TIRR MEMORIAL HERMANN

Community Health Needs Assessment

2022

Board Approved June 23, 2022

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Executive Summary

Since 2013, TIRR Memorial Hermann has formally completed a comprehensive Community Health Needs Assessment (CHNA) every three years, in accordance with federal IRS regulations §1.501(r)-3, to better understand the population it serves as well as the health issues that are of greatest concern within its community. As part of the CHNA, the hospital system is required to collect input from the community, including professionals, residents, representatives, or leaders in its identified Primary Service Areas.

Memorial Hermann Health System partnered with Conduent Healthy Communities Institute (HCI) to employ a systematic, data-driven approach to conduct a CHNA for TIRR Memorial Hermann. The purpose of this report is to offer a meaningful understanding of the most pressing health needs in the TIRR Memorial Hermann Primary Service Area (PSA), as well as to guide planning efforts to address those needs. Special attention has been given to the specific needs of unique populations in the PSA including unmet health needs or gaps in services utilizing input from the community.

Findings from this report will be used to identify, develop, and target hospital and community-driven initiatives to improve the health and quality of life of residents in the community.

Primary Service Area

As a national leader in rehabilitation and research, TIRR Memorial Hermann serves 12 counties. Due to this wide scope, the CHNA has been narrowed to reporting data primarily at the county level. The twelve counties are: Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, San Jacinto, Walker, Waller, and Wharton. This determined PSA does not exclude low-income or underserved populations.

Demographics

The demographics of a community significantly impact its health profile. Different race/ethnic, age, sex, and socioeconomic groups may have unique needs and require varied approaches to health improvement efforts. All demographic estimates in this report are sourced from Claritas Pop-Facts® (2021 population estimates) and American Community Survey one-year (2019) or five-year (2015-2019) estimates unless otherwise indicated.

Methods for Identifying Community Health Needs

Secondary Data

Secondary data used for this assessment were collected and analyzed from Conduent Healthy Communities Institute's community indicator database. The database, maintained by researchers and analysts at HCI, includes over 200 community indicators covering at least 28 topics in the areas of health, determinants of health, and quality of life. The data are primarily derived from state and national public secondary data sources. The value for each of these indicators is compared to other communities, nationally set targets, and to previous time periods.

Primary Data / Community Input

Primary data used in this assessment consisted of key informant interviews (KIIs) and a community survey. KIIs were conducted with leaders and staff from organizations that provide services directly to the community and officials that represent governmental and non-governmental entities. Interviewees invited to participate were recognized as having expertise in public health, special knowledge of community health needs, representing the broad interests of the community served by the hospital, and/or being able to speak to the needs of medically underserved or vulnerable populations. Input from community residents was collected through an online survey. The survey consisted of 12 questions related to top health needs in the community, individuals' perception of their overall health, individuals' access to health care services, as well as demographic, social, and economic determinants of health.

Summary of Findings

The CHNA findings in this report are drawn from the analysis of an extensive set of secondary data (more than 200 indicators from national and state data sources) and in-depth primary data from community leaders, non-health professionals, and organizations that serve the community at large, community-specific populations, and/or populations with unmet health needs.

Significant health needs were identified across all socioeconomic groups, races and ethnicities, ages, and sexes. The assessment highlighted health disparities and needs that disproportionately impact the medically underserved and uninsured. Through a synthesis of the primary and secondary data, the following 15 health topics were considered.

Memorial Hermann Health System Significant Health Needs		
1. Mental Health and Mental Disorders	6. Physical Activity	11. Oral Health
2. Access to Healthcare	7. Children's Health	12. Women's Health
3. Diabetes	8. Obesity/Overweight	13. Cancers
4. Older Adults/Elderly Care	9. Substance Abuse (alcohol, tobacco, drugs)	14. Injuries, Violence & Safety
5. Heart Disease & Stroke	10. Wellness & Lifestyle	15. Respiratory/Lung Disease (asthma, COPD, etc.)

Prioritized Areas

To standardize efforts across the Memorial Hermann Health System and increase the potential for impacting top health needs in the Greater Houston region, secondary data scoring was assessed and prioritized at the regional/system level. In March 2022, key members from the 13 hospital facilities in the Memorial Hermann Health System completed a survey to prioritize the significant health issues, based on the criteria of ability to impact, scope and severity, and consideration within Memorial Hermann's strategic focus. The following topics were identified as priorities to address:

Memorial Hermann Pillars	Memorial Hermann Health System Prioritized Health Needs
Access:	Access to Healthcare
Emotional Well-Being:	Mental Health and Mental Disorders
Food as Health:	Diabetes, Heart Disease, Stroke, Obesity/Overweight
Exercise is Medicine:	Diabetes, Heart Disease, Stroke, Obesity/Overweight

Disparities

Identifying disparities by race/ethnicity, gender, age, and geography helps to inform and focus priorities and strategies. Understanding disparities also helps us better understand root causes that impact health in a community and inform action towards health equity. Community health disparities were assessed in the data collection process using multiple analysis tools including HCI's Health Equity Index (HEI), HCI's Food Insecurity Index (FII), and Index of Disparity. Primary data collection and analysis also incorporated a focus on disparities.

COVID-19 Impact Snapshot

At the time that Memorial Hermann Health System began its CHNA process, the state of Texas and the nation were continuing to deal with the novel coronavirus (COVID-19) pandemic. The process for conducting the assessment remained fundamentally the same. However, there were some adjustments made during the process to ensure the health and safety of those participating. A summary of the community impact of the COVID-19 pandemic in the region and the impact on community issues are incorporated into this report.

Conclusion

This Community Health Needs Assessment (CHNA), conducted for TIRR Memorial Hermann and the Memorial Hermann Health System, used a comprehensive set of secondary and primary data to determine the significant health needs in the Memorial Hermann Health System. The findings in this report will be used to guide the development of TIRR Memorial Hermann's Implementation Strategy, which will outline strategies to address identified priorities and improve the health of the community.

Introduction & Purpose

As a not-for-profit, tax-exempt hospital, TIRR Memorial Hermann is pleased to present its 2021-22 CHNA report, which provides an overview of the significant community health needs identified in the hospital's Primary Service Area, defined as the TIRR Memorial Hermann Primary Service Area. Memorial Hermann Health System partnered with Conduent Healthy Communities Institute (HCI) to conduct the 2021-22 CHNA across Memorial Hermann Health System's regional Primary Service Area, including TIRR Memorial Hermann. The Memorial Hermann Health System includes 13 licensed facilities:

- Memorial Hermann Katy Hospital
- Memorial Hermann Memorial City Medical Center
- Memorial Hermann Greater Heights Hospital
- Memorial Hermann Northeast Hospital
- Memorial Hermann Southeast Hospital
- Memorial Hermann Sugar Land Hospital
- Memorial Hermann Southwest Hospital
- Memorial Hermann The Woodlands Medical Center
- Memorial Hermann Rehabilitation Hospital – Katy
- Memorial Hermann – Texas Medical Center
- TIRR Memorial Hermann
- Memorial Hermann Surgical Hospital Kingwood
- Memorial Hermann Surgical Hospital First Colony

The purpose of this report is to offer a meaningful understanding of the most pressing health needs across Memorial Hermann's regional Primary Service Area and TIRR Memorial Hermann Primary Service Area, as well as to guide planning efforts to address those needs. Special attention has been given to the needs of community-specific populations, unmet health needs or gaps in services, and input gathered from the community. Additionally, a section has been added to this report that focuses on the impact of the COVID-19 pandemic.

Findings from this report will be used to identify, develop, and target hospital and community-driven initiatives to improve the health and quality of life of residents in the community.

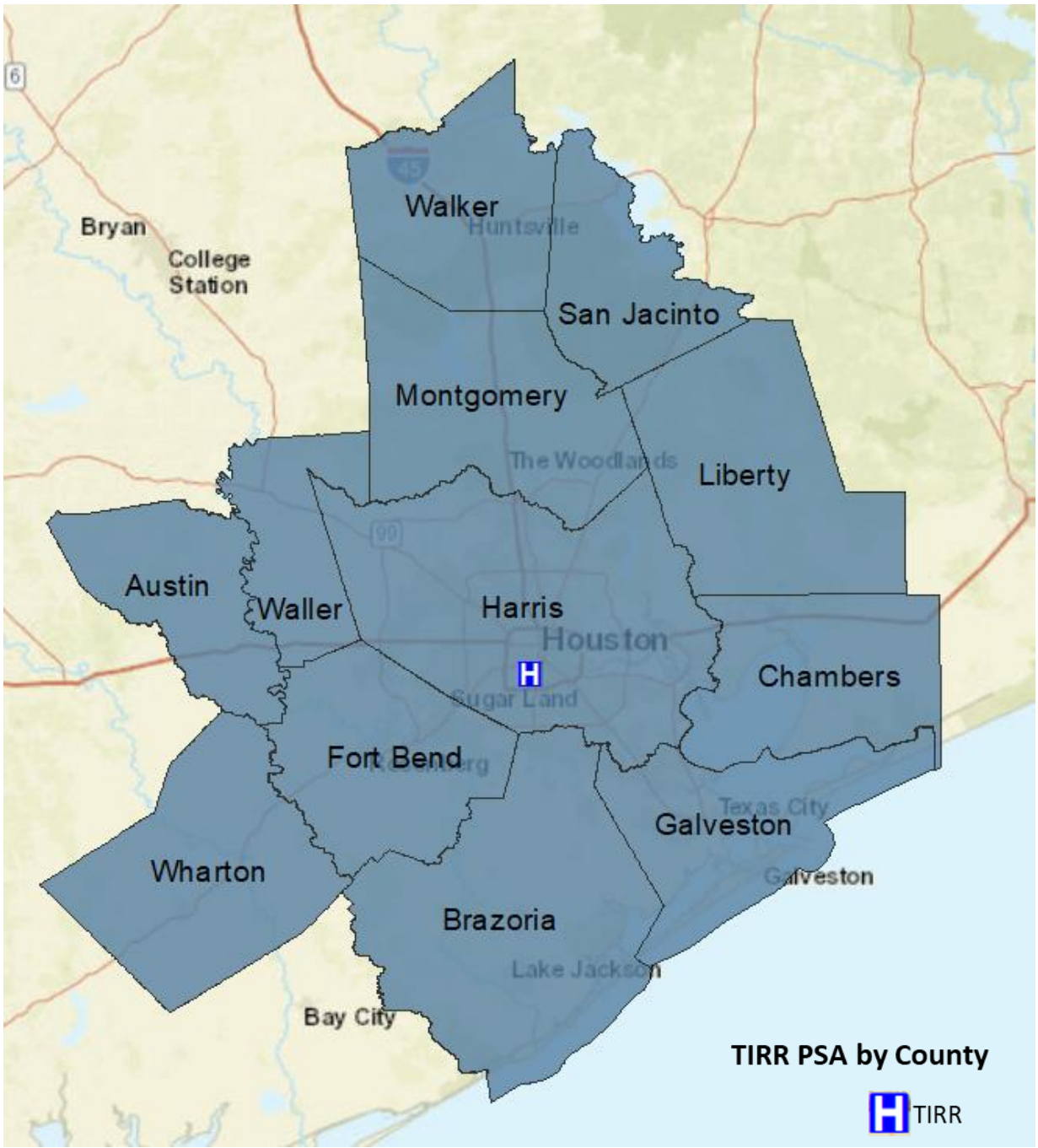
This report includes a description of:

- The community demographics and population served.
- The process and methods used to obtain, analyze, and synthesize primary and secondary data.
- The significant health needs in the community, considering the needs of uninsured, low-income, and marginalized groups.
- The process and criteria used in identifying certain health needs as significant and prioritizing those significant community needs.

Primary Service Area Definition

The geographical boundaries of the TIRR Memorial Hermann Primary Service Area (PSA) are shown in the map below (**Figure 1**). The PSA is defined by 12 counties: Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, San Jacinto, Walker, Waller, and Wharton.

Figure 1. TIRR Memorial Hermann Primary Service Area



About Memorial Hermann Health System

Memorial Hermann Health System

Charting a better future. A future that's built upon the HEALTH of our community. At Memorial Hermann, this is the driving force as we strive to redefine and deliver health care for the individuals and many diverse populations we serve. Our 6,700 affiliated physicians and 29,000 employees practice the highest standards of safe, evidence-based, quality care to provide a personalized and outcome-oriented experience across our more than 270 care delivery sites. As one of the largest not-for-profit health systems in Southeast Texas, Memorial Hermann has an award-winning and nationally acclaimed Accountable Care Organization, 17* hospitals and numerous specialty programs and services conveniently located throughout the Greater Houston area. Memorial Hermann-Texas Medical Center is one of the nation's busiest Level I trauma centers and serves as the primary teaching hospital for McGovern Medical School at UTHealth Houston. For more than 115 years, our focus has been the best interest of our community, contributing more than $411 in FY 20 through school-based health centers, neighborhood health centers, a nurse health line and other community benefit programs. Now and for generations to come, the health of our community will be at the center of what we do–charting a better future for all.

**Memorial Hermann Health System owns and operates 14 hospitals and has joint ventures with three other hospital facilities, including Memorial Hermann Surgical Hospital First Colony, Memorial Hermann Surgical Hospital Kingwood and Memorial Hermann Rehabilitation Hospital-Katy. These facilities comprise 13 separate hospital licenses.*

Mission Statement

Memorial Hermann Health System is a non-profit, values-driven, community-owned health system dedicated to improving health.

Vision

To create healthier communities, now and for generations to come.

Our Values

Community: We value diversity and inclusion and commit to being the best healthcare provider, employer and partner.

Compassion: We understand our privileged role in people's lives and care for everyone with kindness and respect.

Credibility: We conduct ourselves and our business responsibly and prioritize safety, quality and service when making decisions.

Courage: We act bravely to innovate and achieve world-class experiences and outcomes for patients, consumers, partners and the community.

The extensive geographic coverage and breadth of service uniquely positions Memorial Hermann to collaborate with other providers to assess and create healthcare solutions for individuals in Greater Houston's diverse communities; to provide superior quality, cost-efficient, innovative and compassionate care; to support teaching and research to advance the health professionals and health care of tomorrow; and to provide holistic health care that addresses the physical, social, psychological and spiritual needs of individuals. An integrated health system, Memorial Hermann is known for world-class clinical expertise, patient-centered care, leading-edge technology and innovation. Supporting and guiding the System in its impact on overall population health is the Memorial Hermann Community Benefit Corporation.

The Memorial Hermann Community Benefit Corporation (CBC) implements initiatives that work with other healthcare providers, government agencies, business leaders and community stake-holders that are designed to improve the overall quality of life in our communities. The work is built on the foundation of four intersecting pillars: Access to Health Care, Emotional Wellbeing, Food as Health and Exercise is Medicine. These pillars are designed to provide care for uninsured and underinsured; to reach those Houstonians needing low-cost care; to support the existing infrastructure of non-profit clinics and federally qualified health centers; to address mental and behavioral care services through innovative access points; to work against food insecurity and physical inactivity; and to educate individuals and their families on how to access the services needed by and available to them. Funded largely by Memorial Hermann with support by various partners and grants, the work takes us outside of our campuses and into the community.

TIRR Memorial Hermann

Continually recognized as one of America's Best Hospitals by U.S. News & World Report, TIRR Memorial Hermann is a national leader in medical rehabilitation and research providing a comprehensive continuum of medical rehabilitation for individuals who have experienced traumatic brain injury, stroke, spinal cord injury, limb loss, orthopedic or trauma injuries, cancer and other neurological injuries in its 134-bed facility. Some of the world's leading physicians in rehabilitation medicine provide care at TIRR Memorial Hermann. TIRR Memorial Hermann offers comprehensive inpatient and outpatient care, as well as a community wellness program, that address the individual needs of each patient who has experienced catastrophic injuries or illnesses.

Consultants

Memorial Hermann Health System collaborated with Conduent Healthy Communities Institute (HCI) on the completion of its 2021-22 CHNA. HCI works with clients across the U.S. to drive community health improvement outcomes by assessing needs, developing focused strategies, identifying appropriate intervention programs, establishing monitoring systems, and implementing performance evaluation processes. To learn more about Conduent Healthy Communities Institute, please visit https://www.conduent.com/community-population-health/.

Evaluation of Progress Since Prior CHNA

The CHNA process (**Figure 2**) should be viewed as a three-year cycle. An important piece of that cycle is revisiting the progress made on priority health topics set forth in the preceding CHNA. By reviewing the actions taken to address a priority health issue and evaluating the impact those actions have made in the community, it is possible to better target resources and efforts during the next round of the CHNA cycle.

Figure 2. CHNA Process

Priority Health Needs from Preceding CHNA

TIRR Memorial Hermann's priority health areas for the years 2019-2021 were:

- Access to Health Care
- Emotional Well-Being
- Food as Health
- Exercise Is Medicine

The following section includes notable highlights from a few of the initiatives implemented since the last CHNA to address the priority health needs.

Priority Health Need #1: Access to Health Care

TIRR Memorial Hermann supports initiatives that increase patients' access to care to ensure they receive care at the right location, at the right cost, at the right time. Ongoing efforts include participation in system-wide Nurse Health Line program – a 24/7 free resource where community members (uninsured and insured) within the greater Houston community can call to discuss their health concerns, receive recommendations on the appropriate setting for care, and get connected to appropriate resources. Additionally, TIRR Memorial Hermann offers Resource Assistance Connections – When a patient is uninsured at the time of admission, social work provides resources that may assist with coverage, such as 1) Harris county gold card (or equivalent county indigent health care program), 2) Comprehensive Rehabilitation Services program for those that have had a Traumatic Brain or Spinal Injury, 3) Education on applying for social security disability if appropriate, 4) Education on applying for Affordable Care Act especially if in enrollment period window, 5) Utilizing GoodRx or other prescription assistance program as needed, 6) Referrals to Rehabilitations Services Volunteer Project program for "charity" therapy and durable medical equipment if appropriate, 7) Any other diagnosis specific programs that patient may be eligible (Neuro-Assistance foundation for SCI, etc.). TIRR Memorial Hermann also participates in the national Independent Living Research program and utilization staff provides training, technical assistance (TA), and materials on a number of topics and in a variety of formats—including on-location, online, and on-demand trainings, webinars and teleconferences.

Priority Health Need #2: Emotional Well-Being

TIRR Memorial Hermann has implemented initiatives that connect and care for community members experiencing a mental health concern with redirection away from the ER and to the Memorial Hermann Mental Health Crisis Clinics and linkage to a permanent, community based mental health provider with the Memorial Hermann Integrated Care Program.

Priority Health Need #3: Food as Health

TIRR Memorial Hermann has implemented initiatives that increase awareness of food insecurity, provision of food programs, and education that promotes the reduction/postponement of chronic disease through providing diabetes education and support to the community with a Healthy Food Access Program (community outings, peer dinners, grocery shopping) and general education for the public via social media about management and prevention of diabetes through nutrition. TIRR Memorial Hermann also provides heart disease and stroke education and support through amputee support groups, stroke support groups, and further social media and community education.

Priority Health Need #4: Exercise is Medicine

TIRR Memorial Hermann has implemented initiatives that promote physical activities that promote improved health, social cohesion, and emotional well-being. Efforts include support of local adaptive sports leagues by providing opportunity for community members to participate in

adaptive sports leagues. Participating on a team has a profound effect on weight management, mental health, physical activity, team building and much more for this population.

Community Feedback from Preceding CHNA & Implementation Plan

TIRR Memorial Hermann 2019-2021 CHNA and Implementation Plan were made available to the public and open for public comment via the website: https://memorialhermann.org/giving-back/community-benefit/reports-community.

No comments were received on either document at the time this report was written.

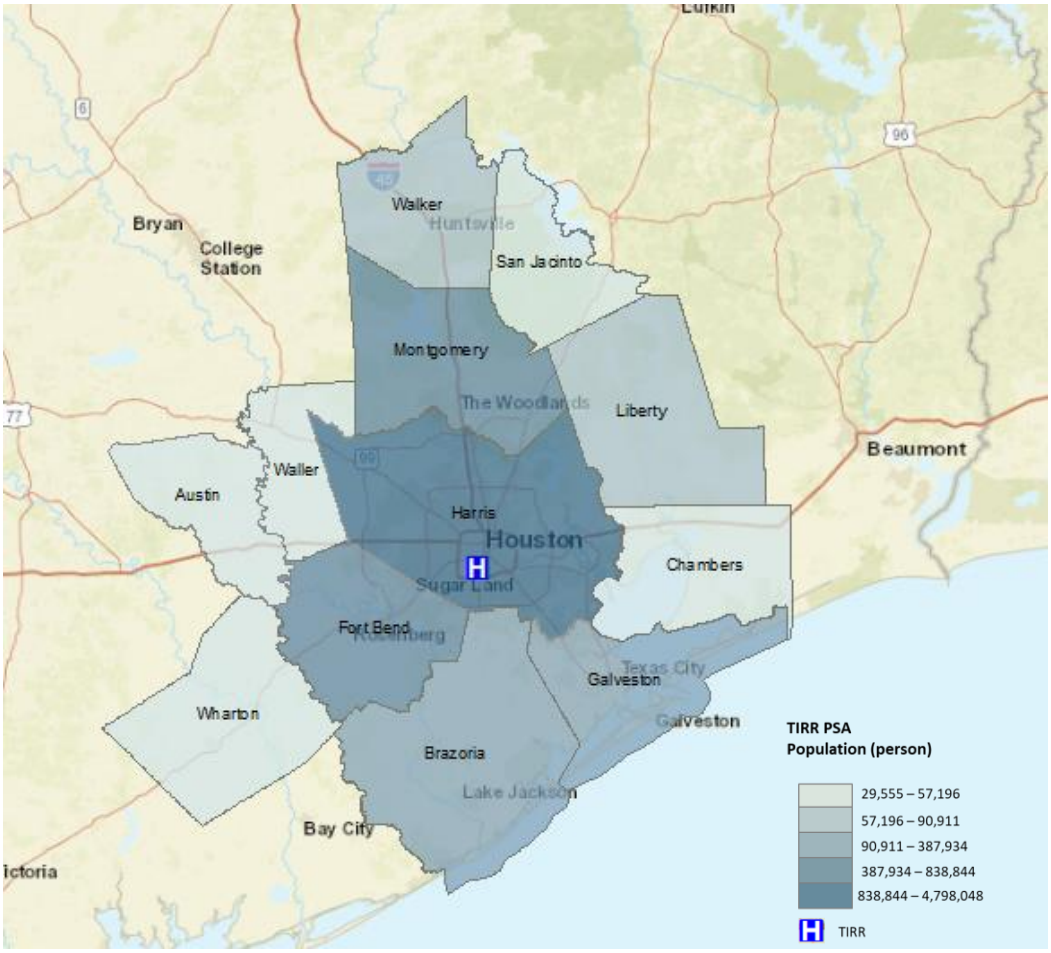
Demographics

The following section explores the demographic profile of TIRR Memorial Hermann Primary Service Area (PSA). The demographics of a community significantly impact its health profile. Different race/ethnic, age, sex, and socioeconomic groups may have unique needs and require varied approaches to health improvement efforts. All demographic estimates are sourced from Claritas Pop-Facts® (2021 population estimates) and American Community Survey one-year (2019) or five-year (2015-2019) estimates unless otherwise indicated.

Population

According to the 2021 Claritas Pop-Facts® population estimates, TIRR Memorial Hermann has a population of approximately 7,378,641 persons. **Figure 3** shows the population size by each county, with darker shades indicating larger populations, and the hospital's Primary Service Area demarcated in blue. **Table 1** provides the actual population estimates for each county. The most populated areas within the hospital's Primary Service Area are Harris County with a population of 4,798,048 and Fort Bend County with a population of 838,844. Together these counties comprise about 75% of the total population in the TIRR Memorial Hermann PSA.

Figure 3. TIRR Memorial Hermann PSA Population Size by County



Source: 2021 Claritas Pop-Facts®, ArcGIS Map

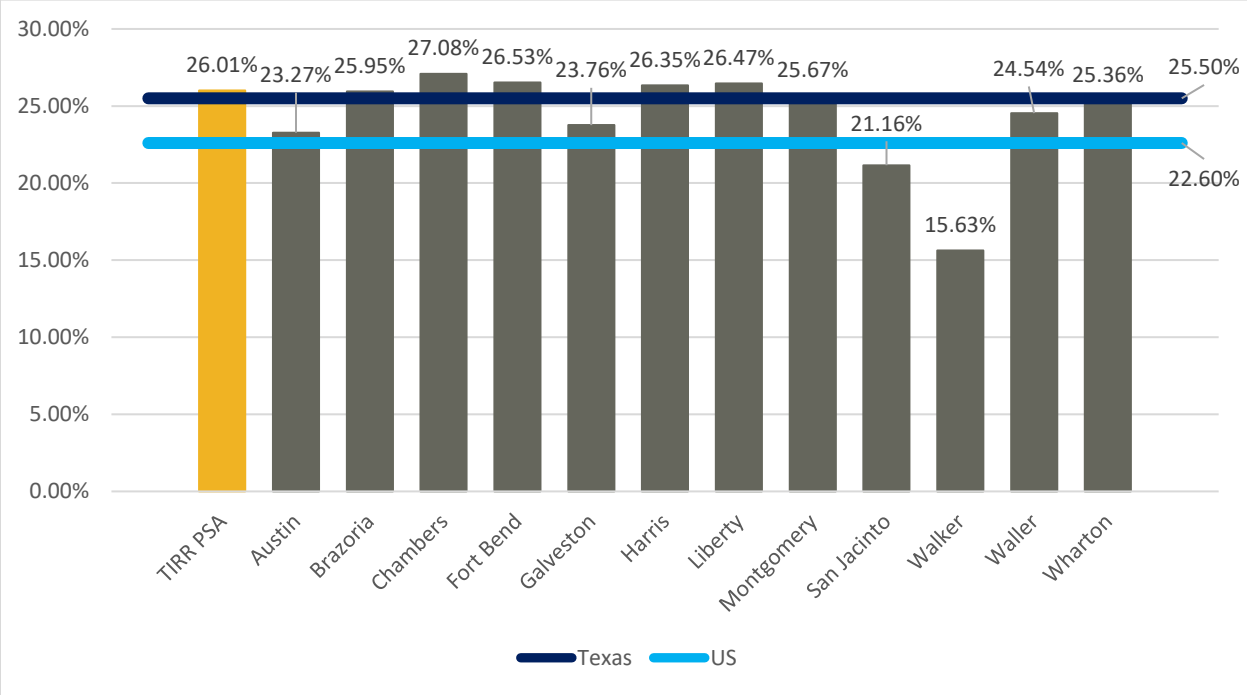
Table 1. TIRR Memorial Hermann PSA Population by County

County	Total Population Estimate	Percent of Total
Harris	4,798,048	65.0%
Fort Bend	838,844	11.4%
Montgomery	634,706	8.6%
Brazoria	387,934	5.3%
Galveston	349,071	4.7%
Liberty	90,911	1.2%
Walker	74,495	1.0%
Waller	57,196	0.8%
Chambers	45,491	0.6%
Wharton	41,440	0.6%
Austin	30,950	0.4%
San Jacinto	29,555	0.4%
TIRR Memorial Hermann PSA	7,378,641	100.0%

Age

Figure 4 shows the TIRR Memorial Hermann Primary Service Area population under the age of eighteen compared to each of the twelve counties, Texas, and the United States. The PSA has a higher percentage of individuals under the age of eighteen compared to Texas and the United States.

