERVIEW REPORTING NON-PRESCRIBED USE OF PRESCRIPTION OPIOIDS, METHADONE, BUP-NX, HEROIN, AND METHAMPHETAMINE IN THE 30 DAYS BEFORE ENTERING TREATMENT AT THE OTP (N = 9,641)[31, 32]



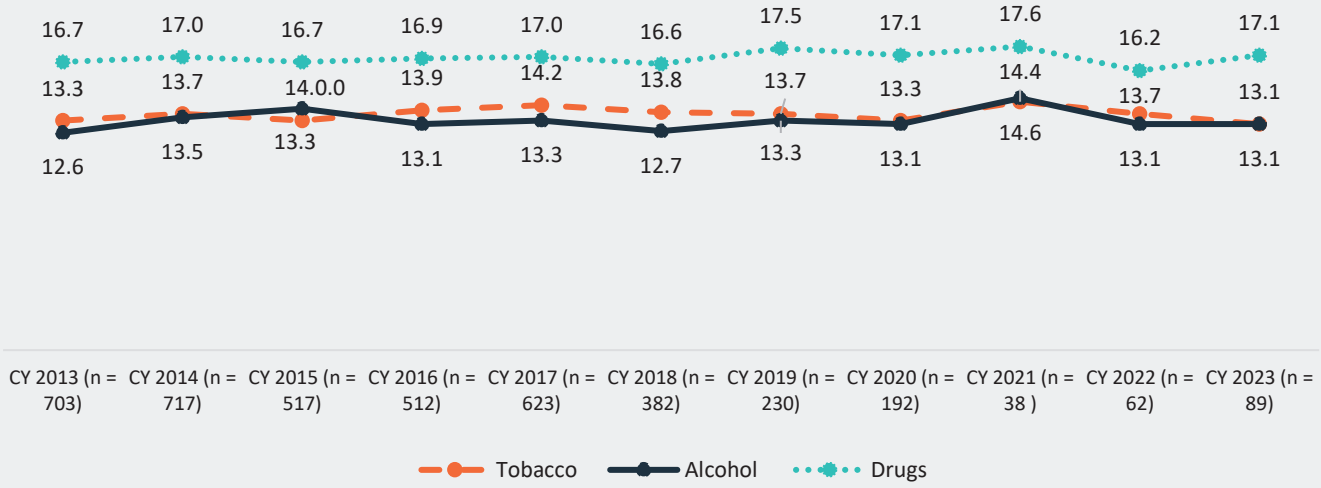
[31] Due to the proximity of the trend lines, only the most recent year's data is labeled.

[32] Respondents who reported being in a controlled environment all 30 days before entering treatment were not included in this analysis.

Trends in Age of First Use

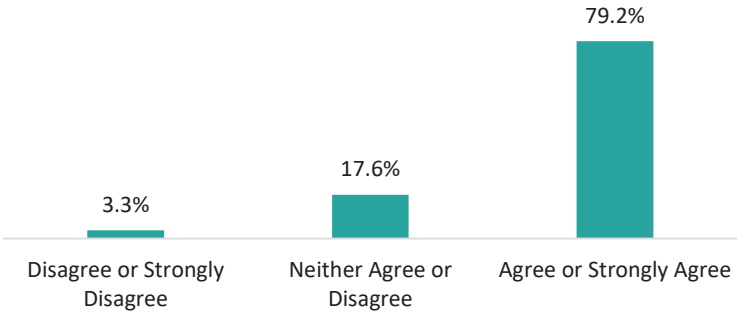
Respondents were asked, at intake, how old they were when they first began to use illicit drugs, when they had their first alcoholic drink (more than just a sip), and when they began smoking cigarettes regularly (see Figure 1.19). The age at which KORTOS respondents reported initiating drug use was steady for the past 11 years, around 17 to 18 years old. Respondents generally reported having their first alcoholic drink in their early teens (around 13 years old). The age of first regular smoking tobacco use was steady for the past 11 years, typically between 13 and 14 years old. In CY 2022, however, the age at with KORTOS respondent began to use each substance decreased compared to the past years.

FIGURE 1.19. AGE OF FIRST USE REPORTED AT INTAKE



At intake, respondents were asked how important it was to them to help others who have had symptoms of substance use disorder. The majority of respondents (79.2%) reported they agreed or strongly agreed that it is important while 17.6% neither agreed nor disagreed and 3.3% disagreed or strongly disagreed (see Figure 1.20).

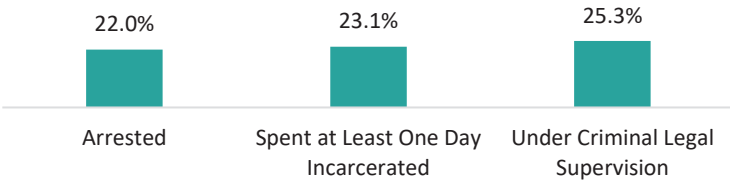
FIGURE 1.20. RESPONDENTS REPORTING THE IMPORTANCE OF HELPING OTHERS WHO HAVE SYMPTOMS OF SUBSTANCE USE DISORDER (N = 91)



Criminal Legal Involvement

A minority of KORTOS respondents (22.0%) reported being arrested at least once and 23.1% reported being incarcerated at least one night in the 6 months before entering treatment (see Figure 1.21). Among those who were arrested (n = 20), they were arrested an average of 1.9 times. In addition, 25.3% of respondents reported being under supervision by the criminal legal system.

FIGURE 1.21. CRIMINAL LEGAL INVOLVEMENT 6 MONTHS BEFORE TREATMENT AT INTAKE (N = 91)



KORTOS Follow-up Sample

Follow-up interviews are conducted with a selected sample of KORTOS respondents targeted for 6 months after the intake interview is completed. At the completion of the intake interview, program staff inform individuals about the KORTOS follow-up study and ask if they are interested in participating. Respondents who agree to participate are asked to provide contact information. All individuals who agree to be contacted by UK CDAR for the follow-up interview and have given at least one mailing address and one phone number, or two phone numbers if they do not have a mailing address in their locator information, are eligible for the follow-up component of the study. All eligible individuals are then selected by the month in which they completed intake interviews.[33]

Of the 91 respondents who completed an intake interview, 28 agreed to be contacted for the follow-up interview (30.8% agreement rate).[34] Of these respondents, 24 provided the minimum amount of contact information at the end of the intake interview, had intake interviews that were submitted to UK CDAR within 30 days of completion, and were selected into the follow-up sample. Of these 24 eligible respondents, UK CDAR interviewers completed follow-up assessments with 18 respondents (81.8% follow-up rate).[35] This means that roughly 18% of eligible individuals included in the sample to be followed up were not successfully contacted within the targeted eligibility period.[36]

[33] If a person has more than one intake interview in a given year, the interview with the earliest date will be selected into the follow-up sample.

[34] The agreement rate is 10.5% lower than last year.

[35] See methods section for a breakdown of sample eligibility.

[36] Respondents are not contacted for a variety of reasons including follow-up staff are not able to find a working address or phone number or are unable to contact any friends or family members of the respondent.

Follow-up procedures for the outcome study use several best practices. First, the follow-up assessments are conducted independently from the treatment programs by UK CDAR staff. Second, UK CDAR has over 20 years of extensive experience following up study participants and staff are highly trained, supervised, and monitored. Third, the confidentiality of respondents is protected through specific study procedures, UK human subjects' protections, and through a federal certificate of confidentiality. Respondents are provided with full information about their rights as a research subject and the protections for confidentiality provided by the study. Respondents must consent to the study twice: once at the completion of the intake interview and once when on the phone for the follow-up interview.

In previous years, respondents who were no longer involved in the clinic were not included in the eligible follow-up sample. However, because there are only 18 completed follow-up surveys, the individuals who were still involved in the clinic at follow-up (n = 13) and are combined with the individuals who were no longer involved with the clinic at follow-up (n = 5).[37] This report describes outcomes for 18 adults who completed an intake interview and then a follow-up telephone interview about 5-9 months (an average of 238.2 days) after the intake interview was completed. Detailed information about the methods and follow-up efforts can be found in Appendices A and B.

Of the 18 adults who completed a 6-month follow-up interview, 50.0% were female.[38] The majority of the follow-up respondents were White (94.4%), an average of 44 years old, and between the ages of 27 and 66. About 39% of respondents had never been married at intake, 33.3% were married or cohabiting, 27.8% were separated or divorced, and none were widowed. About 22% of follow-up respondents had at least one child under age 18 who was living with them and 83.3% indicated they lived in a metropolitan community.

Table 1.3 presents the demographics of the follow-up sample separately for respondents who were still involved in the clinic at follow-up and respondents who were not involved in the clinic at follow-up.

[37] Of the 5 respondents who were no longer involved in the treatment clinic at follow-up, reasons for not being involved or no longer using buprenorphine/naloxone, naltrexone, or methadone include: getting too the clinic or doctor to receive the medication (n = 3), and no issues (n = 2).

[38] In previous annual reports, comparisons by gender were analyzed for all outcomes and presented when statistically significant differences were found. Because of the small sample size in this year's report, gender comparisons were not analyzed for the majority of measures.

TABLE 1.3. DEMOGRAPHICS FOR KORTOS FOLLOW-UP RESPONDENTS AT INTAKE (N = 18)

	Respondents still in the clinic at follow-up (n = 13)	Respondents not in the clinic at follow-up (n = 5)
Age	42.9 years *(range of 27 - 66)*	45.4 years *(range 35 – 57)*
Gender		
Male	46.2%	60.0%
Female	53.8%	40.0%
Race		
White/Caucasian	92.3%	100%
Black/African American	0.0%	0.0%
Other race or multiracial	7.7%	0.0%
Marital status		
Never married	38.5%	40.0%
Separated or divorced	23.1%	40.0%
Married or cohabiting	38.5%	20.0%
Widowed	0.0%	0.0%
Have children under the age of 18 who live with them	15.4%	40.0%
Type of community		
Metropolitan	92.3%	60.0%
Nonmetropolitan- 20K or more, adjacent to a metro area	0.0%	20.0%
Nonmetropolitan- less than 20K, adjacent to a metro area	0.0%	20.0%
Nonmetropolitan- less than 20K, not adjacent to a metro area	7.7%	0.0%

When respondents who completed a follow-up interview were compared with those who did not have a follow-up interview on a variety of intake variables, there were several significant differences. First, respondents who had completed a follow-up were older. Also, more respondents who completed a follow-up considered themselves homeless, reported stimulant use, and more average times in substance use treatment. More respondents who completed a follow-up reported severe dental disease, asthma, other sexually transmitted infections, and reported being incarcerated compared to individuals who had not completed a follow-up survey.[39]

[39] See Appendix C for detailed comparisons of respondents who completed a follow-up interview and were included in the follow-up analysis (n = 18) and respondents who did not complete a follow-up interview or were not included in the follow-up analysis (n = 73).

TABLE 1.4. FOLLOWED-UP VERSUS NOT FOLLOWED-UP

	Followed up	
	NO n = 73	YES n = 18
Demographic		Significantly older
Socio-economic status indicators *(e.g., education, employment, living situation, difficulty meeting basic needs)*		More considered themselves homeless
Substance use, severity of alcohol and drug use		More reported stimulant use
Treatment history		More times in treatment
Health *(e.g., overall health status, chronic medical problems, chronic pain)*		More reported arthritis, severe dental disease, asthma, and other sexually transmitted infections
Mental health *(e.g., depression, generalized anxiety, suicidality, PTSD)*		More reported thoughts of suicide or suicide attempts
Criminal legal involvement *(e.g., arrested, incarcerated)*		More reported being incarcerated

Section 2. Substance Use

This section describes change in illicit drug, alcohol, and tobacco use from intake to follow-up (n = 18). Past-6-month substance use is examined as well as past-30-day substance use for respondents who were not in a controlled environment all 30 days before entering treatment or the follow-up interview. In addition, this section includes problems experienced with substance use in the past 30 days, readiness for treatment, self-reported severity of alcohol and drug use, and medication for opioid use disorder. Results for each targeted factor are presented for the overall sample.[40]

Changes in illicit drug, alcohol, and tobacco use before entering the program and during the 6-month follow-up period are presented in this section. In addition to examining the overall use of illicit drugs, several specific categories of illicit drugs were examined including: (a) prescription opioid misuse (including opioids such as morphine, Percocet, Oxycontin, Lortab), (b) non-prescribed methadone, (c) non-prescribed buprenorphine-naloxone (bup-nx), (d) heroin, and (e) non-opioid drugs other than those mentioned above (including cannabis, cocaine, amphetamines, tranquilizers, hallucinogens, inhalants, and barbiturates). Analysis is presented in detail for KORTOS study participants who were not in a controlled environment for the entire period of 6 months and/or 30 days before entering treatment. Changes in substance use from intake to follow-up are presented in 4 main subsections and organized by type of substance use:

1. **Change in past-6-month substance use from intake to follow-up.** Comparison of any illicit drugs, prescription opioid misuse, non-prescribed methadone, non-prescribed bup-nx, heroin, other non-opioid drugs, alcohol, and tobacco use in the 6 months before the respondent entered the program and use of these substances during the 6-month follow-up period (n = 16) are presented.

2. **Average number of months respondents used substances at intake and follow-up.** For those who used any illicit drugs, alcohol, or tobacco, the average number of months of use before program entry and during the follow-up period are reported.

3. **Change in 30-day substance use from intake to follow-up.** Comparison of any illicit drugs, prescription opioid misuse, non-prescribed methadone, non-prescribed bup-nx, heroin, other non-opioid drugs, alcohol, and tobacco use in the 30 days before the respondent entered the program and during the follow-up period (n = 18) is presented.[41] In addition, this section examines the number of days respondents experienced alcohol/drug problems in the past 30 days, how troubled or bothered respondents were substance use disorder symptoms in the past 30 days, and how important treatment is for these substance use disorder symptoms at intake and follow-up.

4. **Change in self-reported severity of alcohol and drug use from intake to follow-up.** There are two indices of substance use severity presented in this report. One

[40] Gender differences were not examined in this annual report because the statistical tests are inappropriate to run on such a small sample size.

[41] None of the individuals were in a controlled environment all 30 days before intake or follow-up.

way to examine overall change in degree of severity of substance use is to ask participants to self-report whether they met the 11 criteria included in the DSM-5 for diagnosing substance use disorder in the past 6 months. Under DSM-5, anyone meeting any two of the 11 criteria during the same 6-month period would receive a diagnosis of substance use disorder (SUD) as long as their symptoms were causing clinically significant impairments in functioning. The severity of the substance use disorder (i.e., none, mild, moderate, or severe) in this report is based on the number of criteria met. The percent of individuals in each of the four categories at intake and follow-up is presented.

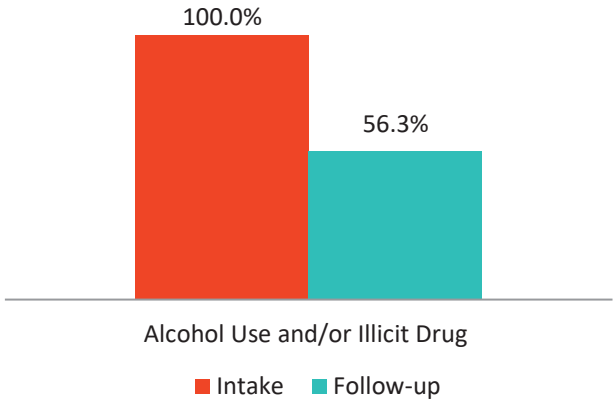
The Addiction Severity Index (ASI) composite scores are examined for change over time for illicit drugs (n = 16). The ASI composite score assesses self-reported addiction severity even among those reporting no substance use in the past 30 days. The drug composite score is computed from items about 30-day drug use and the number of days individuals used multiple drugs in a day, as well as the impact of substance use on the individual's life, such as number of days individuals had drug problems, how troubled or bothered individuals were by their drug problems, and how important treatment was to them.

Alcohol and/or Drug Use

Past-6-month Alcohol And/or Drug Use

All respondents reported using alcohol and/or illicit drugs in the 6 months before entering the program, which decreased to 56.3% at follow-up (see Figure 2.1).

FIGURE 2.1. PAST 6-MONTH ALCOHOL AND/OR ILLICIT DRUG USE AT INTAKE AND FOLLOW-UP (N = 16)

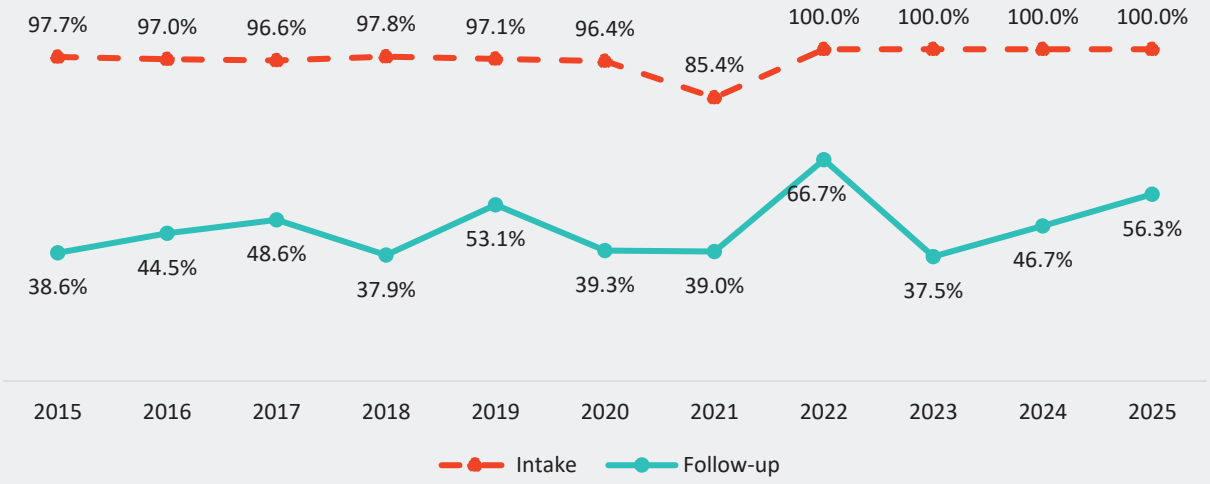


a—No test of statistical association could be computed for alcohol use and/or illicit drug use in the past 6 months at intake because one of the cell values was 0.

Trends in Any Alcohol and/or Illicit Drug Use

The percent of KORTOS respondents reporting alcohol and/or illicit drug use in the 6 months before treatment was consistently high (about 97% to 100%) until 2021 when it briefly decreased to 85.4%. At follow-up, from 2015 – 2018, less than half of respondents reported any alcohol and/or illicit drug use before briefly increasing to 53.1% in 2019, 66.7% in 2022, and 56.3% in 2025.

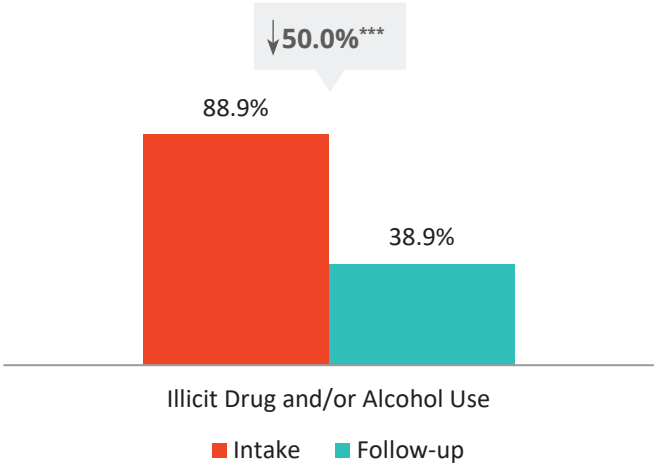
FIGURE 2.2. TRENDS IN ANY ALCOHOL AND/OR ILLICIT DRUG USE AT INTAKE AND FOLLOW-UP, REPORTS 2015-2025[42, 43]



Past-30-day Alcohol and/or Illicit Drug Use

The majority of respondents (88.9%) reported using alcohol and/or illicit drugs in the 30 days before entering the program, which decreased significantly to 38.9% at follow-up (see Figure 2.3).

FIGURE 2.3. PAST 30-DAY ALCOHOL AND/OR ILLICIT DRUG USE AT INTAKE AND FOLLOW-UP (N = 18)



***p < .01.

[42] For each trend report presented, the years correspond to years in which the annual reports were published. In addition, all trend analyses present only annual report data at intake and follow-up and do not include between-year statistical analysis.

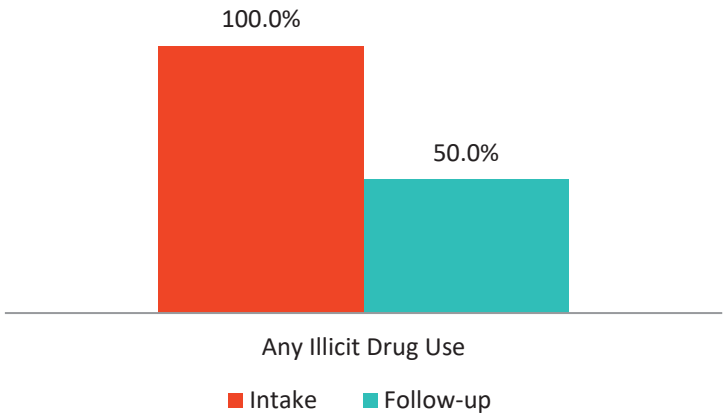
[43] In 2015, 3 cases had missing data for illicit drug use at intake.

Any Illicit Drugs

Past-6-month Any Illicit Drug Use

All respondents reported using illicit drugs in the 6 months before entering the program, which decreased to 50.0% at follow-up (see Figure 2.4).

FIGURE 2.4. PAST-6-MONTH ILLICIT DRUG USE AT INTAKE AND FOLLOW-UP (N = 16)

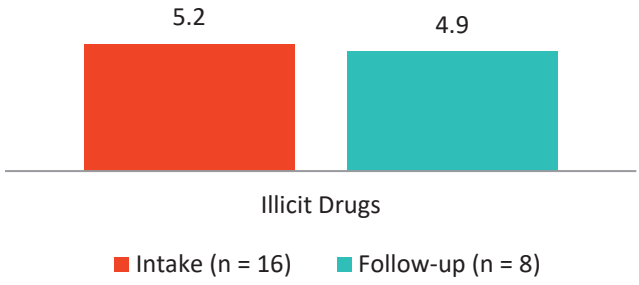


a—No test of statistical association could be computed for illicit drug use in the past 6 months at intake because one of the cell values was 0.

Average Number of Months Used Any Illicit Drugs

Respondents who reported any illicit drug use at intake (n = 16) reported an average maximum of 5.2 months of use. Among respondents who reported any illicit drug use in the 6 months before follow-up (n = 8), the maximum number of months they reported using any illicit drug was, on average, 4.9 months (see Figure 2.5).

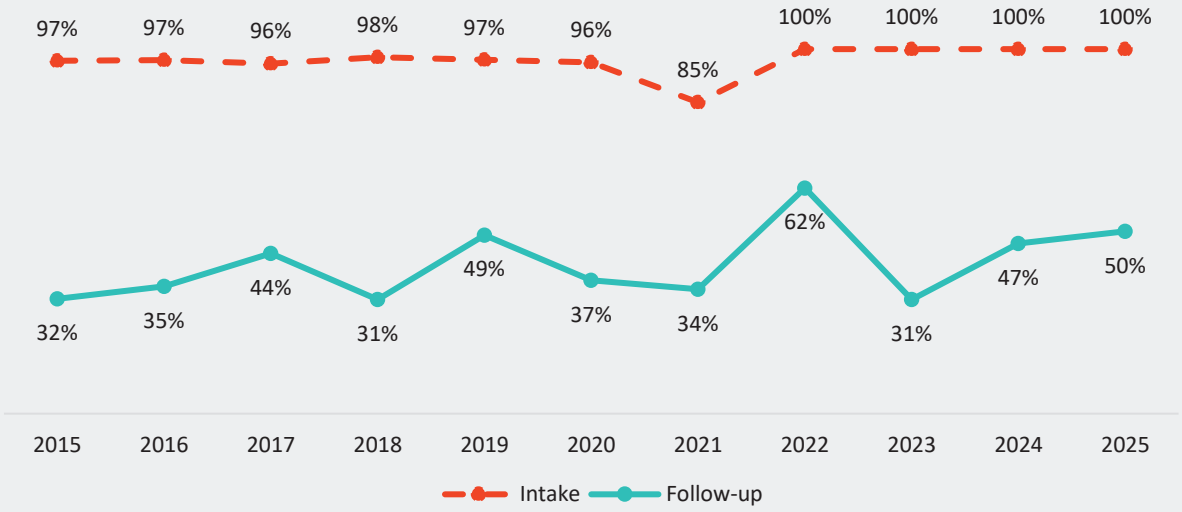
FIGURE 2.5. AVERAGE NUMBER OF MONTHS RESPONDENTS USED ILLICIT DRUGS



Trends in Past-6-month Illicit Drug Use

The percent of KORTOS respondents reporting any illicit drug use in the 6 months before treatment was consistently high (around 97% to 100%) until 2021 when it decreased to 85.4%. The percent of respondents who reported any illicit drug use at follow-up increased from 31.5% in 2015 to 49.0% in 2019. In 2021, the percent of respondents reporting any illicit drug use at follow-up decreased to 34.1%, but increased to 61.9% report year 2022, which corresponds to intake in 2020, the beginning of the pandemic. In the 2025 report follow-up sample, 50.0% of respondents reported using illicit drugs in the 6 months before follow-up.

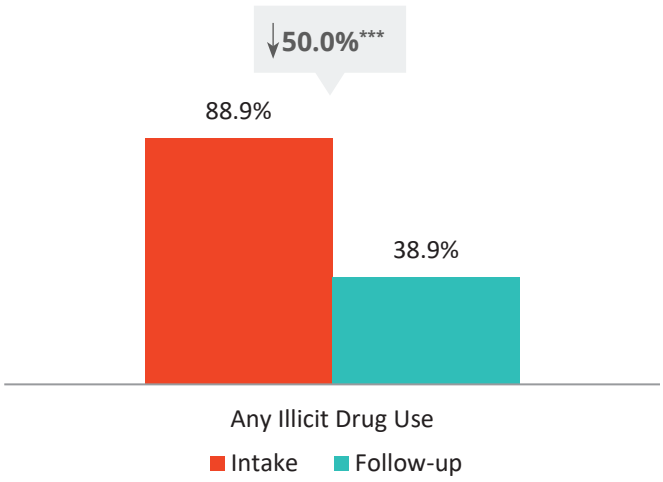
FIGURE 2.6. TRENDS IN ILLICIT DRUG USE AT INTAKE AND FOLLOW-UP, REPORTS 2015-2025



Past-30-day Any Illicit Drug Use

At intake, the majority of respondents (88.9%) reported any illicit drug use in the 30 days before entering the program and at follow-up, 38.9% of respondents reported any illicit drug use in the past 30 days, which was a significant decrease of 50.0%.

FIGURE 2.7. PAST-30-DAY USE OF ANY ILLICIT DRUGS AT INTAKE AND FOLLOW-UP (N = 18)



***p < .01.

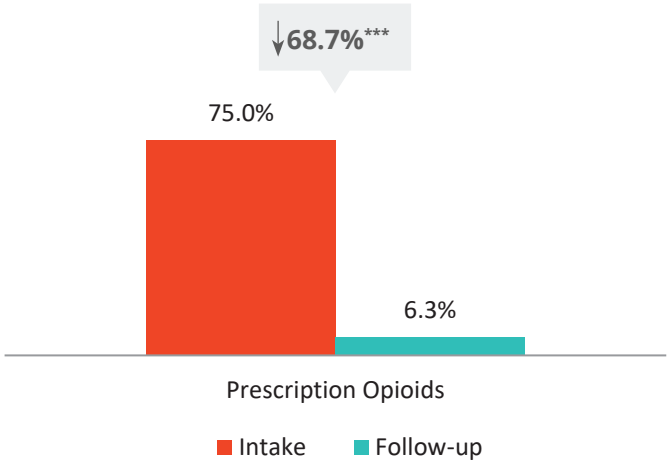
Prescription Opioid Misuse

Past-6-month Prescription Opioid Misuse

Three-quarters of respondents reported misusing prescription opioids (such as morphine, Percocet, Oxycontin, Lortab) in the 6 months before treatment entry. At follow-up, 6.3% of respondents (one respondent) reported misusing prescription opioids (see Figure 2.8). This means there was a 68.7% significant decrease in the percent of respondents reporting prescription opioid misuse.

