Compass Health Network

Needs Assessment

March 2023

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Executive Summary

The 2023 Compass Health Network system needs assessment is described here. Conducted every two years, the process is an extensive, multi-source, multiple stakeholder data collection and analysis process focusing on the Compass Health Network service area, aiming to answer the questions: What are the current and emerging behavioral health, primary care, and oral health care needs of our communities? Are there condition-specific needs that we should address as indicated by the data? What kinds of initiatives should we undertake across Compass Health Network's service area in the coming three years to address the data-based needs identified?

Data and information sources: The information presented in this needs assessment is built on primary data (collected directly by Compass Health Network, such as staff, customer, and stakeholder surveys), secondary data (collected from existing data sets such as County-by-County Health Rankings, Behavioral Health Risk Factor Surveillance System), and tertiary data (harvested from previously analyzed data, such as existing Community Health Needs Assessments).

The needs assessment process yielded a wealth of actionable information and recommended focal areas relevant to strategic planning for the organization, including the following cross-cutting themes, which are considered the most reliable indicators of need by virtue of the fact that they emerged in more than one data set, analysis, survey, or focus group. The cross-cutting themes or indicators of need are:

- About half of adults with a mental illness in Missouri do not receive care (this equates to 461,000 adults statewide) and among those who actively seek care, about 30% report being unable to get it, with cost of care most frequently cited as the main barrier (42% say they could not afford it). Given this state of affairs, it is not surprising that both mental health/psychiatric services and substance use treatment services were characterized as "demand substantially exceeding supply" across Compass regions, with the Southern region showing the most unequivocal need for both mental health and SUD treatment. These needs are also consistent with focus group and survey findings from external stakeholders (Boards of Associates and Public Administrators), customers with SMI, and prioritized needs in every region according to their compiled community health needs assessments. It is important to note that in both the focus groups and the structured assessment of unmet needs among customers, help with managing psychological distress such as depression and anxiety was a key need.
- There is substantial variability in the penetration rates of FQHC services across the counties comprising the Compass Health service area, ranging from 15% in Cooper County to 92% in Hickory County, though no significant differences are evident across Compass regions. The areas in which Compass is the more dominant health center have significantly lower penetration rates relative to other geographic areas in the Compass service area. A cluster

of counties (Hickory, Chariton, Washington and Iron) in the larger service area is substantially underserved with regard to behavioral health services, and the ADAPT and Southern regions show statistically homogeneous high levels of unmet behavioral health needs. Based on these findings, Compass should employ strategies to better reach those who are already eligible – by virtue of income level or by already having a diagnosis of mental illness – for Compass services. Individuals who are at or below 200% of federal poverty level, and as a subset those with a diagnosed mental illness, are the consumers Compass exists to serve. Through more focused efforts and outreach in those counties and zip codes in which its current penetration rates are lowest, Compass will be able to serve more of these consumers, and serve them better.

- Finding new and creative ways of impacting the ongoing and perhaps worsening youth mental health crisis is an essential need. It is clear that Compass serves youth in numbers disproportionate to their representation in the population, which is a good start. We should also recognize the importance of screening and treatment for youth being available in schools, primary care clinics, and even dental clinics, all areas in which Compass has significant opportunity for innovation and improvement. Also, based on data showing mental health crises skewing younger, our evaluation should include consideration of looking for and responding to mental health problems earlier in children's developmental arc, especially in the under 12 age category. We also now know that fewer than half of emergency departments (ED) have clear pediatric mental health care policies. Furthermore, EDs in more remote, rural hospitals are 60% less likely to have such policies than more urban counterparts—a situation often encountered in Compass's rural and small-town service areas—highlighting the need to proactively engage with hospital EDs to ensure coordination of care and follow up when children/youth leave the ED.
- Expansion of dental services was another clear cross-cutting theme, emerging as the most frequently cited need in the survey of Compass leaders across all regions, with Royal Oaks, Central and Eastern showing the highest rating of need for expansion. Although customers with SMI seem to have reasonable access to oral health care, it was cited as a need in focus groups, particularly with regard to long waiting times for appointments.
- Hiring more staff and continuing to provide staff resources and development opportunities were explicitly identified by many stakeholders including Compass leaders (e.g., "Continue to recruit quality employees," "Continue to hire more providers," "Fill open positions," "Find a way to hire more folks, "Retention of current staff," "Figure out why staff do not stay," and "Staff retention strategies to support current programming and develop seasoned staff."). This dovetails with a theme we heard from customers with SMI, who find it difficult to feel connected with Compass when they experience new providers very frequently, indicating turnover in some positions has a real and negative impact on customer care and experience.
- The need for safe, secure, accessible, and affordable housing and accommodation solutions for Compass customers could not be more clear across all regions and from the voices of multiple stakeholders. For example, it was the most frequently cited "unmet need" in the structured needs assessment with customers and by far the most consistent need identified by Public Administrators for their wards.

- As with the last assessment, finding creative and effective solutions to customer transportation needs have been clearly identified in numerous other parts of this assessment as well, including community stakeholders, Compass staff, consumers with SMI, and community health needs assessments. Clearly, some areas are far more pressed in this regard than others, but it certainly qualifies as a cross-cutting theme.
- Also persisting from the last assessment, felt needs for an increase in supportive social, personal, and intimate relationships appears near the top of both quantitative and qualitative responses from customers with SMI. This is no small matter, as such relationships are a key protective factor against a range of serious mental health challenges and addiction issues, and a raft of recent research has clearly demonstrated the negative health effects of social disconnection and loneliness (equivalent to smoking 15 cigarettes a day). Novel, creative, innovative strategies or initiatives should be pursued in this regard, and there is quite a bit of emerging science to help guide such pursuits.
- Regarding racial/ethnic disparities, Compass serves persons identifying as Black/African American in proportions slightly to much higher than they appear in the population in all regions (Central, Eastern, and Western) except the Southern, where the disparity is substantially in the other direction (about 7 percentage points lower representation among those served by Compass). However, this represents a 2 percentage point increase in penetration into the Black population in the Southern region since 2021, which is consistent with Compass's intent and strategy. Continuing to strategize and plan for action to reach and better serve (especially) young Black men is clearly a priority need going forward.

Introduction to the 2023 Compass Health Network Needs Assessment

Background & Definitions

The 2023 Compass Health Network Needs Assessment represents the culmination of a process dedicated to: (1) *understanding the needs* of the people we serve, or could be serving, (2) *inventorying the assets and services* being directed toward meeting those needs, and (3) *assessing the gap* between identified needs and the available services, so that we can pursue strategic actions to address gaps and anticipate emerging needs in the communities we serve.

Needs assessments are created by health service organizations to better understand and serve their communities. The assessments are variously called “needs assessment”, “health needs assessment”, “community health needs assessment”, and “health care needs assessment”; and descriptions of their purpose is manifold:

1. a systematic method for reviewing the health issues facing a population, leading to agreed priorities and resource allocation that will improve health and reduce inequities (National Institute for Clinical Evidence, UK);
2. a dynamic ongoing process undertaken to identify the strengths and needs of the community, enable the community wide establishment of priorities and facilitate collaborative action planning directed at improving community health status and quality of life (Manitoba Community Health Needs Assessment);
3. the systematic approach to ensuring that health resources are used to improve the health of the population in the most efficient way (Health Needs Assessment, BMJ).

Why Do A Needs Assessment?

Evidence-Based Reconnaissance. Businesses must understand the needs of customers. Needs assessments are routinely conducted in many sectors including health, education, and community services to help identify what is “real need.” The *real need* may be based upon selected definitions or criteria important to the industry or field. Needs assessments, therefore, are built on the assumption that some specific common needs exist among a group of patients/customers that can, and should, be proactively addressed by primary care, oral health care, and behavioral health practices. The term *proactive* is fundamental to describing an approach that does not simply react to customers as they flow into services, but rather examines the commonalities of needs and employs strategies to efficiently and effectively respond to those needs.

Future-Focused Strategies. While health care providers use clinical guidelines and medical tools to assess the needs of individual patients, assessing entire populations or service areas is a larger and more difficult process. When preparing for the future, we recognize that neither the

customer who comes through Compass's doors today, nor the needs demanding the most attention at present, necessarily represent the long-term health needs or emerging health improvement opportunities in the communities we serve.

Anticipating Change. The regions that Compass serves today are continually changing. Demographic shifts and population growth will place new demands upon the current service capacity. It is vital that we anticipate and plan for the changing needs of our communities three to five years down the road.

Accreditation and Certification. Meeting accreditation standards, such as those put forth by CARF and HRSA, which demand that we have a systematic ongoing process for surveying needs, listening to the voices of stakeholders, and weaving that information into our strategic planning process.

The Purpose of Needs Assessment

The first task of needs assessment is to define the question(s) to be answered. The questions define the scope of our activity and inquiry, shaping the information available to be used and the partners who will be engaged. The questions addressed in our needs assessment process are from multiple levels, from the broad to the targeted:

- What are the current and emerging behavioral health, primary care, and oral health care needs of our communities?
- Are there condition-specific needs that we should address as indicated by the data?
- What kinds of initiatives should we undertake across Compass Health Network's service area in the coming three years to address the data-based needs identified?

Needs Assessment Steps

The Compass Health Needs Assessment process has proceeded according to a set of steps identified and agreed to at the outset by executive leadership, as follows:

- **Step 1:** *Define the community*. Defining the community is a key component of the needs assessment process as it determines the scope of the assessment and subsequent interventions. The scope is defined by Compass's service area; i.e., the four internally designated regions (five including the newly added ADAPT division, which has some overlap in counties served with the Eastern Region).
- **Step 2:** *Identify and engage stakeholders.* Includes internal and external stakeholders from multiple and representative layers of the community. This was done through internal meetings and surveys of leadership, as well as focus groups and surveys of other stakeholders, including Boards of Associates and customers.
- **Step 3:** *Identify, collect, compile and analyze data*. This has been accomplished by aggregating primary (we collected) and secondary (collected by others, existing, archival)

data, both qualitative and quantitative, to prioritize community health and behavioral health needs. Patients and community stakeholders have provided perspectives to complement quantitative findings through surveys, interviews, focus groups, and other meetings. *These data shed light on (a) existing and emerging needs in the communities served, and (b) assets and resources available to address those needs.*

- **Step 4:** *Select priority needs and community health issues.* The quantitative and qualitative data collected and analyzed in step 3 have been compiled and used to ***identify and prioritize needs.*** While quantitative data can illuminate the scope and severity of particular health issues, stakeholders in the community and the health care system explain and emphasize the urgency of these issues.
- **Step 5:** *Document and communicate the needs assessment.* This final step has resulted in this needs assessment report to be used in the Compass Health Network strategic planning process.

Sections of the Report

The remainder of this report comprises the following sections:

- A review of background, prevalence and trends (focused on behavioral health) with relevance to strategic planning for Compass Health Network.
- A socio-demographic and health status overview of Compass Health service area, including statistical comparisons by region, ZIP Code level analysis of “hot spots” for various health indicators, and a demographic analysis of Compass customers compared to regional populations.
- Staff survey of unmet need: a survey of compass health supervisors, directors, senior managers, and executives
- Needs assessment interviews of groups of customers with serious mental illness
- Structured needs assessment of customers with serious mental illness
- Key findings from multiple Compass health surveys with relevance to assessing unmet needs
- Needs assessment input from regional stakeholder groups: survey results
- Prioritized population health needs across Compass Health regions drawn from community health needs assessments
- Conclusion: prioritized needs to guide strategic planning

Background, Prevalence, and Trends Relevant to Compass Health Network Needs Assessment and Strategic Planning

This chapter will provide essential background and context from national, state, and local sources, with a particular focus on behavioral health. First, we will review key findings from the ***2023 State of Mental Health in America*** study, including prevalence and access to care estimates for Missouri. Then, we will outline a range of known or emerging issues with clear relevance to strategic planning for health and behavioral health services, including: (1) an ongoing mental health crisis among youth, (2) the mental health crisis and need among young black men, in particular, (3) the mental health impact of social media, (4) substance use trends, including the ongoing opioid crisis and the rise of dangerous formulations such as fentanyl, (5) languishing in the general population, (6) the ongoing public health issue of gun violence and mass shootings and their psychological aftermath, (7) the health and mental health impact of climate change and the climate crisis, and (8) our emerging understanding of the importance of impacting social determinants of health.

The State of Mental Health in America: Key Findings for 2023

- In 2019-2020, 20.78% of adults were experiencing any mental illness (AMI). **That is equivalent to over 50 million Americans.**
- **The vast majority of individuals with a substance use disorder in the U.S. are not receiving treatment.** 15.35% of adults had a substance use disorder in the past year. Of them, ***93.5% did not receive any form of treatment***.
- **Millions of adults in the U.S. experience serious thoughts of suicide, with the highest rate among multiracial individuals.** The percentage of adults reporting serious thoughts of suicide is 4.84%, totaling **over 12.1 million individuals. 11% of adults who identified with two or more races** reported serious thoughts of suicide in 2020 – 6% higher than the average among all adults.
- **Over 1 in 10 youth in the U.S. are experiencing depression that is severely impairing their ability to function at school or work, at home, with family, or in their social life.** 16.39% of youth (age 12-17) report suffering from at least one major depressive episode (MDE) in the past year. 11.5% of youth (over 2.7 million youth) are experiencing severe major depression.
- **Over half (54.7%) of adults with a mental illness do not receive treatment, totaling over 28 million individuals.** In Missouri (ranked #18), 50% of adults with a mental illness did not receive care—this equates to 461,000 adults statewide.
- **Almost a third (28.2%) of all adults with a mental illness reported that they were not able to receive the treatment they needed.** Individuals reporting unmet need are those seeking treatment and facing barriers to getting the help they need. The state prevalence of adults with AMI reporting unmet treatment needs ranges from 18.4% in West Virginia to 38.8% in Indiana, with Missouri coming in at 29.6%.

- **Cost of care remains the most frequently reported barrier to care:** most adults with AMI who reported unmet need for treatment indicated that they did not receive care because they could not afford it (42%).
- **10.8% (over 5.5 million) of adults with a mental illness are uninsured. Hispanic adults with AMI were least likely to have health insurance, with 19% reporting they were not covered by insurance.**
- **6.34% of youth in the U.S. reported a substance use disorder in the past year.** That is equivalent to over 1.5 million youth in the U.S. who meet the criteria for an illicit drug or alcohol use disorder.
- 22.87% of adults who report experiencing 14 or more mentally unhealthy days each month were not able to see a doctor due to costs. In Missouri (ranked 42), the percentage is well above the national average, with 27.35% of adults experiencing frequent mental distress being unable to afford a doctor's visit.
- **59.8% of youth with major depression do not receive any mental health treatment. In Missouri, ranked 43rd, over 6 in 10 youth with depression do not receive care.**
- Nationally, only 28% of youth with severe depression receive some consistent treatment (7-25+ visits in a year). In Missouri, ranked 37th, only 21.2% of youth with severe depression receive some consistent treatment.
- Only .718 percent of students are identified with emotional disturbance for an individualized education program (IEP). IEPs, with sufficient resources for schools and teachers, are critical for ensuring that youth with disabilities can receive the individualized services, supports, and accommodations to succeed in a school setting.
- **In the U.S., there are an estimated 350 individuals for every one mental health provider.** However, these figures may actually be an overestimate of active mental health professionals, as it may include providers who are no longer practicing or accepting new patients.

Prevalence of Mental Illness in Missouri (2023)

Missouri ranks 30 in the U.S. for prevalence of mental illness, according to Mental Health America's Prevalence Ranking, made up of the following 6 measures:

1. Adults with Any Mental Illness (AMI)
2. Adults with Substance Use Disorder in the Past Year
3. Adults with Serious Thoughts of Suicide
4. Youth with At Least One Major Depressive Episode (MDE) in the Past Year
5. Youth with Substance Use Disorder in the Past Year
6. Youth with Severe MDE.

A ranking 1-13 for prevalence indicates a lower prevalence of mental health and substance use issues compared to states that ranked 39-51, placing Missouri in the upper middle range compared to the rest of the U.S.

Adults

Missouri is ranked 39 by Mental Health America with regard to adults with mental illness, indicating that adults have a ***higher prevalence of mental illness and lower rates of access to care.***

The seven measures that make up the Adult Ranking include:

1. Adults with Any Mental Illness (AMI)
2. Adults with Substance Use Disorder in the Past Year
3. Adults with Serious Thoughts of Suicide
4. Adults with AMI Who Did Not Receive Treatment
5. Adults with AMI Reporting Unmet Need
6. Adults with AMI Who are Uninsured
7. Adults Reporting 14+ Mentally Unhealthy Days a Month Who Could Not See a Doctor Due to Costs

Youth

Missouri ranks somewhat better (i.e., 36) for mental health among youth according to Mental Health America, but still in the high/moderate range on youth mental health rankings. The seven measures that make up the Youth Ranking include:

1. Youth with at Least One Major Depressive Episode (MDE) in the Past Year
2. Youth with Substance Use Disorder in the Past Year
3. Youth with Severe MDE
4. Youth with MDE Who Did Not Receive Mental Health Services
5. Youth with Severe MDE Who Received Some Consistent Treatment
6. Youth with Private Insurance That Did Not Cover Mental or Emotional Problems
7. Students (K+) Identified with Emotional Disturbance for an Individualized Education Program.

Access to Care

MHA also analyzed how much access to mental health care exists within all the states and the District of Columbia, with Missouri ranking 36. The access measures include access to insurance, access to treatment, quality and cost of insurance, access to special education, and workforce availability. A low Access Ranking (39-51) indicates that a state provides relatively less access to insurance and mental health treatment, indicating Missouri is again in the upper middle range indicating need for more access to care.

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The Ongoing Youth Mental Health Crisis

The youth mental health crisis declared in 2021 by the Surgeon General and many national professional organizations such as the American Academy of Pediatrics does not appear to have abated, and may be continuing to worsen in some ways. Following is an update on what we know about the ongoing crisis, with an eye toward understanding the issues and developing solutions.

Children and Youth are Still Struggling in Many Ways with Their Behavioral Health

- The number of youth searching for help with their mental health is increasing.
- Throughout the COVID-19 pandemic, youth ages 11-17 have been more likely than any other age group to score for moderate to severe symptoms of anxiety and depression.
- Rates of suicidal ideation are highest among youth, especially LGBTQ+ youth.
- 70 percent reported that one of the top three things contributing to their mental health concerns was loneliness or isolation.
- Lack of social connection is more likely to lead to loneliness and depression in middle childhood and adolescence, and is not necessarily mitigated by the use of electronic communication.
- Because older adolescents use social media more frequently than their younger peers they may experience higher levels of distress (see social media section below).
- When youth experience school disruption, they are less physically active, spend more time on screens, have more irregular sleep patterns, and less favorable diets, tending to result in weight gain and loss of cardiorespiratory fitness.
- 45% of 14-18-year-olds are not hopeful about the future, and more than half of LGBTQ+ teens are not hopeful about the future.
- Only 1 in 4 young people think they can make a change in mental health in their communities.
- As regards a demographic pocket of vulnerability, the data consistently show that young women (late adolescence through young adulthood, roughly 16-25) are having particular struggles with depression and loneliness, with potential consequences of higher SUD, suicidality, and other negative health outcomes.
- Young people have been affected by family stressors: parental mental illness, family financial stressors, child abuse/neglect, and complicated/traumatic bereavement.
- A huge number of children and young people are experiencing bereavement due to the pandemic. Adolescent grief is unique due to biopsychosocial factors such as increased risk-taking, identity-formation, and limited capacity for emotional regulation, putting them at increased risk of developing complicated grief (CG).
- We should bear in mind that there are dangers in medicalizing the normative reactions of young people to the distress caused by pandemic disruptions—such as development of low sense of agency, low self-esteem, and dependency on professionals. Because of their

intensity and/or duration, these initial psychological symptoms may lead to psychiatric disorders in a minority of young people.

What About Youth in Missouri in Particular?

- Major depressive disorders among Missouri youth have increased dramatically year over year and are higher than the national average. If left untreated, childhood depression is much more likely to persist into adult with all the downstream consequences of chronic depression, causing significant reductions in quality of life, educational attainment, length of life, productivity, and attenuation of other life goals.
- SEVERE major depressive disorders among youth have increased in Missouri, also exceeding the national average. It is important to remember that although these diagnoses and episodes are presented in separate categories, as in adults, depression in youth very often co-occurs with other issues such as SUD, anxiety, conduct problems, and physical illnesses or somatic complaints.
- 59% of youth with depression do not receive treatment in Missouri.
- Youth with severe depression rarely receive any consistent treatment in Missouri. The state ranks a dismal 49 of 50 on this indicator, with only 19% receiving some consistent treatment.

Recommendations: What Should Compass Consider Doing About All This?

- Promote social justice and equity, as well as redouble collaborative efforts/investment in schools and social services in order to buffer the effects of the risk factors discussed above; behavioral health and healthcare have important roles to play as advocates for young people.
- Broadly disseminated psychoeducational interventions for young people and parents should be implemented—and they should offer practical, evidence-based and accessible advice for mental health promotion. Note: It is important to involve adolescents in co-production of the materials targeted to them and find effective ways to engage their developing interests and preferences. Also, it will be important to measure whether these and other interventions are having a beneficial impact on young people's health and mental health.
- Stating the obvious yet thorny problem, in order to provide more targeted support to young people who develop psychiatric disorders as described above, Compass needs to have adequate clinical capacity and maximize access to care. Many efforts are under way to achieve these already, and now is the time to increase them even more in order to target the emerging issues laid out in this report.
- Recognize the importance of screening and treatment for youth being available in schools, primary care clinics, and even dental clinics, all areas in which Compass has significant opportunity for innovation and improvement.
- The root causes of youth not receiving efficient and timely care are likely several, but the aforementioned limited coverage for behavioral health services is certainly one of them. However, another key contributor is the often inconsistent and late identification of the problem in primary care settings where Compass has many opportunities to make improvements.

- Based on data showing mental health crises skewing younger, our evaluation should include consideration of looking for and responding to mental health problems earlier in children's developmental arc, especially in the under 12 age category.
- Compass knows the difficulty many families have in finding a qualified provider for these services, and should continue to pursue aggressive and innovative recruiting and workforce development strategies to help with this problem. The tall challenges we face in this regard are underscored by the report of severe shortages of child psychiatrists in pretty much every state in the U.S., including Missouri.
- Given the data on rapid increases in suicidal ideation and attempts among youth, we should evaluate how social, emotional, behavioral, and cultural factors may be associated with these increased rates, and task a group with studying the problem locally to produce action plans as appropriate. This is particularly true for LGBTQ+ youth under any reasonable reading of the research.
- On a related note, we know that many of these children and youth are going to the ED with suicidality, and we also now know that fewer than half of EDs have clear pediatric mental health care policies. Furthermore, EDs in more remote, rural hospitals are 60% less likely to have such policies than more urban counterparts—a situation often encountered in Compass's rural and small-town service areas—highlighting the need to proactively engage with hospital EDs to ensure coordination of care and follow up when children/youth leave the ED.
- In light of the clear connection between loneliness and poor mental and physical health, and the fact that loneliness was already being called an epidemic prior to COVID-19, it is a good time to consider implementing the use of a loneliness screening tool in Compass clinics. But this screening cannot be a "bridge to nowhere;" we should seek, develop, and adapt available evidence-based practices to ameliorate loneliness, such as those described by Pearson (2019), which include mindfulness-based stress reduction and technology based interventions. Indeed, there are few things that would "inspire hope and promote wellness" more than reducing loneliness by helping people connect with themselves and others. We should seek grant funding that may be available for developing and implementing such strategies.

