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EXECUTIVE SUMMARY

Introduction
Improving the health of a community is essential to enhancing the quality of life for residents in the region and supporting future social and economic well-being. Memorial Hermann Health System (MHHS) engaged in a community health planning process to improve the health of residents served by Memorial Hermann Texas Medical Center. This effort includes two phases: (1) a community needs health assessment (CHNA) to identify the health-related needs and strengths of the community and (2) a strategic implementation plan (SIP) to identify major health priorities, develop goals, and select strategies and identify partners to address these priority issues across the community. This report provides an overview of key findings from Memorial Hermann Texas Medical Center’s CHNA.

Community Health Needs Assessment Methods
The community health needs assessment was guided by a participatory, collaborative approach, which examined health in its broadest sense. This process included integrating existing secondary data on social, economic, and health issues in the region with qualitative information from 11 focus groups with community residents and service providers and 28 interviews with community stakeholders. Focus groups and interviews were conducted with individuals from the Greater Houston area and from within Memorial Hermann Texas Medical Center’s diverse community. **The community defined for this CHNA included the counties of Harris, Brazoria, Fort Bend, Liberty, and Matagorda.**

Key Findings
The following provides a brief overview of key findings that emerged from this assessment.

Community Social and Economic Context
- The total population across the five counties served by MH Texas Medical Center was 20.5% of Texas’ total population. Fort Bend County was the fastest growing county within the MH Texas Medical Center community (3.9% increase in 2010-2014 over the 2005-2009 period). The Houston metropolitan area served by MH Texas Medical Center is projected to increase from 5.9 million in 2010 to 9.3 million in 2030.

- **Age Distribution:** Among the five counties served by MH Texas Medical Center, Harris and Fort Bend Counties had the youngest population under 25 years of age, whereas Matagorda County had the largest population of residents 65 years of age and older (14.6%).

- **Racial and Ethnic Distribution:** Across the five counties served by MH Texas Medical Center, Harris (41.1%) and Matagorda (39.0%) Counties had the largest percent of residents who identified as Hispanic. Fort Bend County had the largest proportion of residents who identified as Black, non-Hispanic (21.0%) or Asian, non-Hispanic (17.4%). The largest proportion of self-identified White, non-Hispanic residents lived in Liberty County (68.5%).

- **Linguistic Diversity and Immigrant Population:** Approximately four in ten residents in Harris (42.5%) and and Fort Bend (37.9%) Counties spoke a language other than English at home, whereas approximately one quarter of residents in Matagorda (28.0%) and Brazoria (25.8%) Counties and 16.6% of Liberty County residents spoke a non-English language at home. There was a sizable population of non-English speakers who spoke Spanish or Spanish Creole: 93.2% in Liberty County, 91.0% in Matagorda County, 80.3% in Harris County, 75.6% in Brazoria County, and 48.6% in Fort Bend County. In Fort Bend County, approximately 20% of the non-English speaking population spoke an Asian language.
• **Income and Poverty:** The median household income in the five counties served by MH Texas Medical Center ranged from $43,096 in Matagorda County to $85,297 in Fort Bend County. The percent of adults with incomes below the poverty line in 2009-2013 ranged from a high of 16.4% of Liberty County residents to a low of 7.1% of Fort Bend County residents.

• **Employment:** In 2009-2013, the percent of unemployed persons was highest in Liberty County (12.6%) and lowest in Fort Bend County (5.6%). The percent of unemployed residents in Texas and all five counties served by MH Texas Medical Center increased in 2009 and have returned to levels similar to those experienced in 2005.

• **Education:** Across the three counties that serve over 95% of the MH Texas Medical Center community, Harris County had the highest proportion of residents with a high school diploma or less (44.8%). Fort Bend County had the highest proportion of residents who had bachelor’s degree or higher (41.4%).

• **Housing:** The monthly median housing costs for owners ranged from a low of $617 in Matagorda County to a high of $1,590 in Fort Bend County. Similarly, for renters, monthly median housing costs ranged from $658 in Matagorda County to $1,167 in Fort Bend County. In all counties, a higher percentage of renters compared to owners paid 35% or more of their household income towards their housing costs. In Harris County, for example, 40.9% of renters paid more than 35% of their income towards housing costs, relative to 25.5% of homeowners.

• **Transportation:** A majority of residents in the five counties served by MH Texas Medical Center commuted to work by driving in a car, truck or van alone. Harris County (2.9%) had the highest proportion of residents who commuted by public transportation.

• **Crime and Violence:** Rates of violent crime were highest in Harris County (691.4 offenses per 100,000 population) and lowest in Brazoria County (142.9 offenses per 100,000 population). With respect to property crime, rates were highest in Harris County (3,825.0 offenses per 100,000 population) and lowest in Fort Bend County (1,391.3 offenses per 100,000 population).

**“People spend so much time commuting that by the time they get home they don’t want to go somewhere to exercise. There aren’t a tremendous number of parks. You would have to get in your car.”**

Key informant interviewee

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**Key informant interviewee**

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**Community Health Outcomes and Behaviors**

**Physical Health**

• **Overall Leading Causes of Death:** Among the three counties that serve over 95% of the MH Texas Medical Center community, Brazoria County experienced the highest overall mortality rate (774.7 per 100,000 population), compared with Harris County (737.8 per 100,000 population) and Fort Bend County (599.6 per 100,000 population).

• **Overweight and Obesity:** Approximately seven in ten adults in Harris (69.4%) County reported that they were overweight or obese. (Data is unavailable for Brazoria, Fort Bend, Liberty, or Matagorda Counties.) Harris County adults who identified as Black, non-Hispanic (91.7%) were most likely to be considered overweight or obese, followed by Hispanic (74.8%) and White (63.2%) adults.

• **Diabetes:** In 2014, approximately one in ten adults in Harris County (10.4%) self-reported to have been diagnosed with diabetes. (Data is unavailable for Brazoria, Fort Bend, Liberty, or Matagorda Counties.) In 2013, Harris County saw 11.3 hospital admissions per 100,000 population for uncontrolled diabetes, while Fort Bend County had 6.8 admissions per 100,000 population. (Data is unavailable for Liberty or Matagorda Counties.)
A small proportion (3.8%) of Harris County adults self-reported having had a stroke, and 3.6% reported having had a heart attack. (Data is unavailable for Brazoria, Fort Bend, Liberty, or Matagorda Counties.)

Over a third of Harris County adults self-reported having high cholesterol (38.3%) and just under a third self-reported having high blood pressure (32.4%). (Data is unavailable for Brazoria, Fort Bend, Liberty, or Matagorda Counties.)

- **Asthma**: In Harris County, 5.3% of adults self-reported prevalence of current asthma. (Data is unavailable for Brazoria, Fort Bend, Liberty, or Matagorda Counties.) In 2012, adult hospital discharges for asthma were the highest in Liberty County (11.7 per 10,000 residents) and lowest in Fort Bend County (5.7 per 100,000 population).

  Among children aged 17 years and younger, the rate of asthma-related hospital discharges for Black, non-Hispanic children was three times the rate for White children (24.2 versus 8.2 per 10,000 residents). (Data is unavailable for Brazoria, Fort Bend, Liberty, or Matagorda Counties.)

- **Cancer**: Harris (444.1 per 100,000 population) and Matagorda (429.9 per 100,000 population) Counties had the highest cancer incidence rates, and Brazoria County (395.4 per 100,000 population) had the lowest incidence rate. In a 2014 Behavioral Risk Factor Surveillance System survey, in Harris County approximately eight in ten women 40 years of age or older indicated they had completed a mammogram in the past two years (81.6%) and seven in ten women in Harris County reported of having completed a pap test in the past three years (70.0%). Three-quarters of Harris County adults self-reported having a colonoscopy or sigmoidoscopy (64.8%). (Data is unavailable for Brazoria, Fort Bend, Liberty, or Matagorda Counties.)

- **HIV and Sexually-Transmitted Diseases**: Harris County experienced the highest HIV rate in the region, with 516.1 people per 100,000 population living with HIV in the county, an increase from 478.4 per 100,000 population in 2011. In 2014, HIV rates were relatively similar in the counties of Brazoria, Fort Bend, Liberty, and Matagorda. From 2011 to 2014, chlamydia, syphilis, and gonorrhea rates increased in Harris, Fort Bend, and Matagorda Counties. Brazoria County experienced a slight decrease in the rate of chlamydia, an increase in the rate of gonorrhea, and rates of syphilis remained stable. In Liberty County over this same period, the rates of chlamydia increased sizably, while rates of syphilis decreased, and rates of gonorrhea increased. Across all five counties served by MH Texas Medical Center, rates of chlamydia, gonorrhea, and syphilis were highest in Harris County.

- **Tuberculosis**: Across the five counties served by MH Texas Medical Center, Harris County had the highest rate of tuberculosis, with 7.2 cases per 100,000 population, a rate that was more than double that in Liberty (2.6 per 100,000 population), Fort Bend (2.8 per 100,000 population) and Brazoria (3.5 per 100,000 population) Counties.

- **Influenza**: In 2014 more than one-third of Harris County (35.9%) adults reported having obtained a seasonal flu shot or vaccine via nose spray. In Harris County, residents aged 65 years or older (59.0%) were more likely to have received a flu shot than younger age groups. (Data on influenza is only available for Harris County.)

- **Oral Health**: Harris County (57.4 per 100,000 population) had the highest number of dentists, a rate that was more than double that for Liberty County (19.6 per 100,000 population). In 2014 58.2% of adults in Harris County self-reported having visited a dentist or dental clinic within the past year for any reason. Hispanic adults in Harris County reported the lowest prevalence of annual dental visitation (50.6%). (Data is unavailable for Brazoria, Fort Bend, Liberty, or Matagorda Counties.)

- **Maternal and Child Health**: The prevalence of preterm births ranged from a high of 13.4% in Liberty County to a low of 11.7% in Brazoria County. Infants born to Black, non-Hispanic mothers were more likely to be low birthweight than infants born to women of other races or ethnicities. The...
One in four children in Harris County was food insecure in 2013.

The prevalence of births to teen mothers was highest among Black, non-Hispanic women in Liberty County (8.2%) and Hispanic women in Matagorda County (5.6%). Rates of first trimester prenatal care were 56.1% of Harris County live births, 60.9% of Brazoria County live births, and 62.8% of Fort Bend County live births. Liberty County had the lowest rate of first trimester prenatal care among all five counties served by MH Texas Medical Center (51.7%). Rates of receiving no prenatal care were 3.9%, 4.2%, 1.9% for Harris, Brazoria, Fort Bend County mothers, respectively.

**Health Behaviors**

- **Food Access:** In Matagorda (31.5%) and Liberty (28.3%) Counties, approximately three in ten children under 18 years of age were considered to be food insecure, followed by approximately one quarter of children in Harris County (26.3%), and one in five children in Brazoria (23.0%) and Fort Bend (20.6%) Counties. In 2013 across the five counties served by MH Texas Medical Center, access to grocery stores ranged from 9 grocery stores per 100,000 population in Brazoria County to 19 grocery stores per 100,000 population in Harris County. Harris County low-income residents had the greatest access to farmer’s markets (13.7%) and one in ten low-income residents in Brazoria (10.4%) and Fort Bend (10.4%) County lived near a farmer’s market.

- **Healthy Eating:** Only 12.2% of Harris County adults in 2013 indicated that they ate fruits and vegetables five or more times per day. (Data is unavailable for Brazoria, Fort Bend, Liberty, or Matagorda Counties.) Lower income Harris County adults ate fewer fruits and vegetables than residents with higher median household incomes. In 2013, 8.9% of high school students in Houston indicated that they did not eat any fruit or drink any fruit juice in the past seven days.

- **Physical Activity:** More than two-thirds (68.2%) of adults surveyed in Harris County indicated that they had participated in any type of physical activity in the past month, with Hispanic adults being less likely to report physical activity than other racial or ethnic groups. (Data is unavailable for Brazoria, Fort Bend, Liberty, or Matagorda Counties.) In 2013, two-thirds (66.6%) of Houston high school students reported that they had not participated in 60 or more minutes of physical activity for 5 days in the past 7 days.

**Behavioral Health**

- **Adult Mental Health:** In 2014 19.3% of adults in Harris County self-reported having five or more poor mental health days. (Data is unavailable for Brazoria, Fort Bend, Liberty, or Matagorda Counties.) Rates of psychiatric discharge ranged from 2.3 per 1,000 persons in Fort Bend County to 5.6 per 1,000 population in Matagorda County.

- **Youth Mental Health:** Among youth in Houston in 2013, one-third of Hispanic high school students self-reported feeling sad or hopeless for two or more weeks in the past year. A proportion of 12.1% of Hispanic Houston high school students self-reported they attempted suicide at least once in the past year, compared to 11.3% of Black, non-Hispanic students.

- **Substance Use and Abuse:** In 2014, 13.7% of Harris County adults self-reported binge drinking in the past month and 13.6% reported being current smokers. (Data is unavailable for Brazoria, Fort Bend, Liberty, or Matagorda Counties.) Over the 2010-2014 period, the rate of non-fatal motor vehicle crashes attributed to driving under the influence (DUI) ranged from 117.6 per 100,000 population in Matagorda County to 45.4 per 100,000 population in Liberty County.

“*The juvenile [detention] system is the biggest mental health provider in Texas, and that’s really telling.*”

Key informant interviewee
45.6 per 100,000 population in Fort Bend County – more than a two-fold difference.

**Health Care Access and Utilization**

- **Access to Primary Care:** Harris County had a higher proportion of primary care physicians (82.6 per 100,000 population) compared to Brazoria County (45.5 per 100,000) and Fort Bend (59.9 per 100,000 population) Counties. In Harris County, 38.2% of adult residents reported in the BRFSS survey that they did not have a doctor or healthcare provider. (Data unavailable for Brazoria, Fort Bend, Liberty, and Matagorda Counties.) In the Houston-The Woodlands-Sugar Land MSA in 2014, 34% of physicians accepted all new Medicaid patients, 24% limited their acceptance of new Medicaid patients, and 42% accepted no new Medicaid patients. In Harris County in 2014, 37% of physicians accepted all new Medicaid patients, 23% limited their acceptance of new Medicaid patients, and 40% accepted no new Medicaid patients. (Data on Medicaid acceptance is unavailable for other counties due to low survey response rates.)

- **Emergency Department Care at MH Texas Medical Center for Primary Care Treatable Conditions:** Of MH Texas Medical Center’s 53,883 visits in 2013, 59.1% were from patients who were uninsured or on Medicaid, and 41.1% were classified as non-emergent or with primary care treatable conditions. Of all ED visits, 5.7% were for chronic conditions, of which 24% were cardiovascular-related. Nineteen zip codes in the MH Texas Medical Center’s CHNA-defined community were among the top 20 zip codes for the highest number of primary care treatable ED visits at the MH Texas Medical Center in 2013.

- **Inpatient Care at MH Texas Medical Center for Ambulatory Care Sensitive Conditions:** Of MH Texas Medical Center’s 18,957 inpatient discharges in 2015, 11,211 inpatient discharges or 59.1% were related to an ambulatory care sensitive condition. The top three ambulatory care sensitive conditions that resulted in inpatient care at MH Texas Medical Center in 2015 were congestive heart failure (236 discharges), diabetes (110 discharges), and cellulitis (75 discharges).

**Community Assets and Resources**

- **Diverse and Cohesive Community:** Residents and stakeholders described diversity and social cohesion as being among the primary assets and strengths of their community. Participants and informants described the positive role of diversity in driving the creation of robust communities to participate in and resources to meet those needs. This social cohesion did not just occur within geographic communities, but also within groups sharing a common issue.

- **Strong Schools:** The communities served by MH Texas Medical Center had several strong schools, according to key informants and focus group respondents, a factor that many described as contributing to population growth in the area. Informants also cited parental involvement in public schools as a community asset.

- **High-Quality Medical Care:** A key asset identified by key informants and focus group participants was the availability of health care services and the high quality of those services, in the Greater Houston area. The health care system is also described as having world-class acute care.

- **Strong Public Health and Social Service System:** The communities served by MH Texas Medical Center were supported by a strong network of public health and social service organizations. Communities were served by several non-profit and other charitable organizations or collaborations.

- **Economic Opportunity:** Many key informants and focus group participants described a robust local economy, creating economic opportunities for residents and businesses in the communities served by MH Texas Medical Center.

**Community Vision and Suggestions for Future Programs and Services**

- **Promote Healthy Living:** Promotion of healthy eating, physical activity, and disease self-management by health care delivery systems and supporting social service organizations was a top suggestion of stakeholders.
• **Improve Transportation:** Transportation presents many problems in the communities served by MH Texas Medical Center, and stakeholders offered perspectives and ideas for future programs and services to alleviate the burden caused by traffic and the lack of transportation in some communities, particularly for lower income residents and seniors.

• **Provide Support to Navigate the Health Care System:** Residents needed assistance in facing the number of barriers to accessing health care services in the communities served by MH Texas Medical Center. Stakeholders described existing strategies such as the incorporation of community health workers in health care settings, which they recommended should be expanded.

• **Expand Availability and Access to Health Care Services:** While the communities served by MH Texas Medical Center offer a multitude of health care services that are recognized as being among the best in the United States, access remains a top issue that community stakeholders wished to see addressed.

• **Expand Access to Behavioral Health Services.** Informants identified behavioral health care access as being a major unmet need in the communities served by MH Texas Medical Center.

• **Promote Multi-Sector, Cross-Institutional Collaboration:** Health care and social service stakeholders frequently noted that, while many local services exist, there are opportunities to improve communication and collaborate to improve population health in the communities served by MH Texas Medical Center.

**Key Themes and Conclusions**

• **The five counties of Harris, Brazoria, Fort Bend, Liberty and Matagorda are quite diverse in terms of social and economic characteristics as well as population health.** Liberty and Matagorda Counties experienced greater economic and health challenges than the other three counties served by MH Texas Medical Center. Harris County also experiences challenges in terms of population health, but has greater access to social, public health, and health care resources and public transportation than other communities.

• **The increase in population over the past five years has placed tremendous burden on existing public health, social, and health care infrastructure, a trend that places barriers to pursuing a healthy lifestyle among residents.** Infrastructure that does not keep up with demand leads to unmet need and sustains unhealthy habits in the community. Communities without easy access to healthy foods, safe roads, affordable housing, sidewalks, and prevention of violence are at a disadvantage in the pursuit of healthy living.

• **Although there is economic opportunity for many residents, there are several pockets of poverty and some residents faced economic challenges that can affect health.** Seniors and members of low-income communities faced challenges in accessing care and resources compared to their younger and higher income neighbors. Strategies such as the incorporation of community health workers into health care systems may increase residents’ ability to access and effectively utilize increasingly complex health care and public health system.