Among the respondents who reported misusing prescription opioids before entering the program (n = 12), respondents reported using prescription opioids an average of 5.3 of the 6 months.

FIGURE 2.8. PAST-6-MONTH PRESCRIPTION OPIOID MISUSE AT INTAKE AND FOLLOW-UP (N = 16)



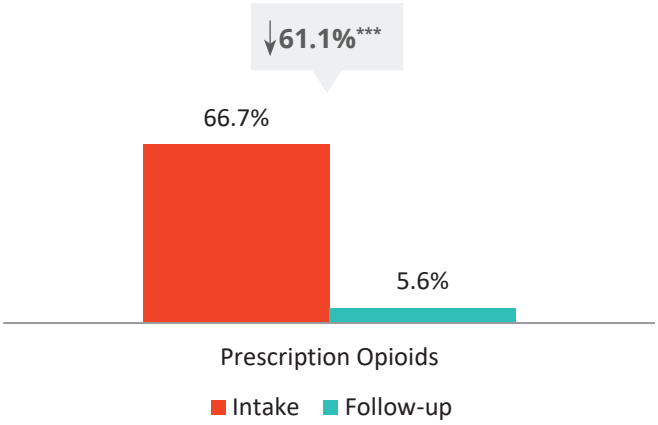
***p < .01.

Past-30-day Prescription Opioid Misuse

At intake, 66.7% of respondents reported past-30-day misuse of prescription opioids and at follow-up, 5.6% of respondents reported misuse of prescription opioids (see Figure 2.9). This reflects a significant decrease of 61.1% in the percent of respondents reporting misuse of prescription opioids in the past 30 days.

> ***"I felt this was the best program around me and insurance covers it. People come here to get a hold of their lives."***
>
> —KORTOS RESPONDENT

FIGURE 2.9. PAST-30-DAY PRESCRIPTION OPIOID MISUSE AT INTAKE AND FOLLOW-UP (N = 18)



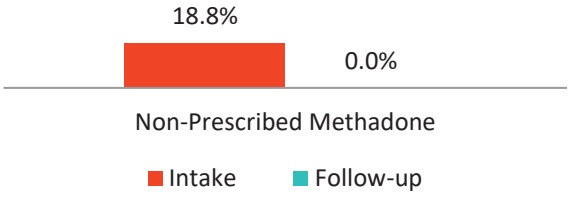
***p < .01.

Non-prescribed Use of Methadone

Past-6-month Non-prescribed Use of Methadone

Less than 20% of the respondents (18.8%) reported using non-prescribed methadone in the 6 months before intake and none reported non-prescribed methadone use at follow-up (see Figure 2.10). Respondents who reported non-prescribed methadone use in the 6 months before entering the program (n = 3), respondents reported using non-prescribed methadone an average of 2.7 of the 6 months.

FIGURE 2.10. PAST-6-MONTH NON-PRESCRIBED METHADONE USE AT INTAKE AND FOLLOW-UP (N = 16)

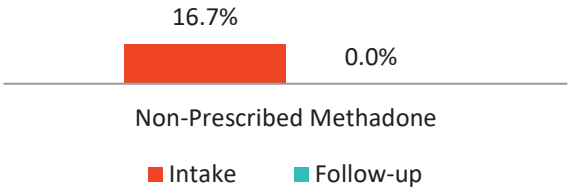


a—No test of statistical association could be computed for non-prescribed methadone use in the past 6 months at follow-up because one of the cell values was 0.

Past-30-day Non-prescribed Use of Methadone

Close to 17% of respondents in the past 30 days at intake and none of the respondents in the past 30 days at follow-up reported using non-prescribed methadone.

FIGURE 2.11. PAST-30-DAY NON-PRESCRIBED METHADONE USE AT INTAKE AND FOLLOW-UP (N = 18)



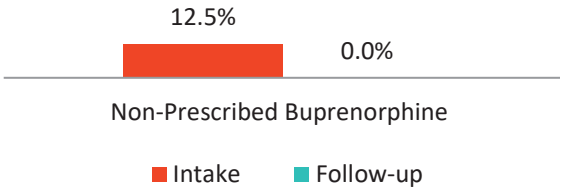
a—No test of statistical association could be computed for non-prescribed methadone use in the past 30 days at follow-up because one of the cell values was 0.

Non-prescribed Use of Bup-nx

Past-6-month Non-prescribed Use of Bup-nx

Figure 2.12 shows that 12.5% of respondents in the 6 months before intake and none of the respondents at follow-up reported using non-prescribed bup-nx. Respondents who reported non-prescribed methadone use in the 6 months before entering the program (n = 2), respondents reported using non-prescribed methadone an average of 4.0 of the 6 months.

FIGURE 2.12. PAST-6-MONTH NON-PRESCRIBED USE OF BUP-NX AT INTAKE AND FOLLOW-UP (N = 16)

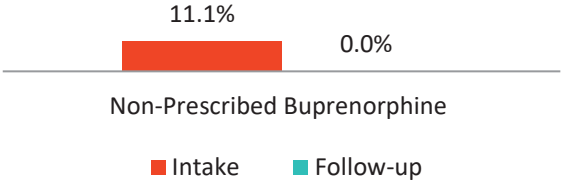


a—No test of statistical association could be computed for non-prescribed buprenorphine use in the past 6 months at follow-up because one of the cell values was 0.

Past-30-day Non-prescribed Use of Bup-nx

Close to 11% of respondents in the 30 days before entering the program and none of the respondents at follow-up reported using non-prescribed bup-nx (see Figure 2.13).

FIGURE 2.13. PAST-30-DAY NON-PRESCRIBED BUP-NX USE AT INTAKE AND FOLLOW-UP (N = 18)



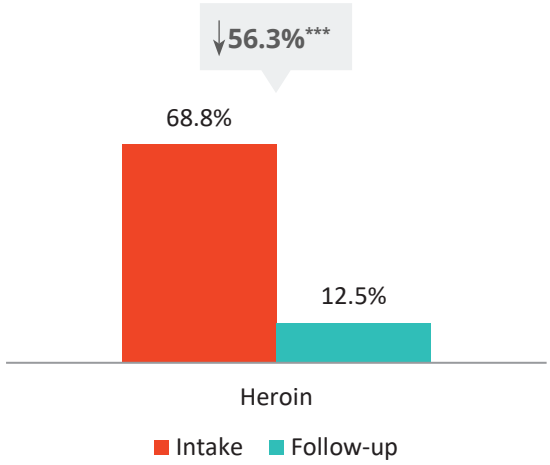
a—No test of statistical association could be computed for non-prescribed buprenorphine use in the past 30 days at follow-up because one of the cell values was 0.

Heroin

Past-6-month Heroin Use

Over two-thirds of respondents (68.8%) reported using heroin in the 6 months before entering treatment, which decreased to 12.5% at follow-up (a significant decrease of 56.3%; see Figure 2.14).

FIGURE 2.14. PAST-6-MONTH HEROIN USE AT INTAKE AND FOLLOW-UP (N = 16)

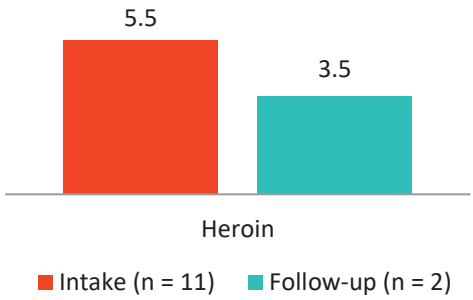


***p < .01.

Average Number of Months Used Heroin

Among the respondents who reported using heroin in the 6 months before entering treatment (n = 11), they reported using heroin, on average, 5.5 months (see Figure 2.15). Among respondents who reported using heroin in the 6 months before follow-up (n = 2), they reported using, on average, 3.5 months.

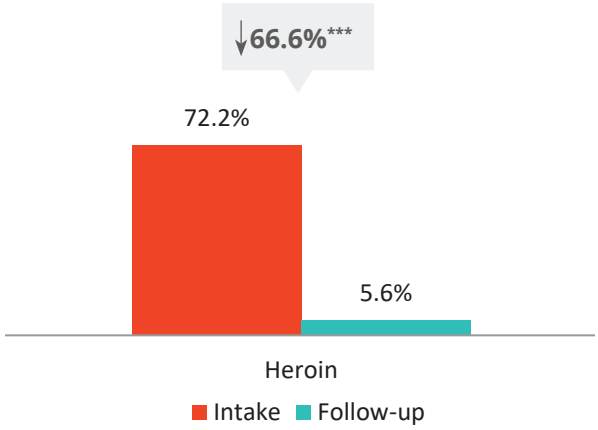
FIGURE 2.15. AVERAGE NUMBER OF MONTHS RESPONDENTS USED HEROIN



Past-30-day Heroin Use

Less than three-quarters of respondents (72.2%) reported using heroin in the 30 days before intake. At follow-up, 5.6% reported using heroin in the past 30 days (a significant decrease of 66.6%; see Figure 2.16).

FIGURE 2.16. PAST-30-DAY HEROIN USE AT INTAKE AND FOLLOW-UP (N = 18)



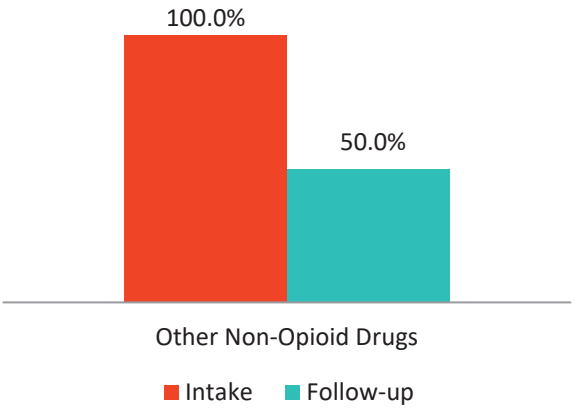
***p < .01.

Non-opioid Drug Use

Past-6-month Use of Non-opioid Drugs

All respondents used illicit drugs other than prescription opioids, non-prescribed methadone, non-prescribed bup-nx, or heroin in the 6 months before entering the program (see Figure 2.17). Drugs in this category include cannabis, cocaine, amphetamines, tranquilizers/benzodiazepines/sedatives, hallucinogens, inhalants, barbiturates, and synthetic drugs like synthetic cannabis or bath salts. The percent of respondents who reported use of non-opioid drugs decreased to 50.0% at follow-up.

FIGURE 2.17. PAST-6-MONTH NON-OPIOID DRUG USE AT INTAKE AND FOLLOW-UP (N = 16)



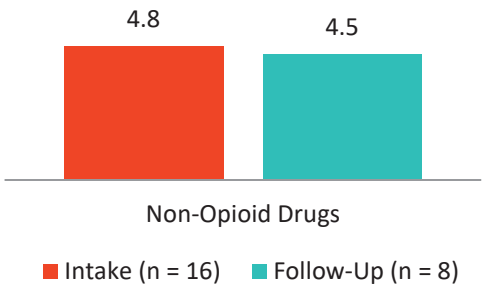
a—No test of statistical association could be computed for other non-opioid drug use in the past-6-months at intake because one of the cell values was 0.

Of the clients who reported other non-opioid drug use in the past 6 months at follow-up (n = 8), 62.5% reported cannabis use, 62.5% reported amphetamine use, and 12.5% reported hallucinogens.

Average Number of Months Used Non-opioid Drugs

Figure 2.18 shows the maximum number of months respondents that used non-opioid drugs reported using these illicit drugs (e.g., cannabis, cocaine, amphetamine, tranquilizers, barbiturates, inhalants, hallucinogens, synthetic drugs).[44] Among the respondents who reported using non-opioid drugs at intake (n = 16), the maximum number of months respondents reported using any of these drugs was an average of 4.8 months. Among respondents who reported using non-opioid drugs at follow-up (n = 8), the maximum average number of months respondents reported using any of these drugs was 4.5 months.

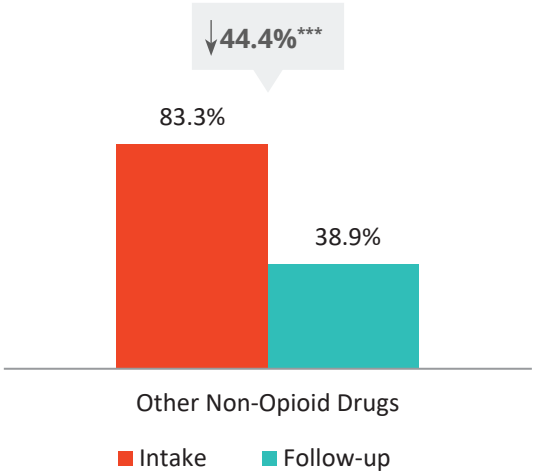
FIGURE 2.18. AVERAGE MAXIMUM NUMBER OF MONTHS RESPONDENTS USED NON-OPIOID DRUGS



Past-30-day Use of Non-opioid Drugs

About 83% of respondents reported using non-opioid drugs in the 30 days before intake (see Figure 2.19). At follow-up, 38.9% of respondents reported non-opioid drug use, which is a 44.4% significant decrease.

FIGURE 2.19. PAST-30-DAY NON-OPIOID DRUG USE AT INTAKE AND FOLLOW-UP (N = 18)



***p < .01.

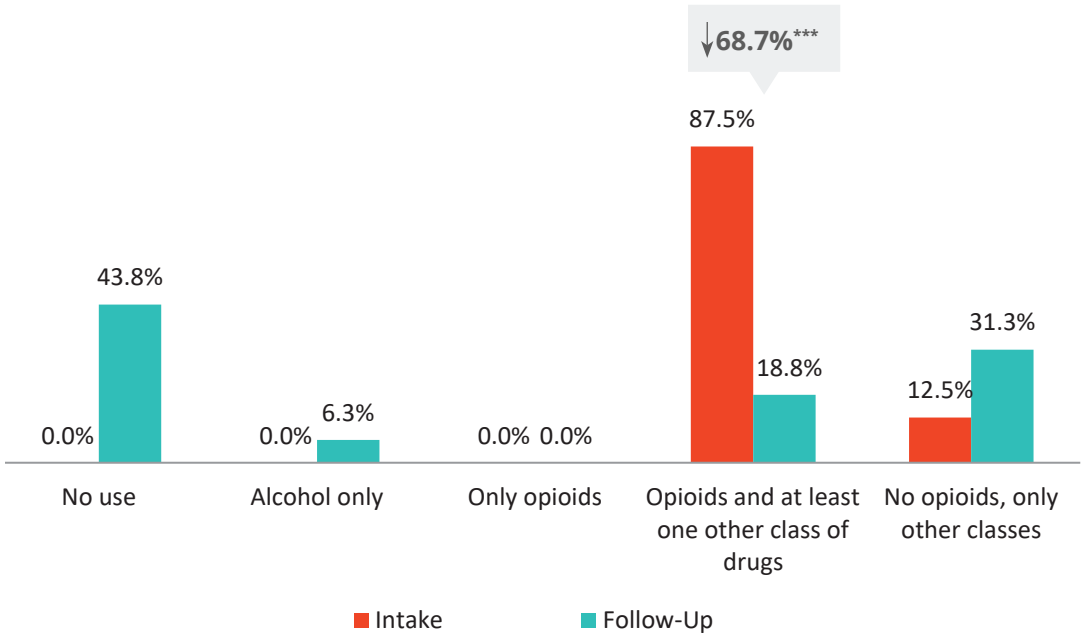
[44] Because number of months of use of each class of substance was measured separately (e.g., cannabis, cocaine, amphetamines, tranquilizers, barbiturates, inhalants, hallucinogens, synthetic drugs), the value is a calculation of the maximum number of months respondents used any substance class.

Polysubstance Use

Past-6-month Polysubstance Use

Figure 2.20 presents the distribution of respondents who reported using no drugs, alcohol only, only opioids (including prescription opioids, bup-nx, methadone, heroin) and other drug classes from the following: cannabis, CNS depressants (such as benzodiazepines, sedatives, tranquilizers, barbiturates), stimulants (including amphetamines and cocaine), and other classes such as hallucinogens, synthetic cannabis, and inhalants. At intake, the majority of clients (87.5%) reported using opioids and at least one other class of illicit drugs, which significantly decreased to 18.8% at follow-up.

FIGURE 2.20. PAST-6-MONTH POLYSUBSTANCE USE AT INTAKE AND FOLLOW-UP (N = 16)



a – Significance tested with the Stuart-Maxwell Test for Marginal Homogeneity ($p < .01$).
***$p < .01$.

Of the clients who reported using no opioids and only other classes at follow-up (n = 5), 80.0% reported using cannabis, 40.0% reported using amphetamines, and 20.0% reported using hallucinogens.

Injection Drug Use

At intake, 66.7% of respondents reported having ever injected any drug in their lifetime. Of those respondents (n = 12), 66.7% reported having ever used a Needle Exchange Program in Kentucky. At follow-up, none of the respondents reported injecting drugs in the past 6 months.

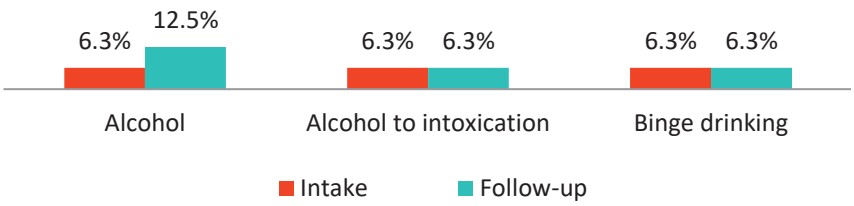
Alcohol Use

There were three measures of alcohol use including: (1) any alcohol use, (2) alcohol use to intoxication, and (3) binge drinking. Binge drinking was defined as having 5 or more (4 or more if the respondent was female) alcoholic drinks in a period of about 2 hours.[45]

Past-6-month Alcohol Use

Only one respondent reported using alcohol in the 6 months before entering treatment while 12.5% of respondents (two respondents) reported alcohol use in the 6 months before follow-up (see Figure 2.21). One respondent reported using alcohol to intoxication and reported binge drinking in the past 6 months at intake and at follow-up.

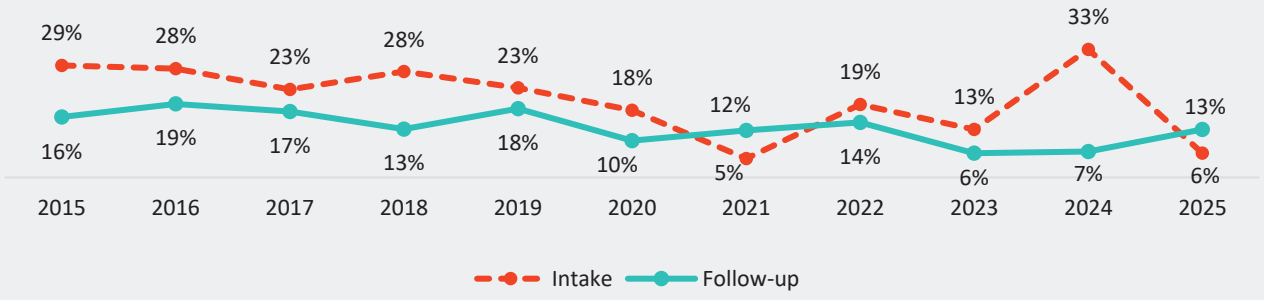
FIGURE 2.21. PAST-6-MONTH ALCOHOL USE AT INTAKE AND FOLLOW-UP (N = 16)



Trends in Past-6-month Alcohol Use

Prior to 2024, less than one-third of respondents reported any alcohol use in the 6 months before entering treatment. The highest percent of KORTOS followed-up respondents reporting alcohol use in the 6 months before entering the program was 33.3% in the 2024 report and the smallest percent was 4.9% in 2021. At follow-up, the highest percent of respondents reporting alcohol use in the 6 months before follow-up was 19.1% in 2016, with the lowest percent in 2023 (6.3%). In 2025, few clients reported alcohol use at intake or follow-up.

FIGURE 2.22. TRENDS IN ALCOHOL USE AT INTAKE AND FOLLOW-UP, REPORTS 2015-2025[46, 47]



[45] National Institute on Alcohol Abuse and Alcoholism. (2004, Winter). NIAAA council approves definition of binge drinking. *NIAAA Newsletter, Winter 2004*(3). Rockville, MD: Department of Health and Human Services, National Institutes of Health, national Institute on Alcohol Abuse and Alcoholism.

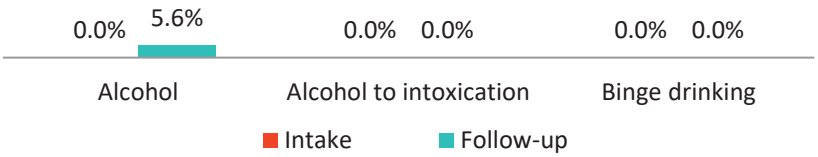
[46] In 2015, 5 cases had missing data for alcohol use at intake.

[47] The small sample sizes from 2022 to 2025 could be affecting these percentages.

Past-30-day Alcohol Use

None of the respondents reported using alcohol in the 30 days before intake and 5.6% of respondents (one respondent) reported using alcohol use in the 30 days before follow-up (see Figure 2.23). None of the respondents reported binge drinking or alcohol to intoxication in the 30 days before at follow-up.

FIGURE 2.23. PAST-30-DAY ALCOHOL USE AT INTAKE AND FOLLOW-UP (N = 18)

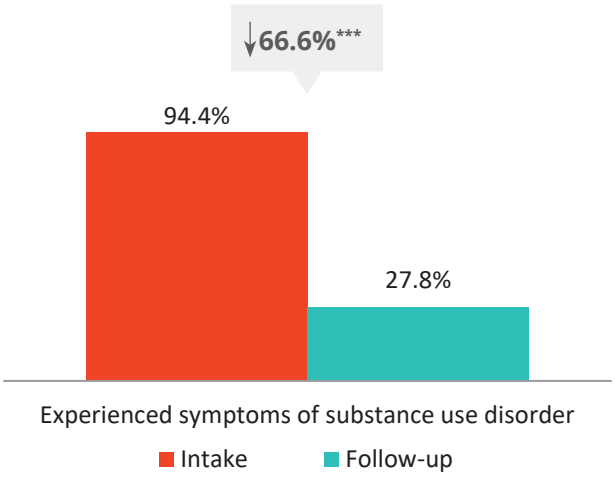


a— No measures of association could be computed for alcohol use because the value at intake was 0.

Experienced Symptoms of Substance Use Disorder in the Past 30 Days

In the past 30 days at intake, 94.4% of respondents reported they experienced symptoms of substance use disorder such as craving, withdrawal, wanting to quit but being unable, or worrying about relapse (see Figure 2.24). In the past 30 days at follow-up, 27.8% of respondents reported experiencing symptoms of substance use disorder (a significant decrease 66.6%).

FIGURE 2.24. RESPONDENTS EXPERIENCING SYMPTOMS OF SUBSTANCE USE DISORDER AT INTAKE AND FOLLOW-UP (N = 18)



***p < .01.

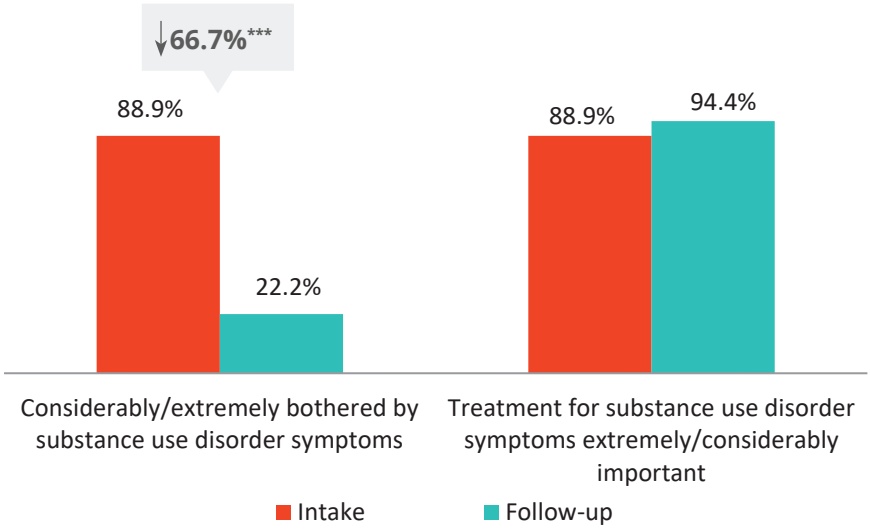
Readiness for Substance Use Disorder Treatment

Figure 2.25 shows that 88.9% of respondents reported they were considerably or extremely troubled or bothered by substance use disorder symptoms in the past 30 days at intake. In the past 30 days at follow-up, 22.2% of respondents reported that they were

considerably or extremely troubled or bothered by substance use disorder symptoms (a significant decrease of 66.7%).

The figure below also shows that 88.9% of respondents in the past 30 days at intake and 94.4% of respondents in the past 30 days at follow-up reported that treatment for substance use disorder symptoms was considerably or extremely important.

FIGURE 2.25. READINESS FOR TREATMENT FOR ILLICIT DRUG OR ALCOHOL USE AT INTAKE AND FOLLOW-UP (N = 18)



***p < .01.

Substances That Respondents Had the Most Trouble with

Of the respondents who reported any drug or alcohol use in the past 6 months at intake (n = 16), 87.5% reported heroin as the most problematic substance for them followed closely by 75.0% who reported amphetamines. The next largest category respondents reported as being problematic was prescription opiates (31.3%; not depicted in a figure).

Of the respondents who reported any illicit drug or alcohol use in the past 6 months at follow-up (n = 9), 22.2% reported heroin, 11.1% reported prescription opioids, 11.1% reported amphetamines, and 11.1% reported alcohol.

Self-reported Severity of Alcohol and Drug Use

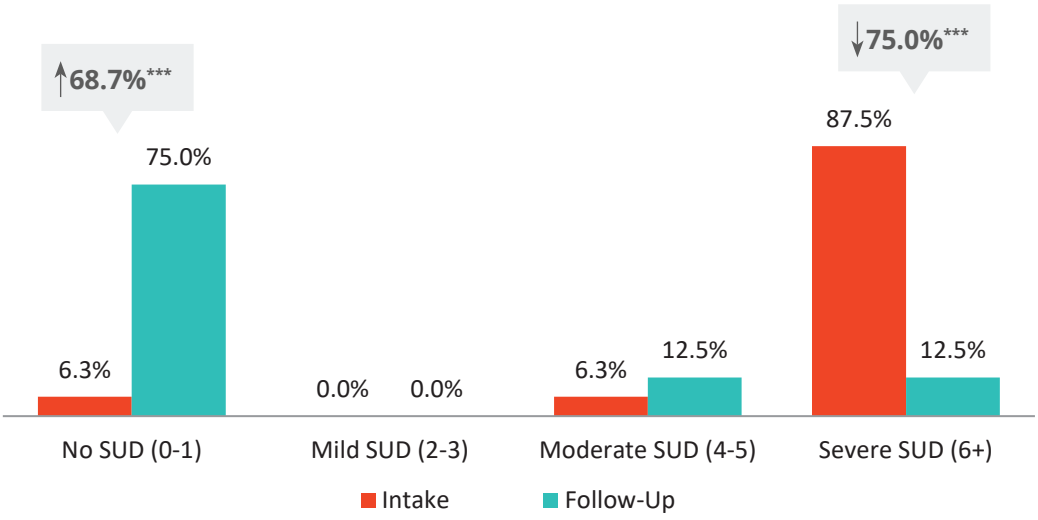
DSM-5 Criteria for Substance Use Disorder, Past 6 Months

One way to examine overall change in degree of severity of substance use is to ask participants to self-report whether they met the 11 criteria included in the DSM-5 for diagnosing substance use disorder (SUD) in the past 6 months. The DSM-5 diagnostic criteria for substance use disorders included in the KORTOS intake and follow-up interviews are similar to the criteria for DSM-IV, which has evidence of excellent test-

retest reliability and validity.[48, 49] However, the DSM-5 eliminates the distinction between substance abuse and dependence, substituting severity ranking instead. In addition, the DSM-5 no longer includes the criterion about legal problems arising from substance use but adds a new criterion about craving and compulsion to use.[50] Under DSM-5, anyone meeting any two of the 11 criteria during the same 6-month period for either alcohol or drugs would receive a diagnosis of substance use disorder as long as their symptoms were causing clinically significant impairments in functioning. The severity of the substance use disorder (i.e., none, mild, moderate, or severe) in this report is based on the number of criteria met. Respondents who report 2 or 3 DSM-5 symptoms are considered to have a mild substance use disorder, 4 or 5 symptoms is considered a moderate substance use disorder, and 6 or more symptoms is considered severe.

