Substance Use and Trauma: How the Intersection of Stigma and Social Determinants of Health Affect Access to Treatment in a Rural Appalachian County

Substance use disorder (SUD) is a prevalent and unrelenting theme in rural Appalachia. Rural communities have been hit the hardest by overdose-related deaths. In 2015, rural overdose rates surpassed urban rates, indicating a critical need for providers and treatment options in rural areas. Western North Carolina (WNC) is primarily rural, with approximately 90% of the 18-Western most counties in North Carolina having a rural designation. It is therefore unsurprising that the region has higher rates of SUD, including opioid use disorder (OUD), and behavioral health conditions in addition to having higher rates of opioid prescribing and opioid-related overdose deaths than state and national averages.

The data presented here was collected through five focus groups and a regional survey. Focus group data was collected in February 2020 through a combination of opportunistic, convenience, and purposive sampling of five distinct groups. Two of the focus groups consisted of individuals currently receiving treatment through comprehensive mental health and substance use disorder programs in Haywood County, located in rural WNC. The three remaining focus groups consisted of mental health and/or substance use disorder treatment providers in Haywood County.

The focus groups concentrated on individual experiences and points-of-view surrounding SUD treatment in Haywood County. Topics included the ability to access SUD/OUD prevention, treatment, and recovery supports as well as recommendations for impact, among others. The focus groups involved a total of 44 participants, including 16 individuals in recovery and 28 providers. The focus groups were conducted by Dr. Amber Beane, MA, Ed.D. and the findings were analyzed for key themes using grounded theory.

Each focus group was asked variations of the following questions:

1. Which substances are most commonly misused in Haywood County?
2. Why do individuals use substances?
3. How has substance use affected Haywood County?
4. Why do individuals seek treatment?
5. What are the most common barriers to treatment?
6. What programs or interventions work to treat and/or prevent SUD?
7. What programs or interventions would be most impactful (needed) in Haywood County?

Thematic analysis revealed the following themes and concepts as they pertain to the above questions:

1. Trauma drives substance use.
2. Intersectional stigma is present in all levels of substance use.
3. Barriers to treatment are complex and must address social determinants of health (SDOH).

In addition to the focus groups, researchers utilized data from the MAHEC WNC Mental Health Gap Analysis Survey, a regional primary survey conducted in the 18-county WNC region. The purpose of this gap analysis was to collect data on specific mental health and substance use issues of concern and priorities for the region. The survey was administered by internet between November 2020 and February 2021 to a random sample of 1145 individuals. Among these responses, 127 (approximately 11%) were specific to Haywood County and are reported here. The findings from the survey were analyzed to support the key themes identified by the focus groups.

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I. Demographics

Haywood County is primarily rural, with little more than 60,000 people, among whom most are white. The demographics of the focus groups and survey accurately represent the demographics of the population of Haywood County, with the exception of those under the age of 17 years, as all focus group participants had to be legal adults to participate. The majority of consumer focus group participants were older than 40 years, while the providers and survey consumers were fairly evenly divided between those younger and older than 40 years of age. There were more female than male participants and most were white.

	Focus Group: Provider (n=28)	Focus Group: Consumer (n=16)	Survey: Provider (n=76)	Survey: Consumer (n=51)	Haywood County*
Age Categories					
0-17	0%	0%	0%	4%	22%
18-29	18%	4%	10%	11%	15%
30-39	32%	7%	37%	33%	11%
40-49	21%	11%	24%	17%	13%
50-59	7%	21%	20%	20%	8%
60+	21%	11%	10%	16%	31%
Sex/ Gender					
Male	32%	19%	25%	31%	48%
Female	68%	81%	75%	69%	52%
Race/Ethnicity					
White	96%	100%	98%	88%	95.5%
American Indian	0%	0%	0%	3%	0.5%
Asian	0%	0%	0%	3%	0.7%
Black/ African American	0%	0%	0%	1%	0.9%
Hispanic/ Latinx	4%	1%	0%	1%	4.0%
Native Hawaiian/ Pacific Islander	0%	0%	2%	0%	0.0%
Other	0%	0%	0%	4%	0.9%

*Data retrieved from the U.S. Census Bureau (2019).

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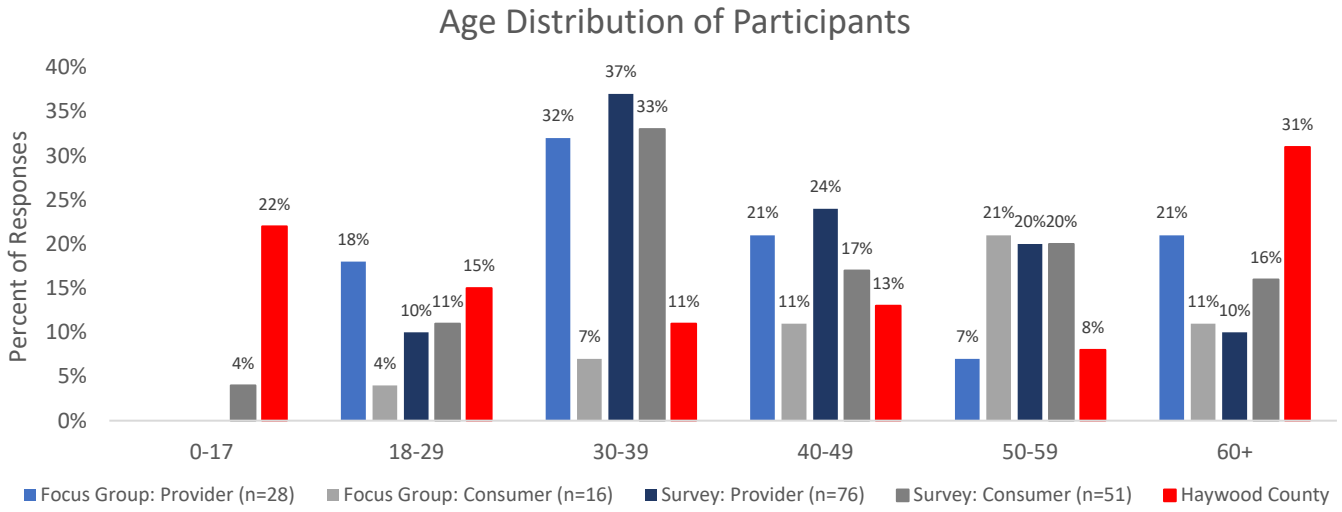