• **Obesity and concerns related to maintaining a healthy lifestyle emerged as challenges for the region.** Barriers ranged from individual challenges of lack of time to prepare healthy foods or engage in physical activity to cultural issues involving cultural norms to structural challenges such as living in a food desert or having limited access to sidewalks, recreational facilities, or affordable fruits and vegetables. While several initiatives in the region are trying to address this issue, there appears ample opportunity for action, partnership, and focusing on specific at-risk populations (e.g., rural communities, low-income communities, and youth).

• **Behavioral health was identified as a key concern among residents.** Stakeholders highlighted multiple unmet needs for mental health and substance abuse services in the communities served by MH Texas Medical Center, particularly the burden of mental health needs in the youth and
incarcerated populations and unmet demands for mental health treatment. Findings from this current assessment process illustrate the importance of pursuing innovative strategies to address behavioral health issues, such as those programs that are part of the Texas Section 1115 Medicaid demonstration waiver, a provision of the Social Security Act that allows provisions of major health and welfare programs authorized under the Act to be waived.

- Communities served by MH Texas Medical Center have several health care assets, but access to those services is a challenge for some residents. Transportation to health services was identified as a substantial concern, especially for seniors and lower income residents, as there are few public transportation options in the region. There is an opportunity to expand services to fill in gaps in transportation, ensuring residents are able to access primary care, behavioral health, and specialty services as well as actively participating in their communities.
BACKGROUND

About Memorial Hermann Health System
Memorial Hermann Health System (MHHS) is the largest non-profit health care systems in Southeast Texas. Memorial Hermann’s 13 hospitals and numerous specialty programs and services serve the Greater Houston area, the fifth largest metropolitan area in the United States. Memorial Hermann annually contributes more than $451 million in uncompensated care, community health improvement, community benefits, health professions education, subsidized health services, research, and community education and awareness.

About Memorial Hermann Texas Medical Center
Located in the heart of the Texas Medical Center in Houston, Memorial Hermann Texas Medical Center (hereafter MH Texas Medical Center) has been caring for families since 1925. Memorial Hermann Texas Medical Center is the primary teaching hospital for The University of Texas Health Science Center at Houston and provides leading-edge care in heart, neuroscience, orthopedics, pediatrics, women’s health, general surgery, and organ transplantation. MH Texas Medical Center is also home to the Memorial Hermann Heart and Vascular Institute, which provides world-class care and innovations. As a Level I state designated trauma facility for both adults and children, and through Memorial Hermann Life Flight, MH Texas Medical Center cares for the most critical and urgent medical emergencies for a 150-mile radius in the Greater Houston area.

Scope of Current Community Health Needs Assessment
There are 13 hospitals participating in MHHS’s community health needs assessment (CHNA) in 2016. The hospitals participating in the CHNA include: Memorial Hermann Greater Heights, Memorial Hermann Texas Medical Center, Memorial Hermann Katy Hospital, Memorial Hermann Rehabilitation Hospital - Katy, Memorial Hermann Memorial City Medical Center, Memorial Hermann Northeast, Memorial Hermann Southwest, Memorial Hermann Southeast, Memorial Hermann Sugar Land Hospital, Memorial Hermann The Woodlands Hospital, TIRR Memorial Hermann, Memorial Hermann Surgical Hospital Kingwood, and Memorial Hermann Surgical Hospital – First Colony. The CHNA process will be integrated with and inform a strategic implementation planning (SIP) process designed to develop aligned strategic implementation plans for each hospital.

Previous Community Health Needs Assessment
MHHS conducted a CHNA for each of its hospitals in 2013 to prioritize health issues, to provide a foundation for the development of a community health improvement plan, and to inform each hospital’s program planning. The CHNA was conducted between August 2012 to February 2013 with the overall goal of identifying the major healthcare needs, barriers to access, and health priorities for those living in the communities of MHHS hospitals. The analysis included a review of current data and input from numerous community representatives.

During the 2013 CHNA, the following six health priorities were identified for MHHS hospitals:
- Education and prevention for diseases and chronic conditions
- Address issues with service integration, such as coordination among providers and the fragmented continuum of care
- Address barriers to primary care, such as affordability and shortage of providers
- Address unhealthy lifestyles and behaviors
- Address barriers to mental healthcare, such as access to services and shortage of providers
- Decrease health disparities by targeting specific populations

The process culminated in the development of an Implementation Plan to address the needs of residents identified through the CHNA. MH Texas Medical Center utilized the plan as a guide to improve the health of their community and advance the service mission of the Memorial Hermann organization. The 2016 CHNA updates MH Texas Medical Center 2013 CHNA and provides additional information about community unmet needs, particularly in the area of healthy living.

Purpose of Community Health Needs Assessment
As a way to ensure that MH Texas Medical Center is achieving its mission and meeting the needs of the community, and in furtherance of its obligations under the Affordable Care Act, MHHS undertook a community health needs assessment (CHNA)
process in the spring of 2016. Health Resources in Action (HRiA), a non-profit public health consultancy organization, was engaged to conduct the CHNA.

A CHNA process aims to provide a broad portrait of the health of a community in order to lay the foundation for future data-driven planning efforts. In addition to fulfilling the requirement by the IRS Section H/Form 990 mandate, the MHHS CHNA process was designed to achieve the following overarching goals:

1. To examine the current health status of MH Texas Medical Center’s communities and its sub-populations, and compare these rates to city/town, county, and state indicators
2. To explore the current health priorities—as well as new and emerging health concerns—among residents within the social context of their communities
3. To identify community strengths, resources, and gaps in services in order to help MH Texas Medical Center, MHHS, and its community partners set programming, funding, and policy priorities

Definition of Community Served for the CHNA
The community health needs assessment process was delineated for each facility’s community using geographic cut-points based on its main service area. MH Texas Medical Center defines its community geographically as the top 50% of zip codes corresponding to inpatient discharges in fiscal year 2015. These selected zip codes correspond to 16 cities and towns in the counties of Brazoria, Fort Bend, Harris, Liberty, and Matagorda. As shown in TABLE 1, a large majority of MH Texas Medical Center inpatient discharges in fiscal year 2015 occurred to residents of Harris County (83.1%); only a small proportion of inpatient discharges occurred to Liberty County (1.3%) or Matagorda County (1.1%) residents. Since MH Texas Medical Center serves a large number of cities and towns, we narrowed the scope of this CHNA to reporting data primarily at the county level. FIGURE 1 presents a map of MH Texas Medical Center’s CHNA defined community.

<table>
<thead>
<tr>
<th>Geography</th>
<th># inpatient discharges</th>
<th>% inpatient discharges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>15,758</td>
<td>83.1%</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>1,467</td>
<td>7.7%</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>1,277</td>
<td>6.7%</td>
</tr>
<tr>
<td>Liberty County</td>
<td>241</td>
<td>1.3%</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>214</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

DATA SOURCE: Memorial Hermann Health System, Inpatient Discharges for FY 2015
NOTE: Data reported for counties and cities corresponding to the top 50% of zip codes
FIGURE 1. MH TEXAS MEDICAL CENTER COMMUNITY DEFINITION

Counts
Brazoria, Fort Bend, Harris, Liberty, and Matagorda

Zip Codes
77033, 77021, 77584, 77045, 77004, 77051, 77047, 77009, 77087, 77048, 77088, 77036, 77016, 77020, 77026, 77093, 77035, 77015, 77053, 77449, 77084, 77459, 77089, 77025, 77023, 77091, 77061, 77521, 77096, 77022, 77396, 77083, 77054, 77346, 77489, 77479, 77581, 77566, 77535, 77075, 77028, 77373, 77338, 77494, 77099, 77469, 77060, 77017, 77044, 77511, 77414, 77034, 77076, 77072, 77532, 77040, 77515, 77450, 77077, 77007, 77092, 77429, 77011, 77082

DATA SOURCE: Map created by Health Resources in Action using 2010 data from the U.S. Department of Commerce, Bureau of the Census
APPROACH & METHODS

The following section describes how the data for the CHNA were compiled and analyzed, as well as the broader lens used to guide this process. Specifically, the CHNA defines health in the broadest sense and recognizes that numerous factors at multiple levels impact a community’s health — from lifestyle behaviors (e.g., diet and exercise), to clinical care (e.g. access to medical services), to social and economic factors (e.g., employment opportunities), to the physical environment (e.g., air quality). The beginning discussion of this section discusses the larger social determinants of health framework which helped guide this overarching process.

Study Approach

Social Determinants of Health Framework

It is important to recognize that multiple factors have an impact on health, and there is a dynamic relationship between real people and their lived environments. Where we are born, grow, live, work, and age—from the environment in the womb to our community environment later in life—and the interconnections among these factors are critical to consider. That is, not only do people’s genes and lifestyle behaviors affect their health, but health is also influenced by more upstream factors such as employment status and quality of housing stock. The social determinants of health framework addresses the distribution of wellness and illness among a population. While the data to which we have access is often a snapshot of a population in time, the people represented by that data have lived their lives in ways that are constrained and enabled by economic circumstances, social context, and government policies. Building on this framework, this assessment approaches data in a manner designed to discuss who is healthiest and least healthy in the community, as well as examines the larger social and economic factors associated with good and ill health.

FIGURE 2 provides a visual representation of this relationship, demonstrating how individual lifestyle factors, which are closest to health outcomes, are influenced by more upstream factors such as employment status and educational opportunities. This report provides information on many of these factors, as well as reviews key health outcomes among the residents of MH Texas Medical Center’s community.

FIGURE 2. SOCIAL DETERMINANTS OF HEALTH FRAMEWORK

Health Equity
In addition to considering the social determinants of health, it is critical to understand how these characteristics disproportionately affect vulnerable populations. Health equity is defined as all people having "the opportunity to 'attain their full health potential' and no one is 'disadvantaged from achieving this potential because of their social position or other socially determined circumstance.' When examining the larger social and economic context of the population (e.g., upstream factors such as housing, employment status, racial/ethnic discrimination, the built environment, and neighborhood-level resources), a robust assessment should capture the disparities and inequities that exist for traditionally underserved groups. Thus a health equity lens guided the CHA process to ensure data comprised a range of social and economic indicators and were presented for specific population groups. According to Healthy People 2020, achieving health equity requires focused efforts at the societal level to address avoidable inequalities by equalizing the conditions for health for all groups, especially for those who have experienced socioeconomic disadvantage or historical injustices.

The framework, process, and indicators used in this approach were also guided by national initiatives including Healthy People 2020, National Prevention Strategy, and County Health Rankings.

Methods

Quantitative Data
In order to develop a social, economic, and health portrait of MH Texas Medical Center’s community through the social determinants of health framework and health equity lenses, existing data were drawn from state, county, and local sources. This work primarily focused on reviewing available social, economic, health, and health care-related data. Sources of data included, but were not limited to, the U.S. Census, U.S. Bureau of Labor Statistics, County Health Rankings, the Texas Department of State Health Services, and MHHS. Types of data included self-report of health behaviors from large, population-based surveys such as the Behavioral Risk Factor Surveillance System (BRFSS), public health disease surveillance data, hospital data, as well as vital statistics based on birth and death records.

Qualitative Data
While social and epidemiological data can provide a helpful portrait of a community, it does not tell the whole story. It is critical to understand people’s health issues of concern, their perceptions of the health of their community, the perceived strengths and assets of the community, and the vision that residents have for the future of their community. Qualitative data collection methods not only capture critical information on the “why” and “how”, but also identify the current level of readiness and political will for future strategies for action.

Secondary data were supplemented by focus groups and interviews. In total, 11 focus groups and 28 key informant discussions were conducted with individuals from MH Texas Medical Center’s community from October 2015 through February 2016. Focus groups were held with 93 community residents drawn from the Greater Houston community representing the following population segments:

- Adolescents (15-18 years old)
- Parents of preschool children (0-5 years old)
- Seniors (65+ years old) (two groups)
- Spanish-speaking Hispanic community members
- English-speaking Hispanic community members
- Asian-American community members
- Low-income community members from urban area
- Low-income community members from suburban area
- Low-income community members from rural area
- Community members of moderate to high socioeconomic status

Twenty-eight key informant discussions were conducted with individuals representing the MH Texas Medical Center community as well as the Greater Houston community at large. Key informants represented a number of sectors including non-profit/community service, city government, hospital or health care, business, education, housing, transportation, emergency preparedness, faith community, and priority populations.

Focus group and interview discussions explored participants’ perceptions of their communities,
priority health concerns, perceptions of public health, prevention, and health care services, and suggestions for future programming and services to address these issues. MH Texas Medical Center specifically addressed healthy eating, physical activity, and the availability and accessibility of community resources that promote healthy living. A semi-structured moderator’s guide was used across all discussions to ensure consistency in the topics covered. Each focus group and interview was facilitated by a trained moderator, and detailed notes were taken during conversations. On average, focus groups lasted 90 minutes and included 6-12 participants, while interviews lasted approximately 30-60 minutes. Participants for the focus groups were recruited by HRiA, working with clinical and community partners identified by MHHS and MH Texas Medical Center. Key informants were recruited by HRIA, working from recommendations provided by MHHS and MH Texas Medical Center.

Analysis
The collected qualitative data were coded using NVivo qualitative data analysis software and analyzed thematically for main categories and sub-themes. Data analysts identified key themes that emerged across all groups and interviews as well as the unique issues that were noted for specific populations relevant to the MH Texas Medical Center community. Frequency and intensity of discussions on a specific topic were key indicators used for identifying main themes. While geographic differences are noted where appropriate, analyses emphasized findings common across MH Texas Medical Center’s community. Selected paraphrased quotes – without personal identifying information – are presented in the narrative of this report to further illustrate points within topic areas.

Limitations
As with all data collection efforts, there are several limitations related to the assessment’s research methods that should be acknowledged. Years of the most current data available differ by data source. In some instances, 2013 may be the most current year available for data, while 2009 or 2010 may be the most current year for other sources. Some of the secondary data were not available at the county level. Additionally, several sources did not provide current data stratified by race and ethnicity, gender, or age – thus these data could only be analyzed by total population. Finally, youth-specific data were largely not available, and in cases where such data were available, sample sizes were often small and must be interpreted with caution.

Likewise, secondary survey data based on self-reports, such as the Behavioral Risk Factor Surveillance System (BRFSS) and the Texas Behavioral Risk Factor Surveillance System, should be interpreted with particular caution. In some instances, respondents may over- or underreport behaviors and illnesses based on fear of social stigma or misunderstanding the question being asked. In addition, respondents may be prone to recall bias—that is, they may attempt to answer accurately, but they remember incorrectly. In some surveys, reporting and recall bias may differ according to a risk factor or health outcome of interest. Despite these limitations, most of the self-report surveys analyzed in this CHNA benefit from large sample sizes and repeated administrations, enabling comparison over time.

While the focus groups and interviews conducted for this study provide valuable insights, results are not statistically representative of a larger population due to non-random recruiting techniques and a small sample size. Recruitment for focus groups was conducted by HRiA, working with clinical and community partners. Because of this, it is possible that the responses received only provide one perspective of the issues discussed. It is also important to note that data were collected at one point in time, so findings, while directional and descriptive, should not be interpreted as definitive.
COMMUNITY SOCIAL AND ECONOMIC CONTEXT

About the MH Texas Medical Center Community
The health of a community is associated with numerous factors including what resources and services are available (e.g., safe green space, access to healthy foods) as well as who lives in the community. Focus group participants and key informants described many assets of the MH Texas Medical Center community, particularly the diversity of the population, a committed base of social service programs, and parental involvement in youth’s education. Over the past two decades, the communities served by MH Texas Medical Center have experienced population growth and economic transformation. The Greater Houston region boasts cultural, educational, and recreational activities based in the Houston, low costs of living relative to other cities; and a robust economy linked with energy industries. With several new housing developments in Houston and surrounding communities, as well as freeway construction and a new public transit system, the community served by MH Texas Medical Center is expected to continue to grow.

Who lives in a community is related to the rates of health outcomes and behaviors of that area. While age, gender, race, and ethnicity are important social characteristics that have an impact on an individual’s health, the distribution of these characteristics in a community may affect the number and type of services and resources available. MH Texas Medical Center’s community has experienced substantial population growth over the last decade, affecting the demand for resources by residents. Interview and focus group participants frequently noted that the communities served by MH Texas Medical Center are diverse across a number of indicators including age distribution, racial and ethnic composition, language, income, education, and employment. Factors affecting the population demographically are also reported, including housing, transportation, and crime and violence. The section below provides an overview of the socioeconomic context of MH Texas Medical Center’s community.

Population Size and Growth
American Community Survey (ACS) estimates indicate that the Texas population increased by 9.5%— from 23,819,042 in 2005-2009 to 26,092,033 in 2010-2014 (TABLE 2). The total population across the five counties served by MH Texas Medical Center was 5,341,349 based on 2010-2014 ACS estimates, 20.5% of Texas’ total population. Between the time periods 2005-2009 and 2010-2014, the population in the counties of Harris (2.1%), Brazoria (1.9%), Fort Bend (3.9%), and Liberty (0.9%) increased, while the population in Matagorda County decreased slightly (0.1%). Fort Bend County was the fastest growing county within the MH Texas Medical Center community defined for this CHNA, with a 3.9% increase in 2010-2014 over the 2005-2009 period.

<table>
<thead>
<tr>
<th>Geography</th>
<th>2005-2009</th>
<th>2010-2014</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>23,819,042</td>
<td>26,092,033</td>
<td>9.5%</td>
</tr>
<tr>
<td>MH Texas Medical Center*</td>
<td>5,223,369</td>
<td>5,341,349</td>
<td>2.3%</td>
</tr>
<tr>
<td>Harris County</td>
<td>4,182,285</td>
<td>4,269,608</td>
<td>2.1%</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>319,493</td>
<td>325,477</td>
<td>1.9%</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>608,939</td>
<td>632,946</td>
<td>3.9%</td>
</tr>
<tr>
<td>Liberty County</td>
<td>76,013</td>
<td>76,707</td>
<td>0.9%</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>36,639</td>
<td>36,611</td>
<td>-0.1%</td>
</tr>
</tbody>
</table>

*Population size for entire MH Texas Medical Center community

Focus group participants and key informants indicated that the area served by MH Texas Medical Center were experiencing fast-paced population growth, a trend that makes the community stand out nationally. One focus group participant explained, “In the area ... some of the big companies are here and people just come and go. A lot of it is because of the oil companies.” As one key informant interviewee noted, “[There has been] rapid growth in [the] population in the last five years. Houston is booming.” Focus group participants reported that population influx has had an effect on their community: “Highways are continually growing. There are so many developments.” Rapid population growth in the Greater Houston area is a pattern expected to continue well beyond this decade. The Houston metropolitan area is projected to increase from 5.9 million in 2010 to 9.3 million in 2030 (FIGURE 3).
**FIGURE 3. PROJECTED TOTAL POPULATION IN MILLIONS, GREATER HOUSTON METROPOLITAN AREA,* 2010-2030**

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>5.9</td>
</tr>
<tr>
<td>2015</td>
<td>6.6</td>
</tr>
<tr>
<td>2020</td>
<td>7.4</td>
</tr>
<tr>
<td>2025</td>
<td>8.3</td>
</tr>
<tr>
<td>2030</td>
<td>9.3</td>
</tr>
</tbody>
</table>

**DATA SOURCE:** Texas State Data Center, as cited by Greater Houston Partnership Research Department in Social, Economic, and Demographic Characteristics of Metro Houston, 2014

**NOTE:** Population projections assume the net immigration from 2010 to 2030 to be equal to that from 2000 to 2010

*Houston-The Woodlands-Sugar Land metropolitan statistical area is a nine-county area as defined by the Office of Management and Budget

**Age Distribution**

As populations age, the needs of the community shift based on increased overall need for health care services. **FIGURE 4** shows the age distribution for each of the counties served by MH Texas Medical Center. Harris and Fort Bend Counties had the youngest population of persons 24 years of age or younger, whereas Matagorda County had the largest population of residents 65 years of age and older (14.6%). It is important to note that Liberty and Matagorda counties contributes smallest proportion of patients at MH Texas Medical Center compared to Harris, Brazoria, and Fort Bend counties.