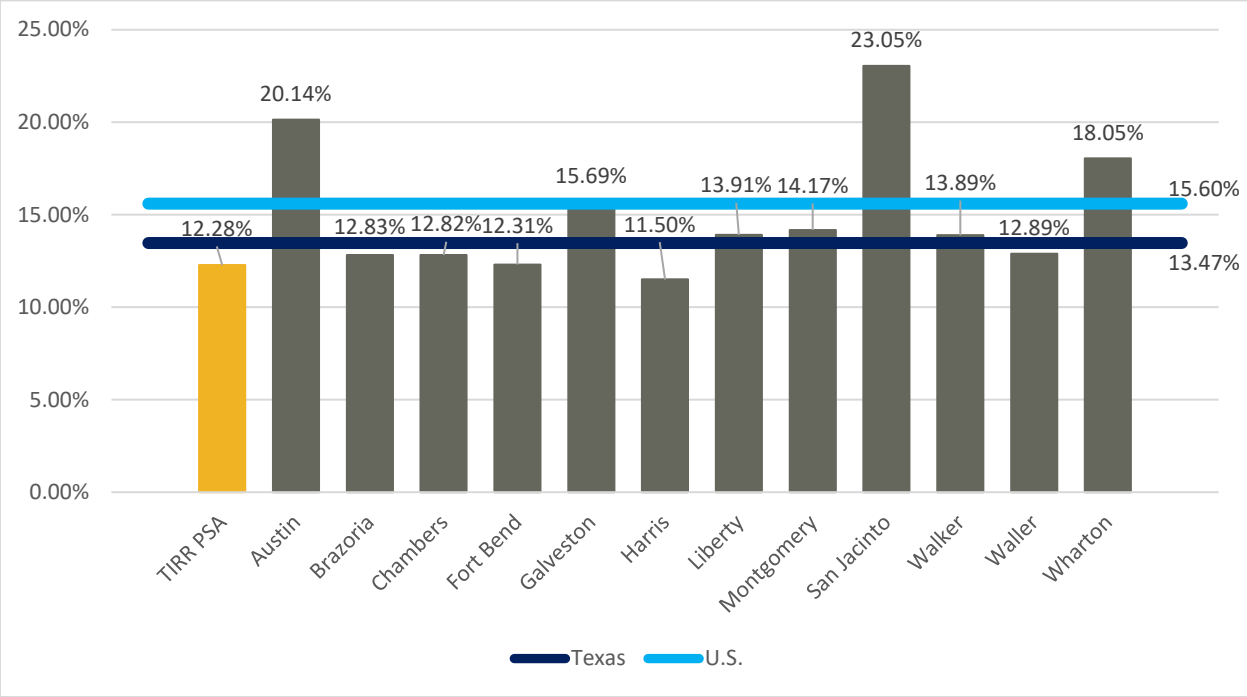
Figure 4. Population Under Age 18



Source: 2021 Claritas Pop-Facts®, American Community Survey 2015-2019

Figure 5 shows the TIRR Memorial Hermann Primary Service Area population over the age of sixty-five as compared to counties, Texas, and the United States. The PSA has a lower percentage compared to the state of Texas and the United States.

Figure 5. Population Over Age 65



Source: 2021 Claritas Pop-Facts®, American Community Survey 2015-2019

Table 2 shows the age breakdown of the TIRR Memorial Hermann Primary Service Area compared to county and state. Overall, the age breakdown of the PSA is similar to the state of Texas.

Table 2. Population by Age: Primary Service Area, County, and Texas Comparisons

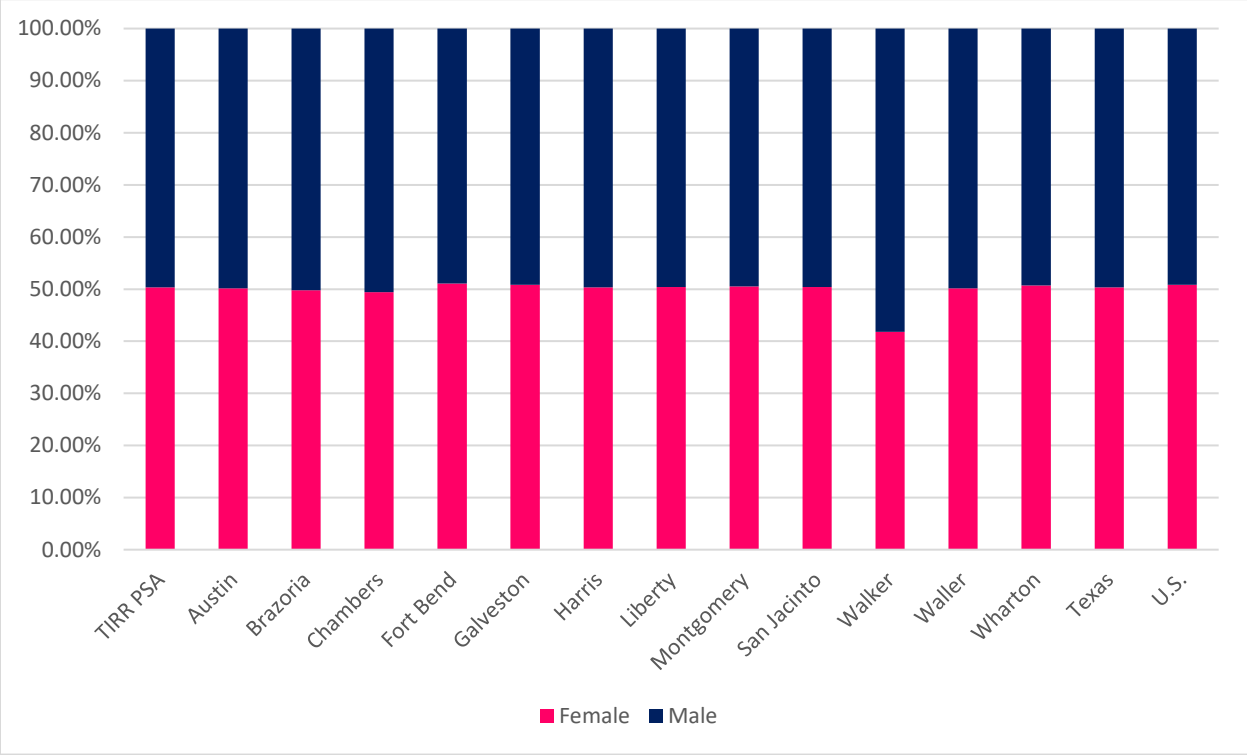
Location	Age 0-4	Age 5-17	Age 18-24	Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65+
TIRR Memorial Hermann PSA	7.17%	18.84%	9.41%	14.15%	14.16%	12.77%	11.21%	12.28%
Austin	5.95%	17.32%	8.57%	11.25%	10.98%	11.66%	14.14%	20.14%
Brazoria	6.92%	19.03%	8.93%	13.08%	14.54%	13.18%	11.48%	12.83%
Chambers	7.03%	20.06%	9.56%	12.58%	13.94%	12.87%	11.15%	12.82%
Fort Bend	6.84%	19.69%	9.31%	11.43%	14.33%	14.24%	11.84%	12.31%
Galveston	6.33%	17.43%	8.88%	12.71%	13.19%	12.67%	13.10%	15.69%
Harris	7.44%	18.91%	9.34%	15.17%	14.43%	12.48%	10.73%	11.50%
Liberty	7.32%	19.15%	9.53%	13.63%	12.34%	12.25%	11.87%	13.91%
Montgomery	6.77%	18.90%	9.03%	12.18%	13.33%	13.31%	12.32%	14.17%
San Jacinto	5.62%	15.54%	7.88%	10.57%	10.20%	11.35%	15.79%	23.05%
Walker	4.29%	11.34%	17.11%	15.88%	13.31%	13.33%	10.85%	13.89%
Waller	6.76%	17.77%	18.77%	11.97%	10.62%	10.39%	10.83%	12.89%
Wharton	6.92%	18.44%	9.49%	12.20%	11.59%	10.93%	12.39%	18.05%
Texas	7.01%	18.49%	9.94%	14.02%	13.50%	12.33%	11.25%	13.47%

Source: 2021 Claritas Pop-Facts®, American Community Survey 2015-2019

Sex

Figure 6 shows the male and female percentages for the TIRR Memorial Hermann Primary Service Area, counties, Texas, and the United States. Males comprise 49.65% of the population, whereas females comprise 50.35% of the population in the Primary Service Area, similar to all comparative areas with the exception of Walker County.

Figure 6. Population by Sex



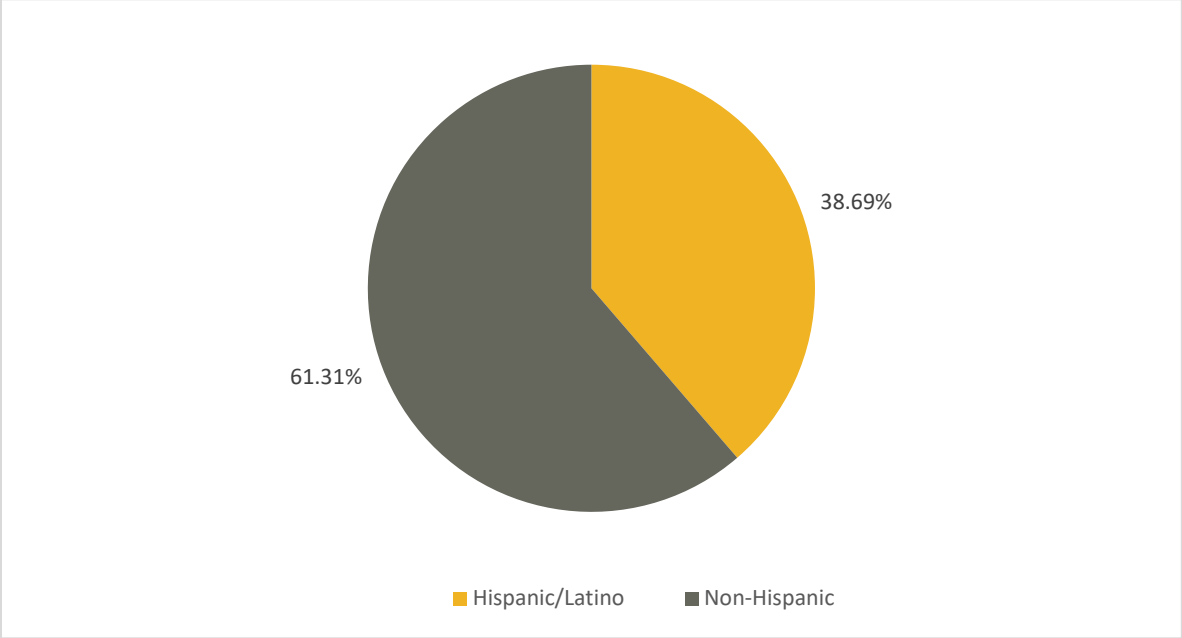
Source: 2021 Claritas Pop-Facts®, American Community Survey 2015-2019

Race and Ethnicity

The race and ethnicity composition of a population is important in planning for future community needs, particularly for schools, businesses, community centers, health care, and childcare. Race and ethnicity data are also useful for identifying and understanding disparities in housing, employment, income, and poverty.

Figure 7 shows the ethnicity of residents in the TIRR Memorial Hermann Primary Service Area with 38.69% of residents identifying as Hispanic or Latino (of any race) and 61.31% identifying as non-Hispanic.

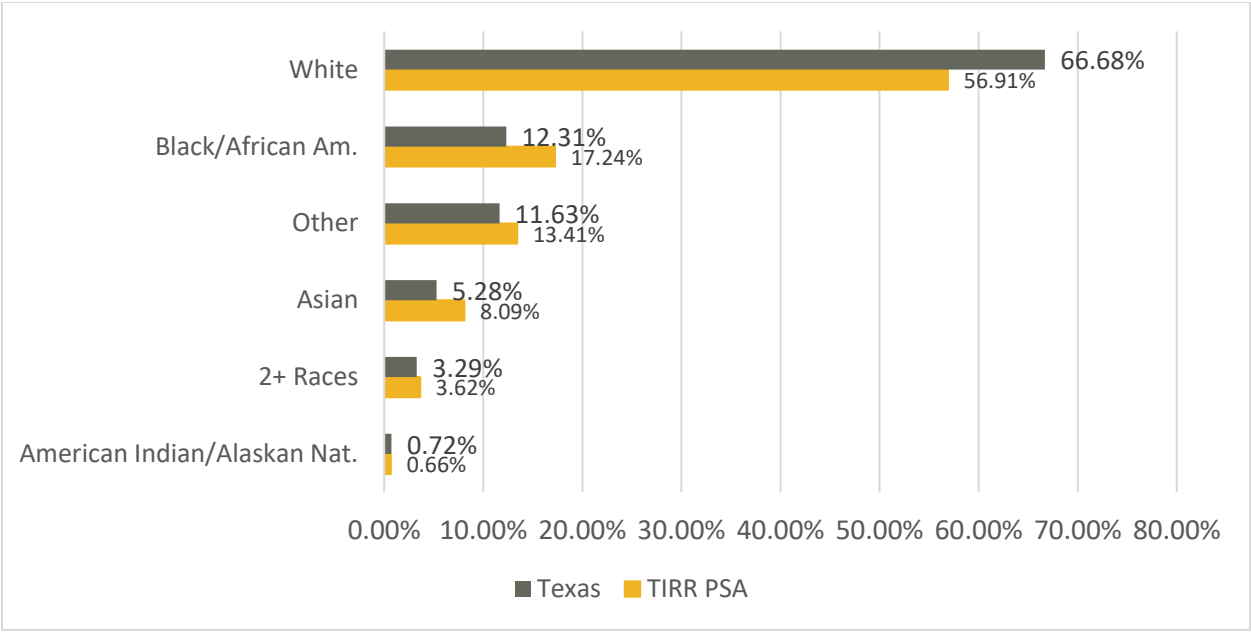
Figure 7. TIRR Memorial Hermann PSA Ethnicity



Source: 2021 Claritas Pop-Facts®

Figure 8 shows the racial composition with 56.91% as White; 17.24% as Black/African American; 8.09% as Asian; 3.62% identify as "two or more Races;" and less than one percent as American Indian and Alaska Native, Native Hawaiian, and Other Pacific Islander. **Table 3** shows the comparisons by location, which includes Primary Service Area, county, and state comparisons.

Figure 8. TIRR Memorial Hermann PSA Race



Source: 2021 Claritas Pop-Facts®

Table 3. Population by Race: Primary Service Area, County, State, and U.S. Comparisons

Location	White	Black/ African American	American Indian/ Alaskan Native	Asian	Native Hawaiian/ Pacific Islander	Other Race	2+ Races
TIRR Memorial Hermann PSA	56.91%	17.24%	0.66%	8.09%	0.07%	13.41%	3.62%
Austin	76.26%	8.53%	0.52%	0.75%	0.02%	10.98%	2.94%
Brazoria	63.42%	14.71%	0.61%	7.17%	0.06%	10.80%	3.23%
Chambers	74.92%	8.06%	0.74%	1.28%	0.10%	12.24%	2.67%
Fort Bend	46.55%	20.19%	0.42%	21.20%	0.05%	8.10%	3.49%
Galveston	71.24%	12.62%	0.63%	3.45%	0.08%	8.68%	3.32%
Harris	53.33%	19.02%	0.70%	7.40%	0.07%	15.63%	3.86%
Liberty	71.83%	9.13%	0.69%	0.66%	0.06%	14.84%	2.79%
Montgomery	78.31%	5.61%	0.78%	3.31%	0.08%	8.87%	3.05%
San Jacinto	80.93%	9.23%	0.81%	0.49%	0.04%	5.72%	2.77%
Walker	65.04%	23.12%	0.56%	1.13%	0.10%	7.85%	2.20%
Waller	57.25%	23.65%	0.87%	1.31%	0.04%	14.47%	2.42%
Wharton	71.06%	12.65%	0.50%	0.52%	0.02%	13.13%	2.12%
Texas	66.68%	12.31%	0.72%	5.28%	0.10%	11.63%	3.29%
United States	72.50%	12.70%	0.90%	5.50%	0.2%	4.90%	3.30%

Source: 2021 Claritas Pop-Facts®, American Community Survey 2015-2019

Table 4 shows the ethnicity by Primary Service Area, county, state, and United States comparisons. In the TIRR Memorial Hermann Primary Service Area, 38.69% identify as Hispanic, which is slightly lower than the state of Texas.

Table 4. Population by Ethnicity: Primary Service Area, County, State, and U.S. Comparisons

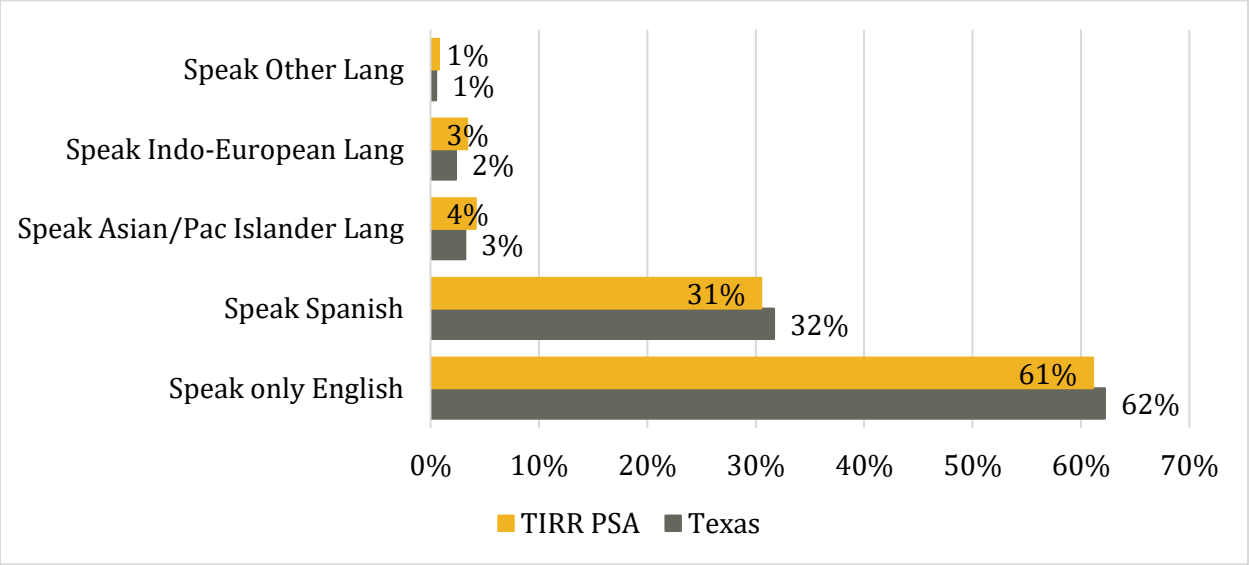
Location	Hispanic	Non-Hispanic
TIRR Memorial Hermann PSA	38.69%	61.31%
Austin	29.40%	70.60%
Brazoria	32.78%	67.22%
Chambers	24.52%	75.48%
Fort Bend	25.46%	74.54%
Galveston	26.29%	73.71%
Harris	44.85%	55.15%
Liberty	30.00%	70.00%
Montgomery	26.50%	73.50%
San Jacinto	14.19%	85.81%
Walker	18.91%	81.09%
Waller	31.96%	68.04%
Wharton	44.17%	55.83%
Texas	40.90%	59.10%
United States	18.00%	82.00%

Source: 2021 Claritas Pop-Facts®, American Community Survey 2015-2019

Language and Immigration

Language is an important factor to consider for outreach efforts to ensure that community members are aware of available programs and services. **Figure 9** shows the percentage of the population age five and older by language spoken at home. In the TIRR Memorial Hermann Primary Service Area, the proportion of the population that speaks English at home is 61%. This is an important consideration for the effectiveness of services and outreach efforts, which may be more effective if conducted in languages other than English alone. Spanish is the second most common language spoken at home, at 31% of the population. **Table 5** shows the comparisons by location, which includes Primary Service Area, county, and state comparisons.

Figure 9. Population Age 5+ by Language Spoken at Home



Source: 2021 Claritas Pop-Facts®, American Community Survey 2015-2019

Table 5. Population Age 5+ by Language Spoken at Home: Primary Service Area, County, and State Comparisons

Location	Only English	Spanish	Asian/ Pacific Island Language	Indo-European Lang.	Other Language
TIRR Memorial Hermann PSA	61.11%	30.52%	4.19%	3.40%	0.78%
Austin	73.72%	22.41%	0.20%	3.61%	0.05%
Brazoria	69.27%	24.61%	3.89%	1.69%	0.54%
Chambers	79.98%	17.77%	0.45%	1.61%	0.19%
Fort Bend	61.94%	19.94%	8.33%	8.69%	1.10%
Galveston	77.06%	18.19%	2.33%	2.05%	0.36%
Harris	56.09%	35.82%	4.15%	3.05%	0.89%
Liberty	74.17%	23.05%	1.38%	1.25%	0.16%
Montgomery	75.34%	20.55%	2.04%	1.88%	0.19%
San Jacinto	85.14%	12.26%	0.87%	1.37%	0.35%
Walker	80.59%	16.43%	1.86%	0.93%	0.18%
Waller	72.17%	24.84%	1.35%	1.38%	0.25%
Wharton	64.78%	31.24%	0.93%	2.88%	0.17%
Texas	62.22%	31.7%	3.2%	2.35%	0.53%

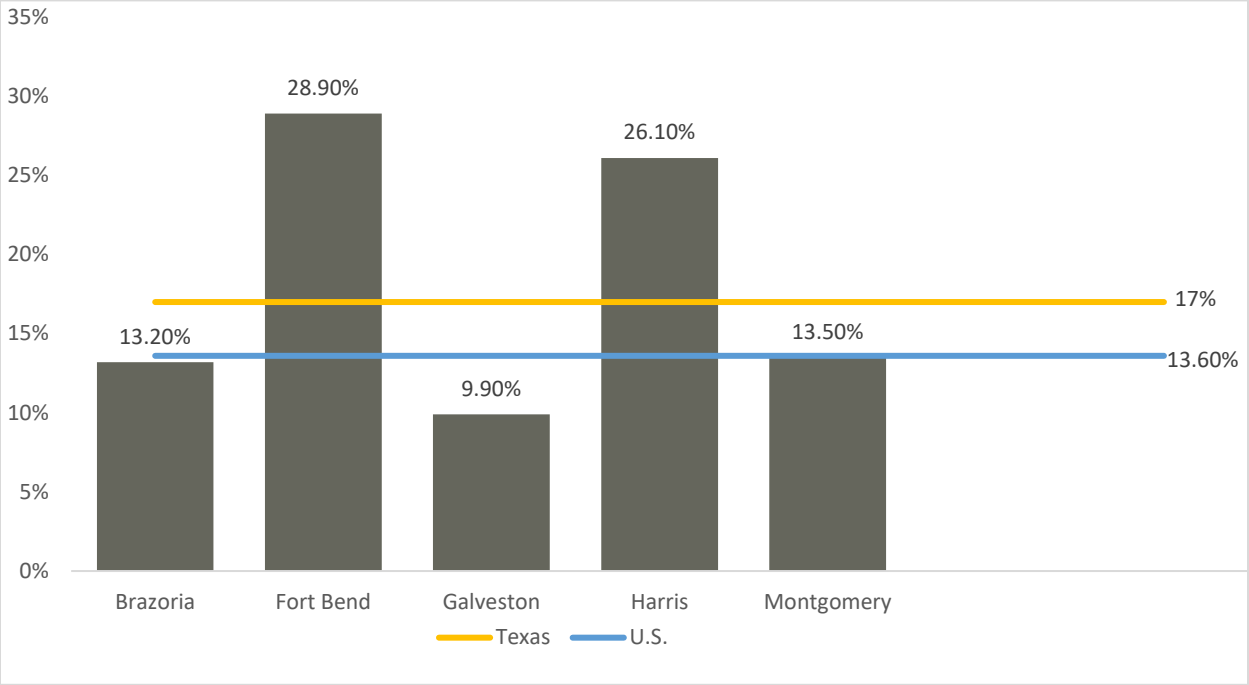
Source: 2021 Claritas Pop-Facts®, American Community Survey 2015-2019

In 2017, the Houston metropolitan area was home to 1.6 million immigrants, making it the fifth-largest foreign-born population in the US, after New York City, Los Angeles, Miami, and Chicago. Immigrants represented 24% of Houston's overall population. Unauthorized immigrants made up approximately one-third of immigrants in the Houston area. Another 30% were naturalized citizens, 32% were legal permanent residents, and 5% were legal nonimmigrants (Migration Policy Institute, 2018).