Provider Work Industry, Job Title, and Work System

Work Industry	Focus Group: Provider (n=28)	Survey: Provider (n=76)
Healthcare	57%	55%
Healthcare-Related Field	39%	41%
First Responder	0%	4%
Law Enforcement	4%	0%
Job Title		
Mental Health Licensed Professional	36%	38%
PSS	32%	15%
Other Mental Health Professional	11%	13%
Medical Doctor/APP	0%	15%
Medical Professional	0%	13%
Other	21%	6%
Work System		
Other System	25%	39%
Community Health Center	21%	20%
Non-Profit Organization	14%	25%
Mental Health Treatment Facility	14%	6%
No Response	12%	0%
Substance Use Treatment Facility	7%	6%
Non-Profit Health System	7%	4%

Most providers worked in the healthcare industry or a healthcare-related field and more than half of providers were mental health licensed professionals or peer support specialists. Conversely, consumers were largely unemployed or disabled. Research suggests that substance use is prevalent in all age groups; however, some trends have emerged. Patrick *et al.* (2012) investigated the relationship among substance use and three indicators

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of familial socioeconomic status (SES): income, wealth, and parental education. They found that alcohol and marijuana use in young adulthood were associated with higher childhood family SES, even after controlling for covariates.

Consumer Work Industry, Disability, and Health Insurance

Work Industry	Focus Group: Consumer (n=16)	Survey: Consumer (n=51)
Unemployed	38%	20%
Other/ Disabled	31%	20%
Education	6%	7%
Real Estate	6%	9%
Homemaker	0%	5%
Retired	0%	5%
IT	6%	3%
Hospitality & Tourism	6%	3%
Sales	6%	1%
Other	1%	27%
Disability		
Not Impaired	25%	53%
Physical	25%	15%
Other	25%	6%
Learning	19%	10%
Vision	0%	8%
Hearing	0%	6%
No Response	32%	2%
Type of Health Insurance		
None/Uninsured	38%	23%
Medicaid	38%	25%
Medicare	13%	19%
Private/Commercial	13%	33%

II. Trauma

> *"But basically it comes down to wanting to change your feelings, whether they're good or bad. In a lot of cases you don't feel good about yourself, and when you take the drug you feel like you're on top of the world."- Consumer, White Male, 60+ Years Age Group*

Consumers and providers overwhelmingly identified alcohol, opioids, and methamphetamine as the substances most used by consumers and most treated by providers in Haywood County. Interestingly, however, consumers consistently suggested that the specific drug of misuse was largely irrelevant. Instead, they felt that treating the cause of substance use, and therefore one's underlying pain, was more influential. This is consistent with the literature and was confirmed by providers.

> *"There are [school-aged children] falling asleep in class because they don't feel safe enough to sleep in their homes." – Provider, White Female, 50-59 Years Age Group*

The likelihood of developing a SUD later in life increases as a patient's adverse childhood experiences (ACES) score increases (LeTendre *et al.*, 2017). This relationship is strong; one study found that a one-unit increase in ACES score is associated with at least a 34% increase in the likelihood of developing a clinically significant SUD in adulthood (Felitti *et al.*, 1998). Although in our focus groups we did not specifically ask about negative childhood experiences, we did ask, "why do people start using substances?" The answer to this question often resulted in revelations of childhood abuse and trauma.

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> *"When I was younger … something traumatic happened and it's like you are just trying to fill that void and have something to do. I had a couple of really good [school] programs when I was younger. Having someone to care and talk to. Feeling like I had someone. And then when that program got taken you know that just like fueled my fire of, you know, 'well fuck it' because I got those good healthy programs taken away from me. So that didn't help anything, but I feel like there could be a lot more programs like that here to help people" – Consumer, White Male, 18-29 Years Age Group*

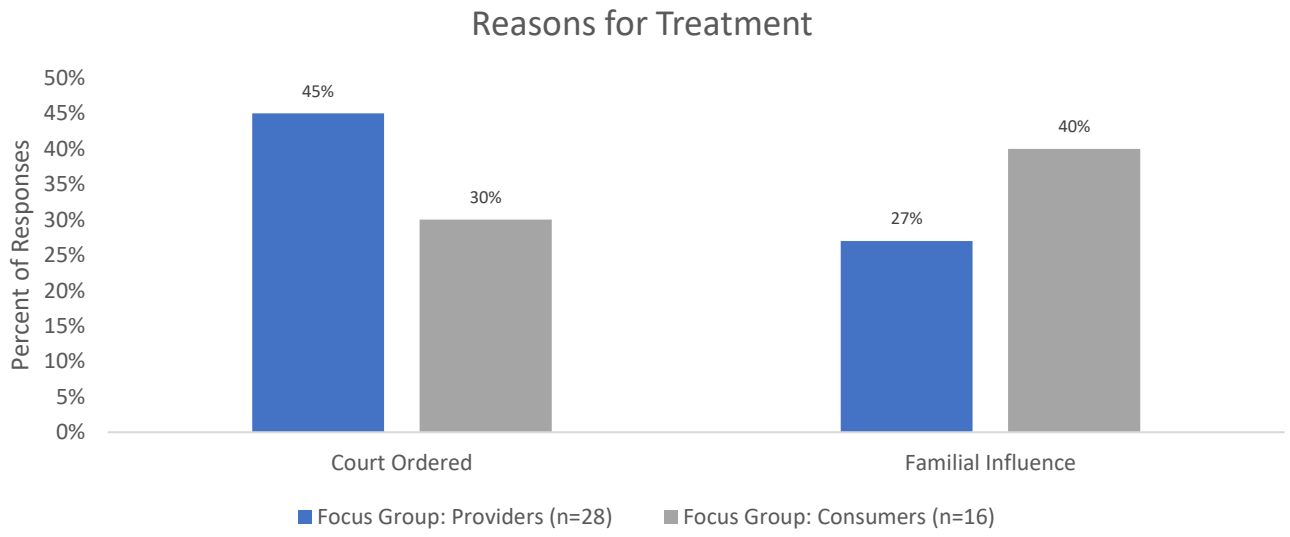
Additionally, Crouch *et al.* (2017) found that men and women with four or more ACES had greater odds of reporting binge and heavy drinking compared to their counterparts. The link between childhood trauma and substance use was identified by consumers and providers in our focus groups, as indicated in the following quotes:

