

Menninger Community Health Needs Assessment

November 2019



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Executive summary

The Menninger Clinic is one of the nation's leading psychiatric healthcare providers. Founded in 1925, Menninger is dedicated to treating individuals with complex mental illness, including severe mood, personality, anxiety and addictive disorders. Menninger is guided by a set of values that helps faculty and staff members provide high-quality care, research and training while creating a culture that attracts and retains the best faculty and staff.

- **Excellence:** The best people doing their best work
- **Teamwork:** Accountable to each other to do our best
- **Hope:** Inspiring people to reach their potential
- **Integrity:** Doing the right thing
- **Caring:** Respect and compassion for self and others

Menninger desires to continue providing innovative programs in treatment, research and education to meet the needs of patients and the communities it serves, while also pursuing continuous improvement in existing and future programs. Menninger has conducted a Community Health Needs Assessment (CHNA), using primary and secondary data to ensure community benefit programs and resources are focused on significant health needs for persons seeking treatment for mental illness and reduce the burden of mental illness on the community.

As discussed in more detail below, for the purposes of this CHNA, Menninger has defined its “CHNA community” by focusing on the unique patient population served by Menninger as well as its specialized services and strategic priorities. This has resulted in two primary segments for which data will be assessed, community input obtained and needs identified.

The community served by Menninger is broken out between patients served through Menninger’s inpatient services and patients served through Menninger’s outpatient services. Defining two distinct communities for this CHNA allows Menninger to more effectively gather input and focus its resources to address identified significant health needs, targeting areas of greatest need.

The inpatient community will be defined by focusing on the complex and unique mental health needs of the patients treated at Menninger as opposed to a geographic area. Although 29% of the inpatients in fiscal year 2018 resided in the Houston nine-county area, Menninger’s inpatient programs serve patients from across the United States and internationally. For patients who seek inpatient treatment at Menninger, the severity of their mental illness, as well as the types of disorders most commonly treated, provide a better definition for “community served by the hospital.”

Efforts have been made to include primary input for specific treatment programs and services provided at Menninger, including research and education activities, which impact services provided at many organizations across the country and seek to improve mental health in the broader community.

The outpatient community will be defined as Harris County, Texas, as over 50% of the outpatients served by Menninger reside in Harris County. While Menninger serves outpatients across a broader region, defining Harris County as its primary community allows Menninger to more effectively focus its resources to address identified significant health needs, targeting areas of greatest need and mental health disparities.

Menninger surveyed patients in order to obtain input regarding barriers with obtaining care and needs specific to the patient populations served by Menninger. Input was also solicited regarding changes Menninger should make to improve health of the inpatients served by the organization. A total of 43 surveys were gathered. In addition, Menninger obtained input from 13 key stakeholders representing public health, mental health providers, universities, other hospitals providing psychiatric care, local government, and state and national organizations focused on mental health. Stakeholders were identified for input specific to inpatient or outpatient services. Secondary data was assessed including:

- Demographics of patients served by Menninger
- Socioeconomic indicators (household income, poverty, unemployment, educational attainment, housing)
- Community mental health statistics and indicators (rates for mental illness, severe mental disorders and substance abuse, access to mental health services, mental health expenditures, mental health workforce availability, etc.).
- Availability of health care facilities and resources

Information gathered in the above steps was reviewed and analyzed to identify mental health issues in the community. Based on the information gathered through this Community Health Needs Assessment, the health needs below have been identified as needs that impact persons with mental illnesses in the CHNA communities.

Identified needs

To assess the current mental health service needs in the Greater Houston area, Menninger sought input from current inpatients and outpatients, as well as community leaders in mental health organizations. These data can easily be separated into needs for persons with acute, complex and serious mental illness who require the safety and structure of inpatient services and into needs of those residents who can benefit from early screening, diagnosis or treatment to those who can benefit from community-based programs for treatment and support.

Inpatient

- High cost of care and lack of insurance benefits
- Shortage of inpatient beds for children and adolescents

- Inconsistent access to services for populations due to socioeconomic and geographic factors
- Shortage of availability of and easy access to mental health screenings, diagnostic services and early treatment interventions
- Stigma prevents a majority of people from seeking services
- Shortage of mental health professionals, especially with Hispanic and African American heritage
- Void of coordinated and integrated care

Outpatient

- Lack of affordable services where people live and work
- Limitations for what insurance will pay for
- Barriers to treatment, including transportation, stigma and not knowing how to access mental health services
- Lack of leadership in mobilizing a system of services
- Long waits for medication and counseling services
- Demand for training among first responders to address needs of individuals in crisis
- Shortage of mental health professionals, especially with Hispanic and African American heritage
- Shortage of assessment and treatment for autism

A review of existing community benefit and outreach programs was also conducted as part of this process and opportunities for increased community collaboration were explored. Opportunities for health improvement exist in each area. Menninger's Leadership will work to identify areas where Menninger can most effectively focus its resources to have significant impact and develop an Implementation Strategy for 2020 through 2022.

The 2019 Menninger Clinic CHNA has three main goals:

1. Gain a better understanding of mental health care needs for patients served by Menninger.
2. Ensure alignment of mission and charitable resources with its services and expertise to address identified needs in the two communities identified in the CHNA.
3. Support the development of plans to improve mental health for the communities served by Menninger as well as the broader community.

How the assessment was conducted

Menninger conducted a community health needs assessment to support its mission responding to the needs in the communities it serves and to comply with the Patient Protection and Affordable Care Act of 2010 and federal tax-exemption requirements. Identified health needs were prioritized in order to facilitate the effective allocation of hospital resources to respond to the identified health needs.

Menninger further refined the structure and data resources used in its 2016 CHNA. Menninger engaged Working Partner LLC, a Houston-based strategic planning firm that specializes in research, strategy and evaluation to access richer community data sets. Carbonara Group, a firm in Houston specializing in strategy, communications and marketing, was engaged to conduct and provide summaries of the community stakeholder interviews. The community health needs assessment was conducted from August 2019 through November 2019.

Based on current literature and other guidance from the U.S. Treasury and the IRS, the following steps were conducted as part of the Menninger's CHNA:

- Community benefit initiatives which were implemented over the course of the last three years were evaluated.
- The two “communities” served by Menninger were defined focusing on specialized programs and services provided by the organization. Inpatient and outpatient data regarding patient origin was also used to define the communities served by the organization; primarily for outpatient services. This process is further described in Communities Served by Menninger.
- Demographics and socioeconomic characteristics of the communities were gathered and assessed utilizing various third parties.
- The mental health status of the community was assessed by reviewing community health status indicators from multiple sources. Health indicators with significant opportunity for improvement were noted.
- Input was obtained through a patient survey. Findings are described in Primary Data Assessment - Patient Survey.
- Community input was also obtained through key stakeholder interviews of 13 community leaders. See Appendix A for a listing of organizations that provided input through telephone interviews.
- An inventory of psychiatric facilities and other community resources potentially available to address the significant health needs identified through the CHNA was prepared.
- Significant health needs were then identified considering community perception regarding the significance of each identified need as well as the ability for Menninger to impact overall health based on alignment with Menninger's mission and services provided.

Limitations and information gaps

This assessment was designed to provide a comprehensive and broad picture of the mental health in the communities (inpatient and outpatient) served by Menninger; however, there may be a number of medical conditions that are not specifically addressed in this report due to various factors, including but not limited to, publicly available information or limited community input. In addition, certain population groups might not be identifiable or might not be represented in numbers sufficient for independent analysis. Examples include homeless and institutionalized persons, undocumented residents and members of certain ethnic groups who do not speak English or Spanish. Efforts were made to obtain input from these specific populations through key stakeholder interviews.

General description of The Menninger Clinic

The Menninger Clinic is a freestanding 501(c)(3) nonprofit hospital governed by The Menninger Clinic Board of Directors. Day-to-day management is the responsibility of our executive team, while our clinical leaders have responsibility for ensuring high-quality patient care.

Areas of expertise

Our clinicians offer broad expertise and experience. They are devoted to caring for patients with mental illness, and they do so with professionalism, respect and dignity.

Menninger offers many areas of expertise here, including but not limited to:

- **Anxiety** – One of the top diagnoses among all age groups treated at Menninger, we have decades of experience helping patients with anxiety.
- **Depression** – Depression comes in many forms, and we treat it all: major depressive disorder, persistent depressive disorder, postpartum depression, depression with psychosis and more.
- **Bipolar disorder** – Another top diagnosis among Menninger patients, bipolar disorder can be tough to diagnosis and treat. Our interdisciplinary teams are equipped to do both.
- **Trauma** – Menninger has a long history of treating patients with trauma, especially complex attachment trauma.
- **Addiction** – At Menninger, approximately 60 percent of patients have an addiction – including alcohol, drugs and behavior addictions like gambling, sex and Internet – or substance use disorder, which we treat simultaneously with psychiatric conditions. This approach reflects our philosophy of holistic treatment for issues affecting the mind, body and spirit. Several recovery pathways are offered, allowing each person to select a pathway that aligns with his/her values.
- **Personality disorders** – From borderline personality disorder and narcissistic personality disorder to avoidant personality disorders, obsessive-compulsive personality

disorder and more, Menninger clinicians have years of experience successfully treating these challenging disorders.

- **Women's mental health** – Having a baby is usually a joyous occasion, but for some women, postpartum depression, PTSD and even suicidal thoughts can follow. We have several specialists in women's mental health who provide care for women with these and other issues.
- **Gender issues** – Menninger has long treated patients with gender issues, often on our Compass Program for Young Adults. Our teams understand and respect patients who struggle living in a world that can lack compassion for their unique circumstances.
- **Suicide attempts, suicidal thoughts and self-harm** – All of our treatment teams have had extensive training in treating individuals with a history of suicide attempts, thoughts about suicide and self-harming behaviors. They know how to connect with patients who struggle with these difficult issues.
- **Support services**

Addictions services: At Menninger, roughly 60 percent of patients have an addiction or substance abuse issue in addition to their primary psychiatric diagnoses. For these patients, the treatment teams and their addictions counselors integrate treatment for the co-occurring disorders simultaneously rather than treating the disorders sequentially. Our master's-prepared addictions counselors are an integral part of each program's interdisciplinary treatment team. They help develop individualized treatment plans and counsel adolescents and adults with co-occurring disorders, following patients from assessment through discharge planning for substance-related, gambling, sexual, spending, technology and other addictions. Peer counselors work throughout our programs to support patients pursuing recovery and sober living.