"My neighborhood is diverse in terms of age. There are some seniors, but also a lot of working young people."

*Focus group participant*

**FIGURE 4. AGE DISTRIBUTION, BY COUNTY, 2009-2013**

<table>
<thead>
<tr>
<th>County</th>
<th>Under 18 years old</th>
<th>18-24 years old</th>
<th>25-44 years old</th>
<th>45-64 years old</th>
<th>65 years old and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>27.8%</td>
<td>10.0%</td>
<td>30.5%</td>
<td>23.2%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>27.5%</td>
<td>8.3%</td>
<td>28.9%</td>
<td>25.4%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>29.1%</td>
<td>8.2%</td>
<td>28.1%</td>
<td>26.6%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Liberty County</td>
<td>25.3%</td>
<td>9.5%</td>
<td>26.7%</td>
<td>26.8%</td>
<td>11.7%</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>25.9%</td>
<td>9.4%</td>
<td>22.8%</td>
<td>27.3%</td>
<td>14.6%</td>
</tr>
</tbody>
</table>

**DATA SOURCE:** U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013
Racial and Ethnic Distribution
Due to a number of complex factors, people of color experience high rates of health disparities across the United States. As such, examining outcomes by race and ethnicity is an important lens through which to view the health of a community.

Qualitative and census data demonstrate the broad diversity of the population served by MH Texas Medical Center in terms of racial and ethnic composition. Focus group participants and key informants frequently characterized the racial and ethnic composition of their community as diverse. One key informant described the MH Texas Medical Center community as, “[A]n extremely diverse, minority majority population. We have a large Hispanic population which is the largest single population followed by [White, non-Hispanic], African American, followed by Asian [residents]. The Hispanic population is growing considerably.” A focus group participant echoed, “It is diverse, really diverse, people are coming in from all over the world, [with] different cultures, especially in schools.”

As shown in FIGURE 5, in Harris (41.1%) and Matagorda (39.0%) Counties, nearly two in five residents identified as Hispanic. Fort Bend County had the largest proportion of residents who identified as Black, non-Hispanic (21.0%) or Asian, non-Hispanic (17.4%). Liberty County (68.5%) had the largest proportion of residents who self-identified as White, non-Hispanic, followed by Brazoria (52.3%) and Matagorda (46.9%) Counties.

FIGURE 5. RACIAL AND ETHNIC DISTRIBUTION, BY COUNTY, 2009-2013

<table>
<thead>
<tr>
<th>County</th>
<th>Hispanic, any race</th>
<th>Black, non-Hispanic</th>
<th>Asian, non-Hispanic</th>
<th>White, non-Hispanic</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>41.1%</td>
<td>18.5%</td>
<td>6.3%</td>
<td>32.6%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>28.1%</td>
<td>12.3%</td>
<td>5.7%</td>
<td>52.3%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>23.9%</td>
<td>21.0%</td>
<td>17.4%</td>
<td>35.9%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Liberty County</td>
<td>18.7%</td>
<td>10.9%</td>
<td>0.5%</td>
<td>68.5%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>39.0%</td>
<td>10.3%</td>
<td>2.1%</td>
<td>46.9%</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013
NOTE: Other includes American Indian and Alaska Native, non-Hispanic; Native Hawaiian and Other, non-Hispanic; and Two or more races, non-Hispanic
**Linguistic Diversity and Immigrant Population**

The nativity of the population, countries from which immigrant populations originated, and language use patterns are important for understanding social and health patterns of a community. Immigrant populations face a number of challenges to accessing services such as health insurance and navigating the complex health care system in the United States.

“**There are 80 languages spoken in schools which is a big challenge for health center staff and care delivery.**”

Key informant interviewee

MH Texas Medical Center serves a community that speaks many languages other than English. Approximately four in ten residents in Harris (42.5%) and Fort Bend (37.9%) Counties spoke a language other than English at home (FIGURE 6), whereas approximately one quarter of residents in Matagorda (28.0%) and Brazoria (25.8%) Counties and 16.6% of Liberty County residents spoke a non-English language at home.

**FIGURE 6. PERCENT POPULATION OVER FIVE YEARS WHO SPEAK LANGUAGE OTHER THAN ENGLISH AT HOME, BY COUNTY, 2009-2013**

<table>
<thead>
<tr>
<th>County</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>42.5%</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>25.8%</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>37.9%</td>
</tr>
<tr>
<td>Liberty County</td>
<td>16.6%</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>28.0%</td>
</tr>
</tbody>
</table>

**DATA SOURCE:** U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013

Focus group participants and key informants consistently described the MH Texas Medical Center community as a collection of immigrants from both within and outside of the United States. One focus group participant explained, “People are from all over. You see it on the playground, people speaking all different languages.” As pointed out by one key informant: “We’ve got very culturally different immigrants and race/ethnicities here … We have lots of immigrants who contribute to our society as well as lots of families from Latin America who are socially and economically disadvantaged.” These qualitative observations were reflected in demographics of the MH Texas Medical Center community.

American Community Survey estimates from 2009-2013 indicate that one in four residents in Harris (25.0%) and Fort Bend (25.9%) Counties was foreign-born, whereas one in ten residents of Brazoria (12.5%) and Matagorda (10.7%) Counties, and 6.8% of Liberty County residents identified as foreign-born (FIGURE 8). According to the Texas Refugee Health Program Refugee Health Report, 5,285 refugees resettled in Harris County in 2014, with Harris County having one of the largest refugee populations in the United States. There was a sizable population of non-English speakers who spoke Spanish or Spanish Creole: 93.2% in Liberty County, 91.0% in Matagorda County, 80.3% in Harris County, 75.6% in Brazoria County, and 48.6% in Fort Bend County. In Fort Bend County, approximately 20% of the non-English speaking population spoke an Asian language.

FIGURE 7 shows the top five non-English languages spoken by County.
FIGURE 7. TOP FIVE NON-ENGLISH LANGUAGES SPOKEN, BY COUNTY, 2009-2013

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013
Income and Poverty

Income and poverty status have the potential to impact health in a variety of ways. For example, the stress of living in poverty and struggling to make ends meet can have adverse effects on both mental and physical health, while financial hardship can be a significant barrier to accessing goods and services.

Focus group participants and key informant interviewees reported that many residents faced a choice between paying for essentials such as food and rent and receiving health care. For example, one key informant shared, “[Low-income residents] will suffer the consequences of untreated conditions. Do I pay my light bill or put groceries on the table or do I pay someone to look at me?” One focus group participant described the day-to-day experience of living on a limited income, particularly among residents with a disability: “A lot of people are on a fixed income. They depend on disability. A lot of us go to the Pantry.” Though some key informants described neighborhoods where lower-income residents have historically resided, some informants noted communities that were recently experiencing a growth in the lower-income population: “[There is a] rapidly evolving location of where poor people are. [The] southeast and northeast sides of Houston used to be where [lower-income residents] lived. That isn’t true anymore ... the low-income population [is] now lining up along the freeway system all the way out Interstate 10. They go all the way out to Katy.”

Another population segment at risk for poverty and its effects identified by informants was the disabled population: “People with disabilities have a hard time when they don’t have family or supports or social networks where they can get financial assistance and a place to live. I get a lot of people who can’t pay their rent and get evicted and we have to connect them with shelters or temporary housing, and it’s always very difficult. Poverty makes them relocate all the time.” A health care provider key informant highlighted how these choices affect the emergency care system in the community: “A lot of times a patient is not going to take care of themselves if no shelter, may want to put food on table instead of doctor, and then they get to the ER. It’s a vicious cycle.”

Data from the 2009-2013 American Community Survey show that the median household income in the five counties served by MH Texas Medical Center ranged from $43,096 in Matagorda County to $85,297 in Fort Bend County (FIGURE 9). FIGURE 10 shows the percent of adults with incomes below the poverty line by zip code in 2009-2013. Across the five counties served by MH Texas Medical Center, the proportion of adults with incomes below the poverty line ranged from a high of 16.4% of Liberty County residents to a low of 7.1% of Fort Bend County residents.
FIGURE 9. MEDIAN HOUSEHOLD INCOME, BY COUNTY, 2009-2013

Harris County $53,137
Brazoria County $67,603
Fort Bend County $85,297
Liberty County $47,228
Matagorda County $43,096

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013

FIGURE 10. PERCENT INDIVIDUALS 18 YEARS AND OVER BELOW POVERTY LEVEL, BY ZIP CODE, 2009-2013

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013
Employment

Employment status also can have a significant impact on one’s health. Many focus group participants and key informant interviewees reported the economic outlook of the Greater Houston area was positive. As one informant explained, “Even [though] the rest of the country has experienced [an] economic downturn, we are just now hitting that. It may be due to our diversification of industry.” Alongside informants’ reports of a robust economy, several also noted the recent decreases in employment opportunities linked with declines in oil prices affecting local industries: “The oil industry is doing poorly right now because the price of oil has dropped. So there’s been a lot of layoffs. And that’s translated into a negative health outcomes when people don’t have jobs.”

Data from the American Community Survey show that in 2009-2013, the percent of unemployed persons was highest in Liberty County (12.6%) and lowest in Fort Bend County (5.6%) (FIGURE 11). The percent of unemployed residents in Texas and all five counties served by MH Texas Medical Center increased in 2009 and have returned to levels similar to those experienced in 2005 (FIGURE 12).

FIGURE 11. PERCENT INDIVIDUALS 16 YEARS AND OVER UNEMPLOYED, BY COUNTY AND CITY, 2009-2013

<table>
<thead>
<tr>
<th>County</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>8.6%</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>6.4%</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>5.6%</td>
</tr>
<tr>
<td>Liberty County</td>
<td>12.6%</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>7.7%</td>
</tr>
</tbody>
</table>

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013

FIGURE 12. TRENDS IN UNEMPLOYMENT RATE, BY COUNTY AND STATE, 2005-2014

**Education**

Educational attainment is often associated with income, and higher educational levels can translate to greater health literacy. Informants described the schools in the community served by MH Texas Medical Center as strong, and an important resource for addressing the social, health, and educational needs of youth in the area. As shown in FIGURE 13, across the five counties served by MH Texas Medical Center, Liberty (62.1%) and Matagorda (58.9%) Counties had the highest proportion of residents with a high school diploma or less. Fort Bend County had the highest proportion of residents who had bachelor’s degree or higher (41.4%).

Experiences in school among youth predict a range of health issues in addition to economic productivity later in the life course. High school student focus group participants expressed concern about the level of stress they experienced as they pursue their academics and aspire to higher education. For example, one high school student focus group participant noted, “College wasn’t as hard to get into back then as it is now,” when referring to the pressure that parents and teachers expressed to get into college. Students also talked about stress as a problem not well understood by educators and parents. A high school student focus group participant illustrated this concept: “My dad didn’t think stress was a thing for kids. My brothers talked sense into my parents. Still my dad says, ‘you’re a kid, you don’t know what stress is.’”

**FIGURE 13. EDUCATIONAL ATTAINMENT OF POPULATION 25 YEARS AND OVER, BY COUNTY, 2009-2013**

<table>
<thead>
<tr>
<th>County</th>
<th>Less than HS Graduate</th>
<th>HS Graduate/GED</th>
<th>Some College/Associate's Degree</th>
<th>Bachelor's Degree or Higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>21.3%</td>
<td>23.5%</td>
<td>26.7%</td>
<td>28.4%</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>14.7%</td>
<td>25.4%</td>
<td>32.4%</td>
<td>27.5%</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>11.5%</td>
<td>18.4%</td>
<td>28.7%</td>
<td>41.4%</td>
</tr>
<tr>
<td>Liberty County</td>
<td>24.9%</td>
<td>37.2%</td>
<td>29.0%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>21.9%</td>
<td>37.0%</td>
<td>26.6%</td>
<td>14.5%</td>
</tr>
</tbody>
</table>

**DATA SOURCE:** U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013
Housing

Housing costs are generally a substantial portion of expenses, which can contribute to an unsustainably high cost of living. One focus group participant described the challenges of making ends meet: “People sometimes are on food stamps, they may live with parents who are on fixed income. They [insurance companies] ask you if you’re paying rent, you still need the money to eat. A hundred dollars is not going to do it.” Additionally, poor quality housing structures, which may contain hazards such as lead paint, asbestos, mold, and rodents, and neighborhood air quality may trigger certain health issues such as asthma. As one key informant explained, “We have big freeways. Lots of cars impacts air quality and we are situated near [the oil refineries].” One key informant expressed concern about there being insufficient housing for the disabled in Houston. “People with physical disabilities often have trouble finding shelter.” Other key informants reported the wide availability of affordable housing within Houston city limits: “There are relatively low housing prices still [in Houston]. You don’t have to be multi-millionaire to live inside the Loop. It used to be that everybody lived out in the suburbs, but now there’s a lot more demand for living within [Houston].”

Across the five counties served by MH Texas Medical Center, the monthly median housing costs for owners ranged from a low of $617 in Matagorda County to a high of $1,590 in Fort Bend County. Similarly, for renters, monthly median housing costs ranged from $658 in Matagorda County to $1,167 in Fort Bend County (FIGURE 14).

In all counties, a higher percentage of renters compared to owners paid 35% or more of their household income towards their housing costs (FIGURE 15). In Harris County, for example, 40.9% of renters paid more than 35% of their income towards housing costs, relative to 25.5% of homeowners.

As shown in FIGURE 16, across the five counties served by MH Texas Medical Center, the proportion of owner-occupied units ranged from more than seven in ten residents in Fort Bend (78.7%) and Liberty (78.1%) Counties, to approximately five in ten residents (56.5%) in Harris County. Harris County had the highest proportion of renters (43.5%). Fort Bend County (81.1%) had the largest share of housing stock built in 1980 or later, and Matagorda (39.6%) and Harris (51.5%) Counties had the lowest proportion of housing units built in or after 1980 (FIGURE 17).

FIGURE 14. MEDIAN MONTHLY HOUSING COSTS BY OWNERS AND RENTERS, BY COUNTY, 2009-2013

<table>
<thead>
<tr>
<th>County</th>
<th>Owner Costs</th>
<th>Renter Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>$1,232</td>
<td>$880</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>$1,199</td>
<td>$865</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>$1,167</td>
<td>$1,590</td>
</tr>
<tr>
<td>Liberty County</td>
<td>$667</td>
<td>$731</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>$617</td>
<td>$658</td>
</tr>
</tbody>
</table>

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013

FIGURE 15. PERCENT HOUSING UNITS WHERE OWNERS AND RENTERS HAVE HOUSING COSTS THAT ARE 35% OR MORE OF HOUSEHOLD INCOME, BY COUNTY, 2009-2013

<table>
<thead>
<tr>
<th>County</th>
<th>% Owners</th>
<th>% Renters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>25.5%</td>
<td>40.9%</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>19.9%</td>
<td>33.5%</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>23.3%</td>
<td>36.4%</td>
</tr>
<tr>
<td>Liberty County</td>
<td>24.3%</td>
<td>36.7%</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>19.7%</td>
<td>39.5%</td>
</tr>
</tbody>
</table>

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013
FIGURE 16. PERCENT HOUSING UNITS OWNER-OCCUPIED AND RENTER-OCCUPIED, BY COUNTY, 2009-2013

<table>
<thead>
<tr>
<th>County</th>
<th>% Owners</th>
<th>% Renters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>56.5%</td>
<td>43.5%</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>73.9%</td>
<td>26.1%</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>78.7%</td>
<td>21.3%</td>
</tr>
<tr>
<td>Liberty County</td>
<td>78.1%</td>
<td>21.9%</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>70.2%</td>
<td>29.8%</td>
</tr>
</tbody>
</table>

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013

FIGURE 17. PERCENT HOUSING UNITS OF TOTAL OCCUPIED HOUSING UNITS BUILT BEFORE 1979 OR AFTER 1980

<table>
<thead>
<tr>
<th>County</th>
<th>Built 1979 or Earlier</th>
<th>Built 1980 or Later</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>48.5%</td>
<td>51.5%</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>38.4%</td>
<td>61.6%</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>18.9%</td>
<td>81.1%</td>
</tr>
<tr>
<td>Liberty County</td>
<td>38.7%</td>
<td>61.3%</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>60.4%</td>
<td>39.6%</td>
</tr>
</tbody>
</table>

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013
Transportation

Transportation is important for people to get to work, school, health care services, social services, and many other destinations. Modes of active transportation, such as biking and walking, can encourage physical activity and have a positive impact on health. Almost all focus group participants and key informant interviewees reported transportation as a major concern in their community. As shared by one key informant: “Houston is geared around cars and most people can’t walk to their jobs. Most can’t take buses to work. ... It is very car dependent. If you don’t have a car, you have a friend who picks you up.” Focus group participants described heavy traffic as a concern, “Now everyday around 5:30pm ... the traffic just stops.”

“Transportation is a huge issue, particularly for those who are low income.”

Key informant interviewee

There were conflicting assessments about the availability and quality of public transportation. One key informant reported: “We’re ... very car centric, car focused. ... [We] don’t like alternative modes of transportation. We have super super highways. They exceed any expectations for any definition of highways.” However, another informant shared the perspective that “The Metro just finished rerouting the busses, so now it seems more efficient and well thought out. They’re also building new metro lines in. All of these things are making the city more interconnected.”

Focus group respondents, particularly seniors living in areas where public transportation is largely unavailable, reported resources in the community that provide transportation to residents, depending on where they live. As reported by a senior focus group participant, “I’ve heard of those transportation services that are provided by certain institutions. Houston Transit Authority has buses that are made available for seniors and the disabled. I’ve seen those buses.”