Unauthorized immigrants comprised 10% of all workers, a share higher than their proportion of the Houston population at 8%. Houston's economic future is critically dependent on continued immigration. Construction and service industries are particularly dependent on immigrant labor today, but other sectors such as health care and IT will increasingly rely on immigrants to meet growing labor demands (Migration Policy Institute, 2018).

Figure 10 shows the estimated percentages of the population who are foreign born. The percentages include all foreign-born persons, regardless of whether they are naturalized U.S. citizens. Data availability was limited to five of twelve counties served by the Memorial Hermann Hospital System.

Figure 10. Foreign Born Persons: County, State, and U.S. Comparisons



Source: American Community Survey 2015-2019

Social & Economic Determinants of Health

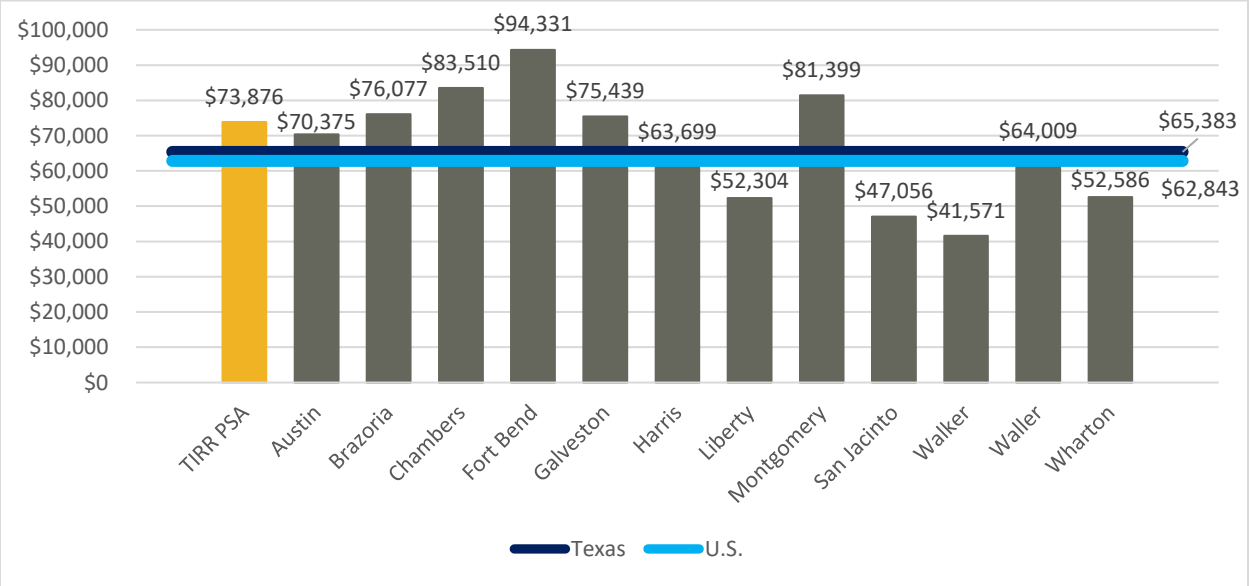
This section explores the economic, environmental, and social determinants of health of the TIRR Memorial Hermann Primary Service Area. Social determinants are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life.

Income

Median household income reflects the relative affluence and prosperity of an area. Areas with higher median household incomes are likely to have a greater share of educated residents and lower unemployment rates. Areas with higher median household incomes also have higher home values and their residents enjoy more disposable income.

Figure 11 provides a breakdown of households by income in the TIRR Memorial Hermann Primary Service Area, counties, Texas, and the United States. The Primary Service Area median household income is $73,876, which is higher than the state of Texas and the United States. There is great variety amongst the 12 counties.

Figure 11. Median Household Income: Primary Service Area, County, State, and U.S. Comparisons



Source: 2021 Claritas Pop-Facts®, American Community Survey 2015-2019

Table 6 shows the median household income by Primary Service Area, county, state, and the United States. At $94,331, Fort Bend County has the highest median household income and Walker County has the lowest at $41,571. **Table 7** shows median household income by race/ethnicity. In the TIRR Memorial Hermann PSA, the Asian population has the highest median income at $98,877 and the Black/African American population has the lowest at $55,461.

Table 6. Median Household Income by Primary Service Area, County, State, and the U.S.

Location	Median Household Income
TIRR Memorial Hermann PSA	$73,876
Austin	$70,375
Brazoria	$76,077
Chambers	$83,510
Fort Bend	$94,331
Galveston	$75,439
Harris	$63,699
Liberty	$52,304
Montgomery	$81,399
San Jacinto	$47,056
Walker	$41,571
Waller	$64,009
Wharton	$52,586
Texas	$65,385
U.S.	$62,843

Source: 2021 Claritas Pop-Facts®, American Community Survey 2015-2019

Table 7. Median Household Income by Race/ Ethnicity: Primary Service Area, County, State, and U.S. Comparisons

Location	White	Black/ African American	American Indian/ Alaskan Native	Asian	Native Hawaiian/ Pacific Islander	Hispanic/ Latino
TIRR Memorial Hermann PSA	$82,164	$55,461	$63,531	$98,877	$67,962	$56,334
Austin	$79,243	$33,265	$45,385	$85,337	$20,000	$61,104
Brazoria	$76,488	$79,353	$55,316	$109,407	$43,333	$65,288
Chambers	$88,269	$49,305	$37,500	$70,918	$31,667	$57,056
Fort Bend	$99,913	$79,456	$110,592	$119,646	$120,361	$69,539
Galveston	$84,390	$45,863	$61,279	$90,056	$49,423	$59,546
Harris	$73,122	$46,749	$56,041	$82,719	$61,586	$51,324
Liberty	$53,542	$46,416	$32,830	$24,868	$62,500	$47,603
Montgomery	$84,827	$77,626	$85,875	$99,671	$69,420	$60,289
San Jacinto	$48,125	$32,406	$90,132	$42,500	$42,500	$35,560
Walker	$46,224	$28,124	$78,571	$14,999	$48,125	$35,930
Waller	$77,561	$41,063	$52,500	$104,861	$54,167	$49,435
Wharton	$57,978	$26,963	$120,486	$90,000	$42,500	$42,782
Texas	$69,353	$49,985	$58,487	$95,444	$56,881	$51,128
U.S.	$68,785	$41,935	$43,825	$88,204	$63,613	$51,811

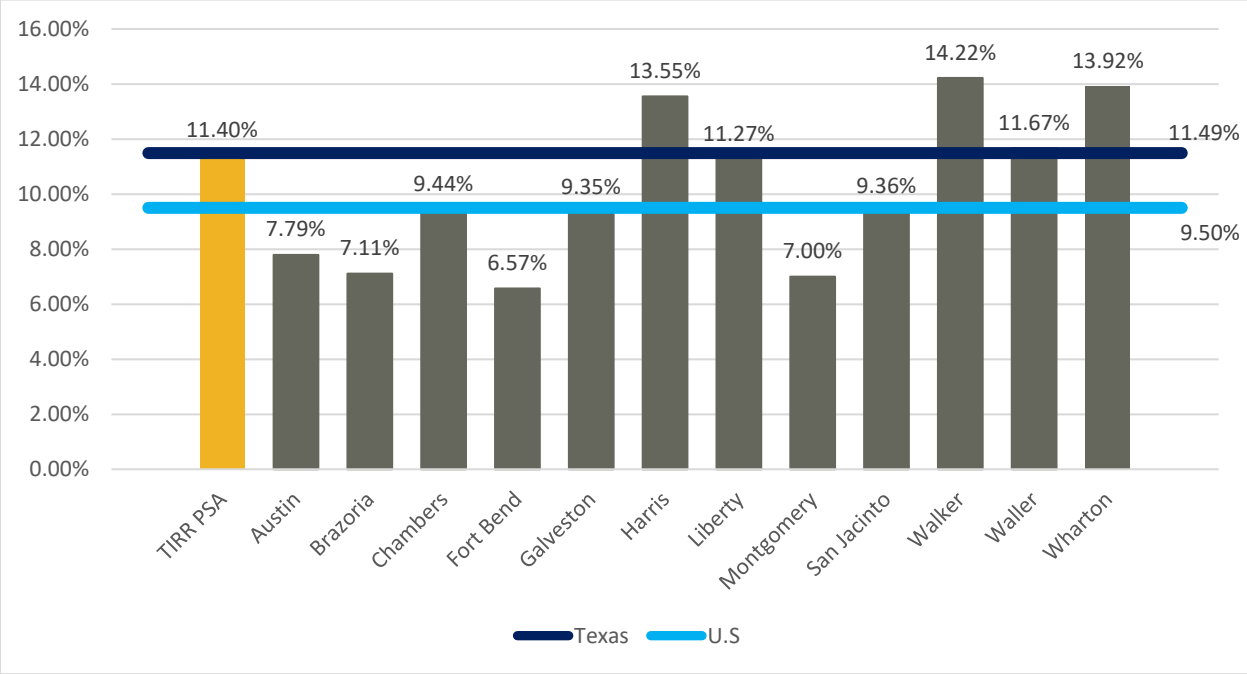
Source: 2021 Claritas Pop-Facts®, American Community Survey 2015-2019

Poverty

Federal poverty thresholds are set every year by the Census Bureau and vary by size of family and ages of family members. A high poverty rate is both a cause and a consequence of poor economic conditions.

Figure 12 shows the proportion of families living below the poverty level in TIRR Memorial Hermann Primary Service Area compared to the state and the U.S. The percentage of families living below the poverty level in TIRR Memorial Hermann Primary Service Area is 11.4%, which is similar to the Texas state value (11.5%). There is great variety amongst the 12 counties with 13.55% of Harris County families living below the poverty level compared to 6.57% of Fort Bend families.

Figure 12. Primary Service Area Families Living Below Poverty Level, Texas & U.S. Comparisons



Source: 2021 Claritas Pop-Facts®, American Community Survey 2015-2019

Table 8 shows the proportion of residents living below the poverty level by race/ethnicity. In Harris County, 19.10% of Hispanic or Latino residents and 17.30% of Black/African American residents live below the poverty level. The percentage of residents living below the poverty level in Harris County is higher than the state value in the majority of races.

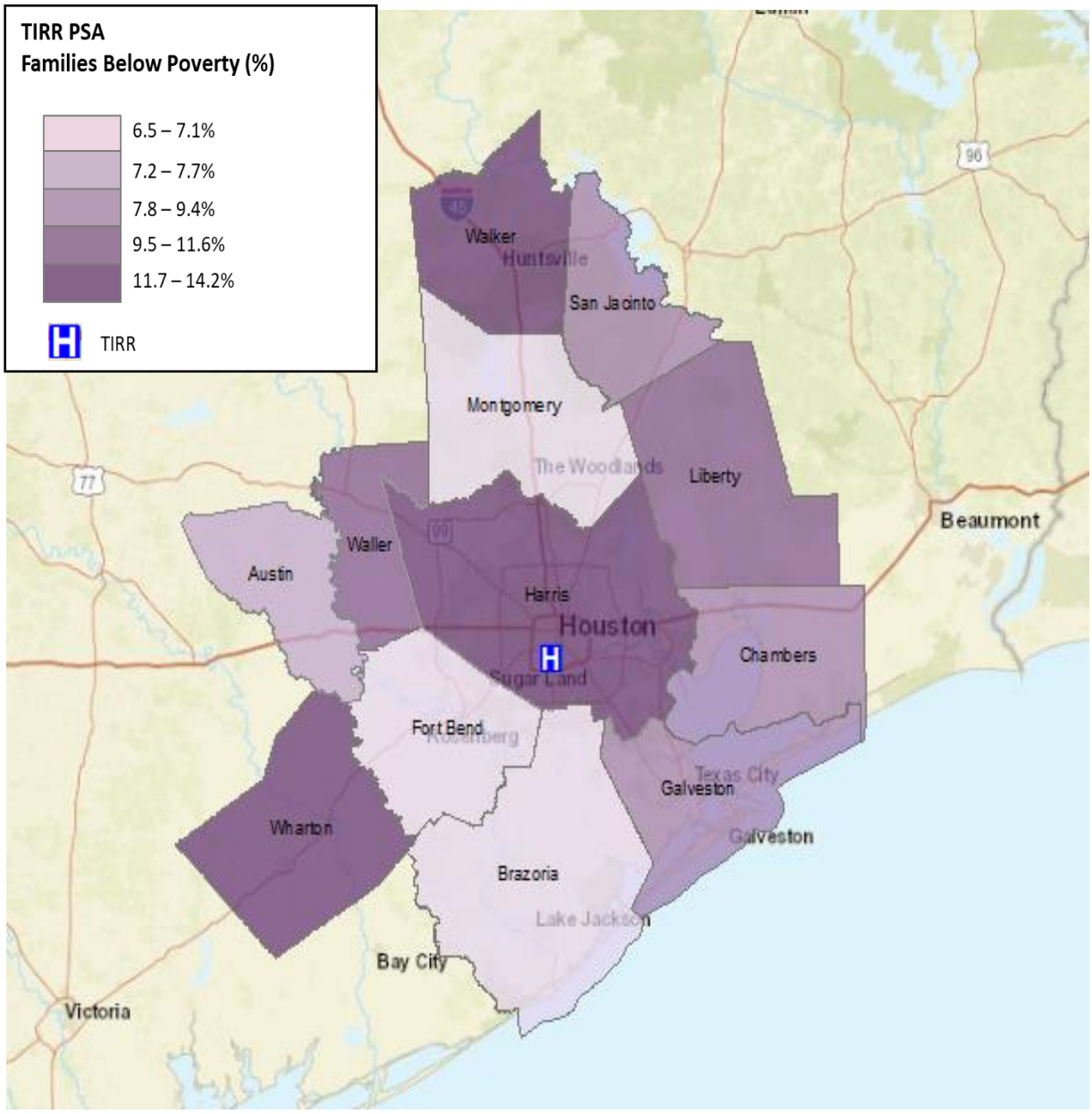
Table 8. Families Living Below Poverty Level by Race/Ethnicity, County, Texas, and the U.S.

Location	White	Black	Asian	Native Hawaiian	American Indian	Other	2+ Races	Hispanic/Latino
Austin	4.70%	30.50%	0%	--	--	28.00%	2.90%	18.60%
Brazoria	5.00%	5.80%	5.60%	--	6.80%	14.00%	3.20%	11.10%
Chambers	7.30%	6.40%	0%	--	0%	8.30%	8.10%	21.40%
Fort Bend	2.60%	7.30%	5.20%	0%	7.60%	16.10%	4.40%	11.00%
Galveston	5.90%	16.10%	5.70%	0%	9.50%	16.20%	6.90%	17.60%
Harris	4.30%	17.30%	9.80%	14.10%	16.50%	20.80%	10.70%	19.10%
Liberty	7.80%	17.50%	27.70%	--	73.30%	8.20%	14.30%	16.00%
Montgomery	4.30%	12.40%	1.80%	--	5.40%	17.60%	9.20%	15.30%
San Jacinto	7.50%	20.40%	--	100%	--	3.60%	0%	10.30%
Walker	7.90%	27.10%	--	--	--	--	12.90%	20.70%
Waller	5.50%	14.80%	5.20%	--	12.50%	24.20%	0%	17.90%
Wharton	6.40%	26.60%	54.80%	--		14.10%	42.00%	21.10%
Texas	5.20%	16.20%	7.50%	16.60%	13.80%	19.70%	11.10%	18.50%
U.S	6.10%	19.20%	7.70%	13.90%	20.30%	19%	13.50%	17.30%

Source: American Community Survey 2015-2019

Figure 13 shows families living below the poverty level by county in the TIRR Memorial Hermann PSA. Counties in the darker areas represent higher percentages of poverty. **Table 9** shows counties as compared to the Primary Service Area, Texas, and United States.

Figure 13. Families Living Below Poverty Level by County



Source: 2021 Claritas Pop-Facts®

Table 9. Families Living Below Poverty Level by Location

Location	Families Living Below Poverty
TIRR Memorial Hermann PSA	11.40%
Austin	7.79%
Brazoria	7.11%
Chambers	9.44%
Fort Bend	6.57%
Galveston	9.35%
Harris	13.55%
Liberty	11.27%
Montgomery	7.00%
San Jacinto	9.36%
Walker	14.22%
Waller	11.67%
Wharton	13.92%
Texas	11.49%
U.S.	9.50%

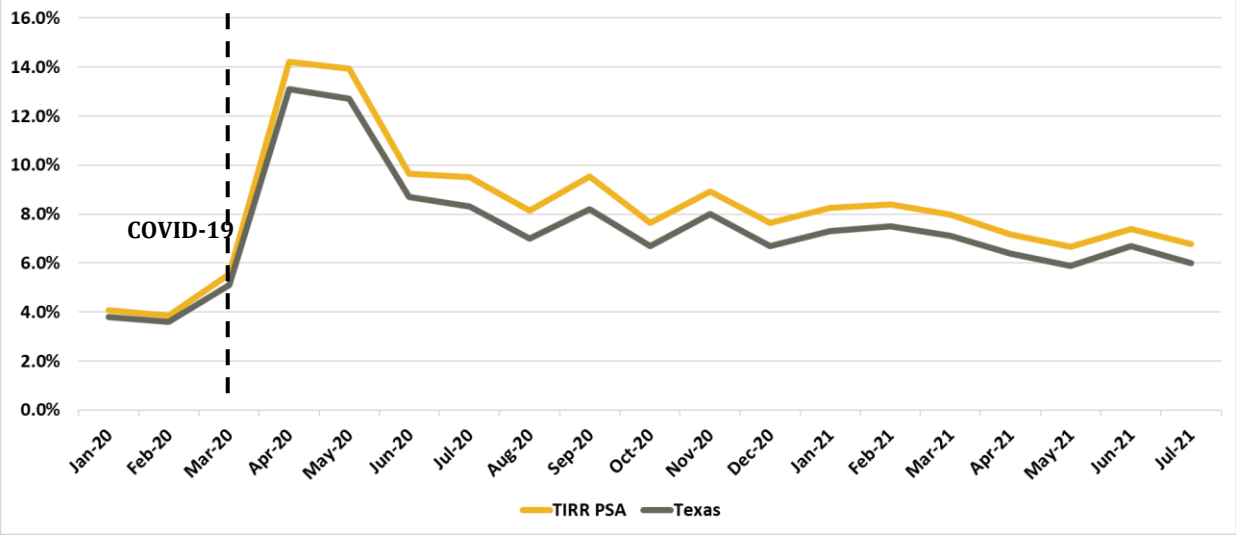
Source: 2021 Claritas Pop-Facts®, American Community Survey 2015-2019

Employment

The unemployment rate is a key indicator of the local economy. Unemployment occurs when local businesses are not able to supply enough appropriate jobs for local employees and/or when the labor force is not able to supply appropriate skills to employers. A high rate of unemployment has personal and societal effects. During periods of unemployment, individuals are likely to feel severe economic strain and mental stress. Unemployment is also related to access to health care, as many individuals receive health insurance through their employer. A high unemployment rate places strain on financial support systems, as unemployed people qualify for unemployment benefits and may require housing and food assistance services.

Figure 14 displays the rate of unemployment in the TIRR Memorial Hermann Primary Service Area between January 2020 and July 2021. Although the unemployment rate has exhibited an increase after the start of the COVID-19 pandemic, it is decreasing towards its pre-pandemic level (3.9%). As of July 2021, the Primary Service Area unemployment rate (6.8%) was higher compared to the state (6.0%) and national rates (5.3%).

Figure 14. Primary Service Area Unemployment Rate (Population 16+) January 2020-July 2021



Source: U.S Bureau of Labor Statistics 2021

Table 10 shows unemployment rates for those sixteen and older. As of July 2021, the TIRR Memorial Hermann PSA was the same as Harris County at 6.8%.

Underemployment can also limit access to health insurance coverage and preventive care services. Underemployment is described as involuntary part-time employment, poverty-wage employment, and insecure employment. Types of employment and working conditions can also have significant impacts on health. Work-related stress, injury, and exposure to harmful chemicals are examples of ways employment can lead to poorer health.

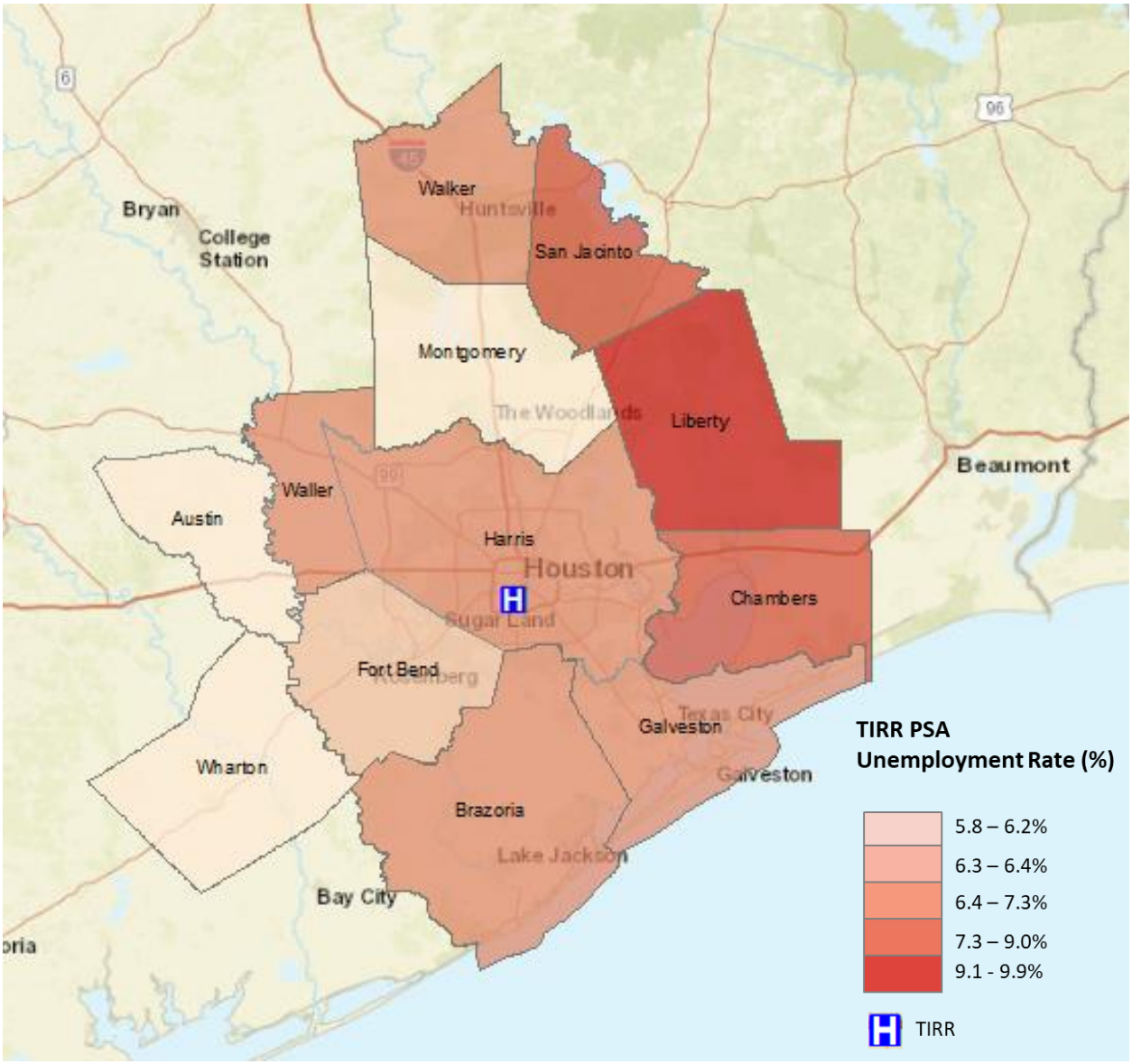
Table 10. Unemployment Rate (Population 16+) July 2021

Location	Unemployment Rate
TIRR Memorial Hermann PSA	6.80%
Austin	5.80%
Brazoria	7.30%
Chambers	9.00%
Fort Bend	6.40%
Galveston	7.00%
Harris	6.80%
Liberty	9.90%
Montgomery	6.10%
San Jacinto	8.00%
Walker	6.90%
Waller	7.10%
Wharton	6.20%
Texas	6.00%
United States	5.30%

Source: 2021 Claritas Pop-Facts®, U.S Bureau of Labor Statistics 2021

Figure 15 shows the TIRR Memorial Hermann Primary Service Area map of unemployment rates for individuals sixteen and older. Liberty and Chambers Counties have higher rates of unemployment compared to other counties in the Primary Service Area.