Eating disorders services: Our Eating Disorders Services are designed to support Menninger adult patients who have a co-existing eating disorder that is secondary to other symptoms, or whose eating disorder behaviors have resurfaced during inpatient treatment another mental illness.

Wellness: Exercise is an important aspect of treatment, as it's been proven to reduce stress, improve mood, improve sleep habits and influence self-esteem. To encourage patients to engage in exercise, Menninger offers trained recreational therapists and a Wellness Center with an array of features that offers something for everyone. The Wellness Program also offers lectures on healthy eating, stress management, cardiac care and other topics related to mental and physical health.

Spiritual services: Pastoral counseling for individual patients, groups for exploring spiritual values and meaning, services in the Menninger Interfaith Chapel, and an outdoor labyrinth and garden for meditation are available to inpatients at Menninger.

Training and research

Menninger is a training hospital of Baylor College of Medicine, teaching future mental health professionals in psychiatry and psychology. In addition, Menninger offers the Betty Ann Stedman Nurse Residency Program and social work internships and fellowships. These programs help address the community's needs for mental health practitioners.

For its clinical staff and trainees, The Clinic provides continuing education programming.

Menninger is actively engaged in a variety of collaborative research projects designed to advance effectiveness of patient care. The unique patient population at Menninger makes it essential to measure our patients' progress while they are being treated at Menninger and post-discharge. In addition to these gold-standard outcomes measures, the Research department is studying how improvements in sleep makes a positive impact on suicide risk. The Menninger Clinic's website (www.menningerclinic.org) provides the most up-to-date treatment outcomes as well as published research.

Menninger's response to 2016 CHNA

In the past three years, Menninger has:

- Added the first Program for Assertive Community Treatment (PACT) in Texas
- Added an adolescent partial hospital program
- Expanded outpatient therapy and groups
- Added brain stimulation services
- Increased the number of vulnerable middle and high school students participating in preventive programs with collaborating schools and organizations for at-risk youth
- Revised and expanded clinical outcomes measures to provide more evidence of the effectiveness of Menninger treatment for future use in substantiating the value of the organization's treatment programs
- Collaborated with KHOU-TV in Houston on four BeMindful campaigns to educate the community about mental health treatment, where to find services and to reduce the stigma surrounding mental illness
- Developed a community resource list that is accessible year-round on KHOU's website, which is also utilized by Menninger's Care Coordination Center for inquiries it receives when callers seek services not available at Menninger
- Annual sponsorship and participation in the NAMI Walks Houston event to raise awareness to overcome stigma about mental illness, as well as sponsorship of other activities organized by mental health organizations

- Continued community education at the annual Menninger Signature luncheon, featuring a keynote speaker who shares their mental health journey

These services have, in part, expanded the continuum of care for the community as well as for patients from outside of Houston who seek mental health assessment and treatment at Menninger.

The number of outpatient encounters (sessions) has steadily increased from 3,367 in fiscal year 2016 to 11,996 through fiscal year 2019 (72% increase), improving access to meet some of the demand in the Houston area.

Through its community benefit dollars, Menninger invested almost \$6 million in programs that directly and indirectly benefit the community. These investments include charity services for individuals for which no payment is anticipated. In 2018, Menninger provided more than \$2 million in uncompensated care to more than 200 patients.

For adults with serious mental illness, The Gathering Place community clubhouse provides free vocational skills training, a wellness program, employment assistance, and recreational and social activities for more than 300 members.

In addition, Menninger has collaborated with local nonprofits on activities to benefit the community including the National Alliance on Mental Illness, The Hope and Healing Center and Institute, Mental Health America and The Council on Recovery.

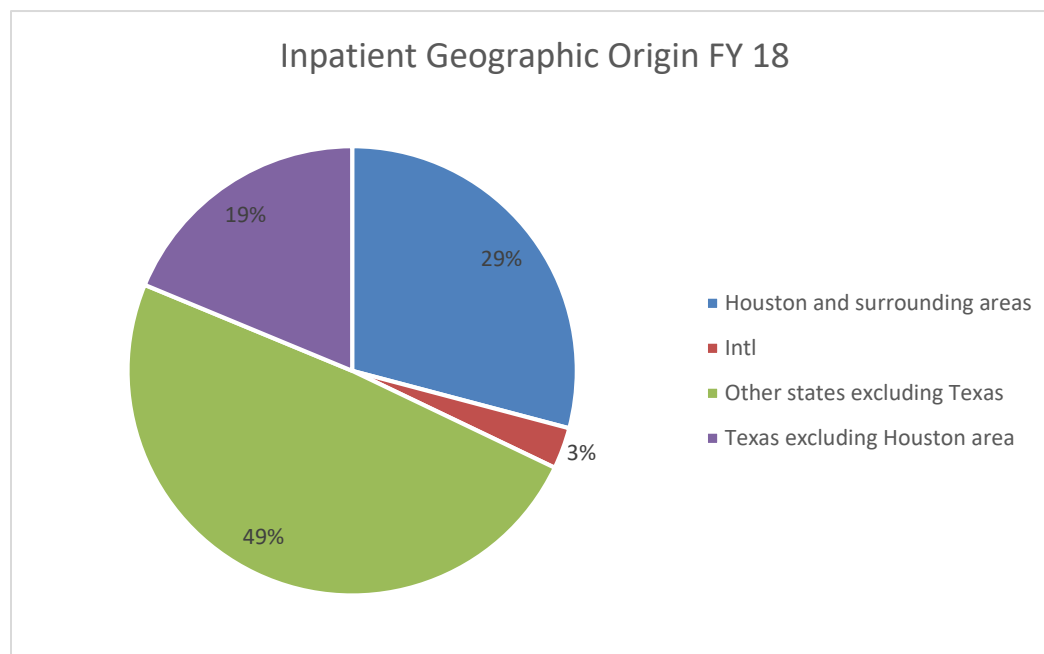
In at-risk communities, BridgeUp at Menninger has partnered with grantees to increase the social and emotional learning for 5,578 vulnerable middle and high school students at 12 public and charter schools, with the goal of increasing their academic success and graduation. The BridgeUp Model introduced behavioral health supports and treatment to improve the well-being of adolescents experiencing extreme stress and mental health difficulties. Some of these individuals have been assessed and treated at Menninger while others have received services provided by the grantees.

In addition, medical education and training, community education and research activities have elevated the skills of mental health and related professionals as well as advanced the effectiveness of patient care.

Communities served by The Menninger Clinic

As previously discussed, Menninger defined its “CHNA community” by focusing on the unique patient population served by Menninger as well as its specialized services and strategic priorities. This resulted in the community served by Menninger being comprised of two primary segments. The community served by Menninger will be broken out between patients served through Menninger’s inpatient services and patients served through Menninger’s outpatient services. The inpatient community will be defined by focusing on the complex and unique mental health needs of the patients treated at Menninger as opposed to a geographic area.

Although 29% of the inpatients reside in the Houston nine-county area, Menninger's inpatient programs serve patients from across the United States and internationally.



For patients who seek inpatient treatment at Menninger, the severity of their mental illness as well as the types of disorders most commonly treated provide a better definition for “community served by the hospital.” Efforts have been made to include primary input for specific treatment programs and services provided at Menninger, including research and education activities which impact services provided at many organizations, and seeks to improve mental health in the broader community.

The outpatient community will be defined as Harris County, Texas, as 53% of the outpatients served by Menninger reside in Harris County. While Menninger serves outpatients across a broader region, defining Harris County as its primary community will allow Menninger to more effectively focus its resources to address identified significant health needs, targeting areas of greatest need and health disparities.

Inpatient community

Menninger's inpatient programs serve patients from across the United States and internationally. Texas is the most common state of origin; although in fiscal year 2018, 53% of patients came from outside of Texas. The primary markets for The Menninger Clinic's inpatient and step-down programs are adolescents ages 12 to 17 and adults ages 18 and older with severe mental illnesses and/or addictions who have a substantially compromised quality of life to the extent that they require intensive inpatient care. It is estimated that fewer than 5% of all psychiatric hospital beds nationwide are devoted to lengths of stay beyond the typical three- to

seven-day hospitalization at acute psychiatric treatment facilities. Menninger's inpatient programs serve a unique national population that includes individuals who experience treatment-resistant psychiatric conditions that have been unable to respond to previous treatment efforts and can benefit from a longer length of inpatient treatment.

Summary of Inpatient Programs (For FY2017 & 2018)			
	Outside TX	In TX (excluding Harris Co)	In Harris Co
ATP (12-17)	78	102	43
Compass (18-30)	137	66	22
CPAS (18+)	159	93	84
Hope (18+)	133	40	41
Professionals (30+)	153	70	35
Total	660	371	225
%	53%	30%	18%

Summary of Inpatient Programs 2018 Clinic Patients Age and Gender		
Age	# pts 2018	% of 2018
Less than 18	95	14.73%
18-29	226	35.04%
30-39	104	16.12%
40-49	69	10.70%
50-59	74	11.47%
60+	77	11.94%
Total	645	100.00%
Female	338	52%
Male	307	48%

Menninger's outcomes data for 3,303 consecutive adult admissions from July 1, 2012, through September 30, 2018, show Menninger's inpatients are typically severely ill; in fact, on average, 74 percent had three psychiatric disorders.

Prior to arriving at Menninger these inpatients:

- Averaged three prior psychiatric hospitalizations.
- Had been treated by an average of three prescribing psychiatrists.

- Had been in psychotherapy with the same or different therapist an average of four times.

Menninger's treatment outcomes data and quality indicators demonstrate the type of individual who is best served in its *inpatient* programs. Admissions coordinators assess each potential admission to ensure they meet admissions criteria.