The Mental Health Needs of Young Black Men

There is an increasing awareness of the disparities in mental health treatment sought by Black and White Americans, and the increasing rates of mental health issues and suicide among young Black men (YBM) in particular. Alarmingly, the suicide rate among Black people between 2018 and 2021 increased by 19.2%, according to the U.S. Centers for Disease Control and Prevention. The most rapid rise happened among those ages 10 to 24, with the suicide rate among Black youth rising by 36.6%. Yet, identification and treatment of mental illness among YBM remains a clear disparity. Black men have identified several barriers to depression treatment, including norms of masculinity, mistrust of the health care system, and affordability of care (Hudson et al., 2018). In addition, Black men's depression often manifests in unconventional symptoms (e.g., pain, anger attacks, abusive behavior, overworking), which can

make identification and treatment difficult. Further, Goodwill, et al. (2020) note "racial discrimination, economic hardship, physical illness, and disengaged psychosocial coping behaviors" are among the prevalent risk factors for mental health problems among YBM. Yet, largely owing to the stigma of mental illness, productive conversations about mental health rarely occur in Black communities (Watkins, 2019), leaving mental health providers with insufficient guidance on how to overcome extant barriers. Pursuant to a directive by the Compass Board of Directors to better address this mental health disparity, under a program entitled Plan to Action, we have conducted a series of focus groups of YBM (ages 13-19) across Missouri to hear from participants in their own words about their mental health experiences, challenges, resources, and needs. Some of the key findings to date are: (a) hiding, cutting off, and not dealing with difficult emotions were common strategies, as was the theme of coping through emotional self-reliance; (b) few YBM related to the common conception of depression, and were more likely to describe experiencing depression as anger or irritability; and (c) representation among mental health providers is critical, as many indicated an inability or refusal to work with a therapist who was not Black. Additional focus groups are planned, as is a broader survey of YBM, and upon their completion, a report of findings and recommendations will be made to the Compass Executive Team and Board of Directors.

Online/Social Media Behaviors and Mental Health (Especially Among Youth)

According to the Pew Research Center, **69% of adults and 81% of teens** in the U.S. use social media. As social media are relatively new technologies, there are few studies that establish the long-term consequences, either positive or negative, of social media use. We know that social media use has enormous potential benefits for information sharing, social connection and the like. However, multiple studies have found a strong link between heavy social media and an increased risk for ***depression, anxiety, loneliness, self-harm, and even suicidal thoughts***. Providing further context and detail regarding these concerns, in February 2023, the Chief Science Officer for the American Psychological Association, Mitch Prinstein, PhD, presented testimony before the Senate Judiciary Committee on the nexus of social media and youth mental health. Below are selections from his testimony most relevant to parents, teachers, policymakers, and behavioral health professionals:

- "Pre-adulthood use of technology and social media may be particularly concerning. There is reason to be significantly concerned about the age at which many youth begin using technology and social media."
- "Social Media and Loneliness. Although ostensibly social media platforms are built to foster interpersonal contacts and connections, they are not designed primarily to foster meaningful and mutually rewarding relationships that confer psychological benefits. However, these are not the functions that are highlighted on most platforms. In other words, social media offers the 'empty calories of social interaction,' that appear to help satiate our biological and psychological needs, but do not contain any of the healthy ingredients necessary to reap benefits."

- "Heightened Risk for Negative Peer Influence. Adolescents frequently are exposed to content online depicting illegal, immoral, dangerous, and unethical behavior. The architecture of many social media platforms allows users to like, repost, or comment on this content. Emerging data suggest that these features of social media present a significant risk to adolescents' mental health."
- "Risks for Addictive Social Media Use. Youths' biological vulnerabilities also have significant implications for "problematic social media use" or addictive behaviors; note that the regions of the brain activated by social media use overlap considerably with the regions involved in addictions to illegal and dangerous substances."
- "Alterations in Brain Development. Youths' biological vulnerability to technology and social media, and their resulting frequent use of these platforms, also has the potential to alter youths' neural development since our brains develop in response to the environment we live in. Recent studies have revealed that technology and social media use is associated with changes in structural brain development (i.e., changing the size and physical characteristics of the brain)."
- "Youth's Exposure to Unmonitored Content Poses Potential Risks. There are two domains of problematic content online that many youth are exposed to. Research demonstrates that this also likely contributes to mental health difficulties among children and adolescents. One domain pertains to content that actively showcases and promotes engagement in psychologically disordered behavior, such as sites that discuss eating disordered behaviors. A second area of concern regarding online content pertains to the frequency of online discrimination and cyberbullying, including youths' posts that encourage their peers to attempt suicide. Research demonstrates that online victimization, harassment, and discrimination against racial, ethnic, gender, and sexual minorities is frequent online and often targeted at young people."
- "The Potential Effects of Digital Stress. Social media platforms frequently include a variety of features designed to maintain users' engagement online, or encourage users to return to the app. Psychological theory and research have begun to reveal that this has become a significant source of stress. This is highly relevant since stress is one of the strongest predictors of children's and adolescents' mental health difficulties, including suicidal behavior."
- "Social Media Encourages Social Comparisons. The quantitative nature of social media, combined with the use of visual stimuli, creates a fertile ground for social comparisons. The opportunity for constant feedback, commentary, quantitative metrics of approval, and 24-hour social engagement is unprecedented among our species. Research suggests that these social comparison processes, and youths' tendency to seek positive feedback or status (i.e., more "likes," followers, online praise) is associated with a risk for depressive symptoms. In addition, psychological science demonstrates that exposure to this online content is associated with lower self-image and distorted body perceptions among young people."

https://www.apa.org/news/press/releases/2023/02/harms-benefits-social-media-kids

Significant Substance Use Trends and Issues

Though there are other important substance related issues to track and address in strategic planning for Compass, the rise in fentanyl related deaths seems to "swamp the boat" in such discussions. The following are key pieces of data that make this point clearly:

- "Deaths due to drug overdose among adolescents nearly doubled in the first year of the pandemic, likely driven by illicit fentanyl. After remaining stable for several years, drug overdose deaths among adolescents increased from 282 deaths in 2019 to 546 deaths in 2020. The rise in fentanyl-laced substances are likely the primary driver behind this change."

- **"**In the first year of the pandemic, drug overdose deaths more than doubled among adolescent males. After a period of relative stability, both males and females experienced large increases in drug overdose deaths from 2019 to 2020. As a result of these increases, the gap in the rate of drug overdose deaths between adolescent males and females has widened."

- "Drug overdose deaths have increased across all racial and ethnic groups, and particularly among Hispanic and Black adolescents. In the first year of the pandemic, the largest increases in drug overdose deaths were among adolescents of color. While White adolescents continue to account for the largest share of drug overdose deaths, adolescents of color are accounting for a growing share of these deaths over time."

Source: Recent Trends in Mental Health and Substance Use Concerns Among Adolescents. Nirmita Panchal, Robin Rudowitz, and Cynthia Cox, Jun 28, 2022, available at: https://www.kff.org/coronavirus-covid-19/issue-brief/recent-trends-in-mental-health-and-substance-use-concerns-among-adolescents/

Languishing

As some of the intense fear and grief that held sway during lockdown and the height of the pandemic have faded, a state of "languishing" has taken hold for many. Organizational psychologist Adam Grant wrote in a recent editorial in the NY Times (April 19, 2021), "the pandemic has dragged on, and the acute state of anguish has given way to a chronic condition of languish. Languishing is a sense of stagnation and emptiness. It feels as if you're muddling through your days, looking at your life through a foggy windshield." The term languishing comes from sociologist Corey Keyes, who observed that many who weren't depressed were also not thriving, either. Research by Keyes indicates that those who are most likely to experience major depression and anxiety disorders in the coming 10 years are not the ones experiencing depressive symptoms today. Rather, they are the ones languishing right now. And a new study also shows that health care workers who were languishing at the beginning of the pandemic were about three times more likely to develop diagnosable PTSD. One of the best contributions

to psychology in the past few decades has been a shift to considering human functioning and mental health on a spectrum, with depression on one end and flourishing on the other. These are the bookends of mental and emotional experiences. And flourishing should be considered the pinnacle of well-being…wellness, which is what Compass exists to promote. When we are flourishing, we have a strong sense of meaning, mastery and mattering to other people. Just as flourishing is the peak, depression is the dark valley…the opposite of well-being is ill-being. We feel drained, despondent, and struggle with worthlessness. Languishing is in the middle of this spectrum.

As Dr. Grant put it, "Languishing is the neglected middle child of mental health. You don't have symptoms of mental illness, but you're not the picture of mental health either. You're not functioning at full capacity. Languishing dulls your motivation, disrupts your ability to focus, and triples the odds that you'll cut back on work. It appears to be more common than major depression—and in some ways it may be a bigger risk factor for mental illness."

It is difficult to know how Compass should begin to more fully address this neglected middle child of mental health, and it may be difficult for therapists and other providers to know how to take it on. So perhaps more continuing education on languishing and how to help clients who are experiencing it would be advisable. Some recommendations have emerged (from GoodTherapy.org) as to how to go about this:

"1. Give their feelings a name.

First things first: If your clients just feel a bit "off" and don't know that they are actually suffering from a legitimate condition, it will be that much harder to take proactive steps to improve their mindset and well-being. That being the case, you need to identify their condition and commiserate with them so they know that languishing is a real condition and that you understand what it's like to suffer from it.

2. Encourage clients to practice mindfulness.

Folks who are languishing tend to lose touch with their inner thoughts and feelings.
Instead of letting life come to them, encourage your clients to take a proactive approach to their day to day by practicing mindfulness. By practicing mindfulness, clients can improve their mental clarity, develop a healthier state of mind and self-compassion, and get reenergized to take on the world.

3. Emphasize the importance of diet, exercise, and a good night's sleep

When clients aren't feeling their best, it might be because they're not getting enough exercise, they're not eating a well-balanced diet, and they're not getting a good night's sleep. As you begin deciding treatment options, make sure to raise these issues with your clients. Studies show that regular exercise, healthy eating, and optimal sleep can have profoundly positive effects on our overall health and well-being. If clients develop the right habits and stick to them, it's only a matter of time before they start flourishing once more.

4. Encourage clients to switch things up and get involved in new activities.
Sometimes, a change in scenery or a new hobby can transform the way we think of the world. Perhaps one of your clients is languishing because they've been working at home for the past year and miss the social interactions of the office. In this instance, you might suggest that they consider working from a neighborhood coffee shop once a week to see whether that improves their mood. Similarly, you should also encourage clients to get involved in new activities. This could entail volunteering at local senior living facilities, picking up a new sport like squash or pickleball, or even learning how to write code or play a musical instrument. The possibilities are endless.

Additionally, Compass may be well advised to create more psychoeducational offerings (videos, social media posts, tip sheet, etc.) to the public and to those we serve. Languishing may be very amenable to interventions such as group therapy or simple support groups focused explicitly on this issue.

Gun Violence and Mass Shootings

Mass shootings only account for about 1% of annual firearm deaths in the United States, but ***they occupy an outsize space in our public consciousness***. So, even though they remain a rare event, statistically speaking, but they do not feel like it. And though relatively few people will ever witness or survive mass shootings, many more will experience them, often intensely though vicariously, through non-stop 24/7 news reports and social media attention.

According to the Pew Charitable Trusts, "a growing body of research reveals that the negative effects of mass shootings spread much farther than previously understood, harming the health of local residents who were not touched directly by the violence. Mental health experts say the recognition should prompt authorities to direct more attention and resources toward preventing such events — *and helping a broader group of people after they occur*. Research shows that mass shootings lead to higher rates of depression and anxiety and higher risks for suicide among young people. They also lead to an overall decline in a community's sense of well-being."

Even though the political parties differ on what to do about guns, new research should prompt greater spending on mental health services, said Heather Harris, a research fellow in criminal justice at the nonprofit research organization Public Policy Institute of California. ***"Building up community mental health isn't just a way to prevent mass shootings, but a way to help people who are affected when it happens,"*** she said. "All that should be much more robust, but it takes resources and people capable of doing that work." Many jurisdictions have crisis psychological services that intervene after mass shootings, particularly when schools are involved. But experts on gun violence say those services generally don't last long and aren't extended to the wider community. Cost also remains a barrier for many residents who need mental health services. Even those with health insurance still often face substantial out-of-pocket expenses. But an equally nettlesome problem is a severe lack of mental health providers, particularly in rural America."

A paper published this year by the research forum Global Labor Organization found that ***adults who lived in U.S. counties where a mass shooting occurred were more likely to assess their physical and mental well-being negatively than those living elsewhere.*** Another recent study published by the National Academy of Sciences found that ***use of antidepressants prescribed to kids who lived within five miles of a school shooting increased by 21% in the two years after the incidents***. Using survey data, Soni and Tekin also published a paper in the *National Journal of Economic Research* in 2020 showing that ***residents who lived in communities where a mass shooting had occurred reported a significant downturn in their sense of their emotional well-being as well as their sense of their community as a safe and a desirable place to live.*** They examined 47 mass shootings between 2008 and 2017. One study in the *Journal of Gay and Lesbian Mental Health* demonstrated that even people living outside a county or state where a mass shooting occurred can be harmed by it. The study found that the 2016 massacre at Pulse, a gay nightclub in Orlando, Florida, increased severe psychological distress among gay men nationally. ***"Even if it's not happening in my county, the whole country is sort of a crime scene,"*** said Tekin.

Source: *Stateline*, an initiative of The Pew Charitable Trusts, 2022.

Climate Change and Mental Health

Climate change caused by humans is well documented (World Health Organization, 2015), and related concerns are associated with negative psychological outcomes (Clayton, 2020). In 2021, 78% adults in the United States reported that they were either very (48%) or somewhat (31%) concerned about climate change (Speiser & Hill, 2021a). Those who are most "Alarmed" nearly doubled between 2017 and 2021 and now comprise nearly a quarter (24%) of the United States population (Goldberg et al., 2021). *Stronger levels of climate worry are expressed by young people*: 67% of adults in the United States between 18-23 years old say they are somewhat or very concerned about the impact of climate change on their mental health, compared to 42% of adults in the United States between 56-74 years old (American Psychiatric Association, 2020).

As outlined by Amy Novotny (2023, *How does climate change affect mental health?* Available at www.apa.org): “From record-breaking hurricanes and wildfires to drought and intense heat, the Earth continues to experience dramatic increases in severe weather events as a result of human-inflicted damage to our climate. These climate change–fueled disasters are causing deleterious impacts on human health, such as respiratory issues, allergic reactions, compromised fetal and child development, gastrointestinal illnesses, and chronic diseases such as cancer.

The effects of climate change extend to an individual’s overall well-being, a finding that psychologists continue to elevate. Here are a few recent research findings examining the effects of climate change on mental health:

- **Gender-based violence**: In 2022, researchers at the University of Cambridge analyzed 41 studies that explored several types of extreme weather events, such as storms, floods, droughts, heatwaves, and wildfires. They found that gender-based violence appears to be exacerbated by extreme weather and climate events. Contributing factors include economic shock, social instability, enabling environments, and stress.
- **Posttraumatic stress disorder (PTSD)**: Survivors of the 2018 Camp Fire, one of the deadliest and most destructive wildfires in California history, had rates of PTSD on par with war veterans, and they were at increased risk for depression and anxiety, according to a 2021 study from the University of California–San Diego. Survivors of hurricanes and floods suffer similar rates of depression and PTSD.
- **Suicide**: The economic impacts of droughts lead to increases in suicide, particularly among farmers. Further, authors of a 2018 study in the journal *Nature* predicted warmer temperatures could lead to as many as 40,000 additional suicides in the United States and Mexico by 2050.
- **Aggression**: Higher temperatures lead to more aggressive behaviors. A 2021 study published in the *Journal of Public Economics* found that violent crime in Los Angeles increased by 5.7% on days when temperatures rose above 85°F compared with cooler days.
- **Anxiety**: Even some Americans who have not been directly affected by a climate disaster are experiencing climate anxiety—an overwhelming sense of fear, sadness, and dread in the face of a warming planet or anxiety and worry about climate change and its effects. A 2020 APA survey found that 56% of U.S. adults said climate change is the most important issue facing the world today. Nearly half of young adults ages 18 to 34 said they felt stress over climate change in their daily lives.”

Furthermore, vulnerable populations, including those with serious mental illness (SMI), are more likely to experience detrimental outcomes associated with climate change (Schwartz et al., 2022), yet little is known about how anxiety related to perceptions of climate change (Clayton, 2020) affects individuals with SMI (Taylor, 2020). Similarly, we know little about the prevalence of climate anxiety among individuals working in community behavioral health, and how it impacts work with SMI clients.

Given that climate change and resultant extreme weather events pose a threat to the health of all species on the planet, and indeed to our very existence, we assert that insufficient attention has been paid to the intersection of climate change and behavioral health. In our recent poll of behavioral health professionals in Missouri, 57% indicated they were “worried” or “very worried” about climate change, and yet 43% said they had thought about the mental health effects “not at

all." The same poll showed that for 32%, climate change comes up in their work "sometimes" or "very frequently." So, it appears timely and even urgent for behavioral health organizations to begin to better address the climate crisis so that our staff members can be educated, aware, and equipped as mitigators of the inevitable negative mental health effects of climate change as well as agents for climate action.

Social Determinants of Health

According to Healthy People 2030, "Social determinants of health (SDOH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks, and can be grouped into 5 domains (shown in the figure on the next page). Examples of SDOH include:

- Safe housing, transportation, and neighborhoods
- Racism, discrimination, and violence
- Education, job opportunities, and income
- Access to nutritious foods and physical activity opportunities
- Polluted air and water
- Language and literacy skills

SDOH also contribute to wide health disparities and inequities. For example, people who don't have access to grocery stores with healthy foods are less likely to have good nutrition. That raises their risk of health conditions like heart disease, diabetes, and obesity — and even lowers life expectancy relative to people who do have access to healthy foods.

Just promoting healthy choices won't eliminate these and other health disparities. Instead, public health organizations and their partners in sectors like education, transportation, and housing need to take action to improve the conditions in people's environments."

Healthy People 2030 goes on to explain that "addressing SDOH means focusing on resources needed to maintain health and quality of life. Examples of those resources include safe and affordable housing, high-quality education, healthy foods, local health and emergency services, and environments free of life-threatening toxins with opportunities for safe physical activity. Understanding and addressing place-based determinants that are linked to health disparities can improve health and advance health equity."

(Source: https://health.gov/healthypeople/priority-areas/social-determinants-health)

Of course, many of these SDOH are "upstream" factors—often unrelated to health care delivery, per se—but the body of SDOH research makes it very clear that they are essential to improving health and reducing health disparities. Compass engages in innumerable activities and initiatives to account for, address, ameliorate and improve SDOH among persons and communities served, from intensive work on expanding safe and affordable housing to

collaborating with local food banks to offering sliding scale and income-adjusted health care services. ***Assessing, accounting for, and impacting SDOH is, of necessity, a collaborative venture and it is essential to more fully achieving the Compass vision of healthy lives in the community for all.***

Sociodemographic and Health Status Overview of Compass Health Service Areas

Introduction

This section provides an overview and analysis of important sociodemographic, health status, health outcomes, and health risk factors, drawn primarily from County-by-County Health Rankings to paint a data-based picture of potential existing and emerging health needs in the Compass Health service area (see Appendix A for a “data dictionary” and references to better understand the source materials for the tables starting on the next page). For purposes of this assessment, the 48-county Compass Health service area was analyzed by county according to Compass Health’s internal designation of geographic/programmatic areas, including Central, Eastern, Southern, Western, and ADAPT of Missouri regions (please see the basic service area map for Compass Health Network below). The analyses described in this chapter allow for regional comparisons and enrich our understanding of “hot spots” and emerging needs.

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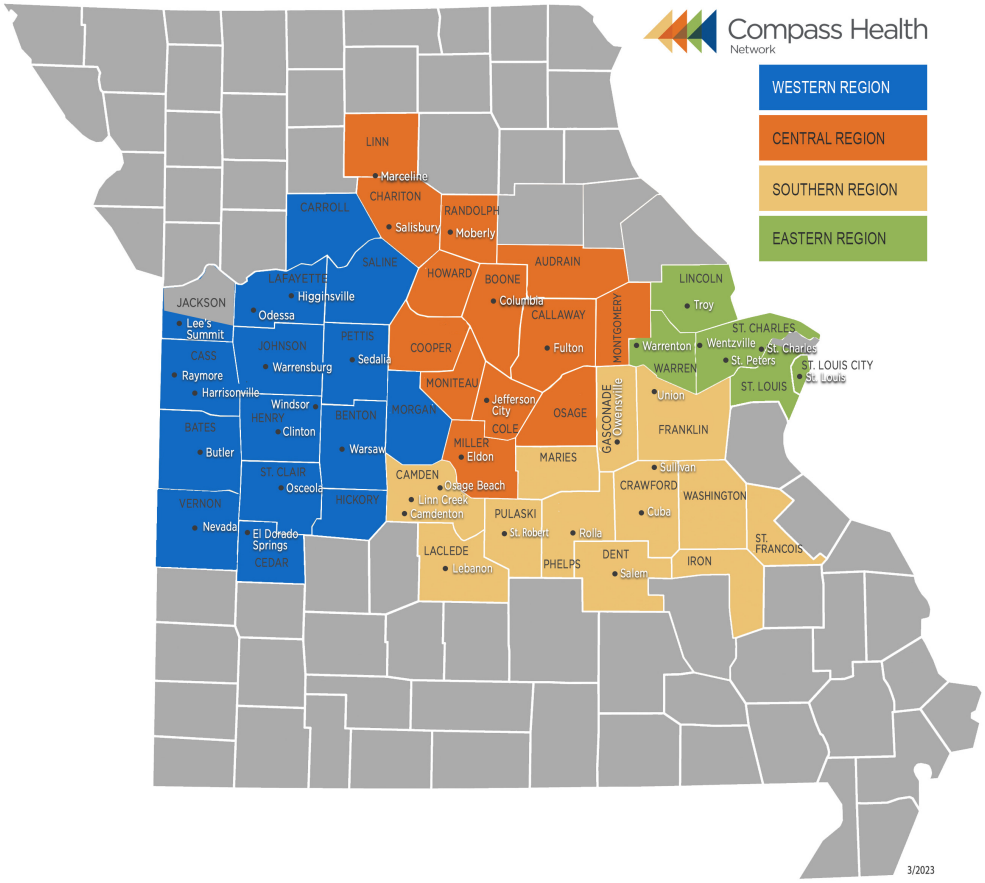
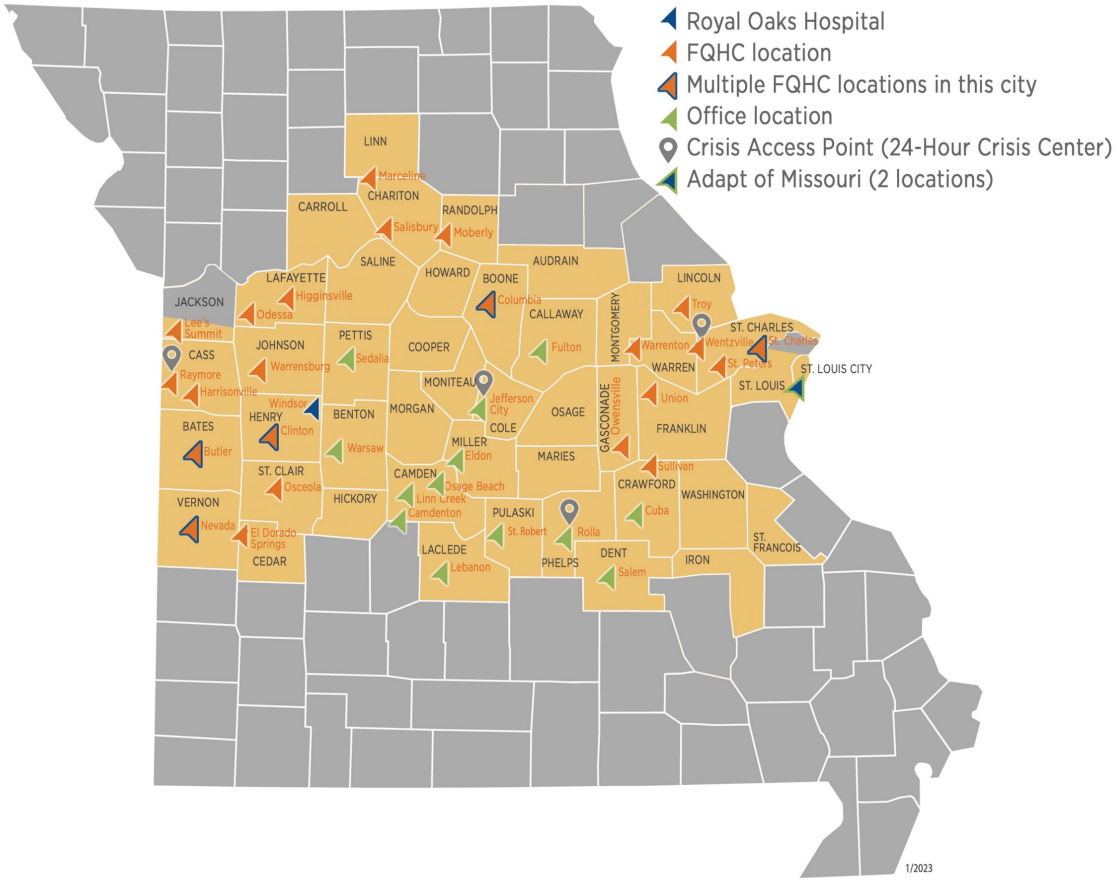


Please note that beginning with the current (2023) needs assessment process, Royal Oaks Hospital will be considered in an ancillary fashion herein, but will be the focus of its own independent Community Health Needs Assessment (CHNA) process, done in accordance with criteria established by the IRS for non-profit hospitals. This process for Royal Oaks will be conducted contemporaneously with the Compass systemwide needs assessment every two years (exceeding the minimum IRS criterion of every three years) and the resultant report will be published following dissemination of the Compass systemwide needs assessment report. Please see the service area map below for a better view of the expanse and complexity of Compass Health Network's presence in Missouri at present:



Description and Analysis of Compass Health Regions

The indicators selected for this profile were chosen after a compilation process from multiple sources (see Appendix A), yielding several hundred potential indicators. That field was sifted through and winnowed down to a manageable and meaningful set of indicators most predictive of, or related to, length of life, quality of life, health risk, and social determinants of health. The

tables beginning on page30 present all selected indicators averaged or tabulated across the Compass regions (i.e., county level data are the individual unit of analysis). All indicators were subjected to a one-way analysis of variance (i.e., ANOVA, using SPSS statistics software) by region, whereupon any indicator showing statistically significant differences between regions (meaning the differences are unlikely to be attributable to chance or random error, using a significance level of .05) were further analyzed to determine where any significant differences occurred. For those interested in the technical specifications, the post hoc test utilized is referred to as the Least Significant Difference test, which also makes use of the standard .05 significance level.