Figure 15. TIRR Memorial Hermann PSA Map of Unemployment Rate (Population 16+) 2021

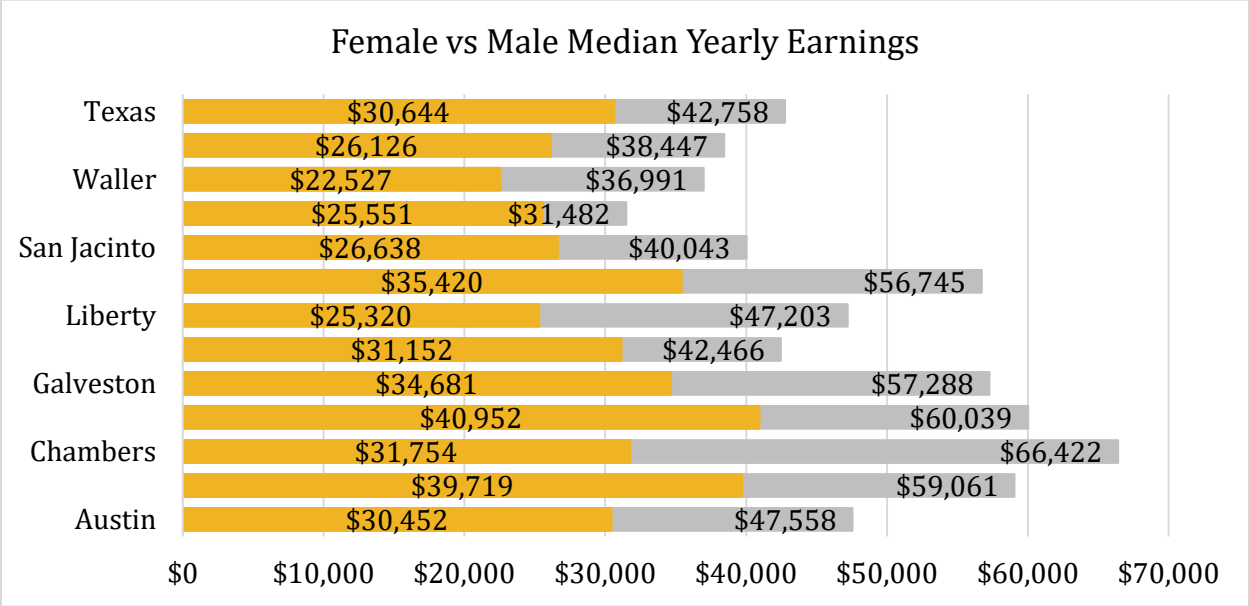


Source: 2021 Claritas Pop-Facts® ArcGIS Map

Disparities between men's and women's wages can hinder economic growth, by constricting income and spending. These disparities can heighten the risk of financial stress and inadequate savings. **Figure 16** shows working women generally make less than their male counterparts. In Harris County, women make an average of $31,152 compared to their male counterparts at $42,466. In the state of Texas, the median yearly earnings for females are $30,644 compared to males at $42,758. Although data is not available by race/ethnicity from this source, national trends

suggest that this wage gap persists and is worsened by the race/ethnicity of women heavily affecting low-income and single-income families.

Figure 16. Gender Wage Gap: County and State Comparisons



Source: American Community Survey 2015-2019

Education

Education is an important indicator of health and well-being across the lifespan. Education can lead to improved health by increasing health knowledge, providing better job opportunities and higher income, and improving social and psychological factors linked to health. People with higher levels of education are likely to live longer, experience better health outcomes, and practice health-promoting behaviors. **Table 11a** shows that 16.36% of individuals in the TIRR Memorial Hermann PSA have less than 12th grade education compared to the state of Texas, with 16.26%.

Table 11a. Primary Service Area Educational Attainment by Primary Service Area and State Comparisons

Educational Attainment Population Age 25+	TIRR Memorial Hermann PSA	Texas
Less than 9th Grade	8.67%	8.12%
Some High School, No Diploma	7.69%	8.14%
High School Grad	23.67%	25.07%
Some College, No Degree	20.51%	21.49%
Associate Degree	7.01%	7.12%
Bachelor's Degree	20.65%	19.47%
Master's Degree	8.28%	7.65%
Professional Degree	2.06%	1.67%
Doctorate Degree	1.44%	1.17%

Source: 2021 Claritas Pop-Facts®

Table 11b shows the percentage of people of aged 25 years and older who have completed at least a high school degree or higher and a bachelor's degree or higher. High school graduation rates are an important indicator of the performance of the educational system. Having a degree increases career opportunities in a variety of fields and is often a pre-requisite to a higher paying job.

Table 11b. Primary Service Area Educational Attainment by County; State, U.S. Comparisons

Location	Population 25+ with a High School Degree or Higher	Population 25+ with a Bachelor's Degree or Higher
Austin	84.00%	23.90%
Brazoria	87.90%	30.00%
Chambers	88.50%	22.70%
Fort Bend	90.60%	46.20%
Galveston	89.00%	31.10%
Harris	81.40%	31.50%
Liberty	77.30%	9.70%
Montgomery	87.70%	34.50%
San Jacinto	84.50%	11.20%
Walker	86.00%	20.80%
Waller	82.50%	21.10%
Wharton	78.30%	18.00%
Texas	83.7%	29.9%
U.S.	88.0%	32.1%

Source: American Community Survey 2015-2019

Housing & Transportation

Spending a high percentage of household income or rent can create financial hardship, especially for lower-income renters. Paying a high rent may not leave enough money for other expenses such as food, transportation, and medical expenses. High rent also reduces the proportion of income a household can allocate to savings each month. **Table 12** shows the TIRR Memorial Hermann Primary Service Area with 52.19% spending 30% or more of household income on rent. Walker County (57.3%) and Waller County (54.2%) have significantly higher rates as comparative areas.

Table 12. Spending 30% or More on Rent: County, State, U.S. Comparisons

Location	Renters Spending 30% or More of Household Income on Rent
TIRR Memorial Hermann PSA	52.19%
Austin	49.30%
Brazoria	43.70%
Chambers	45.10%
Fort Bend	48.20%
Galveston	47.80%
Harris	49.90%
Liberty	45.40%
Montgomery	42.20%
San Jacinto	41.60%
Walker	57.30%
Waller	54.20%
Wharton	40.60%
Texas	47.80%
U.S.	49.60%

Source: American Community Survey 2015-2019

There are numerous ways in which transportation may influence community health. Public transportation offers mobility, particularly to people without cars. Transit can help bridge the spatial divide between people and jobs, services, and training opportunities. Public transportation also reduces fuel consumption, minimizes air pollution, and relieves traffic congestion. Walking to work helps protect the environment, while also providing the benefits of daily exercise.

Table 13 displays the different modes of commuting used by residents of TIRR Memorial Hermann PSA. 1.12% of residents commute by walking and 0.23% commute by biking. The majority of residents (81.03%) commute by driving alone, which is similar to the state value (80.5%). Public transportation is used by PSA residents (1.96%) more than the state of Texas as a whole (1.5%).

Harris County has the highest proportions of residents commuting by public transportation (2.49%).

Table 13. Modes of Transportation: Primary Service Area, County, and State Comparisons

Location	Commute by Public Transportation	Commute by Walking	Commute by Biking	Commute by Driving Alone
TIRR Memorial Hermann PSA	1.96%	1.12%	0.23%	81.03%
Austin	0.06%	2.11%	0.00%	83.77%
Brazoria	0.10%	0.77%	0.06%	86.20%
Chambers	0.23%	0.82%	0.29%	89.47%
Fort Bend	1.51%	0.48%	0.06%	81.10%
Galveston	0.90%	1.23%	0.70%	83.61%
Harris	2.49%	1.24%	0.25%	80.11%
Liberty	0.25%	0.89%	0.46%	87.40%
Montgomery	1.00%	0.73%	0.15%	81.74%
San Jacinto	0.00%	1.46%	0.00%	82.70%
Walker	0.48%	3.90%	0.15%	80.89%
Waller	0.69%	3.31%	0.17%	79.59%
Wharton	0.24%	0.98%	0.01%	85.73%
Texas	1.5%	1.6%	0.3%	80.5%

Source: 2021 Claritas Pop-Facts®, American Community Survey 2015-2019

Disparities

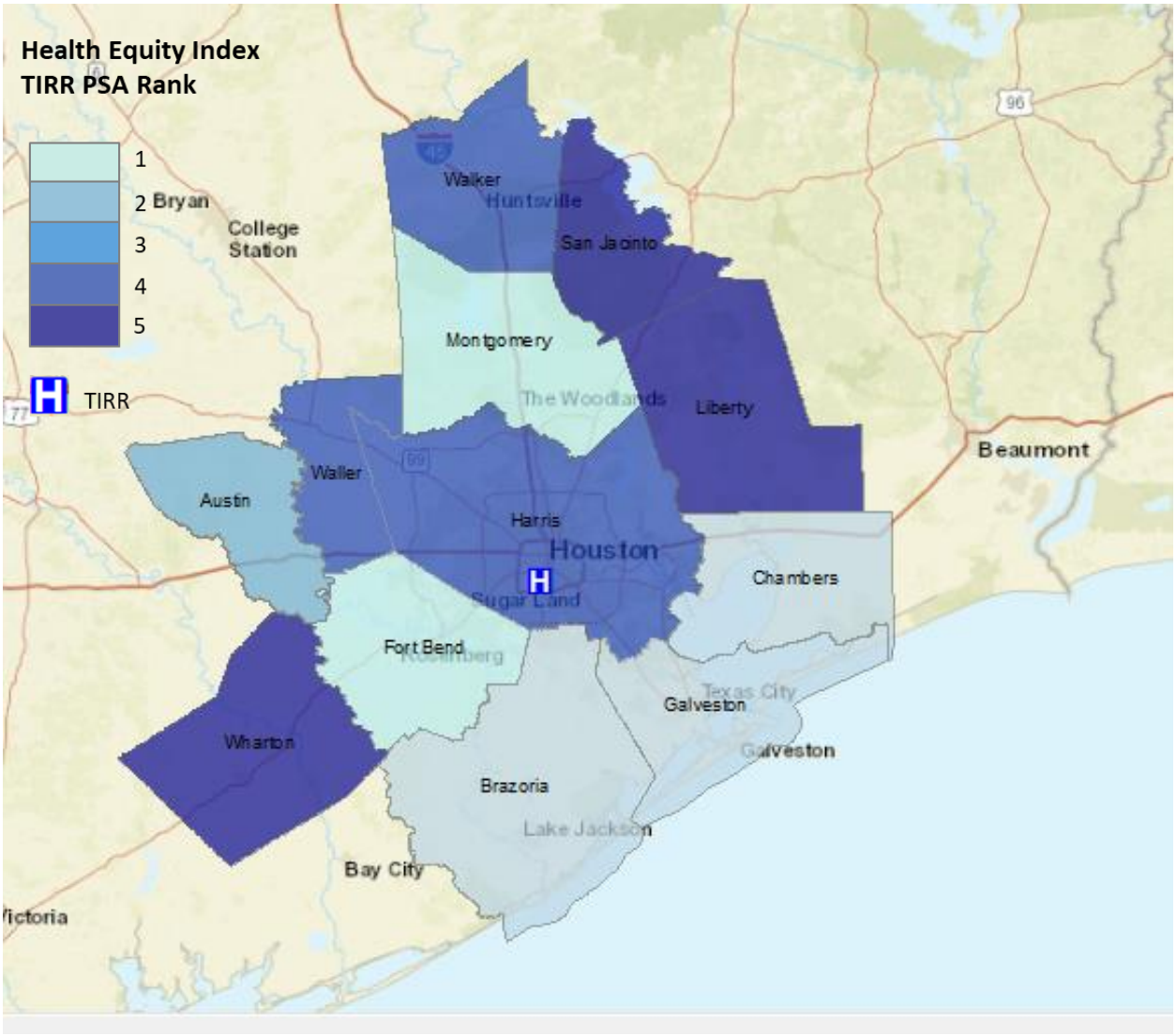
Geographic Disparities

Conduent Healthy Communities Institute developed the Health Equity Index (formerly SocioNeeds Index®) and the Food Insecurity Index (FII) to easily identify areas of higher socioeconomic need. Using these indices in combination with indicator data can reveal disparities and ensure that efforts are directed to the communities with the highest need.

Health Equity Index

The Health Equity Index incorporates estimates for six different social and economic determinants of health that are associated with poor health outcomes. The data, which cover income, poverty, unemployment, occupation, educational attainment, and linguistic barriers, are then standardized and averaged to create one composite index value for every county in the United States with a population of at least 200. Counties have index values ranging from 0 to 100, where higher values are estimated to have the highest socioeconomic need and are correlated with poor health outcomes including preventable hospitalizations and premature death. Within the TIRR Memorial Hermann Primary Service Area, counties are ranked based on their index value to identify the relative levels of need, as illustrated by the map in **Figure 17**. The following counties had the highest level of socioeconomic need that is correlated with poor health outcomes (as indicated by the darkest shades): Wharton, Liberty, and San Jacinto.

FIGURE 17. HEALTH EQUITY INDEX



SOURCE: CONDUENT SOCIONEEDS INDEX SUITE: HEALTH EQUITY INDEX MAP

Table 14 provides the index values for each county in the TIRR Memorial Hermann Primary Service Area. Understanding where there are communities with high socioeconomic needs, and associated poor health outcome, is critical to targeting prevention and outreach activities.

TABLE 14. HEALTH EQUITY INDEX VALUES BY COUNTY FOR TIRR MEMORIAL HERMANN PRIMARY SERVICE AREA

County	HEI Value	Rank
Wharton	78.8	5
Liberty	76.0	5
San Jacinto	69.5	5
Walker	65.8	5
Waller	57.6	4
Harris	55.7	4
Austin	37.4	3
Galveston	22.6	2
Chambers	21.6	2
Brazoria	17.5	2
Montgomery	8.0	1
Fort Bend	4.1	1

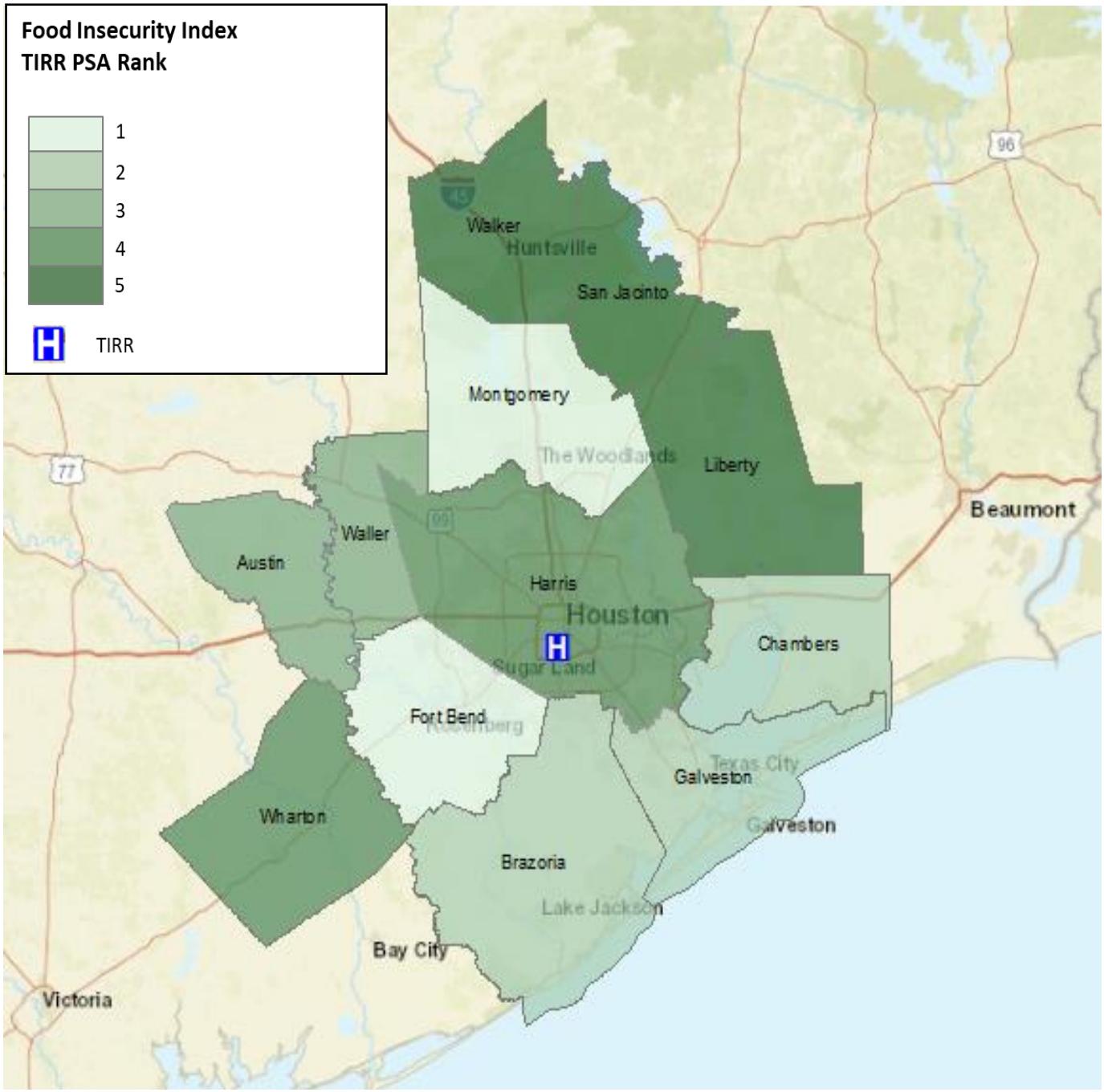
Food Insecurity Index

The Food Insecurity Index (FII) is a measure of food accessibility that is correlated with social and economic hardship and eligible persons for the Supplemental Nutrition Assistance Program (SNAP). This index combines multiple socioeconomic and health indicators into a single composite value. These indicators are from the following topic areas: Medicaid insurance enrollment, perceived health status, household expenditures, household income, and single-parent headed households.

All counties in the United States are given an index value from 0 (low need) to 100 (high need). To help find the areas of highest need in the TIRR Memorial Hermann Primary Service Area, locales were ranked from 1 to 5 based on their index value.

Figure 18 shows TIRR Memorial Hermann Primary Service Area counties based on their index value to identify which areas are of the highest need. The following counties have the highest level of food insecurity that is correlated with poor health outcomes (as indicated by the darkest shades): Liberty, Walker, and San Jacinto.

FIGURE 18. FOOD INSECURITY INDEX



SOURCE: CONDUENT SOCIONEEDS INDEX SUITE: FOOD INSECURITY MAP

Table 15 provides the Food Insecurity index values for each county in the TIRR Memorial Hermann Primary Service Area. The index can serve as a concise way to identify individual communities experiencing food insecurity.

TABLE 15. FOOD INSECURITY INDEX VALUES BY COUNTY

County	Food Insecurity Value	Rank
Liberty	77.5	5
Walker	74.0	5
San Jacinto	70.0	5
Wharton	62.6	4
Harris	52.0	3
Waller	42.9	3
Austin	31.7	2
Galveston	21.6	2
Brazoria	18.6	2
Chambers	14.4	1
Montgomery	9.8	1
Fort Bend	8.0	1

Race & Ethnic Disparities

Identifying disparities by race/ethnicity helps to inform and focus priorities and strategies. Understanding disparities also helps us better understand root causes that impact health in a community and inform action towards health equity. Health equity focuses on the fair distribution of health determinants, outcomes, and resources across communities.[1] National trends have shown that systemic racism, poverty, and gender discrimination have led to poorer health outcomes for groups such as Black/African American, Indigenous, or People of Color, individuals living below the poverty level, and LGBTQ+ communities.

Community health disparities were assessed in the data collection process. The indicators listed in **Table 16** show a statistically significant difference in race and ethnicity according to the Index of Disparity analysis. Secondary data reveal that different racial and ethnic groups are negatively impacted among many health and socio-economic indicators. These important gaps in data should be recognized and considered for implementation planning to mitigate the disparities often faced by age groups, gender, race, or ethnicity. See Appendix A for specific health indicators.

Table 16. Indicators with Significant Race/Ethnic Disparities

Health and Socio-Economic Indicators	Group Negatively Impacted (highest rates)
High School Drop Out Rate	American Indian/Alaska Native, Pacific Islander, Black/African American, Hispanic
Lung and Bronchus Cancer Incidence Rate	Black/African American, White, Asian/Pacific Islander
Age-Adjusted Death Rate Due to Lung Cancer	Black/African American, White, Asian/Pacific Islander
Workers Commuting by Public Transportation	Native Hawaiian/Pacific Islander, Black/African America
Age-adjusted Death Rate due to Prostate Cancer	Black/African American, White, Hispanic
Babies with Very Low Birth Weight	Black/African American

[1] Klein R, Huang D. Defining and measuring disparities, inequities, and inequalities in the Healthy People initiative. National Center for Health Statistics. Center for Disease Control and Prevention. https://www.cdc.gov/nchs/ppt/nchs2010/41_klein.pdf

People 65+ Living Below Poverty Level	Other Race, American Indian/Alaska Native, Hispanic
Infants Born to Mothers with <12 years of Education	Hispanic, Black/African American, Other Race
Teen births	Hispanic, Black/African American
Workers Who Walk to Work	American Indian/Alaska Native, Multi-Race, Other

Future Considerations

While identifying barriers and disparities are critical components in assessing the needs of a community, it is equally important to understand the social determinants of health and other upstream factors that influence a community's health as well. The challenges and barriers faced by a community must be balanced by identifying practical, community-driven solutions. Together, these factors come together to inform and focus strategies to positively impact a community's health. The following sections outline opportunities for guiding ongoing work as well as the potential to impact the identified community health needs.

Primary and Secondary Methodology

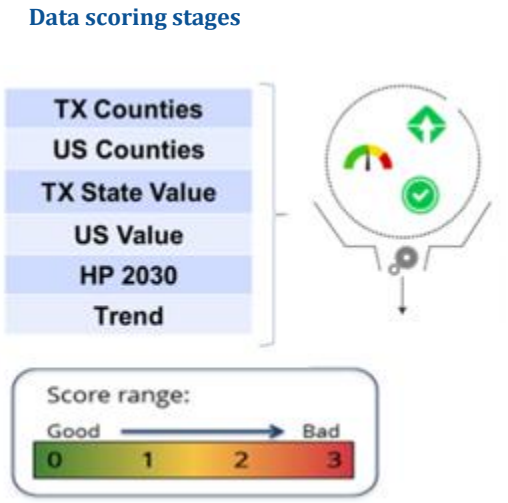
Overview

Two types of data were used in this assessment: primary and secondary data. Primary data were obtained through a community health survey and key informant interviews. Secondary data are health indicators that have already been collected by public sources such as government health departments. Each type of data was analyzed using a unique methodology. Findings from each data source were categorized by health topics and then synthesized for a comprehensive overview of the health needs in TIRR Memorial Hermann Primary Service Area.

Secondary Data Sources & Analysis

Secondary data used for this assessment were collected and analyzed from Healthy Communities Institute's community indicator database. The database, maintained by researchers and analysts at HCI, includes over 200 community indicators covering at least 28 topics in the areas of health, determinants of health, and quality of life. The data are primarily derived from state and national public secondary data sources. The value for each of these indicators is compared to other communities, nationally set targets, and to previous time periods.

Secondary Data Scoring



HCI's Data Scoring Tool® was used to systematically summarize multiple comparisons to rank indicators based on the highest need. For each indicator, the county values were compared to a distribution of Texas and US counties, state and national values, Healthy People 2030 targets, and significant trends. Each indicator was then given a score based on the available comparisons. These comparison scores range from 0 to 3, where 0 indicates the best outcome and 3 the worst.

Availability of each type of comparison varies by indicator and is dependent upon the data source, comparability with data collected from other communities, and changes in methodology over time. The comparison scores were summarized for each indicator, and the indicators were grouped into topic areas for a higher-level ranking of community health needs. Health topic areas with fewer than three indicators were considered a data gap. Data gaps were specifically assessed and factored into primary data methods to ensure that, where the secondary data fell short, primary data could provide a more accurate picture of a particular health topic area.

To standardize efforts across the Memorial Hermann Health System and increase the potential for impacting top health needs in the greater Houston region, secondary data scoring was assessed and prioritized at a regional/system level. The system-level consists of the 12 counties comprising most Memorial Hermann discharges. (Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, San Jacinto, Walker, Waller, and Wharton.) **Table 17** shows the health topic scoring results. Health Care Access and Quality was the poorest performing topic area followed by Heart

Disease & Stroke and Wellness & Lifestyle. Topics that received a score of 1.50 or higher were considered to be a significant health need. Six health topics scored at or above the threshold.

Please see Appendix A for further details on the qualitative data scoring methodology as well as secondary data scoring results.

Table 17. Secondary Data Scoring for the Memorial Hermann 12-County Region

Health Topics	12 County Region Score
Health Care Access & Quality	1.71
Heart Disease & Stroke	1.62
Wellness & Lifestyle	1.57
Older Adults	1.57
Oral Health	1.54
Physical Activity	1.51
Children's Health	1.49
Mental Health & Mental Disorders	1.48
Diabetes	1.45
Women's Health	1.42
Maternal, Fetal & Infant Health	1.40
Other Conditions	1.37
Cancer	1.34
Alcohol & Drug Use	1.32
Sexually Transmitted Infections	1.30
Prevention & Safety	1.21
Immunizations & Infectious Diseases	1.18
Respiratory Diseases	1.16

Primary Data Collection & Analysis

HCI collected community input through primary sources to expand upon the secondary data analysis. Primary data used in this assessment consisted of key informant interviews and a community survey.

When appropriate, primary data collection methods were conducted in a way to maintain social distancing and protect the safety of participants by emphasizing virtual data collection. In-person data collection was applied only where necessary.

As a critical aspect of the primary data collection, community participants were asked to share and describe resources available in the community. Although not reflective of every resource available in the community, the collected list can help Memorial Hermann Health System continue to build partnerships that may support existing programs and resources. This resource list is available in Appendix C.

Key Informant Interviews

Key informant interviews (KIIs) were conducted with leaders and staff from organizations that provide services directly to the community and officials that represent governmental and non-governmental entities. Interviewees invited to participate were recognized as having expertise in public health, special knowledge of community health needs, representing the broad interests of the community served by the hospital, and/or being able to speak to the needs of medically underserved or vulnerable populations.

Forty-seven individuals agreed to participate as key informants. **Table 18** lists the represented organizations that participated in the interviews.

