A Community Needs Assessment of Drug Use and Overdose Prevention, Treatment, Recovery, and Harm Reduction Services in Tennessee

August 2023

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Table of Contents

Executive Summary ... 3

Project Timeline ... 4

Methods ... 5

- **Recruitment** ... 5
- **Analysis** ... 6

Results / Findings ... 7

- **Demographics** ... 8
- **Summaries and Discussions from HIA Regions** ... 11
  - **SOUTHEAST HIA** ... 11
  - **EAST HIA** ... 17
  - **NORTHEAST HIA** ... 26
  - **MIDDLE HIA** ... 33
  - **WEST HIA** ... 37

Summary of Results Across HIAs ... 45

- **Response Assessment** ... 45
- **Universal Themes Across HIAs** ... 45
  - **Conclusion** ... 48
- **Differences Between HIAs** ... 48
- **Implications and Recommendations** ... 49
- **Strengths and Limitations** ... 51
- **Acknowledgements** ... 51

Executive Summary

In 2022, the Tennessee Department of Health (TDH) Overdose Response Coordination Office (ORCO) contracted East Tennessee State University (ETSU) and faculty affiliated with the ETSU Addiction Science Center (ASC) to inform CDC funded Overdose Data to Action (OD2A) grant activities. Through this contracted scope of work, ETSU ASC study team assessed the needs and experiences of people with self-reported past 30-day substance use and those who self-identified as being in recovery through a series of confidential interviews and focus groups conducted in the designated High Impact Areas (HIAs) across the state of Tennessee.

The co-principal investigators of this project, Dr. Bill Brooks, and Dr. Angela Hagaman, provided oversight for the contracted scope of work, which included qualitative data collection from people with lived and living experience of substance use disorder (SUD), including people in recovery or people who were currently using substances.

The ETSU study team co-created the qualitative interview guides used for data collection efforts in partnership with TDH ORCO staff to understand the ways in which harm reduction, treatment, and post-treatment recovery services in the 5 TN high impact areas (HIAs) are supporting individuals experiencing SUD, seeking SUD treatment for themselves or a loved one, and those interested in long-term recovery support services. The TN HIAs are communities shown by the data to be most impacted by the overdose epidemic in the state.

The following are major domains that drove the development of qualitative interview and focus group guides:

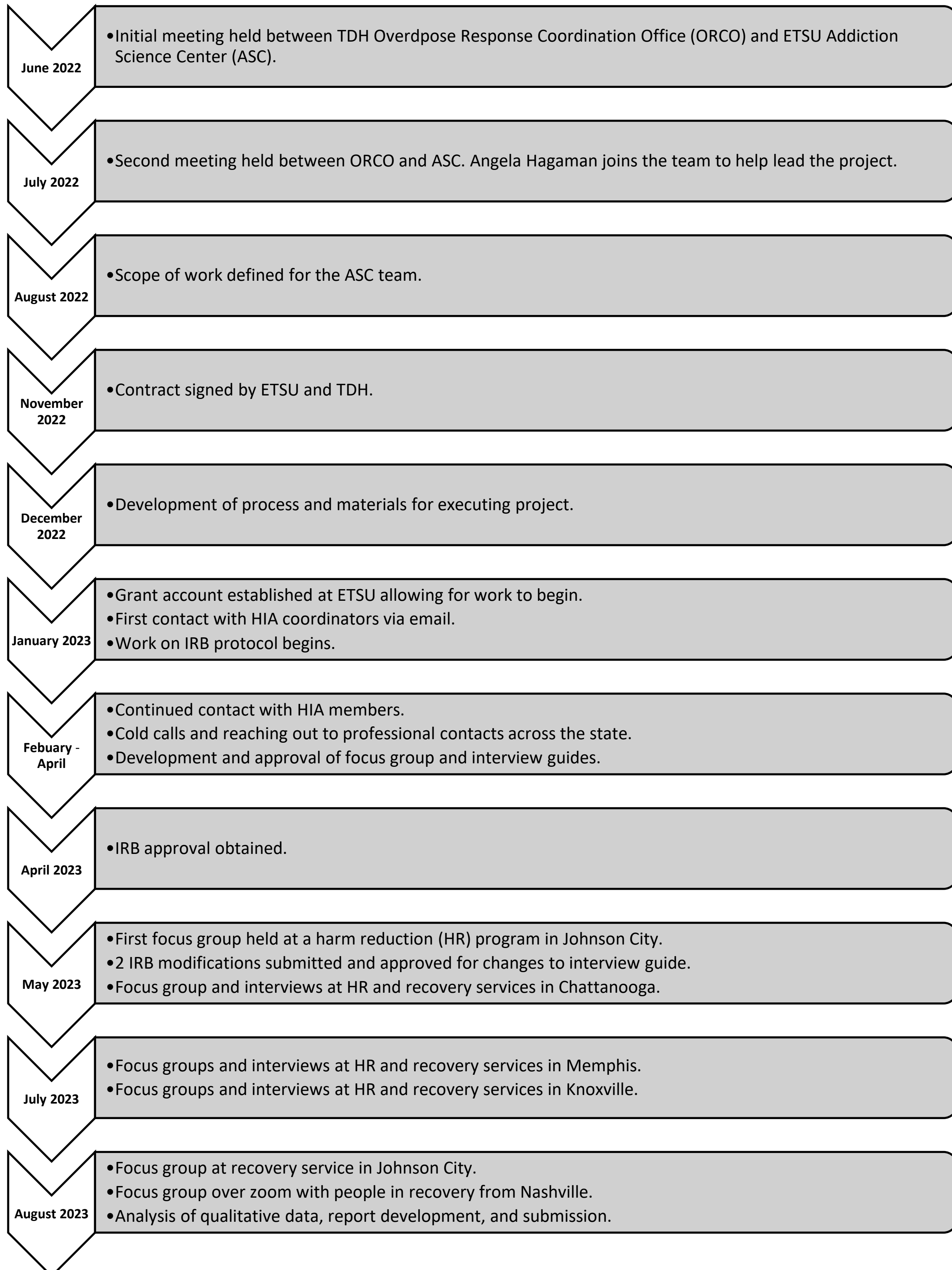
- Overdose prevention, response, and experience.
- Perception of and experience with EMS, law enforcement, and healthcare.
- Perception of and experience with substance use treatment services.
- Perception of and experience with mental health treatment services.
- Perception of and experience with social services.
- Perception of and experience with harm reduction services.

This report includes summaries and discussion of data from 39 individuals who reported using prescription opioids or stimulants, heroin, fentanyl, methamphetamine, or cocaine in the last 30 days, along with 39 people participating in treatment or recovery for one or more of the same list of substances.

The following are universal themes derived from a review of the data across all TN HIAs:

- Nearly all participants reported experiences with administering naloxone or having it administered to them.
- Few participants reported being connected to services after an overdose.
- Fear of calling 911 is highly prevalent.
- Experiences of stigma from EMS, law enforcement, and healthcare providers are frequent.
- Participants expressed a desire for compassionate providers who understand SUD.
- Recovery pathways are non-linear and varied across participants.
- There are many complex barriers to SUD and mental health treatment access.
- There are many social and economic barriers to starting and maintaining recovery.

Project Timeline



Methods

The primary goal of this contracted study was to obtain feedback from consented adults in HIA designated areas of Tennessee with lived and living experience of SUD to better understand the ways in which regional service networks, also known as “recovery ecosystems,” harm reduction services, and other social services are supportive of individuals experiencing SUD, those seeking treatment, and those in recovery from SUDs.

The ETSU ASC study team began their work by conducting a search of the most current scientific literature. These studies informed the development of qualitative interview and focus group guides that would be used to collect data from identified participant populations. Throughout the rest of the report these populations will be referred to as “People in Recovery” and “People Using Substances.” Early drafts of this work were reviewed and approved by TDH ORCO personnel and then submitted with the full study protocol to the ETSU Internal Review Board (IRB) which approved the study in April 2023.

Based on the scope of work outlined in the contract, ETSU study staff aimed to conduct a minimum of two focus groups and/or interviews within each of the 5 HIAs in TN with People in Recovery and People Using Substances.

Recruitment

The ETSU ASC team reached out to representatives of HIA Taskforces as early as January 2023 to begin assessing membership and identifying providers/ stakeholders that could assist with recruiting from the two target study groups:

- **People Using Substances**: Individuals 18 and older reporting past 30-day substance use / use of prescription opioids, heroin, fentanyl, methamphetamine, and/or cocaine, prescription stimulants.
- **People in Recovery**: Individuals 18 and older reporting participation in a treatment or recovery modality for prescription opioids, heroin, fentanyl, methamphetamine, and/or cocaine use, prescription stimulants.

Initial recruitment efforts were focused on the HIA membership, however, when these did not result in engaged participants, the study team identified providers and agencies serving these populations within the HIA via existing ETSU ASC relationships, web searches, and phone calls. The study team discussed the study and built relationships with these providers who then assisted the team with recruiting from the identified study groups. These providers and stakeholders were limited to SUD treatment agencies, recovery support services, and harm reduction programs. Engaged provider/stakeholders were provided an approved recruitment flyer to post/ distribute among their client-base. In addition, they were provided with the IRB materials outlining the purpose of the study and documentation of participant protections.

The goal was to conduct in-person or Zoom focus groups within each of the HIAs, however when necessary due to limitations in accessing the study groups and when deemed more appropriate based on participant and setting conditions, one-on-one interviews were conducted. When possible, multiple interviews were conducted in lieu of a focus group.

Upon completion of the first focus group at a harm reduction site with people using substances, it was determined that it would be most effective to conduct individual interviews with this population. All

subsequent data with people using substances was collected through individual interviews. People in recovery, however, were engaged via focus group and individual interview as the setting and context permitted.

Once identified by provider contacts, each interested participant was screened by study staff for inclusion based on the IRB-approved criteria, formally consented for participation, and then audio recorded as they provided feedback on each of the interview questions. Participants were provided with a $25 gift card as compensation for their participation.

Analysis

Upon completion of each interview or focus group, the five-member study team submitted the audio recordings via secure platform to a credible online transcription service. Each transcript was then reviewed by a member of the study team who then identified and grouped quotes that aligned with topics contained in the interview/ focus group guide. Using this table of aggregated quotes, study team members then drafted summaries designed to accurately reflect the general concepts expressed by participants. These summaries and notable quotes are presented below in table format along with a general discussion of findings for each HIA. As a final step in preparing this report, all team members reviewed the full set of question/ domain summaries and quotes in the regional report tables to confirm that the most important ideas and quotes were included.

A formal qualitative analysis will be performed on all transcripts utilizing NVIVO software to provide additional scientific rigor that will identify significant themes within a theoretical framework. Upon completion of this analysis, the study team and OD2A partners will prepare a manuscript to be submitted to an appropriate peer-reviewed journal.

Results / Findings

Ten different provider agencies assisted in recruiting 78 individuals to participate in 6 focus groups and 47 interviews in all 5 TN HIAs for a total sample of 39 *People Using Substances* and 39 *People in Recovery*. Table 1. Below displays the distribution of all participants by HIA, study group, and interview type.

Table 1. Distribution of Study Participants

		EAST	NORTHEAST	MIDDLE	SOUTHEAST	WEST
People Using Substances	One-on-one Interviews	7			19	10
	Focus Groups		1 (3 people)			
People in Recovery	One-on-one Interviews					11
	Focus Groups	1 (5 people)	1 (8 people)	1 (3 people)	1 (8 people)	1 (4 people)

Following the initial review of transcripts, the team agreed upon the following 12 principal domains which were then used to build summary tables presented in this report for each HIA.

Principal domains:

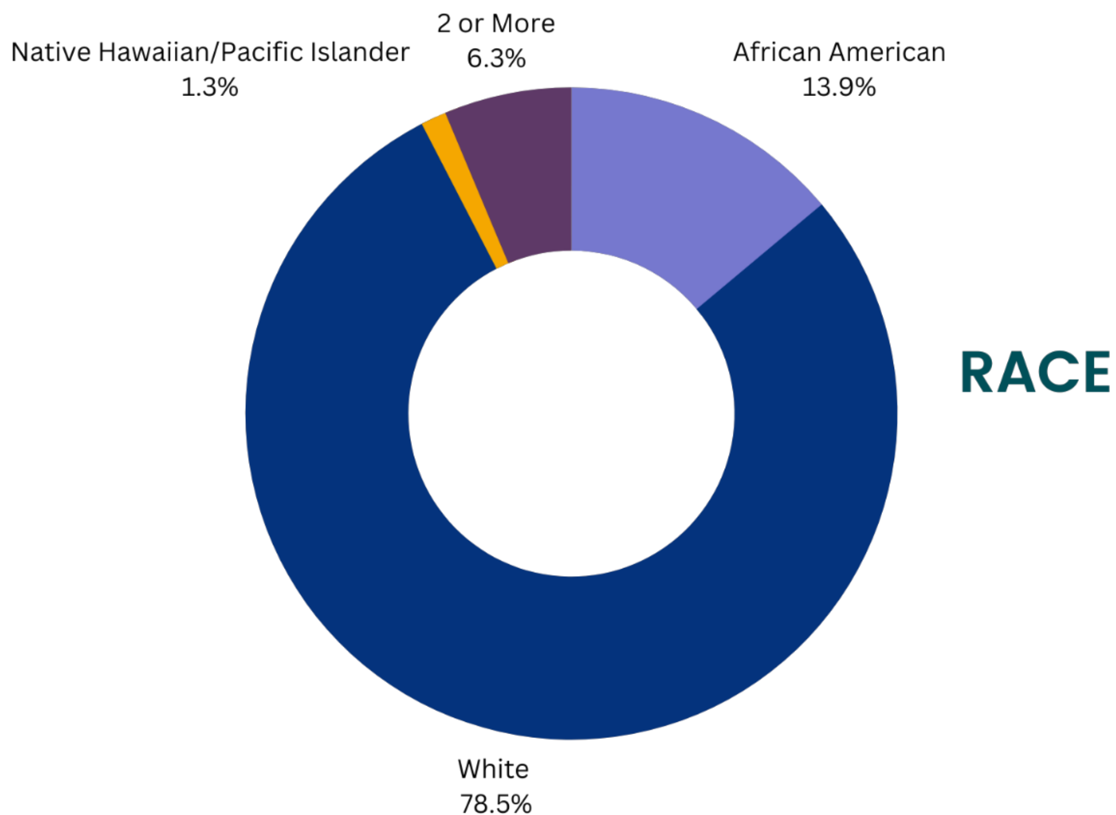
- Substance use history/recovery journey.
- General interaction with services (i.e., treatment, recovery, harm reduction, and social services).
- Overdose experience (i.e., prevention, occurrence, staying safe, systems supporting safety, etc.).
- Level of comfort calling 911.
- Naloxone access and overdose prevention.
- Examples of ways in which doctors/physicians can better support them.
- Examples of ways in which healthcare providers can appropriately ask and communicate about substance use.
- Experience and perceptions of substance use treatment and accessibility.
- Experience and perceptions of mental health treatment and accessibility.
- Experience and perceptions of harm reduction services and accessibility.
- Experience and perceptions of social services and accessibility.
- Factors that might encourage or facilitate initiating or continuing a recovery journey.