> *"Just abuse in general, you know, physical, I'd get my ass whooped on a daily. I ain't the smartest, I have a learning disability, you know, and I would go to school and get harassed and then I come home and get harassed and it just seemed like there was no out."- Consumer, White Male, 18-29 Years Age Group*

> *"I had sexual abuse and you know in my childhood. There was physical abuse from my adopted father, you know, he was verbally abusive." – Consumer, White Male, 50-59 Years Age Group*

> *"It is rare that I have a DSS referral that doesn't have substance use (opioids or methamphetamines, or both) attached to it." – Provider, White Male, 40-49 Years Age Group*

Mental health and SUDs are inextricably connected. In 2017, Han *et al.* found that approximately 3.3% of the US adult population (8 million adults) had co-occurring mental health and SUDs. Of those, more than half received neither mental health care nor substance use treatment in the prior year. The 9% who received both types of care tended to have more serious psychiatric problems and physical comorbidities and were more likely to be involved with the criminal justice system, which is consistent with our findings. When asked, "how has substance use affected the community," the majority of provider participants (57%) indicated crime and/or violence. Interestingly, when asked, "why did you (or your patients) seek treatment," providers and consumers identified criminal justice system involvement or court order as a primary contributor.



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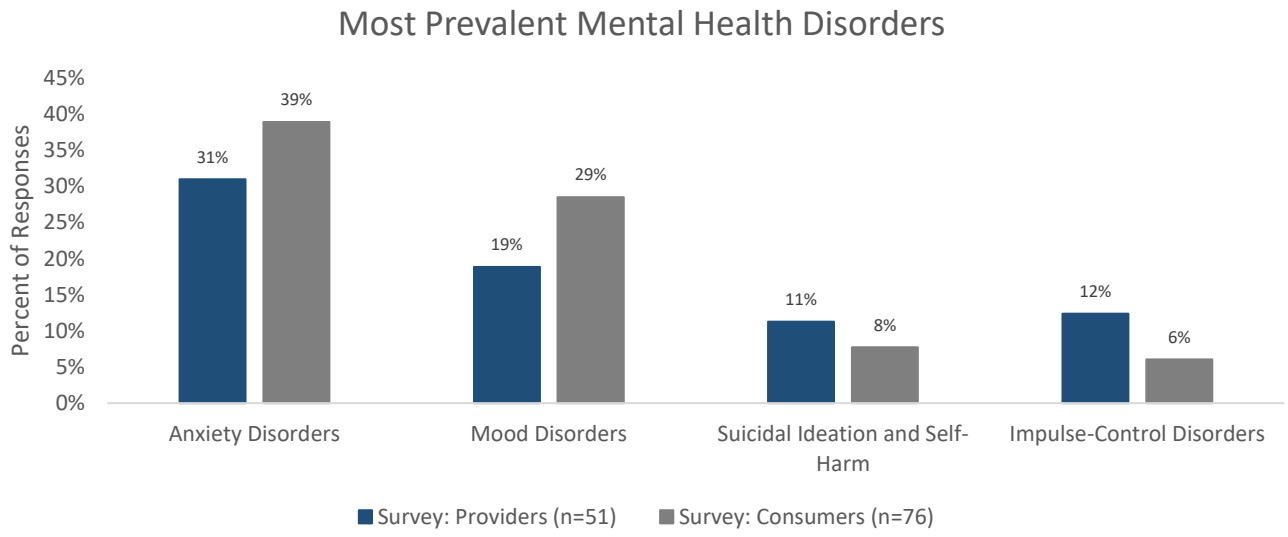
Although we did not ask focus group participants directly about co-occurring mental health conditions, several participants revealed that they had specific mental health conditions. This was confirmed in the survey results. More than half of consumers and providers indicated that they (or their patients) had a mental health condition. Furthermore, providers perceived a disconnect between the mental health and substance use treatment systems.



> *"This person needs some help with their substance issue, which is significantly exacerbating their mental health problems. But because they have mental health problems, you are not willing to help them [with their SUD]. It's almost paradoxical and it's where that big disconnect is between the mental health industry and the medical industry."- Provider, White Female, 30-39 Years Age Group*

Policy makers, researchers, and communities must adopt a global view of SUD to effectively treat it. There is an empirical body of research that indicates that the majority of those with SUD are polysubstance users, indicating the need for a closer look at the prevention and treatment of underlying trauma (Conner *et al.*, 2014; Conner *et al.*, 2013; Timko *et al.*, 2018; Jarlenski et al, 2017). Self-medicating with substances may explain the preponderance of polysubstance use. Focus group consumer participants agreed that the choice of substance was primarily driven by trauma, access, and cost, not by substance.

> *"Basically it's a pain reliever, whatever the substance." – Consumer, White Female, 60+ Year Age Group*

Research confirms this. One study found that past-month illicit opioid use increased from 45% in 2011 to 70% in 2018, while the use of prescription opioids alone dropped from 55% to 30%, yet overall use remained high (95% to 85%). Past-month use of at least one non-opioid drug occurred in nearly all participants (>90%), with significant increases (85%) in methamphetamine use (Cicero, Ellis, & Kasper, 2020). This is consistent with our findings. Substance use is not a siloed, drug-specific phenomenon; however, due to the availability of medications for opioid use disorder (MOUD), it is often treated as such.