Change in the severity of SUD in the prior 6 months was examined for respondents at intake and follow-up. Figure 2.26 displays the change in the percent of individuals in each SUD severity classification, based on self-reported criteria in the preceding 6 months. At intake, 6.3% of the respondents met criteria for no substance use disorder (meaning they reported 0 or 1 DSM-5 criteria for SUD), while at follow-up, 75.0% of respondents met criteria for no SUD (a significant increase of 68.7%). At the other extreme of the continuum, 87.5% of respondents met criteria for severe SUD at intake, while at follow-up, only 12.5% met criteria for severe SUD, a significant decrease of 75.0%.

FIGURE 2.26. DSM-5 SUD SEVERITY AT INTAKE AND FOLLOW-UP (N = 16)[a]



a—Stuart-Maxwell chi-squared statistically significant ($p < .001$).
***$p < .01$.

[48] Hasin, D., & Paykin, A. (1999). Alcohol dependence and abuse diagnoses: Concurrent validity in a nationally representative sample. *Alcoholism: Clinical and Experimental Research, 23*(1), 144-150.

[49] Hasin, D., Trautman, K., Miele, G., Samet, S., Smith, M., & Endicott, J. (1996). Psychiatric Research Interview for Substance and Mental Disorders (PRISM): Reliability for substance abusers. *American Journal of Psychiatry, 153*(9), 1195-1201.

[50] Malone, M., & Hoffmann, N. (2016). A comparison of DSM-IV versus DSM-5 substance use disorder diagnoses in adolescent populations. *Journal of Child & Adolescent Substance Abuse, 25*(5), 399-408.

Addiction Severity Index Criteria for Substance Use Disorder, Past 30 Days

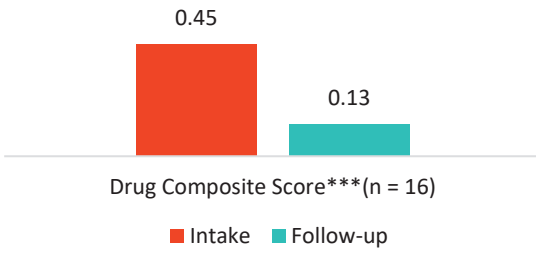
Another way to examine overall change in degree of severity of substance use is to calculate the Addiction Severity Index (ASI) composite scores for alcohol and drug use. These composite scores are computed based on self-reported severity of past 30-day alcohol and drug use, taking into consideration several issues including:

- The number of days of alcohol (or drug) use,
- Money spent on alcohol,
- The number of days individuals used multiple drugs (for drug use composite score),
- The number of days individuals experienced problems related to their alcohol (or drug) use,
- How troubled or bothered they are by their alcohol (or drug) use, and
- How important treatment is to them for their alcohol (or drug) problems (see sidebar).

Change in the average ASI composite score for drug use was examined for respondents who were not in a controlled environment all 30 days before entering treatment. Respondents who reported abstaining from drugs at both intake and follow-up were not included in the analysis of change in drug composite score.

Figure 2.27 displays the change in past 30-day average composite score decreased significantly from intake (0.45) to follow-up (0.13).

FIGURE 2.27. AVERAGE ASI DRUG COMPOSITE SCORES OF THOSE WHO USED DRUGS AT INTAKE AND/OR FOLLOW-UP[51]



***p < .01.

[51] Because none of the respondents in the past 30 days at intake and only one of the respondents in the past 30 days at follow-up reported any alcohol use, the alcohol composite score was skewed. Therefore, it is not presented in this year's report.

ASI Alcohol and Drug Composite Scores and Substance Dependence

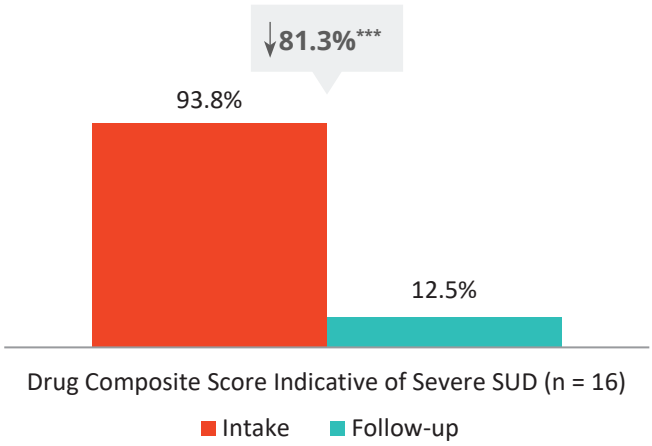
Rikoon et al. (2006) conducted two studies to determine the relationship between the ASI alcohol and drug use composite scores and DSM-IV substance dependence diagnosis. They identified alcohol and drug use composite score cutoffs that had 85% sensitivity and 80% specificity with regard to identifying DSM-IV substance dependence diagnosis: .17 for alcohol composite score and .16 for drug composite score. These composite score cutoffs can be used to estimate the number of individuals who are likely to meet criteria for active alcohol or drug dependence and to show reductions in self-reported severity of substance use. In previous years we have used the ASI composite scores to estimate the number and percentage of clients who met a threshold for alcohol and drug dependence. However, recent changes in the diagnostics for substance abuse call into question the distinction between dependence and abuse. Thus, ASI composite scores that met the threshold can be considered indicative of severe substance use disorder to be compatible with current thinking about substance use disorders in the DSM-V (American Psychiatric Association, 2013), where we would have previously referred to them as meeting the threshold for dependence. Change from intake to follow-up in the severity rating has the same clinical relevance as moving from dependence to abuse in the older criteria.

Rikoon, S., Cacciola, J., Carise, D., Alterman, A., McLellan, A. (2006). Predicting DSM-IV dependence diagnoses from Addiction Severity Index composite scores. *Journal of Substance Abuse Treatment, 31*(1), 17–24.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th ed.)*. Arlington, VA: American Psychiatric Publishing.

ASI drug composite scores that met the cutoff for severe substance use disorder (SUD) decreased significantly from 93.8% at intake to 12.5% at follow-up (see Figure 2.28).

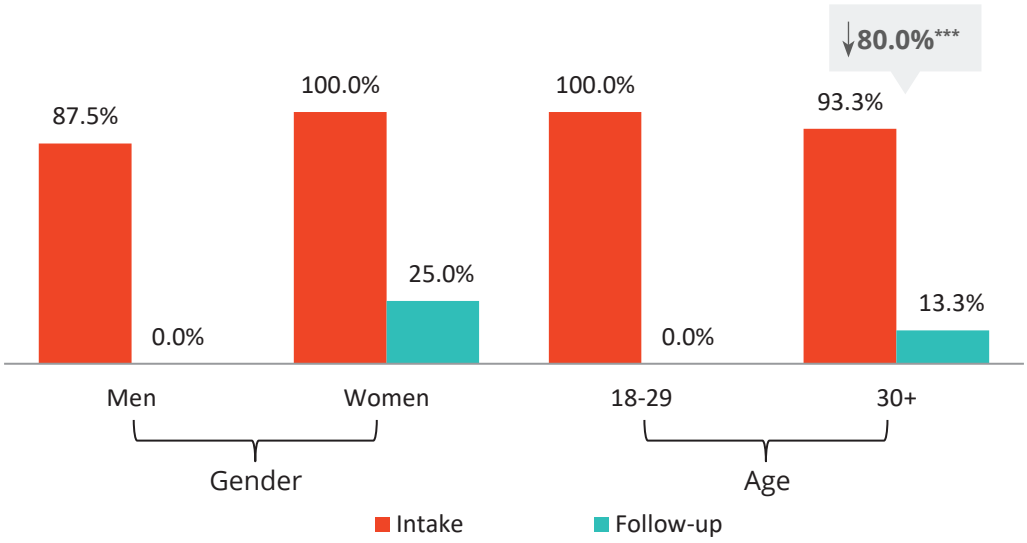
FIGURE 2.28. OF THOSE WHO USED DRUGS, INDIVIDUALS WITH ASI COMPOSITE SCORES MEETING THE CUTOFF FOR SEVERE SUBSTANCE USE DISORDER IN THE PAST 30 DAYS AT INTAKE AND FOLLOW-UP[a]



***p < .01.

Analyses were also conducted to determine if respondents who had a drug composite score indicative of severe SUD at intake and follow-up differed by gender or age (see Figure 2.29).[52] There were no significant gender differences at intake or follow-up for respondents who had a drug composite score indicative of severe SUD. Significantly fewer respondents who were age 30 and over had a drug composite score indicative of severe SUD from intake (93.3%) to follow-up (13.3%).

FIGURE 2.29. DRUG-USING RESPONDENTS WITH A DRUG COMPOSITE SCORE INDICATIVE OF SEVERE SUD IN THE PAST 30 DAYS AT INTAKE AND FOLLOW-UP BY DEMOGRAPHIC FACTORS (N = 16)[a]



***p < .01.
a—No test of statistical association could be computed for men for drug composite score indicative of severe SUD at follow-up or for women for drug composite score indicative of severe SUD at intake because one of the cell values was 0. No test of statistical association could be computed for respondents age 18-29 at intake or follow-up because one of the cell values was 0.

[52] None of the respondents reported a race other than White, therefore, drug composite scores were not compared by race.

Lifetime Substance Use Disorder Treatment History

Prior to the current admission, all respondents reported at intake that they had received services for substance use disorder (including detox, drug court, and recovery programs). Overall, respondents reported receiving services or substance use disorder an average of 8.5 times in their lifetime.

Overdose History

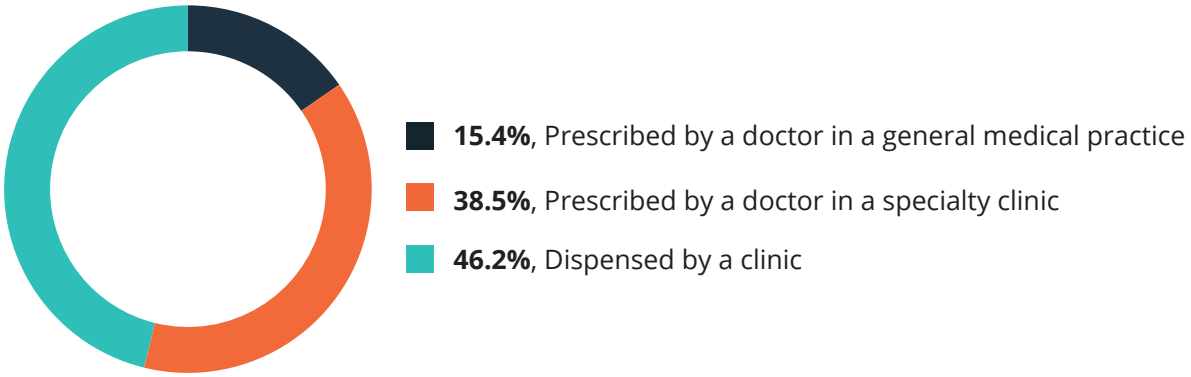
Seventy-five percent of respondents (n= 12) reported that they have overdosed on drugs (and required interventions by someone to recover) in their lifetime (an average of 4.3 times, among the respondents who reported they had overdosed on drugs). Of these 12 respondents, 66.7% of respondents (n = 8) have overdosed in the past 6 months at intake (an average of 1.6 times). None of the respondents reported having overdosed in the past 6 months at follow-up.

Medication for Opioid Use Disorder

Medication for Opioid Use Disorder at Intake

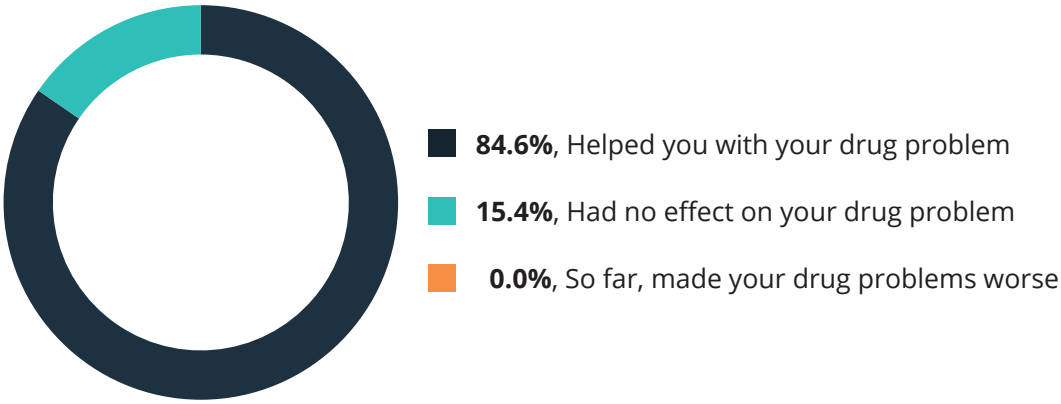
At intake, 81.3% of respondents reported they had ever received medication from a clinic or doctor's office to help with their substance use disorder (before the current MOUD). Of these respondents (n =13), 46.2% were prescribed the medication that was dispensed from a clinic, 38.5% were prescribed the medication by a doctor in a specialty clinic, and 15.4% reported that their medication was prescribed by a doctor in a general medical practice (Figure 2.30). They also reported using the prescribed medication for 2.1 months in the 6 months before they began involvement at the OTP and 9.0 days in the past 30 days at intake.

FIGURE 2.30. RESPONDENTS REPORTING WHERE MEDICATION WAS RECEIVED (N = 13)



The majority of respondents (84.6%) reported that they think their prior MOUD helped treat their substance use disorder, 15.4% reported it had no effect on their substance use disorder, and none reported MOUD made their substance use disorder worse (Figure 2.31).

FIGURE 2.31. RESPONDENTS REPORTING HOW MUCH THEY BELIEVE THE MEDICATION HELPED THEIR SUBSTANCE USE DISORDER (N = 13)



Medication Assisted Treatment at Follow-up

The majority of respondents (87.5%) who were not incarcerated all 180 days before treatment entry or in the past 6 months at follow-up, reported that they received methadone in the past 6 months at follow-up. About 19% of respondents reported receiving Suboxone, and none of the respondents received Vivitrol.

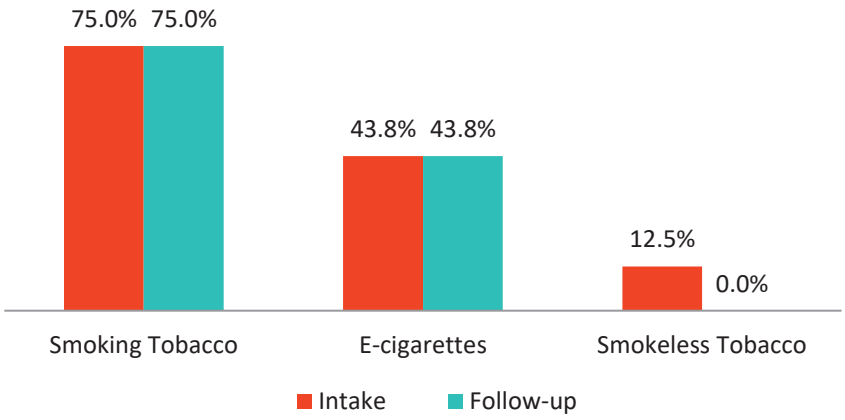
At follow-up, respondents reported using the medication prescribed to them for an average of 5.8 months in the past 6 months. In addition, respondents reported using the medication prescribed for an average of 29.1 days in the past 30 days. In the past 6 months at follow-up, over two-thirds of respondents (68.8%) reported they had not participated in any program involving MOUD other than the one with which they have been most recently involved. At follow-up, all respondents reported that they think their use of MOUD helped treat their substance use disorder.

Tobacco Use

Past-6-month Smoking, E-cigarettes, and Smokeless Tobacco Use

There was no significant change in either smoking, e-cigarettes, or smokeless tobacco use from intake to follow-up (see Figure 2.32). Most respondents (75.0%) reported smoking tobacco in the 6 months before entering the program and in the 6 months before follow-up. Over two-fifths of respondents (43.8%) reported the use of e-cigarettes (e.g., battery-powered nicotine delivery devices that vaporize a liquid mixture consisting of propylene glycol, glycerin, flavorings, nicotine, and other chemicals) at intake and follow-up. Close to 13% of respondents at intake and none of the respondents at follow-up reported using smokeless tobacco.

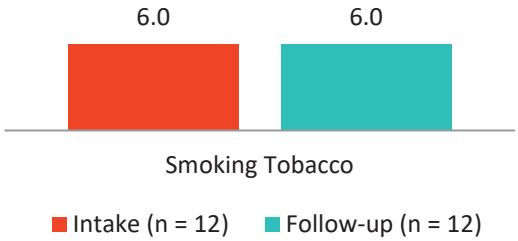
FIGURE 2.32. PAST-6-MONTH SMOKING TOBACCO, E-CIGARETTE, AND SMOKELESS TOBACCO USE AT INTAKE AND FOLLOW-UP (n = 16)



Average Number of Months of Smoking Tobacco

Figure 2.33 shows that among respondents who reported smoking tobacco in the 6 months before entering treatment (n = 12), they reported smoking tobacco, on average, 6.0 months. In the 6 months before follow-up, there was no change in the average number of months respondents reported smoking tobacco among respondents who reported smoking tobacco (6.0 months; n = 12).

FIGURE 2.33. AVERAGE NUMBER OF MONTHS OF SMOKING TOBACCO USE

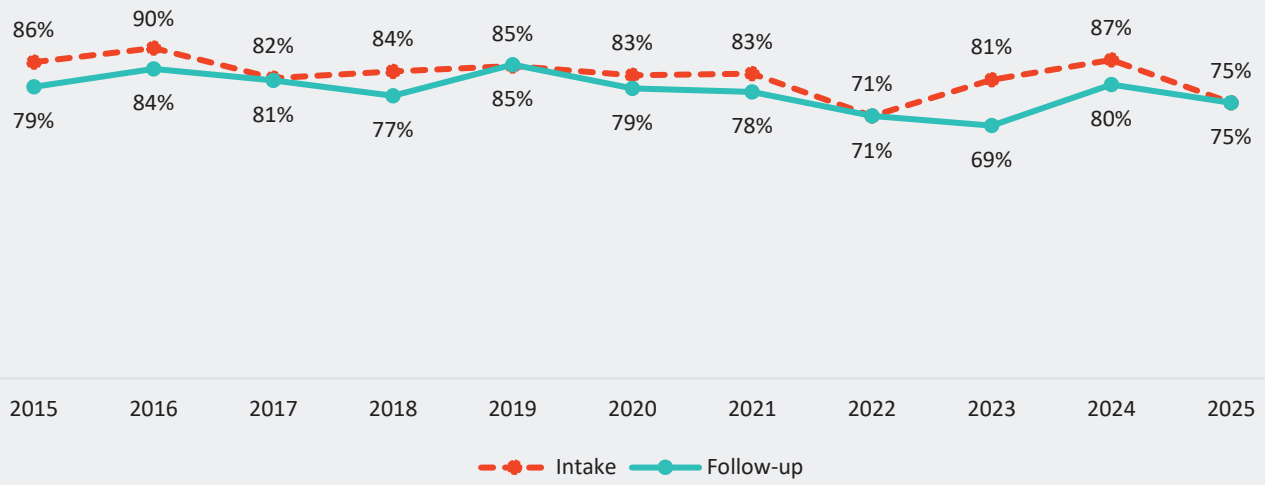


> ***"Just the connections from staff are great, It couldn't have been much better."***
>
> —KORTOS RESPONDENT

Trends in Past-6-month Smoking Tobacco Use

The majority of KORTOS respondents at intake and follow-up reported smoking tobacco. The only significant change in the use of smoking tobacco from intake to follow-up was in report year 2018 when 84% of respondents reported smoking tobacco at intake and 77% of respondents reported smoking tobacco at follow-up.

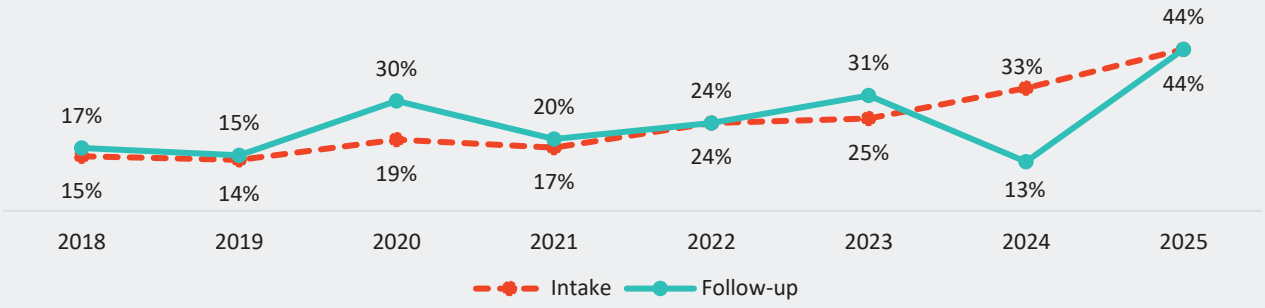
FIGURE 2.34. TRENDS IN SMOKING TOBACCO USE AT INTAKE AND FOLLOW-UP, REPORTS 2015-2024[53, 54]



Trends in Past-6-month E-cigarette Use

The percent of respondents reporting e-cigarette use has increased at intake since 2018. The percent of respondents reporting e-cigarette use at follow-up increased from 15% in the 2019 report to 44% in the 2025 report.

FIGURE 2.35. TRENDS IN E-CIGARETTE USE AT INTAKE AND FOLLOW-UP, REPORTS 2018-2025[55, 56]



[53] In 2015, 5 cases had missing data for smoking tobacco use at intake.

[54] The small sample sizes from 2022 to 2025 could be affecting these percentages.

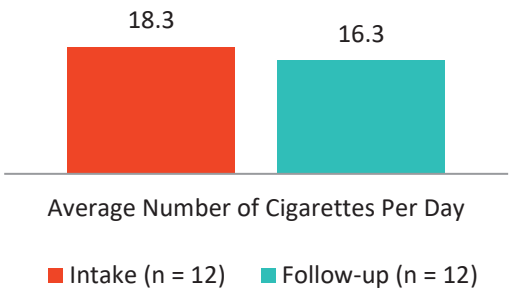
[55] In 2015, 5 cases had missing data for smoking tobacco use at intake.

[56] The small sample sizes from 2022 to 2025 could be affecting these percentages.

Average Number of Cigarettes Smoked

The average number of cigarettes respondents reported smoking daily decreased slightly from intake to follow-up (see Figure 2.36). Of those who smoked tobacco at intake (n = 12), respondents reported smoking an average of 18.3 cigarettes per day. At follow-up, among respondents who reported smoking tobacco (n = 12), they reported smoking an average of 16.3 cigarettes per day.

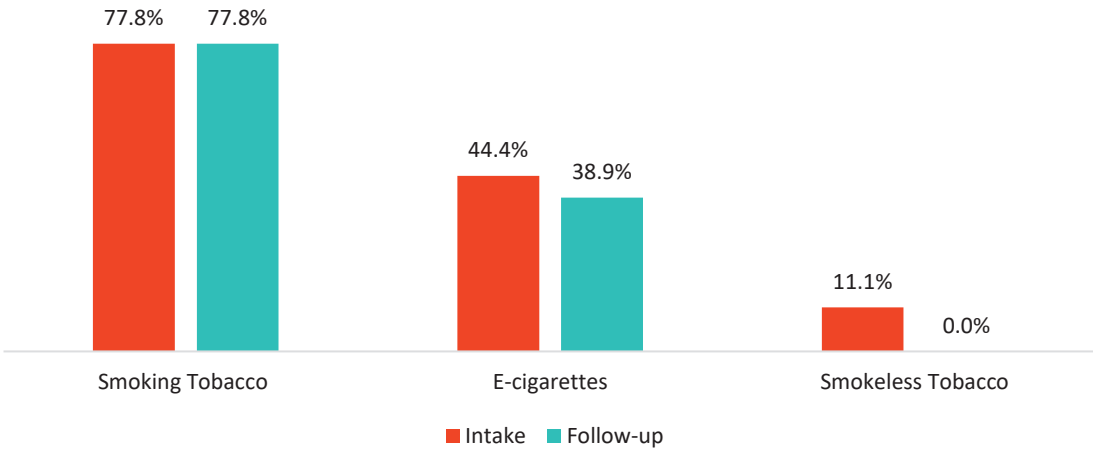
FIGURE 2.36. NUMBER OF CIGARETTES SMOKED IN AN AVERAGE DAY AMONG RESPONDENTS WHO SMOKED TOBACCO



Past-30-day Use Smoking, E-cigarette, and Smokeless Tobacco Use

The percent of respondents who reported any smoking tobacco use in the past 30 days did not change from intake to follow-up (see Figure 2.37). The percent of respondents reporting e-cigarette use did not decrease significantly from 44.4% in the past 30 days at intake to 38.9% in the past 30 days at follow-up. Close to 11% of clients reported using smokeless tobacco in the past 30 days at intake and none of the clients reported smokeless tobacco in the past 30 days at follow-up.

FIGURE 2.37. PAST-30-DAY SMOKING, E-CIGARETTE AND SMOKELESS TOBACCO USE AT INTAKE AND FOLLOW-UP (n = 18)



Section 3: Mental and Physical Health

This section examines changes in mental health, physical health status, and quality-of-life from intake to follow-up. Specifically, this section examines: (1) depression, (2) generalized anxiety, (3) comorbid depression and generalized anxiety, (4) suicidal ideation and attempts, (5) posttraumatic stress disorder, (6) general health status, (7) perceptions of physical and mental health, (8) chronic pain, (9) health insurance, and (10) subjective quality-of-life. The mental and physical health questions on the KORTOS intake and follow-up interviews were self-report measures.

Depression Symptoms

To assess depression, participants were first asked two screening questions:

"Did you have a two-week period when you were consistently depressed or down, most of the day, nearly every day?" and

"Did you have a two-week period when you were much less interested in most things or much less able to enjoy the things you used to enjoy most of the time?"

Study Criteria for Depression

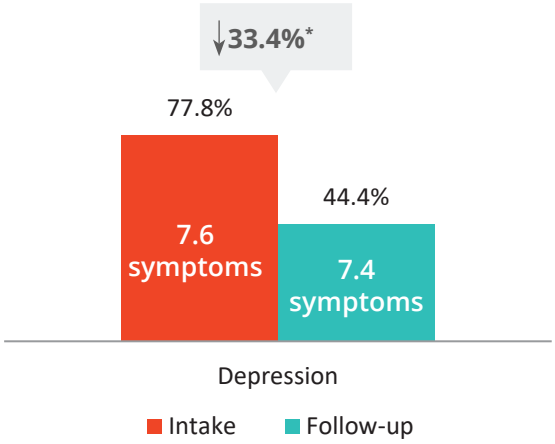
To meet study criteria for depression, respondents had to say "yes" to at least one of the two screening questions and at least 4 of the other 7 symptoms. Thus, minimum score to meet study criteria: 5 out of 9.