- Since the treatment involves significant group and individual therapy within a patient community, all patients must admit voluntarily to Menninger. Adults under involuntary commitment or guardianship are not appropriate for admission. Likewise, patients who are unwilling to participate in treatment are not appropriate for admission.
- Cognitive functioning is important because the treatment at Menninger is group based and individuals must be able to interact within a community. Patients must have an IQ of 80 or above.
- Patients with a history of physical aggression toward others, including sexually threatening behaviors or a history of violence towards staff in other treatment facilities, will not be admitted.
- Pending felony charges can lead to exclusion from the programs.
- Menninger physicians and nursing staff are able to handle a wide array of medical issues. However, because The Clinic is licensed as a psychiatric hospital and not a general medical facility, patients must be medically stable (e.g., may have chronic or mild medical conditions that are managed with medications and minor treatments; not at risk of physical deterioration without acute medical interventions such as IV fluids, IV medications, surgical interventions, or 1:1 physical assistance). The Clinic can manage many detoxifications from addictive substances for medically stable patients, with the exception of detox requiring IV fluids.
- Patients who have active suicidal or homicidal ideation, or who are at risk of severe self-harm, may be referred to a secure acute-care setting for stabilization or may be admitted with an appropriate level of monitoring to minimize risk for harm.
- An unstable eating disorder may require treatment in a primary eating disorder program.

Outpatient community

Based on the patient origin of outpatient visits from October 1, 2015 to April 30, 2016, management has identified the CHNA community for outpatient services to be Harris County. Harris County makes up 53% of outpatient visits and the city of Houston represents 42% of the outpatient population reflected in the following chart. Other counties in Texas comprise an additional 28% of outpatient visits.

Summary of Outpatient visits 10/1/18 - 4/30/19		
County	Outpatient Visits	% of Visits
Houston	855	42.0%
Spring	86	4.0%
Bellaire	45	2.0%
Humble	28	1.0%
Kingwood	22	1.0%
Katy	35	2.0%
Cypress	19	1.0%
Huffman	0	0.0%
Tomball	2	0.0%
La Porte	1	0.0%
Total Harris County	1093	53%
Other TX Counties	568	28%
Other States	382	19%
Total	2043	100%

Population and demographics for both communities served by Menninger

As previously described, Menninger's inpatient programs serve a unique national population that includes individuals who have severe mental illness that experience treatment resistant psychiatric conditions that have been unable to respond to previous treatment efforts and can benefit from a longer length of inpatient treatment. The approximate numbers of adults with mental illness and adults with serious mental illness is summarized below.

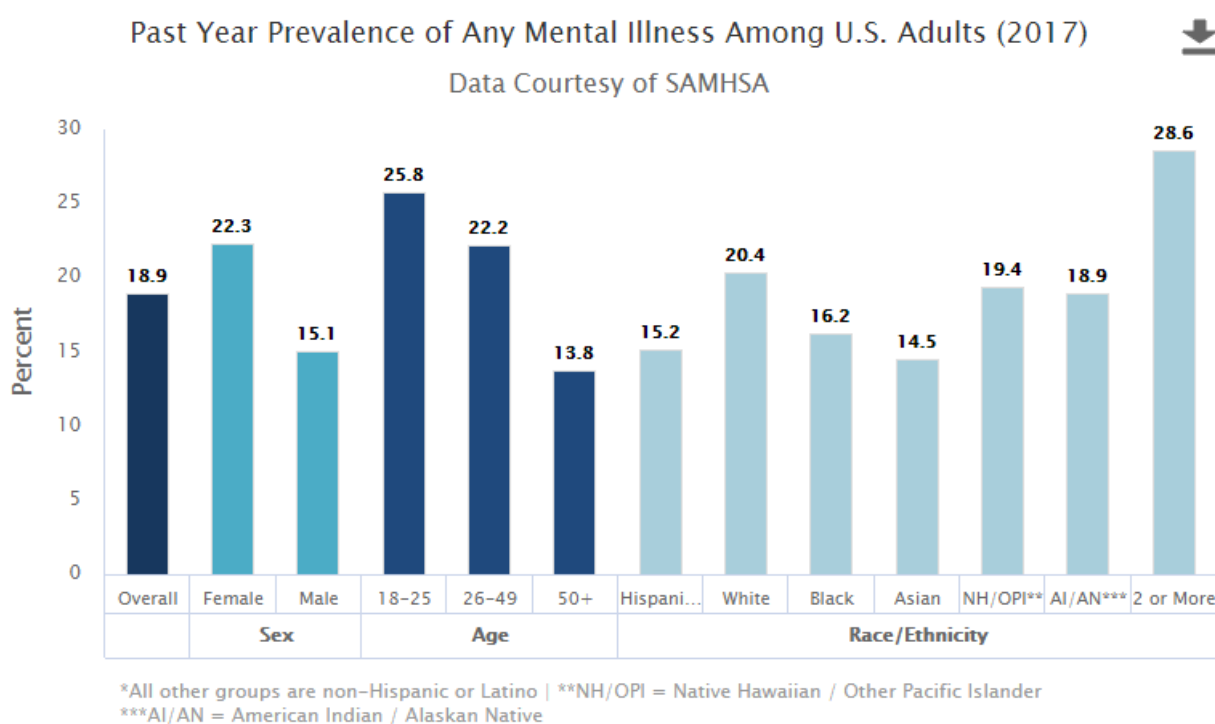
- Adults in America suffering with mental illness 46.6 million *
- Adults in America with serious mental illness 11.2 million *
- Adults in Texas with mental illness 7 million **
- Adults in Texas with serious mental illness 1 million **
- Adults in Harris County, TX with mental illness 1.1 million **
- Adults in Harris County, TX with serious mental illness 150,000 **

** Meadows Mental Health Policy Institute, Overview of Texas Mental Health Landscape, February 10, 2016.

* National Institutes of Health, National Institute of Mental Health. (n.d.). Retrieved November 11, 2019, from <https://www.nimh.nih.gov/health/statistics/mental-illness.shtml>

Prevalence of any mental illness (AMI)

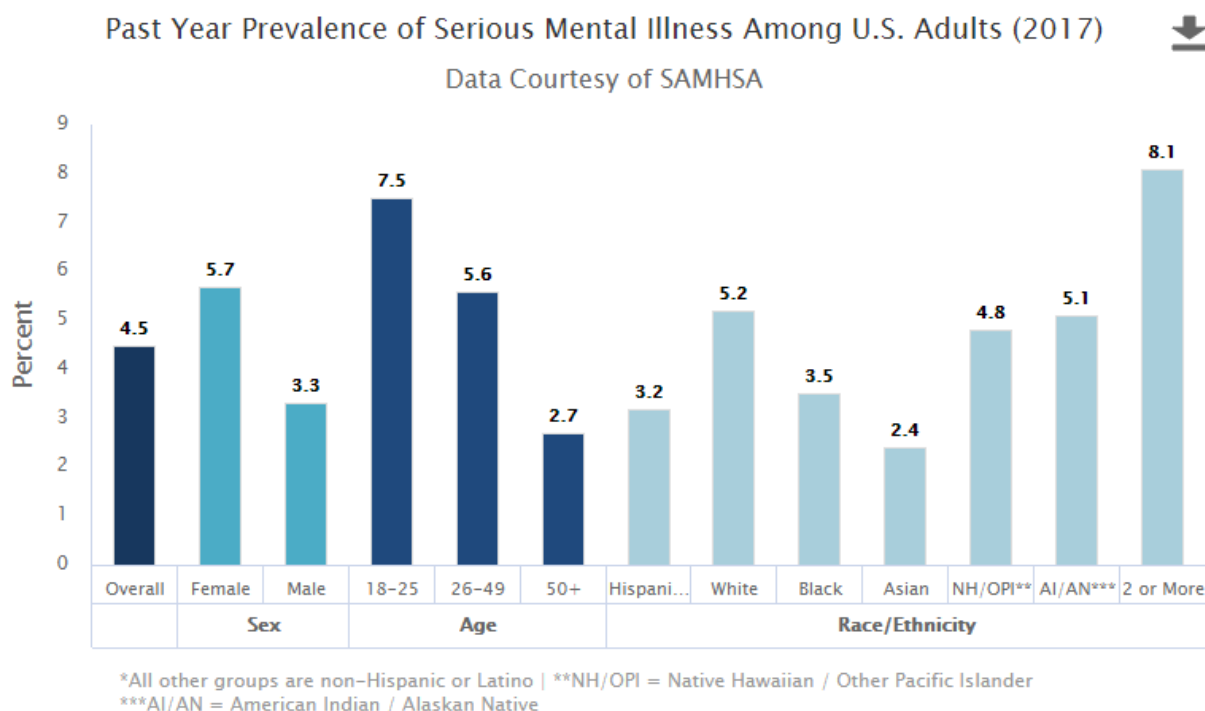
- In 2017, there were an estimated 46.6 million adults aged 18 or older in the United States with AMI. This number represented 18.9% of all U.S. adults.
- The prevalence of AMI was higher among women (22.3%) than men (15.1%).
- Young adults aged 18-25 years had the highest prevalence of AMI (25.8%) compared to adults aged 26-49 years (22.2%) and aged 50 and older (13.8%).
- The prevalence of AMI was highest among the adults reporting two or more races (28.6%), followed by White adults (20.4%). The prevalence of AMI was lowest among Asian adults (14.5%).



Prevalence of serious mental illness (SMI)

- In 2017, there were an estimated 11.2 million adults aged 18 or older in the United States with SMI. This number represented 4.5% of all U.S. adults.
- The prevalence of SMI was higher among women (5.7%) than men (3.3%).
- Young adults aged 18-25 years had the highest prevalence of SMI (7.5%) compared to adults aged 26-49 years (5.6%) and aged 50 and older (2.7%).

- The prevalence of SMI was highest among the adults reporting two or more races (8.1%), followed by White adults (5.2%). The prevalence of SMI was lowest among Asian adults (2.4%).



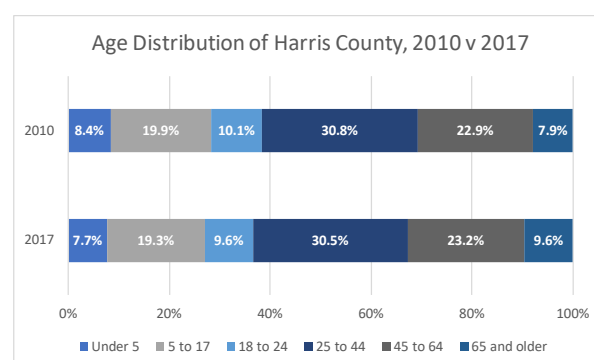
Methodology

Secondary data for this assessment was collected from the American Community Survey (ACS) and the Health of Houston Survey. Harris County census level data was downloaded from ACS and aggregated to correlate with the Public Use Microdata Areas (PUMAs) used for the area percentages and rankings in the Health of Houston Survey. Indicators were compared by year, specifically using data from 2010 and the most recently available data for both data sources (i.e. 2017 and 2018).