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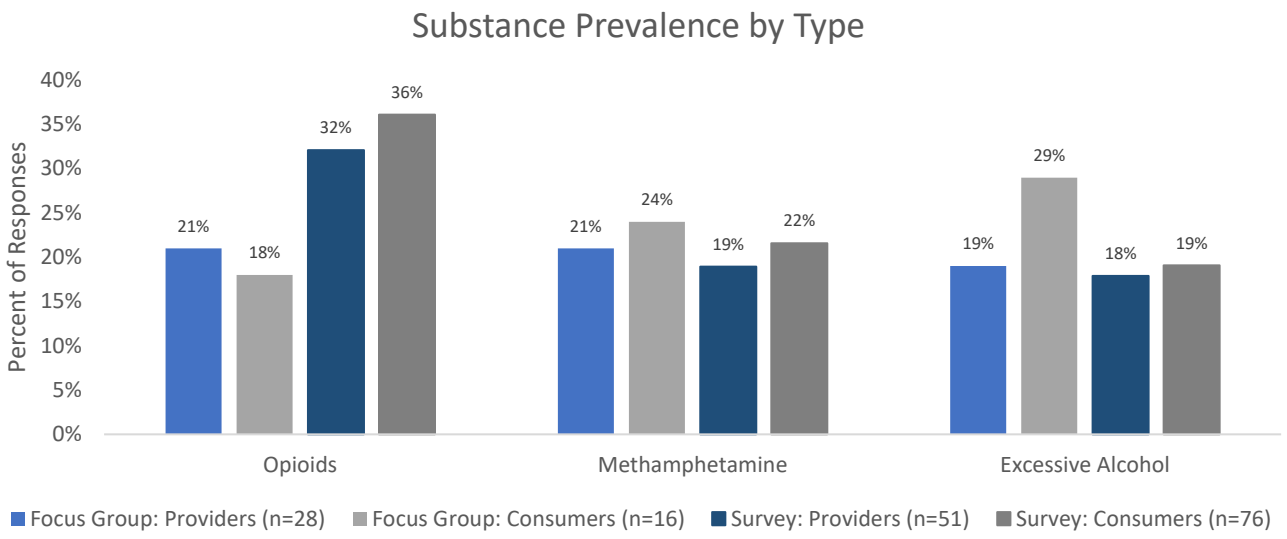

"Although I treat people primarily with opioid use disorder, I still see people that start with the opioids and then add methamphetamine. I don't know if I've ever seen anybody start with methamphetamine and add opioids."
- Provider, White Male, 60+ Years Age Group

"My patients tell me that when you get that really good fentanyl high, and you know that you've pretty much taken an overdose worthy amount, the meth can actually pull you back to life without Narcaning yourself, and it can help restart heart and respiratory [functions] by giving you that stimulant high without losing your high if you were to distribute naloxone to yourself." – Provider, White Female, 18-29 Years Age Group

Participants mentioned ease of access and cost as two determinants of the substance of misuse. This is consistent with previous research that demonstrates that perceived ease of access to substances is a significant predictor of recent use among rural adolescents (Warren, Smalley & Barefood, 2016).

"Methamphetamines are easy to get, super easy to make and heck, you can go to Walmart right now, spend 25 bucks and make it in your car in about 15-20 minutes." – Provider, White Male, 30-39 Years Age Group

"Whatever you can get the cheapest." – Consumer, White Male, 50-59 Years Age Group

Consumers identified higher alcohol use, resulting from an ease of access, but under-identified tobacco. This could be due to normalized and generational misuse among the study population. Kessler *et al.* (1994) found comorbid psychopathology between substance use and psychiatric disorders. SUD appears to be highly transmissible intergenerationally.

"I'd get a shot of Jack Daniels or beer from my uncles and my grandpa and my dad was a heavy drinker. Now I'm not putting it off on them. The reason I use and I do drugs and all that is because of me. You know, those are my choices, but, um, they definitely made it easier to get ahold of you know." – Consumer, White Male, 18-29 Years Age Group

"They're just surrounded by it [substances]." – Provider, White Male, 30-39 Years Age Group

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III. Intersectional Stigma

Stigma surrounding SUD is a multifaceted phenomenon that reaches all levels of society. In 1963, Goffman described stigma as disgrace based on tribal identities (race/ethnicity), abomination of the body (physical abnormality), and blemishes of character (mental illness, including addiction). The root of this definition is still correct. However, since that time, researchers have come to understand stigma in more complex terms. "Intersectional stigma" is a concept that has emerged in the literature to characterize the convergence of multiple stigmatized identities within a person or group; the effects of intersectional stigma can then be addressed (Bowlet, 2012). We saw multiple examples of intersectional stigma within the recovery community. There is stigma surrounding "real" recovery, suggesting that recovery that involves medication, as with medication-assisted treatment (MAT) or MOUD, is not authentic.

> *"MOUD/MAT is not real recovery - the stigma is at all levels. It's not just medical providers or law enforcement or family members, its people in recovery and in that community, there is a lot of stigma." – Provider, White Male, 40-49 Years Age Group*

Understanding this intersectional perspective allows researchers, health professionals, and advocates to holistically investigate how living with multiple stigmatized identities affects behaviors as well as individual and population health outcomes (Parker, *et al.*, 2017). Intersectional approaches also highlight protective factors, such as social support, resistance, and adaptive coping strategies that emerge when people with similar identities unite (Crewnshaw, 1989).

Illustrated here, stigma was identified at all levels. Stigma does not only exist in the recovery community, but is also embedded in generational and normalized substance use. One provider described this as:

> *"Fear of 'flying off from the pack' and getting help for that [SUD] and coming back to their community and being, you know seen as a black sheep."- Provider, White Male, 60+ Years Age Group*

Stigma surrounding normalized use was also echoed by consumers.

> *"That's where I fit. You know, fit, with those people." – Consumer, White Male, 50-59 Years Age Group*

Community stigma further complicates treating SUD and makes recovery harder for those involved. Leadership is needed to drive change; however, stigma must be addressed first. Both consumers and providers identified stigma as a barrier to treatment.