A look at the tables below indicates the following *differences* across regions, which may suggest the need for targeted approaches to better understand and address the identified concerns:

- Premature death (construed as years of potential life lost rate): ADAPT had the highest rate of premature death, statistically significantly higher than all other regions except Southern (ADAPT and Southern did not significantly differ from each other).
- Poor or fair health: Consistent with the last assessment in 2021, the population in the Eastern region had the lowest percentage of their population who rated themselves as being in poor or fair health of all regions, and the Southern and Western regions had significantly higher proportions of poor or fair health.
- Average number of physically unhealthy days: The number of physically unhealthy days in the past 30 days was lowest for the Eastern and ADAPT regions (which did not differ from each other), while Southern and Western were significantly higher (and also did not differ from each other).
- Average number of mentally unhealthy days: The pattern of poor mental health days in the last 30 mirrors physical health, with ADAPT and Eastern evidencing the lowest rates, and Western and Southern showing the highest (significantly so, and they do not differ from each other).
- Smoking: Interestingly, and perhaps not surprisingly, smoking patterns also mirror the patterns of physical and mental lack of wellness; that is, Eastern and ADAPT regions (which did not differ from each other) showed the lowest smoking rates, while Southern and Western were highest, and significantly so (and also did not differ from each other).
- Frequent physical distress: This indicator is the percentage of adults reporting at least 14 days of poor physical health per month, and the pattern holds true again (lowest for the Eastern and ADAPT regions, which did not differ from each other, while Southern and Western were significantly higher and also did not differ from each other).
- Frequent mental distress: This is the percentage of adults reporting at least 14 days of poor mental health per month, and the same pattern as above holds.

The evidence analyzed here supports a conclusion that the Southern and Western regions experience significantly worse health status, health behaviors, and health related quality of life than Compass's other regions. These data analyses are also consistent with the mind-body unity hypothesis in that the mental health indicators closely mirror the physical health indicators; that is, those regions with the highest physical distress also showed the highest levels of mental unwellness (with Western and Southern being the least healthy). There is an interesting conundrum here though: the ADAPT region had the highest rates

of premature death, and yet was among the lowest for rates of physically and mentally unhealthy days. The disparity between the two counties comprising the region (St. Louis County and St. Louis City) likely explains the apparent discrepancy, which also obviously argues for examining the two counties separately in strategic planning for health services.

- Mammography: This key indicator of the uptake of preventive health care, the rate of mammograms in the population, was significantly different by region in the 2021 assessment, but this time there were no significant differences between regions.
- Flu vaccine: Another indicator of preventative care uptake is the vaccination rate for influenza, and once again the pattern of better health practices in the Eastern and ADAPT regions, and significantly worse practices in the Southern and Western regions emerged.

The evidence analyzed here supports a conclusion that the Southern and Western regions engage in preventative health approaches at significantly lower rates than either of Compass's other regions when defined as uptake of the flu vaccine.

Teen birth rate: In the last assessment there were regional differences on this indicator (significantly fewer teen births in the Eastern than the Southern region), but this time no differences reached statistical significance. This only indicates that relative differences are now less pronounced, and not necessarily that work toward reducing the teen birth rate is not warranted for ALL regions. This indicator is of great concern for the health outcomes as regards both the mother and the child, and of course, pregnancy and delivery can be harmful to the teenager's health, as well as longer term social and educational development/attainment.

- Median household income is significantly higher in the Eastern region than in all others, which do not differ from each other, with the largest average gap between Eastern and Southern, with the latter having $26,282 lower median income.
- Uninsured: There are significantly lower rates of being uninsured in the Eastern and ADAPT regions than in all others (which do not differ from each other), with the largest difference of 4.8% between Eastern and Western.
- Unemployment: Historically, the Central and Eastern regions are significantly lower than the Southern and Western regions, and this remains so in 2023; however, the newly added ADAPT region shows the highest rate of unemployment and is even statistically significantly higher than Western.
- Children in poverty: The population rate of children in poverty is significantly higher, ***over twice as high (19%-20%)***, in the Southern, Western, and ADAPT regions than in Eastern (which averages 9.7% of children in poverty).
- Severe housing problems: Another pre-existing risk factor for poor life and health outcomes is having difficulty securing stable housing; severe housing problems are dramatically worse in the ADAPT region than all others (about 17% of the population), and significantly worse for the population in the Eastern, Southern and Western regions (all averaging around 12%) than for those in Central (9.8%).
- Food insecurity is also significantly worse among those in the Southern (16%) and Western (15%) regions than in the Eastern, Central and ADAPT regions (which do not differ from each other). It should be noted that this is juxtaposed with a finding that there are no significant differences between regions in percentage of the population with limited access to healthy foods (averaging between 4% an 8%; p=.27).

- Residential segregation along black/white racial lines is highest in the ADAPT and Southern regions (which do not differ), which are significantly more segregated than Eastern, Central and Western regions (which do not differ). This is construed as an index of dissimilarity where higher values indicate greater residential segregation between Black and white county residents. It should be noted in the context of these regional differences that all Compass regions are below the Missouri average segregation index, even with the addition of ADAPT which adds substantially to the total number of Black population in the Compass service area.

The pattern of social and economic indicators that have been empirically associated with poorer health behaviors and outcomes shows the same basic regional pattern as indicated above, as the Southern and Western regions are statistically significantly worse. Please see the section on Social Determinants of Health in the previous chapter for more on the implications of these differences.

- Overdose mortality: This is the rate of drug overdose deaths, and the ADAPT region stands alone on this indicator, averaging 61 deaths per 100,000 population, significantly higher than all other regions. The next cluster is comprised of the Eastern (34) and Southern (37) regions, and the regions with the lowest rates are Central (18) and Western (17).
- Social association rate (number of membership associations per 10,000 population): As with the last assessment, the Eastern region remains lowest on this indicator of social connection at 6.8%, but the regional differences did not reach statistical significance ($p>.05$) as they did in 2021.

Overdose deaths are the striking exception to the geographic pattern of health indicators and issues noted above, with greater variability. Such deaths are highest in the ADAPT region by a large margin, and even this margin is attenuated by the combining of St. Louis City and County in all likelihood; overdose deaths are also statistically significantly higher in the Eastern and Southern regions than in the Central and Western regions. One influential model of addiction and dangerous substance use posits that it is often a failure of personal and social connection—so it is worth noting the overlay of lower rates of social connection/associations in the Eastern region as well, though the difference did not reach statistical significance as it did two years ago.

NOTE: Due to the diversity and disparities in sociodemographic and health status indicators in the two counties comprising the ADAPT region, Appendix B provides a needs assessment that better accounts for those differences and offers additional recommendations sourced from high quality community-based needs assessments from the past couple of years.

Health Indicators and Sociodemographic Profile of Compass Regions						
	Missouri	Central	Western	Southern	Eastern	ADAPT
Quality and Length of Life						
Premature death (p<.001)	8,860	8,093	9,000	10,405	8,558	11,345
Poor or fair health (p=.04)	18%	20%	22%	22%	20%	19%
Poor physical health days (p=.02)	4.0	4.5	4.7	4.7	4.4	4.0
Poor mental health days (p=.01)	4.9	5.0	5.1	5.2	5.0	4.5
Low birth weight (p<.001)	9%	8%	8%	8%	8%	11%
Health Behaviors						
Adult smoking (p=.009)	20%	23%	24%	24%	23%	18%
Adult obesity (p=.002)	35%	33%	35%	34%	33%	34%
Food environment index (p=.001)	6.7	7.7	7.1	6.9	7.6	7.9
Physical inactivity (p=.02)	30%	33%	35%	34%	33%	30%
Access to exercise opportunity (p=.008)	70%	38%	41%	53%	53%	94%
Excessive drinking (ns)	19%	18%	18%	18%	19%	18%
Sexually Transmitted Infection (p=.001)	560.8	362.7	352.6	321.7	391.4	1034.4
Teen births (ns)	23	24	28	30	23	23
Clinical Care Factors and Availability						
Uninsured (p=.002)	12%	13%	15%	15%	12%	10%
Primary care physicians (p=.002)	1,405:1	3,952:1	3,293:1	4,940:1	5,991:1	926:1
Dentists (ns)	1,650:1	3,345:1	3,273:1	3,345:1	4,024:1	1,356:1
Mental health providers (p=.02)	457:1	1,089:1	1,207:1	1,089:1	2,785:1	270:1
Preventable hospital stays (p=.03)	4,155	3,423	4,269	4,901	3,875	4,377
Diabetes monitoring (ns)	86%	85%	85%	84%	86%	
Mammography screening (ns)	45%	45%	40%	40%	44%	44%

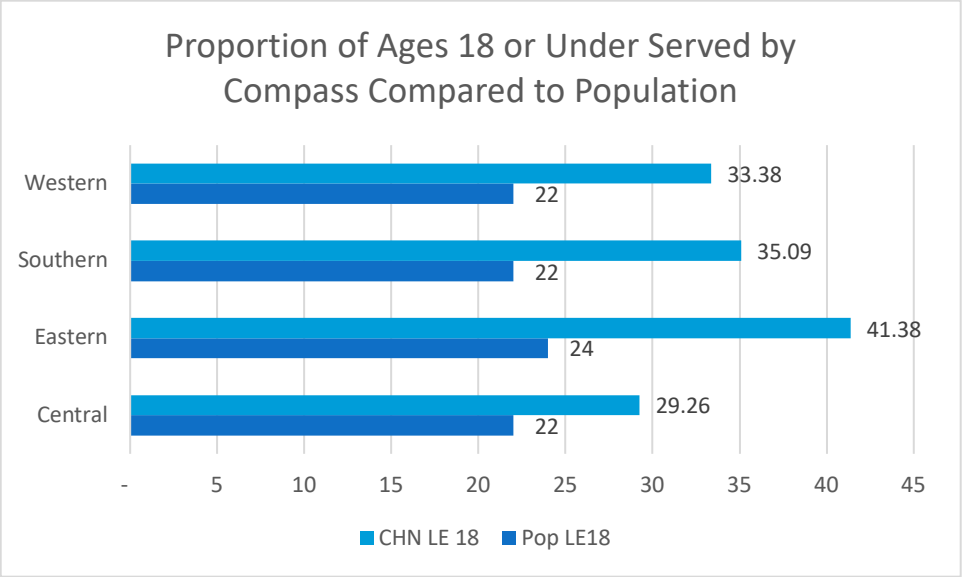
Flu vaccinations (p=.04)	47%	43%	38%	37%	49%	50%
Social & Economic Factors						
High school graduation (p=.05)	91%	89%	88%	86%	90%	91%
Unemployment (p=.003)	6.1%	5.0%	5.7%	6.2%	5.5%	7.4%
Children in poverty (p=.03)	16%	16%	20%	19%	14%	20%
Income inequality (p=.01)	4.5	4.2	4.2	4.3	4.0	5.2
Children w single parents (p<.001)	25%	21%	20%	22%	20%	38%
Social associations (ns)	11.5	12.2	12.1	11.9	10.1	12.0
Violent crime (p<.001)	481	215	328	237	326	1082
Injury deaths (p<.001)	96	75	95	107	92	137
Severe housing problems (p<.001)	13%	10%	13%	13%	13%	17%
Other Health and QOL Indicators						
Frequent physical distress (p=.02)	12%	14%	15%	15%	13%	13%
Frequent mental distress (p=.02)	16%	17%	17%	18%	16%	15%
Diabetes prevalence (p=.03)	9%	10%	10%	10%	9%	11%
HIV prevalence (p<.001)	248	152	137	115	78	694
Food insecurity (p<.001)	13%	13%	15%	16%	11%	13%
Limited access to healthy food (ns)	7%	6%	9%	8%	4%	4%
Drug Overdose mortality (p<.001)	28	18	17	37	34	61
Motor vehicle crash death rate (p=.02)	15	17	22	23	16	13
Insufficient sleep (p=.04)	35%	35%	36%	36%	34%	36%
Clinical Care						
Uninsured adults (p<.001)	14%	15%	17%	17%	12%	12%
Uninsured children (ns)	7%	8%	9%	8%	6%	5%
Social & Economic Factors						
Disconnected youth (ns)	7%	8%	13%	8%	9%	8%
Median household income (p<.001)	$58,812	$54,915	$52,055	$50,484	$76,766	$57,369

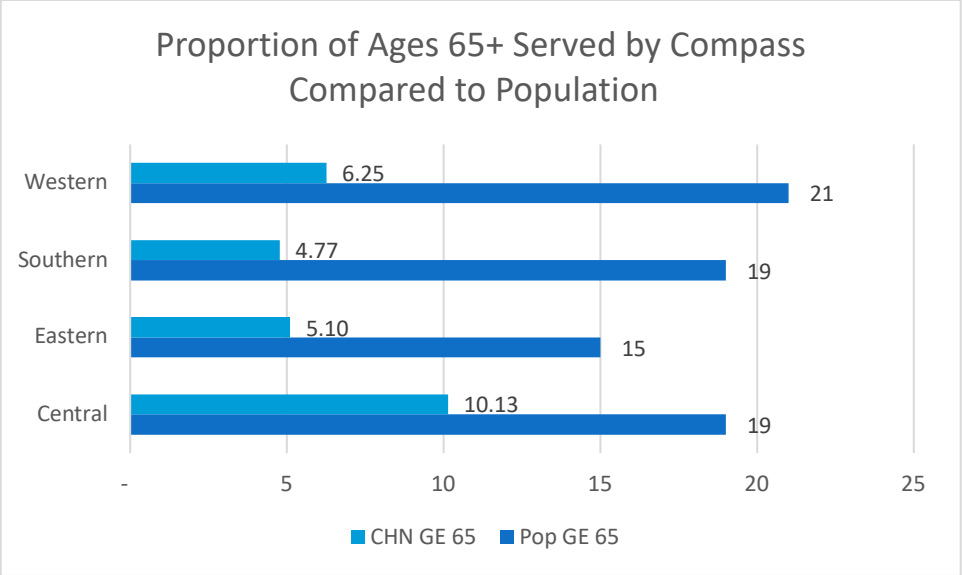
Residential segregation black/white (p=.003)	72	43	47	61	45	69
Residential segregation nonwhite/white (p=.03)	55	31	35	32	29	58
Homicides (p=.02)	10	5	9	7	4	30
Suicides (p=.05)	19	22	21	23	19	13
Firearm fatalities (p=.005)	21	19	19	21	24	39
Demographics						
Population	6,151,548	502,334	1,106,504	447,669	502,917	1,291,665
% below 18 years of age (ns)	22.3%	22.2%	22.0%	21.4%	23.8%	20.3%
% 65 and older (ns)	17.7%	19.6%	21.9%	19.9%	16.3%	16.8%
% Non-Hispanic African Amer (p<.001)	11.5%	4.2%	3.4%	2.2%	3.2%	34.7%
% Amer Indian and Alaska Native (p<.001)	0.6%	0.5%	0.8%	0.7%	0.4%	0.3%
% Asian (p=.001)	2.2%	0.8%	0.7%	1.0%	1.3%	4.2%
% Native Hawaiian/Other Pacific Islander (ns)	0.2%	0.1%	0.2%	0.1%	0.1%	.03%
% Hispanic (ns)	4.5%	2.4%	4.3%	2.9%	3.2%	3.7%
% Non-Hispanic white (p<.001)	79.0%	90.3%	88.9%	91.5%	90.2%	54.9%
% not proficient in English (ns)	1.0%	0.33%	0.7%	0.4%	0.3%	1.56%
% Females (ns)	50.9%	49.7%	50.3%	49.1%	50.2%	52.01%
% Rural (p=.02)	29.6%	65.1%	62.6%	66.5%	47.9%	0.57%
Statistically significant differences exist between Compass regions on indicators with an associated p-value shown; figures in red represent statistically homogeneous groups (typically in the direction of poorer health/outcomes, except in the case of certain population statistics).						

Comparative Description of Compass Customers Served by Region

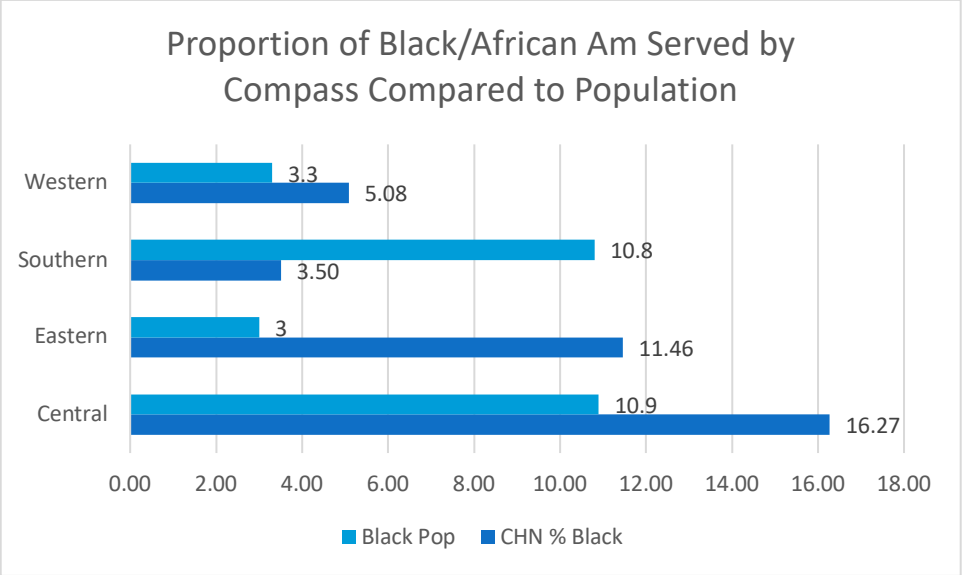
The following provides a sociodemographic description of customers served by Compass Health Network for the calendar year 2022. These data were extracted from two electronic health record systems (MyAvatar and NextGen), upon which they were then cleaned and analyzed using basic descriptive statistics to provide a reference for penetration rates in the Compass regions. Please note, ADAPT does not appear here because services data are not comparable since they joined the organization mid-year.

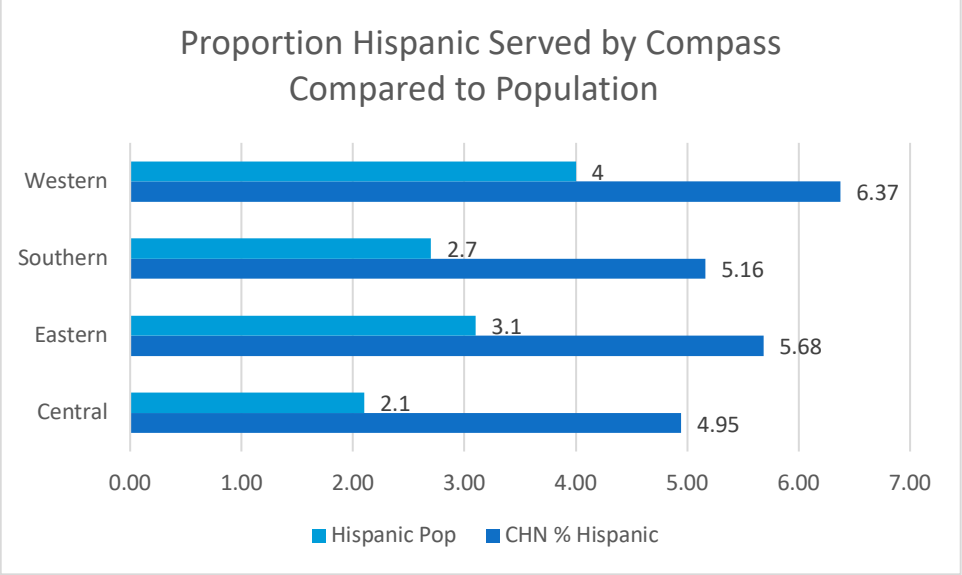
Customers Served by Key Demographics with Comparisons to Regional Populations





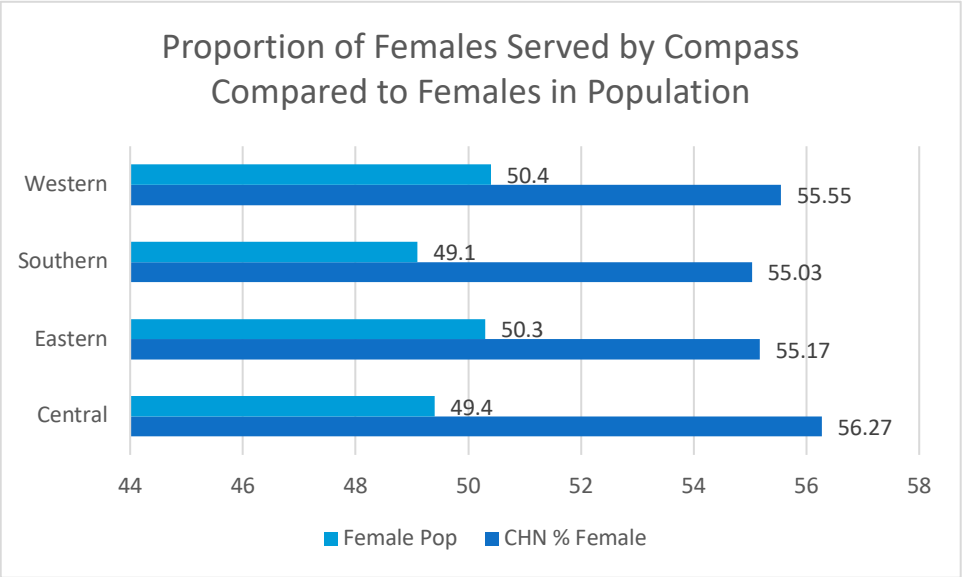
Age Groups: Compass serves youth (under age 18) in significantly higher proportions than they appear in the population in every region, with the highest disparity appearing in the Eastern region (over 17 percentage points difference). This overrepresentation of younger customers would appear to be good news in light of the youth mental health crisis described in the previous chapter, which speaks of a disproportionately high need for services among this age group. However, the opposite pattern holds true for those on the other end of the age spectrum, in that those age 65 and older are dramatically underrepresented among Compass customers when compared to the general population in each region.