A discussion section for each HIA and identified sub-population (people in recovery and people using substances) is reported below each summary table.

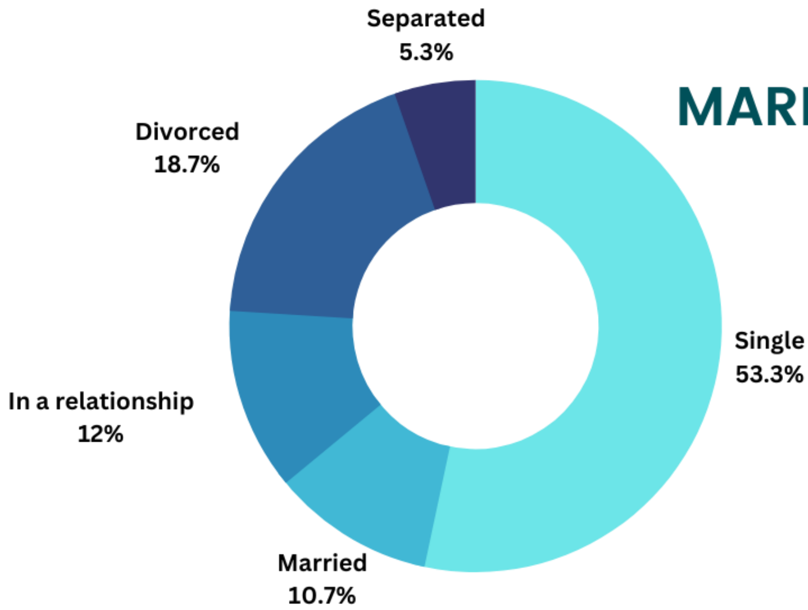
Universal themes consistent across all HIAs including those characteristics unique to specific HIAs are provided in the *Summary of Results* section at the end of this report.

Demographics

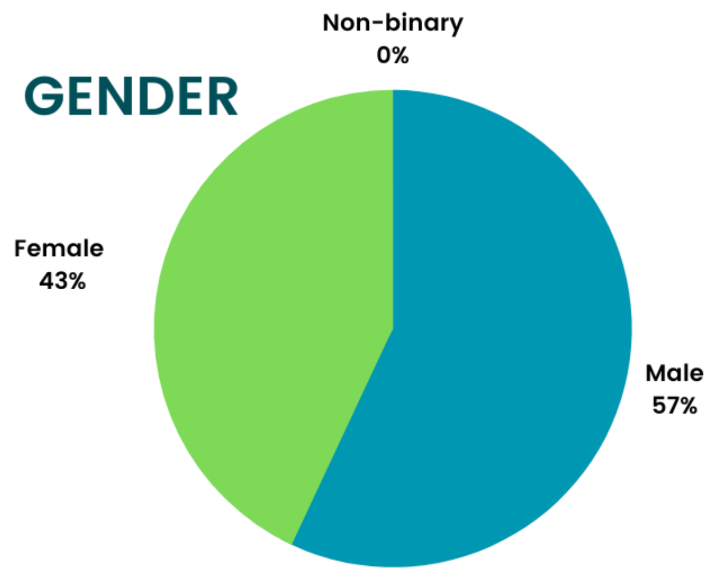
The majority of the sample identified as white (78.48%), with nearly a third reporting some native American heritage (31.65%). The second largest racial group was African American at 13.92%. The split in gender across groups was close to even with 45 (56.96%) men and 34 (43.04%) women. The recovery group tended to be more male which is likely due to the heavy sampling done in the West HIA within male recovery housing. Over half of the sample reported living in a city or metro area (57.3%) with ten percent living in rural areas (9.3%). The majority of the sample was either single, divorced, or separated (77.3%), with high school or less education attainment (62.4%). Approximately half the participants were making 15K or less per year, though many were employed full-time (36%). As a note, we had 1 participant each prefer not to answer for the Education and Employment questions. These participants are not represented in the figures below. The people in recovery group did tend to be older on average than the people using substances group (Mean age: 41.2 and 35.4 respectively). This difference did prove significant; however, given the convenient nature of the sample, this result should be considered with caution. One-third of the sample reported parenting a child under 18 years of age (32.47%) with only 1 participant reporting currently being pregnant.

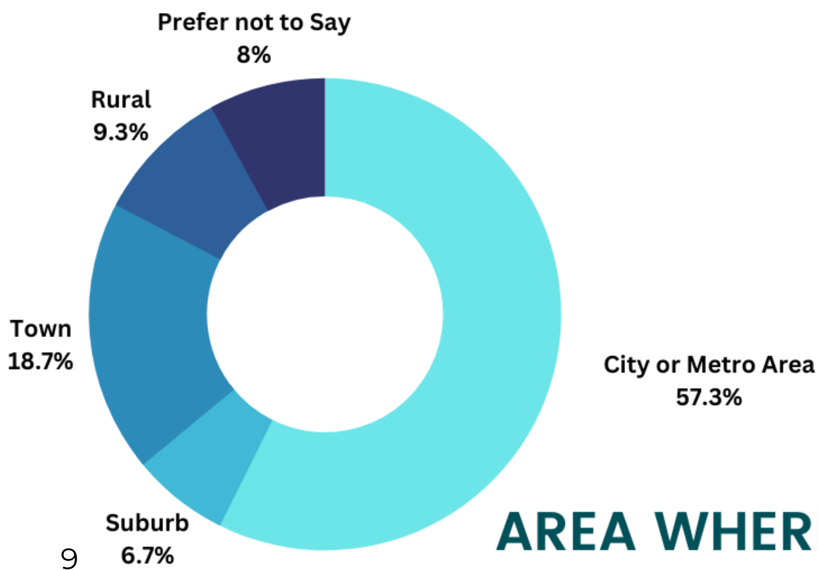


MARITAL STATUS

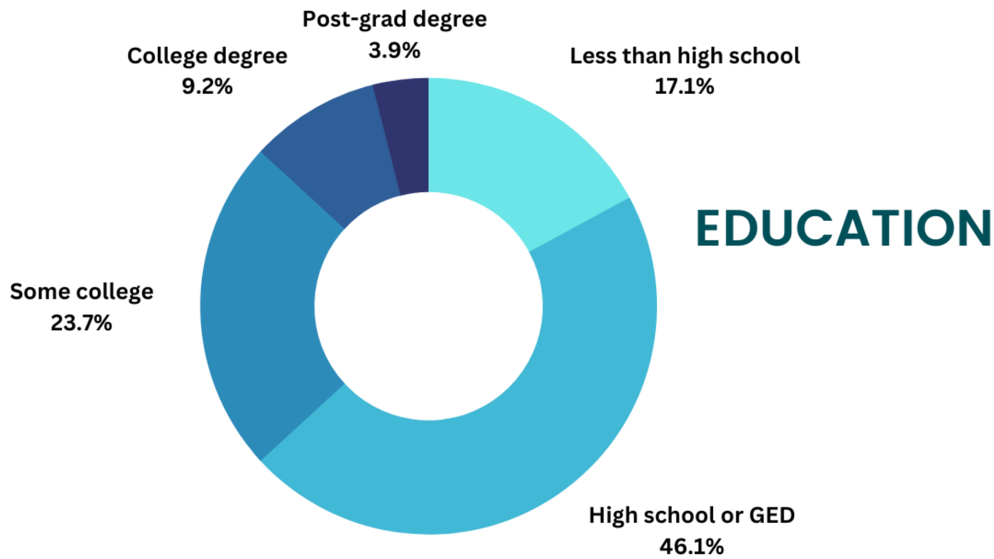


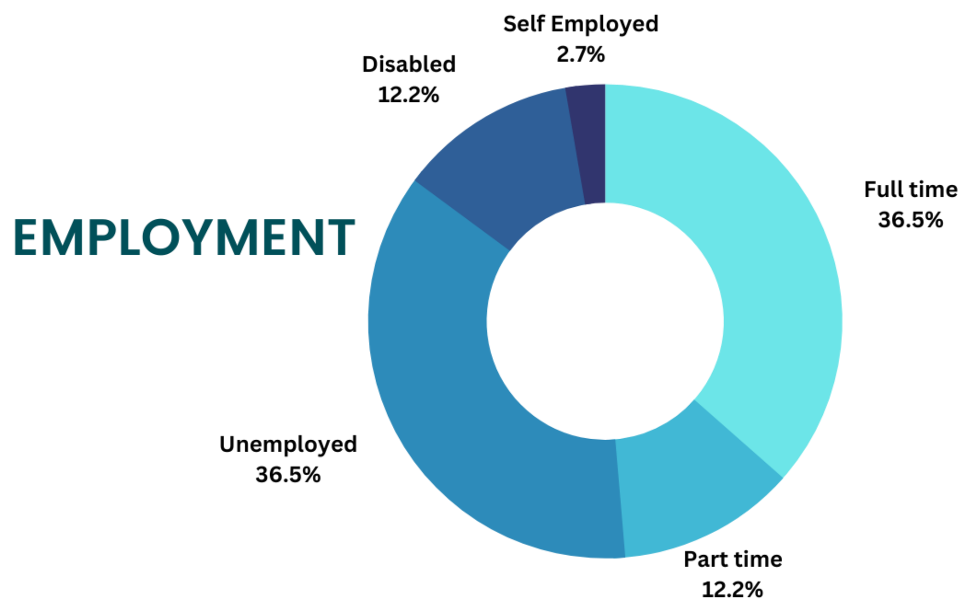
GENDER

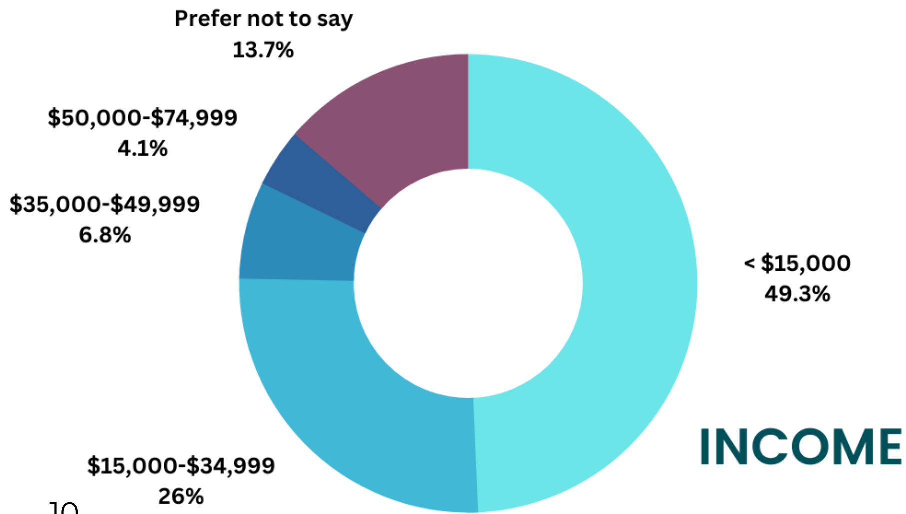




AREA WHERE YOU LIVE


Post-grad degree
3.9%
College degree
9.2%
Less than high school
17.1%
EDUCATION
Some college
23.7%
High school or GED
46.1%


Self Employed
2.7%
Disabled
12.2%
Full time
36.5%
EMPLOYMENT
Unemployed
36.5%
Part time
12.2%


Prefer not to say
13.7%
$50,000-$74,999
4.1%
$35,000-$49,999
6.8%
< $15,000
49.3%
INCOME
$15,000-$34,999
26%

Summaries and Discussions from HIA Regions

SOUTHEAST HIA

Interviews and focus groups were conducted at a harm reduction program and substance use treatment facility. Nineteen (19) People Using Substances were interviewed, and eight (8) People in Recovery participated in a focus group.

Table 1: Southeast HIA Question/ Domain Summaries

Question/ Domain	People in Recovery	People Using Substances
Substance use history/ recovery journey.	Participants discussed interactions with the justice system, experience with overdose, and parenting children as motivators for initiating treatment. Drug court and state-funded treatment were referred to as a “saving grace”. One person mentioned peer support as an important factor in their success. Many participants described multiple attempts at treatment and recovery before finding success. Kindness and genuine care from staff at recovery programs was mentioned as very important. “…they offered me that state grant which helped me, and I got in here on that, which is definitely a blessing… it's a blessing to have a place like this and be able to come here and not have any money.”	Prevalent substances of use: benzodiazepines, opioid pain relievers, crack cocaine, methamphetamine, illicit opiates including fentanyl and heroin. Several participants reported that their substance use started with pain management. Many reported stimulants and opioids in their use. Out of 19 interviews, 4 participants reported fentanyl as their primary drug of choice. All reported a long history of SUD. “For the past eight years, I’ve been doing fentanyl. Started out with fentanyl, started injecting it. That’s the way I started doing it and I’ve— Smoke it, snort it, shoot it.”
General interaction with services (i.e. treatment, recovery, harm reduction, and social services)	Individuals in this group reported multiple treatment and relapse experiences with law enforcement and justice system interaction cited consistently across participants.	All participants in this category were accessing an SSP because that is where recruitment took place. In addition, participants reported multiple treatment and recovery experiences including transitional housing, mental health treatment, and MOUD treatment.
Overdose experience (i.e. prevention, occurrence, staying safe, systems supporting safety, etc.)	There were some staggering stories of overdose experiences collected from these participants. Individuals reported many experiences overdosing themselves and saving others. Based on these reports, intentional fentanyl use appears to be connected to a decreased concern for personal safety. Most of the participants reported avoiding fentanyl unless they were wanting to really push the euphoric effects or were in a poor state of mental health. “In that time period from Thanksgiving to December 28, I died over 30 times. I was hurting. I didn’t want to be here anymore.”	There were a few participants in the sample that had never experienced an overdose and others that had only experienced one. Everyone had experiences with others they knew overdosing. Participants asked for more and stronger naloxone. “Stronger Narcan…The fentanyl they’ve got now is stronger fentanyl.”