Demographic data for Harris County

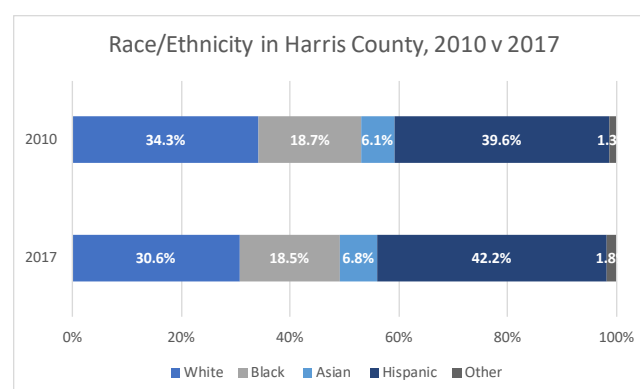
Gender and age

- The Harris County population is growing. In the period from 2010 to 2017, the population increased by more than 500,000, a 14.5% increase.
- The representation of males and females remained steady at 50% for males and 50% for females.
- The average age for Harris County residents increased from 32 years old in 2010 to 33 years old in 2017. The slight increase in average age is due to the senior population (65 and older) accounting for a larger percentage of the total population, from 7.9% in 2010 (ACS, 2006-2010) to 9.6% in 2017 (ACS, 2013-2017).



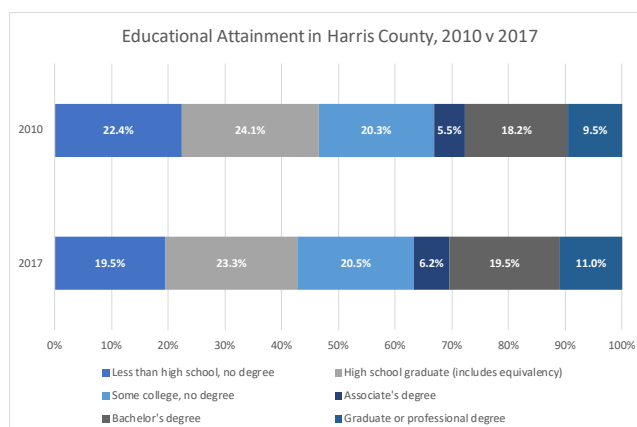
Race/ethnicity

- The data reveals a higher representation of Hispanic (42.2%), Black (18.5%) and Asian (6.8%) residents in Harris county when compared to the state and the nation. In contrast, White residents account for a lower proportion of Harris County (30.6%) compared with the state and the nation.
 - Texas: Hispanic (38.9%), Black (11.7%), Asian (4.5%) and White (42.9%)
 - U.S: Hispanic (17.6%), Black (12.3%), Asian (5.3%) and White (61.5%)
- During the period from 2010 to 2017, the percentage of Hispanics in Harris County population increased from 39.6% to 42.2%. During this same time period, the White population decreased from 34.3% of the population to 30.6%, and the Black population remained relatively steady, changing from 18.7% in 2010 to 18.5% in 2017. The Asian population increased from 6.1% of the Harris County population in 2010 (ACS, 2006-2010) to 6.8% in 2017 (ACS, 2013-2017).



Education

- In Harris County, 19.5% of residents have less than a high school education, which is higher than the state average of 17.2% and the national average of 12.6%. Additionally, 30.5% of Harris County residents have a bachelor's degree or higher, which is higher than the state average of 28.7% and similar to the national average of 30.9%.
- Between 2010 and 2017, attainment rates increased for higher degree attainment levels. During this time, the percentage with an associate degree increased from 5.5% to 6.2%, the percentage with a bachelor's degree increased from 18.2% to 19.5% and the percentage with a master's degree increased from 9.5% to 11%. Additionally, the percentage who had received at least a high school diploma decreased from 24.1% to 23.3% and the percentage with less than a high school level education decreased from 22.4% (ACS, 2006-2010) to 19.5% (ACS, 2013-2017).



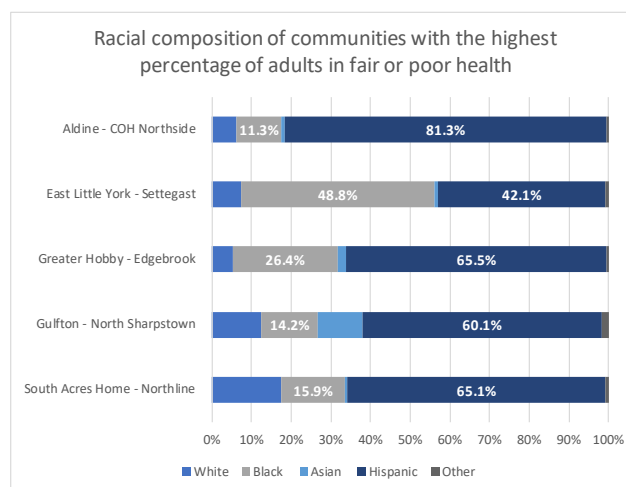
Unemployment rate, household income and poverty level

- The unemployment rate in Harris County is 6.4%, which is higher than the unemployment rate of Texas (5.8%), but slightly lower than the national rate of 6.6%.
- The median household income in Harris County is \$57,791, which is higher than Texas (\$57,051) and the national median income of \$57,652.
- While the median household income in Harris County is higher than the state and the nation, the percentage of people living in poverty unexpectedly follow the same trend. In Harris County, the percentage of people below the poverty line is 16.8%, compared with 16.0% for Texas and 14.6% nationally (ACS, 2013-2017).

Health outcomes and contributing factors

Health status

- The overall county average of adults reporting fair or poor health was 20%, which is the same as in 2010. However, when the data is disaggregated by race, Hispanic and Black respondents report four to five percentage points higher than the average (24% and 25%, respectively).
- The highest percentage of adults who reported fair or poor health resided in Aldine-COH Northside, East Little York-Settegast, Greater Hobby-Edgebrook, Gulfton-North Sharpstown and South Acres Home-Northline; communities with high representation of minority residents. The chart to the right displays the composition of the communities and the table below displays their health status in 2010 and 2018.



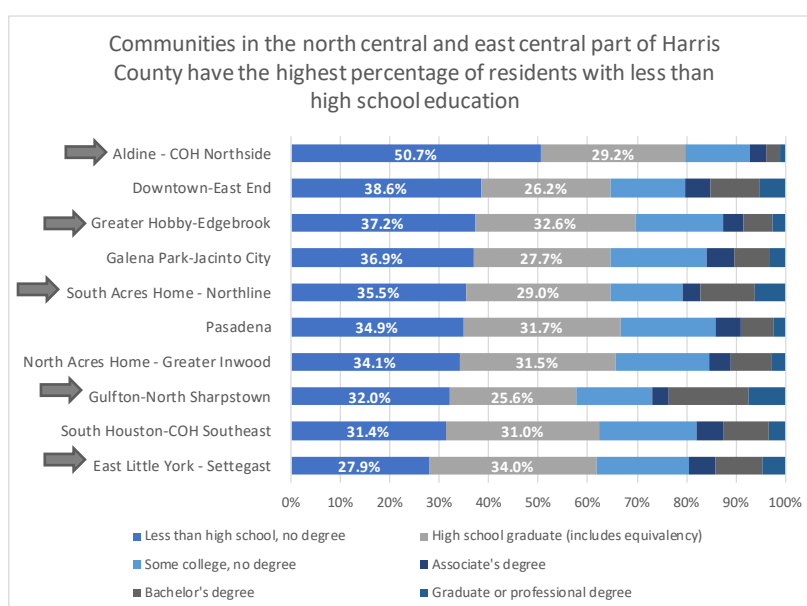
Communities in Harris County with the highest percentage of residents in fair or poor health

Public Use Microdata Areas	Percent of adults in fair or poor health	
	2010	2018
Aldine-COH Northside	36%	45%
East Little York-Settegast	30%	34%
Greater Hobby-Edgebrook	21%	31%
Gulfton-North Sharpstown	29%	29%
South Acres Home-Northline	30%	28%

- All of the communities, except for South Acres Home-Northline, saw an increase in adults reporting fair or poor health from 2010 to 2018 (HHS, 2017-2018).

Economic hardship

- Obtaining an education creates a pathway to available employment opportunities. Employment provides a steady income, plays a vital role in providing benefits to obtain health services and provides access to food, quality housing and additional amenities which can improve an individual's lifestyle.
- In particular, individuals who have a higher education (a bachelor's degree or higher), tend to have strong employment security, earn a higher income and hold an advantage for additional employment opportunities. Each additional year of education leads to 11% more income annually, and additional benefits such as a safer work environment and better availability of health insurance (Houston Health Department, 2019).
- Disparities are found among communities in Harris County, wherein educational attainment varied dramatically across the 38 areas. A few communities had up to one-third of residents who had less than a high school education.
- The chart to the right displays the top 10 communities in Harris County where the highest percentage of residents have less than a high school degree.



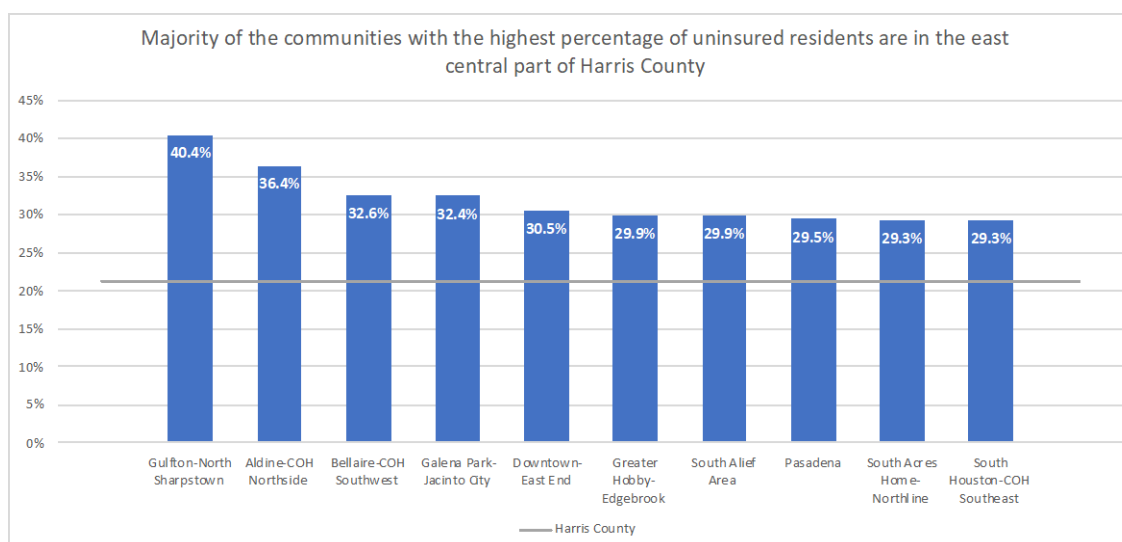
- Among the communities with low educational attainment are communities previously mentioned with poor health status (indicated with gray arrows).