If participants answered "yes" to at least one of these two screening questions, they were then asked seven additional questions about symptoms of depression (e.g., sleep problems, weight loss or gain, feelings of hopelessness or worthlessness).

Over three-quarters respondents (77.8%) met study criteria for depression in the 6 months before they entered treatment (see Figure 3.1). At follow-up, 44.4% met study criteria for depression (a significant decrease of 33.4%).

Of those who met study criteria at intake (n = 14), they had an average of 7.6 symptoms out of 9. At follow-up, among those who met study criteria for depression (n = 8), respondents reported an average of 7.4 symptoms out of 9.

FIGURE 3.1. MEETING STUDY CRITERIA FOR PAST-6-MONTH DEPRESSION AT INTAKE AND FOLLOW-UP (N = 18)

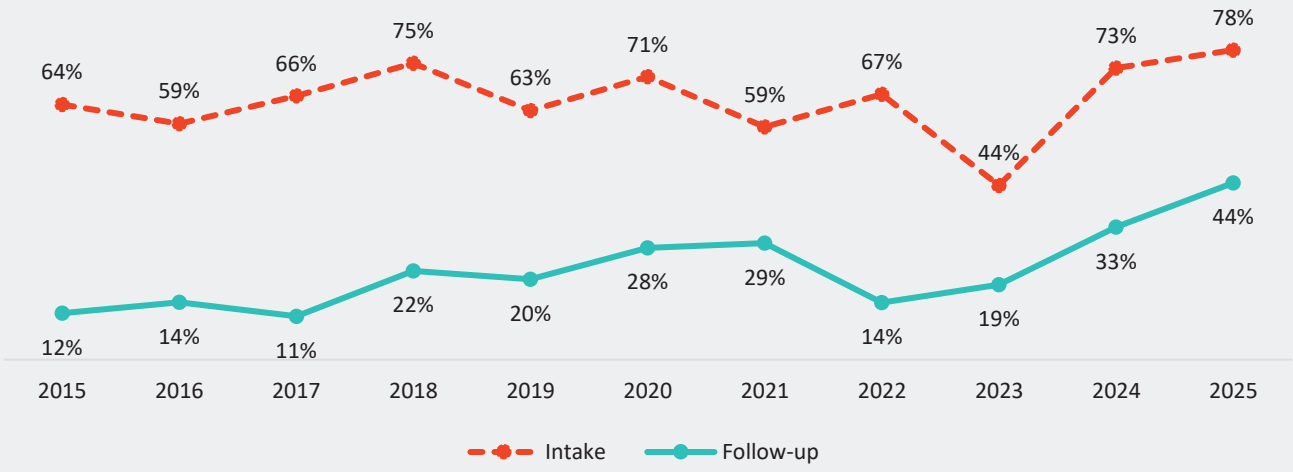


* p < .10.

Trends in Past-6-month Depression

The percent of respondents who met criteria for depression at intake has fluctuated over the first 10 years between 44% and 75%. In 2025, 78% of respondents met study criteria for depression which is the highest over the past 11 years. The percent of respondents who met criteria for depression at follow-up was on the rise from 2017 (11%) to 29% in 2021 before decreasing to 14% in 2022. In 2025, however, the percent of respondents who met criteria for depression at follow-up increased to 44%, which is the highest out of the past 11 years.

FIGURE 3.2. TRENDS IN THE NUMBER OF RESPONDENTS WHO MET STUDY CRITERIA FOR PAST-6-MONTH DEPRESSION AT INTAKE AND FOLLOW-UP, REPORTS 2015-2025[57]



[57] The small sample sizes from 2022 to 2025 could be affecting these percentages.

Anxiety Symptoms

To assess for generalized anxiety symptoms, participants were first asked:

"In the 6 months before you entered this program, did you worry excessively or were you anxious about multiple things on more days than not for all 6 months (like family, health, finances, school, or work difficulties)?"

Participants who answered "yes" were then asked 6 additional questions about anxiety symptoms (e.g., felt restless, keyed up or on edge, have difficulty concentrating, feel irritable).

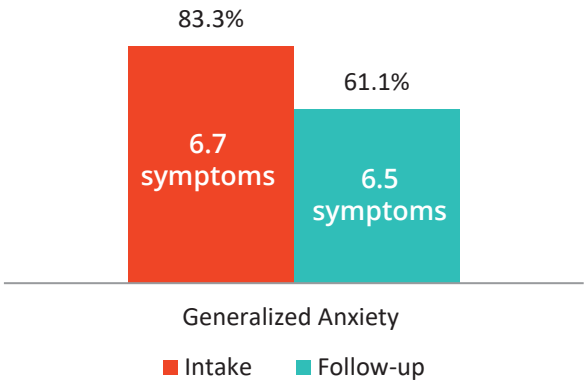
Study Criteria for Generalized Anxiety

To meet study criteria for generalized anxiety, respondents had to say "yes" to one screening question and at least 3 of the 6 symptoms. Thus, minimum score to meet study criteria: 4 out of 7.

In the 6 months before entering treatment, 83.3% of respondents reported symptoms that met study criteria for generalized anxiety and 61.1% reported symptoms at follow-up, which was not a significant decrease (see Figure 3.3).

Of those who met study criteria for anxiety at intake (n = 15), they had an average of 6.7 symptoms out of 7. At follow-up, among those who met study criteria for anxiety (n = 11), respondents reported an average of 6.5 symptoms out of 7.

FIGURE 3.3. RESPONDENTS MEETING STUDY CRITERIA FOR PAST-6-MONTH GENERALIZED ANXIETY AT INTAKE AND FOLLOW-UP (N = 18)

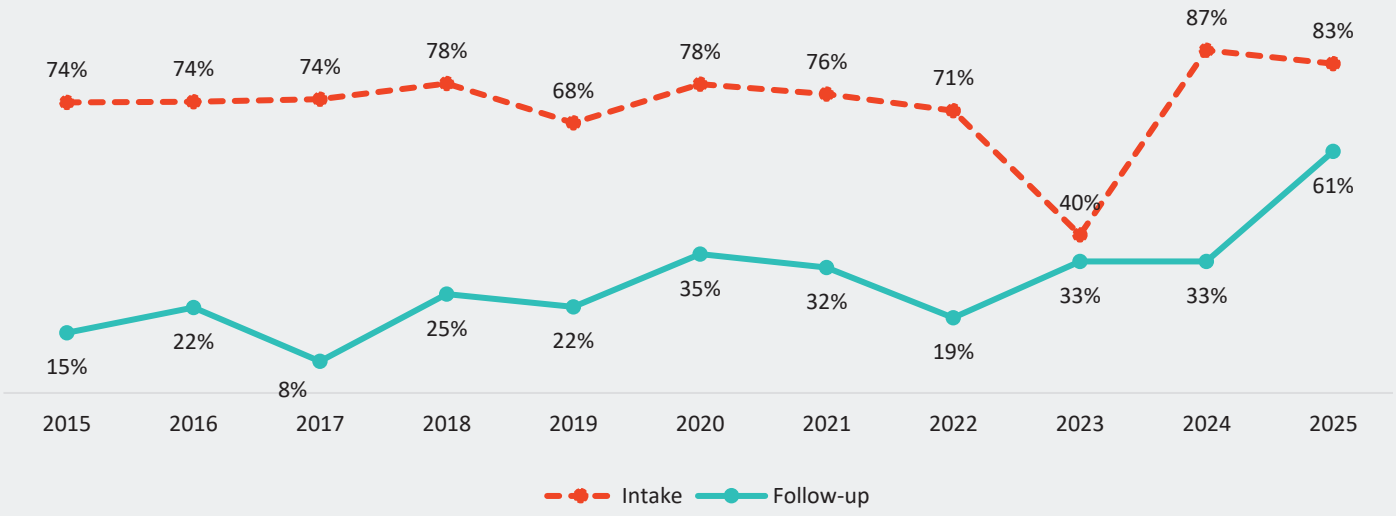


Trends in Past-6-month Generalized Anxiety

The percent of respondents who met criteria for generalized anxiety at intake remained consistent from 2015 to 2018 (around three-quarters each year) and then again from 2020 to 2022. In the small follow-up sample of KORTOS respondents in the 2023 report, the percent of respondents meeting study criteria for generalized anxiety was lower than in other years (40%). However, in 2024 (which was another small sample size) the percent of respondents meeting study criteria for generalized anxiety increased compared to previous years (87%).

The percent of respondents who met criteria for generalized anxiety at follow-up has fluctuated over time, with the highest percentage in the 2025 report and the lowest in the 2017 report.

FIGURE 3.4. TRENDS IN THE NUMBER OF RESPONDENTS WHO MET STUDY CRITERIA FOR PAST-6-MONTH GENERALIZED ANXIETY AT INTAKE AND FOLLOW-UP, REPORTS 2015-2025[58]

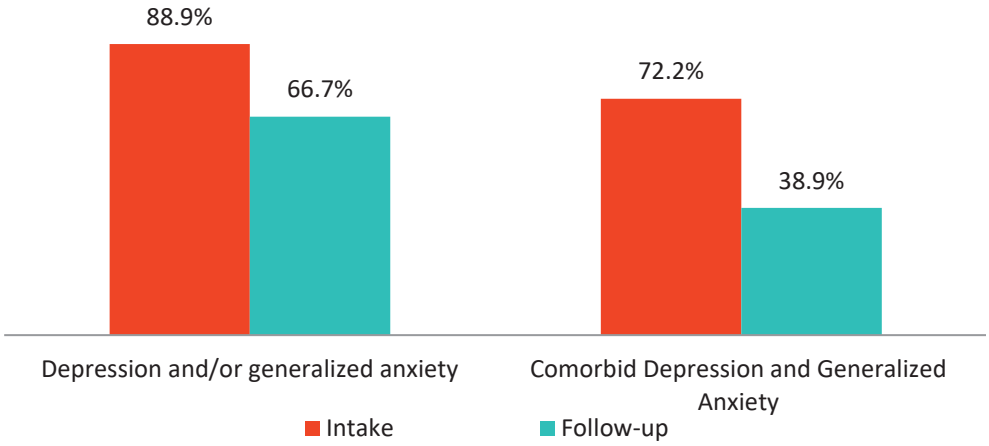


Comorbid Depression and Anxiety Symptoms

Figure 3.5 shows that at intake, 88.9% of respondents met study criteria for depression and/or generalized anxiety and 66.7% at follow-up. Less than three-quarters of respondents met study criteria for comorbid depression and generalized anxiety at intake and 38.9% met study criteria for comorbid depression and generalized anxiety at follow-up.

[58] The small sample sizes from 2022 to 2025 could be affecting these percentages.

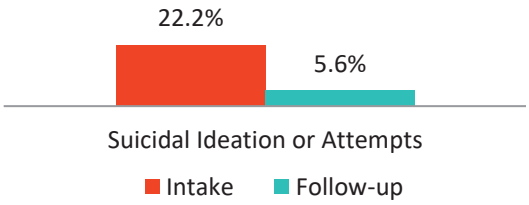
FIGURE 3.5. RESPONDENTS MEETING STUDY CRITERIA FOR COMORBID DEPRESSION AND GENERALIZED ANXIETY IN THE PAST 6 MONTHS AT INTAKE AND FOLLOW-UP (N = 18)



Suicidal Ideation And/or Attempts

Suicidal ideation and attempts were measured with self-reported questions about thoughts of suicide and actual attempts to commit suicide in the past 6 months. Less than one-quarter of respondents (22.2%) reported suicidal ideation or attempts at intake and 5.6% of the respondents reporting suicide ideation and/or attempts at follow-up (see Figure 3.6).

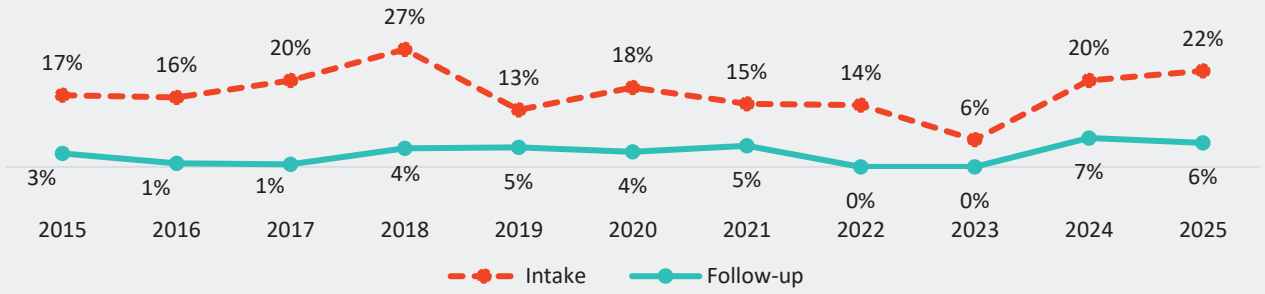
FIGURE 3.6. RESPONDENTS REPORTING SUICIDAL IDEATION AND/OR ATTEMPTS IN THE PAST 6 MONTHS AT INTAKE AND FOLLOW-UP (N = 18)



Trends in Past-6-month Suicide Ideation and/or Attempts

The percent of respondents who reported suicidal ideation or attempts at intake has been a low of 6% in 2023 to a high of 27% in 2018At follow-up, the percent of respondents reporting suicidal ideation and attempts has been a high of 7% in 2024 and 2021 reports and a low of 0% in the 2022 and 2023 reports.

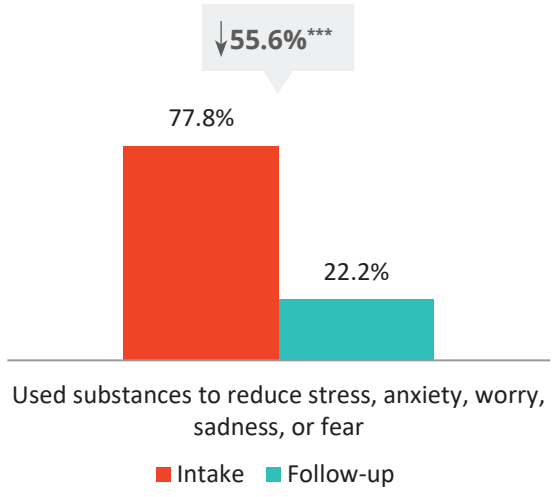
FIGURE 3.7. TRENDS IN THE NUMBER OF RESPONDENTS REPORTING SUICIDAL IDEATION AND/OR ATTEMPTS AT INTAKE AND FOLLOW-UP, REPORTS 2015-2025



Self-medication for Mental Health Symptoms

The majority of respondents at intake (77.8%) reported using alcohol, prescription drugs, or illicit drugs to reduce stress, anxiety, worry, sadness, or fear. At follow-up, 22.2% of respondents reported using alcohol, prescription drugs, or illicit drugs to reduce stress, anxiety, worry, sadness, or fear (a significant decrease of 55.6%).

FIGURE 3.8. RESPONDENTS WHO REPORTED THEY USED ALCOHOL, PRESCRIPTION DRUGS, OR ILLICIT DRUG USE TO REDUCE STRESS, ANXIETY, WORRY, SADNESS, OR FEAR AT INTAKE AND FOLLOW-UP (N = 18)

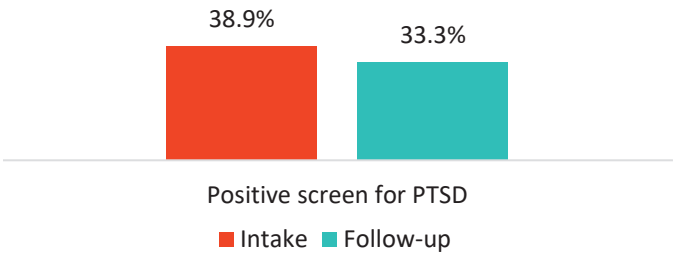


***p < .01.

Post-traumatic Stress Disorder

Respondents were asked to answer the four-item PTSD checklist about how bothered they had been about the symptoms in the prior 6 months.[59] At intake, 38.9% of respondents screened positive for PTSD symptoms at intake and 33.3% of respondents screen positive for PTSD symptoms at follow-up (see Figure 3.9).

FIGURE 3.9. RESPONDENTS WHO SCREENED POSITIVE FOR POST-TRAUMATIC STRESS DISORDER SYMPTOMS IN THE PAST 6 MONTHS AT INTAKE AND FOLLOW-UP (n = 18)

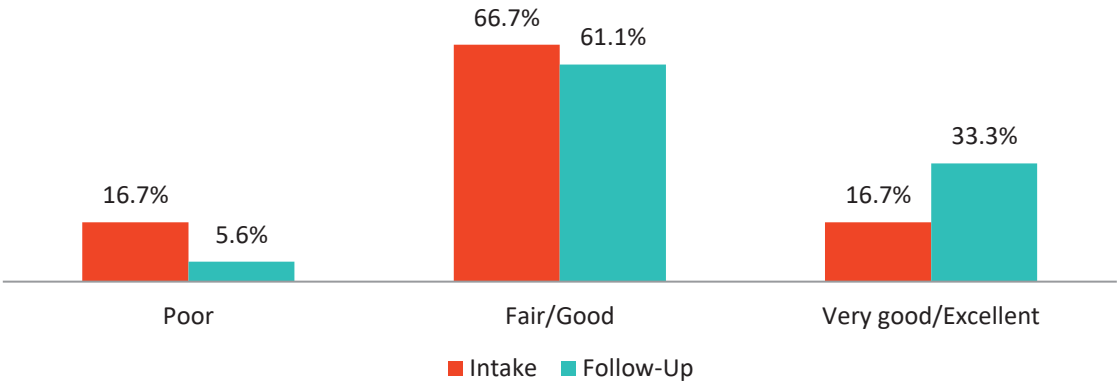


General Health Status

General Health

At both intake and follow-up, respondents were asked to rate their general health in the past 6 months from 1 = poor to 5 = excellent. Respondents rated their health, on average, as 2.6 at intake and 3.1 at follow-up ($p < .10$, not depicted in figure). Figure 3.10 shows that only 16.7% of respondents at intake and 33.3% at follow-up rated their general health as very good or excellent.

FIGURE 3.10. RESPONDENTS' SELF-REPORT OF GENERAL HEALTH STATUS AT INTAKE AND FOLLOW-UP (N = 18)

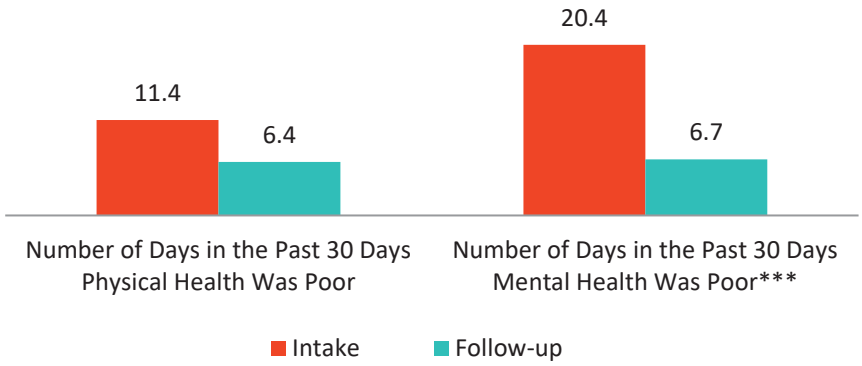


[59] Price, M., Szafranski, D., van Stolk-Cooke, K., & Gros, D. (2016). Investigation of an abbreviated 4 and 8-item version of the PTSD Checklist 5. *Psychiatry Research, 239*, 124-130.

Perceptions of Physical and Mental Health

Respondents were asked how many days in the past 30 days their physical and mental health were poor at intake and follow-up (see Figure 3.11). The number of days respondents reported their physical health was poor decreased, but not significantly, from an average of 11.4 days to 6.4 days. The number of days respondents' mental health was poor decreased significantly from intake (20.4) to follow-up (6.7).

FIGURE 3.11. PERCEPTIONS OF POOR PHYSICAL HEALTH AND MENTAL HEALTH IN THE PAST 30 DAYS AT INTAKE AND FOLLOW-UP (N = 18)

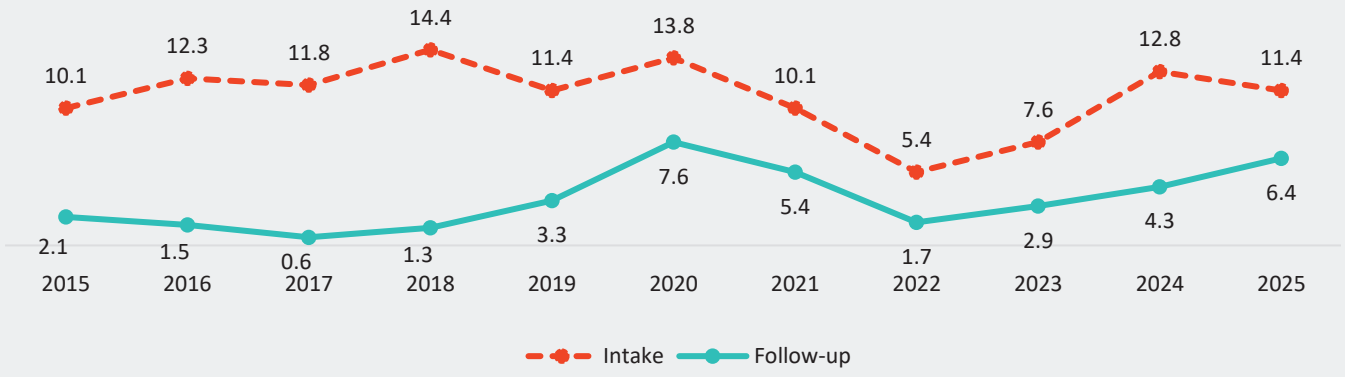


***p < .01.

Trends in Perceptions of Poor Physical Health

The average number of days respondents reported their physical health was poor in the past 30 days at intake has fluctuated over the past 11 years, from 5.4 days to 14.4 days. The average number of days respondents reported their physical health was poor in the past 30 days at increased in 2020 to 7.6 days before decreasing slightly to 1.7 days in 2022. Since 2020, however, the average number of days respondents reported their physical health was poor has increased.

FIGURE 3.12. TRENDS IN PERCEPTIONS OF PHYSICAL HEALTH AT INTAKE AND FOLLOW, REPORTS 2015-2025[60]

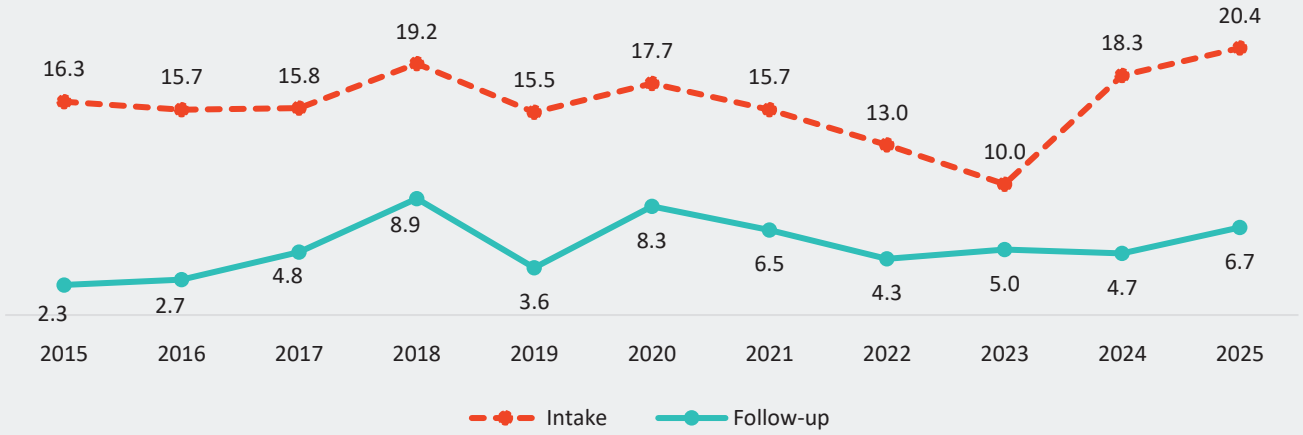


[60] The small sample sizes from 2022 to 2025 could be affecting these percentages.

Trends in Perceptions of Poor Mental Health

The average number of days respondents reported their mental health was not good in the past 30 days at intake has fluctuated from a low of 10.0 in 2023 to a high of 20.4 in 2025. The average number of days respondents reported their mental health was poor in the past 30 days at follow-up has increased from 2.3 days in 2015 to a high of 8.9 days in 2018. In 2025, the average number of days respondents reported their mental health was poor in the past 30 days at follow-up was 6.7 out of the past 30.

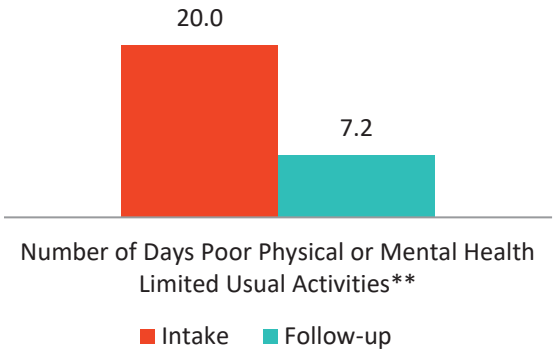
FIGURE 3.13. TRENDS IN PERCEPTIONS OF MENTAL HEALTH AT INTAKE AND FOLLOW, REPORTS 2015-2025[61, 62]



Perceptions of Poor Physical or Mental Health Limiting Usual Activities

Respondents were also asked to report the number of days in the past 30 days poor physical or mental health had limited their usual activities. The number of days respondents reported their poor physical or mental health limited their usual activities decreased significantly from 20.0 days at intake to 7.2 days at follow-up (see Figure 3.14).

FIGURE 3.14. PERCEPTIONS OF POOR PHYSICAL HEALTH AND MENTAL HEALTH LIMITING ACTIVITIES IN THE PAST 30 DAYS AT INTAKE AND FOLLOW-UP (N = 18)



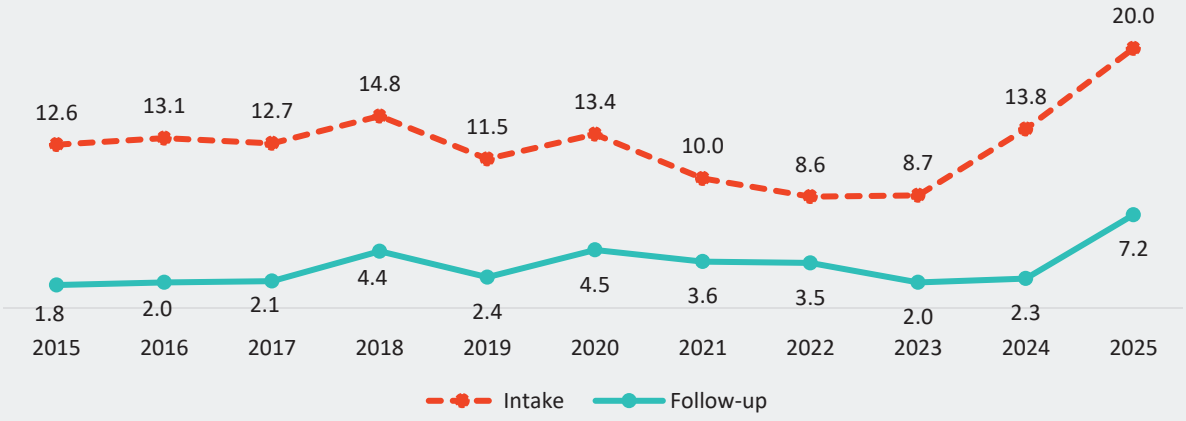
[61] In 2015, 3 cases had missing data for perceptions of mental health at intake, 2019 had one respondent with missing data, and 2020 had one respondent with missing data.

[62] The small sample sizes from 2022 to 2025 could be affecting these percentages.