Question/ Domain	People in Recovery	People Using Substances
Level of comfort calling 911.	The sentiment of not calling the police for fear of arrest was prevalent in this group, but there was some discussion of the consequences of not calling 911 and someone dying and the legal ramifications of contributing to someone's death by not calling 911. "Now, if you let someone die then you don't call the cops, everybody gets treated like they just murdered somebody."	The population is reticent to call 911 based on rumored and personal interaction with police that either felt stigmatizing or led to arrest. Some participants said they would definitely not call 911 while others said they would always call no matter their connection to the person overdosing. It was clear in these data that barriers exist and that some will call 911 despite fears while others will not. Do you feel comfortable calling 911?: "No, because they'll come and arrest me too." "Yes, because I'm the type that helps people. I have a big heart and I wear my heart on my sleeve. If I feel something is not right and something is not safe, I'm going to do everything that I need to do to protect."
Naloxone access and overdose prevention.	There was limited data in this group specifically about naloxone access and prevention. One individual discussed a lack of clarity in a naloxone training video that led to a more panicked situation and perhaps wasted naloxone during an actual overdose reversal. "The video didn't really explain it when they were showing us it. I thought you would spray the s*** and it would work, boom. We used three of them."	The people in our sample felt that naloxone was readily available on the whole, however there was significant concern about it not working anymore. Some folks thought there was a difference in effectiveness between the nasal and the intramuscular types. Others felt it was the "tranquilizer" in the current illicit drug supply chain. It is assumed that this is a reference to xylazine. "It's not working. They say the tranquilizer stuff that's in something, it doesn't work on Narcan. Who's making that? They need to get down to the bottom of it. Don't take things away from us because we suffer."
Do you think doctors can do anything to better support you?	Comments on this issue centered entirely around stigma from healthcare professionals, first responders, and police. Participants wanted nurses and doctors to care more and be nicer. "…the nurse at the hospital treated me like shit. It sucks. They're not supposed to. It's not their job to speak their opinion."	Participants just asked for a practical set of things that they need. - Medical supplies (e.g. bandages, peroxide, etc.) - Confidentiality from doctors; not reporting them to the police - TennCare and other opportunities for affordable healthcare

Question/ Domain	People in Recovery	People Using Substances
		- For doctors to take more time with them, not rush, and care more - To help them get the medicine they need - For doctors to be more understanding about SUD and not expect people to just be able to quit - For pharmacists to sell syringes
When interacting with healthcare providers, how would you like to be asked about substance use? What ways of communicating might help you feel comfortable disclosing substance use?	Many barriers to trust and disclosure of substance use were cited by participants. It's clear that there is a perceived power differential and individuals using substances struggle to trust people in positions of authority with information that could be used against them. This includes healthcare professionals. Some advice was offered: "I think maybe the healthcare provider or nurse, or whoever, should be like, "I'm asking because with the health problem that you have, we're trying to make sure that it doesn't derail or affect the care that we're trying to give you."..."	Many participants just said ask; be direct. They didn't feel like they had anything to hide. Those that offered advice focused on the empathy displayed by the person asking. It was important to these folks that people asking these questions be kind and ideally have lived experience. "Anybody in that profession needs to have been around an overdose or has seen it or has somebody that had passed away from it. They need to have an emotional tie to drug use."
How do you feel about addiction treatment access in your region?	Participants in this focus group called for more long-term residential specialty treatment options like they were all attending at the time of this focus group. They wanted more affordable treatment for people in need through "state grants" and TennCare. They also cited drug court as an effective model for getting folks into treatment and that everyone needs to start viewing SUD as a disease so that we can stop putting people in jail rather than getting them into treatment. "I like the fact that Tennessee approved rehabilitation before incarceration. I think that's going to save a lot of lives. That's what saved mine." "Anybody that is considered an addict needs to be treated as such and treated as a disease."	Participants varied in their knowledge of regional treatment options and availability. Some called for treatment in jails citing programs in other states. Participants had positive feelings about drug court. There was also some discussion of the need for inpatient services for unhoused persons. The general sentiment was that outpatient services were not sufficient for persons with higher level of need including the social determinants of health. "We need more. I feel like there are just not enough outlets."
How do you feel about mental health treatment access in your region?	Participants called for more access to funded mental health treatment as well as more co-occurring disorder treatment. "Co-occurring disorder treatment facilities are probably going to be the biggest thing to help	Overall, the feeling was that there is a need for more services. In addition to a lack of services, barriers were cited that included stigma experienced from providers, location of services and lack of transportation, and lack of insurance.

Question/ Domain	People in Recovery	People Using Substances
	because a lot of us addicts have untreated mental disorders, or mental health issues."	Participants in the sample that were currently receiving services found them to be very helpful. "I like it. I love it because it helps me keep me from going insane." "There's not, none of those. No mental health, any of it here, because there are a lot of mental patients here. No mental health."
How do you feel about harm reduction service access in your region?	Participants indicated that harm reduction services were very helpful to the community providing necessary services that people using drugs cannot access or are not comfortable accessing anywhere else. "These people will help you. If you want help, they will help you. I can't say anything bad about the people. Hospitals are not for us. They can save your life, but the people actually in this, like Cempa, this place and that, they will help you."	Overall participants had positive feelings about harm reduction services. Participants felt that current services were in good locations, but some felt more services were needed. "It's good and I guess there are enough of them. There's one here and there's one downtown by ------ so there seems to be one at every place that there needs to be one at."
How do you feel about social service access in your region? (e.g. housing, transportation, employment assistance, etc.)	Participants discussed the need for early childhood development services and addressing family health so that children grow up in stable homes. "A lot of problems that we have stem from childhood problems that we've had that we haven't identified yet, and it creates concurrent mental disorders."	There were a handful of ideas put forward by participants, but the number one thing cited was the need for housing services. Most if not all of our participants did not have stable housing, so this was the need they identified as most important. "They need housing. That's the biggest thing. They need homeless shelters. They need the housing for mental health, homeless people need it..."
What are some factors that might encourage/enable you or other to start or continue a recovery journey?	One quote summed up the sentiments of this focus group of persons in early recovery: "There's a better way of life, let me prove it."	Participants talked about personal motivation playing a big role in seeking and maintaining recovery. There were other structural and social factors cited that they felt can help support recovery as well (e.g. housing, family, employment, etc.). "You've just got to want to do it. You've got to try to better your life. If you don't want it, you'll just stay there in a rut…"

PEOPLE IN RECOVERY DISCUSSION (SOUTHEAST)

The eight participants in this group were at differing levels of program completion with one residential treatment provider. All had experienced multiple traumas prior to initiating treatment and recovery, including many personal overdose experiences, witnessing multiple fatal overdoses, incarceration, loss of jobs and social support, along with multiple previous attempts at recovery. There was a general feeling that the "system" needs to be more geared toward the disease model of SUD rather than incarceration. Drug court was identified as an important service that connects people to treatment as does state funding. Participants called for more grant-funded treatment, access to insurance that would cover treatment, and access to treatment for co-occurring disorders. These participants also described the helpful nature of the harm reduction service model and the many ways in which these programs provide critical support to persons using substances. It is notable that people in recovery did not voice any concerns about harm reduction services enabling substance use, a common misperception about these services.

This group expressed concerns about stigma across multiple institutions from individuals working in those institutions. They reported that people are afraid to call 911 in the event of an overdose for reasons that included stigma from EMS and healthcare workers, as well as the risk of going to jail if police find warrants while persons are hospitalized. It was their experience that stigma in healthcare settings was highly prevalent. These participants called for more compassion from providers and for engagement from staff that were able to relate to the experiences they were going through; someone like a peer support specialist. The data suggested a power imbalance, either real or perceived, existing between patients and healthcare professionals that can limit trust and create a barrier to people with SUD accessing and engaging with healthcare.

When asked for final thoughts, participants called for more state-funded treatment, school-based substance use prevention, harm reduction, stigma reduction, mental health treatment, and post-incarceration social support.

PEOPLE USING SUBSTANCES DISCUSSION (SOUTHEAST)

Every one of the nineteen individual participants in this group reported some history with treatment, including rehabilitation, mental health, or use of MOUD. When asked about methods for staying safe from overdose, they focused mostly on access to and use of naloxone, but they also described the need for social activities for connection and a need to educate the larger community about overdose risk. When asked about a time the community or system helped keep them safe from overdose, participants focused almost exclusively on harm reduction services and naloxone distribution. There was some discussion about police disregarding syringe service program (SSP) registration cards and still charging folks with paraphernalia for carrying needles. A few participants reported being scared to be seen at an SSP, and therefore avoid utilizing the service.

There was a nearly even split between participants that were comfortable calling 911 and those that were completely opposed to calling. Many that were opposed to calling 911 had personal experiences of being stigmatized or incarcerated after calling 911 for an overdose or taking someone to the hospital ("We don't want police. They're mean and they're hateful…"). Those that were willing to call 911 talked a lot about how sad it is that others do not make this call. They described helping someone in need as a moral issue and that people should respond as if it was their child or loved one that needed to be saved.

Experiences with law enforcement varied, and while some reported positive experiences ("Some of them [the police] you get, they are [polite], but some of them you get, they're not") many felt strongly that all law enforcement were biased against them ("None of the cops are nice. None of them"). It was clear from these data that previous experiences with law enforcement impact intent to call 911 in an overdose situation. Furthermore, when discussing overdose prevention, one individual talked about not "getting high with random people" and only using with their intimate partner.

There were individuals in this region that took great pride in being able to bring people back from an overdose. They would remember the total number of "saves" and were very confident in their ability to bring people back ("I'm going to save you. I'm saying, you don't die on my watch. You don't die on my watch. I don't know what you do on somebody else's watch, but you won't die on my watch."). Some perceived that intranasal naloxone did not work as well as intramuscular. There was also mention of a "new type of fentanyl out with a tranquilizer in it", which is likely a reference to xylazine. Others did not think xylazine was in the drug supply.

Finally, all participants at this site reported a lack of stable housing. While most wanted assistance with this, others were there for food, supplies, and a safe place to get out of the weather.

EAST HIA

Interviews and focus groups were conducted at one harm reduction program and one residential treatment program. Seven (7) individuals actively using substances were interviewed and five (5) individuals in recovery participated in a focus group.

Table 2: East HIA Question/ Domain Summaries

Question/ Domain	People in Recovery	People Using Substances
Substance use history/ recovery journey.	Four participants reported experiencing SUD during pregnancy. Several participants shared that they wanted to focus on their recovery to provide a better life for their children. Many participants mentioned struggles with losing custody of their children because of their SUD and the mental toll it took on their own health. All participants mentioned their recovery journey was not linear. "I've been using since I was 16. My first time going to rehab was when I was 15, when I was 19. I had, like I said, been at five. I also got pregnant and I was using while I was pregnant so he got taken. Seeing him is what made me want to get sober, because that's my purpose."	Some participants mentioned their substance use began due to pain management, specifically mentioning physical disabilities, dental surgery, and postpartum childbirth. Other participants mentioned their substance use stemmed from trauma and mental health disparities, specifically mentioning losing custody of their children and experiencing childhood trauma. Participants mentioned their substance use began with prescription opioids and stimulants, which changed to illicit drugs, including heroin, later in life. "I started doing drugs when I was 13. When I was 18 I started shooting up Dilaudid. Then I would shoot up anything, cocaine, whatever. All the drugs. Now I just do heroin, but I've done them all. Heroin for the last 20-something years."
General interaction with services (i.e. treatment, recovery, harm reduction, and social services)	Overall, there were mixed responses in terms of general interaction with services. Participants made it very clear that when looking to engage with substance use treatment, insurance is necessary. Participants had very positive experiences with the local harm reduction program, but shared there is a lack of social services available for the population of people who use drugs in their community.	Several participants mentioned using MOUD, however the process was never linear. Participants reported a need for individualized care regarding MOUD, and the goal for using MOUD is not always to be abstinent of all illicit substances, but to reduce the harms associated with substance use.
Overdose experience (i.e. prevention, occurrence, staying safe, systems supporting safety, etc.)	All participants had experiences with overdose, whether it was a personal overdose or witnessing someone else. All participants mentioned the importance of having access to naloxone and being ready to administer it if something went wrong, giving insight on the importance of using drugs with people you trust. Two participants mentioned	All participants reported experiencing an overdose personally, as well as witnessing multiple overdoses. Participants mentioned people overdosing on heroin that had been contaminated with fentanyl and that where the heroin was

Question/ Domain	People in Recovery	People Using Substances
	experiencing severe mental health disparities and trying to overdose intentionally. Multiple participants shared the importance of knowing your tolerance and not using too much of a substance at one time. "I've been Narcaned a couple of times. Like Kelsey said, I don't do— I learned how not to do too much. In my opinion it's just no matter what you get, don't do too much. No matter what you get, you can't be safe enough. You've got to be careful because you never know where it's going to come up, or where it's going to bite you in the ass. You've got to be careful. You can get some meth and it might have fentanyl in it, you never know. Even weed now. "	coming from was a big factor in overdose occurrence. Participants briefly mention the emotional and mental toll overdose experience has on a person, which feeds into trauma and mental health. Participants who reported experiencing an overdose personally mention they should have used less of the substance that caused them to overdose, specifically bad batches of fentanyl. Participants report telling their friends about the strength and potency of the substance and advising them to stay safe and use less. This indicates a support system between peers who use substances. Participants shared experiences with the current contaminated drug supply and how that is driving overdose disparities in their communities. Participants reported that after they had experienced an overdose personally, that they were not connected to direct services. Participants seem to rely heavily on themselves and their peers to keep each other safe from overdose. One participant shared, "I think if the government wanted to do more about it, they could. I really do."
Level of comfort calling 911.	Most participants shared that they feel comfortable calling 911 if an overdose occurred, but two participants shared they were not comfortable calling. Only one participant mentioned knowing about the Good Samaritan Law, while others shared having some fear of the legal consequences of substance use. Multiple participants mentioned caring about the lives of other people more than getting into legal trouble regarding substance use.	Several participants report not being comfortable calling 911 for help when an overdose is occurring due to fear of the police. Many report that they take things into their own hands and will administer naloxone and CPR to their peers to avoid negative police interaction. Participants also report calling 911 if they feel like they cannot revive the person experiencing