As reflected in the focus groups and interviews, approximately eight in ten residents in the five counties served by MH Texas Medical Center commuted to work by driving in a car, truck, or van alone (FIGURE 18). Harris County (2.9%) had the highest proportion of residents who commuted by public transportation.

FIGURE 18. MEANS OF TRANSPORTATION TO WORK, BY COUNTY, 2009-2013

<table>
<thead>
<tr>
<th>County</th>
<th>Public Transportation (Excluding Taxis)</th>
<th>Car, Truck, or Van - Alone</th>
<th>Car, Truck, or Van - Carpool</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>2.9%</td>
<td>78.6%</td>
<td>11.7%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>0.3%</td>
<td>85.4%</td>
<td>9.0%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>1.6%</td>
<td>82.1%</td>
<td>10.1%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Liberty County</td>
<td>0.0%</td>
<td>81.8%</td>
<td>14.7%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>0.2%</td>
<td>79.0%</td>
<td>15.5%</td>
<td>5.3%</td>
</tr>
</tbody>
</table>

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013
Crime and Violence
Exposure to crime and violence can have an impact on both mental and physical health. Certain geographic areas may have higher rates of violence, which can serve as stressors for nearby residents. Violence can include physical, social, and emotional violence, such as bullying, which can occur in person or online. Focus group participants and key informants described the priority of violence as a top issue as being dependent on where you live. For example, one high school student focus group participant reported, “Compared to surrounding areas, we’re very low crime.” Descriptions of community safety ranged from “It feels safe” to “There’s gang violence as well, especially in [my neighborhood].” A few focus group participants mentioned the recent open-carry gun policy as a crime-related concern.

According to key informants, types of crime vary across the communities served by MH Texas Medical Center. Key informants described a number of crimes affecting their community including burglary, drug use and dealing, human trafficking, and gang violence. Other informants expressed residents’ concern about the possibility of physical and sexual violence in public spaces, which limited activities in outdoor recreational spaces: “This is not a pedestrian friendly area ... People are uncomfortable walking there because the trails are hidden and covered by trees. We have some urban problems, like more crime, and people don’t necessarily feel safe when they’re by themselves.”

As shown in TABLE 3, rates of violent crime were highest in Harris County (691.4 offenses per 100,000 population) and lowest in Brazoria County (142.9 offenses per 100,000 population). With respect to property crime, rates were highest in Harris County (3,825.0 offenses per 100,000 population) and lowest in Fort Bend County (1,391.3 offenses per 100,000 population).

TABLE 3. VIOLENT AND PROPERTY CRIME RATE PER 100,000 POPULATION

<table>
<thead>
<tr>
<th>Geography</th>
<th>Violent Crime Rate</th>
<th>Property Crime Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>691.4</td>
<td>3,825.0</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>142.9</td>
<td>1,746.2</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>197.1</td>
<td>1,391.3</td>
</tr>
<tr>
<td>Liberty County</td>
<td>373.0</td>
<td>2,946.7</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>290.5</td>
<td>3,030.5</td>
</tr>
</tbody>
</table>

DATA SOURCE: Texas Department of Public Safety, Texas Crime Report, 2014

Focus group participants and key informant interviewees did not specifically identify bullying in schools or cyberbullying as major issues in their communities. According to the Centers for Disease Control and Prevention High School Youth Risk Behavior Survey, in 2013 13.4% of Houston high school students in grades 9 through 12 reporting being bullied on school property, and 9.1% reported being electronically bullied (FIGURE 19). Houston high school students self-identifying as White were more likely to self-report being bullied in school, compared to Hispanic or Black, non-Hispanic high school students.

“Illicit drugs and human trafficking are part of the greater Houston area that contribute to crime but they aren’t the only things we are dealing with.”

Key informant interviewee
FIGURE 19. PERCENT HOUSTON YOUTH (GRADES 9-12) SELF-REPORTED TO HAVE BEEN BULLIED ON SCHOOL PROPERTY OR ELECTRONICALLY IN PAST 12 MONTHS, BY RACE AND ETHNICITY, 2013

DATA SOURCE: Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey, Houston, TX, 2013

NOTE: There was insufficient sample size to report on other races or ethnicities.
HEALTH OUTCOMES AND BEHAVIORS

People who reside in the communities served by MH Texas Medical Center experience a broad range of health outcomes and exhibit health behaviors that reflect their socioeconomic status and the social and built environment around them. Many of the demographic factors described previously such as population growth, limited public transportation, and crime all shape the health of the population, including mortality, chronic disease, behavioral health, communicable disease, and oral health, among other issues. Focus group participants and key informants representing the MH Texas Medical Center community described a high burden of chronic disease, particularly among lower-income residents. Limited access to healthy food in some communities was an issue, especially for children and their families. From mortality to healthy living, this section provides a snapshot of health within the communities served by MH Texas Medical Center.

Overall Leading Causes of Death

Mortality statistics provide insights into the most common causes of death in a community. An overview of the health status of communities served by MH Texas Medical Center can be helpful for planning programs and policies focused on leading causes of death. According to the Texas Department of State Health Services, of the five counties served by MH Texas Medical Center, Liberty County experienced the highest overall mortality rate (1,027.1 per 100,000 population), followed by Matagorda County (873.7 per 100,000 population) (FIGURE 20). Similarly, in 2013, Liberty County had the highest mortality rates for heart disease, cancer, and chronic lower respiratory disease (FIGURE 21). In Liberty County, where 11.7% of residents were 65 years of age or older, Alzheimer’s disease was also a leading cause of death. Mortality rates due to stroke and accidents were highest in Matagorda County.

TABLE 4 presents the leading causes of death by age and county in 2013.

FIGURE 20. MORTALITY FROM ALL CAUSES FOR ALL AGES, RATE PER 100,000 POPULATION, BY COUNTY, 2013

<table>
<thead>
<tr>
<th>County</th>
<th>Mortality Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberty County</td>
<td>1,027.1</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>873.7</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>774.7</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>599.6</td>
</tr>
<tr>
<td>Harris County</td>
<td>737.8</td>
</tr>
<tr>
<td>Liberty County</td>
<td>1,027.1</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>873.7</td>
</tr>
</tbody>
</table>

DATA SOURCE: Texas Department of State Health Services, Health Facts Profiles, 2013

NOTE: Asterisk (*) denotes unreliable rate due to small numbers

FIGURE 21. LEADING CAUSES OF DEATH PER 100,000 POPULATION, BY COUNTY, 2013

DATA SOURCE: Texas Department of State Health Services, Health Facts Profiles, 2013

NOTE: Asterisk (*) denotes unreliable rate due to small numbers
<table>
<thead>
<tr>
<th>Year</th>
<th>Cause</th>
<th>Harris County</th>
<th>Brazoria County</th>
<th>Fort Bend County</th>
<th>Liberty County</th>
<th>Matagorda County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 1 year</td>
<td>Certain Conditions Originating in the Perinatal Period</td>
<td>347.5</td>
<td>211.8</td>
<td>208.2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Congenital Malformations, Deformations and Chromosomal Abnormalities</td>
<td>133.9</td>
<td>-</td>
<td>122.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Homicide</td>
<td>19.9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Accidents</td>
<td>12.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Septicemia</td>
<td>8.5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1-4 years</td>
<td>Cancer</td>
<td>4.4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Accidents</td>
<td>4.1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Congenital Malformations, Deformations and Chromosomal Abnormalities</td>
<td>2.6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Heart Disease</td>
<td>1.9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5-14 years</td>
<td>Cancer</td>
<td>3.7</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Accidents</td>
<td>2.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Chronic Lower Respiratory Diseases</td>
<td>0.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Heart Disease</td>
<td>0.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>15-24 years</td>
<td>Accidents</td>
<td>24.1</td>
<td>25.5</td>
<td>19.3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Homicide</td>
<td>16.2</td>
<td>11.6</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Suicide</td>
<td>8.6</td>
<td>16.2</td>
<td>8.6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Cancer</td>
<td>4.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Heart Disease</td>
<td>2.3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>25-34 years</td>
<td>Accidents</td>
<td>24.7</td>
<td>64.2</td>
<td>26.2</td>
<td>-</td>
<td>122.1</td>
</tr>
<tr>
<td></td>
<td>Homicide</td>
<td>14.9</td>
<td>-</td>
<td>11.0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Cancer</td>
<td>11.2</td>
<td>16.6</td>
<td>11.0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Suicide</td>
<td>10.5</td>
<td>14.3</td>
<td>9.6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Heart Disease</td>
<td>5.9</td>
<td>21.4</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>35-44 years</td>
<td>Cancer</td>
<td>29.3</td>
<td>24.4</td>
<td>22.7</td>
<td>65.9</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Accidents</td>
<td>28.2</td>
<td>36.7</td>
<td>15.8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Heart Disease</td>
<td>19.3</td>
<td>16.3</td>
<td>9.9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Suicide</td>
<td>11.1</td>
<td>-</td>
<td>10.9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Homicide</td>
<td>9.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Chronic Liver Disease and Cirrhosis</td>
<td>*</td>
<td>-</td>
<td>4.9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>45-54 years</td>
<td>Cancer</td>
<td>95.5</td>
<td>117.2</td>
<td>62.5</td>
<td>151.5</td>
<td>139.2</td>
</tr>
<tr>
<td></td>
<td>Heart Disease</td>
<td>82.2</td>
<td>60.7</td>
<td>46.4</td>
<td>124.7</td>
<td>139.2</td>
</tr>
<tr>
<td></td>
<td>Accidents</td>
<td>42.5</td>
<td>48.1</td>
<td>16.1</td>
<td>71.3</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Chronic Liver Disease and Cirrhosis</td>
<td>22.1</td>
<td>39.8</td>
<td>19.2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Suicide</td>
<td>15.7</td>
<td>*</td>
<td>11.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Homicide</td>
<td>*</td>
<td>16.7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>55-64 years</td>
<td>Cancer</td>
<td>273.3</td>
<td>307.3</td>
<td>199.1</td>
<td>356.5</td>
<td>311.4</td>
</tr>
<tr>
<td></td>
<td>Heart Disease</td>
<td>194.8</td>
<td>169.5</td>
<td>123.3</td>
<td>356.5</td>
<td>330.9</td>
</tr>
<tr>
<td></td>
<td>Accidents</td>
<td>49.7</td>
<td>53.0</td>
<td>32.1</td>
<td>91.7</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Stroke</td>
<td>39.5</td>
<td>39.7</td>
<td>*</td>
<td>61.1</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
<td>38.2</td>
<td>*</td>
<td>*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Chronic Liver Disease and Cirrhosis</td>
<td>*</td>
<td>55.6</td>
<td>19.3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Age Group</td>
<td>Harris County</td>
<td>Brazoria County</td>
<td>Fort Bend County</td>
<td>Liberty County</td>
<td>Matagorda County</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>---------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td>----------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>55-64 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Septicemia</td>
<td>*</td>
<td>*</td>
<td>16.7</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Chronic Lower Respiratory Diseases</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>71.3</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>65-74 years</td>
<td>Cancer</td>
<td>618.1</td>
<td>677.3</td>
<td>473.2</td>
<td>716.0</td>
<td>794.9</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>419.8</td>
<td>456.2</td>
<td>240.6</td>
<td>895.0</td>
<td>550.3</td>
<td></td>
</tr>
<tr>
<td>Chronic Lower Respiratory Diseases</td>
<td>97.9</td>
<td>155.2</td>
<td>59.5</td>
<td>390.6</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Stroke</td>
<td>92.0</td>
<td>94.1</td>
<td>73.0</td>
<td>130.2</td>
<td>244.6</td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td>71.0</td>
<td>80.0</td>
<td>*</td>
<td>*</td>
<td>152.9</td>
<td></td>
</tr>
<tr>
<td>Septicemia</td>
<td>*</td>
<td>*</td>
<td>43.3</td>
<td>97.6</td>
<td>-</td>
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<tr>
<td>75-84 years</td>
<td>Heart Disease</td>
<td>1,166.1</td>
<td>1,248.7</td>
<td>952.4</td>
<td>2,169.3</td>
<td>791.9</td>
</tr>
<tr>
<td>Cancer</td>
<td>1,115.1</td>
<td>1,086.3</td>
<td>1,037.1</td>
<td>1,574.5</td>
<td>1,244.3</td>
<td></td>
</tr>
<tr>
<td>Stroke</td>
<td>304.3</td>
<td>284.3</td>
<td>239.9</td>
<td>419.9</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Chronic Lower Respiratory Diseases</td>
<td>274.6</td>
<td>416.2</td>
<td>204.6</td>
<td>839.7</td>
<td>565.6</td>
<td></td>
</tr>
<tr>
<td>Septicemia</td>
<td>173.5</td>
<td>*</td>
<td>*</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Alzheimer’s Disease</td>
<td>*</td>
<td>284.3</td>
<td>148.2</td>
<td>524.8</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>-</td>
<td>282.8</td>
<td></td>
</tr>
<tr>
<td>85+ years</td>
<td>Heart Disease</td>
<td>3,459.7</td>
<td>3,371.1</td>
<td>3,615.9</td>
<td>5,864.2</td>
<td>4,147.5</td>
</tr>
<tr>
<td>Cancer</td>
<td>1,586.9</td>
<td>1,553.9</td>
<td>1,477.4</td>
<td>1,131.7</td>
<td>1,536.1</td>
<td></td>
</tr>
<tr>
<td>Stroke</td>
<td>957.0</td>
<td>763.8</td>
<td>1,030.3</td>
<td>823.0</td>
<td>1,843.3</td>
<td></td>
</tr>
<tr>
<td>Chronic Lower Respiratory Diseases</td>
<td>627.5</td>
<td>816.4</td>
<td>894.2</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Alzheimer’s Disease</td>
<td>574.2</td>
<td>553.1</td>
<td>602.6</td>
<td>1,851.9</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Nephritis, Nephrotic Syndrome, and Nephrosis</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>720.2</td>
<td>921.7</td>
<td></td>
</tr>
</tbody>
</table>

DATA SOURCE: Texas Department of State Health Services, Texas Health Data, Deaths of Texas Residents, 2013

NOTE: Dash (−) denotes unreliable rate
NOTE: Asterisk (*) denotes unreliable rate due to small numbers
NOTE: "All Other Diseases" not reported in leading causes

Across the five counties served by MH Texas Medical Center for which suicide mortality rates were available, suicide rates were highest among persons 45 to 54 years of age in Brazoria County (29.1 suicides per 100,000 population), followed by Harris County adults 85 years of age and older (24.2 per 100,000 population) (FIGURE 22).

FIGURE 22. SUICIDE MORTALITY RATE PER 100,000 POPULATION, BY AGE AND COUNTY, 2013

DATA SOURCE: Texas Department of State Health Services, Texas Health Data, Deaths of Texas Residents, 2013

NOTE: Asterisk (*) denotes unreliable rate due to small numbers
Chronic Diseases and Related Risk Factors
Diet, exercise, stress, and other biological conditions are risk factors for chronic diseases. Access to healthy food and opportunities for physical activity depend on not only individual choices but also on the environment in which individuals, families, and communities live, work, and age, the economic resources they have access to, and the larger social context in which they operate. The prevention and management of chronic diseases is important for preventing disability and death, and also for maintaining a high quality of life.

Access to Healthy Food and Healthy Eating
One of the most important risk factors for maintaining a healthy weight and reducing risk of cardiovascular disease is healthy eating habits, secured by access to the appropriate foods and ensuring an environment that helps make the healthy choice the easy choice.

Food Access
Focus group participants and key informants consistently identified food insecurity as a major issue affecting the community. For example, a key informant interviewee discussed limited access to healthy food choices, “If you live in a food desert then it’s hard to obtain food, even if healthy options are available elsewhere. You see a lot of corner stores with unhealthy food.” Another informant described how financial strain limited food options even if healthy food choices were abundant, “When all you can afford is McDonalds, that’s what they’re going to eat. Even in a large [area] like Houston that has ample resources, food desserts are a problem.”

As illustrated in FIGURE 23, the prevalence of food insecurity was relatively similar for the total population across all five counties served by MH Texas Medical Center. Children were more likely to be food insecure than adults. In Matagorda (31.5%) and Liberty (28.3%) Counties, approximately three in ten children under 18 years of age were considered to be food insecure, followed by approximately one quarter of children in Harris County (26.3%), and one in five children in Brazoria (23.0%) and Fort Bend (20.6%) Counties.

Across the five counties served by MH Texas Medical Center, receipt of benefits from the Supplemental Nutrition Assistance Program (SNAP), the program providing nutritional assistance for low-income families, ranged from 18.5% in Liberty County to 6.8% in Fort Bend County (FIGURE 24).

“There’s much more that needs to be done in regards to after school snacks, healthy lunches, and summer meals. We need healthy corner stores in areas that don’t have grocery stores.”

Key informant interviewee

According to the US Department of Agriculture, in 2013 in the five counties served by MH Texas Medical Center, access to grocery stores ranged from 9 grocery stores per 100,000 population in Brazoria County to 19 grocery stores per 100,000 population in Harris County (FIGURE 25). Access to fast food restaurants was greatest in Harris County (75 fast food restaurants per 100,000 population, each) and lowest in Liberty County (54 fast food restaurants per 100,000 population). In 2012, the density of convenience stores was highest in Fort Bend County (111 convenience stores per 100,000 population), more than double that in Brazoria and Liberty Counties (47 convenience stores per 100,000 population).

“Unhealthy food is more readily available and cheaper; it is too demanding to plan out healthy meals when working three jobs and stretching a budget.”

Key informant interviewee

As shown in FIGURE 26, across the three counties served by MH Texas Medical Center for which farmer’s markets were available, access to farmer’s markets was similar. Harris County low-income residents had the greatest access to farmer’s markets (13.7%) and one in ten low-income residents in Brazoria (10.4%) and Fort Bend (10.4%) County lived near a farmer’s market. Among zip codes corresponding to MH Texas Medical Center’s
community, Houston zip code 77036 had the highest number of calls (6,137) to the Harris County United Way Helpline related to food in 2014 (FIGURE 27).

**FIGURE 23. PERCENT FOOD INSECURE BY TOTAL POPULATION AND UNDER 18 YEARS OLD POPULATION, BY COUNTY, 2013**

<table>
<thead>
<tr>
<th>County</th>
<th>Total Population</th>
<th>Under 18 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>18.0%</td>
<td>26.3%</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>16.1%</td>
<td>23.0%</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>15.4%</td>
<td>20.6%</td>
</tr>
<tr>
<td>Liberty County</td>
<td>19.5%</td>
<td>28.3%</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>18.9%</td>
<td>31.5%</td>
</tr>
</tbody>
</table>

**DATA SOURCE:** Map the Meal Gap, 2015

**NOTE:** Food insecurity among children defined as self-report of two or more food-insecure conditions per household in response to eight questions on the Community Population Survey.