As higher education is the first step to a pathway of employment opportunities, the unemployment rate of communities within Harris County correlate with the educational attainment of residents.

- Communities in the north central and east central part of Harris County have the highest unemployment rate, and leading at 11.5% Pasadena has the highest unemployment rate of all 38 areas (ACS, 2013-2017).
- The highest percentage of people who earn less than the median household income in Harris County reside in Gulfton-North Sharpstown and Aldine-COH Northside (71% earn less than \$50,000) (ACS, 2013-2017).
- Low educational attainment, unemployment and poverty are factors that lead to economic hardship. Thirty-four percent of residents reported economic hardship at some point in the last year in 2018, compared to 48% in 2010 (HHS, 2017-2018).
- One in 12 (8%) reported experiencing economic hardship often or always, although this ratio varied across economic levels.
 - Among those with household income below the poverty level, 1 in 6 (17%) reported this type of frequent hardship compared to 1 in 100 (1%) among residents with income at 500% or greater of the federal poverty level (FPL).
 - Among residents with income less than 300% FPL, almost half experienced economic hardship at some point last year.
- The highest percentage of residents who reported economic hardship resided in Aldine-COH Northside (63%), followed by Champions Area (51%), and North Acres Home-Greater Inwood (49%) (HHS, 2017-2018).

Accessibility to healthcare

- Being insured opens the door to receiving health services, an improved quality of life and decreased poor health outcomes.
- Harris County has a higher percentage of uninsured residents (21.2%), compared with the state (18.2%) and the nation (10.5%) (ACS, 2013-2017).
- The enactment of the Affordable Care Act (ACA) in 2010 paved the way for many uninsured, low-income American families to obtain health coverage.
- Subsequently, 27% of residents reported they were uninsured in 2018 compared with 31% in 2010. However, when disaggregated by race, Hispanic and Black respondents were more likely to be uninsured, with rates of 48% and 20%, respectively. The highest percentage of residents who were uninsured resided in Gulfton-North Sharpstown and Aldine-COH Northside (HHS, 2013-2017).



- The high cost, or a lack of insurance, prevented residents from accessing needed health care services or caused a delay in getting those services. Close to 16% of adult residents reported that they could not afford or delayed filling a prescription for themselves or a family member in the last 12 months.
- Moreover, 18% delayed or could not see a doctor, 18% could not see or delayed seeing a specialist, 10% did not or delayed seeking mental health care and 24% delayed or could not get dental care services. One in three adult residents reported facing one or more of these barriers to care.
- One out of every two adult residents, who were currently uninsured, cited the cost of coverage as the key reason. Another common reason was “ineligibility due to working status,” reported by 15% of those uninsured, and “don’t believe in insurance,” reported by 10% of uninsured adults. The top two reasons were consistent from 2010, stressing the cost of personal coverage as the most important barrier to full insurance coverage (HHS, 2017-2018).

Behavioral health outcomes and contributing factors

Mental health

- Mental health disorders and substance use disorders affect people of all racial groups and socioeconomic backgrounds but is amplified by compounding factors that affect socioeconomically disadvantaged populations the most (SAMHSA, 2018). Overall, 15% of Harris County residents reported having poor mental health, 10% of residents had mental health visits in the last year, while 17% of residents reported that they needed mental health care. Only 44% of residents expressing the need to see a health professional for mental health problems, received these services in the last year (HHS, 2017-2018).
- Serious psychological distress (SPD) in the past 30 days was measured by the 6-item Kessler scale, which is used as a screening tool in large populations for detecting mental

health disorders, such as depression and anxiety. The overall rate of SPD in 2018 was 7%, the same as in 2010.

- When disaggregated by race, African American adult residents had the highest levels of SPD (13.9%), compared with 6.8% for Hispanic residents, 6.3% for White residents and 6.5% for Asian residents.
- Aldine appears to be the community with the highest mental health needs, reflected by its continuous emergence as the highest ranked community for the indicators listed below in Table 2.
- The South Alief area had one of the highest rates of residents needing mental health services (23%), but one of the lowest rates of mental health visits in the last year (6%) (HHS, 2017-2018).

Communities with the highest percentage of residents in poor mental health, poor physical health, or serious psychological distress

	Poor Mental Health	Fair or Poor Health	Serious Psychological Distress	Barriers to Healthcare Access	Mental Health Perceived Need	Mental Health Visit in the Last Year	Delayed Mental Health Care
Aldine-COH Northside	22%	45%	15%	21%	9%	NA	18%
South Acres Home-Northline	21%	28%	6%	20%	26%	11%	15%
South Alief Area	21%	22%	11%	14%	23%	6%	13%
Champions Area	20%	13%	5%	14%	22%	9%	15%
Galena Park-Jacinto City	19%	24%	13%	15%	20%	9%	16%
Clear Lake-Webster	19%	19%	7%	18%	21%	13%	18%
Medical Center-MacGregor	19%	22%	10%	17%	17%	13%	13%
Carverdale-Fairbanks/NW Crossing	19%	21%	5%	12%	13%	7%	7%
East Little York-Settegast	18%	34%	12%	16%	11%	9%	13%
North FM 1960-East 249	18%	15%	10%	13%	16%	10%	7%
Greater Hobby-Edgebrook	17%	31%	4%	14%	24%	15%	11%
Downtown-East End	17%	26%	14%	15%	21%	11%	9%
Pasadena	15%	25%	6%	8%	12%	9%	8%

Cypress-Katy	14%	17%	9%	19%	17%	13%	19%
Gulfton-North Sharpstown	13%	29%	6%	21%	18%	14%	18%

The percentages emphasized in red are the highest rates for each indicator.

Cypress-Katy had one of the most drastic changes from 2010 to 2018. Residents who reported fair or poor health increased from 3% in 2010 to 17% in 2018 and residents who reported they needed mental health care increased from 7% in 2010 to 17% in 2018. The increase in poor outcomes can be explained by the devastation of Hurricane Harvey, which left a damaging impact to the Cypress-Katy community.

- Spring-The Woodlands had the highest percentage of residents with mental health visits in the last year (18%) (HHS, 2017-2018).

Substance use

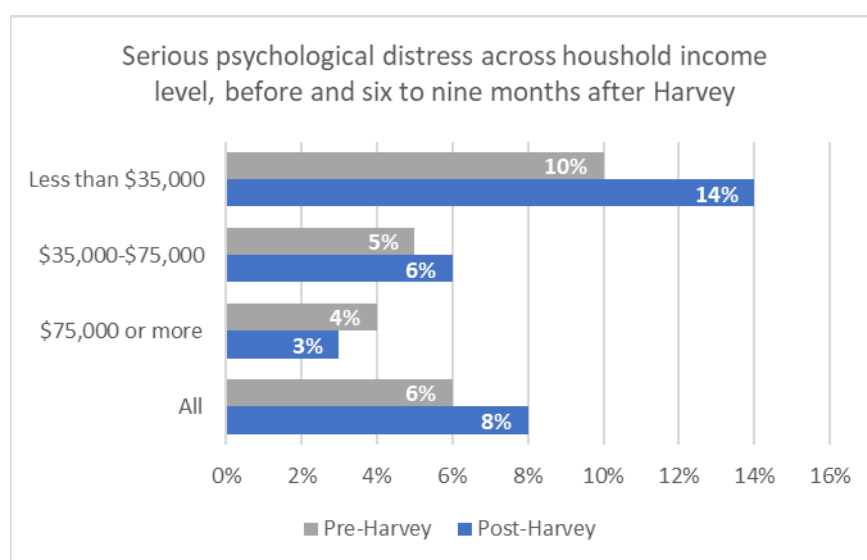
- Residents who have a mental health distress are also more likely to use tobacco products and alcohol (CDC, 2019). Many people who use drugs may have started the habit when attempting to self-medicate an existing mental health issue.
- The proportion of adults who currently smoke cigarettes was close to 13.6% in 2018, lower than the Texas rate of 15.7% (BRFSS, 2017) and lower than the rate of 16.8% in 2010. Nonetheless, the rate is above the HP2020 target of 12%.
- Spring Valley-COH West had the highest percentage of adults who currently smoke (24%), followed by Aldine-COH Northside (23%) and Baytown-Highlands (20%).
- The proportion of adults who binge drank in the last year was 26.6%. The rate of binge drinking in Memorial Park-University Place was much higher than the average with 43% of residents reporting they binge drank in the last year (the highest percentage among the 38 areas) (HHS, 2017-2018).
- Misuse of controlled prescription drugs such as hydrocodone and alprazolam (“Xanax”) is widespread and prevalent among both teens and adults (ONDCP, 2018).
- Cocaine is among the most enduring and high-level drug threats in Harris County. It is associated with mortality in Harris County more than any other drug type. Cocaine is second only to alcohol and marijuana as the drug for which patients from Harris County most frequently seek treatment services at state-funded facilities.
- In Harris County, the percentage of patients entering state-funded treatment services for a primary problem with cocaine/crack in 2017 was 12.1%, after alcohol (27.6%) and marijuana (27.6%).
- For Harris County, admissions related to prescription opioids rose from 5.3% in 2016 to 7.6 % in 2017 and admissions related to benzodiazepines/sedatives rose from 2.2% to 2.6% of admissions.
- Prescription opioids and benzodiazepines were a contributing factor in a higher number of toxicity related deaths than any other drug types except cocaine.

- Investigators reported higher rates of heroin use in the Pasadena and Katy areas (ONDCP, 2018).