Trends in Number of Days Poor Physical or Mental Health Limited Usual Activities

The average number of days in the past 30 days at intake respondents reported their poor physical or mental health limited their usual activities have ranged from a low of 8.6 in 2022 to a high of 20.0 in 2025. The average number of days in the past 30 days at follow-up respondents reported their poor physical or mental health limited their usual activities was a low of 1.8 in 2015 to a high of 7.2 in 2025. Nonetheless, the average number of days repondents reported their poor physical or mental health limited their usual activities decreased significantly from intake to follow-up each report year.

FIGURE 3.15. TRENDS IN THE NUMBER OF DAYS POOR PHYSICAL OR MENTAL HEALTH LIMITED USUAL ACTIVITIES AT INTAKE AND FOLLOW, REPORTS 2015-2025[63, 64]



Chronic Pain

At intake, 61.1% of respondents reported chronic pain and that decreased, but not significantly, to 38.9% by follow-up (see Figure 3.16). Of those respondents who reported chronic pain at intake (n = 11), respondents reported that the pain started around the age of 26. In addition, respondents reported experiencing chronic pain for 25.5 days of the 30 days before entering the program. On a scale of 0 (no pain) to 10 (pain as bad as you can imagine), respondents reported an average of 7.6 intensity in the 30 days before entering the program (not shown in the figure).

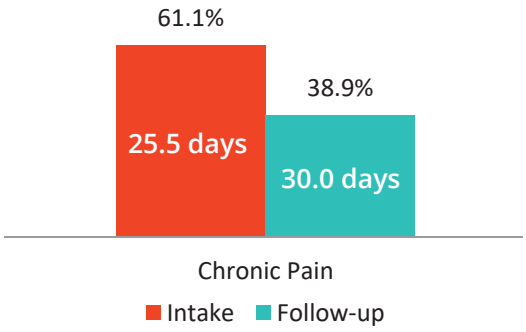
Among the respondents who reported chronic pain at follow-up (n = 7), they reported

[63] In 2015, one case had a missing value, in 2019 five cases had a missing value, and in 2020 two cases had a missing value for this item at follow-up.

[64] In 2015, one case had a missing value, in 2019 five cases had a missing value, and in 2020 two cases had a missing value for this item at follow-up.

experiencing chronic pain for 30.0 days of the past 30 days. On a scale of 0 (no pain) to 10 (pain as bad as you can imagine), respondents reported an average of 7.0 intensity in the past 30 days (not shown in the figure).

FIGURE 3.16. RESPONDENTS REPORTING CHRONIC PAIN AT INTAKE AND FOLLOW-UP (N = 18)

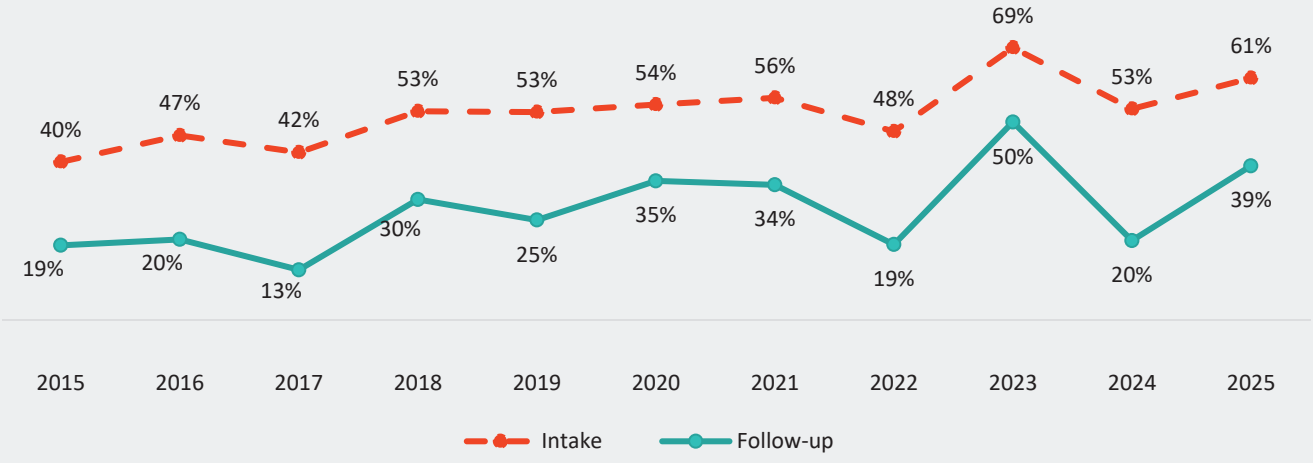


Trends in Chronic Pain

Overall, the percent of respondents who reported chronic pain has increased over time at intake, from 40% in the 2015 report to 69% in the 2023 report, with some fluctuations of increases and decreases.

At follow-up, each year, the percent of respondents reporting chronic pain was lower than at intake, with the pattern of year-to-year changes following, for the most part, the pattern of year-to-year change at intake.

FIGURE 3.17. TRENDS IN THE NUMBER OF RESPONDENTS REPORTING CHRONIC PAIN AT INTAKE AND FOLLOW-UP, REPORTS 2015-2025[65, 66]



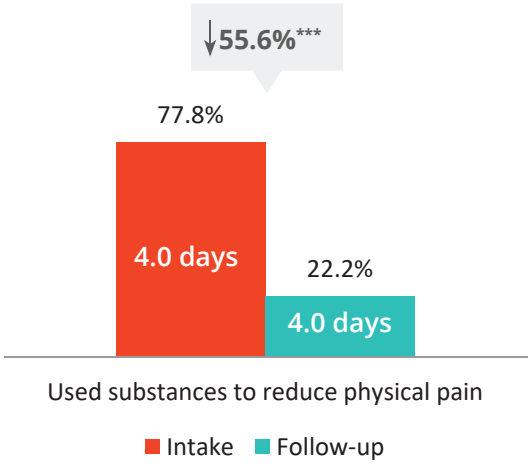
[65] In 2018, one respondent was missing information on chronic pain at follow-up.

[66] The small sample sizes from 2022 to 2025 could be affecting these percentages.

Self-medication for Physical Pain

The majority of respondents at intake (77.8%) reported using alcohol, prescription drugs, or illicit drugs to reduce their physical pain in the past 30 days. Of these respondents (n = 14), they reported using alcohol, prescription drugs, or illicit drugs to reduce their physical pain for an average of 4 days. At follow-up, 22.2% of respondents reported using alcohol, prescription drugs, or illicit drugs to reduce their physical pain, which was a significant decrease of 55.6%. Of these respondents (n = 2), they reported using alcohol, prescription drugs, or illicit drugs for pain for an average of 4 days.

FIGURE 3.18. RESPONDENTS WHO REPORTED THEY USED ALCOHOL, PRESCRIPTION DRUGS, OR ILLICIT DRUG USE TO REDUCE PHYSICAL PAIN AT INTAKE AND FOLLOW-UP IN THE PAST 30 DAYS (N = 18)



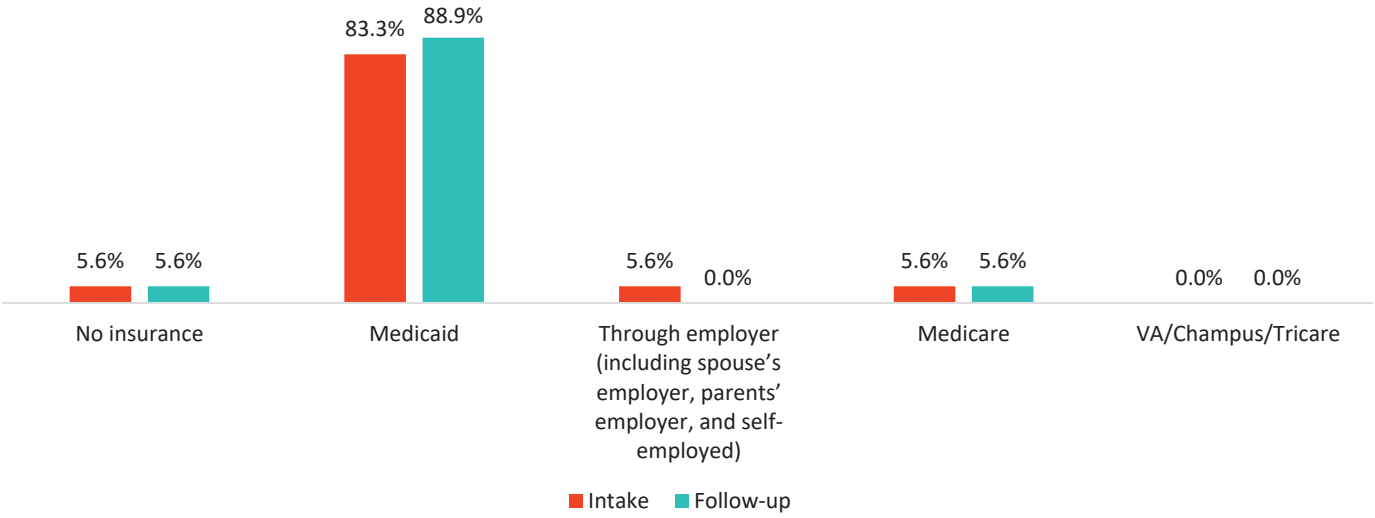
***p < .01.

Health Insurance

The majority of KORTOS respondents reported they had health insurance through Medicaid at intake (83.3%) and follow-up (88.9%; see Figure 3.19). Close to 6% of respondents at intake and follow-up did not have any insurance. At intake, 5.6% of respondents had Medicare, and 5.6% reported having insurance through their partner or employer. At follow-up, 5.6% of respondents had Medicare and none of the respondents had insurance through their partner or employer. No respondents reported having insurance through the VA, Champus, or Tricare at intake or follow-up.

> ***"It helped me through my recovery. They don't judge if you mess up and still believe in you."***
>
> —KORTOS RESPONDENT

FIGURE 3.19. HEALTH INSURANCE FOR KORTOS RESPONDENTS AT INTAKE AND FOLLOW-UP (N = 18)[a]



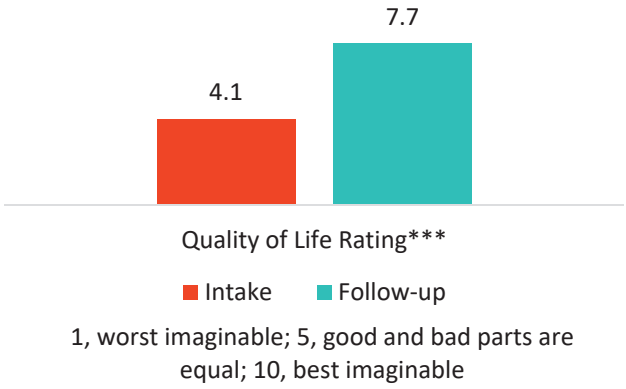
a – Significance tested with the Stuart-Maxwell Test of Overall Marginal Homogeneity.

At follow-up, of those respondents employed full-time (n = 7), 85.7% had insurance through Medicaid, 14.3% had no insurance, and none had insurance through their partner or employer.[67]

Subjective Quality of Life Ratings

At intake and follow-up, respondents were asked to rate their quality of life at the time of the interview. Ratings were from 1 = 'Worst imaginable' to 5 = 'Good and bad parts were about equal' to 10 = 'Best imaginable'. KORTOS respondents rated their quality of life as a 4.1 at intake (see Figure 3.20). The average quality-of-life rating significantly increased to 7.7 at follow-up.

FIGURE 3.20. SUBJECTIVE QUALITY OF LIFE RATING AT INTAKE AND FOLLOW-UP (N = 18)



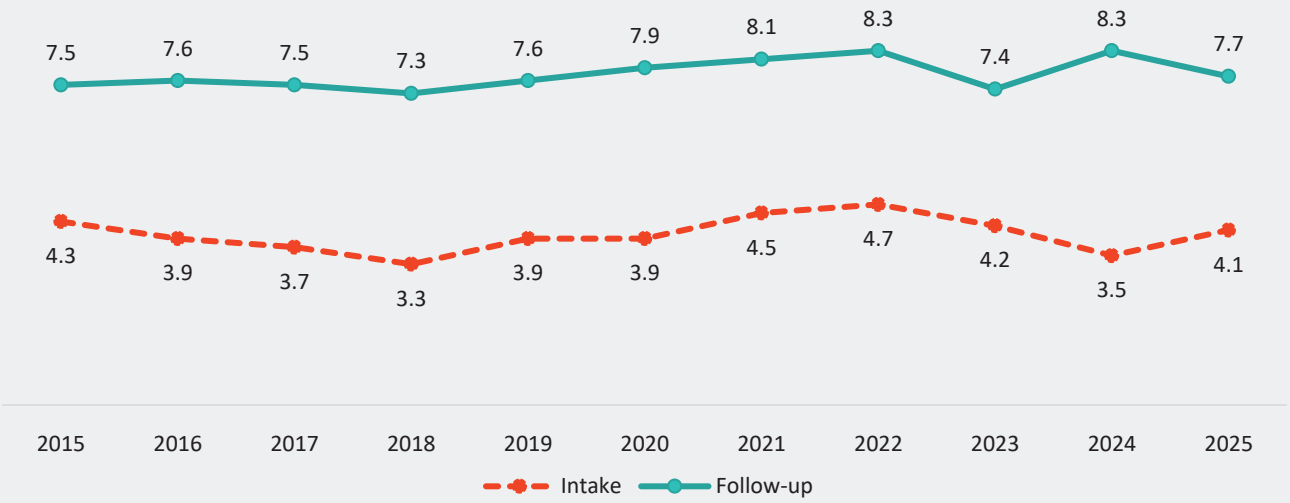
***p < .01.

[67] Only one client was employed full-time at intake.

Trends in Subjective Quality-of-life Rating

Respondents were asked to rank their overall quality of life on a scale from 1 (worst imaginable) to 10 (best imaginable) at both intake and follow-up. At intake, KORTOS respondents have rated their quality of life, on average, between a low of 3.3 and a high of 4.7. At follow-up, that rating has significantly increased to an average between a low of 7.3 and a high of 8.3 (see Figure 3.21).

FIGURE 3.21. TRENDS IN QUALITY-OF-LIFE RATING AT INTAKE AND FOLLOW, REPORTS 2015-2025



Section 4. Criminal Legal Involvement

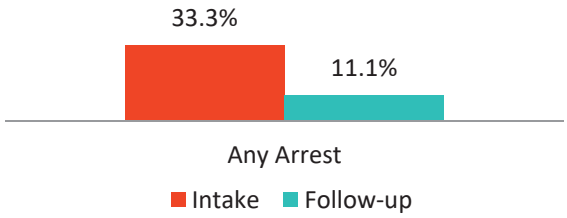
This section describes change in respondent involvement with the criminal legal system during the 6-month period before entering treatment and the 6-month period before the follow-up interview. Specifically, results include changes in: (1) any arrest, (2) any incarceration, and (3) criminal legal supervision status.

Arrests

Any Arrests in the Past 6 Months

There was no significant change in percent of respondents who were arrested at intake (33.3%) and follow-up (11.1%).

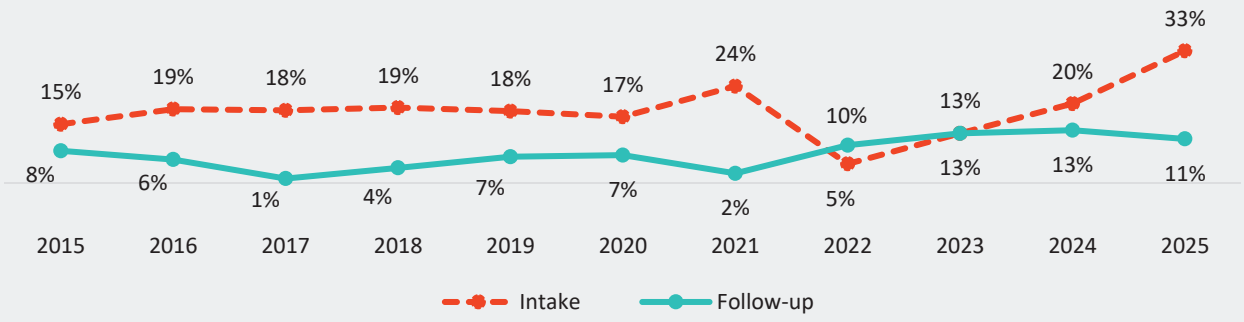
FIGURE 4.1. RESPONDENTS REPORTING PAST-6 MONTH ARRESTS AT INTAKE AND FOLLOW-UP (N = 18)



Trends in Past-6-month Arrests

While the percent of respondents reporting an arrest in the past 6 months at intake was stable overall in the report years 2015 through 2020, the percent of respondents reporting an arrest in the past 6 months at intake increased to 24% in 2021 and then decreased to even lower percentages in 2022 before increasing again to 33% in 2025. At follow-up, the percent of respondents reporting an arrest remained low from 2015 until 2023 when it was the same percentage as at intake (see Figure 4.2).

FIGURE 4.2. TRENDS IN THE NUMBER OF RESPONDENTS REPORTING ANY ARRESTS IN THE PAST-6-MONTHS AT INTAKE AND FOLLOW-UP, REPORTS 2015-2025[68, 69]



[68] In 2019, one respondent declined to answer criminal legal involvement questions at follow-up and one respondent was missing data on criminal legal questions at follow-up.

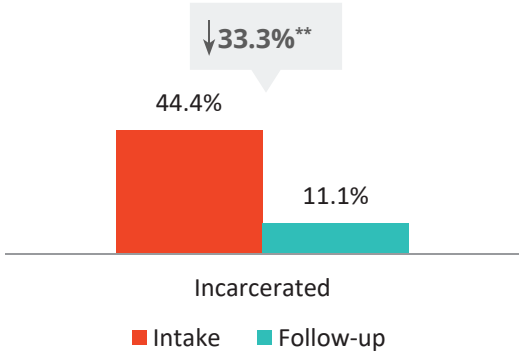
[69] The small sample size in report years 2022 through 2025 may be affecting the number of respondents reporting an arrest

Incarceration

Incarceration in the Past 6 Months

About 44% of respondents at intake and 11.1% of respondents at follow-up reported they had spent at least one night in jail or prison in the past 6 months (see Figure 4.3).

FIGURE 4.3. RESPONDENTS REPORTING INCARCERATION AT INTAKE AND FOLLOW-UP (N = 18)

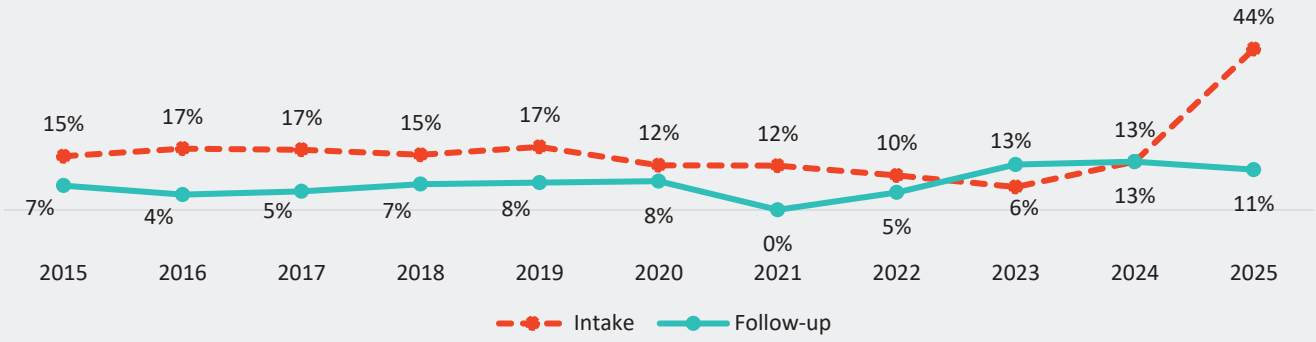


**p < .05.

Trends in Past-6-month Incarceration

The percent of respondents reporting spending at least one night in jail or prison has been relatively steady since 2015 with less than 2 in 10 respondents reporting an incarceration at intake. However, the percent of respondents reporting spending at least one night in jail or prison increased to 44% in 2025. At follow-up, relatively few respondents reported being incarcerated in the past 6 months and in 2021, none of the respondents reported being incarcerated (see Figure 4.4).

FIGURE 4.4. TRENDS IN THE NUMBER OF RESPONDENTS REPORTING ANY INCARCERATION IN THE PAST-6-MONTHS AT INTAKE AND FOLLOW-UP, REPORTS 2015-2025[70, 71]



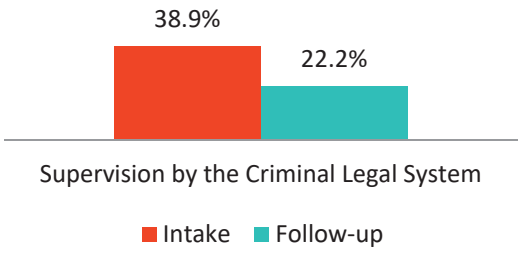
[70] In 2019, one respondent refused to answer criminal legal involvement questions at follow-up and one respondent was missing data on criminal legal questions at follow-up.

[71] The small sample sizes from 2022 to 2025 could be affecting these percentages.

Criminal Legal System Supervision

Almost two-fifths of respondents at intake (38.9%) and 22.2% at follow-up self-reported they were under criminal legal supervision (e.g., probation or parole; see Figure 4.5).

FIGURE 4.5. RESPONDENTS REPORTING CRIMINAL LEGAL SUPERVISION AT INTAKE AND FOLLOW-UP (N = 18)



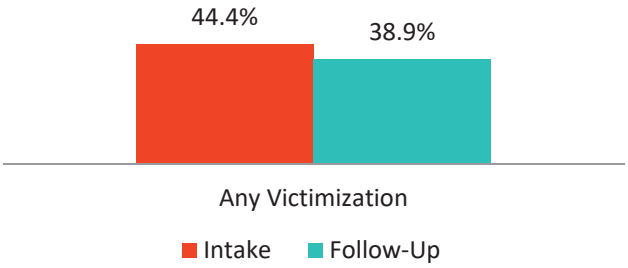
Section 5. Interpersonal Violence and Safety

This section describes change in respondent involvement with interpersonal violence and worry about safety during the 6-month period before entering treatment and the 6-month period before the follow-up interview. Specifically, results include changes in: (1) any interpersonal violence, and (2), worry about personal safety.

Interpersonal Violence Experiences

Respondents were asked about several types of interpersonal violence[72] (including when they may have been the victim of a crime, harmed by someone else, or felt unsafe) in the 6 months before entering programs and in the 6 months before follow-up (see Figure 5.1). Because relatively small percentages of respondents reported each specific type of violent experience in the 6-month periods, each type of victimization were collapsed into one category: any interpersonal violence. The percent of respondents who reported experiencing any violence in the past 6 months was 44.4% at intake and 38.9% at follow-up.

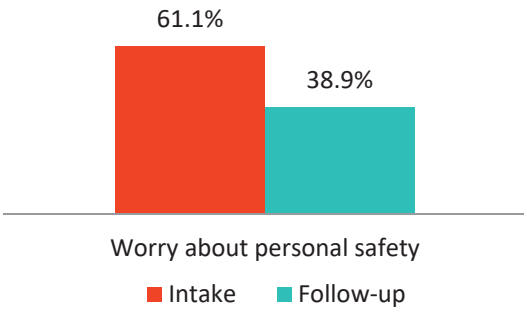
FIGURE 5.1. RESPONDENTS REPORTING PAST-6-MONTH CRIME AND INTERPERSONAL VIOLENCE (N = 18)



Worry About Personal Safety

At intake, 61.1% of respondents reported they were worried about their personal safety. At follow-up, 38.9% of respondents were worried about their personal safety (which was not a significant decrease).

FIGURE 5.2. RESPONDENTS WHO WORRIED ABOUT PERSONAL SAFETY AT INTAKE AND FOLLOW-UP (N = 18)



[72] Experiences with violence includes being robbed or mugged by force, assaulted with or without a weapon, threatened with a gun, intimate partner violence, stalking, sexually harassed or assaulted.

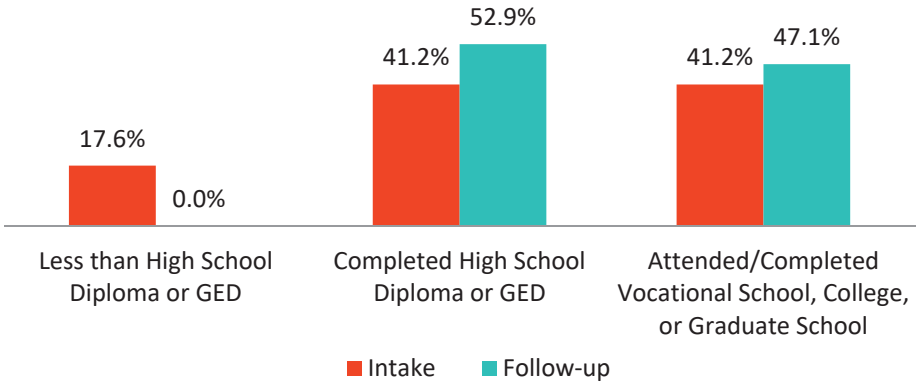
Section 6. Education, Economic Status, and Living Circumstances

This section examines changes in education, economic status, and living circumstances from intake to follow-up including: (1) highest level of education completed, (2) the number of months respondents were employed full-time or part-time in the past 6 months, (3) current employment status, (4) hourly wage, (5) homelessness, (6) living situation, and (7) economic hardship (i.e., difficulty meeting living and health care needs for financial reasons).

Education

At intake, the average number of years of education was 13.1 years and at follow-up respondent reported 13.4 years, where 12 = High school diploma or GED ($p < .05$; not depicted in a figure). Another way to examine change in education is to examine change in the percent of respondents who reported different levels of education. There was not a significant change in the percent of respondents who reported attending or completing vocational school, college, or graduate school from intake to follow-up (see Figure 6.1).

FIGURE 6.1. HIGHEST LEVEL OF EDUCATION COMPLETED AT INTAKE AND FOLLOW-UP (n = 17)[a][73]



a – Significance tested with the Stuart-Maxwell Test of Overall Marginal Homogeneity.

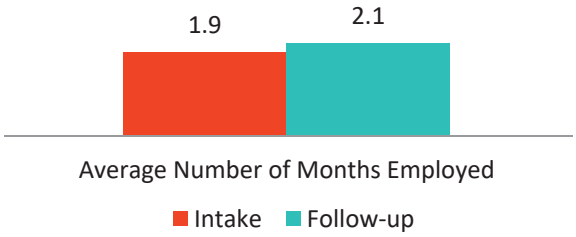
Employment

Average Number of Months Employed in the Past 6 Months

At both intake and follow-up, respondents were asked to report the number of months in the past 6 months they were employed at least part-time. Figure 6.2 shows there was not a significant change in the average number of months respondents reported they were employed from intake (1.9) to follow-up (2.1).

[73] One respondent had missing data for education level at follow-up because of data inconsistencies compared to intake.

FIGURE 6.2. AVERAGE NUMBER OF MONTHS EMPLOYED IN THE PAST 6 MONTHS AT INTAKE AND FOLLOW-UP (N = 18)

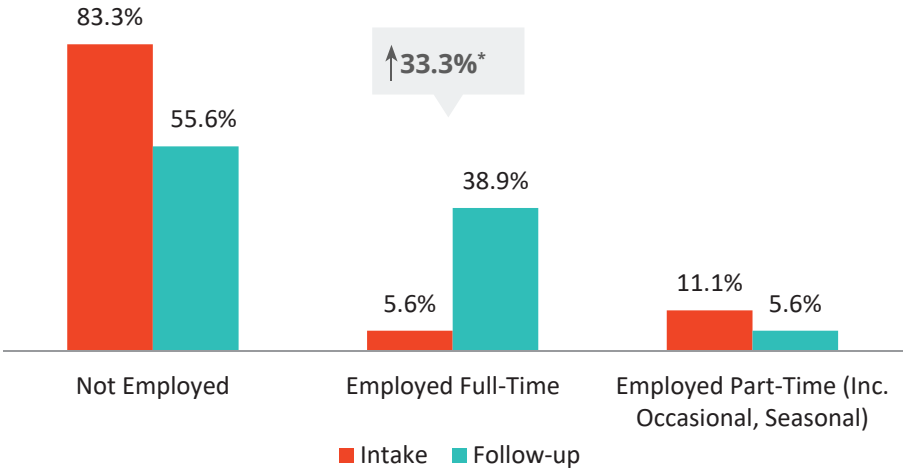


The majority of respondents at intake (72.2%) and follow-up (83.3%) reported that they expected to be employed in the next 6 months (not depicted in a figure).