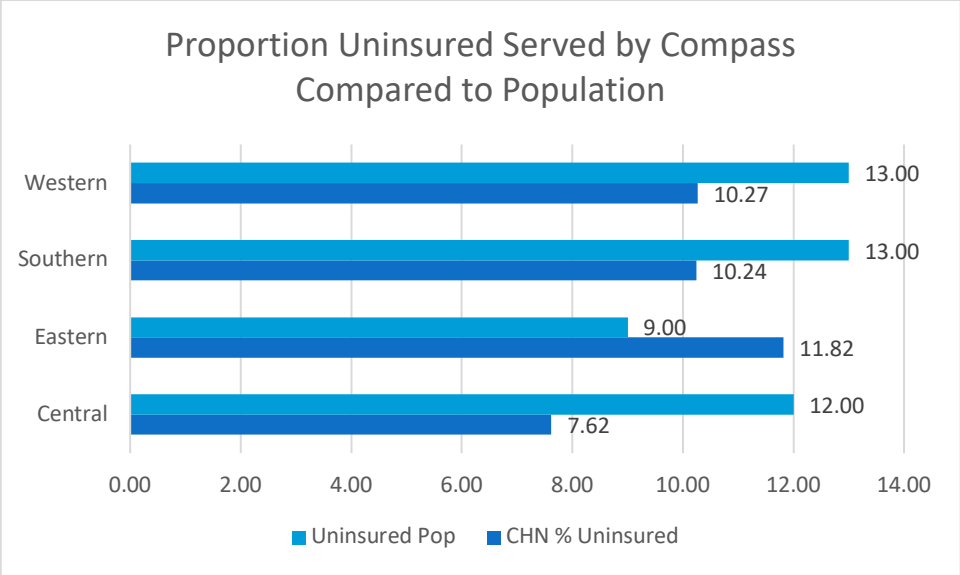


Racial disparities:
Compass serves persons identifying as Black/African American in proportions slightly to much higher than they appear in the population in all regions (Central, Eastern, and Western) except the Southern, where the disparity is substantially in the other direction (about 7 percentage points lower representation among those served by Compass). However, this represents a 2 percentage point increase in penetration into the Black population in the Southern region since 2021, which is consistent with Compass's intent and strategy. Please see the section on the mental health of young Black men in the previous chapter for more context and information.

Compass serves persons identifying as Hispanic in proportions that significantly exceed their representation in the population (averaging over two times as many) across all regions. The Southern and Central regions serve the highest number, proportional to their populations.

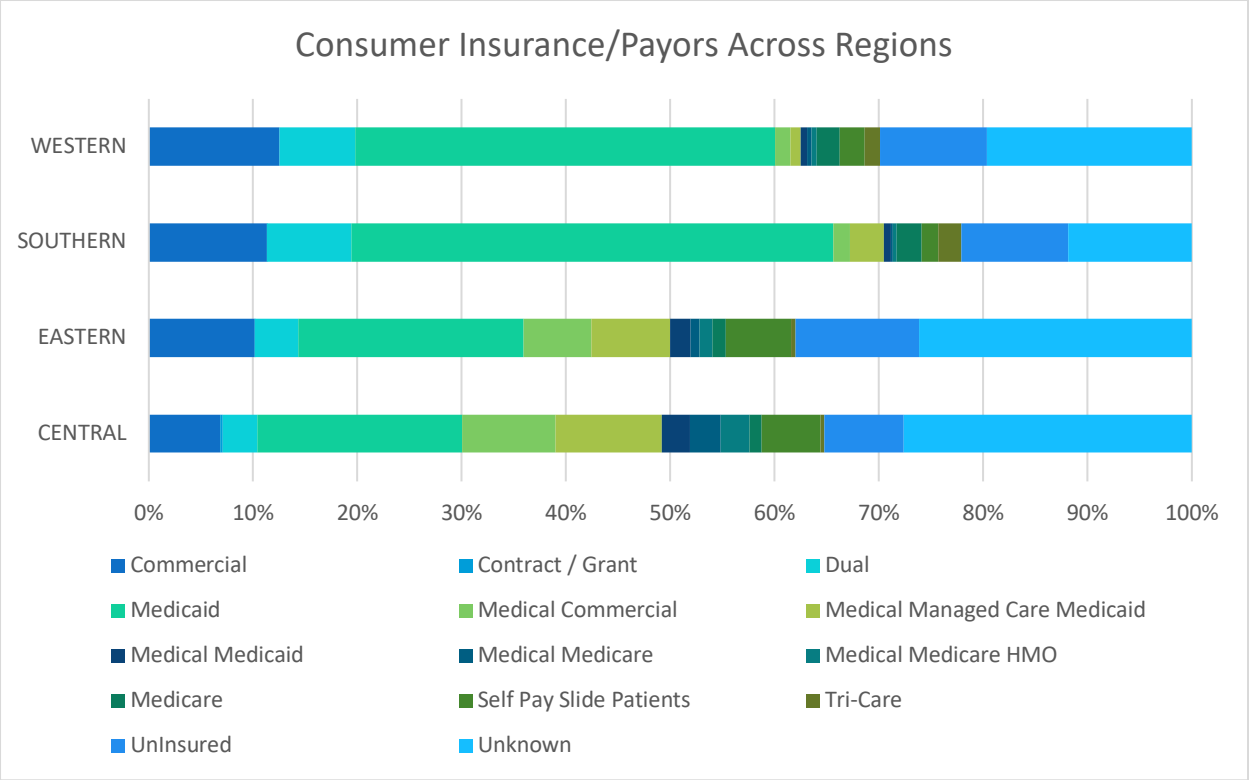


Compass serves females in proportions appreciably higher than they appear in our regional populations, with the disparity being most evident in the Central and Southern regions (over six percentage points higher among Compass customers). This may be attributable to the general tendency for females to be more willing to seek care of all kinds, but may also indicate a need to be more proactive in engaging males in care. This is especially true for behavioral health services, and is clearly even more pronounced in the relatively more rural regions such as Central and Southern.



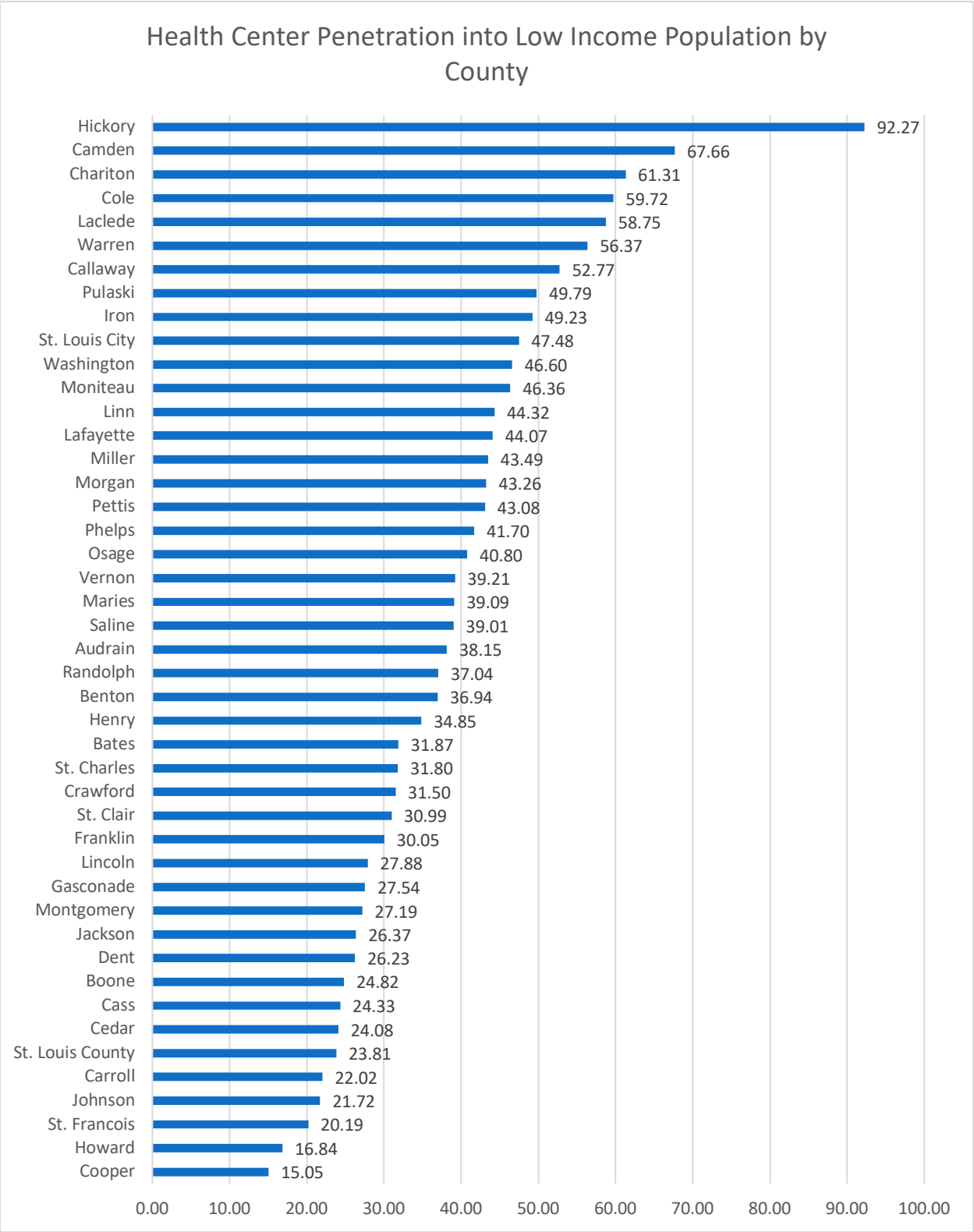
Compass served the uninsured in the highest proportions (about 10%) in the Western and Southern regions, where 13% of the population is uninsured). The Eastern region is the only one that served the uninsured in higher proportions than they exist in the population (11.8% vs. 9%). It should be noted that a significant shift occurred in the Central region since that last assessment: whereas the last analysis showed the uninsured comprised 32% of all Compass customers in Central (compared to 12% in the regional population), this round showed that the uninsured were actually substantially underrepresented among Compass customers when compared to the population (i.e., 7.6% compared to 12%).

Further analysis of the payors represented among Compass customers yielded the following: Straight Medicaid covers 30.5% of consumers across regions (up from 28% two years ago), followed by commercial insurance at just more than 15%. Uninsured and Managed Medicaid come in third and fourth place at 10% and 6%, respectively. See regional breakdown of payors at a glance in the chart below:

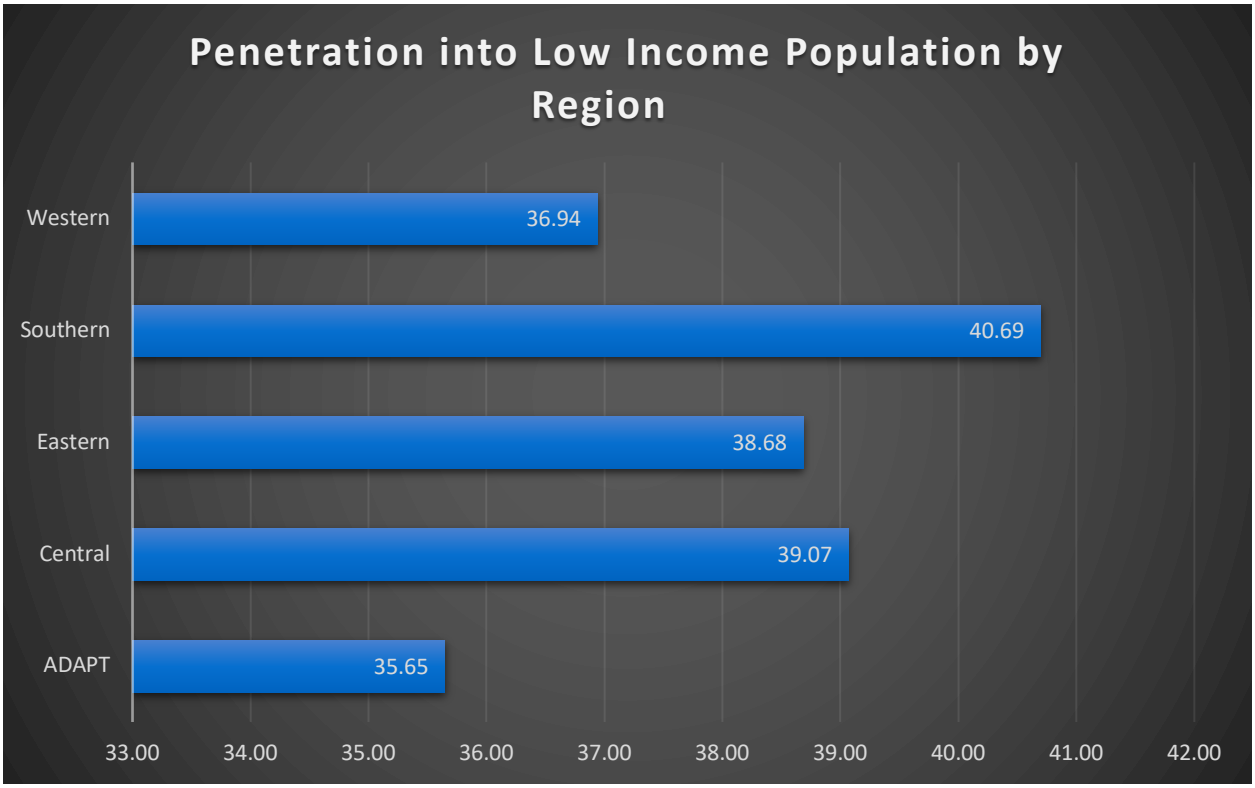


Analysis of FQHC Penetration into Low Income Population in Compass Counties

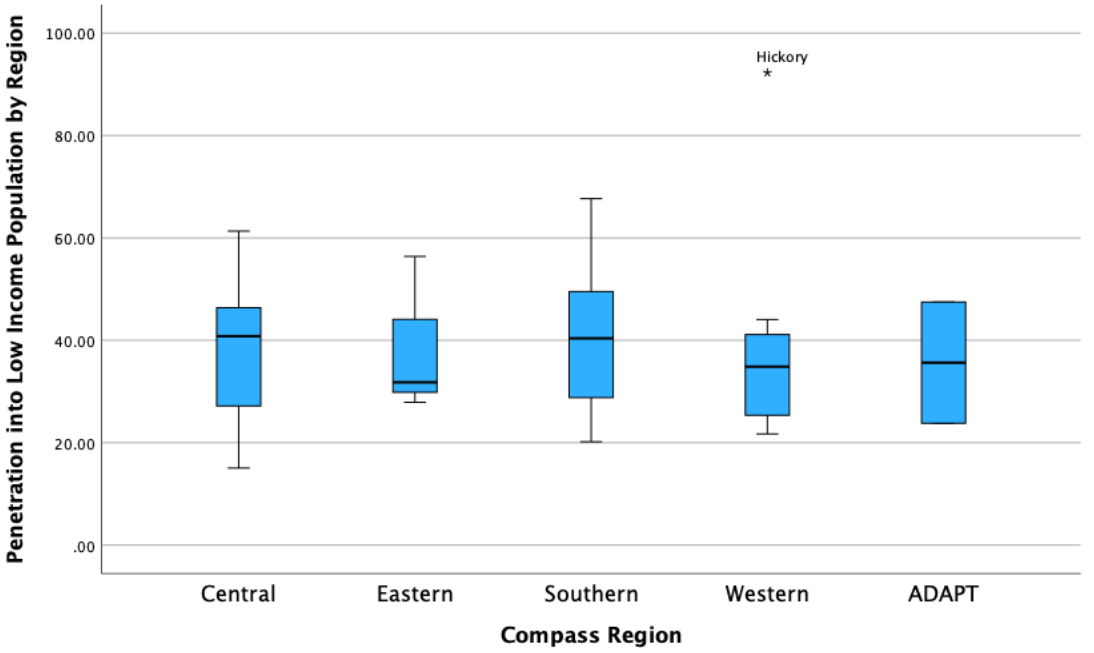
Data on FQHC penetration were drawn from the UDS Mapper (HRSA, 2023), and the low-income population was defined as those citizens with household incomes at or below 200% of the Federal Poverty Level (FPL). As shown in the figure below, there is substantial variability in the penetration rates of FQHC services across the counties comprising the Compass Health service area, ranging from 15% in Cooper County to 92% in Hickory County (an extreme outlier as shown in the stem-and-leaf plot below).


Health Center Penetration into Low Income Population by County
Hickory 92.27
Camden 67.66
Chariton 61.31
Cole 59.72
Laclede 58.75
Warren 56.37
Callaway 52.77
Pulaski 49.79
Iron 49.23
St. Louis City 47.48
Washington 46.60
Moniteau 46.36
Linn 44.32
Lafayette 44.07
Miller 43.49
Morgan 43.26
Pettis 43.08
Phelps 41.70
Osage 40.80
Vernon 39.21
Maries 39.09
Saline 39.01
Audrain 38.15
Randolph 37.04
Benton 36.94
Henry 34.85
Bates 31.87
St. Charles 31.80
Crawford 31.50
St. Clair 30.99
Franklin 30.05
Lincoln 27.88
Gasconade 27.54
Montgomery 27.19
Jackson 26.37
Dent 26.23
Boone 24.82
Cass 24.33
Cedar 24.08
St. Louis County 23.81
Carroll 22.02
Johnson 21.72
St. Francois 20.19
Howard 16.84
Cooper 15.05
0.00 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00

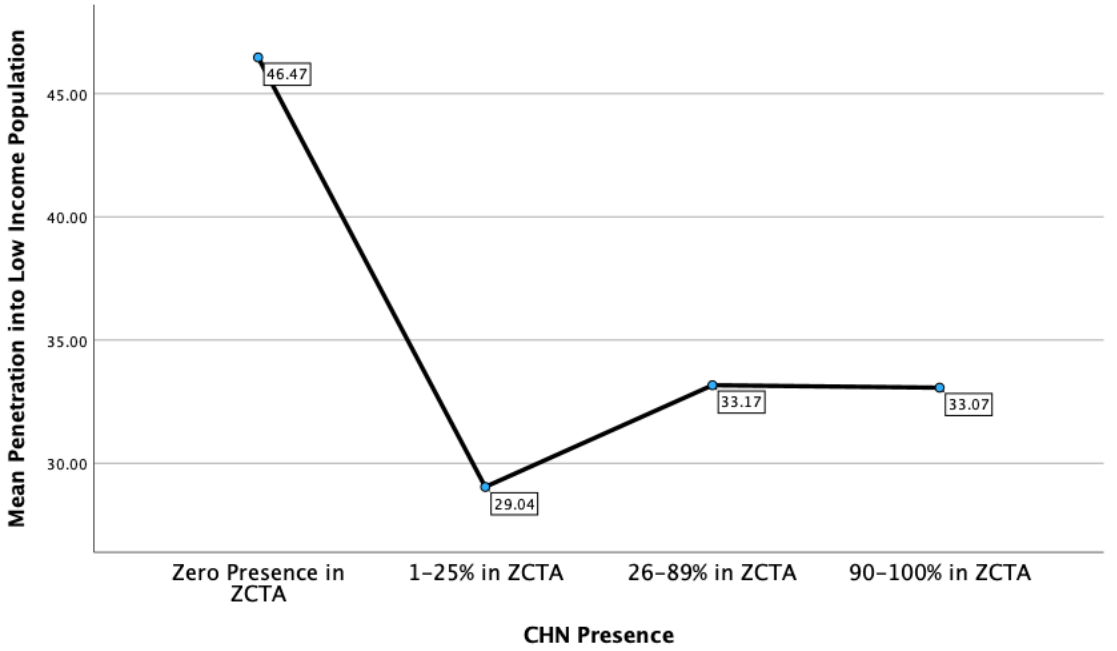
When counties are clustered into Compass regions, the average penetration rates are as follows:



Although individual counties vary substantially, the average differences in the penetration rates into the low income population by Compass region ***do not rise to the level of statistical significance*** according to the analysis of variance (ANOVA; p=.98; and this remains true even with the Hickory County outlier in the Western region). Another way of visualizing these data is with a stem-and-leaf plot that displays the shape and spread of a continuous data distribution. These graphs are similar to histograms, but are a particularly valuable tool during exploratory data analysis because they help identify the central tendency, variability, skewness of the distribution, and particularly important in this case, outliers. Consistent with the ANOVA described above, the median penetration rates are similar across regions, and Hickory County is identified as the extreme outlier:



Given that Compass is not the "dominant health center" in many of the counties served, penetration rates were analyzed according to clusters in which Compass was relatively more or less dominant (construed as the percentage of the population, by zip code tabulation area or ZCTA served by Compass according to the UDS Mapper). Specifically, the data were broken down in the following way: (1) areas in which Compass was shown 0% as a health center serving patients in that particular ZCTA, (2) 1% to 25% in the ZCTA, (3) 26% to 89% in the ZCTA, and (4) 90% to 100% in the ZCTA. ***This is simply an attempt to compare penetration rates in areas where Compass relatively more or less dominant as an FQHC provider.*** The analysis for these categories yielded the following results:

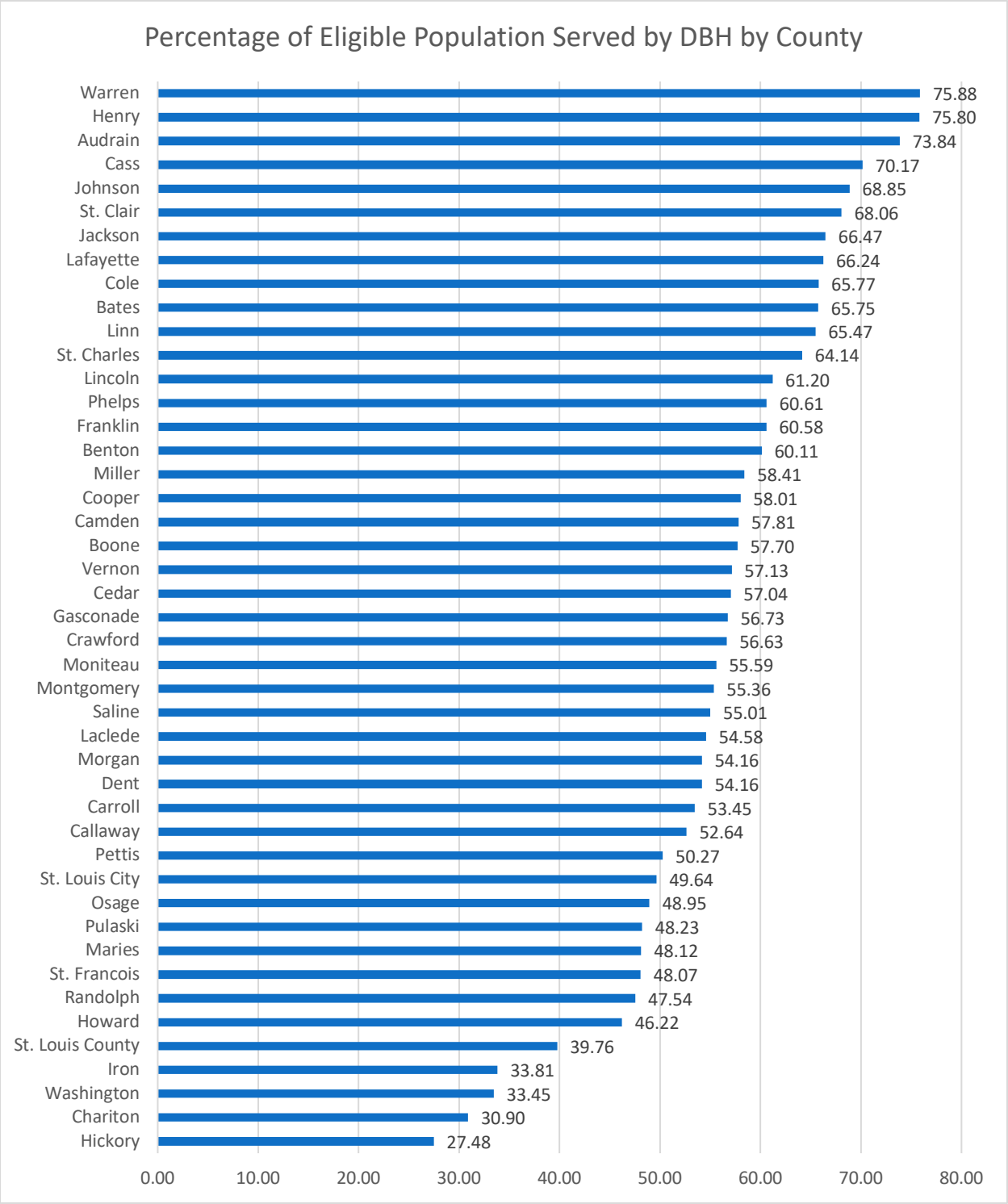


The ANOVA indicates that there are statistically significant differences in the penetration rates in these areas (p=.02). Specifically, ***the areas in which Compass is shown in 90-100% of the ZCTAs have significantly lower penetration rates*** into the low income population than those areas in which Compass is shown in 0% of the ZCTAs. ***The basic takeaway is that penetration rates are significantly lower in areas where Compass is the more dominant FQHC than in the areas where other FQHCs are dominant.***

Analysis of Unmet Behavioral Health Services Need in Compass Counties

The essential purpose of needs assessment is to illuminate the nature and magnitude of the gap between population needs and services being provided to meet those needs. One of the most direct and compelling measures we have of such a gap is from data provided by the Missouri Department of Mental Health, Division of Behavioral Health (DBH) estimating: (1) the number of individuals eligible for DBH mental health services by virtue of a qualifying diagnosis and Medicaid eligibility per county, and (2) the number of individuals actually receiving DBH services in those counties. With those two pieces of information it is a simple matter of calculating a *percentage of the eligible population that are receiving needed services, which is clearly an excellent indicator of the magnitude of need.* Again, there is subtantial variability in met behavioral health need across Compass counties served, ranging from 76% in Henry and Warren to 27% in Hickory County. It is worth noting that Hickory County shows up as the *lowest level of met need* in terms of behavioral health services, but is also the extreme outlier in terms of *highest penetration for FQHC services in the low income population*. ***Individuals who are at or below 200% of federal poverty level, and as a subset those with a diagnosed mental illness, are the key consumers Compass exists to serve in large part. The data presented***

here speak to a clear need for more targeted outreach and engagement in those counties and zip codes in which its current penetration rates are lowest.