Table 18. Key Informant Organizations

- AccessHealth
- Alvin City
- Alvin ISD Board of Trustees
- Avenue CDC
- Baker Ripley
- Catholic Charities - Archdiocese of Galveston
- Child Advocates of Fort Bend
- Children at Risk
- Colorado County - Indigent Health Care
- Department of State Health Services
- East Fort Bend Human Needs Ministry
- El Centro de Corazon
- Episcopal Health Foundation
- Fort Bend County Health and Human Services
- Fort Bend County Sheriff's Office
- Healthcare for the Homeless - Houston
- Houston Galveston Institute (HGI)
- Houston Health Department
- Houston Housing Authority
- Interfaith Community Clinic
- Kinder Institute for Urban Research
- Legacy Community Health
- Liberty County Sheriff's Office
- LoneStar Family Health Center
- Montgomery County Food Bank
- Patient Care Intervention Center (PCIC)
- Pearland ISD School Board
- Prairie View A&M - College of Nursing
- Santa Maria Hostel, Inc.
- Texas House of Representatives - District 29
- The Harris Center for Mental Health and IDD (MHMRA)

- Fort Bend Regional Council on Substance Abuse
- Fort Bend Seniors
- Fort Bend Women's Center
- Galveston County Health District
- Greater Houston Partnership
- Harris County Public Health
- Health Center of Southeast Texas - Shepherd (San Jacinto County)
- Health Centers for Schools
- The Meadows Mental Health Policy Institute
- The Rose
- TOMAGWA
- Tri-County Services Behavioral Healthcare
- United Way of Brazoria County
- United Way of Greater Houston
- United Way of Greater Houston - Montgomery County Center
- Waller County Judge's Office

The forty-seven KIIs took place between October 25, 2021, and February 11, 2022. Each of the 47 interviews was conducted via web conference. The questions focused on the interviewee's background and organization, the biggest perceived health needs and barriers of concern in the community, and the impact of health issues on the populations they serve. A list of the questions asked in the key informant interviews can be found in Appendix C.

Key Informant Analysis Results

Transcripts captured during the key informant interviews were uploaded to the web-based qualitative data analysis tool, Dedoose[2]. Interview excerpts were coded by relevant topic areas and key health themes. The approach used to assess the relative importance of the needs discussed in the interviews including the frequency by which a topic was described by the key informant as a barrier or challenge, and the frequency by which a topic was mentioned per interviewee. The following top themes emerged from the analysis of the transcripts:

KEY INFORMANT THEMES

Top Health Concerns/Issues	Social Determinants of Health	Impacted Populations
Inequitable access to health care is largely due to the Texas State legislature's decision not to expand Medicaid **Mental Health & Mental Disorders**: access to affordable care, limited inpatient psychiatric beds/providers/counselors, police intervention is not always positive (not trained in crisis intervention) **Substance Use Disorder:** limited treatment options, underfunding of services and lack of provider capacity	Food Insecurity Housing Lack of or Limited Insurance Transportation Built Environment Employment Homelessness Immunizations	Immigrant/Refugee Children Black/African American Latino/Hispanic Low-Income, those living in Poverty Women Homeless

[2] Dedoose Version 8.0.35, web application for managing, analyzing, and presenting qualitative and mixed method research data (2018). Los Angeles, CA: Sociocultural Research Consultants, LLC www.dedoose.com

Community Survey

Input from community residents was collected through an online survey. The survey consisted of 12 questions related to top health needs in the community, individuals' perception of their overall health, individuals' access to health care services, as well as demographic, social, and economic determinants of health. Conduent HCI built the online survey tool in Survey Monkey[3] and paper surveys were developed to mirror the online version. Online survey distribution included email outreach and social media posts. Both online and paper formats of the surveys were made available in English and Spanish. The community survey tool is included in Appendix B.

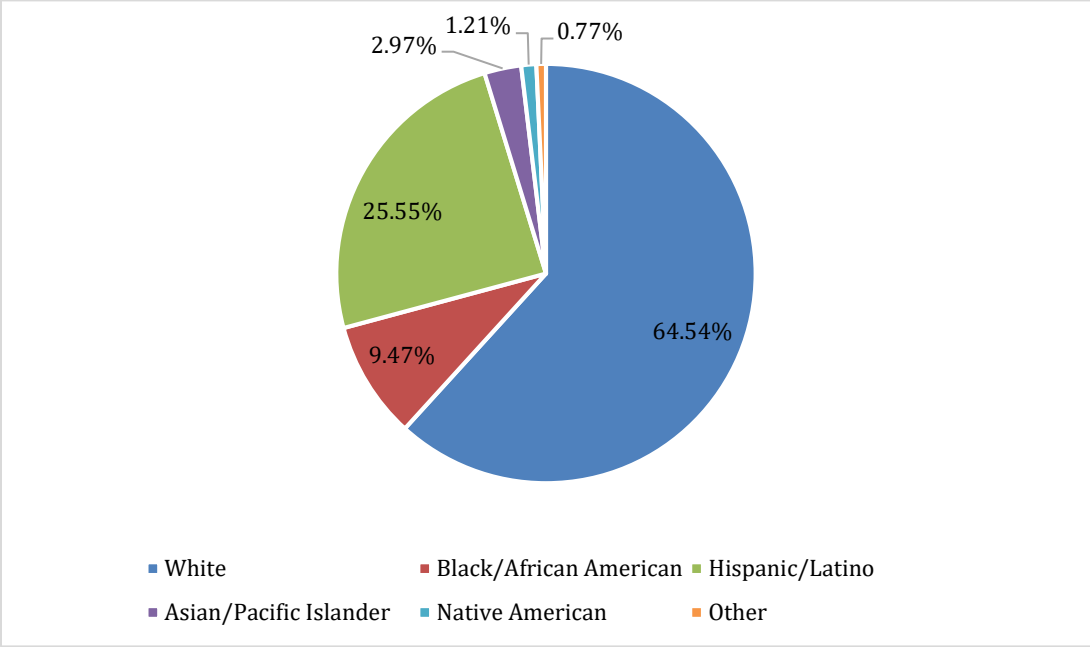
The community survey was promoted by all Memorial Hermann Health System Facilities and select community partners across the 12 counties that compose the health system's overall Primary Service Area from November 17, 2021, to January 28, 2022. A total of 1,056 responses were collected. The data in this section represents the overall survey responses.

Community Survey Analysis Results

The community survey response is a convenience sample and therefore the demographics of the community survey respondents are not an exact representation of the demographics of the population in the Memorial Hermann Primary Service Area. To adjust for this discrepancy, results were filtered by demographic variables – race, ethnicity, age, and geography – where possible. Any notable variations were included in the analysis process. For the purposes of this CHNA, the survey data that follows is based on an analysis of responses from community members residing in the Houston area, unless otherwise noted.

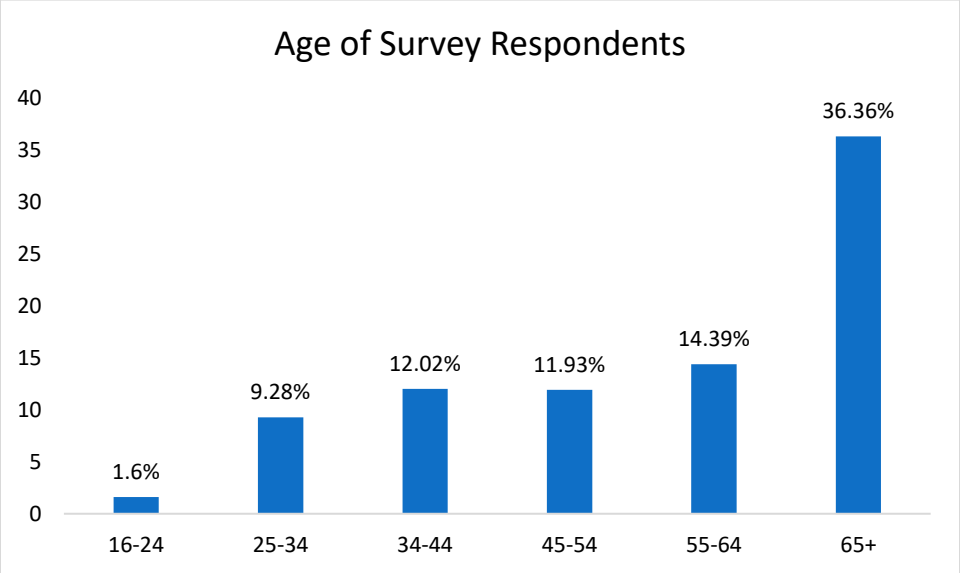
Surveys were completed in English and Spanish. There were 953 respondents who completed the survey in English and 103 completed in Spanish. **Figure 19** shows the race/ethnicity make-up of survey respondents. The largest proportion of respondents identified as White at 64.54%, followed by 25.55% as Hispanic or Latino, 9.47% as Black/African American, 2.97% as Asian/Pacific Islander, 1.21% as Native American, and 0.77% identified as Other (Mixed, Multi-racial).

Figure 19. Community Survey Race & Ethnicity



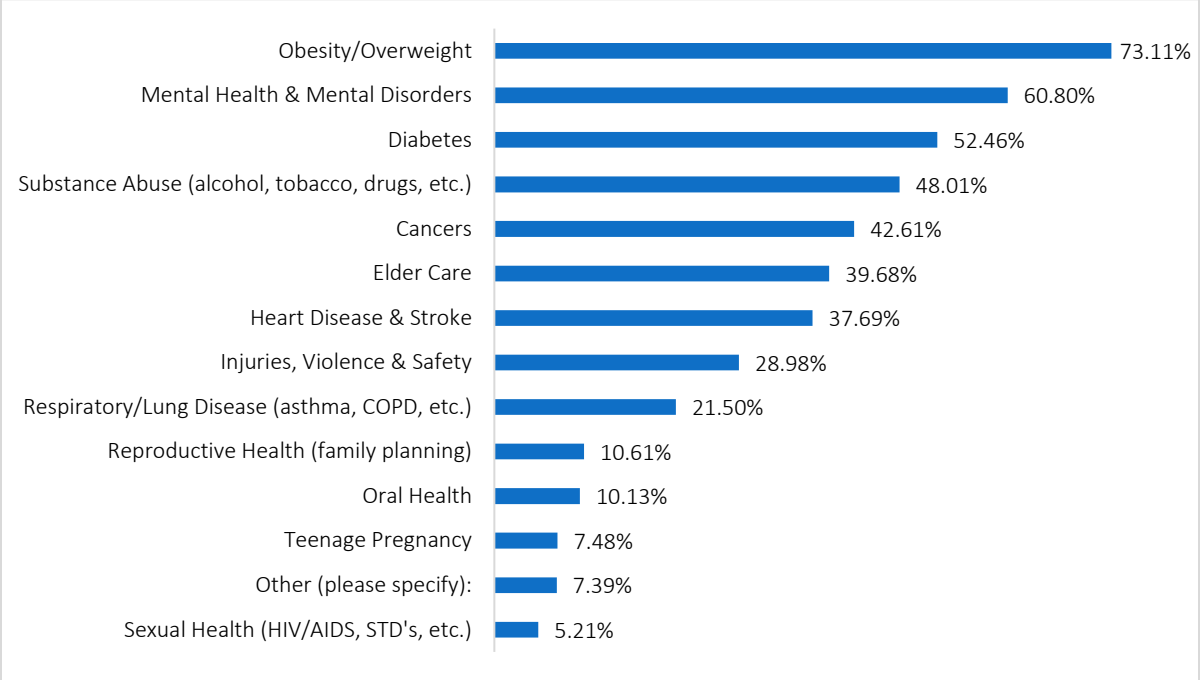
Survey respondents were asked their age. The largest age group ranged from 65 years and older, followed by 55-64 years (**Figure 20**).

Figure 20. Community Survey Age Ranges



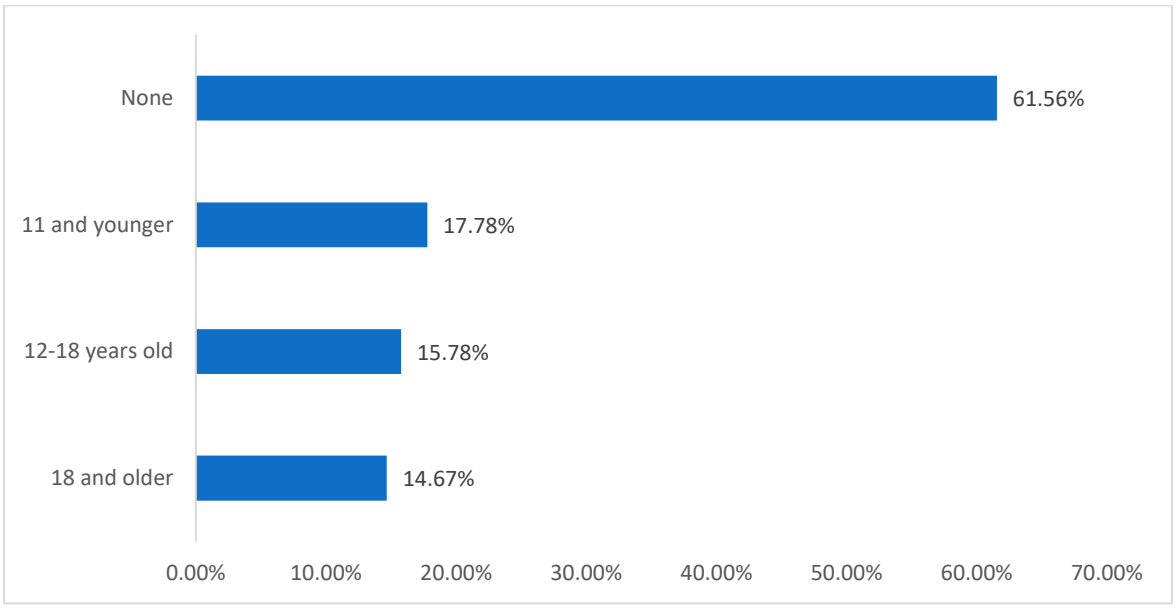
Survey respondents were asked to select the top issues most affecting the community's quality of life. As shown in **Figure 21**, the majority of respondents identified Obesity/Overweight (73.11%), Mental Health and Mental Disorders (60.80%), Diabetes (52.46%), Substance Abuse (alcohol, tobacco, drugs, etc.) (48.01%), and Cancers (42.61%). The survey included questions on the impact COVID-19 has had on the respondents and their community. Feedback on the impact of COVID-19 on the community is included in the *Covid-19 Impact Snapshot* of this report.

Figure 21. Issues Most Affecting Quality of Life



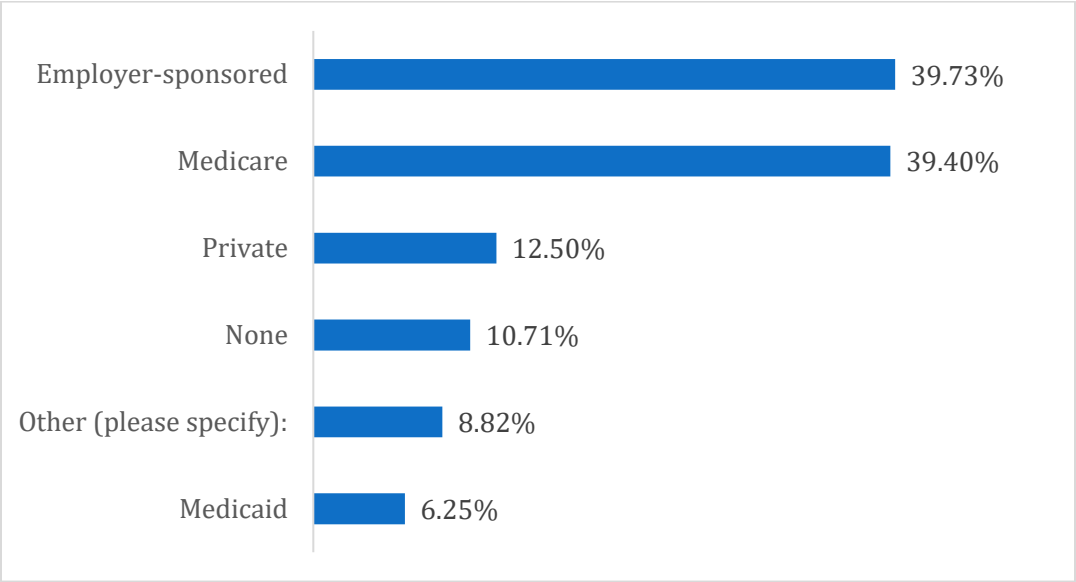
Survey respondents were asked about the ages of children living in the household. 61.56% of respondents indicated there were no children in the household, whereas 17.78% indicated 11 years and younger, 15.78% of respondents responded 12-18 years old, and 14.67%, 18 and older (**Figure 22**).

Figure 22. Ages of Children in Home



Survey respondents were asked about their medical insurance or coverage. As shown in **Figure 23**, 39.73% indicated Employer-sponsored, 39.40% Medicare, 12.50% Private Insurance, 10.71% None, 8.82% Other, and 6.25% Medicaid.

Figure 23. Type of Insurance/Coverage



Data Considerations

Conduent HCI and Memorial Hermann Health System made substantial efforts to comprehensively collect and analyze CHNA data. However, several limitations of the data should be considered when reviewing the findings presented in this report. Although the topics by which data are organized cover a wide range of health and health-related areas, within each topic there is a varying scope and depth of secondary data indicators and primary data findings.

Secondary Data

Regarding the secondary data, some health topic areas have a robust set of indicators, but for others, there may be a limited number of indicators for which data is available. Population health and demographic data are often delayed in their release, so data is presented for the most recent years available for any given data source. There is also variability in the geographic level at which data sets are available, ranging from census tract or zip code to statewide or national geographies. Whenever possible, the most relevant localized data is reported. Due to variations in geographic boundaries, population sizes, and data collection techniques for different locations (hospital Primary Service Areas, zip codes, and counties), some datasets are not available for the same time spans or at the same level of localization. The Index of Disparity[4], used to analyze the secondary data, is also limited by data availability. In some instances, there are no subpopulation data for some indicators, and for others, there are only values for a select number of race/ethnic groups. Finally, persistent gaps in data systems exist for certain community health issues.

Primary Data

For the primary data, the breadth of findings is dependent upon who was identified and agreed to be a key informant. Additionally, the community survey was a convenient sample, which means results may be vulnerable to selection bias and make the findings less generalizable. A limitation of the survey is that it was conducted in only two languages, English and Spanish.

For all data, efforts were made to include a wide range of secondary data indicators and community member expertise areas. Memorial Hermann Health System is committed to investigating strategies for addressing data system gaps for future assessment and implementation processes.

[4] Pearcy, J. & Keppel, K. (2002). A Summary Measure of Health Disparity. Public Health Reports, 117, 273-280.

Data Synthesis and Prioritization

To gain a comprehensive understanding of the significant health needs for Memorial Hermann Health System, the findings from both the primary data and the secondary data across all Primary Service Areas were compared and considered together. The secondary data, key informant interviews, and community survey were treated as three separate sources of data.

The top health needs identified from data sources were analyzed for areas of overlap. Primary data from the community survey, and key informant data as well as secondary data findings identified 15 areas of greater need.

Table 19 displays the results of this synthesis. For many of the health topics evidence of need was present across multiple data sources, including mental health, access to healthcare, diabetes, older adults, heart disease and stroke, physical activity, children's health, obesity/overweight, and substance abuse. For other health topics the evidence was present in just one source of data which may be reflective of the strengths and limitations of each type of data that was considered in this process.

Table 19. Data Synthesis Results

Health/Quality of Life Category	*Data Source(s)*
Mental Health and Mental Disorders	*Secondary Data, Community Survey, Key Informant Interviews*
Access to Healthcare	*Secondary Data, Community Survey, Key Informant Interviews*
Diabetes	*Secondary Data, Community Survey, Key Informant Interviews*
Older Adults/Elderly care	*Secondary Data, Community Survey, Key Informant Interviews*
Heart Disease & Stroke	Secondary Data, Community Survey
Physical Activity	Secondary Data, Key Informant Interviews
Children's Health	Secondary Data, Key Informant Interviews
Obesity/Overweight	Community survey, Key Informant Interviews
Substance Abuse (alcohol, tobacco, drugs)	Secondary Data, Key Informant Interviews
Wellness & Lifestyle	Secondary Data
Oral Health	Secondary Data
Women's Health	Secondary Data
Cancers	Survey
Injuries, Violence & Safety	Survey
Respiratory/Lung Disease (asthma, COPD, etc.)	Survey

Prioritization

To prioritize significant health needs and to better target activities to address the most pressing health needs in the community, Memorial Hermann convened a group of hospital leaders who participated in an online webinar session. One session was scheduled March 8, 2022, and a second session on March 10, 2022. Each session consisted of an overview of data results and synthesis.

Process

In February 2021, over 100 hospital leaders were invited to an on-line session to prioritize the key health needs for the 2022-2025 CHNA. On March 8th and 10th, eighty participants reviewed and discussed the results of HCI's primary and secondary data analyses leading to the preliminary significant health needs. (These health needs are discussed in detail in the key health needs portion of this report.) Following the session, participants were given three days to access an online link to score each of the significant health needs by how well they met the criteria set forth by HCI and the Memorial Hermann Health System. Forty-eight participants submitted feedback. Of the forty-eight, some submissions represented multiple hospital leadership feedback.

The criteria for prioritization included:

- Ability to Impact: the perceived likelihood of positive impact on each health issue
- Scope & Severity: their gauge on the magnitude of each health issue

The group also agreed that root causes, disparities, and social determinants of health should be considered for all prioritized health topics resulting from prioritization.

Participants scored each health area against each criterion on a scale from 1to 3 with 1 meaning it did not meet the given criterion, 2 meaning it met the criterion, and 3 meaning it strongly met the criterion. In addition to considering the data presented by HCI in the presentation and on the health topic note sheet, participants were encouraged to use their own judgment and knowledge of the community in considering how well a health topic met the criteria.

Completion of the online exercise resulted in a numerical score for each health need that correlated with how well that need met the criteria for prioritization. HCI downloaded the online results, calculated the scores, and then ranked the significant health needs according to their topic scores. The highest scoring health needs received the highest priority ranking. Results were shared with the Memorial Hermann Community Benefit team and approval was received for the ranked health needs. **Table 20** are the results of prioritization combined scores from both criteria, Ability to Impact and Scope and Severity. Fifteen health topics were considered.

Table 20. Ability to Impact & Scope & Severity Results

Diabetes	58.33 %
Heart Disease & Stroke	55.21 %
Obesity/Overweight	50.00 %
Mental Health and Mental Disorders	50.00 %
Access to Healthcare	40.63 %
Older Adults/Elderly care	38.55 %
Women's Health	38.54 %
Cancers	34.38 %
Children's Health	28.13 %
Respiratory/Lung Disease (asthma, COPD, etc.)	26.04 %
Wellness & Lifestyle	21.88 %
Substance abuse (alcohol, tobacco, drugs, etc.)	20.84 %
Injuries, Violence & Safety	19.79 %
Physical Activity	16.67 %
Oral Health	1.04 %

These health topics are aligned with Memorial Hermann's strategic focus areas, the four pillars which are illustrated in **Figure 24**. Each of the intersecting pillars connect to each other through various points in Memorial Hermann programs and initiatives advancing the health of the community. Memorial Hermann Community Benefit team took both the results and strategic focus areas into consideration to determine final health priorities as presented in **Table 21**.

Figure 24. Memorial Hermann Health System Four Pillars for Community Health

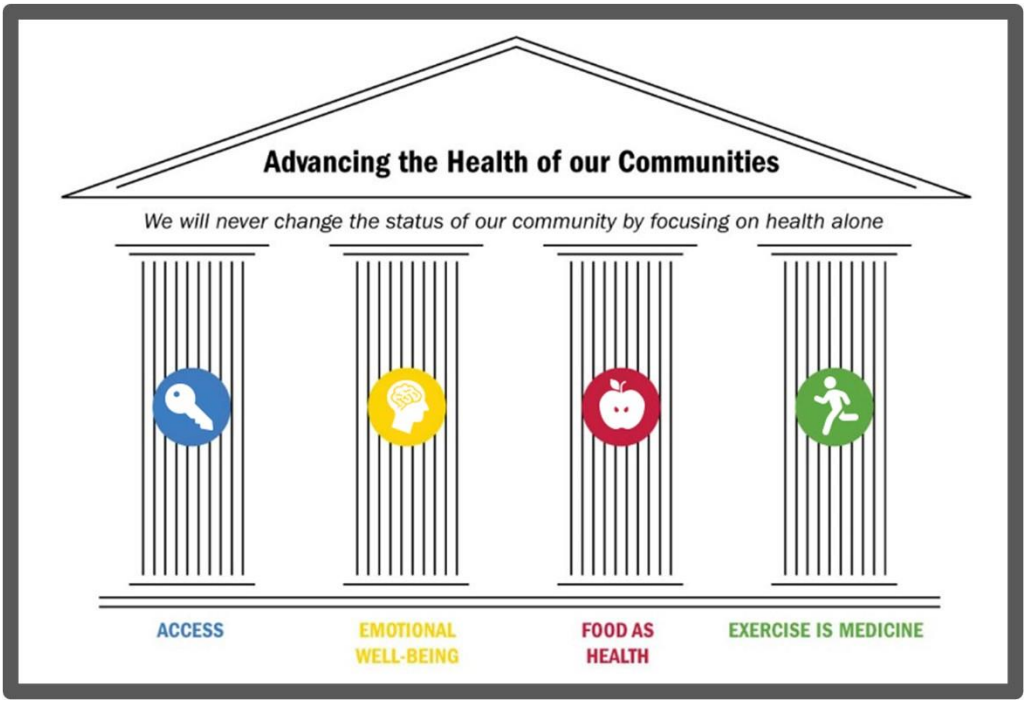


Table 21. 2022-2025 Prioritized Health Needs

Pillars	Memorial Hermann Health System (MHHS) Prioritized Health Needs
Access:	Addressing Access to Healthcare
Emotional Well-Being:	Addressing Mental Health and Mental Disorders
Food as Health:	Addressing Diabetes, Heart Disease & Stroke, Obesity/Overweight
Exercise is Medicine:	Addressing Diabetes, Heart Disease & Stroke, Obesity/Overweight

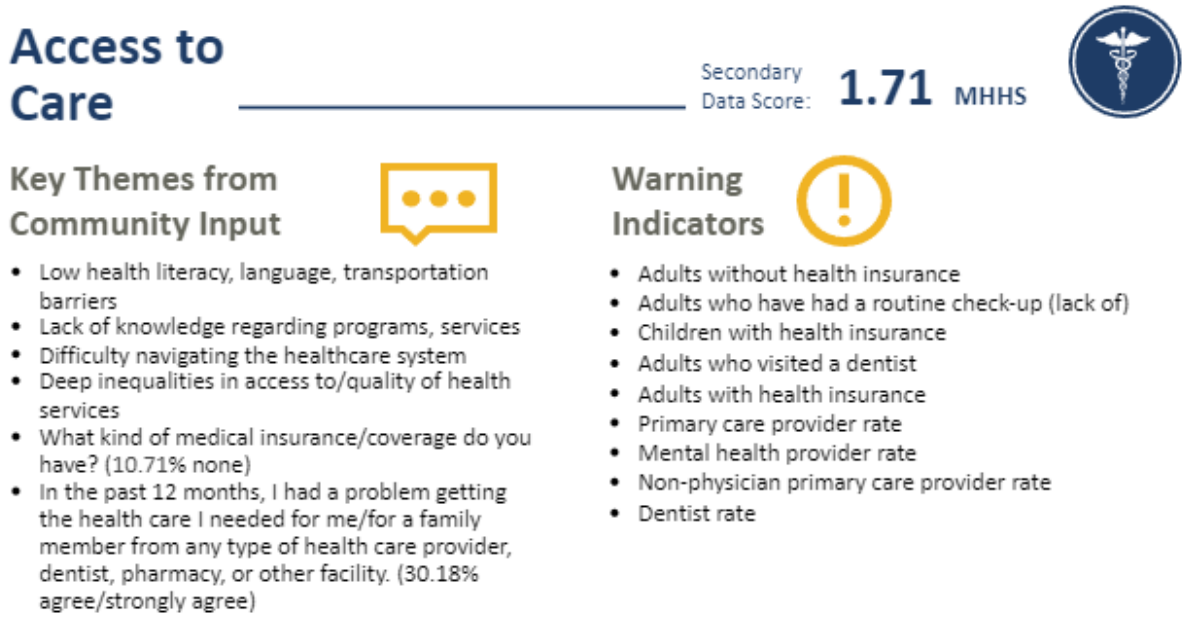
These will be explored further in order to understand how findings from the secondary and primary data analysis resulted in each issue being a high priority health need for Memorial Hermann Health System.