Current Employment Status

At intake, 83.3% of respondents were not employed (see Figure 6.3) in the 30 days before they entered the program and at follow-up, the percent of respondents who were not employed was 55.6%. Additionally, the percent of respondents who were employed full-time increased significantly from 5.6% at intake to 38.9% at follow-up.

FIGURE 6.3. CURRENT EMPLOYMENT STATUS AT INTAKE AND FOLLOW-UP (N = 18)



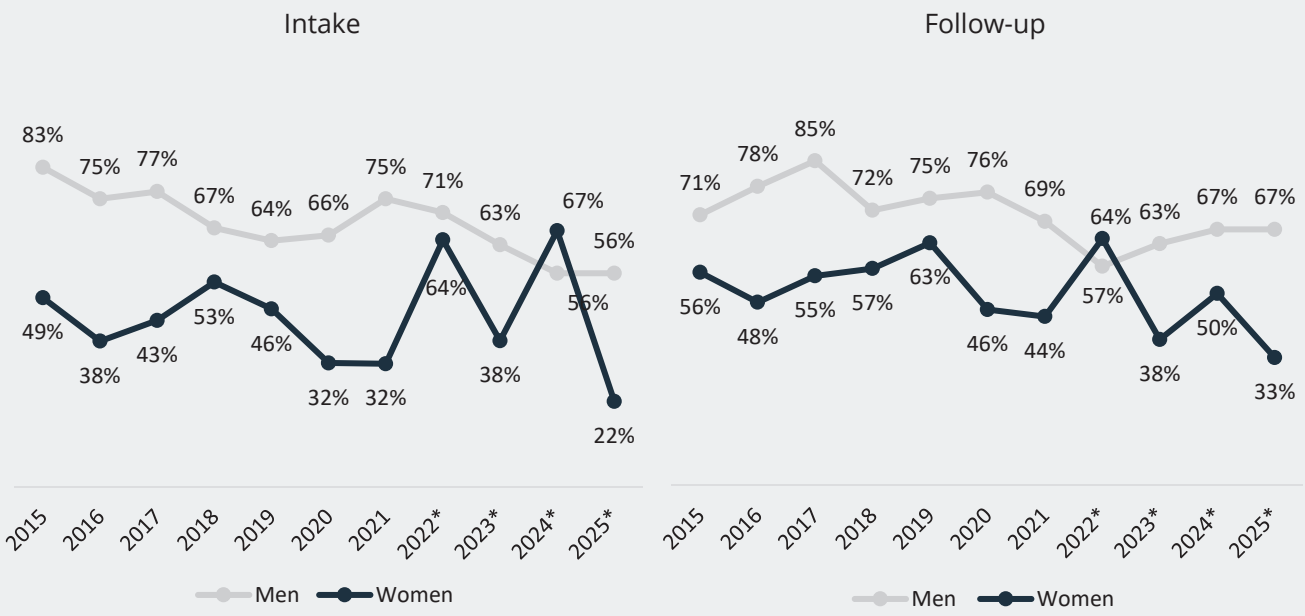
a – Significance tested with the Stuart-Maxwell Test of Overall Marginal Homogeneity.
*p < .10.

Trends in Employment by Gender

From 2015 to 2021 reports, significantly fewer women reported being employed (full- or part-time) at least one month in the past 6 months at intake compared to men. Less than half of women in the 2019 sample reported being employed at intake compared to 64.1% of men and in 2020 and 2021 the gap between men and women reporting employment widened further. In 2025 the percent of women who reported being employed dropped to 22%. In the last four years of the report, because of the small sample size, the gender difference was not statistically significant.

By follow-up, around half of women reported they were employed full-time or part-time at least one month in the past 6 months but significantly more men reported employment during that same time frame. Since 2016, the percent of women who reported being employed at least one month at follow-up increased until the 2023 report. In 2020, however, less than half of female respondents reported being employed at follow-up compared to over three-quarters of men. For the first time, in 2022, the percent of women who reported being employed at follow-up was higher than the percent of men, but has been lower again since 2023.

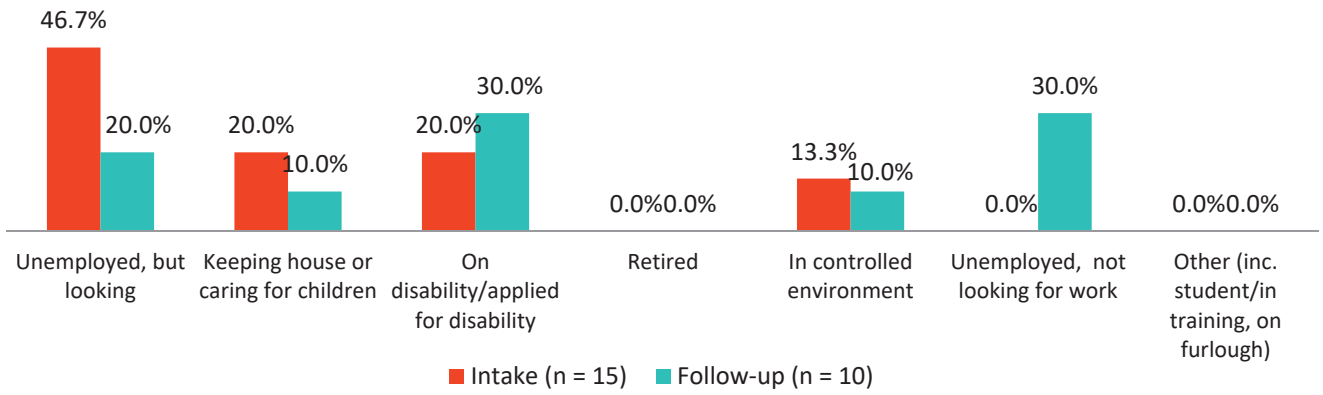
FIGURE 6.4. TRENDS IN GENDER DIFFERENCES IN RESPONDENTS EMPLOYED AT LEAST ONE MONTH AT INTAKE AND FOLLOW-UP[74]



[74] The small sample sizes from 2022 to 2025 could be affecting the number of respondents who reported being employed at least one month.

Respondents who were unemployed at each period were asked why they were not currently employed (see Figure 6.5). At intake (n =15), 46.7% were unemployed, but were looking for a job, 20.0% were caring for children/home full-time, 20.0% were on disability, and 13.3% were in a controlled environment. Among the respondents who were not employed at follow-up (n = 10), 30.0% were on disability, 30.0% reported that they were unemployed, but not looking for work, 20.0% were unemployed, but were looking for a job, 10.0% were caring for children/home full-time, and 10.0% were in a controlled environment.

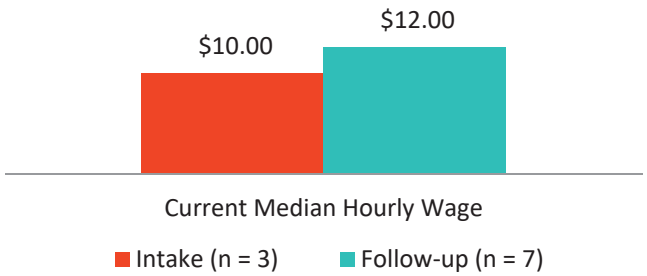
FIGURE 6.5. REASONS FOR UNEMPLOYMENT STATUS AT EACH POINT



Hourly Wage

Among the respondents who were employed at intake (n = 3), the median hourly wage was $10.00. Among the respondents who were employed at follow-up and who reported their hourly wage (n = 7), the median hourly wage was $12.00 (see Figure 6.6).

FIGURE 6.6. CURRENT MEDIAN HOURLY WAGE AT INTAKE AND FOLLOW-UP, AMONG EMPLOYED RESPONDENTS[75]

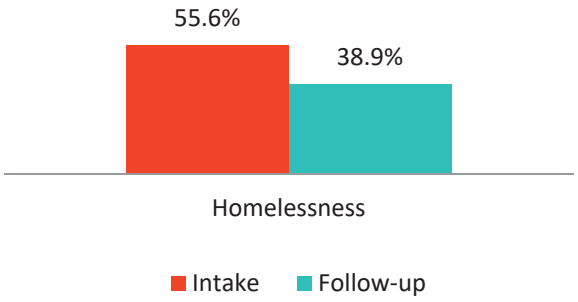


[75] One respondent at follow-up did not know their salary.

Homelessness

Over half of respondents at intake (55.6%) and 38.9% of respondents at follow-up reported being homeless in the previous 6 months (see Figure 6.7).

FIGURE 6.7. RESPONDENTS REPORTING HOMELESSNESS IN THE PAST 6 MONTHS AT INTAKE AND FOLLOW-UP (N = 18)

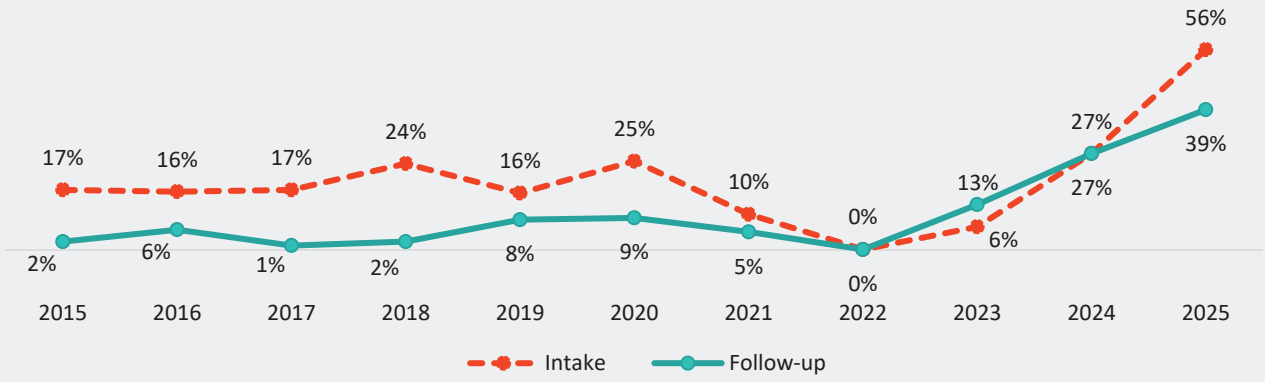


Trends in Past-6-month Homelessness

From 2015 to 2021, the percent of respondents who reported they were homeless in the 6 months before intake fluctuated from a low of 10% to a high of 25%. However, beginning in 2022 through 2025, with smaller sample sizes, the percentages fluctuated from a low of 0% to a high of 56%. None of the respondents considered themselves homeless at intake in 2022. In 2025, 56% considered themselves homeless at intake.

At follow-up each year, very few respondents reported that they considered themselves homeless. In both 2015 and 2018, only 2% of respondents considered themselves homeless in the past 6 months at follow-up. The percent of respondents who considered themselves homeless at follow-up increased to 8% in 2019. In 2021, however, the percent of respondents who considered themselves homeless at follow-up decreased to 4.9% and decreased further to 0% in 2022. In 2025, 39% considered themselves homeless at follow-up.

FIGURE 6.8. TRENDS IN THE NUMBER OF RESPONDENTS REPORTING HOMELESSNESS IN THE PAST-6-MONTHS AT INTAKE AND FOLLOW-UP, REPORTS 2015-2025[76]

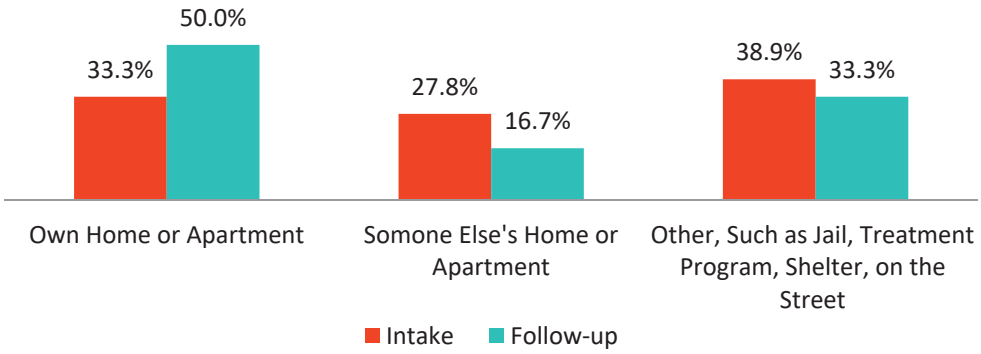


Living Situation in the Past 6 Months

Figure 6.9 shows that 33.3% of respondents in the past 6 months at intake and 50.0% of respondents at follow-up reported they were living in their own home or apartment, which was not a significant increase. Over one-quarter d of respondents at intake (27.8%) and 16.7% of respondents at follow-up reported living in someone else's home or apartment. Close to 39% of the respondents at intake and 33.3% of respondents at follow-up lived in another situation such as jail, a treatment program, shelter, or on the street.

[76] The small sample sizes from 2022 to 2025 could be affecting the number of respondents who considered themselves homeless.

FIGURE 6.9. TYPE OF TYPICAL LIVING SITUATION IN THE PAST 6 MONTHS AT INTAKE AND FOLLOW-UP (N = 18)[a]



a – Significance tested with the Stuart-Maxwell Test of Overall Marginal Homogeneity.

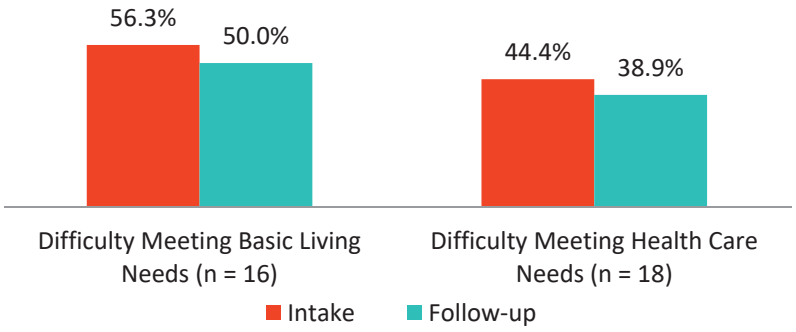
Economic Hardship

A minority of respondents (5.6%) at intake and follow-up (11.1%) reported they were currently receiving SSI or SSDI benefits ($p < .01$; not presented in a figure).

Respondents were also asked eight items, five of which asked about the respondents' difficulty meeting basic living needs such as food, shelter, utilities, and telephone, while three items asked about the respondents' difficulty obtaining health care for financial reasons.

Over half of respondents at intake (56.3%) and 50.0% of respondents at follow-up reported difficulty meeting basic living needs (e.g., shelter, utilities, phone, food; see Figure 6.10). At intake, 44.4% of respondents reported having trouble meeting health care needs. At follow-up, 38.9% of respondents reported issues meeting healthcare needs, which was also not a significant change.

FIGURE 6.10. DIFFICULTY MEETING BASIC LIVING NEEDS AND HEALTH CARE NEEDS FOR FINANCIAL REASONS IN THE PAST 6 MONTHS AT INTAKE AND FOLLOW-UP[77]



Of those respondents who continued having difficulty meeting basic living needs for financial reasons at follow-up (n = 8), 87.5% were unable to pay the gas or electric bill, 75.0% were unable to pay their phone bill, 75.0% had trouble paying for food, and 62.5% had difficulty paying the full amount of their rent or mortgage.

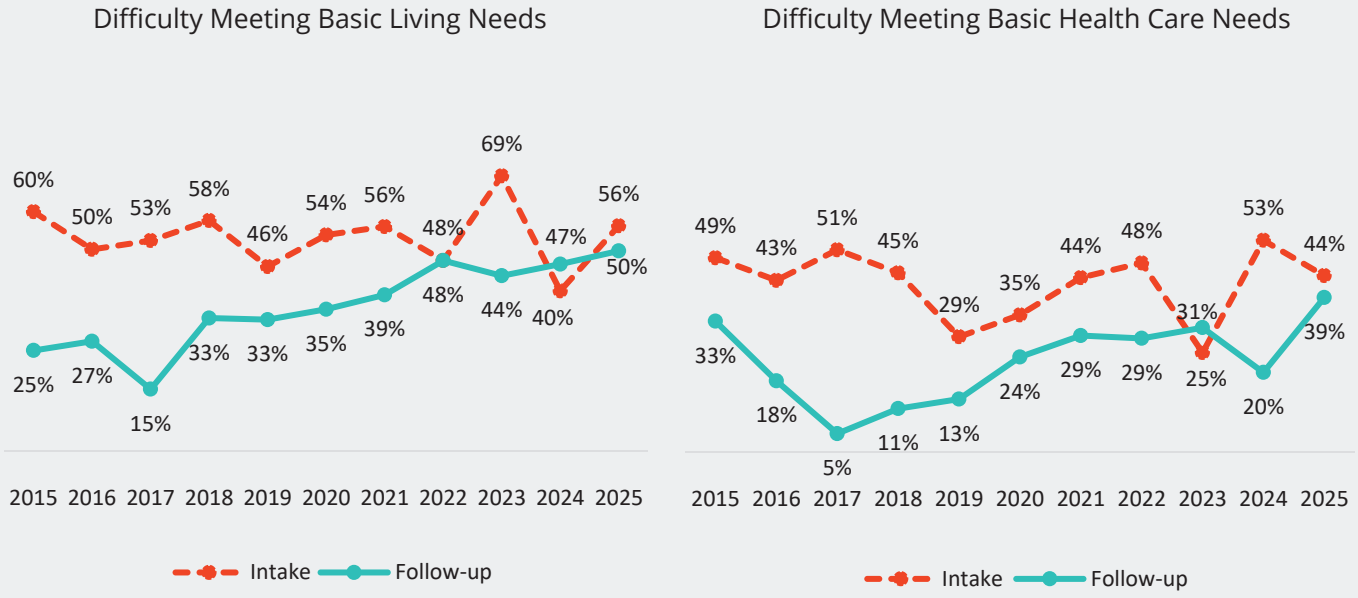
[77] Two clients were missing measures of difficulty meeting basic living needs at follow-up.

Trends in Difficulty Meeting Living and Health Care Needs for Financial Reasons

At intake, from 2015 to 2022, the percent of respondents who reported having difficulty meeting basic living needs ranged from a low of 48% to a high of 60%. In 2023, the percentage was 69%. At follow-up, overall, trends show that the percent of respondents who have reported having difficulty meeting basic living needs is increasing over time. The percent of respondents who reported having difficulty meeting basic living needs increased to 50% in 2025 from 15% in 2017.

From 2015 to 2017, the percent of respondents reporting difficulty meeting basic health care needs (i.e., doctor visits, dental visits, and prescription medications) at follow-up decreased; however, beginning in 2018, the percent of respondents reporting difficulty meeting basic needs has increased. Whereas less than 5% of respondents reported difficulty meeting basic health care needs in 2017, 39% of respondents reported difficulty meeting basic health care needs in 2025.

FIGURE 6.11. TRENDS IN THE PERCENT OF RESPONDENTS REPORTING ECONOMIC DIFFICULTY IN THE PAST-6-MONTHS AT INTAKE AND FOLLOW-UP, REPORTS 2015-2025[78]



[78] The small sample sizes from 2022 to 2025 could be affecting these percentages.

Section 7. Recovery Supports

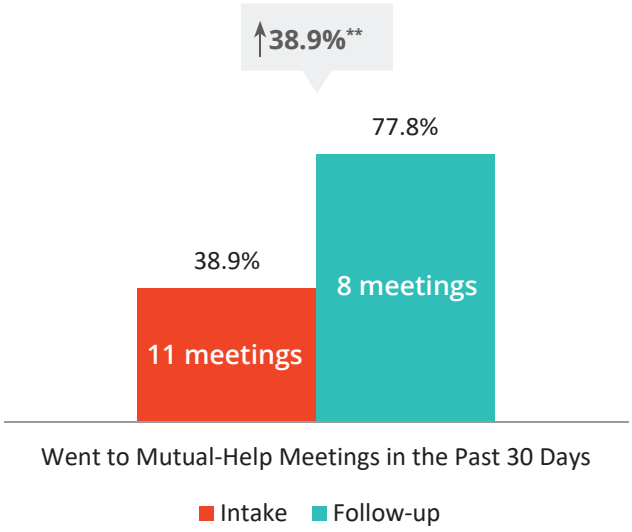
This section focuses on four main changes in recovery supports: (1) percent of respondents attending mutual help recovery group meetings, (2) the number of people the respondent said they could count on for recovery support, (3) what will be most useful to the respondent in staying off drugs/alcohol, and (4) respondents' perceptions of their chances of staying off drugs/alcohol.

Mutual Help Recovery Group Meeting Attendance

At intake, 38.9% of respondents reported going to mutual help recovery group meetings (e.g., AA, NA, or faith-based) in the past 30 days (see Figure 6.1). At follow-up, 77.8% of respondents reported they had gone to mutual help recovery group meetings, which was a significant increase of 38.9%.

Among respondents who had attended mutual help recovery group meetings at intake (n = 7), they reported attending an average of 11 meetings. Among respondents who attended mutual help recovery group meetings at follow-up (n = 14), they reported attending an average of 8 meetings.

FIGURE 7.1. RESPONDENTS REPORTING MUTUAL HEALTH RECOVERY GROUP ATTENDANCE AT INTAKE AND FOLLOW-UP (N = 18)

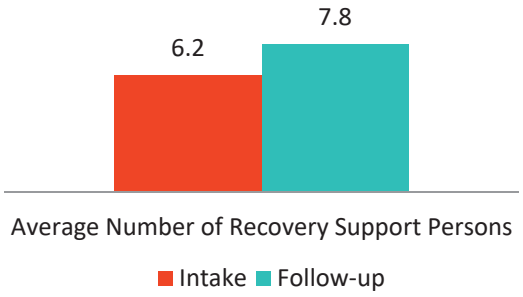


**p < .05.

Number of People Respondent Can Count on for Recovery Support

The average number of people respondents reported they could count on for recovery support increased from intake (6.2) to follow-up (7.8; see Figure 7.2), which was not a significant increase.

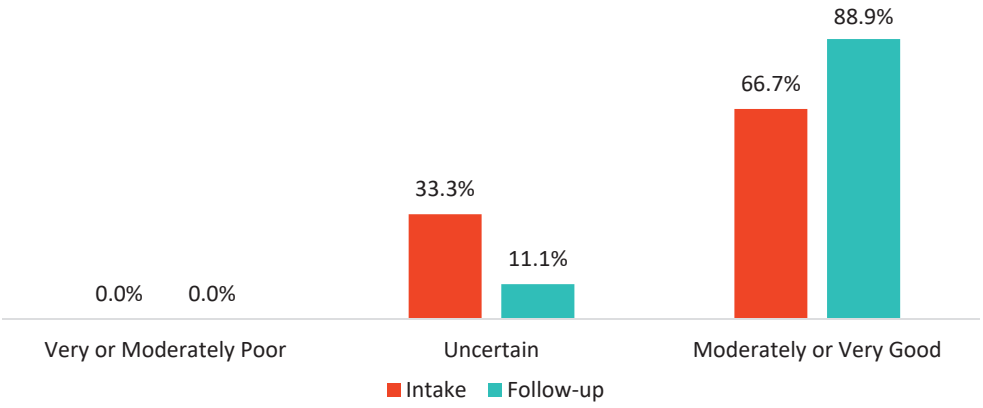
FIGURE 7.2. AVERAGE NUMBER OF PEOPLE RESPONDENT COULD COUNT ON FOR RECOVERY SUPPORT AT INTAKE AND FOLLOW-UP (N = 18)



Chances of Staying Off Drugs/alcohol

Respondents were asked, based upon their situation, how good they believed their chances were of getting off and staying off drugs/alcohol using a scale from 1 (Very poor) to 5 (Very good). Respondents rated their chances of getting off and staying off drugs/alcohol as a 4.1 at intake and a 4.5 at follow-up ($p < .10$). Overall, 66.7% of respondents at intake and 88.9% of respondents at follow-up believed they had moderately or very good chances of staying off drugs/alcohol, which was not a significant increase (see Figure 7.3).

FIGURE 7.3. RESPONDENTS REPORTING THEIR CHANCES OF GETTING OFF AND STAYING OFF DRUGS/ ALCOHOL AT INTAKE AND FOLLOW-UP (N = 18)[a]

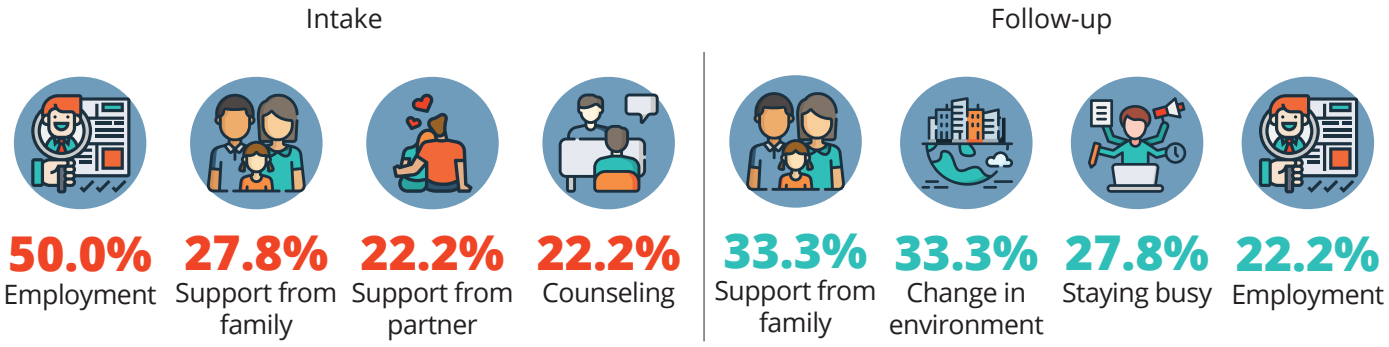


a - Stuart-Maxwell test was conducted to examine the change from intake to follow-up.

What Will Be Most Useful in Staying Off Drugs/alcohol

At intake and follow-up, respondents were asked what, other than MOUD, they believed would be most useful in helping them quit or stay off drugs/alcohol. Rather than conduct analysis on change in responses from intake to follow-up, the top categories during each time period are presented for descriptive purposes in Figure 7.4. At intake, the most common responses were family support, employment, support from partner, and counseling. At follow-up, the most common responses were support from family, change in environment, staying busy, and employment.

FIGURE 7.4. RESPONDENTS REPORTING WHAT WILL BE MOST USEFUL IN STAYING OFF DRUGS AND/OR ALCOHOL (N = 18)



Section 8. Multidimensional Recovery

This section examines multidimensional recovery that considers severity of substance use disorder, employment, homelessness, criminal legal system involvement, suicide ideation, overall health, recovery support, and quality of life. Change in recovery status from intake to follow-up is presented. Furthermore, a multivariate analysis was conducted to examine the intake indicators of recovery status and their association with having all positive dimensions of recovery at follow-up.

Recovery goes beyond relapse or return to occasional drug or alcohol use. Recovery from substance use disorders can be defined as "a process of change through which an individual achieves abstinence and improved health, wellness and quality-of-life: (p. 5).[79] The SAMHSA definition of recovery is similarly worded and encompasses health (including but not limited to abstinence from alcohol and drugs), having a stable and safe home, a sense of purpose through meaningful daily activities, and a sense of community.[80] In other words, recovery encompasses multiple dimensions of individuals' lives and functioning. The multidimensional recovery measure uses items from the intake and follow-up surveys to create one index that can be used to classify individuals who all positive dimensions of recovery.