**FIGURE 25. ACCESS TO GROCERY STORES, FAST FOOD RESTAURANTS, AND CONVENIENCE STORES, PER 100,000 POPULATION, BY COUNTY, 2013**

**DATA SOURCE:** US Census Bureau, County Business Patterns, as cited by Community Commons, 2013; and as city by USDA Food Environment Atlas, 2012

*Convenience store data reflects 2012*
FIGURE 26. PERCENT LOW INCOME POPULATION LIVING NEAR A FARMER’S MARKET, BY COUNTY, 2015

DATA SOURCE: US Department of Agriculture, Agriculture Marketing Service, 2015, as cited by Community Commons

FIGURE 27. NUMBER OF FOOD-RELATED CALLS TO 2-1-1 UNITED WAY HELPLINE IN HARRIS COUNTY, BY ZIP CODE, 2014

DATA SOURCE: United Way of Harris County, 2014
“There’s not enough nutritional value in our daily lives. We’re so used to eating cookies and cakes that aren’t good for you. We have a group of people here [at the senior center] who are trying to be friendly with other people by bringing each other cakes and such. We need more nutritional things. We have to stop eating junk food. We need something like a healthy snack bar [at the senior center].”

Focus group participant

Eating Behaviors
Eating healthy food promotes overall health. Focus group participants and key informant interviewees described healthy eating as a difficult habit to maintain. Limited access to healthy foods, the low cost of fast food, cultural norms around eating, and limited knowledge about nutrition were cited across all informants as being top drivers of unhealthy eating habits. The low cost of and easy access to unhealthy, fast food were also cited as a contributor to unhealthy eating habits. Key informants pointed to the lack of grocery stores in low-income communities as contributing to unhealthy eating habits: “We have food deserts and obesity problems with children and adult. Fast food is cheaper and there aren’t many grocery stores in low-income communities. That is improving due to effort by grocery stores but it is still a problem.” Informants also cited cultural factors as affecting whether people make healthy food choices: “Texas is the barbeque capital of the world. Barbeque and pizza are popular and very unhealthy. For 30 years, we have known that smoked meats cause cancer. Other than the recent announcement, you will never hear any kind of person in Texas saying it is unhealthy to eat barbeque.”

Surveys in Harris County indicate that only 12.2% of Harris County adults reported that they ate fruits and vegetables five or more times per day, in accordance with the government recommendation (FIGURE 28). Adults who were younger (18-29 years old) had the highest percentage of respondents meeting this recommendation (15.3%). When examining responses by racial or ethnic identification, 14.3% of White adults indicated this eating behavior compared to 11.5% of Black, non-Hispanic respondents and 10.9% of Hispanic respondents (FIGURE 29). Lower income Harris County adults were less likely than residents with higher median household incomes to report consuming five or more fruits and vegetables daily (FIGURE 30).
Youth in grades nine through twelve in Houston were surveyed about their eating habits in 2013. In the survey, 8.9% of high school students in Houston indicated that they did not eat any fruit or drink any fruit juices in the past seven days, while 12.5% reported that they had not eaten any vegetables during this time period (FIGURE 31). Black, non-Hispanic students (10.5%) were most likely to indicate that they had not consumed any fruits, while Hispanic students (14.2%) were most likely to report not eating any vegetables. As illustrated in FIGURE 32, non-White students were also more likely to indicate they had not eaten breakfast in the past seven days. Compared to 60.5% of White students, 72.7% of Black, non-Hispanic students and 73.9% of Hispanic students reported they had not eaten breakfast in the past seven days. Black, non-Hispanic students were more likely to report drinking soda two or more times per day in the last seven days (19.5%) than Hispanic (14.7%) and White students (9.0%) (FIGURE 33).
Physical Activity
Another important risk factor for maintaining a healthy weight and reducing one’s risk of cardiovascular disease is physical activity. Focus group participants and key informants cited multiple time constraints and a limited infrastructure to promote physical activity in public spaces as challenges to engaging in physical activity. A focus group participant described the barriers to being physically active in their neighborhood: “The sidewalks are bad. We walk in the street. There’s poor street lighting. It’s always dark.”

More than two-thirds (68.2%) of adults surveyed in Harris County indicated that they had participated in any type of physical activity in the past month (FIGURE 34). When examining reports by race and ethnicity, Hispanic adults (57.7%) were the least likely to report that they had participated in any physical activity in the past month.

In surveys with Houston high school students, two-thirds (66.6%) reported that they had not participated in 60 or more minutes of physical activity for 5 days in the past 7 days, the recommendation for youth physical activity levels (FIGURE 35). Hispanic youth (68.6%) were most likely to report not reaching this level of activity.

Overweight and Obesity
Obesity is a major risk factor for cardiovascular disease and increases the risk of death due to heart disease, diabetes, and stroke. Each community served by MH Texas Medical Center is affected by overweight and obesity. Almost all focus group participants and key informant interviewees described overweight and obesity as a major issue in the community, alongside diabetes and heart disease. Focus group participants and key informants identified obesity as driven by unhealthy eating habits and low levels of physical activity. For example, one key informant interviewee reported, “Houston has an obesity problem – we tend to

FIGURE 34. PERCENT ADULTS SELF-REPORTED TO HAVE PARTICIPATED IN ANY PHYSICAL ACTIVITIES IN PAST MONTH, BY RACE AND ETHNICITY, HARRIS COUNTY, 2013

- Overall 68.2%
- Other/Multiracial 82.9%
- White 75.2%
- Black 72.9%
- Hispanic 57.7%


FIGURE 35. PERCENT HOUSTON YOUTH (GRADES 9-12) SELF-REPORTED TO NOT HAVE BEEN PHYSICALLY ACTIVE FOR AT LEAST 60 MINUTES PER DAY ON FIVE OR MORE DAYS IN PAST SEVEN DAYS, BY RACE AND ETHNICITY, 2013

- Houston High School Youth 66.6%
- Hispanic 68.6%
- White 63.7%
- Black 62.7%

DATA SOURCE: Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey, Houston, TX, 2013

“[People] spend so much time commuting that by the time they get home they don’t want to go somewhere to exercise. There aren’t a tremendous number of parks. You would have to get in your car.”

Key informant interviewee
spend a lot of time in cars and inside, not a lot outside in green spaces.” Other focus group participants and informants shared concerns about children being at high risk for obesity. As one focus group participant explained, “Obesity is an issue everywhere. I see a lot of it among kids.”

In 2013, approximately seven in ten adults in Harris County (69.4%) reported that they were overweight or obese, though these patterns varied by race and ethnicity. Harris County adults who identified as Black, non-Hispanic (91.7%) were most likely to be considered overweight or obese, followed by Hispanic (74.8%) and White (63.2%) adults (FIGURE 36).

In 2014, approximately one in ten adults in Harris County (10.4%) self-reported to have been diagnosed with diabetes (data not shown). In 2013, Harris County saw 11.3 hospital admissions per 100,000 population for uncontrolled diabetes, while Fort Bend County had 6.8 admissions per 100,000 population (FIGURE 37).

**Diabetes**

Diabetes is a life-long chronic illness that can cause premature death. According to the American Diabetes Association, care for diagnosed diabetes accounts for one in five health care dollars in the United States, a figure which has been rising over the last several years. Diabetes is an issue for some residents in communities served by MH Texas Medical Center. The majority of focus group participants and key informants identified diabetes (along with cancer and hypertension) as a top health issue in the region. As one senior focus group participant described, “Diabetes...it seems to be rampant. Everybody I know is on blood pressure medication or diabetes type 1 or type 2.” Several key informants discussed the unmet needs of diabetes, particularly regarding self-managing diabetes and health care system constraints that contributed to delayed care. One key informant reported, “We will see patients are coming in for chronic conditions [like diabetes] if they are not managing it and it is not controlled. Blindness or other indicators that are preventable. The conditions are exacerbated and it isn’t being controlled.” Several informants discussed diabetes “running in families” as though diabetes was an expected outcome: “We see people who expect to have diabetes because everyone in their family does.” This creates burden on residents served by MH Texas Medical Center.

**Heart Disease, Stroke, and Cardiovascular Risk Factors**

Hypertension (e.g., high blood pressure) is one of the major causes of stroke, and high cholesterol is a major risk factor for heart disease. Both hypertension and cholesterol are preventable conditions. Unhealthy lifestyle practices, such as unhealthy diets and sedentary behaviors, and stress can play major roles in the development of these top two cardiovascular risk factors. Heart disease and stroke are among the top five leading causes of death both nationally and within this region. Focus group participants named hypertension and heart disease as among the top issues affecting their community.
community, especially among seniors. One focus group participant said many diseases affected the community, “Especially heart disease...everybody has high pressure.” Many senior focus group participants discussed the challenges of managing multiple chronic diseases. One senior observed, “The doctor just straight says, ‘here’s the medication you need to take.’ I got 14 different prescriptions.” Key informants identified hypertension and heart disease as among the top issues affecting their community, especially among older residents.

Some key informants expressed concern that heart disease and stroke occurred more frequently in populations experiencing health disparities. Additionally, informants expressed a need for treatment of hypertension to prevent more serious cardiovascular events, “[We need to get] more people in when they have high blood pressure [so] that it can controlled [to prevent] a stroke.”

According to the Texas Behavioral Risk Factor Surveillance System, in 2014 2.8% of adults in Harris County self-reported having been diagnosed with angina or coronary heart disease (data not shown). In Harris County, a proportion of 3.8% of adults self-reported having had a stroke, and 3.6% reported having had a heart attack (data not shown).

As illustrated in FIGURE 38, over a third of Harris County adults self-reported having high cholesterol (38.3%) and just under a third self-reported having high blood pressure (32.4%). Harris County residents over the age of 65 were disproportionately likely to report having high blood pressure (71.7%) than their younger counterparts. Reports of diagnosed high cholesterol also increased with age. As illustrated in FIGURE 39, White Harris County residents had the highest self-reported prevalence of high cholesterol (46.6%) while Black, non-Hispanic Harris County residents had the highest self-reported prevalence of high blood pressure (45.7%).

Asthma
A few key informant interviewees described air quality linked with refineries and traffic as an issue of concern for the community. One key informant explained, “We have environmental challenges of poor air quality. [This is] particularly challenging in [the] eastside of city where all the chemical plants are. They release polluting gases and people live over there. We have no zoning in Houston. Some residential neighborhoods are right next to petrochemical plants.” Some key informants noted that lower-income populations were most acutely affected by air quality concerns, “There are big
poverty areas in Houston. Low-income minority populations are concentrated. Food deserts and crime and poor air quality and such are concentrated in poor areas.”

In 2013, 12.6% of Texas adults self-reported having asthma at one point in their lifetime according to the Texas Behavioral Risk Factor Surveillance System (data not shown). In Harris County, 5.3% of adults self-reported prevalence of current asthma (data not shown). In 2012, adult hospital discharges for asthma were the highest in Liberty County (11.7 per 10,000 residents) and lowest in Fort Bend County (5.7 per 10,000 population) (FIGURE 40). As shown in FIGURE 41, among children aged 17 years and younger, the rate of asthma-related hospital discharges for Black, non-Hispanic children was three times the rate for White children (24.2 versus 8.2 per 10,000 residents).

**FIGURE 40. AGE-ADJUSTED ASTHMA HOSPITAL DISCHARGE RATES PER 10,000 POPULATION, BY COUNTY, 2012**

<table>
<thead>
<tr>
<th>County</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>8.4</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>6.3</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>5.7</td>
</tr>
<tr>
<td>Liberty County</td>
<td>11.7</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>8.3</td>
</tr>
</tbody>
</table>

**DATA SOURCE:** Texas Health Care Information Collection (THCIC), Inpatient Hospital Discharge Public Use Data File, 2012, as cited by Texas Department of State Health Services, Office of Surveillance, Evaluation and Research, Health Promotion and Chronic Disease Prevention Section, in Asthma Burden Among Children in Harris County, Texas, 2007-2012

**NOTE:** Data do not include HIV and drug/alcohol use patients,

**Cancer**

Cancer is among the top two leading causes of death in the region. (In some cases, cancer is the leading cause of death, while heart disease is number one in others.) This regional trend is similar to what is seen nationally. Focus group participants and key informant interviewees described cancer as a health condition seen in their community. Many informants expressed concern that residents have limited awareness of or access to cancer screening and detection resources, as well as cancer care. A focus group participant said, “You may get cancer because you don’t get access to information and resources.” Another focus group participant reported: “Some people don’t know they have an illness [like cancer].”

“*We are seeing more and more cancers.*”

Key informant interviewee
Of the five counties served by MH Texas Medical Center, Harris (444.1 per 100,000 population) and Matagorda (429.9 per 100,000 population) Counties had the highest cancer incidence rates, and Brazoria County (395.4 per 100,000 population) had the lowest incidence rate (FIGURE 42). Cancer mortality rates were highest in Liberty County (208.4 per 100,000 population) and lowest in Fort Bend County (133.9 per 100,000 population) (FIGURE 43).

In a 2014 Behavioral Risk Factor Surveillance survey, in Harris County approximately eight in ten women 40 years of age or older indicated they had completed a mammogram in the past two years (81.6%) (FIGURE 44). With respect to cervical cancer screening, seven in ten women in Harris County reported of having completed a pap test in the past three years (70.0%), and three-quarters of Harris County adults self-reported having a colonoscopy or sigmoidoscopy (64.8%).

Behavioral Health

Behavioral health issues, including mental health and substance abuse disorders, have a substantial impact on individuals, families, and communities. Mental health status is also closely connected to physical health, particularly in regard to the prevention and management of chronic diseases. This section describes the burden of mental health and substance use and abuse in the communities served by MH Texas Medical Center.

Mental Health

Focus group participants and key informants identified mental health as a major unmet need in the community served by MH Texas Medical Center. While some focus group participants and informants cited mental health as an issue that touches multiple segments of the population, others described mental health concerns as concentrated among lower-income residents. For example, one informant noted, “Mental health issues are multi-cultural. They do not discriminate ... [mental health] touches every family regardless of their level of education and professional standing.” Another informant explained, “[Low-income older residents] are ... experiencing poorer mental health status with symptoms like anxiety, social isolation, and depression.”

“Our schools and counselors really do see a very significant uptake in behavioral health concerns.”

Key informant interviewee
Informants also cited the lack of access to mental health services as a major unmet need in the community served by MH Texas Medical Center. For example, one key informant interviewee reported, “...biggest gap is mental health services ... there are not enough services, not enough beds, people are in jails who don’t need to be there; and they are on the streets who need help.” Other informants echoed the link between mental health and incarceration. One key informant shared, “We have a huge problem with mental health...the largest mental health center is the county jail.”

According to the Texas Behavioral Risk Factor Surveillance System, in 2014 19.3% of adults in Harris County self-reported having five or more poor mental health days (data not shown). Rates of psychiatric discharge ranged from 2.3 per 1,000 persons in Fort Bend County to 5.6 per 1,000 population in Matagorda County (FIGURE 45).

Focus group participants and key informants reported that youth were at high risk for mental health problems, and the response to their needs was inadequate. One key informant interviewee noted, “Too many cases are undiagnosed for too long.” Another informant pointed to teen suicide as a top issue of concern in the community. “We have high teen suicides. It’s anecdotal ... but part of it is because we’re in affluent communities. If you don’t fit in, people will know that. If you live a different lifestyle (if you’re poor, if you’re gay, etc.), people will know and will make sure you fit yourself in.”

Houston Hispanic youth reported higher mental health needs than youth of other races or ethnicities. Among youth in Houston in 2013, one-third of Hispanic (34.1%) high school students self-reported feeling sad or hopeless for two or more weeks in the past year (FIGURE 46). Approximately one in ten high school students (11.6%) self-reported that they attempted suicide at least once in the past year, with 12.1% of Hispanic and 11.3% of Black, non-Hispanic students reporting attempted suicide in the past year (FIGURE 47).
Substance Use and Abuse

Substance use and abuse affects the physical and mental health of those who use substances, their families and friends, and the wider community. Focus group participants and key informants raised substance abuse as an important health issue in the community served by MH Texas Medical Center. A high school student described, “There’s a general pressure to do drugs or smoking,” and another clarified, “It’s not as much smoking as it is drugs.” Neither focus group participants nor key informant interviewees identified opioid addiction as a major health issue affecting the MH Texas Medical Center community.

According to the Texas Behavioral Risk Factor Surveillance System, in 2014 13.7% of Harris County adults self-reported binge drinking in the past month and 13.6% reported being current smokers (data not shown). A proportion of 1.9% of Harris County adults reported that within the past month they drove after consuming alcohol (data not shown). Over the 2010-2014 period, the rate of non-fatal motor vehicle crashes attributed to driving under the influence (DUI) ranged from 117.6 per 100,000 population in Matagorda County to 45.6 per 100,000 population in Fort Bend County—more than a two-fold difference (FIGURE 48).

As reported in the Texas Youth Risk Behavior Survey, in 2013 Houston high school students self-reported using alcohol (31%), marijuana (23%), or tobacco (11%) in the past month (FIGURE 49). Nearly two-thirds (63%) of Houston high school students self-reported lifetime substance use of alcohol, followed by marijuana (44%), and tobacco (43%) (FIGURE 50). Compared to other racial or ethnic groups, Hispanic (46.9%) Houston high school students had a higher reported prevalence of ever smoking, while a higher proportion of White (21.5%) Houston high school students reported ever using prescription drugs (FIGURE 51).

FIGURE 48. NON-FATAL DRINKING UNDER THE INFLUENCE (DUI) MOTOR VEHICLE CRASH RATE PER 100,000 POPULATION, BY COUNTY, 2010-2014

<table>
<thead>
<tr>
<th>County</th>
<th>Rate per 100,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>66.9</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>83.1</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>45.6</td>
</tr>
<tr>
<td>Liberty County</td>
<td>85.3</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>117.6</td>
</tr>
</tbody>
</table>

DATA SOURCE: Texas Department of Transportation, 2010-2014, as cited in Prevention Resource Center 6, Regional Needs Assessment, 2015

FIGURE 49. PERCENT HOUSTON YOUTH (GRADES 9-12) SELF-REPORTED CURRENT SUBSTANCE USE IN PAST 30 DAYS, 2013

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>31%</td>
</tr>
<tr>
<td>Marijuana</td>
<td>23%</td>
</tr>
<tr>
<td>Tobacco</td>
<td>11%</td>
</tr>
</tbody>
</table>


“The juvenile [detention] system is the biggest mental health provider in Texas, and that’s really telling.”

Key informant interviewee
FIGURE 50. PERCENT HOUSTON YOUTH (GRADES 9-12) SELF-REPORTED SUBSTANCE USE, 2013


FIGURE 51. PERCENT YOUTH (GRADES 9-12) SELF-REPORTED SUBSTANCE USE IN HOUSTON, BY RACE AND ETHNICITY, 2013

DATA SOURCE: Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey, Houston, TX, 2013
NOTE: Percentages were not calculated for American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, or Multiple Races due to insufficient sample size
Communicable Diseases

Communicable diseases are diseases that can be transferred from person to person. These conditions are not as prevalent as chronic diseases in the region, but they do disproportionately affect vulnerable population groups.