As with the FQHC penetration data, the measure of unmet behavioral health need was analyzed according to Compass region, with the ADAPT region (St. Louis City and St. Louis County) showing the highest level of unmet behavioral health need, ***but it is statistically significantly higher only than the contiguous Eastern region*** in this regard (p=.04). However, the Southern region is also significantly higher than the Eastern region in terms of unmet behavioral health need (p=.02).

Finally, although they were drawn from completely different sources, county-level data on FQHC penetration into the low income population and data on those served by DBH were subjected to correlational analysis in order to explore any meaningful relationships that might emerge across the Compass service area. One finding emerged with relevance to needs assessment: There is a significant inverse correlation in the Compass service area between FQHC penetration into lower income population and the percentage served by DBH (r=-.35, p=.02), meaning ***in those areas where Compass serves more low income patients as an FQHC, there are significantly fewer individuals with behavioral health needs being served through DBH services.***

There is substantial variability in the penetration rates of FQHC services across the counties comprising the Compass Health service area, ranging from 15% in Cooper County to 92% in Hickory County, though no significant differences are evident across Compass regions. The areas in which Compass is the more dominant health center have significantly lower penetration rates relative to other geographic areas in the Compass service area. There is also significant variability by county in the percentage of eligible consumers receiving DBH behavioral health services, and a cluster of counties (Hickory, Chariton, Washington and Iron) in the larger service area are the most underserved with regard to behavioral health services; regionally, the ADAPT and Southern regions show similarly high levels of unmet behavioral health needs.

Compass should employ strategies to better reach those who are already eligible – by virtue of income level or by already having a diagnosis of mental illness – for Compass services. Individuals who are at or below 200% of federal poverty level, and as a subset those with a diagnosed mental illness, are the consumers Compass exists to serve. Through more focused efforts and outreach in those counties and zip codes in which its current penetration rates are lowest, Compass will be able to serve more of these consumers, and serve them better.

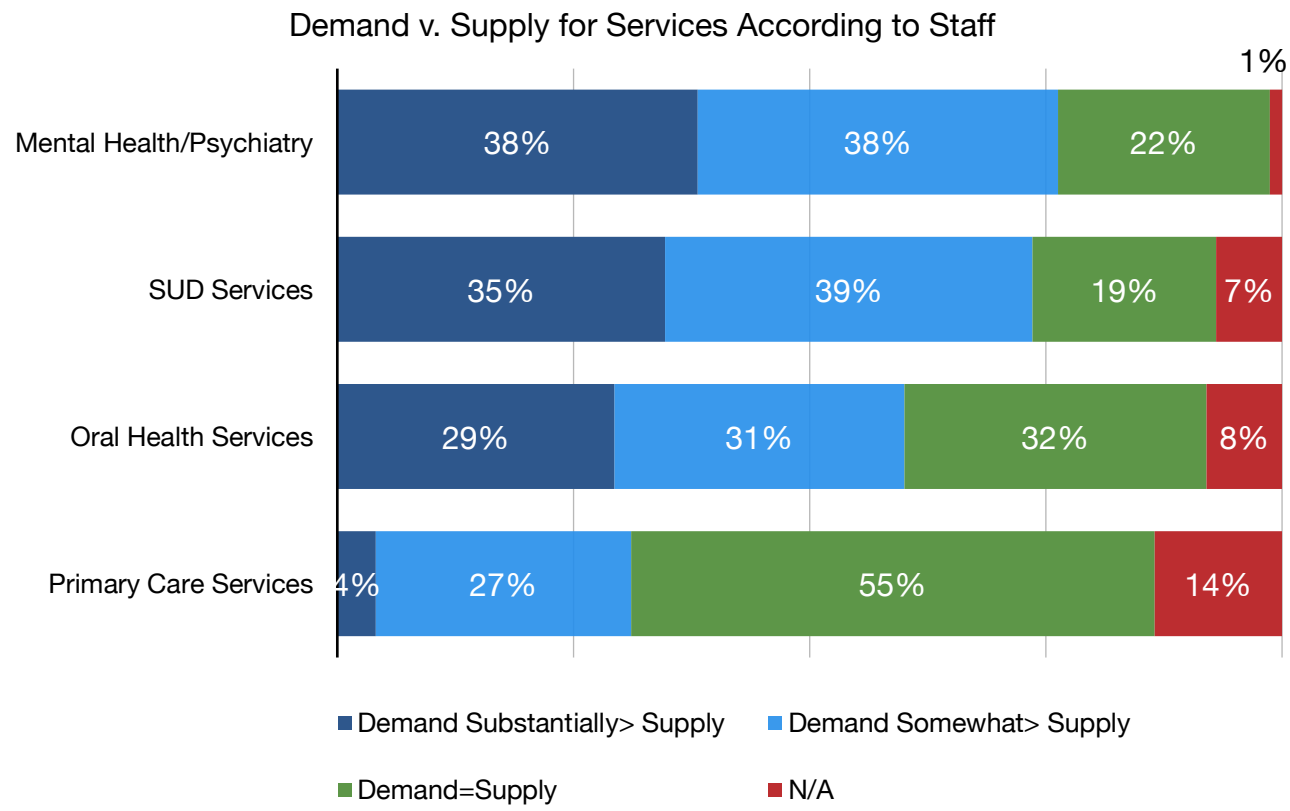
Compass Health Staff Survey of Unmet Need

Introduction

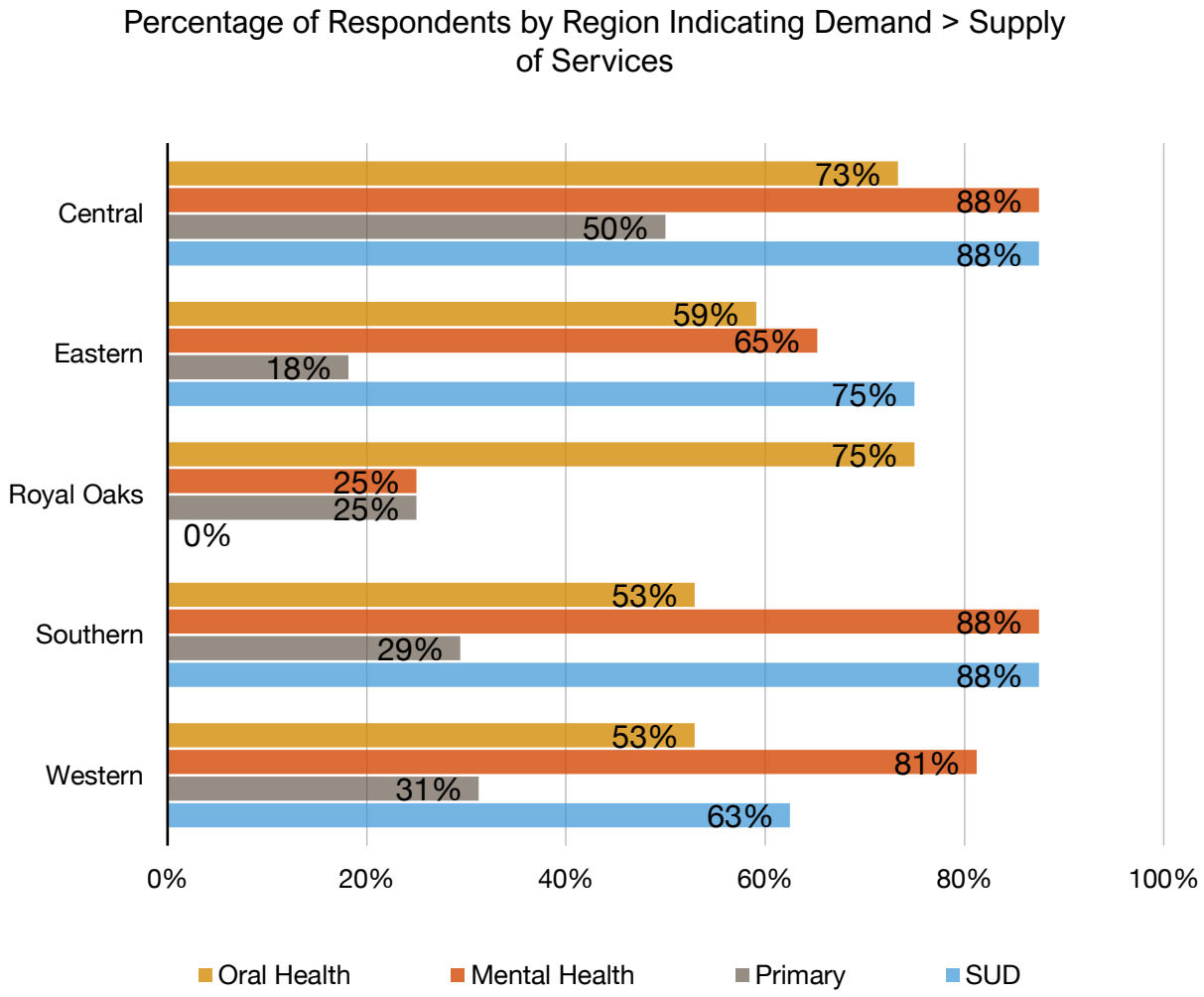
Compass Health staff members, primarily Executives, Senior Managers, and Directors, were asked in January 2023 to complete a survey to identify unmet service needs across the organization and to recommend actions to meet current and emerging needs. The 77 respondents were comprised of 50 Directors, 17 Senior Managers/Executives, 5 Supervisors, and 5 who selected "Other" (23 from Eastern, 17 from Western, 17 from Southern, 16 from Central, and 4 from Royal Oaks).

Rating of Demand v. Supply for Services

The respondents were first asked to assess demand v. supply (substantially greater than, somewhat greater than, about equal to, or not applicable) in their areas for mental results shown in the chart below. As shown, the service lines showing the greatest need according to staff are ***mental health/psychiatry*** (highest rating of "substantially greater demand than supply) and ***substance used disorder***, followed by oral/dental care, and then primary care.



Regional results. Survey responses were analyzed to determine if assessment of need varies substantially by region. The chart below provides a snapshot of participants' evaluation of whether demand was greater than or equal to the supply in each region for each service.



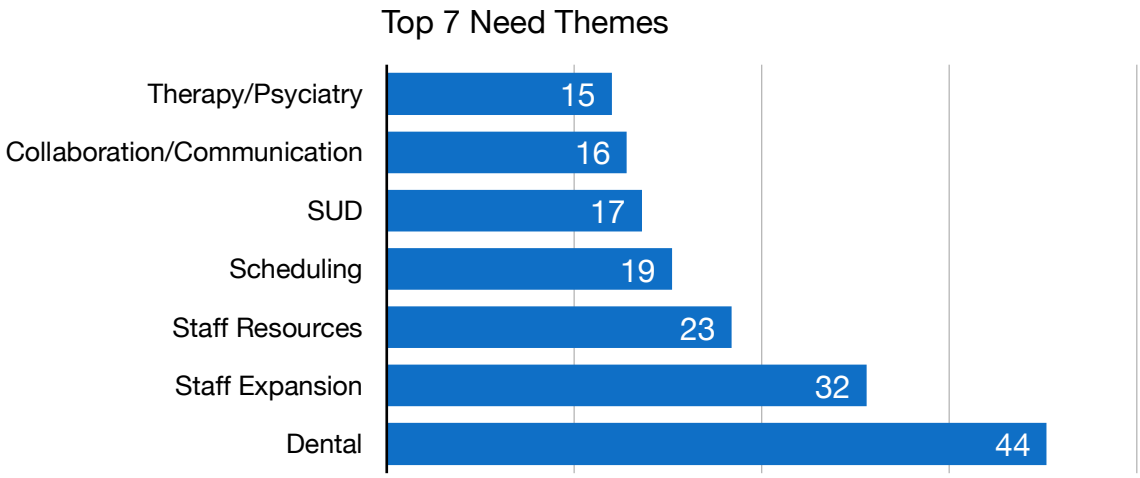
Key findings of regional breakdown:

- ***Mental health and/ SUD are either the first or second highest needs in all regions except Royal Oaks***
- ***The Southern region shows an unequivocal need for both mental health and SUD treatment, with primary care need being rated low.***
- ***The Eastern region has the lowest need for primary care***
- ***Oral/dental demand is viewed, by far, as the greatest need by Royal Oaks leaders.***

Top 7 Needs According to Compass Health Leaders/Staff

Next, respondents were asked to suggest the top three things that should be done in the next year to better meet existing or emerging needs, and the overall thematic analysis is presented below. From those data, seven clear themes emerged, defined as suggestions that were identified by 15 or more respondents (see these by frequency in the figure on the next page). The top seven themes (in descending order of salience) with examples of suggestions and/or observations are:

1. ***Dental Expansion and Access****,* this was by far the largest theme within the survey. This was identified by comments such as, “Expand dental services,” “Bring dental to Windsor,” “Dental for adults,” “More Dental Services,” and “Continue dental access point expansion.”
2. ***Staff Expansion,*** was identified by comments like, “Continue to recruit quality employees,” “Continue to hire more providers,” “Fill open positions,” and “Find a way to hire more folks.”
3. ***Staff Resources and Development***, emerged as a theme of need with comments suggesting, “Some sort of reimbursement for travel to areas where there are staffing shortages,” “Retention of current staff,” “Figure out why staff do not stay,” and “Staff retention strategies to support current programming and develop seasoned staff.”
4. ***Solving Scheduling Issues,*** was illustrated with comments such as, “Scheduling improvements to optimize providers,” “Reduce scheduling barriers,” and “Scheduling improvements to optimize providers.”
5. ***SUD Service Expansion*** was evidenced through various comments such as, “Expansion of SUDs services, including detox services,” and “Expand SUD program.”
6. ***Collaboration and Communication Between Departments*** was a theme identified through consistent comments such as, “Coordinate between clinical programs for a more cohesive clinical foundation,” “Improve collaboration and communication between departments to help keep some patients from falling through the cracks,” and “Communication needs to improve between programs and departments.”
7. ***Therapy and Psychiatry Expansion*** was at the forefront of many staff minds, as follows: “Hire more therapists, especially in person,” and “Increase the number of psychiatric providers and therapists.”



Notable Differences from 2021 Needs Assessment

The needs assessment staff survey had roughly the same number of respondents in 2023 as it did in 2021. Seven main themes of need running through the comments of the staff respondents both in 2021 as well as in 2023. However, with the exception of the 2021 theme of COVID-19 Response, they can all be connected to the overarching theme of continuing expansion and development. Compass Health staff clearly see the organization doing important things in clients' lives and want to be able to help, see, and reach more clients. One important distinction from 2021 is that 2023 lacks the Marketing/Advertising focus, which may speak to the visibility and success of those efforts in the past couple of years. The focus has instead been placed on find new staff and developing current staff. ***Dental care has jumped from the 5th top need to the 1st need of 2023.*** Whether expansion is seen through additional staff, new and expanding services, more training, or bigger buildings, growth and potential are clearly top of mind for Compass Health staff's vision of the future.

2021 Top 7 Needs

1. Additional Staffing and Staff Support
2. Mental Health Services
3. Communication/Marketing/Advertising
4. Substance Use Disorder Treatment
5. Dental/Oral Health
6. Expanding Buildings/Locations
7. COVID-19 Response

2023 Top 7 Needs

1. Dental Expansion and Access
2. Staff Expansion
3. Staff Resources and Development
4. Solving Scheduling Issues
5. SUD Service Expansion
6. Collaboration and Communication Between Departments
7. Therapy and Psychiatry Expansion

Listening to the Voices of Compass Customers with Serious Mental Illnesses (SMI): Focus Group Findings

Three groups of Compass Health Network customers with serious mental illness were targeted for interviews/surveys in January and February 2023 as part of the needs assessment process. The groups, served by Compass in Raymore (Cass County; Western Region), St. Peters (St. Charles County; Eastern Region), and Washington (Franklin County; Southern Region), MO, were assessed using a questionnaire adapted from the focus group script used in the previous 2021 needs assessment process. It was streamlined significantly to focus on the theme of healthcare needs and suggestions for improvement; i.e., gaps in healthcare services, examples of unmet healthcare desires or needs, and possible solutions or alternatives presented by participants as ways to improve individual or community health or healthcare services. A total of 21 customers (7 from Raymore, 6 from St. Peters, and 8 from Washington) provided responses, with roughly equivalent proportions of those identifying as males and females. The results, derived through iterative content analysis by independent raters, are described below.

Raymore Customer Needs Assessment Results

"How do you rate your quality of life where you live?"

- One respondent said, "9 out of 10," the reason for their answer was stated as:
  - Dietary lifestyle
    - "The keto diet helps with my schizophrenia."
    - "Transportation is inconsistent."
  - Safe, living conditions
    - "I live in a safe environment and neighborhood."
    - "I recently moved so my living situation has greatly improved."
- Two respondents reported a rating of "1 out of 10" or "low" due to the following:
  - Unsafe living
    - Emotionally "toxic"
    - "No one is going to break my arm, but they want to cause me pain emotionally"
  - Unfriendly neighbors
    - Another respondent stated the living situation was low because of a neighbor

"What could be done to be healthier?"

- Housing support
- Location of housing:
  - Get away from highway and other high traffic area for safety reasons
    - Pets
    - Walking
- Support groups
  - Respondents discussed joining support groups
    - Common interests

        - Common diagnoses
- Transportation
- Treatment information
    - Education
        - Interested in how to switch psychiatrists when respondent doesn't feel a "connection"
    - Outreach
        - When new treatments are available in their area

What are some areas where Compass can improve?

- For primary care, no respondent had trouble being seen quickly and efficiently
    - Almost all respondents had received primary care treatment within the past 6 months.
- Dental
    - Some respondents had long wait times
        - "I've been waiting for 4 months. They told me it would be 6 months and I'm still waiting."
    - Others had to travel to another location
    - Respondents shared that when they did get into dental treatment they were impressed

- Some respondents showed interest in nutrition and the services of a nutritionist
    - I may not seek it out but if it were here I would do it.

- There was only praise for Compass staff from the focus group
    - "They are amazing," and from another respondent "Oh yeah, they're amazing!"

St. Peters Customer Needs Assessment Results

"How do you rate your quality of life where you live?"

- Half of the respondents selected "medium," and discussed the following impacted their rating:
    - Transportation
        - "I have shops in walking distance."
        - "Transportation is inconsistent."
    - Safe, living conditions
        - "I live in a safe environment and neighborhood."
        - "I recently moved so my living situation has greatly improved."
- Two respondents reported a rating of "low" due to the following:
    - Unsafe living conditions
        - "I don't feel safe where I live which affects my mental health."
    - Lack of transportation
        - "Without the SCAT bus, transportation is a concern."

- One individual gave a rating of "high" and endorsed the following:
    - Supportive, independent living where basic needs are met
        - "I live in apartments for independent living, we get a food stipend, go on outings, have a nurse, and an on-call person."

"How do we make life better?"

- Two prominent themes emerged from this question:
    - Improve access to reliable transportation
        - "Compass could partner with other businesses to increase transportation, such as access to bicycles, buses, and affordable car rides."
        - "More housing and transportation resources."
    - Housing assistance and resources
        - "Someone needs to actively monitor that housing opportunities are open."
        - "I've been accepted for NECAC but I'm still struggling to find housing."
        - "Compass could buy apartments."
        - "We need more income-based housing and housing assistance."

"How can we help with unmet needs?"

- The group agreed the following two themes captured their unmet needs and were already discussed in detail:
    - Reliable Transportation to Access the Community
    - Housing Resources

"What health challenges are you facing?"

- Once factor surfaced most consistently:
    - Turnover among IHS's
        - IHS turnover negatively impacts treatment
            - "Constant change is difficult."
            - "I'm on my 3rd IHS since last July."
        - Customers identified ways to lessen the impact of IHS changes:
            - "More stable transitions" are needed when IHS's leave
            - "Communication and coordination"
            - "Warm handoffs" where former and new IHS meet with customers to assist with transitions

"What are some areas of health maintenance that you're focusing on?"

- Three themes emerged:
    - Mental Health was the most common theme

- Diabetes Management was discussed by a couple individuals
- Dietitian Services was reported by one customer

"What are some barriers to health you're facing?"

- All customers reported seeing a PCP within the last year, with the vast majority seen within the last 6 months
  - While all customers reported accessing PCP services regularly, the majority discussed barriers and challenges in accessing specialty care providers
    - "I've been waiting for over a year to see a liver doctor."
  - Maintaining and managing vaccines was a barrier described by one individual

"Let's discuss oral care, when was the last time you saw a dentist?"

- Customer responses greatly varied on the last time they saw a dental provider
  - Responses ranged from 6 months to 4 years, with the majority reporting a year or longer
- Several customers reported difficulty in accessing specialty dental care
- A few reported a 6-month waitlist for CHN dental exams
- Access to dentures was a reported barrier by one customer
- High dental co-pays were a reported barrier by one customer

"*What do you need to stay healthy*?"

- The following themes were identified:
  - A few customers discussed the importance of educational opportunities
    - "Educational opportunities benefits mental health."
    - "IHS's could learn to assist with navigating FAFSA or scholarships."
  - One customer explored the need to access to safe, stable housing
    - "We need more shelters for abused women."

"How do you stay socially connected?"

- Three customers identified transportation as a barrier to staying socially connected:
  - "Transportation is a barrier to reaching social opportunities."
  - "I remained in the hospital for longer than I needed because I had no one to transport me home."
  - "We need something like the ARC or Oates bus."

"Who uses social media?"

- All customers reported using a form of social media

- Most customers seen social media as a positive impact on their social lives and mental health
    - One customer reported it's a welcome "distraction" when experiencing boredom
    - Two customers reported using it to connect and communicate with friends
    - One customer reported gaming with friends on Facebook

"Do you experience any anxiety related to climate change?"

- Nearly all respondents agreed they think about climate change fairly regularly
- A few customers reported they recycle
    - One customer mentioned working with the Clubhouse to initiate a recycling program
- Customers did not report a great deal of anxiety about climate change

Washington Customer Needs Assessment Results

"How do you rate your quality of life where you live?"

- Two respondents reported a "medium" quality of life
    - One customer discussed the impact of "unhealthy eating" on their quality of life
    - One customer described being homeless with no shelters nearby as a factor in their quality of life rating

"What health challenges are you facing?"

- Mental and physical health challenges as well as how they intersect were themes discussed by the group
- Two customers shared struggles with "constant pain"
    - These customers reported resistance from Compass providers when requesting certain pain medications
- Smoking was discussed as a health challenge for a few customers
- One customer described a "lack of basic, comfortable space to live" as an impact on their mental health

"When was the last time you saw a Primary Care Provider?"