Prioritized Significant Health Needs

The following section provides a deeper look into each of the community health needs to understand how findings from secondary and primary data led to the health topic becoming a significant need. Secondary data scoring is presented at the Memorial Hermann System (MHHS) level. The five health needs are presented in rank order.

Pillar: Access

Prioritized Health Topic #1: Access to Care



Secondary Data

Based on the secondary data scoring results, Access to Healthcare was identified as a top health need. This health topic includes data on health insurance coverage, provider rates, and healthcare utilization. Using HCI's Secondary Data scoring technique, analysis was done to identify specific indicators of concern across the counties. Individual indicators with high data scores within a topic area were categorized as indicators of concern and are listed in **Table 22** below.

Table 22. Access to Care

	County			County Value Compared to:			
Indicator	Name	Value	Data Score	TX Value	U.S. Value	HP2030 Target	Trend Over Time
Adults with Health	Austin	#N/A	#N/A				-
	Brazoria	81 percent	1.5	75.5	87.1	-	-
	Chambers	#N/A	#N/A				-

Insurance, 2019	Fort Bend	82.5 percent	1.5	75.5	87.1	-	-
	Galveston	81 percent	1.5	75.5	87.1	-	-
	Harris	71 percent	1.83	75.5	87.1	-	-
	Liberty	69.9 percent	1.83	75.5	87.1	-	-
	Montgomery	81 percent	1.5	75.5	87.1	-	-
	San Jacinto	#N/A	#N/A				-
	Walker	88.1 percent	1.17	75.5	87.1	-	-
	Waller	#N/A	#N/A				-
	Wharton	#N/A	#N/A				-
Children with Health Insurance, 2019	Austin	#N/A	#N/A				-
	Brazoria	90 percent	1.5	87.3	94.3	-	-
	Chambers	#N/A	#N/A				-
	Fort Bend	90.9 percent	1.5	87.3	94.3	-	-
	Galveston	88.9 percent	1.5	87.3	94.3	-	-
	Harris	85 percent	1.67	87.3	94.3	-	-
	Liberty	82 percent	1.83	87.3	94.3	-	-
	Montgomery	90.9 percent	1.5	87.3	94.3	-	-
	San Jacinto	#N/A	#N/A				-
	Walker	88 percent	1.5	87.3	94.3	-	-
	Waller	#N/A	#N/A				-
	Wharton	#N/A	#N/A				-
Source: American Community Survey 5 year							
Adults who have had a Routine Checkup, 2018	Austin	75 percent	1.58	-	76.7	-	-
	Brazoria	73.2 percent	1.92	-	76.7	-	-
	Chambers	72.2 percent	2.08	-	76.7	-	-
	Fort Bend	74.5 percent	1.58	-	76.7	-	-
	Galveston	74.9 percent	1.58	-	76.7	-	-
	Harris	73 percent	1.92	-	76.7	-	-
	Liberty	72.3 percent	1.92	-	76.7	-	-
	Montgomery	73.6 percent	1.92	-	76.7	-	-
	San Jacinto	75.4 percent	1.42	-	76.7	-	-
	Walker	72.8 percent	1.92	-	76.7	-	-
	Waller	73.8 percent	1.92	-	76.7	-	-
	Wharton	74.6 percent	1.58	-	76.7	-	-

Adults without Health Insurance, 2018	Austin	24.3 percent	1.92	-	12.2	-	-
	Brazoria	23.6 percent	1.92	-	12.2	-	-
	Chambers	23.4 percent	1.92	-	12.2	-	-
	Fort Bend	20 percent	1.75	-	12.2	-	-
	Galveston	23.4 percent	1.92	-	12.2	-	-
	Harris	28.9 percent	2.08	-	12.2	-	-
	Liberty	28.6 percent	2.08	-	12.2	-	-
	Montgomery	21.9 percent	1.75	-	12.2	-	-
	San Jacinto	24.7 percent	1.92	-	12.2	-	-
	Walker	25.7 percent	1.92	-	12.2	-	-
	Waller	27.3 percent	2.08	-	12.2	-	-
	Wharton	30.5 percent	2.08	-	12.2	-	-
Source: CDC - PLACES							
Non-Physician Primary Care Provider Rate, 2020	Austin	56.6 providers/ 100,000 population	1.33	88.6	-	-	Increasing, Significant
	Brazoria	64.9 providers/ 100,000 population	1.33	88.6	-	-	Increasing, Significant
	Chambers	61.6 providers/ 100,000 population	1.33	88.6	-	-	Increasing, Non-Significant
	Fort Bend	71.1 providers/ 100,000 population	1.33	88.6	-	-	Increasing, Significant
	Galveston	91.8 providers/ 100,000 population	0.67	88.6	-	-	Increasing, Significant
	Harris	97.9 providers/ 100,000 population	0.5	88.6	-	-	Increasing, Significant
	Liberty	37.4 providers/ 100,000 population	2.39	88.6	-	-	Decreasing, Non-Significant
	Montgomery	72.9 providers/	1.33	88.6	-	-	Increasing, Significant

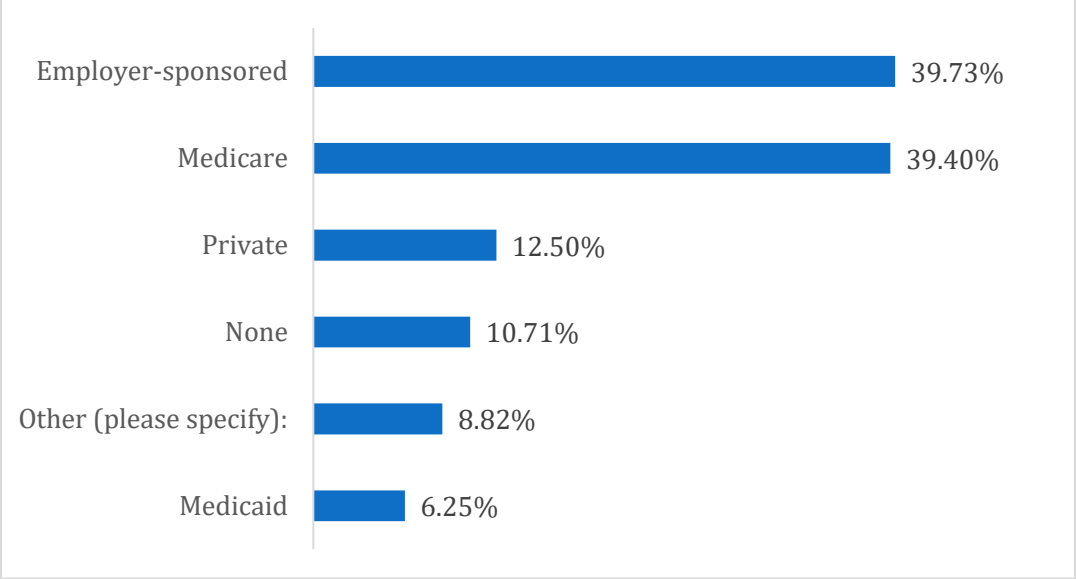
		100,000 population					
	San Jacinto	10.4 providers/ 100,000 population	2.11	88.6	-	-	Increasing, Non-Significant
	Walker	53.5 providers/ 100,000 population	1.5	88.6	-	-	Increasing, Significant
	Waller	3.6 providers/ 100,000 population	2.39	88.6	-	-	No Change
	Wharton	77 providers/ 100,000 population	1.33	88.6	-	-	Increasing, Significant
Primary Care Provider Rate, 2018	Austin	16.7 providers/ 100,000 population	2.67	60.9	-	-	Decreasing, Non-Significant
	Brazoria	62.9 providers/ 100,000 population	1.22	60.9	-	-	Decreasing, Non-Significant
	Chambers	14.1 providers/ 100,000 population	2.25	60.9	-	-	Increasing, Non-Significant
	Fort Bend	85.9 providers/ 100,000 population	0.33	60.9	-	-	Increasing, Non-Significant
	Galveston	75.8 providers/ 100,000 population	0.61	60.9	-	-	Increasing, Non-Significant
	Harris	58.5 providers/ 100,000 population	1.11	60.9	-	-	Increasing, Non-Significant
	Liberty	23.2 providers/ 100,000 population	2.22	60.9	-	-	Decreasing, Non-Significant
	Montgomery	59.7 providers/ 100,000 population	1.39	60.9	-	-	Decreasing, Non-Significant
	San Jacinto	7 providers/ 100,000 population	2.67	60.9	-	-	Decreasing, Non-Significant

	Walker	29 providers/ 100,000 population	2.22	60.9	-	-	Decreasing, Non-Significant
	Waller	13.2 providers/ 100,000 population	2.11	60.9	-	-	Increasing, Non-Significant
	Wharton	33.6 providers/ 100,000 population	2.33	60.9	-	-	Decreasing, Non-Significant
Source: County Health Rankings							

Primary Data

Access to Care was a top health need identified in the overall community survey responses and key informant interviews. Barriers included literacy, language, knowledge of services and programs, navigating the healthcare system, technology, fear, transportation, cost (health care services being too expensive or could not pay), insurance not accepted, hours of operation did not fit the schedule, and wait time to see a doctor or health provider. As shown in **Figure 25**, 39.73% indicated Employer-sponsored, 39.40% Medicare, 12.50% Private Insurance, 10.71% None, 8.82% Other, and 6.25% Medicaid.).

Figure 25. Type of Insurance/Coverage



During the key informant interview process, some barriers or challenges were low health literacy, language, uninsured/underinsured populations, and access to specialty care. Other additional barriers or challenges stood out as key factors, including inequitable access to health care largely due to the Texas State legislature decision not to expand Medicaid, food insecurity, and transportation.

"When I look at access, I just don't mean having a physician or practitioner to go to, but the ability to have transportation to get there. The ability to have resources. If you need childcare so you can get to the doctor. There is not just one thing with access, it's everything, … I've been working in communities probably for 35 years and often it's not just the access, but it's …getting there or whether or not you're employed or where you live and housing its environment that you're living in its nutrition. It's multifaceted." – Key Informant Participant

Pillar: Emotional Well-Being

Prioritized Health Topic #2: Mental Health and Mental Disorders

Mental Health & Mental Disorders

Secondary Data Score: **1.48** MHHS

Key Themes from Community Input

- Access to affordable mental health services
- Limited mental health care providers/counselors
- Significant shift in the number of people acknowledging mental health issues
- Increase in teen suicide
- I don't know where to get services for myself when I am sad, depressed, or need someone to talk to (28.80% Agree/Strongly Agree)

Warning Indicators

- Alzheimer's Disease or Dementia: Medicare population
- Poor mental health: 14+ days
- Age-adjusted death rate due to Alzheimer's Disease
- Frequent mental distress
- Poor mental health: average number of days
- Depression: Medicare population
- Age-adjusted death rate due to suicide
- Mental health provider rate

Secondary Data

Based on the secondary data scoring results, Mental Health & Mental Disorders was identified as a top health need. This health topic includes data on Alzheimer's Disease/Dementia in the Medicare population and Poor Mental Health: 14+ days. Using HCI's Secondary Data scoring technique, analysis was done to identify specific indicators of concern across the counties. Individual indicators with high data scores within a topic area were categorized as indicators of concern and are listed in **Table 23** below.

Table 23. Mental Health and Mental Disorders Indicators

	County			County Value Compared to:			
Indicator	**Name**	**Value**	**Data Score**	**TX Value**	**U.S. Value**	**HP2030 Target**	**Trend Over Time**
Poor Mental Health: 14+ Days, 2018	Austin	13.1 percent	1.25	-	12.7	-	-
	Brazoria	12.3 percent	0.92	-	12.7	-	-
	Chambers	14.1 percent	1.58	-	12.7	-	-
	Fort Bend	10.6 percent	0.75	-	12.7	-	-
	Galveston	13.4 percent	1.25	-	12.7	-	-
	Harris	13 percent	1.25	-	12.7	-	-
	Liberty	16 percent	2.25	-	12.7	-	-
	Montgomery	12.6 percent	0.92	-	12.7	-	-
	San Jacinto	15.3 percent	2.08	-	12.7	-	-
	Walker	15.3 percent	2.08	-	12.7	-	-
	Waller	15.4 percent	2.08	-	12.7	-	-
	Wharton	14.6 percent	1.92	-	12.7	-	-
Source: CDC - PLACES							
Age-Adjusted Death Rate due to Suicide, 2017-2019	Austin	24.5 deaths/ 100,000 population	2.47	13.5	14.1	12.8	Increasing, Non-Significant
	Brazoria	13.4 deaths/ 100,000 population	1.53	13.5	14.1	12.8	Increasing, Significant
	Chambers	#N/A	#N/A	-	-	-	-
	Fort Bend	10.6 deaths/ 100,000 population	0.81	13.5	14.1	12.8	Increasing, Non-Significant
	Galveston	15.4 deaths/ 100,000 population	1.69	13.5	14.1	12.8	Decreasing, Non-Significant
	Harris	10.6 deaths/ 100,000 population	0.81	13.5	14.1	12.8	Increasing, Non-Significant
	Liberty	19.4 deaths/ 100,000 population	2.31	13.5	14.1	12.8	Increasing, Non-Significant

	Montgomery	16.2 deaths/ 100,000 population	2.14	13.5	14.1	12.8	Increasing, Non-Significant
	San Jacinto	#N/A	#N/A	-	-	-	-
	Walker	11 deaths/ 100,000 population	0.53	13.5	14.1	12.8	Decreasing, Non-Significant
	Waller	#N/A	#N/A	-	-	-	-
	Wharton	14.9 deaths/ 100,000 population	1.83	13.5	14.1	12.8	-
Depression: Medicare Population, 2018	Austin	14.7 percent	0.64	18.2	18.4	-	Increasing, Non-Significant
	Brazoria	16.4 percent	1.14	18.2	18.4	-	Increasing, Non-Significant
	Chambers	17 percent	1.58	18.2	18.4	-	Increasing, Significant
	Fort Bend	13.8 percent	0.92	18.2	18.4	-	Increasing, Significant
	Galveston	18.5 percent	1.83	18.2	18.4	-	No Change
	Harris	16.1 percent	0.97	18.2	18.4	-	Increasing, Non-Significant
	Liberty	18.3 percent	1.81	18.2	18.4	-	Increasing, Non-Significant
	Montgomery	17 percent	1.58	18.2	18.4	-	Increasing, Significant
	San Jacinto	17.6 percent	1.19	18.2	18.4	-	Decreasing, Non-Significant
	Walker	15.6 percent	0.97	18.2	18.4	-	Increasing, Non-Significant
	Waller	15.6 percent	0.97	18.2	18.4	-	Increasing, Non-Significant
	Wharton	14.9 percent	0.64	18.2	18.4	-	Increasing, Non-Significant
Source: Centers for Disease Control and Prevention							
Frequent Mental Distress, 2018	Austin	13.8 percent	1.5	11.6	13	-	-
	Brazoria	12.3 percent	1	11.6	13	-	-
	Chambers	14 percent	1.67	11.6	13	-	-
	Fort Bend	10.6 percent	0.67	11.6	13	-	-
	Galveston	13.6 percent	1.5	11.6	13	-	-
	Harris	12.7 percent	1	11.6	13	-	-
	Liberty	16 percent	2.33	11.6	13	-	-
	Montgomery	12.7 percent	1	11.6	13	-	-
	San Jacinto	16.6 percent	2.33	11.6	13	-	-

	Walker	14.7 percent	1.83	11.6	13	-	-
	Waller	14.8 percent	1.83	11.6	13	-	-
	Wharton	15.1 percent	2.17	11.6	13	-	-
Mental Health Provider Rate, 2020	Austin	40 providers/ 100,000 population	1.94	120.9	-	-	Increasing, Non-Significant
	Brazoria	71.6 providers/ 100,000 population	1.33	120.9	-	-	Increasing, Significant
	Chambers	25.1 providers/ 100,000 population	1.94	120.9	-	-	Increasing, Non-Significant
	Fort Bend	74 providers/ 100,000 population	1.33	120.9	-	-	Increasing, Significant
	Galveston	114.6 providers/ 100,000 population	1	120.9	-	-	Increasing, Significant
	Harris	124.9 providers/ 100,000 population	0.67	120.9	-	-	Increasing, Significant
	Liberty	19.3 providers/ 100,000 population	1.83	120.9	-	-	Increasing, Non-Significant
	Montgomery	86.6 providers/ 100,000 population	1.17	120.9	-	-	Increasing, Significant
	San Jacinto	10.4 providers/ 100,000 population	2.11	120.9	-	-	Increasing, Non-Significant
	Walker	56.2 providers/ 100,000 population	1.33	120.9	-	-	Increasing, Significant
	Waller	27.2 providers/ 100,000 population	2.22	120.9	-	-	Decreasing, Non-Significant
	Wharton	43.3 providers/ 100,000 population	1.5	120.9	-	-	Increasing, Significant
	Austin	4.3 days	1.5	3.8	4.1	-	-

Poor Mental Health: Average Number of Days, 2018	Brazoria	4.1 days	1.17	3.8	4.1	-	-
	Chambers	4.4 days	1.5	3.8	4.1	-	-
	Fort Bend	3.4 days	0.5	3.8	4.1	-	-
	Galveston	4.3 days	1.5	3.8	4.1	-	-
	Harris	4 days	1	3.8	4.1	-	-
	Liberty	4.9 days	2.33	3.8	4.1	-	-
	Montgomery	3.8 days	1	3.8	4.1	-	-
	San Jacinto	5.1 days	2.33	3.8	4.1	-	-
	Walker	4.5 days	1.67	3.8	4.1	-	-
	Waller	4.5 days	1.83	3.8	4.1	-	-
	Wharton	4.7 days	2	3.8	4.1	-	-
Source: County Health Rankings							

	County			County Value Compared to:			
Indicator	**Name**	**Value**	**Data Score**	**TX Value**	**U.S. Value**	**HP2030 Target**	**Trend Over Time**
Age-Adjusted Death Rate due to Alzheimer's Disease, 2017-2019	Austin	17.9 deaths/ 100,000 population	0.08	38.5	30.5	-	-
	Brazoria	42.1 deaths/ 100,000 population	2	38.5	30.5	-	No Change
	Chambers	37.1 deaths/ 100,000 population	1.67	38.5	30.5	-	No Change
	Fort Bend	29 deaths/ 100,000 population	0.69	38.5	30.5	-	Decreasing, Non-Significant
	Galveston	37.2 deaths/ 100,000 population	2.08	38.5	30.5	-	Increasing, Significant
	Harris	30.9 deaths/ 100,000 population	1.14	38.5	30.5	-	Increasing, Non-Significant
	Liberty	39.9 deaths/ 100,000 population	1.69	38.5	30.5	-	Decreasing, Non-Significant
	Montgomery	33.9 deaths/ 100,000 population	1.19	38.5	30.5	-	Decreasing, Non-Significant

	San Jacinto	26.7 deaths/ 100,000 population	0.67	38.5	30.5	-	No Change
	Walker	25.5 deaths/ 100,000 population	0.36	38.5	30.5	-	Decreasing, Non-Significant
	Waller	28.6 deaths/ 100,000 population	0.97	38.5	30.5	-	Increasing, Non-Significant
	Wharton	16.1 deaths/ 100,000 population	0.36	38.5	30.5	-	Decreasing, Non-Significant
Source: Centers for Disease Control and Prevention							
Alzheimer's Disease or Dementia: Medicare Population, 2018	Austin	10 percent	0.83	12.6	10.8	-	No Change
	Brazoria	11.8 percent	1.81	12.6	10.8	-	Increasing, Non-Significant
	Chambers	11.6 percent	1.53	12.6	10.8	-	Decreasing, Non-Significant
	Fort Bend	11.9 percent	1.97	12.6	10.8	-	Increasing, Non-Significant
	Galveston	12.1 percent	1.97	12.6	10.8	-	Increasing, Non-Significant
	Harris	12.4 percent	2.14	12.6	10.8	-	Increasing, Non-Significant
	Liberty	11.7 percent	1.81	12.6	10.8	-	Increasing, Non-Significant
	Montgomery	11.4 percent	1.81	12.6	10.8	-	Increasing, Non-Significant
	San Jacinto	11.4 percent	1.81	12.6	10.8	-	Increasing, Non-Significant
	Walker	11.6 percent	1.81	12.6	10.8	-	Increasing, Non-Significant
	Waller	11.6 percent	1.81	12.6	10.8	-	Increasing, Non-Significant
	Wharton	13.6 percent	2.75	12.6	10.8	-	Increasing, Significant
Source: Centers for Medicare & Medicaid Services							

Primary Data

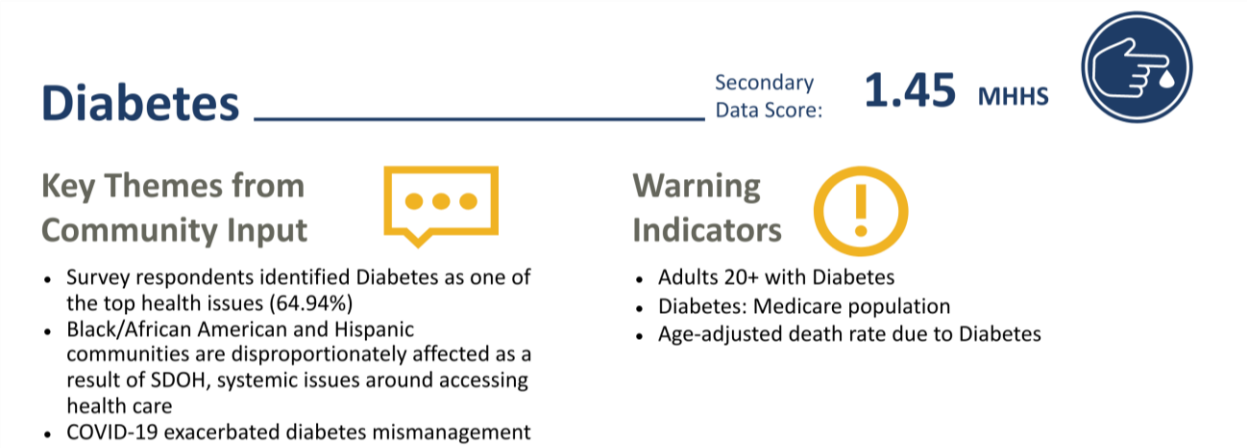
Mental Health and Mental Disorders were identified as top health issues in the survey and key informant interviews. When survey respondents were asked what were the top five most affecting their quality of life, 60.80% indicated mental health and mental disorders. When survey respondents were asked how much they agree or disagree with the following statement, "I don't know where to get services for myself when I am sad, depressed or need someone to talk to," 71.20% disagreed or strongly disagreed with the statement.

Key informant participants discussed the continued need to address mental health as part of a holistic approach similar to how chronic disease is managed. Some particularly vulnerable populations that would benefit from a broader approach to treatment, inclusive of mental health, are immigrants, Black/African American and Hispanic, and the homeless. Several participants mentioned issues regarding a need for more behavioral health providers and services in the community. Participants always discussed the need to reduce mental health stigma and trust.

"What I will say is that people need to be more comfortable when exploring the idea of getting support and help. We are not quite there yet, and it goes back to the trust gap." -Key informant participant

Pillars: Food as Health & Exercise is Medicine

Prioritized Health Topic #3-5: Diabetes, Heart Disease & Stroke, Obesity/Overweight



Secondary Data

Diabetes was identified as a significant health need, with a topic score of 1.45. Further analysis was done to identify specific indicators of concern and those with high data scores are listed in **Table 24**, specifically Adults 20+ with Diabetes and individuals in the Medicare population with diabetes.