Focus group participants and key informants had few concerns or comments about communicable disease apart from concern about vaccinations and HIV/AIDS education. Some focus group participants reported concern about parents not getting their children vaccinated against diseases such as measles. One focus group participant raised concern about “… vaccination misinformation … People don’t get their kids vaccinated. We need to ensure that everyone is vaccinated.” Some focus group participants and key informants reported that education and awareness about HIV/AIDS was lacking in some communities and perceived a lack of resources in low-income areas, contributing to disparate levels of education. Another informant cited concern about the spread of communicable diseases in the Greater Houston area given proximity to the airport and water-based transit along the Gulf, “We have an international airport which is considered to be a hub for international travels. This makes us vulnerable to communicable infectious diseases.”

HIV

Across the five counties served by MH Texas Medical Center, Harris County experienced the highest HIV rate in the region, with 516.1 people per 100,000 population living with HIV in the county, an increase from 478.4 per 100,000 population in 2011 (FIGURE 52). In 2014, HIV rates were relatively similar in the counties of Brazoria, Fort Bend, Liberty, and Matagorda.

“... vaccination misinformation ... People don’t get their kids vaccinated. We need to ensure that everyone is vaccinated.”

Focus group participant
**Other Sexually-Transmitted Diseases**

Trends in rates of chlamydia, gonorrhea, and syphilis varied by county served by MH Texas Medical Center. From 2011 to 2014, chlamydia, syphilis, and gonorrhea rates increased in Harris, Fort Bend, and Matagorda Counties (FIGURE 53, FIGURE 54, and FIGURE 55). Brazoria County experienced a slight decrease in the rate of chlamydia, an increase in the rate of gonorrhea, and rates of syphilis remained stable. Over this same period, in Liberty County the rates of chlamydia increased sizably, while rates of syphilis decreased, and rates of gonorrhea increased. Across all five counties served by MH Texas Medical Center, rates of chlamydia, gonorrhea, and syphilis were highest in Harris County. From 2011 to 2014, rates of change were highest in Matagorda County: the rate of chlamydia increased by 56%, the rate of syphilis increased by 67%, and the rate of gonorrhea increased by 78%.

“People aren’t practicing safe sex.”

Focus group participant

---

**FIGURE 53. CHLAMYDIA CASE RATES PER 100,000 POPULATION, BY COUNTY, 2011-2014**

![Chlamydia Case Rates Chart]

DATA SOURCE: Texas Department of State Health Services, TB/HIV/STD Epidemiology and Surveillance Branch, Texas STD Surveillance Report, 2014

**FIGURE 54. SYPHILLIS CASE RATES PER 100,000 POPULATION, BY COUNTY, 2011-2014**

![Syphilis Case Rates Chart]

DATA SOURCE: Texas Department of State Health Services, TB/HIV/STD Epidemiology and Surveillance Branch, Texas STD Surveillance Report, 2014
FIGURE 55. GONORRHEA CASE RATES PER 100,000 POPULATION, BY COUNTY, 2011-2014

DATA SOURCE: Texas Department of State Health Services, TB/HIV/STD Epidemiology and Surveillance Branch, Texas STD Surveillance Report, 2014

Tuberculosis
Across the five counties served by MH Texas Medical Center, Harris County had the highest rate of tuberculosis, with 7.2 cases per 100,000 population, a rate that was more than double that in Liberty (2.6 per 100,000 population), Fort Bend (2.8 per 100,000 population), and Brazoria (3.5 per 100,000 population) Counties (FIGURE 56).

FIGURE 56. TUBERCULOSIS CASE RATE PER 100,000 POPULATION, COUNTY, 2014

<table>
<thead>
<tr>
<th>County</th>
<th>Rate 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>7.2</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>3.5</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>2.8</td>
</tr>
<tr>
<td>Liberty County</td>
<td>2.6</td>
</tr>
</tbody>
</table>

DATA SOURCE: Texas Department of State Health Services, TB-HIV-STD and Viral Hepatitis Unit, TB Counts and Rates by, 2014

NOTE: Tuberculosis case rate for Matagorda County was 0.0 per 100,000 population.

Influenza
According to the Texas Behavioral Risk Factor Surveillance System, in 2014 more than one-third of Harris County (35.9%) adults reported having obtained a seasonal flu shot or vaccine via nose spray. As shown in FIGURE 57, in Harris County residents aged 65 years or older (59.0%) were more likely to have received a flu shot than younger age groups.

FIGURE 57. PERCENT ADULTS SELF-REPORTED TO HAVE HAD SEASONAL FLU SHOT OR SEASONAL FLU VACCINE VIA NOSE SPRAY, BY AGE, HARRIS COUNTY, 2014

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Overall (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>35.9%</td>
</tr>
<tr>
<td>65+ years</td>
<td>59.0%</td>
</tr>
<tr>
<td>45-64 years</td>
<td>35.5%</td>
</tr>
<tr>
<td>30-44 years</td>
<td>34.6%</td>
</tr>
<tr>
<td>18-29 years</td>
<td>18.6%</td>
</tr>
</tbody>
</table>


Reproductive and Maternal Health
The promotion of reproductive and maternal health provides a strong foundation for infants and children to have a more positive health trajectory across their lifespans. This section presents information about birth outcomes and teen pregnancy in the communities served by MH Texas Medical Center.
Birth Outcomes
In 2013, the prevalence of premature births, defined as a birth before 37 weeks gestation, ranged from a high of 13.4% in Liberty County to a low of 11.7% in Brazoria County (FIGURE 58). Similarly, across the five counties served by MH Texas Medical Center, nearly one in ten infants was low birthweight, although this pattern varied by race and ethnicity. Infants born to Black, non-Hispanic mothers were more likely to be low birthweight than infants born to women of other races or ethnicities. In 2013, the prevalence of low birthweight among infants born to Black, non-Hispanic women was highest in Matagorda County (21.7%), more than double the prevalence in Liberty County (6.8%), and similar across Harris (13.0%), Brazoria (12.6%), and Fort Bend (12.4%) Counties (FIGURE 59).

FIGURE 58. PERCENT PREMATURE BIRTHS, BY COUNTY, 2013

<table>
<thead>
<tr>
<th>County</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>11.8%</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>11.7%</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>11.5%</td>
</tr>
<tr>
<td>Liberty County</td>
<td>13.4%</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>12.4%</td>
</tr>
</tbody>
</table>

DATA SOURCE: Texas Certificate of Live Birth, as cited by Texas Department of State Health Services, Center for Health Statistics, Texas Health Data, Birth Outcomes, 2013

NOTE: Premature birth is defined as less than 37 known weeks of gestation

FIGURE 59. PERCENT LOW BIRTH WEIGHT INFANTS, OVERALL AND BY RACE AND ETHNICITY, BY COUNTY, 2013

DATA SOURCE: Texas Department of State Health Services, Texas Vital Statistics Annual Report, 2013

NOTE: White includes Other and Unknown race and ethnicity

NOTE: Low birth weight is defined as under 2,500 grams
**Prenatal Care**

According to the Texas Department of State Health Services, 56.1% of Harris County live births, 60.9% of Brazoria County live births, and 62.8% of Fort Bend County live births occurred to mothers who received prenatal care in their first trimester (FIGURE 60). Liberty County had the lowest rate of first trimester prenatal care among all five counties served by MH Texas Medical Center (51.7%). Rates of first trimester prenatal care in all counties were highest for White, non-Hispanic mothers and lowest for Black, non-Hispanic mothers in Harris, Brazoria, and Fort Bend Counties (the three counties representing 97.5% of inpatient discharges at MH Texas Medical Center). Rates of receiving no prenatal care were 3.9%, 4.2%, 1.9% for Harris, Brazoria, Fort Bend County mothers, respectively (FIGURE 61). Rates of receiving no prenatal care in both counties were highest for Black, non-Hispanic mothers in Harris County (5.4%) and Fort Bend County (2.6%); Hispanic mothers in Brazoria County had the highest rate of receiving no prenatal care (4.9%). In Harris and Brazoria Counties, the rate of receiving no prenatal care was lowest for mothers of Other race and ethnicity (2.7% and 2.8%, respectively). In Fort Bend County, the rate of receiving no prenatal care was lowest for White mothers (1.4%).

**FIGURE 60. PERCENT BIRTHS WITH PRENATAL CARE IN THE FIRST TRIMESTER, BY RACE AND ETHNICITY OF MOTHER, 2013**

![Graph showing prenatal care rates by race and ethnicity in different counties.](image)

**DATA SOURCE:** Texas Certificate of Live Birth, as cited by Texas Department of State Health Services, Center for Health Statistics, Texas Health Data, Birth Outcomes, 2013

**NOTE:** Data for Other race or ethnicity unavailable for Liberty County due to low sample size

**FIGURE 61. PERCENT BIRTHS WITH NO PRENATAL CARE IN ANY TRIMESTER, BY RACE AND ETHNICITY OF MOTHER, 2013**

![Graph showing rates of no prenatal care by race and ethnicity in different counties.](image)

**DATA SOURCE:** Texas Certificate of Live Birth, as cited by Texas Department of State Health Services, Center for Health Statistics, Texas Health Data, Birth Outcomes, 2013

**NOTE:** Data for Black unavailable for Liberty County due to low sample size; data insufficient for Matagorda County
Teen Births
In 2013, 12,245 births occurred to Texas mothers aged 17 years or younger, representing 3.1% of all births in Texas according to the Texas Department of State Health Services (data not shown). Among the five counties served by MH Texas Medical Center, Liberty (3.8%) and Matagorda (3.8%) Counties had the highest prevalence of teen births, compared to Fort Bend (1.2%), Brazoria (2.1%), and Harris (2.8%) Counties (FIGURE 62). The prevalence of teen births varied by race and ethnicity. The proportion of births to Black, non-Hispanic teen mothers was lowest in Fort Bend County (1.6%) and highest in Liberty County (8.2%). The prevalence of births to Hispanic teen mothers ranged from 2.8% in Fort Bend County to 5.6% in Matagorda County.

FIGURE 62. PERCENT BIRTHS TO TEENAGED MOTHERS AGE 17 YEARS OLD AND UNDER, BY COUNTY, RACE AND ETHNICITY, 2013

DATA SOURCE: Texas Department of State Health Services, Texas Vital Statistics Annual Report, 2013
NOTE: White includes Other and Unknown race and ethnicity
Oral Health

Oral health is closely linked with overall well-being and physical health. In addition to tooth decay and gum disease, poor oral hygiene has been linked to premature birth, cardiovascular disease, and endocarditis. Oral bacteria and inflammation can also lead to infection in persons with diabetes and HIV/AIDS. Focus group participants and key informants cited limited access to dental care as a concern. Across the five counties served by MH Texas Medical Center, Harris County (57.4 per 100,000 population) had the highest number of dentists per 100,000 population, a number that was more than double that for Liberty County (19.6 per 100,000 population) (FIGURE 63).

“Dental health has a huge relationship to physical health.”

Key Informant Interviewee

According to the Texas Behavioral Risk Factor Surveillance System, in 2014 58.2% of adults in Harris County self-reported having visited a dentist or dental clinic within the past year for any reason (FIGURE 64). In Harris County, adults who identified as multiracial or another racial or ethnic category (70.2%) were more likely to report having visited a dentist or dental clinic in the past year, followed by White adults (65.2%), and Black, non-Hispanic adults (57.2%). Hispanic adults in Harris County reported the lowest prevalence of annual dental visitation (50.6%) than adults of other races or ethnicities.

Adults with higher incomes were more likely to have received dental care in the past year (FIGURE 65). For example, in Harris County, 75.1% of adults with household incomes at or above $50,000 reported an annual dental visitation, compared to only 44.7% of those with household incomes below $25,000.
HEALTH CARE ACCESS AND UTILIZATION

Health Insurance
Health insurance can be a significant predictor of access to health care services and overall population health. Reports of health insurance availability varied amongst focus group participants, with those from higher-income areas tending to report access to health insurance for themselves. However, lack of health insurance and the high number of uninsured in the region was a common theme among focus group participants from lower-income communities and amongst key informants. Many focus group participants from low-income areas reported frustration regarding this lack of health insurance. One senior focus group participant described the difficulty in accessing and paying for medications, “If the doctor prescribes a prescription and your insurance doesn’t cover it, you go back and the doctor says you’ve got to get this. It costs $400... does any senior pay for that?” Many focus group participants from low-income areas reported frustration regarding their lack of health insurance or navigating a limited and confusing health insurance marketplace. One participant explained, “My wife is just under the age [to qualify for Medicare], but can’t afford insurance. She had to get through Obamacare. It was a massive confusion.”

Despite health insurance expansions under the Affordable Care Act (ACA), the number of uninsured in the region was reported to be very high and of great concern to providers, community leaders, and residents. One reason for the high prevalence of uninsured, according to informants, is that Texas has not adopted Medicaid expansion, which leaves a large number of low-income working adults and families uninsured. Additionally, respondents reported that the cost of insurance was too high for some to afford. Undocumented persons were cited as a particularly vulnerable group, unable to obtain insurance from either employment or public programs because of their immigration status. Underinsurance was another concern cited by respondents. Due to high costs for premiums, even under the ACA, and due to limitations of Medicare coverage, many residents were not obtaining full coverage. Lack of insurance and underinsurance has a substantial negative impact on health, according to informants, because people will not seek preventative care. As one informant explained, “People who aren’t insured or underinsured tend to neglect their health. They ignore it and hope it will go away so they won’t have to pay $1,000 to fix it. They will suffer the consequences of an untreated condition. Do I pay my light bill or put groceries on the table or do I pay someone to look at me? If they aren’t suffering the consequences from a disease then it makes sense that they won’t pay for care.”

Another challenge cited by focus group participants and key informants was patients’ lack of understanding about what is covered by different insurance products and navigating their health insurance. Focus group participants across income groups expressed frustration when trying to understand co-pays and deductibles, in and out of network providers, services covered, and billing statements. This was especially challenging, respondents reported, for those who did not speak English, are undocumented immigrants, or who had lower literacy levels, those who never had insurance coverage or who were inexperienced in how insurance works and how to effectively utilize it, as well as those with multiple providers. They stressed the importance of persistence, and a need to be proactive. As one focus group member explained, “[Insurance is very hard to understand] There are so many places and points of the process where it can go wrong.”

According to the 2009-2013 American Community Survey, among the five counties served by MH Texas Medical Center, Matagorda (26.3%) and Harris (26.2%) Counties had the highest proportion of uninsured individuals, and Fort Bend County (17.2%) had the lowest percentage of uninsured individuals (data not shown).

Trends show that a larger proportion of adults lacked health insurance coverage than children. Across all counties served by MH Texas Medical Center, the proportion of uninsured individuals dropped between 2009 and 2014 for all counties (FIGURE 66). Among the total population, Harris, Matagorda, and Liberty Counties had the highest proportion of uninsured residents across the region. Rates of uninsured varied by zip code across the communities served by MH Texas Medical Center. In 2013, the following zip codes within the MH Texas Medical Center community reported rates of uninsurance over 40% in 2013: 77036 (45.6%),
77093 (42.5%), 77017 (41.5%), 77072 (40.5%), and 77011 (40.2%) (FIGURE 67). Among individuals aged 18 and younger, uninsurance rates reported in 2013 were lower than the overall population. The 77017 zip code reported the only rate of uninsurance for children that was over 25% in 2013 (26.4%) (FIGURE 68).

Among the zip codes served by MH Texas Medical Center, 450,479 residents were enrolled in Medicaid, and 441,896 of those enrollees resided in either Harris, Brazoria, or Fort Bend County (98.1% of all Medicaid enrollees in the MH Texas Medical Center community defined for the CHNA). In Harris County, the zip code with the most Medicaid enrollees was 77036 in Houston (20,058 enrollees) (FIGURE 69). In Brazoria, the zip code with the most Medicaid enrollees was 77511 in Alvin (6,800 enrollees). In Fort Bend County, the zip code with the most Medicaid enrollees was 77489 in Missouri City (6,456 enrollees).

**FIGURE 66. PERCENT TOTAL POPULATION UNINSURED, BY COUNTY, 2009-2014**

- Harris County
- Brazoria County
- Fort Bend County
- Liberty County


**NOTE:** 1-Year estimates not available for Matagorda County
DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013
FIGURE 68. PERCENT UNDER 18 YEARS OLD POPULATION UNINSURED, BY COUNTY, 2013

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013
DATA SOURCE: Texas Health and Human Services Commission System Forecasting, March 2016

NOTE: Enrollment by zip code does not equal total enrollment due to lack of zip code data for some clients
Health Care Access and Utilization
When asked about access to health care services, respondents acknowledged that while the region has many medical services, barriers to accessing needed medical care exist and services are not available equally to everyone. Access to care was described as a challenge particularly in some areas served by MH Texas Medical Center where economic challenges were greater and there was a higher proportion of low-income and uninsured patients. Several key informants explained that the five-year Texas Section 1115 Medicaid demonstration waiver had been particularly important in reaching underserved populations in the region, especially since Texas has not adopted Medicaid expansion. The Texas Section 1115 Medicaid demonstration waiver is a provision of the Social Security Act that allows provisions of major health and welfare programs authorized under the Act to be waived. However, residents still reported barriers to accessing health care including availability of providers and appointments, cost, transportation and for some, language, and cultural barriers.

While some focus group participants reported that the Greater Houston region had many specialists, others disagreed. Focus group participants and key informants reported that shortages of specialty providers, particularly in mental health providers, presented a barrier to access to care for residents. One key informant described, “I don’t think we can keep up with the demand on our [health care] systems and structures. I grew up in this community, and while tremendous evolution and growth has happened, it grows faster than our response ... even our strategic response. We do not have enough service providers and not enough funding. Before you have innovative programming, you need providers in those arenas. Houston has made tremendous strides in investing in those systems.” Provider respondents serving low-income and uninsured patients reported a challenge in hiring qualified staff, especially for mental health, in part because of the lower pay in public clinics. As one informant shared, “If you have coverage but there are no [mental health] providers, you can’t go. On the flip side, if you can find a provider but have no coverage, your two meetings you can afford don’t do much.”

A few focus group participants described challenges in finding a primary care provider: “primary care physicians are a primary challenge ... finding one and getting an appointment.” Several respondents mentioned that the growing number of freestanding urgent care centers or ERs and drugstore-based clinics have added to the landscape of health care services available to residents. Several focus group participants described uncertainty in the quality of care offered by freestanding urgent care centers and ERs. As one resident observed, “Clinics are popping up in every corner. How do you choose the right one? There are a lot of free standing ERs around.” According to focus group respondents and interviewees, limited access to primary care contributed to increased use of emergency departments (ED) for health issues that are not emergent. As one informant explained, “We have a high number of people who have public insurance and who say their doctor of choice is the ER.” However, as one provider explained, “What patients get here is access but not a medical home.”