Question/ Domain	People in Recovery	People Using Substances
	"Yes. Do I have Narcan? Start CPR, call 911. I care about other people more than myself. If I get in trouble for it, whatever. At least they're alive. "	the overdose on their own. They seem to have the knowledge and access to naloxone to avoid interactions with police. "No. No, but I will. If that's what I have to do, then yes I will. I will call them. But if I can prevent that, then I will most definitely prevent that. I don't do police."
Naloxone access and overdose prevention.	All participants reported having access to naloxone. Many participants shared that they personally do not need the naloxone but carry it with them in case someone around them does. Many participants shared the effects that witnessing overdose had on their mental health, specifically losing family members and friends. "I always kept Narcan on me. I never wanted to overdose. I've always wanted to be the more cautious person that was there in case somebody else needed help. I'd always let everybody else do their stuff first and I'd always make sure not to do too much just in case somebody else, especially my boyfriend, because he was always doing too much."	Participants mention administering naloxone to multiple people overdosing, as well as having naloxone administered to themselves when they overdosed. This gives insight into how naloxone seems accessible to at least part of the population of people who use substances in Knoxville. Participants reported having access to naloxone 24/7 for free. Participants also reported being able to successfully revive almost everyone they administered naloxone too, but also mentioned having to use multiple doses. A participant reported their experience receiving naloxone administration after an overdose and having feelings of guilt. They explain the mental toll of being "Narcaned" and how they felt the immediate need to apologize to the individuals that saved them. "I keep plenty of Narcan (laughs) and I give it away. Yes. They keep that box out there. You can go, "I want that." I've had to use that box before when we were parked out here one time. Somebody needed it and I was like, "There's some right there." (Laughs.) It was awesome."
Do you think doctors can do anything to better support you?	All participants shared that they had negative experiences with healthcare providers due to stigma. Participants mentioned stories of being judged by their providers and receiving lower quality healthcare due to their SUD.	One participant mentioned having to get a major surgery, while being a Methadone patient. They mentioned their doctor not listening to them

Question/ Domain	People in Recovery	People Using Substances
	One participant even shared that they stopped attending OB appointments when pregnant due to their negative healthcare experiences. All participants reported that healthcare providers need to be more understanding and less judgmental towards people with SUD, expressing the need for stigma reduction work and better training in healthcare, including SUD treatment. "They don't listen to anything you have to say. They don't care to help you as much as they would somebody who's not an addict. Every single time I've been to the doctors, that's why I didn't go to the doctors when I was an addict."	regarding pain, which ended in them experiencing severe complications post-surgery. Participants reported a need for doctors to understand SUD and mental health better. Specifically, that when they seek medical attention, for any reason, doctors tend to only address their substance use as a primary cause of health problems. Participants also report a need for stigma reduction from healthcare providers, particularly in the way they interact with them when treating skin injuries. Participants directly report xylazine contamination in the drug supply and its effects on skin injury. One participant reported a need for providers who treat Hepatitis C, because a lot of individuals go undiagnosed because of a lack of accessibility. "Why don't they treat us more like we're human? They actually treat us like we're different, and we're not. We're still human, we still have a heart, we still have an opinion."
When interacting with healthcare providers, how would you like to be asked about substance use? What ways of communicating might help you feel comfortable disclosing substance use?	Participants did not share directly how they would like to be asked about their substance use, but shared experiences on how healthcare providers need to be less judgmental of people with SUD.	Participants reported not wanting to be labeled as "addicts" and that not all their healthcare problems and needs are the result of their substance use. Participants also reported struggling to fill out the extensive amount of paperwork regarding substance use. "Yes. It's always hard to fill those out. We're drug addicts and 30 days, that's a long time. I've done a lot of stuff. Maybe if they said, "On a daily basis, how many times out of the month did you use heroin? On a daily basis out of the month, did you use meth?" Then I could break it down easier."

Question/ Domain	People in Recovery	People Using Substances
How do you feel about addiction treatment access in your region?	Participants shared several barriers regarding access to treatment in their communities. Specific barriers included accessibility and case management. One participant shared they would have never gotten treatment if it weren't for their case manager and intensive outpatient program. Other participants shared that they didn't even think about getting into treatment until they had health insurance, sharing that paying for services is a large barrier for people who want to get into recovery. Another participant shared that they had to thoroughly seek out access to treatment by calling multiple places in different locations. They mentioned being able to rely on a family member to help them navigate this process, but for individuals who do not have a support system it would be difficult to navigate that process. Overall participants shared that there are resources available for treatment in their region, but several barriers exist that make it hard to access that treatment. "I didn't even think about getting clean until I got insurance. I was just like, "Whatever. This is where I'm stuck. Can't get dental, can't get anything. I'm just going to stay on the streets and do what I do best." Once TennCare came in, I was like, "Cool. Now I can go to the doctor.""	One participant reported being kicked out of their Methadone clinic due to non-payment after losing their employment. They reported having to wean off their dose in only 7 days. Other participants report having some success with MOUD providers. Participants reported a need to build trust and relationships with their providers regarding treatment, specifically feeling heard and validated when it comes to pain management problems. Participants also reported barriers to accessing MOUD and that it is very hard to come to the Methadone clinic every day to receive medication. A participant reported health insurance and payment for services being a major barrier in access to treatment. "If you're wanting to do it and do it right, get clean, that it shouldn't matter if you have insurance to pay for it or not. If there are grants and stuff. When people want help, it should be given to them. If you can help better your life, somebody that's wanting to get help and do right, it shouldn't be a matter of whether you can pay for it or not."
How do you feel about mental health treatment access in your region?	There were mixed views on access to mental health treatment among participants. Some participants shared they don't know of any mental health resources in their region, others shared they are aware of services but don't know how to access them, and others reported they have a therapist and/or psychiatrist. Overall, access to mental health services seems dependent on awareness of the resources existing and having the ability to access the services. "I think that it's accessible, people just don't know how to access it, because I know that there are places."	Participants reported low access to mental health treatment in their region. Participants reported a need for better mental health treatment, specifically wanting substance use disorder and mental health treatment to be interwoven. "I think it's hard. It's hard to do. It's hard to get help because everyone thinks you're out here trying to get dope, trying to get medicine and everybody's— Any experience I've had with it there

Question/ Domain	People in Recovery	People Using Substances
		just, "You're just here to get drugs." That's how I feel about that."
How do you feel about harm reduction service access in your region?	One participant shared that they only knew of one harm reduction program in their region at the health department. Other participants shared that they accessed sterile supplies other ways when they were using substances, specifically sharing ordering syringes off Amazon, or using insulin syringes from the pharmacy. "I know my ex, when we used to use IV, he would order a bag of the rigs off Amazon, or one of the websites, and simply get it shipped to your house. It's a whole lot cheaper, so that's what we did. "	Multiple participants mentioned receiving Naloxone from their local syringe service program. Participants also reported harm reduction programs changing their operating procedures to better accommodate their clients, specifically making walk-in options available. Participants reported struggling to get appointments with a harm reduction service as well as long waiting times between visits. "I feel like it's great. I think there are two places here. There might be more, but this is the one I come to. I think it's great. They started, you have to have an appointment, but some people don't have access to the internet and stuff like that to make an appointment, they could kick that back out."
How do you feel about social service access in your region? (e.g. housing, transportation, employment assistance, etc.)	All participants shared a social service need related to housing, specifically speaking on the amount of people who are unhoused in their communities. Participants mentioned there were not enough shelters or housing opportunities for people and many people sleep under bridges. Participants also shared having to wait several years for low-income housing and how people purposely go to jail so they have a bed to sleep in and food to eat. "I know a lot of people who purposely would go to jail because there is a bed, a shower, and food. "	Transportation is a barrier for participants. Participants also reported a need for financial assistance, economic opportunities and housing. Many reported being on housing waitlists for multiple years. "The housing thing, I can't get any help with that. I've been...I've been on the (agency redacted) waitlist for years. I've never heard anything."
What are some factors that might encourage/enable you or other to start or continue a recovery journey?	Several participants shared that to continue recovery you need a support system and a social network of people you can count on. Participants mentioned that it is important for people to encourage others to reach out and build their networks so you always have someone you can count on to support you in your recovery journey.	Participants report the need for support within their families, specifically reconnecting with people they have lost throughout their substance use. Another participant mentioned the need to be considered for disability to access health insurance and benefits. Another participant

Question/ Domain	People in Recovery	People Using Substances
	"There are people that are willing to help you as well. Build a network especially because you don't have very many supportive people when you're in addiction, because you either push them away, or they're not great people themselves. Building connections in recovery is a very good idea, because they'll inspire you and push you to be the best that you can be. "	reported needing to be in a better financial situation to approach recovery.

PEOPLE IN RECOVERY DISCUSSION (EAST)

This focus group consisted of five women in recovery, several of whom spoke about the experience of being pregnant while having SUD and how that affected their health. Participants shared that losing custody of their children was hard on their mental health which pushed them to start their recovery journey. All participants shared that recovery is not a linear process and it takes a lot of support to maintain. Many participants reported experiencing an overdose personally and all reported witnessing many overdoses. Several participants shared that they tried to overdose purposely to escape their pain. Some reported taking on a protective role in their social networks by always carrying naloxone and being ready to administer when needed. One participant shared that they always used substances last in their group, so if anything went wrong, they could help the other people around them.

Participants were mixed on being comfortable calling 911 for an overdose, with some saying they would not call because they were always able to revive the person from overdosing themselves. Others said they were reluctant to call but would if they were unable to revive the person on their own and then immediately leave the scene. Two participants did mention the Good Samaritan Law, and that they knew they could not get into any legal trouble for calling 911 to assist in an overdose. All participants reported experiencing stigma from healthcare providers around SUD. One participant even shared that they stopped attending OB appointments during their pregnancy due to feeling judged by their provider. Participants also felt like doctors do not understand SUD and do not know how to interact with people with SUD. All participants shared that accessing substance use treatment is very difficult, citing the lack of health insurance as a primary barrier. This was also the case when asked about mental health services. Participants reported being able to access harm reduction services through the health department and two participants said they accessed sterile syringes from Amazon or Walmart pharmacy.

Participants reported a lack of social services in their community, especially services related to housing. One participant even mentioned that individuals purposely get arrested just to have a bed and food to eat in jail. Many participants shared that people need access to basic social services in order to start their recovery journey.

PEOPLE USING SUBSTANCES DISCUSSION (EAST)

All seven participants in this group reported experiencing at least one overdose personally, as well as witnessing at least one overdose. Two main reasons were cited for these overdoses: high doses and drug purity. One participant talked about the variation in drug purity and potency across geographic regions and that it is important for overdose prevention and response efforts to take this into account. Unfortunately, when participants were asked if individuals who experienced an overdose were connected to additional services, 4/5 participants reported no connection, which emphasizes the need for increased program planning around resource referrals and warm handoffs post overdose. When asked about how the community helped you stay safe from overdose, several participants reported their local harm reduction program has helped them significantly by providing naloxone and other services.

All but one participant reported that they do not feel comfortable calling 911 when an overdose occurs, with multiple participants reporting they only call 911 if they cannot revive the person themselves. They shared that they would do everything they could to revive the person experiencing an overdose, including CPR and administering naloxone, which many participants said they carry. There were some indications that not calling 911 was seen as protective, that people are trying to save the person

experiencing an overdose from legal trouble. Fear of calling 911 is a barrier to accessing healthcare that has encouraged many participants to assume the role of protector, which highlights the need to address law enforcement stigma, SUD criminalization, and access to harm reduction.

All participants reported negative experiences with healthcare stemming from stigma towards SUD and a lack of provider understanding about SUD. They felt that accessibility for people with SUD was very low and that it leads to people not seeking care or getting tested for infectious diseases. Participants were mixed on SUD treatment access and availability. Some cited the need for different types of tailored and patient-centered treatment modalities, that they felt it was currently limited to MOUD focused treatment options. Others mentioned that cost is a substantial barrier to accessing treatment such that if you don't have insurance, it is too expensive, and many people go without. All participants shared that there is a need for better access to mental health services in their communities, and that SUD and mental health treatment should be offered together. Overall, harm reduction services seem most accessible compared to all other services, despite there being some reported barriers (e.g. having to make an appointment). Aside from healthcare and harm reduction services, participants indicated a need for housing and transportation support.

When asked about factors that could encourage their recovery, participants cited financial insecurity, poor mental health, and limited social support as barriers to starting their recovery journey. All participants said they would like to begin their recovery journey but were unsure how to go about it in their current situation. Overall, challenges associated with social determinants of health seem to be significant barriers to starting a recovery journey.

NORTHEAST HIA

Focus groups were conducted at one harm reduction program and one recovery community organization. Three (3) People Using Substances and eight (8) People in Recovery participated in focus groups.