- The vast majority reported being seen by a PCP within the last 6 months
- One customer discussed difficulty with accessing specialists in other cities

"What was the last time you saw a Dentist?"

- Most of the group reported seeing a dentist within the last couple months

- Two customers reported feeling anxious when seeing the dentist
- Once customer described being “accused of using” because they could not get numb at a Compass dental clinic

“How can we help with unmet needs?”

- Two customers brought up that Compass providers doesn’t prescribe addictive medications such as “benzos” or opioids
    - One customer stated there’s inconsistency in how these medications are prescribed
        - “Some get it, others don’t.”
- A few customers discussed transportation as a barrier
    - “Medicaid transportation is unreliable.”
    - “I need someone to drive me to Branson so I can get an apartment and find a job.”
    - “A walk to town is 1.5 miles.”
- Several customers discussed dissatisfaction with the thrift store closing
- Several customers shared concerns about the Clubhouse moving to a new location

“Are you socially connected?”

- The majority (five customers) reported having “enough” social connections

“Who used social media?”

- The minority (3 out of 8) reported using social media platforms
    - One member stated, “Social media makes me feel better.”

“Who thinks about climate change?”

- The majority of customers reported they do not think about climate change daily
- The majority of customers did not describe stress or anxiety about climate change
- One member described climate change as an “important issue.”

Summary of Focus Group Themes and Findings

Raymore

- Transportation needs
- Safe, secure, affordable housing options
- Information and support for nutrition that enhances health and mental health
- Access to primary care seems excellent as everyone had seen a PCP recently
- Good access to dental care, with some concern about long wait times for appointment
- Information and education about health, mental health and treatment was expressed

St. Peters

- Transportation needs
- Safe, secure, affordable housing options
- Rapid and frequent turnover of IHS position impacts quality of care and was an issue expressed repeatedly
- Help with chronic conditions like diabetes management, including nutrition support
- Access to primary care seems adequate
- Less so for dental care access with longer wait times and less frequent visits
- Also more concern for specialty care availability
- Social media and climate change do not appear to be major issues of concern

Washington

- Intersection of mental and physical health challenges...smoking, nutrition
- Need for housing assistance
- Treatment of chronic pain--opioids issue but need some solutions
- Access to primary care seems adequate with most having visit within past 6 months
- Most reported seeing a dentist within the past 6 months
- Concernfor specialty care availability
- Transportation cited as a barrier/concern
- Not able to get medications for pain control and severe anxiety due to addictiveness
- Social media and climate change do not appear to be major issues of concern

Consumer Advisory Council Focus Group

In addition to the in-person focus groups described above, we conducted a Zoom focus group with the ongoing Consumer Advisory Council in February 2023. This group is comprised of

consumers with mental health diagnoses and substantial experience with the Compass Health system of care from across the state (including Raymore/Belton, St. Charles, Lake of the Ozarks, Jefferson City).

How would you describe you community—is it healthy or unhealthy?

- I am in St. Charles County. I have a lot of needs and I got what I needed. I was able to cancel and reschedule and they didn't charge me. They really touched my heart; I have a lot of trauma and Compass is very warm and inviting.
- Compass is meeting a lot of my needs now that they are bigger in Raymore/Belton. A lot of parents are not open to therapy—they are not progressive, so sometimes it is hard.
- There was a strong "meth presence" around the Belton area. A lot of people have mental health needs, and some need more services in the area.

What are one or two things Compass could do to help improve health in your community?

- It would be good to have someone at the hospital for emergency intervention, similar to a SART team for assault victims. This would be especially helpful in hospitals without a psych unit.
- That would be especially helpful at "The Lake" because they don't have a clue. They will take all your things from you and put you in a white room and no resources are provide to you.
- Doctors know when I am taking my medications wrong. They took me to Nevada and I was scared to death because I had never been around people who were tied down. Then they moved me to the senior side. At intake they need to assess and put some people on the senior side.
- Compass needs communication all the way down. All the paperwork—they are just trying to survive, but they can only do so much. You need to make your paperwork less so they can spend time with us. They can provide the feedback you are looking for, but they are too burdened (other participants agreed with this theme).
- I agree. Case workers come, but they don't have time. They've got to go. They have helped me. When I came to Compass, I was an alcoholic and they have done so much for me and I have been sober. They've always got to go. They are busy, booked up. And since I am not going to kill myself or harm anybody, so….
- I am lucky to have a peer with more time. But my case worker has to get in and out. They don't seem to have time to help me.
- In a small community case workers are committed. In the city it is more common that all the paperwork discourages people.
- Clubhouse members used to outreach to the homeless. Is there a program to outreach homeless compass or youth who are getting kicked out?
- Belton is totally different that Raymore. Belton is more economically depressed.

- Raymore and Belton are separated by the highway. Belton is where most of the homeless are.
- Compass could be instrumental in bringing Belton and Raymore together on mental health.
- A lot of people take mental health help as a weakness. Belton doesn't even have a library, even though they need the resources. I tried to get the bus system to Raymore, but they said that the bus would bring "houligans".
- HUD choices are limited so it pushed all the people together.
- This is similar in St. Charles County—bus legislation was knocked out.
- No one wants to help with the homeless problem.

Has there been a time you couldn't get the services you need? What prevented you from getting what you needed? What are the barriers?

- I don't have those barriers. I wanted to work, but it would mess up my bubble. When you make a little bit more, you get kicked into spenddown. We have a lack of Medicaid expansion. The State policies are too punitive, they do not uplift you.
- They call me in a bubble too. I went to only seeing my case manager a few times. There are time constraints.
- How are we handling marijuana? Some medical providers won't provide medications if we are using marijuana.
- If you live in HUD housing you can't use marijuana because it is still illegal federally. I have also seen people turned away from services for therapy because they screen positive.
- Compass not having penalties to care for people who use marijuana. You need to let people be honest about their use and how it impacts their health—speaking up for people.
- Compass quit prescribing for Klonopin and Xanax, which are really needed and helpful.
- Tracy: I would like in-person care instead of video. I have been offered virtual when I wanted in person care. If I am seeing a doctor or therapist, it should be in person.
- I had a psychiatrist who was terrible. They didn't know anything about me, and it didn't matter what I said. She was virtual. Other doctors go from hospital to hospital; It could be the same for Compass.
- Zoom calls are helpful for me. I don't know if I am going to have a good or bad day. Seeing people virtually is a life saver because I can't physically make it. You should make it where it is available both ways.

Is transportation a barrier?

- It has been. I live in the country. I can get OATS but I could be in the city for 6 to 7 hours and I can't do that long.
- Gas money is a real barrier.
- My case workers used to take me to my doctors' appointments and now they can't. It was really nice, and I really appreciated it. Now I can get some mileage reimbursements but its not the same.

- Case workers have been there for me through thick and thin for 2 years, but I can't call them my friend—I am not allowed to say she is my friend.

How are your personal relationship going? How can we help?

- Things are going good for me.
- Works for me. I discovered the YMCA, I am learning therapy skills, treatment has helped me keep connected. Mostly the DBT—it teaches me to nurture and create connections.
- My team has worked so hard to get me therapy. That is how far they are willing to go for me at the Butler office.

How are your resources, benefits, finances, etc.?

- I used to have a pharmacy that would prepackage my medication which was very helpful. No one at Compass offers that.
- Compass hooked my up with a company that comes once a week to set up my meds and take my vitals.
- I do have an aid who could help. I also have a friend with a teen who could also benefit from the med packs.

How is your physical health care? Are you experiencing any challenges?

- My Compass worker comes and take walks with me. She tries to get me to exercise because its good for your mental health too.
- Case manager would talk walks with me too. Now she would not have time.

Several key themes emerged from the statewide Consumer Advisory Council focus group: (1) Consumers expressed that Compass is very effective in meeting their needs overall, and in many very particular ways, for which they expressed gratitude, (2) Consumers are very conscious of SDOH, and even discussed the highway between adjoining towns (Belton and Raymore) as a line of demarcation with respect to mental health challenges, substance use, and homelessness, (3) A need for mental health emergency support especially at hospitals that do not have psychiatric units/resources, (4) Concerns were expressed for IHS's in particular being pressed for time and overwhelmed with paperwork and documentation, to the detriment of the helping relationship, (5) Needs for reliable transportation, (6) Needs for housing resources for homeless populations, along with outreach to this population, (7) Concern for how Compass providers treat consumers who use now-legal medical and recreational marijuana, especially as regards this being a barrier to service or prescribing certain medications, etc., and (8) Needs for medication adherence support, help with physical activity and other supports for health habits.

Structured Needs Assessment of Customers with Serious Mental Illness

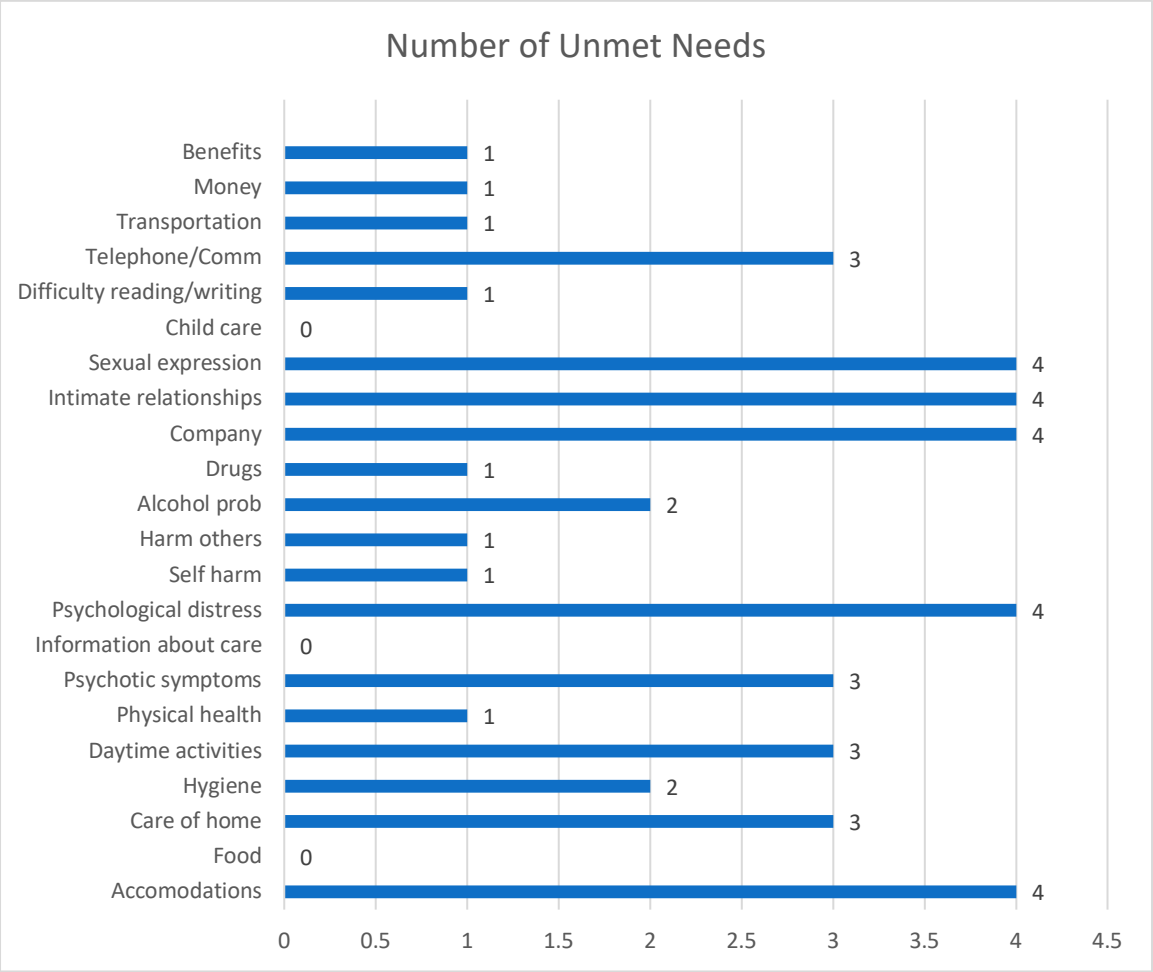
As part of the survey/interview process, the clients/participants were asked to voluntarily complete the *Camberwell Assessment of Need Short Appraisal Schedule* (CANSAS) self-rated version, which was developed as a tool to evaluate need among persons with serious mental illness. The tool asks respondents to think about their needs in 22 domains (shown in the chart below), and to determine in that particular area if they have *"no need"* (not a serious problem for them), *"met need"* (not a serious problem for them because of help they are given), or *"unmet need"* (a serious problem for them despite any help they are given).

CANSAS Findings: Areas of Greatest Unmet Need

The average number of ***unmet needs*** among the customers interviewed was 2.3 (down from 2.9 at the time of the 2021 needs assessment), and the average number of ***met needs*** was 6.5 (down from 16.5 in the 2021 assessment). The three different customer samples were statistically compared on number of needs and found not to differ significantly from each other on any relevant dimension; thus, the responses are all considered together for this analysis. Interestingly, the number of unmet needs among Compass customers in services for serious mental illness is very consistent with many studies of members population. For example, Salvi, Leese, and Slade (2005) found a mean of four (4) unmet needs in their study of individuals with SMI, and the literature generally reports between 2 and 4 unmet needs in this population.

Since the three groups of Compass Health clients did not differ from each other, it is appropriate to combine them for further analysis of need. The figure below provides an overview of the 22 needs assessed among the clients, providing a sense of direction regarding where to focus development, improvement, and expansion efforts in order to meet client needs. As can easily be seen, the most salient areas of unmet need identified by clients are (in descending order of frequency, with at least 10% of respondents indicating that an unmet need in that area):

- **Accomodations** (place to live)
- **Psychological distress** (feeling sad or low recently)
- **Intimate relationships** (do you have a partner)
- **Company** (are you happy with your social life)
- **Sexual expression** (how is your sex life)
- **Telephone/communications devices** (ability to obtain and use)
- **Taking care of home** (able to look after your home)
- **Psychotic symptoms** (hear voices/problem with thoughts)
- **Daytime activities** (how you spend your day)
- **Hygiene** (keeping clean and tidy)
- **Alcohol problem** (does drinking cause you any problems)



A key *strength and cause for celebration* appearing in these data is that the number of *unmet needs* among customers with SMI has declined in current assessment compared to the 2021 structured assessment. The average number of unmet needs reported by Compass customers (2.3, down from 2.9 at the last assessment) is significantly lower than the average reported in the literature on the matter (4.0). However, the number of *met needs* decreased somewhat from last assessment.

Potential cross-cutting themes from combining the open-ended responses and the CANSAS are: (1) Housing/accommodations, which appears as the number one need in the CANSAS results as well as a top theme from the customer interviews; (2) Increase in supportive social, personal, and intimate relationships, which appears near the top of both quantitative and qualitative responses from customers with SMI, and (3) Help with managing psychological distress such as depression and anxiety

Source:
Salvi, G., Leese, M., and Slade, M. (2005). Routine use of mental health outcomes assessments: Choosing the measure. *British Journal of Psychiatry, 186: 146-152.*

Community Stakeholder Input (Boards of Associates and Public Administrators)

Introduction to Boards of Associates Surveys

In February of 2023, community stakeholder groups (typically called *Boards of Associates* or a similar title) were consulted with regard to the health of their communities, with a focus on the things Compass Health might be able to do to better meet community needs. These groups are comprised of key associates and stakeholders of Compass Health, and include individuals from the realms of business, healthcare, social services, education, and advocacy. Boards for each of the four Compass regions were surveyed using a questionnaire adapted from the focus group script, with a total of 10 responses received from the Central and Eastern Regions. Results are described below.

Overall Perceptions of Health and Well-Being in Compass Regions

Regarding health, what is your overall impression of your community?

Central

The respondents rated the health of their community at **4.33 out of 5** on average where *1=Among the Worst in Missouri* and *5=Among the Best in Missouri*, and here is how they described the health of their community:

- My community has a plethora of providers; however, socioeconomic challenges affect many individuals.
- The opioid overdose issues and struggles for stressed families in need point to ongoing needs.
- Healthcare is available and affordable!

Eastern

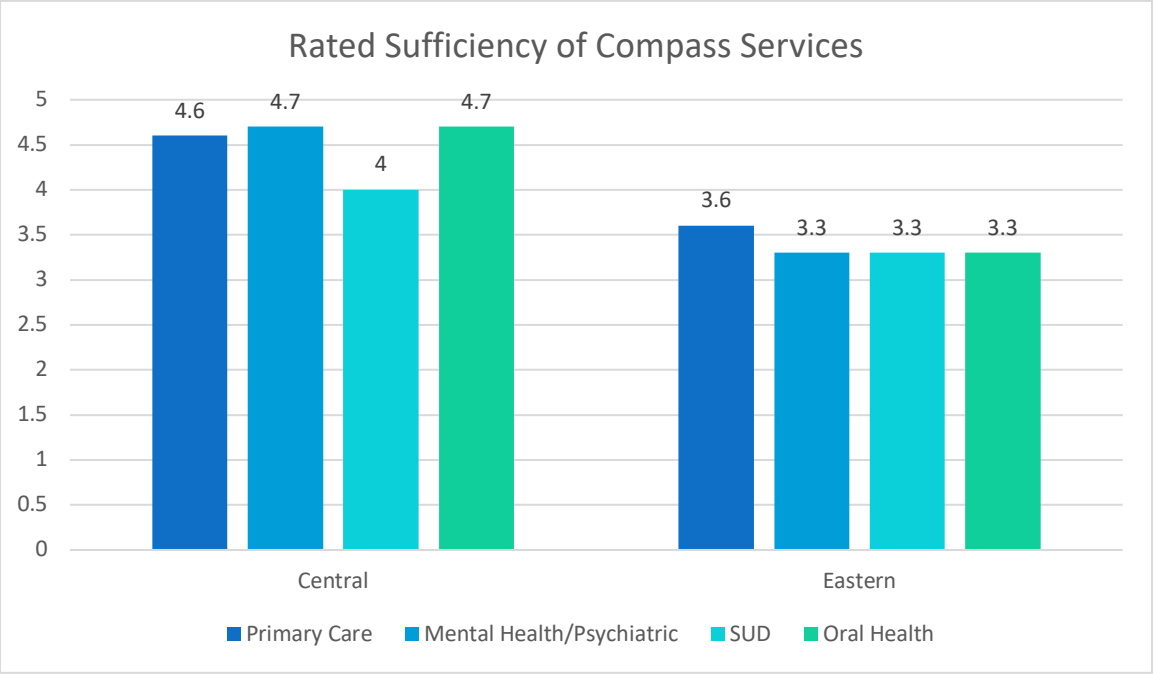
The respondents rated the health of their community at **3.3 out of 5** on average where 1=Among the Worst in Missouri and 5=Among the Best in Missouri, and here is how they described the health of their community:

- Has many needs, but is represented well
- Average
- Fair
- Not enough people are informed

- Healthy county
- There are unmet needs but many needs are met
- It appears that the overall heath in my community is continuing to diminish due to lack of education and understanding

Ratings of Sufficiency of Services Across Regions

The community stakeholders were asked to assess the sufficiency of primary care, mental health/psychiatric, substance use, and oral health services in their respective regions. Specifically, stakeholders were asked to evaluate this statement: **In my community, Compass Health Network has enough (1) primary care services, (2) mental health/psychiatric services, (3) substance use treatment, and (4) oral health services**. The response options were 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree, and the results were as follows:



Based on the weighted averages shown above, the sufficiency of all services was rated substantially lower in the Eastern region than in Central (this is consistent with the results of the 2021 assessment, so it appears the perception of need for more services in Eastern persists).

Comments that provide context for these ratings were provided from some stakeholders:

Central:

- Compass Health provides substance treatment services; however, I do not know if enough services are offered.
- It is of great comfort to know we have the competent professionals to meet the needs of our community and schools. Those on the inside low the need is great and probably need more resources but Compass Health has good visibility in the region.

Eastern:

- I don't have enough information to give an educated answer.
- Our county can always use more resources for mental health. I do believe Compass Health is exceptional in providing dental & immediate crisis aid & am proud to be on such a community minded board.
- I live in St Louis county, where I would hope to see more Compass facilities in development. Chronic health illness is everywhere, not specific to one demographic and this is an opportunity for Compass to continue its growth with a comprehensive medical approach.

Challenges, Barriers, and Recommendations to Compass Health Network

Following completion of the ratings above, stakeholders were prompted for their open-ended responses to a series of questions regarding health-related challenges, barriers to improved health, and specific advice or recommendations they would offer Compass. Summaries of these responses are provided below for each region.

Central Region

What do you think are the top health-related issues or challenges in the community?

The group identified a number of challenges including:

- Nutrition
- Families with children needing support
- Mental health
- Dental health
- Schools needing support
- Transportation to appointments
- Chemical addiction

What barriers do you see to improving the community's health?

The group-identified barriers to health improvement were:

- Staffing
- Parents not able to provide needs of their children
- Taking advantage of provided services
- Funding
- Too much on the teachers to fill gaps
- Community Awareness
- Lack of awareness and will to address it

What advice do you have for Compass Health as we plan for the next 3 years?

When asked specifically how they would advise Compass to proceed in the near future, the group provided a range of actions from proactively partnering to increasing physical presence in the community. Individual comments included the following:

- Continue partnering with community entities.
- Keep expanding to meet needs
- Continue with progressive care
- Keep up awareness of the resources
- Keep developing the professionals needed

Eastern Region

What do you think are the top health-related issues or challenges in the community?

The top challenge identified was (universally) behavioral health, including mental health and SUD treatment, with a secondary theme of chronic health conditions; specific comments were as follows:

- Mental health (x4)
- Access to health care
- Child mental health issues
- Transportation
- Obesity
- Drugs
- Behavioral health
- One parent families
- Access to mental health
- Diabetes
- Homeless
- PCP care

- Stigma related to mental health keeps some from asking for assistance
- Housing
- Inactivity

What barriers do you see to improving the community's health?

The respondents showed significant commonality on their view of the key barriers to health improvement, with awareness/education/stigma reduction and funding topping the list, with comments like:

- Inadequate funding
- I believe we are doing a great job!
- Dentistry
- Lack of resources
- Lack of funding from state
- Stigma
- Non-adherence
- Urgent cares
- Public apathy
- Education of available resources
- Lack of information/education
- Access
- Transportation issues to get to resources
- Lack of doctors
- Not enough comprehensive reach to community

What advice do you have for Compass Health as we plan for the next 3 years?

When asked specifically how they would advise Compass to proceed in the near future, the group recommended the following:

- I think they are doing an outstanding job on this side of state
- Trying to retain the great staff we have.
- More access to mental health care
- Continue providing awareness and doing all we do
- Spread more positive success stories
- Let's expand our reach
- Education
- More access to behavioral 24 hours
- Make compass health top of mind in corporate world

- It would be nice to have interventional programs in place
- More success stories for the public to see.
- Communication
- Get in schools where mental health is lacking as a resource for struggling youth
- Partnership with community leaders/ businesses can help reach

Summary: The two regions for which responses were received are clearly different with respect to the health of their communities and the sufficiency of services. Based on the weighted averages, both community health and sufficiency of all services were rated substantially lower in the Eastern region than in Central (this is consistent with the results of the 2021 assessment, so it appears the perception of need for more services in Eastern persists). It is worthy of note that there is convergence of need themes from community boards and consumers, with needs for transportation support, nutritional help, support for physical activity, and mental health care/supports showing up as cross-cutting themes. Boards consistently encourage Compass to do more in the education, public awareness and stigma reduction domains as well, including sharing success stories and better positioning Compass as "top of mind" in the corporate world, for example. Additionally, both boards and consumers had a lot to say about the strengths and successes of Compass as a community leader and collaborator/partner—this is, of course, essential to the Compass mission and intimately related to the ability to impact and leverage resources around SDOH (see previous section for more information).

Introduction to Public Administrator Survey

Public Administrators (PA) are important stakeholders and referral sources for Compass Health Network, as many of their wards have complex health and mental health needs. In order to better understand their realities and the unmet needs Compass may need to better meet, we constructed a survey to be sent to all PA's in our 48-county service area. We received 17 completed surveys upon which to conduct an analysis.