Among those residents needing assistance to obtain health and social services, focus group participants reported challenges in meeting administrative requirements of existing programs as well as the lack of availability of assistance programs in some geographic areas or to populations who did not have health insurance coverage. One focus group participant residing in a low-income area reported that, “…there are a lot of places that say they help people, but it’s a lot of paperwork. We need more assistance. Or you go there, and they say they have no funding.” Another low-income focus group respondent discussed the challenges in obtaining assistance from existing assistance programs: “They want to know exactly what you need, but you have to spend the whole day and ask them to help you. If you want something, you have to do what it takes. And that’s anything. They’re not gonna give you something for free. You can argue till you’re blue.”

According to focus group participants and key informants, lack of or limited transportation also created barriers to accessing health care, especially for low-income and senior residents, and residents living far from the Medical Center area who needed
speciality care. Some focus group participants reported that while there were many medical facilities in the Greater Houston region, they were often not located in communities that were accessible to residents with limited transportation or no public transit. A few focus group participants in lower-income communities described difficulties in getting an ambulance to take them to or from the hospital because emergency vehicles did not service their area. While some transportation services were provided for seniors and persons living with a disability, focus group participants and key informants described these services as unreliable at times and often requiring that appointments be made a week or two in advance. As a result, those without cars faced substantial challenges to accessing care. As one focus group participant explained, “I have issues with transportation. I have three sets of doctors to see. I have trouble getting there and back.”

In addition to challenges of accessing health insurance and navigating a complex health care system, key informants and focus group participants reported that linguistic and cultural barriers between racial and ethnic minorities and health care systems posed a unique challenge in accessing health care. While respondents reported that some health care providers have bilingual staff or use translation services, according to residents, not all providers provided this service. These linguistic barriers were most commonly referenced for non-English or non-Spanish speaking populations. Again, undocumented individuals were identified by several respondents as a particularly vulnerable population. As one key informant shared, “People who are undocumented often feel scared to seek out services. So we see those residents have the most challenges when accessing health care.”

Focus group participants and key informants reported that awareness of available health and social services programs was low. One focus group participant from a low-income area reported, “There is not enough information about the places that can help you … I just heard about this health center (federally qualified health center) on the street. I don’t know what I would do without this place. You will only hear about by word of mouth.” As one interviewee from Harris County explained, “Harris County has a lot of programs and services. Information needs to be made available to [patients].”

**Access to Primary Care**

The number of primary care physicians (including general practice, family practice, OB-GYN, pediatrics, and internal medicine) per 100,000 population varied by county. According to the Texas Medical Board, the number of primary care physicians serving Harris County in 2014 was 82.6 per 100,000 population compared to 45.5 physicians per 100,000 population in Brazoria County and 59.9 physicians per 100,000 population in Fort Bend County (FIGURE 70). As reported in the Texas Behavioral Risk Factor Surveillance System, nearly four in ten (38.2%) adults in Harris County reported that they did not have a doctor or health care provider (data not shown; data unavailable for Brazoria, Fort Bend, Liberty and Matagorda Counties).

According to the Texas Medical Association’s 2014 physician survey, the percent of Texas physicians who accept all new Medicaid patients decreased from 42% in 2010 to 37% in 2014. In the Houston-The Woodlands-Sugar Land MSA, which includes Montgomery and Harris counties, 34% of physicians accepted all new Medicaid patients, 24% limited their acceptance of new Medicaid patients, and 42% accepted no new Medicaid patients. In Harris County in 2014, 37% of physicians accepted all new Medicaid patients, 23% limited their acceptance of new Medicaid patients, and 40% accepted no new
Medicaid patients. (Data on Medicaid acceptance is unavailable for Montgomery County due to a low survey response rate.)

FIGURE 70. NUMBER OF PRIMARY CARE PHYSICIANS PER 100,000 POPULATION, BY COUNTY, 2014

<table>
<thead>
<tr>
<th>County</th>
<th>Physicians per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris County</td>
<td>82.6</td>
</tr>
<tr>
<td>Brazoria County</td>
<td>45.5</td>
</tr>
<tr>
<td>Fort Bend County</td>
<td>59.9</td>
</tr>
<tr>
<td>Liberty County</td>
<td>34.4</td>
</tr>
<tr>
<td>Matagorda County</td>
<td>63.2</td>
</tr>
</tbody>
</table>

DATA SOURCE: Texas Medical Board, as cited by Texas Center for Health Statistics, 2014

Emergency and Inpatient Care for Primary Care Treatable Conditions
People who are poor, uninsured or covered by Medicaid, certain racial and ethnic minorities and immigrants, and individuals with limited education, literacy, or English language skills are all less likely to have a usual source of care (USOC) provider other than a hospital emergency department (ED). In 2013, about 4 in 10 ED visits were classified as primary care-related.

Of MH Texas Medical Center’s 53,883 ED visits in 2013, 59.1% were from patients who were uninsured or on Medicaid, and 41.1% were classified as non-emergent or with primary care treatable conditions. Nineteen zip codes in the MH Texas Medical Center’s CHNA-defined community were among the top 20 zip codes for the highest number of primary care treatable ED visits at the MH Texas Medical Center in 2013 (FIGURE 71). Of all ED visits, 5.7% were for chronic conditions, of which 24% were cardiovascular-related.

Of MH Texas Medical Center’s 18,957 inpatient discharges in 2015, 11,211 inpatient discharges or 59.1% were related to an ambulatory care sensitive condition. The top three ambulatory care sensitive conditions that resulted in inpatient care at MH Texas Medical Center in 2015 were congestive heart failure (236 discharges), diabetes (110 discharges), and cellulitis (75 discharges).

FIGURE 71. PRIMARY CARE TREATABLE EMERGENCY DEPARTMENT VISITS AT MH TEXAS MEDICAL CENTER BY TOP 20 ZIP CODES, 2012-2013

DATA SOURCE: Memorial Hermann Health System, Emergency Department Data, 2012-2013
COMMUNITY ASSETS AND RESOURCES

Diverse, Cohesive Community
Residents and stakeholders described diversity and social cohesion as being among the primary assets and strengths of their community. The Greater Houston area was described as “an extremely diverse community” with “positive growth” and a “sense of community.” One informant described, “I think the strongest assets are that the communities in this area are fairly small and tight-knit. They are small enough that people are able to get resources in their community without having to go too far.” Informants described the positive role of diversity in driving the creation of robust communities to participate in and resources to meet those needs. “Houston is an extremely rich place, culturally. We have something for everyone. Community needs can be met pretty well here in Houston because there’s a lot of understanding of different types of needs. The feeling is that you can always find community.” Many key informants and focus group participants described a sense of social cohesion across communities. Another informant described: “the diversity in the city is a big strength. It contributes to openness and acceptance and tolerance for new people. There’s a real meritocracy here. Not a lot of rigidity in bureaucracies. It’s a good place to live.” This cohesion does not just occur within neighborhoods, but also within groups sharing a common issue. For example, one focus group participant representing the Hispanic community reported: “We’re a tight knit community”.

Strong Schools
The communities served by MH Texas Medical Center had strong schools, according to key informants and focus group respondents. According to one key informant, “We have great school districts. Education outreach is good.” Key informants and focus group participants reported that parental engagement is high in many of their communities, driven largely by the proactive outreach done to parents by schools and social cohesion among parents. “We do proactive outreach as a district, embrace families and bring them in, provide additional training for parents especially around English as a Second Language, trying to connect them with social services and resources.” Informants also cited parental involvement in public schools as a community asset. Residents reported that many school districts are seeing an influx of refugees and are working to meet the needs of their children. One focus group participant mentioned, “Schools here have integration programs compared to other ISDs in the area. Because a lot of refugees are coming in. There are better afterschool hours and activities and programs to integrate families in our schools.”

High Quality Medical Care
A theme among key informants and focus group participants was the wide availability of health care services and the high quality of those services in the communities served by MH Texas Medical Center. “[We have] one of the strongest complex of medical services in United States and the world.” Key informants and focus group participants also communicated the theme of innovation regarding the health care system. As one key informant interviewee reported, “[there is a] spirit of innovation...I see that with our health department
and health institutions...We are known for key research.”

Strong Public Health and Social Service System
The communities of MH Texas Medical Center were served by a robust network of public health and social service organizations. Many focus group participants and key informant interviewees reported that their communities were served by a number of non-profit and other charitable organizations. “There are organizations doing good work with the resources they have. We have a very strong presence of local health department, and they have a strong commitment at looking at and working with school districts to fill gaps, but also understanding needs of the community and creating the mission that intertwines with other organizations.” Indeed, local school districts implemented several strategies, such as school-based health clinics and outreach to families, to promote wellbeing and health among students.

Along with the theme of social cohesion and a sense of community closeness reported earlier, key informants also described the community as being charitable: “We are a generous community. A lot of our services are supported by donations from foundations, individuals, or fundraisers. There is a lot of volunteer effort.”

Economic Opportunity
Many key informants and focus group participants described a generally robust local economy, creating economic opportunities for residents and businesses in the communities served by MH Texas Medical Center. As one key informant noted, “There are jobs here. They may not be high paying jobs, but they provide some income for people to survive.” The cost of living was also reported as a positive by focus group participants. “There’s a lower cost of living. I came from California. Everything is cheaper here.”
COMMUNITY VISION AND SUGGESTIONS FOR FUTURE PROGRAMS AND SERVICES

Assessment participants were asked about their vision for the future of their community, and ideas for programs, services and initiatives. As a member of MHHS, MH Texas Medical Center has an important role in serving the overall needs of the communities served by MH Texas Medical Center and those served more broadly by MHHS. The following is a synthesis of prominent themes that emerged related to the future program and service environment that will be addressed by MHHS. These themes included the promotion of healthy eating and physical activity, improvement of transportation and roads, supporting people in their navigation of the health care system, expansion of available and access to health care services, and multi-sector collaboration across institutions.

Promote Healthy Living
Promotion of healthy eating, physical activity, and disease self-management by health care delivery systems and supporting social service organizations was a top suggestion of stakeholders. “We should be focusing on healthy lifestyles... People need to know how to live healthy with diseases like diabetes or HIV.” Key informants and focus group participants had many ideas about the strategies that might be used to promote healthy living. For example, one informant suggested insurance incentives: “An insurance product can encourage healthy lifestyles. If you can put a reasonable one in peoples’ hands...that incentivizes people and it could have the biggest effect.” Other residents expressed a desire for communities that encourage physical activity through improved sidewalks, better lighting, animal control, reduced crime rates, and bike lanes. They reported that healthy eating could be encouraged through more community gardens and famer’s markets as well as efforts that improve healthy food options in corner markets. Informants stressed that options for healthy living—whether recreational and fitness opportunities or classes related to chronic disease self-management or nutrition—need to be low cost, culturally appropriate, and reach the people who need them most. One key informant noted that promotion of healthy living must be aligned with better access to health care services: “The long term solution is healthy living.

Needs to be pushed concurrently with health care access. They need to come hand in hand.”

Improve Transportation
Transportation presents many problems in the communities served by MH Texas Medical Center, and stakeholders offered perspectives and ideas for future programs and services to alleviate the burden caused by traffic and the lack of transportation in some communities. As one key informant shared, “There’s mass transit but it’s confusing and lots of times people have to take four different buses to get to their doctor appointment.” Focus group participants and key informant interviewees made suggestions about the direction of future efforts to address transportation, particularly for lower income and senior populations. For example, stakeholders suggested non-profits could offer more transportation services, and public transportation could be expanded.

Provide Support to Navigate the Health Care System
Residents need assistance in facing the number of barriers to accessing health care services in the communities served by MH Texas Medical Center. Stakeholders described existing strategies such as community health workers should be expanded. Given challenges in understanding and navigating health insurance and health care systems through private or public insurance mechanisms, and gaps in insurance availability linked with Medicaid restrictions in the state, respondents across income and educational levels suggested more support could be provided for residents navigating health care access and coverage. For example, one stakeholder suggested, “Navigator programs for people to access healthcare.” Senior focus group respondents were particularly insistent that advocates be available for them to navigate the complexities of the health care system. “We need personal advocates for us seniors. We don’t have anyone to fight for us, no one to talk for us.” Another senior focus group participant echoed, “[We need] a liaison that’s not attached to the medical system in any way.” Some stakeholders suggested the health care system become more holistic and consider incentivizing social support in
the clinical space. For example, one informant said, “If there was a mechanism to reimburse providers to provide social support within the healthcare setting...that would make patients’ lives easier. They wouldn’t have to worry as much about how to navigate the system. Maybe like a one-stop shop. More comprehensive care. Looking more like holistic care.” As the epicenter of medical care in Houston and the Southeast Texas region, MH Texas Medical Center is well-poised to address community needs related to reducing barriers in accessing health care.

**Expand Availability and Access to Health Care Services**

While the communities served by MH Texas Medical Center offer a multitude of health care services that are recognized as being among the best in the United States, access remains a top issue that community stakeholders wished to see addressed. Informants described a more limited public health and health care infrastructure in communities more distal to the MH Texas Medical Center area relative to other communities in the Greater Houston area. “We’ve got some of the greatest medicine in town. The cardiologists, the OBs, the neonatologists...and that’s great but we need more specialists.” One strategy suggested by multiple stakeholders was investment in training local workforce to become health care professionals, particularly in specialties such as child psychiatry, vision, and behavioral health: “We need educational institutions to staff the innovative programs we need. That’s coming full circle. This is not what it was years ago...until we get enough providers...that’s when we will achieve the structure and service delivery to meet all the needs. We have to look beyond our own walls to do this.” This stakeholder also suggested partnerships with academic institutions to train the future workforce needed to meet the needs of the growing population. Again, MH Texas Medical Center’s location in the heart of the medical center, the scope of health care services available, and the diversity of the population served by MH Texas Medical Center offer an opportunity to consider strategies to expand availability and access to health care services.

**Expand Access to Behavioral Health Services**

Informants identified behavioral health care access as being a major unmet need in the communities served by MH Texas Medical Center. Residents reported that more behavioral health services were needed across the region and across age groups. “We need more county funded mental health ... services, county funded hospitals, county funded clinics. We need more counselors to be available throughout region,” said one key informant Many stakeholders reported that the Texas Section 1115 Medicaid demonstration waiver created an opportunity in Texas for improvement in access to and quality of behavioral health services. Stakeholders suggested Texas should pursue strategies that sustain these efforts and continue to promote innovation within the behavioral health services space. Residents and informants also suggested that strategies were urgently needed to reduce the stigma associated with behavioral health issues.

**Promote Multi-Sector, Cross-Institutional Collaboration**

Health care and social service stakeholders frequently noted that, while many local services exist, there are opportunities to improve communication and collaborate to improve population health in the communities that serve MH Texas Medical Center. Lack of collaboration among major stakeholders in the health care landscape —from medical institutions to public health organizations, government, payers, and social services —was a consistent theme across the key informant interviews. For example, one interviewee stated that: “We have to find partners who are working on different aspects [of health care problems]. There are lots who are working on this.” Informants suggested that developing a common agenda across sectors with multiple institutions is a needed next step to improving population health: “If we could get everybody working on a common agenda...Driving our resources into one area...If we could rally on one thing...that would be incredibly helpful. A concentrated effort.” As noted earlier, respondents reported that because the Texas Section 1115 Medicaid demonstration waiver is intended to promote systems transformation, it provides an opportunity for regional partnerships to address service gaps.
KEY THEMES AND CONCLUSIONS

Through a review of the secondary data and discussions with community residents and key informants, this assessment report provides an overview of the social and economic environment of the community served by MH Texas Medical Center, health conditions and behaviors that most affect the population, and perceptions of strengths and gaps in the current environment. Overarching themes that emerge from this synthesis include:

- **The five counties of Harris, Brazoria, Fort Bend, Liberty and Matagorda are quite diverse in terms of social and economic characteristics as well as population health.** Liberty and Matagorda Counties had lower median incomes, experienced higher levels of unemployment, and had lower levels of educational attainment than Fort Bend and Brazoria Counties. Socioeconomically, Harris County had income, unemployment, and educational attainment levels that were between that for the counties of Liberty and Matagorda and higher-income counties of Fort Bend and Brazoria. While the residents of Liberty and Brazoria Counties were predominantly White, Harris, Matagorda, and Fort Bend Counties were more racially, ethnically, and linguistically diverse. Liberty County also has fewer dentists and primary care physicians per 100,000 population than the other counties. Liberty and Matagorda Counties, home to a larger percentage of adults age 65 years or older, had the highest mortality rate. Harris County also experiences challenges in terms of population health, but has greater access to social, public health, and health care resources and public transportation than other communities.

- **The increase in population over the past five years has placed tremendous burden on existing public health, social, and health care infrastructure, a trend that places barriers to pursuing a healthy lifestyle among residents.** The residents of communities served by MH Texas Medical Center are experiencing challenges associated with rapid population growth, including traffic-related constraints, strain on housing availability, concerns about public safety, and the availability of resources to promote health. Infrastructure that does not keep up with demand leads to unmet need and sustains unhealthy habits in the community. Communities without easy access to healthy foods, safe roads, affordable housing, sidewalks, and prevention of violence are at a disadvantage in the pursuit of healthy living.

- **Although there is economic opportunity for many residents, there are several pockets of poverty and some residents faced economic challenges that can affect health.** Seniors and members of low-income communities faced challenges in accessing care and resources compared to their younger and higher income neighbors. While the proportion of residents lacking health insurance has decreased slightly over the past five years, many adults and children faced barriers to obtaining care, including cost, availability of providers, language and cultural barriers, and transportation. There were several support organizations in the community that help uninsured residents to obtain health insurance and charitable care such as federally qualified health centers and school-based health clinics. However, stakeholders emphasized that more support was needed for these vulnerable populations, particularly in areas that are less proximate to the medical systems closer to Houston. Strategies such as the incorporation of community health workers into health care systems may increase residents’ ability to access and effectively utilize increasingly complex health care and the public health system.

- **Obesity and concerns related to maintaining a healthy lifestyle emerged as challenges for the region.** In Harris County, approximately 7 in 10 adults were considered overweight or obese. Overweight and obesity also emerged as a key issue in each focus group and interview discussion. Barriers ranged from individual challenges of lack of time to prepare healthy foods or engage in physical activity to cultural issues involving cultural norms to structural challenges such as living in a food desert or having limited access to sidewalks, recreational facilities, or affordable fruits and vegetables. While several initiatives in the region are trying to address this issue, there appears ample
opportunity for action, partnership, and focusing on specific at-risk populations (e.g., rural communities, low-income communities, and youth).