> *"I think this homelessness issue that has really become so polarizing … putting politics into the substance use discussion" – Provider, White Female, 60+ Years Age Group*

> *"[A community homeless/ substance use disorder program] was shut down due to community stigma from the top down." – Provider, White Female, 50-59 Age Group*

The focus groups further discussed stigma within healthcare. Not only is having a SUD stigmatized, but it is also less valued than an allergy.

> *"If I told him [medical provider] that I was a recovering addict, you know, they wouldn't write that down. But as soon as I told him that I was allergic to these drugs, painkillers and all that, now they wrote that down because that's like the third thing on their list that they look at. So they no longer prescribe these things for me. But I had to put that out there myself." – Consumer, White Male, 30-39 Years Age Group*

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IV. Treatment Barriers

Barriers to mental health and substance use treatment can make an already complicated path even more difficult, and for some, impossible. Mental health conditions and SUDs deserve an ecological lens to understand and treat effectively. To understand and present the uncovered barriers in simple terms, we divided them into three categories:

1. Individual barriers
2. Systemic barriers
3. SDOH barriers

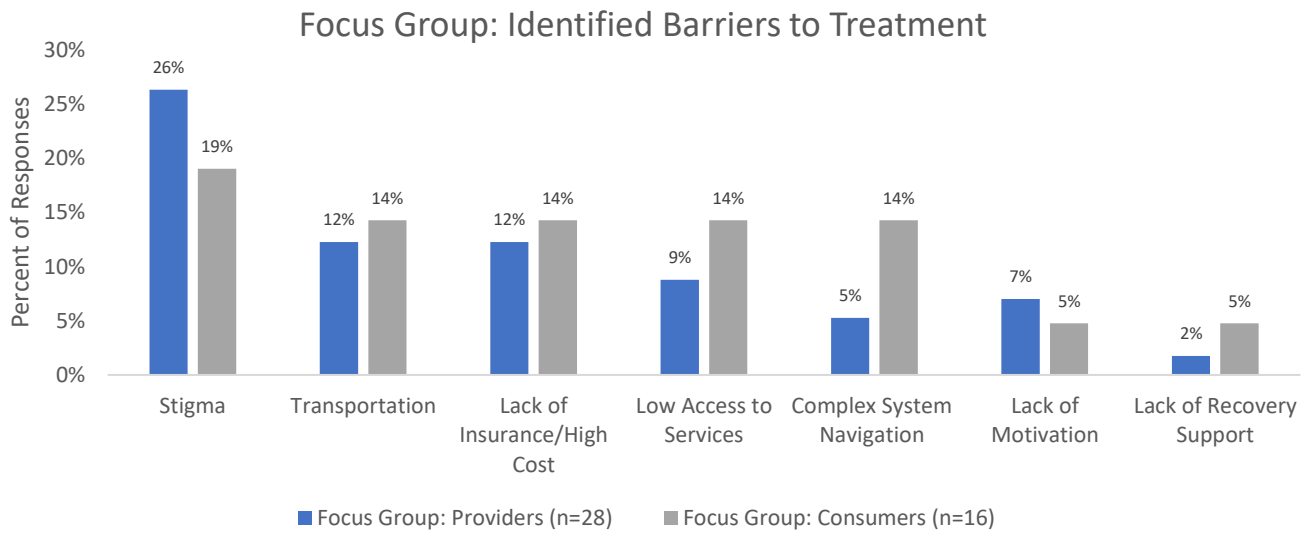
All identified barriers from the survey and focus groups can be categorized into one of these three groups. Individual barriers include barriers that affect the individual directly, such as perceptions and attitudes, lack of trust, and stigma. Systemic barriers include barriers that negatively impact healthcare system efficiency, including complex system navigation, long lines and waiting lists, and excess expenses. Finally, SDOH barriers are barriers caused by economic aspects of the social environments of individuals, such as financial stability, housing and food insecurity, employment, and transportation.

As previously discussed, stigma was identified by focus group providers and consumers as a significant barrier to treatment. Fear and lack of motivation were also mentioned as individual impediments of change.

> *"Fear of change, fear of admitting they have a problem they can't take care of on their own."- Provider, White Female, 30-39 Years Age Group*

Survey respondents identified negative previous experiences (20%, providers; 19%, consumers), the mindset that mental health is not important (11%, providers; 18%, consumers), lack of insurance (14%, providers and consumers), and mistrust of providers (15%, providers; 11%, consumers) as the top four reasons for not seeking mental health or SUD treatment.

When the focus groups were asked to identify barriers to treatment in Haywood County, they unsurprisingly identified stigma as the primary barrier (26%, providers; 19%, consumers). This was followed by transportation barriers as well as lack of insurance and high cost of care (12%, providers; 14%, consumers for both).



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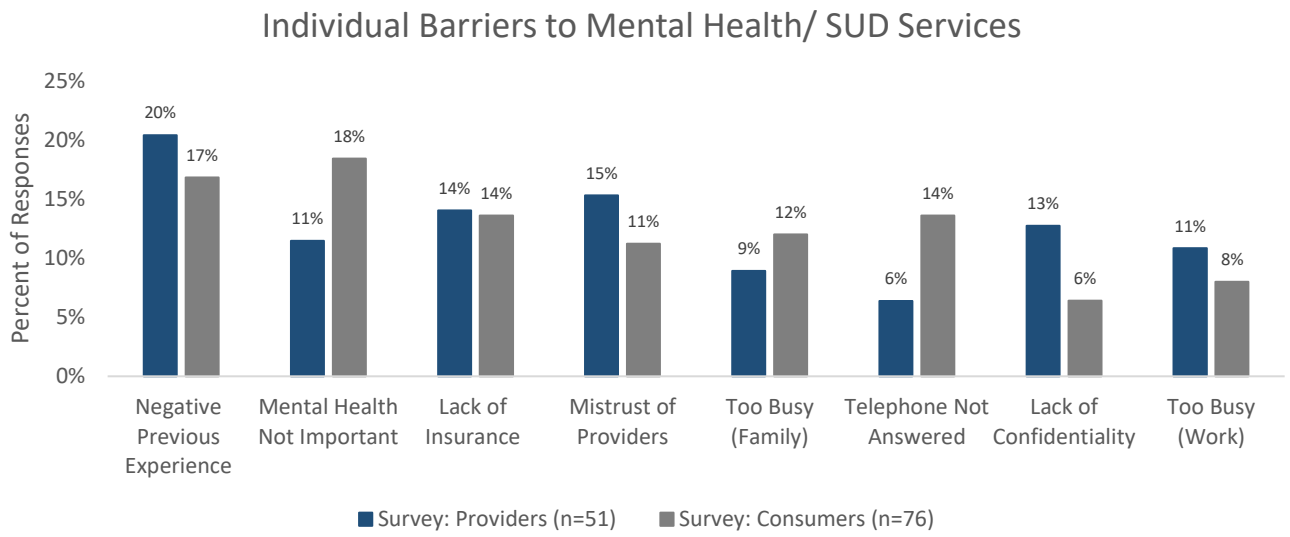
Survey respondents indicated that negative previous experiences (20% providers, 19% consumers), the mindset that mental health is not important (11% providers, 18% consumers), lack of insurance (14% providers and consumers), and mistrust of providers (15% providers, 11% consumers) are the top four reasons that an individual would not seek mental health or SUD treatment in Haywood County.