Other stressors

Natural Disasters

- Natural disasters can be a contributing factor to mental health distress. While they can impact individuals at all levels, natural disasters impact the most vulnerable more severely.
- Post-Harvey, the frequent mental distress (FMD) rate [14 or more reported days of poor mental health over the last 30 days] increased to 17.2%, which is nearly 5 percentage points higher than the average FMD for the area before Harvey (HHS, 2017-2018).
- Residents with lower household income experienced the highest levels of serious psychological distress (SPD), compared to their counterparts with higher income, before and months after the storm.
 - Among residents with less than \$35,000 household income, the SPD rate was 10%, compared to 4% among residents with income at \$75,000 or higher before Harvey.
 - Residents with less than \$35,000 household income were four to five times more likely to present signs of SPD (14%), compared to residents with the highest income (3%).
 - The highest income group had almost the same rate of SPD before and months after Harvey (3-4%).
 - The figure below shows how the SPD rate increases, as household income decreases, both before and months after Harvey.



- Residents who experienced significant damage to their houses or vehicles due to Harvey were three times more likely to show signs of SPD (19%) than residents who had mild or no damage to their property (6%). Frequent mental distress (FMD) was also higher among those with damage from Harvey (35%) compared to those with mild or no damage (14%) (HHS, 2017-2018).

Political/cultural climate

- One of the most consistent and consequential trends the Kinder Houston Area Survey recorded is the continuing improvements in support for immigration and the increasingly positive attitudes toward Houston's diversity. The proportion of White residents in Harris County who said they were in favor of granting illegal immigrants a path to legal citizenship if they speak English and have no criminal record has continued to grow, from 56% to 71% in 2019 (Kinder Institute, 2019). However, despite the approval of the Houston community, the hostile U.S. political climate can spur fear, anxiety and toxic stress among some Hispanics.
- Over 15% of Hispanics had a diagnosable mental illness, according to Mental Health America (MHA, 2019). Yet despite dealing with hostile conditions on a regular basis, Hispanics are less likely to access mental and behavioral health care resources. Approximately 33% of Hispanic adults with mental illness receive treatment each year compared to the U.S. average of 43% (NAMI, 2019).
- Additionally, negative stigma surrounding mental health is a cultural factor within many minority communities that can contribute to under-utilization of services and amplification of mental health distress. Finding the time for care can also be a challenge for working professionals.

Social media

- A study published by Twenge et al. finds that U.S. teens and young adults in 2017 were more distressed, more likely to suffer from major depression and more prone to suicide than their counterparts in the millennial generation were at the same age (Twenge, 2019).
 - By 2017, just over 13% of Americans between the ages of 12 and 25 had symptoms consistent with an episode of major depression in the previous year — a 62% increase in eight years.
 - The study also reveals that the emotional well-being of younger Americans is poor compared with that of older Americans.
 - Young adults born in 1999 were roughly 50% more likely than those born in 1985 to report feelings amounting to serious psychological distress in the previous month.
 - Twenge surmises the cause of emotional distress to ubiquitous communication device and chronic shortage of sleep.

- As smartphones and social media use have become ubiquitous, there's been a fundamental shift in the way teens spend their leisure time. Activities that benefit mental health — including sleep and face-to-face interaction with family and friends — have declined as American youths have deepened their engagement with digital media.
- Teen suicide rates have climbed nationally. One in eight young people in Texas admitted in 2017 to trying to end their lives in the previous year, compared to one in 13 nationally, according to the most recent survey from the Centers for Disease Control and Prevention (CDC, 2017).
- Suicide was the second leading cause of death among individuals between the ages of 10 and 34, and the fourth leading cause of death among individuals between the ages of 35 and 54 (CDC, 2017).
- There were more than twice as many suicides (47,173) in the United States as there were homicides (19,510) (CDC, 2017).
- However, another factor that could be driving the rates of reported depression is the possibility that adolescents and young adults in 2017 were more conversant than earlier generations in the language of mental health, more willing to acknowledge their psychological distress and felt less stigma discussing the long-taboo subject of suicide.

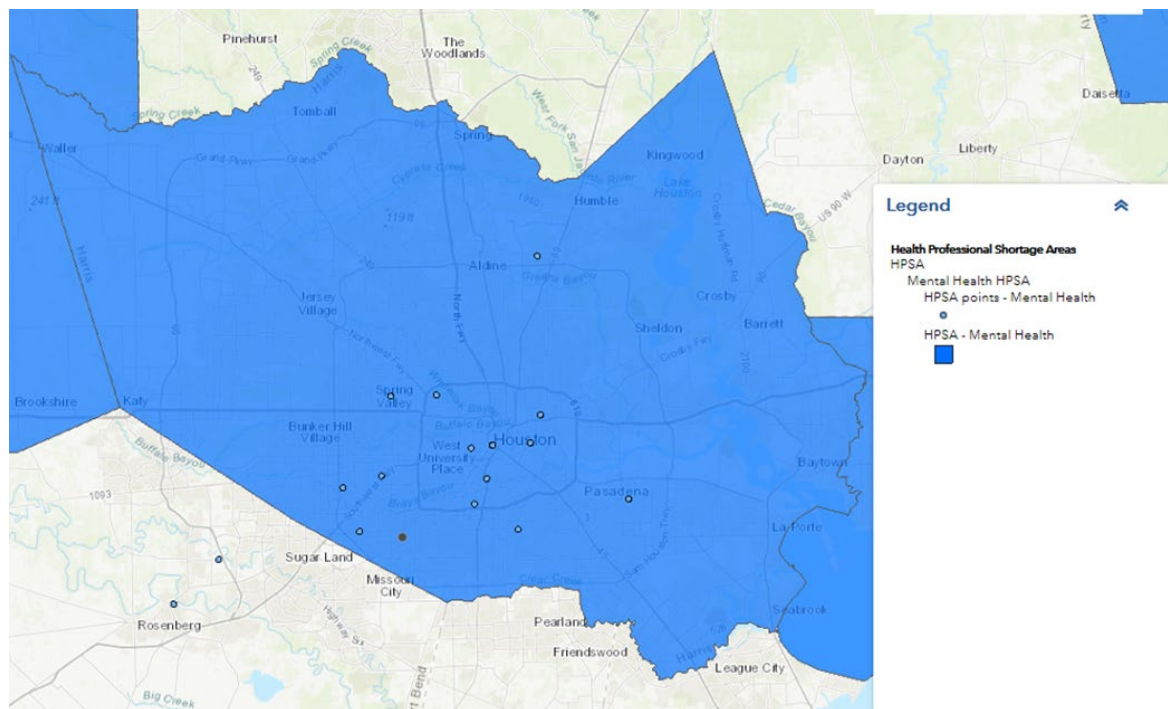
Barriers to access and gaps in services

Access to providers

- Mental health impacts physical health and vice versa. The ease in which a population accesses physical and mental health care has a direct correlation to the health of the overall community. A population with adequate access to quality services that are both readily available and culturally competent is more likely to experience better health outcomes when presented with illnesses.
- However, there is unmet need for mental health care providers in Texas. As of September 2019, Texas had 432 primary care Health Professional Shortage Areas (HPSA) and 419 mental health HPSAs. A whole county or smaller service area is designated as a primary care HPSA if it falls below a ratio of one primary care physician per 3,500 population and a mental health HPSA if it falls below one psychiatrist per 30,000 population (HRSA, 2019).
- The current ratio of mental health provider in Harris County is one per 920 population (County Health Rankings, 2019). However, as typically seen in large metropolitan areas, there are disproportionate access to mental health services in Harris County and is therefore designated as a partial HPSA (HRSA, 2019). The communities with designated HPSAs points include: Aldine-COH Northside, Pasadena, Downtown-East End, Medical Center-MacGregor, Gulfton-North Sharpstown, Central Southwest-COH Fort Bend,

Bellaire-COH Southwest and Spring Valley-COH West. The map below displays the HPSA points, which correspond with the neighborhoods previously mentioned.

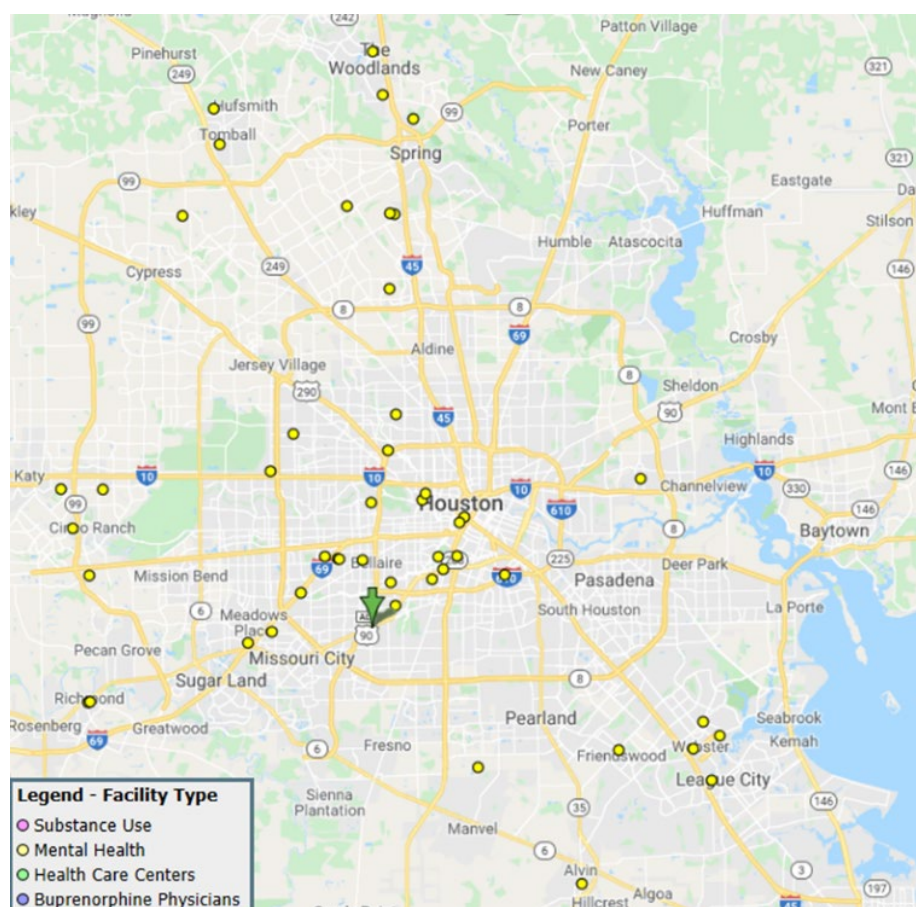
Mental Health Health Professional Shortage Areas



The following map displays Behavioral Health Treatment Providers within Harris County designated by SAMHSA

Providers are located within the west central, south central, and northern parts of Harris County. While the other HPSAs seem to have many behavioral health providers, the Aldine and Pasadena HPSAs are lacking (located in the north central and east central part of the county).