Table 3: Northeast HIA Question/ Domain Summaries

Question/ Domain	People in Recovery	People Using Substances
Substance use history/ recovery journey.	Recovery journeys look different across all participants, however, several participants mentioned experiencing incarceration and drug court as experiences that lead them to begin their recovery journey. Other participants shared that their recovery journey began when they were able to access inpatient treatment. The process from treatment initiation to long-term recovery was frequently non-linear with multiple attempts along the way. All participants identified the need for social support from family, friends, and community organizations, in order to attain full recovery. "I went to jail and, I don't know, the usual thought in jail. "I'm going to quit this time. When I get out, it's going to be different." I know what not to do now. While I was in jail I sat forever and waited for them to sentence me. They sentenced me to drug court, graciously, they sentenced me to drug court. They sent me to Magnolia Ridge. It was also a requirement that I go to Recovery Resources. I don't know. I've tried recovery a couple times, but I went to rehab in Houston. I went there twice, actually. That's where the seed was planted for me."	Primary substance of use varied among the participants in this focus group and included morphine and other prescribed pain killers, heroin, methamphetamine, crack, and early use of cannabis that preceded other substance use. All participants had been using substances for more than 10 years. One participant was currently using buprenorphine (Suboxone) not prescribed to them to abstain from methamphetamine use. "I never started using a needle until about eight years ago. It's been a struggle. I take Suboxone that's why I stay away from the methamphetamine. It helps a lot. I just can't afford it. I just have to find them on the street somewhere."
General interaction with services (i.e. treatment, recovery, harm reduction, and social services)	There were mixed reviews of interactions with service providers. Harm reduction services were reported to be very accessible, while treatment and social services had many reported barriers. One of the largest barriers to treatment was health insurance status. Participants also mentioned MOUD being overly accessible in their community, while there was less awareness of other types of treatment and recovery services. Overall, there was poor access to social services.	All participants in this group were actively engaged with harm reduction services. One participant was enrolled in a methadone clinic and had been participating in that program for 3.5 years. Another participant cited multiple attempts at recovery including self-referral to hospitals along with both inpatient and outpatient treatment programs. When asked whether or not they sought treatment or recovery services, one participant stated: "I have. Several times. I've been in hospitals, treatment programs. I've

Question/ Domain	People in Recovery	People Using Substances
		been inpatient and outpatient. Of course, right now, I'm in a methadone clinic. I've had a Suboxone doctor before and that's really why I ended up on methadone. I had a lapse. I was clean six months. I was doing great on Suboxone until I had a lapse and it didn't last but a couple weeks. I got back on track, but my body would not take the Suboxone. It made me sick, so I ended up getting on methadone."
Overdose experience (i.e. prevention, occurrence, staying safe, systems supporting safety, etc.)	Many participants reported that they had experienced an overdose personally and witnessed multiple other overdoses. Two participants mentioned that the strength and purity of substances in the current drug supply was in itself an overdose risk. In terms of prevention, all participants mentioned carrying and relying on naloxone for overdose prevention. One participant even mentioned leaving naloxone around their entire house, so it would be accessible and visible for everyone. They also mentioned carrying a backpack full of naloxone when they were not at home in case anyone ever needed it. "I've always had a backpack of Narcan. I even got so bad to where I was thumb tacking them around my house, except for the living room where my mama's friends would be. In the bathrooms, my bedroom and stuff, they would be visible, like a fire extinguisher. I've never Narcan…"	It was not clear if all three participants had experienced or witnessed overdose. However, one participant shared that she experienced two overdoses in her 23 years of substance use and one of these occurred after 45 days of incarceration. "I had been incarcerated for 45 days and got out by 7:00 that evening. I was getting high and thought my tolerance was the same. It wasn't, obviously after 45 days. I was unresponsive, blue, and they literally were about to give up on me. If it hadn't been for my old man, they probably would have."
Level of comfort calling 911.	Participants were apprehensive calling 911 for help in the event of an overdose. One participant shared that they would be more comfortable calling 911 if they didn't have any warrants for their arrest. Participants also shared that if they needed to call 911 and they were also using drugs, they would flee the scene before EMS arrived to ensure their safety from legal consequences. However, all participants insisted that they would do what they had to, to make sure the person was revived from the overdose. Participants also compared their perspectives on calling 911 now that they were in recovery as opposed to when they were actively using. Several shared that they would have no problem calling 911 for help now.	There were mixed responses regarding calling 911. One participant reported that they have had to call several times, while another uses primarily alone, and thus had never had to call 911. One story included the panic that happens when an overdose is occurring and the decisions around making calls to 911. "Of course, emotions run high when things like that happen and things get hectic and crazy. His old lady and I started arguing because she runs out and she's like, "hurry up, he's dead. Hurry the "f" up... I was like I am trying to find it (Narcan). I'm trying to save his life. She's pushing on me, and I turned around and said, "if you push me one more time, I m going to know the s*** out." I looked at my old man and he administered it.

Question/ Domain	People in Recovery	People Using Substances
	"I would want to hope, I can't say if I would call, but if I didn't have any warrants and I didn't have any problems with the cops, I would just hide my stuff. Then I would definitely call."	I was like, "I've got to go. I've got to get away from her or it's going to escalate." but before we pulled out of the driveway we made sure we made that call."
Naloxone access and overdose prevention.	All participants reported accessibility to naloxone, listing several access points. Many participants mentioned carrying naloxone both when they were using substances and during recovery. However, one participant shared that when they were using substances, they did not know where to access naloxone. "All the Narcan that saved me came from the needle exchange."	All participants had regular access to naloxone via the harm reduction program. One participant said, "I heard that the pharmacies.. You can go to the pharmacy and ask for them (Narcan) if you need them and you can't afford them, and they'll give them to you."
Do you think doctors can do anything to better support you?	Several participants reported experiencing stigma from healthcare providers when seeking care related to the harms associated with substance use, like endocarditis and abscess care. Other participants shared that doctors need to be more aware of substance use resources in the community and create referrals for patients. An interesting theme that emerged was the feelings and experiences of MOUD focused treatment. Several participants shared negative experiences with Suboxone, specifically, mentioning that it was very hard to get off of. Participants also shared that it was very easy to access Suboxone for treatment, while other modalities were less available or visible to them. "A couple years ago, I ended up getting endocarditis from IV use. It got to the point where sometimes I would go into the hospital or the doctors, and they would give me the cold shoulder. I was going in and out a lot, so I could understand it a little bit."	Participants in this focus group did not provide data on this theme.
When interacting with healthcare providers, how would you like to be asked about substance use? What ways of	Participants mentioned the need for healthcare providers to understand the perspective of a person experiencing SUD. Several participants reported lying to providers due to physician lack of understanding or fear of judgement.	Only one participant provided feedback on this theme and indicated that she preferred for healthcare providers to be "blunt" and direct. She did express that it was difficult to discuss the euphoria related to her substance use.

Question/ Domain	People in Recovery	People Using Substances
communicating might help you feel comfortable disclosing substance use?	"You know how at the end of it, if you hurt a bone or something, they refer you to an orthopedic, so if you go in there and you admit that you're an addict, why not refer you to Magnolia Ridge or addiction counseling somewhere? Why couldn't they do that? It's simple paperwork just like it is everything else."	"I'm blunt myself, and I have no filter. That doesn't bother me. …. The hardest part for me is telling people that I get high. If I can get past that, it doesn't bother me to tell them what I'm using. It's just the, "Hey, I'm an addict, and I get high.""
How do you feel about addiction treatment access in your region?	Participants reported good access to MOUD, but not good access to other forms of SUD treatment. One participant shared that doctors overprescribe Suboxone, while other treatment options aren't as easy to access. Other participants shared that they were not aware of the resources available for treatment while they were actively using substances. "I agree with him 100 percent. One thing I will say, though, is I've lived in the tri-cities my whole life and I've never heard of Turning Point or Magnolia Ridge until a year ago. It's very accessible, but I don't feel like it's out there enough that these places are available."	Participants described difficulty accessing treatment in the region due to lack of transportation and insurance coverage. "I'm from (city and state removed to protect anonymity). We had public transportation that takes you basically everywhere. For people that don't have vehicles, it's really hard to get around here."
How do you feel about mental health treatment access in your region?	Participants shared several barriers regarding access to mental health treatment in their community. One participant mentioned that there are a lot of involuntary commitments to mental health facilities when there is low capacity and staffing in the emergency room. Another participant shared how SUD and mental health problems are intertwined, stating that their SUD stemmed from mental health issues during childhood. Another barrier that was mentioned was a general lack of therapists or counselors in the region. One participant mentioned starting to work on trauma with one therapist and then their appointment would be rescheduled, and they would be assigned to a new therapist. The participant shared that those issues made it hard to open up about problems they were experiencing. "I know somebody that did that, and so I go today and I start digging into this trauma, and then I'm rescheduled, I'm put off, I show up and it's a different f***ing person.	Participants were unaware of mental health services in the region but agreed that these are needed resources. "Of course, if you have mental health issues and are actively using, it's just going to amplify them sometimes."

Question/ Domain	People in Recovery	People Using Substances
	What the f***? I should've just left it buried."	
How do you feel about harm reduction service access in your region?	Participants reported good access to harm reduction services in their community. One participant shared that no appointment is necessary to access harm reduction services, which facilitates people accessing sterile supplies. Another participant shared that they often took their friends to the harm reduction program for supplies as well. Multiple participants mentioned the harm reduction program makes naloxone accessible to everyone in the community. "You can go up there. You don't even have to schedule an appointment or nothing. You go within the hours, and they had specific days that they were open. If you didn't have any needles to give them, they would give you one bag."	As participants of the harm reduction program, they were all aware of the services, however most were unaware of any other harm reduction service other than the program they attended. "Yes, I think there is an adequate amount. I think if people just utilized them more. I don't think that everybody totally utilizes some of the things that they could."
How do you feel about social service access in your region? (e.g. housing, transportation, employment assistance, etc.)	Participants shared that some social services are more accessible than others. Participants specifically mentioned good access to resources for food insecurity, however, participants reported poor access to housing resources. Another participant shared that the fentanyl epidemic has exacerbated social service issues in their community. "Nobody is going to starve around here, but you are hard up to find any kind of housing or anything like that. They just don't have it. They tore down the public housing. These people with HUD and Section 8 vouchers, they can't find nowhere to stay. There's nowhere for them to go."	Only one participant responded to this theme describing the difficulty in getting one's life in order after hitting rock bottom. "I know there are some functioning addicts, don't get me wrong, but most of us tend to hit rock bottom and lose everything we have, whether it be once or multiple times. For me, it was multiple times. I'm hard-headed. I think that we could use more help as far as housing and things like that to get us back where we need to be so we can be productive citizens of the community."
What are some factors that might encourage/enable you or other to start or continue a recovery journey?	Participants shared that to be in recovery there is a need for both social and spiritual support. One participant explained that "unity and acceptance" is what helped them start and maintain their recovery journey. Participants also mentioned the need to not feel judged during the recovery process and to surround yourself with people who care about you. One participant shared that their recovery journey could not have started if it weren't for being housed in a sober living facility. Before that	Limited data were available for this question, but the one participant that shared discussed the need for: "the normal things that people take for granted at the end of the day until you lose them." Later stating when asked specifically about encouraging them to fully engage in recovery, she stated, "I'd like to just get to where I can get my life back."

Question/ Domain	People in Recovery	People Using Substances
	the participant was unhoused and facing a lot of social challenges. “I think the biggest thing that has helped me and helped a lot of people is the unity and the acceptance from being around people that've been through it. It’s like we all said, do you want somebody that’s read a book and went to school for working on a car for 10 years, or you want somebody that’s been under the hood working on cars for 10 years. That’s the only way I can really believe that this works.”	

PEOPLE IN RECOVERY DISCUSSION (NORTHEAST)

Overall, these eight participants reported non-linear recovery journeys that included incarceration, drug court and inpatient treatment episodes. Cost and lack of insurance coverage was a primary barrier to treatment. Participants also called for more patient-centered care and non-MOUD focused treatment options. Many individuals shared that they could not initiative a recovery journey until they had stable or supportive housing. Participants cited a general lack of mental health services in the region, with participants sharing that they did not have mental health services prior to SUD treatment engagement. Overall, participants reported good access to harm reduction services. Nearly all participants had positive things to say about the harm reduction program in their community, specifically sharing that naloxone from the program saved them and many of their friends.

Overdose experience was high among these participants, as the majority reported both experiencing an overdose personally and witnessing multiple overdoses. Fentanyl contamination in the drug supply was noted as a primary cause for high rates of overdose in this region. Many participants shared that when they were using substances, they were not comfortable calling 911 due to fear of legal consequences. For instance, if they had outstanding warrants, they would not feel comfortable calling 911. Despite these fears surrounding legal consequences, many participants did express that they would do anything to prevent overdose fatality.

All participants in this group shared stories about stigma experienced when accessing healthcare and expressed a desire for physicians that were more compassionate and experienced with SUD. Participants reported good access to services related to food insecurity, but that housing access in the region was specifically challenging. They described not having enough beds in local emergency housing and limited access to low-income housing. Overall, connection to supportive friends and family along with social activities were considerable factors driving their respective recovery journeys. Participants highlighted the vital role of a system of support and people that they could rely on in starting and maintaining their recovery.

PEOPLE USING SUBSTANCES DISCUSSION (NORTHEAST)

While all three participants in this group identified as people who use substances, one participant was also actively engaged in a methadone treatment program indicating that the regional opioid treatment program (OTP) provider was willing to retain this client despite their probably testing positive for the required drug screens. Descriptions of overdose experiences illustrated the chaotic nature of these scenes, with disagreements over when and how to administer naloxone as well as choosing to call 911 or not. It was unclear if all participants were willing or ever had called 911 during an overdose event, however one participant who experienced an overdose had no hesitation about calling 911.

When asked about SUD treatment access, participants cited limited public transportation and health insurance as significant barriers. Participants had positive experiences with harm reduction services such as syringe service programs (SSPs) and reported good access to naloxone. This group cited the need for social services and support to help people initiate and be successful in recovery, that without basic needs being met it was very difficult to be “productive citizens in our community.” One participant shared that she was currently homeless, and that finding “my own place” again would allow her to become employed and engage in treatment and recovery.

MIDDLE HIA

A focus group was held with 3 People in Recovery.

Table 4: Middle HIA Question/ Domain Summaries

Question/Domain	People in Recovery
Substance use history/ recovery journey.	Participants were all in long-term recovery and working within the recovery field in various ways. All three individuals experienced significant social, mental, and legal consequences due to their substance use. Two of the three individuals entered treatment due to legal diversion and two of the three needed to enter treatment out of state because they were viewed as minors in Tennessee. "I feel like I entered recovery … because I really started to listen what folks had to say, and saw that other people were living a kind of life that I didn't think I could."
General interaction with services (i.e. treatment, recovery, harm reduction, and social services)	All three participants had been to inpatient treatment and one of the three participants utilized an intensive outpatient (IOP) treatment program. Two of the three participants went out of state for inpatient treatment. 12-step was mentioned as being the mandated programming for their recovery, with peer support being essential to their adherence to sobriety. "I went to treatment about 4 times total. You know, I've tried a lot of different stuff - tried therapists. I tried, like, pastoral support - I had preachers like pray over me to cast the demons out, you know. I tried like pretty much everything that I could think of that was available to me at the time and ended up getting in trouble with the law."
Overdose experience (i.e. prevention, occurrence, staying safe, systems supporting safety, etc.)	Participants shared about seeing family members and people that they had known in childhood overdose due to the changes in drug supply adulterants (i.e., fentanyl) in recent years. All three participants used substances during a time when naloxone was not being distributed as readily as it is today, but the need was also not as urgent. "I would say things have kind of changed from when I was using, you know, like you kind of knew what you were getting...like when I bought heroin on the street, it was rare for it to have Fentanyl in it. And that was just as late as 2015 but there was times that I overdid it… I don't even think Narcan was being distributed then. you know, so definitely no fool proof, Intelligent way to keep myself from overdosing besides, you know, a prayer and a cold shower." "I've seen a lot of people I used with before growing up come into the ER for an overdose or pass away from an overdose. So it was just a matter of me not being in that room when that batch came in, having already been in recovery."
Level of comfort calling 911.	Overall, participants would not have called 911 when they were using substances due to protection of their use and fear of legal consequences. All three participants believed they would call 911 today to help someone overdosing, but only because they are now in recovery. One participant shared that if they relapsed, they weren't sure if they would want someone to call 911 on them unless they knew the law enforcement officers in the region. "It's better to be in jail and alive than dead and the patient might disagree like I would have back in the day, but I would call today and I feel pretty confident that they wouldn't be in trouble. But for myself, back in the day, no - I would not have ever called 911, never. I never called 911 even when I was in danger. But I would call for someone else now."