They further suggested that the primary systemic barriers to treatment were stigma (25%, providers; 15%, consumers), high cost of treatment (13%, providers; 18%, consumers), and a lack of providers and appointments (9%, providers; 12%, consumers and 8%, providers; 11%, consumers, respectively). The greatest obstacles across groups was cost (under or uninsured, or cost prohibitive) and access to care (appointment unavailability and complex systems to navigate).

It is therefore unsurprising that consumers and providers both identified stigma education (providers, 39%; consumers, 31%) and system navigation services (providers, 21%; consumers, 19%) as the greatest needs in Haywood County.

> *"I think a pretty long term and widespread education effort sounds pretty useful." –Provider, White Male, 40-49 Years Age Group*

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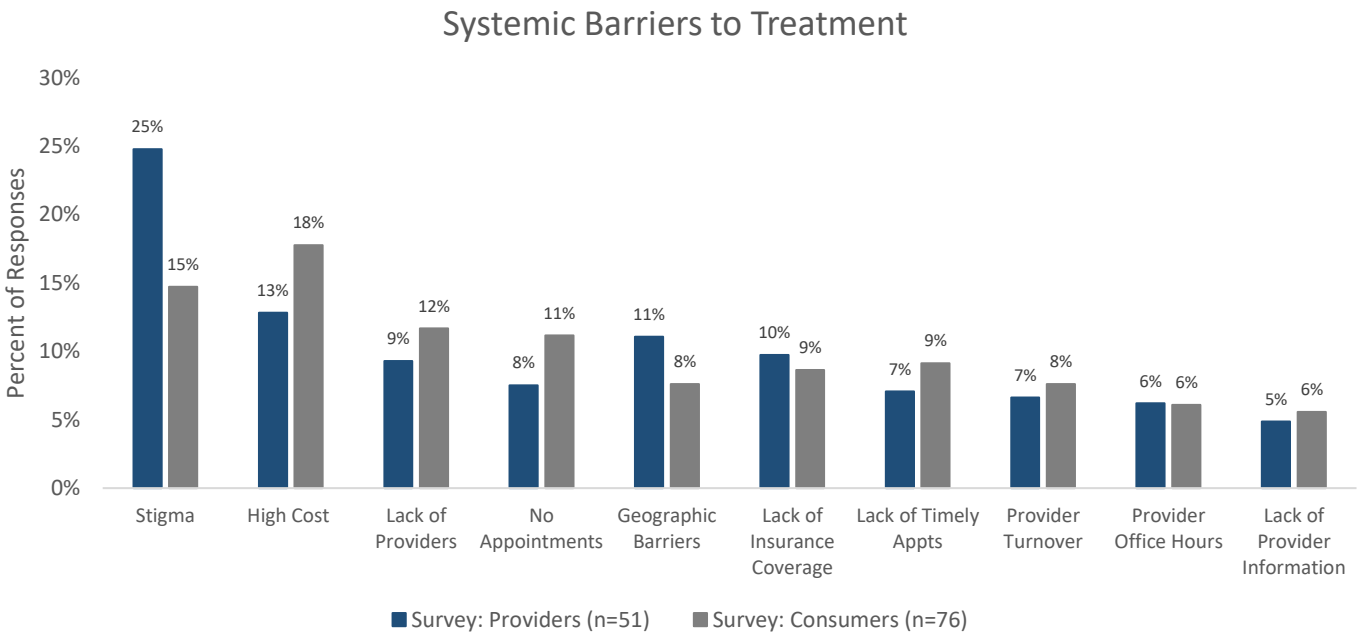