Behavioral Health Treatment Services Location



Note: Green arrow on map is location of The Menninger Clinic

Representation and language factors

- The current shortage of mental health professionals in the United States is severe for Hispanics and other minorities, who face barriers of language and culture that can make it hard to seek and get help. These language issues also prevent many Hispanics from being able to express themselves or discuss their symptoms with their healthcare providers.
- The composition of Texas' population was estimated to be 43.4% Whites, 39.1% Hispanics, 11.5% African-Americans and 6.0% from other ethnicities. Yet 65.5% of the psychiatric workforce was White, with just 5.3% African-American and 9.7% Hispanic representation.
- Given these outcomes, the low rates of diversity in the mental health workforce should be considered as minority practitioners are more likely to see minority patients than are white practitioners.

- It has also been shown that health care consumers have better therapeutic relationships and stronger retention rates when using a practitioner of their own race/ethnicity.
- This lack of cultural and linguistic diversity in the workforce results in a shortage of providers with the knowledge, training and skills to serve people who speak languages other than English or of racial/ethnic minority populations.

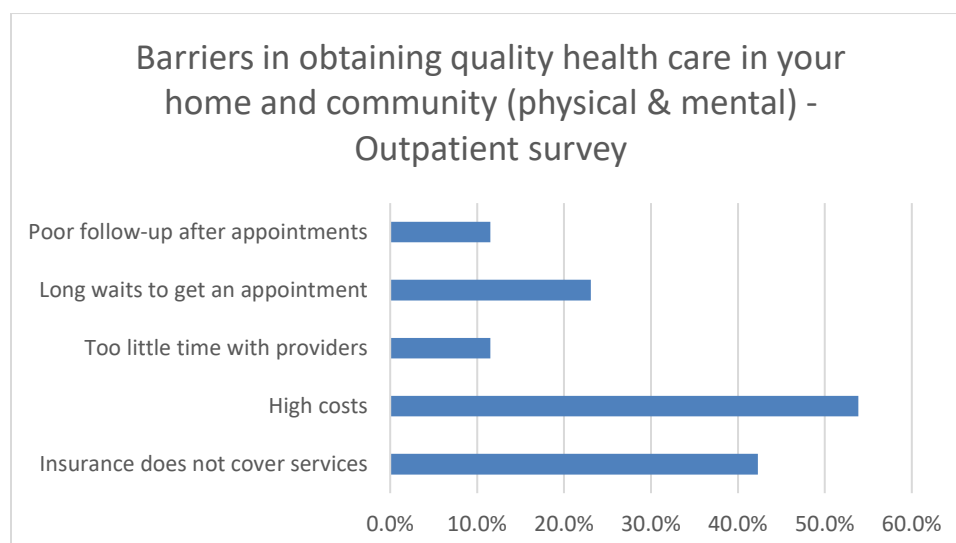
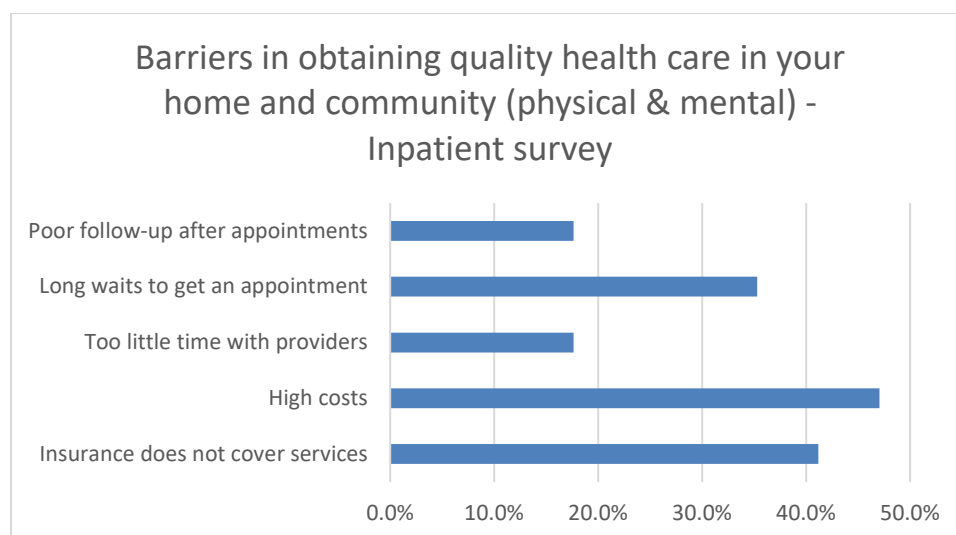
Mental health status of communities served by Menninger

Mental health refers to positive emotional and psychological well-being that allow individuals to contribute to their community, work and cope with normal stresses of life. On the other hand, mental illnesses are health conditions that are characterized by changes in thinking, mood or behavior that are associated with distress and/or impaired functioning. Mental illnesses can cause severe impairment in one's ability to cope with daily life and can impact physical health, ability to work and have enriching social and family relationships. Some mental illnesses, such as depression and eating disorders, may lead to death. According to the Centers for Disease Control, mental and emotional illnesses rank among the top 10 causes of disability in the United States. Indicators and statistics relevant to mental health of the communities served by Menninger are reported below at the national, state and county level in order to assess needs for the inpatient and outpatient communities.

Primary data assessment-patient survey

Menninger conducted a patient survey to obtain input regarding barriers to obtaining care and needs specific to the national inpatient population served by Menninger, as well as the predominately more local outpatient population. Input was also solicited regarding improvements Menninger should make to improve health of the patients served.

For the inpatients a total of 17 surveys were gathered and for the outpatients there were 26 surveys. Patients were asked what barriers they faced in obtaining quality health care in their home community (both physical and mental). Patients indicated that the high cost of treatment, insurance barriers and long waits were the primary barriers with obtaining quality health care in their community.



Stakeholders were also asked to provide their opinions regarding the strength and weakness of The Menninger Clinic. Strengths included the effectiveness of treatment and the quality of the clinical staff while the restrictive environment and locked units was noted as the main weakness among inpatients.

Lastly, patients were asked to provide input regarding how Menninger could improve its services. Patients recommended Menninger provide more individual psychotherapy, improve amenities, such as food services, provide improved psychoeducation offerings and expand health and wellness offerings.

Primary data assessment-key stakeholder interviews

Interviews were performed with 13 key stakeholders (See top of Appendix for a list of organizations.) All interviews were conducted by Carbonara Group personnel. The stakeholders provided insight into the mental and behavioral health needs of the CHNA communities through an eight-question survey. Stakeholders were identified to provide input for the inpatient community or outpatient community. Findings for each community informed the identified needs.

Existing health care facilities and other resources

The availability of health care resources is a critical component to the health of a county's residents and a measure of the soundness of the area's health care delivery system. An adequate number of health care facilities and health care providers are vital for sustaining a community's health status. Fewer health care facilities and health care providers not only impact the access to services but also the timely delivery of services.

Hospitals nationally

The following exhibit summarizes hospitals nationally which provide specialty programs similar to Menninger.

Summary of Psychiatric Facilities in U.S. with Inpatient Programs Similar to Menninger		
Facility	City, State	Bed Size
McLean Hospital	Belmont, MA	219
Sheppard Pratt Health System	Baltimore, MD	337
Silver Hill Hospital	New Canaan, CT	39
Lindner Center of Hope	Mason, OH	32
Source: American Hospital Directory, www.adh.com		

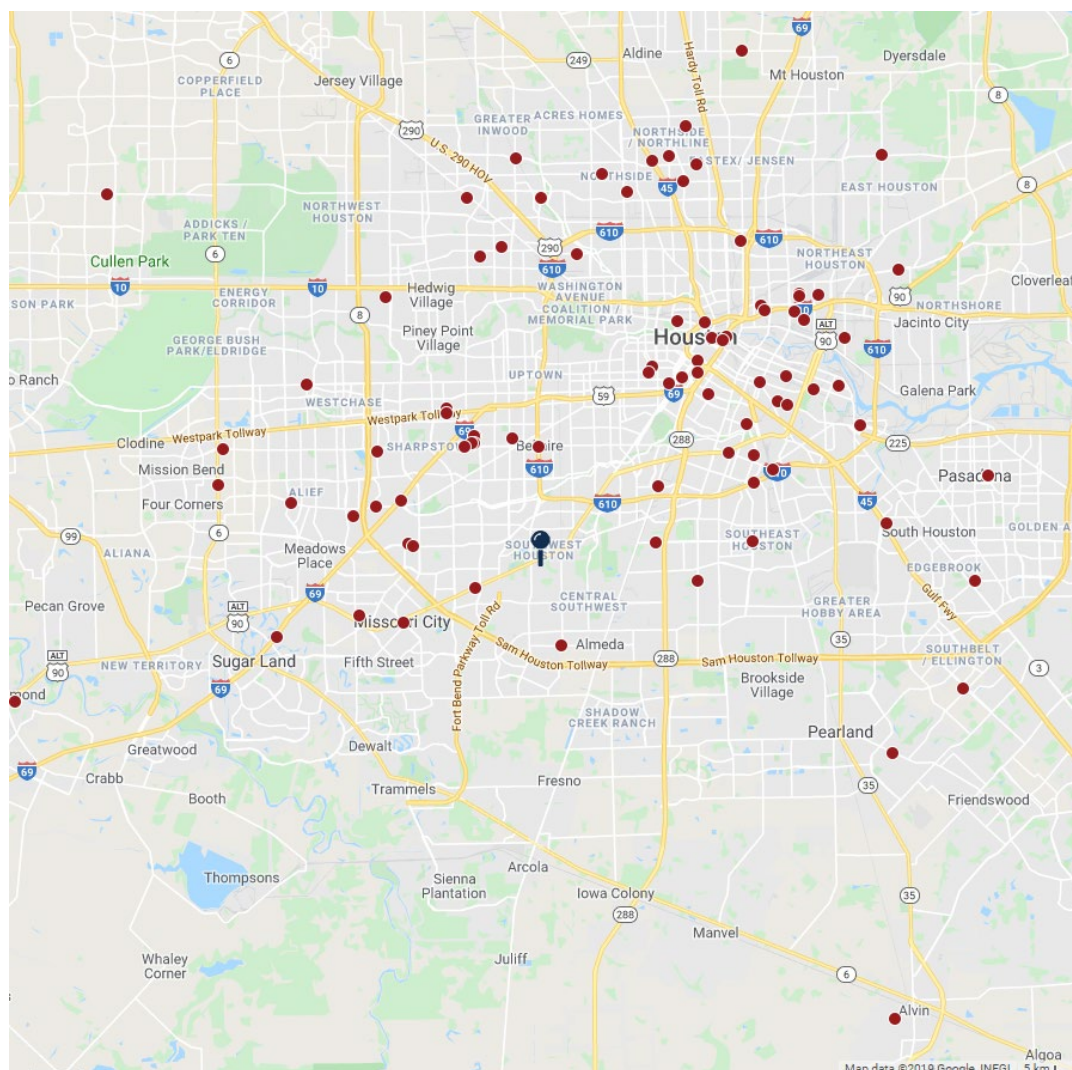
Hospitals in Harris County

The primary service area has 1,226 licensed inpatient beds as seen in the exhibit below.