Table 24. Diabetes Indicators

	County			County Value Compared to:			
Indicator	Name	**Value**	Data Score	TX Value	U.S. Value	HP2030 Target	Trend Over Time
Adults 20+ with Diabetes, 2019	Austin	8.5 percent	1.83	-	-	-	No Change
	Brazoria	11.7 percent	2.14	-	-	-	Increasing, Non-Significant
	Chambers	7.8 percent	1.5	-	-	-	No Change
	Fort Bend	10.2 percent	2.14	-	-	-	Increasing, Non-Significant
	Galveston	11.4 percent	2.14	-	-	-	Increasing, Non-Significant

	Harris	10.2 percent	2	-	-	-	No Change
	Liberty	8.4 percent	1.25	-	-	-	Decreasing, Significant
	Montgomery	9.3 percent	1.97	-	-	-	Increasing, Non-Significant
	San Jacinto	8.3 percent	1.53	-	-	-	Decreasing, Non-Significant
	Walker	10.3 percent	1.86	-	-	-	Decreasing, Non-Significant
	Waller	8.6 percent	1.69	-	-	-	Decreasing, Non-Significant
	Wharton	9.7 percent	1.86	-	-	-	Decreasing, Non-Significant
Age-Adjusted Death Rate due to Diabetes, 2017-2019	Austin	25.9 deaths/ 100,000 population	2.31	22	21.5	-	Increasing, Non-Significant
	Brazoria	17.3 deaths/ 100,000 population	0.92	22	21.5	-	Increasing, Significant
	Chambers	#N/A	#N/A				-
	Fort Bend	14.7 deaths/ 100,000 population	0.92	22	21.5	-	Increasing, Significant
	Galveston	14.9 deaths/ 100,000 population	0.64	22	21.5	-	Increasing, Non-Significant
	Harris	20.4 deaths/ 100,000 population	1.17	22	21.5	-	No Change
	Liberty	19.9 deaths/ 100,000 population	1.03	22	21.5	-	Decreasing, Non-Significant
	Montgomery	13.3 deaths/ 100,000 population	0.36	22	21.5	-	Decreasing, Non-Significant
	San Jacinto	22.7 deaths/ 100,000 population	1.5	22	21.5	-	-
	Walker	17.9 deaths/ 100,000 population	0.08	22	21.5	-	Decreasing, Significant
	Waller	24.4 deaths/ 100,000 population	2	22	21.5	-	No Change
	Wharton	26.2 deaths/ 100,000 population	2.03	22	21.5	-	Decreasing, Non-Significant

Diabetes: Medicare Population, 2018	Austin	25.8 percent	0.97	28.8	27	-	Increasing, Non-Significant
	Brazoria	30.2 percent	2.31	28.8	27	-	Increasing, Non-Significant
	Chambers	29.5 percent	1.83	28.8	27	-	No Change
	Fort Bend	30.8 percent	2.03	28.8	27	-	Decreasing, Non-Significant
	Galveston	28.1 percent	1.64	28.8	27	-	Increasing, Non-Significant
	Harris	28.7 percent	1.67	28.8	27	-	No Change
	Liberty	30.7 percent	2.03	28.8	27	-	Decreasing, Non-Significant
	Montgomery	25.5 percent	0.97	28.8	27	-	Increasing, Non-Significant
	San Jacinto	29.3 percent	1.69	28.8	27	-	Decreasing, Non-Significant
	Walker	28.5 percent	1.64	28.8	27	-	Increasing, Non-Significant
	Waller	29.5 percent	1.69	28.8	27	-	Decreasing, Non-Significant
	Wharton	30.9 percent	2.47	28.8	27	-	Increasing, Non-Significant
Source: Centers for Disease Control and Prevention							

Primary Data

Diabetes is a serious, costly, and growing health problem in Greater Houston. When survey respondents were asked to list issues affecting their quality of life in the community, 52.46% of survey respondents listed diabetes. The key informant participants identified diabetes as one of the top health issues and specified that Black/African American and Hispanic communities struggled with diabetes more than other races/ethnicities in their communities. Participants also indicated that the cost of healthy foods, lack of places to exercise, culture, and stress contributed to increased rates of diabetes.

"One of the main things we see is when we interview our clients for financial/food assistance, they have to make tough decisions…can I afford my BP (Blood Pressure) or diabetes medications and if I do, will I be able to afford to pay my electric bill?" -Key Informant Participant

Heart Disease & Stroke

Secondary Data Score: **1.62** MHHS

Key Themes from Community Input

- Survey respondents indicated the following:
  - Heart Disease & Stroke was identified as one of the top health issues affecting quality of life (37.69%)
  - When asked if they have been told by their doctor that they had high cholesterol- (44.70%)
  - When asked if they have been told by their doctor that they had high blood pressure- (50.67%)

Warning Indicators

- Adults who have taken medications for high blood pressure
- Stroke: Medicare population
- Heart failure: Medicare population
- Age-adjusted death rate due to Cerebrovascular Disease (Stroke)
- Cholesterol test history
- Ischemic Heart Disease: Medicare population
- Hyperlipidemia: Medicare population
- Atrial Fibrillation: Medicare population
- Hypertension: Medicare population
- Age-adjusted death rate due to Heart Attack
- High cholesterol prevalence: adults 18+
- High blood pressure prevalence
- Adults who experienced a stroke
- Adults who experienced Coronary Heart Disease
- Age-adjusted death rate due to Coronary Heart Disease

Secondary Data

From the secondary data scoring results, heart disease and stroke were identified as a significant health need, with a topic score of 1.62. Further analysis was done to identify specific indicators of concern. Individual indicators with high data scores within the topic area were categorized as indicators of concern and are listed in **Table 25** below.

Table 25. Heart Disease and Stroke Indicators

	County			County Value Compared to:			
Indicator	Name	**Value**	Data Score	TX Value	U.S. Value	HP2030 Target	Trend Over Time
Adults who Experienced a Stroke, 2018	Austin	3.9 percent	1.58	-	3.4	-	-
	Brazoria	2.9 percent	0.75	-	3.4	-	-
	Chambers	3.2 percent	0.92	-	3.4	-	-
	Fort Bend	2.6 percent	0.75	-	3.4	-	-
	Galveston	3.3 percent	0.92	-	3.4	-	-
	Harris	3.2 percent	0.92	-	3.4	-	-
	Liberty	3.8 percent	1.58	-	3.4	-	-
	Montgomery	3 percent	0.75	-	3.4	-	-
	San Jacinto	5 percent	2.25	-	3.4	-	-
	Walker	3.5 percent	1.08	-	3.4	-	-
	Waller	3.3 percent	0.92	-	3.4	-	-
	Wharton	4.4 percent	1.92	-	3.4	-	-
Adults who Experienced Coronary Heart Disease, 2018	Austin	8.3 percent	1.58	-	6.8	-	-
	Brazoria	6 percent	0.75	-	6.8	-	-
	Chambers	6.7 percent	0.92	-	6.8	-	-
	Fort Bend	5.2 percent	0.75	-	6.8	-	-
	Galveston	6.7 percent	0.92	-	6.8	-	-
	Harris	6.2 percent	0.92	-	6.8	-	-
	Liberty	7.8 percent	1.58	-	6.8	-	-
	Montgomery	6.5 percent	0.92	-	6.8	-	-
	San Jacinto	10.7 percent	2.25	-	6.8	-	-
	Walker	7.2 percent	1.08	-	6.8	-	-
	Waller	6.6 percent	0.92	-	6.8	-	-
	Wharton	9 percent	1.92	-	6.8	-	-

Table 25. Heart Disease and Stroke Indicators continued.

Adults who Have Taken Medications for High Blood Pressure, 2017	Austin	77.8 percent	1.42	-	75.8	-	-
	Brazoria	73.5 percent	2.08	-	75.8	-	-
	Chambers	73.3 percent	2.08	-	75.8	-	-
	Fort Bend	74.6 percent	1.92	-	75.8	-	-
	Galveston	75 percent	1.92	-	75.8	-	-
	Harris	71.7 percent	2.08	-	75.8	-	-
	Liberty	74.6 percent	1.92	-	75.8	-	-
	Montgomery	72.2 percent	2.08	-	75.8	-	-
	San Jacinto	79.9 percent	1.08	-	75.8	-	-
	Walker	72.2 percent	2.08	-	75.8	-	-
	Waller	71.6 percent	2.08	-	75.8	-	-
	Wharton	77.5 percent	1.42	-	75.8	-	-
Cholesterol Test History, 2017	Austin	82.2 percent	0.92	-	81.5	-	-
	Brazoria	81.5 percent	1.25	-	81.5	-	-
	Chambers	79.3 percent	1.75	-	81.5	-	-
	Fort Bend	83.1 percent	0.92	-	81.5	-	-
	Galveston	80.8 percent	1.42	-	81.5	-	-
	Harris	79.5 percent	1.75	-	81.5	-	-
	Liberty	77.6 percent	2.08	-	81.5	-	-
	Montgomery	81.4 percent	1.42	-	81.5	-	-
	San Jacinto	80.8 percent	1.42	-	81.5	-	-
	Walker	75.8 percent	2.08	-	81.5	-	-
	Waller	77.4 percent	2.08	-	81.5	-	-
	Wharton	80 percent	1.58	-	81.5	-	-
High Blood Pressure Prevalence, 2017	Austin	38.1 percent	1.83	-	32.4	27.7	-
	Brazoria	32.9 percent	1.17	-	32.4	27.7	-
	Chambers	33.5 percent	1.17	-	32.4	27.7	-
	Fort Bend	32 percent	1	-	32.4	27.7	-
	Galveston	34.8 percent	1.33	-	32.4	27.7	-
	Harris	31 percent	1	-	32.4	27.7	-
	Liberty	36.6 percent	1.67	-	32.4	27.7	-
	Montgomery	34.5 percent	1.33	-	32.4	27.7	-
	San Jacinto	43.4 percent	2.33	-	32.4	27.7	-
	Walker	35.2 percent	1.5	-	32.4	27.7	-
	Waller	33.9 percent	1.33	-	32.4	27.7	-
	Wharton	38.8 percent	2	-	32.4	27.7	-
High Cholesterol Prevalence: Adults 18+, 2017	Austin	37.9 percent	1.75	-	34.1	-	-
	Brazoria	33.7 percent	0.92	-	34.1	-	-
	Chambers	34.6 percent	1.08	-	34.1	-	-
	Fort Bend	33.6 percent	0.92	-	34.1	-	-

	Galveston	35.7 percent	1.25	-	34.1	-	-
	Harris	34.9 percent	1.08	-	34.1	-	-
	Liberty	36.4 percent	1.42	-	34.1	-	-
	Montgomery	35.4 percent	1.25	-	34.1	-	-
	San Jacinto	41.5 percent	2.25	-	34.1	-	-
	Walker	33.4 percent	0.92	-	34.1	-	-
	Waller	33.5 percent	0.92	-	34.1	-	-
	Wharton	38.2 percent	1.75	-	34.1	-	-
Source: CDC - PLACES							
Age-Adjusted Death Rate due to Cerebrovascular Disease (Stroke), 2017-2019	Austin	27.5 deaths/ 100,000 population	0.28	40.2	37.2	33.4	Decreasing, Non-Significant
	Brazoria	39.7 deaths/ 100,000 population	1.28	40.2	37.2	33.4	Decreasing, Non-Significant
	Chambers	39.8 deaths/ 100,000 population	1.28	40.2	37.2	33.4	Decreasing, Non-Significant
	Fort Bend	32.3 deaths/ 100,000 population	0.33	40.2	37.2	33.4	Decreasing, Non-Significant
	Galveston	48.8 deaths/ 100,000 population	2.56	40.2	37.2	33.4	Increasing, Non-Significant
	Harris	40.6 deaths/ 100,000 population	1.75	40.2	37.2	33.4	No Change
	Liberty	51 deaths/ 100,000 population	2.44	40.2	37.2	33.4	Decreasing, Non-Significant
	Montgomery	37.6 deaths/ 100,000 population	1.28	40.2	37.2	33.4	Decreasing, Non-Significant
	San Jacinto	32.8 deaths/ 100,000 population	0.61	40.2	37.2	33.4	Increasing, Non-Significant
	Walker	42 deaths/ 100,000 population	1.78	40.2	37.2	33.4	Decreasing, Non-Significant
	Waller	27.8 deaths/ 100,000 population	0	40.2	37.2	33.4	Decreasing, Significant
	Wharton	54.3 deaths/ 100,000 population	3	40.2	37.2	33.4	Increasing, Significant
Age-Adjusted Death Rate due to Coronary Heart Disease, 2017-2019	Austin	112.4 deaths/ 100,000 population	1.94	93	90.5	71.1	Decreasing, Non-Significant
	Brazoria	100.6 deaths/ 100,000 population	2.33	93	90.5	71.1	Increasing, Significant

	Chambers	119.2 deaths/ 100,000 population	2.25	93	90.5	71.1	No Change
	Fort Bend	64.9 deaths/ 100,000 population	0.33	93	90.5	71.1	Decreasing, Non-Significant
	Galveston	84.3 deaths/ 100,000 population	1.22	93	90.5	71.1	Increasing, Non-Significant
	Harris	85.3 deaths/ 100,000 population	0.67	93	90.5	71.1	Decreasing, Significant
	Liberty	166.3 deaths/ 100,000 population	2.72	93	90.5	71.1	Increasing, Non-Significant
	Montgomery	77.6 deaths/ 100,000 population	0.39	93	90.5	71.1	Decreasing, Non-Significant
	San Jacinto	94.9 deaths/ 100,000 population	1.44	93	90.5	71.1	Decreasing, Non-Significant
	Walker	73.2 deaths/ 100,000 population	0.67	93	90.5	71.1	Increasing, Non-Significant
	Waller	124.9 deaths/ 100,000 population	2.56	93	90.5	71.1	Increasing, Non-Significant
	Wharton	110.4 deaths/ 100,000 population	2.22	93	90.5	71.1	Increasing, Non-Significant
Source: Centers for Disease Control and Prevention							
Atrial Fibrillation: Medicare Population, 2018	Austin	9.2 percent	2.47	7.8	8.4	-	Increasing, Non-Significant
	Brazoria	8.4 percent	1.81	7.8	8.4	-	Increasing, Non-Significant
	Chambers	8.8 percent	2	7.8	8.4	-	No Change
	Fort Bend	7.3 percent	1.42	7.8	8.4	-	Increasing, Significant
	Galveston	8.6 percent	1.97	7.8	8.4	-	Increasing, Non-Significant
	Harris	7.9 percent	1.47	7.8	8.4	-	Increasing, Non-Significant
	Liberty	8.6 percent	2.14	7.8	8.4	-	Increasing, Non-Significant
	Montgomery	9.8 percent	2.92	7.8	8.4	-	Increasing, Significant
	San Jacinto	8.9 percent	2.14	7.8	8.4	-	Increasing, Non-Significant
	Walker	9.9 percent	2.92	7.8	8.4	-	Increasing, Significant
	Waller	8.2 percent	1.53	7.8	8.4	-	Decreasing, Non-Significant
	Wharton	9 percent	2.31	7.8	8.4	-	Increasing, Non-Significant
Heart Failure: Medicare Population, 2018	Austin	14.4 percent	1.19	15.6	14	-	Decreasing, Non-Significant
	Brazoria	17.6 percent	2.31	15.6	14	-	Increasing, Non-Significant
	Chambers	17.7 percent	2.19	15.6	14	-	Decreasing, Non-Significant

	Fort Bend	14.5 percent	1.33	15.6	14	-	No Change
	Galveston	17.6 percent	2.19	15.6	14	-	Decreasing, Non-Significant
	Harris	16.2 percent	1.83	15.6	14	-	No Change
	Liberty	20.9 percent	2.5	15.6	14	-	No Change
	Montgomery	14.8 percent	1.47	15.6	14	-	Increasing, Non-Significant
	San Jacinto	19.3 percent	2.19	15.6	14	-	Decreasing, Non-Significant
	Walker	19.9 percent	2.64	15.6	14	-	Increasing, Non-Significant
	Waller	15.7 percent	1.42	15.6	14	-	Decreasing, Significant
	Wharton	19.3 percent	2.47	15.6	14	-	Increasing, Non-Significant
Hyperlipidemia: Medicare Population, 2018	Austin	49.4 percent	1.81	49.5	47.7	-	Increasing, Non-Significant
	Brazoria	49 percent	1.81	49.5	47.7	-	Increasing, Non-Significant
	Chambers	47.7 percent	1.81	49.5	47.7	-	Increasing, Non-Significant
	Fort Bend	51.1 percent	2.31	49.5	47.7	-	Increasing, Non-Significant
	Galveston	43.1 percent	1.14	49.5	47.7	-	Increasing, Non-Significant
	Harris	46.7 percent	1.64	49.5	47.7	-	Increasing, Non-Significant
	Liberty	46 percent	1.19	49.5	47.7	-	Decreasing, Non-Significant
	Montgomery	50.4 percent	1.97	49.5	47.7	-	Increasing, Non-Significant
	San Jacinto	49.6 percent	1.97	49.5	47.7	-	Increasing, Non-Significant
	Walker	46 percent	1.33	49.5	47.7	-	No Change
	Waller	49.5 percent	1.83	49.5	47.7	-	No Change
	Wharton	50.1 percent	1.83	49.5	47.7	-	No Change
Hypertension: Medicare Population, 2018	Austin	61.9 percent	1.83	59.9	57.2	-	No Change
	Brazoria	61.9 percent	1.97	59.9	57.2	-	Increasing, Non-Significant
	Chambers	61.6 percent	1.97	59.9	57.2	-	Increasing, Non-Significant
	Fort Bend	60.1 percent	1.81	59.9	57.2	-	Increasing, Non-Significant
	Galveston	59.3 percent	1.5	59.9	57.2	-	No Change
	Harris	57.9 percent	1.31	59.9	57.2	-	Increasing, Non-Significant
	Liberty	60.2 percent	1.67	59.9	57.2	-	No Change
	Montgomery	59.2 percent	1.92	59.9	57.2	-	Increasing, Significant
	San Jacinto	63.1 percent	2.31	59.9	57.2	-	Increasing, Non-Significant
	Walker	61.3 percent	2.25	59.9	57.2	-	Increasing, Significant
	Waller	62.4 percent	1.97	59.9	57.2	-	Increasing, Non-Significant
	Wharton	65.9 percent	2.5	59.9	57.2	-	No Change
Ischemic Heart Disease: Medicare Population, 2018	Austin	28.5 percent	1.64	29	26.8	-	Increasing, Non-Significant
	Brazoria	30.5 percent	1.86	29	26.8	-	Decreasing, Non-Significant
	Chambers	33.9 percent	2.19	29	26.8	-	Decreasing, Non-Significant
	Fort Bend	29.3 percent	1.81	29	26.8	-	Increasing, Non-Significant
	Galveston	29.7 percent	1.97	29	26.8	-	Increasing, Non-Significant
	Harris	29.2 percent	1.67	29	26.8	-	No Change
	Liberty	32.1 percent	2.19	29	26.8	-	Decreasing, Non-Significant
	Montgomery	28.4 percent	1.36	29	26.8	-	Decreasing, Non-Significant
	San Jacinto	31.7 percent	1.75	29	26.8	-	Decreasing, Significant

	Walker	30 percent	1.69	29	26.8	-	Decreasing, Non-Significant
	Waller	29.9 percent	1.69	29	26.8	-	Decreasing, Non-Significant
	Wharton	31.9 percent	1.92	29	26.8	-	Decreasing, Significant
Stroke: Medicare Population, 2018	Austin	4 percent	1.53	4.2	3.8	-	Decreasing, Non-Significant
	Brazoria	4.6 percent	2.03	4.2	3.8	-	Decreasing, Non-Significant
	Chambers	5.7 percent	2.64	4.2	3.8	-	Increasing, Non-Significant
	Fort Bend	4.6 percent	2.03	4.2	3.8	-	Decreasing, Non-Significant
	Galveston	4.5 percent	1.75	4.2	3.8	-	Decreasing, Significant
	Harris	4.7 percent	1.92	4.2	3.8	-	Decreasing, Significant
	Liberty	5.4 percent	2.36	4.2	3.8	-	Decreasing, Non-Significant
	Montgomery	4.5 percent	2.03	4.2	3.8	-	Decreasing, Non-Significant
	San Jacinto	5.6 percent	2.64	4.2	3.8	-	Increasing, Non-Significant
	Walker	4.8 percent	2.36	4.2	3.8	-	Decreasing, Non-Significant
	Waller	5.4 percent	2.36	4.2	3.8	-	Decreasing, Non-Significant
	Wharton	5.1 percent	2.64	4.2	3.8	-	Increasing, Non-Significant
Source: Centers for Medicare & Medicaid Services							
Age-Adjusted Death Rate due to Heart Attack, 2018	Austin	48.3 deaths/ 100,000 population 35+ years	1	70.1	-	-	No Change
	Brazoria	46 deaths/ 100,000 population 35+ years	0.58	70.1	-	-	Decreasing, Significant
	Chambers	#N/A	#N/A	-	-	-	-
	Fort Bend	46.6 deaths/ 100,000 population 35+ years	0.86	70.1	-	-	Decreasing, Non-Significant
	Galveston	46.2 deaths/ 100,000 population 35+ years	0.58	70.1	-	-	Decreasing, Significant
	Harris	51.1 deaths/ 100,000 population 35+ years	1.14	70.1	-	-	Increasing, Non-Significant
	Liberty	48.3 deaths/ 100,000 population 35+ years	1	70.1	-	-	No Change
	Montgomery	53.3 deaths/ 100,000 population 35+ years	1.14	70.1	-	-	Increasing, Non-Significant
	San Jacinto	67.7 deaths/ 100,000 population 35+ years	1.19	70.1	-	-	-

	Walker	45.6 deaths/ 100,000 population 35+ years	0.58	70.1	-	-	Decreasing, Significant
	Waller	43 deaths/ 100,000 population 35+ years	0.86	70.1	-	-	Decreasing, Non-Significant
	Wharton	59.9 deaths/ 100,000 population 35+ years	1.31	70.1	-	-	Increasing, Non-Significant
Source: National Environmental Public Health Tracking Network							

Primary Data

Heart disease and stroke were identified as top health issues in the community health survey. When participants were asked if they had ever had a doctor tell them they had high blood pressure, 50.67% indicated they had and 10.11% indicated a doctor told them they had heart disease. Key informant participants were asked about health issues in the community. One participant mentioned many patients dying due to hypertension and it being a number one cause of death.

"What they're recognizing is the number one cause of death in their community is hypertension, and that hasn't changed as long as I've been a nurse. So, what are we going to do to address that?" -Key Informant Participant

Secondary Data

The topic area of Obesity/Overweight was unable to be scored using HCI's Scoring Tool® due to secondary data limitations. **Table 26** shows Adults 20+ who are Obese.

Table 26. Adults 20+ who are Obese

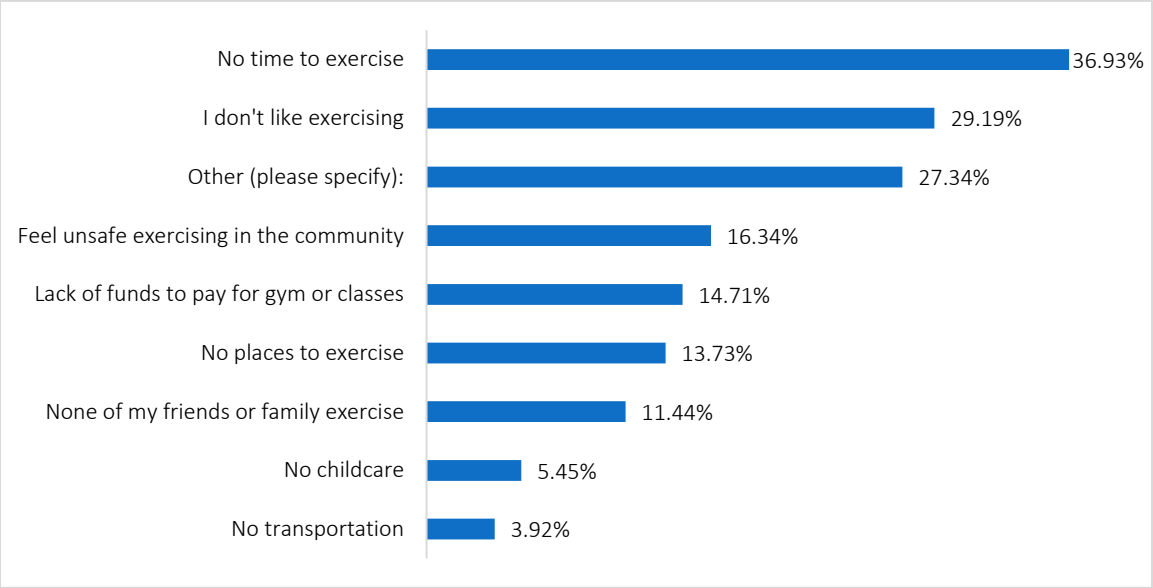
	County			County Value Compared to:			
Indicator	Name	**Value**	Data Score	TX Value	U.S. Value	HP2030 Target	Trend Over Time
Adults 20+ who are Obese, 2019	Austin	25.9 percent	1.28	-	-	36	Decreasing, Non-Significant
	Brazoria	37 percent	2.17	-	-	36	Increasing, Non-Significant
	Chambers	27.5 percent	1.44	-	-	36	Decreasing, Non-Significant
	Fort Bend	28.6 percent	1.61	-	-	36	Decreasing, Non-Significant
	Galveston	32.2 percent	1.78	-	-	36	Decreasing, Non-Significant
	Harris	30.9 percent	2.17	-	-	36	Increasing, Significant
	Liberty	25.2 percent	1.28	-	-	36	Decreasing, Non-Significant
	Montgomery	33.9 percent	2.11	-	-	36	Increasing, Non-Significant
	San Jacinto	33.1 percent	1.97	-	-	36	No Change
	Walker	30.9 percent	1.61	-	-	36	Decreasing, Non-Significant
	Waller	24.4 percent	0.83	-	-	36	Decreasing, Significant
	Wharton	33.2 percent	1.83	-	-	36	Decreasing, Non-Significant
Source: Centers for Disease Control and Prevention							

Primary Data

Overall survey responses and key informant interviews identified obesity as a top health issue. There were 73.11% survey respondents who indicated Obesity/Overweight as a top issue affecting their quality of life. When asked about their personal health, 88.12% of survey respondents rated their health as somewhat healthy or very healthy and 12.17% rated their health as unhealthy or very unhealthy. Survey respondents were also asked how many times they exercised or performed a physical activity, 41.81% indicated 2-3 times a week, 25.33% less than one time a week, and 7.11% indicated never exercising.