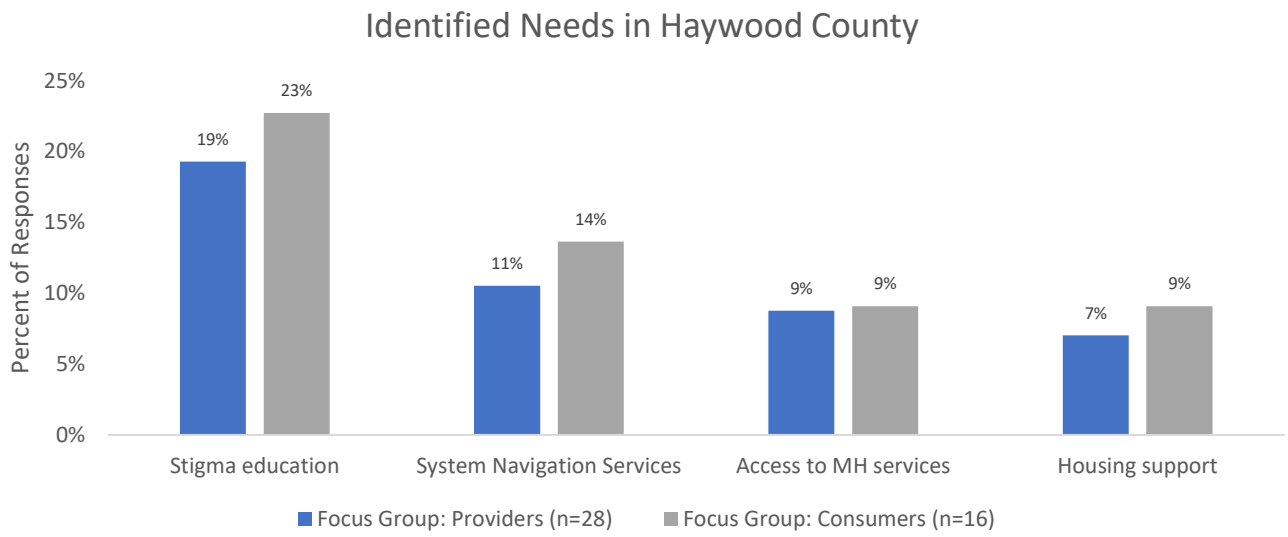

It is known that social factors affect risk for mental illnesses and SUDs as well as health outcomes of persons with these disorders. Cristofk *et al.* (2017) found that compared to the general population, homeless women were four times more likely to have an alcohol use disorder and 12 times more likely to have a SUD, an association also found in men. For some, substance use is a way of coping with previous trauma, as echoed in the consumer focus groups reported here.

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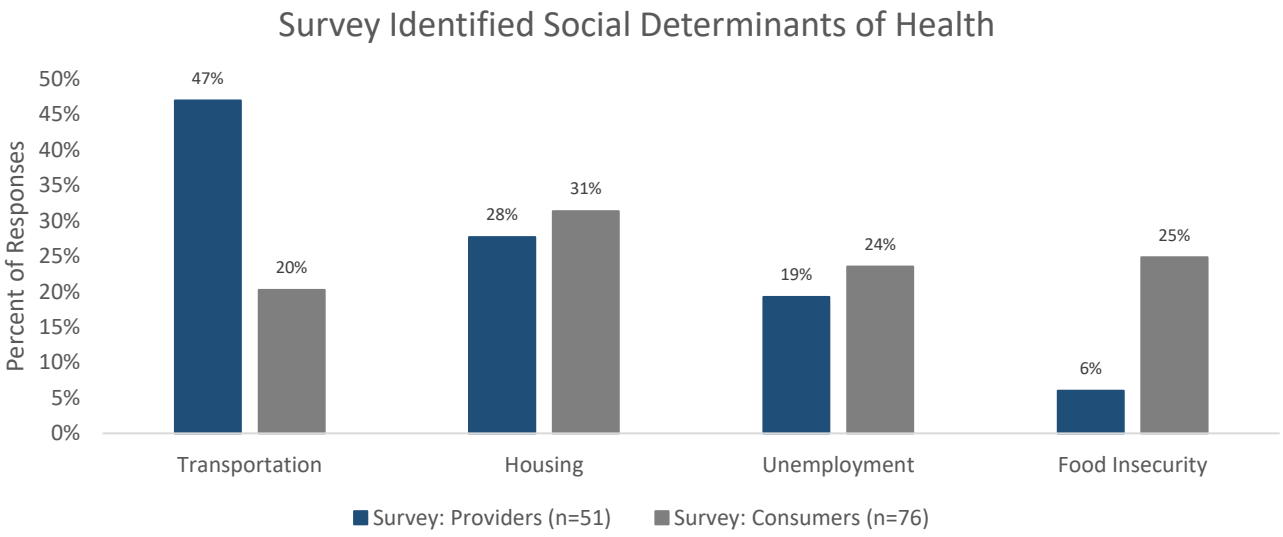
SDOHs are linked to SUDs in complex ways. For example, when considering housing, substance use may have begun before or could have even caused homelessness, while for others use developed in response to losing their homes (McVicar *et al.*, 2015; Johnson & Chamberlain, 2008; McNaughton, 2008). Previous research has also revealed associations among drug overdose, poverty, and housing instability (Davidson *et al.*, 2003; Galea *et al.*, 2003). The findings from our focus groups are consistent with this; regardless of the order of occurrence, housing and food insecurity greatly influence an individual's ability to seek treatment.

> *"If people don't have a roof over their head and food in their stomach, they don't have some basic needs met, then I don't know how we feel like they can successfully engage in substance abuse treatment if that's what they need. And it's so multifaceted and that is a really hard sell for people here to say, 'oh you're homeless, because you're taking drugs,' when a lot of times people don't necessarily take drugs until after they are homeless." –Provider, White Female, 60+ Year Age Group*

> *"It's not impossible but it is really hard to get sober and stay sober when your basic needs are not met." –Provider, White Female, 60+ Years Age Group*



Through both focus group and survey responses, we were able to identify barriers to offering services for providers not currently offering as well as service optimization for providers currently offering mental health and/or SUD treatment. We also identified the services that consumers perceive as needed in Haywood County. Providers in the focus group identified recovery groups (44%), MOUD/MAT (26%), harm reduction (15%), and system collaboration (15%) as the most successful SUD treatment interventions.

> *"Following up with the vast amount of overdoses that we're having so that we can catch more people pre conviction, rather than just a post-conviction." –Provider, White Female, 18-29 Years Age Group*

Consumers identified the services needed in Haywood County. The top three service priorities included services nearby, outpatient mental health treatment, and inpatient substance use treatment.