Respondent Characteristics and Result

Our respondents serve Bates, Jackson, Vernon, Hickory, Pettis, Maries, Gasconade, Laclede, Phelps, Franklin, Camden, Crawford, Lafayette, Henry, Morgan, St. Charles, and Lincoln counties and have many years' experience in the PA role, with 5-10+ years being their most frequent tenure. They serve an average of 177 wards at a given time, and they report the following frequency of conditions among their wards:

	0-10%	11-20%	21-30 %	31-40%	41-50%	51-60%	61-70%	71% +	TOTAL
mental illness	0.00% 0	0.00% 0	0.00% 0	11.76% 2	11.76% 2	11.76% 2	5.88% 1	58.82% 10	17
substance use disorder	52.94% 9	11.76% 2	5.88% 1	17.65% 3	11.76% 2	0.00% 0	0.00% 0	0.00% 0	17
intellectual/developmental disability	0.00% 0	11.76% 2	11.76% 2	23.53% 4	11.76% 2	11.76% 2	0.00% 0	29.41% 5	17
dementia (e.g., Alzheimer's type or other)	35.29% 6	23.53% 4	23.53% 4	5.88% 1	5.88% 1	5.88% 1	0.00% 0	0.00% 0	17
other disability	66.67% 8	8.33% 1	8.33% 1	8.33% 1	0.00% 0	8.33% 1	0.00% 0	0.00% 0	12

The most frequently occurring (modal) responses are:

- 59% of PA's indicate over 71%+ of their wards have **mental illnesses**
- 53% of them say only 0-10% of their wards have **substance use disorders**
- 29% indicate **intellectual/developmental disabilities** occur in 71%+ of their wards, and I/DD is more distributed across the frequency spectrum among their wards
- **Dementia** (Alzheimers type or other) appears less prevalent among their wards, with 35% saying it occurs only 0-10% among their wards
- Finally, **other disabilities** appear relatively rare as well (2/3 of PA's say they occur in 0-10% of cases).

With regard to the ***severity or urgency of care*** needed for their wards, the responses were as follows:

	MOST OFTEN NEED ROUTINE CARE	MOST OFTEN NEED URGENT CARE	MOST OFTEN NEED EMERGENT CARE	TOTAL	WEIGHTED AVERAGE
mental illness	41.18% 7	29.41% 5	29.41% 5	17	1.88
substance use disorder	64.71% 11	23.53% 4	11.76% 2	17	1.47
intellectual/developmental disability	76.47% 13	23.53% 4	0.00% 0	17	1.24
dementia (e.g., Alzheimer's type or other)	88.24% 15	5.88% 1	5.88% 1	17	1.18
other disability	90.91% 10	9.09% 1	0.00% 0	11	1.09

Routine care is most often needed for all conditions EXCEPT mental illness, which is much more likely to require ***urgent or emergent care***.

Next, PA's were asked about the most common kinds of care needed across the spectrum of conditions among their wards, including assessment, therapy, case management, residential care, medication management, and inpatient hospitalization.

	ASSESSMENT	THERAPY	CASE MANAGEMENT	RESIDENTIAL CARE	MEDICATION MANAGEMENT	INPATIENT HOSPITAL
mental illness	82.35% 14	82.35% 14	88.24% 15	94.12% 16	94.12% 16	
substance use disorder	68.75% 11	81.25% 13	75.00% 12	81.25% 13	56.25% 9	
intellectual/developmental disability	66.67% 10	66.67% 10	86.67% 13	80.00% 12	66.67% 10	
dementia (e.g., Alzheimer's type or other)	50.00% 7	50.00% 7	21.43% 3	92.86% 13	64.29% 9	
other disability	75.00% 6	62.50% 5	37.50% 3	50.00% 4	50.00% 4	

- Not surprisingly, the array of services needed for their wards with mental illness was most dense, ranging from 70% needing inpatient hospitalization to 94% needing residential care and medication management (the most frequently needed services).
- Among those with substance use disorders, the most frequently needed services were therapy and residential care (81%).
- For I/DD, the PA's indicated the greatest need was for case management (87%).
- For those with dementia, by far the most frequent need was residential care (93%).
- Among those with other disabilities, 75% were said to need assessment services.

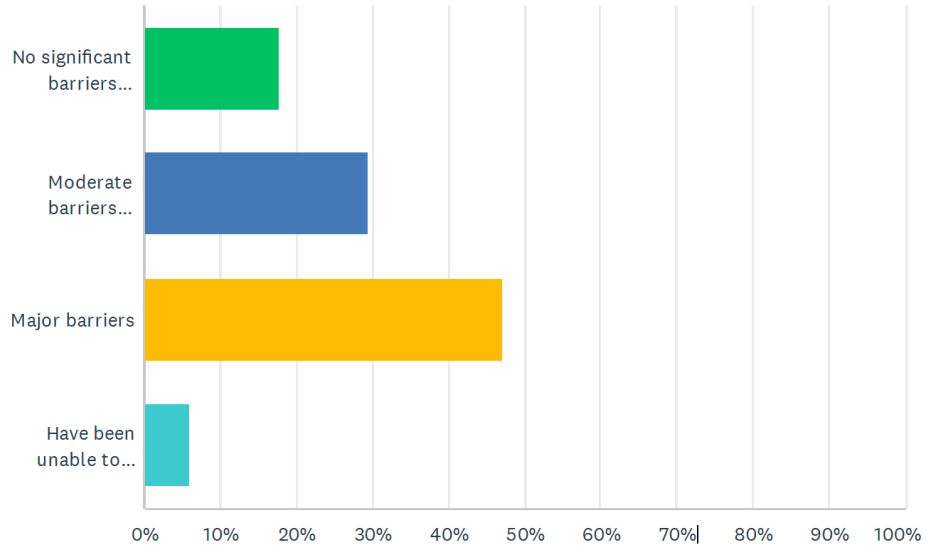
Comments about other kinds of care needed included:

- Crisis intervention as well as LONG TERM inpatient care, better placements
- This and the last are tricky questions. Most clients manage well with routine and available services. The more challenging clients are off the service spectrum. We still have a great need for longer term residential psychiatric care. Think Psychiatric LTAC. Basic housing for all clients is a major issue and is looking to get worse.
- Psych
- Meaningful activities

Next is the question, ***"Regarding the most critical needed services above, what has been your experience in accessing care for your wards?"*** The responses were as follows:

Q7 Regarding the most critical needed services above, what has been your experience in accessing care for your wards?

Answered: 17 Skipped: 0



ANSWER CHOICES	RESPONSES	
No significant barriers	17.65%	3
Moderate barriers	29.41%	5
Major barriers	47.06%	8
Have been unable to access care	5.88%	1
TOTAL		17

The modal response (almost half of respondents) was that PA's experience ***major barrier***s to getting the care they need for their wards. Given the frequency of such barriers, it is important to know what those barriers are, so they were queried about what the most significant barriers to care are, with the following results:

- Everyone is full, you cannot set up intake appointments it's come and sit most of the day to be seen and the ***clients become unruly or unable to sit and wait and we end up taking to ER to get immediate help.***
- We are ***challenged for any client that resists services***. A SUD or Personality D/O makes the challenge exponentially more difficult. For both community-based clients

and those with supported residential settings, we need case workers with exceptionally high level skills and the resources to monitor frequently.

- ***Not getting mental illness wards placement due to behaviors***
- Moderate to Violent Behaviors. ***No one wants to resume responsibility*** to treat them and a lack of psych facilities. SNF accepting mild behavioral clients.
- ***Placement***
- Location of wards - ***no placement locally***
- Hospital refusal to admit to psych bed, ***need beds in secure environment for assaultive individuals,*** not enough Level II beds, need crisis stabilization beds i.e.,: off meds, delusional and hallucinating, not suicidal or homicidal.
- ***Placement for behavioral wards***, access to inpatient hospitalization, communication and coordination of care, ***residential care, aftercare***, no long-term stabilizations, no support for highly behavioral wards
- ***Placement issues for aggressive clients***
- ***No beds available when in crisis mode***. Need more than 23 hrs or 3 days in the psych unit. Need observation in safe environment while medication is adjusted and/or long term safe environment is ready.
- Know who to contact for what services. ***Finding appropriate housing***.
- THE NEED FOR MORE ***INPATIENT BEDS***
- If newly appointed to an individual that is out in the community that is in need of ***oversight, med management and placement***. To get access to these it is very difficult and in times I have to use law enforcement and the judge to get a 96 hold to start the process. Placement is key and if there were a transitional phase to skip that 96 hour, that can be more traumatic than helpful. Finding proper residential placement has been identified as one of the hardest things for Public Administrators to do. When our dd folks can no longer living in ISL's because of their behaviors our options are very slim on what we can do.
- ***Residential/housing*** for the individuals with mental health concerns and have behaviors such as property destruction or self harm.
- The single most significant barrier is ***lack of residential placements*** for the mentally ill, or the ability to find housing for those who are behaviorally mentally ill.

We employed the ***critical incident method*** in the next question to elicit specific and potentially actionable examples/feedback on barriers to care: ***"Without revealing any protected health information, please describe a recent incident in which you sought care for one of your wards and encountered difficulty doing so,"*** with the following results:

- I am trying to get long term inpatient treatment for a client and keep being told there isn't enough information or that's hearsay. Or my right to admit is questioned.
- Young adult male. History of assaultive behavior and property destruction while with parent and then later in independent supportive living and intensive residential care. Dx unclear, but includes at Autism Spectrum and Schizophrenia (with some sort of mood component not yet defined). Five months in a medical ER with only telepsych. Because the telepsych doctors rotated his medications with their shifts (think swinging between Depakote and Thorazine and back based on the individual doctor's assessment) his physical and psychological dysregulated. Ultimately suffered Lithium toxicity and elevated ammonia levels. After months of being chemically restraint and having no access to peers or non-institutional socialization, the hospital dumps him to the police. ***The failures here are many*** -- Children's Division not have adequate case management or preparation for potential providers, hospital corporation which refused to transfer to psychiatric care internally, the structure of telepsych services, the absence of high structure provider with well trained staff and the resources to manage the client. He is someone that would have benefit from a Hab Center bed until he could stabilize and be prepared for more independent living. He did benefit previously from an intense residential ISL provider with a behavior plan and supports. But, it is not enough. I think I have three clients now with extended hospital stays due to a ***lack of adequate residential providers and five or so that are homeless or marginally housed for the same reason.***
- Getting a client back into service and had to redo intake process but had to come out and wait in the lobby for an opening.
- None recent
- Unable to find agency with a ***home aide*** available.
- Needed to move a ward from Kansas to Missouri but ***no RCF or ISL available***
- MI individual in jail, has served sentence, ***needs IRTS bed***, not accepted due to jail behavior and occasional refusal of meds and SI statements used to manipulate to get what he wants. 2) recently screened individual for SUD services denied due to "in remission" diagnosis. Last popped dirty in October 22 with high risk of relapse. Therapist identified need for intensive OP services, SUD supervisor overrode recommendation due to "in remission" diagnosis.
- A client needing stabilization was ***turned away at a hospital because they weren't suicidal***
- ***Placement issues w/ aggressive wards***

- None, just past experiences when a ward needs hospitalization to be evaluated and a med adjustment the hospital ***cannot find an available bed or if one is found the ward is treated for 2 to 3 days and sent back.***
- NEEDING AN ***INPATIENT BED*** FOR A PROBLEM WARD TO ADJUST MEDICATIONS
- I was appointed to a young lady that had been ***couch skipping with her family***, unmedicated and using street drugs. Even though not a complete danger to herself or others the judge did write an order for a 96 hour hold. She spent a couple days in jail until a bed opened up. ***She then spent 15 days in the hospital as I sought to find a place for her to go.***
- Individual was eloping from his home and threatening self harm and harm to staff, punching walls, and refusing medications. ***Hospitals refused to take them stating it was behavioral and not a need for hospitalization.***
- I am currently struggling to find placement for a client who is mentally ill and continually walks away from placements. This is complicated further due to the fact he is a registered sex offender which ***limits the number facilities that are able to provide housing.***

The final question asked of PA's was perhaps most relevant to our needs assessment process, as follows: **"What do you see as the most significant unmet needs among your wards?"** The responses were as follows:

#1
Behavior Services
Long term residential psychiatric care
none at this time
Psych treatment
behavioral counseling
long waitlist for therapy appointments (months long)
Residential placement for behavioral wards
inpatient hospitals
placement
Assisting ward with case management ie: medical appts, working opportunities (workshop), and interactions in the community. and
Counseling and Therapy
Placement
Residential care for younger individuals within their ability to pay.
Solid therapy for those clients who will remain in level II facilities.

#2
Long term behavior and mental health hospitals or facilities
facilities able to manage clients with violent or self destructive behavior or extreme property damage
Trauma treatment
behavioral placement options - residential and/or inpatient
denture benefits and ridiculously high sliding fee scales
Transportation
residential placements
Transportation
Appropriate Housing/Staffing Shortages
Behavioral analysts that accept Medicaid
Clustered housing services for those individuals transitioning to independence

#3
Crisis beds willing to make referrals
supported community housing - IRTS on the MH side and Intensive Residential on the I/DD side.
beds, beds, beds
coordination of care
Money management skills
Communication between all individuals involved in the clients care.
Dual diagnosis programs for mental health and substance abuse that provide housing.

Key Takeaways: Public Administrators have a preponderance of wards with complex behavioral health needs (primarily mental illness and secondarily substance use and/or I/DD) and face *major barriers* in getting the care they need for these wards. As stated by one exemplar, (1) "the single most significant barrier is *lack of residential placements* for the mentally ill, or the ability to find housing for those who are behaviorally mentally ill." This is especially true for wards with a history of aggressive, violent or self-destructive behavior and property damage, for which there appear to be *very* few placements available. Additional needs include (2) better coordination of care ("Communication

between all individuals involved in client's care"), (3) long waits for or lack of availability of psychiatric treatment, behavior therapy, and psychological counseling services appropriate to their wards' level of care, and (4) transportation issues.

Prioritized Population Health Needs and Health Disparities for Compass Regions as Identified in Regional Community Health Needs Assessments

Introduction

The information in this section was culled from all of the most recent available community health needs assessments conducted (as required by the Affordable Care Act) by regional non-profit hospitals, whose service areas fully or partially overlap Compass Health regions (i.e., if there are any overlapping counties). In addition to a compendium of the prioritized health needs in each region, any health disparities discovered in the community health needs assessment process are also provided below. The method used was as follows: (1) Extract up to the top five prioritized health needs from each CHNA, (2) Compile these needs, in order, for each Compass region, and (3) Identify and list up to the top five health needs that occurred most frequently in that master list for each region. Just below is a list of the CHNAs included in our analysis, followed by a summary of the prioritized needs and health disparities populations by region.

Central Region (Audrain, Boone, Callaway, Chariton, Cole, Cooper, Howard, Linn, Miller, Moniteau, Monroe, Montgomery, Osage, Pike, Ralls, Randolph Counties)

Community health needs assessments from the following hospitals, health systems, or collaboratives overlapping with the Central Region are included here:

- Boone Hospital Center 2019
- Capital Region Medical Center 2021
- Central Missouri Community Health Assessment Partnership 2018
- General John J. Pershing Memorial Hospital 2022
- Lake Regional Health System 2021
- Pike County Memorial Hospital 2022
- SSM Health St. Mary's Hospital - Jefferson City 2021

Eastern Region (Lincoln, St. Charles, Warren Counties)

Community health needs assessments from the following hospitals, health systems, or collaboratives overlapping with the Eastern Region are included here:

- Barnes-Jewish St. Peters Hospital 2019 (St. Charles)
- Progress West Hospital 2019 (St. Charles)
- SSM Health St. Joseph Hospital 2021

Southern Region (Camden, Crawford, Dent, Franklin, Gasconade, Iron, Laclede, Maries, Phelps, Pulaski, St. Francois, Washington Counties)

Community health needs assessments from the following hospitals, health systems, or collaboratives overlapping with the Southern Region are included here:

- Missouri Baptist Sullivan Hospital 2019
- Phelps County Regional Medical Center 2019
- Washington County Rural Health Network 2019

Western Region (Bates, Benton, Carroll, Cass, Cedar, Henry, Hickory, Jackson, Johnson, Lafayette, Morgan, Pettis, St. Clair, Saline, Vernon Counties)

Community health needs assessments from the following hospitals, health systems, or collaboratives overlapping with the Western Region are included here:

- Bate County Memorial Hospital 2019
- Bothwell Regional Health Center 2022
- Carrol County Memorial Hospital 2021
- Cass Regional Medical Center 2019
- Children's Mercy of Kansas City 2022
- Fitzgibbon Hospital 2022
- Golden Valley Memorial Hospital 2022
- Lake Regional Health System 2021
- Western Missouri Medical Center 2019

Summary and Cross-Cutting Themes from Regional CHNAs

The charts on the following page summarize the prioritized health needs extracted from the compiled CHNAs, as well as any identified health disparities.

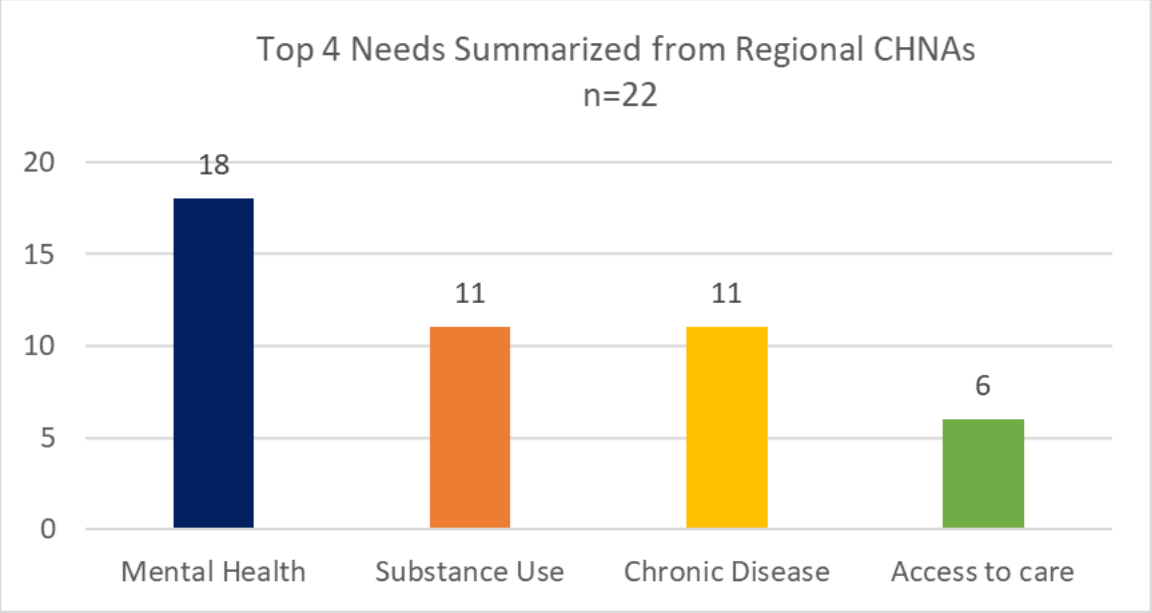
Prioritized Health Needs Summarized from Regional CHNAs

Central	Eastern	Southern	Western
• Mental Health and Substance Use Disorders • Chronic Disease and Health Risks Prevention • Access to Preventative and Specialty Care • Health Literacy	• Obesity • Chronic Disease Management • Behavioral Health Services • Access to Care	• Mental Health and Substance Use Disorders • Chronic Disease Management • Heart & Vascular Health • Access to Mental Health and Primary Care Providers	• Mental Health and Substance Use Disorders • Access to Affordable, Reliable Care • Obesity Awareness & Prevention • Health Literacy Improvement

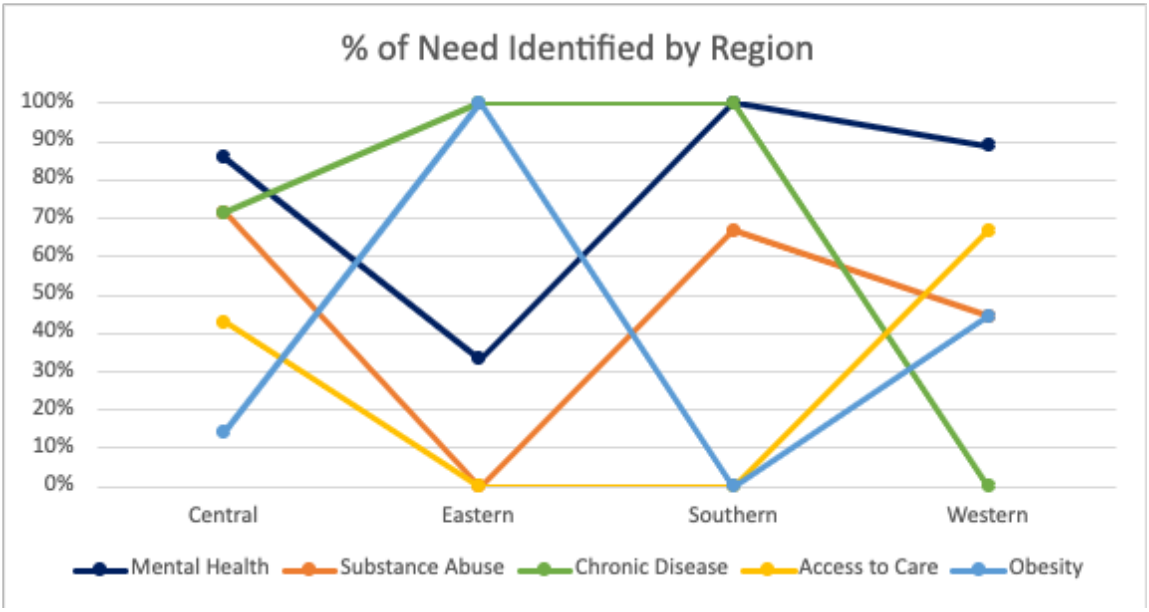
Summary of Health Disparities Identified in Regional CHNAs

Central	Eastern	Southern	Western
• Low Socioeconomic Status • Underinsured • Uninsured • Social Determinants of Health	• New Residents and In-migration • Cost and Affordability of Care for Low Socioeconomic Status	Youth	• Uninsured • Underinsured • Older Adults

Superordinate Needs Summarized from Regional CHNAs



Frequency of Need Identified Across All Regional CHNAs



Hospital Name	CHNA Date	Region	Identified Need 1	Identified Need 2	Identified Need 3	Priority Population
Boone Hospital Center	2019	Central	Heart/Vascular Disease	Diabetes	Mental/Behavioral Health/Substance Abuse	High ED Utilizers
Capital Region Medical Center	2021	Central	Mental Health	Substance Abuse	Diabetes	Social Determinants of Health
Central Missouri Community Health Assessment Partnership	2018	Central	Improve Access to Health Care	Mental Health/Substance Abuse	Chronic Disease	Health Literacy/Social Determinants that Influence Health
General John J. Pershing Memorial Hospital	2022	Central	Access to care	Chronic Disease	None	Low-income/Uninsured/Vulnerable
Lake Regional Health System	2021	Central	Mental Health	Access to Health Care	Ability to Pay/Lack of Insurance	Uninsured/Unable to pay
Pike County Memorial Hospital	2022	Central	Mental/Behavioral Health	Substance Use Disorder	Obesity and Nutrition	Rural/Transportation & Uninsured
SSM Health St. Mary's Hospital - Jefferson City	2021	Central	Mental Health/Substance Abuse	Specialty Medical Care	Health Literacy	Access to Affordable Housing
BJC St. Peters Hospital	2019	Eastern	Obesity	Diabetes Management	None	In-migration
BJC Progress West Hospital	2019	Eastern	Obesity	Diabetes Management	None	In-migration
SSM Health St. Joseph Hospital	2021	Eastern	Behavioral Health	Chronic Conditions	Overweight/Obesity	Access to services
Missouri Babtist Sullivan Hospital	2019	Southern	Heart & Vascular: Heart Health	Mental Health: Substance Abuse		
Phelps Health	Dec-19	Southern	Mental Health Providers	Primary Care Physicians	Heart Disease	
Washington County	Apr-19	Southern	Substance abuse	Mental Health	Chronic Diseases	
Bate County Memorial Hospital	Nov-19	Western	Drugs/alcohol abuse	Obesity(Nutrition/Exercise)/ Food Insecurity (Kids)	Mental Health	
Bothwell Regional Health Center	May-22	Western	Mental Health	Substance Use	Heart Disease and Obesity	
Carrol County Memorial Hospital	Sep-21	Western	Substance Abuse (Drug & Alcohol)	Mental Health	Obesity (Nutrition/Exercise)	Uninsured/Underinsureed
Cass Regional Medical Center	Nov-19	Western	Mental Health	Lack of Healthcare Access	Suicide	Seniors
Children's Mercy of Kansas City	Jun-22	Western	Child and Youth Mental Health	Housing and Neighborhood Conditions	Access to Health Services	Violence Prevention
Fitzgibbon Hospital	Apr-22	Western	Health Literacy Improvement	Healthy Lifestlye Advocacy	Preventive Care and Wellness	Cost and Transportation
Golden Valley Memorial Hospital	Dec-22	Western	Mental Health Scool focused	Economic Development	Substance Abuse	Psychiatric Unit-Inpatient
Lake Regional Health System	Aug-21	Western	Mental Health	Access to health care	Ability to pay and/or lack of insurance	
Western Missouri Medical Center	Sep-19	Western	Mental Health Services	Homelessness/Poverty (Employment Readiness)	Distracted Driving	Substance Abuse