F**igure 26** shows that 36.93% had no time to exercise, 29.19% did not like to exercise, 27.34% selected other barriers including, physical disabilities, fear of COVID-19, and time, 16.34% felt unsafe exercising in the community, and 14.71% lacked funds to pay for a gym/classes.

Figure 26. Barrier/Challenges to Exercising on A Regular Basis



"I think obesity and our fast-paced culture creates an idea where health doesn't take a top priority. I think a lot of it can stem back to generational trauma and the ways that people carry stress and deal with relationships. I think there are so many different cets that contribute to one's health, I don't know that it can be answered in a broad stroke..." -Key Informant Participant

Non-Prioritized Significant Health Needs

The following additional significant health needs emerged from a review of the primary and secondary data. With the necessity to focus on the prioritized health needs described above, these topics are not specifically prioritized for efforts to be outlined in the 2022-2025 Implementation Strategy. **However, due to the interrelationship of social determinants and health, many of these areas fall, tangentially, within the prioritized health needs and may be addressed through the upstream efforts of the prioritized health needs.** Additionally, many of them are addressed within ongoing programs and services in the Memorial Hermann Health System. Examples of these efforts are provided below by topic area.

Non-Prioritized Health Need #1: Older Adults and Elderly Care

Older Adults & Elderly Care

Secondary Data Score: **1.57** MHHS

Key Themes from Community Input

- Higher socioeconomic status is a direct correlate to better health outcomes for seniors
- Senior more connected to the community were more responsive to COVID-19 vaccination
- Repeating themes revealed the elderly population suffers, due to:
  More health issues
  Mental health (lack of access to inpatient/outpatient resources)
  Lack of knowledge of available resources

Warning Indicators

- Chronic kidney disease: Medicare population
- Osteoporosis: Medicare population

Ongoing Health System Efforts

Memorial Hermann – Texas Medical Center has received a Level 3 designation, becoming the first hospital in Houston and the second in Texas to receive geriatric emergency department accreditation. A geriatric emergency center is distinguished from standard emergency rooms through enhanced mobility equipment, specialized staff, an increase in routine screening for conditions such as dementia and fall risk as well as advanced coordination for post-emergency department care. Memorial Hermann-TMC has also implemented a protocol to improve medication regimens for geriatric patients who have been discharged from their emergency center to address any potential adverse side effects.

Memorial Hermann's Acute Care of Elders (ACE) Unit is a closed unit designed to manage acute medical issues in the elderly, prevent the decline that comes with the hospitalization of older people, and arrange for a successful discharge that meets the needs of the family and patient.

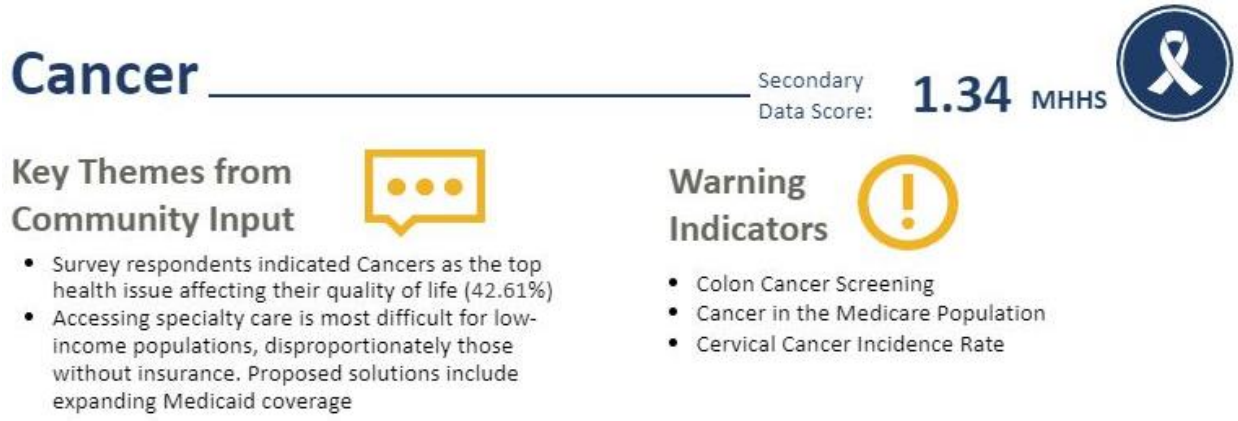
Additional efforts supporting the care of older adults in Greater Houston include Memorial Hermann's system-wide Hip Fracture Program and the Medication Therapy & Wellness Clinics located at MH Texas Medical Center and MH Southeast.

The specialists of the Memorial Hermann Hip Fracture Program are dedicated to providing the highest quality of care through standardized protocols resulting in expedited care that appropriately addresses clinical conditions. With the overarching goal to minimize in pain and prevent complications commonly caused by lack of mobility, including bed sores, blood clots, and pneumonia.

The Memorial Hermann Medication Therapy & Wellness Clinics (MTWC) provide services where clinically trained pharmacists ensure patients' medications are safe and effective to help manage medical conditions, including anticoagulation, diabetes, hypertension, heart failure, dyslipidemia, and COPD, among others.

Each year, one in three adults aged 65 or older will experience a fall, risking traumatic injury or disability and increasing the likelihood of future falls. Memorial Hermann collaborates with several organizations throughout Greater Houston to extend fall prevention efforts and education to prevent incidents before they become an emergency.

Non-Prioritized Health Need #2: Cancer

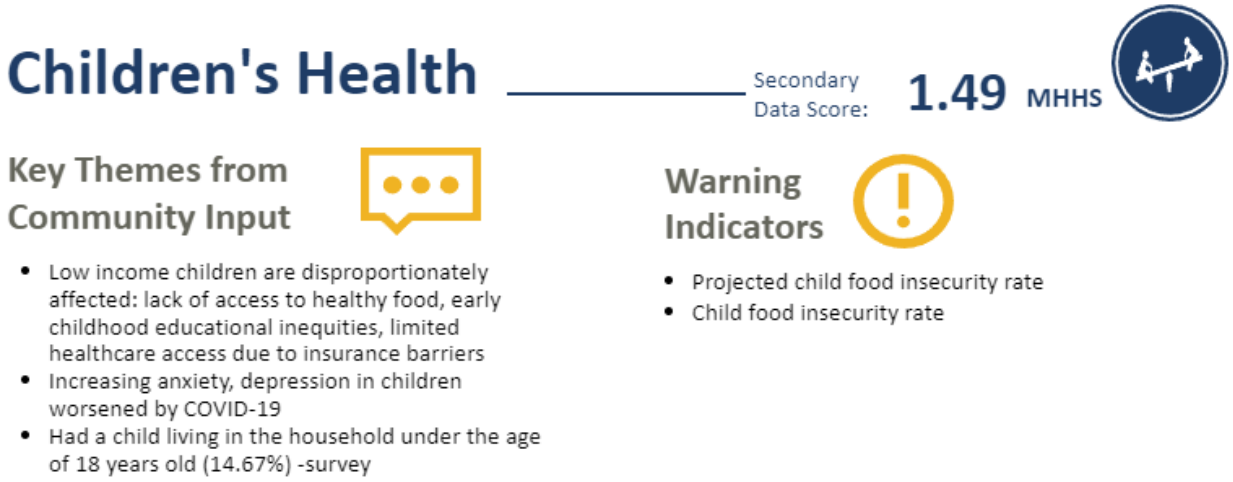


Ongoing Health System Efforts

As leading providers of cancer treatment in Houston, Memorial Hermann Cancer Centers offer the entire continuum of cancer care -- education, prevention, screening, diagnosis, treatment, survivorship and rehabilitation. Cancer patients can take advantage of services in their own neighborhood through the convenient network which includes 8 cancer centers, more than 20 breast care locations, 17 hospitals, 12 acute care hospitals and dozens of other affiliated programs. Patients who receive care at any of the system's accredited centers are guaranteed access to: comprehensive care; a multidisciplinary, collaborative team approach for coordinating the best available treatment options; state-of-the-art equipment and services; information about clinical trials and new treatment options; education and support; and lifelong patient follow-up through the Cancer Registry.

Memorial Hermann Cancer Centers offer a variety of classes, events and support groups to care for the physical, social, emotional and spiritual needs that patients, survivors and caregivers have along the cancer journey. Following evidence-based guidelines, Memorial Hermann Cancer Centers develop and conduct dozens of support and wellness programs each year focused on prevention, education, screening, community outreach and survivorship support. The wellness programs include General and Breast Cancer Support Groups, Art Therapy, Chair Yoga, Integrative Medicine, Lymphedema Support, Nutrition Counseling, Survivorship Centers, and more.

Non-Prioritized Health Need #3: Children's Health



Ongoing Health System Efforts

Children's Memorial Hermann Hospital is a 310-bed quaternary care women and children's hospital, located in the Texas Medical Center. As a primary teaching hospital for the pediatric and obstetrics/gynecology programs with academic partner, McGovern Medical School at UTHealth, Children's Memorial Hermann is committed to serving the global community. The multidisciplinary team of affiliated doctors, nurses, therapists and other allied healthcare professionals are focused on the personalized needs of women and children with an emphasis on quality, education, outcomes, customer service and advanced research.

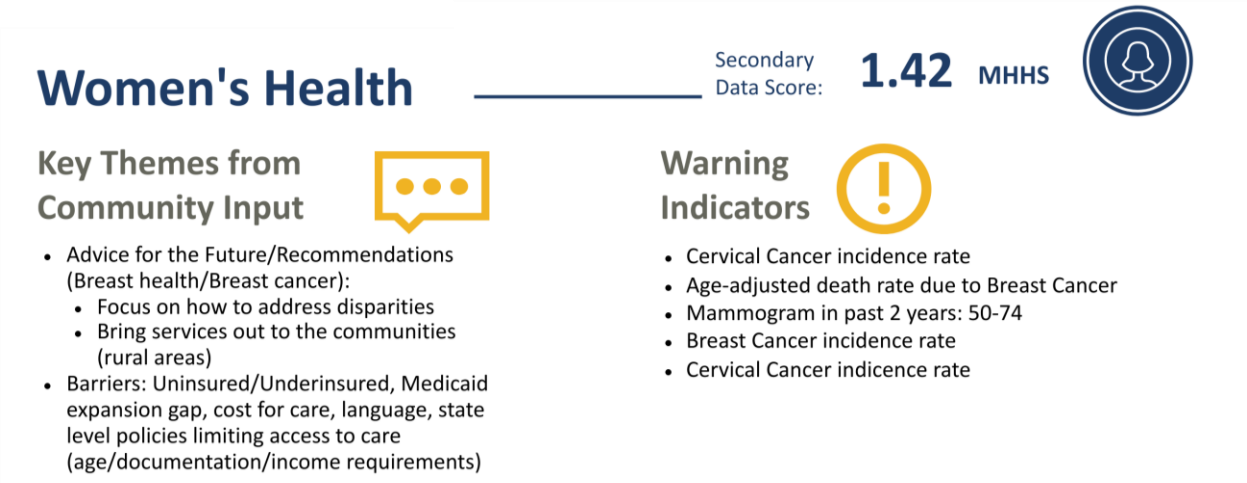
Children's Memorial Hermann Hospital is affiliated with more than 135 pediatric practices across the Greater Houston area, including BlueFish Pediatrics and Children's Memorial Hermann Pediatrics, with convenient locations across Houston in Katy, Memorial City, and Sugar Land.

Memorial Hermann operates ten Health Centers for Schools offering access to primary medical, dental and mental health services to underserved children in more than 80 schools in the Greater Houston Area. The primary goal of the program is to keep children healthy and feeling well so that they stay in school and can perform well academically, creating a foundation for a brighter future. By providing improved access to health care to at-risk children across the region, Memorial Hermann has demonstrated success in creating healthier outcomes for kids, including

improvements in their physical health, their mental wellbeing, and even their attendance rate at school.

Additionally, Memorial Hermann is an on-going financial collaborator with Children at Risk, a 501(c)(3) non-profit organization that drives change for children through research, education, and influencing public policy.

Non-Prioritized Health Topic #4: Women's Health



Ongoing Health System Efforts

At Memorial Hermann Health System, all facilities offer a patient-centered, multidisciplinary approach to deliver safe, comprehensive, quality care to women of all ages. Memorial Hermann's affiliated team offers a comprehensive program of distinguished gynecology, obstetric and neonatal services, including fertility services, urogynecology, high-risk pregnancy, labor and delivery, menopause care, pelvic floor health and neonatal intensive care.

At The Women's Center at Children's Memorial Hermann Hospital, caring for women of all ages has always been a priority. As a Level IV Maternal Facility, which denotes the highest level of care as designated by the Texas Department of State Health Services (DSHS), the affiliated team takes a patient-centered approach to delivering advanced heart, bone and breast care, as well as providing a broad range of gynecology, obstetric and neonatal services, including fertility services, urogynecology, high-risk pregnancy, labor and delivery, menopause care, pelvic floor health and neonatal intensive care. As a leading obstetric hospital, the labor and delivery unit provide mom and baby with a full range of specialized, comfortable care, including high-risk obstetrical and neonatal care within the same facility.

COVID-19 Impact Snapshot

COVID-19 Community Impact Timeline

Introduction

At the time that Memorial Hermann Health System began its CHNA process, the state of Texas and the nation were continuing to deal with the novel coronavirus (COVID-19) pandemic. The process for conducting the assessment remained fundamentally the same. However, there were some adjustments made during the event to ensure the health and safety of those participating.

Pandemic Overview

On March 13, 2020, a U.S. national emergency was declared over the novel coronavirus outbreak first reported in the Wuhan Province of China in December 2019. Officially named COVID-19 by the World Health Organization (WHO), WHO declared COVID-19 a pandemic on March 11, 2020. To learn more about COVID-19 hospitalization, vaccinations, cases, and deaths in Texas, visit The Texas Tribune. Upon completion of this report in May 2022, the pandemic continued to be a health crisis across the United States and in most countries.

Community Insights

The CHNA project team looked for additional sources of secondary data and gathered primary data to provide a snapshot of the impact of COVID-19 on the Memorial Hermann Health System Primary Service Area. This data was collected from September 2021 to January 2022. Findings are reported below.

COVID-19 Cases and Deaths in Texas

For current cases and deaths due to COVID-19 visit: https://www.dshs.state.tx.us/coronavirus/ and the Harris County/City of Houston COVID-19 Data Hub https://publichealth.harriscountytx.gov/Resources/2019-Novel-Coronavirus

Vulnerability Index

Beyond looking at what we know about COVID-19 cases and deaths, the Conduent COVID-19 Vulnerability Index[5] is a measure of potential severe illness burden due to COVID-19 by county. Counties are given an index value from 1 (low vulnerability) to 10 (high vulnerability). A county with a high vulnerability score can be described as a location where a higher percentage of COVID-19 cases would result in severe outcomes such as hospitalization or death as compared to a county with a low vulnerability score.

What does this score mean?

Table 27 shows TIRR Memorial Hermann PSA Vulnerability Index Score**s a**s of May 9, 2022. Lower scores mean that residents have lower death rates due to chronic conditions, lower socio-economic needs, and adequate access to healthcare and services to protect themselves from more severe

[5] Conduent HCI COVID-19 Vulnerability Index is a measure of potential severe illness burden due to COVID-19 across the country by county: https://www.covid19atrisk.org/.

COVID-19 cases and more death. Counties with higher scores mean higher rates of chronic disease, risky behavior, and/or low access to health services.

Table 27. Vulnerability Index Score

County	Vulnerability Index Score
Austin	10
Brazoria	2
Chambers	1
Colorado	10
Fort Bend	3
Galveston	3
Harris	2
Liberty	6
Montgomery	4
San Jacinto	10
Walker	7
Waller	6
Wharton	5

Please note, this is a predictive model based on various chronic conditions, SocioNeeds Index®, and recent case counts and deaths. For more information, please see the "Learn More" section in the Conduent Vulnerability Index.

Community Feedback

Both the community survey and key informant interviews included questions to assess the impact of COVID-19 on the Memorial Hermann Health System regional Primary Service Area.

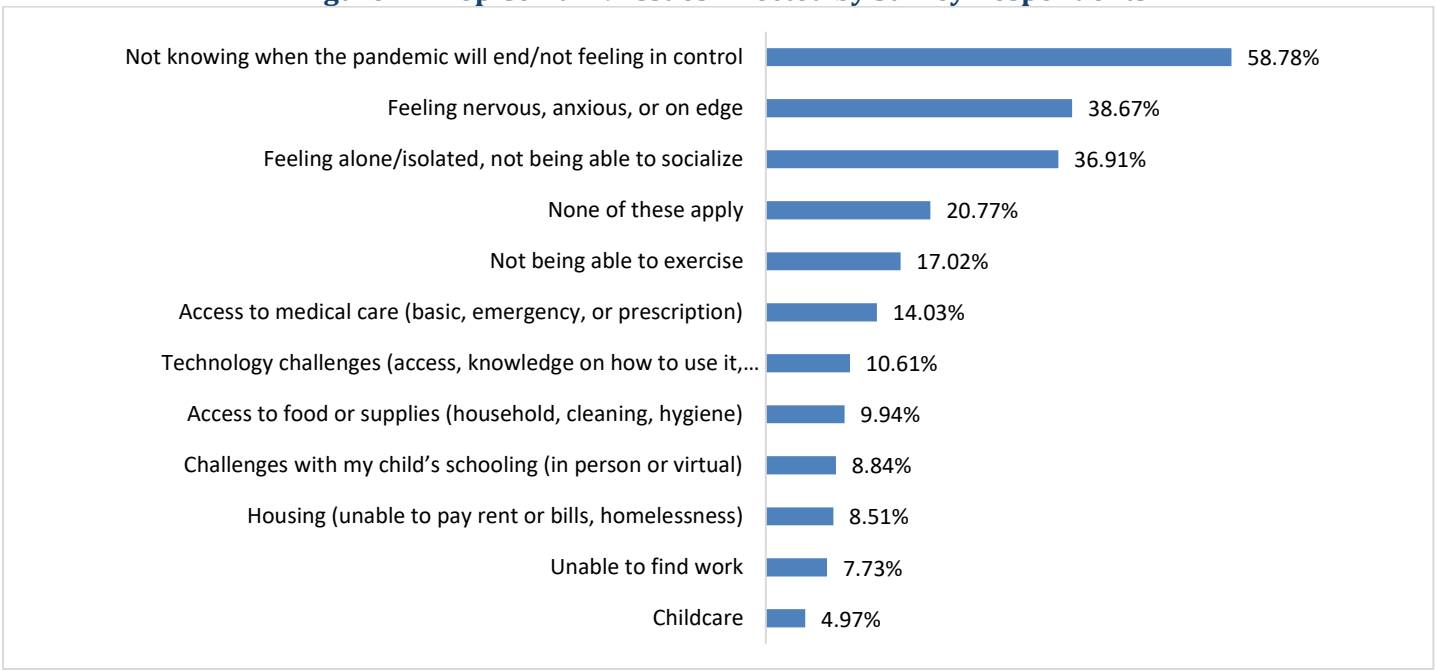
Community Survey

Community survey respondents were asked to identify those issues that are currently the biggest challenge for their households because of the COVID-19 pandemic. Data was collected between November 2021 and January 2022. Survey respondents were especially asked about the biggest challenges their households were currently facing due to COVID-19. Below indicates what survey respondents reported.

- 58.78% reported not knowing when the pandemic will end
- 38.67% reported feeling nervous, anxious, or on edge
- 36.91% reported feeling alone/isolated, not being able to socialize
- 17.02% reported not being able to exercise

Figure 27 provides additional insight into the challenges residents faced during the pandemic.

Figure 27. Top Covid-19 Issues Affected by Survey Respondents



Key Informant Interviews

Key informants were asked to share the biggest challenges in the community as a result of the COVID-19 pandemic. They were also asked to share some positive outcomes that emerged during the response to the pandemic. **Table 28** summarizes key insights gathered from these discussions, which were conducted from September 2021 through January of 2022.

Table 28. COVID-19 Key Informant Interview Insights

Challenges	Positive Outcomes
Childcare	Telehealth increased access to care
Delay in dental care, primary care (childhood immunizations delayed)	Greater understanding of the value of community
Compounding impact of COVID-19 on existing health disparities/inequities	Increased access to virtual community meetings and forums
Distrust in healthcare	Less stigma associated with Mental Health issues/seeking care
Telehealth exposed barriers (internet access, digital divide)	Systemic issues illuminated: people had to confront inequities
Housing Instability	Upwards wage pressure
More stress	

Recommended Data Sources

As local, state, and national data are updated and become available, these data can continue to help inform approaches to meeting existing and developing needs related to the pandemic. Recommended data sources are included below.

National Data Sources

- Center for Disease Control: https://www.cdc.gov/coronavirus/2019-ncov/php/open-america/surveillance-data-analytics.html
- Johns Hopkins Coronavirus Resource Center: https://coronavirus.jhu.edu/us-map
- Conduent COVID At Risk – Vulnerability Index: https://www.covid19atrisk.org/
- Conduent COVID-19 Vulnerability Index: https://www.covid19atrisk.org/vulnerability.html
- NACCHO Coronavirus Resources for Health: https://covid19-naccho.hub.arcgis.com/
- Feeding America (The Impact of the Coronavirus on Local Food Insecurity): https://www.feedingamerica.org/sites/default/files/2020-05/Brief_Local%20Impact_5.19.2020.pdf
- Unemployment Rates: https://fred.stlouisfed.org/series/ILDEKA5URN and https://fred.stlouisfed.org/series/ILKEND3URN

State Data Sources

Data and recommendations from the following websites are updated regularly and may provide additional information on the impact of COVID-19 in the state of Texas and the Memorial Hermann Health System regional Primary Service Area.

- Texas Department of State Health Services: https://www.dshs.state.tx.us/coronavirus/
- Memorial Hermann Health System: https://www.memorialhermann.org/services/conditions/coronavirus
- 2-1-1 Texas: https://tx.211counts.org/
- Austin County Services: https://www.austincounty.com/page/austin.Services
- Brazoria County Health Department: https://www.brazoriacountytx.gov/departments/health-department
- Chambers County Public Health: https://www.co.chambers.tx.us/page/coronavirus
- Colorado County Public Health: http://www.co.colorado.tx.us/page/COVID-19
- Fort Bend Health & Human Services: https://www.fbchealth.org/
- Galveston County Health District: https://www.gchd.org/
- Harris County Public Health: https://publichealth.harriscountytx.gov/Resources/2019-Novel-Coronavirus
- Liberty County Services: https://www.co.liberty.tx.us/page/liberty.coronavirus
- Montgomery County Public Health District: https://mcphd-tx.org/
- San Jacinto County Services: http://www.co.san-jacinto.tx.us/
- Walker County Service: https://www.co.walker.tx.us/
- Waller County Services: https://www.co.waller.tx.us/page/EM.COVID-19
- Wharton County Services: http://www.co.wharton.tx.us/

Conclusion

This Community Health Needs Assessment (CHNA), conducted for TIRR Memorial Hermann and the Memorial Hermann Health System, used a comprehensive set of secondary and primary data to determine the 15 significant health needs in the Memorial Hermann Health System. The prioritization process identified six top health needs: Pillar: Access: Priority Health Need 1: Access to Healthcare, Pillar Emotional Well-Being: Priority Health Need 2: Mental Health and Mental Disorder, Pillars Food as Health & Exercise is Medicine: Priority Health Need 3-6, Diabetes, Heart Disease & Stroke, Obesity/Overweight, and a special focus on Women's Health.

The findings in this report will be used to guide the development of TIRR Memorial Hermann Implementation Strategy, which will outline strategies to address identified priorities and improve the health of the community.

Please send any feedback and comments about this CHNA to: Deborah.ganelin@memorialhermann.org with "CHNA Comments" in the subject line. Feedback received will be incorporated into the next CHNA process.

References

Capps and Ariel G. Ruiz Soto (2018) Migration Policy Institute. *A Profile of Houston's Diverse Immigrant Population in a Rapidly Changing Policy Landscape.*

COVID-19 Vulnerability Index. (2022, March 27). Conduent SocioNeeds Index Suite. https://www.covid19atrisk.org/.

Dedoose Version 8.0.35, web application for managing, analyzing, and presenting qualitative and mixed method research data (2018). Los Angeles, CA: Sociocultural Research Consultants, LLC www.dedoose.com

Food Insecurity Index. (2022, March 15). Conduent SocioNeeds Index Suite. https://help.healthycities.org/hc/en-us/articles/360060385334-What-is-the-Food-Insecurity-Index-.

Health Equity Index. (2022, March 15). Conduent SocioNeeds Index Suite. https://help.healthycities.org/hc/en-us/articles/220054548-What-is-the-Health-Equity-Index-.

Klein R, Huang D. Defining and measuring disparities, inequities, and inequalities in the Healthy People initiative. National Center for Health Statistics. Center for Disease Control and Prevention. https://www.cdc.gov/nchs/ppt/nchs2010/41_klein.pdf

Pearcy, J. & Keppel, K. (2002). A Summary Measure of Health Disparity. Public Health Reports, 117, 273-280.

Appendices Summary

The following support documents are shared separately on https://www.memorialhermann.org/services/specialties/tirr/about-us/community-health-needs-assessment.

A. Secondary Data (Methodology and Data Scoring Tables)

A detailed overview of the Conduent HCI data scoring methodology and indicator scoring results from the secondary data analysis.

B. Community Input Assessment Tools

Quantitative and qualitative community feedback data collection tools that were vital in capturing community feedback during this collaborative CHNA:

- Community Survey (English & Spanish)
- Key Informant Interview Guide

C. Prioritization Tools

This section includes the tools and criteria used for the prioritization process.

D. Community Resources and Partners

This document highlights existing resources that organizations are currently using and available widely in the community. This document also includes tables highlighting potential community partners who were identified during the qualitative data collection process for this CHNA.