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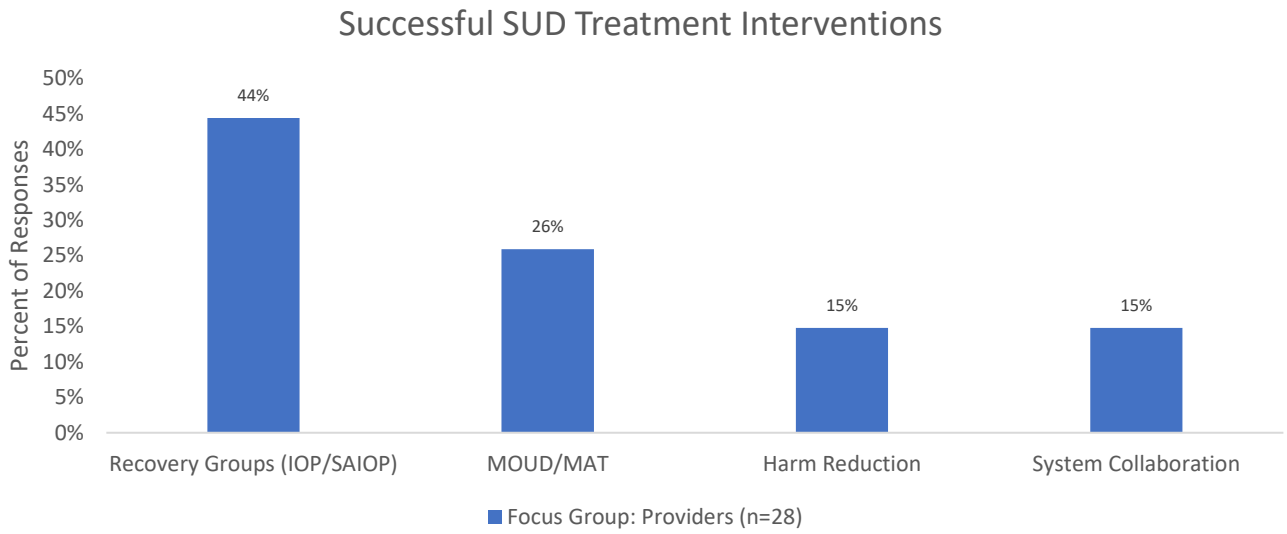

Service	Priority*
Services Needed in Haywood County	
Services Nearby	1
Outpatient Treatment (Mental Health)	2
Inpatient Treatment (Substance Use)	3
Day Treatment (Mental Health)	4
Day Treatment (Substance Use)	5
Inpatient Treatment (Mental Health)	6
Therapy (Adult)	7
Outpatient Treatment (Substance Use)	8
Therapy (Children)	9
Health/Counseling Services (K-12 School)	10

*Priority determined by forced ranking of survey consumer (n=76) responses.

Additionally, providers identified barriers to offering or optimizing mental health and SUD treatment. Most of the providers not currently offering mental health and SUD services are doing so because the services are outside of the scope of practice. However, other providers are not offering services due to a lack of support staff and credentialing difficulty, among others. Providers who are currently offering mental health and SUD treatment identified barriers to optimizing their services. Interestingly, the barriers that these providers identified are consistent with some of the individual and SDOH barriers that consumers identified. The primary barrier to optimizing services was providers' inability to address SDOH. Other individual barriers included lack of LGBT health training and fear of causing stigma. However, providers also identified systemic barriers that could be more easily addressed, such as lack of care coordination and support staff.

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Barrier	Priority*+
Barriers to Offering Services*	
Services Outside of Scope	1
Lack of Support Staff	2
Credentialing Difficulty	3
Insufficient Infrastructure	4
Lack of MAT Training	5
Barriers to Optimizing Services+	
Inability to Address SDOH	1
Lack of Care Coordination	2
Lack of Support Staff	3
Low Patient Retention	4
Low Reimbursement Rates	5
Poor Insurance Coverage	6
Time Constraints	7
Lack of LGBT Health Training	8
Fear of Causing Stigma	9
Lack of Continuing Education	10

*Barrier determined by forced ranking of survey provider (n=6) responses.

+Barrier determined by forced ranking of survey provider (n=20) responses.

V. Summary

Haywood County is located in rural WNC. Consistent with trends in this area, Haywood County suffers from higher than national average rates of substance use and behavioral health disorders as well as higher rates of opioid-related overdose deaths. To assess SUD community needs in Haywood County, five focus groups and the MAHEC WNC Mental Health Gap Analysis Survey were conducted in Haywood County between November 2020 and February 2021. Between the focus groups and the survey, we received and reported on the responses from 104 providers and 67 consumers working and living in Haywood County, respectively. We identified anxiety disorders, mood disorders, and suicidal ideation/self-harm as the most prevalent mental health disorders as well as opioids, methamphetamine, and excessive alcohol as the most prevalent substances misused among individuals in the county.

The results of the focus groups and survey were analyzed to support three key themes.

1. Trauma drives substance use.

   Research has shown that ACES are significant predictors of substance use later in life. Both consumers and providers overwhelmingly identified that childhood trauma and intergenerational use are concerns in Haywood County. This, in addition to the ease of access to substances, contribute to the county's high rate of SUDs. When considering why an individual would seek treatment, participants identified that court order and familial influence were the primary drivers of change.

2. Intersectional stigma is present in all levels of substance use.

   Intersectional stigma, the convergence of multiple stigmatized identities in a group, plays a significant role in individuals with SUD. The county at large does not solely stigmatize individuals with SUD, though this is a significant issue. Within the SUD community, different treatment options (i.e. MOUD versus abstinence) are stigmatized. There is even stigma embedded in generational and normalized use. This not only may prevent an individual from seeking treatment, but could also prevent a provider from offering their services.

3. Barriers to treatment are complex and must address social determinants of health.

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Numerous barriers prevent an individual from seeking treatment. In this analysis, we divided the barriers into individual, systemic, and SDOH barriers. Individual barriers, those that directly affect an individual (i.e. perceptions and attitudes), and systemic barriers, those that affect the efficiency of a healthcare system (i.e. lack of timely appointments and support staff), are further complicated by SDOH barriers, those related to an individual's SES. As SES decreases, and therefore SDOH barriers increases, such is the case in many of those with a SUD, systemic and individual barriers also increase. To ameliorate some of these barriers, stigma education and system navigation services, among others, are needed. Consumers in Haywood County identified the most-needed mental health and SUD services in the county, "services nearby," and providers identified what would prevent them from offering or optimizing their services. Providers identified individual, systemic, and SDOH barriers, demonstrating the complexity and interrelatedness of these barriers in the county.

The findings of this report help identify priorities for Haywood County and provide a starting point to improve the treatment and outcomes of individuals with SUD.

VI. References

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