- **Behavioral health was identified as a key concern among residents.** Stakeholders highlighted multiple unmet needs for mental health and substance abuse services in the communities served by MH Texas Medical Center, particularly the burden of mental health needs in the youth and incarcerated populations and unmet demands for mental health treatment. Findings from this current assessment process illustrate the importance of pursuing innovative strategies to address behavioral health issues, such as those programs that are part of the Texas Section 1115 Medicaid demonstration waiver. This area is ripe with opportunity to address needs that are currently not being met.

- **Communities served by MH Texas Medical Center have several health care assets, but access to those services is a challenge for some residents.** Transportation to health services was identified as a substantial concern, especially for seniors and lower income residents, as there are few public transportation options in the region. While existing public transportation is being expanded in a limited way in Harris County, other communities served by MH Texas Medical Center did not have access to any public transportation and described limited access to taxi or alternative transportation services. Communities that have benefited from recent improvements in public transit noted that the public transportation system improved access to a limited corridor within Houston. There is an opportunity to expand services to fill in gaps in transportation, ensuring residents are able to access primary care, behavioral health, and specialty services as well as actively participating in their communities.
PRIORITIZATION OF COMMUNITY HEALTH NEEDS

The CHNA data collection process was conducted over a six-month period. During that time, HRiA analyzed secondary data, and conducted numerous focus groups with community members and key informant interviews with leaders and providers. The severity and magnitude of epidemiological data were triangulated with level of concern among leaders and community members to identify key community needs. The following key health issues emerged most frequently from a review of the available data across all MHHS hospitals and were considered in the selection of the system-wide Strategic Implementation Plan (SIP) health priorities:

- Health Care Access
- Issues Related to Aging
- Behavioral Health, Including Substance Abuse and Mental Health
- Transportation
- Healthy Eating, Active Living, and Overweight/Obesity
- Chronic Disease Management

HRiA and MHHS conducted an initial narrowing of the priorities based on key criteria, outlined in FIGURE 72, which could be applied across all CHNAs in the system. MHHS applied these criteria to select system-level priorities for approval by representatives from MH Texas Medical Center. The **final three key priorities identified by this process were:**

1. Healthy Living
2. Behavioral Health
3. Health Care Access

In May 2016, HRiA led a two-hour, facilitated conversation with Memorial Hermann Health Systems (MHHS), MH Texas Medical Center, and the other 12 MHHS hospitals participating in its 2016 CHNA-SIP process. This conversation included a presentation of the priorities identified by the community health needs assessment (CHNA) across all MHHS hospitals, including a discussion of the key criteria for prioritization and the impact of these health issues on the most vulnerable populations. After discussion among all hospital facilities, representatives came to consensus on these three final key priorities for each hospital facility and agreed to set hospital-specific goals, objectives, and strategies within them that addressed the facility’s specific service area and populations served.

**FIGURE 72. PRIORITIZATION CRITERIA**

<table>
<thead>
<tr>
<th>RELEVANCE</th>
<th>APPROPRIATENESS</th>
<th>IMPACT</th>
<th>FEASIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>How Important Is It?</td>
<td>Should We Do It?</td>
<td>What Will We Get Out of It?</td>
<td>Can We do It?</td>
</tr>
<tr>
<td>Burden (magnitude and severity, economic cost; urgency of the problem)</td>
<td>Ethical and moral issues</td>
<td>Effectiveness</td>
<td>Community capacity</td>
</tr>
<tr>
<td>Community concern</td>
<td>Human rights issues</td>
<td>Coverage</td>
<td>Technical capacity</td>
</tr>
<tr>
<td>Focus on equity and accessibility</td>
<td>Legal aspects</td>
<td>Builds on or enhances current work</td>
<td>Economic capacity</td>
</tr>
<tr>
<td></td>
<td>Political and social acceptability</td>
<td>Can move the needle and demonstrate measureable outcomes</td>
<td>Political capacity/will</td>
</tr>
<tr>
<td></td>
<td>Public attitudes and values</td>
<td>Proven strategies to address multiple wins</td>
<td>Socio-cultural aspects</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ethical aspects</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Can identify easy short-term wins</td>
</tr>
</tbody>
</table>
APPENDIX A. FOCUS GROUP AND KEY INFORMANT ORGANIZATIONS

Organizations Involved in Focus Group Recruitment by Population Segment

| Low-income community members from suburban area | ACCESS Health, Fort Bend County |
| Seniors (65+ years old) | The Pinnacle Senior Center |
| Community members from more mid to higher SES area | Fort Bend County Women’s Club (Sugar Land) |
| Spanish-speaking Hispanic community members and English-speaking Hispanic community members | Association for the Advancement of Mexican Americans |
| Parents of preschool children (0-5 years old) | The Yellow School |
| Seniors (65+ years old) | Senior Center, City of South Houston |
| Low-income community members from rural area | Mamie George Community Center (Catholic Charities) |
| Adolescents (15-18 years old) | Katy Family YMCA |
| Low-income community members from urban area | Houston Food Bank |
| Asian community members | HOPE Clinic |

Organizations Contributing Key Informant Interviews

ACCESS Health (FQHC)  
Asian American Health Coalition  
Association for the Advancement of Mexican Americans  
Blue Cross Blue Shield  
Children at Risk  
Childrens Defense Fund  
Christ Clinic  
City of Houston, Department of Neighborhoods  
City of Houston, Department of Parks and Recreation  
Community Health Choice  
Fort Bend Health and Human Services  
Harris County Public Health and Environmental Services  
Harris Health  
Houston Independent School District  
Institute for Spirituality and Health  
Interfaith Community Clinic  
Interfaith Ministries of Greater Houston  
LoneStar Family Health Center  
Mayor’s Office for People with Diabilities  
Memorial Hermann Texas Medical Center  
Memorial Hermann Health System  
Office of Harris County Judge Ed Emmett  
One Voice Texas  
Pasadena Independent School District  
SETRAC (Southeast Texas Regional Advisory Council)  
Sheltering Arms Senior Services, Neighborhood Centers Inc.  
Southwest Management District  
Texas Legislature  
The Harris Center for Mental Health and IDD (MHMRA)  
Tri County Services  
United Way of Montgomery County  
University of Texas School of Public Health
APPENDIX B. FOCUS GROUP GUIDE

Goals of the Focus Groups:
• To identify the perceived health needs and assets in the community
• To understand to what extent healthy living, including healthy eating and physical activity, is achievable in the community and perceived barriers to living a healthy lifestyle
• To gain an understanding of people’s barriers to health and how these barriers can be addressed
• To identify areas of opportunity for Memorial Hermann to address needs

[NOTE: THE QUESTIONS IN THE FOCUS GROUP GUIDE ARE INTENDED TO SERVE AS A GUIDE, BUT NOT A SCRIPT.]

BACKGROUND (5 MINUTES)

• Welcome everyone. My name is __________, and I work for Health Resources in Action, a non-profit public health organization in Boston.

• We’re going to be having a focus group today. Has anyone here been part of a focus group before? You are here because we want to hear your opinions. I want everyone to know there are no right or wrong answers during our discussion. We want to know your opinions, and those opinions might differ. This is fine. Please feel free to share your opinions, both positive and negative.

• Memorial Hermann Health System is conducting a community health assessment to gain a greater understanding of the health issues facing residents in the Greater Houston area and its specific communities, how those needs are currently being addressed, and where there are opportunities to address these needs in the future. The information you provide is a valuable part of this assessment and improving health services in the community.

• As you can see, I have a colleague with me today, [NAME], who is taking notes during our discussion. She works with me on this project. I want to give you my full attention, so she is helping me out by taking notes during the group and she doesn’t want to distract from our discussion.

• [NOTE AUDIOTAPING IF APPLICABLE] Just in case we miss something in our note-taking, we are also audio-taping the groups tonight. We are conducting several of these discussion groups around the Greater Houston area, and we want to make sure we capture everyone’s opinions. After all of the groups are done, we will be writing a summary report of the general opinions that have come up. In that report, I might provide some general information on what we discussed tonight, but I will not include any names or identifying information. Your responses will be strictly confidential. In our report, nothing you say here will be connected to your name.

• You might also notice that I have a stack of papers here. I have a lot of questions that I’d like to ask you tonight. I want to let you know that so if it seems like I cut a conversation a little short to move on to the next question, please don’t be offended. I just want to make sure we cover a number of different topics during our discussion tonight.

• Lastly, please turn off your cell phones or at least put them on vibrate mode. The group will last only about 80-90 minutes. If you need to go to the restroom during the discussion, please feel free to leave, but we’d appreciate it if you would go one at a time.

• Any questions before we begin our introductions and discussion?
INTRODUCTION AND WARM-UP (5-10 MINUTES)

- Now, first let’s spend a little time getting to know one another. Let’s go around the table and introduce ourselves. Please tell me: 1) Your first name; 2) what town or neighborhood you live in; and 3) something about yourself – such as how many children you have or what activities you like to do in your spare time. [AFTER ALL PARTICIPANTS INTRODUCE THEMSELVES, MODERATOR TO ANSWER INTRO QUESTIONS]

COMMUNITY AND HEALTH PERCEPTIONS (15-20 MINUTES)

- Tonight, we’re going to be talking a lot about the community or neighborhood that you live in. How would you describe your community?
  - If someone was thinking about moving into your community, what would you say are some of its biggest strengths or the most positive things about it? [PROBE ON COMMUNITY AND ORGANIZATIONAL ASSETS/STRENGTHS]

- What are some of the biggest problems or concerns in your community? [PROBE ON ISSUES IF NEEDED – HEALTH, ECONOMIC, SOCIAL, SAFETY, ETC.]
  - Just thinking about day-to-day life – working, getting your kids to school, things like that – what are some of the challenges or struggles you deal with on a day-to-day basis?

- What do you think are the most pressing health concerns in your community? [PROBE ON THE FOLLOWING SPECIFIC ISSUES IF NOT MENTIONED: CHRONIC DISEASES/CONDITIONS, MENTAL HEALTH, SUBSTANCE ABUSE, VIOLENCE, ACCESS TO HEALTHY FOOD; ENSURE ADEQUATE DISCUSSION TIME; PROBE ON HEALTH CARE ACCESS IF MENTIONED]
  - How have these health issues affected your community? [PROBE FOR SPECIFICS]

- Thinking about health and wellness in general, what helps keep you healthy?
  - What makes it easier to be healthy in your community?
  - What supports your health and wellness?
  - What makes it harder to be healthy in your community?
PERCEPTIONS OF PUBLIC HEALTH/PREVENTION SERVICES AND HEALTH CARE (15-20 minutes)

- Let’s talk about a few of the health issues you mentioned. [SELECT TOP HEALTH CONCERNS] What programs, services, and policies are you aware of in the community that currently focus on these health issues?

- What’s missing? What programs, services, or policies are currently not available that you think should be?

- What do you think the community should do to address these issues? [PROBE SPECIFICALLY ON WHAT THAT WOULD LOOK LIKE AND WHO WOULD BE INVOLVED TO MAKE THAT HAPPEN]

  - What do you think are some things a community could do to make it easier for people to be healthy?
  - If these things were available in the community, what would make you more likely to access these opportunities? [PROBE ON SPECIFICS IF NEEDED: What would these programs/services include? Where should they be offered? During what hours? How often? Would you prefer an individual or group setting?]

- [IF NOT ALREADY MENTIONED] I’d like to ask specifically about health care in your community. Have you or someone close to you ever experienced any challenges in trying to get health care? What specifically? [PROBE FOR BARRIERS: INSURANCE ISSUES, LANGUAGE BARRIERS, LACK OF TRANSPORTION, CHILD CARE, ETC.]

  - [NAME BARRIER] was mentioned as something that made it difficult to get health care. What do you think would help so that people don’t experience the same type of problem that you did in getting health care? What would be needed so that this doesn’t happen again? [REPEAT FOR OTHER BARRIERS]

PERCEPTIONS OF HEALTHY LIVING AND RELATED PROGRAMS (20-25 MINUTES)

- I’d now like to talk specifically about being able to live a healthy lifestyle such as being able to maintain a healthy weight and being able to exercise. In your opinion, is being able to maintain a healthy habits a concern in your community?

  - [PROBE IF NEEDED: How much of a concern is being able to live a healthy lifestyle relative to other health or economic issues?]

- What are some things that you think people can do to achieve or maintain a healthy weight in your community? [PROBE FOR RISK FACTORS AND BEHAVIORS: ACCESS TO HEALTHY FOODS, SAFE ENVIRONMENTS FOR BEING PHYSICALLY ACTIVE, EATING HEALTHY AT HOME OR WORK, TIME TO BE PHYSICALLY ACTIVE, ETC.]

- Let’s talk about healthy eating.

  - Do you know of any programs in your community that currently try to address healthy eating? What are they?

  - What kinds of programs or services would you want to see in your community to help people with healthy eating? What would the program look like?
• If these programs or services were available in the community, what would make you more likely to access these opportunities? (PROBE ON SPECIFICS IF NEEDED: Where should they be offered? During what hours? How often? Would you prefer an individual or group setting?)

• Let’s talk about exercise.

• Do you know of any programs in your community that currently try to help people exercise more? What are they?

• What kinds of programs or services would you want to see in your community to help people with physical activity? What would the program look like?

• If these programs or services were available in the community, what would make you more likely to access these opportunities? (PROBE ON SPECIFICS IF NEEDED: Where should they be offered? During what hours? How often? Would you prefer an individual or group setting?)

CLOSING (2 MINUTES)

• Thank you so much for your time and sharing your opinions. Before we end the discussion, is there anything that you wanted to add that you didn’t get a chance to bring up earlier?

• I want to thank you again for your time. And we’d like to express our thanks to you. [DISTRIBUTE STIPENDS AND HAVE RECEIPT FORMS SIGNED].

• As I mentioned before, we are conducting these groups around the Greater Houston area, and we’re also talking to people who work at organizations. After all this is over, we’re going to be writing up a report. Memorial Hermann wants to share these report findings with people who are interested in the results. We have a sign-up sheet here if you are interested in finding out more about the results of this effort and to receive a summary of the report findings. Feel free to provide your name and contact information, if you are interested. If you are not interested, you do not have to sign up. [PROVIDE CONTACT SHEET FOR INTERESTED PEOPLE]

• Thank you again. Your feedback is greatly valuable, and we greatly appreciate your time and for sharing your opinion.
APPENDIX C. KEY INFORMANT INTERVIEW GUIDE

Goals of the Key Informant Interview
- To determine perceptions of the health-related strengths and needs of individuals served in the primary service area of each MHHS facility
- To explore how these issues can be addressed in the future
- To identify the gaps, challenges, and opportunities for addressing community needs via the SIP planning process

[NOTE: QUESTIONS FOR THE INTERVIEW GUIDE ARE INTENDED TO SERVE AS A GUIDE, NOT A SCRIPT.]

BACKGROUND (5 minutes)
- Hi, my name is __________ and I am with Health Resources in Action, a non-profit public health organization. Thank you for taking the time to speak with me today.
- As I mentioned previously, we are working with Memorial Hermann Health System on their community health needs assessment. This effort aims to gain a greater understanding of the health of area residents served by [NAME OF FACILITY], how these health needs are currently being addressed, and opportunities to facilitate successful implementation of community activities for the future.
- We are conducting interviews with leaders in the community to understand different people’s perspectives on these issues. We greatly appreciate your feedback, insight, and honesty.
- Our interview will last about ____ minutes [EXPECTED RANGE FROM 30-60 MINUTES, DEPENDING ON INTERVIEWEE]. We recognize your time is valuable, so please let us know if you have any time constraints for our conversation. After all of the discussions are completed, we will be writing a summary report of the general themes that have emerged during the discussions. We will not connect any names or identifying information to any specific response. Nothing sensitive that you say here will be connected to directly to you in our report.
- Any questions before we begin our introductions and discussion?

THEIR AGENCY/ORGANIZATION
- What is role is at [NAME OF ORGANIZATION]? (probe: in relation to health care)

COMMUNITY ISSUES
- How would you describe the community which your organization serves?
  - a. What do you consider to be the community’s strongest assets/strengths?
    - i. What are some of its biggest concerns/issues in general? What challenges do residents face day-to-day?
  - b. What do you think are the most pressing health concerns in the community? Why? [PROBE ON SPECIFICS]
- Memorial Hermann Health System has identified promotion of healthy living as one of their priority areas for its assessment.
a. Does [NAME OF COUNTY] have any programs that promote healthy lifestyles? (Prompt for nutrition, exercise.) If yes:

i. Do you think these programs are adequate? What is needed to improve these programs?

ii. Which populations are most vulnerable or at risk for unhealthy lifestyles?

iii. How do residents obtain information about these programs?

iv. What do you think are community residents’ biggest challenges in adopting a healthy lifestyle?

FOR ADDITIONAL PRIORITY HEALTH AREAS, ASK THE FOLLOWING QUESTIONS FOR EACH AREA:

- Memorial Hermann has also identified [HEALTH ISSUE] as a priority area for its assessment of community needs.

  How has [HEALTH ISSUE] affected your community?

  Who do you consider to be the populations in the community most vulnerable or at risk for [THIS CONDITION / ISSUE]?

  From your experience, what are community residents’ biggest challenges to addressing [THIS ISSUE]?

  From your experience, what are organizations’ biggest challenges to addressing [THIS ISSUE]?

  What programs, services, or policies are you aware of in the community that address [THIS HEALTH ISSUE]? [PROBE FOR SPECIFICS]

  Where are the gaps? What program, services, or policies are currently not available that you think should be?

  [REPEAT SET OF QUESTIONS FOR NEXT HEALTH ISSUE IDENTIFIED]

- In general, what is occurring or has recently occurred that affects the health of the community you serve? [PROBE ON EXTERNAL FACTORS: Built environment, physical environment, economy, political environment, resources, organizational structures, etc.]

  What are some factors that make it easier to be healthy in your community?

  What are some factors that make it harder to be healthy in your community?

ACCESS TO CARE

- What do you see as the strengths of the health care and social services in your community? What do you see as its limitations?
• What challenges/barriers do residents in your community face in accessing health care and social services? What specifically? [PROBE IN DEPTH FOR BARRIERS TO CARE: INSURANCE ISSUES, LANGUAGE BARRIERS, LACK OF TRANSPORTION, CHILD CARE, ETC.]

• What programs, services, or policies are you aware of in the community that address access to care?
  a. Where are the gaps? What program, services, or policies are currently not available that you think should be?

ADDRESSING COMMUNITY NEEDS IN THE FUTURE

• What would be the 1 thing that you think needs to be done in the next year that would help make the biggest difference in improving community health?

• Thinking about the future, what would you like to see MHHS/[NAME OF FACILITY] work on to address community needs?
  a. What resources or supports are needed to facilitate this success? What needs to be in place as planning and implementation move forward?

CLOSING (2 minutes)

Thank you so much for your time. That’s it for my questions. Is there anything else that you would like to mention that we didn’t discuss today? Thank you again. Have a good day.
Please address written comments on the CHNA and Strategic Implementation Plan and requests for a copy of the CHNA to:

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