Question/Domain	People in Recovery
Naloxone access and overdose prevention.	All three participants expressed that naloxone and Kloxxado are highly accessible through the Regional Overdose Prevention Specialists (ROPS). One participant expressed that they could identify a handful of county EMS that still didn't want to carry naloxone, but overall, first responder adherence in carrying overdose reversal medications is good in Middle Tennessee. One participant vocalized the need to modify and educate on the Good Samaritan law, as many individuals in active addiction still fear legal consequences for responding to an overdose. "I think that on the whole, our State does a darn good job of getting Narcan out there as best they can...that to me is one of the most successful programs that the department's ever had is the regional overdose prevention specialist [program]." "Everybody knows about the Good Samaritan law, but I see so many people are terrified because it's been their second or third or fifth overdose … they were terrified they would go back to jail because they had been arrested after being Narcaned by a police officer before."
Do you think doctors can do anything to better support you?	All three participants expressed that peer support was ultimately the most helpful to them in their recovery. Overall, participants felt as though there is a general lack of empathy from healthcare providers unless, 1) the person is already in recovery, or 2) the provider has lived experience themselves. The lack of medication-supported detox in the emergency department is one of the most common reasons that people leave AMA and don't go into treatment. "Let's give them some Zofran, so they don't vomit. But let's not give them valium so they're not hurting, you know. And then that's why most people elope or leave AMA. I've seen so many people who tell me they want to go to treatment. They really really really want to live a different life and then I'll see the same person 6 hours later, sweating and shaking and vomiting enough that in a hall in an ER because the doctor's too busy to come see them so they can, he can give them a dose of Buprenorphine, or Clonapen, or Valium, or liberin, so they get so sick, and they're not going to die in that situation. But if it was me that sick waiting in that situation, and I know if I just go across the street or go across town I can use and feel better instead of waiting for this doctor, who outwardly seems not to care about what I'm going through."
When interacting with healthcare providers, how would you like to be asked about substance use? What ways of communicating might help you feel comfortable disclosing substance use?	One participant felt as though doctors can come across as authority figures, which makes it uncomfortable for patients to be honest about their use due to their self-preservation instinct. They felt as though healthcare providers can come across as arrogant, which also affects honesty in substance use history. Another participant wanted to bring to healthcare providers' attention that every recovery journey is different. "But like I just sometimes I think there's like an arrogance about some providers that makes it hard for me to want to open up to them even in recovery...Maybe like a patronizing kind of thing like, oh, you know, like good for you kind of thing and so I think that I could see that being an issue being transparent." "And I think that's another thing that I wanted to bring up is that it's not one size fits all. You know what works for me might not work for the next individual … not everybody's built for a religious program, not everybody's built for a 12 step program, not everybody's built for MAT, not everybody's built for psychiatry."
How do you feel about addiction	All three participants had different perspectives on SUD treatment access in Middle Tennessee. One expressed that it wasn't a lack of beds that was the issue, rather it was the lack of availability to intake individuals the moment that they're ready for treatment.

Question/Domain	People in Recovery
treatment access in your region?	Another participant felt there were not enough beds, especially for people who have Medicare. Another participant felt that there was appropriate access to treatment, but the treatment lacked in treating the whole individual. "The stars have to almost align for … somebody to fall into treatment that day" "I run into Medicare folks more often than any other population, and that's usually older patients needing alcohol treatment and they have no options unless they have a major psychiatric diagnosis and can get into a psych hospital." "I think that there's a time and a place for MAT … I'm definitely not ever trying to demonize anybody who seeks to find their recovery that way. But I think that it's kinda like trying to … put duct tape on a car that's been totaled at times, you know … there's not enough emphasis on how to treat the whole individual."
How do you feel about mental health treatment access in your region?	It was agreed upon by all three participants that it can be very difficult for people with severe mental illness and/or co-occurring SUDs and mental health disorders to access mental health treatment. Stabilizing medications are readily available to decrease symptoms of anxiety, depression, and psychosis, but long-term mental health treatment is not readily available, especially for the unhoused population. "There's no place to send them where they can get the services they need. So you see, a lot of them just end up unsheltered." "We may be able to get an individual stabilized. We may be able to get an individual treatment regularly or consistently, but the follow through and again treating like the whole problem. And the whole individual is where we lack."
How do you feel about harm reduction service access in your region?	All three participants were supportive of syringe exchange programs but didn't know of any in rural Middle Tennessee. The only syringe service programs could be found in Nashville. Overall, rural Middle Tennessee counties aren't yet on board with certain harm reduction programming, but the advocacy to support them is present. "I think that if you can keep a personal alive they can eventually find like recovery that works for them … And I hear a lot of people talking about, well, you're enabling the user you're enabling the substance user to continue use. That hasn't really been my personal experience."
How do you feel about social service access in your region? (e.g. housing, transportation, employment assistance, etc.)	Transportation is one of the main issues in rural Middle Tennessee. One participant expressed sadness that a large percentage of individuals living in rural areas didn't have access to all the resources in the region due to lack of transportation. "how do you get the guy ... out in a rural area that has no license, no car ... and it's like, well, ... I can try to get to you in a few hours, and then you call them back and you can't get them on the phone. you know, because that times passed ... They sit uncomfortable for too long, and they decided not to be uncomfortable. And sometimes you hear back from sometimes you don't, you know, and it's very sad."
What are some factors that might encourage/enable you or other to start or continue	All three participants encouraged others to talk with peers who had similar experiences, and to be patient, expect recovery to be painful at times, and seek community. "I would say that you got nothing to lose, you know. All it takes is that first step through the door, and if you don't do it today, try again tomorrow and keep trying...cause one day you'll walk through that door, and you won't have to turn back."

Question/Domain	People in Recovery
a recovery journey?	"And like you struggle alone, and you suffer alone, and you can't recover alone … I need to find my people who have been there before me and have what I wanna have and just cling on"

PEOPLE IN RECOVERY DISCUSSION (MIDDLE)

Participants all experienced consequences from SUD at a young age. Pre-arrest diversion was reported multiple times – in one instance during a traffic stop and in another instance during a probation visit. For those participants who were minors upon entering treatment for the first time, they were sent out of state to Alabama due to Tennessee law at the time. Adolescent Substance Use Disorders Services Programs do now exist in Tennessee. The majority of participants felt as though there was adequate SUD treatment access in Middle Tennessee, but that the treatment approaches were not centered on the whole person. It was also brought to attention that not all recovery journeys are the same, and so medication or spirituality or other means of recovery are not always going to be effective for everyone. It was agreed upon that it was overall easy for mental health services to stabilize an individual with medications, but longer-term mental health treatment, especially for more severe mental illness, are not accessible in Middle Tennessee. Due to a lack of treatment accessibility for people with severe mental illness, many remain unhoused or unsheltered in the region.

Participants all used opioids and other drugs before the drug supply had as many adulterants as it does now, so overdoses during their use were not as fatal. Multiple participants mentioned that naloxone was not being distributed at the time, and so they had to rely on less effective methods to keep from overdosing, including cold showers, prayer, and having someone wake them up every few minutes. Participants all agreed that they would never have called law enforcement while actively using substances, as they were in self-preservation and survival mode. In recovery now and with the drug supply being as contaminated as it is, they would absolutely call 911 to save a life, especially if they knew law enforcement in the area. It was mentioned that the Good Samaritan Law is now an effective protection for people that have interacted with the law previously, especially in drug-related responses. When asked about harm reduction services, participants reported no syringe service programs outside of Nashville within the Middle Tennessee region, which represents a gap in care. All participants whole-heartedly were in support of providing care and compassion to those still suffering from SUD and felt that a syringe service program would be the most effective linkage to care for many in the area.

Overall, participants agreed that healthcare providers have a lack of empathy for people who are currently using drugs. It was shared that many providers are quick to be allies to people in recovery, but their attitude shifts when they're working with people who are currently struggling with SUD and are not willing to seek recovery. Burnout and compassion fatigue is a very real issue in Middle Tennessee when working with people currently using drugs, especially those experiencing detox. Participants all believed that they were able to remain in treatment and recovery due to peer support, not necessarily clinical support. Transportation remains a huge obstacle for individuals seeking recovery from SUD who live in rural Middle Tennessee areas.

WEST HIA

One focus group and interviews were conducted at a harm reduction program and three separate recovery houses managed by one transitional living program. Two (2) of these were men's houses, one volunteer and one court mandated. The third was a volunteer women's house. Ten (10) People Using Substances and eleven People in Recovery were interviewed. Four individuals in recovery participated in a focus group.

Table 5: West HIA Question/Domain Summaries

Question/ Domain	People in Recovery	People Using Substances
Substance use history/ recovery journey.	Substances of use varied greatly, with several using alcohol as their primary substance of choice. Several participants reported loneliness and isolation as precipitating factors to initiation of use. A few reported a preference for using alone or being a "loner in their use." One participant even described COVID-19 mandated isolation as a cause for increased use. "I am an alcoholic, but I like to self-isolate. I do not like to be made to isolate. Then COVID hit, and I was forced to isolate, so that caused my alcoholism to get worse because that was one of the only things you could do. "I got really lonely, so I started using drugs and alcohol, and I just go tired of it. Sickly tired of it. It was going nowhere and it just took me there with it."	Participants shared highly variant pathways from initiation of the first time using a substance to the development of a substance use disorder. Family history of substance use was common, but not universal. Also, some participants described attempts to stop using without the assistance of a specialty inpatient or outpatient treatment program. "My parents were (addicts). Drugs have been a part of my life my entire life. My dad overdosed when I was five years old... From there, I don't know"
General interaction with services (i.e. treatment, recovery, harm reduction, and social services)	A majority of the data in these interviews described interactions with court-mandated treatment programs. These interviews contained few examples of engagement with social and medical services. "I got into recovery through drug court. I didn't think I needed recovery, at the time. During my addiction, I didn't think I had that bad an addiction. Over time, I've learned about the addiction. I've learned that I had an addiction."	These participants primarily described interactions with harm reduction and shared multiple experiences with overdose, but fewer shared stories of how these more general interactions occurred.
Overdose experience (i.e. prevention, occurrence, staying	Most of these participants had experienced or witnessed multiple overdoses and many had become skilled in administering naloxone. Some were	Participants talked about their experiences of stigma from EMS and law enforcement

Question/ Domain	People in Recovery	People Using Substances
safe, systems supporting safety, etc.)	connected with healthcare post-overdose. "Yes, I was driving, unfortunately. I overdosed and I ran into a hotel, and they hit me with Narcan four times I think. I went to the hospital and whatnot. I was pregnant. It was all bad, it was really bad, but they got me back, though, so that's good." Yes. I'm like, "Look, the guy has overdosed. I need Narcan right now." She didn't know what to do. She was like, "What? I don't know if I can give it to you or if I should charge you…" I was like, "Well, f*** this," and I went to the fire department. I went straight to the fire department and they gave me some Narcan and followed me back to the house and they were a little bit behind me because they had to load up and everything, but I gave them the address and they showed up immediately after that. By that time he was awake and up.	and how that can affect the outcome associated with an overdose. The cops pull up to you and they're like, "You're either going to go with them, or you're going to go with us." I was like, "Okay, I'm going to go to the hospital, I'll see you guys later." The EMT treated me like dog s***. That was the first time I had ever even touched it. I told him, I was like, "I don't do s*** like that really." This mother f***** blew my entire--- I hadn't picked up a needle, I didn't try it ever. I watched him take my arm to do blood. He came from here, and blew my entire--- I had a purple, I'm talking about blue, purple, every color of that spectrum. Blew my entire vein. It was my main PICC line vein, blew it out, because he thought that I was lying, I was just a big old junkie. I don't know if there's any kind of sensitivity training or something.
Level of comfort calling 911.	There was a lot of variation in participant's level of comfort calling 911 post-overdose. Some also reported negative experiences with law enforcement. "Probably not, because they're probably holding, they probably have got something on them, and they don't want to call the police. They probably think that they'll get blamed for the person ODing or something." "I've had so many police judge me, and oh my gosh, it's crazy. I've had a cop literally ask me, with my son in the backseat, if my son was the child that I trafficked, literally right in front of him. I was like, "Excuse me? That's none of your business. That's a freaking six-year-old charge. Why is it even being brought up right now?" They're just not cool, most of	Many participants were willing to call 911 to save another person's life, however, they also described tension among their peers as many did not want to call 911. "I would 100 percent call 9-1-1. He told me not to. He's like (points to partner), "Don't you dare." (Laughter.) I don't care, you're not going to lay here and die. Not with me here."