Freestanding Private Inpatient Psychiatric Facilities in Harris County			
Facility	Address	City	Beds
Lone Star Behavioral Health Cypress	16303 Grant Rd.	Cypress	24
Behavioral Hospital of Bellaire	5314 Dashwood	Houston	124
Cypress Creek Hospital	17750 Cali Drive	Houston	96
Harris County Psychiatric Center	2800 South MacGregor Way	Houston	208
Houston Behavioral Healthcare Hospital	2801 Gessner Road	Houston	88
IntraCare North Hospital	1120 Cypress Station	Houston	90
Sacred Oak Medical Center	11500 Space Center Blvd	Houston	20
Sun Behavioral Houston	7601 Fannin	Houston	148
The Menninger Clinic	12301 Main St.	Houston	120
West Oaks Hospital	6500 Hornwood Dr.	Houston	144
Oceans Behavioral Hospital of Katy	455 Park Grove Ln.	Katy	48
Kingwood Pines Hospital	2001 Ladbrook Dr.	Kingwood	116
Source: Cooperative DSHS/AHA/THA Annual Survey of Hospitals and Hospitals Tracking Database			
Prepared by: Hospital Survey Unit, Center for Health Statistics, DSHS, 07/2019			

Federally Qualified Health Centers

There are more than 90 community Health Center's within 30 miles of Menninger as seen in the figure that follows.



<https://findahealthcenter.hrsa.gov/?zip=29.6465%252C-95.4569&radius=20&incrementalsearch=true>

Health departments

The Mental Health and Substance Abuse Division (MHSAD) of the Texas Department of State Health Services (DSHS) supports the agency-wide mission of improving the health and well-being of Texans through the provision of information and services related to behavioral health. The Mental Health and Substance Abuse Division activities include:

- Effectively administering mental health and substance abuse programs and contracts.
- Providing hospital care services through the State Hospital system.
- Ensuring administrative policies and practices are consistent with the goals of the Texas Department of State Health Services.

- Mental Health Consumer and Substance Abuse Client Rights. DSHS contracts with 37 Community Mental Health Centers (also known as Local Mental Health Authorities - LMHAs) to provide mental health services to adults with serious mental illness and children with severe emotional disturbance.

The Harris Center for Mental Health and IDD provides the following mental health services for adults residing in Harris County:

- Medication-related services
- Counseling and psychotherapy
- Medication training and support
- Employment-related skills services
- Housing-related skills services
- Coordination of services
- Other independent living skills services

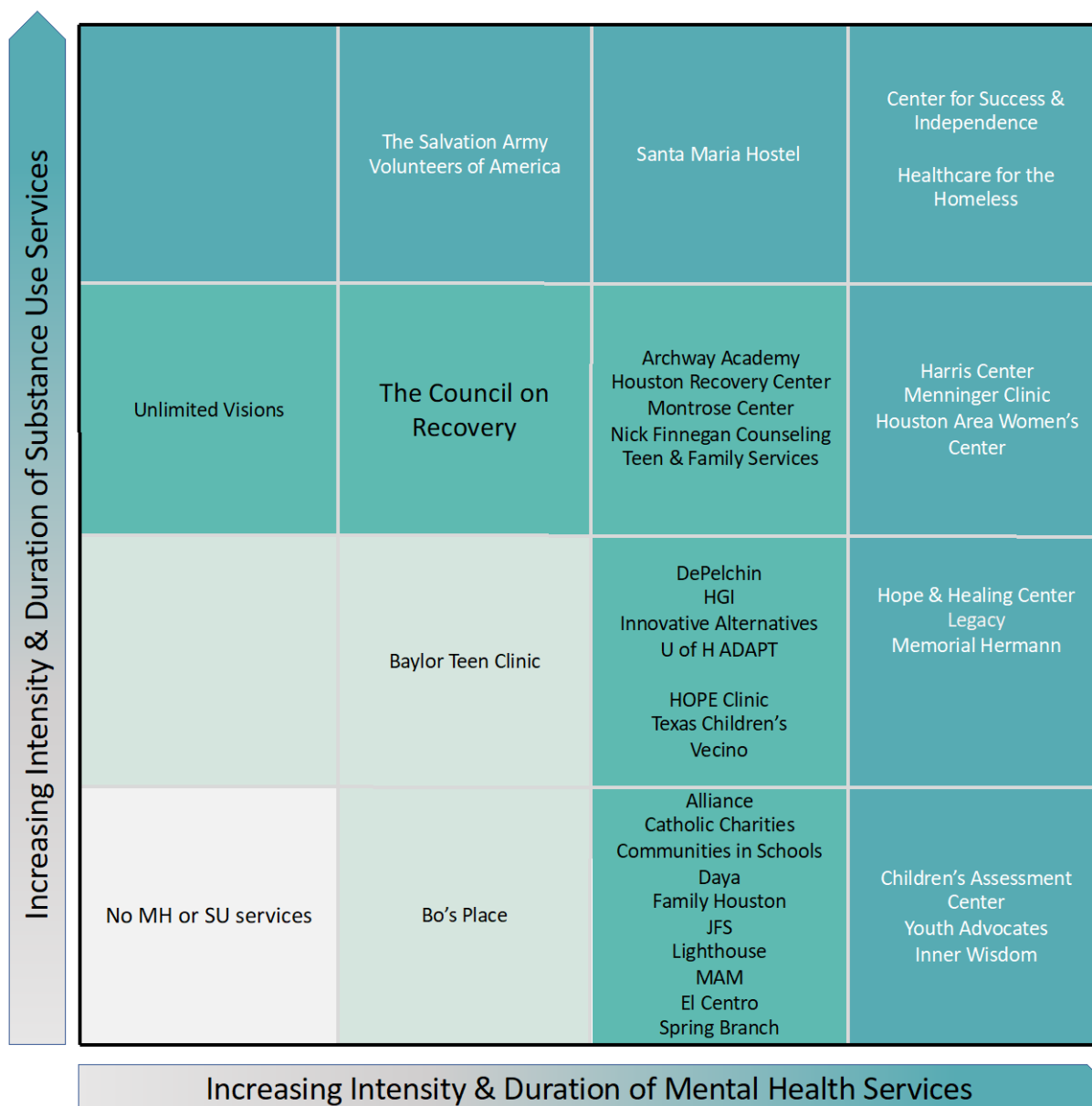
The following chart illustrates the array of organizations serving the substance use and mental health needs of Harris County, as well as the focus of their services.

Key:

Top and right columns – serious mental illness organizations in dark boxes

Middle columns – counseling and outpatient organizations

Lower left columns – prevention and early intervention organizations



Pugil J, Bray P, McArthur K, Sinclair B. *Behavioral Health in Harris County: Who is Who and What They Do*. Houston: Houston Health Funders Collaborative 2019.

Identified health needs

Through the assessment of all the data that was compiled the following health needs were identified.

Inpatient

- High cost of care and lack of insurance benefits
- Shortage of inpatient beds for children and adolescents
- Inconsistent access to services for populations due to socioeconomic and geographic factors
- Shortage of availability of and easy access to mental health screenings, diagnostic services and early treatment interventions
- Stigma prevents a majority of people from seeking services
- Shortage of mental health professionals, especially with Hispanic and African American heritage
- Void of coordinated and integrated care

Outpatient

- Lack of affordable services where people live and work
- Limitations for what insurance will pay for
- Barriers to treatment, including transportation, stigma and not knowing how to access mental health services
- Lack of leadership in mobilizing a system of services
- Long waits for medication and counseling services
- Demand for training among first responders to address needs of individuals in crisis
- Shortage of mental health professionals, especially with Hispanic and African American heritage
- Shortage of assessment and treatment for autism

Menninger's next steps include developing an Implementation Strategy to address these needs. Priorities will be based on the information gathered through this CHNA. Opportunities for health improvement exist in each area; however, Menninger Leadership will work to identify areas where Menninger can most effectively focus its resources to have significant impact and develop an Implementation Strategy for 2020 through 2022.

Appendices

Acknowledgements

Thank you to the following organizations that participated in our key informant interview process: Baylor College of Medicine & Texas Children's Hospital, Communities in Schools, Council on Recovery, Hackett Center - Meadows Mental Health Policy Institute, Harris Center, Harris County Public Health, Jewish Family Services, Legacy Community Health Clinic, National Alliance for Mental Illness, Network of Behavioral Health Providers, The Menninger Clinic – BridgeUp, UTMB and UTSPH/Institute for Health Policy.

Key stakeholder interview questions

1. In your opinion what are some of the significant mental health issues in the state of Texas? Nationally?
2. What barriers, if any, exist to improving the mental health of patients similar to those served by The Menninger Clinic?
3. What needs to be done to address the issues identified in questions #1 and #2 above?
4. How could services provided by The Menninger Clinic be improved to better meet the needs of patients and patient families?
5. Please describe your familiarity with educational outreach and research conducted at The Menninger Clinic?
6. In your opinion, what is the best way for the community, as a whole, to address the mental health needs of the community?
7. In your opinion, what is the most critical mental health for The Menninger Clinic patients as well as the public at large?
8. If Menninger had to choose one issue that you have identified above to focus on, which one would it be?

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