TABLE 8.1. MULTIDIMENSIONAL RECOVERY

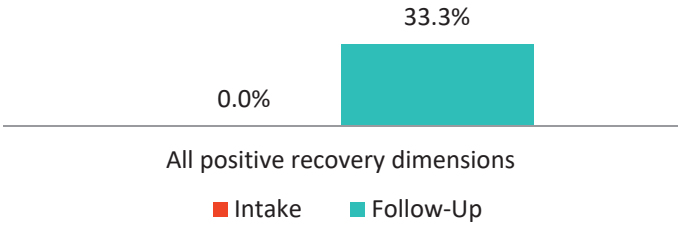
INDICATOR	POSITIVE RECOVERY DIMENSIONS	NEGATIVE RECOVERY DIMENSIONS
Substance use	No or mild substance use disorder (SUD)	Mild, moderate, or severe substance use disorder (SUD)
Employment	Employed at least part-time or in school	Unemployed (not on disability, not going to school, not a caregiver)
Homelessness	No reported homelessness	Reported homelessness
Criminal Legal Involvement	No arrest or incarceration	Any arrest or incarceration
Suicide ideation	No suicide ideation (thoughts or attempts)	Any suicide ideation (thoughts or attempts)
General health	Fair to excellent general health	Poor general health
Recovery support	Had at least one person he/she could count on for recovery support	Had no one he/she could count on for recovery support
Subjective quality of life	Mid to high-level of quality of life	Low-level quality of life

At intake, none of the respondents were classified as having all positive dimensions of recovery when entering treatment (see Figure 8.1). At follow-up, 33.3% of respondents were classified as having all positive dimensions of recovery at follow-up.

[79] Center on Substance Abuse Treatment. (2007). *National summit on recovery: conference report* (DHHS Publication No. SMA 07-4276). Rockville, MD: Substance Abuse and Mental Health Services Administration.

[80] Laudet, A. (2016). *Measuring recovery from substance use disorders*. Workshop presentation at National Academies of Sciences, Engineering, and Medicine (February 24, 2016). Retrieved from https://sites.nationalacademies.org/cs/groups/dbassesite/documents/webpage/dbasse_171025.pdf

FIGURE 8.1. MULTIDIMENSIONAL RECOVERY AT INTAKE AND FOLLOW-UP (N = 18)[a]



a- No measure of association could be computed for the cross tabulation because there was a value of 0 for the multidimensional recovery variable at intake.

Table 8.2 presents the frequency of respondents who reported each of the specific components of the multidimensional recovery measure at intake and follow-up. At intake, the factors with the lowest percent of individuals indicated were no substance use disorder, no homelessness, and a higher subjective quality of life. At follow-up, the factors with the lowest percent of individuals reporting the positive dimensions of recovery were no homelessness and having employment full-time and part-time.

TABLE 8.2. PERCENT OF RESPONDENTS WITH SPECIFIC POSITIVE DIMENSIONS OF RECOVERY AT INTAKE AND FOLLOW-UP (N = 18)

	Intake	Follow-up
Factor	**Yes**	**Yes**
Met DSM-5 criteria for no SUD in the past 6 months	5.6%	77.8%
Usual employment was employed full-time or part-time in the past 6 months *(or unemployed because a student, home caregiver, on disability)*	50.0%	66.7%
Reported no homelessness *(or living in recovery center at follow-up)*	44.4%	61.1%
Reported not being arrested and/or incarcerated in the past 6 months	55.6%	88.9%
Reported no thoughts of suicide or attempted suicide in the past 6 months	77.8%	94.4%
Self-rating of general health at follow-up was fair, good, very good, or excellent	83.3%	94.4%
Reported having someone they could count on for recovery support	83.3%	88.9%
Reported a subjective quality-of-life rating in the mid or higher range *(rating of 5 or higher)*	44.4%	94.4%

Section 9. Respondent Satisfaction with Opioid Treatment Programs

At the beginning of the follow-up interview, respondents were asked to give their opinions and feedback regarding their program experience. The items measured in this report include: (1) respondent involvement in the program, (2) if the respondent would refer someone else to the program, (3) respondent ratings of program experiences, and (4) positive and negative aspects of program participation.

Respondent Involvement in the Program

Respondents reported having been involved in the treatment program an average of 6.6 months at follow-up (range of 2 to 10 months).

The majority of respondents reported that the program started good (88.9%) and 11.1% reported that it started poor. Almost three-quarters of respondents (72.2%) reported treatment was currently going good and 27.8% reported they were no longer receiving medication from a clinic.

The majority of followed-up respondents reported that the treatment episode is working extremely well for them (83.3%) or pretty well (11.1%) and only 5.6% stated the program worked somewhat for them.

Recommendation to the Program

All respondents indicated they would refer a close friend or family member to their treatment provider. Half of respondents reported they would warn their friend or family member about certain things or tell them who to work with or who to avoid.

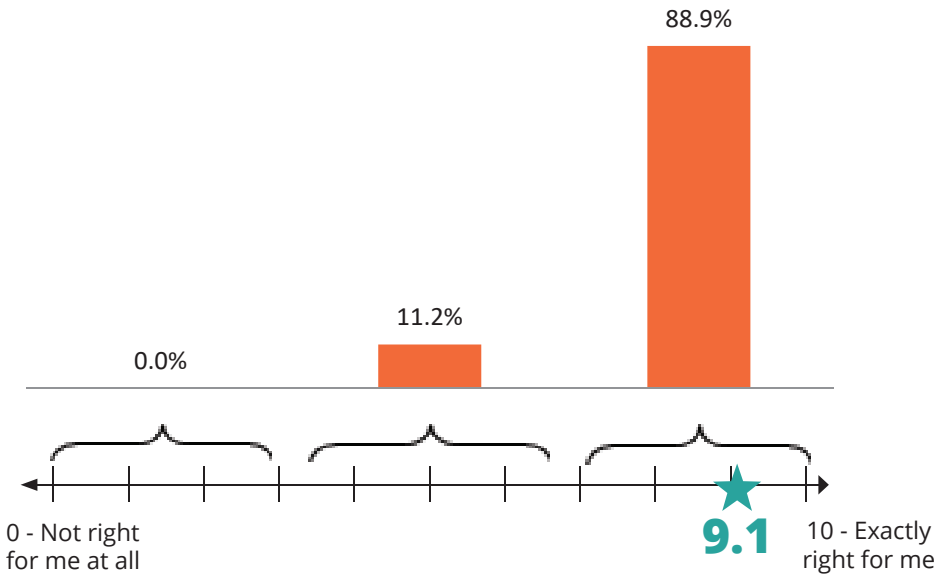
Respondent Ratings of Program Experiences

Respondents were asked to report their perceptions of how the treatment program worked for them. The statements presented in Figure 9.1 had separate response options, with ratings ranging from 0 to 10. The higher values corresponded to the more positive responses and the lower values corresponded to the negative responses. For example, for the statement, “My expectations and hopes for treatment and recovery were met” the anchors were 0 “Not at all met” and 10 “Perfectly met.” Even the negatively worded items had anchors in which the higher values represented the more positive side of the continuum. For example, for the statement, “There were things I did not talk about or that I did not fully discuss with my counselor/program staff” the response option 0 corresponds to “I did not discuss lots of things, I held things back,” and 10 corresponds to “I discussed everything, I held back nothing.” Respondents who rated each statement from 8 to 10 are shown in the figure below.

FIGURE 9.1. RATINGS OF PROGRAM TREATMENT EXPERIENCE (N = 18)

Respondents rated their overall program experience, on average, as 9.1 (see Figure 9.2). Overall, 88.9% gave a rating between 8 and 10 and 61.1% of respondents gave the highest possible rating, 10.

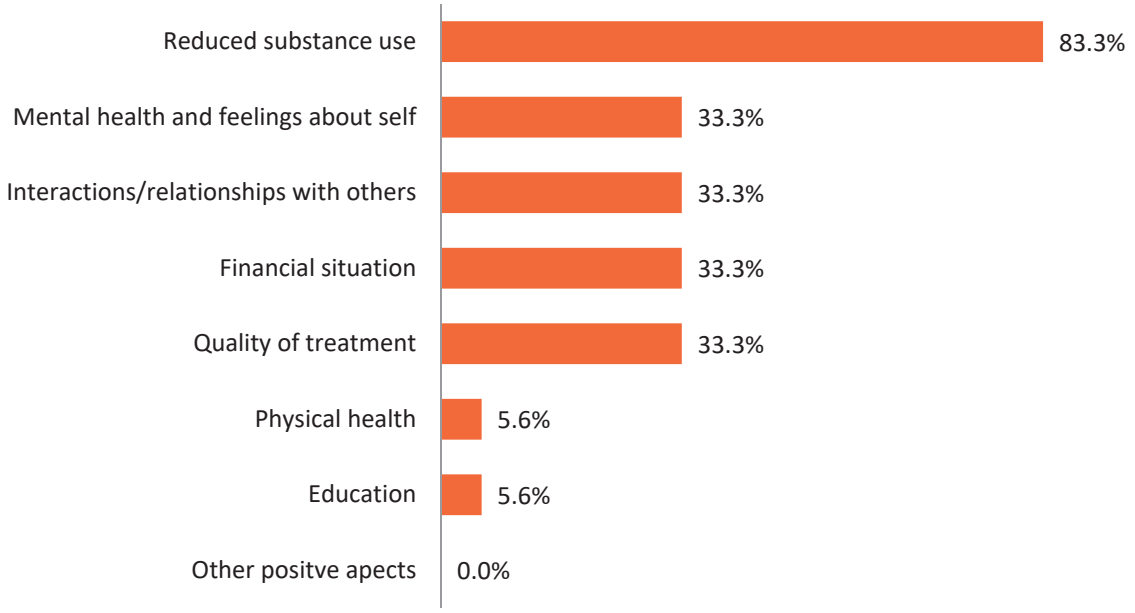
FIGURE 9.2. RATING OF EXPERIENCE AT THE PROGRAM (N = 18)



Positive and Negative Aspects of Program

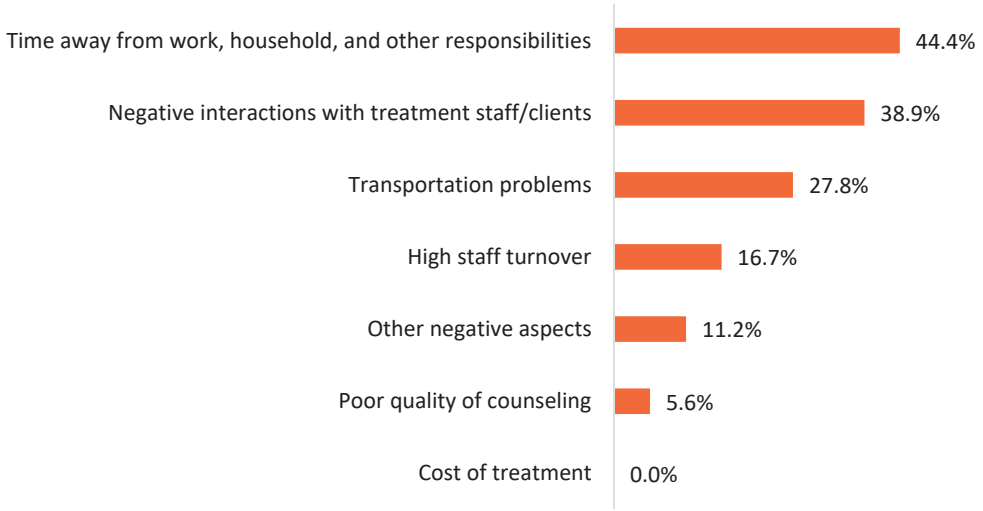
Respondents were asked to identify the three most positive aspects of their participation in the program (Figure 9.3). The majority of respondents (83.3%) reported that reduction in substance use was a positive outcome. One-third of respondents reported that improvements in mental health, interactions/relationships with others, their financial situation, and the quality of treatment were positive aspects of the treatment. Close to 6% of respondents reported improvements in physical health and education that were positive aspects.

FIGURE 9.3. PERCENT OF RESPONDENTS REPORTING POSITIVE ASPECTS OF THE PROGRAM (N = 18)



Aspects of treatment that respondents identified as problematic or needing improvement are displayed in Figure 9.4. The negative aspects of the program suggest barriers that respondents must overcome to participate in the program. Specifically, time away from work, household, or other responsibilities (44.4%), negative interactions with staff/other respondents (38.9%), transportation problems (27.8%), high staff turnover (16.7%), and other negative aspects (11.2%). A small percent of respondents (5.6%) reported quality of counseling (e.g., not enough counseling).

FIGURE 9.4. PERCENT OF RESPONDENTS REPORTING NEGATIVE ASPECTS OF THE PROGRAM (N = 15)



Section 10. Conclusion and Implications

The KORTOS 2025 Annual Report describes characteristics of 91 respondents who participated in opioid treatment programs during calendar year 2023 and completed intake interviews. In addition, outcomes are presented for 18 respondents who completed a follow-up telephone interview 6 months after the intake interview.

Description of KORTOS Respondents at Treatment Intake

At intake respondents (n = 91) were an average of 40 years old ranging from 20 to 66 years old. Close to 47% of respondents were female and 53.3% were male. The majority of respondents (63.7%) self-reported they decided get help on their own and 20.9% reported that they were referred to the OTP by a family member, partner, or friend. The majority (69.2%) were unemployed, and of those unemployed respondents, 50.8% reported they were looking for work.

At intake, respondents were asked 17 items about ten types of adverse childhood experiences from the Adverse Childhood Experiences (ACE). Results indicated that the majority of respondents (86.8%) reported at least one adverse childhood experience. Specifically, 28.6% reported 1-3 childhood experiences and 36.3% reported 4-6 childhood experiences, 18.7%, 7 – 9 experiences, and 3.3% reported all 10 experiences. Significantly more women (66.7%) than men (39.6%) reported experiencing emotional neglect and significantly more women than men also reported sexual abuse (38.1% vs. 12.5%) before the age of 18.

In terms of interpersonal violence experiences, compared to men, significantly more women reported having ever been sexually assaulted or raped, and dating or intimate partner violence compared to men.

In the six months before entering the program, 68.1% of respondents met study criteria for depression, and 79.1% met study criteria for generalized anxiety. Eleven percent reported suicidal thoughts or attempts of suicide in the 6 months before entering the program. In addition, 31.9% had post-traumatic stress disorder (PTSD) scores that indicated risk of PTSD. Fifty-six percent of respondents reported chronic pain in the 6 months before entering the program. The majority of respondents (62.7%) reported they had at least one of the 16 chronic health problems listed on the intake interview. Trend analysis shows that from CY 2013 to CY 2023 the percent of respondents who reported chronic medical problems has increased from just under half of respondents to over half of respondents.

Among the respondents who were not incarcerated all 180 days before entering the program (n = 89), the majority of respondents reported using illicit drugs (94.4%), and 82.0% reported smoking tobacco while 11.2% of respondents reported using alcohol in the 6 months before intake. About 12% of respondents reported only using opioids while 74.2% reported using opioids and at least one other class of drug.

Involvement with the criminal legal system was not commonly reported by KORTOS

respondents as they entered OTPs. Twenty-two percent of KORTOS respondents reported being arrested at least once and 23.1% reported being incarcerated at least one night in the 6 months before entering treatment. In addition, 25.3% of respondents reported being under supervision by the criminal legal system.

Areas of Success

The 2025 evaluation findings indicated that Kentucky opioid treatment programs have been successful in facilitating substantial positive changes in respondents' lives. Results for those who were included in the followed-up analysis (n = 18) show that respondents made substantial improvements from intake to follow-up in all four core components, including significant reductions in illicit drug and alcohol use, mental health problems, criminal legal involvement, and a significant increase in quality of life. Improvements were also found for two supplemental areas: health status and economic and living circumstances.

Substance Use

When examining respondent change from past 6 months at intake to the 6-month follow-up period, respondents reported significant decreases in illicit drug use. Among respondents who were not incarcerated all 180 days before entering the program or follow-up, there was a decrease in respondents reporting past-6-month illicit drug use with 100% of respondents reporting any illicit drug use at intake compared to 50.0% at follow-up. Overall, 75.0% of respondents reported illicit use of prescription opioids in the past 6 months at intake, whereas 6.3% of respondents reported illicit use of prescription opioids at any point during the 6 months before the follow-up assessment. Over two-thirds of respondents (68.8%) reported past-6-month heroin use at intake and that percent decreased significantly to 12.5% at follow-up. Not only did respondents' use of overall opioids decrease significantly, but also their use of non-opioid drugs (such as cannabis, tranquilizers, benzodiazepines, and stimulants) decreased from 100.0% at intake to 50.0% at follow-up. The majority of respondents (94.4%) reported experiencing symptoms of substance use disorder (such as craving, withdrawal, wanting to quit and being unable, or worrying about relapse) at intake compared to 27.8% at follow-up. In addition, the number of respondents who reported an ASI drug composite score that met the cut-off score for severe substance use disorder (SUD) decreased significantly from 93.8% at intake to 12.5% at follow-up.

Seventy-five percent of respondents (n= 12) reported that they have overdosed on drugs (and required interventions by someone to recover) in their lifetime (an average of 4.3 times, among the respondents who reported they had overdosed on drugs). Of these 12 respondents, 66.7% of respondents (n = 8) have overdosed in the past 6 months at intake (an average of 1.6 times). None of the respondents reported having overdosed in the past 6 months at follow-up.

Medication for Opioid Use Disorder (MOUD)

At intake, 81.3% of respondents reported they had ever received medication from a clinic

or doctor's office to help with their substance abuse (before the current MOUD). Of these respondents (n =13), 46.2% were prescribed the medication that was dispensed from a clinic, 38.5% were prescribed the medication by a doctor in a specialty clinic, and 15.4% reported that their medication was prescribed by a doctor in a general medical practice

The majority of respondents (87.5%) who were not incarcerated all 180 days before treatment entry or in the past 6 months at follow-up, reported that they received methadone in the past 6 months at follow-up. About 19% of respondents reported receiving Suboxone, and none of the respondents received Vivitrol.

At follow-up, respondents reported using the medication prescribed to them for an average of 5.8 months in the past 6 months. In addition, respondents reported using the medication prescribed for an average of 29.1 days in the past 30 days. Overall, at follow-up, all respondents reported that they think their use of MOUD helped treat their substance use disorder.

Mental and Physical Health

There were also improvements in respondents' overall past-6-month mental health. Over three-quarters respondents (77.8%) met study criteria for depression in the 6 months before they entered treatment and, at follow-up, 44.4% met study criteria for depression. Trend reports over the past 11 years indicate that the percent of respondents who met criteria for depression at intake has fluctuated over the past 10 years between 44% and 78%. The percent of respondents who met criteria for depression at follow-up was on the rise from 2017 (11%) to 29% in 2021 before decreasing to 14% in 2022. In 2025, however, the percent of respondents who met criteria for depression at follow-up increased to 44% which is the highest out of the past 11 years.

In addition, 22.2% of respondents reported suicidal ideation or attempts at intake compared to 5.6% at follow-up. Trends of suicidal ideation or attempts show that the percent of respondents reporting suicide ideation in the past 6 months at intake appeared to peak in 2018 before decreasing again. At follow-up, the percent of respondents reporting suicide ideation was stable at less than 5% prior to 2024. The majority of respondents at intake (77.8%) reported using alcohol, prescription drugs, or illicit drugs to reduce stress, anxiety, worry, sadness, or fear which significantly decreased to 22.2% at follow-up. Furthermore, the number of days respondents' mental health was poor in the past 30 days decreased significantly from intake (20.4) to follow-up (6.7).

Further, physical health was better for respondents at follow-up. Respondents were asked to report the number of days in the past 30 days poor physical or mental health had limited their usual activities. The number of days respondents reported their poor physical or mental health limited their usual activities decreased significantly from 20.0 days at intake to 7.2 days at follow-up. The majority of respondents at intake (77.8%) reported using alcohol, prescription drugs, or illicit drugs to reduce their physical pain. At follow-up, 11.1% of respondents reported using alcohol, prescription drugs, or illicit drugs to reduce their physical pain, which was a significant decrease of 66.7%. At intake, the average number of days that respondents reported self-medicating chronic pain was 3.3.

At follow-up, this decreased significantly to 1.3 ($p < .01$).
Respondents rated their quality of life as significantly higher after they began participating in the program. Trend analyses show that these high ratings for quality of life at follow-up have been consistent over the past 11 years.

Criminal Legal Involvement

Very few KORTOS respondents reported criminal legal involvement. In the 6 months before the intake, 33.3% of respondents (6 respondents) reported being arrested compared to 11.1% (2 respondents) at follow-up. Trend analysis shows that, while the percent of respondents reporting an arrest in the past 6 months at intake was stable overall in the report years 2015 through 2020, the percent of respondents reporting an arrest in the past 6 months at intake increased to 24% in 2021 and then decreased to even lower percentages in 2022 before increasing again to 33% in 2025.

The number of respondents reporting being incarcerated for at least on night in the past 6 months decreased significantly from 44.4% at intake to 11.1% at follow-up. Trend analyses show that the percent of respondents who spent at least one night in jail were also consistent from 2015 to 2024 at both intake and follow-up. However, the percent of respondents reporting spending at least one night in jail or prison increased to 44.4% in 2025. At follow-up, relatively few respondents reported being incarcerated in the past 6 months and in 2021, none of the respondents reported being incarcerated.

Recovery Supports

At intake, 38.9% of respondents reported going to mutual help recovery group meetings (e.g., AA, NA, or faith-based) in the past 30 days compared to 77.8% of respondents at follow-up, which was a significant increase. The average number of people respondents reported they could count on for recovery support increased, but not significantly, from intake (6.2) to follow-up (7.8).

Overall, 66.7% of respondents at intake and 88.9% of respondents at follow-up believed they had moderately or very good chances of staying off drugs/alcohol, which was not a significant increase. At intake and follow-up, respondents were asked what, other than medication-assisted treatment, they believed would be most useful in helping them quit or stay off drugs/alcohol. At intake, the most common responses were family support, employment, support from partner, and counseling. At follow-up, the most common responses were support from family, change in environment, staying busy, and employment.

Multidimensional Recovery

Recovery goes beyond relapse or return to occasional drug or alcohol use. The multidimensional recovery measure items from the intake and follow-up surveys to create one measure of recovery. At intake, none of the respondents had all positive dimensions of recovery, whereas at follow-up, one-third of respondents had all positive dimensions.

Treatment Program Satisfaction

The majority of respondents reported that the program started good (88.9%) and 72.2% reported it was currently going well. In addition, the majority of followed-up respondents reported that the treatment episode is working extremely well for them (83.3%) or pretty well (11.1%) and only 5.6% stated the program worked somewhat for them. Furthermore, all respondents indicated they would refer a close friend or family member to their treatment provider. Half of respondents reported they would warn their friend or family member about certain things or tell them who to work with or who to avoid.

On a scale from 1 representing the worst possible experience to 10 representing the best possible experience, respondents rated their experience an 9.1 with 88.9% of respondents giving a highly positive rating of 8 through 10. The majority of respondents reported that they fully discussed or talked about everything with their counselor/ program staff, they felt the program staff cared about them and their treatment progress, they worked on and talked about things that were most important to the respondent, and that their expectations and hopes for treatment and recovery were met. The majority of respondents reported that the reduction in substance use was a positive outcome of participation in the program.

Areas of Concern

While there were many positive outcomes overall, there are also potential opportunities to make even more significant improvements in respondents' functioning after they begin treatment.

Illicit Drug Use

When looking at trends over time in past-30-day use at intake, results show that while prescription opioid decreased gradually from CY2007 to CY2020 before increasing again in CY2021. In addition, non-prescribed methadone use has decreased over the past 17 years, and heroin use sharply increased beginning in CY 2012 to a high of 73% in CY 2022. Compared to heroin and prescription opioids, methamphetamine use is lower; however, use has increased in the past couple of years from 14% in CY 2017 to 48% in CY 2022.

Also, half of KORTOS respondents still reported using illicit drugs in the 6 months before follow-up. While this year's follow-up sample size is small and may be affecting the results, 50.0% of respondents reported using drugs other than opioids at follow-up, and 12.5% reported heroin use in the 6 months before follow-up. White et al. found that screening positive for just one non-prescribed drug doubled a respondent's dropout rate and screening for multiple drugs quadrupled it. In addition, continued drug use during

medication-assisted treatment has been associated with early program termination[81, 82] and longer treatment retention has been associated with more positive outcomes.[83, 84]

While the percent of respondents who reported substance use decreased from intake to follow-up, 27.8% of respondents still reported experiencing substance use disorder symptoms including cravings, withdrawal, wanting to quit but being unable, or worrying about relapse at follow-up.

Smoking Rates

Rates of tobacco smoking were high for respondents at intake and remained high at follow-up (75.0%). In addition, of the respondents who reported smoking cigarettes at follow-up, they did not report smoking fewer cigarettes compared to respondents who reported the number of cigarettes smoked at intake. Tobacco use is associated with increased mortality, and smoking cessation has been associated with lower alcohol and drug relapse.[85] Smoking has been associated with increased mental health symptoms and physical health problems.[86, 87] There is a commonly held belief that individuals should not attempt to quit smoking while in substance use disorder treatment, because smoking cessation can endanger their sobriety. This belief has been refuted by recent empirical research studies.[88] Voluntary smoking cessation during substance use disorder treatment has been associated with lower relapse.

Over two-fifths of respondents (43.8%) reported the use of e-cigarettes (e.g., battery-powered nicotine delivery devices that vaporize a liquid mixture consisting of propylene glycol, glycerin, flavorings, nicotine, and other chemicals) at intake and follow-up. Trend analysis shows that the percent of respondents reporting e-cigarette use has generally increased over time at intake and follow-up. While e-cigarettes are widely believed to be a mechanism for smoking cessation and/or a less dangerous alternative to conventional cigarettes, they also carry their own health risks. Although e-cigarettes contain lower levels of carcinogens compared to regular tobacco cigarettes,[89] the e-cigarette still contains potent cancer-causing toxins as well as chemicals that can trigger cardiovascular

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[87] Kalman, D., Morissette, S., & George, T. (2005). Co-morbidity of smoking in patients with psychiatric and substance use disorders. *American Journal of Addictions, 14*(2), 106-123.

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and lung disease,[90, 91] and gene mutation.[92]

Mental and Physical Health

Though the percent of clients who met study criteria for depression decreased significantly from intake to follow-up, 44.4% of clients still met study criteria for depression at follow-up. Moreover, among those who met study criteria for depression at follow-up (n = 8), respondents reported an average of 7.4 out of 9 symptoms.

Over 60% of respondents still met study criteria for generalized anxiety at intake compared to 61.1% at follow-up. In addition, clients who met study criteria for generalized anxiety at follow-up (n = 11) reported an average of 6.5 out of 7 symptoms. The percent of respondents meeting study criteria for generalized anxiety has remained steady in the past 6 months at intake (around three-quarters) until 2023 when the percent decreased to 40% before increasing to 87% in 2024. The percent of respondents who met criteria for generalized anxiety at follow-up has fluctuated over time, with the highest percentage in the 2020 report and the lowest in the 2017 report, and its highest point in 2025.

In addition, two-thirds of KORTOS respondents still met study criteria for depression and/or generalized anxiety at follow-up. Likewise, 38.9% of respondents were still dealing with comorbid depression and generalized anxiety at follow-up. Furthermore, the percent of respondents who screened positive for PTSD symptoms did not change from intake to follow-up such that one-third of respondents were still troubled by PTSD symptoms. In addition, 22% of respondents reported using alcohol, prescription drugs, or illicit drugs to reduce stress, anxiety, worry, sadness, or fear in the past 6 months at follow-up.

Also, while the number of respondents reporting chronic pain decreased significantly from intake (61.1%) to follow-up (38.9%), respondents still reported experiencing chronic pain for 30.0 days of the past 30 days with an average intensity of 7.0 on a scale of 0 (no pain) to 10 (pain as bad as you can imagine).

Interpersonal Violence and Safety

In the past 6 months at follow-up, 38.9% of respondents reported experiencing at least one of the types of interpersonal violence (including when they may have experienced crime, harmed by someone else, or felt unsafe). Furthermore, 38.9% of respondents were worried about their personal safety at follow-up.