Summary:

- **As can be seen from the lists and chart above, mental health and substance use disorders appear universally as top needs across all regions, followed by prevention and care of chronic diseases (including diabetes and heart disease), and access to care issues.**
- **The most common health disparities are uninsured/underinsured citizens, SDOH (including socioeconomic disadvantage) and age-based issues including youth and older adult population health needs.**

Conclusion: Prioritized Needs to Guide Strategic Planning

Summary of Cross-Cutting Themes from Quantitative and Qualitative Analyses

Many issues, barriers, and needs have been identified in preceding chapters, and any of them are certainly worthy of further study and strategic planning for Compass in the coming years. However, in an effort to help prioritize needs for action planning, it is important to highlight cross-cutting themes that emerged in more than one of the multi-pronged data collection approaches taken in this assessment process. Because they appear clearly in more than one analysis, they should be considered as the most reliable and robust indicators of need upon which to build strategic planning efforts. Those cross-cutting themes of need are:

- **About half of adults with a mental illness in Missouri do not receive care (this equates to 461,000 adults statewide) and among those who actively seek care, about 30% report being unable to get it, with cost of care most frequently cited as the main barrier (42% say they could not afford it). Given this state of affairs, it is not surprising that both mental health/psychiatric services and substance use treatment services were characterized as "demand substantially exceeding supply" across Compass regions, with the Southern region showing the most unequivocal need for both mental health and SUD treatment. These needs are also consistent with focus group and survey findings from external stakeholders (Boards of Associates and Public Administrators), customers with SMI, and prioritized needs in every region according to their compiled community health needs assessments. It is important to note that in both the focus groups and the structured assessment of unmet needs among customers, help with managing psychological distress such as depression and anxiety was a key need. And affordability of care remains one of the most frequently cited barriers.**

- **Geographic disparities are evident here as well: a cluster of counties (Hickory, Chariton, Washington and Iron) in the larger service area is substantially underserved with regard to behavioral health services, and the ADAPT and Southern regions show statistically homogeneous high levels of unmet behavioral health needs compared to other Compass regions.**

- **There is also substantial variability in the penetration rates of FQHC services across the counties comprising the Compass Health service area, ranging from 15% in Cooper County to 92% in Hickory County, though no significant differences are evident across Compass regions. Worthy of further analysis and consideration is the finding that the areas in which Compass is the more dominant health center have significantly lower penetration rates relative to other geographic areas in the Compass service area.**

- **Given the foregoing, Compass should employ strategies to better reach those who are already eligible – by virtue of income level or by already having a diagnosis of mental illness – for Compass services. Individuals who are at or below 200% of federal poverty level, and as a subset those with a diagnosed mental illness, are the consumers Compass exists to serve. Through more focused efforts and outreach in those counties and zip codes in which its current penetration rates are lowest, Compass will be able to serve more of these consumers, and serve them better.**

- **Finding new and creative ways of impacting the ongoing and perhaps worsening youth mental health crisis is an essential need. It is clear that Compass serves youth in numbers disproportionate to their representation in the population, which is a good start. We should also recognize the importance of screening and treatment for youth being available in schools, primary care clinics, and even dental clinics, all areas in which Compass has significant opportunity for innovation and improvement. Also, based on data showing mental health crises skewing younger, our evaluation should include consideration of looking for and responding to mental health problems earlier in children's developmental arc, especially in the under 12 age category. We also now know that fewer than half of emergency departments (ED) have clear pediatric mental health care policies. Furthermore, EDs in more remote, rural hospitals are 60% less likely to have such policies than more urban counterparts—a situation often encountered in Compass's rural and small-town service areas—highlighting the need to proactively engage with hospital EDs to ensure coordination of care and follow up when children/youth leave the ED.**

- **Expansion of dental services was another clear cross-cutting theme, emerging as the most frequently cited need in the survey of Compass leaders across all regions, with Royal Oaks, Central and Eastern showing the highest rating of need for expansion. Although customers with SMI seem to have reasonable access to oral health care, it was cited as a need in focus groups, particularly with regard to long waiting times for appointments.**

- **Hiring more staff and continuing to provide staff resources and development opportunities were explicitly identified by many stakeholders including Compass leaders (e.g., "Continue to recruit quality employees," "Continue to hire more providers," "Fill open positions," "Find a way to hire more folks, "Retention of current staff," "Figure out why staff do not stay," and "Staff retention strategies to support current programming and develop seasoned staff."). This dovetails with a theme we heard from customers with SMI, who find it difficult to feel connected with Compass when they experience new providers very frequently, indicating turnover in some positions has a real and negative impact on customer care and experience.**

- **The need for safe, secure, accessible, and affordable housing and accommodation solutions for Compass customers could not be more clear across all regions and from the voices of multiple stakeholders. For example, it was the most frequently cited "unmet need" in the structured needs assessment with customers and by far the most consistent need identified by Public Administrators for their wards.**

- **As with the last assessment, finding creative and effective solutions to customer transportation needs have been clearly identified in numerous other parts of this assessment as well, including community stakeholders, Compass staff, consumers with SMI, and community health needs assessments. Clearly, some areas are far more pressed in this regard than others, but it certainly qualifies as a cross-cutting theme.**

- **Also persisting from the last assessment, felt needs for an increase in supportive social, personal, and intimate relationships appears near the top of both quantitative and qualitative responses from customers with SMI. This is no small matter, as such relationships are a key protective factor against a range of serious mental health challenges and addiction issues, and a raft of recent research has clearly demonstrated the negative health effects of social disconnection and loneliness (equivalent to smoking 15 cigarettes a day). Novel, creative, innovative strategies or initiatives should be pursued in this regard, and there is quite a bit of emerging science to help guide such pursuits.**

- **Regarding racial/ethnic disparities, Compass serves persons identifying as Black/African American in proportions slightly to much higher than they appear in the population in all regions (Central, Eastern, and Western) except the Southern, where the disparity is substantially in the other direction (about 7 percentage points lower representation among those served by Compass). However, this represents a 2 percentage point increase in penetration into the Black population in the Southern region since 2021, which is consistent with Compass's intent and strategy. Continuing to strategize and plan for action to reach and better serve (especially) young Black men is clearly a priority need going forward.**

Appendix A: Data Dictionary and Data Sources for Indicators

Access to exercise opportunities	Percentage of the population with access to places for physical activity
Adult obesity	Percentage of adults that report BMI >= 30
Adult smoking	Percentage of adults that reported currently smoking
Alcohol-impaired MV deaths	Percentage of driving deaths with alcohol involvement
Children in poverty	Percentage of children (under age 18) living in poverty
Children w single-parent households	Percentage of children that live in single-parent households
Dentists	Dentists per 100,000 population
Diabetes	Derived from "yes" response to the following question: Have you ever been told by a doctor that you have diabetes?
Diabetes monitoring	Percentage of diabetic Medicare enrollees receiving HbA1c test
Diabetes prevalence	Percentage diagnosed with diabetes
Disconnected youth	Percentage of youth ages 16-24 who are neither in school nor working
Drug overdose	# of deaths by drug overdose
Excessive drinking	Percentage of adults that report excessive drinking, defined consuming 4 or 5 drinks on a single occasion in the past 30 days, or more than one or 2 drinks per day on average.
Firearm fatalities	Number of firearm deaths per 100,000 population
Flu vaccinations	Percentage of fee-for-service (FFS) Medicare enrollees that had an annual flu vaccination
Food environment index	Indicator of access to healthy foods - 0 is worst, 10 is best
Food insecurity	Percentage without reliable access to foods in the past year
Free-reduced lunch eligible	Percentage of children enrolled in public schools K-12 eligible for free or reduced lunch.
Frequent mental distress	Percentage reporting frequent mental distress
Frequent physical distress	Percentage reporting frequent physical distress
Health care costs	Price-adjusted Medicare reimbursements (Part A and B) per enrollee
High school graduation	Graduation rate
HIV prevalence	Percentage diagnosed with HIV
Homicides	Number of deaths from assaults per 100,000 population
Income inequality	Ratio of household income at the 80th percentile to income at the 20th percentile

Injury deaths	Injury mortality rate per 100,000.
Insufficient sleep	Percentage who reports sleeping an average of 7 hours or less per night
Limited access to healthy foods	Percentage that are low income and do not live close to a grocery store
Low birth weight	Percentage of births with low birth weight (<2500g)
Mammography screening	Percentage of female Medicare enrollees having at least 1 mammogram in 2 yrs. (age 67-69)
Median household income	The income level where half of households in a county earn more and half of households earn less
Mental health providers	Mental Health Providers per 100,000 population
Motor vehicle crash deaths	Number of motor vehicle crash deaths per 100,000 population
Number of veterans	# of veterans
Other primary care providers	Ratio of county population to the number of other primary care providers, including nurse practitioners.
Physical inactivity	Percentage of adults that report no leisure-time physical activity
Poor mental health days	Average number of reported mentally unhealthy days per month
Poor or fair health	Percentage of adults that report fair or poor health
Poor physical health days	Average number of reported physically unhealthy days per month
Population	Total population of the county
Premature death	Age-adjusted YPLL rate per 100,000
Preventable hospital stays	Discharges for Ambulatory Care Sensitive Conditions per 1,000 Medicare Enrollees
Primary care physicians	Primary Care Physicians per 100,000 population
Residential segregation - black/white	The degree to which two or more groups live separately from one another in a geographic area. Interpreted as the percentage of black or white residents that would have to move to different geographic areas in order to produce a distribution that matches that of the larger area.
Residential segregation - non-white/white	The degree to which two or more groups live separately from one another in a geographic area. Interpreted as the percentage of non-white or white residents that would have to move to different geographic areas in order to produce a distribution that matches that of the larger area.
Severe housing problems	Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities
Sexually transmitted infections (STI)	Chlamydia cases per 100,000 population
Social associations	Associations per 10,000 population

Some college	Percentage of adults age 25-44 with some post-secondary education
Suicides	Number of suicides per 100,000 population
Teen births	Births per 1,000 females ages 15-19
Unemployment	Percentage of population ages 16+ unemployed and looking for work
Uninsured	Percentage of people under age 65 without insurance
Uninsured adults	Percentage of the population ages 18-64 that has no health insurance coverage
Uninsured children	Percentage of the population under age 19 that has no health insurance coverage
Violent crime	Violent crimes per 100,000 population
% 65 and older	Percentage of the county population age 65 and older
% American Indian and Alaskan Native	Percentage of persons who are American Indians and Alaskan Natives in the county population
% Asian	Percentage of Asian persons in the county population
% below 18 years of age	Percentage of the county population below 18
% Females	Percentage of the county population that is female
% Hispanic	Percentage of Hispanic persons in the county population
% Native Hawaiian/Other Pacific Islander	Percentage of persons who are Native Hawaiian or Other Pacific Islanders in the county population
% Non-Hispanic African American	Percentage of persons who are African Americans in the county population
% Non-Hispanic white	Percentage of White persons in the county population
% not proficient in English	Percentage of county population that is not proficient in English
% Rural	Percentage of the county that is classified as rural

Data Sources

National Center for Health Statistics - Mortality Files
Behavioral Risk Factor Surveillance System
National Center for Health Statistics - Natality files
CDC Diabetes Interactive Atlas
USDA Food Environment Atlas, Map the Meal Gap from Feeding America
Business Analyst, Delorme map data, ESRI, & US Census Tigerline Files
Fatality Analysis Reporting System
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention,
Small Area Health Insurance Estimates
Area Health Resource File/American Medical Association,
Area Health Resource File/National Provider Identification file
CMS, National Provider Identification

Dartmouth Atlas of Health Care
EDFacts,
American Community Survey, 5-year estimates
Bureau of Labor Statistics
Small Area Income and Poverty Estimates
County Business Patterns
Uniform Crime Reporting – FBI
CDC WONDER mortality data
Census Population Estimates
Missouri Department of Health and Senior Services, Missouri County-Level Study (CLS
CDC Causes of Death Statistics, suicide

Appendix B: ADAPT Regional Analysis

This assessment is based on a collection, culling and analysis of available public health data and existing reports relevant to the ADAPT of Missouri service area, inclusive of St. Louis County and St. Louis City.

1. Sociodemographic and Health Status Profiles of ADAPT Service Area

St. Louis County, with a population of 994,205 (2019), ranks 1 in population size among Missouri's 115 counties including St. Louis City. The unemployment rate in the county is 6.3%, which was greater than the statewide rate of 6.1%, and the poverty rate is 9.3% which is less than the statewide rate of 12.9%. The median income of the county is $70,161.

St. Louis City had a population of 300,576 in 2019 and ranks 4 in population size among Missouri's 115 counties. The unemployment rate in the county is 8.5%, which is greater than the statewide unemployment rate of 6.1%, and the poverty rate is 20.4% which is greater than the statewide poverty rate of 12.9%. The median income of the county is $46,309.

The following data are from the latest available County by County Health Rankings, a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, and are based on well-known sources with established reliability and validity, including the Behavioral Risk Factor Surveillance System (BRFSS), the National Center for Health Statistics, the US Census Bureau, and others (see www.countyhealthrankings.org for details).

The available datasets include dozens of indicators and great specificity, so county level rankings (out of 115) of a series of composite indicators were selected and analyzed to provide an impactful but simplified view of the health of the ADAPT service area.

- The **Social and Economic Factors** indicator is a composite of education, unemployment, poverty, social and family support (single parent rates, social associations), and safety (violent crime, injury rates). The ADAPT counties rank as follows: St. Louis County ranks 25 of 115 and St. Louis City ranks last in the state at 115 of 115.
- **Physical Environment** is a composite indicator comprised of environmental (i.e., air quality, drinking water) and housing & transit issues. The ADAPT counties rank as follows: St. Louis County ranks last in the state at 115 of 115 and St. Louis City ranks not far above at 112 of 115.
- **Health Behaviors** is a composite indicator comprised of diet and exercise (food insecurity, limited access to healthy foods), substance use (alcohol, drug overdose deaths, motor vehicle deaths), and other health behaviors such as insufficient sleep. The ADAPT counties are widely divergent in this arena, with ranks as follows: St. Louis County ranks 1st in the state and St. Louis City ranks very close to last in the state at 112 of 115.

- **Quality of Life** is a composite indicator comprised of frequent mental and physical distress, diabetes prevalence, and HIV prevalence. The ADAPT counties rank as follows: St. Louis County is 26th in the state and St. Louis City ranks very close to last in the state at 108 of 115.
- **Length of Life** is a composite indicator comprised of life expectancy, premature age-adjusted mortality, and child/infant mortality. The ADAPTcounties rank as follows: St. Louis County is 37th in the state and St. Louis City ranks very close to last in the state at 113 of 115.
- **Health Outcomes** is a composite indicator comprised of both length of life (i.e., premature deaths) and quality of life (poor or fair health, poor physical health days, poor mental health days and low birthweight). The ADAPT counties rank as follows: St. Louis County is 34th in the state and St. Louis City ranks very close to last in the state at 110 of 115.
- **Health Factors** is a composite indicator comprised of health behaviors such as tobacco use, diet and exercise, alcohol use, and sexual behaviors (including teen births and sexually transmitted infections). The ADAPT counties rank as follows: St. Louis County is 6th in the state and St. Louis City ranks very close to last in the state at 113 of 115.
- **Clinical Care** is a composite indicator comprised access to care (uninsurance rates, number of mental health, primary care and dental providers), and quality of care (e.g., preventable hospitalizations, flu vaccination rates). The ADAPT counties rank as follows: St. Louis County is 1st in the state and St. Louis City ranks 39 of 115.

Summary Observations: A review of the foregoing makes it obvious that the ADAPT service area is a study in contrasts and disparities. It includes one of the most at-risk of all Missouri counties as regards social and economic factors, which is cause for great concern given the well-established connection between such social determinants of health (SDOH) and mental illness. Even though St. Louis County enjoys a position among the most advantaged quartile on these social and economic factors, it ranks dead last of all counties on physical environmental factors, which also predispose individuals and families to distress and mental illness. But the disparities are most evident in the areas of health behaviors and clinical care, for which St. Louis County ranks #1 in the state, and the balance of the service area ranks among the most at-risk/disadvantaged. Finally, the disparity on length of life deserves special attention as well, as severe mental illness (particularly when untreated or inadequately treated) has long been established as a major contributing factor to years of lost life (reliable estimates range from 10 to 25 years).

2. Behavioral Health Profiles of ADAPT Service Area Counties

The following are excerpted and adapted from analyses conducted and reported by the ***Behavioral Health Epidemiology Workgroup*** (2021).

Mental Health

Individuals struggling with serious mental illness are at higher risk for homicide, suicide, and accidents as well as chronic conditions including cardiovascular and respiratory diseases and substance use disorders. As noted above, these are all potential root causes for the devastating reduction in years of life and quality of life for such individuals. Some important prefatory notes regarding the following summaries are: (1) While there are data on those who receive treatment,

data on mental health in the general population is very limited. This is especially true at the local level; (2) Serious mental illness is defined as any of the mental disorders asked about and these disorders resulted in substantial impairment in carrying out major life activities; (3) A major depressive episode is characterized by an extended period of depressed mood, loss of interest or pleasure, and impaired functioning, and typically, females are more likely to report having had a major depressive episode; and (4) Suicide is the 2nd leading cause of death for ages 10-34 in Missouri.

- 6965 **St. Louis County** residents received treatment for serious mental illness at publicly-funded facilities.
- In St. Louis County, 12.7% of adults aged 18 years and older did not have a good mental health for 14 days or more.
- 142 Saint Louis County residents died by suicide last year.

- 7887 **St. Louis City** residents received treatment for serious mental illness at publicly-funded facilities.
- In St. Louis City, 15.9% of adults aged 18 years and older did not have a good mental health for 14 days or more.
- 47 Saint Louis City residents died by suicide last year.

Substance Use

According to the Missouri Behavioral Health Epidemiology Workgroup, “reliable county-level data on substance use are often very limited or unavailable. The National Survey on Drug Use and Health (NSDUH) and Centers for Disease Control and Prevention (CDC) PLACES project are two data sources used to report data for adults at regional and county- level and are used here.” Important prefatory notes relevant to all county level information include: (1) Alcohol is the most commonly used substance in Missouri adults; (2) Cigarette use is of concern across the state; (3) Marijuana use in Missouri continues to be of interest, particularly with recent shifts in legality of adult use across the nation and medical marijuana sales in the state since October 2020; and (4) Prescription drug misuse is of growing concern both across the nation and in Missouri.

- In **St. Louis County**, the prevalence of binge drinking among adults 18 years and older is 17.8%.
- The prevalence of current smoking among the same age group is 15.4%.

- In **St. Louis City**, the prevalence of binge drinking among adults 18 years and older is 18.7%.
- The prevalence of current smoking among the same age group is 24.3%.

3. Compilation of Behavioral Health Needs Assessment Findings

MHB has reported a synthesis of 14 recent regional behavioral health reports and needs assessments, reviewing multiple data sets through the lens of the Donabedian assessment model (i.e., input, process, outcomes). This report, entitled ***FY 2020 – 2022 Community Mental Health Fund Needs Assessment, Investment Framework & Priorities****,* indicates that the following have improved in recent years:

- Median income is higher
- Unemployment is lower
- Violent crime has decreased
- Behavioral health ER visits are declining.

The report presents data showing the following have stayed the same or gotten worse:

- Housing
- Homelessness
- Poverty
- Behavioral health hospital instability rates and utilization

The MHB report concludes from the data that:

- Most behavioral health risk factors and outcomes in the City are worse, compared to County & State
- City adults face greater behavioral health challenges and needs
- Complex social service system is difficult to navigate

Consistent with many of the data points reviewed above, the MHB report identified those at most risk of impact as the following:

- Criminal justice-involved individuals
- Transition-age young adults (ages 19-24)
- Those experiencing homelessness or housing instability
- Individuals with co-morbid behavioral and physical health conditions
- Those with co-occurring mental health and substance use issues
- Members of the Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ+) population
- Citizens exposed to community violence and trauma
- Communities experiencing high poverty and risk indicators
- Seniors (age60+)

Also consistent with the service area profiles above, the report points to the following needs and gaps in services in the area:

- Access and options for mental health and substance use services & support
- Community level violence & trauma support
- Services for specific, vulnerable populations
- Focus on crisis prevention
- Services for the whole family
- Attention to needs that support recovery, including transportation and housing stability.

The recommendations from the MHB report are thoroughly consistent with those developed pursuant to the present needs assessment analysis and are therefore interwoven into the conclusions and recommendations section below.

4. Conclusions and Recommendations

A fair reading of the big picture painted by the foregoing data seems to support the following conclusions and recommendations for *ADAPT* to further evaluate the following needs:

Identify and prioritize services for high need geographic areas and vulnerable populations, such as those described above in health status profiles. This suggests a series of needs including:

- The use of interventions known to be effective for specific populations, such as Integrated Dual Disorders Treatment programming
- Further identification of the most salient barriers for the most vulnerable populations
- Locating or expanding services in specific geographic areas as noted above
- Deploying peer supports in these areas as a way of overcoming stigma and improving cultural competence of the service array.

Improve access & remove barriers to care by offering more assistance to individuals in navigating a system that is often opaque to them. This can/should include developing and/or strengthening such initiatives as:

- Linkage & referral networks
- Navigation assistance to ensure a “no wrong doors” approach
- Assistance with making psychiatric medications affordable to many
- Integration of behavioral health with primary health care, as PC is often the defacto mental health system for many
- Improving care coordination with best and evidence-based practices.

Enhance recovery by addressing social determinants of health, many of which have been identified and outlined in the data profiles above. This may include seeking and taking opportunities to:

- Develop and expand on provider partnerships that address a comprehensive range of needs
- Use targeted data collection and analysis to identify and then decrease barriers to access (i.e., locations, hours, child care, etc.)
- Partner to facilitate affordable housing with accompanying supportive services in the most needful geographic locations
- Support for gaining access to insurance through opportunities provided under Medicaid expansion.

Expand service capacity & develop innovative approaches to reaching and serving those with serious mental illness by continuing to:

- Expand specialty mental health services

- Evaluate which existing services are most successful/impactful and grow them, as well as other evidence-based programs or other innovative approaches
- Expand transitions of care, paying careful attention to individuals who are lost to follow up after psychiatric hospitalization or crisis service provision
- Address psychiatric care shortage evidenced in many parts of the community
- Implement more recovery-oriented services at the point of need, including:
    - Independent living skills
    - Peer supports, for which there are available evidence-based practices
    - Targeted prevention & early intervention approaches
    - Intergenerational approaches
    - Stigma reduction efforts, as this remains a tall barrier to care
    - Ensuring the availability of trauma-informed providers and making the entire system more trauma-informed.

Continue to build capacity to respond to crises earlier and with more innovation and effectiveness by:

- Training providers to effectively intervene earlier in crises, and building more capacity to do so
- Providing more alternatives to emergency department visits
- More access to diagnoses & evaluation services by offering or expanding open access approaches
- Building collaborative partnerships to increase and improve cross-sector referrals that can prevent crises from escalating.

Build awareness of stakeholders, internal and external, of the enormous potential humanitarian, financial, health system, and social service system impacts of finding and providing effective care to the many individuals with untreated mental illness in the ADAPT service area.