Question/ Domain	People in Recovery	People Using Substances
	them. I'd say there are some good ones, but you don't see them very often." "I'm not comfortable calling them, but as far as saving another person's life, yes, I would call. I would make sure that you know everything that's going on, specifics, who I am--- I'm afraid to tell them who I am. I'm anonymous. You don't need to know who I am."	
Naloxone access and overdose prevention.	Most participants described easy access to naloxone and a significant increase in availability over the last few years. Some still experience stigma when accessing naloxone. "Narcan is just starting to hit the picture a lot more than back in the day. Usually, we didn't have Narcan around. If you were around so-called friends, they might try to bring you back. Shock your system, maybe with water on your private area or try to slap you." "I think people look funny at people when they see it or deal with it. "What do you need Narcan for?" You never know when somebody is going to need it. I don't even know if you could use Narcan to get high or anything like that, but I feel like that's what they think is going to happen if they give somebody Narcan. "They're going to go off and try to get high on that." I'm like, "I don't even know if you could do that." The Narcan is here, just locked up. We don't have access to it. We've got to go to the house manager, which all that is time."	Regarding access, some were unclear if naloxone was available to the general population. There was also a lot of discussion about proper administration of naloxone. Finally, a number of participants reported regular use of naloxone for overdose prevention. "If you're not in the dope world, no. No. If you are, yes, it's one of the easiest things. You can come across Narcan quicker than you can any dope." "A lot of people don't know how to administer it right. Some people are like, "We had to use eight Narcans." I only had to use two at the most." "They give us test strips here (SSP) and I use it on every bit I get. I've been passing them out to my friends and a couple of older people that I know that are still doing dope. It's saved a couple people because it was mainly fentanyl that they got and they didn't know. It sucks. I've lost three brothers, two sisters, an aunt, and two best friends, just this year alone."
Do you think doctors can do anything to better support you?	While participants did not share much about their healthcare interactions, a few provided stories about opportunities for engagement with resources. "They don't really refer you. You have to call yourself. They'll give you a list of people and it's up to you whether or not	One quote summed up one participants thoughts about what doctor's might do to better support them: "You've got to think outside that box. You've got to think outside the box because there is

Question/ Domain	People in Recovery	People Using Substances
	you just want to go home or whether or not you want to— If you do decide that you want to go somewhere, they'll provide the transportation for you and they'll get the ball rolling if you just call yourself."	no box out here (laughs). There are just people."
How do you feel about addiction treatment access in your region?	While most of these participants were currently enrolled in treatment and recovery housing, they reported a general lack of individualized treatment plans, and many reported strict rules and regulations that may be a barrier to successful completion. "They have certain rules that they go by and there are no real life skills lessons. There's no real teaching going on, there's no real learning of a new lifestyle. It's you sit in this class and you listen to somebody just demoralize you and tell you that you can't control this. I know because I did yesterday, and it's just other addicts that have stayed with the program and got into there and it's really disrespectful. They don't take the time to get to know the person, to see what their needs are. They just stick to the curriculum and you go sit in this class all day over the big book study, but they don't give any real help towards this person who needs their ID, who needs themself in order. "I'm going to say I'm sure there is, but there's a big difference in state programs and programs that somebody pays for. There's a vast difference in the type of help you get and there's a vast difference in the outcomes of it. I just believe for the people that have the money, they get the more personalized help they need in the areas that they need it..."	The actively using participants also described variation in the quality of treatment programs and the lack of individualized care. "I feel that they need to cater to people because you can't sit there and put 30 people in the same class and tell them, "Look, you've got to do it this way, this way, this way." If their issues aren't like mine, then I'm not getting anything from that class with them and they're not getting anything from me. It's not beneficial to everyone that's in there. It's only been a beneficiary for a few." "...while I was there for 30 days. Three people died, overdose. They didn't test anybody. When you left, they didn't test you like they're supposed to. When you come back, they don't test you like they're supposed to. They just don't care. They just don't give a damn."
How do you feel about mental health treatment access in your region?	Many participants reported barriers to quality mental health care including barriers to accessing care, and untreated trauma. "No. I'm a vet and (treatment provider) has helped me out with so many things	Some participants were not aware of any mental health resources in their area. "As of right now, I don't know. I don't think there are really any places around here."

Question/ Domain	People in Recovery	People Using Substances
	over there. You have to go in side doors, backdoors, to get anything done or they send you from one thing to another. I've been trying to get help. Like I said, I didn't get into treatment three, three and a half months after I tried to start." "Insurance is a big deal. The quality of help I'm going to get…" "In my journey, I needed to be treated, and this is most people out there for that trauma, that pain, that hurt. I'm using my drug because I promise you, as long as I'm in pain, I'm going to use my drug."	
How do you feel about harm reduction service access in your region?	Some participants felt that harm reduction services were easy to access, and others described the difference in harm reduction availability in this region as compared to other areas of the country. "No. You go to other parts of the country and it's just standard. Somebody is meeting once a week at a certain spot. There is a place I can go in Wisconsin and bring you one dirty needle, and you give me a bag of water, cups, ties, everything I need to shoot up."	Participants consistently reported positive experiences with harm reduction and the atmosphere. Some noted the tensions and stigma that may exist around the perception of harm reduction services. "Exactly, it's awesome. Giving all the things, feeding, just food. Even if they didn't offer all this other s***. I need help, I can walk up here, and you've got an army of people that will pick you up. You know what I mean? Exactly. These people are excited to help out. I love you, I love all of you. For real, I think it helped me more than they will ever know. When I'm ready, I know they'll be right there to help me again. I've gone to rehab and done all that, and they've been honestly. I know they're, again, when I get too tired or when I'm fed up, I know that they're here. It's a good thing. It is, that's what I was going to say, it's like family."
How do you feel about social service access in your region? (e.g. housing, transportation, employment assistance, etc.)	Participants shared a lot about the need for clean and habitable housing. "I say more clean environments and more buildings like this going on to help guys that really want to get recovery. Just more programs and trying to get their mind off of the environment they used to be in. Take them on some trips or do things like, programs where if you're doing this well, whatever event is going on--- We have it going on for a guy that's staying sober and everything. Let them	Similar to the participants in recovery, active use participants in this region focused on the need for stable housing. Others shared innovative ideas for meeting this need. "If I'm one of these hotels, if I'm one of these drugged down motels or something, fix it up. Allow them to live there. Allow people that aren't— Nurses live on one floor, that way they're there if anything happens. Have some people, counselors at each end of the hall. Like a monitoring system...If you lived here, you've got access

Question/ Domain	People in Recovery	People Using Substances
	know how good it is to be sober, and your second chance at life to get it better.”	to everything you need in this building. You don’t have to go worrying about, “Oh, do we have Narcan?” No. Just go down to this office. Narcan is there. “Do we need to see the nurse?” The nurse is there 24 hours. There’s always help right there. “
What are some factors that might encourage/enable you or other to start or continue a recovery journey?	Most participants reported engaging in a recovery journey after interacting with the court system. Many did not know about the recovery information and were unaware that they had a SUD. “Receiving information and using the information and seeing that it does help from the results that if you try and you are willing. It works for you if you’re working it.”	Many participants reported access to harm reduction services and staff would be the motivation to begin a recovery journey when they were ready.

**Note: In this sample participants did not provide feedback on how they would like to be asked about substance use by healthcare providers, therefore the row was not included in the table.

PEOPLE IN RECOVERY DISCUSSION (West)

Many of these interview participants had justice system involvement and many were attending treatment as a condition of a recovery court program. Thus, their engagement with treatment and prior substance use experiences are a bit different than other regions and populations interviewed. Several stated that they would not have engaged with treatment or recovery supports without these legal mandates. Many participants spoke of the need to lengthen the number of days residential treatment services offered, sharing that 28 -30 days was not enough to gain a foothold in recovery. The issue of polysubstance use was prevalent in this group, as many participants reported multiple types of opioid use along with concurrent methamphetamines/ psychostimulants use. The data show that MOUD works efficiently for those who only use opioids, but for those who are also presenting with alcohol, cannabis, and psychostimulant disorders, MOUD and opioid beta-blocker therapies do not address the phenomenon of cravings.

Participants described multiple lived and witnessed overdose experiences. In many ways, they were presented as a regular phenomenon. Most were proficient with naloxone administration, and few reported being connected to treatment or care at the point of overdose or after being discharged from a hospital. Most participants reported having and using naloxone, though many stated that there needed to be even greater access. Many participants shared stories of positive interactions with EMS and predominantly negative interactions with law enforcement in which officers used an overdose scene to arrest those present. Notably, one participant described an arrest that also led to a referral to "help". Participants cited the personal and social benefits provided by harm reduction services, consistently expressing praise and gratitude for the staff and organizations providing these services. They shared stories of people being navigated to treatment, examples of reduced or eliminated barriers, and demonstrated increase in personal willingness or motivation to engage in the recovery process.

Although participants provided examples of multiple social service providers in the region, none spoke of a coordinated network of services that address the social determinants of health. When asked about their motivation for engaging with recovery, multiple participants reported just wanting to get back to being themselves. "I really became someone that I wasn't, and I hurt people that mean so much to me."

PEOPLE USING SUBSTANCES DISCUSSION (West)

As in all other regions, participants in the West reported multiple substances of use and while early traumas, along with family history of substance use, were not uncommon they were also not consistent across participants in this group. Participants indicated that while treatment is available in the region, it is the responsibility of each individual using substances to find and access these services. Exceptions to this were for participants who were linked to services through recovery courts or other justice settings. Responses also indicated that the quality of treatment is directly related to the payor source and that they often found themselves in settings that were not tailored to their specific needs and were more of a "one size fits all" approach. Some participants described situations where they were out of drugs and attempted to self-refer to detox or treatment. Most of the study participants had experienced multiple non-fatal overdoses and witnessed many fatal overdoses, leaving them with unresolved grief and trauma. Most had used naloxone, both intra-nasal and intra-muscular to revive friends and family. This group seemed to understand their risk of fatal overdose and employed a variety of safety approaches that included purchasing their product from a known person, taking smaller doses first to determine

strength, using test strips, tester shots, and using with trusted friends. All participants knew about naloxone, and almost all knew how to get it and had it with them at all times. While participants reported high levels of awareness about and access to naloxone; route of administration varied and there were a variety of perspectives regarding when to administer and how much to administer.

Stories about interactions with EMS and Law Enforcement when experiencing or witnessing an overdose were mixed, with some reporting very positive experiences in which Law Enforcement honored the intent of Good Samaritan Laws. Participants were split on whether to call 911. There were three primary approaches reported: 1) administer naloxone if available, call 911, and leave before they arrive so that you do not get charged with a possession or other crime; 2) administer naloxone, call 911, and stay on the scene accepting any personal consequences that may result; 3) administer naloxone if available and never call 911. Overall, participants had better experience with EMS than Law Enforcement, but there were positive stories on both sides. It was extremely rare for participants to report any type of warm hand off to harm reduction or treatment services at the point of overdose. Many participants reported negative experiences with health care professionals overall, specifically in emergency departments (ED) post-overdose. There were very few reports about connection to care or peer services.

Participants had overwhelmingly positive things to say about harm reduction services. They described these services as one of the few places where they were treated with empathy and respect. Many use their connection to harm reduction to access treatment and other services such as HIV and Hepatitis C testing, as well as access to food and other basic needs. In the data, human connection, food, and ancillary services were discussed far more frequently than access to syringes when participants discussed the benefits of harm reduction services. Participants described needing access to clean and sanitary environments and co-located health and welfare services since they did not have the transportation or resources to access what they needed.

Overall, this group seemed to long for a feeling of normality, with many participants reporting extensive periods of mostly untreated and unresolved grief occurring because of multiple traumas taking place across their life span. In many cases, substance use initiation or initiation of a new substance occurred immediately following a loss or traumatic event. The unexpected depth and intensity of the grief and trauma among these participants was a primary theme that warrants further investigation.

Summary of Results Across HIAs

Response Assessment

This report is based on conversations with 78 participants across Tennessee in the 5 designated High Impact Areas (HIAs), which are communities shown by the data to be most impacted by the overdose epidemic in the state. The intention was to reach people who are currently in recovery and people who are currently using substances and talk to them about service utilization, overdose prevention, comfort calling 911 in the case of an overdose, naloxone access, SUD and mental health treatment access, social services access, and factors that support recovery. Our sample included 39 participants who reported using prescription opioids or stimulants, heroin, fentanyl, methamphetamine, or cocaine in the last 30 days, along with 39 participants in treatment or recovery from an SUD. The discussion below provides the universal themes that were prevalent across all HIAs, along with some interpretation of the meaning and implications of those themes.

Universal Themes Across HIAs

The following are the universal themes identified across all HIAs.

- Nearly all participants reported experiences with administering naloxone or having it administered to them
- Few participants reported being connected to services after an overdose
- Fear of calling 911 is highly prevalent and limits access to healthcare
- Experiences of stigma from EMS, law enforcement, and healthcare providers are frequent
- Participants expressed a desire for compassionate providers who understand SUD
- Recovery pathways are non-linear and varied across participants
- There are many complex barriers to SUD and mental health treatment access
- There are many social and economic barriers to starting and maintaining recovery

During these data collection efforts, we heard overwhelming reports of overdose experiences, both personal and from a by-stander or rescuer perspective. **Nearly all participants reported either experiencing an overdose themselves or being present for one that required naloxone administration, highlighting the need for continued robust distribution of this lifesaving drug.** It's clear from talking to people with lived and living experience of SUD that getting naloxone into the hands of lay people, whose social network may be more at risk for overdose, is essential in preventing mortality. Results across HIAs showed good naloxone access, however, many participants mentioned the need for more than one dose of naloxone to revive someone and others stated a preference for intramuscular naloxone rather than intranasal. When participants were asked if anything could have prevented a previous overdose, many shared that people should practice safe use behaviors (e.g., going slow with their dose, testing for fentanyl, buying from someone you know, carrying naloxone, etc.). One participant noted the state of the illicit drug supply and how contamination puts people at risk of overdose, specifically referencing fentanyl as well as xylazine. Harm reduction efforts and outreach could thus be tailored to include xylazine, as naloxone is not effective when xylazine interacts with fentanyl. **Across the HIAs, very few participants reported being connected to treatment or care at the point of overdose or after being discharged from a hospital.** Given the increased risk of subsequent overdose among individuals who have experienced an overdose, it is important that this gap in service be filled and that overdose response strategies focus on warm handoffs and connection to services post-overdose.