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Economic Status and Living Circumstances

Also concerning is that over half of the sample (55.6%) was currently unemployed at follow-up. Of the clients who reported they were unemployed at follow-up (n = 10), 30.0% reported they were not looking for work. In addition, 38.9% of clients considered themselves homeless at follow-up. Trend analysis on homelessness shows that the percent of respondents who consider themselves homeless has increased since report year 2023 at intake and since report year 2022 at follow-up.

Meeting basic needs including health, stable living arrangements, having a purpose with daily meaningful activities, and recovery community are the four key dimensions to recovery.[93] Half of respondents at follow-up reported having difficulty meeting basic living needs and 38.9% still reported difficulty meeting health care needs in the past 6 months. Trends in economic difficulties show that the number of respondents who reported they had difficulty meeting basic living needs and/or health care needs has increased at follow-up since 2017. The resulting financial strain from these economic factors could lead to increased substance use to alleviate the stress.[94] Providing referrals and support for these factors may help improve basic living situations for many respondents and support continued recovery living for long-term positive results after treatment.

Study Limitations

The study findings must be considered within the context of the study's limitations. First, for the past three years compared to previous years, a considerably smaller number of respondents completed an intake because of the COVID-19 pandemic as well as fewer OTPs participating in the outcome evaluation, KORTOS. A smaller number of respondents at intake means that there is a smaller pool of eligible follow-up sample respondents to pull from. In addition to fewer respondents completing an intake assessment, the percent of intake respondents not agreeing to be contacted for follow-up has increased. Even though the intake sample size for the 2025 report was larger compared to the previous year, a greater percent of respondents did not agree to follow-up.

TABLE C.1. NUMBER AND PERCENT OF RESPONDENTS NOT CONSENTING TO FOLLOW-UP FOR EACH REPORT YEAR

Report year	Intake sample size	Respondents NOT consenting to follow-up
2018	514	247 (48.1%)
2019	625	206 (33.0%)
2020	384	174 (45.3%)
2021	233	145 (62.2%)
2022	192	119 (62.0%)
2023	38	16 (42.1%)
2024	63	37 (58.7%)

[93] https://www.samhsa.gov/brss-tacs/recovery-support-tools-resources

[94] Shaw, B. A., Agahi, N., & Krause, N. (2011). Are Changes in Financial Strain Associated with Changes in Alcohol Use and Smoking Among Older Adults? *Journal of Studies on Alcohol and Drugs, 72*(6), 917-925.

Report year	Intake sample size	Respondents NOT consenting to follow-up
2025.....	91	63 (69.2%)

In recent years, program intake data collection at the OTPs has decreased, which limits the number of respondents the follow-up research team can target for follow-up data collection. Decreasing numbers of participants in KORTOS reduces the generalizability of the outcome findings and the statistical power to detect the effects of the program on outcomes. Increasing efforts to conduct the intake surveys with OTP respondents will net more data, more robust and meaningful findings, which help to support the mission of the programs.

Second, because there is no appropriate group of opioid dependent individuals who would like treatment but do not receive it to compare with the KORTOS individuals who participate in treatment, all changes from intake to follow-up cannot be attributed to MOUD.

Third, data included in this report was self-reported by respondents. There is reason to question the validity and reliability of self-reported data, particularly with regard to sensitive topics, such as illicit behavior and stigmatizing issues such as mental health and substance use. However, some research has supported findings about the reliability and accuracy of individuals' reports of their substance use.[95, 96, 97] For example, in many studies that have compared agreement between self-report and urinalysis the concordance or agreement is acceptable to high.[98, 99, 100] In fact, in some studies, when there were discrepant results between self-report and urinalysis of drugs and alcohol, the majority were self-reported substance use that was not detected with the biochemical measures.[101, 102, 103] In other studies, higher percentages of underreporting have been found.[104] Prevalence of underreporting of substance use is quite varied in studies. Nonetheless, research has found that certain conditions facilitate the accuracy of self-

[95] Del Boca, F.K., & Noll, J.A. (2000). Truth or consequences: The validity of self-report data in health services research on addictions. *Addiction, 95*, 347-360.

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[102] Hilario, E. Y., Griffin, M. L., McHugh, R. K., McDermott, K. A., Connery, H. S., Fitzmaurice, G. M., & Weiss, R. D. (2015). Denial of urinalysis-confirmed opioid use in prescription opioid dependence. *Journal of Substance Abuse Treatment, 48*, 85-90.

[103] Williams, R. J., & Nowatzki, N. (2005). Validity of self-report of substance use. *Substance Use & Misuse, 40*, 299-313.

[104] Chermack, S. T., Roll, J., Reilly, M., Davis, L., Kilaru, U., Grabowski, J. (2000). Comparison of patient self-reports and urinalysis results obtained under naturalistic methadone treatment conditions. *Drug and Alcohol Dependence, 59*, 43-49.

report data such as assurances of confidentiality and memory prompts.[105] Moreover, the "gold standard" of biochemical measures of substance use have many limitations: short windows of detection that vary by substance; detection varies on many factors such as the amount of the substance consumed, chronicity of use, sensitivity of the analytic method used.[106] Therefore, the study method includes several key strategies to facilitate accurate reporting of sensitive behaviors at follow-up including: (a) the follow-up interviews are conducted by telephone with a University of Kentucky Center on Drug and Alcohol Research (UK CDAR) staff person who is not associated with any opioid replacement treatment program; (b) the follow-up responses are confidential and are reported at a group level, meaning no individual responses are linked to participants' identity; (c) the study procedures, including data protections, are consistent with federal regulations and approved by the University of Kentucky Human Subjects Institutional Review Board; (d) confidentiality is protected under Federal law through a Federal Certificate of Confidentiality; (e) participants can skip any question they do not want to answer; and (f) UK CDAR staff are trained to facilitate accurate reporting of behaviors and are regularly supervised for quality data collection and adherence to confidentiality.

Conclusion

The 2025 KORTOS evaluation indicates that opioid treatment programs in Kentucky have been successful in facilitating positive changes in respondents' lives in a variety of ways, including decreased substance use, decreased severity of substance use, and improved mental health symptoms. Results also show that respondents appreciate and value their experiences in treatment programs and have an improved quality-of-life after beginning participation in treatment.

[105] Del Boca, F. K., & Noll, J. A. (2000). Truth or consequences: the validity of self-report data in health services research on addictions. *Addiction, 95 (Suppl. 3)*, S347—S360.

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Appendix A. Methods

The KORTOS intake and follow-up interview instruments are modeled after the Kentucky Treatment Outcome Study (KTOS) assessment and are based on theory and research about substance use-related comorbidities relevant to substance use among respondents in opioid treatment programs. The assessment's four core components (e.g., substance use, mental health, criminal legal involvement, and quality-of-life) and three supplemental components (e.g., health status, economic status and living circumstances, and recovery supports) have demonstrated validity and reliability[107] and have been developed in collaboration with key stakeholders to consider the context of Kentucky opioid treatment programs.

KORTOS intake interviews were conducted by a clinician or staff person at the OTP using a web-based interview tool, in which identifying data were encrypted and submitted to the master database on the UK CDAR secure server. At the end of the intake interview, clinicians explained the follow-up study to respondents and gave them the opportunity to volunteer to participate. Respondents who were interested gave electronic consent to be contacted by UK CDAR BHOS staff members about 6 months later. Follow-up interviews were conducted via telephone using a questionnaire with items and questions similar to the questions in the intake interview.

The target month for the follow-up interview was 6 months after the intake interview was completed. In other words, if a respondent completed an intake interview in December 2023, the target month for the follow-up interview was June 2024. The window for completing a follow-up interview with an individual selected into the follow-up sample began one month before the target month and spanned until two months after. Therefore, if the target month for a follow-up was June 2024, interviewers began working to locate and contact the individual in May and could work the file until the end of August.

Of the 91 respondents who completed an intake interview in 2023, 28 (30.8%) agreed to be contacted for the follow-up study. From this group of respondents who voluntarily agreed to be contacted for the follow-up study, the research team pulled the follow-up sample by first identifying respondents who had provided the minimum amount of contact information (e.g., two phone numbers or one phone number and one mailing address) and whose intakes were submitted to CDAR less than 30 days after the intake was completed, which left a sample of 24 respondents. Of these respondents, 2 clients were ineligible for follow-up because they were incarcerated. This left a sample of 22 where 18 completed a follow-up interview (see Table AA.1); thus, the follow-up rate was 81.8%. The remaining respondents were never successfully contacted, or if contacted they never completed the follow-up interview (n = 4, or 18.2% of the cases eligible for follow-up).

[107] Logan, TK, Cole, J., Miller, J., Scrivner, A., & Walker, R. (2020). *Evidence Base for the Kentucky Opioid Replacement Treatment Outcome Study (KORTOS) Assessment and Methods*. Lexington, KY: University of Kentucky, Center on Drug and Alcohol Research.

TABLE AA.1. FINAL CASE OUTCOMES FOR FOLLOW-UP EFFORTS (n = 91)

	Number of Records
Did not consent to follow-up	63
Ineligible for follow-up interview based on intake criteria	4
Not enough locator information	1
More than 30 days between the date the intake was completed and submission date	3
Remaining number of intake surveys eligible for follow-up	24
Not eligible for follow-up based on follow-up criteria	2
Total cases remaining eligible for follow-up interview	22
Expired cases (i.e., never contacted, did not complete the interview during the follow-up period)	4
Expired rate ((the number of expired cases/eligible cases)*100)	18.2%
Refusal	0
Refusal rate ((the number of refusal cases/eligible cases)*100)	0.0%
Completed follow-up interviews	18
Follow-up rate is calculated by dividing the number of completed interviews by the number of eligible cases and multiplying by 100	81.8%

Appendix B provides detailed information on the locating efforts for the 2015 KORTOS follow-up sample.

Appendix C presents analysis on comparisons between respondents who completed a follow-up interview and respondents who did not complete a follow-up interview for any reason on key variables included in the intake interview.

Appendix B. Locating Efforts for the 2015 KORTOS Follow-up Study

For the 2015 follow-up study, 350 participants were included in the sample of individuals to be followed up from July 2013 to June 2014. Efforts to locate and contact these participants were examined. Of these clients, 223 completed a follow-up survey for a follow-up rate of 82.6%.

Project interviewers documented their efforts (e.g., mailings, phone calls, Internet searches, etc.) to locate each participant included in the sample of individuals to be followed up from July 2013 to June 2014 (n = 350), which is the follow-up period corresponding to the KORTOS 2015 report. All the locator files were examined and used to extract information about the efforts project interviewers made to locate and contact participants as well as the type of contact information provided by participants in the original locator information when the intake interview data was submitted to UK CDAR. A subsample of records was randomly selected and independently examined to check that the procedures for extracting data were reliable and valid. The extraction sheets were compared between the two raters for interrater reliability, which was high (96.1%). The following information is based on the data collected during this review of locator files.

For all 350 records, a total of 2,182 phone calls were made to respondent phone numbers and 773 calls to contact persons' phone numbers. As Table AB.1 shows, project interviewers made an average of about 6.2 calls to respondent phone numbers and 2.4 calls to contact persons' phone numbers. Fewer than 40% of respondents called in at any point and only 4.3% called-in to complete the interview after receiving the initial mailing without project interviewers putting additional effort into contacting the respondents. That means 95.7% of respondents took considerable effort to try to locate, contact, and complete follow-up interviews.

A total of 649 mailings were sent to respondent addresses and 26 mailings were sent to contact persons, an average of 1.9 mailings to respondents and 0.1 mailings to contact persons. The research team received returned mail for 12.3% of respondents that received mailings to respondent addresses and 1.4% of respondents that received mailings to contact addresses.

In cases where the respondent contact information was incorrect (i.e., mail was returned, phone number was disconnected), online public directory databases were used to try to verify that we had correct or updated information for the respondent. Because it had been six months since they provided contact information, we would like to be sure we are not calling or sending mailings to someone other than the respondent. Therefore, verifying the correct contact information is a critical interim step in the follow-up process to protect confidentiality. For 92.3% of the respondents, the interviewers used public searches/directories to verify contact information. If the respondent information could not be verified, interviewers also used social media and more detailed public directory databases to find updated contact information (52.9%). In cases where very little contact information was given or respondents were not successfully located in the ways listed above, more in-depth searching methods were used (28.9%). As a last resort, in the few

cases where the respondent was not successfully located in any of the ways described above, interviewers worked to reach respondent contacts provided by them at intake (6.7%).

TABLE AB.1. LOCATING EFFORTS FOR ALL FILES (N = 350)

Locating efforts	% of client records	Average per client
Number of total phone calls made to reach client		6.2
Number of phone calls made to contact persons (n= 326)		2.4
Clients who called in	38.9%	
Clients who called in and completed survey	20.3%	
Clients who called in and completed survey after receiving the initial client mailing	4.3%	
Contact persons who called in	8.0%	
At least one text message was sent to client	4.3%	
At least one text message was sent to contact person	0.6%	
Number of mailings sent to client		1.9
Handwritten note was sent	14.0%	
Returned mail from client's address	12.3%	
Number of mailings sent to contact persons		0.1
Returned mail from contact person's address	1.4%	
Client level of searching:		
Light (verification, VINE, Whitepages)	92.3%	
Medium (Facebook, Ancestry, USsearch, etc.)	52.9%	
In-depth (other in-depth databases)	28.9%	
Contact searched in any way	6.7%	

Because of study inclusion criteria, a complete client phone number was listed on 100.0% of the records. Less than half of these were working numbers for the client (46.3%), 9.7% were working numbers for a contact who knew the client, and 4.9% were working numbers but the contact did not know the client (i.e., wrong number). Over one-fifth of the phone numbers (22.3%) listed never resulted in contact (e.g., voicemail, busy signal, not receiving incoming calls, etc.) and 8.0% were disconnected. The majority of records also listed one unique, complete address for the client (87.4%; see Table B.2).

Most of the clients provided the name of at least one other person that they thought would know how to get in touch with them in the next six months (90.9%). In addition, one-quarter also provided a unique and complete address and most (75.1%) provided a unique phone number for that person.

TABLE B.2. QUALITY OF CONTACT INFORMATION FOR ALL FILES (N = 350)

Quality of contact information	% of client records	Average per client
Client Contact Information		
Client phone number listed	100.0%	
Client phone number was:		
Working number for client	46.3%	
Working number, person knew client	9.7%	
Working number, but no one knew the client	4.9%	
Working number for a facility or clinic	0.3%	
Called but did not reach a person (e.g., voicemail, busy signal, not receiving incoming calls)	22.3%	
Disconnected	8.0%	
Never called	8.0%	
Complete client address listed	87.4%	
Locator Contact Information		
Number of contact persons listed		1.0
0	9.1%	
1	78.6%	
2	12.3%	
Number of unique, complete addresses listed for contact persons		0.3
0	71.4%	
1	25.1%	
2	3.4%	
Number of unique, complete phone numbers listed for contact persons		0.9
0	16.3%	
1	75.1%	
2	8.6%	

Appendix C. Respondent Characteristics at Intake for Those Who Completed a Follow-up Interview and Those Who Did Not Complete a Follow-up Interview

Respondents who completed a follow-up interview are compared in this section with respondents who did not complete a follow-up interview for any reason (e.g., did not agree to be contacted for the follow-up interview, not selected into the follow-up sample, ineligible for follow-up, not successfully located for the follow-up).

Demographics

Respondents who completed a follow-up were significantly older compared to respondents who did not complete a follow-up (43.6 vs 39.1, respectively). There were no other significant differences between respondents who did and did not complete a follow-up on demographics (see Table AC.1).

TABLE AC.1. COMPARISON OF DEMOGRAPHICS FOR RESPONDENTS WHO WERE FOLLOWED UP AND RESPONDENTS WHO WERE NOT FOLLOWED UP

	FOLLOWED UP	
	NO n = 73	YES n = 18
Age*	39.1 years	43.6 years
Gender		
Male	54.2%	50.0%
Female	45.8%	50.0%
Race		
White	91.8%	94.4%
African American	5.5%	0.0%
Other or Multiracial	2.7%	5.6%
Marital status		
Never married	23.5%	38.9%
Married	22.1%	11.1%
Separated or divorced	25.0%	27.8%
Widowed	4.4%	0.0%
Cohabiting	25.0%	22.2%

*p < .10.

Substance Use at Intake

Use of illicit drugs in the 6 months before entering treatment is presented by follow-up status in Table AC.2. Significantly more respondents who completed a follow-up assessment reported cannabis use and stimulant use compared to clients who did not complete a follow-up. The most frequently reported illicit drugs used in the 6 months before entering treatment were prescription opioids, heroin, and stimulants.

TABLE AC.2. PERCENT OF RESPONDENTS REPORTING ILLICIT DRUG USE IN THE 6 MONTHS BEFORE ENTERING TREATMENT

	FOLLOWED UP	
	NO n = 73	YES n = 18
Any illicit drug	91.8%	100%
Prescription opioids *(illicit use)*	61.6%	77.8%
Heroin	63.0%	72.2%
Cannabis**	45.2%	72.2%
CNS depressants	24.7%	22.2%
Cocaine	24.7%	38.9%
Stimulants *(amphetamines, methamphetamine, prescription stimulants)**	49.3%	72.2%
Non-prescribed bup-nx	6.8%	11.1%
Non-prescribed methadone	5.5%	16.7%
Other illicit drugs *(hallucinogens, inhalants, synthetic drugs)*	19.2%	16.7%

*p < .10, **p < .05.

There were no significant differences between respondents who completed a follow-up survey and respondents who did not complete a follow-up on any alcohol use (including drinking alcohol to intoxication or binge drinking; see Table AC.3).

TABLE AC.3. PERCENT OF RESPONDENTS REPORTING ALCOHOL USE IN THE 6 MONTHS BEFORE ENTERING TREATMENT

	FOLLOWED UP	
	NO n = 73	YES n = 18
Alcohol	12.3%	5.6%
Alcohol to intoxication	9.6%	5.6%
Binge drank alcohol *(i.e., drank 5 or more [4 or more for women] drinks in 2 hours)*	5.5%	5.6%

In the 6 months before entering the program, the majority of respondents reported smoking tobacco products, with no difference between those who completed a follow-up interview and those who did not (see Table AC.4).

TABLE AC.4. PERCENTAGE OF RESPONDENTS REPORTING TOBACCO USE IN THE 6 MONTHS BEFORE ENTERING TREATMENT

	FOLLOWED UP	
	NO n = 73	YES n = 18
Smoked tobacco	82.2%	77.8%
Smokeless tobacco	6.8%	16.7%
E-cigarettes	39.7%	44.4%

Self-reported severity of alcohol and drug use was measured with Addiction Severity Index (ASI) alcohol and drug composite scores. Alcohol and drug composite scores are presented in Table AC.5 for those respondents who were not in a controlled environment all 30 days before entering treatment.[108] The highest composite score is 1.0 for each of the two substance categories.

The majority of respondents who were not in a controlled environment all 30 days met or surpassed the Addiction Severity Index (ASI) composite score cutoff for alcohol and/or drug severe SUD with no difference by follow-up status. The average score for the drug severity composite score was 0.38 for respondents who did not complete a follow-up interview and 0.41 for respondents who did complete a follow-up (see Table AC.5).

TABLE AC.5. SUBSTANCE ABUSE AND DEPENDENCE PROBLEMS AT INTAKE

Recent substance use problems among respondents who were....	Not in a controlled environment all 30 days before entering treatment	
	FOLLOWED UP	
	NO n = 69	YES n = 18
Percentage of respondents with ASI composite score equal to or greater than cutoff score for...		
Severe alcohol or drug use disorder	84.1%	88.9%
Severe alcohol use disorder	2.9%	5.6%
Severe drug use disorder	87.9%	88.9%
Average composite score for alcohol use[a]	.03	.02
Average composite score for drug use[b]	.38	.41

[a] Score equal to or greater than .17 is indicative of severe alcohol use disorder.
[b] Score equal to or greater than .16 is indicative of severe drug use disorder.

There were no significant differences between the groups for having ever been in

[108] Respondents who were in a controlled environment all 30 days before intake were not included in this analysis because being in a controlled environment limits one's access to substances.

substance use disorder treatment (see Table AC.6). Among respondents who reported a history of substance disorder treatment, the average number of lifetime treatment episodes was 4.3 for those who did not complete a follow-up and 8.4 for those who did which was a significant difference.

TABLE AC.6. HISTORY OF SUBSTANCE DISORDER TREATMENT IN LIFETIME

	FOLLOWED UP	
	NO n = 73	YES n = 18
Ever been in substance disorder treatment in lifetime	82.2%	94.4%
Among those who had ever been in substance disorder treatment in lifetime,	(n = 60)	(n = 17)
Mean number of times in treatment***	4.3	8.4

***p < .01.

Mental Health at Intake

The mental health questions included in the KORTOS intake and follow-up interviews are not clinical measures, but instead are research measures. A total of 9 questions were asked to determine if they met study criteria for depression, including at least one of the two leading questions: (1) “Did you have a two-week period when you were consistently depressed or down, most of the day, nearly every day?” and (2) “Did you have a two-week period when you were much less interested in most things or much less able to enjoy the things you used to enjoy most of the time?”. There was not a significant difference between respondents who completed a follow-up interview and respondents who did not complete a follow-up interview for the percent of respondents who met criteria for depression: 77.8% vs. 65.8% (see Table AC.7).

A total of 7 questions were asked to determine if respondents met study criteria for generalized anxiety, including the leading question: “In the 6 months before entering this program, did you worry excessively or were you anxious about multiple things on more days than not for all 6 months (like family, health, finances, school, or work difficulties)?” There was not a significant difference between respondents who completed a follow-up interview and respondents who did not complete a follow-up interview for the percent of respondents who met criteria for generalized anxiety: 78.1% vs. 83.3%.

Two questions were included in the intake interview that asked about thoughts of suicide and attempted suicide in the 6 months before respondents entered treatment. Significantly more respondents who were followed up reported thoughts of suicide or suicide attempts compared to respondents who were not followed up.

TABLE AC.7. PERCENT OF RESPONDENTS REPORTING MENTAL HEALTH PROBLEMS IN THE 6 MONTHS BEFORE ENTERING THE PROGRAM

	FOLLOWED UP	
	NO n = 73	YES n = 18
Depression	65.8%	77.8%
Generalized Anxiety	78.1%	83.3%
Suicidality (e.g., thoughts of suicide or suicide attempts)*	8.2%	22.2%
Positive screen for PTSD	30.1%	38.9%

*p < .10.

Physical Health at Intake

To give an idea of the physical health of respondents when they entered treatment, Table AC.8 presents the percent of respondents that reported health problems at intake. There was not a significant difference between respondents who completed a follow-up reported experiencing chronic pain (i.e., pain that lasted more than 3 months) at intake compared to respondents who were and were not followed up. Respondents were asked at intake if a doctor had ever told them they had any of the 16 chronic medical problems listed (e.g., asthma, arthritis, cardiovascular disease, diabetes, chronic obstructive pulmonary disease [COPD], cirrhosis of the liver, kidney disease, pancreatitis, tuberculosis, seizures, severe dental disease, cancer, Hepatitis B, Hepatitis C, HIV, and other sexually transmitted diseases). Significantly more respondents who completed a follow-up assessment reported arthritis, severe dental disease, asthma, and other sexually transmitted infections.

TABLE AC.8. PHYSICAL HEALTH STATUS AT INTAKE

	FOLLOWED UP	
	NO n = 73	YES n = 18
Chronic pain (lasting at least 3 months)	54.8%	61.1%
Ever told by a doctor that respondent had one of the 12 chronic medical problems listed	58.9%	77.8%
Hepatitis C	35.6%	27.8%
Arthritis***	5.5%	44.4%
Severe dental disease**	9.6%	27.8%
Cardiovascular disease	13.7%	22.2%
Cancer	1.4%	0.0%
Hepatitis B	2.7%	0.0%
Asthma*	4.1%	16.7%
Other STIs***	0.0	22.2%

*p < .10, **p < .05, ***p < .01.

Socioeconomic Indicators

There were no significant differences between the groups on respondents' level of education when entering treatment. Around 40% of respondents who were not followed up and 38.9% of respondents who were followed up reported having a GED or high school diploma. Over one-third of respondents who did not complete a follow-up (36.3%) and 44.4% of respondents who did complete a follow-up attended vocational school or higher.

TABLE AC.9. RESPONDENTS' HIGHEST LEVEL OF EDUCATION COMPLETED AT INTAKE

	FOLLOWED UP	
	NO n = 73	YES n = 18
Highest level of education completed		
Less than GED or high school diploma	25.0%	16.7%
GED or high school diploma	39.7%	38.9%
Vocational school to graduate school	36.3%	44.4%

There was no significant difference for employment in the 30 days before entering treatment with the majority of respondents in both groups reporting not being currently employed (see Table AC.10).

TABLE AC.10. EMPLOYMENT IN THE 30 DAYS BEFORE ENTERING TREATMENT

	FOLLOWED UP	
	NO n = 73	YES n = 18
Employment		
Not currently employed	65.8%	83.3%
Full-time	20.5%	5.6%
Part-time or occasional work	13.7%	11.1%

There were no significant differences between the groups for their usual living arrangement in the 6 months before entering the program (see Table AC.11). Significantly more respondents who completed a follow-up considered themselves homeless compared to respondents who were not followed up (55.6% vs 28.8%, respectively).

TABLE AC.11. LIVING SITUATION OF RESPONDENTS BEFORE ENTERING TREATMENT

	FOLLOWED UP	
	NO n = 73	YES n = 18
Usual living arrangement in the 6 months before entering the program		
Own home or apartment	53.4%	33.3%
Someone else's home or apartment	26.0%	27.8%
Institutional facility, hotel or on the street	20.5%	38.9%
Homelessness		
Consider themselves to be currently homeless**	28.8%	55.6%

**p < .05.

Measures of economic hardship may be better indicators of the actual day-to-day stressors respondents face than a measure of income. Therefore, the intake interview included several questions about respondents' ability to meet expenses for basic needs and food insecurity (SIPP). Respondents were asked eight items, five of which asked about difficulty meeting basic needs such as food, shelter, utilities, and telephone, and three items asked about difficulty obtaining needed health care for financial reasons.

Table AC.12 shows that there were no significant differences between respondents who were followed up and not followed up on difficulty meeting basic living needs such as shelter, utilities, phone, and food. About 61% of respondents who were followed up reported difficulty meeting basic needs at intake compared to 49.3% of respondents who were not followed up. In addition, there was no difference between respondents who were followed up and respondents who were not followed up on being unable to receive needed health care for financial reasons (44.4% and 27.4%, respectively).

TABLE AC.12. ECONOMIC HARDSHIP IN THE 6 MONTHS BEFORE ENTERING TREATMENT

	FOLLOWED UP	
	NO n = 73	YES n = 18
Had difficulty meeting basic living needs *(e.g. shelter, utilities, phone, food)*	49.3%	61.1%
Had difficulty obtaining needed health care for financial reasons	27.4%	44.4%

Criminal Legal Involvement at Intake

About 22% of respondents who did not complete a follow-up and 38.9% of respondents who did complete a follow-up were under supervision by the criminal legal system when they entered the program (e.g., probation, parole), with no significant difference by follow-up status (see Table AC.13).

There was no significant difference in the number of respondents who were arrested for any charge in the 6 months before entering the program by follow up status (19.2% vs 33.3%).

There was a significant difference between the groups for the number of respondents who were incarcerated at least one night in the 6 months before entering the program. Close to 18% of respondents who were not followed up were incarcerated in the 6 months before the program compared to 44.4% of respondents who were followed up.

TABLE AC.13. CRIMINAL LEGAL INVOLVEMENT WHEN ENTERING TREATMENT

	FOLLOWED UP	
	NO n = 73	YES n = 18
Currently under supervision by the criminal legal system	21.9%	38.9%
Arrested for any charge in the 6 months before entering treatment	19.2%	33.3%
Incarcerated in the 6 months before the program**	17.8%	44.4%

**p < .05.