Unfortunately, many participants reported not feeling comfortable calling 911 in the event of an overdose due to past experiences of stigma and negative law enforcement encounters. Participants reported experiencing stigma from EMS, law enforcement, and healthcare providers, though there were reports of some positive interactions with law enforcement. There were many tragic stories shared of people dying or being abandoned because no one was willing to take the risks, perceived or otherwise, involved in calling 911 when someone overdoses. The Good Samaritan Law does not always protect people from being arrested when law enforcement is involved with an overdose. This was specifically illustrated by stories some participants shared of being arrested at the hospital after an overdose when law enforcement searched and found outstanding warrants. In addition to the potential legal consequences, several participants cited poor treatment from first responders/EMS and emergency department (ER/ED) staff during their overdose experience, which lead to them being less likely to call 911 for help in the future. **The fear and discomfort associated with calling 911 keeps some people with SUD from accessing healthcare, and as a result many participants reported taking on the role of protector, especially when it comes to reviving people from overdose.** Several of these individuals felt a high level of confidence in their ability to revive someone who is overdosing, leaving a call to 911 as a last resort. Some individuals discussed only using drugs with people they trust as they would be less likely to abandon them and let them die in the event of an overdose. This approach of using with people that you have a meaningful social or familial connection with can potentially override the fear of incarceration when calling 911. Conclusively, **the system needs to address the discomfort with calling 911 when someone overdoses, as it impedes this population's access to one of the largest and most technologically advanced healthcare systems in the world.**

Nearly all participants reported some negative experiences with healthcare providers, including feelings of judgement, shame, and stigma, as well as several alarming stories of participants receiving lowered quality of care due to their SUD. One participant's experience with stigma from healthcare professionals led them to avoid care which resulted in the development of endocarditis. Another participant stopped going to their OBGYN during their pregnancy because they felt judged by the provider. Some participants mentioned the need for providers to better understand the complexities of living with SUD, specifically around questions asked during visits about their personal substance use. There were many other barriers related to healthcare accessibility that were reported by participants, including lack of health insurance, lack of transportation, lack of providers trained in SUD medicine, and lack of cultural humanity among providers. **These barriers and the resultant lack of healthcare accessibility lower the quality of life for people using substances and people in recovery thereby potentially exacerbating the current overdose epidemic.** Participants overwhelmingly reported feeling comfortable with harm reduction services, citing them as judgment-free programs staffed by caring people who understood what they were going through. Both people using substances and people in recovery had positive reports of harm reduction in their communities. Thus, **until system-level barriers to healthcare for these populations are eliminated, it is important to increase access to harm reduction services and reduce harms associated with SUD.**

Substance use treatment utilization varied among participants; however, most participants in recovery cited their engagement with treatment as the result of legal system involvement. Many shared experiences of incarceration and enrollment in drug court, along with inpatient and intensive outpatient treatment. Drug court specifically was cited as a pivotal factor in recovery initiation and maintenance. While diversion from incarceration is important, it is also critical that person's access to treatment is not contingent on criminal activity and interaction with law enforcement. Participants who did not access

treatment through the legal system, shared numerous barriers to accessing SUD treatment in their communities. Specifically, they reported low awareness of treatment options, not having health insurance or the ability to pay for services, little or no case management, lack of transportation, and lack of social support. **For those in recovery, these data demonstrated that recovery pathways were non-linear and varied across participants; therefore, it is important for individuals to have multiple patient-centered health-care interventions and tailored options for treatment and recovery, including both abstinence and non-abstinence-based care.** Of all the treatment options, MOUD seemed the most accessible across HIAs; however, there were reported barriers to this type of treatment as well. Participants shared that cost and lack of insurance were barriers, as well as an overall lack of individualized care within MOUD. Many felt that treatment plans and dosing protocols did not take into consideration personal substance use history, tolerance, frequency of use, or chronic pain. Some participants who were currently using substances reported MOUD utilization, suggesting some clinics taking a harm reduction approach to treatment by not firing patients when they test positive for other substances. **Complex accessibility problems highlight the necessity for a community approach to the development and support of recovery service networks or "ecosystems" and that the promotion of recovery capital among all people who want to engage with treatment and/or recovery is crucial.**

Across participants, there was agreement that social support is an important factor in both starting and maintaining any recovery journey. Also, all recovery journeys are unique, thus staff within regional systems (e.g. healthcare providers, law enforcement, EMS, etc.) need to knowledgeable about the SUD disease model including the various stages of treatment and recovery. Overall, participants reported a need for social connectedness and feeling supported by healthcare professionals to achieve long-term recovery. **Several participants also highlighted the importance of peer support and their desire to work with providers who understand SUD on a personal level. This further highlights the need for people with lived and living experience to be involved throughout the system meant to support individuals with SUD.** In addition to social connectedness, social determinants of health, such as safe housing, transportation, and economic stability, were cited as facilitators for initiating treatment and maintaining recovery. Several participants who identified as persons in recovery stated that they could not start their recovery journey until they had stable housing. These factors cannot be addressed without understanding the social determinants of health that compound economic hardships among both people using substances and people in recovery, including the financial burdens of incarceration, the economic disadvantages of having a criminal record, and the overall stigma of SUD. **Social and economic factors keep people from accessing and initiating treatment. These same factors hinder successful long-term recovery, and thus, must be considered as we improve systems that support people with SUD.**

Finally, participants also reported an overall lack of social support resources, including mental health treatment and social service accessibility. There was very low social service utilization among participants across all HIA regions. Most participants cited very low access to social services, specifically housing opportunities. Other barriers to accessing social services included lack of transportation options, lack of health insurance, lack of economic opportunity, and a high prevalence of stigmatizing attitudes toward SUD. Participants also stated that the lack of access to these social services is what kept them from starting or engaging with recovery.

Conclusion

These data demonstrate that there are multiple barriers to healthcare, behavioral healthcare, and social service utilization and accessibility across TN HIAs. Harm reduction was the most highly regarded service discussed during this data collection process among both people using substances and people in recovery. From these data, it is clear that harm reduction services are providing care for people using substances in a healthcare and behavioral healthcare system environment that includes multiple barriers to care in part due to stigma and the risk of legal consequences. While many participants had engaged in some form of SUD treatment and social service utilization, numerous barriers limited the acceptability of those services. These results illustrate systems-level challenges, including the influence of the historical War on Drugs, the current state of the fentanyl-contaminated illicit drug supply, and the impact of social determinants of health. While systems level change and improvements are underway, there is still an urgent need for multidisciplinary education and collaboration across TN HIAs to address the needs of the community.

Differences Between HIAs

While HIA regions shared many similar themes regarding service utilization and accessibility, there were some key differences identified between HIAs. It is important to note that due to the sampling methodology, there were limitations regarding data saturation, so the differences identified between HIAs may have not been evident with a more robust and larger sample. That said, the study team felt it important to highlight the unique characteristics of data collected in each HIA.

The **Southeast HIA** seemed to face the highest disparities related to service accessibility, especially in terms of stigma-related barriers. In the Southeast, participants reported very negative interactions with law enforcement, including police not regarding participants' harm reduction cards when they were found with injection supplies, as well as individuals being arrested in the hospital post overdose when police searched for outstanding warrants. These negative interactions caused high levels of fear and distrust of police among participants in the Southeast HIA, which led people to avoid calling 911 when an overdose occurred as well as refusing to go to the hospital if they experienced an overdose personally. These results were alarming, because participants in the Southeast HIA also reported very high fentanyl and xylazine contamination in their drug supply. Participants were clearly concerned about the risk of overdose given the potency of the substances in their community. Participants reported high distrust of healthcare providers as well, with one participant reporting ER doctors sharing private healthcare information with police after they had experienced an overdose. In the Southeast HIA, participants also reported many barriers to social service resources throughout their lifetime, from childhood to adulthood, highlighting the burden of poverty in this region.

In the **East HIA**, fear of calling 911 was highly prevalent; however, there were some positive reports of police adhering to the intent of Good Samaritan Laws when someone experienced an overdose. The East HIA was the only region to have substantial barriers to harm reduction services, specifically participants reported long waiting periods between harm reduction appointments and having to access syringes in other ways. Some particularly concerning reports from participants included getting kicked out of methadone treatment due to lack of payment and one individual reporting stopping OB/GYN appointments during pregnancy due to healthcare provider stigma. Overall, there were numerous reported barriers to accessing social services in the East HIA, specifically lack of housing and economic opportunities. A few participants cited being on housing wait lists for several years.

The **Northeast HIA** participants reported low acceptability of healthcare services in the region, specifically regarding SUD related health issues. One participant reported avoiding healthcare for an injection-related infection because of their fear and mistrust of healthcare providers, which ultimately resulted in the development of life-threatening endocarditis. Other participants also mentioned not seeking healthcare for injection-related skin injuries for fear of judgement from providers. Participants in the Northeast HIA also felt that MOUD, mainly Suboxone, was the only option providers were offering for SUD treatment, highlighting the need for multiple options for treatment and recovery. Another concerning issue reported in Northeast was stories of people fleeing the scene of an overdose due to fear of legal consequences. Many participants mentioned the need to only use substances with people you trust to avoid being abandoned if you were to experience an overdose.

The **Middle HIA** reported multiple barriers regarding SUD treatment, including difficulties for older individuals in finding treatment covered by Medicare. Participants expressed a need for treatment options to be tailored to better serve the aging population who experience SUD. Another cited challenge was mandated 12-step programs in legal sentencing. While diversion from incarceration was desirable, participants expressed that 12-step programs do not work for everyone. Participants also reported that that there was no access to harm reduction services for rural residents of Middle, TN. Participants also shared that some county EMS professionals still do not carry naloxone with them during their shifts, highlighting the need for stigma reduction and more robust overdose prevention programs.

The **West HIA** participants reported a need for more sterile injection supplies from harm reduction programs during each visit. Some participants in this region shared positive interactions with law enforcement during overdose experiences that resulted in linkages to services and care. There were also mentions of police adhering to the Good Samaritan Law, which helped alleviate some of the fear related to calling 911. Participants also stated that stronger naloxone was a critical need due to potency of the illicit drug supply, and some participants were still experiencing stigma when trying to access naloxone. Participants in the West HIA also reported poor treatment by ER staff which made them less likely to interact with healthcare again.

Implications and Recommendations

Overall, this study identified community level needs of people with lived and living experience of SUD across the five HIAs of Tennessee. Results showed gaps in overdose prevention and response efforts and accessibility to SUD treatment, general healthcare, mental health treatment, and social services. Disparities regarding these services may stem from perpetuated stigma related to the criminalization of SUD, which has had profound effects on people accessing SUD treatment and general healthcare. This lack in healthcare and SUD service accessibility and acceptability is a major factor in the current overdose epidemic and may increase the risk of a fatal overdose for some individuals. Based on the findings from this study, the following recommendations are offered below for the categories of overdose prevention and response, SUD treatment access, healthcare access, and social service access.

Table 6. Implications and Recommendations

Overdose Prevention and Response

• Continue widespread naloxone distribution.
  - Consider increasing access to intramuscular naloxone.
• Continue or expand harm reduction services
  - Use data to address the changing needs of PWUD in the context of the changing drug supply.
• Increase harm reduction efforts for xylazine
  - Provide xylazine test strips.
  - Promote safe use behaviors and drug checking.
  - Educate on overdose response for xylazine.
• Address the fear of calling 911 for an overdose occurrence.
  - Reduce stigma among law enforcement and first responders (EMS)
  - Ensure that law enforcement is trained and adheres to the intent of Good Samaritan Laws.
  - Prevent or decrease post-overdose arrests at hospitals.
  - Increase regional capacity for warm handoffs and linkages to care post overdose.
  - Increase regional capacity and access to mental healthcare post overdose (trauma care specifically).

SUD Treatment

• Increase accessibility to all types of SUD treatment.
  - Reduce economic barriers to treatment.
  - Increase access to health insurance and coverage for people with SUD.
  - Increase access to treatment before legal encounters.
  - Increase diversion programs that offer treatment instead of incarceration.
  - Offer patient-centered care based on the needs of each individual patient.

Healthcare

• Increase accessibility to general healthcare for persons with SUD or those at risk.
  - Reduce economic and transportation barriers to healthcare services.
  - Reduce stigma and increase SUD education among all healthcare providers and staff.
  - Increase access to and visibility of services for wound and infection care for PWUD.
• Increase accessibility to mental healthcare.
  - Reduce economic and transportation barriers to mental health services.
  - Reduce stigma among all mental healthcare providers.
  - Increase access to trauma and grief therapy for people with lived experience of SUD.
  - Increase family level therapy for people with lived experience of SUD.

Social Services

• Increase access to social services.
  - Increase housing opportunities.
  - Increase services that reduce food insecurity.
  - Increase job training and employment opportunities.
  - Address transportation barriers.
• Increase economic stability among people with lived and living experience of SUD.
  - Reduce stigma among potential employers.
  - Increase employment opportunities for individuals with SUD-related criminal record.

While systems-level change is a lengthy process that requires a multitude of resources, it is a necessary approach to reducing overdose mortality in Tennessee. A primary recommendation from this work is for TDH, HIAs, OD2A staff and others to continue to actively and regularly include the voices of those with lived and living experience of SUD. The establishment of multidisciplinary partnerships across HIAs is necessary to create and support recovery ecosystems through community-engaged approaches which cannot be done in silos. Addressing systems-level challenges and barriers will take time, thus, in the interim, it is vitally important to continue and expand harm reduction efforts.

Strengths and Limitations

The major strength of this work is the volume of qualitative data (78 participants) collected from persons with lived and living SUD experience across the state of Tennessee. Moreover, the study team involved in this work have many years of collective lived and professional experience working in the areas of substance use prevention, treatment, recovery, and harm reduction, thus bringing an informed perspective to the review of the qualitative data collected.

There were notable limitations to this work that resulted from a short time frame, broad and somewhat hidden study populations, and limited success in utilizing HIA connections to build partnerships for recruitment. The objectives of the contract between ETSU and TDH outlined the intended approach for identifying recruitment sites, which relied heavily on buy-in from HIA taskforce leadership. This approach proved not to be feasible as our efforts to contact and engage the HIA taskforces were met with inconsistent responses which devolved early in the project. Because of the short timeline available to accomplish a state-wide qualitative assessment, the ETSU team pivoted quickly to leveraging professional relationships, conducting online searches, and cold calling/ emailing possible sites. This additional work spearheading the recruitment efforts took a significant amount of time that left the team with less time to work on analysis and reporting.

The results reported here are based on convenience sampling and have major limitations in generalizability within and across HIAs. One illustrative example is the recovery group data collected in the Northeast HIA included data related to MOUD treatment. This group felt that medication was being “pushed” in the region, leaving fewer abstinence-based options. This may in fact be true, but it is important to note that the individuals interviewed for the study were participating in an abstinence-based program, and thus may have a biased perspective. A more robust study design with randomized data collection would ensure the data were generalizable. The analysis for this study does not constitute a thematic analysis of the qualitative data collected. What is presented is a summary of findings, not a rigorous analysis of the data. The study team plans to work in partnership with TDH to conduct a formal qualitative analysis and publish the data collected. The purpose of this study was to hear from people in recovery and people using substances in HIA regions of Tennessee about their needs and this purpose was accomplished.

Acknowledgements

The ETSU study team would like to acknowledge Michelle Donaldson, ETSU SBIRT Coordinator and TN CPRS for her support in recruiting agencies and participants for this study. We would also like to acknowledge every provider and individual that took the time to engage in this work, share feedback, and share personal stories of struggle and success. We are hopeful that this data and these voices will inform improvement in service provision across the state of Tennessee.